

Final Environmental Impact Report for the
Village 1 Specific Plan

State Clearinghouse No. 2010102018



October 2012

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Development Services Department
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1. INTRODUCTION

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INTRODUCTION

This Final Environmental Impact Report (FEIR) contains the public and agency comments received during the public review period on the Draft Environmental Impact Report (DEIR) for the Village 1 Specific Plan (proposed project). This document has been prepared by the City of Lincoln, in accordance with the California Environmental Quality Act (CEQA).

BACKGROUND

The Environmental Impact Report (EIR) is an informational document intended to disclose to the decision-makers and the public the environmental consequences of approving the proposed project. The DEIR was circulated for agency and public comment from May 8 through July 9, 2012. All written comments received during the DSEIR public review period are included in Chapter 4 along with responses to the comments.

ERRATA AND MODIFICATIONS

Chapter 2, Draft EIR Errata and Modifications, identifies all changes to the DEIR by subject matter section. These changes are staff-initiated changes in response to comments made on the DEIR. None of the modifications resulted in new significant impacts or substantial increases in the severity of impacts analyzed in the Draft EIR.

COMMENTS AND RESPONSES

A list of agencies, organizations, and individuals commenting on the Draft EIR is included in Chapter 3 in this Final EIR. All written comments received during the DEIR comment period are provided in Chapter 4, along with responses to all substantive comments. Each comment letter is presented with brackets indicating how the letter has been divided into individual comments. Each comment is given a binomial with the letter number appearing first, followed by the comment number. For example, comments in Letter 1 are numbered 1-1, 1-2, 1-3, and so on. Immediately following the letter are responses, each with binomials that correspond to the bracketed comments.

Some comments on the Draft EIR do not pertain to physical environmental issues. Responses to such comments, though not required under CEQA, are included to provide additional information. The phrase "comment noted" is used when the EIR authors wish to acknowledge a comment that does not directly pertain to the proposed project or environmental issues analyzed in the EIR, does not ask a question about the EIR, or does not challenge an element of, or conclusion of, the EIR. The intent is to simply recognize the comment.

MITIGATION MONITORING PROGRAM

The Mitigation Monitoring Program (MMP) for the Proposed Project, presented in Chapter 5, includes all mitigation measures identified in the Draft EIR, and identifies the parties responsible for implementing and monitoring the measures, and the timing of such implementation.

2. DRAFT EIR ERRATA AND MODIFICATIONS

2. DRAFT EIR ERRATA AND MODIFICATIONS

INTRODUCTION

This chapter presents minor corrections and modifications made to the Draft EIR initiated by staff, based on their on-going review, and changes initiated in response to comments received on the Draft EIR. These revisions are minor modifications and clarifications and do not change the significance of any environmental issues or conclusions within the DEIR. There are several modifications to impact discussions and mitigation measures, but none of these are substantial enough to alter the findings of significance and/or to result in a substantial increase in the severity of an impact.

In addition, this chapter presents minor revisions to the project proposed by the applicant. As discussed below, these changes do not alter the conclusions of the EIR.

Added text is underlined and deleted text is struck through. Text changes are presented in the page order in which they appear in the Draft EIR. Where modifications were made to mitigation measures in the Draft EIR, the Mitigation Monitoring Program (MMP) in Chapter 5 contains the mitigation measures as revised.

If significant new information is added to an EIR after public review, the lead agency is required to recirculate the revised document (CEQA Guidelines Section 15088.5). Significant new information includes, for example, a new significant environmental impact or a substantial increase in the severity of an impact. New information is not considered significant unless the document is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental impact of the project or comment on a feasible mitigation measure that the proponent has declined to implement. No new impacts or substantial increases in the severity of impacts have been identified as a result of information brought forward in the comments. Recirculation of the DEIR is thus not deemed to be necessary.

The Village 1 Specific Plan EIR evaluates the full Specific Plan at a programmatic level, and Phase 1 at a project-specific level. Therefore, the following terms are used throughout this chapter:

- Full Specific Plan, plan area, or project site: The entire 1,832-acre project area, including both Phase 1 and the remaining area that is being evaluated programmatically;
- Phase 1: The 290-acre portion of the Specific Plan that is being evaluated at a project-specific level; and
- Programmatic portion/site/area: The 1,542-acre portion of the full Specific Plan that is being evaluated at a programmatic level (which does not include Phase 1).

APPLICANT-PROPOSED REVISIONS TO THE PROJECT

The Applicant has proposed minor adjustments to the Specific Plan land use table and figure (see Revised Figure 2-2 and Revised Tables 2-1 and 2-2, modified as shown at the end of this chapter) in response to a request by property owners in Phase 1 to realign the segment of Ferrari Ranch Road north of SR 193. With this new alignment, Ferrari Ranch Road would be moved closer to the eastern edge of the open space area, and would avoid an existing home and increase the amount of open space. In addition, the roadway alignment in the southwest corner of the plan area was adjusted to match an existing easement, as requested by a property

owner. In addition, the 5.9-acre parcel originally designated Village Public Facility (VPF) has been redesignated Village Open Space/Corridors (VOS). Finally, small refinements were made to acreages based on review of the parcels within the plan area.

As shown in Revised Tables 2-1 and 2-2 at the end of this chapter, these minor refinements to the plan would not alter the proposed number or type of residential units, or the amount of non-residential square footage, so impacts based on population and commercial activity (e.g., traffic, demand for utilities) would not change. The amount of open space would increase slightly (by 13.4 acres or less than one percent), so the amount of ground disturbance would be reduced by a small amount. For these reasons, the proposed refinements to the land use plan would not alter the analysis or conclusions of the EIR.

MODIFICATIONS TO THE DRAFT EIR

NOTE: *New text is underlined. Deleted text is struck through. Revised tables and figures are presented at the end of the chapter.*

2.0 Project Description

Page 2-6 Table 2-1 is modified as shown at the end of this chapter.

Figure 2-2 Figure 2-2, Proposed Land Use Plan, is modified as shown at the end of this chapter.

Page 2-8 Table 2-2 is modified as shown at the end of this chapter.

Figure 2-6 Figure 2-6, Water Systems, is modified to show the boundaries between the Nevada Irrigation District and Placer County Water Agency, as shown at the end of this chapter.

Page 2-23 The paragraph under the **City of Lincoln** header is modified as shown:

~~As part of the approval process the City of Lincoln would need to certify the This EIR provides the CEQA analysis for the following approvals: and approve the following entitlements in order to implement the proposed project:~~

- General Plan Amendment,
- Village 1 Specific Plan,
- General Development Plan,
- Tentative Maps,
- Specific Development Plans/Development Permits,
- Development Agreement,
- Annexation/Pre-zoning,
- Improvement Plans,

- Design Review, and
- Grading permits.

The following approvals are analyzed at a project-specific level for Phase 1 and at a programmatic level for the remaining phases. Also, the following entitlements are being obtained at this time:

- General Plan Amendment,
- Village 1 Specific Plan, and
- General Development Plan.

Page 2-24 The fifth bullet is modified to read:

- Nevada Irrigation District (NID) for providing raw water and/or wholesale treated water, any modifications to their existing or future irrigation facilities such as canals, and provision of irrigation water within the NID boundary.

The eighth bullet on page 2-24 of the Draft EIR is revised to read:

- Placer County Water Agency (PCWA) for providing wholesale water to the project; and

Chapter 3.0, Summary of Environmental Effects

Table 3-1 The modifications to impacts and mitigation measures identified throughout this chapter are incorporated into Table 3-1, Summary of Impacts and Mitigation Measures.

4.3 Air Quality

Page 4.3-5 The last sentence in the second paragraph under **Regional Air Quality** is revised to read:

Placer County is also in non-attainment for state PM₁₀ and federal PM_{2.5} standards.

Page 4.3-12 The following text is added after Rule 218:

- *Rule 225 – Wood Burning Appliances*

Specifies the standards for wood-burning appliances in new development.

Page 4.3-16 The second full paragraph is revised to read:

Default percentages in URBEMIS corresponding to the housing type mix (number of units) were also used for conservatively estimating unmitigated hearth emissions. The unmitigated default condition assumes 35 percent of residential units (single family and multi-family) would have ~~non~~-EPA-certified wood-burning stoves, 10 percent would have ~~non~~-EPA-certified wood-burning

fireplaces, and 55 percent would have natural gas fireplaces. Default mitigations in URBEMIS were then applied to reflect a condition in which all multi-family units would have natural gas fireplaces. ~~Because substantial reductions in emissions can be achieved through the use of EPA Phase II certified wood burning devices, but the URBEMIS inputs cannot currently be adjusted to account for that, separate calculations were done using EPA's Woodstove and Fireplace Emissions Calculator (Excel) to quantify the emissions reductions that could be achieved by implementing mitigation measures recommended in this EIR (Mitigation Measure 4.3-2). Under the fully mitigated scenario, all single family homes would only be equipped with the EPA certified devices and multi family residential units would only have natural gas or propane devices.~~

Page 4.3-21 Mitigation Measure 4.3-1(a) is revised to read:

- a) *Prior to issuance of a grading permit, the applicant(s) shall submit to the City of Lincoln, as the lead agency, and receive approval of a Construction Emission/Dust Control Plan. The plan shall be submitted to the PCAPCD for review and comment prior to approval by the City. This plan must address the minimum Administrative Requirements found in section 300 and 400 of PCAPCD Rule 228, Fugitive Dust.*

Page 4.3-23 Table 4.3-9 is modified as shown at the end of this chapter.

Page 4.3-24 Table 4.3-10 is modified as shown at the end of this chapter.

Page 4.3-25 Table 4.3-11 is modified as shown at the end of this chapter.

Page 4.3-26 Table 4.3-12 is modified as shown at the end of this chapter.

Page 4.3-26 Mitigation Measure 4.3-2 is revised to read:

4.3-2 *The project applicant shall implement the following mitigation measures:*

- ~~a) Only U.S. EPA Phase II certified wood-burning devices shall be installed in single family residences. The emission potential from each residence shall not exceed a cumulative total of 7.5 grams per hour for all devices in that home. Masonry fireplaces shall have either an EPA certified Phase II wood burning device or shall be a U.L. Listed Decorative Gas Appliance. The conditions of approval and the covenants, conditions, and restrictions (CC&Rs) for the project shall explicitly prohibit the installation of devices other than those specified in this measure.~~
- b) *Wood burning or pellet appliances shall not be allowed in multi-family any residential units. Only natural gas or propane fired fireplace appliances shall be installed.*
- c) *Where natural gas is available, gas outlets shall be provided in residential backyards for use with outdoor cooking appliances, such as gas barbecues.*
- d) *For those projects that include stationary sources (e.g., gasoline dispensing facility, dry cleaning, large HVAC units), the applicant shall obtain an Authority to Construct (ATC) permit prior to issuance of a Certificate of Occupancy.*

- d) Prior to approval of Improvement Plans, the applicant shall show that a Class 1, 2, or 3 bicycle lane(s) is provided in areas as approved by the Engineering Division and/or the Department of Public Works (or similar divisions within each jurisdiction), as defined elsewhere in these conditions of approval.
- e) Prior to Design Review Approval, the Site Plan shall show that the applicant has provided the appropriate number of preferential parking spaces for employees that carpool/vanpool/rideshare as well as the appropriate preferential parking for NEVs as required by the District and City Policy. Such stalls shall be clearly demarcated with signage as approved by the approving committee.
- f) Prior to Design Review approval, the applicant shall show that on-stie bicycle racks are provided.

4.4 Biological Resources

Page 4.4-15 The following text is added following the first paragraph:

Central Valley fall and late fall run Chinook salmon (*Oncorhynchus tshawyscha*) is a Federal Species of Concern and a State Species of Special Concern. The Central Valley fall/late fall run evolutionarily significant unit (ESU) includes fall run and late fall run Chinook salmon in the Sacramento and San Joaquin rivers and their tributaries. Historically, Chinook salmon were widely distributed throughout all major streams of the Central Valley drainage. Central Valley fall run and late fall Chinook salmon adults migrate from the Pacific Ocean from mid-July through November to freshwater spawning habitat. Spawning occurs in the Sacramento River and numerous tributaries from late September through December. Central Valley fall run and late fall Chinook require clean, cold water over gravel beds with water temperatures between 6 and 14 C for spawning. Eggs incubate approximately eight weeks before hatching. Juveniles rear for three to six months before emigrating downstream from their natal waters through the Sacramento River, Delta, and San Francisco Bay to the Pacific Ocean.

Page 4.4-40 Impact 4.4-11 and the associated discussion are modified as shown:

4.4-11 The proposed project would result in the modification of stream corridors, disrupting the associated habitat, and potential changes in surface water quality that could affect Central Valley steelhead and/or Central Valley fall and late fall run Chinook salmon.

Full Specific Plan/Phase 1

The reach of Auburn Ravine that passes through both the Phase 1 and programmatic portions of the project site is designated as Critical Habitat for Central Valley steelhead and represents migration and possibly spawning habitat for this species. Central Valley fall and late fall run Chinook salmon (*Oncorhynchus tshawyscha*), which may be present in Auburn Ravine, is a Federal Species of Concern and a State Species of Special Concern. However, there is no designated Critical Habitat. The proposed project includes a series of modifications to Auburn Ravine within this reach. These modifications include...

Construction of these drainage improvements and proposed bypass channel improvements could affect Central Valley steelhead and/or Central Valley fall and late fall run Chinook salmon in Auburn Ravine and its tributaries by potentially affecting water quality. Once constructed, the channel improvements would carry post-construction stormwater flows that could contain urban pollutants. Central Valley steelhead is listed as threatened under FESA and take of this species or its habitat is prohibited. Central Valley fall and late run Chinook salmon is a special-status species, but it is not subject to federal or state take species or habitat prohibitions that apply to steelhead. Damage to, or loss of Central Valley steelhead or Central Valley fall and late fall run Chinook salmon or their habitat through excavation, siltation or other pollution of the habitat, the potential loss of individual Central Valley steelhead or Central Valley fall and late fall run Chinook salmon or their habitat would be considered a significant impact.

Mitigation Measure

Implementation of the following mitigation measures would reduce this impact to a *less-than-significant level* by protecting Central Valley steelhead and Central Valley fall and late fall run Chinook salmon and their habitat in Auburn Ravine through avoidance of the low-flow period and protection of water quality.

Page 4.4-41 Mitigation Measure 4.4-11(a) is modified as shown:

(a) *Restrict work in Auburn Ravine to low-flow periods between June 15 and October 15 to avoid effects on adult or juvenile steelhead or salmon life stages during their migratory seasons.*

Mitigation Measure 4.4-11(e) is modified as shown:

(e) *If dewatering is necessary along portions of Auburn Ravine, use appropriate temporary coffer dams to dewater the construction sites and divert water through the area during the construction period to prevent impeding creek flow or water flow through the work areas. If dewatering at a site is required, a qualified biologist shall be present during the dewatering period to inspect and ensure that steelhead and salmon will not be trapped within the temporary coffer dams. If steelhead or salmon are found, a qualified biologist will capture and relocate these fish to an appropriate area away from the construction site. The project applicant or their representative shall submit for approval the dewatering and fish capture and relocation plans to the NOAA and CDFG once the design plans are finalized.*

Page 4.4-51 Table 4.4-2 is modified as shown at the end of this chapter.

4.6 Greenhouse Gas Emissions and Climate Change

Page 4.6-5 The first header is modified as shown:

Effects of Climate Change on Water Placer County Water Agency (PCWA) Supplies within the City of Lincoln

The last sentence in the second full paragraph is modified as shown:

The water supply reliability text from the Recirculated General Plan Draft EIR as it pertains to PCWA and the City of Lincoln is repeated entirely below.

The following paragraph is added after the second paragraph:

The General Plan Draft EIR discussion of NID water was based on the 2005 NID UWMP, which has since been superseded by the 2012 NID UWMP. Therefore, the discussion of the reliability of NID water is based on the 2012 NID UWMP and additional information provided by NID.

The following header is added after Surface Water Reliability:

Placer County Water Agency

Page 4.6-6 The following text is added after the first full paragraph:

Nevada Irrigation District

The NID 2010 UWMP predicts potential future shortages in dry years. The Framework for Collaboration between the City and NID provides that any curtailments in water deliveries from NID would be shared equally between the City and NID's own domestic water customers using the same source water. The 2004 Temporary Agreement between Lincoln, PCWA, and NID contains a provision that Lincoln would be limited to the same proportion of the contract as other NID customers.

Of its total annual supply of 410,828 acre-feet projected at 2035, NID projects that it will have between 192,442 and 333,944 acre-feet during multiple dry water years and 183,113 acre-feet per year available during a single dry water year.

Despite potential decreases in supply, the 2010 NID UWMP concludes that its water demands will be 203,536 acre-feet in 2035. This is more than 30,000 acre-feet per year than projected water supplies during a single dry water year. During multiple dry year periods, only the second of three years would suffer a shortage of about 6 percent. Multiple dry year shortages are calculated to occur in the second of three dry years with a demand level being reached between 2020 and 2025.

According to NID, the 2012 NID UWMP did not account for reductions in agricultural use of water that would occur as urban land uses supplant agricultural uses within the NID service area. According to memoranda prepared for the NID Regional Water Supply Project (RWSP), however, water shortages during drought conditions would not occur due to the reduction in agricultural irrigation.¹

The City of Lincoln is responsible for funding their share of these NID water facility capital improvements.

Other City Water

Footnote:

1 Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod

Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.

Page 4.6-17 Mitigation Measure 4.6-1 is revised as follows:

- 4.6-1a) *An Energy Conservation Plan for all commercial and residential development shall be required prior to recordation of the first small lot Final Map. The plan shall describe the techniques and programs to be employed in the development of the project to achieve ~~(1)~~ a minimum 15 percent energy efficiency above that required by the 2008~~11~~ Title 24 energy efficiency regulations, or compliance with the ~~then~~-most current Title 24 energy efficiency regulations. These programs shall include one or more of the following, or equally effective measures:*

Participation in the PG&E Energy Star Performance Method. This method is available to builders of single-family and multi-family homes that are at least 15 percent more energy efficient than required by the 2008 Title 24 energy efficiency regulations and meet all US EPA specifications. Participating builders become part of the California Energy Star New Homes Program, and their homes earn the Energy Star label. Incremental incentives can also be earned by adding energy efficient appliances and/or lighting to homes. Plans submitted for Design Review shall include all energy efficiency features to be incorporated into the project.

OR

Participation in the New Solar Homes Partnership (NSHP) Performance Method. This method is available to builders of single-family homes that are at least 15 percent more efficient than required by the 2008 Title 24 energy efficiency regulations and meet all US EPA specifications. Prior to the issuance of a Building Permit, the floor plans and exterior elevations submitted in conjunction with the Building Permit application, shall show that the applicant has installed the appropriate number of solar panels or Photovoltaic roofing tiles throughout the project (described as lot numbers, locations, and/or building numbers and locations) to offset that development's share of the total Plan's onsite renewable energy offsets.

OR

Participation in the Build It Green Program, which was created by Build It Green, a non-profit organization whose mission is to promote health, durable, energy and resource efficient buildings throughout California. Using the Green Point Checklist, a home can be considered green if it fulfills the prerequisites and earns at least 50 points and meets the minimum points per category: Energy (30 points); Indoor Air Quality (5 points); Resources (6 points); and Water (9 points). Build It Green uses certified Green Point Raters to measure success with the program and verification of the measures employed to meet the requirements of the checklist. Plans submitted for Design Review shall include a completed copy of the Green Point Checklist.

- b) *The project applicant shall be responsible for having prepared, by an experienced and qualified firm, an Energy Resource Conservation Guide that will provide educational information on how homeowners can*

increase energy efficiency and conservation in their new homes. The information will be delivered to each original homeowner as part of the move-in package. The information packet shall be reviewed by, and be subject to approval of, City of Lincoln staff. A copy of the Energy Resource Conservation Guide shall be submitted to the City for review prior to the completion of construction activities, and finalized before occupancy.

- c) *Light Emitting Diode (LED) traffic signals and LED street lights, or more energy-efficient signals and streetlights, shall be installed in accordance with City improvement standards or as otherwise approved by the Development Services Director.*
- d) *The project applicant shall prepare a tree planting program to guide the planting of shade trees within residential lots and along streets in a manner that reduces radiant heat. Commercial and retail parking lots shall be planted with shade trees that will produce 50% coverage within 15 years. Landscape Plans submitted for Design Review shall include a copy of the tree planting program.*
- e) *A tree information planting and care guide shall be delivered to each original homeowner as a part of the move in package. If the guide is prepared by someone other than the City, it shall be reviewed by, and be subject to the approval of, City of Lincoln staff. A copy of the tree information planting and care guide shall be submitted to the City for review prior to the completion of construction activities, and finalized before occupancy.*
- f) *Energy efficient lighting fixtures shall be installed as part of the original construction of residential and commercial structures. Plans submitted for Design Review shall include documentation of the energy efficient lighting fixtures to be used.*
- g) *New commercial buildings shall be 15 percent more energy efficient than the 2008-11 Title 24 building standards based on annual energy usage requirements, or comply with the then-current Title 24 energy efficiency regulations. Plans submitted for Design Review shall include all energy efficiency features to be incorporated into the project.*
- h) *Prior to approval of Improvement Plans, the applicant shall show that the roadway system shall be designed to accommodate the usage of neighborhood electric vehicles (NEVs).*
- i) *Prior to approval of Improvement Plans, the applicant shall show that bus turnouts and transit shelters shall be placed on roadways that are to be served by future bus transit in accordance with City improvement standards and as otherwise directed by City's Development Services Director.*
- j) *Implement Mitigation Measure 4.3-2.*

4.7 Hazardous Materials

Page 4.7-3 The first sentence in the third paragraph under Phase 1 Component of the Specific Plan is modified as follows:

~~in the northern part of the Phase 1 component, north of Auburn Ravine, The City operated an approximately 6-acre municipal landfill from the early 1950s to the mid-1970s located south of Virginiatown Road in the northern portion of the plan area.~~

The following language is added to the end of the third paragraph under Phase 1 Component of the Specific Plan:

Any proposed post-closure land use of the Lincoln Landfill will require approval of the Local Enforcement Agency (LEA), the Department of Resources Recycling and Recovery (CalRecycle), and the Central Valley Regional Water Quality Control Board (CVRWQCB). The LEA will forward the proposal to CalRecycle and the CVRQWCB for concurrent approval of post-closure land use of the Lincoln Landfill prior to development of the site.

4.13 Public Utilities

Page 4.13-2 The first sentence is clarified as shown:

In the past, the City's water supplies have historically been provided from treated surface water from PCWA, originating from raw water sources of PCWA and NID.

The following text is added after the header **Existing Water Supplies and Entitlements**:

PCWA is a countywide water agency in Placer County. NID is a multicounty water district with approximately one third of its area in Placer County. Both agencies have perfected water rights. In 2005, NID and PCWA entered into a Service Area Agreement to avoid duplication of services and infrastructure, place their respective water resources to efficient use, and to protect each party's water rights. Approximately 70 percent of the Village 1 Specific Plan, including the Turkey Creek Golf Course, is within the NID boundary. The balance of the Village 1 Specific Plan is within the area served by PCWA. The service area boundary between PCWA and NID with respect to the Village 1 Specific Plan is shown on Figure 2-6.

Page 4.13-4 The following text is added after the second paragraph on page 4.13-4:

Nevada Irrigation District

NID does not currently have a water treatment plant. NID has completed several technical memoranda for the planning phase for the NID Regional Water Supply Project (RWSP). Funding for the studies was provided by the City of Lincoln. The studies include predesign for water treatment plant facilities required to provide NID treated water to the area of the City of Lincoln within the NID boundary. The pre-design studies are governed by the 2007 Water Facilities Planning Phase Agreement between NID and the City of Lincoln (See Appendix

E to the WSA attached as Appendix H of this Draft EIR). The first phase of the water treatment plant provides, as one component of the RWSP, 10 mgd; which is capable of servicing up to 8,700 EDUs.¹

The RWSP Planning Phase technical memoranda also contain predesign for raw water conveyance facilities to provide NID source water to the treatment plant. These facilities have the capability of drafting water from Combie Reservoir on the Bear River downstream of Rollins Reservoir, or from the Bear River Canal; thereby ensuring multiple water sources for the RWSP.²

The City of Lincoln is responsible for funding their share of these NID water facility capital improvements.

Footnotes:

1 Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.

2 Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.

Page 4.13-5 The following text is added after the first sentence:

NID

NID has 7 treated water service areas; each with a treatment plant, treated water storage, and treated water transmission and distribution pipelines. One of these NID treated water systems provides service to Placer County in the North Auburn Area.

The RWSP Planning Phase technical memoranda contain predesign for treated water storage, transmission pipelines, and a metering station to provide service to the City of Lincoln. Total treated water storage located at the treatment plant is 39 million gallons in three tanks, at 13 million gallons each. The water treatment plant is located northeast of Lincoln in Placer County. The transmission pipeline includes approximately 4,000 linear feet (LF) of 66-inch, 2,800 LF of 54-inch, and 16,200 LF of 48-inch diameter pipeline. The flow control and metering station is located in Placer County at the northerly boundary of the City of Lincoln's Sphere of Influence.¹

According to NID, the 2012 NID UWMP did not account for reductions in agricultural use of water that would occur as urban land uses supplant agricultural uses within the NID service area. According to memoranda prepared for the NID Regional Water Supply Project (RWSP), water shortages during drought conditions would not occur, due to the reduction in agricultural irrigation.¹

The City of Lincoln is responsible for funding their share of these NID water facility capital improvements. The physical improvements will be constructed by NID and will be subject to full CEQA review.

Footnote:

1. Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.

Page 4.13-6 The header on the top of the page is corrected as shown:

Project Water Demands within the City's Sphere of Influence Existing Limits

The title of Table 4.13-5 is corrected as shown:

PROJECTED WATER DEMANDS WITHIN THE CITY OF LINCOLN'S SPHERE OF INFLUENCE EXISTING CITY LIMITS

Page 4.13-10 The first paragraph under **Nevada Irrigation District** is modified to read:

NID supplies irrigation, wholesale, and retail surface water to Nevada County, Yuba County and Placer County customers. Agricultural water use accounts for nearly 90 percent of the total demand on NID water supply. The remaining water supplied by NID is treated water primarily delivered for municipal and industrial uses within the NID service area. directly or through PCWA to single family residential accounts. NID's service area covers Nevada County and a portion of Placer County. Currently, PCWA treats raw surface water from NID and conveys the treated water to areas of Placer County that are within the NID service boundaries. NID's mountain watersheds cover 70,000 acres and include the upper portions of the Middle Yuba River above Milton Diversion, Canyon Creek above Bowman Reservoir, and Deer Creek.

The following text is added after the second paragraph under **Nevada Irrigation District**:

As discussed in more detail, below, NID is planned to provide treated water to the City of Lincoln within the NID boundary. The NID RWSP service area includes approximately 70% of Village 1. Phase I of Village 1 is entirely within the NID RWSP service area.

Page 4.13-13 The following sentence is added for clarification to the end of the first sentence on of the Draft EIR:

According to NID, the 2010 NID UWMP did not account for reductions in agricultural use of water that would occur as urban land uses supplant agricultural uses within the NID service area. According to memoranda prepared for the NID Regional Water Supply Project (RWSP), water shortages during drought conditions would not occur, due to the reduction in agricultural irrigation.¹

Footnote:

1. Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.

Page 4.13-21 The second paragraph under Water Supply is clarified as shown:

Village 1 water demand will be met with a combination of surface water and groundwater. Initially, treated surface water from PCWA, including NID water that is treated and conveyed by PCWA and through the City/NID/PCWA Temporary Agreement contract will be the primary source of water for Village 1. At the point that NID has constructed its treatment and conveyance facilities and is able to provide treated surface water to the City directly, NID would provide water to

approximately 70% of the plan area, and PCWA would provide water to the remaining 30% of the plan area. Consistent with the City's goal, groundwater will be used to meet 10 percent of Village 1's annual water demands during normal years.

Footnote 18 on the bottom of the page is revised to read:

The Specific Plan would receive water only from the City of Lincoln, with the exception of the existing golf course. It is possible that raw water or the existing on-site wells for the Turkey Creek Golf Course could be used to serve non-potable demands on the project site through a separate conveyance system. However, the effect of this would be a reduction in the treated water demand assumption in the WSA, which does not affect the supply analysis.

Page 4.13-22 The second and third sentences in the last paragraph on are modified as follows:

The City's agreements with PCWA and NID establish that PCWA those water purveyors will provide water to the City, needed for development upon payment of fees by the City for the purchase of capacity. As the water retailer, the City, in turn, makes treated water available to new projects on first-come, first-served basis.

Page 4.13-23 The first paragraph is revised as shown:

Development of the full Specific Plan would result in increased demand for treated water. Initially, all treated water would be obtained from PCWA's Foothill WTP and would be conveyed to the City's distribution system to a point of connection at the project site. Ultimately, water supplied by PCWA would be treated at the Foothill-Ophir WTPs and water from NID would be treated at the future NID treatment facility.

The last sentence in the third paragraph is revised as shown:

The proposed treatment facility would allow NID to serve treated water within the NID service area to customers in the Lincoln SOI, including portions of Village 1.

The following sentence is added to the end of the fourth paragraph:

As part of the agreement with NID, the City will fund its fair share of the design and construction of the NID first phase 10-mgd treatment facility. NID will be responsible for the design, approval and construction of these improvements, which will be subject to CEQA review.

The following text is added to the end of the first paragraph under Distribution.

Ultimately, it is anticipated that transmission lines from the future NID treatment facility to the City water distribution system would be used to convey NID treated water to the City for use in NID's service area.

Page 4.13-24 The following text is added after the second paragraph under *PCWA Phase 3 Pipeline*:

NID Distribution Facilities

As stated above, NID plans to construct a treatment facility that will enable it to provide treated water to the City of Lincoln.. In order to transmit that water to the City, a number of improvements would be needed, which are planned to include:

- Placer County owned sewer effluent bypass pipeline; Joegar Road WWTP to Camp Far West Canal Diversion Dam on Coon Creek (14,000 LF of 24-inch),
- Camp Far West Canal turnout structure and overflow pipeline,
- Raw water conveyance pipeline to WTP (21,500 LF of 48-inch),
- Treated water conveyance pipeline including:
 - WTP to Big Ben Road (5,000 LF of 66-inch),
 - Big Ben Rd to Crosby Herold Road (2,800 LF of 54-inch),
 - Crosby Herold Road to Wise Road (6,800 LF of 48-inch), and
 - Wise Road to flow control and metering station (9,600 LF of 48-inch),
and
- NID flow control and metering station.

The second header and first paragraph under that header are modified as shown:

~~PCWA Connection and City Distribution System Requirements~~

~~The major water conveyance of PCWA-treated water for buildout of the Village 1 Specific Plan is proposed to be through the PCWA City Pond Metering Station via the Reservoir 1 storage tank site. This will require connections to the City system hydraulically up-gradient from the Reservoir 1 site. The connection for NID treated water, following construction of the future NID treatment facility, would occur along the south side of Wise Road, west of McCourtney Road.~~

Page 4.13-25The second and third paragraphs under Mitigation Measure are modified as shown:

~~PCWA commitments for service are made only upon the execution of a pipeline extension or service order agreement to construct any necessary on- or off-site pipelines or other facilities and the payment of all required fees. In Lincoln, payment of such fees occurs in conjunction with building permits. Implementation of Mitigation Measures 4.13-1(b) and (c) incorporates the recommendations of the Village 1 Potable Water Distribution Modeling Report (2011) and the planning documents for NID Regional Water Supply Project. This would reduce this impact to a *less-than-significant level* for the programmatic portion of the Specific Plan, by ensuring infrastructure is in place to deliver treated PCWA water that would serve buildout of the full Specific Plan while meeting the City's water distribution system standards. This is necessary to ensure that the conclusions of the water supply sufficiency analysis presented in the WSA that concluded supplies are available to meet the demand of the project in addition to City buildout demands remain valid.~~

~~The 30-inch PCWA Phase 3 pipeline and pressure metering system will be funded through PCWA water supply connection charges paid by the City in its Water Supply Program. The pressure metering station at the City pond site is included in the City's PFE program. The remaining two improvements are not currently in the City's PFE program, but are anticipated to be added to the PFE.~~

~~Construction of the station would be funded through PFE fees. The City's portion of the costs of the NID RWSP facilities would be funded by NID water connection charges. Fair-share fees for the two City pipelines would be collected from the project applicant until such time the facilities are included in the PFE.~~

Item (c) is added to Mitigation Measure 4.13-1 as shown below:

(c) Prior to the cessation of the 2004 Temporary Agreement, the City shall provide for its fair share funding of the design and construction of Phase 1 of the NID RWSP 10-mgd treatment facility and associated storage and transmission facilities. Funding shall be timed to ensure that water from the RWSP will be available at the point at which PCWA no longer treats and conveys NID water under the 2004 Temporary Agreement.

Page 4.13-26 The paragraph under Mitigation Measure 4.13-1 is revised as shown to address both PCWA and NID:

Implementation of Mitigation Measures 4.13-1(b) and (c) would result in ground disturbance, which could create short-term construction-related impacts such as air emissions and noise from heavy equipment use. Pipelines placed in existing roadways or roadway rights-of-way would be installed underground, which not result in adverse long-term environmental impacts. ~~The 36-inch Pipelines connecting the metering stations would be a buried pipeline installed across undeveloped land. This would require trenching, which would have limited ground disturbance affecting biological or cultural resources. Following installation, the pipelines would be covered with soil. There would be no adverse, permanent impacts related to land use or aesthetics. The metering stations would be a small structures and would not adversely affect the visual character of the sites or affect views.~~

The NID RWSP is estimated to require 30 to 40 acres for the WTP, which ultimately is planned to treat 40 mgd. The first phase, which would serve Village 1, would treat 10 mgd. Several potential sites have been identified for the WTP. These sites are located in rural areas, so impacts associated with their use would be primarily related to the conversion of agricultural or timberland and/or biological habitat. The primary habitats that make up these sites are annual grasslands, foothill hardwood woodlands and oak-foothill pine woodland. Each of the sites also contain some wetlands. Up to 40 acres of habitat could be lost. Depending on the layout of the WTP, wetlands could also be affected. Timberland could be harvested during construction of the WTP, but afterward would no longer be available. The sites are in areas that are considered to be of moderate to high sensitivity for archaeological resources, so there would be the potential for cultural resources to be damaged or destroyed.¹

As with any project, there would be noise and air pollutants generated during construction.

For the most part, the impacts associated with construction and operation of the WTP and associated facilities would be addressed through regulation, permitting processes and standard mitigation.

Footnote:

1. EcoLogic, NID Regional Water Supply Project, Technical Memorandum, Environmental Constraints Analysis, October 2009.

The first sentence under **Cumulative Impacts and Mitigation Measures** is modified as shown:

The cumulative context for surface water supply is buildout of PCWA's and NID's service areas.

Page 4.13-28 The following sentence is added to the last paragraph:

According to a more recent analysis by NID, the reduction in agricultural use of irrigation water will offset the increased use of water for urban purposes, so there may not be a need to curtail water deliveries in dry years.¹

Footnote:

1. Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.

Page 4.13-31 The first full paragraph is clarified as shown:

If currently planned PCWA and NID infrastructure improvements are completed, then water supply issues for the City of Lincoln are limited to the completion of the Phase 3 pipeline and the NID RWSP, as described in Impact 4.13-1. The City is responsible for completing the PCWA Phase 3 pipeline, and for contributing its fair share toward funding of the NID RWSP~~this project~~. This increase in planned capacity would allow for additional deliveries sufficient to supply the city through the buildout of Village 1 in addition to other demands. If the Phase 3 pipeline project and/or the NID RWSP are ~~is~~ not completed, infrastructure constraints could limit deliveries in future years. This is a ***potentially significant impact.***

The last sentence in the first paragraph under Water Treatment and Distribution is modified as shown:

Several additional NID facilities, including the RWSP treatment facility, transmission pipelines and a metering station, will also be required to connect with the City's existing treated water supply system to help meet water demands anticipated under the adopted General Plan. PCWA and NID will be responsible for the design, approval and construction of these improvements, which will be subject to CEQA review.

Page 4.13-32 Mitigation Measure 4.13-2 is modified as shown:

Implement Mitigation Measures 4.13-1(b) and (c).

The third sentence in the paragraph under Uncertainty Regarding Future Supply is modified to read:

As described previously in this section, an immediate and long-term supply is available for the foreseeable future. In order to fully access the water supply to which they have ~~it has~~ entitlements, PCWA and NID ~~has~~ identified the need

for a number of major infrastructure projects. NID will be responsible for the design, approval and construction of these improvements, which will be subject to CEQA review.

Page 4.13-33 The first full paragraph is revised to read:

Because the water provided to City of Lincoln is part of PCWA's and NID's total supply, if a portion of the supply is unavailable due to infrastructure constraints, it could be necessary to divert water that would otherwise be available to Lincoln development. The likelihood of permanent curtailment occurring is remote, but if it were to occur, development could be delayed. Once developed, barring a major shift in climate or policy or the future application of the California water law principles described earlier in a manner significantly more restrictive than presently applied, ~~it is assumed the City concludes~~ that the water supply would continue to flow to NID through its water rights and to PCWA without interruption, consistent with its contracts with Reclamation, PG&E, and Middle Fork Project water rights.

The last sentence in the paragraph under **Wastewater Treatment** is revised as shown:

WWTRF design also includes site planning for an expansion of up to approximately 34.4 mgd ADWF to accommodate flows generated by the adopted 2050 General Plan area (26.3 mgd ADWF, as shown in Technical Appendix G, Table 3) and the ~~possible regional buildout flows from Placer Nevada Wastewater Authority (approximately 8 mgd)~~ the City of Auburn if they choose to participate (2.5 mgd ADWF) and Placer County SMD 1 service area (4.2 mgd ADWF committed to the Regional Sewer Project), the Bickford Ranch service area (~1.0 mgd) and potential service areas within unincorporated Placer County (minor).

Page 4.13-34 The second to last sentence in the first paragraph is corrected as follows:

~~Placer County~~ The City of Lincoln is evaluating the use of the 42-inch line and Lincoln WWTRF as a regional treatment plant.

Page 4.13-36 The first full paragraph on is modified as follows:

The City fully expects to be able to expand the WWTRF as needed to serve ~~new~~ buildout development as foreseen by the General Plan and the regional service area including the City of Auburn and Placer County SMD 1 service areas, the Bickford Ranch service area and a portion of unincorporated Placer County in the area adjacent to SR 193 between the Lincoln SOI and Sierra College Boulevard. ~~and~~ The City will requires that applicants contribute fair-share costs to plant expansions. However, the timing of the expansions will depend on a number of factors, such as funding and permitting. The potential environmental effects of future expansions to provide capacity for the Specific Plan, in combination with cumulative development in the City and other areas served by the WWTRF, are evaluated in Impact 4.13-5.

The second sentence of the last paragraph is modified as follows:

The trunk line is planned to ultimately extend to Sierra College Boulevard, in order to serve the regional service area including the City of Auburn and Placer County SMD 1 service areas, the Bickford Ranch service area and/or a portion of Placer County located in the area adjacent to SR 193 between the Lincoln SOI and Sierra College Boulevard.

Page 4.13-37 The first sentence under Cumulative Impacts and Mitigation Measures is clarified as follows:

The cumulative context for wastewater treatment includes buildout development within the service area of the WWTRF, including the City of Auburn, Placer County SMD 1 service areas, the Bickford Ranch service area, and/or a portions of Placer County located in the area adjacent to SR 193 between the Lincoln SOI and Sierra College Boulevard. ~~and possible flows from Placer Nevada Wastewater Authority communities.~~

Page 4.13-38 The first sentence in the first paragraph under Cumulative Effect of Programmatic Portion is clarified as follows:

The WWTRF design includes site planning for an expansion of up to approximately 34.4 mgd dry weather flow to accommodate flows generated by the General Plan area (approximately 25 mgd) which includes the Village 1 Specific Plan planning area, and the possible regional flows from outside the City (see Impact 4.13-3). ~~Placer Nevada Wastewater Authority (approximately 8 mgd).~~

Page 4.13-51 The third sentence of the fourth paragraph is updated as shown:

The results of a ~~2007~~ 2011 capacity study completed by the WPWMA show a remaining capacity of ~~23,800,000~~ 26,278,330 cubic yards (approximately 65 percent).

The last two sentences of the last paragraph are revised to read:

~~WPWMA is in the process of constructing~~ recently completed construction of additional pad space, ~~which is anticipated to on line in 2012.~~ With the expansion, the compost facility ~~would be~~ is estimated to have sufficient for development to capacity through 2035.

Page 4.13-56 Mitigation Measure 4.13-12 is modified as shown:

Prior to issuance of ~~grading~~ building permits for each individual project, project applicants shall prepare a waste management plan to divert at least 50 percent of the construction materials generated during construction of the particular project to ensure compliance with CALGreen requirements.

4.14, Transportation and Circulation

Page 4.14-14 Table 4.14-2 is modified as shown at the end of this chapter.

Page 4.14-19 The following paragraph is inserted after the second paragraph:

The City of Rocklin has requested that intersections under its jurisdiction be analyzed utilizing the City's 2030 travel demand model, developed for the Rocklin 2030 General Plan Update. This model includes buildout of all updated General Plan land uses within the City of Rocklin and 2030 assumptions outside the City of Rocklin. Therefore intersections within Rocklin have been analyzed using Rocklin's model and LOS methodology. Because Rocklin's General Plan Update is based on 2030 conditions, Rocklin Intersections are not analyzed under 2050 conditions.

Figure 4.14-6 The figure is modified as shown at the end of this chapter.

Page 4.14-28 Table 4.14-8 is modified as shown at the end of this chapter.

Page 4.14-29 The third paragraph under **Phase 1** is revised as follows:

Table 4.14-8 shows that the following three intersections would be impacted:

- ~~SR 65 (G street) and McBean Park Drive~~ The addition of Phase 1 traffic would increase the average delay at the intersection to 67.3 seconds per vehicle. The intersection would remain at LOS E; however, the 10.3 second increase in average delay represents an impact at an already deficient intersection.
- SR 65 (G street) and McBean Park Drive – This intersection is currently controlled by a traffic signal and operates at LOS E with an average delay of 65.8 seconds per vehicle. The addition of project traffic with no intersection improvements prior to the opening of the SR 65 Lincoln Bypass would degrade this intersection to LOS F with an average delay of 81.7 seconds.

Figure 4.14-9 The figure is modified as shown at the end of this chapter.

Page 4.14-36 Table 4.14-9 is modified as shown at the end of this chapter.

Page 4.14-41 The following text paragraph is added after the second paragraph under **Future Development Assumptions**:

As discussed under Methods, the City of Rocklin has requested that intersections under its jurisdiction be analyzed utilizing the City's 2030 travel demand model, developed for the Rocklin 2030 General Plan Update. Because Rocklin's General Plan Update is based on 2030 conditions, Rocklin Intersections are not analyzed under 2050 conditions.

Figure 4.14-12c The figure is modified as shown at the end of this chapter.

Page 4.14-52 Table 4.14-14 modified as shown at the end of this chapter.

Figure 4.14-14c The figure is modified as shown at the end of this chapter.

Page 4.14-58 Table 4.14-15 is modified as shown at the end of this chapter.

Page 4.14-59 The first paragraph under Impact 4.14-7 is revised as follows:

Buildout of the Village 1 Specific Plan land uses and roadways would increase traffic on some local roadways while decreasing traffic on others. Under existing conditions, all of the study intersections outside of the City of Lincoln operate at LOS C or better (see Table 4.3-9). Level of service analysis was calculated at study area intersections outside of Lincoln under 2030 conditions without and with buildout of the proposed project, as shown in Table 4.14-16. Under 2030 conditions without the project, cumulative traffic increases would result in ~~three~~ two intersections operating at LOS D, ~~which would service levels that would exceed the applicable thresholds for those intersections (see Table 4.14-16).~~ With the addition of project traffic would exacerbate congestion at these three ~~five~~ intersections would exceed the thresholds. At one intersection, Sierra College Boulevard and Taylor Road, the increase would not be considered substantial, because it would not exceed 5 seconds. The project-related increase at the following ~~two~~ four intersections would be substantial:

- *Sierra College Boulevard and English Colony Way* – This Placer County intersection is currently controlled by a stop sign on English Colony Way, ~~and since no funding has been identified to construct a traffic signal, it is assumed to remain stop sign controlled in 2030. Without the project, average delay is projected to be 26.2 seconds per vehicle (LOS D) by 2030. The addition of the proposed project would increase the delay at this intersection significantly, to 152.8 seconds (LOS F). Signalization of this intersection is included as a project under the regional SPRTA fee program. With a future signal in place at this intersection, it would operate at LOS C under 2030 No Project Conditions. The addition of the proposed project would degrade this intersection to LOS E.~~
- *Sierra College Boulevard and King Road* – This Loomis intersection is currently controlled by a traffic signal, and as such, is assumed to be signalized in 2030. Without the project, average delay is projected to be 37.1 seconds per vehicle (LOS D) by 2030. The addition of the proposed project would increase the delay at this intersection by 17.6 seconds to 54.7 seconds (also LOS D).
- *West Stanford Ranch and Wildcat Boulevard* – This Rocklin intersection is currently controlled by a traffic signal, and as such, is assumed to be signalized in 2030. Without the project, this intersection would operate at LOS C, with a V/C ratio of 0.78. The addition of the project would increase the V/C to 0.81 and result in LOS D.
- *Wildcat Boulevard and Ranch View Drive* – This Rocklin intersection is currently controlled by a traffic signal, and as such, is assumed to be signalized in 2030. Without the project, this intersection would operate at LOS C, with a V/C ratio of 0.76. The addition of the project would increase the V/C to 0.85 and result in LOS D.

Page 4.14-59 The first bullet under 2050 Conditions is revised as follows:

- *Sierra College Boulevard and English Colony Way* – This Placer County intersection is currently controlled by a stop sign on English Colony Way, and since no funding has been identified to construct a traffic signal, it is assumed to remain stop sign controlled in 2050. Without the project, average delay is

projected to be ~~446.4~~ 0.81 seconds per vehicle (LOS ~~F-D~~) by 2050. The addition of the proposed project would increase the delay at this intersection significantly, to ~~494.3~~ 0.96 seconds (~~still~~-LOS E F).

Page 4.14-60 Tables 4.14-16 and 4.14-17 are modified as shown at the end of this chapter.

Page 4.14-61 The paragraph under Mitigation Measure is revised to read:

The following mitigation measure would reduce the project impact on Sierra College Boulevard to a less-than-significant level by providing enough capacity for project traffic. For intersection of Sierra College Boulevard and English Colony Way, which is in the unincorporated county, a fee program is in place (SPRTA). Providing separate westbound right and left turn lanes, as well as an acceleration lane on northbound Sierra College Boulevard would mitigate the impact to a less than significant impact. However, this specific improvement is not included in SPARTA, and the City of Lincoln cannot compel the County to ~~restripe~~ add lanes at the intersection. The intersection of Sierra College Boulevard and King Road is located within the Town of Loomis. There is no fee program at present for City projects that affect Loomis roadways. Even if a fee program were in place, the City could not compel the Town of Loomis to restripe the intersection. The intersection of West Stanford Ranch and Wildcat Boulevard could be mitigated by eliminating southbound U-turns on Wildcat and providing a right turn “overlap” signal phase on westbound West Stanford Ranch. This would result in LOS B. The intersection of Wildcat Boulevard and Ranch View Drive could be mitigated by providing a second eastbound left turn lane on Ranch View Drive. This would result in LOS B. However the City of Lincoln cannot compel the City of Rocklin to implement these improvements. Therefore, the impact would remain *significant and unavoidable*. If and when the other jurisdictions decide to implement these improvements, the City of Lincoln would work toward entering into a fair share agreement to assist in funding the improvements at these locations.

Mitigation Measure 4.14-7(a) is revised to read:

- a) *The proposed project shall contribute its fair share toward restriping to create a separate westbound right turn lane and northbound acceleration lane at the intersection of Sierra College Boulevard & English Colony Way (2030 and 2050).*

Page 4.14-62 Items (c) and (d) and associated text are added after the second line:

- c) *The proposed project shall contribute its fair share toward eliminating southbound U- turns on Wildcat Boulevard and providing a right turn “overlap” signal phase on westbound West Stanford Ranch Road (2030).*

The intersection of West Stanford Ranch Road and Wildcat Boulevard is projected to have a large number of vehicles making a westbound right turn. Providing a westbound right overlap phase (where westbound right turns get a green arrow while southbound left turns have a green arrow) would improve the PM peak hour level of service to LOS B. However, this would require the prohibition of southbound U-turns at this intersection. The City of Rocklin may or may not choose to implement this improvement. If the City of Rocklin decides to

implement this improvement, the Cities of Lincoln and Rocklin would need to negotiate a fair share contribution by Village 1 toward the improvement.

- d) *The proposed project shall contribute its fair share toward providing a second eastbound left turn lane on Ranch View Drive at its intersection with Wildcat Boulevard (2030).*

The intersection of Wildcat Boulevard and Ranch View Drive is projected to have a large number of vehicles making an eastbound left turn. Providing a second eastbound left turn lane on Ranch View Drive would improve the PM peak hour level of service to LOS B. The City of Rocklin may or may not choose to implement this improvement. If the City of Rocklin decides to implement this improvement, Lincoln and Rocklin would need to negotiate a fair share contribution by Village 1 toward the improvement.

Appendix I, Transportation and Circulation

The traffic appendix has been updated to reflect the changes identified above under **4.14, Transportation and Circulation.**

Intersection 33 is removed from the 2030 and 2050 No Project scenarios.

REVISED TABLE 2-1				
VILLAGE 1 SPECIFIC PLAN – PROPOSED LAND USES				
Land Use Designation	Density	Dwelling Units (du)	Square Footage	Acres
Residential				
Village Country Estates (VCE)	1.0-2.9	752	--	341.9 342.2
Village Low Density Residential (VLDR)	3.0-5.9	2,884 2,885	--	524.4 524.5
Village Medium Density Residential (VMDR)	6.0-12.9	910 909	--	91.0 90.9
Village High Density Residential (VHDR)	13.0-25.0	576	--	28.8
Residential Subtotal		5,122	--	986.1 986.4
Mixed Use				
Village Mixed Use (VMU)	13.0 – 25.0	517	167,000	39.8
Mixed Use Subtotal		517	167,000	39.8
Village Parks and Recreation (VPR)				
Community Park				55.6 55.5
Neighborhood/Community Park				8.4
Neighborhood Parks (4)				17.8 19.8
Mini Parks				16.1 14.1
Existing Turkey Creek Golf Club				222.6
Parks and Recreation Subtotal				320.5 320.4
Open Space/Trails				
Village Paseos				69.9 70.8
Neighborhood Paseos				6.2 6.4
Landscaped Corridors				53.7 47.2
Edge Buffers				3.5
Auburn Ravine				118.2 116.4
Oak Woodlands/Natural Areas				155.6 149.4
Open Space/Trails Subtotal				407.1 393.7
Public Facilities				
Elementary School				12.1
City Owned Property				6.0
Public Facilities Subtotal				12.1 18.1
Major Roadways				
				66.5 73.7
Total	--	5,639	167,000	1,832.1
Source: KTGy, 2012; Frayji Design Group, 2012.				

REVISED TABLE 2-2			
VILLAGE 1 SPECIFIC PLAN – PHASE 1 COMPONENT			
Land Use Designation	Density	Dwelling Units (du)	Acres
Residential			
Village Low Density Residential (VLDR)	3.0-5.9	747 753	135.9 136.9
Village Medium Density Residential (VMDR)	6.0-12.9	382	38.2
Residential Subtotal		1,129 1,135	174.1 175.4
Village Parks and Recreation (VPR)			
Mini Parks			8.7
Parks and Recreation Subtotal			8.7
Open Space/Trails (VOS)			
Open Space/Trails			67.2 65.2
Open Space/Trails Subtotal			67.2 65.2
Landscape Corridor			17.1 15.1

REVISED TABLE 4.3-9					
FULL SPECIFIC PLAN ESTIMATED PEAK DAILY OPERATIONAL EMISSIONS (UNMITIGATED - POUNDS PER DAY)					
Summer					
Source	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Water and Space Heating	5.17	67.04	29.28	0.13	0.13
Fireplaces ^a	–	–	–	–	–
Landscape Maintenance	37.28	2.39	210.57	0.56	0.56
Consumer Products	250.80	–	–	–	–
Architectural Coatings Off-gas	73.22	–	–	–	–
Total Area Source	366.47	69.43	239.85	0.69	0.69
Motor Vehicles	343.00	397.54	3,709.57	778.90	149.59
Total Unmitigated Emissions	709.47	466.97	3,949.42	779.59	150.28
PCAPCD threshold	82	82	550	82	(d)
Significant Impact	Yes	Yes	Yes	Yes	(d)
Winter					
Source	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Water and Space Heating	5.17	67.04	29.28	0.13	0.13
Fireplaces ^b	1,134.75 <u>285.76</u>	135.33 <u>108.09</u>	5,977.48 <u>2,763.80</u>	959.75 <u>510.89</u>	923.81 <u>474.95</u>
Landscape Maintenance ^c	–	–	–	–	–
Consumer Products	250.80	–	–	–	–
Architectural Coatings Off-gas	73.22	–	–	–	–
Total Area Source	1,463.94 <u>614.95</u>	202.37 <u>175.13</u>	6,006.76 <u>2,793.08</u>	959.88 <u>511.02</u>	923.94 <u>475.08</u>
Motor Vehicles	368.22	573.14	4,075.69	778.90	149.59
Total Emissions	1,832.16 <u>983.17</u>	775.51 <u>748.27</u>	10,082.45 <u>6,868.77</u>	1,738.78 <u>1,289.92</u>	1,073.53 <u>624.67</u>
PCAPCD threshold	82	82	550	82	(d)
Significant Impact	Yes	Yes	Yes	Yes	(d)
Notes:					
a no summer emissions.					
b assumes URBEMIS 2007 default unmitigated conditions <u>have been revised to incorporate PCAPCD Rule 225</u> , as described in Methods of Analysis.					
c no winter emissions.					
d PCAPCD has not established a threshold.					
Source: Atkins, 2011, compiled from URBEMIS 2007 output included in Appendix D.					

REVISED TABLE 4.3-10					
FULL SPECIFIC PLAN ESTIMATED PEAK DAILY OPERATIONAL EMISSIONS (POUNDS PER DAY)					
Summer					
	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Total Unmitigated Emissions	709.47	466.97	3,949.42	779.59	150.28
Emissions with Design Features ^a	689.17	430.67	3,700.09	728.16	140.36
Reduction (%)	3%	8%	6%	7%	7%
PCAPCD threshold	82	82	550	82	(b)
Significant Impact	Yes	Yes	Yes	Yes	(b)
Winter					
	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Total Unmitigated Emissions	1,832.16 983.17	775.54 748.27	10,082.45 6,868.77	1,738.78 1,289.92	1,073.53 624.67
Emissions with Design Features ^a	1,589.41 930.68	709.84 735.78	8,653.84 6,338.89	1,501.92 1,191.82	885.16 533.53
Reduction (%)	43%	82%	44%	44%	48%
PCAPCD threshold	82	82	550	82	(b)
Significant Impact	Yes	Yes	Yes	Yes	(b)
Notes:					
a assumes URBEMIS 2007 default conditions have been revised to incorporate PCAPCD Rule 225, as described in Methods of Analysis.					
b PCAPCD has not established a threshold.					
Source: Atkins, 2011, compiled from URBEMIS 2007 output included in Appendix D.					

REVISED TABLE 4.3-11					
PHASE 1 ESTIMATED PEAK DAILY OPERATIONAL EMISSIONS (UNMITIGATED - POUNDS PER DAY)					
Summer					
Source	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Water and Space Heating	1.10	14.22	6.05	0.03	0.03
Fireplaces ^a	–	–	–	–	–
Landscape Maintenance	9.28	0.59	52.21	0.14	0.14
Consumer Products	50.46	–	–	–	–
Architectural Coatings Off-gas	16.14	–	–	–	–
Total Area Source	76.98	14.81	58.26	0.17	0.17
Motor Vehicles	65.67	76.84	719.67	150.62	28.93
Total Unmitigated Emissions	142.55	91.65	777.93	150.79	29.10
PCAPCD threshold	82	82	550	82	(d)
Significant Impact	Yes	<i>No</i>	<i>No</i>	Yes	(d)
Winter					
Source	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Water and Space Heating	1.10	14.22	6.05	0.03	0.03
Fireplaces ^b	228.34 57.61	27.56 5.48	1,202.84 646.11	193.13 90.25	185.90 90.25
Landscape Maintenance ^c	–	–	–	–	–
Consumer Products	50.46	–	–	–	–
Architectural Coatings Off-gas	16.14	–	–	–	–
Total Area Source	296.04 125.31	41.78 19.70	1,208.89 625.16	193.16 90.28	185.93 90.28
Motor Vehicles	71.21	110.80	789.19	150.62	28.93
Total Unmitigated Emissions	367.25 196.52	152.58 130.50	1,998.08 1,441.35	343.78 240.90	214.86 119.21
PCAPCD threshold	82	82	550	82	(d)
Significant Impact	Yes	Yes	Yes	Yes	(d)
Notes:					
a no summer emissions					
b assumes URBEMIS 2007 default unmitigated conditions have been revised to incorporate PCAPCD Rule 225, as described in Methods of Analysis					
c no winter emissions					
d PCAPCD has not established a standard					
Source: Atkins, 2011, compiled from URBEMIS 2007 output included in Appendix D.					

REVISED TABLE 4.3-12					
ESTIMATED EMISSIONS REDUCTIONS FOR HEARTH AND TRANSPORTATION					
	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Hearth Emissions					
Total Unmitigated Emissions	4,134.75 983.17	435.33 748.27	5,977.48 6,868.77	959.75 1,289.92	923.84 624.67
Emissions with Design Features ^a	930.68	735.78	6,338.89	1,191.82	533.53
Decrease from Unmitigated	52.49	12.49	529.88	98.10	91.14
Reduction (%)	5.34%	1.67%	7.71%	7.61%	14.59%
Fully Mitigated ^b	48.93 2.56	91.94 43.75	1,741.09 18.62	329.14 3.54	300.13 3.5
Decrease from Unmitigated	1,085.82 980.61	43.39 704.52	4,236.45 6,850.15	630.64 1,286.38	632.68 621.17
Reduction (%)	96% 99.74%	32% 94.15%	74% 99.73%	66% 99.73%	68% 99.44%
Transportation Emissions					
Total Unmitigated Emissions	368.22	573.14	4,075.69	778.9	149.59
Fully Mitigated ^c	355.41	553.19	3,933.86	751.79	144.38
Decrease from Unmitigated	12.81	19.95	141.83	27.11	5.21
Reduction (%)	3.48%	3.48%	3.48%	3.48%	3.48%
Notes:					
a Assumes all single-family units have EPA Phase II-certified wood-burning devices and only natural gas or propane fireplaces are in multi-family units.					
b Assumes Mitigation Measure 4.3-2(a) and (b); all single-family units have EPA Phase II-certified wood-burning devices and only natural gas or propane fireplaces are in multi-family units.					
c Assumes Mitigation Measure 4.3-2(d), (e) and (g).					
Source: Atkins, 2011, 2012 compiled from URBEMIS 2007 and EPA Woodstove and Fireplace Emissions Calculator, output and calculations included in Appendix D.					

REVISED TABLE 4.4-2			
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN THE VILLAGE 1 SPECIFIC PLAN PROJECT SITE			
Scientific Name Common Name	Status Fed/State/Other	Habitat Requirements	Likelihood of Occurrence in Project site
Fish			
<i>Hypomesus transpacificus</i> delta smelt	FT/none/none	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities less than 10 ppt., most often at salinities less than 2 ppt.	None: No suitable habitat in the project site.
<i>Oncorhynchus mykiss</i> Central Valley steelhead	FT/none/none	Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen. Passes through the San Francisco Bay during migrations to upstream spawning habitat.	Moderate to High: Suitable habitat present in Auburn Ravine in the project site.
Central Valley steelhead Critical Habitat	FX/none/none	N/A	Known: Portions of Auburn Ravine passing through the project site are within critical habitat for this species.
<i>Oncorhynchus tshawytscha</i> Central Valley spring-run Chinook salmon	FT/none/none	Spawns in the Sacramento River but not in tributary streams. Requires clean, cold water over gravel beds with water temperatures between 6 and 14 C for spawning. Passes through the San Francisco Bay during migrations to upstream spawning habitat.	Low: Not known to occur in Auburn ravine, though potential spawning habitat exists there.
<i>Oncorhynchus tshawytscha</i> winter-run Chinook salmon	FE/none/none		
<i>Oncorhynchus tshawytscha</i> Central Valley fall and late fall run Chinook salmon	none/none/CSC		High: Known to present in Auburn Ravine

**REVISED TABLE 4.14-2
P.M. PEAK HOUR INTERSECTION LEVELS OF SERVICE
EXISTING CONDITIONS**

Intersection	Jurisdiction	LOS		Existing Conditions				
		Methodology	Policy	Int LOS	V/C	Avg Delay	Worst Mvmt	
Existing Intersections Within Lincoln SOI								
1	SR 65 & Wise Rd	Caltrans	2000 HCM Unsignalized	D	A		1.5	E[36.1]
2	SR 65 & Gladding Rd	Caltrans	2000 HCM Unsignalized	D	A		1.5	F[77.78]
3	SR 65 & 7th Street	Caltrans	2000 HCM Operations	D	C		28.4 31.3	
4	SR 65 & SR 193 (McBean Park Dr)	Caltrans	2000 HCM Operations	D	E		57.0 69.8	
5	SR 65 & 1st St	Caltrans	2000 HCM Operations	D	E		77.9 65.8	
6	SR 65 & Ferrari Ranch Rd	Caltrans	2000 HCM Operations	D	C		23.8 24.4	
7	SR 65 & Sterling Pkwy	Caltrans	2000 HCM Operations	D	BC		48.3 21.2	
8	Joiner Pkwy & Ferrari Ranch Rd	Lincoln	Circular 212 Planning	C	A	0.43		
9	Joiner Pkwy & Sterling Pkwy	Lincoln	Circular 212 Planning	C	A	0.57		
10	E. Joiner Pkwy & Del Webb (N)	Lincoln	2000 HCM 4-Way Stop	C	B		11.9	
11	E. Joiner Pkwy & Del Webb (S)	Lincoln	Circular 212 Planning	C	A	0.30		
12	Ferrari Ranch Rd & Ingram Pkwy	Lincoln	2000 HCM 4-Way Stop	C	C		18.1	
13	Ferrari Ranch Rd & Sun City Blvd	Lincoln	2000 HCM 4-Way Stop	C	B		13.8	
14	SR 193 & Ferrari Ranch Rd	Caltrans	2000 HCM Operations	D	C		23.9 24.0	
15	SR 193 & East Ave	Caltrans	2000 HCM Operations	D	B		44.9 15.4	
16	SR 193 & Oak Tree Ln	Caltrans	2000 HCM Unsignalized	D	A		0.2	C[20.4]
17	Twelve Bridges Dr & Sierra College Blvd	Lincoln	2000 HCM Unsignalized	C	A		2.9	D[32.2]
18	Twelve Bridges Dr & E. Joiner Pkwy	Lincoln	Circular 212 Planning	C	A	0.37		
19	Twelve Bridges Dr & SR 65 N/B Ramps	Caltrans	2000 HCM Operations	E	B		11.6	
20	Twelve Bridges Dr & SR 65 S/B Ramps	Caltrans	2000 HCM Operations	E	B		10.9	
Existing Intersections Outside Lincoln SOI								
21	SR 193 & Sierra College Blvd	Caltrans	2000 HCM 4-Way Stop	E	C		48.7 22.4	
22	Sierra College Blvd & English Colony Way	Placer Co	2000 HCM Unsignalized	C	A		1.3	B[14.9]
23	Sierra College Blvd & King Rd	Loomis	2000 HCM Operations	C	B		11.7	
24	Sierra Collage & Bankhead	Loomis	2000 HCM Unsignalized	C	A		0.7	C[23.9]
25	Sierra College Blvd & Taylor Rd	Loomis	2000 HCM Operations	C	C		28.6	
26	Sierra College & Brace	Loomis	2000 HCM Operations	C	B		12.8	
27	Sierra College Blvd & Granite Dr	Rocklin	Circular 212 Planning	D	A	0.36		
28	Sierra College Blvd & I-80 W/B Ramps	Caltrans	2000 HCM Operations	E	B		13.9	
29	Sierra College Blvd & I-80 E/B Ramps	Caltrans	2000 HCM Operations	E	B		12.1	

Note: **Bold** Intersections do not meet current LOS Policy.

REVISED TABLE 4.14-8

P.M. PEAK HOUR INTERSECTION LEVELS OF SERVICE: WITHIN CITY OF LINCOLN
EXISTING PLUS PROJECT

Intersection	Jurisdiction	LOS		Existing Conditions				Existing Plus Village 1 Buildout				Existing Plus Phase I				
		Methodology	Policy	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt	
Existing Intersections Within City of Lincoln SOI																
1	SR 65 & Wise Rd	Caltrans	2000 HCM Unsignalized	D	A		1.5	E[36.1]	A		2.1	E[47.56]	A		1.6	E[39.5]
2	SR 65 & Gladding Rd	Caltrans	2000 HCM Unsignalized	D	A		1.5	F[77.78]	A		3.3	F[107.7]	A		1.7	F[82.6]
3	SR 65 & 7th Street	Caltrans	2000 HCM Operations	D	C		28.4 31.3		D		47.0 53.4		C		30.2 33.4	
4	SR 65 & McBean Park Dr	Caltrans	2000 HCM Operations	D	E		57.0 69.8		F		88.8 105.5		E F		67.3 81.7	
5	SR 65 & 1st St	Caltrans	2000 HCM Operations	D	E		77.9 65.8		D E		50.8 61.0		E		76.9 65.2	
6	SR 65 & Ferrari Ranch Rd	Caltrans	2000 HCM Operations	D	C		23.8 24.4		C		30.6 32.9		C		24.5 25.2	
7	SR 65 & Sterling Pkwy	Caltrans	2000 HCM Operations	D	C B		48.3 21.2		B		47.0 19.2		B		47.5 19.9	
8	Joiner Pkwy & Ferrari Ranch Rd	Lincoln	Circular 212 Planning	C	A	0.43			A	0.42			A	0.42		
9	Joiner Pkwy & Sterling Pkwy	Lincoln	Circular 212 Planning	C	A	0.57			A	0.60			A	0.57		
10	E. Joiner Pkwy & Del Webb (N)	Lincoln	2000 HCM 4-Way Stop	C	B		11.9		C		15.8		B		12.6	
11	E. Joiner Pkwy & Del Webb (S)	Lincoln	Circular 212 Planning	C	A	0.30			A	0.50			A	0.37		
12	Ferrari Ranch Rd & Ingram Pkwy	Lincoln	2000 HCM 4-Way Stop	C	C		18.1		F		85.9		D		34.9	
13	Ferrari Ranch Rd & Sun City Blvd	Lincoln	2000 HCM 4-Way Stop	C	B		13.8		F		140.7		D		28.2	
14	SR 193 & Ferrari Ranch Rd	Caltrans	2000 HCM Operations	D	C		23.9 24.0		D		42.5 45.9		C		27.5 27.8	
15	SR 193 & East Ave	Caltrans	2000 HCM Operations	D	B		44.9 15.4		B		14.5 14.7		B		14.0 14.3	
16	SR 193 & Oak Tree Ln	Caltrans	2000 HCM Operations*	D	A		0.2	C[20.4]	C		26.2		B		47.3 17.7	

REVISED TABLE 4.14-8

**P.M. PEAK HOUR INTERSECTION LEVELS OF SERVICE: WITHIN CITY OF LINCOLN
EXISTING PLUS PROJECT**

Intersection	Jurisdiction	LOS		Existing Conditions				Existing Plus Village 1 Buildout				Existing Plus Phase I				
		Methodology	Policy	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt	
17	Twelve Bridges Dr & Sierra College Bl	Lincoln	2000 HCM Unsignalized	C	A		2.9	D[32.2]	F		159.0	F[1160.5]	A		3.4	E[40.0]
18	Twelve Bridges Dr & E. Joiner Pkwy	Lincoln	Circular 212 Planning	C	A	0.37			B	0.68			A	0.45		
19	Twelve Bridges Dr & SR 65 N/B Ramps	Caltrans	2000 HCM Operations	E	B		11.6		B		11.5		B		12.4	
20	Twelve Bridges Dr & SR 65 S/B Ramps	Caltrans	2000 HCM Operations	E	B		10.9		B		10.7		B		10.8	
Intersections Added With Village 1																
30	Ferrari Ranch Rd & Oak Tree Ln	Lincoln	2000 HCM 4-Way Stop	C			n/a		B		10.5				n/a	
31	Sierra College Blvd & Oak Tree Ln	Lincoln	Circular 212 Planning	C			n/a		C	0.72					n/a	
32	Virginiatown Rd & Oak Tree Ln	Lincoln	2000 HCM 4-Way Stop	C			n/a		A		9.8				n/a	
33	SR 193 & Village 1 Coll	Caltrans	Circular 212 Planning	E			n/a		A	0.50					n/a	
34	Oak Tree Ln & Village 1 Coll	Lincoln	Circular 212 Planning	C			n/a		A	0.26					n/a	

Note: **Bold** intersections do not meet LOS policy, Shaded intersections show project impacts.

REVISED TABLE 4.14-9															
P.M. PEAK HOUR INTERSECTION LEVELS OF SERVICE: OUTSIDE CITY OF LINCOLN EXISTING PLUS PROJECT															
Intersection	Jurisdiction	LOS		Existing Conditions				Existing Plus Village 1 Buildout				Existing Plus Phase I			
		Methodology	Policy	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt
Existing Intersections Outside City of Lincoln SOI															
21	SR 193 & Sierra College Blvd	Caltrans	2000 HCM 4-Way Stop	E	C		48.7 22.4		D		26.8 23.4		D E		26.5 35.2
22	Sierra College Blvd & English Colony Way	Placer Co	2000 HCM Unsignalized	C	A		1.3	B[14.9]	A		3.8	D[32.2]	A		1.3 C[16.0]
23	Sierra College Blvd & King Rd	Loomis	2000 HCM Operations	C	B		11.7		B		12.1		B		12.5
24	Sierra Collage & Bankhead	Loomis	2000 HCM Unsignalized	C	A		0.7	C[23.9]	A		0.7	D[33.5]	A		0.7 C[23.3]
25	Sierra College Blvd & Taylor Rd	Loomis	2000 HCM Operations	C	C		28.6		C		30.6		C		28.7
26	Sierra College & Brace	Loomis	2000 HCM Operations	C	B		12.8		B		14.1		B		14.3
27	Sierra College Blvd & Granite Dr	Rocklin	Circular 212 Planning	D	A	0.36			A	0.40			A	0.36	
28	Sierra College Blvd & I-80 W/B Ramps	Caltrans	2000 HCM Operations	E	B		13.9		B		13.2		B		13.9
29	Sierra College Blvd & I-80 E/B Ramps	Caltrans	2000 HCM Operations	E	B		12.1		B		14.0		B		11.9

Note: Bold intersections do not meet LOS policy, Shaded intersections show project impacts.

REVISED TABLE 4.14-14												
P.M. PEAK HOUR INTERSECTION LEVELS OF SERVICE: WITHIN LINCOLN SOI 2030 PLUS PROJECT												
Intersection	Jurisdiction	LOS		2030 No Project				2030 Plus Village 1 Buildout				
		Methodology	Policy	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt	
Existing Intersections Within Lincoln SOI												
1	Lincoln Blvd & Wise Rd	Lincoln*	2000 HCM Unsignalized	D	A		3.0	C[23.4]	A		3.7	C[24.9]
2	Lincoln Blvd & Gladding Rd	Lincoln*	2000 HCM Unsignalized	D	A		1.6	C[18.0]	A		1.4	C[16.6]
3	Lincoln Blvd & 7th Street	Lincoln*	Circular 212 Planning	D	A	0.47			A	0.49		
4	Lincoln Blvd & McBean Park Dr	Lincoln*	Circular 212 Planning	D	A	0.45			A	0.47		
5	Lincoln Blvd & 1st St	Lincoln*	Circular 212 Planning	D	C	0.73			C	0.71		
6	Lincoln Blvd & Ferrari Ranch Rd	Lincoln*	Circular 212 Planning	D	A	0.58			B	0.70		
7	Lincoln Blvd & Sterling Pkwy	Lincoln*	Circular 212 Planning	D	A	0.51			B	0.62		
8	Joiner Pkwy & Ferrari Ranch Rd	Lincoln	Circular 212 Planning	C	D	0.90			D	0.90		
9	Joiner Pkwy & Sterling Pkwy	Lincoln	Circular 212 Planning	C	A	0.53			A	0.53		
10	E. Joiner Pkwy & Del Webb (N)	Lincoln	Circular 212 Planning	C	B	0.61			B	0.63		
11	E. Joiner Pkwy & Del Webb (S)	Lincoln	Circular 212 Planning	C	A	0.49			A	0.56		
12	Ferrari Ranch Rd & Ingram Pkwy	Lincoln	Circular 212 Planning	C	A	0.34			B	0.68		
13	Ferrari Ranch Rd & Sun City Blvd	Lincoln	Circular 212 Planning	C	A	0.32			A	0.58		
14	McBean Park Dr & Ferrari Ranch Rd	Lincoln*	Circular 212 Planning	D	D	0.82			D	0.82		

REVISED TABLE 4.14-14												
P.M. PEAK HOUR INTERSECTION LEVELS OF SERVICE: WITHIN LINCOLN SOI 2030 PLUS PROJECT												
Intersection		Jurisdiction	LOS		2030 No Project				2030 Plus Village 1 Buildout			
			Methodology	Policy	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt
15	McBean Park Dr & East Ave	Lincoln*	Circular 212 Planning	D	D	0.90			C	0.71		
16	McBean Park Dr & Oak Tree Ln	Lincoln*	Circular 212 Planning	D	A	0.34			B	0.69		
17	Twelve Bridges Dr & Sierra College Blvd	Lincoln	Circular 212 Planning	C	A	0.56			B	0.69		
18	Twelve Bridges Dr & E Joiner Pkwy	Lincoln	Circular 212 Planning	C	B	0.63			C	0.74		
19	Twelve Bridges Dr & SR 65 N/B Ramps	Caltrans	2000 HCM Operations	E	B		20.0		B		14.3	
20	Twelve Bridges Dr & SR 65 S/B Ramps	Caltrans	2000 HCM Operations	E	C		20.2		C		23.4	
Intersections Added With Village 1												
30	Ferrari Ranch Rd & Oak Tree Ln	Lincoln	Circular 212 Planning	C			n/a		A	0.47		
31	Sierra College Blvd & Oak Tree Ln	Lincoln	Circular 212 Planning	C			n/a		A	0.38		
32	Virginiatown Rd & Oak Tree Ln	Lincoln	Circular 212 Planning	C			n/a		A	0.53		
33	McBean Park Dr & Village 1 Coll	Lincoln	Circular 212 Planning	C			n/a		A	0.42 0.50		
34	Oak Tree Ln & Village 1 Coll	Lincoln	Circular 212 Planning	C			n/a		A	0.28		
Notes: Bold intersections do not meet LOS policy, Shaded intersections show project impacts.												
* Current Caltrans intersections to be relinquished to Lincoln when SR 65 Lincoln Bypass is complete.												
Current SR 65 (G Street) Becomes Lincoln Blvd, Current SR 193 becomes McBean Park Dr.												

REVISED TABLE 4.14-15 P.M. PEAK HOUR INTERSECTION LEVELS OF SERVICE: WITHIN LINCOLN SOI 2050 PLUS PROJECT												
Intersection		Jurisdiction	LOS		2050 No Project				2050 Plus Village 1 Buildout			
			Methodology	Policy	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt
Existing Intersections Within Lincoln SOI												
2	SR 65 & Ramos Rd	Lincoln*	2000 HCM Operations	C*	B		18.1	B	B		18.4	B
3	Lincoln Blvd & 7th Street	Lincoln*	Circular 212 Planning	C*	A	0.57			A	0.58		
4	Lincoln Blvd & McBean Park Dr	Lincoln*	Circular 212 Planning	D	A	0.58			A	0.58		
5	Lincoln Blvd & 1st St	Lincoln*	Circular 212 Planning	D	D	0.83			D	0.80		
6	Lincoln Blvd & Ferrari Ranch Rd	Lincoln*	Circular 212 Planning	D	C	0.73			C	0.79		
7	Lincoln Blvd & Sterling Pkwy	Lincoln*	Circular 212 Planning	D	B	0.66			B	0.69		
8	Joiner Pkwy & Ferrari Ranch Rd	Lincoln	Circular 212 Planning	C	E	0.92			E	0.93		
9	Joiner Pkwy & Sterling Pkwy	Lincoln	Circular 212 Planning	C	A	0.44			A	0.47		
10	E. Joiner Pkwy & Del Webb (N)	Lincoln	Circular 212 Planning	C	A	0.55			B	0.63		
11	E. Joiner Pkwy & Del Webb (S)	Lincoln	Circular 212 Planning	C	A	0.40			A	0.46		
12	Ferrari Ranch Rd & Ingram Pkwy	Lincoln	Circular 212 Planning	C	A	0.55			C	0.76		
13	Ferrari Ranch Rd & Sun City Blvd	Lincoln	Circular 212 Planning	C	A	0.49			B	0.61		
14	McBean Park Dr & Ferrari Ranch Rd	Lincoln*	Circular 212 Planning	D	E	0.96			E	0.93		
15	McBean Park Dr & East Ave	Lincoln*	Circular 212 Planning	D	C	0.79			C	0.77		

REVISED TABLE 4.14-15 P.M. PEAK HOUR INTERSECTION LEVELS OF SERVICE: WITHIN LINCOLN SOI 2050 PLUS PROJECT												
Intersection		Jurisdiction	LOS		2050 No Project				2050 Plus Village 1 Buildout			
			Methodology	Policy	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt
16	McBean Park Dr & Oak Tree Ln	Lincoln*	Circular 212 Planning	D	A	0.53			B	0.70		
17	Twelve Bridges Dr & Sierra College Bl	Lincoln	Circular 212 Planning	C	B	0.67			C	0.72		
18	Twelve Bridges Dr & E Joiner Pkwy	Lincoln	Circular 212 Planning	C	B	0.69			C	0.73		
19	Twelve Bridges Dr & SR 65 N/B Ramps	Caltrans	2000 HCM Operations	E	C		20.2		B		17.2	
20	Twelve Bridges Dr & SR 65 S/B Ramps	Caltrans	2000 HCM Operations	E	D		46.0		D		49.2	
Future Intersections within Lincoln SOI												
100	Wise Rd & Old SR 65 Jug Handle	Lincoln*	Circular 212 Planning	C	B	0.67			C	0.71		
1	Lincoln Blvd & Wise Rd Jug Handle	Lincoln*	Circular 212 Planning	C	A	0.51			A	0.59		
Intersections Added With Village 1												
30	Ferrari Ranch Rd & Oak Tree Ln	Lincoln	Circular 212 Planning	C			n/a		B	0.61		
31	Sierra College Blvd & Oak Tree Ln	Lincoln	Circular 212 Planning	C			n/a		A	0.39		
32	Virginiatown Rd & Oak Tree Ln	Lincoln	Circular 212 Planning	C			n/a		B	0.69		
33	McBean Park Dr & Village 1 Coll	Lincoln	Circular 212 Planning	C			n/a		A	0.45 0.54		
34	Oak Tree Ln & Village 1 Coll	Lincoln	Circular 212 Planning	C			n/a		A	0.34		
Notes: Bold intersections do not meet LOS policy, Shaded intersections show project impacts. * Current Caltrans intersections to be relinquished to Lincoln when SR 65 Lincoln Bypass is complete. Current SR 65 (G Street) Becomes Lincoln Blvd, Current SR 193 becomes McBean Park Dr.												

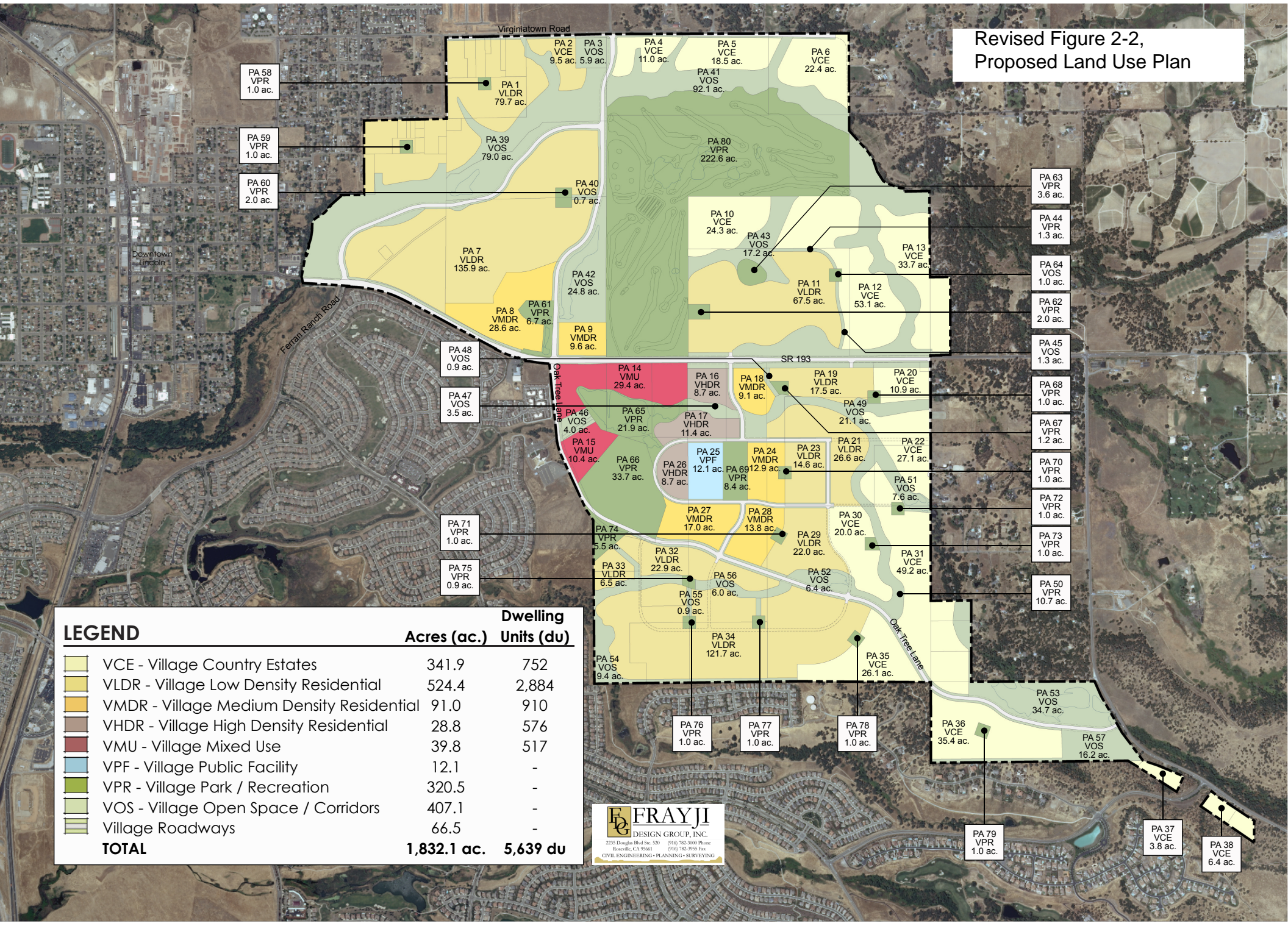
REVISED TABLE 4.14-16												
P.M. PEAK HOUR INTERSECTION LEVELS OF SERVICE: OUTSIDE LINCOLN SOI 2030 PLUS PROJECT												
Intersection		Jurisdiction	LOS		2030 No Project				2030 Plus Village 1 Buildout			
			Methodology	Policy	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt
Existing Intersections Outside Lincoln SOI												
21	Lincoln-Newcastle Hwy & Sierra College Blvd	Caltrans	Circular 212 Planning	E	D	0.81			C	0.77		
22	Sierra College Blvd & English Colony Way	Placer Co	2000 HCM Unsignalized Circular 212 Planning	C	D C	<u>0.77</u>	26.2	F[429.2]	F E	<u>0.98</u>	152.8	F[1361.4]
23	Sierra College Blvd & King Rd	Loomis	2000 HCM Operations	C	D		37.1		D		54.7	
24	Sierra Collage & Bankhead	Loomis	2000 HCM Unsignalized	C	B		14.9	F[347.2]	C		19.9	F[482.7]
25	Sierra College Blvd & Taylor Rd	Loomis	2000 HCM Operations	C	D		40.6		D		43.3	
26	Sierra College & Brace	Loomis	2000 HCM Operations	C	C		25.5		C		24.7	
27	Sierra College Blvd & Granite Dr	Rocklin	Circular 212 Planning	C	B	0.65			B	0.68		
28	Sierra College Blvd & I-80 W/B Ramps	Caltrans	2000 HCM Operations	E	C		23.9		C		23.5	
29	Sierra College Blvd & I-80 E/B Ramps	Caltrans	2000 HCM Operations	E	D		36.8		D		37.2	
	Sierra College Blvd & Valley View Pkwy	Rocklin	Circular 212 Planning	C	A	0.59			B	0.66		
	Nature Trail Way & Valley View Pkwy	Rocklin	Circular 212 Planning	C	C	0.71			C	0.73		
	Park Drive & Valley View Pkwy	Rocklin	Circular 212 Planning	C	A	0.57			A	0.58		

REVISED TABLE 4.14-16												
P.M. PEAK HOUR INTERSECTION LEVELS OF SERVICE: OUTSIDE LINCOLN SOI 2030 PLUS PROJECT												
Intersection	Jurisdiction	LOS		2030 No Project				2030 Plus Village 1 Buildout				
		Methodology	Policy	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt	
<u>W Stanford Ranch & Wildcat Blvd</u>	<u>Rocklin</u>	<u>Circular 212 Planning</u>	<u>C</u>	<u>C</u>	<u>0.78</u>			<u>D</u>	<u>0.81</u>			
<u>Wildcat Blvd & Ranch View Dr.</u>	<u>Rocklin</u>	<u>Circular 212 Planning</u>	<u>C</u>	<u>C</u>	<u>0.76</u>			<u>D</u>	<u>0.85</u>			
<u>Wildcat Blvd & Whitney Ranch Pkwy</u>	<u>Rocklin</u>	<u>Circular 212 Planning</u>	<u>C</u>	<u>B</u>	<u>0.66</u>			<u>C</u>	<u>0.71</u>			

Notes: **Bold** intersections do not meet LOS policy, Shaded intersections show project impacts.
 * Current Caltrans intersections to be relinquished to Lincoln when SR 65 Lincoln Bypass is complete.
 Current SR 65 (G Street) Becomes Lincoln Blvd, Current SR 193 becomes McBean Park Dr.
 City of Rocklin Intersections analyzed using City of Rocklin 2030 General Plan Update (2030 Plus Project) Model with assumed land use in Village 1 removed for Village 1 No Project conditions

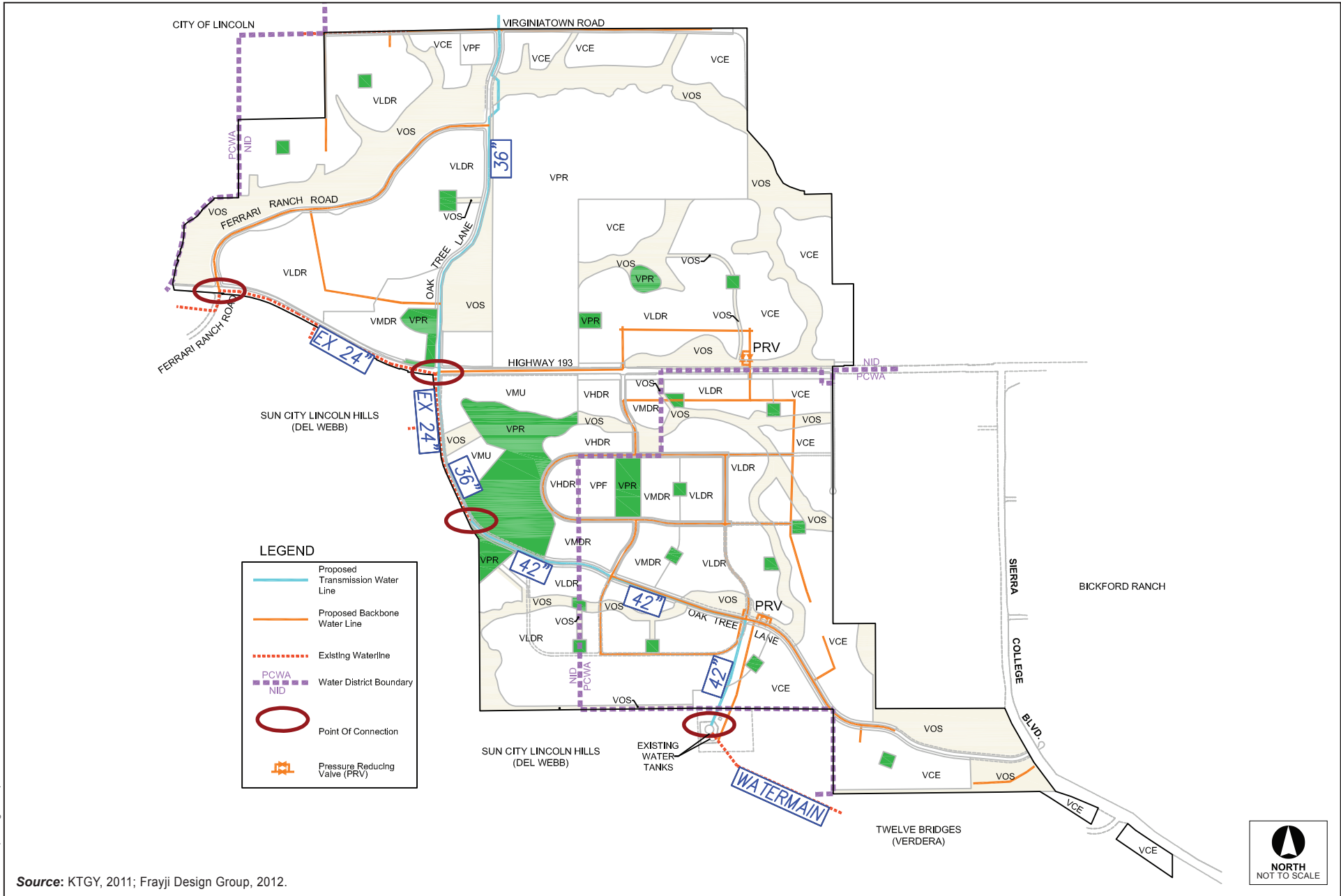
REVISED TABLE 4.14-17												
P.M. PEAK HOUR INTERSECTION LEVELS OF SERVICE: OUTSIDE LINCOLN SOI 2050 PLUS PROJECT												
Intersection	Jurisdiction	LOS		2050 No Project				2050 Plus Village 1 Buildout				
		Methodology	Policy	Int LOS	V/C	Avg Delay	Worst Mvmt	Int LOS	V/C	Avg Delay	Worst Mvmt	
Existing Intersections Outside Lincoln SOI												
21	Lincoln-Newcastle Hwy & Sierra College Blvd	Placer Co*	Circular 212 Planning	E	E	0.99			C	0.78		
22	Sierra College Blvd & English Colony Way	Placer Co	2000 HCM Unsignalized Circular 212 Planning	C	F D	<u>0.81</u>	116.1	F[1680.1]	F E	<u>0.96</u>	491.3	F[1901.1]
23	Sierra College Blvd & King Rd	Loomis	2000 HCM Operations	C	D		48.4		E		75.7	
24	Sierra Collage & Bankhead	Loomis	2000 HCM Unsignalized	C	B		11.8	F[311.8]	C		17.5	F[440.6]
25	Sierra College Blvd & Taylor Rd	Loomis	2000 HCM Operations	C	D		43.0		D		44.7	
26	Sierra College & Brace	Loomis	2000 HCM Operations	C	C		25.5		C		24.7	
27	Sierra College Blvd & Granite Dr	Rocklin	Circular 212 Planning	D	C	0.74			C	0.74		
28	Sierra College Blvd & I-80 W/B Ramps	Caltrans	2000 HCM Operations	E	C		23.8		C		23.5	
29	Sierra College Blvd & I-80 E/B Ramps	Caltrans	2000 HCM Operations	E	D		36.5		D		37.0	
Notes: Bold intersections do not meet LOS policy, Shaded intersections show project impacts. * Current Caltrans intersections to be relinquished to Lincoln when SR 65 Lincoln Bypass is complete. Current SR 65 (G Street) Becomes Lincoln Blvd, Current SR 193 becomes McBean Park Dr.												

Revised Figure 2-2,
Proposed Land Use Plan



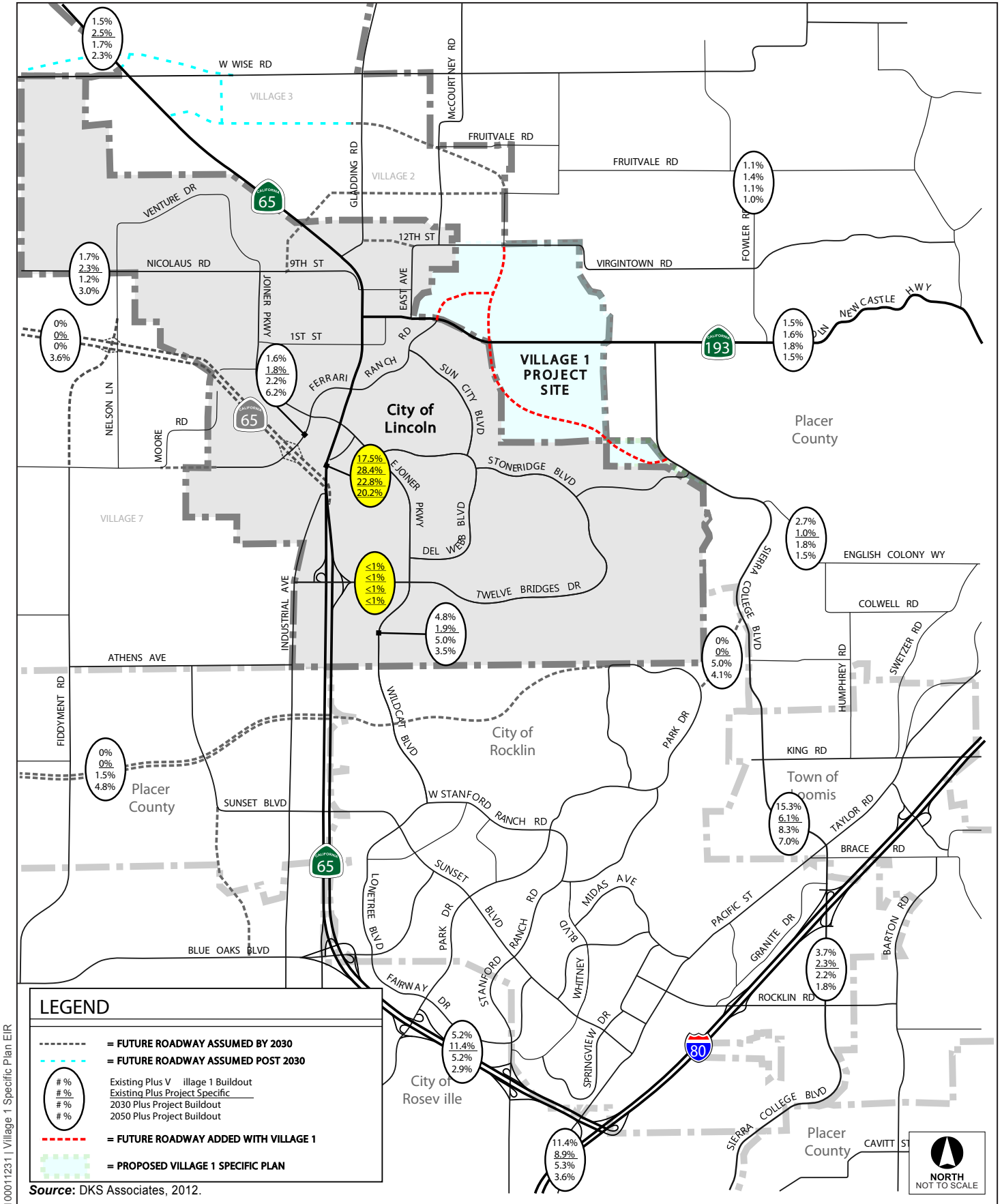
LEGEND		Dwelling	
	Acres (ac.)	Units (du)	
	VCE - Village Country Estates	341.9	752
	VLDR - Village Low Density Residential	524.4	2,884
	VMDR - Village Medium Density Residential	91.0	910
	VHDR - Village High Density Residential	28.8	576
	VMU - Village Mixed Use	39.8	517
	VPF - Village Public Facility	12.1	-
	VPR - Village Park / Recreation	320.5	-
	VOS - Village Open Space / Corridors	407.1	-
	Village Roadways	66.5	-
TOTAL	1,832.1 ac.	5,639 du	

FRAYJI
DESIGN GROUP, INC.
2235 Douglas Blvd. Ste. 320 (916) 782-3981 Phone
Roseville, CA 95661 (916) 782-3955 Fax
CIVIL ENGINEERING • PLANNING • SURVEYING



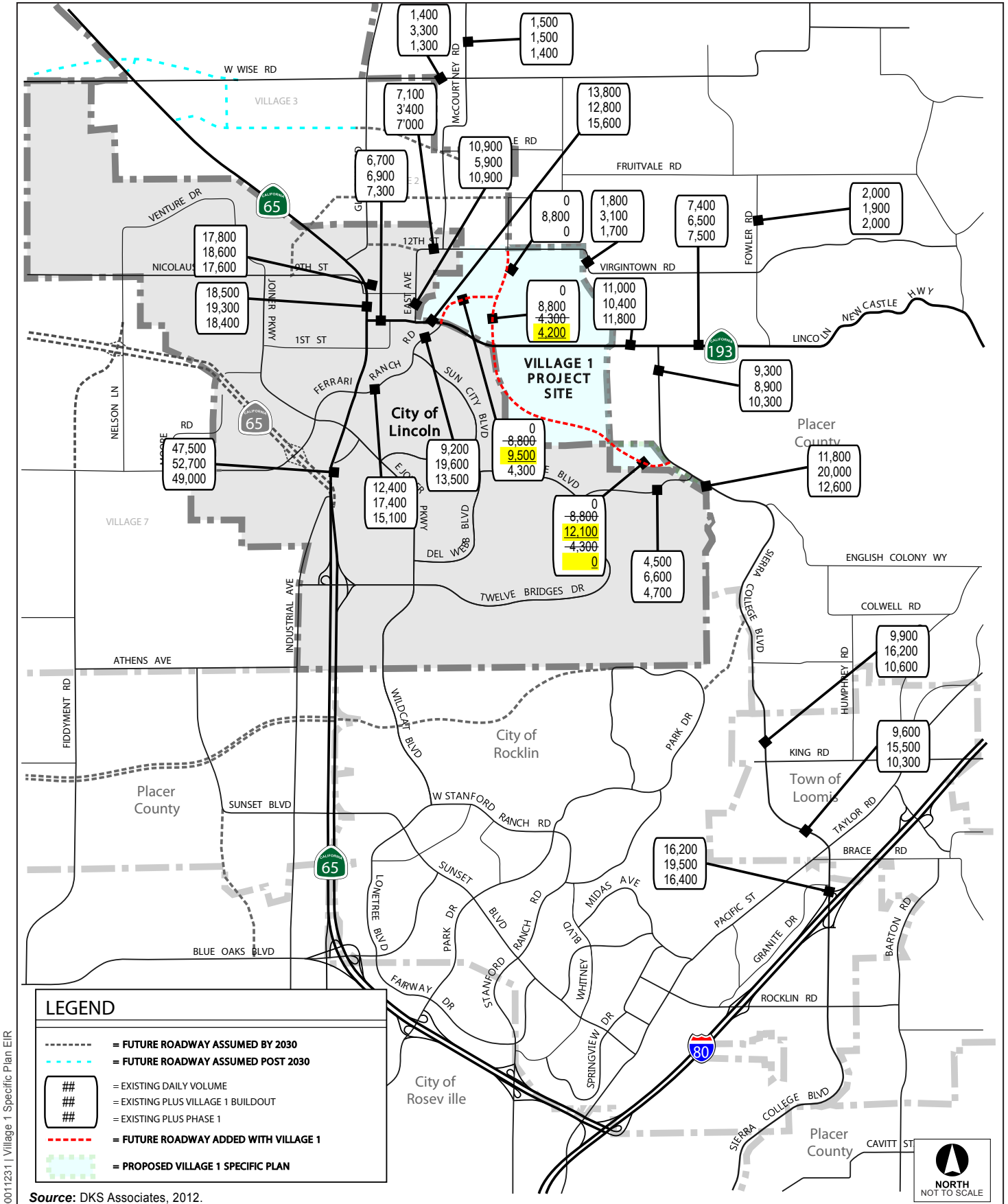
Source: KTG, 2011; Frayji Design Group, 2012.

Figure 2-6 [Revised] Water System



10001123 | Village 1 Specific Plan EIR

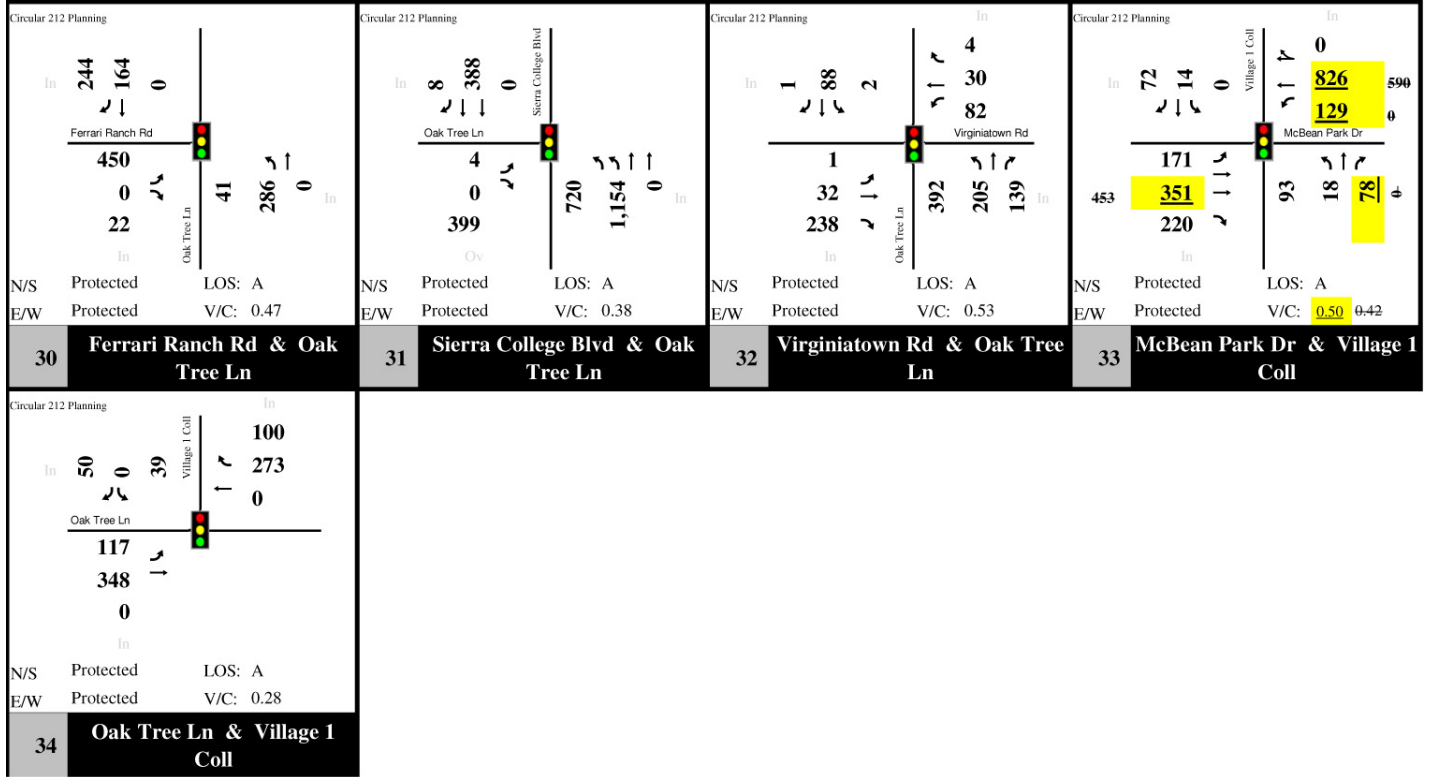
Figure 4.14-6 [Revised]
Estimated Project Trip Distribution



100011231 | Village 1 Specific Plan EIR

Figure 4.14-9 [Revised]
Existing Plus Project Daily Traffic Volumes

Intersections Added With Village 1

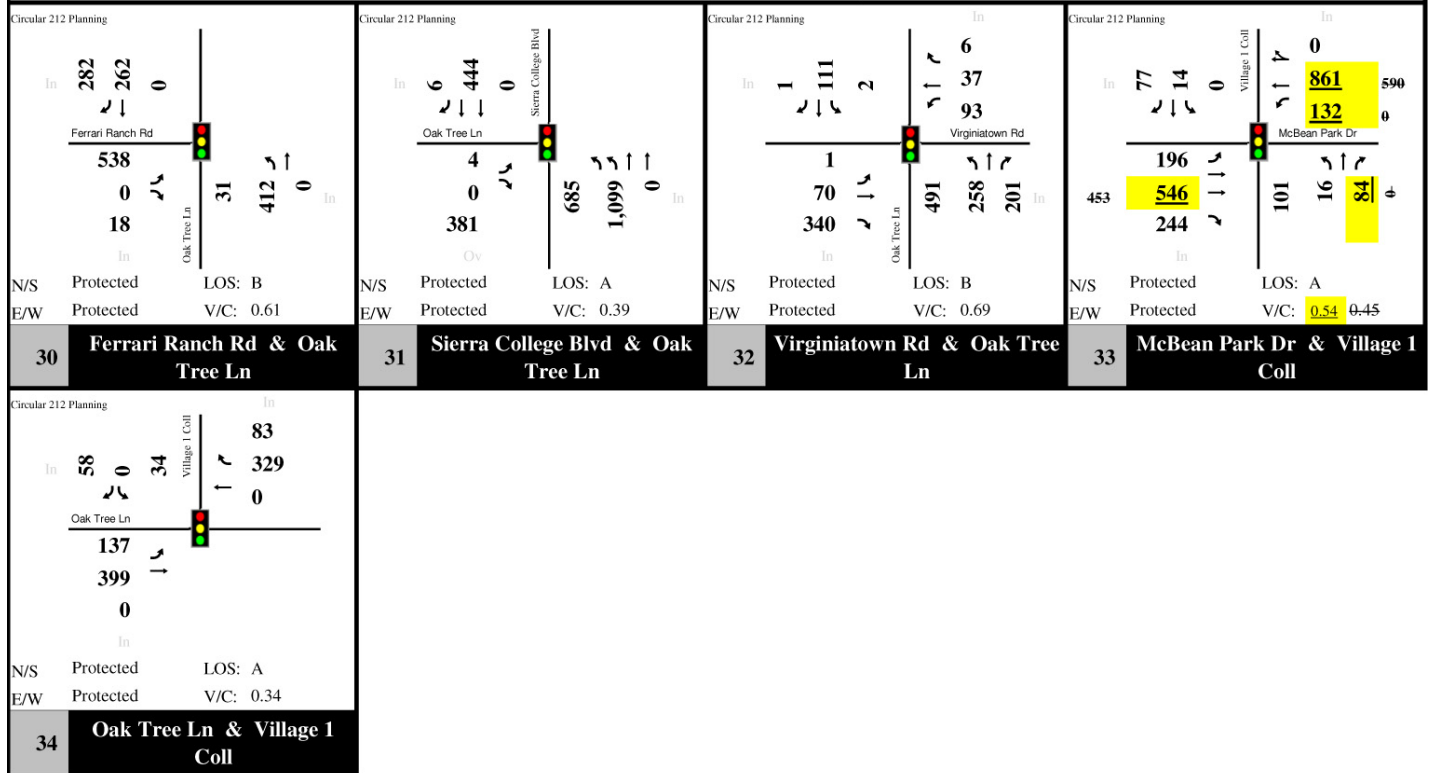


Source: DKS Associates, 2011.

Figure 4.14-12c [Revised]

2030 Plus Village 1 Buildout Intersection Volumes, Geometries, and LOS

Intersections Added With Village 1

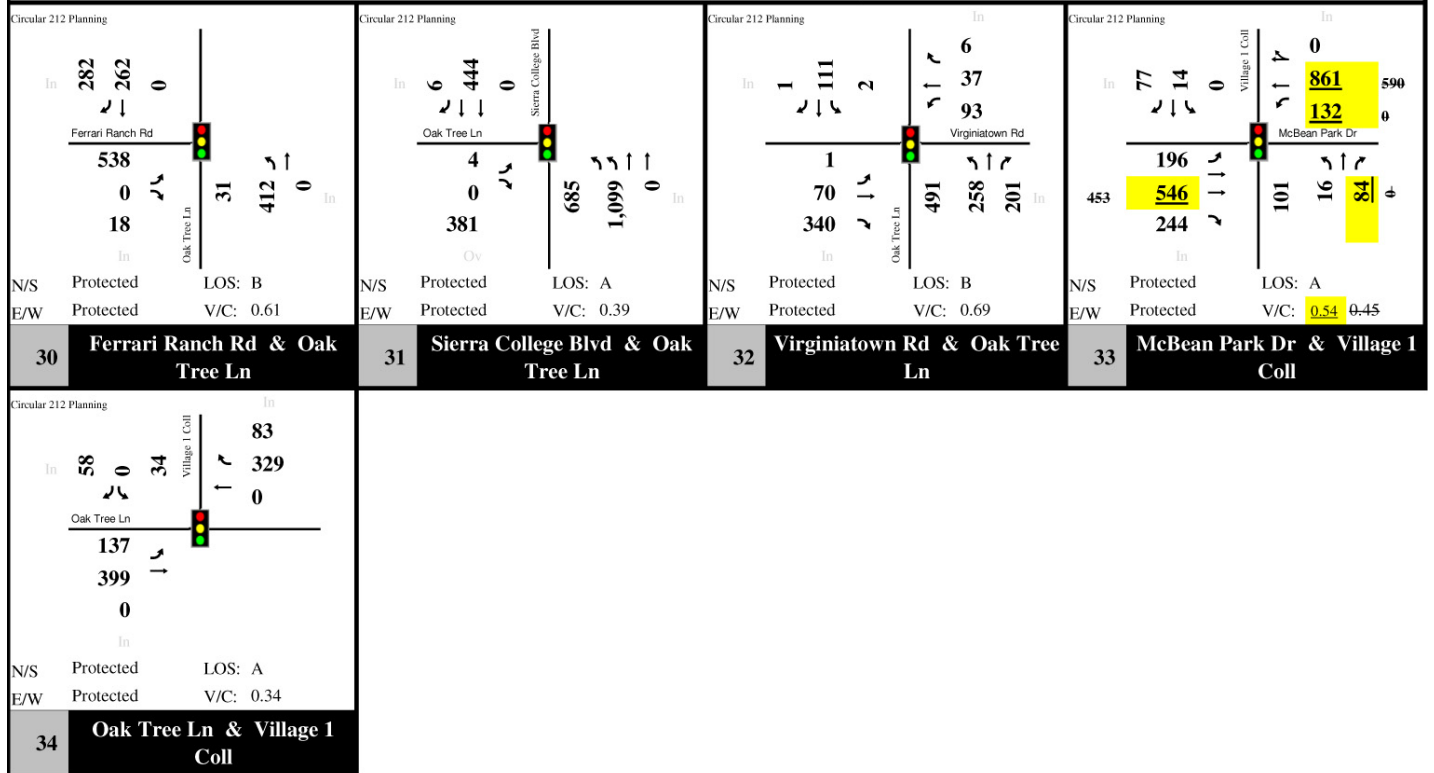


Source: DKS Associates, 2011.

Figure 4.14-14c [Revised]

2050 Plus Village 1 Buildout Intersection Volumes, Geometries, and LOS

Intersections Added With Village 1

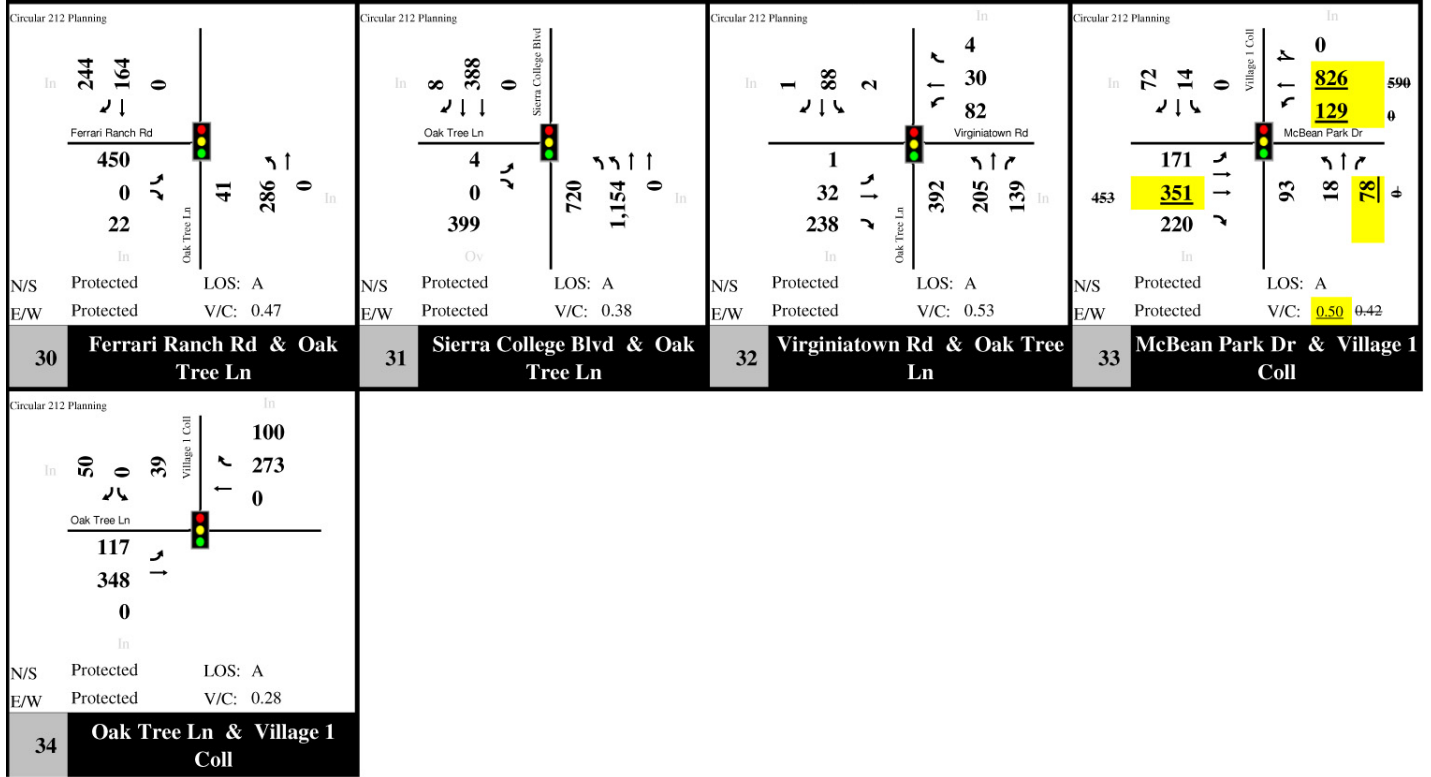


Source: DKS Associates, 2011.

Figure 4.14-14c [Revised]

2050 Plus Village 1 Buildout Intersection Volumes, Geometries, and LOS

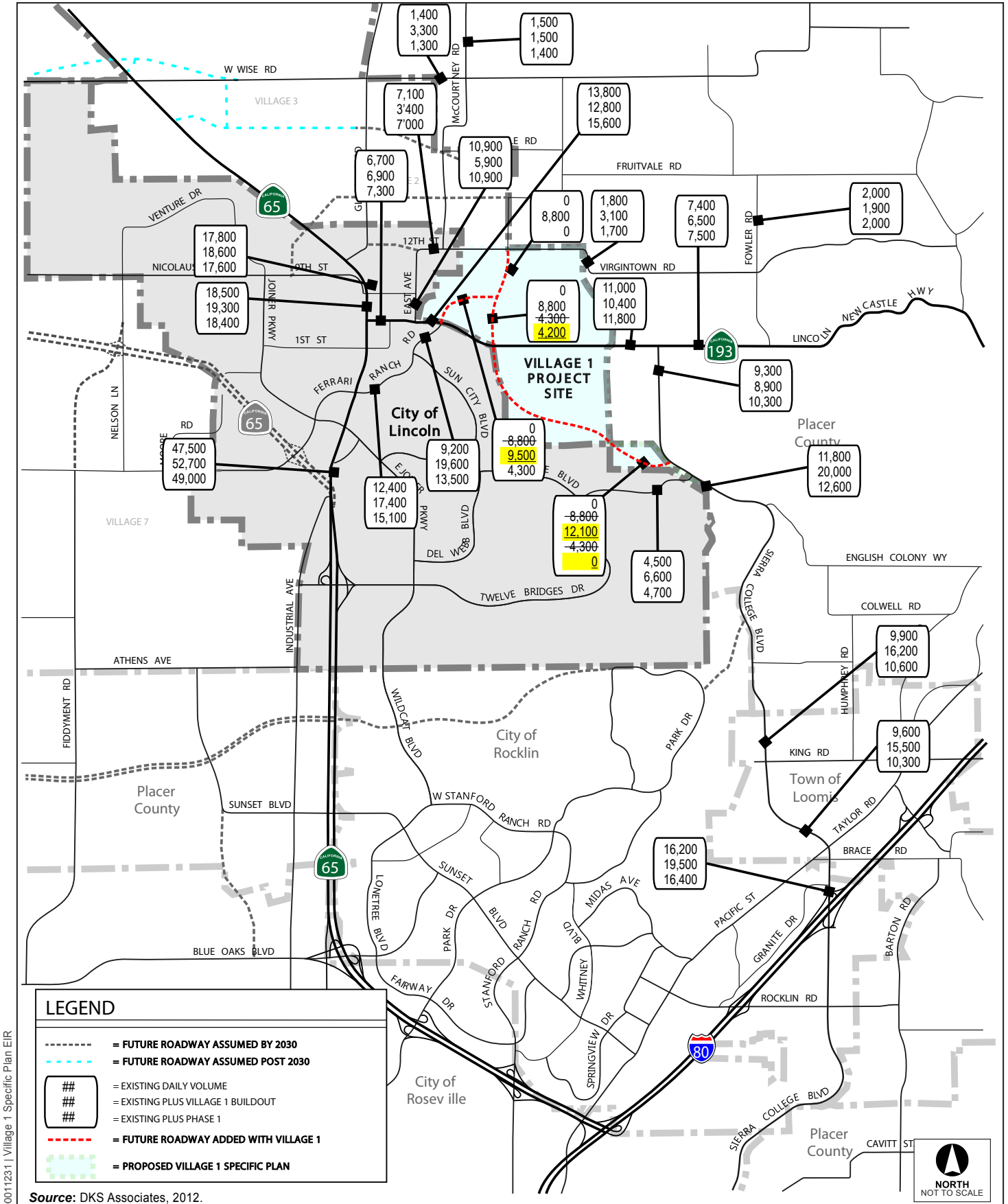
Intersections Added With Village 1



Source: DKS Associates, 2011.

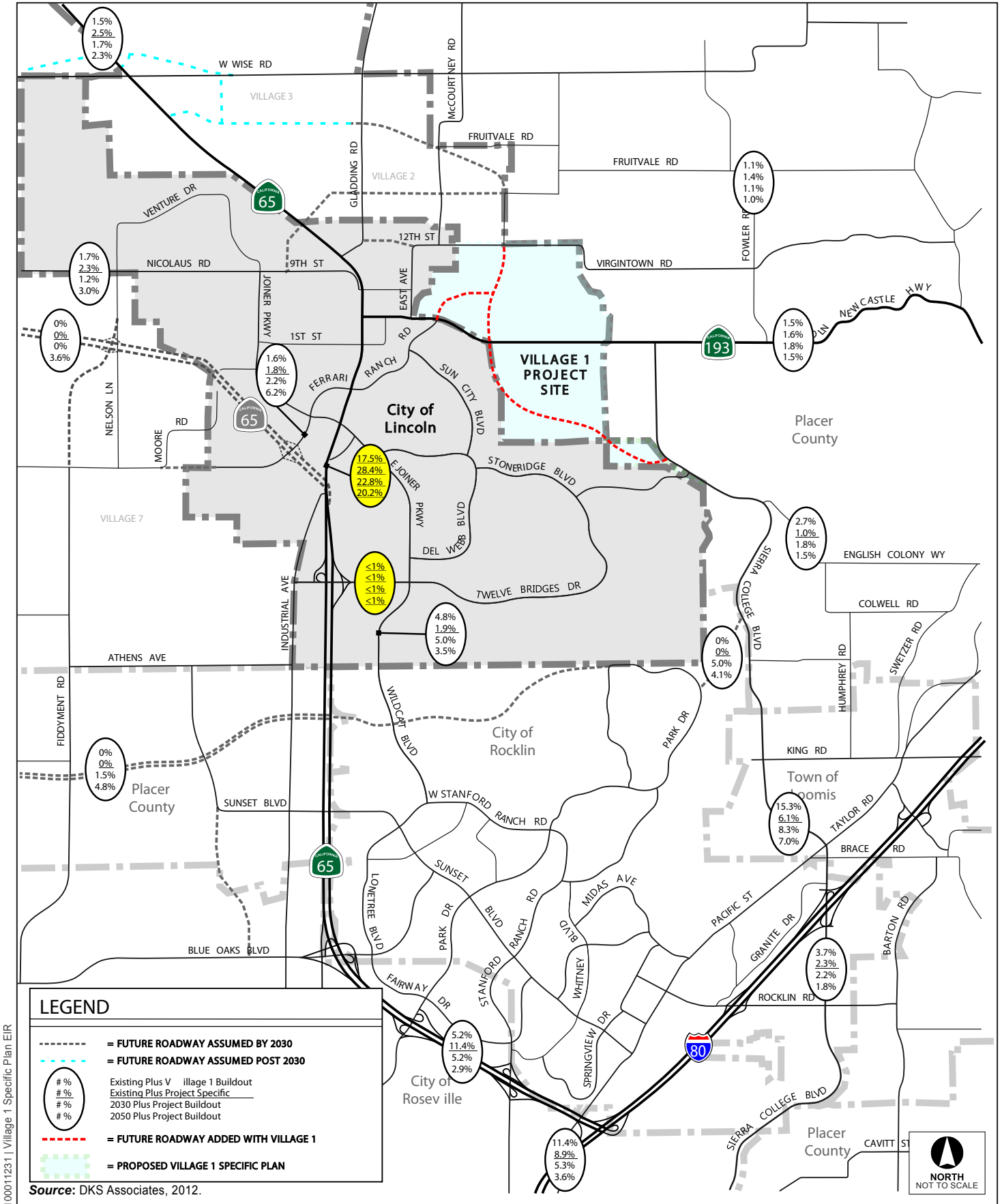
Figure 4.14-12c [Revised]

2030 Plus Village 1 Buildout Intersection Volumes, Geometries, and LOS



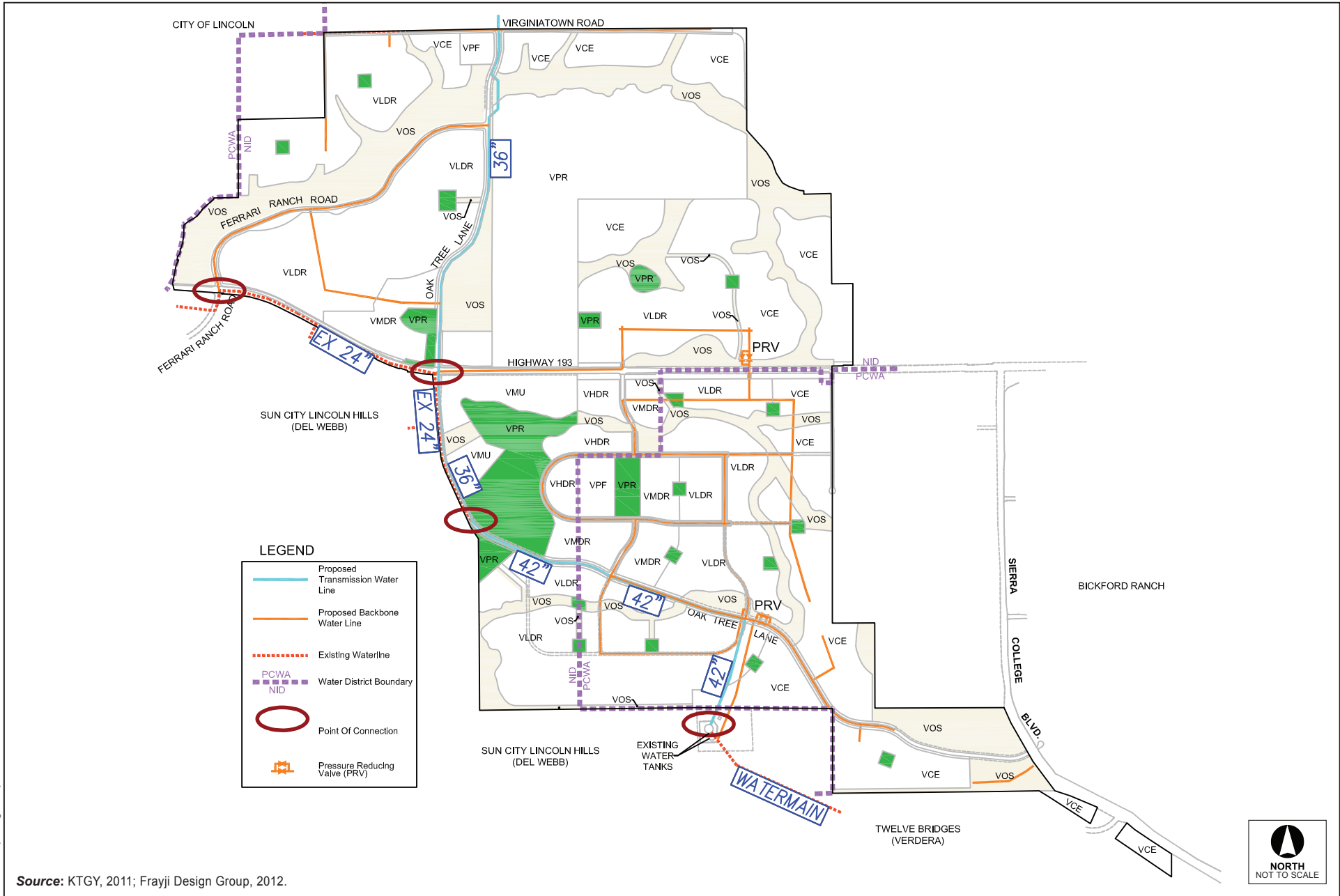
100011231 | Village 1 Specific Plan EIR

Figure 4.14-9 [Revised]
Existing Plus Project Daily Traffic Volumes



100011231 | Village 1 Specific Plan EIR

Figure 4.14-6 [Revised]
Estimated Project Trip Distribution



LEGEND

- Proposed Transmission Water Line
- Proposed Backbone Water Line
- Existing Waterline
- Water District Boundary
- Point Of Connection
- Pressure Reducing Valve (PRV)

Source: KTG, 2011; Frayji Design Group, 2012.

Figure 2-6 [Revised] Water System



3. LIST OF COMMENTERS

3. LIST OF COMMENTERS

INTRODUCTION

Sixteen letters commenting on the Draft EIR were received during the public review period. The letters can be found in Chapter 4, along with responses to the letters, in the order shown below.

LIST OF COMMENTERS

Agencies

1. Gary Arnold, Chief, District 3 Office Of Transportation Planning North, Caltrans
2. James Herota, Senior Environmental Scientist, Central Valley Flood Protection Board
3. Genevieve Sparks, Environmental Scientist, Central Valley Regional Water Quality Control Board
4. Gary D. King, PE, Chief Engineer, Nevada Irrigation District
5. Angel Green, Associate Planner, Placer County Air Pollution Control District
6. Phillip A. Frantz, Engineering & Surveying Department, Placer County
7. Laura Rath, REHS, Environmental Health Services, Placer County
8. Andrew Darrow, P.E., CFM, Placer County Flood Control And Water Conservation District
9. Sherri Abbas, Community Development Director, City Of Rocklin
10. Heather Steer, Facilities Planner, Western Placer Unified School District
11. Chris Hanson, Senior Planner, Western Placer Waste Management Authority

Individuals And Organizations

12. Jeremy Bernau, President, Bernau Development Corporation
13. Jim Cutler
14. Richard Ryan
15. Richard Ryan (second letter)
16. John Williams, Chairman, Lincoln Open Space Committee

4. COMMENTS AND RESPONSES

DEPARTMENT OF TRANSPORTATION

703 B STREET
MARYSVILLE, CA 95901
PHONE (530) 741-4004
FAX (530) 741-4111



*Flex your power!
Be energy efficient!*

June 18, 2012

032012-PLA0023
SR193/PM0.694-3.0
SCH# 2010102018

Mr. Rodney Campbell
City of Lincoln
600 Sixth Street
Lincoln, CA 95648

Dear Mr. Campbell:

Village 1 Specific Plan – Draft Environmental Impact Report

Thank you for continuing to include the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. As the lead agency, the City of Lincoln (City) is responsible for all project mitigation, including any needed improvements to State highways. The project’s fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. The following comments are based on the Draft Environmental Impact Report (DEIR).

1-1

Consultation on Traffic Impact Study (TIS) Scope of Work

Caltrans was not given the opportunity to participate in the preparation, and/or review of the scope of work of the TIS as requested in the Notice of Preparation response letter dated November 10, 2010 as well as the Notice of Preparation Addendum letter dated April 4, 2011. We reiterate our request for consultation to address the issues identified in this letter. In the future, we encourage the City to allow us the opportunity to review TIS scopes of work so as to ensure the capture of necessary state transportation facilities from the outset of each study. Ultimately, this may save staff time and applicant costs by avoiding otherwise unnecessary revisions.

1-2

General Comments on TIS

For analyzing traffic added to state facilities, a near-term analysis (Existing Plus All Approved Projects [EPAP]) with and without Phase 1 is needed. The analysis should take into account all approved projects and programmed improvements anticipated to be in place at the time of these scenarios. All assumptions should be stated in the report. The near-term and future scenarios should include analysis of the State Route (SR) 65 Bypass ramp intersections with Ferrari Ranch Road and Industrial Blvd.

1-3

Generally, we disagree with the level of service (LOS) calculations for several intersections as provided in the Traffic Impact Study. For example, the Traffix data sheets show LOS C for the SR-65/Twelve Bridges Road southbound ramp intersection in the 2030 No Project scenario. With a vehicle-to-capacity (v/c) ratio of 0.89 (LOS D) and a vehicle queue of 525 feet in the eastbound direction, the excessive queuing shown in the results is not representative of LOS C operations. In the 2030 Plus Project scenario, the v/c ratio increases to 0.93 (LOS E) and the queue increases to 650 feet. In each scenario, access to the left turn lane onramp is blocked. This is a potentially significant impact to highway operations. We also disagree with the LOS analysis for the SR-193/Sierra College Blvd intersection. In-house calculations show that this intersection operates at LOS D versus the reported LOS C under Existing Conditions, and at LOS F versus the reported LOS D for the Existing Plus Phase 1 condition.

1-4

One factor for these discrepancies may be accounting for truck traffic. Truck traffic is not addressed in the DEIR and does not appear to be included in the analysis shown on the Traffix data sheets in the TIS. Large volumes of truck traffic originate, terminate and pass through the city along SR-65 and SR-193. Please modify the study to account for truck traffic. Calculations for SR-193 should use a minimum of 9% for AM peak hours and 5% for PM peak hours. For calculations involving SR-65 including the segment south of Ferrari Ranch Road, please apply a 13% heavy vehicle factor for AM Peak hours, and 5% for PM Peak hours. Truck data for Segment 2 of SR-193 shows a vehicle annual average daily trip (AADT) total of 9,700 with truck AADT of 910, for a truck percentage total of 9.38. This segment is used by trucks heading to/from Sierra Pacific Lumber Mill or as a short cut to the Marysville/Yuba City area. There are no current truck restrictions along SR-193 and none are anticipated once the SR-65 Bypass is operational.

1-5

In addition to the lack of truck traffic in the analysis, lane assumptions in the study may account for the difference. For example, please ensure the study reflect that the SR-193/Sierra College Boulevard intersection is coded as two lanes for the northbound approach. This is a single-lane, flared approach. It does not have a separate through/right turn lane. Please see below for additional comment under Future Scenarios.

1-6

Moreover, it appears that the study's queuing analysis applies the median queuing factor (50th percentile). Please modify the study to use a 95th percentile queue analysis. On these points, it should be noted that all calculations for state owned facilities should assume a peak hour factor (PHF) no greater than 0.90, final saturation flow rates no greater than 1,700 vehicles per hour (vph) and truck percentages should be included. Justification must be provided for using less conservative values.

1-7

Please modify the TIS and DEIR to include the SR-193/Oak Tree Lane intersection, and the Village 1 Collector/Sierra College Boulevard intersection for all scenarios in the analysis.

1-8

In addition to the above, we have identified the following specific issues:

Project Trip Distribution

In Figure 4.14-6—Estimated Project Trip Distribution, please provide trip percentages at Ferrari Ranch Road northeast of the SR-65 Bypass/Ferrari Ranch Road Interchange, Old SR-65 north of the

1-9

SR-65 Bypass/Industrial Blvd Partial Interchange, and Twelve Bridges Road, east of the SR-65/Twelve Bridges Road Interchange.

↑ 1-9
cont.

Analysis Scenarios Including Village 1

Village 1 is primarily a residential project. There are distinct AM and PM traffic peaks associated with this type of development. SR-193 is a commuter route, so both AM and PM peak traffic from Village 1 will have impacts on traffic throughputs on this highway. The AM peak must be analyzed for all intersections that include State facilities, particularly that of SR-193/Oak Tree Lane (the west approach is a State facility), Village 1 Collector/Sierra College Boulevard. SR-65 Bypass ramp intersections with the Ferrari Ranch Road Interchange and the Industrial Boulevard Partial Interchange will also need to be analyzed.

1-10

Significant volume imbalances can be found for all “Plus Village1 Buildout” scenarios. The most significant ones appear to occur between intersections #16, #33 and #21. For example, in the 2030 Plus Project scenario, there is a loss of -558 vph between intersections #21 and #33 in the westbound direction. Yet, there is a gain of +412 vehicles between intersection #33 and intersection #16. Unless there is a valid justification for these imbalances, the LOS calculations and segment analysis for these scenarios are not adequate.

1-11

The Existing + Village 1 scenario did not include the SR-65 Bypass, which is expected to be operational by the end of this year. The analysis has assumed four lanes on SR-193 from Intersection #15 Ferrari Ranch to #33 Village 1 Collector. According to the SR-193 Transportation Corridor Concept Report, this segment of SR-193 is planned to be widened to four lanes. However, this project is neither programmed nor funded. Unless this project is included in the City’s/Placer County’s Capital Improvement Program, it should not be assumed for any of the existing scenarios, including the requested EPAP scenario.

1-12

Future Scenarios

In the discussion on Future Roadway Assumptions, last paragraph, the DEIR states that “there is an agreement between Caltrans and the City....that Lincoln would gain jurisdiction over (SR-193/McBean Park Drive) within the City’s sphere of influence.” The only agreement that has been recorded is California Transportation Commission Resolution No. R-3781, dated January 20, 2011. Per this Resolution, SR-193 is to be relinquished from the junction of Old SR-65 in the downtown area to the current city limits (Oak Tree Lane). Until a subsequent agreement is recorded, the DEIR should assume that SR-193 east of the current city limits remains in State jurisdiction, and it should be analyzed accordingly.

1-13

Consistent with the discussion above on lane assumptions, we note that on page 4.14-44—Roadway Assumptions—2030 and 2050, the DEIR states that four lanes are assumed on SR-193 from East Avenue to west of Sierra College Boulevard. However, the technical calculations on the TIS assume two lanes for some intersections and four lanes at other intersections. Please modify the analysis to be consistent with the assumptions used.

1-14

For Figures 4.14-11a—2030 No Project and 4.14-13a—2050 No Project, please explain why westbound mainline traffic decreases from these two analysis years between intersection #21 (Sierra College Boulevard) and #16 (Oak Tree Lane). Intersection #16 does not assume a northbound

1-15
↓

approach in 2030, but it does in 2050. Considering that these are No Project scenarios, please account for the difference or modify the analysis. Also, for Figure 4.14-14b Intersection #21, please explain why eastbound through traffic decreases between 2030 No Project and 2050 No Project. If, for example, new roadways are assumed that would divert the eastbound through traffic east of Sierra College Boulevard, please specify this.

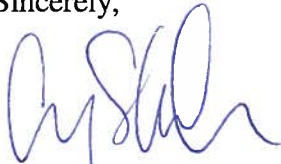
↑
1-15
cont.

On Page 4.14-62—2030 Conditions, the DEIR states that “the addition of Village 1 traffic and new roadways would lessen volumes on the Lincoln-Newcastle Highway (formerly SR-193) west of Sierra College Boulevard.” This statement is not supported by the volumes provided on Figures 4.14-11 and 4.14-12. The addition of Village 1 increases volumes almost by 50% between Ferrari Ranch Road and Oak Tree Lane, and by 15% between Oak Tree Lane and Intersection #33 (Village 1 Collector). It is possible that volumes will decrease for the ½ segment just west of Sierra College Boulevard, but will increase for the remaining 1.9-mile segment east of Ferrari Ranch Road. Please modify the analysis accordingly.

↑
1-16

Please call me at the telephone number above, or Dianira Soto of my staff at (530) 740-4905 to establish consultation regarding the analysis or for any questions. You may also email inquiries to: dianira_soto@dot.ca.gov

Sincerely,



GARY ARNOLD, Chief
District 3 Office of Transportation Planning North

c: Scott Morgan, State Clearinghouse

LETTER 1: GARY ARNOLD, CHIEF, DISTRICT 3 OFFICE OF TRANSPORTATION PLANNING NORTH, CALTRANS

Response 1-1: Comment noted.

Response 1-2: Comment noted. It is not the City's practice to share the traffic scope of work with other agencies. However, the City welcomes comments on the scope of the EIR analysis through the Notice of Preparation process. The traffic analyst used the methods recommended in the Caltrans Traffic Impact Study Guidelines to evaluate the project impacts on State facilities. In addition, Caltrans had access to the full analysis in the Draft EIR, and responses to Caltrans comments are provided below.

Response 1-3: The traffic analysis scenarios, described on page 4.14-1, the Draft EIR analyzes four scenarios. As required by CEQA, the existing conditions are described, and the impacts of the project on existing conditions are then analyzed. In the case of Village 1, two "Existing plus Project" scenarios are analyzed—Phase 1, because site-specific approvals are being sought for Phase 1, and it would build only part of the Specific Plan roadway network, and Existing plus Specific Plan, in order to fully examine the full effects of the project. This analysis is consistent with the CEQA Guidelines and recent case law, which require that impacts be analyzed in the context of existing conditions, rather than the conditions presumed to exist in the near future or when the project opens. The effects of the project in combination with approved projects are captured in the cumulative analysis, which was conducted for two periods—2030 and 2050 (General Plan buildout).

Response 1-4: As recommended by the Caltrans Traffic Impact Study Guidelines, DKS used the Highway Capacity Manual (HCM) 2000 methodology using TRAFFIX software. Unlike Critical Movement methodologies such as Circular 212 (which base LOS on critical volume to capacity ratio), HCM bases LOS determination on vehicle delay. For signalized intersections, LOS is based on average delay (in seconds) for all vehicles entering the intersection.

There was an error in the Draft EIR analysis of the Twelve Bridges Drive/SR 65 interchange. For the 2030 analysis, the Draft EIR assumed the two interchange intersections would have the same geometrics as existing conditions. The Lincoln General Plan designates Twelve Bridges Drive as a six-lane facility from Industrial Avenue to east of SR 65 under cumulative conditions. This widening is also assumed in the Village 7 EIR. Updating the analysis to include six lanes on Twelve Bridges Drive would decrease the critical v/c ratio, as well as eliminate the queues mentioned in the comments.

While there is a flared northbound approach on Sierra College Boulevard at SR 193 where some right-turning vehicles can pass left-turning vehicles to make their right turn, it is appropriate to analyze this approach as a one-way approach. This location has been modified in the model to represent a one-lane northbound approach. Revised calculations yield LOS C for existing conditions, LOS D for Existing plus full Specific Plan conditions, and LOS E for Existing plus Phase 1. The results of these revisions are documented in Revised Table 4.14-2 and Revised Table 4.14-9 in Chapter 2, Draft EIR Errata and Modifications, and shown below:

Intersection		LOS		Without Project		Plus Village 1 Buildout		Existing Plus Phase I	
		Methodology	Policy	Int LOS	Avg Delay	Int LOS	Avg Delay	Int LOS	Avg Delay
Existing Conditions (Table 4.14-2)									
21	SR 193 & Sierra College Boulevard	2000 HCM 4-Way Stop	E	C	18.7 22.4				
Existing plus Project (Table 4.14-9)									
21	SR 193 & Sierra College Boulevard	2000 HCM 4-Way Stop	E	C	18.7 22.4	D	26.8 23.4	D E	26.5 35.2

Because the standard for this intersection is LOS E, this modification would not be considered substantial, and no changes to the Draft EIR conclusions or mitigation are needed.

Response 1-5: The traffic analysis has been updated to assume 5% truck traffic on SR 65 and SR 193 during the PM peak hour. The resultant LOS is included in updated tables. While LOS and average vehicle delays are slightly different with this correction, no intersections would degrade substantially. The updated LOS and delays are documented in Revised Table 4.14-2, Revised Table 4.14-8, and Revised Table 4.14-9 in Chapter 2, Draft EIR Errata and Modifications.

Response 1-6: See Response 1-4.

Response 1-7: As indicated by the Caltrans Traffic Impact Study Guidelines, the traffic analysis used HCM 2000 and reported average vehicle delay at signalized intersections. Queue estimates in TRAFFIX output were not used as part of the analysis.

Peak hour factors of less than 1.00 were used based on traffic count data. Caltrans Traffic Impact Study Guidelines do not specify using peak hour factors (PHF) of “no greater than 0.90”. The City and the traffic consultant are not familiar with this requirement.

Caltrans Traffic Impact Study Guidelines do not specify utilizing “final saturation flow rates of no greater than 1,700”. The City and the traffic consultant are not familiar with this requirement. Saturation flow rates of 1,900 were used, consistent with HCM 2000 default values.

Response 1-8: SR 193/Oak Tree Lane is included in all analysis scenarios as Intersection #16. The only Village 1 roadway that intersects Sierra College Boulevard is Oak Tree Lane, which is represented by Intersection #31.

Response 1-9: These locations have been added to Revised Figure 4.14-6, which is provided in Chapter 2, Draft EIR Errata and Modifications.

Response 1-10: The Draft EIR evaluated only PM peak hours at intersections, because the City LOS policy is based on the PM peak hour. However, Caltrans does also consider traffic operations in the AM peak hour. Therefore, AM peak hour analysis has been conducted for State facilities, including the existing SR 65/ Twelve Bridges and I-80/ Sierra College Boulevard interchanges, as well as AM and PM peak hour analysis for the future SR 65 Bypass/ Ferrari Ranch and SR 65/ Industrial interchanges. No new impacts have been identified based on this

analysis. SR 193/Oak Tree Lane has not been analyzed during the AM peak hour, because it would be annexed by Lincoln with the development of Village 1. Table A shows the AM peak hour results for existing conditions. Table B shows AM peak hour results for 2030 and 2050 conditions, and Table C shows additional PM peak hour results for 2030 and 2050 conditions. As shown in those tables, all of the study intersections are projected to operate at acceptable levels except for SR 193/Sierra College Boulevard, which would operate at LOS F under 2050 conditions without the project. With the addition of Village 1 traffic and circulation improvements (particularly the extension of Oak Tree Lane to Sierra College Boulevard), this intersection would operate at LOS B.

Response 1-11: A volume “post-processing” error was found in the calculations of volumes at Intersection #33. This error has been corrected and no LOS changes result from this correction. The results of this correction are displayed in Revised Figure 4.14-12c and Revised Figure 4.14-14c in Chapter 2, Draft EIR Errata and Clarifications.

Response 1-12: The SR 65 Bypass was not open at the time that the NOP was circulated, and is not yet open. Therefore, for the reasons discussed in Response 1-3, it was not included in the existing conditions analysis. The Bypass is assumed in the 2030 and 2050 analyses.

SR 193 is proposed to be widened as part of the project, and is therefore appropriately included in the “with project” analyses. The City would amend the PFE to include this improvement if and when the Village 1 Specific Plan is approved.

Response 1-13: The City proposes to annex SR 193 to the City as the adjacent lands are annexed, which is consistent with the approach agreed to between Caltrans and the City for the annexation of SR 193 to from SR 65 to the current City limits. The comment is correct that the agreement with Caltrans would need to be revised to allow for SR 193 to be annexed to the City to the eastern boundary of Village 1.

Response 1-14: Intersection #33 was inadvertently included in the without-project scenarios in the technical appendix, and showed one lane in each direction. This intersection would not exist without the proposed project.

Response 1-15: Between Sierra College Boulevard and Oak Tree Lane, westbound volume would decrease with development of Village 1 as follows:

- 2030: 1,037 to 1,018
- 2050: 1,154 to 1,142

These differences are quite small and are attributed to one small roadway and centroid connectors along SR 193 (McBean Park Drive).

For 2050 conditions, portions of Village 2 (in the Lincoln SOI expansion area north of Village 1) are assumed to be developed. Based on discussions with City of Lincoln staff, Oak Tree Lane north of McBean Park Drive has been assumed in the 2050 without project case because it is a required roadway to provide reasonable access to Village 2. It would not make sense to develop Village 2 without access via Oak Tree Lane. Since Village 2 development is assumed in 2050, but not 2030, this roadway is also assumed in 2050, but not 2030 no project conditions.

ID	Location		AM Peak Hour					
			Existing		Existing Plus Phase 1		Existing Plus Village 1 Buildout	
ID	Location		LOS	Delay	LOS	Delay	LOS	Delay
19	Twelve Bridges Dr	SR 65 N/B Ramps	A	6.7	A	6.9	A	7.1
20	Twelve Bridges Dr	SR 65 S/B Ramps	B	11.7	B	11.7	B	12.1
21	SR 193	Sierra College Blvd	B	0.38	B	0.39	A	0.32
28	Sierra College Blvd	I-80 W/B Ramps	B	15.1	B	15.1	B	15.1
29	Sierra College Blvd	I-80 E/B Ramps	B	10.5	B	10.5	B	10.4

ID	Location		AM Peak Hour							
			2030 No Project		2030 Plus Project		2050 No Project		2050 Plus Project	
ID	Location		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
19	Twelve Bridges Dr	SR 65 N/B Ramps	C	23.7	C	23.4	C	31.9	C	31.4
20	Twelve Bridges Dr	SR 65 S/B Ramps	B	14.3	B	15.6	B	15.8	B	15.4
21	SR 193	Sierra College Blvd	C	0.73	B	0.51	F	1.22	B	0.46
28	Sierra College Blvd	I-80 W/B Ramps	C	20.7	C	20.6	C	20.7	C	20.6
29	Sierra College Blvd	I-80 E/B Ramps	C	29.8	C	29.9	C	29.8	C	29.9
41	SR 65 Bypass NB	Ferrari Ranch Rd	C	21.9	C	20.6	C	26.5	C	26.8
42	SR 65 Bypass SB	Ferrari Ranch Rd	B	12.5	B	12.0	C	25.2	C	26.9
43	SR 65 NB	Industrial/Lincoln	C	26.3	D	39.7	D	39.1	E	61.3
44	SR 65 SB	Industrial/Lincoln	A	2.8	A	2.9	A	3.9	A	4.4

ID	Location		PM Peak Hour							
			2030 No Project		2030 Plus Project		2050 No Project		2050 Plus Project	
ID	Location		LOS	Delay	LOS	Delay	LOS	V/C	LOS	V/C
41	SR 65 Bypass NB	Ferrari Ranch Rd	C	0.91	C	0.89	C	0.83	C	0.85
42	SR 65 Bypass SB	Ferrari Ranch Rd	A	0.43	A	0.41	B	0.64	B	0.65
43	SR 65 NB	Industrial/Lincoln	C	0.75	C	0.85	C	0.72	C	0.78
44	SR 65 SB	Industrial/Lincoln	C	0.76	C	0.87	C	0.83	C	0.90

Response 1-16: The comment is correct. The decrease is for the segment between Village 1 Collector and Sierra College Boulevard, which is the description of the segment “west of Sierra College Boulevard”.

CENTRAL VALLEY FLOOD PROTECTION BOARD

3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682



July 9, 2012

Mr. Rod Campbell
City of Lincoln
600 6th Street
Lincoln, California 95648

Subject: Village 1 Specific Plan
SCH Number: 2010102018
Document Type: Environmental Impact Report

Dear Mr. Campbell:

Staff of the Central Valley Flood Protection Board (Board) has reviewed the subject document and provides the following comments:

The proposed project is located within the regulated area(s) or stream(s), the Auburn Ravine Creek, which is under the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);
- Existing structures that predate permitting or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);
- Vegetation plantings will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection, and flood fight procedures (CCR Section 131).

2-1

Mr. Rod Campbell
July 9, 2012
Page 2 of 2

Vegetation requirements in accordance with Title 23, Section 131 (c) states "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

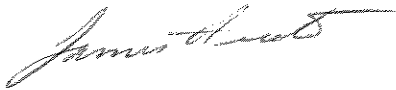
The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to federal and State agency requirements for on-site mitigation within the floodway.

Hydraulic Impacts - Hydraulic impacts due to encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The Project should include measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at <http://www.cvfpb.ca.gov/>. Contact your local, federal and State agencies, as other permits may apply.

If you have any questions, please contact me by phone at (916) 574-0651, or via email at jherota@water.ca.gov.

Sincerely,



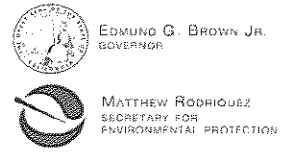
James Herota
Staff Environmental Scientist
Flood Projects Improvement Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

2-1
cont.

LETTER 2: JAMES HEROTA, STAFF ENVIRONMENTAL SCIENTIST, CENTRAL VALLEY FLOOD PROTECTION BOARD

Response 2-1: Comment noted. The proposed project must obtain applicable permits for any all construction work, including construction occurring within the designated floodway of Auburn Ravine.



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

5 June 2012

Rod Campbell
City of Lincoln
600 6th Street
Lincoln, CA 95648

CERTIFIED MAIL
7011 2970 0003 8939 5901

COMMENTS TO THE DRAFT ENVIRONMENTAL IMPACT REPORT, VILLAGE 1 SPECIFIC PLAN PROJECT, SCH NO. 2010102018, PLACER COUNTY

Pursuant to the State Clearinghouse's 8 May 2012 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Draft Environmental Impact Report* for the Village 1 Specific Plan Project, located in Placer County.

3-1

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

3-2

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

1

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

3-3

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

3-4

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

3-5

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

3-6

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

If you have questions regarding these comments, please contact me at (916) 464-4745 or gsparks@waterboards.ca.gov.



Genevieve (Gen) Sparks
Environmental Scientist
401 Water Quality Certification Program

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

LETTER 3: GENEVIEVE SPARKS, ENVIRONMENTAL SCIENTIST, CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

Response 3-1: Comment noted.

Response 3-2: The comment provides information on the Construction General Permit, which is required of projects that would disturb more than one acre. The proposed project would disturb over one acre, so it would be subject to the Construction General Permit. As discussed on pages 4.8-41 and 4.8-45 of the Draft EIR, the proposed project must implement a number of measures to reduce construction impacts on water quality. In addition, as part of the Construction General Permit, the proposed project will prepare a Stormwater Prevention Pollution Plan (SWPPP).

Response 3-3: The comment provides information on the MSR Permit process. As discussed on pages 4.8-20 and 4.8-21 of the Draft EIR, the City is subject to the conditions of the MSR Phase 2 General Permit, so the proposed project must comply with these conditions. Toward that end, the proposed project will incorporate best management practices (BMPs) and low impact development measures (LIDs) to minimize degradation of water quality.

Response 3-4: The comment provides information on the Industrial Stormwater Permit. The proposed project does not include any industrial operations, so it is not subject to this permit.

Response 3-5: The comment provides information on the 404 and 401 permit processes of the Clean Water Act. As discussed on page 4.4-26 of the Draft EIR, there are wetlands within the plan area, and the proposed project must obtain Section 404 permits prior to filling these wetlands. As shown on page 2-24, the Regional Water Quality Control Board is a responsible agency because of its role in the 401 certification and NPDES processes.

Response 3-6: The comment provides information on the Waste Discharge Requirements (WDR). The proposed project is required to obtain all applicable permits, including permits related to discharge to local drainages.



NEVADA IRRIGATION DISTRICT

1036 W. Main Street, Grass Valley, CA 95945-5424 ~ www.nidwater.com
(530) 273-6185 ~ Fax: (530) 477-2646 ~ Toll Free: (800) 222-4102

June 22, 2012

Rod Campbell, Director
City of Lincoln Development Services Department
600 Sixth Street
Lincoln, CA 95648

RE: Nevada Irrigation District's Response to Draft EIR for the Village 1
Specific Plan (SCH: 2010102018)

Dear Mr. Campbell,

We appreciate the opportunity to review the above-referenced Draft Environmental Impact Report (EIR). We have found numerous areas that have not stated the significant efforts by the City of Lincoln and Nevada Irrigation District to provide treated water in the District's approved service areas in Lincoln.

Our responses are outlined on the following pages.

We would appreciate discussing these issues with your prior to future CEQA action on this project.

Thank You,

Gary D. King, PE
Chief Engineer

4-1

GDK/cp
Enclosure

NID submits the following comments regarding the Draft EIR for the Village 1 Specific Plan:

GENERAL

For clarity, all figures that reference water supplies, water demands, or water infrastructure should include representation of the NID exterior boundary.

4-2

I. CHAPTER 2.0 PROJECT DESCRIPTION

1. Page 2-13 Water

This section should include an outline of the current temporary water supply from PCWA and the anticipated future water supply from Nevada Irrigation District through Lincoln from the Regional Water Treatment Facility.

4-3

2. Page 2-17: Drainage

The Project shall not use Nevada Irrigation District's irrigation canals for any drainage system needs.

4-4

3. Page 2-24: Responsible and Trustee Agencies

In addition to the responsibilities listed for NID, add the responsibility for providing wholesale treated water to a portion of the project. Revise the fifth bullet as follows:

- "Nevada Irrigation District (NID) for providing wholesale treated water, for any modifications to their existing or future irrigation facilities such as canals, and for provision of irrigation water, all within the NID boundary."

4-5

For clarity and consistency, the bullet identifying PCWA as a responsible agency should be completed by adding a statement identifying PCWA responsibilities.

II. CHAPTER 4.0 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

1. Page 4.6-5: Surface Water Reliability

The document only discusses PCWA surface water reliability and it should also discuss NID's reliability since water supplies are to be from the District for this area. **Public Utilities**

4-6

2. Page 4.13-2: Historic Water Supplies

Historically, NID surface water has been provided to the NID service area within the City of Lincoln. Revise the first sentence of the first paragraph as follows:

"The City's water supplies have historically been provided from treated surface water from PCWA, and surface water from NID that is treated by PCWA."

4-7

3. Page 4.13-2: Water Supplies and Entitlements

This section provides an insufficient description of the relationship of NID to this project. A portion of Village 1 within the NID boundary is entitled to its prorated share of NID water. At a minimum add the following paragraph under this main heading to provide context for the subsections that follow. Also, add a new figure that clearly shows the NID boundary and service area with respect to the Village 1 Specific Plan.

4-8

"PCWA is a county wide water agency in Placer County. NID is a multicounty water district with approximately one third of its area in Placer County. Both agencies have perfected water rights. In 2005, NID and PCWA entered into a Service Area Agreement to avoid duplication of services and infrastructure, place their respective water resources to efficient use, and to protect each party's water rights. Approximately 70 percent of the Village 1 Specific Plan, including the

Turkey Creek Golf Course, is within the NID boundary and entitled to its prorated share of NID water. The balance of the Village 1 Specific Plan is within the area served by PCWA. The service area boundary between PCWA and NID with respect to the Village 1 Specific Plan is shown on Figure 4.13-1.

4-8
cont.

(Provide new figure for clarity.)

4. Page 4.13-3: Nevada Irrigation District (NID)

Again, this is an insufficient description of the relationship of Nevada Irrigation District with this project. At a minimum please add the following sentence after the first sentence in the first paragraph:

4-9

"Figure 4.13-1 shows that portion of the project that is within the NID boundary and will receive NID water."

5. Page 4.13-4: Water Treatment

The subsection "Placer County Water Agency" under "Water Treatment", discusses future PCWA water treatment facilities and raw water facilities that will provide multiple water sources for that area of the Village 1 Specific Plan that is within the PCWA service area. The desire for multiple water sources is outlined in the City's comprehensive plan. It appears that these needs are not indicated within this section or other section of the EIR.

NID and Lincoln have completed numerous studies to work on a NID treatment facility for this area. Currently, these planning items are not constructed facilities but it is our opinion that these items should be addressed. It is our opinion that the following subsection with three companion paragraphs is a good outline for these future facilities:

4-10

"Nevada Irrigation District

NID has completed several technical memoranda for the planning phase for the NID Regional Water Supply Project (RWSP). Funding for the studies was provided by the City of Lincoln. The studies include predesign for water treatment plant facilities required to provide NID treated water to the area of the City of Lincoln within the NID boundary, including portions of the Village 1 Specific Plan. See Figure 4.13-1. The pre-design studies are governed by the 2007 Water Facilities Planning Phase Agreement between NID and the City of Lincoln (See Appendix E to the WSA attached as Appendix H of this Draft EIR). The first phase of the water treatment plant provides, as one component of the RWSP, 10 mgd; which is capable of servicing up to 8,700 EDUs.

The RWSP Planning Phase technical memoranda also contain predesign for raw water conveyance facilities to provide NID source water to the treatment plant. These facilities have the capability of drafting water from Combie Reservoir on the Bear River downstream of Rollins Reservoir, or from the Bear River Canal; thereby ensuring multiple water sources for the RWSP.

The City of Lincoln is responsible for funding their share of these NID water facility capital improvements."

4-11

6. Page 4.13-5: Water Distribution

The subsection "PCWA" discusses service zones, planned treated water transmission pipelines, and metering stations. For consistency within this section, add the following subsection with two companion paragraphs for a similar description of NID facilities:

"NID

NID has 7 treated water service areas; each with a treatment plant, treated water storage, and treated water transmission and distribution pipelines. One of these NID treated water systems provides service to Placer County in the North Auburn Area.

The RWSP Planning Phase technical memoranda contain predesign for treated water storage, transmission pipelines, and a metering station to provide service to the City of Lincoln. Total treated water storage located at the treatment plant is 39 million gallons in three tanks, at 13 million gallons each. The water treatment plant is located north east of Lincoln. Also included are approximately 4,000 LF of 66-inch, 2,800 LF of 54-inch, and 16,200 LF of 48-inch diameter pipeline; and a flow control and metering station located at the boundary of the City of Lincoln's Sphere of Influence.

The City of Lincoln is responsible for funding their share of these NID water facility capital improvements."

4-11
cont.

7. Page 4.13-5: City of Lincoln Historic Water Demands

Clarify Table 4.13-4 "City of Lincoln Historic Water Demand", column "Supply (acre-feet), sub-column "Surface Water"; by separating the volume of surface water provided into two sub-columns: one for surface water provided by PCWA and one for surface water provided by NID.

4-12

8. Page 4.13-6: Projected Water Demands within the City's Existing Limits

The term "Existing Limits" used in the title of this section implies "City Limits". Table 4.13-5 is labeled "Projected Water Demands Within the City of Lincoln's Existing City Limits", which is consistent with the section title. The body of this section discusses water demands for Village 1 at build out. Has the Village 1 Specific Plan area has not yet been annexed? Are Village 1 demands included in Table 4.13-5? Please provide consistency across the terms used within the title of this section, the title of Table 4.13-5, the demands included in the table, and the material discussed within the body of this section.

4-13

9. Page 4.13-10: Nevada Irrigation District

Please revise the comment "negotiated supply of treated water" to "NID is providing treated water to areas within its current LAFCO boundaries through the PCWA water distribution system.

For clarity, strike the first paragraph of this section and replace with the following modified paragraph:

"NID supplies surface water to portions of Nevada, Placer, and Yuba Counties. Agricultural water use accounts for nearly 90 percent of the total demand of the NID water supply. The remaining water supplied by NID is treated water and is primarily delivered for municipal and industrial uses within the NID boundary. NID's mountain watersheds cover 70,000 acres and include the upper portions of the Middle Yuba River above Milton Diversion, Canyon Creek above Bowman Reservoir, and Deer Creek."

4-14

This section of the report provides an opportunity to identify the impacts on the NID surface water supply resulting from NID providing treated water to the City of Lincoln. Add the following five paragraphs to end of this sub-section:

"The proposed NID Regional Water Supply Project (RWSP) will serve treated water to the City of Lincoln within the NID boundary. The NID RWSP service area includes approximately 70% of Village 1. Phase I of Village 1 is entirely within the NID RWSP service area. Pre-design of all RWSP elements is nearing completion and has yielded many technical memoranda.

The August 2011 RWSP Water Supply Impacts Technical Memorandum (TM) (Stantec Consulting Services Inc.) investigated the impact on storage at Rollins Reservoir from providing treated water service to the City of Lincoln. The study estimated a water demand of 12,969 AF/yr at buildout within the City of Lincoln SOI that is also within the NID boundary. The project also serves the unincorporated area outside the SOI but within the NID boundary. At build out, the treated water demand within the unincorporated area near Lincoln was estimated at 3,786 AF/yr. This equals a total RWSP demand at buildout of 16,755 AF/yr (reference Table 7, Land Use and Water Demands – Revised, ECO:LOGIC, October 2009).

The Water Supply Impacts TM concluded that as the area within the SOI urbanized, the demand for irrigation water in the same geographical area would diminish, eventually reaching zero. This decreasing demand for irrigation water is then available to offset the increasing demand for treated water. The amount of water used for irrigation within the SOI, plus losses in the delivery system downstream of Rollins Reservoir and upstream of the Lincoln area, was estimated at between 15,055 AF/yr to 16,117 AF/yr. The resulting NID RWSP impact on NID water resources was estimated to range from a net demand increase of from 1,700 AF/yr down to 638 AF/yr. Reducing the saturation factor within the unincorporated area outside the City's SOI from 100% down to 75%, results in a net reduction in demand from the Lincoln area of 308 AF/yr. The listed capacity of Rollins Reservoir is 65,000 AF and the historical average available supply from all NID sources is 356,300 AF (Draft RWMP Update, Table 5-3).

The Water Supply Impacts TM also studied the impact of the NID RWSP water demands during an Extreme Hypothetical Drought with the year 2032 demands. The Draft RWMP Update indicated that, under these conditions, NID would experience a shortage of 4,853 AF on the last year to the drought. The Draft RWMP Update included buildout demand for treated water from the RWSP of 16,755 AF/yr; however, did not factor in the offset in water demand as use of irrigation water diminishes. Accounting for an offset of between 15,055 to 16,117 AF/yr, the anticipated water shortage during the extreme hypothetical drought studied in the Draft RWMP Update is avoided.

The Water Supply Impacts TM concluded that the NID RWSP will not have a significant impact on NID storage reservoirs, or the overall NID water supply."

10. Page 4.13-21: Project Impacts and Mitigation Measures, Full Specific Plan, Water Supply

The second paragraph is not correct when identifying source of water for Village 1. Strike the second sentence and replace it with the following.

"The primary source of surface water for Village 1 will be from PCWA for those areas outside the NID boundary, and from NID for areas within the NID boundary. Through the agreement explained below, PCWA currently treats NID surface water and delivers it to the City of Lincoln."

The agreement between NID, the City, and PCWA; whereby PCWA treats NID surface water and delivers it to the City is temporary in nature. Clarify the nature of the agreement and what is required to provide and permanent source of treated water by adding the following three sentences to the end of the second paragraph.

"The 2004 Temporary Water Sales Agreement between NID, the City, and PCWA to deliver NID surface water to PCWA for treatment and subsequent use within the City of Lincoln is a temporary arrangement. PCWA may unilaterally cancel the agreement if capacity is no longer available in the PCWA system to provide such treatment or make such deliveries. The NID Regional Water Supply Project (RWSP) is necessary to provide a permanent source of treated water to that portion of Village 1 that is within the NID boundary. The City of Lincoln is responsible for providing most of the funding to design and construct the RWSP."

11. Page 4.13-22: Project Impacts and Mitigation Measures, Full Specific Plan, Water Supply

PCWA, through a service area agreement, is restricted from providing water service within the NID boundary. Approximately 70% of Village 1 is within the NID boundary. Therefore, capacity fees collected from areas within Village 1 that are within the NID boundary are not available for the purchase of capacity from PCWA. The second sentence in the last paragraph of this section speaks to the payment of fees for the purchase of capacity; presumably payment to PCWA for capacity from PCWA. NID is not included as a water provider in this discussion. Strike the second sentence and replace with the following:

4-17

"The City's agreements with PCWA and NID establish that the two entities, within their agreed upon service area boundaries, will provide water needed for development upon payment of fees for the purchase of capacity, or funding the design and construction of required NID water facility capital improvements. In addition, the City of Lincoln has purchased capacity in PCWA facilities. As of this time, the City has not used all of its purchased capacity with PCWA "

12. Page 4.13-23: Water Treatment

The first paragraph does not include the fact that NID surface water will be use to meet demands for that portion of the project within the NID boundary. Add the following sentence at the end of the first paragraph:

4-18

"Through the 2004 Temporary Water Sales Agreement, NID surface water is delivered to the PCWA Foothill WTP and treated. NID deliveries are in an amount equal to the City of Lincoln demands within the NID boundary. The agreement to deliver NID water to the PCWA Foothill WTP is temporary in nature. The NID RWSP is necessary to provide a permanent and adequate supply of treated water for that portion of Village 1 that is within the NID boundary. The City of Lincoln is expected provide funding for the RWSP within the foreseeable future to meet the future project."

Add the following sentence after the second sentence in the third paragraph:

"The City of Lincoln is responsible for funding their share of these NID water facility improvements."

13. Page 4.13-23: Storage

For clarity, please add the following two sentences to the end of the first paragraph:

4-19

"It should be noted that, based on the temporary nature of the agreement to provide NID water for treatment by PCWA, the City of Lincoln, in the foreseeable future, must provide funding for the design and construction of storage tanks at the NID RWSP WTP. The storage tanks are necessary to provide a permanent and adequate treated water storage capacity for that portion of Village 1 that is within the NID boundary."

14. Page 4.13-23: Distribution

For clarity, please add the following sentence to the end of the first paragraph:

4-20

"It should be noted that, based on the temporary nature of the agreement to provide NID water for treatment by PCWA, the City of Lincoln, in the foreseeable future, must provide funding for the design and construction of pipelines and a metering station as part of the NID RWSP. The pipelines and station are necessary to provide a permanent and adequate treated water supply to the City limits for that portion of Village 1 that is within the NID boundary."

15. Page 4.13-24: PCWA Connection and City Distribution System Requirements

Change the title of this section to read:

4-21

"PCWA and NID connections and City Distribution System Requirements."

For clarity, add the following sentence to the end of the first paragraph:

“Reliance on these connections is temporary base on the temporary nature of the agreement to provide NID water for treatment by PCWA. City of Lincoln, in the foreseeable future, is expected to provide funding for the design and construction of pipelines and a metering station as part of the NID RWSP. The pipelines and station are necessary to provide a permanent and adequate supply of treated water to the City’s limit for that portion of Village 1 that is within the NID boundary. This secondary source is a recommendation of the City’s comprehensive plan.”

4-21
cont.

16. Page 4.13-24: Phase 1

Additional off-site distribution improvements will be needed to serve Phase I. Strike the second sentence in the first paragraph and replace with the following sentence:

“It is anticipated in the future that The City of Lincoln will provide funding for the design and construction of the NID RWSP. The RWSP is necessary to provide a permanent and adequate water supply for that portion of Village 1 that is within the NID boundary, including Phase I of Village 1 (see above).”

4-22

17. Page 4.13-25: Mitigation Measure

The explanation for Mitigation Measure 4.13-1(a) and 4.13-1(b) found in the second paragraph is not accurate. PCWA cannot commit water service to that portion of Village 1 within the NID boundary based on the 2005 Service Area Agreement between NID and PCWA. Reducing the impact on water supply for that portion of Village 1 within the NID boundary to less than significant must be in the form of a commitment from NID to continue to provide additional water to PCWA, plus a commitment from PCWA to continue to treat and deliver NID water to the City of Lincoln; and a commitment from City of Lincoln to fund construction of the NID RWSP. A commitment to fund the RWSP will require an agreement between the City of Lincoln and NID. The funding agreement may require deposit of capacity fees into an escrow account.

The first sentence of the second paragraph requires payment of fees to PCWA. It should be noted that the City of Lincoln currently has purchased rights to 5 mgd of unused capacity in the Foothill WTP (see second paragraph under Water Treatment, page 4.13-23). If this reserved capacity is used to serve Village 1 and other areas within the City, payment of additional fees to PCWA will not be necessary until the 5 mgd has been fully utilized. At that point, only fees collected from development within the PCWA service area should be allocated for payment to PCWA for additional capacity.

4-23

Modify the first sentence of the second paragraph as follows:

“PCWA commitments for service to the area of Village 1 outside the NID boundary are made only upon the execution of a pipeline extension or service order agreement.....”

Add the following sentence following the modified first sentence of the second paragraph:

“NID commitments for service of treated water to the area of Village 1 inside the NID boundary. Currently this commitment requires NID to continue to provide surface water to the PCWA Foothill WTP plus a commitment from PCWA to continue to treat and deliver NID water to the City of Lincoln, and an agreement between the City and NID to provide funding for the NID RWSP.”

Implementation of Mitigation Measure 4.13-1 b) does not encompass all of the water facilities required to provide treated water service to Village 1. The Planning Phase for the NID RWSP identifies additional improvements required to provide treated water service to those areas of the City within the NID boundary. Add the following sentence after the third sentence in the second paragraph:

"Implementation of Mitigation Measure 4.13-1 c) incorporates the recommendations found in the technical memoranda produced as a result of the Planning Phase for the NID Regional Water Supply Project, and is restricted to infrastructure required to serve treated water to Village 1."

18. Page 4.13-25: Mitigation Measure, FSP Phase I

Mitigation Measure 4.13-1 a) provides for a commitment for service which appears to pertain to PCWA. With the addition of the verbiage in the second paragraph , Page 4.13-24, under "Mitigation Measure", revise the second sentence in Mitigation Measure 4.13-1 a) as follows:

"The commitment for service within the PCWA service area will require execution of a service order agreement, and the City shall collect necessary fees at the time of building permit issuance."

Add the following sentence to the end of Mitigation Measure 4.13-1 a):

"The commitment for service within the NID boundary will require written commitment from NID to continue to provide adequate quantities of surface water to the PCWA Foothill WTP plus a commitment from PCWA to continue to treat and deliver equal quantities of treated water to the City of Lincoln for use within the NID boundary, and an agreement between NID and the City of Lincoln for the City to fund the design and construction of the NID RWSP."

4-23
cont.

19. Page 4.13-26: Mitigation Measure, FSP (Programmatic Portion Only)

Add the following mitigation measure under FSP (Programmatic Portion Only):

4.13-1 c) Prior to the connection of an additional 2,800 EDUs to the City of Lincoln's city-wide water distribution system, starting in time from certification of this EIR; the City shall, through agreement with NID, begin design and construction of Phase I of the NID RWSP (maximum Phase I capacity yield of 5 mgd), and commission said improvements into service within a reasonable time frame thereafter; said improvements consisting at a minimum the following:

1. Placer County owned sewer effluent bypass pipeline; Joegar Road WWTP to Camp Far West Canal Diversion Dam on Coon Creek (14,000 LF of 24-inch)
2. NID owned Camp Far West Canal turnout structure and overflow pipeline
3. NID owned raw water conveyance pipeline to WTP (21,500 LF of 48-inch)
4. NID owned 10 mgd capacity WTP including land purchases
5. NID owned 4 million gallon treated water storage tank
6. NID owned treated water conveyance pipeline including:
 - a. WTP to Big Ben Road (5,000 LF of 66-inch)
 - b. Big Ben Rd to Crosby Herold Road (2,800 LF of 54-inch)
 - c. Crosby Herold Road to Wise Road (6,800 LF of 48-inch)
 - d. Wise Road to flow control and metering station (9,600 LF of 48-inch)
7. NID owned flow control and metering station
8. City owned small hydroelectric power plant(optional)

20. Page 4.13-26: Cumulative Impacts and Mitigation Measures

The cumulative context for surface water supply includes NID as well as PCWA. Modify the first sentence in the first paragraph as follows:

"The cumulative context for surface water supply is buildout of both PCWA's and NID's service areas."

4-24

21. Page 4.13-27: Water Supply

This section contains PCWA water demand statistics for the City of Lincoln. For consistency, this section should contain similar information for NID. Add the following sentence after the first sentence in the second paragraph:

4-25

“According to NID’s RWSP Water Supply Impacts TM, the City of Lincoln will require 12,969 AF/yr of treated water to meet municipal and industrial demands within the NID boundary by build out.”

Add the following paragraph at the end of this sub-section:

“Also according to NID’s RWSP Water Supply Impacts TM, NID’s overall water supply will not be significantly impacted by the demand for treated water due to the offset offered by the reduction in irrigation water demands as the area within the City’s SOI urbanizes. This will hold generally true as the area within the NID boundary develops incrementally, without consideration for the pace of development.”

22. Page 4.13-28: Normal, Single-Dry Year Sufficiency Analysis

4-26

Treated water service to the City of Lincoln by NID will not adversely affect NID water supplies during foreseeable dry years due to the offset created by the reduction in irrigation water demands as the area urbanizes. NID has a drought contingency plan. As an informational item, add the following sentence after the first sentence in the last paragraph on page 4.13-28:

“It should be noted that NID’s 2010 Draft UWMP predicts a reduction in supplies of 4,853 AF during an extreme hypothetical drought using 2032 demands. The 2032 demands included both the area within the City of Lincoln SOI, plus the unincorporated area adjacent to the SOI, all within the NID boundary, and all at buildout. The analysis did not include the 15,055 to 16,117 AF/yr offset in water supply created by a reduction in irrigation water demands within the SOI. According to the NID RWSP Water Supply Impacts TM, supply reductions are eliminated, even in extreme hypothetical drought conditions.”

23. Page 4.13-31: Sufficiency of Ground Water

The context of the last paragraph of this sub-section is taken to be “Cumulative Impacts”. Therefore, change the first two sentences in the last paragraph to read:

“If currently planned PCWA and NID infrastructure improvements are completed, then water supply issues for the City of Lincoln are limited to the completion of the PCWA Phase 3 pipeline and the NID RWSP, as described in Mitigation Measures 4.13-1 b) and 4.13-2 c).”

4-27

The City is responsible for completing these projects.”

Change the next-to-the-last sentence in the last paragraph to read:

“If the PCWA Phase 3 pipeline project or the NID RWSP is not completed, infrastructure constraints could limit the ability to deliver in future years.”

24. Page 4.13-31: Water Treatment and Distribution

The City of Lincoln will collect capacity fees from development within their city limits. NID will rely on the City to accumulate and expend those fees to fund the construction of improvements, such as the NID RWSP, to provide treated water to areas within the NID boundary.

4-28

Modify the forth sentence in the first paragraph as follows:

“The delivery of potable water by PCWA and NID is assumed through their facilities, funded by fees collected, and managed by the City of Lincoln for the construction of facilities identified in Mitigation Measures 4.13-1 b) and 4.13-2 c).”

The balance of the first paragraph describes required PCWA facilities. Required NID facilities are included as “several additional NID facilities”. For consistency, add the following sentence at the end of the first paragraph:

4-29

“Additional NID facilities will be required to provide adequate treated water service are cumulatively known as the Regional Water Supply Project”

25. Page 4.13-32: Water Treatment and Distribution

This section identifies some of the facilities paid for through development agreements. For clarity, include all such facilities. Modify the third sentence in the last paragraph of this section as follows:

4-30

“Because the necessary improvements have been identified in the adopted 2050 General Plan and draft 2010 UWMP, and described in the technical memoranda generated through the Planning Phase of the NID Regional Water Supply Project, and will be paid for through”

26. Page 4.13-32: Uncertainty Regarding Future Supply

Securing future water supplies for the City of Lincoln requires entitlements from both PCWA and NID. Modify the fourth sentence in the first paragraph as follows:

“In order to fully access the water supply to which they have entitlements, PCWA and NID have identified the need for a number of major infrastructure projects.

27. Page 4.13-33: Uncertainty Regarding Future Supply

Also modify the seventh sentence of the first paragraph (page 4.13-33) as follows:
Because PCWA and NID have entitlements for adequate water and have undertaken extensive planning to ensure that necessary infrastructure is financed and constructed, it is unlikely”

4-31

Modify the first sentence in the first full paragraph on this page as follows:

“Because the water provided to the City of Lincoln is part of PCWA’s and NID’s total supply, if a portion of either or both supplies are unavailable due to infrastructure constraints,

Modify the last sentence in the first full paragraph on this page as follows:

“..... it is assumed that the water supply would continue to flow to NID without interruption through its water rights and to PCWA without interruption, consistent with

LETTER 4: GARY D. KING, PE, CHIEF ENGINEER, NEVADA IRRIGATION DISTRICT

Response 4-1: Comment noted. Please see the following responses, which describes efforts by the City, Nevada Irrigation District (NID) and Placer County Water Agency (PCWA) to provide treated water to the City's service area. In some cases, information has been added to the Draft EIR and/or modified in order to clarify the relationship between these entities and the process by which water would be supplied to the plan area. None of these modifications or clarifications would result in new significant impacts, or a substantial increase in the severity of impacts identified in the Draft EIR.

The City has met with NID staff to discuss their concerns, and expects to continue such discussions in the future.

Response 4-2: There is only one figure in the Draft EIR that depicts water infrastructure, Figure 2-6, Water System, in Chapter 2, Project Description, of the Draft EIR. This figure has been modified to show the NID service boundaries (see Chapter 2, Draft EIR Errata and Modifications).

Response 4-3: The City of Lincoln would be the retail water purveyor for the proposed project. As discussed throughout Section 4.13, Public Utilities, the City plans to obtain treated surface water from both NID and PCWA. The City would then distribute that water throughout the City, including to Village 1, using the City's water conveyance system.

The discussion in Section 4.13 is based largely on the Water Supply Assessment (WSA), which is provided as Appendix H of the Draft EIR. The Draft EIR describes NID water supplies that have historically been delivered to the City of Lincoln (page 4.13-3), NID surface water supplies (pages 4.13-10 and 4.13-11), and the dry-year reliability of NID water supply (pages 4.13-12). The 2004 Temporary Agreement between NID, the City and PCWA, under which PCWA treats NID raw water and conveys it to the City, is described on page 4.13-10. The role of NID water in the City's water supply is also described (see page 4.13-27). The information provided in this comment letter clarifies the information and analysis provided in the Draft EIR. In some cases, as indicated in the following responses, minor corrections are made and/or pertinent information is added to the Draft EIR. These clarifications do not alter the conclusions of the Water Supply Assessment and/or Draft EIR that water supply would be available to serve the proposed project.

Response 4-4: The canal currently carries runoff during the wet season. The canal would continue to function as a drainage facility after project development, but peak flows would not increase. A portion of the canal may be piped as requested by NID in order to maintain continuous flows west of Oak Tree Lane in order to bypass the proposed entry feature.

Response 4-5: In order to clarify NID's and PCWA's roles as responsible agencies, the fifth bullet on page 2-24 of the Draft EIR is modified to read:

- Nevada Irrigation District (NID) for providing raw water and/or wholesale treated water any modifications to their existing or future irrigation facilities such as canals, and provision of irrigation water within the NID boundary.

And, the eighth bullet on page 2-24 of the Draft EIR is modified to read:

- Placer County Water Agency (PCWA) for providing wholesale water to the project;
and

Neither of these changes would alter the amount of surface water used by the project, or the environmental effects of obtaining and using surface water.

Response 4-6 The comment is correct that the reliability of surface water supplies for Village 1 in the context of climate change should include consideration of NID water. As stated on page 4.6-5, California could experience an increased number of single-dry and multiple-dry years as the result of global climate change. The primary Section 4.13, Public Utilities does discuss anticipated ability of NID to meet water demand during various drought conditions. This information is pertinent to the climate change discussion as well. Therefore, the following changes are made to Section 4.6.

The first header on page 4.6-5 is modified as shown:

**Effects of Climate Change on Water ~~Placer County Water Agency (PCWA)~~
Supplies within the City of Lincoln**

The last sentence in the second full paragraph on page 4.6-5 is modified as shown:

The water supply reliability text from the Recirculated General Plan Draft EIR as it pertains to PCWA and the City of Lincoln is repeated entirely below.

The following paragraph is added after the second paragraph on page 4.6-5:

The General Plan Draft EIR discussion of NID water was based on the 2005 NID UWMP, which has since been superseded by the 2012 NID UWMP. Therefore, the discussion of the reliability of NID water is based on the 2012 NID UWMP and additional information provided by NID.

The following header is added after Surface Water Reliability on page 4.6-5:

Placer County Water Agency

The following text is added after the first full paragraph on page 4.6-6.

Nevada Irrigation District

The NID 2010 UWMP predicts potential future shortages in dry years. The Framework for Collaboration between the City and NID provides that any curtailments in water deliveries from NID would be shared equally between the City and NID's own domestic water customers using the same source water. The 2004 Temporary Agreement between Lincoln, PCWA, and NID contains a provision that Lincoln would be limited to the same proportion of the contract as other NID customers.

Of its total annual supply of 410,828 acre-feet projected at 2035, NID projects that it will have between 192,442 and 333,944 acre-feet during multiple dry water years and 183,113 acre-feet per year available during a single dry water year.

Despite potential decreases in supply, the 2010 NID UWMP concludes that its water demands will be 203,536 in 2035. This is more than 30,000 acre-feet per year than projected water supplies during a single dry water year. During multiple dry year periods, only the second of three years would suffer a shortage of about 6 percent. Multiple dry year shortages are calculated to occur in the second of three dry years with a demand level being reached between 2020 and 2025.

According to NID, the 2012 NID UWMP did not account for reductions in agricultural use of water that would occur as urban land uses supplant agricultural uses within the NID service area. According to memoranda prepared for the NID Regional Water Supply Project (RWSP), however, water shortages during drought conditions would not occur due to the reduction in agricultural irrigation.¹

The City of Lincoln is responsible for funding their share of these NID water facility capital improvements.

Other City Water

1 Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.

All of the above modifications and clarifications address setting information in the Draft EIR, and do not alter the impact analysis or mitigation.

Response 4-7: The comment provides a clarification to the Draft EIR text. Therefore, the first sentence on page 4.13-2 is clarified as shown:

In the past, the City's water supplies have historically been provided from treated surface water from PCWA, originating from raw water sources of PCWA and NID.

The above modification addresses setting information in the Draft EIR, and does not alter the impact analysis or mitigation.

Response 4-8: The comment requests an expansion to the discussion of the jurisdiction of PCWA and NID. The following text is added after the header **Existing Water Supplies and Entitlements** on page 4.13-2:

PCWA is a countywide water agency in Placer County. NID is a multicounty water district with approximately one third of its area in Placer County. Both agencies have perfected water rights. In 2005, NID and PCWA entered into a Service Area Agreement to avoid duplication of services and infrastructure, place their respective water resources to efficient use, and to protect each party's water rights. Approximately 70 percent of the Village 1 Specific Plan, including the Turkey Creek Golf Course, is within the NID boundary. The balance of the Village 1 Specific Plan is within the area served by PCWA. The service area boundary between PCWA and NID with respect to the Village 1 Specific Plan is shown on Figure 2-6.

Please see Response 4-2 regarding a figure showing NID boundaries.

Response 4-9: Please see Response 4-2.

Response 4-10: The comment requests that the water treatment setting be expanded with regard to NID. Therefore, the following informational text is added after the second paragraph on page 4.13-4:

Nevada Irrigation District

NID does not currently have a water treatment plant. NID has completed several technical memoranda for the planning phase for the NID Regional Water Supply Project (RWSP). Funding for the studies was provided by the City of Lincoln. The studies include predesign for water treatment plant facilities required to provide NID treated water to the area of the City of Lincoln within the NID boundary. The pre-design studies are governed by the 2007 Water Facilities Planning Phase Agreement between NID and the City of Lincoln (See Appendix E to the WSA attached as Appendix H of this Draft EIR). The first phase of the water treatment plant provides, as one component of the RWSP, 10 mgd; which is capable of servicing up to 8,700 EDUs.¹

The RWSP Planning Phase technical memoranda also contain predesign for raw water conveyance facilities to provide NID source water to the treatment plant. These facilities have the capability of drafting water from Combie Reservoir on the Bear River downstream of Rollins Reservoir, or from the Bear River Canal; thereby ensuring multiple water sources for the RWSP.²

The City of Lincoln is responsible for funding their share of these NID water facility capital improvements.

- 1 Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.
- 2 Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.

The above modification addresses setting information in the Draft EIR, and does not alter the impact analysis or mitigation.

Response 4-11: The comment requests that the water distribution setting be expanded with regard to NID's RWSP. Therefore, the following text is added after the first sentence on page 4.13-5:

NID

NID has 7 treated water service areas; each with a treatment plant, treated water storage, and treated water transmission and distribution pipelines. One of these NID treated water systems provides service to Placer County in the North Auburn Area.

The RWSP Planning Phase technical memoranda contain predesign for treated water storage, transmission pipelines, and a metering station to provide service to the City of Lincoln. Total treated water storage located at the treatment plant is 39 million gallons in three tanks, at 13 million gallons each. The water treatment plant is located northeast of Lincoln in Placer County. The transmission pipeline includes approximately 4,000 linear feet (LF) of 66-inch, 2,800 LF of 54-inch, and 16,200 LF of 48-inch diameter pipeline.

The flow control and metering station is located in Placer County at the northerly boundary of the City of Lincoln's Sphere of Influence.¹

According to NID, the 2012 NID UWMP did not account for reductions in agricultural use of water that would occur as urban land uses supplant agricultural uses within the NID service area. According to memoranda prepared for the NID Regional Water Supply Project (RWSP), water shortages during drought conditions would not occur, due to the reduction in agricultural irrigation.¹

The City of Lincoln is responsible for funding their share of these NID water facility capital improvements. The physical improvements will be constructed by NID and will be subject to full CEQA review.

1. Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.

The above information provides additional details on the water supply and conveyance system discussed in the Draft EIR, and does not alter the impact analysis or mitigation.

Response 4-12: Table 4.3-4 is a compilation of the data shown in Tables 4.13-2, Historic PCWA Water Supplies Delivered to the City of Lincoln, and 4.13-3, Historic PCWA Water Supplies Delivered to the City of Lincoln, on page 4.13-3 of the Draft EIR. The purpose of Table 4.3-4 is to show total supply, irrespective of source.

Response 4-13: The discussion on page 4.13-6 pertains to the City's Sphere of Influence. Therefore, the header on the top of page 4.13-6 is corrected as shown:

Project Water Demands within the City's Sphere of Influence Existing Limits

In addition, the title of Table 4.13-5 on page 4.13-6 of the Draft EIR is corrected as shown:

PROJECTED WATER DEMANDS WITHIN THE CITY OF LINCOLN'S SPHERE OF INFLUENCE EXISTING CITY LIMITS

The above corrections do not alter the content or analysis of the water supply section.

As discussed on page 2-4 of the Draft EIR, the Village 1 plan area is within the City's Sphere of Influence, and would be considered for annexation by Placer County LAFCO after the Village 1 Specific Plan is approved by the City.

The water demands shown in Table 4.13-5 are inclusive of Village 1 (see page 2-13 of Appendix H, Water Supply Assessment).

Response 4-14: The comment requests revisions to the description of NID in the water supply setting. Therefore, the first paragraph under **Nevada Irrigation District** on page 4.13-10 of the Draft EIR is modified to read:

NID supplies irrigation, wholesale, and retail surface water to Nevada County, Yuba County and Placer County customers. Agricultural water use accounts for nearly 90 percent of the total demand on NID water supply. The remaining water supplied by NID is treated water primarily delivered for municipal and industrial uses within the NID

~~service area. directly or through PCWA to single family residential accounts. NID's service area covers Nevada County and a portion of Placer County. Currently, PCWA treats raw surface water from NID and conveys the treated water to areas of Placer County that are within the NID service boundaries. NID's mountain watersheds cover 70,000 acres and include the upper portions of the Middle Yuba River above Milton Diversion, Canyon Creek above Bowman Reservoir, and Deer Creek.~~

And the following text is added after the second paragraph under **Nevada Irrigation District**:

As discussed in more detail, below, NID is planned to provide treated water to the City of Lincoln within the NID boundary. The NID RWSP service area includes approximately 70% of Village 1. Phase I of Village 1 is entirely within the NID RWSP service area.

The above modifications and clarifications address setting information in the Draft EIR, and do not alter the impact analysis or mitigation.

Response 4-15: The comment provides information on the reliability of NID water supplies. The Water Supply Assessment for Village 1, which is the basis of the Draft EIR analysis, used data from NID's Urban Water Management Plan. As stated in the comment, the 2010 NID UWMP found that demand for NID water would exceed supply under drought conditions (see also page 4.13-12 of the Draft EIR). According to the comment, analyses prepared for the NID in August 2011, subsequent to adoption of the UWMP (June 2011), the UWMP did not account for the reduction in water use for irrigation, and that with that reduction, water shortages during drought conditions would be avoided. Therefore, the following sentence is added for clarification to the end of the first sentence on page 4.13-13 of the Draft EIR:

According to NID, the 2010 NID UWMP did not account for reductions in agricultural use of water that would occur as urban land uses supplant agricultural uses within the NID service area. According to memoranda prepared for the NID Regional Water Supply Project (RWSP), water shortages during drought conditions would not occur, due to the reduction in agricultural irrigation.¹

1. Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.

Response 4-16: The 2004 Temporary Agreement (appended to the WSA in Appendix H of the Draft EIR) is intended to be "in effect until such time as NID constructs a treatment plant and other facilities sufficient to enable NID to supply treated water to Lincoln for those customers within Lincoln that are also within NID's boundaries." (page 3 of the 2004 Temporary Agreement). The agreement specifies the conditions under which either NID or PCWA could ration or curtail water, such as a drought year or a period in which PCWA does not have capacity to treat or deliver the water (pages 2 and 3). The Temporary Agreement may only be modified with the written consent of NID, PCWA and the City of Lincoln (page 3). Therefore, PCWA may not "unilaterally" cancel the agreement. Provisions are made for those periods where PCWA does not have treatment or conveyance capacity and/or when NID must curtail water deliveries. In addition, the City has in place plans to address reductions in surface water supply during drought conditions.

In order to clarify the sources of surface water for the project, the second paragraph under Water Supply on page 4.13-21 is clarified as shown:

Village 1 water demand will be met with a combination of surface water and groundwater. Initially, treated surface water from PCWA, including NID water that is treated and conveyed by PCWA and through the City/NID/PCWA Temporary Agreement contract will be the primary source of water for Village 1. At the point that NID has constructed its treatment and conveyance facilities and is able to provide treated surface water to the City directly, NID would provide water to approximately 70% of the plan area, and PCWA would provide water to the remaining 30% of the plan area. Consistent with the City's goal, groundwater will be used to meet 10 percent of Village 1's annual water demands during normal years.

In addition, Footnote 18 on the bottom of page 4.13-21 is modified to read:

The Specific Plan would receive water only from the City of Lincoln, with the exception of the existing golf course. It is possible that raw water or the existing on-site wells for the Turkey Creek Golf Course could be used to serve non-potable demands on the project site through a separate conveyance system. However, the effect of this would be a reduction in the treated water demand assumption in the WSA, which does not affect the supply analysis.

The above clarifications do not alter the conclusions of the impact analysis.

Response 4-17: The comment requests clarification with respect to NID's role as a water purveyor. The text in the EIR is essentially correct; the minor clarifications identified below simply provide more detail. These changes do not alter the content of the water supply analysis or the conclusions of the Draft EIR.

The second and third sentences in the last paragraph on page 4.13-22 are modified as follows:

The City's agreements with PCWA and NID establish that PCWA those water purveyors will provide water to the City, needed for development upon payment of fees by the City for the purchase of capacity. As the water retailer, the City, in turn, makes treated water available to new projects on first-come, first-served basis.

Response 4-18: As discussed in Response 4-16, under the Temporary Agreement, PCWA will treat and convey NID raw water to the City until NID has completed construction of its own water treatment and transmission system to the City.

The future NID treatment plant is discussed in the third paragraph on page 4.13-23. Nevertheless, in order to clarify the source of treated water, the first paragraph on page 4.13-23 is modified as shown:

Development of the full Specific Plan would result in increased demand for treated water. Initially, all treated water would be obtained from PCWA's Foothill WTP and would be conveyed to the City's distribution system to a point of connection at the project site. Ultimately, water supplied by PCWA would be treated at the Foothill-Ophir WTPs and water from NID would be treated at the future NID treatment facility.

The last sentence in the third paragraph on page 4.13-23 is modified as shown:

The proposed treatment facility would allow NID to serve treated water within the NID service area to customers in the Lincoln SOI, including portions of Village 1.

In addition, the following sentence is added to the end of the fourth paragraph on page 4.13-23:

As part of the agreement with NID, the City will fund its fair share of the design and construction of the NID first phase 10-mgd treatment facility. NID will be responsible for the design, approval and construction of these improvements, which will be subject to CEQA review.

The above modifications would not alter the content of the water supply analysis or the conclusions of the Draft EIR.

Response 4-19: Please see Response 4-18. The provision of storage tanks would be part of planning for the NID treatment facility. The City will fund its fair share of the treatment facility, including any necessary storage.

Please see Response 4-16 regarding the 2004 Temporary Agreement.

Response 4-20: The comment requests that more specific information be provided regarding NID transmission facilities. These facilities would be part of the RWSP improvements that would ultimately enable NID to provide treated water to the proposed project. Therefore, the following text is added to the end of the first paragraph under Distribution on page 4.13-23 of the Draft EIR.

Ultimately, it is anticipated that transmission lines from the future NID treatment facility to the City water distribution system would be used to convey NID treated water to the City for use in NID's service area.

In addition, the following text is added after the second paragraph under *PCWA Phase 3 Pipeline* on page 4.13-24:

NID Distribution Facilities

As stated above, NID plans to construct a treatment facility that will enable it to provide treated water to the City of Lincoln. In order to transmit that water to the City, a number of improvements would be needed, which are planned to include:

- Placer County owned sewer effluent bypass pipeline; Joegar Road WWTP to Camp Far West Canal Diversion Dam on Coon Creek (14,000 LF of 24-inch),
- Camp Far West Canal turnout structure and overflow pipeline,
- Raw water conveyance pipeline to WTP (21,500 LF of 48-inch),
- Treated water conveyance pipeline including:
 - WTP to Big Ben Road (5,000 LF of 66-inch),
 - Big Ben Rd to Crosby Herold Road (2,800 LF of 54-inch),
 - Crosby Herold Road to Wise Road (6,800 LF of 48-inch), and
 - Wise Road to flow control and metering station (9,600 LF of 48-inch), and
- NID flow control and metering station.

The facilities would be overseen by NID and would be subject to CEQA review. These improvements are not required for Phase 1.

Please see Response 4-16 regarding the 2004 Temporary Agreement.

Response 4-21: The comment requests that the EIR address both PCWA and NID future connections to the City water system. Therefore, the second header and first paragraph under that header on page 4.13-24 are modified as shown:

PCWA Connection and City Distribution System Requirements

The major water conveyance of PCWA-treated water for buildout of the Village 1 Specific Plan is proposed to be through the PCWA City Pond Metering Station via the Reservoir 1 storage tank site. This will require connections to the City system hydraulically up-gradient from the Reservoir 1 site. The connection for NID treated water, following construction of the future NID treatment facility, would occur along the south side of Wise Road, west of McCourtney Road.

The above modifications would not alter the content of the water supply analysis or the conclusions of the Draft EIR.

Please see Response 4-16 regarding the 2004 Temporary Agreement.

Response 4-22: Phase 1 is anticipated to be served by NID water that is treated and conveyed pursuant to the 2004 Temporary Agreement. With only 1,135 dwelling units, Phase 1 would not generate enough demand (under 0.5 mgd) to warrant or revenue to support construction of the new 10-mgd treatment facility. Phase 1 would contribute toward the construction of the NID treatment facility through payment of NID water connection charges.

Response 4-23: The City of Lincoln is and will continue to be the water retailer for development within the City. Therefore, the City is the appropriate entity to verify that water is available, as required by Mitigation Measure 4.13-1, regardless of the source of that water. The first two sentences in the second paragraph under Mitigation Measure on page 4.13-25 are therefore in error, and are deleted as shown below.

While the City will verify the availability of water for new development, improvements needed to treat and convey that water from PCWA and/or NID facilities, as discussed in Mitigation Measures 4.13-1(b) and (new measure) 4.13-1(c). NID was inadvertently left out of the discussion of mitigation. The second and third paragraphs under Mitigation Measure is therefore modified as shown:

~~PCWA commitments for service are made only upon the execution of a pipeline extension or service order agreement to construct any necessary on- or off-site pipelines or other facilities and the payment of all required fees. In Lincoln, payment of such fees occurs in conjunction with building permits.~~

Implementation of Mitigation Measures 4.13-1(b) and (c) incorporates the recommendations of the Village 1 Potable Water Distribution Modeling Report (2011) and the planning documents for NID Regional Water Supply Project. This would reduce this impact to a *less-than-significant level* for the programmatic portion of the Specific Plan, by ensuring infrastructure is in place to deliver treated PCWA water that would serve buildout of the full Specific Plan while meeting the City's water distribution system standards. This is necessary to ensure that the conclusions of the water supply sufficiency analysis presented in the WSA that concluded supplies are available to meet the demand of the project in addition to City buildout demands remain valid.

The 30-inch PCWA Phase 3 pipeline and pressure metering system will be funded through PCWA water supply connection charges paid by the City in its Water Supply

~~Program. The pressure metering station at the City pond site is included in the City's PFE program. The remaining two improvements are not currently in the City's PFE program, but are anticipated to be added to the PFE. Construction of the station would be funded through PFE fees. The City's portion of the costs of the NID RWSP facilities would be funded by NID water connection charges. Fair-share fees for the two City pipelines would be collected from the project applicant until such time the facilities are included in the PFE.~~

Item (c) is added to Mitigation Measure 4.13-1 as shown below:

(c) Prior to the cessation of the 2004 Temporary Agreement, the City shall provide for its fair share funding of the design and construction of Phase 1 of the NID RWSP 10-mgd treatment facility and associated storage and transmission facilities. Funding shall be timed to ensure that water from the RWSP will be available at the point at which PCWA no longer treats and conveys NID water under the 2004 Temporary Agreement.

The paragraph under Mitigation Measure 4.13-1 on page 4.13-26 is modified as shown to address both PCWA and NID:

~~Implementation of Mitigation Measures 4.13-1(b) and (c) would result in ground disturbance, which could create short-term construction-related impacts such as air emissions and noise from heavy equipment use. Pipelines placed in existing roadways or roadway rights-of-way would be installed underground, which not result in adverse long-term environmental impacts. The 36-inch Pipelines connecting the metering stations would be a buried pipeline installed across undeveloped land. This would require trenching, which would have limited ground disturbance affecting biological or cultural resources. Following installation, the pipelines would be covered with soil. There would be no adverse, permanent impacts related to land use or aesthetics. The metering stations would be a small structures and would not adversely affect the visual character of the sites or affect views.~~

~~The NID RWSP is estimated to require 30 to 40 acres for the WTP, which ultimately is planned to treat 40 mgd. The first phase, which would serve Village 1, would treat 10 mgd. Several potential sites have been identified for the WTP. These sites are located in rural areas, so impacts associated with their use would be primarily related to the conversion of agricultural or timberland and/or biological habitat. The primary habitats that make up these sites are annual grasslands, foothill hardwood woodlands and oak-foothill pine woodland. Each of the sites also contain some wetlands. Up to 40 acres of habitat could be lost. Depending on the layout of the WTP, wetlands could also be affected. Timberland could be harvested during construction of the WTP, but afterward would no longer be available. The sites are in areas that are considered to be of moderate to high sensitivity for archaeological resources, so there would be the potential for cultural resources to be damaged or destroyed.¹~~

~~As with any project, there would be noise and air pollutants generated during construction.~~

~~For the most part, the impacts associated with construction and operation of the WTP and associated facilities would be addressed through regulation, permitting processes and standard mitigation.~~

1. Eco:Logic, NID Regional Water Supply Project, Technical Memorandum, Environmental Constraints Analysis, October 2009.

The above modifications would not result in a new impact or render the water supply impact substantially more severe. The addition of a sub-item to Mitigation Measure 4.13-1 is not considered substantial, particularly as it represents actions that are implicit in the water analysis (e.g., the City contributing toward funding of NID improvements that are planned to be developed to provide wholesale water to the City).

Response 4-24: The comment is correct, and NID is discussed in the cumulative impacts. Therefore, the first sentence under **Cumulative Impacts and Mitigation Measures** on page 4.13-26 is modified as shown:

The cumulative context for surface water supply is buildout of PCWA's and NID's service areas.

The above modifications would not result in a new impact or render the water supply impact substantially more severe.

Response 4-25: The discussion of water supply on pages 4.13-27 and 4.13-28 includes both PCWA and NID water, and mentions NID a number of times. For example NID is identified as a source of water in Table 4.13-9, and the statement is made that "The City is currently working with NID to ultimately receive approximately 12,000 acre-feet per year of treated water from NID facilities". The discussion is focused on demand for water within the City through 2040, not buildout.

Response 4-26: The comment provides additional information that supplements the information in the EIR, but would not result in a new impact or render the water supply impact substantially more severe. To the contrary, the comment provides information that indicates that the cumulative impact related to water supply may be slightly less severe than anticipated in the Draft EIR.

The following sentence is added to the last paragraph on page 4.13-28:

According to a more recent analysis by NID, the reduction in agricultural use of irrigation water will offset the increased use of water for urban purposes, so there may not be a need to curtail water deliveries in dry years.¹

1. Gary D. King, P.E., Chief Engineer, Nevada Irrigation District, written communication to Rod Campbell, Director, City of Lincoln Development Services Department, June 22, 2012.

Response 4-27: The cumulative analysis is intended to address both PCWA and NID water supply. Therefore, the first full paragraph on page 4.13-31 is clarified as shown:

If currently planned PCWA and NID infrastructure improvements are completed, then water supply issues for the City of Lincoln are limited to the completion of the Phase 3 pipeline and the NID RWSP, as described in Impact 4.13-1. The City is responsible for completing the PCWA Phase 3 pipeline, and for contributing its fair share toward funding of the NID RWSP~~this project~~.¹ This increase in planned capacity would allow for

¹ April 7, 2011 letter from PCWA regarding the status of PCWA surface water supplies to the City of Lincoln, provided in Appendix C to the WSA (Appendix H of this Draft EIR).

additional deliveries sufficient to supply the city through the buildout of Village 1 in addition to other demands. If the Phase 3 pipeline project and/or the NID RWSP are is not completed, infrastructure constraints could limit deliveries in future years. This is a ***potentially significant impact***.

In addition, Mitigation Measure 4.13-2 on page 4.13-32 is modified as shown:

Implement Mitigation Measures 4.13-1(b) and (c).

The above modifications would not result in a new impact or render the water supply impact substantially more severe.

Response 4-28: The comment is implicit in the discussion of fees and facilities throughout section 4.13, so no change to the text is warranted.

Response 4-29: The comment requests additional detail on RWSP plans. Therefore, the last sentence in the first paragraph on page 4.13-31 under Water Treatment and Distribution is modified as shown:

Several additional NID facilities, including the RWSP treatment facility, transmission pipelines and a metering station, will also be required to connect with the City's existing treated water supply system to help meet water demands anticipated under the adopted General Plan. NID will be responsible for the design, approval and construction of these improvements, which will be subject to CEQA review.

The above modifications would not result in a new impact or render the water supply impact substantially more severe.

Response 4-30: The comment is implicit in the discussion of fees and facilities throughout section 4.13, so no change to the text is warranted.

Response 4-31: The comment is correct that NID water supply also adds to the certainty of the City's supply. The third sentence in the paragraph under Uncertainty Regarding Future Supply on page 4.13-32 is therefore modified to read:

As described previously in this section, an immediate and long-term supply is available for the foreseeable future. In order to fully access the water supply to which they have it has entitlements, PCWA and NID have has identified the need for a number of major infrastructure projects. PCWA and NID will be responsible for the design, approval and construction of these improvements, which will be subject to CEQA review.

In addition, the first full paragraph on page 4.13-33 is modified to read:

Because the water provided to City of Lincoln is part of PCWA's and NID's total supply, if a portion of the supply is unavailable due to infrastructure constraints, it could be necessary to divert water that would otherwise be available to Lincoln development. The likelihood of permanent curtailment occurring is remote, but if it were to occur, development could be delayed. Once developed, barring a major shift in climate or policy or the future application of the California water law principles described earlier in a manner significantly more restrictive than presently applied, it is assumed the City concludes that the water supply would continue to flow to NID through its water rights

and to PCWA without interruption, consistent with its contracts with Reclamation, PG&E, and Middle Fork Project water rights.

The above modifications would not result in a new impact or render the water supply impact substantially more severe.



July 6, 2012

George Dellwo, AICP Assistant Director
City of Lincoln Development Services Department
600 Sixth Street
Lincoln, CA 95648
Sent via email: gdellwo@ci.lincoln.ca.us

SUBJECT: Village 1 Specific Plan and Phase 1, Availability of a Draft Environmental Impact Report

Dear Mr. Dellwo;

Thank you for submitting the Village 1 Specific Plan and Phase 1 (Project), and associated Draft Environmental Impact Report (DEIR) to the Placer County Air Pollution Control District (District) for review. The Project includes development of up to 5,639 dwelling units, an elementary school with up to 600 students, a city park, 100,000 square feet of commercial and 67,000 square feet of general office. Phase 1 of the Project, analyzed in the DEIR at the project level, requests approval of a Tentative Subdivision Map for the development of 1,135 Single Family Residential units. The project site is located within the Sacramento Valley Air Basin (SVAB) and is under the jurisdiction of the District. After review of the Project and associated DEIR the District provides the following information for the City's consideration.

Air Quality Regulatory & Local Environment

1. For the regional air quality discussion on page 4.3-5, the SVAB is located within the non-attainment area for the state PM10 and federal PM2.5 standards. The State currently does not provide a 24 hour annual standard for PM2.5. Therefore, the SVAB is not classified as non-attainment for the state PM2.5 standard. 5-1
2. The Air Quality section of the DEIR lists the regulatory requirements for which development within the State and Placer County region must adhere to. The list for local requirements does not include the District's Rule 225 – Wood Burning Devices. The purpose of the rule is to limit particulate matter (PM) emissions entering the atmosphere from the operation of a wood burning appliance. The District recommends the DEIR include Rule 225 – Wood Burning Appliances within the Local Regulatory section. 5-2

Short-term Construction Impacts (Phase 1 & Full Build Out)

3. MM 4.3-1 (a) requires the submittal of a dust control plan (DCP) which is required to demonstrate compliance with District Rules and Regulations in order to reduce construction related impacts. The District requests the City to also require the DCP be submitted to the District for review and approval to ensure compliance with District Rules and Regulations. 5-3

4. The DEIR concludes for IMPACT 4.3-1, construction of the Project will have a significant and unavoidable impact on air quality. Mitigation measures recommended by the District have been implemented within the DEIR to reduce impacts. The District further recommends the City require these measures to be listed on all subsequent grading and improvement plans to further reduce construction related impacts and to ensure that construction staff is aware of the requirements while out in the field.

5-4

Long-term Operational Impacts

5. Table 4.3-10 should be updated to reflect Rule 225. Furthermore, the design features selected to reduce winter emissions should be described in detail. It is not clear if the design features will be optional or required as mitigation. Please refer to additional comment regarding the mitigation measures selected under the Appendix A: Air Quality Analysis & Modeling Output (URBEMIS) section of this letter.

5-5

6. Table 4.3-12 should be updated to reflect Rule 225. Please refer to additional comment regarding the mitigation measures selected under the Appendix A: Air Quality Analysis & Modeling Output (URBEMIS) section of this letter.

5-6

7. The DEIR concludes for IMPACT 4.3-2, operation of the Project will have a significant and unavoidable impact on air quality. The District recommends additional mitigation measures (Attachment 1) in order to further reduce the Project's contribution of criteria pollutants.

8. Mitigation Measure MM 4.3-2 (a. & b.) is not necessary; District Rule 225, (amended December, 2007), prohibits the construction of any non-EPA certified stove¹, including fireplaces.

9. As stated in the DEIR, the Project is located within the Sacramento Valley Air Basin (SVAB) and is designated nonattainment for the federal particulate matter PM_{2.5} standard. PM has been linked to a range of serious respiratory and cardiovascular health problems. Wood burning devices are a source of PM emissions which contribute to the region's air pollution. The District recommends further modification to MM 4.1-2 (LCSP EIR MM 4.8-9) in order to prohibit wood-burning devices (including EPA certified woodburning devices) necessary to further reduce criteria pollutants. The following mitigation measure is recommended.

5-7

Wood burning appliances, including fireplaces and woodstoves, shall not be permitted within single family units). The conditions of approval and the covenants, conditions, and restrictions (CC&Rs) for the Project shall explicitly prohibit the installation of devices other than those specified in this measure.

Cumulative Impacts

10. The DEIR states that the air basin is currently non-attainment for ozone and PM10. Please note that the air basin is also designated as non-attainment for the federal PM2.5 standard.

5-8

11. The DEIR concludes for IMPACT 4.3-5 that the Project for both Phase 1 and full buildout would exceed the District's recommended cumulative threshold of 10 lbs/day for ROG and NOx and will result in a cumulatively considerable net increase of ROG and NOx emissions for which the project region is non-attainment under the Federal and State Air Quality Standards. MM 4.3-5

5-9

¹ <http://www.placer.ca.gov/Departments/Air/Rules.aspx>
City of Lincoln, Village 1 Specific Plan, DEIR

(a) is proposed to reduce the ozone precursor emissions below the District's Cumulative Project-level threshold of 10 lbs/day for the FSP and Phase I. The measure requires projects to achieve 10 lbs/day of NOx after mitigation. The measure also requires that subsequent projects must demonstrate no net increase in NOx emissions. NOx emissions are associated with mobile emissions. In order for projects to comply with the measure as written, projects cannot generate any traffic related emissions. The District, therefore, recommends revisions to the measure as provided below.

Mitigation Measure MM 4.3-5(a)(iii) includes the option of the District's Offsite Mitigation fee program to offset the Project's long-term operational emissions in order to reduce ROG and NOx emissions in excess 10 lbs/day. Based on the modeling analysis, the District's Offsite Mitigation Fee Calculation Spreadsheet (Attachment 2) indicates that the Project, including Phase 1, will be required to offset 679.17 of ROG lbs/day and 420.70 of NOx lbs/day (equivalent to 165.82 tons of ROG and of NOx). Based on the current California Air Resource Board Carol Moyer Guidelines², the total offsite mitigation fee is estimated at \$1,665,331, equivalent to \$254.68/dwelling unit. The District recommends the following off-site mitigation program for the Project to reduce cumulative emissions. Implementation is recommended prior to approval of the Final Map or prior to the issuance of building permits. For future subsequent development projects within the Plan Area which propose additional mitigation to offset criteria pollutants, a revised air quality analysis is recommended at the time of the proposed development.

In order to mitigate the Project's contribution to long-term emission of pollutants, the Project will participate in the District's Offsite Mitigation Program by paying the equivalent amount of money, equal to the Project's contribution of criteria pollutants (ROG and NO_x), which exceeds the District's cumulative threshold of 10 pounds per day. The estimated payment for the proposed project is \$1,665,331 based on \$16,640 per ton for a one year period, or \$254.68 per residential unit.

5-9
cont

Greenhouse Gas Emissions and Climate Change Impacts

12. The District recommends the Mitigation, Monitoring, and Reporting Program (or other similar instrument which identifies the criteria for implementation of each mitigation measure) indicate for each proposed measure to reduce greenhouse gas emissions, as described in MM 4.6-1, the criteria to demonstrate completion or satisfaction at either the time of Final Map approval or prior to the approval of building permits (not issuance of the building permit), as design of construction techniques and approval of those techniques is necessary to ensure compliance with mitigation measures. For example, implementation of construction techniques to reduce energy and water demand would be appropriate prior to approval of the Final Map or a building permit. However, integration of an internal roadway system to accommodate the usage of neighborhood electric vehicles (NEVs) as described in MM 4.6-1 (f) would be more appropriate at an early planning review stage, such as prior to approval of improvement plans or approval of the Tentative Subdivision Map. The District recommends the City identify for each GHG mitigation measure, the mechanism and timing required to demonstrate compliance or satisfactory of completion of the measure.

5-10

13. According to the BGM modeling output, 22% reduction in GHG is achieved with the implementation of onsite renewable energy solar systems. The model output appears to have

5-11

² Carl Moyer Program Guidelines Appendix G: Cost Effectiveness Limit and Capital Recovery Factors (Updated April, 2011).

overestimated the emission reductions for MM 4.6-1 which requires that only 15% above Title 24 to be achieved. The District recommends all mitigation measures, including assumptions selected in the BGM analysis be incorporated as mitigation for IMPACT 4.6-1 of the DEIR to achieve the claimed emission reductions.

5-11
cont.

14. The District has concern regarding the language used in MM 4.6-1 a) to reduce operational GHG emissions and recommends revisions to the criteria described for achieving compliance of exceeding Title 24 Energy Conservation requirements. MM 4.6-1 (a) requires an Energy Conservation Plan for all residential development which describes the techniques and programs to be employed to achieve 1) 15% energy efficiency above Title 24 (2011), or 2) compliance with the then-current Title 24 energy efficiency regulations. However, the programs described require exceeding energy efficiency requirements by 15% above Title 24 (2008). Please provide further clarification of the goals of each program and which Title 24 (2008 or 2011) standard would be required.

5-12

Appendix A: Air Quality Analysis & Modeling Output (URBEMIS)

15. According to Table 4.3-12³, estimated emission reductions from proposed mitigation, MM 4.3-2, demonstrate a reduction of 95% of emissions for ROG and 66% for PM10. The baseline analysis for the unmitigated emissions does not include appropriate assumptions to account for compliance with District Rule 225 for wood burning appliances. The District's Rule 225, (amended December, 2007), prohibits the construction of any non-EPA certified stove⁴, including fireplaces. Rule 225 also prohibits installation of any wood burning device within multifamily units. The assumptions should include 100% for single family units (EPA II certified units/Natural Gas), 100% compliance for multifamily units with EPA certified woodstoves and 0% for all fireplaces.

5-13

The calculated emission reductions in the analysis are based on a comparison to the baseline emission estimates; therefore, the mitigated emission calculations are overestimated. The District recommends the City consider modifying the baseline (unmitigated) analysis to account for compliance with District Rule 225. The environmental conclusion would not change as a result of the modified analysis, however, the mitigated emission reductions claimed would be reduced.

Appendix C: Greenhouse Gas (GHG) Analysis

16. According to the modeling analysis, GHG emission reductions will occur from the implementation of mitigation for transportation, electricity, solid waste and water. The modeling analysis and BGM analysis data does not provide detail of mitigation measures selected to reduce GHG emissions. Because this detail is not available, the District cannot verify the adequacy of the measures, nor verify if the mitigation selected will be required for mitigating IMPACT 4.6-1 in the DEIR. For example, the BGM model output does indicate that solar panels are selected to reduce energy related GHG emissions but does not show the assumptions used. What percentage of development would need to install solar power systems to reach the emission reductions claimed in the analysis? For transportation measures selected, no detail is provided, although the output states that measures were selected. The District recommends the GHG analysis provide detail, including assumptions for the reduction measures.

5-14

³ DEIR, page 4.3-12

⁴ <http://www.placer.ca.gov/Departments/Air/Rules.aspx>

City of Lincoln, Village 1 Specific Plan, DEIR

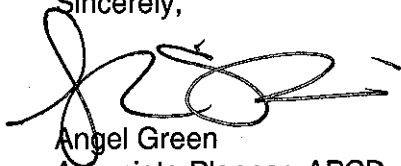
Placer County Air Pollution Control District

July 6, 2012

Page 5 of 7

Thank you for allowing the District this opportunity to review the project proposal. Please do not hesitate to contact me at 530.745.2333 or agreen@placer.ca.gov if you have any questions.

Sincerely,



Angel Green
Associate Planner, APCD

cc: Yushuo Chang, Planning & Monitoring Section Supervisor
Maywan Krach, Placer County Environmental Review Coordination

ATTACHMENT 1

Placer County Air Pollution Control District Recommended Mitigation Measures (Operational)

1. ~~For those projects which include stationary sources (e.g., gasoline dispensing facility, auto painting, dry cleaning, large HVAC units, etc.), the applicant shall obtain an Authority to Construct (ATC) permit prior to the issuance of a Certificate of Occupancy. NOTE: A third party detailed Health Risk Assessment may be required as a part of the permitting process.~~
INCLUDED IN MM 4.3-2
2. ~~Prior to building permit approval, the applicant shall show, on the plans submitted to the Building Department, provisions for construction of new residences, and where natural gas is available, the installation of a gas outlet for use with outdoor cooking appliances, such as a gas barbecue or outdoor recreational fire pits.~~ INCLUDED IN MM 4.3-2
3. Prior to approval of a Grading Permit, Improvement Plans, or Design Review approval, the applicant shall show that a Class 1, 2, or 3 bicycle lane(s) is provided in areas as approved by the Engineering Division and/or the Department of Public Works (or similar divisions within each jurisdiction) , as defined elsewhere in these conditions of approval.
4. Prior to the issuance of a Building Permit, the floor plans and exterior elevations submitted in conjunction with the Building Permit application, shall show that the applicant has installed _____ [insert number] solar panels or Photovoltaic roofing tiles on _____ [insert number] homes or structures throughout the project as follows: (describe lot numbers, locations, and/or building numbers and locations here).
5. Prior to Design Review approval, the Site Plan shall show that the applicant has provided _____ (insert number of spaces here) preferential parking spaces for employees that carpool / vanpool / rideshare as required by the District. Such stalls shall be clearly demarcated with signage as approved by the approving committee.
6. Diesel trucks shall be prohibited from idling more than five minutes, (District) or _____ minutes (local jurisdiction). Prior to the issuance of a Building Permit, the applicant shall show on the submitted building elevations that all truck loading and unloading docks shall be equipped with one 110/208 volt power outlet for every two dock doors. Diesel Trucks idling for more than the allotted time shall be required to connect to the 110/208 volt power to run any auxiliary equipment. A minimum 2'x3' signage which indicates "Diesel engine Idling limited to a Maximum of _____ Minutes" shall be included with the submittal of building plans.
7. Prior to Design Review approval, the applicant shall show that on-site bicycle racks, as required by the District, shall be reviewed and approved by the approving committee.
8. As required by the District, Landscape Plans submitted for Design Review shall include native drought-resistant species (plants, trees and bushes) in order to reduce the demand for irrigation and gas powered landscape maintenance equipment. In addition, a maximum of 25% lawn area will be allowed on site. As a part of the project design, the applicant shall include irrigation systems which efficiently utilize water (e.g., prohibit systems that apply water to non- vegetated surfaces and systems which create runoff). In addition, the applicant shall install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls, rain "shut off" valves, or other devices as reviewed and approved by the approving committee.

ATTACHMENT 2

Project Name: Village 1 Specific Plan

Mitigation Fee Calculation

Emission Source	ROG (lbs/day)		NOx (lbs/day)		PM10 (lbs/day)	
	summer	winter	summer	winter	summer	winter
Area Resource*						
Vehicle Exhaust*						
Total	689.17		430.7	0.0	0.00	0.000

*DER, Table 4.3-10

	ROG (summer only)	NOx (summer only)	PM10 (w inter only)
PCAPCD cumulative thresholds (lbs/day)			
operational emissions	10	10	80

exceedence to the cumulative thresholds (lbs/day)	ROG	NOx	PM10
	679.17	420.7	n/a

of days in summer (May-Oct) 182
 # of days in winter (Nov-Apr) 183

	ROG	NOx	PM10
Required emission offset (tons)			
(exceed lbs/day x days in summer/winter + 2000 lbs/ton)	61.8	38.28	n/a

Amount of required emission offset for ROG and NOx (tons)	100.08
------------------------------------------------------------------	---------------

current mitigation cost for ROG or NOx \$/ton \$16,640
 (per CARB Carol Moyer Guideline)

current mitigation cost for PM \$/ton
 (to be determined)

Proposed APCD Offsite Mitigation Fee (ROG + NOx)	\$1,665,331
---------------------------------------------------------	--------------------

Proposed APCD Offsite Mitigation Fee (PM only)	\$0
-------------------------------------------------------	------------

Number of units** 6539
 Off-Site fee per residential unit \$254.68

**Project Description DEIR Table 2-1

LETTER 5: ANGEL GREEN, ASSOCIATE PLANNER, PLACER COUNTY AIR POLLUTION CONTROL

Response 5-1: The comment is correct that the SVAB is not classified for PM_{2.5}. However, the SVAB is in non-attainment for the federal PM_{2.5} standard. Therefore, the last sentence in the second paragraph under **Regional Air Quality** on page 4.3-5 is updated to read:

Placer County is also in non-attainment for state PM₁₀ and federal PM_{2.5} standards.

Response 5-2: As requested, the following text is added after Rule 218 on page 4.3-12:

- Rule 225 – Wood Burning Appliances

Specifies the standards for wood-burning appliances in new development.

Please also see Response 5-5.

Response 5-3: As requested, Mitigation Measure 4.3-1(a) on page 4.3-21 is modified to provide for review of the Construction Emission/Dust Control Plan by the PCAPCD:

- a) *Prior to issuance of a grading permit, the applicant(s) shall submit to the City of Lincoln, as the lead agency, and receive approval of a Construction Emission/Dust Control Plan. The plan shall be submitted to the PCAPCD for review and comment prior to approval by the City. This plan must address the minimum Administrative Requirements found in section 300 and 400 of PCAPCD Rule 228, Fugitive Dust.*

This clarification is administrative in nature, and would not alter air quality impacts identified in the EIR.

Response 5-4: Chapter 5, Mitigation Monitoring Program, identifies the point at which each measure must be implemented. The implementation of mitigation would occur at various times depending on the nature of the measure. Those measures that address site layout are typically tied to the Improvement Plans, while construction-related measures must be identified – in the Dust Control Plan, for example - prior to receiving a grading permit. Implementation of the construction measures would occur during grading and would not be a condition of Final Map approval. This is the appropriate timing, as the measures have to do with construction practices and not project design.

Response 5-5: The comment states that Table 4.3-10 should be updated to reflect PCAPCD Rule 225, which requires that all wood burning stoves and fireplaces be EPA Certified. The comment also requested clarification whether design features would be optional or required as mitigation.

All design features enumerated in the EIR analysis will be incorporated into the project design and are not optional. The second full paragraph on page 4.3-16 and Table 4.3-9 and Table 4.3-10 have been updated to reflect Rule 225, as follows:

Default percentages in URBEMIS corresponding to the housing type mix (number of units) were also used for conservatively estimating unmitigated hearth emissions. The unmitigated default condition assumes 35 percent of residential units (single family and

REVISED TABLE 4.3-9					
FULL SPECIFIC PLAN ESTIMATED PEAK DAILY OPERATIONAL EMISSIONS (UNMITIGATED - POUNDS PER DAY)					
Summer					
Source	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Water and Space Heating	5.17	67.04	29.28	0.13	0.13
Fireplaces ^a	–	–	–	–	–
Landscape Maintenance	37.28	2.39	210.57	0.56	0.56
Consumer Products	250.80	–	–	–	–
Architectural Coatings Off-gas	73.22	–	–	–	–
Total Area Source	366.47	69.43	239.85	0.69	0.69
Motor Vehicles	343.00	397.54	3,709.57	778.90	149.59
Total Unmitigated Emissions	709.47	466.97	3,949.42	779.59	150.28
PCAPCD threshold	82	82	550	82	(d)
Significant Impact	Yes	Yes	Yes	Yes	(d)
Winter					
Source	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Water and Space Heating	5.17	67.04	29.28	0.13	0.13
Fireplaces ^b	1,134.75 <u>285.76</u>	435.33 <u>108.09</u>	5,977.48 <u>2,763.80</u>	959.75 <u>510.89</u>	923.84 <u>474.95</u>
Landscape Maintenance ^c	–	–	–	–	–
Consumer Products	250.80	–	–	–	–
Architectural Coatings Off-gas	73.22	–	–	–	–
Total Area Source	1,463.94 <u>614.95</u>	202.37 <u>175.13</u>	6,006.76 <u>2,793.08</u>	959.88 <u>511.02</u>	923.94 <u>475.08</u>
Motor Vehicles	368.22	573.14	4,075.69	778.90	149.59
Total Emissions	1,832.16 <u>983.17</u>	775.51 <u>748.27</u>	10,082.45 <u>6,868.77</u>	1,738.78 <u>1,289.92</u>	1,073.53 <u>624.67</u>
PCAPCD threshold	82	82	550	82	(d)
Significant Impact	Yes	Yes	Yes	Yes	(d)
Notes:					
a no summer emissions.					
b assumes URBEMIS 2007 default unmitigated conditions have been modified to incorporate PCAPCD Rule 225, as described in Methods of Analysis.					
c no winter emissions.					
d PCAPCD has not established a threshold.					
Source: Atkins, 2011, compiled from URBEMIS 2007 output included in Appendix D.					

REVISED TABLE 4.3-10					
FULL SPECIFIC PLAN ESTIMATED PEAK DAILY OPERATIONAL EMISSIONS (POUNDS PER DAY)					
Summer					
	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Total Unmitigated Emissions	709.47	466.97	3,949.42	779.59	150.28
Emissions with Design Features ^a	689.17	430.67	3,700.09	728.16	140.36
Reduction (%)	3%	8%	6%	7%	7%
PCAPCD threshold	82	82	550	82	(b)
Significant Impact	Yes	Yes	Yes	Yes	(b)
Winter					
	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Total Unmitigated Emissions	1,832.16 983.17	775.51 748.27	10,082.45 6,868.77	1,738.78 1,289.92	1,073.53 624.67
Emissions with Design Features ^a	1,589.41 930.68	709.84 735.78	8,653.84 6,338.89	1,501.92 1,191.82	885.16 533.53
Reduction (%)	135%	82%	148%	148%	1815%
PCAPCD threshold	82	82	550	82	(b)
Significant Impact	Yes	Yes	Yes	Yes	(b)
Notes:					
a assumes URBEMIS 2007 default conditions have been revised to incorporate PCAPCD Rule 225, as described in Methods of Analysis.					
b PCAPCD has not established a threshold.					
Source: Atkins, 2011, compiled from URBEMIS 2007 output included in Appendix D.					

multi-family) would have non-EPA-certified wood-burning stoves, 10 percent would have non-EPA-certified wood-burning fireplaces, and 55 percent would have natural gas fireplaces. Default mitigations in URBEMIS were then applied to reflect a condition in which all multi-family units would have natural gas fireplaces. ~~Because substantial reductions in emissions can be achieved through the use of EPA Phase II certified wood burning devices, but the URBEMIS inputs cannot currently be adjusted to account for that, separate calculations were done using EPA's Woodstove and Fireplace Emissions Calculator (Excel) to quantify the emissions reductions that could be achieved by implementing mitigation measures recommended in this EIR (Mitigation Measure 4.3-2).~~ Under the fully mitigated scenario, all single family homes would only be equipped with the EPA-certified devices and multi-family residential units would only have natural gas or propane devices.

In addition, Mitigation Measure 4.3-2(a) on page 4.3-26 has been deleted as shown:

4.3-2 *The project applicant shall implement the following mitigation measures:*

- ~~a) Only U.S. EPA Phase II certified wood burning devices shall be installed in single family residences. The emission potential from each residence shall not exceed a cumulative total of 7.5 grams per hour for all devices in that home. Masonry fireplaces shall have either an EPA certified Phase II wood burning device or shall be a U.L. Listed Decorative Gas Appliance. The conditions of approval and the covenants, conditions, and restrictions (CC&Rs) for the project shall explicitly prohibit the installation of devices other than those specified in this measure.~~

In addition (b) through (d) are renumbered as (a) through (c).

Please also see Response 5-7, below, for additional clarifications to Mitigation Measure 4.3-2.

As shown in Revised Tables 4.3-9 and 4.3-10, incorporating the assumption that Rule 225 will be implemented reduces estimated project emissions, and the need for mitigation. Therefore, no new or more severe impacts would result from the updated analysis.

Response 5-6: The comment states that Table 4.3-12 should be updated to reflect PCAPCD Rule 225, which requires that all wood burning stoves and fireplaces be EPA-certified. With the incorporation of Rule 225 into the modeling, the values listed in Table 4.3-11 would be reduced. Table 4.3-11 on page 4.3-25 is therefore modified as shown on the next page.

To address additional comments concerning the GHG analysis (Comment 14), Table 4.3-12 has been further updated. Please see Response 5-14, which shows all modifications to Table 4.3-12.

Response 5-7: The comment requests additional mitigation measures be incorporated to ensure that emissions from criteria pollutants are reduced. Bicycle lanes, preferential parking for carpools/vanpools/ridesharing, limits on diesel truck idling and bicycle racks were assumed in the analysis. The City already requires that diesel engines not idle for more than five minutes (Municipal Code 10.14.30), so mitigation is not needed for this assumption. Items (d), (e) and (f), below, are part of the project and were included in the modeling assumptions. Incorporating these items into the mitigation measure would add one more step to ensure that they are implemented, but would not alter the severity of the impacts identified in the Draft EIR. Therefore, Mitigation Measure 4.3-2 on page 4.3-26 has been modified as follows to add additional measures (d) through (f):

- d) Prior to approval of Improvement Plans, the applicant shall show that a Class 1, 2, or 3 bicycle lane(s) is provided in areas as approved by the Engineering Division and/or the Department of Public Works (or similar divisions within each jurisdiction), as defined elsewhere in these conditions of approval.
- e) Prior to Improvement Plan approval, the Site Plan shall show that the applicant has provided the appropriate number of preferential parking spaces for employees that carpool/vanpool/rideshare as well as the appropriate preferential parking for NEVs as required by the District and City Policy. Such stalls shall be clearly demarcated with signage as approved by the approving committee.

REVISED TABLE 4.3-11					
PHASE 1 ESTIMATED PEAK DAILY OPERATIONAL EMISSIONS (UNMITIGATED - POUNDS PER DAY)					
Summer					
Source	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Water and Space Heating	1.10	14.22	6.05	0.03	0.03
Fireplaces ^a	–	–	–	–	–
Landscape Maintenance	9.28	0.59	52.21	0.14	0.14
Consumer Products	50.46	–	–	–	–
Architectural Coatings Off-gas	16.14	–	–	–	–
Total Area Source	76.98	14.81	58.26	0.17	0.17
Motor Vehicles	65.67	76.84	719.67	150.62	28.93
Total Unmitigated Emissions	142.55	91.65	777.93	150.79	29.10
PCAPCD threshold	82	82	550	82	(d)
Significant Impact	Yes	<i>No</i>	<i>No</i>	Yes	(d)
Winter					
Source	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Water and Space Heating	1.10	14.22	6.05	0.03	0.03
Fireplaces ^b	228.34 57.61	27.56 5.48	1,202.84 646.11	193.13 90.25	185.90 90.25
Landscape Maintenance ^c	–	–	–	–	–
Consumer Products	50.46	–	–	–	–
Architectural Coatings Off-gas	16.14	–	–	–	–
Total Area Source	296.04 125.31	41.78 19.70	1,208.89 625.16	193.16 90.28	185.93 90.28
Motor Vehicles	71.21	110.80	789.19	150.62	28.93
Total Unmitigated Emissions	367.25 196.52	152.58 130.50	1,998.08 1,441.35	343.78 240.90	214.86 119.21
PCAPCD threshold	82	82	550	82	(d)
Significant Impact	Yes	Yes	Yes	Yes	(d)
Notes:					
a no summer emissions					
b assumes URBEMIS 2007 default unmitigated conditions <u>have been revised to incorporate PCAPCD Rule 225</u> , as described in Methods of Analysis					
c no winter emissions					
d PCAPCD has not established a standard					
Source: Atkins, 2011, compiled from URBEMIS 2007 output included in Appendix D.					

- f) Prior to Design Review approval, the applicant shall show that on-stie bicycle racks are provided.

As stated above, items (d), (e), and (f) were included in the original calculations (Appendix D in the Draft EIR) as a function of the project-specific trip rates used. Reductions from restricting idling cannot be quantified because the number of idling trucks and the length of idling reduction cannot be determined from a plan-level analysis.

The comment refers to Mitigation Measure 4.1-2 from the Lincoln Crossing Specific Plan EIR, which is a different project. However, the above response and updates to Village 1 Mitigation Measure 4.3-2 would address this issue.

Response 5-8: Please see Response 5-1.

Response 5-9: The comment provides information on the level of the fee that would be assessed under Mitigation Measure 4.3-5(a) if the applicant chose that option alone. The measure provides for other options as well, which could eliminate or reduce the amount of the fee. The final determination of the mix of emission reduction design features, offsite emission reduction measures and payment of the fee will be made prior to approval of the Final Map.

Response 5-10: The comment recommends that the City identify, for each GHG mitigation measure, the mechanism and timing required to demonstrate compliance or satisfactory of completion of the measure. The MMRP for the Village 1 Specific Plan EIR, included in the Final EIR as Chapter 5, identifies how compliance with the mitigation measures will be ensured and monitored by the City of Lincoln. In addition, the following clarifications are made to Mitigation Measure 4.6-1 on pages 4.6-17 through 4.6-19 as requested by the PCAPCD. These revisions clarify the timing and administration of mitigation, rather than the actions that would be required of the project. Therefore, the modifications would not alter the conclusions of the Draft EIR.

- 4.6-1 a) *An Energy Conservation Plan for all commercial and residential development shall be required prior to recordation of the first small lot Final Map. The plan shall describe the techniques and programs to be employed in the development of the project to achieve ~~(1)~~ a minimum 15 percent energy efficiency above that required by the 2008~~44~~ Title 24 energy efficiency regulations, or compliance with the ~~then~~-most current Title 24 energy efficiency regulations. These programs shall include one or more of the following, or equally effective measures:*

Participation in the PG&E Energy Star Performance Method. This method is available to builders of single-family and multi-family homes that are at least 15 percent more energy efficient than required by the 2008 Title 24 energy efficiency regulations and meet all US EPA specifications. Participating builders become part of the California Energy Star New Homes Program, and their homes earn the Energy Star label. Incremental incentives can also be earned by adding energy efficient appliances and/or lighting to homes. Plans submitted for Design Review shall include all energy efficiency features to be incorporated into the project.

OR

Participation in the New Solar Homes Partnership (NSHP) Performance Method. This method is available to builders of single-family homes that are at least 15 percent more efficient than required by the 2008 Title 24 energy efficiency regulations and meet all US EPA specifications. Prior to the issuance of a Building Permit, the floor plans and exterior elevations submitted in conjunction with the Building Permit application, shall show that the applicant has installed the appropriate number of solar panels or Photovoltaic roofing tiles throughout the project (described as lot numbers, locations, and/or building numbers and locations) to offset that development's share of the 7,599,510 kwh/year total Plan's onsite renewable energy offsets.

OR

Participation in the Build It Green Program, which was created by Build It Green, a non-profit organization whose mission is to promote health, durable, energy and resource efficient buildings throughout California. Using the Green Point Checklist, a home can be considered green if it fulfills the prerequisites and earns at least 50 points and meets the minimum points per category: Energy (30 points); Indoor Air Quality (5 points); Resources (6 points); and Water (9 points). Build It Green uses certified Green Point Raters to measure success with the program and verification of the measures employed to meet the requirements of the checklist. Plans submitted for Design Review shall include a completed copy of the Green Point Checklist.

- b) *The project applicant shall be responsible for having prepared, by an experienced and qualified firm, an Energy Resource Conservation Guide that will provide educational information on how homeowners can increase energy efficiency and conservation in their new homes. The information will be delivered to each original homeowner as part of the move-in package. The information packet shall be reviewed by, and be subject to approval of, City of Lincoln staff. A copy of the Energy Resource Conservation Guide shall be submitted to the City for review prior to the completion of construction activities, and finalized before occupancy.*
- c) *Light Emitting Diode (LED) traffic signals and LED street lights, or more energy-efficient signals and streetlights, shall be installed in accordance with City improvement standards or as otherwise approved by the Development Services Director.*
- d) *The project applicant shall prepare a tree planting program to guide the planting of shade trees within residential lots and along streets in a manner that reduces radiant heat. Commercial and retail parking lots shall be planted with shade trees that will produce 50% coverage within 15 years. Landscape Plans submitted for Design Review shall include a copy of the tree planting program.*
- e) *A tree information planting and care guide shall be delivered to each original homeowner as a part of the move in package. If the guide is prepared by someone other than the City, it shall be reviewed by, and be*

subject to the approval of, City of Lincoln staff. A copy of the tree information planting and care guide shall be submitted to the City for review prior to the completion of construction activities, and finalized before occupancy.

- f) Energy efficient lighting fixtures shall be installed as part of the original construction of residential and commercial structures. Plans submitted for Design Review shall include documentation of the energy efficient lighting fixtures to be used.
- g) New commercial buildings shall be 15 percent more energy efficient than the 2008~~11~~ Title 24 building standards based on annual energy usage requirements, or comply with the then-current Title 24 energy efficiency regulations. Plans submitted for Design Review shall include all energy efficiency features to be incorporated into the project.
- h) Prior to approval of a Grading Permit, Improvement Plans, or Design Review approval, the applicant shall show that the ~~The~~ roadway system shall be designed to accommodate the usage of neighborhood electric vehicles (NEVs).
- i) Prior to approval of a Grading Permit, Improvement Plans, or Design Review approval, the applicant shall show that bus ~~Bus~~ turnouts and transit shelters shall be placed on roadways that are to be served by future bus transit in accordance with City improvement standards and as otherwise directed by City's Development Services Director.
- j) Implement Mitigation Measure 4.3-2.

Section 15.28 of the Lincoln Municipal Code limits the use of turf and proscribes the use of draught tolerant landscaping, so no mitigation is necessary for this provision.

Response 5-11: The comment states that the BGM modeling overestimates the reductions for Mitigation Measure 4.6-1, which requires that only 15% above Title 24 be achieved. As discussed in Response 5-7, the 2008 Title 24 requirements were the baseline for the project requirements and mitigation. The BGM model only accounts for the 2005 Title 24 regulations; therefore, the 15% below Title 24 in BGM was used to meet the 2008 requirements and the "onsite renewable" in the model was used to show the reduction from the 2008 Title 24 requirements.

Response 5-12: Mitigation Measure 4.6-1 has been modified as indicated in Response 5-10 to clarify program goals.

Response 5-13: The comment recommends that the City update the unmitigated analysis to account for compliance with District Rule 225. Table 4.3-12 on page 4.3-26 has been modified as shown on the following page to reflect Rule 225 and transportation emissions reductions.

As shown in Revised Table 4.3-12, incorporating the assumption that Rule 225 will be implemented reduces estimated project emissions, and the need for mitigation. Therefore, no new or more severe impacts would result from the updated analysis.

Table 4.3-12					
ESTIMATED EMISSIONS REDUCTIONS FOR HEARTH AND TRANSPORTATION					
	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Hearth Emissions					
Total Unmitigated Emissions	1,134.75 983.17	135.33 748.27	5,977.48 6,868.77	959.75 1,289.92	923.81 624.67
Emissions with Design Features ^a	930.68	735.78	6,338.89	1,191.82	533.53
Decrease from Unmitigated	52.49	12.49	529.88	98.10	91.14
Reduction (%)	5.34%	1.67%	7.71%	7.61%	14.59%
Fully Mitigated ^b	48.93 2.56	91.94 43.75	1,741.09 18.62	329.11 3.54	300.13 3.5
Decrease from Unmitigated	1,085.82 980.61	43.39 704.52	4,236.45 6,850.15	630.64 1,286.38	632.68 621.17
Reduction (%)	96% 99.74%	32% 94.15%	71% 99.73%	66% 99.73%	68% 99.44%
Transportation Emissions					
Total Unmitigated Emissions	368.22	573.14	4,075.69	778.9	149.59
Fully Mitigated ^c	355.41	553.19	3,933.86	751.79	144.38
Decrease from Unmitigated	12.81	19.95	141.83	27.11	5.21
Reduction (%)	3.48%	3.48%	3.48%	3.48%	3.48%
Notes:					
a Assumes all single-family units have EPA Phase II-certified wood-burning devices and only natural gas or propane fireplaces are in multi-family units.					
b Assumes Mitigation Measure 4.3-2(a) and (b): all single family units have EPA Phase II-certified wood-burning devices and only natural gas or propane fireplaces are in multi-family units.					
c Assumes Mitigation Measure 4.3-2(d), (e) and (g).					
Source: Atkins, 2011, 2012 compiled from URBEMIS 2007 and EPA Woodstove and Fireplace Emissions Calculator, output and calculations included in Appendix D.					

Response 5-14: The comment recommends that the GHG analysis more fully describe the assumptions that were used to estimate the effectiveness of mitigation measures for reducing GHGs. The reduction measures for non-mobile source emissions reductions are explained in Response 5-7. These assumptions were incorporated into the BGM Modeling to show the reduced emissions.

Reduction measures for mobile source emissions include the reductions from the BGM model including implementation of Pavley Regulations and the Low Carbon Fuel Standard. Additional reductions were calculated subsequent to the BGM modeling to account for the design measures outlined in the Specific Plan and General Development Plan, as detailed on Page 4.6-15 of the Draft Environmental Impact Report. The methodology used to quantify the “2020

Mitigated Beyond BGM” reduction of for transportation is based on the CAPCOA document *Quantifying Greenhouse Gas Mitigation Measures* (August 2010). Total reductions beyond BGM quantifications equal 3.48% and consist of:

- Neighborhood electric Vehicles (CAPCOA Measure 3.2.3) provides an additional reduction of 1.5%;
- Pedestrian Connectivity (CAPCOA Measure 3.2.1) provides and additional reduction of 1.0%;
- Transit Access that assumes a 10% expansion (CAPCOA Measure 3.5.2) results in a reduction of 0.1%;
- Bicycle Storage (CAPCOA Measure 3.2.6) results in a reduction of 0.625%; and
- Non-Auto oriented corridor (CAPCOA Measure 3.1.7) proved an addition 0.25%.



MEMORANDUM

TO: MAYWAN KRACH, ECS DATE: JULY 5, 2012

FROM: PHILLIP A. FRANTZ, ESD ~ ENGINEERING & SURVEYING DEPARTMENT

SUBJECT: CITY OF LINCOLN: VILLAGE 1 SPECIFIC PLAN ~ DEIR

Thank you for the opportunity to review the above-mentioned project for concerns relating to Placer County. After reviewing the submitted information, the Community Development Resource Agency ~ Engineering & Surveying Department, the Department of Public Works, and the Facility Services Department ~ Environmental Engineering Division offer the following comments for your consideration regarding the proposed project:

CHAPTER 4.13: PUBLIC UTILITIES ~ SEWER

1. General: The document should be revised to be consistent in referencing the areas to be served by the regional sewer project. Change all references to:

the City of Auburn and Placer County Sewer Maintenance District 1 service areas, the Bickford Ranch service area and potential service areas within unincorporated Placer County

6-1

In addition, remove all references to the "Placer Nevada Wastewater Authority" as they are not a participant in the regional sewer project.

2. Page 4.13-33: In the Wastewater Treatment paragraph, revise the last sentence as follows:

... approximately 34.4 mgd to accommodate flows generated by the adopted 2050 General Plan area (approximately 25 or 26 ?? mgd- see page 4.13-38)) and the possible regional buildout flows from the ~~Placer Nevada Wastewater Authority (approximately 8 mgd)~~ City of Auburn and Placer County Sewer Maintenance District 1 service areas, the Bickford Ranch service area and potential service areas within unincorporated Placer County (approximately ?? mgd).

6-2

Verify that 34.4 mgd will accommodate flows of the General Plan area and the regional buildout flows. Include the approximate regional buildout flows.

3. Page 4.13-34: In the first paragraph, correct the sentence stating that "Placer County is evaluating the use of the 42-inch line and Lincoln WWTRF as a regional treatment plant" to correctly identify that the City of Lincoln is conducting the study.

6-3

4. Page 4.13-34 and Page 4.13-36: Include a discussion in the Wastewater Collection Infrastructure and Full Specific Plan sections that addresses how the City will obtain ownership of the 42-inch trunk sewer constructed by the Bickford Ranch project. Discuss the impacts or alternatives if the trunk sewer is not obtained.

6-4

5. Page 4.13-36: The EIR should discuss the need to expand the WWTRF to serve the existing and buildout of regional sewer flows in addition to the City of Lincoln 2050 General Plan (General Plan) flows.

A) The first sentence of the second paragraph should be revised as follows:

The City fully expects to be able to expand the WWTRF as needed to serve new buildout development as foreseen by the General Plan and the regional service area including the City of Auburn and Placer County Sewer Maintenance District 1 service areas, the Bickford Ranch service area and potential service areas within unincorporated Placer County ...

6-5

B) The last sentence of the second paragraph should be revised as follows:

...in combination with cumulative development in the City and the regional service area including the City of Auburn and Placer County Sewer Maintenance District 1 service areas, the Bickford Ranch service area and potential service areas within unincorporated Placer County ...

C) The last sentence of on the page should be revised as follows:

... in order to serve the regional service area including the City of Auburn and Placer County Sewer Maintenance District 1 service areas, the Bickford Ranch service area and potential service areas within unincorporated Placer County ...

6. Page 4.13-37: In the paragraph above **Phase 1**, discuss if the existing trunk sewer has enough capacity for buildout flows. In addition, revise the first sentence as follows:

*...flows from Village 1 and regional offsite buildout (**need to verify that 34.4 mgd accommodates regional buildout flows**) flows from the City of Auburn and Placer County Sewer Maintenance District 1 service areas, the Bickford Ranch service area and potential service areas within unincorporated Placer County.*

6-6

Verify that 34.4 mgd will accommodate flows of the General Plan area and the regional buildout flows.

7. Page 4.13-37: The first sentence of the Cumulative Impacts and Mitigation Measures should be revised as follows:

6-7

The cumulative context for wastewater treatment includes buildout development within the service area of the WWTRF, including the City of Auburn and Placer County Sewer Maintenance District 1 service areas, the Bickford Ranch service area and potential service areas within unincorporated Placer County ...

6-7
cont.

In addition, remove the reference to the “Placer Nevada Wastewater Authority” as they are not a participant in the regional sewer project.

8. Page 4.13-38: In the first paragraph regarding the conveyance system, include a discussion on whether the existing trunk sewer through the City of Lincoln and the trunk sewer built by the Bickford Ranch project, and the proposed trunk line from City of Auburn and Placer County Sewer Maintenance District 1 will convey buildout flows.

6-8

9. Page 4.13-38: The first sentence in the second paragraph should be revised as follows:

...approximately 34.4 mgd dry weather flow to accommodate flows generated by the General Plan area (approximately 25 or 26 ?? mgd – see page 4.13-33) which includes the Village Specific Plan planning area, and the regional offsite buildout (need to verify that 34.4 mgd accommodates regional buildout flows) flows from the City of Auburn and Placer County Sewer Maintenance District 1 service areas, the Bickford Ranch service area and potential service areas within unincorporated Placer County (approximately ?? mgd).

6-9

Verify that 34.4 mgd will accommodate flows of the General Plan area and the regional buildout flows. Include the approximate regional buildout flows.

10. Page 4.13-38: The first sentence of the last paragraph should be revised as follows:

... in combination with flows from other projects including the City of Auburn and Placer County Sewer Maintenance District 1 service areas, the Bickford Ranch service area and potential service areas within unincorporated Placer County ...

6-10

11. Page 4.13-39: The last sentence of the last paragraph should be revised as follows:

...to serve the City of Lincoln buildout and the regional service area buildout including the City of Auburn and Placer County Sewer Maintenance District 1 service areas, the Bickford Ranch service area and potential service areas within unincorporated Placer County.

CHAPTER 4.14: TRANSPORTATION & CIRCULATION

1. Figure 4.14-9: Per the project description, Oak Tree Lane would not be extended from Hwy 193 to Sierra College until the later phases of development after Phase 1. Figure 4.14-9 has a volume bubble next to this extension which shows an Existing Plus Phase 1 volume of 4,300 which appears to be a conflict if this extension has not yet been constructed.

6-11

2. Cumulative Impacts: Impacts to the intersection of Sierra College and English Colony Way are identified but the intersection is assumed to remain stop sign controlled since no

6-12

improvements would be constructed by the SPRTA widening of Sierra College. Per the Fehr & Peers 2006 Sierra College Road Improvements and Estimates for the Sierra College Widening, this intersection is shown to be signalized as a SPRTA Responsibility.

6-12
cont.

3. The Specific Plan and DEIR show the Placer County parcel that encompasses the County's Corporation Yard (the former missile site) as being within the project boundaries and as being rezoned to Mixed Use and Village Park/Recreation. The documents should acknowledge that the County has no current plans to relocate the corporation yard or plans to convert the remainder of the site to a park and discuss how this would impact the project development, such as is it necessary to designate other park or recreation space or should there be buffers around the corporation yard. In addition, since the County has not agreed that this parcel should be included within the Village 1 boundaries, the documents should contain an alternative whereby the parcel is excluded from the project.

6-13

4. The Traffic Analysis shows that the volume on Virginiatown Road will increase significantly over existing volumes. While this volume will not exceed the LOS thresholds, the existing roadway has narrow lanes and roadside drainage ditches and carrying this increased volume could create safety and operational issues which could be significant impacts. The City should identify these impacts and how they intend to mitigate them.

6-14

5. Since the Specific Plan and DEIR will be utilized for the LAFCO annexation request, details should be provide about the extent of Virginiatown Road and Sierra College Blvd. that the City intends to annex.

6-15

cc: Andrew Gaber, DPW ~ Transportation Division
Janelle Heinzler, DFS ~ Environmental Engineering Division

LETTER 6: PHILLIP A. FRANTZ, ENGINEERING & SURVEYING DEPARTMENT, PLACER COUNTY

Response 6-1: The only participant in the regional sewer project at this time is the Placer County Sewer Maintenance District (SMD1) service area. The City of Auburn has not decided yet whether to participate. Bickford Ranch has proposed to connect to the City sewer system, but is not part of the regional sewer project. There are no other unincorporated areas that would participate in the regional sewer project between the Lincoln Sphere of Influence (SOI) and Sierra College Boulevard.

The Placer Nevada Wastewater Authority (PNWA) is encouraging the regional sewer project but is not a participant.

Please see Responses 6-2 through 6-9 for specific revisions to the Draft EIR regarding the regional sewer project.

Response 6-2: General Plan buildout is estimated to require 26.3 million gallons per day (mgd). The 34.4 mgd cited in the Draft EIR would serve both the Lincoln General Plan buildout and other regional flows. The last sentence in the paragraph under **Wastewater Treatment** on page 4.13-33 is modified as shown to clarify the information in Response 6-1, and to add the requested information:

WWTRF design also includes site planning for an expansion of up to approximately 34.4 mgd ADWF to accommodate flows generated by the adopted 2050 General Plan area (26.3 mgd ADWF, as shown in Technical Appendix G, Table 3) and the possible regional buildout flows from ~~Placer Nevada Wastewater Authority (approximately 8 mgd)~~ the City of Auburn if they choose to participate (2.5 mgd ADWF) and Placer County SMD 1 service area (4.2 mgd ADWF committed to the Regional Sewer Project), the Bickford Ranch service area (~1.0 mgd) and potential service areas within unincorporated Placer County (minor).

These changes clarify the wastewater setting, but do not alter the wastewater impact analysis.

Response 6-3: Placer County was inadvertently referenced in the sentence. Therefore, the second to last sentence in the first paragraph on page 4.13-34 is corrected as follows:

~~Placer County~~ The City of Lincoln is evaluating the use of the 42-inch line and Lincoln WWTRF as a regional treatment plant.

Response 6-4: The Bickford Ranch sewer line is intended to be used to convey flows from both the City and the County. As currently planned, the County would own the sewer line, and the City and County would enter into a service agreement allowing the City to use a portion of the line.

The Bickford Ranch sewer line will be completed as needed to serve the plan area, so no alternative sewer lines need be discussed. If the Bickford Ranch portion of the sewer line is needed before Bickford Ranch recommences construction, the line will be built as part of the regional project, subject to a reimbursement agreement.

Response 6-5: As discussed in Response 6-1, the WWTRF could serve several jurisdictions, including the City of Auburn. However, the statement that “potential service areas within unincorporated Placer County” is too broad to be accurate. Accordingly, the first full paragraph

on page 4.13-36 is modified as follows:

The City fully expects to be able to expand the WWTRF as needed to serve ~~new~~ buildout development as foreseen by the General Plan and the regional service area including the City of Auburn and Placer County SMD 1 service areas, the Bickford Ranch service area and a portion of unincorporated Placer County in the area adjacent to SR 193 between the Lincoln SOI and Sierra College Boulevard. ~~and-~~ The City will require that applicants contribute fair-share costs to plant expansions. However, the timing of the expansions will depend on a number of factors, such as funding and permitting. The potential environmental effects of future expansions to provide capacity for the Specific Plan, in combination with cumulative development in the City and other areas served by the WWTRF, are evaluated in Impact 4.13-5.

In addition, the second sentence of the last paragraph on page 4.13-36 is modified as follows:

The trunk line is planned to ultimately extend to Sierra College Boulevard, in order to serve the regional service area including the City of Auburn and Placer County SMD 1 service areas, the Bickford Ranch service area and/or a portion of Placer County located in the area adjacent to SR 193 between the Lincoln SOI and Sierra College Boulevard.

These changes clarify the wastewater setting, but do not alter the wastewater impact analysis.

Please also see Response 6-1.

Response 6-6: As discussed in Response 6-3 and Impact 4.13-4, the WWTRF would have sufficient capacity to serve the full Specific Plan as well as other development in the proposed WWTRF service area. Plan Area 1 is a subset of the full Specific Plan, so the WWTRF would have sufficient capacity for Phase 1. Please also see Response 6-3.

Response 6-7: As requested, the first sentence under **Cumulative Impacts and Mitigation Measures** on page 4.13-37 is clarified as follows:

The cumulative context for wastewater treatment includes buildout development within the service area of the WWTRF, including the City of Auburn, Placer County SMD 1 service areas, the Bickford Ranch service area, and/or a portions of Placer County located in the area adjacent to SR 193 between the Lincoln SOI and Sierra College Boulevard., ~~and possible flows from Placer Nevada Wastewater Authority communities.~~

This clarification does not alter the amount of wastewater that could be treated by the WWTRF, so the cumulative wastewater analysis would not be altered.

Response 6-8: Please see Responses 6-4 and 6-5.

Response 6-9: The first sentence in the first paragraph under **Cumulative Effect of Programmatic Portion** on page 4.13-38 is clarified as follows:

The WWTRF design includes site planning for an expansion of up to approximately 34.4 mgd dry weather flow to accommodate flows generated by the General Plan area (approximately 25 mgd), which includes the Village 1 Specific Plan planning area, and the possible regional flows from outside the City (see Impact 4.13-3). ~~Placer Nevada~~

~~Wastewater Authority (approximately 8 mgd).~~

This clarification does not alter the amount of wastewater that could be treated by the WWTRF, so the cumulative wastewater analysis would not be altered.

Please also see Response 6-5.

Response 6-10: The “other projects” that are referenced in the last paragraph of Impact 4.13-5 are listed throughout the section (as revised). No additional clarification is needed.

Response 6-11: The volumes shown for these two locations were incorrect in Figure 4.14-9. Corrected volumes are provided in Revised Figure 4.14-9 in Chapter 2, Draft EIR Errata and Modifications. The corrected volumes were assumed in the traffic analysis, so no changes to the impacts would result from these modifications.

Response 6-12: The traffic analysis has been modified to include a traffic signal at this location under future scenarios. The first bullet under 2050 Conditions on page 4.14-59 is modified as follows:

- *Sierra College Boulevard and English Colony Way* – This Placer County intersection is currently controlled by a stop sign on English Colony Way, and since no funding has been identified to construct a traffic signal, it is assumed to remain stop sign controlled in 2050. Without the project, average delay is projected to be ~~416.4~~ 0.81 seconds per vehicle (LOS ~~F-D~~) by 2050. The addition of the proposed project would increase the delay at this intersection significantly, to ~~491.3~~ 0.96 seconds (still LOS ~~E~~ F).

In addition, Tables 4.14-16 Table 4.14-17 were modified to reflect the updated LOS methodology at this location (see Chapter 2, Draft EIR Errata and Modifications). These modifications do not alter the conclusions of the Draft EIR because the delay would still be substantial (over 5 seconds) at this intersection, and the same mitigation would be required.

Response 6-13: The County’s Corporation Yard is located in the programmatic area of Village 1, and would be rezoned and developed during a subsequent phase. On August 22, 2012, City staff and the applicant met with County staff. According to County staff, the County does plan to relocate the Corporation Yard at some time in the future, and that the County is not opposed to including the site within the Village 1 boundaries.

Response 6-14: Virginiatown Road would be improved through the plan area to meet City standards, which would ensure that safety concerns were adequately addressed. The Specific Plan provides for two 21-foot vehicle lanes, sidewalk and 12.5-foot public utility easement west of Oak Tree Lane, and two 12-foot vehicle lanes, eight-foot shoulders, and ten-foot easements east of Oak Tree Lane. In addition, a 25-foot landscape corridor with six-foot sidewalk would be provided on the south side of Virginiatown Road east of Oak Tree Lane.

Response 6-15: The portion of Virginiatown Road adjacent to the Village 1 plan area is proposed to be annexed. No portion of Sierra College Boulevard is proposed to be annexed.



**Placer County
Health and Human Services Department**

Richard J. Burton, M.D., M.P.H.
Health Officer and Department Director

Ken Stuart, M.S.E.H., R.E.H.S.
Environmental Health, Interim Division Director

MEMORANDUM

DEPARTMENT OF HEALTH & HUMAN SERVICES ENVIRONMENTAL HEALTH SERVICES

To: Rod Campbell, Director, City of Lincoln Development Services Department

From: Laura Rath, REHS *LR*
Land Use and Water Resources Section

Date: June 6, 2012

Subject: Village 1 Specific Plan Draft EIR

Environmental Health Services has the abovementioned draft EIR and has the following comments:

1. On Page 4.7-3 the property known as the Lincoln Landfill at Virginiatown and Hungry Hollow is discussed. The property had been used as a municipal landfill by the City of Lincoln from the early 1950's to the mid 1970's. This site is proposed as a public facility in the Specific Plan. Any proposed post-closure land use of this historic landfill will require approval from multiple agencies. The following language should be added to this section in order to reflect this requirement: "Any proposed post-closure land use of the historic Lincoln Landfill will require approval of the Local Enforcement Agency (LEA), the Department of Resources Recycling and Recovery (CalRecycle), and the Central Valley Regional Water Quality Control Board (CVRWQCB). The LEA will forward the proposal to CalRecycle and the CVRWQCB for concurrent approval of post-closure land use of the Lincoln Landfill prior to utilization of the site."

7-1

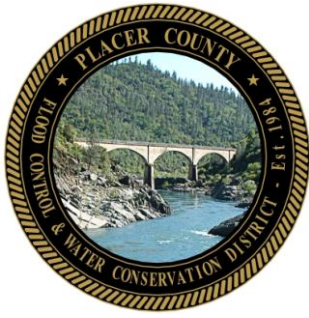
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LETTER 7: LAURA RATH, REHS, ENVIRONMENTAL HEALTH SERVICES, PLACER COUNTY

Response 7-1: As requested, the following language is added to the end of the third paragraph under Phase 1 Component of the Specific Plan on page 4.7-3.

Any proposed post-closure land use of the Lincoln Landfill will require approval of the Local Enforcement Agency (LEA), the Department of Resources Recycling and Recovery (CalRecycle), and the Central Valley Regional Water Quality Control Board (CVRWQCB). The LEA will forward the proposal to CalRecycle and the CVRQWCB for concurrent approval of post-closure land use of the Lincoln Landfill prior to development of the site.

This information addresses administrative procedures, and would not alter the impact analysis.



PLACER COUNTY
FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Ken Grehm, Executive Director
Brian Keating, District Engineer
Andrew Darrow, Development Coordinator

July 9, 2012

Rod Campbell, Director
City of Lincoln
Development Services Department
600 Sixth Street
Lincoln, CA 95648

RE: Village 1 Specific Plan / Draft EIR

Rod:

We have reviewed the Draft Environmental Impact Report (DEIR) dated May 2012 for the subject project and have the following comments.

- 1. Per the DEIR, increases in peak flow runoff due to this development will be adequately mitigated through overbank excavation and roadway culvert constrictions. The District requests the opportunity to review the most recent version of the *Village 1 Specific Plan, City of Lincoln, Drainage Master Plan*. 8-1
- 2. The applicant is also proposing to mitigate for the proposed project's increases in volume runoff. The DEIR indicates that the Village 1 Specific Plan development will increase volumetric runoff by 125.2 acre-feet. If available, these increases will be mitigated within the Lakeview Farms Volumetric Mitigation Facility (LFVMF). If the LFVMF is not operational at the issuance of the first final map, onsite retention storage will be provided onsite. 8-2
- 3. The DEIR appears to adequately address the impacts of placing fill with the Auburn Ravine 100-year floodplain. However, does not appear to address the proposed increases, and related impacts, to the Ingram Slough 100-year floodplains. The District requests that future project-specific EIRs address this impact. 8-3

The District requests the opportunity to review future environmental documentation for the Village 1 Specific Plan area. Please call me at (530) 745-7541 if you have any questions regarding these comments.

Andrew Darrow, P.E., CFM
Development Coordinator

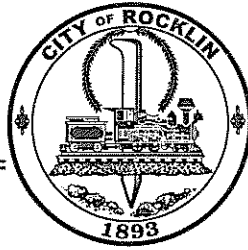
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LETTER 8: ANDREW DARROW, P.E., CFM, PLACER COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Response 8-1: The Drainage Master Plan has been provided to the PCFCWCD for review. The PCFCWCD has stated that they have reviewed the Drainage Master Plan, and have no concerns (letter from Andrew Darrow, Development Coordinator, PCFCWCD, to Rod Campbell, Development Services Director, City of Lincoln, September 6, 2012).

Response 8-2: The comment reiterates information provided on pages 4.8-37 through 4.8-39 and 4.8-48.

Response 8-3: Changes in Ingram Slough are addressed throughout Section 4.8, Hydrology and Water Quality, including Impacts 4.8-1 through 4.8-3.



June 12, 2012

Rod Campbell, Director
City of Lincoln Development Services Dept.
600 Sixth Street
Lincoln, CA 95648

SUBJECT: Comments on Village 1 Specific Plan Draft EIR

Dear Rod:

Thank for you the opportunity to review the above-referenced Draft EIR document. Per the Draft EIR, the Village 1 Specific Plan project proposes 5,639 residential units and a mixture of other uses (retail, office, public/semi-public facilities, parks and open space) on approximately 1,832 acres located immediately east of the City of Lincoln limits, generally bounded by the Twelve Bridges Specific Plan on the south and west, the City of Lincoln on the west, Virginiatown Road on the north, and undeveloped land in unincorporated Placer County on the east (State Route 193 bisects the project in an east-west direction). The City of Rocklin has completed its review and has the following comments:

1. Table 4.14-12 represents Placer County Residential Land Use Assumptions and includes statistics for the City of Rocklin. However, the statistics represented in that table are not consistent with the statistics used by the City of Rocklin in its recent General Plan Update and associated Draft EIR. Specifically, the number of Single Family Dwelling Units for the years 2030 and 2050 are noted in Table 4.14-12 as 19,262, but the correct number is 19,899; the number of Multi-Family Dwelling Units for the years 2030 and 2050 are noted in Table 4.14-12 as 6,787, but that number is 8,210, and the Total Dwelling Units for the years 2030 and 2050 are noted in Table 4.14-12 as 27,223, but that number should be 29,283. Such discrepancies may have affected the accuracy of the traffic analysis and the resulting identification of traffic impacts.

2. Table 4.14-13 represents Placer County Non-Residential Land Use Assumptions and includes statistics for the City of Rocklin. However, the statistics represented in that table are not consistent with the statistics used by the City of Rocklin in its recent General Plan Update and associated Draft EIR. Specifically, the number of Retail KSF for the years 2030 and 2050 are noted in Table 4.14-13 as 6,878, but the correct number is 8,894; the number of Office KSF for the year 2008 is

9-1



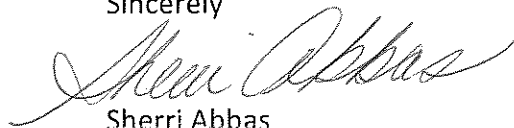
noted in Table 4.14-13 as 979, but the correct number is 1,067, and the number of Office KSF for the years 2030 and 2050 are noted in Table 4.14-13 as 3,514, but the correct number is 7,043; the number of Industrial KSF for the years 2030 and 2050 are noted in Table 4.14-13 as 3,745, but the correct number is 5099; the number of Total KSF for the year 2008 is noted in Table 4.14-13 as 7,107, but the correct number is 7,195, and the number of Total KSF for the years 2030 and 2050 are noted in Table 4.14-13 as 14,137, but the correct number is 21,036. Such discrepancies may have affected the accuracy of the traffic analysis and the resulting identification of traffic impacts.

9-1
cont.

3. The future intersection of Valley View Parkway and Sierra College Boulevard should have been included in the analysis of intersection impacts, particularly given the potential use of Valley View Parkway as a route to the future Placer Parkway and in light of the fact that impacts were identified in the Village 1 Specific Plan Draft EIR both north and south of the Sierra College Boulevard/Valley View intersection at Sierra College Boulevard/English Colony Way and Sierra College Boulevard/King Road, respectively.
4. In summary, we request that the correct residential and non-residential land use assumptions for the City of Rocklin be used in the traffic analysis, and that the intersection of Sierra College Boulevard/Valley View Parkway be analyzed for impacts as a result of the proposed project's traffic.

If there are any questions or need for clarification on any of these comments, please contact David Mohlenbrok at (916) 625-5160. Thanks again for the opportunity to comment.

Sincerely



Sherri Abbas

Community Development Director

cc: Rick Horst, City Manager
City Council Members

LETTER 9: SHERRI ABBAS, COMMUNITY DEVELOPMENT DIRECTOR, CITY OF ROCKLIN

Response 9-1: The comment requests that intersections under its jurisdiction be analyzed using the Rocklin’s 2030 travel demand model, developed for the Rocklin 2030 General Plan Update. This model includes buildout of all updated General Plan land uses within the City of Rocklin and 2030 assumptions outside the City of Rocklin. As discussed in more detail below, these assumptions differ somewhat from the assumptions in the Placer County model used to analyze the impacts of Village 1 within the City and surrounding jurisdictions. As requested, intersections within Rocklin have been analyzed using Rocklin’s model and LOS methodology. Because Rocklin’s General Plan Update is based on 2030 conditions, Rocklin Intersections are not analyzed under 2050 conditions.

Rocklin’s General Plan Update 2030 travel demand model includes buildout of land uses within the City of Rocklin consistent with the Rocklin’s General Plan Update. However, because the Rocklin 2030 model includes a portion of Lincoln’s General Plan SOI expansion (including a portion of Village 1) the “no project” model had to be modified by removing all land uses within the Village 1 boundaries. This ensured a proper plus project to no project comparison for Village 1. This updated analysis focuses on 2030 conditions (and not 2050) as Rocklin’s General Plan has a 2030 horizon year. As requested, the intersection of Sierra College Boulevard and Valley View Parkway has been analyzed. Changes at that location were not substantial. However, service levels at two intersections along Wildcat Boulevard would degrade from LOS C to LOS D, which exceeds Rocklin’s, LOS threshold (see Revised Table 4.14-16 in Chapter 2, Draft EIR Errata and Modifications.

The Rocklin analysis has been incorporated into the full traffic analysis, as specified below. Note that while the updated analysis does result in modification of the one impact and a mitigation measure, the modifications are not great enough to result in a new impact, or to be considered a substantial increase in the severity of the impact identified in the Draft EIR.

The following paragraph is inserted after the second paragraph on page 4.14-19:

The City of Rocklin has requested that intersections under its jurisdiction be analyzed utilizing the City’s 2030 travel demand model, developed for the Rocklin 2030 General Plan Update. This model includes buildout of all updated General Plan land uses within the City of Rocklin and 2030 assumptions outside the City of Rocklin. Therefore intersections within Rocklin have been analyzed using Rocklin’s model and LOS methodology. Because Rocklin’s General Plan Update is based on 2030 conditions, Rocklin Intersections are not analyzed under 2050 conditions.

The following text paragraph is added after the second paragraph under **Future Development Assumptions** on page 4.14-41:

As discussed under Methods, the City of Rocklin has requested that intersections under its jurisdiction be analyzed utilizing the City’s 2030 travel demand model, developed for the Rocklin 2030 General Plan Update. Because Rocklin’s General Plan Update is based on 2030 conditions, Rocklin Intersections are not analyzed under 2050 conditions.

The first paragraph under Impact 4.14-7 on page 4.14-59 is modified as follows:

Buildout of the Village 1 Specific Plan land uses and roadways would increase traffic on some local roadways while decreasing traffic on others. Under existing conditions, all of

the study intersections outside of the City of Lincoln operate at LOS C or better (see Table 4.3-9). Level of service analysis was calculated at study area intersections outside of Lincoln under 2030 conditions without and with buildout of the proposed project, as shown in Table 4.14-16. Under 2030 conditions without the project, cumulative traffic increases would result in ~~three~~ two intersections operating at ~~LOS D~~, ~~which would service levels that would exceed~~ the applicable thresholds for those intersections (see Table 4.14-16). ~~With the addition of project traffic would exacerbate congestion at these three~~ five intersections would exceed the thresholds. At one intersection, Sierra College Boulevard and Taylor Road, the increase would not be considered substantial, because it would not exceed 5 seconds. The project-related increase at the following ~~two~~ four intersections would be substantial:

The following bullets are added after the second bullet on page 4.14-59:

- West Stanford Ranch and Wildcat Boulevard – This Rocklin intersection is currently controlled by a traffic signal, and as such, is assumed to be signalized in 2030. Without the project, this intersection would operate at LOS C, with a V/C ratio of 0.78. The addition of the project would increase the V/C to 0.81 and result in LOS D.
- Wildcat Boulevard and Ranch View Drive – This Rocklin intersection is currently controlled by a traffic signal, and as such, is assumed to be signalized in 2030. Without the project, this intersection would operate at LOS C, with a V/C ratio of 0.76. The addition of the project would increase the V/C to 0.85 and result in LOS D.

The paragraph under Mitigation Measure on page 4.14-61 is modified to read:

The following mitigation measure would reduce the project impact on Sierra College Boulevard to a less-than-significant level by providing enough capacity for project traffic. For intersection of Sierra College Boulevard and English Colony Way, which is in the unincorporated county, a fee program is in place (SPRTA). Providing separate westbound right and left turn lanes, as well as an acceleration lane on northbound Sierra College Boulevard would mitigate the impact to a less than significant impact. However, this specific improvement is not included in SPARTA, and the City of Lincoln cannot compel the County to ~~restripe~~ add lanes at the intersection. The intersection of Sierra College Boulevard and King Road is located within the Town of Loomis. There is no fee program at present for City projects that affect Loomis roadways. Even if a fee program were in place, the City could not compel the Town of Loomis to restripe the intersection. The intersection of West Stanford Ranch and Wildcat Boulevard could be mitigated by eliminating southbound U-turns on Wildcat and providing a right turn “overlap” signal phase on westbound West Stanford Ranch. This would result in LOS B. The intersection of Wildcat Boulevard and Ranch View Drive could be mitigated by providing a second eastbound left turn lane on Ranch View Drive. This would result in LOS B. However the City of Lincoln cannot compel the City of Rocklin to implement these improvements. Therefore, the impact would remain significant and unavoidable. If and when the other jurisdictions decide to implement these improvements, the City of Lincoln would work toward entering into a fair share agreement to assist in funding the improvements at these locations.

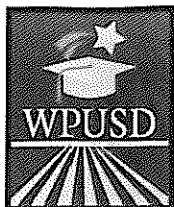
Items (c) and (d) and associated text are added after the second line on page 4.14-62:

- c) The proposed project shall contribute its fair share toward eliminating southbound U- turns on Wildcat Boulevard and providing a right turn “overlap” signal phase on westbound West Stanford Ranch Road (2030).

The intersection of West Stanford Ranch Road and Wildcat Boulevard is projected to have a large number of vehicles making a westbound right turn. Providing a westbound right overlap phase (where westbound right turns get a green arrow while southbound left turns have a green arrow) would improve the PM peak hour level of service to LOS B. However, this would require the prohibition of southbound U-turns at this intersection. The City of Rocklin may or may not choose to implement this improvement. If the City of Rocklin decides to implement this improvement, the Cities of Lincoln and Rocklin would need to negotiate a fair share contribution by Village 1 toward the improvement.

- d) The proposed project shall contribute its fair share toward providing a second eastbound left turn lane on Ranch View Drive at its intersection with Wildcat Boulevard (2030).

The intersection of Wildcat Boulevard and Ranch View Drive is projected to have a large number of vehicles making an eastbound left turn. Providing a second eastbound left turn lane on Ranch View Drive would improve the PM peak hour level of service to LOS B. The City of Rocklin may or may not choose to implement this improvement. If the City of Rocklin decides to implement this improvement, Lincoln and Rocklin would need to negotiate a fair share contribution by Village 1 toward the improvement.



**WESTERN PLACER
UNIFIED SCHOOL DISTRICT**

600 Sixth St, Suite 400, Lincoln CA 95648
Ph: 916-645-6350

Board of Trustees: Paul Long
Brian Haley
Paul Carras
Kris Wyatt
Damian Armitage

Superintendent: Scott Leaman

June 14, 2012

Rod Campbell, Director
Development Services Department
City of Lincoln
600 6th Street
Lincoln CA 95648

RECEIVED

JUN 21 2012

City of Lincoln
DEV SVCS

RE: Notice of Draft Environmental Impact Report for the Village 1 Specific Plan

Dear Mr. Campbell:

Thank you for the opportunity to respond to the addendum to the Notice of Draft Environmental Impact Report (EIR) for the proposed Village 1 Specific Plan Project. The Western Placer Unified School District (WPUSD) responded to the original Notice of Preparation of Environmental Impact Report for Village 1 in a letter dated October 29, 2010, and March 29, 2011 Addendum, which are both attached.

While the Draft EIR does speak in greater volume to the funding issues that face the District and covers the concerns of the District in the phasing plan in relation to the phasing in the area surrounding the proposed school site, it is still woefully deficient in mitigating the significant problems with this development in relation to the District, and does not even cover the impacts relating to serving students from this project. WPUSD is of the opinion that this Draft EIR is not in compliance with California Environmental Quality Act (CEQA) and requests that it be re-drafted prior to final review and adoption. Our findings are detailed below:

10-1

School Facilities

The Draft EIR Summary, under 'Project Description', finalizes the project to have a total of 5,639 residential units. Utilizing the planning student generation rate that WPUSD has implemented (.60 students per dwelling unit) this would see approximately 3,383.4 new students to WPUSD that would be served by an already impacted district.

10-2

In Section 4.12 page 14, under 'Standards of Significance' it specifically states that impacts on public schools are considered significant if "the proposed project would result in the construction or modification of school facilities, the construction or modification of which could cause significant environmental impacts, in order to maintain acceptable serve ratios for school services". Yet, contrary on Page 16,

10-3



under the same section, the EIR states “impacts related to schools would be less than significant”. It is assumed that because the Developers attempt to hide behind SB 50 to ignore the glaring truth of lack of funds to construct school facilities, that somehow the impacts are less than significant. Simply because the funding is less than significant, doesn’t mean that the issue is. An additional 3,383.4 students would greatly impact the current school facilities and that number also necessitates the construction of further school facilities. Therefore, in the EIR’s own wording, the impacts to public school facilities are in fact significant, and the EIR should be drafted to reflect as such.

It could be stated that WPUSD should plan currently only for Phase I of the proposed specific plan for Village 1, as the EIR often refers to. The proposed 1,135 residential units in Phase I would still result in approximately 681 new students to the district all on its own. These 681 students, even with the District’s increase site sizes outlined in the 2010 Facilities Master Plan, would constitute the construction of another elementary school at the very least. Phase I even on its own could be considered to have “significant” impacts on WPUSD.

Since the state is not currently apportioning construction dollars, a statewide bond will not be placed on this November’s ballot and the funding programs are all experiencing changes to qualifications and rules; the fail-safe of having a portion of the costs to construct new facilities provided to districts is gone. WPUSD currently holds no capital outlay money available to fund future projects, and therefore by no means can cover the deficit remaining after state funding is gone. While WPUSD is justified to collect State of California Level II Stirling Fees, and does, that in itself does not provide adequate housing for students, nor does it fund the construction of a new school site.

While the EIR is correct in stating on Page 16 of Section 4.12 that the WPUSD has no legal authority to withhold any services, or a will-serve letter as the case may be, it does not deflect the District from stating that while we cannot refuse services, we are in no position to provide quality services to students who come to our District without full school facility mitigation. If WPUSD is forced to serve new students from developments based solely on mandated Level II residential construction fees, WPUSD will not be able to construct any new schools within this plan area and will have to transport students to any other school within the District that has space available to place even more portable classrooms and student seating.

Interim Housing

The EIR does give allowance to housing students based on the currently justified Level II Fee structure, and also notes that WPUSD cannot hold them accountable for any further fees under SB 50. However, nowhere in the EIR are there allowances for the environmental impacts for the construction of any interim housing on all current



10-3
cont.

10-4

sites to accommodate students from Village 1 Specific Plan while funding is found to construct a school within their attendance area.

While it is expected that any middle school students would attend current middle school sites, and high school students would attend the current high school site, the incoming elementary school students from this development would be placed in what is deemed as 'interim housing' in possibly any or all of our current seven (7) elementary school sites.

Many of our current sites have a long history, and a few were constructed even prior to California Department of Education approval process for school sites. Housing that many new students on various sites would not preclude WPUSD from claiming an exemption from CEQA nor would we qualify for a Negative Declaration. This means that any additions of interim housing for these students will set into motion a full CEQA process for the District itself and mitigation measures yet to be determined.

For this EIR to be considered complete under CEQA, it needs to comply with California Government Code Section 65996 and speak to all impacts that it will cause, including environmental impacts for all interim housing that will be necessary.

Transportation

Section 4.14 'Transportation and Circulation' of the EIR is 72 pages of mitigations and impacts regarding traffic all around the proposed project and direct effects on surrounding roadways.

However, after extensive searching WPUSD still does not find where the traffic impacts for bussing and transporting students to interim housing sites is mentioned at all. In order to serve students from this development, prior to construction of a school within the development, the elementary students would have to be offloaded to any or all of the current district elementary school sites.

Busses and parents self-transporting 3,383.4 students twice a day throughout the school year will no doubt have significant impacts on current traffic flow and the condition of roadways throughout the boundaries of WPUSD. This includes Highway 65 to Sheridan and the small roads within the town of Sheridan.

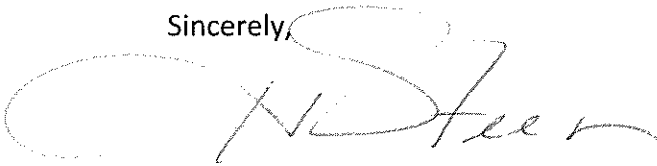
10-4
cont.

10-5

The true significant impacts to school facilities, interim student housing on current sites and transportation of 3,383.4 students to and from interim school housing is left completely out of this proposed EIR. Despite the payment of statutory fees, all impacts to the local school district must be considered. It is because of this WPUSD requests that the EIR be withdrawn, or refused, and one that adequately covers what is legally required under CEQA be drafted.

10-6

Sincerely,

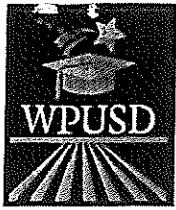


Heather Steer, Facilities Planner
Facilities Department

Attachments:

WPUSD Response to NOP of EIR for Village 1 Specific Plan, October 29, 2010
WPUSD Response to Addendum to NOP of EIR for Village 1 Specific Plan,
March 29, 2011

- c: Scott Leaman, Superintendent, WPUSD
Joyce Lopes, Assistant Superintendent, WPUSD
Jim Estep, City Manager, City of Lincoln
Michael Roberts, Chair, City of Lincoln Planning Commission
Bill Lyons, Vice-Chair, City of Lincoln Planning Commission
Dan Cross, City of Lincoln Planning Commission
Vic Freeman, City of Lincoln Planning Commission
E.J. Ivaldi, City of Lincoln Planning Commission
Michael "Mick" McCartney, City of Lincoln Planning Commission
Rob Wolf, City of Lincoln Planning Commission
Kristina Berry, Executive Officer Placer County LAFCO
Ron Treabess, Chair, Placer County LAFCO
Joshua Alpine, Vice-Chair, Placer County LAFCO
Robert Weygandt, Placer County LAFCO
Jim Holmes, Placer County LAFCO
Carol Garcia, Placer County LAFCO
Gray Allen, Placer County LAFCO
E. Howard Rudd, Placer County LAFCO
Tony Frayji, Frayji Design Group



**WESTERN PLACER
UNIFIED SCHOOL DISTRICT**

600 SIXTH ST, SUITE 400, LINCOLN CA 95648
PH: 916-645-6350

Board of Trustees: Paul Long
Brian Haley
Paul Carras
Kris Wyatt
Damian Armitage

Superintendent: Scott Leaman

March 29, 2011

Rod Campbell, Director
Development Services Department
City of Lincoln
600 6th Street
Lincoln CA 95648

RE: Addendum to Notice of Preparation of Environmental Impact Report for the Village 1 Specific Plan

Dear Mr. Campbell:

Thank you for the opportunity to respond to the Addendum to the Notice of Preparation of an Environmental Impact Report for the proposed Village 1 Specific Plan Project. The Western Placer Unified School District (WPUSD) responded to the original Notice of Preparation of Environmental Impact Report for Village 1 in a letter dated October 29, 2010, which is attached.

With this addendum, WPUSD continues to maintain the position that any new students resulting from new development within the school district need to be mitigated for in full. The fact that WPUSD is without local funding to assist with construction of future student housing for students from the Villages is evident. As such, the Villages will all be requested to mitigate fully the cost to construct appropriate school facilities to house all elementary, middle and high school students that come from each subsequent development. New students without proper mitigation could only negatively impact the current sites and student learning environment.

The previous NOP indicated 4,680 residential dwelling units proposed for Village 1. Utilizing a base student yield rate of .60 students per single family residential unit, it was projected there would be 2,808 K-12 grade students who will need new school facilities. The amended NOP now calls for an even higher density of dwelling units within this project, with a new proposition for 5,641 units. This new unit count would increase the projected number of students to 3,385, adding an additional 577 students to WPUSD from this singular Village.

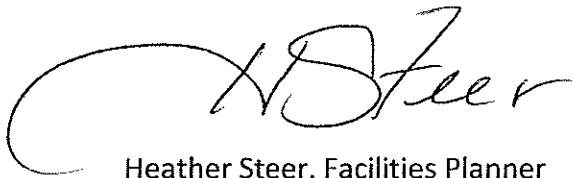
The cost of mitigation of Village 1 to provide necessary school facilities for the 3,385 students now projected from this development equates to roughly \$27,949 x 4,680

SFR Units = \$157,660,309.00. This is the number which needs to be included in the Draft EIR as the real impact on the WPUSD in light of this addendum.

The area of concern addressed in the District's original response dated October 29, 2010 regarding the location of the elementary school in relationship to the areas of proposed development phasing becomes more of a concern with an increased number of students being generated from this project. Our concern is that the proposed school site, although well thought out and located within the Village 1 boundary, is in an area not scheduled for early development. The potential impact of this is the delay in construction of the elementary school to the point that impact fees collected during the initial stages of development will be used to construct portable facilities on existing campuses to handle the impaction of elementary students caused by this development. Again, this scenario could lead to a shortfall of funds available to build the elementary proposed in Village 1.

With this addendum to the NOP, our concerns and requests outlined in the original response only become more urgent. Any additional homes constructed in this project will ultimately generate more students to be served by WPUSD and would demand realistic mitigations and concessions. WPUSD continues to request that the impacts be addressed in any EIR prior to City of Lincoln Planning Commission and subsequent Council approval.

Sincerely,

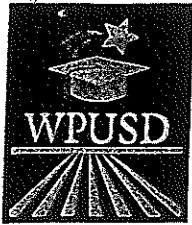
A handwritten signature in black ink, appearing to read "H. Steer", with a large, sweeping flourish on the left side.

Heather Steer, Facilities Planner
Facilities Department

Attachments:

Copy of WPUSD October 2010 response to NOP of EIR for Village 1 Specific Plan

c: Scott Leaman, Superintendent
Cathy Allen, Assistant Superintendent
Paul Carras, Board President
Brian Haley, Board Vice President
Kris Wyatt, Board Clerk
Paul Long, Board Member
Damian Armitage, Board Member



WESTERN PLACER UNIFIED SCHOOL DISTRICT

600 Sixth St., Suite 400, Lincoln, CA 95648
Ph: (916) 645-6350

Board of Trustees: Paul Long
Brian Haley
Paul Carras
Terry Gage
Ana Stevenson

Superintendent: Scott Leaman

October 29, 2010

Rod Campbell, Director
Development Services Department
City of Lincoln
600 6th Street
Lincoln CA 95648

RE: Notice of Preparation of Environmental Impact Report for the Village 1 Specific Plan

To Whom It May Concern:

Thank you for the opportunity to respond to the Notice of Preparation of an Environmental Impact Report for the proposed Village 1 Specific Plan Project. Although a school site is indicated in the proposed development, the impacts of this project on the Western Placer Unified School District need to be clearly defined. In order for future information and environmental impact reports to be accurate, WPUSD is submitting this letter and informational attachments for the City of Lincoln's records.

WPUSD adopted its School Facilities Master Plan in June 2010 based on the concepts defined in the City of Lincoln's 2050 General Plan Amendment. Previous discussions between WPUSD and the Village 1 Specific Plan creators have identified probable locations for an elementary school within Village 1 that will be necessary to house and educate kindergarten through fifth grade school students resulting from the development of Village 1 in its entirety. Elementary students from the development, including the proposed Turkey Creek Estates project would attend that elementary school. In addition, any middle and high school aged students that live within Village 1 would attend existing middle and high schools until such time as a new middle school is constructed in Village 2 and a new high school is constructed in Village 3. However, capacity at existing sites would need to be increased to house students generated from the proposed development.

WPUSD maintains the position that any new students resulting from new development within the school district need to be mitigated for in full. The undebatable fact that WPUSD is devoid of local funding to assist with

construction of future student housing for students from the Villages is evident. As such, the Villages will all be requested to mitigate fully the cost to construct appropriate school facilities to house all elementary, middle and high school students that come from each subsequent development.

Many financial advisors and developers are familiar with California Proposition 1A/Senate Bill 50. It states that the statutory requirement imposed by SB 50 of a developer is deemed to be full and complete mitigation. The perception that paying SB 50 fees adequately mitigates the cost of site acquisition and subsequent school construction is far from accurate and is not considered satisfactory to WPUSD. An EIR, by its definition, must state the real impacts of a project. The real impacts of Village 1 housing units, or any portion thereof, on WPUSD will not be covered by citing SB 50 and stating the project is mitigated when SB 50 will cover less than 50% of the impacts caused by Village 1.

SB 50 was based on the perception that the State of California would provide school facilities money to help districts build new schools. Historically, the State has provided about 36% of the money to help districts build new schools (not the previously touted 50%). In WPUSD that true percentage has been even less than 36% because of various costs that were incurred in the building of recent schools due to construction climate and the costs of materials at time of build. The State of California Office of Public School Construction has, or will shortly, run out of Proposition 55 school bond money. This means no money will be available to California schools for any percentage of construction costs. While SB 50 includes a last resort plan of Level III fees, it is very uncertain if Level III fees would ever be sanctioned by the State Allocation Board and/or approved for collection by local school districts, or if Level III fees would cover the true cost of construction.

Currently, the WPUSD operates under the SB 50 program; however, within the next year the District will have exhausted all of its remaining capital outlay funding to meet the needs of incoming students for the 2009-2010 and 2010-2011 school years. At that time the District *may* qualify for Financial Hardship if, indeed, the program still exists and remains in its current form. Schools built under Financial Hardship are typically portable in nature and, due to the funding limitations imposed by the State under the program; do not include many of the components needed to provide an appropriate learning environment. The Draft EIR, when prepared, needs to address the uncertainty of future State monies provided to eligible school districts. Even if a 2012 state-wide bond were to be successful there will be such a backlog of projects and with the Pooled Money Investment Board's (PMIB) concern about the State's bonding

capacity and credit rating, funding for projects that have yet to start will be in jeopardy. The EIR for the Village 1 Specific Plan must outline a plan for school facilities mitigation which contains not only full mitigation with exception of any available state monies, but also the real possibility of 100% funding should the State of California have no funds available to assist with approved school construction projects. This can be accomplished by a written mitigation agreement between the landowners and WPUUSD which spells out 100% mitigation. Future State funding, if and when it becomes available, would be considered part of the mitigation agreement.

In addition to not having guaranteed State of California school bond funds to share in the cost of new school construction, the EIR will need to address that not all expenses necessary to build a school to state standards are reimbursed by the state. Many items required prior to and during construction are expected to be paid for by completely by the school district. To expect that WPUUSD be held 100% financially responsible for these items as well does not effectively mitigate the costs of building schools in the State of California.

There are 4,680 residential dwelling units proposed for Village 1. Utilizing a base student yield rate (See Exhibit A) of .60 students per single family residential unit, it is projected there will be 2,808 K-12 grade students who will need new school facilities. Houses are built for 50 plus years and so are schools. Thus Village 1 will impact and continue to impact the WPUUSD for decades to come. The appropriate school facilities must be in place to serve this ongoing student population. Because students will go to elementary, middle and high schools, costs can be established on a per student basis for the many decades that the dwelling units will exist. Based on the construction costs of building the three types of new schools in 2009 and a recently created School Facility Funding Shortfall Analysis (Exhibit A), the District has identified a cost per single family residential unit of \$27,949. Also, attached is Exhibit B which breaks down the 2009 cost of constructing the three grade configuration of schools utilized by the WPUUSD. These figures were averaged using construction costs on 30 different school projects from surrounding areas within the past few years.

The cost of mitigation of Village 1 to provide necessary school facilities for the 2,808 students projected from this development equates to roughly \$27,949 x 4,680 SFR Units = \$130,801,320. This is the number which needs to be included in the Draft EIR as the real impact on the WPUUSD. This number can, and will adjust as the cost of land changes and construction costs inflate or deflate. The District is currently collecting \$4.21/square foot in Level II Developer Fees under SB 50. Using 2100 square feet as an average, roughly

\$41,375,880 could be collected at time of building permit issuance. That leaves a shortfall of approximately \$9,500 per single family home in 2010 dollars. This shortfall is assuming a state share of \$9,742 average per K-12 student. Since the state is not currently apportioning construction dollars, this amount is unreliable at best. As mentioned earlier, the District has no capital outlay money available to fund this shortfall and will need to rely on developers to mitigate the impact of future projects. Also, Level II fees are updated annually and could go up or down which will increase or decrease the shortfall.

WPUSD will continue to pursue alternate financing methods to mitigate necessary school building costs, as long as the developer understands that whatever methods are agreed upon cannot cause any financial impact to WPUSD.

Although current regulations prevent a school district in California from refusing to issue a document commonly known as a "will serve letter", the WPUSD is in no position to issue any such letter on Village 1 until we know we can serve the students by building the appropriate school facilities. Until WPUSD has a School Mitigation Agreement in place, the landowners and proponents of Village 1 need to be aware that WPUSD cannot and should not take on any more students than the current facilities can handle.

Another area of concern is the proposed location of the elementary school in relationship to the areas of proposed development in the 'near' future. There are two specific areas within Village 1 that are currently in the EIR preparation process; Turkey Creek Estates and the Project-Specific Component mentioned in the Notice of Preparation. Together, these two areas will result in 1,302 single family residential units yielding approximately 781 students. Of these, 229 students will be kindergarten through fifth grade. Our concern is that the proposed school site, although well thought out and located within the Village 1 boundary, is in an area not scheduled for early development. The potential impact of this is the delay in construction of the elementary school to the point that impact fees collected during the initial stages of development will be used to construct portable facilities on existing campuses to house the estimated 229 elementary students. This scenario could lead to a shortfall of funds available to build the elementary proposed in Village 1.

Since Village 1 is scheduled for development over a ten to twenty year time frame, it would be best if the EIR addressed the timing of areas of development within Village 1 and the infrastructure improvements delivered to the site that are needed to construct and operate the school. Another way of looking at this scenario is perhaps there should be a trigger point during the development of Village 1 where the necessary infrastructure is completed prior

to residential development south of Highway 193 (where the school site is proposed). The above would only pose a problem if it is anticipated that the earliest residential development in Village 1 will happen north of Highway 193.

Another other option, although not preferred, is to reconsider the location of the elementary school site to an area of the Village that is anticipated to be developed earlier rather than later.

Enclosed is a copy of the District's narrative response to the City of Lincoln's General Plan Update of February 2008 (identified as Letter N). The response further details the efforts of the District to accurately portray its needs and the steps necessary to adequately house students of future developments.

In closing, the EIR for this project must cover the known and projected impacts of this project on the school district. WPUSD has worked hard to establish what the impacts are projected to be for the Villages, inclusive of Village 1 (which includes Turkey Creek Estates). WPUSD respectfully requests that the impacts be addressed in any EIR and a realistic mitigation plan be put in place for Village 1 prior to City of Lincoln Planning Commission and subsequent Council approval.

Sincerely,



Cathy Allen, Assistant Superintendent,
Facilities & Maintenance Services

Attachments:

Exhibit A - School Facility Funding Shortfall Analysis 2010

Exhibit B - WPUSD Estimated Costs of New Schools 2009

Copy of 2006 written response to EIR, Lincoln General Plan Update 2008
(Letter N)

c: ~~Scott Leaman, Superintendent~~
Paul Carras, Board President
Ana Stevenson, Board Clerk
Paul Long, Board Member
Brian Haley, Board Member
Terry Gage, Board Member

EXHIBIT A

Meeting Materials/Discussion Tables

**School Facility Funding Shortfall
Analysis**

The Economics of Land Use



Prepared for:

Western Placer Unified School District

Prepared by:

Economic & Planning Systems, Inc.

October 25, 2010

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2295 Gateway Oaks Drive, Suite 250
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EPS 20480

Table 1
School Facilities Funding Analysis
New School Facilities Costs Per Unit (2010 \$\$)

Facility Type	2010 \$\$ Total Costs	School Capacity	Students Generated Per SFR Unit [1]	% of Capacity Per SFR Unit [2]	Cost Allocation Per SFR Unit
	a	d	e	f = e/d	g = c * f
Elementary School	\$29,146,248	800	0.294	0.0368%	\$10,711
Middle School	\$52,878,000	1,100	0.138	0.0125%	\$6,634
High School	\$112,378,816	1,800	0.168	0.0093%	\$10,489
Total Costs	\$194,403,064				\$27,834
Support Facilities Costs per Unit					\$115
Total School Facility Costs Per Unit					\$27,949

[1] From Table 4.

[2] This is the per single family residential average student capacity for each school. This factor is used to determine per single family residential unit cost allocation.

Source: School Facility Consultants

Table 2
 School Facilities Funding Analysis
 Net Per Unit Cost for School Facilities and Funding Shortfall

Item	Source	Level II	Level I
Facilities Costs (2010 \$\$)	From Table 1	\$27,949	\$27,949
Less Fee and Grant Revenues			
Developer Fees	From Table 5	(\$8,841)	(\$6,237)
Per Student Grants	From Table 6	(\$9,742)	(\$9,742)
Total Fee and Grant Revenues		(\$18,583)	(\$15,979)
Net Funding Shortfall per SFR Unit		\$9,366	\$11,970
Annualized Costs			
Net Funding Shortfall		\$9,366	\$11,970
Annual Debt Service Payment	30 yrs @ 8%	\$832	\$1,063
Admin Costs	2%	\$17	\$21
Special Tax Coverage	10%	\$83	\$106
Total Annualized Costs		\$932	\$1,191

shortfall

Table 3
School Facilities Funding Analysis
Uses and Sources of Funds

Item	Level II Fees	% of Total	Level I Fees	% of Total
Uses				
Facilities Costs [1]	\$27,949		\$27,949	
Sources [2]				
State Grants	\$9,742	35%	\$9,742	35%
Local Revenue Sources	\$8,841	32%	\$6,237	22%
	\$18,583		\$15,979	
Net Funding Shortfall [3]	\$9,366	34%	\$11,970	43%

sources

[1] From Table 1.

[2] From Table 2.

[3] This is the net amount, and percentage of total, of additional funding required to fund the cost of constructing K-12 schools.

Table 4
School Facilities Funding Analysis
Estimated Total Students Generated per Household by Facility Type

Land Use	K-5	6-8	9-12	Totals
Student Generation Rates (SGRs)				
Single Family Residential [1]	0.294	0.138	0.168	0.600
Percent of all Students [2]	49%	23%	28%	100%

students

[1] This analysis is using the 0.60 student generation rate for K-12. Developer's school consultant had agreed that using the statewide average for K-12 of 0.70. Rocklin USD has a student generation rate of 0.60. The District believes this rate is close to what historical student generation rates have been within the District.

[2] The allocation of the 0.60 to the three types of school facilities is based on percentages derived by Western Placer USD.

Table 5
School Facilities Funding Analysis
Calculation of School Mitigation Fee Revenues

Item	Total Bldg SF	Fee Per Bldg SF	Total Fees
Level II Fees [1]			
Residential Building Square Feet	2,100	\$4.21	\$8,841
Level I Fees [1]			
Residential Building Square Feet	2,100	\$2.97	\$6,237

fee_rev

[1] Assumes the average residential unit is 2,100 building square foot.

Source: School Facility Consultants

Table 6
School Facilities Funding Analysis
Per Student State Grant Revenues

Item	Facilities Cost [1]	Assumed Grant [2]	Total Grants	Students/ Site [1]	Grant/ Student	Students/ Household [3]	Grant/ Household
	<i>a</i>	<i>b</i>	<i>c = a * b</i>	<i>d</i>	<i>e = c/d</i>	<i>f</i>	<i>g = e * f</i>
K-6 Student Grants	\$29,146,248	35%	\$10,201,187	800	\$12,751	0.294	\$3,749
7-8 Student Grants	\$52,878,000	35%	\$18,507,300	1,100	\$16,825	0.138	\$2,322
9-12 Student Grants	\$112,378,816	35%	\$39,332,586	1,800	\$21,851	0.168	\$3,671
Total Student Grants			\$68,041,072				\$9,742

"student_grant"

[1] From Table 1.

[2] Based on analysis of current student grant amounts with relation to the District's cost of constructing schools.

[3] From Table 4.

Source: School Facility Consultants

EXHIBIT B

WESTERN PLACER UNIFIED SCHOOL DISTRICT ESTIMATED COSTS FOR NEW SCHOOLS

Standards for Square Footage per Student: K-5 = 72; Middle = 85; High School = 106

Acres Needed for School Sites: K-5 = 12; Middle = 22; High School = 50

Cost for Land per Acre is Estimated to be \$300,000 in 2009

Costs for Developing the School Sites per Acre is Estimated to be \$339,000

Student Size of Schools: K-5 = 800; Middle = 1100; High School = 1800

Actual Building Construction Cost/Sq.Ft: K-5 = \$283; Mid = \$322; High School = \$333

	<u>Elementary</u>	<u>Middle</u>	<u>High School</u>
Land (12, 22 & 50):	\$3,600,000	\$6,600,000	\$15,000,000
Land Development:	4,068,000	7,458,000	16,950,000
Building Costs:	16,301,000	30,107,000	63,537,000
*Support Costs:	<u>5,177,000</u>	<u>8,713,000</u>	<u>16,892,000</u>
Total Costs:	\$29,146,000	\$52,878,000	\$112,379,000

Breakdown of Support Costs Above for the Three Levels of Schools

Architects/Engineers:	\$1,952,000	\$3,842,000	\$8,831,000
Fees and Permits	980,000	1,591,000	3,346,000
Inspectors	175,000	215,000	350,000
C.M. and Testing	750,000	1,250,000	2,100,000
Furniture, Tec & Equip.	900,000	1,200,000	1,600,000
EIR and Planning	110,000	150,000	200,000
Buses (2, 3 & 3)	<u>310,000(2)</u>	<u>465,000(3)</u>	<u>465,000(3)</u>
*Total Support Costs:	\$5,177,000	\$8,713,000	\$16,892,000

Average Cost/Sq.Ft:	\$506	\$566	\$589
Average Cost/Student:	\$36,433	\$48,071	\$62,433

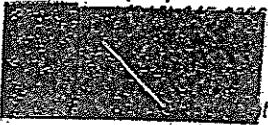
Ronald L. Feist, Ed D.
Feist Education Consulting Services
Estimates Made January, 2009



**WESTERN
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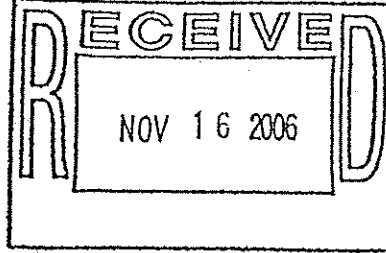
*Asst. Superintendent,
Educational
Services*

Mary Boyle

*Asst. Superintendent,
Personnel Services*

Robert Noyes

LETTER N



November 15, 2006

Rodney Campbell
Community Development Director
City of Lincoln
640 Fifth Street
Lincoln, California 95648

Regarding: Written Comments on Draft EIR for New Lincoln General Plan

Dear Mr. Campbell:

The Western Placer Unified School District (WPUSD) would like to thank you and the City of Lincoln for the opportunity to respond to the Draft EIR for the New General Plan. It is obvious a significant amount of work and time went into the 538 page Draft EIR. The WPUSD appreciates the thought given in the EIR in mentioning the need for future schools in the seven Villages and Special Districts. Public Facilities Section 6.9 outlines past enrollment and school facilities. The comments included in this response will help the City update the information with current data and show our projected enrollment and future facility needs of the District.

As you are aware, the WPUSD has been working on a new Facilities Master Plan and has been waiting to see the number of dwelling units proposed in the New General Plan to continue the District's planning process. Our goal is to have the WPUSD Facilities Master completed and adopted by the Board of Trustees by June 30, 2007. The Facilities Master Plan will include all the students projected from the current General Plan and the New General Plan.

Because of all the planning to date, WPUSD is in good position to respond to the Draft EIR and provide information which should be of help to the City of Lincoln in the planning process as the City grows to the projected 130,000 people. Attached is Exhibit A which utilizes the projected housing units and the District's recent student yield rate study to establish the anticipated number of elementary (K-5), middle school (6-8), and high school (9-12) students for each of the seven proposed Villages and the two Special Districts which contain dwelling units. Exhibit A (Total Students Projected from Draft EIR) matrix shows a total of 18,416 new K-12 students are projected to be generated from the 33,731 new housing units proposed in the Draft EIR. The Project Description Section page 2-10 mentions schools as being one of the key features for each Village. WPUSD appreciates the City's acknowledgement that schools, along with other necessary public facilities will be needed in the seven Villages.

N-1

Response to Draft EIR

Page 2

November 15, 2006

Exhibit B shows the relationship of the anticipated 18,416 students to the number of school sites projected to serve the estimated 34,000 new dwelling units. Twenty-four new school sites will be needed in the seven Villages to serve the 18,416 new students. These sites will require approximately 430 acres of useable land. The costs to purchase land, develop the sites and construct the schools are estimated to be \$1,199,866,000 utilizing 2006 costs. Because the New General Plan spans a period of over 40 years, the actual costs for the school facilities will be substantially higher due to inflation and other economic factors that take place over time. The tremendous cost of these new school facilities needs to be a high priority in the planning process for the WPUSD, the City of Lincoln and the developers who will work in the home building arena for the seven Villages and Special Districts. Page 2-11 of the EIR discusses that "*The development and quality of life for the City is dependent on the availability of adequate public facilities and services.*" The WPUSD is recommending the number of school sites and the 2006 costs of these new school facilities are included in the New General Plan to make all parties aware of the projected need for schools in order to maintain the quality of life in the City.

N-1
continued

Table 2-3 of the Draft EIR outlines the proposed increase of land to accommodate the New General Plan. The Table lists an increase of 333 acres for public use beyond the parks. The WPUSD is projecting a need of 430 usable acres just for the school sites necessary for the seven Villages and Special Districts. The 333 acres is not enough land. The District recommends that the EIR reflect the need for 430 acres in the Villages for schools.

N-2

As clearly outlined in the EIR, additional work will be necessary to plan the facilities needed in each Village to serve the public. The Executive Summary ES-11 states, "*This EIR has been prepared as a program EIR*". However, the analysis does not examine in detail the localized effects of potential site-specific projects that may occur under the overall umbrella of the program in future years. The Draft EIR mentions parks, fire stations, libraries, schools and other public facilities will need to be specifically located in the Villages to provide quality services for the citizens. The WPUSD stands ready to work with the City of Lincoln and the development community to locate school sites and strive to have schools built in a timely manner.

N-3

The District appreciates the comments in the Draft EIR Health and Safety Sections 8-21 & 8-22 that discuss the difficulties in getting a school site approved by the State of California because of all the restrictions. The reality is that these restrictions will only increase over time and make it even more difficult and expensive to receive approval from numerous state agencies and acquire the sites needed for the proposed build-out. The District will work with the City to make the site selection process as smooth as practical. Exhibit C is a preliminary attempt to indicate the school sites projected and potential acres needed in each Village. Each school site will need to be at the top of the consideration list when the Village goes through its planning and EIR process. The WPUSD will try to include in its Facility Master Plan the general location of all future school sites which should help facilitate this process. It will be very important in the planning process to protect the concept of neighboring students staying together as they move from elementary to middle school and on to high school.

N-4

In addition to the school facilities needed to accommodate the anticipated growth in the New General Plan, the District is trying to stay up with the needs of the current General Plan. The projection is that WPUSD will need to accommodate 9,456 students generated in the current General Plan before adding the 18,416 proposed in the new General Plan. Please see Exhibit D which outlines the District's 2006-2007 enrollment and new students still expected from the current City Plan. Without question WPUSD will at some point in time become the largest school district in Placer County. A tremendous amount of planning and financial resources will be necessary to provide the school facilities for so many students.

N-5

The Western Placer Unified School District Board and staff greatly appreciate the excellent working relationship which has been developed over the years with the City of Lincoln. The leadership of the City has been instrumental in partnering with the District to provide outstanding school and recreational facilities throughout the district. The City of Lincoln has several policies and procedures in place to help the WPUSD accommodate growth. Page 6-47 of the Draft EIR states that "*This increased population will result in increased student generation and the need for additional WPUSD elementary, junior high and high school facilities.*" The comments and Exhibits contained herein will provide additional information to the City during the EIR process in order to understand the magnitude of the impact of growth on school facilities.

N-6

The Public Facilities & Service Element PFS-9.9, page 6-48, added to the Draft EIR is greatly appreciated by WPUSD. This policy, along with PFS1-1; PFS 9.1; 9.2; 9.7; 9.8, will certainly help the City and District with the goal of meeting the needs of current and future students anticipated from the New General Plan. The statements included in PFS-9.9 "*To the extent allowed by State law, the City will continue to ensure that future development projects mitigate impacts on school facilities,*" and "*The City will also work with the school districts, developers and public to evaluate alternatives to funding/providing adequate school facilities,*" will provide much needed assistance in achieving our goals.

N-7

Continuing in the spirit of our joint efforts of trying to fund adequate school and recreational facilities, the WPUSD is suggesting that there are concepts and strategies which would help the District and City strive to meet the challenges of the projected growth. Many of these strategies are already in place in the City of Lincoln. The following is an outline of how the City and District can continue to work together to help mitigate, manage and potentially reduce the costs of developing new schools and parks. Money for school facilities is never easy to obtain; thus the continuation and consideration of the following strategies should be considered as part of the New General Plan.

N-8

1. Joint School and Park Sites in the City of Lincoln

The City and District should jointly work to plan, purchase and develop schools and parks together. It is reasonable to assume that both the City and District could reduce the total acreage needed by providing for joint use of facilities for the community. Athletic fields, multipurpose buildings, parking lots, etc. could be designed to serve the students *and* the public needs. The costs savings could be significant in land and development costs. It is feasible that the 430 acres projected for school sites could be reduced as part of this strategy.

N-9

2. City Working with the Development Community Provides Opportunities to Purchase School Sites Early in the Approval Process and Development of a Village

N-10

It is anticipated land costs will escalate as development in the Villages moves forward. If school and park sites could be identified and acquired early, a significant cost savings could be realized as land costs escalate beyond normal C.P.I. type increases. The WPUSD may consider developing a Land Bank Program to provide the developer with money for school sites early in the process, provided the school site can be purchased at a reasonable price. This concept could be a win-win for the District and a specific developer who wants early cash to help in the development of the project.

N-10
continue

3. Developer of a Village Provides the Streets and Utilities which serve the Schools and Parks

As developers are constructing the major infrastructure such as streets, sewer, water, electricity etc. for the Villages, the infrastructure should be brought to the school and park sites. Developers can construct these items more economically than any public agency and the increase cost to the developer would, in most cases, be insignificant in relation to the infrastructure development of an entire Village. This advance work could lead to significant cost savings for the City and WPUSD when development in a plan area warrants construction of school and park facilities.

N-11

4. City of Lincoln Requires Developers of Villages to Include Schools and Parks in their EIR

Appropriate schools and parks must be identified in the Villages during the review of the new City General Plan. WPUSD will provide the data necessary to help establish the school sites needed in each Village. Exhibit C of this response will assist in the identification and location of future school sites. Once the General Plan is complete and individual Villages are being planned, the developer(s) should include the location of specific school and park sites within their projects in the development's EIR document. A Phase I review from the Department of Toxics and Substance Control (DTSC) should be completed by the developers for each school site in each Village to speed up the approval process. If schools and parks are included in the General Plan and each Village during the EIR process, WPUSD and the City will save significant

N-12

money and time when preparing a third level EIR for a specific school and park site.

N-12
continued

5. City of Lincoln Supports the WPUSD in Establishing and Collecting the Fees/Mello Roos/Mitigation, Bond Measures, Facilities Districts and other Funding Mechanisms Necessary to Assure that Schools are Built in a Timely Manner.

As outlined in the Draft EIR, there will be significant financial impacts on the WPUSD by adding the seven Villages to the current City General Plan. WPUSD will continue to need strong support and guidance from the City in establishing the appropriate mitigation funding measures to provide the resources in order for schools to be constructed in a timely manner to meet the needs of the students, staff and community. Several different funding mechanisms will need to be considered in order for the District to be able to provide the facilities in the expected rapid growth environment. WPUSD will continue to seek State School Facilities money whenever it is available to help pay for the costs of providing schools within the District's boundaries.

N-13

The City needs to be commended for including Public Facilities Policies as stated on page 6-48 of the Draft EIR to address the impacts on WPUSD as the City grows. The present and future citizens of Lincoln will expect the schools to be in place as needed. It is very important that the City of Lincoln and the District continue to work together to do our best to make sure the schools are ready for the students. Clear messages need to be sent to the development community and builders that they will participate in the programs to help provide the necessary schools and parks in a timely manner. Unique strategies should be considered by the District, City and developers in an effort to accommodate the anticipated rapid growth. For example, WPUSD would be willing to consider developer-built schools under State laws that currently allow this approach to providing school facilities. It is in the best interest of home developers to have schools ready for students, which would increase the marketability of the development.

As the City of Lincoln moves forward with the approval process for the new General Plan, WPUSD stands ready and willing to work with City staff to

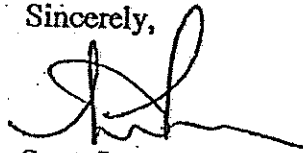
N-14

Response to Draft EIR
Page 7
November 15, 2006

help prepare for the future. It is important that the projected facilities needs of the WPUSD be included as much as practical in the EIR process and the New General Plan to provide all parties ample notice early in the planning stages. It is anticipated with the growth projected within the City of Lincoln that WPUSD will become the largest single school district in Placer County. The District looks forward to working with the City of Lincoln in providing the schools and, where practical, recreational facilities for the citizens. The excellent working relationship over the years should serve the city and WPUSD well as both agencies strive to provide the services and programs expected of a top notch City and School District.

N-14
continued

Sincerely,



Scott Leaman
Superintendent



Cathy Allen
Director of Site Development

LETTER 10: HEATHER STEER, FACILITIES PLANNER, WESTERN PLACER UNIFIED SCHOOL DISTRICT

Response 10-1: Please see Responses 10-2 through 10-5, below.

Response 10-2: The student generation rates used in the Draft EIR were provided by WPUSD staff in August 2011, as stated on in Footnote 22 on page 4.12-13. The rates used in the Draft EIR differentiate between single family and multifamily and between different grade levels (K-6, 7-8 and 9-12). While the estimated total number of students in the Draft EIR differs from the comment (2,906.5 students per Table 4.12-4 of the Draft EIR versus 3,383.4 in the comment letter, a difference of 16 percent), the difference would not alter the conclusions of the Draft EIR for the reasons stated in Response 10-3.

Response 10-3: As discussed on pages 4.12-14 through 4.12-7 of the Draft EIR, the proposed project would generate demand for school services within the Western Placer Unified School District. The number of students within the Specific Plan area would increase over time, so the total number of students would not arrive at once. Phase 1 is not expected to build out before 2019 (see page 2-23 of the Draft EIR). The full Specific Plan could take up to 40 years to buildout (see page 2-20 of the Draft EIR). Therefore, there will be time for the District to plan how best to serve these students. The manner in which these students are housed will depend on a number of factors, such as enrollment patterns in the WPUSD, changes in property values, availability of State funds, and the success of bond initiatives. Enrollment levels ebb and flow, so some schools experience reduced enrollments, while others see enrollment increase. For example, the WPUSD has recently concluded that a middle school planned for the Lincoln Crossing Specific Plan is no longer needed. This allows school districts to shift students from over- to under-capacity schools. Like most government services, school districts have experienced recent reductions in property tax revenues; as the economy improves, property values and therefore property taxes should increase. State revenue would also improve when the economy improves which could lead to more State funding for schools. Bond funding could also be pursued. In any case, under SB 50, new residential development must pay fees toward school facilities, and the Legislature has mandated that payment of applicable development fees is adequate to result in a less-than-significant impact on schools, even if the collected fees are not adequate to fully fund school facilities, as discussed on pages 4.12-12 and 4.12-13 of the Draft EIR. Therefore, the Draft EIR, consistent with State law, concludes that the impact on schools is less-than-significant impact. As noted in the Draft EIR on page 4.12-15, specific requirements concerning fees contributed towards schools will be set forth in the Development Agreement for the project. The City and applicants have expressed a willingness to consider funding options as part of the overall fiscal evaluation of the project.

Response 10-4: As discussed on in Response 10-2, there are a number of ways in which students of new development can be accommodated until new schools are constructed, such as temporary buildings or adding classrooms at existing schools, increased class size, and shifting students from over-enrolled schools to under capacity schools. As discussed in Response 10-2, the student enrollment at individual schools ebbs and flows as the demographics of the surrounding neighborhoods change. For students from Village 1, the WPUSD would determine the best approach to serve new students. Placement of those students within existing school sites would have minimal impacts on the environment. The school sites are largely developed with buildings, paved areas, playfields and landscaping. Therefore, the addition of temporary buildings would not be expected to result in the loss of biological, other natural or cultural resources. As discussed in Response 10-5 below, the traffic generated by additional students is addressed in the traffic model, so impacts related to traffic, including traffic noise and air emissions, have been addressed in this EIR. There would be minor increases in the demand

for water and sewer services, but these would not be substantial.

Response 10-5: As discussed in Responses 10-2 and 10-3, the Specific Plan would build out over many years, and there are a number of different strategies that the WPUSD could use to house students from the plan area. The specific timing, location and design of new school construction and school expansions are not known at this time. These projects would be the subject of separate CEQA review. At this time there are however, programmatic assumptions that have been included in the Draft EIR analysis, particularly for traffic.

The traffic model analyzes the impact of additional students at existing offsite schools. The travel demand model used to analyze the traffic impacts of the project assigns a certain number of trips to each land use within the plan area (see Table 4.14-7 on page 4.14-21 of the Draft EIR). For residential land uses, the model assigns 9 trips to each single-family residence and 6.5 trips to each multifamily residence. The model makes additional refinements by determining that a portion of those trips will be for school, work, shopping and so on. These assumptions are made not only for project residential units, but also for existing and future (cumulative) residential development throughout the study area. The model “sends” the school trips to the nearest existing or future (for the cumulative analysis, based on the General Plan) school sites in the model. When the total trips to the nearest schools reach the typical maximum level for those schools, the model distributes any remaining school trips to the next known school site, and beyond if necessary. Since, the model “captures” all of the projected trips from residential development within and outside of the project area, including trips to and from schools, the indirect impacts of project residents travel to schools is included in the traffic impact analysis. The air and noise analyses that use data from the traffic model would also reflect the school trips.

Regarding the elementary school site within the plan area, the Draft EIR provides a programmatic analysis of the school as with all other proposed land uses. For example, the school is assumed in the traffic analysis for the Specific Plan. As with other land uses outside of Phase 1, a more detailed CEQA analysis will be required, and will only be possible, when the detailed plans for the school are prepared.

Response 10-6: Please see Responses 10-2 through 10-4.



June 29, 2012

Rod Campbell, Director
City of Lincoln Development Services Department
600 Sixth Street
Lincoln, CA 95648

RE: VILLAGE 1 SPECIFIC PLAN – DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)

Dear Mr. Campbell:

Thank you for providing us with the opportunity to review the above mentioned DEIR. The Western Placer Waste Management Authority (Authority) is a regional agency comprised of Placer County and the Cities of Roseville, Rocklin and Lincoln. The Authority provides recycling and waste disposal opportunities to those communities as well as the cities of Auburn and Colfax and the Town of Loomis.

11-1

The project proposes a mix of residential, retail, office, and public facilities, including 1,135 residential units that will be constructed as part of the first phase of development. The project would generate solid waste that would require landfill space at the Western Regional Sanitary Landfill (WRSL). In addition, the solid waste would be first delivered to the Materials Recovery Facility (MRF), where the waste is processed, and recyclables recovered, prior to disposal.

We respectfully submit the following comments on the Solid Waste impact analysis:

1. Page 4.13-51 – Solid Waste Setting

a. Regarding the landfill statistics quoted in the third paragraph, please note the following updated information: "The results of a 2011 capacity study completed by the WPWMA show a remaining capacity of approximately 26,278,330 cubic yards.

11-2

b. The fourth paragraph refers to the completion of the compost facility expansion in the future tense. Please note the expansion has been completed and now is estimated to have sufficient capacity through 2035.

11-3

2. Page 4.13-54, 55 – Project Impacts and Mitigation Measures

a. In a few instances, the DEIR references the City's achievement of a certain diversion rate, indicating it would lessen the actual amounts of waste sent to the WRSL and MRF. It is not accurate because much of the City's diversion is achieved at the MRF.

11-4

Village 1 Specific Plan DEIR
Rod Campbell
June 29, 2012
Page 2

Thank you again for the opportunity to review the DEIR. Should you have any questions, please do not hesitate to call me at 530-886-4965.

Sincerely,



Chris Hanson
Senior Planner

CH:lm

LETTER 11: CHRIS HANSON, SENIOR PLANNER, WESTERN PLACER WASTE MANAGEMENT AUTHORITY

Response 11-1: Comment noted.

Response 11-2: The comment provides updated information on landfill capacity. Therefore, the third sentence of the fourth paragraph on page 4.13-51 is updated as shown:

The results of a ~~2007~~ 2011 capacity study completed by the WPWMA show a remaining capacity of ~~23,800,000~~ 26,278,330 cubic yards (approximately 65 percent).

Given that the more recent study indicates that there is more capacity than identified in the prior study, this change would not alter the conclusions of the impact analysis.

Response 11-3: The comment provides updated information on the expansion of the Material Recovery Facility. This information confirms the assumption provided in the Draft EIR. In order to be up to date, the last two sentences of the last paragraph on page 4.13-51 are modified to read:

~~WPWMA is in the process of constructing recently completed construction of additional pad space, which is anticipated to on line in 2012. With the expansion, the compost facility would be~~ is estimated to have sufficient for development to capacity through 2035.

Response 11-4: The statements on page 4.13-54 and 4.13-55 that the estimated daily waste does not include diversions for recycling are simply meant to explain that the estimates of waste in the Draft EIR represent a “worst case”.



VIA E-MAIL ATTACHMENT

July 9, 2012
 Mr. Rod Campbell, Director
 City of Lincoln Development Services Department
 600 Sixth Street
 Lincoln, CA 95640

RE: Village 1 Specific Plan EIR

Dear Rod:

Thank you for taking the time to answer my questions at the Village 1 Specific Plan EIR property owners’ meeting held at the City of Lincoln City Hall on June 5, 2012. The property owner, Layne Curnutt and I both attended that meeting. In addition, Layne and I appreciated the time you took at a subsequent meeting in your office on June 15, 2012 to further discuss these issues. Based on your recommendation, I also met with Tony Frayji of Frayji Design Group, Inc. in his office on July 3, 2012.

12-1

As you may recall, I represent the Curnutts who own 55 acres in the Village 1 Specific Plan area (APN: 021-274-024, 021-274-025 and 021-274-027). The two issues that are most concerning to the Curnutts are the new proposed road alignment that would allow access to the Curnutt properties and the amount and configuration of the open space on their properties.

A. Road alignment

As we discussed, access to the Curnutt properties from the Lincoln-Newcastle Highway (Highway 193) is via Oak Tree Lane and a 50’ road and utility easement that has provided access for and/or across the neighbors’ properties to the north for at least the last 40 years. However, on page 2-10 of the Project Description, the Roadways exhibit Figure 2-3 shows a dashed line representing a future right of way from Oak Tree Lane to the Curnutt properties crossing the Drummond property (APN: 021-274-028) to the northwest.

12-2

The Curnutts oppose this relocation of the access to their property for the following reasons:

1. There is no existing right to cross the Drummond property where the future ROW is indicated on the Roadways plan.
2. Cost and time to acquire the future ROW for the proposed alignment could prohibit the timely development of the Curnutt property.

3. Since the existing roadway already crosses the drainage area, it would appear that the environmental impacts to the drainage area would be less utilizing the existing road alignment as compared to building a new road across the same drainage area to the west.

12-3

4. The future ROW alignment appears to impact more oak trees than widening the existing road in the existing alignment.

12-4

5. Since the future ROW does not serve developable property to the west, the cost of the road per developable lot is increased as compared to utilizing the existing roadway that is located in the center of the Curnutt property.

12-5

6. The new road alignment would not provide access to the Deloach property (APN: 021-274-026) that is located to the north of the Curnutt property.

12-6

The environmental document does not adequately address and/or compare the impacts of relocating the existing road and utilities easement that serves the Curnutt property to a new alignment to the west as shown on the Roadways Figure 2-3. We respectfully request that the current road alignment serving the Curnutt properties be maintained rather than planning to build a new road to the west.

12-7

B. Open Space

As we discussed, only .87 acre of wetlands have been delineated on the Curnutt properties. Yet, the Village 1 Specific Plan appears to allocate between 14 to 15 acres of Open Space to the Curnutt properties. While the ultimate development plan for the Curnutt properties will likely preserve and provide buffers for much of these wetlands and preserve much of the oak woodland, the Curnutts are concerned that the boundaries of the Open Space remain flexible in order to accommodate site specific land planning and the protection of higher value wetlands, vegetation and habitat whether located on the Curnutt properties or throughout all Villages 1-13.

12-8

Instead of a fixed amount and/or percentage of Open Space per parcel or per Village, do the Village 1 Specific Plan and EIR clearly encourage, allow and adequately address the preservation and protection of higher value wetlands, vegetation and habitat in Open Space areas spread throughout all Villages 1-13 in the Lincoln General Plan? If not, the Curnutts would respectfully request that this flexibility is provided.

Sincerely,

Jeremy Bernau, President
Bernau Development Corporation

LETTER 12: JEREMY BERNAU, PRESIDENT, BERNAU DEVELOPMENT CORPORATION

Response 12-1: Please see Responses 12-2 through 12-8.

Response 12-2: The comment addresses a project component—a future roadway—rather than the adequacy of the Draft EIR. Figure 2-3 in the Draft EIR shows the proposed Specific Plan circulation plan. At this scale, the roadway network is conceptual for all but Phase 1. The actual roadway alignments and rights-of-way south of SR 193 will be determined as subsequent projects are proposed. Nonetheless, the roadway alignment has been modified to better match the existing easement, as shown in Revised Figure 2-2 in Chapter 2, Draft EIR Errata and Modifications.

Response 12-3: The impacts of the roadway alignment proposed in the Specific Plan are addressed programmatically. The project-specific impacts of crossing drainages to access the southern portion of the plan area will be determined when specific proposals for that area are submitted to the City. The impacts of a new crossing, or widening an existing crossing if the current alignment is used, would be minimized through the Streambed Alteration Agreement process and mitigation identified in the Draft EIR (see for example Mitigation Measures 4.4-12 and Mitigation Measure 4.8-1). Please also see Response 12-1.

Response 12-4: The impacts of the roadway alignment proposed in the Specific Plan are addressed programmatically. The project-specific impacts of crossing drainages to access the southern portion of the plan area will be determined when specific proposals for that area are submitted to the City. The specific improvements have not been designed, so a specific number of trees that could be lost due to the drainage crossing cannot be calculated at this time. Consequently, a comparison of impacts with other potential crossings cannot be made at this time. When a specific proposal is made that includes the crossing, the impact on trees will be calculated, and mitigation will be required pursuant to the Oak Woodland Mitigation and Management Plan (see Impact 4.4-14 on page 4.4-44 and 4.4-45 in the Draft EIR). Please also see Response 12-1.

Response 12-5: Please see Response 12-2.

Response 12-6: Please see Response 12-2. Also, the roadways shown in Figure 2-3 represent the backbone circulation system. Additional roads would be provided as need throughout each area as it developments. Pursuant to State law, the proposed project could not remove access to a parcel without ensuring an alternative access was available. Nonetheless, as discussed in Response 12-1, the roadway alignment has been modified to better match the existing easement.

Response 12-7: Please see Response 12-2.

Response 12-8: By creating plan-wide open space designations throughout the plan area, the Village 1 Specific Plan does encourage preservation of the much of the oak woodlands. The Oak Woodland Mitigation and Monitoring Plan (OWMMP), described on pages 4.4-44 and 4.4-45 of the Draft EIR, and appended to the Specific Plan, is intended to protect oak woodlands. The OWMMP provides flexibility by allowing removal of oak woodlands within parcels designated for development, with mitigation requiring replacement of lost woodlands.

RECEIVED

JUN 13 2012

City of Lincoln
DEV SVCS

Jim Cutler
2473 Swainson Lane
Lincoln, Ca. 95648

June 13, 2012

Rod Campbell
City of Lincoln Development Services Department
600 Sixth Street
Lincoln, Ca. 95648

RE: Village 1 Specific Plan DEIR

Dear Mr. Campbell,

I have taken the opportunity to review the DEIR. There are a number of procedural issues I wish to discuss as well as to comment on the document itself.

PROCEDURAL ISSUES WITH OBTAINING A DEIR

1. An initial notice was received dated May 7, 2012. The subject was "Availability of Notice of Preparation for the Village 1 Specific Plan EIR". Subsequently, a second notice was sent out with an errata change of review date to June 22, 2012. It also referenced the Availability of a Notice of Preparation. Because of the subject material referenced on the letter, I paid no mind since I had already responded to a prior NOP. Two weeks later I read the body of the notice and it stated that there was a DEIR available. I called planning and asked if there was really a DEIR available. Staff said there was. I urged a revised notice be sent out clarifying that a DEIR existed. Lincoln planning staff sent out a 3rd notice on the correct subject that a DEIR was available. Unfortunately, this notice did not extend the review date.

13-1

That means that in reality citizens were not given an adequate review period as called for by CEQA.

2. I had previously responded the NOP request for comments within the request timeline. Even though I took that effort I did not have any of these Notice of Availability of the DEIR mailed to me. If someone else had not given me a copy of this Notice, I would not have known of the DEIR until the time line had passed. A copy of the DEIR was apparently not sent to anyone that bothered to respond to the NOP.

13-2

3. All three notices referred the reader to an on-line address to receive the DEIR. That address was http://www.ci.lincoln.ca.us/undex_cfm?page=260392. I tried that address three times: it doesn't work. This notice also referred the reader to the Lincoln Home Page, Development Services Division/Environmental Services. This reference did work. The two pages attached, are what are shown on that site as of May 29, 2012.

13-3

You will see that the DEIR chapters are mixed in with other documents including Village 7, the Meadowlands project, a gravity sewer project and all sorts of stuff. The Chapters are not in correct order within that list. **MOST IMPORTANTLY** the DEIR listed here is **NOT COMPLETE**. The 317 pages of appendices are not found on this website. Is a member of the public really expected to wade through all these listing to put a DEIR together? Even then it would still be an incomplete document.

4. Consequently, I went to the Planning Office to try to get a DEIR copy. I was informed that the Planning Department had no hard copies available for the public. (Presumably, hard copies were mailed to public agencies and adjacent homeowners associations. I have not been able to verify this.) Planning staff suggested I could page through this 964-page document at the front counter if I wanted. I was given the same choice at the library. If their open hours weren't so short this might have been an option. The Planning staff did give me a CD of the DEIR. That option was not listed in their three notices on this project. I asked staff to get me a price of a printed copy of the document. One week later they called to tell me they still had not received a cost to print the report. I took the disk to Staples and printed a copy in black and white. For a mere \$96.40 they printed me a copy. Then I spent an hour printing all the color maps on my computer from the CD; then I replaced the color maps with the black and white in my copy and only three days later I was ready to start to read this DEIR. **I do not believe Lincoln has met the citizen participation requirements of CEQA.**

13-3
cont.

VILLAGE 1 SPECIFIC PLAN DEIR

First some General Comment on my views of this projects potential. Village 1 is probably the most exciting of the Villages in the City General Plan to develop. It has interesting topography. It is close to downtown. It abuts the well-done developments of Mount Azul and Sun City Lincoln Hills. Additionally, the potential for great design is easier in the rolling hills than on open the flatlands. I was hopeful to read a well-done DEIR.

The DEIR is well written from a grammatical point of view. The limited information available to the authors or that could be discussed because draft documents the DEIR was to cover had not been finalized and released to the public. That clearly constrained what the EIR consultants could accomplish.

Now to specifics:

5. Page 5 of the DEIR states that the proposed Specific Plan identifies numerous objectives listed on pages 5 and 6.

The problem is that there was NO draft specific plan available to the public. My response to the City's NOP on this project dated March 29, 2011 is found in Appendix B. My first comment on the NOP dealt with the lack of project detail on which to provide meaningful comments on what needs to be in a DEIR. In 2011, no Draft Specific Plan had been released. Nor was a conceptual lotting pattern available

13-4

13-5

not appear below, please contact the Development Services Department at 916-434-2470.

Contacts

Development Services
600 Sixth Street
Lincoln, CA 95648
(916) 434-2470
(916) 645-3552 fax
planning@ci.lincoln.ca.us

Downloads

[Draft EIR for the Village 7 Specific Plan \(pdf\)](#) 46625k
[Village 1 DEIR - 4.11 PEH \(PDF\)](#) 74k
[Village 1 DEIR - table of contents \(pdf\)](#) 56k
[Village 11 Notice of Availability \(PDF\)](#) 84k
[Village 1 DEIR - 3.0 Summary \(pdf\)](#) 367k
[Village 1 DEIR - 1.0 Introduction \(pdf\)](#) 53k
[Village 1 DEIR - 4.04 Biological Resources \(pdf\)](#) 1827k
[Village 1 DEIR - 2.0 Project Description \(pdf\)](#) 1475k
[Initial Study Mitigated Negative Declaration for Gravity Sewer and Reclamation Project \(pdf\)](#) 10392k
[Appendices for the Draft EIR for the Village 7 Specific Plan \(pdf\)](#) 41076k
[Village 1 DEIR - 4.09 Land Use \(pdf\)](#) 1101k
[Village 1 DEIR - 4.13 Public Utilities \(pdf\)](#) 309k
[Appendices for the Final EIR for the Village 7 Specific Plan \(PDF\)](#) 10286k
[MEADOWLANDS FINAL EIR \(PDF\)](#) 37615k
[Village 1 DEIR - Cover \(pdf\)](#) 59k
[Village 1 DEIR - 5.0 CEQA \(PDF\)](#) 58k
[Village 1 DEIR - 4.02 Agriculture \(pdf\)](#) 280k
[Village 1 DEIR - 10.0 References \(pdf\)](#) 88k
[Village 1 Notice of Availability ERRATA \(PDF\)](#) 939k
[Village 11 SEIR part 2 \(pdf\)](#) 8573k
[Village 1 DEIR - 4.03 Air Quality \(pdf\)](#) 169k
[Village 1 DEIR - 7.0 Alternatives \(pdf\)](#) 4259k
[Meadowlands Project Draft EIR & Appendices \(pdf\)](#) 15582k
[Village 1 DEIR - 4.07 Hazards \(pdf\)](#) 233k
[Village 1 DEIR - 4.0 Intro \(pdf\)](#) 30k
[Nicolaus Road Widening Draft Mitigated Negative Declaration \(pdf\)](#) 8965k
[Village 1 DEIR - 4.12 Public Services \(pdf\)](#) 120k
[Village 1 DEIR - 4.08 Hydrology \(pdf\)](#) 456k
[Village 1 DEIR - 4.06 GHG Climate Change \(pdf\)](#) 135k

13-5
cont.

- [Final EIR for the Village 7 Specific Plan \(PDF\) 13239k](#)
- [Village 1 DEIR - title page \(pdf\) 6k](#)
- [Village 11 SEIR part 1 \(pdf\) 18166k](#)
- [Village 1 DEIR - 3.0 Acronyms & Abbreviations \(pdf\) 31k](#)
- [Village 1 DEIR - 4.01 Aesthetics & Visual Quality \(pdf\) 778k](#)
- [Village 1 DEIR - 4.10 Noise \(pdf\) 282k](#)
- [Village 1 DEIR - 6.0 Policy Consistency \(pdf\) 194k](#)
- [Village 1 DEIR - 4.05 Cultural Resources \(pdf\) 356k](#)
- [Village 1 DEIR - 4.14 Traffic \(pdf\) 4909k](#)
- [Village 1 DEIR - 9.0 Report Prep \(pdf\) 19k](#)

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13-5
cont.

to reflect the details needed for a project level DEIR. **WE ARE NOW ONE YEAR AND TWO MONTHS LATER AND ARE STILL IN THE SAME SITUATION.** It is nice that these objectives on pages 5 and 6 are shared with us, but where are the details this Specific Plan described! The Government Code outlines what is required in a specific plan. No effort has been undertaken to provide that detail.

Additionally, in *Napa Citizens for Honest Government vs. County of Napa*, the court held the specific plan frustrated the General Plan's goals and policies by failing to include specific commitments to mitigate the specific plans effect. While not directly on legal point, this lawsuit highlighted the necessity of factual and verifiable DEIR

13-5
cont.

6. The description of Phase 1 includes one paragraph and one table. **NO MAP THAT GOES BEYOND THE PROGRAMATIC LEVEL OF DETAIL IS TO BE FOUND!** This is a non-description. A map of the lotting pattern, traditionally found in a project level DEIR, is not provided anywhere in the document.

13-6

7. On page 2-23 it states this project also covers a General Plan Amendment. That amendment is not described. It also says it will cover a General Development Plan; also not described. It says it will cover Tentative Maps, for a project level in Phase 1. No explanation is included and no lotting pattern is mapped. It references Annexation and Pre-zoning; the zoning is not described here. Project descriptions are needed to frame what is to follow. Not done here.

13-7

In fairness, these items are somewhat discussed in the Land Use Chapter. That is hundreds of pages later in the document.

THIS PROJECT DESCRIPTION FAILS MISERABLY IN FRAMING THE PROJECTS TO BE COVERED IN THE REMAINDER OF THE REPORT.

8. Chapter 4.1 deals with Aesthetics and Visual Quality. The photographs tell an interesting story of the site today. They also lay the foundation for what an exciting project this could be. Great design does not just occur; it has to be fostered. Viewpoint 2 shows a significant rock outcropping on Figure 4.1-2. At a programmatic level I would not expect that each significant outcropping would be identified. However, at a project level review (Phase 1), I would expect these to be shown on a map within areas to be considered for development. The same is true for any stock ponds, which may exist in the project area. These become design opportunities for the City to consider. On page 4.1-12 the DEIR states "There are an existing number of rock outcroppings, but such features are found throughout the Sierra Foothills." It goes on to say these are NOT significant. One could as easily state that Auburn Ravine is one of many creeks in the State and therefore not significant.

13-8

The Lincoln General Plan includes policy LU-12-2. It reads "The City shall respect the natural setting of the hillside area by encouraging hillside development to incorporate landscape features." One only has to look at the Mount Azul, Twelve

Bridges, or the Lincoln Hills projects to see clearly that this cavalier comment of keeping such features is part of planning actions in Lincoln as well as good business. View lots of such features command premium prices. The standard of significance for Lincoln would include protection of such outcroppings if feasible. At a project level review, only by mapping these features can City Council BE in a position to make these decisions on significance.

13-8
cont.

9. Chapter 4.2 deals with Agriculture. On page 4.2-10 it states, that there is a 149-acre Williamson Act contract that will not expire until 2016 within Village 1. For those that will argue there is a need to speed this project through the approval project, four years out provides a time buffer to carefully consider this project.

13-9

10. Chapter 4.4 deals with Agricultural Resources. This is an important topic when doing design work on the Specific Plan Area. Table 4.4-1 on page 4.4-7 contains some important data dealing with Phase One background studies. Unfortunately, the data is unusable as included. There is no map to this point in the DEIR that shows where Walkup Ranch is in relation to the Epick or La Bella Rosa properties discussed in this section. Not only is there no property ownership map here but nowhere in the DEIR.

13-10

11. One would have expected a Phase 1 map that shows this area overlaying the air photo of the property if the purpose was to go to a project level of detail analysis. This discussion is therefore a distraction at best. This is symptomatic of the entire DEIR that is not written at a project level of detail.

13-11

12. Figure 4-4.3 shows Phase 1 Wetlands and Waters of the United States. This is the only map that is more specific to Phase 1 within the entirety of the DEIR. By having an unsurveyed area within Phase 1 raises substantial issues of on if land use entitlements should be granted anywhere within Phase 1 until that the missing studies are accomplished. Either the City is treating Phase 1 as a unit or it is not. The mitigation measures need to be specific to which sub-phases they cover based upon the phasing plan.

13-12

13. Figure 4.4-3 shows an open space corridor on the map that does not reflect the existing 100-year flood plain shown on Figure 4.8-1 nor the existing habitat areas on Figure 4.4-3. There are several Lincoln General policies that relate to these maps.

Among the relevant policies are:

“Policy LU-12-4 Creek Natural Edges. Where feasible, the City should preserve the existing natural edges along the City’s creek system and wetland areas and restore impacted creeks by planting natural vegetation.”

“Policy OSC-1.4 100 Year Floodplains. The City will apply open space designations to all lands within the 100 year floodway as shown on the FIRM panel or as demonstrated by a project drainage plan and approved by the City Engineer/Director

13-13

of Public Works. The City will also apply open space designations to all 100-year floodplains fringe areas, and/or remaining floodplain fringe areas as determined by a project drainage plan identifying fringe encroachment area, and quantifying their impact along with other improvements to show a zero (0) net impact to the upstream, downstream and adjacent properties. Open space designations will apply to all land located within a minimum of up to 50 feet from a center channel on all perennial and intermittent streams and creeks providing natural drainage, and to areas consisting of riparian habitat. In designating these areas as open space, the city is preserving natural resources and protecting these areas from development.”

13-13
cont.

These policies imply that Ferrari Ranch Road should be moved southerly away from Auburn Ravine and the riparian vegetation and flood plain. Amazingly the DEIR contains Figure 4.8-2 which is entitled 100-Year Floodplain (Full Specific Plan, Mitigated). The English language is fascinating. How one can fill in the flood plain the Lincoln General Plan policy discourages, cut down the riparian vegetation the policy encourages maintaining and then call it mitigation. As a planner I can envision circumstances where this argument could be made, e.g. doing a massive revegetation program within the Ravine. However with the information provided within the DEIR this cannot be assumed. From the information provided, this could be a “devastation” and not a “mitigation”.

The encroachment into the Auburn Ravine by Ferrari Ranch Road and related development is one of the biggest environmental issues that effect the Phase 1 area. A further in-depth reevaluation of this issue is required. This can only be accomplished after a tentative map or pattern of lots is available so that the environmental analysis is based on-site issues and not more generalized “engineering theology”.

13-14

14. This second policy above also requires the location of perennial and intermittent streams to be analyzed. No map showing the on-site hydrology or watersheds is found in the DEIR for Phase 1.

13-15

15. In the NOP letters found in Appendix E, the U.S. Fish and Wildlife Service referenced that Fish Species of concern and to be analyzed include delta smelt, Central Valley steelhead, and winter-run Chinook salmon. Local groups have recorded both steelhead and salmon in Auburn Ravine. There is a major effort in Auburn to take actions to bring these species further upstream. The issue of salmon and steelhead are critical to communities in the foothills, especially, in Western Placer County. There are both Federal and State programs dealing with migratory fish species. The DEIR address steelhead only and not salmon.

13-16

The discussion on page4-4-40 about Auburn Ravine reduces the problem and the proposed mitigation measures to engineering type concerns. Obviously, biological factors such as the health of adjacent riparian vegetation and shading of the water are also factors. How are the applicants proposing to improve the bed and bank of Auburn Ravine to improve fish habitat?

With the construction of the proposed Oak Tree Lane Bridge a gap will be placed within the riparian canopy. The number of trees to be lost to this effort needs to be described. Also the impacts of the bridge foundation on wildlife movements along the stream corridor. One alternative is to provide replacement trees in the areas along the ravine and thus provide a bigger buffer zone. This bridge crossing alone could be the subject of a Supplemental EIR.

13-17

Obviously a bridge is needed here. The City's Initial Study on page 24 states that a full discussion of the bridging of Auburn Ravine will be analyzed in the DEIR. The DEIR presents a conclusion that a 400-foot span will be required for this bridge. Without a Draft Specific Plan available where did this design come from? The initial study said this issue would be discussed; it hasn't. Bridge Design also will have an aesthetic impact. The original twelve bridges of the area might yield a historic design concept. The bridge design should also require a mitigation that will allow for public hearing specifically dealing with aesthetics.

16. Oak woodland mitigation is discussed on page 4.4-44. The second sentence of section 4.4-14 states, "Protected oak trees have documented in Phase 1,..." Where is this documentation, Certainly not in this report. Later in this section there is discussion of an "Oak Woodland Mitigation and Management Plan" Is this part of the Administrative Draft of the Specific Plan. Because that document has not been released, it is hard to accept that it as a mitigation measure since it cannot be reviewed. The lack of a public Draft Specific Plan continues to be a problem.

13-18

On page 4.4-45 the report suggests that payment to the City's tree mitigation fund could be utilized to offset oak loss. The City's record on expending the money already within the fund is minimal at best. No one seems to recall that ANY oak project having been funded from this fund. One problem is that the ordinance requires any funds collected to be expended within the City. Given LAFCO annexation requirements on annexations to cities, this severely minimizes the use of this program. Compliance with this ordinance on site would solve this problem.

13-19

17. There is no discussion on if cattle ponds on the site have been inventoried for red or yellow-legged frogs. These ponds can also be a design feature and should be have mapped, especially within Phase 1.

13-20

18. Figure 4.5-1 Area Sensitivity for Known Cultural Resources. Most times you won't find cultural resources if you do not look for them. I am more familiar with the concept of identifying lands in terms of suitable to have cultural resources found on them. In that approach almost all lands along Auburn Ravine or Indian Slough would have high suitability, not low. Native Americans located their villages based on good real estate principles: location, location, and location. For practical reasons they used waterfront locations. The presence of vegetation along Auburn Ravine will make finding them more difficult but this needs to be done for areas to be disturbed for improvements, grading, or used as a mitigation measure.

13-21

<p>A more in-depth review of the Ferrari Ranch Road Extension for cultural resources needs to be addressed and creating additional land for development.</p>	<p>↑ 13-21 cont.</p>
<p>19. In the Cultural resources there is discussion of ranches but no map has been provided to show where they are located within the project. The FEIR should locate the historic ranch properties and facilities discussed in this chapter. Obviously the location of native artifacts should not be mapped in this document.</p>	<p>13-22</p>
<p>20. Page 4.5-22 describes the level of detail of cultural resource evaluation done for the entirety of Phase 1. Because studies have not been completed for all of Phase 1, it is incorrect to have mitigation measures on Phase 1 as a unit. Clarity on which sub-phases of Phase 1 are covered by the mitigation is needed. This is a problem throughout the report. RATHER THAN DISCUSSING PHASE 1, THIS SHOULD HAVE POSSIBLY BEEN DESCRIBED BY THE SUBPHASES SHOWN ON THE PHASING PLAN MAP. SPECIFIC MITIGATIONS OR ENVIRONMENTAL CLEARANCES CAN ONLY APPLY TO SPECIFIC SUB-PHASES OF PHASE 1 DUE TO LACK OF BACKGROUND STUDIES HAVING BEEN COMPLETED. WHEN ACCESS IS DENIED FOR DOING STUDIES THESE AREAS IN FACT BECOME PART OF THE PROGRAMATIC DISCUSSION.</p>	<p>13-23</p>
<p>21. Chapter 4.6 on greenhouse gas emissions has the issue that plagues the entire report. The discussion on page 4.6-15 describes a Specific Plan that does not yet exist as a public document. None of the discussion on what the Specific Plan says can be verified. Worse, since this was written, the promised concepts found in that Administrative Draft Specific Plan could have been modified or deleted. This is the problem of not having a released plan.</p>	<p>13-24</p>
<p>22. Chapter 4.7 on Hazardous Materials is very informative. Page 4.7-3 discusses a a closed landfill. The site has a proposed designation of Public and Semi-public. Who owns this facility? What uses is allowed on the closed facility? Are they are limited to open space uses or can structures be built on this site? Should it be shown as Public or Semi-public or Open Space? The text states this is located in the “northern part of the phase 1 component”. This statement is in error; the site is north of Phase 1. How would the closed facility affect the proposed adjacent residential land uses? Are setbacks from it encouraged? Will this affect the unit count or adjacent proposed land use designations? Closed landfills can cause problems for adjacent properties that need disclosure, possible on deeds. This review may yield new significant impacts.</p>	<p>13-25</p>
<p>23. Conveniently, the Proposed Land Use Plan shows the County owned land as the Community Park. The discussion in this chapter clearly shows progress on dealing with on site contamination at the old Titan Missile complex now owned by the County. It also makes it clear that more work needs to be accomplished. The County letter in response to the NOP found in the Appendix A clearly asks for</p>	<p>13-26 ↓</p>

analysis dealing with relocation of the public uses existing on this property. There are land acquisition costs of moving County facilities, as well as, the construction of new facilities, cost of CEQA compliance, etc. The DEIR does not deal with the issues of what happens if the costs of remediation are extremely expensive or where relocation of these County facilities would be placed. Since the entirety of the parks compliance to City parkland standards rests upon whether hazardous chemicals cleanup and relocation of County facilities occurs, substantial more discussion on what happens if these action do not happen or become price prohibitive. Are their liability issues for the City if the land is transferred to the City from the County? In short, the ability of implementing the Proposed Land Use Plan is directly tied to this distressed property and relocating existing uses. The FEIR need to spend considerable effort discussing this issue.

13-26
cont.

This was a good DEIR chapter; it brought issues to light.

24. Chapter 4.8 Hydrology and Water Quality was very hard to review. It discussed watersheds, which were not mapped (page 4.8-2) and detailed discussion of flood plain zones AE (page 4.8-7), also not mapped. My biggest problem was this an engineers approach to dealing with hydrology. Auburn Ravine is a living and exciting place. It is not only a hydrological system but also a biological one. From this write-up one would never know that. This Chapter has acronyms everywhere; it makes this section harder to understand. On page 4.8-47 under Phase 1 discussions, it states the Auburn Ravine would “remain undeveloped open space.” That is not a correct statement. Portions of the Auburn Ravine lands are proposed to be modified to construct Ferrari Ravine Ranch Road and to add land for development as previously discussed. This clarification should be made.

13-27

13-28

25. The Chapter 4.9 deals with Land Use. It is interesting to note that this chapter has the same length as the Noise chapter given the relative importance of these two subjects. I was encouraged to read on page 4.9-1 that “As an environmental document, the EIR does not address ways in which the project might be revised to better implement General Plan policies. However, such suggestions are provided to the decision makers for their consideration.” This promises a robust discussion of the draft plan of the draft land use plan. It did not happen. Since all impacts flow from the land use plan, improvements here would affect the entirety of the project. I am still looking for where specific suggestions were made relative to Lincoln General Plan polices in this chapter. There is a brief discussion of land issues but no such suggestions are offered and the discussion is done in less than two pages.

13-29

Page 4.9-4 is revealing. It states, “The General Plan land use designations that are proposed for Village 1 are defined below.” It appears that the land use plan categories for the General Plan and the Specific Plan are identical. State laws requires the Specific Plan to be consistent with the General Plan. Specific plans, however, usually fine tune the ranges allowed within the general plan or cap the number of units within the range. The purpose of a specific plan is to provide for the systematic implementation of the general plan. This DEIR covers a range of

13-30

locations and densities at a general plan level of detail. This Specific Plan Proposed Land Use Map is in essence a general plan amendment land use map. Since the Project Description section did not address what the general plan amendment was to be, can we assume this is what the plan amendment will consist of?

13-30
cont.

Are there other elements of the general plan that may be amended? If so what is the nature of those amendments. Now is the time to clarify the nature of the proposed general plan amendment.

26. On page 4.9-15 there is now reference to an additional document that is presumably in Administrative Draft form: A Village 1 General Development Plan (GDP). This has also not been released to the public and may be being further modified after the writing of this DEIR. Are there other documents out there that are not available to the public that are being floated around? Let's get them all listed somewhere.

13-31

27. On page 4.14-40 there is an ever so short reference to NEV use. In my response to the NOP dated March 29, 2011, I stated, "Lincoln rightly prides itself for being Neighborhood Electric Vehicles (NEV) friendly. Will this project follow that tradition? What roadways will be designated for NEV use? Will NEVs be allowed to cross SR 193? For example, will they be allowed from Phase 1 to cross SR 193 to get to the Village Center by State Highway regulations. If not, will an NEV undercrossing be needed to allow for such a trip? If needed, will it be built as part of the SR 193 widening project?" It appears that for homes north of SR193, they could not legally cross the road in an NEV to go to the mixed-use area. Conversely, residents south of SR193 could not legally take their NEV to Turkey Creek Country Club.

13-32

The brief DEIR discussion states that NEVs will be allowed on all roads with a posted speed limit of 35 mph or less. It appears that the answer is that no NEVs will be allowed to cross SR 193 under today's rules. Please answer yes or no. I presume that more than a speed limit is involved on SR 193. The Transportation Chapter states that this road is a truck route.

Recently, I have seen golf cart overcrossings over roads associated with golf courses. They do work well. To further this discussion, do State regulations allow or prohibit over or undercrossing for NEVs? If not prohibited, the FEIR should examine which one of these options could be considered by City Council.

28. I could not figure out who will be responsible to fund certain improvements to SR 193. Were it not for Village 1 being built, improvements to SR 193 will not be needed in the short run. How will funding or responsibility be handled where no development is presumed to occur such as the Turkey Creek Country Club. For example, will Village 1 projects be responsible to fund 4 lanes from Ferrari Ranch Road to Oak Tree Lane since Lincoln Hills is built out south of SR 193. In a similar vein, who will build or fund the 4-lane work from the west edge of the project to Sierra College Road. The City deleted this area from its SOI because this area was

13-33

not likely to develop. Please explain this issue without too much jargon or lawyer talk.

29. It further was not clear if these improvements would be handled all at one time or in smaller segments. What I am trying to get a sense of for SR 193 upgrades is how long will disruption affect the community. I use the phrase, “**the one lane left behind program**” to describe circumstances where small segments of road are done as frontage improvements rather than a long reach of roadway. When small segments or roads are built or built on 1 side of a road little roadway capacity generally occurs at that time. Capacity only occurs when the improvements are substantial enough to allow traffic to separate and remerge safely. Otherwise these small segments are a location for all too frequent merging accidents. Many jurisdictions do actually discourage these small areas from opening up after they are constructed through use of traffic control devices or by simply not the striping these as additional lanes. How are road improvements on SR 193 proposed to be done-all at once or piece-meal? Discuss the impacts or the proposed scenario.

13-33
cont.

30. The DEIR uses at the traffic model buildout time lines (2030 and 2050 are used in this document). The real world environmental effects can vary greatly in a shorter time line. My specific question is will a requirement to build a 4-lane road from Ferrari Ranch Road to Sierra College Road be an obligation tied to Phase 1? What are the thoughts on if construction will require a road closure? The FEIR needs to discuss the real world environmental effects of SR 193 on capacity, construction disruption, aesthetic implications and, timing and safety issues until the whole 4-lane improvement is completed.

13-34

31. Construction impacts from this highway widening project need to be discussed in terms of dust, noise and hours of construction. What State requirements will have to be met of this State Highway. How will CEQA review be done for these State improvements.

13-35

32. The County letter on the NOP (Appendix A) asked if the new roadway proposed to enter Sierra College at the eastern end of the project is located to match up with the adopted location from Bickford Ranch. If it does not, the FEIR need to address the impacts of this misalignment. For example, can the public look forward to two separate traffic signals along Sierra College to accommodate both projects? Will a third signal be needed for safety reasons where Twelve Bridges Road joins Sierra College Road? Add a map showing the precise locations of these three potential intersections to Sierra College Road that need to be discussed in the FEIR. A discussion of this potential new impact is required.

13-36

33. Chapter 6.0 General Plan Policy Consistency enumerates the existing policies, which need to be applied to this project, where relevant. The Lincoln General Plan has clean concise policies which is a real advantage to the public and staff in reviewing projects and City Council on determining how to proceed. It would have been more productive if these policies were discussed with the relevant chapters of the

13-37

documents. They should also have been considered when determining Levels of Significance for environmental review within the chapters. Rather than discussing the Consistency Analysis section item by item, I will provide an example of the difficulty in using the approach use in this chapter.

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13-37
cont.

The first consistency analysis is found on page 6-3. It uses the example of having the Country Estates designation “along the northern and eastern project edges to provide a transition with the adjacent rural properties in the county.” By coupling that policy with the policy on Agricultural Buffers (Policy OSC-2.1) states “ The City will provide open space or other appropriate buffers, to protect agricultural operations located adjacent to the City planning boundaries, when reviewing land uses from each areas.”

↑
13-38

When these two policies are integrated, the result might yield a different conclusion. Next to those agricultural lands a small buffer zone (Open Space designation) could be established, and then transition to the Country Estates designation. I might point out that the original design shown to the public way back on December 15, 2008 presented an Open Space map that did provide more perimeter buffering than the current proposal. As I have hammered away at in this letter, the danger of using Administrative Draft documents for CEQA is that projects do evolve over time outside of the public arena.

34. On page 6-4 another new Administrative Draft document is raising its head. We now have Administrative Draft Design Guidelines. Whether they cover all project densities and structure types and all properties is unknown to me. Once again, it has not been made available to the public.

↑
13-39

35. Chapter 7.0 Project Alternatives There is much to say here. In my letter in response to the NOP in March or 2011, I urged that the **alternatives** to be developed vary from those found in a most DEIR “that do standard alternatives like “Reduced Density Alternative.” This EIR needs real alternatives such as insuring places for residents to congregate in....” What did we get? We got a simplistic Reduced Density Alternative and a Reduced Footprint Alternative. CEQA encourages realistic alternatives to be developed.

↑
13-40

When staff wants to create an alternative that they want to discredit, they create a **POISON PILL** to place within it. This is the case for the Reduced Footprint alternative; the poison pill was the conclusion that the reduced footprint area, which is not shown for development, would not annex to the City. Thus it does not meet project objectives. That overlooks two simple factors. Annexations almost always occur for parcels of land NOT remnants. Consequently, the split parcels would be annexed in any case. More importantly, these fringe parcels have their legal access through lands that go to SR 193 or Sierra College Road. After development, their access would be across new roads built to serve the development. It would not take them long to determine that these islands of unincorporated lands would be better served through annexation to the City. LAFCO dislikes creating islands of

↑
13-41
↓

unincorporated lands and LAFCO law strengthens this dislike. This poison pill taints this whole analysis of this alternative.

It would have been more straightforward to show the reduced footprint area in another Lincoln General Plan category; that of Agricultural Lands. There is only one area in the City that has that designation. It is City owned property on the Old Sewer Plant property. This agricultural land area could develop into large lot estates, which generate substantial property taxes relative to the cost of City services. Lincoln is lacking in this type of housing (think Granite Bay). Now you probably have the most Environmentally Superior alternative beyond the No Project Alternative. The FEIR should clean up the write-up on the Alternative.

13-41
cont.

MY PREFERRED ALTERNATIVE

Village 1 is a great place to develop! As I have pointed out neither the land use chapter nor other chapters map where specific property ownership's are located within the project area. Such a map should be provided. Existing property ownerships can affect how this development will play out. When the proposed land use plan and the alternatives are examined, it becomes clear they have not been designed based on the land forms but on who owns what. The straight lines on the Proposed Land Use Plan give this away. While I am speculating on this, it is probable that no real builder is involved in the process. It appears to be a land developer-staff run operation. That is fine but does have drawbacks in terms of financial realism. What developers are pushing this Specific Plan effort? Who is funding this effort?

13-42

By my count there are around 40 individual parcels. The number of ownership interests is unknown to me.

FINANCIAL CONSOLIDATION

In my **preferred alternative**, financial arrangements would be developed to share in the costs for the whole project or for larger unique areas of the project. This would include providing credits for those portions of the site, which would be better served by being preserved as open space. A year ago, for the NOP I prepared a map of LOGICAL PLANNING SUBAREAS to encourage that type of analysis in the DEIR. A copy of that map was found in Appendix A. I am resubmitting this idea and map so individual portions of this planning area could be discussed to reflect their unique characteristics.

13-43

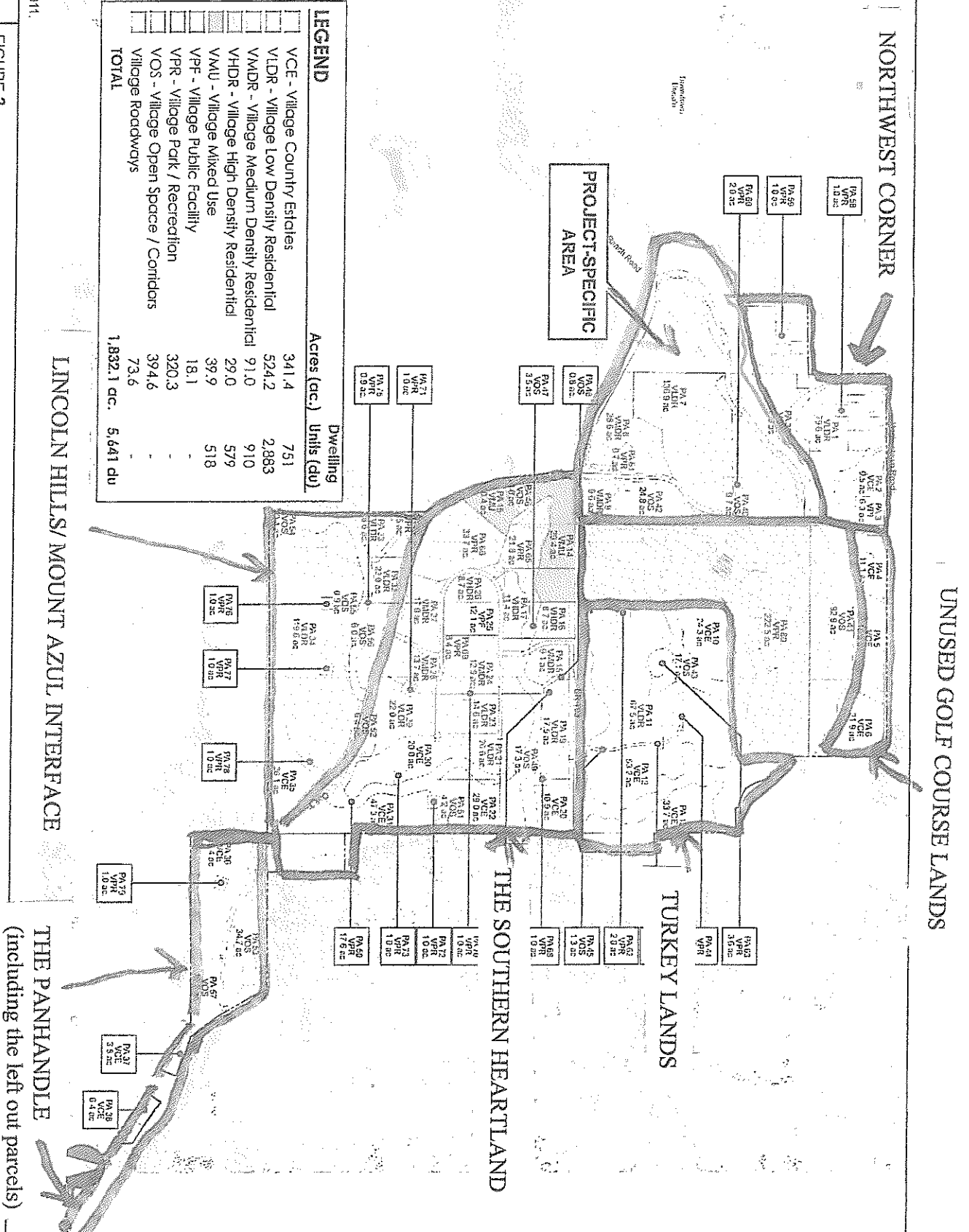
The lack of a Draft Specific Plan being available to the public leaves many important issues to be handled very vaguely in the DEIR. Specific Plan law requires a Specific Plan to contain a PROGRAM OF IMPLEMENTATION MEASURES INCLUDING REGULATIONS, PROGRAMS PUBLIC WORKS PROJECTS, AND FINANCIAL MEASURES TO CARRY OUT THESE MATTERS.

Source: KTG, 2011.



FIGURE 2
Proposed Land Use Plan

100011231



In my alternative, a master builder/financial **reimbursement** program would be required before each of these sub-areas could move forward toward development. The entirety of the Specific Plan would all be required to work together on funding mechanisms that affect the whole area. Right now this process must be like herding cats. Without this consolidation, timing conflicts and impacts can occur. Quality of design may suffer. In my alternative most of all financial arrangements and obligations can be shared. Can a City force these kinds of “marriages”? Sure they can. I have done it. In this alternative, subdivision maps can now be prepared without regard to existing parcel lines. Zoning can really becomes form based. After the Specific Plan is adopted. The City would consider no development proposals until this financial structure is complete. That will force the issue and cooperation. While I am sure that some cooperative issues have been discussed, there is no indication in the DEIR that a consolidated and legally enforceable approach has been agreed to. If it had, that would be touted in the DEIR.

13-43

BUFFER AREAS

In reviewing the Reduced Footprint Alternative, I thought this reduced the acreage to much. As discussed above Lincoln’s Open Space Policy 2.1 requires the City to provide buffer zones on the eastern end of the project area. My alternative would include a minimum 100-foot buffer on all properties on the eastern edge of the property. It would be shown as Open Space on the Proposed Land Use Plan. When the City requested LAFCO to delete the lands from the City SOI between the eastern edge of Village 1 and Sierra College Road, it made a statement, the City ends at the new SOI boundary. This buffer would lock in that City Council decision! It would also be an amenity to the new homes to the east of the property.

13-44

A similar 100 foot buffer on the south, east, and north where not already proposed, would complete the buffer zone separating Village 1 from the existing developments in the area. These buffer zones should also include a perimeter trail, which will be more fully discussed below.

Lastly, my buffer would include having the other property owners work together to acquire the remaining 35 acres slated for 1-acre lots, on the most easterly parcel of Village 1. This property should be developed as a low intensity use community park. This facility would connect to the existing Mt Azul trail. City park dedication funds could be used to help in its development. Such preservation would reinforce the agricultural lands to the north. It would help provide a small greenbelt along the western side of Sierra College Road. If Bickford Ranch does build, this break between these two areas would be an oasis of green between the City and that project, while supporting the property owners to the north lifestyle. NOTE: It would also provide a safety valve in case portions of the County owned land are harder to remediate than currently thought. The Oak Tree Lane Extension will provide easy access to this facility

This area should be designated as Community Park and is on my Proposed Land Use Plan. Due to graphics issues I have reflected these proposals on a MODIFIED Parks, Recreation, and Open Space map.

13-44
cont.

OAK MITIGATION

Oak woodland currently flourishes in the eastern part of the plan area. The mitigation requirements for elimination of hundreds of acres of oak woodland will be substantial. We know that to date the existing Lincoln fee based program has not been even partially successful.

The Lincoln General Plan discussion of Village1 on page 4-24 states, “Retain the mature canopy of trees to the extent feasible” From my point of view no real attempt has been made accomplish this.

Figure 4.4-1 Project Area Habitats and Figure 4.8-1 Existing 100-Year Flood Plains show several concentrations of oaks that the Proposed Land Use Plan does not provide preservation for. The most important of these areas is the Northeast edge of the property above Auburn Ravine. This area should be preserved as Open Space! Figure 2-5 Pedestrian Facilities already shows the main trail along Auburn Ravine north of it in this area. Further north parallel to Virginia Town Road a meandering trail could be added in lieu of a standard City sidewalk and connect to that Auburn Ravine Trail to create a loop trail system in this area. Low intensity facilities such as benches and picnic tables could be allowed. As a bonus this would provide an effective transition and buffer from the County agricultural areas to the north. It also would probably garner support for the project from the area residents.

13-45

On the eastern border of the site are additional areas with concentrations of mature oak canopy. Small locations along the eastern edge of the City staff ProposedPlan area are shown as Open Space to protect wetland features. The oak woodland on-site are clearly identified on Figure 4.4-2 entitled Full Specific Plan Wetlands and Waters of the U.S. A small amount of these oak woodland areas are already shown on the Proposed Land Use Plan as Open Space. Under my alternative they would be expanded substantially.

When oak mitigation areas are coupled with the buffer zones described above, a wider buffer zone results.

I propose that these areas should be reimbursed for their oak mitigation land. With the financial arrangements described above property owners that would benefit from being able to develop their parcels will be responsible for funding these oak mitigation preservation areas through their mitigation fees. The whole project area will benefit from the oak mitigation and buffer zone program; whole specific plan area should share in the costs of its oak preservation!

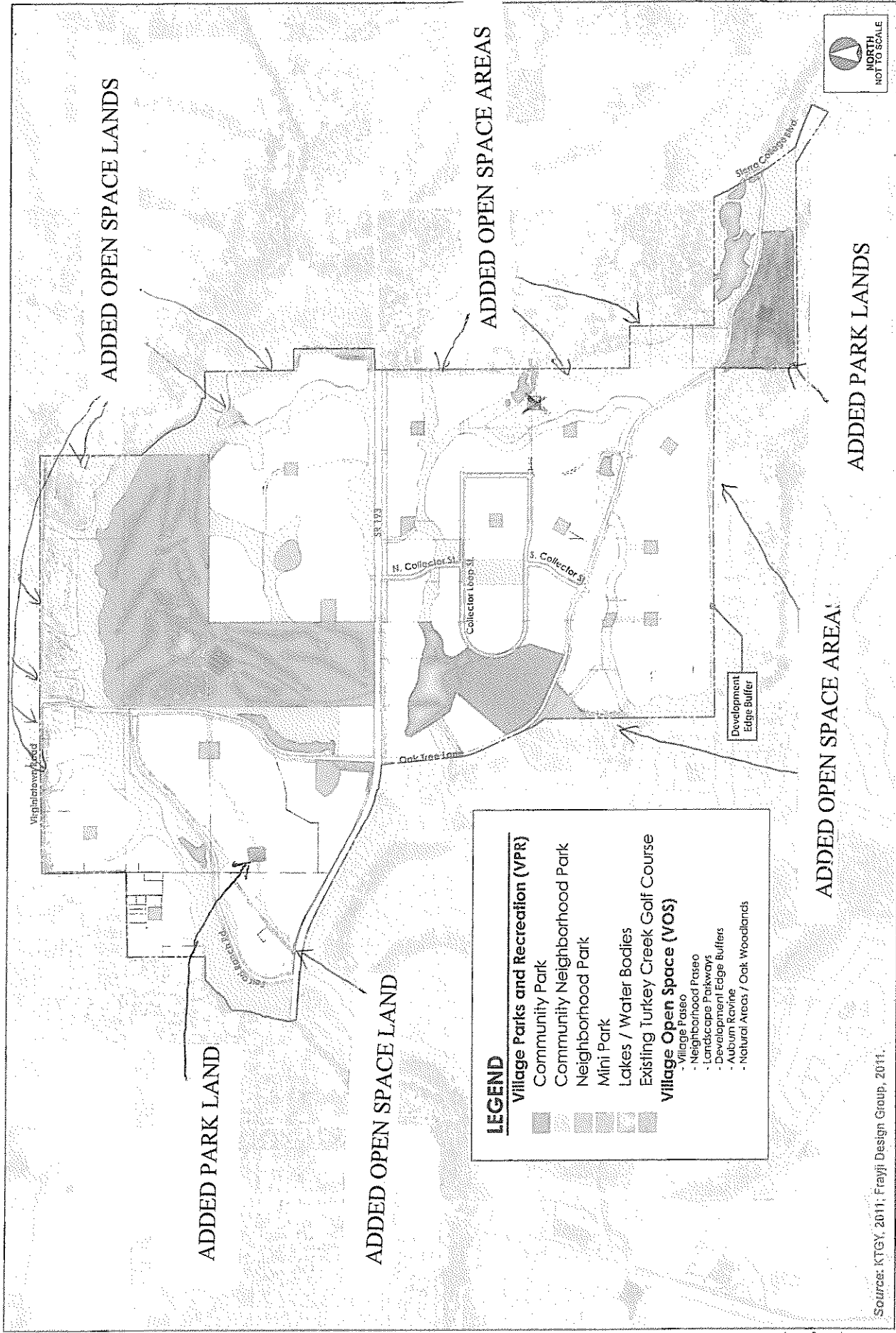


Figure 2-9
Parks, Recreation and Open Space

**CUTLER PROPOSED LAND USE PLAN MODIFICATIONS
(ADDING OPEN SPACE LANDS AND PARKLANDS)**

The FEIR needs to consider this Alternative to the proposal in addition to those already completed. It should be evaluated in terms of the General Plan compliance discussion as the other alternatives.

13-46

TRAILS

The Lincoln General Plan policies repeatedly support trails as a means of transportation. When discussing the village development review process LU-15.5 states, "New villages shall provide connectivity to other villages and the developed portions of the City. This connectivity shall be in the form of roadways, transit connections, and pedestrian linkages."

Existing Figure 2-5 Pedestrian Facilities shows a program that is extremely limited in fulfilling this policy.

By placing a trail through the proposed buffer zones/ oak mitigation on my alternative this effort can come closer to Lincoln General Plan policy.

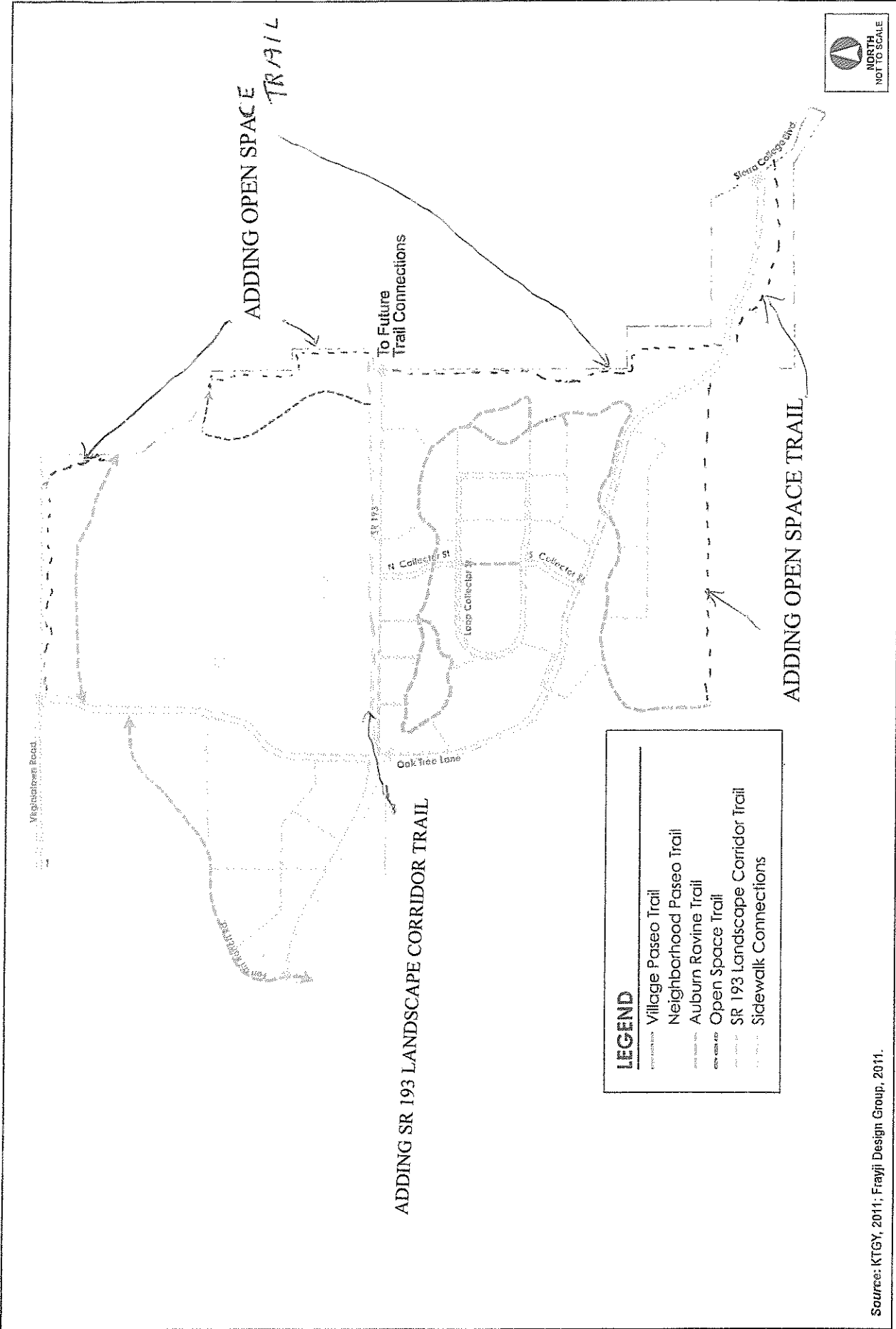
Specifically, this map should be modified to include:

- A northern loop trail through the oak mitigation/buffer zone. It will connect to a trail on the northern SR 193 r-o-w to connect with Phase 1 trails. The trail would become a sidewalk segment along the Turkey Creek Country Club.
- A southern loop trail through the oak mitigation/buffer zone should be built and connect to the existing City Mt. Azul Trail.
- A connection from the southern buffer trail along the Oak Tree Lane Extension to Sierra College Road (which will be 4 lanes and no doubt have sidewalks).
- A loop trail through what I propose is preserved as Open Space on the land north the golf course.

13-47

These loop trails will be important features of the project as well as selling points for Village 1. The need for the trails along both sides of SR 193 is to connect this project from east to west. With the elementary school to be in the south part of the project, a safe way to get across to the school at one of the two traffic signals is critical. SR 193 will be a barrier to village unity between the southern and northern components of Village 1. So two independent trails systems will join together at the two signalized intersections.

My version of a revised Pedestrian Facilities map is shown on the next page. The FEIR should examine my version pedestrian plan against the original proposal in terms of general plan compliance issues.



Source: KTCG, 2011; Frayji Design Group, 2011.

SMART GROWTH

Lincoln’s General Plan policy LU-1.13 states. “In order to implement smart growth principals the City will utilize form-based zoning in the designated village areas.”

13-48

To implement smart growth requires attention to the details of that philosophy. One such principle of smart growth is centrally located parklands. The staff proposed land use plan shows parks located internally in most areas. The big exception is Village 1. The parks to serve this area are all on the east side of the village. Lincoln’s General Plan has policies that require parks within one-quarter mile from the residents it serves. My alternative has one centrally located park within Village 1.

13-49

The following page has a short listing of smart growth principles. In my alternative these would be described in the Specific Plan. Compliance to these simple principles should be discussed in that document but also presently in the EIR. Not having the Draft Specific Plan I can not really go further on how my alternative would vary further from what the staff has yet to release.

13-50

My alternative map was included previously. I accept the draft designations except for where I have specifically recommended changes where I propose additional buffer lands or mitigation. It is taken from the DEIR map and shows where I suggest changes. I request that the FEIR provide analysis on this alternative in a consistent fashion with the alternatives already discussed in the DEIR.

13-51

LAST THOUGHTS

36. I FEEL THAT THE CITY SHOULD STRONGLY RECONSIDER RECIRCULATION OF THIS DEIR AFTER THE DRAFT SPECIFIC PLAN AND RELATED DOCUMENTS ARE FINALLY MADE PUBLIC. This revised document could then reference specific plan recommendations rather than just a few maps. It would give time to the developers of Phase 1 to put together specific development proposal that could be related to the Draft Specific Plan and the City’s General Plan. All these documents could then be reviewed as a package. This would give time to resolve the procedural issues associated with this process to date. Keep in mind this is a three square mile area with over 5000 homes.

13-52

I have spent 5 five full days reading the report and preparing these comments on the DEIR. I prepared them during the shortened time frame due to the errors in city noticing.

I am preparing to leave on a long scheduled vacation, I received a call from the Lincoln Planning Department at noon on June 6th informing me that the staff has finally released the Draft Specific Plan as of that date.

AMES SMART GROWTH ALLIANCE

When we build, let us think that we build forever.

[Home](#)

Principles of Smart Growth

Thu, 05/07/2009 - 21:41

1. **Mix Land Uses**. New, clustered development works best if it includes a mix of stores, jobs and homes. Single-use districts make life less convenient and require more driving.
2. **Take Advantage of Existing Community Assets**. From local parks to neighborhood schools to transit systems, public investments should focus on getting the most out of what we've already built.
3. **Create a Range of Housing Opportunities and Choices**. Not everyone wants the same thing. Communities should offer a range of options: houses, condominiums, affordable homes for low income families, and "granny flats" for empty nesters.
4. **Foster "Walkable," Close-Knit Neighborhoods**. These places offer not just the opportunity to walk—sidewalks are a necessity—but something to walk to, whether it's the corner store, the transit stop or a school. A compact, walkable neighborhood contributes to peoples' sense of community because neighbors get to know each other, not just each other's cars.
5. **Promote Distinctive, Attractive Communities with a Strong Sense of Place, Including the Rehabilitation and Use of Historic Buildings**. In every community, there are things that make each place special, from train stations to local businesses. These should be protected and celebrated.
6. **Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas**. People want to stay connected to nature and are willing to take action to protect farms, waterways, ecosystems and wildlife.
7. **Strengthen and Encourage Growth in Existing Communities**. Before we plow up more forests and farms, we should look for opportunities to grow in already built-up areas.
8. **Provide a Variety of Transportation Choices**. People can't get out of their cars unless we provide them with another way to get where they're going. More communities need safe and reliable public transportation, sidewalks and bike paths.
9. **Make Development Decisions Predictable, Fair, and Cost-Effective**. Builders wishing to implement smart growth should face no more obstacles than those contributing to sprawl. In fact, communities may choose to provide incentives for smarter development.
10. **Encourage Citizen and Stakeholder Participation in Development Decisions**. Plans developed without strong citizen involvement don't have staying power. When people feel left out of important decisions, they won't be there to help out when tough choices have to be made.

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What is Smart Growth?

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This is way too late for the public to utilize the document. In any case, if the document meets State law requirements, the DEIR would need to be revised to provide that information on how the project will proceed. This tardy release highlights the procedural problems Lincoln has had in dealing with the Village 1 Specific Plan!! It should have been out prior to the NOP. Arguably, the City could have released it with the DEIR. The other documents referenced in this letter have not been released yet. We still have a failure of procedures.

13-52
cont.

That I received a call on the subject of plan release is because I make repeated attempts to find out how to get these reports. By calling me and putting the report on their web site is not notification to the public that this report is now available. **THAT ONLY OCCURS WHEN NOTICE IS SENT THAT THE DOCUMENT IS AVAILABLE.** Presumably, the City expects me to download this report of unknown length at my expense. It is common for jurisdictions to give out copies of this type of reports or DEIR to interested participants. It is not like the City should pay for these reports. Traditionally, that cost falls to the project proponents to cover this cost.

Sincerely yours,



Jim Cutler

LETTER 13: JIM CUTLER

Response 13-1: As indicated in the comment, the first Notice of Availability (NOA), dated May 7, 2012, for the Draft EIR contained an error in the subject line. A second NOA (dated May 9, 2012) corrected the review date, but did not change the subject line. However, both NOA clearly stated in the body of the text that the Draft EIR was available for review. A third NOA corrected the subject line on May 23, 2012. Nonetheless, as requested by the commenter, the comment period was extended to July 9th, providing 47 days after the corrected notice, for a total review period of over 8 weeks.

Response 13-2: CEQA Guidelines Section 15082 requires that the Notice of Availability be sent to all organizations and individuals who have previously requested notice in writing. The City maintains a list of those requesting to be informed of the project and or CEQA documents for the project, and the Notice of Availability and subsequent notices were sent to the parties on that list. In addition, a notice was posted in the Lincoln News Messenger, which is the local newspaper. The commenter did submit a letter in response to the NOP, but did not request to receive future mailings. The commenter has now been added to the mailing list and will receive all public notices related to the Village 1 Specific Plan and EIR.

Response 13-3: The City has met and exceeded the requirements for making a Draft EIR available for public review. As required by CEQA, the Draft EIR was available for public review at City offices, and at the local public library (CEQA Guidelines Section 15082). In addition, compact disks were available for purchase at the City Development Services Department. Although not required, the body of the Draft EIR was also posted to the City's website, as indicated in the comment. Limitations within the City's website precluded grouping the Village 1 DEIR chapters together. Nonetheless, as shown in the comment's attachment, all of the DEIR chapters were available on the website. The appendices were not initially posted on the website, but were available for review or on compact disk at the City Development Services Department. After receiving the comment, the City also posted the appendices on the website.

Response 13-4: The comments regarding the advantages of the Village 1 area are noted. As discussed in more detail in the following responses, the EIR consultants and the public had access to complete versions of pertinent documents needed to conduct an adequate analysis of the project impacts.

Response 13-5: As required by CEQA Guidelines Section 15032(i), the Village 1 NOP included "sufficient information describing the project and the potential environmental effects to enable the responsible agencies to make a meaningful response," including a description of the full Specific Plan and Phase 1, exhibits showing the location of the project, and discussion of the potential project impacts (see Appendices A and B in the Draft EIR). The pertinent information regarding the scope of the environmental analysis included the number of dwelling units, square footage and acreage for each land use, and a description of infrastructure needed to serve the plan area. CEQA Guidelines 15082(a) states that the NOP should be circulated once it is determined that an EIR is warranted for a project. That determination does not require the complete Specific Plan.

Response 13-6: The impact of Phase 1 has been thoroughly analyzed. The Draft EIR assumes that all roadways and development parcels will be graded and developed. The Small Lot Tentative Map would place lots and roads within these areas. If anything, the Draft EIR overstates the impact, because when lotting occurs, it may encompass a smaller footprint than shown in the Draft EIR, but not a larger footprint.

Response 13-7: Chapter 2, Project Description, of the Draft EIR describes the physical changes that would occur as a result of the proposed project in enough detail to understand the components of the project, including the land uses that would be developed throughout the plan area if the Specific Plan were approved. Additional information is provided as appropriate in the various technical sections. As stated on page 2-23, the EIR is intended to cover a number of entitlements that would be required for the plan area to be developed, including a General Plan amendment, General Development Plan, Tentative Maps, Specific Development Plans/Development Permits, Development Agreement, Annexation/Pre-zoning and Grading Permits. The General Plan would be amended to redesignate the project site as indicated in Figure 2-7. The General Development Plan is available on the City's website. The plan area would also be rezoned to be consistent with the land use designations. All actions taken subsequent to approval of the Specific Plan (e.g., annexation, zoning, and tentative maps) must be consistent with the Specific Plan and EIR assumptions, or a Specific Plan amendment and/or additional CEQA analysis could be required (CEQA Guidelines 15162).

Response 13-8: The rock outcroppings described in the DEIR occur primarily in the eastern and southern portions of the plan area. No unusual rock outcroppings were identified in Phase 1. There are a number of photographs that are used to augment the description of the Phase 1 site (view points 4 through 7 in Figures 4.1-2 through 4.1-5). As stated on page 4.1-12, these rock outcroppings are typical of those found throughout the region, and are not visually unique or significant. Some of the outcroppings would be preserved in open space.

The comment does not indicate why stock ponds, which are agricultural rather than natural, should be shown in the visual section, as they are not typically considered visual amenities.

Response 13-9: Comment noted. Mitigation Measure 4.2-2 requires that development not be permitted on land under Williamson Act Contract until the contract expires or is cancelled.

Response 13-10: Table 4.4-1 on page 4.4-7 identifies and quantifies wetlands by type within Phase 1. The wetlands are broken down by property name because separate reports were prepared for the subject properties, all of which are shown in Figure 4.4-2. The two parcels that were not surveyed are identified on Figures 4.4-3 and 4.5-1.

Response 13-11: The resources found in Phase 1 are depicted in numerous exhibits, some of which focus just on Phase 1 in order to provide additional detail (for example, Figure 4.4-3, Phase 1 Wetlands and Waters of the U.S.). It is not clear from the comment how an aerial exhibit would add information needed for the CEQA analysis.

Response 13-12: As stated on page 4.4-7, a small portion of the Phase 1 area could not be surveyed. However, that area is easily visible from the fence line. The habitats in those areas are shown in Figure 4.4-2. Therefore, there is enough information available at this time to characterize the impacts of developing all of Phase 1. Further, mitigation measures have been identified to ensure that if any resources or hazards are present in the unsurveyed areas, then they will be addressed prior to development of those parcels.

Response 13-13: Village 1 is consistent with the General Plan comments cited in the comment. Figure 4.8-1 shows the existing 100-year floodplain. The proposed project would fill a portion of the 100-year floodplain as evaluated in Impact 4.8-3 on page 4.8-39 and 4.8-40 of the Draft EIR. In addition, the project drainage system would alter onsite flows. The post-project floodplain, shown in Figure 4.8-2, would be located entirely within open space. The entire

stretch of Auburn Ravine through the project area is located within the Open Space corridor which is wide enough to encompass land within 50 feet of the corridor.

Response 13-14: Please see Response 13-6.

Response 13-15: The Draft EIR fully analyzes the impacts of Phase 1 on perennial and intermittent streams. The existing drainage conditions for Phase 1 are depicted in Figure 4.8-1. The future watersheds are shown in Figures 4.8-2 and 4.8-3. Phase 1 has the same watersheds as the full Specific Plan.

Response 13-16: Appendix E in the Draft EIR is a list of special-status species obtained from agency databases. These databases extend beyond the Village 1 plan area. For example, as explained in Table 4.4-2 on page 4.4-50, delta smelt are limited to the Sacramento-San Joaquin Delta, and would not occur in Auburn Ravine, even though this species occurs in the database search.

The information provided Appendix E is not “NOP letters” requesting analysis of specific species, as suggested by the commenter. No federal or state agency submitted comments in response to the NOP indicating which species should be evaluated in the EIR.

Table 4.4-2 in Section 4.4, Biological Resources, in the Draft EIR includes Central Valley spring-run and winter-run Chinook salmon, noting its federally threatened status and low potential for occurrence.

Table 4.4-2 (on page 4.4-51 under the “Fish” subheading) has been modified as follows to add information about fall and late fall run species.

Information about Central Valley fall and late fall run Chinook salmon is also added to page 4.4-15 in the Draft EIR following the first paragraph:

Central Valley fall and late fall run Chinook salmon (*Oncorhynchus tshawytscha*) is a Federal Species of Concern and a State Species of Special Concern. The Central Valley fall/late fall run evolutionarily significant unit (ESU) includes fall run and late fall run Chinook salmon in the Sacramento and San Joaquin rivers and their tributaries. Historically, Chinook salmon were widely distributed throughout all major streams of the Central Valley drainage. Central Valley fall run and late fall Chinook salmon adults migrate from the Pacific Ocean from mid-July through November to freshwater spawning habitat. Spawning occurs in the Sacramento River and numerous tributaries from late September through December. Central Valley fall-run and late fall Chinook require clean, cold water over gravel beds with water temperatures between 6 and 14 C for spawning. Eggs incubate approximately eight weeks before hatching. Juveniles rear for three to six months before emigrating downstream from their natal waters through the Sacramento River, Delta, and San Francisco Bay to the Pacific Ocean.

Impact 4.4-11 on page 4.4-40 in the Draft EIR is modified as follows to address salmon, in addition to steelhead. Mitigation Measure 4.4-11(a) and (e) is also modified. The incorporation of this information does not change the conclusions of the analysis or the severity of the impact concerning fish species in Auburn Ravine. In particular, Mitigation Measure 4.4-11, as modified, would protect both steelhead and salmon.

TABLE 4.4-2			
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN THE VILLAGE 1 SPECIFIC PLAN PROJECT SITE			
Scientific Name Common Name	Status Fed/State/Other	Habitat Requirements	Likelihood of Occurrence in Project site
Fish			
<i>Hypomesus transpacificus</i> delta smelt	FT/none/none	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities less than 10 ppt., most often at salinities less than 2 ppt.	None: No suitable habitat in the project site.
<i>Oncorhynchus mykiss</i> Central Valley steelhead	FT/none/none	Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen. Passes through the San Francisco Bay during migrations to upstream spawning habitat.	Moderate to High: Suitable habitat present in Auburn Ravine in the project site.
Central Valley steelhead Critical Habitat	FX/none/none	N/A	Known: Portions of Auburn Ravine passing through the project site are within critical habitat for this species.
<i>Oncorhynchus tshawytscha</i> Central Valley spring-run Chinook salmon	FT/none/none	Spawns in the Sacramento River but not in tributary streams. Requires clean, cold water over gravel beds with water temperatures between 6 and 14 C for spawning. Passes through the San Francisco Bay during migrations to upstream spawning habitat.	Low: Not known to occur in Auburn ravine, though potential spawning habitat exists there.
<i>Oncorhynchus tshawytscha</i> winter-run Chinook salmon	FE/none/none		
<i>Oncorhynchus tshawytscha</i> Central Valley fall and late fall run Chinook salmon	none/none/CSC		High: Known to present in Auburn Ravine

4.4-11 The proposed project would result in the modification of stream corridors, disrupting the associated habitat, and potential changes in surface water quality that could affect Central Valley steelhead and/or Central Valley fall and late fall run Chinook salmon.

Full Specific Plan/Phase 1

The reach of Auburn Ravine that passes through both the Phase 1 and programmatic portions of the project site is designated as Critical Habitat for Central Valley steelhead and represents migration and possibly spawning habitat for this species. Central Valley fall and late fall run Chinook salmon (*Oncorhynchus tshawytscha*), which may be present in Auburn Ravine, is a Federal Species of Concern and a State Species of Special Concern. However, there is no designated Critical Habitat. The proposed project includes a series of modifications to Auburn Ravine within this reach. These modifications include...

Construction of these drainage improvements and proposed bypass channel improvements could affect Central Valley steelhead and/or Central Valley fall and late fall run Chinook salmon in Auburn Ravine and its tributaries by potentially affecting water quality. Once constructed, the channel improvements would carry post-construction stormwater flows that could contain urban pollutants. Central Valley steelhead is listed as threatened under FESA and take of this species or its habitat is prohibited. Central

Valley fall and late run Chinook salmon is a special-status species, but it is not subject to federal or state take species or habitat prohibitions that apply to steelhead. Damage to, or loss of Central Valley steelhead or Central Valley fall and late fall run Chinook salmon or their habitat through excavation, siltation or other pollution of the habitat, the potential loss of individual Central Valley steelhead or Central Valley fall and late fall run Chinook salmon or their habitat would be considered a significant impact.

Mitigation Measure

Implementation of the following mitigation measures would reduce this impact to a *less-than-significant level* by protecting Central Valley steelhead and Central Valley fall and late fall run Chinook salmon and their habitat in Auburn Ravine through avoidance of the low-flow period and protection of water quality.

(a) *Restrict work in Auburn Ravine to low-flow periods between June 15 and October 15 to avoid effects on adult or juvenile steelhead or salmon life stages during their migratory seasons.*

(e) *If dewatering is necessary along portions of Auburn Ravine, use appropriate temporary coffer dams to dewater the construction sites and divert water through the area during the construction period to prevent impeding creek flow or water flow through the work areas. If dewatering at a site is required, a qualified biologist shall be present during the dewatering period to inspect and ensure that steelhead and salmon will not be trapped within the temporary coffer dams. If steelhead or salmon are found, a qualified biologist will capture and relocate these fish to an appropriate area away from the construction site. The project applicant or their representative shall submit for approval the dewatering and fish capture and relocation plans to the NOAA and CDFG once the design plans are finalized.*

Response 13-17: The bridge across Auburn Ravine would be constructed as part of the full Specific Plan, not Phase 1. Therefore, the Draft EIR evaluates the impacts of the bridge at a programmatic level. For example, the bridge is specifically discussed in Impact 4.4-11 on page 4.4-40, which discusses potential effects of the bridge and other project features on steelhead habitat. Mitigation Measure 4.4-11(m) specifically addresses bridge construction. Impact 4.4-12 on page 4.4-42 addresses interference with the movement of wildlife species, and Mitigation Measure 4.4-12(a) on page 4.4-43 requires that the bridge crossing be designed to minimize restriction of wildlife movement through the project site.

The bridge is proposed to be a broad span (400 feet) with columns at 60 feet. One purpose of a span design is to minimize impacts on the stream corridor. The amount of habitat that would be disturbed by the bridge will be determined after the bridge design is submitted to the City, and will be subject to subsequent CEQA review. The nature of the review would depend on the type and severity of impacts associated with the bridge.

Response 13-18: As stated on page 4.4-5, Tree surveys conducted in 2007 and 2008 documented 908 oak trees greater than 6 inches diameter at breast height (dbh) on two of the properties within Phase 1. There are only a small number of oak trees on the portion of Phase 1 that was not surveyed. The loss of these oak trees would be addressed through Mitigation Measure 4.4-14, which requires compliance with the Village 1 Specific Plan Oak Woodland Mitigation and Monitoring Plan.

Response 13-19: The Oak Woodland Mitigation and Management Plan (OWMMP) is provided in Appendix C to the Draft Specific Plan, which is available from the City of Lincoln and/or on the City's website. The OWMMP provides for preservation, enhancement and replacement of oak woodlands within the plan area. Replacement options include new planting on or off site and/or payment of the City's tree mitigation fee, which could be used to support oak tree propagation anywhere in the City, including within the over 700 acres of open space, parks and landscape corridors within Village 1. Because the OWMMP would be implemented as portions of the plan area are annexed to the City, no LAFCO action would be involved in OWMMP activities.

Response 13-20: As shown in Table 4.4-2, a search of the California Natural Diversity Data Base indicated that California red-legged occurred within the region. The project site does contain some habitat that could support the red-legged frog, but the potential for the species to occur on site is considered none to low due to its known distribution. Therefore, no onsite surveys are necessary. The yellow-legged frog was not reported in the CNDDDB as potentially occurring in the region so it was not addressed in the DEIR.

The comment that the ponds could be a design feature is noted, but addresses project design rather than the Draft EIR analysis, so no response is required.

Response 13-21: Figure 4.5-1 is based on surveys conducted within the plan area. The majority of Phase 1 is identified as having a low frequency of recorded cultural resources based on surveys conducted on approximately 260 acres within Phase 1. Four historic resources were identified, but after evaluation they were determined not to meet standards for historic significance. One pre-historic resource was also identified and determined to be historically significant (see pages 4.5-8 through 4.5-11).

The cultural resource surveys were conducted on the parcels that contain the alignment of Ferrari Ranch Road. No historically significant resources were identified in the vicinity of the road alignment. Furthermore, as discussed in Chapter 2, the alignment of Ferrari Ranch Road has been relocated to the edge of the Open Space area.

Mitigation Measure 4.5-2 requires that all areas of the plan area that have not been subject to surveys be surveyed prior to approval of any small lot tentative map, grading or improvement plan. These surveys would identify cultural resources within the plan area.

Response 13-22: The historic resources within the Phase 1 areas were found not to be historically significant, and are on private property. It is not clear what benefit would result from depicting the resources on an exhibit.

Response 13-23: As stated on page 4.5-19 of the Draft EIR, the unsurveyed portions of Phase 1 represents approximately 8 percent (33 acres) of the project total. This area is visually accessible from nearby areas, and the only structure on this portion of the project site is not old enough to be considered historically significant (see page 4.5-10 of the Draft EIR). Therefore, it is not expected that there would be historic resources in that area. Mitigation Measure 4.5-2 requires that the 33 acres be surveyed for prehistoric resources prior to approval of a small lot tentative map, or grading or improvement plans. If any resources are discovered, they are required to be treated following standard professional procedures, including, but not limited to avoidance, protection, data recovery and documentation. Given that only a small portion of Phase 1 has remains to be surveyed, and that mitigation has been provided to ensure proper treatment of any resources that might be present, the analysis for Phase 1 is adequate to support a project-specific approval.

Response 13-24: The Specific Plan and General Development Plan referenced on page 4.6-15 are available to the public at City Hall and on the City website.

Response 13-25: As discussed on page 4.7-3, the landfill was operated by the City from the early 1950s to the mid-1979. As stated on page 4.7-3, there is no indication that the site poses an environmental risk. The site is regularly monitored in accordance with State regulations.

The comment is correct that the landfill is not located within Phase 1. Therefore, the first sentence in the third paragraph under Phase 1 Component of the Specific Plan on page 4.7-3 is corrected to read:

~~in the northern part of the Phase 1 component, north of Auburn Ravine, The City operated an approximately 6-acre municipal landfill from the early 1950s to the mid-1970s located south of Virginiatown Road in the northern portion of the plan area.~~

As shown in Revised Figure 2-2 in Chapter 2, Draft EIR Errata and Modifications, the site is proposed to be designated Village Open Space (VOS), so the parcel would not be developed with urban uses.

Surrounding uses are proposed to be residential and open space. Because the landfill has been regularly monitored and there are no ongoing environmental concerns, it would not adversely affect residences, and there is no need for setbacks or other restrictions.

Response 13-26: The regional park site would not be needed, and is not planned to be developed, in the near term, because it will take time for Village 1 to develop to the point where the resident population is large enough to warrant and/or fund a regional park. The City expects that soil remediation would be complete by the time at which the City was ready to purchase the park site.

The County is currently remediating the lead-contaminated soils at the park site. The City would not purchase the park site before the soils had been remediated, consistent with Mitigation Measure 4.7-2. As discussed on pages 4.7-5 and 4.7-6 of the Draft EIR, a RAP has been completed for groundwater remediation. Pursuant to Mitigation Measure 4.7-2 would ensure that the project would not interfere with groundwater remediation, and that there would not be a risk of exposure to contaminated groundwater.

The County would be responsible for relocating the County facilities. Please see Response 6-13.

Response 13-27: The Draft EIR is a multi-disciplinary document, addressing a wide range of issues that vary in technical complexity. Section 4.8, Hydrology and Water Quality, addresses issues related to flooding, drainage and water quality, as indicated by the CEQA Environmental Checklist. These issues are largely focused on Auburn Ravine, as it is one of the major drainages in the region. As indicated by the comment, there are many facets to Auburn Ravine, which is why it is also addressed in other sections of the EIR, such as 4.1, Aesthetics and Visual Quality, and 4.4, Biological Resources.

The hydrology analysis is by necessity technical, as it must provide the information that supports the findings related to flooding and drainage impacts. These impacts are evaluated through hydrologic modeling. The EIR authors strive to explain the flooding and drainage

setting in impacts that is both clear enough to be understood by a wide audience and technical enough to fully convey the findings of the model.

The first time that acronyms and abbreviations are used in any chapter, they are preceded by the full text. They are also defined in Chapter 8, Acronyms and Abbreviations.

Response 13-28: As stated on page 4.8-47, the area adjacent to Auburn Ravine is designated open space (see Response 13-13). Ferrari Ranch Road would be located at the edge of this open space (see Revised Figure 2-2 in Chapter 2, DEIR Errata and Modifications). As discussed in Response 13-17, the bridge is not part of Phase 1. The bridge, which is proposed as part of programmatic portion of the Specific Plan, is proposed to be a 400-foot wide span with columns set at 60 feet to enable the bridge to minimize alterations to the stream corridor.

Response 13-29: The length of each technical section in the Draft EIR is dependent on the amount of information necessary to be presented to understand existing conditions, methods of analysis, impacts and mitigation measures. Section 4.9, Land Use, examines the compatibility of the proposed project with surrounding uses and consistency with the City's General Plan land use policies and LAFCO annexation policies. Chapter 6, General Plan Consistency, provides an evaluation of the project's consistency with all applicable General Plan policies. That chapter is 29 pages long. In addition, where appropriate, General Plan policies are used as the basis for standards of significance and/or mitigation in some sections, such as Section 4.14, Transportation and Circulation, and 4.10, Noise.

The statement on page 4.9-1 that "suggestions are provided to the decision makers for their consideration" refers to comments regarding land use that were received in response to the Notice of Preparation. As stated earlier in that paragraph, "As an environmental document, the EIR does not address ways in which the project might be revised to better implement General Plan policies." Rather, suggestions regarding ways in which the project could be improved (where significant project impacts are not involved) are provided to the decision makers for consideration.

Response 13-30: The 2050 General Plan designates the Village 1 plan area as Village (V-1) and, where the County facilities are currently located, Public Facilities, as shown in Figure 4.9-1. The Specific Plan provides more specific land use designations throughout the entire plan area, as shown in Figure 2-2. The General Plan will be amended to incorporate these more detailed designations in the General Plan land use map. The definitions of the land uses are consistent with the General Plan. As discussed in Chapter 6, General Plan Consistency, with mitigation the Specific Plan will be consistent with General Plan policies. Therefore, no amendments to General Plan policies are proposed.

Response 13-31: The General Development Plan is not an Administrative Draft document, and is available on the City's website and at City Hall. All of the documents that were used in the Draft EIR analysis (in addition to the Specific Plan and General Development Plan, which are part of the project) are listed in Chapter 10, References.

Response 13-32: As shown in Figure 2-4, Bikeway and NEV Routes, and described on page 2-9, NEV routes would be provided along the major roadways within the plan area, including McBean Park Drive/SR 193, Ferrari Ranch Road and Oak Tree Lanes. On McBean Park Drive/SR 193, NEVs would share an 8-foot shoulder with bicycles. In addition, NEVs would be allowed to share vehicle lanes on roads that have speed limits of 35 mph or lower, which would include most internal minor streets in Village 11.

NEV's would be able to cross McBean Park Drive/SR 193 where the cross street (such as Oak Tree Lane) provides an NEV route. These crossings would be signalized, so an over- or under-crossing would not be needed for the NEVs.

Response 13-33: Improvements to SR 193, which include the addition of the third and fourth lanes, additional traffic signalization and a landscaped median, will be funded by new development through the City's Public Facilities Element (PFE) Fee Program. The decisions regarding the timing and staging of these improvements are anticipated to be made as the project proceeds through phases of development based upon the location of new development and traffic conditions. Determinations regarding the scope of improvements, safety issues and traffic control will be made during the review of specific phases of development. It is not anticipated that all of the improvements will be made to SR 193 at one time. Please also see Response 1-13.

Response 13-34: Phase 1 will not be responsible for widening McBean Park Drive from Ferrari Ranch Road to Sierra College Boulevard. Please see Response 13-33 for a discussion of the timing of SR 193 improvements.

Response 13-35: Construction impacts for roadways and development are addressed in Impacts 4.3-1 (air emissions) on pages 4.3-18 through 4.3-22 and 4.10-2 (construction noise) on pages 4.10-15 and 4.10-16. At this time, it is anticipated that improvements to SR 193 would be made by the City as the City limits are expanded to incorporate Village 1. Regardless of jurisdiction, subsequent CEQA review would be required, as for any project within Village 1 (other than Phase 1). If the State undertakes improvements to SR 193, then those improvements would be subject to CEQA review. Subsequent to certification of the Village 1 Specific Plan EIR and adoption of the Specific Plan, the CEQA analysis for roadway improvements within the plan area could be tiered from the Village 1 EIR.

Response 13-36: The extension of Oak Tree Lane is planned to be approximately 1/2 mile from the future Bickford Ranch connection to Sierra College Boulevard, so the two roads would not be in alignment.

The planned (SPRTA) signal at Twelve Bridges Drive and the project-added signal at Oak Tree Lane would be about 1,800 feet (approximately 1/3 mile) apart. Assuming two northbound left turn lanes at Oak Tree Lane (which was assumed for the EIR analysis) yields anticipated average northbound left turn queues of less than 150 feet and an 85th percentile northbound left turn queues of less than 250 feet under 2050 Plus Project conditions. Northbound through queues are estimated to be significantly shorter. Therefore it is unlikely that northbound (left or through) vehicles would cause an impact on the intersection at Twelve Bridges Drive. Because there is no eastern leg to the Oak Tree Lane intersection, there is no issue of southbound left turn queues impacting the stop controlled intersection at Lower Ranch Road.

Response 13-37: Many General Plan policies do not address environmental concerns, and there are not always policies that address specific environmental effects. The General Plan policies were considered in the development of standards of significance, and do provide the basis of standards of significance where appropriate (e.g., traffic service level impacts within the City, acceptable noise levels).

The commenter's preference for evaluating General Plan consistency is noted. This is a comment on format rather than the content of the environmental analysis, so no response is necessary.

Response 13-38: The Draft EIR analyzes the Specific Plan as proposed, not prior versions of the plan or other proposals. As stated on page 6-5, the combination of the Village Country Estates designation, which has a minimum of one-half acre lots, and open space provides an appropriate buffer between the denser land uses within Village 1 and surrounding agricultural activities, which, for the most part, are relatively low intensity (i.e., grazing).

See also Response 13-29.

Response 13-39: The Design Guidelines referenced on page 6-4 are part of the General Development Plan available on the City's website and at City Hall.

Response 13-40: As stated on page 7-1 of the Draft EIR, the primary intent of the alternatives evaluation is to include those alternatives that could feasibly accomplish most of the basic objectives of the project while avoiding or lessening one or more significant impacts. Because the significant impacts of the project are primarily related to conversion of undeveloped land to urban uses and introducing a large new population into the City, the appropriate alternatives for lessening project impacts are reducing the acreage that is developed (reduced footprint) and/or reducing the amount of development (reduced density).

Response 13-41: The Reduced Footprint Alternative (pages 7-12 through 7-22 of the Draft EIR) would include development of approximately 1,300 acres, compared to approximately 1,800 acres under the proposed project. The 500 acres that would not be developed are assumed to remain in the County, because they would not require City services. In order for this to occur, some parcels (but not all) would need to be split. There are mechanisms in the City and County for splitting parcels, so this requirement would not render the alternative infeasible. Furthermore, the entire development area would be contiguous, without creating any islands or peninsulas of unincorporated land (see Figure 7-2).

Under the Reduced Footprint Alternative, annexing the remaining 500 acres of the plan area into the City with a designation of Agricultural Lands would not be materially different from the alternative as described, because that land would remain as an agricultural use. With a minimum parcel size of 20 acres, annexation to the City and designation of the 500 acres Agricultural Land could result in an additional 25 parcels at most (the actual number would depend on the configuration of parcel), which would add slightly to the unit count for the Reduced Footprint Alternative, an increase in the potential unit count of less than one percent. This could provide only a slight benefit to the City in terms of property tax revenue.

Response 13-42: Property ownership is shown in Exhibit 1.3 of the Specific Plan. Lake Development is acting as the primary applicant for the Specific Plan at this time. Ownership and funding of the planning effort do not affect the environmental impacts of the project as proposed.

Response 13-43: The comment addresses financing mechanisms for development of the plan area, rather than the adequacy of the Draft EIR. Financing mechanisms are addressed in Chapter 7, Administration and Implementation Program, of the Specific Plan.

Response 13-44: The comment proposes an alternative that would require 100-foot buffers along the eastern, southern and northern edges of the plan area. Such an alternative would not substantially reduce project impacts, particularly compared to the alternatives evaluated in the Draft EIR. As discussed on pages 4.9-17 and 4.9-18, the proposed land uses would be compatible with surrounding uses, so additional buffers are not necessary.

Furthermore, the City of Lincoln retracted its Sphere of Influence from Sierra College Boulevard in recognition that County zoning had permitted this area to subdivide into 5 acre residences that would be unlikely to request City services and incorporation. The General Plan policies regarding agricultural buffers, LU-5.4 and OSC-2.1, are designed to preserve agricultural operations in the County located adjacent to the City's ultimate boundaries. Regarding the eastern portion of the Village 1 Specific Plan the area adjoining the existing 5 acre residences in the County has been assigned a Village Country Estates land use. This classification allows for density range of 1 to 2.9 units per acre providing opportunities to develop a buffering system. Currently this portion of the project has been reviewed at a programmatic level. When specific development plans are submitted for these areas a review of the need for buffering will be undertaken as part of the detailed design.

Response 13-45: The Specific Plan provides over 250 acres of natural open space, including oak woodlands throughout the plan area. Additional individual oak trees and oak woodlands may be preserved on individual parcels as subsequent proposals are proposed in the programmatic area. The OWMMP provides for the replacement of woodlands that are lost to development. Ultimately the OWMMP and Specific Plan in combination would result in preservation of about 600 acres of oak woodlands (see page 4.4-45 of the Draft EIR).

The recommendation that additional oak woodlands be preserved is noted and is forwarded to the decision-makers for their consideration.

Response 13-46: Please see Response 13-40.

Response 13-47: The comment suggests additional trails to better implement General Plan Policy. This is not a comment on the adequacy on the Draft EIR. Please also see Responses 13-29 and 13-46.

Response 13-48: Form-based zoning is proposed by Village 1, particularly within Mixed Use areas, where the form of the development will be guided by Development Standards and Design Guidelines, regardless of the uses within the development.

Response 13-49: The General Plan does not require that parks be located within ¼ mile of all residences. General Plan siting criteria for neighborhood parks recommends that the service area be ¼ mile to 2 miles. Nonetheless, as discussed on page 6-23 of the Draft EIR, the Specific Plan identifies a wide range of parks throughout the plan area, including miniparks, so most Village 1 residents would live within ¼ mile of a park, paseo, trail and/or open space area.

Response 13-50: The comment does not address the adequacy of the Draft EIR. Nonetheless, it should be noted that the Specific Plan as proposed does incorporate the smart growth principles appended to the comment.

Response 13-51: Please see Responses 13-37 and 13-41.

Response 13-52: CEQA Guidelines Section 15162 identifies the circumstances under which recirculation of an EIR is required:

1. Substantial changes are proposed in the project which would require major revisions of the previous EIR or negative declaration due to the involvement of new significant effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken, which would require major revisions of the previous EIR or negative declaration due to the involvement of new significant effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified, as complete or the negative declaration was adopted, shows any of the following:
 - a) The project would have new or more significant effects not discussed in the previous EIR or negative declaration;
 - b) Significant effects previously examined would be substantially more severe than shown in the previous EIR;
 - c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the proposed proponents decline to adopt the mitigation measures or alternative; or
 - d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adapt the mitigation measure or alternative.

As discussed in Chapter 2, Draft EIR Errata and Modifications, minor changes have been made to the proposed project, but those changes would not create any new significant effects or make previously identified impacts more severe because the area of disturbance and amount of development would be almost identical to the project analyzed in the Draft EIR. In a small number of cases, new information has been added, such as the completion of Materials Recovery Facility (see Response 11-3). For the most part, this information did not alter the impact analyses or mitigation measures. In a small number of cases, shown in Chapter 2, the discussion of impacts and/or portions of mitigation measures were updated and/or modified in response to comments received on the Draft EIR. The applicant has agreed to all mitigation measures, as modified in Chapter 2. In no case was a new significant impact identified, nor were any of the previously identified significant impacts made substantially more severe. No new alternatives were identified that would achieve the project objectives while substantially lessening project impacts. For these reasons, recirculation of the Village 1 Specific Plan Draft EIR is not warranted.

Please also see Response 13-1 regarding the length of the comment period.

Proposed Lincoln Village

Re: 968 Virginiatown and adjacent parcels

I believe the proposed zoning on my property is inappropriate. It appears that the proponents have placed high densities on properties they control and lower densities on other properties such as mine. I do not see any other rationalization for the lower densities on the Virginiatown properties

Low densities on Virginiatown would result in a few large lots homes being built. These lots would not be attractive to purchasers because of the poor soil quality. On my property, adjacent to the old city dump, except for the area where the NID ditch runs, the soil is hardpan. The soil is so hard that a backhoe with a toothed bucket can only scrape a fraction of an inch per shovel. This is no place to be building single family homes where the individual owners would expect to be able to install a pool and landscaping. A better use would be high density residential plan, such as upscale condominiums, with smaller overall common landscape where the extreme landscaping costs could be spread over more units.

14-1

Richard Ryan
916 796-5674
6/18/12

LETTER 14: RICHARD RYAN

Response 14-1: The comment addresses the land use plan rather than the adequacy of the Draft EIR.

As shown in Figure 2-3, higher density uses are proposed to be consolidated in the Village core, consistent with General Plan policies LU-1.6 and LU-1.8. The higher density areas would be located in proximity to transportation corridors and public services. Lower density development is generally located around the perimeter of the plan area (including the parcel cited in the comment) in order to provide a transition to agricultural and other lower density uses located outside of the plan area. Nonetheless, the comment's recommendation that higher density uses be located along Virginiatown Road is forwarded to the decision makers.

Proposed Lincoln Village

Development concerns as they effect my property

RECEIVED

JUN 18 2012

City of Lincoln
DEV SVCS

I have the following concerns regarding the Lincoln Village proposal.

- 1. The Road location is contrary to the original location. The proposed road location would separate my property from the golf course and would adversely affect its character. This is one of the most beautiful pieces of property anywhere and the proposed road locations would destroy its beauty .
- 2. I have planned my home to be constructed along the golf course adjacent to the Ravine. The location was selected to provide maximum the peace and tranquility to the home while preserving the rural beauty of the ravine. I have already installed bridge pad and septic system. The road location would intersect the entirety of the property from the golf course and wildlife area along the ravine.
- 3. I am concerned with the loss of the wildlife and natural beauty of the property the road and development would cause.
- 4. I do not believe adequate measures have been taken to counteract the adverse effect of water drainage and runoff into the ravine and ponds.
- 5. Inadequate measures have been taken to protect the property from trespassers who will be encouraged to enter onto the property from the proposed roads.
- 6. Inadequate noise and visual barriers are designed into the project to maintain the peaceful nature that now exists.

15-1

15-2

15-3

15-4

15-5

15-6

Richard Ryan
916 796-5674
6/18/12

LETTER 15-1: RICHARD RYAN (SECOND LETTER)

Response 15-1: The comment addresses the land use plan rather than the adequacy of the Draft EIR, and is forwarded to the decision makers for their consideration.

It should be noted that the proposed extension of Oak Tree Lane would affect only a small portion of the parcel referenced in the comment. A substantial portion of the parcel is proposed to be preserved as open space, because it is part of the Auburn Ravine corridor. The open space designation would preserve much of the parcel's visual quality.

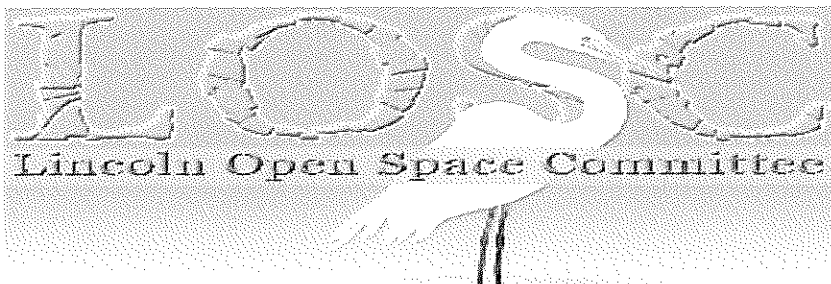
Response 15-2: The comment addresses the land use plan rather than the adequacy of the Draft EIR, and is forwarded to the decision makers for their consideration.

Response 15-3: Changes in visual character are evaluated in Section 4.1, Aesthetics and Visual Quality. Loss of wildlife habitat is addressed in Section 4.4, Biological Resources.

Response 15-4: The comment does not specify what additional measures would be needed to protect water quality. Section 4.3, Hydrology and Water Quality includes a thorough discussion of the project effects on water quality and how those impacts would be addressed. As discussed on pages 4.8-16 through 4.8-22, extensive regulations are in place to protect water quality. In addition, the Specific Plan requires Best Management Practices and Low Impact Development measures, which would also minimize degradation of water quality. Mitigation Measures 4.8-4 would further minimize impacts on water quality (see pages 4.8-43 and 4.8-44 of the Draft EIR).

Response 15-5: Trespassing is an illegal activity subject to enforcement by the Police Department, not an environmental concern. Furthermore, the comment does not indicate what element of the proposed project would lend itself to an atypical incidence of trespassing, given that residential and other development is located in proximity to roads and drainages throughout the City.

Response 15-6: As discussed on pages 4.10-14 through 4.10-22 of the Draft EIR, the proposed Specific Plan would increase noise levels. However, feasible mitigation measures have been identified to lessen those noise impacts to a less-than-significant level.



P.O. Box 1197, Lincoln CA 95648
www.lincolnopenspace.org

RECEIVED

JUN 14 2012

City of Lincoln
DEV SVCS

June 14,2012

Mr. Rod Campbell
Lincoln Community Development Department
600 Sixth Street
Lincoln, Ca. 95648

RE: Village 1 Specific Plan DEIR

Gentlemen:

Our Committee commented upon the NOP on this project. The noticing on the Availability of a Draft EIR was very confusing at best. We were surprised that no DEIR was mailed to us since we responded to the NOP. Fortunately, we were able to borrow a copy of the DEIR and give a cursory review of selected Chapters. There was not enough time for a full review of this document. The length of the document and noticing problems should have led to a longer review period. That way we could have reviewed the entire document.

16-1

The City of Lincoln has determined in its General Plan to utilize "smart growth" principals in reviewing the Villages within the General Plan. We support the General Plan approach that the City Council decided to require. From our review of the DEIR, it does not seem that the EIR consultants understand the basis of planning for the Villages required by the General Plan. "Smart growth" is not mentioned at all in the DEIR.

16-2

Smart growth emphasizes the use of trails to discourage car travel. It encourages mixed densities within areas of the project. It requires destinations that people can walk to and congregate. In encourages interesting architecture. A big component is buffering adjacent projects and open space area from the impact of the project. It supports the preservation of the important environmental features and resources of the site. The FEIR needs to expend considerable resources and mapping to describe how the project deals with smart growth and make mitigation measures to respect the General Plan policies. Failure to do this means an inadequate EIR.

16-3

The Proposed Land Use Plan shows every privately owned parcel available for development. Only the County owned land and a close landfill are not proposed for new growth. It is clear that the proposed land use plan is the "Sprawl Plan" The hope of "shape based zoning" was to go beyond this approach common during the last century. The FEIR needs to examine "smart growth" and review them against this typical sprawl approach that is reflected in the Proposed Land Use Plan. A table should be developed and included within the FEIR that would analyze the differences between these sprawl and smart growth concepts.

The General Plan Consistency chapter is very difficult to understand. How the assumptions for this table were developed is certainly unclear. The FEIR needs to wrap words around the General Plan Consistency Table. It needs to direct the reader to specific areas of inconsistency so that the City Planning Agency can

16-4

make individual decisions on each inconsistency. The DEIR approach does not relay a real understanding of general plan policies and how this project proposal does in compliance. It appears that either alternative in the DEIR would be better at plan compliance than the Proposed Land Use Plan based upon the information in the DEIR.

↑ 16-4
cont.

In our letter on the NOP we discussed the 40% City open space requirement for all the villages. That percentage was developed using Sun City Lincoln Hills as the model. The difference between Village 1 and Lincoln Hills is that Lincoln Hills has open space areas interspersed throughout the project. It provides interest and quality view properties within the fabric of the development. Phase 1 in particular is totally devoid of such open space corridors within the interior of the project. This issue was discussed more fully in our NOP response letter. It has not been dealt with in this DEIR. It needs to be. That is crucial if this EIR is meant to cover a project level review.

16-5

The lack of detail within Phase 1 on what is proposed to be built makes this section inadequate for Tentative Map approvals and form-based zoning. At a minimum, a cut and fill level of grading plan should have been included. Since grading usually extends beyond the actual boundaries of land to be developed; the areas of impact are usually greater. This is very important along Auburn Ravine. This can further impact the riparian and oak woodland areas.

16-6

One existing facility that the DEIR does not discuss is the potential displacement of the Ride To Walk non-profit facility. This complex is an important part of our community. Who will fund the relocation of the complex? Will it move to another nearby area of Lincoln? This site is located in the center of the Mixed Use Area. If it choose to remain in place, will the Village center be relocated to the east along SR 193? This relocation or elimination of the Ride To Walk will be a big deal to many people. The FEIR needs to consider alternative locations for the Village Center. If the Village Center does not proceed, is the entirety of the Specific Plan voided?

16-7

The proposed trail system does not provide connections to adjacent developments. It should. The DEIR should have deemed this a significant impact. The Lincoln General Plan requires this.

16-8

Major effort will be needed to examine how to improve this proposal to fit the existing General Plan policies and the Standards of Significance should have included general plan compliance in determining environmental significance.

16-9

Sincerely yours,



John Williams

Chairman, Lincoln Open Space Committee

LETTER 16: JOHN WILLIAMS, CHAIRMAN, LINCOLN OPEN SPACE COMMITTEE

Response 16-1: Please see Response 13-1 through 3.

Response 16-2: Section 4.9, Land Use, examines the compatibility of the proposed project with surrounding uses and consistency with the City's General Plan land use policies and LAFCO annexation policies. Chapter 6, General Plan Consistency, provides an evaluation of the project's consistency with all applicable General Plan policies. That chapter is 29 pages long. In addition, where appropriate, General Plan policies are used as the basis for standards of significance and/or mitigation in some sections, such as Section 4.14, Transportation and Circulation, and 4.10, Noise.

Response 16-3: Please see Response 13-29.

Response 16-4: General Plan consistency is discussed at length (29 pages) in Chapter 6. The analysis is presented in text, not a table. There is a table in Appendix A of the Specific Plan that addresses General Plan consistency, but that discussion is separate from Chapter 6 of the Draft EIR.

Response 16-5: The full Specific Plan would designate approximately 40% of the plan area as open space and/or parkland. The total plan area is 1,832.1 acres. Of that, 33.6 acres are roadway right-of-way under City, County and/or Caltrans jurisdiction, which is not subject to the parks/open space requirement. The area subject to the requirement is 1,798.5, of which 714.4 (which does not include the 13.2-acre landscape corridor for SR 193/McBean Park Drive), or 39.7 percent, would be designated for parks and open space.

Phase 1 is part of the full Specific Plan, and preserves the portion of Auburn Ravine that is within the Phase 1 area as an open space corridor (see Figure 2-2).

Response 16-6: Please see Response 13-6.

Response 16-7: The Ride-to-Walk facility is located in the programmatic portion of the Specific Plan. The Ride-to-Walk parcel would be developed only after a specific development proposal is made to the City. Such a proposal would need to be done with the property owners' consent. Any effort to relocate the Ride-to-Walk facility would be up to the property owner at the time the parcel was proposed for development.

Response 16-8: As shown on Figure 2-5, Pedestrian Facilities, trails would connect to the County to the east within the Auburn Ravine corridor. In addition, streets that connect to development outside the plan area would have sidewalks and bike paths. Connections are not shown to the adjacent Del Webb development, because that is a private, gated community.

Response 16-9: Please see Response 13-29.

5. MITIGATION MONITORING PROGRAM

5. Mitigation Monitoring Program

INTRODUCTION

This section provides the Mitigation Monitoring Program (MMP) for Village 1 Specific Plan, pursuant to Section 21081.6 of the California Public Resources Code, which requires public agencies to "adopt a reporting and monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." A MMP is required for the proposed project because the EIR identified significant adverse impacts, and mitigation measures have been identified to reduce those impacts to less-than-significant levels.

The proposed project proposes a mix of master planned residential, retail, and office uses, and public/semi-public facilities, including an elementary school, parks, and open space land uses. The project site is located in unincorporated Placer County within the City's Sphere of Influence (SOI). The City's recently adopted General Plan identifies this area as a "Village" designated for future development as part of a specific plan. The City of Lincoln is processing the application for the Specific Plan and associated approvals, including annexation to the City, which must occur before the Village 1 Specific Plan could be developed.

The EIR evaluates the impacts of the full Specific Plan at a programmatic level. A project-specific analysis is provided for Phase 1 of the Specific Plan. Because the mitigation measures differ in some cases, two separate MMPs are included in this chapter. Table 5-1 is the MMP for Phase 1 and Table 5-2 is the MMP for the full Specific Plan.

The numbering of the impacts and mitigation measures follows the numbering sequence found in the Draft EIR. All revisions to mitigation measures identified in Chapter 2, Draft EIR Errata and Modifications, have been incorporated into this MMP.

Adoption of the MMP shall occur prior to, or concurrently with, adoption of the proposed project for which the program has been developed.

PURPOSE OF THE MITIGATION MONITORING PROGRAM

The purpose of the MMP is to:

- Ensure that mitigation measures are implemented;
- Provide feedback to agency staff and decision makers about the effectiveness of mitigation measures;
- Provide learning opportunities for improving mitigation measures on future projects; and
- Identify the need for enforcement action before irreversible environmental damage occurs.

The components of the MMP are addressed briefly below.

Impacts: In order to provide context for the mitigation measures and monitoring program, all Impacts for which mitigation is required are listed.

Mitigation Measures: The mitigation measures are taken verbatim from the Draft EIR (Chapter 4), in the same order that they appear in the Draft EIR, as revised in Chapter 2, Draft EIR Errata and Modifications, in this Final EIR.

Responsible Entity: This column identifies the entity that will undertake the required action. Generally, the contractor is named for actions occurring during grading or construction. On-site inspections will be done by City staff.

Timing/Milestone: Each action must take place during or prior to some part of project development or approval. The timing of actions generally falls into one of the categories shown in the table below.

Monitoring and Enforcement Responsibility: The City of Lincoln will have ultimate and legal responsibility for implementation of all mitigation measures. This column indicates which office within the City, usually the Development Services Department, will conduct the actual monitoring and reporting, as well as take corrective actions when a measure has not been properly implemented. Abbreviations are shown below.

ABBREVIATIONS	
Monitoring Responsibility	Timing of Action
DSD = City of Lincoln Development Services Department	I = Prior to Final Map Approval G = Prior to Improvement Plan/Grading Permit Approval
PSD = City of Lincoln Public Services Department	P = Pre-Construction/Grading C = During Construction/Grading
PCAPCD = Placer County Air Pollution Control District	O = Prior to Occupancy B = Prior to Building Permit
CDFG = California Department of Fish and Game	
PCDEHS = Placer County Environmental Health Services	
Corps = U.S. Army Corps of Engineers	

Table 5-1
Village 1 Specific Plan
Mitigation Monitoring Program
Phase 1

TABLE 5-1

**VILLAGE 1 SPECIFIC PLAN – PHASE 1
MITIGATION MONITORING PROGRAM**

Impact	Mitigation Measures – Phase 1		Responsible Entity	Timing/ Milestone	Monitoring and Enforcement Responsibility
4.1 Aesthetics and Visual Quality					
4.1-3 The proposed project would introduce light and glare into the project area.	4.1-3(a)	All light standards shall be shielded and directed downward so that no light falls onto adjacent properties.	Applicant	O	DSD
4.2 Agriculture					
4.2-2 The proposed project would result in the development of lands currently under Williamson Act contracts.	4.2-2	No development shall be permitted on land under Williamson Act contract until the contract has expired or been cancelled.	City	I	DSD
4.3 Air Quality					
4.3-1 Construction of the proposed project would generate emissions of PM₁₀ and PM_{2.5}, ROG, NO_x, and CO.	4.3-1	The following mitigation measures shall be implemented by the applicant(s) during all grading activities:	Applicant	G/C	PSD PCAPCD
	4.3-1(a)	Prior to issuance of a grading permit, the applicant(s) shall submit to the City of Lincoln, as the lead agency, and receive approval of a Construction Emission/Dust Control Plan. The plan shall be submitted to the PCAPCD for review and comment prior to approval by the City. This plan must address the minimum Administrative Requirements found in section 300 and 400 of PCAPCD Rule 228, Fugitive Dust.			
	4.3-1(b)	The prime contractor shall submit to the District a comprehensive inventory (i.e. make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. The project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreperson. The project shall provide a plan for approval by the District demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average up to 20 percent NO _x reduction and 45 percent particulate reduction compared to the most recent	Applicant	P, C	PSD PCAPCD

Monitoring Responsibility

DSD = City of Lincoln Development Services Department
 PSD = City of Lincoln Public Services Department
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TABLE 5-1

**VILLAGE 1 SPECIFIC PLAN – PHASE 1
MITIGATION MONITORING PROGRAM**

Impact	Mitigation Measures – Phase 1	Responsible Entity	Timing/ Milestone	Monitoring and Enforcement Responsibility
	CARB fleet average. The District should be contacted for average fleet emission data. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.			
	4.3-1(c) In order to control dust, an operational watering truck shall be on site during construction hours. In addition, dry chemical sweeping is prohibited. Watering at the construction site shall be carried out in the compliance with operating APCD rules and City of Lincoln requirements.	Applicant	C	PSD
	4.3-1(d) The contractor shall suspend all grading operations when fugitive dusts exceed District Rule 228 Fugitive Dust limitations. The prime contractor shall be responsible for having an individual, certified by CARB to perform Visible Emissions Evaluations (VEE), who shall routinely evaluate compliance to Rule 228, Fugitive Dust, on a weekly basis. Fugitive dust is not to exceed 40% opacity and not go beyond property boundary at any time. If lime or other drying agents are used to dry out wet grading areas they shall be controlled as to not exceed District Rule 228 Fugitive Dust limitations.	Applicant	C	PSD
	4.3-1(e) The prime contractor shall be responsible for keeping adjacent public thoroughfares clean of silt, dirt, mud, and debris, and shall “wet broom” the streets (or use another method to control dust as approved by the City) if silt, dirt, mud or debris is carried over to adjacent public thoroughfares.	Applicant	C	PSD
	4.3-1(f) The prime contractor shall apply methods such as surface stabilization, establishment of the vegetative cover, paving, or other methods to control dust approved by the City.	Applicant	C	PSD
	4.3-1(g) The prime contractor shall apply water or use other method to control dust impacts offsite. Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site.	Applicant	C	PSD

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TABLE 5-1

**VILLAGE 1 SPECIFIC PLAN – PHASE 1
MITIGATION MONITORING PROGRAM**

Impact	Mitigation Measures – Phase 1	Responsible Entity	Timing/ Milestone	Monitoring and Enforcement Responsibility
	4.3-1(h) No open burning of removed vegetation shall be allowed unless permitted by the PCAPCD. All removed vegetation material shall either be chipped on site or taken to an appropriate recycling site, or if a recycling site is not available, a licensed disposal site.	Applicant	C	PSD
	4.3-1(i) Traffic speeds on all unpaved surfaces shall be limited to 15 miles per hour or less.	Applicant	C	PSD
	4.3-1(j) The prime contractor shall suspend all grading activities when wind speeds (including instantaneous gusts) are high (typically winds greater than 25 miles per hour), and dust is traveling off-site.	Applicant	C	PSD
	4.3-1(k) If required by the Engineering Division and/or the Department of Public Works, the contractor shall hold a pre-construction meeting prior to any grading activities. The contractor may invite the PCAPCD to the pre-construction meeting in order to discuss the construction emission/dust control plan with employees and/or contractors.	Applicant	C	PSD PCAPCD
	4.3-1(l) Stockpiles of dirt shall be covered when not being used or otherwise controlled to prevent erosion and/or dust.	Applicant	C	PSD
	4.3-1(m) During construction, the contractor shall use existing power sources (e.g., power poles) or clean fuel (e.g., gasoline, biodiesel, natural gas) generators rather than temporary diesel power generators where feasible.	Applicant	C	PSD
	4.3-1(n) A person shall not discharge into the atmosphere volatile organic compounds (VOC's) caused by the use or manufacture of Cutback or Emulsified asphalts for paving, road construction or road maintenance, unless such manufacture or use complies with the provisions of Rule 217.	Applicant	C	PSD
4.3-2 Operation of the proposed project would generate criteria pollutant emissions (ROG, NOx, CO, PM₁₀, and PM_{2.5}).	4.3-2(a) Wood burning or pellet appliances shall not be allowed in any residential units. Only natural gas or propane fired fireplace appliances shall be installed.	Applicant	O	DSD

Monitoring Responsibility

DSD = City of Lincoln Development Services Department
 PSD = City of Lincoln Public Services Department
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TABLE 5-1

**VILLAGE 1 SPECIFIC PLAN – PHASE 1
MITIGATION MONITORING PROGRAM**

Impact	Mitigation Measures – Phase 1	Responsible Entity	Timing/ Milestone	Monitoring and Enforcement Responsibility
	4.3-2(b) Where natural gas is available, gas outlets shall be provided in residential backyards for use with outdoor cooking appliances, such as gas barbecues.	Applicant	O	DSD
	4.3-2(c) For those projects that include stationary sources (e.g., gasoline dispensing facility, dry cleaning, large HVAC units), the applicant shall obtain an Authority to Construct (ATC) permit prior to issuance of a Certificate of Occupancy.	Applicant	O	DSD
	4.3-2(d) Prior to approval of a Grading Permit, Improvement Plans, or Design Review approval, the applicant shall show that a Class 1, 2, or 3 bicycle lane(s) is provided in areas as approved by the Engineering Division and/or the Department of Public Works (or similar divisions within each jurisdiction), as defined elsewhere in these conditions of approval.	Applicant	G	PSD
	4.3-2(e) Prior to Design Review Approval, the Site Plan shall show that the applicant has provided the appropriate number of preferential parking spaces for employees that carpool/vanpool/rideshare as well as the appropriate preferential parking for NEVs as required by the District and City Policy. Such stalls shall be clearly demarcated with signage as approved by the approving committee.	Applicant	G	DSD
	4.3-2(f) Prior to Design Review approval, the applicant shall show that on-site bicycle racks are provided.	Applicant	B	DSD
4.3-5 The proposed project would contribute to cumulative increases in criteria air pollutant emissions.	4.3-5(a) At the time a final map is submitted, the City, in coordination with PCAPCD, shall calculate the emissions associated with the land uses to be approved under that particular tentative map. Based on that calculation, the applicant shall do one or a combination of the following to ensure NOx emissions do not exceed 10 lbs within the full Plan Area. Once the 10 lbs per day has been reached, subsequent projects must demonstrate no net increase in NOx emissions. The City shall consult with the PCAPCD to determine whether the measures proposed by the applicant would fully offset project emissions. i) Reduce emissions on-site by incorporating design features that would reduce NOx emissions. These features may include, but would not be limited to, energy conservation or “green” building features such solar	Applicant	I	DSD PCAPCD

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	<p>panels, energy efficient heating and cooling, energy star appliances, and/or measures that would reduce vehicle use, such as bike lockers and transit services, as provided for in Mitigation Measure 4.6-1.</p> <p>ii) Reduce emissions off-site within the same region (i.e., City of Lincoln, Placer County) by participating in an offsite mitigation program coordinated by the PCAPCD and/or by funding energy-efficiency measures (e.g., installation of insulation and/or dual pane windows in existing buildings), vehicle emission reduction measures (e.g., replace diesel school buses with natural gas buses), and/or trip-reduction measures (e.g., bike lanes and/or NEV lanes on streets that do not have them).</p> <p>iii) Participate in the Placer County Air Pollution District Offsite Mitigation Program by paying fees based on the project’s contribution of pollutants (ROG and NOx), adjusted by credit received for any applicable measures implemented by the project on or offsite. The actual amount to be paid shall be determined, and satisfied per current California Air Resources Board guidelines, at the time of recordation of small lot tentative maps.</p>			
4.4 Biological Resources				
<p>4.4-1 The proposed project would result in the filling or adverse modification of jurisdictional wetland/ other “waters of the U.S.”</p>	<p>4.4-1(b) The project applicant shall prepare a wetland mitigation plan that ensures no net loss of wetlands, consistent with Lincoln General Plan Policies OSC-5.6, OSC-5.7, OSC-5.8, and OSC-5.9. The wetland mitigation plan shall be based on the wetland delineation verified by the Corps. This measure may be implemented through the 404 permit and/or Streambed Alteration Agreement processes. The plan shall include the following or equally effective components.</p>	<p>Applicant</p>	<p>G</p>	<p>DSD Corps CDFG</p>

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	4.4-1(c) The project proponent shall compensate for the loss of wetland habitat through a combination of preservation of vernal pools and seasonal wetlands in open space preserves, on-site restoration/enhancement, and the purchase of mitigation credits at an approved mitigation bank. The ratio of compensation shall be determined in consultation with the Corps and California Department of Fish and Game (CDFG), as part of the 404-permit process, but shall not be less than 1:1.	Applicant	G	DSD Corps CDFG
	4.4-1(d) All preserved wetlands shall be dedicated to the City or a non-profit organization acceptable to the City and preserved through perpetual covenants enforceable by the City or other appropriate agencies, to ensure their maintenance and survival.	Applicant/City	O	City
	4.4-1(e) Prior to any construction activities on the site, a protective fence shall be erected around the boundaries of wetlands to be preserved in proximity to the areas that would be disturbed by construction. This fence shall remain in place until all construction activity in the immediate area is completed. No activity shall be permitted within the protected areas except for those expressly permitted by the Corps and/or CDFG.	Applicant	P	DSD
	4.4-1(f) A buffer shall be provided along all preserved wetlands in accordance with the 404 permit. Only those uses allowed in the 404 Permit and/or the Streambed Alteration Agreements shall be permitted in the wetlands preserve and its buffer.	Applicant	I	DSD
	4.4-1(g) Water quality in the wetlands preserve shall be protected using erosion control techniques including (as appropriate), but not necessarily limited to, preservation of existing vegetation, mulches (e.g., hydraulic, straw, wood, etc.), and geotextiles and mats, during construction in the watershed. Additionally, urban runoff shall be managed to protect water quality in the wetlands preserve using techniques such as velocity dissipation devices, sediment basins and pollution collection devices.	Applicant	G,P,C,O	DSD

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	4.4-1(h) Landscape irrigation runoff shall only be permitted to directly enter the wetlands preserve according to the provisions of the 404 Permit and/or the Streambed Alteration Agreement.	Applicant	O	DSD PSD
	4.4-1(i) Mowing and other maintenance activities shall be limited to those detailed in the 404 Permit and/or the Streambed Alteration Agreement.	Applicant	O	DSD PSD
	4.4-1(j) For approval of small lot tentative maps in Phase 1 where a 404 permit has not been obtained, the City shall verify that the wetland delineation is still valid. The delineation shall be assumed to be valid if it is less than 5 years old. If the delineation is over 5 years old, then the project applicant shall retain a qualified biologist to update the wetland delineation as needed and shall obtain verification from the Corps.	Applicant	G	DSD PSD Corps
4.4-2 The proposed project could result in the loss of special-status vernal pool crustacean and amphibian species and degradation and/or loss of their habitat.	4.4-2(a) The project applicant for projects within the Epick property within Phase 1 shall retain a qualified biologist permitted by the US Fish and Wildlife Service (USFWS) to conduct vernal pool crustacean following current USFWS protocol. Alternatively, the project applicant could forgo the surveys and assume presence of vernal pool crustaceans in all appropriate habitat within the project site. The survey or assumption of presence shall occur prior to the issuance of any grading permits for the programmatic portion of the project site.	Applicant	G,P,C	DSD
4.4-2(b) The project applicant for projects within the Epick property within Phase 1 shall retain a qualified biologist to conduct aquatic surveys for the western spadefoot toad. Because a formal protocol does not exist for western spadefoot toad surveys, the scope of the surveys shall be determined in consultation with CDFG. At a minimum, the aquatic surveys for the western spadefoot toad shall include a search for spadefoot larvae during the appropriate season by a qualified biologist to determine presence or absence and potential project-related impacts to breeding sites.				
4.4-2(c) The following or equally effective measures (as approved by the City and USFWS and/or CDFG shall be required for any vernal pool crustacean and/or				

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	<p>western spadefoot habitat identified through protocol surveys or assumed to be present in lieu of surveys. The selected measures may be part of the permitting process.</p> <ul style="list-style-type: none"> i) The project proponents shall obtain a Biological Opinion from the U.S Fish and Wildlife Service and comply with the conditions and mitigation requirements the Biological Opinion to ensure that no net loss of habitat for vernal pool crustaceans occurs. Mitigation may include, but would not be limited to, both onsite and offsite preservation and creation of vernal pools and other suitable habitat for vernal pool crustaceans, purchase of credits at mitigation banks, payment of in lieu fees approved by the agencies, or other agency approved and required mitigation measures. ii) Orange exclusionary fencing shall be placed and maintained around any avoided (preserved) vernal pool crustacean or western spadefoot habitat during construction to prevent impacts from construction vehicles and equipment. This fencing shall be inspected by a qualified biologist throughout the construction period to ensure that it is in good functional condition. After construction, fencing around open space areas containing wetlands or other sensitive habitats shall be replaced by permanent fencing that will be maintained by the City, and/or the local home owners association. iii) Prior to beginning work in the project site, all on-site construction personnel shall receive instruction regarding the presence of listed species and the importance of avoiding impacts to these species and their habitat. iv) The project proponent shall ensure that activities defined by the USFWS, and Corps, RWQCB, and/or CDFG as inconsistent with the maintenance of the suitability of the remaining vernal pool habitat and associated watershed on-site are prohibited. v) If western spadefoot is present, the applicant shall implement additional 			

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	measures as deemed appropriate by the City and CDFG.			
4.4-3 The proposed project could result in the loss and/or degradation of rare plant populations.	4.4-3(a) The project applicant shall retain a qualified biologist to conduct focused surveys in seasonal wetlands and non-native annual grassland habitats within the project site for special-status plant species including but not limited to big-scale balsamroot, Boggs Lake hedge-hyssop, dwarf downingia, legenere, and pincushion navarretia during the appropriate time of year (March through June). If no special-status plants are located during the surveys, no further mitigation would be required.	Applicant	P	DSD
	4.4-3(b) If Boggs Lake hedge-hyssop is located during the surveys in areas that would be disturbed by project construction, those populations shall be avoided and preserved in place to the extent feasible.	Applicant	P,C	DSD
	4.4-3(c) If avoidance is not feasible, the project applicant shall consult with CDFG to obtain an incidental take permit, under Section 2081 of the CESA. Mitigation can be accomplished either in the onsite mitigation preserve area, or at an approved offsite mitigation bank. The ratio of mitigation credits shall be determined during this consultation, and may be conducted concurrently with Mitigation Measure 4.4-2.	Applicant	P,C	DSD CDFG
	4.4-3(d) If any other special-status vernal pool plant species, including, but not limited to dwarf downingia and legenere are located during the surveys in areas that cannot be avoided, the project applicant shall implement Mitigation Measure 4.4-2, with the addition of soil/seed bank salvage, for use in created wetlands in mitigation areas.	Applicant	P,C	DSD PSD

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	4.4-3(e) If the plants cannot be avoided, the project applicant shall consult with the City and the CDFG regarding steps to take to offset the loss of the plants on the project site, such as transplantation, collecting seed or clippings and replanting species in an onsite location, prior to approval of a discretionary permit. At a minimum, at least ten (10) days prior to mass grading in the area that supports special-status plants, the project applicant shall notify the City and CDFG that grading is to occur and aid the CDFG with collection of the plant seeds, if the CDFG so chooses, pursuant to the California Native Plant Protection Act.	Applicant	C	DSD PSD CDFG
4.4-4 The proposed project could result in the loss of western pond turtle and/or degradation of its habitat.	4.4-4(a) Prior to project construction that would disturb any drainages or stock ponds, the project applicant shall retain a qualified biologist to conduct preconstruction surveys of suitable habitat within the area of disturbance and immediately adjacent area on the project site within 30 days prior to project construction to ensure no western pond turtles have established territories. If ground-disturbing activities are delayed or suspended for more than 30 days after the preconstruction survey, the site shall be re-surveyed. If this survey does not identify any western pond turtles on the project site, no further mitigation is required.	Applicant	P	DSD PSD CDFG
	4.4-4(b) If western pond turtles (WPT) are determined to be present within a drainage or stock pond, and the feature is to be retained, exclusionary fencing shall be used to prevent the turtle(s) from entering construction area. The location of the fence shall be determined by a qualified biologist. Any turtles found in or near the construction zone shall be relocated to an appropriate area of suitable habitat a minimum of 100 feet from any active construction zone. Measures shall be implemented to ensure that the drainages and stock ponds will continue to provide adequate habitat for the WPT by protecting water quality and ensuring that the reduction of drainage from the project site does not substantially diminish the water levels in the pond.	Applicant	P,C	DSD PSD CDFG

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	4.4-4(c) If the drainage or stock pond cannot be retained, the project applicant shall relocate any WPT found during surveys in a manner developed by a qualified biologist and approved by the CDFG.	Applicant	P,C	DSD PSD CDFG
4.4-5 The proposed project could result in the direct loss or disturbance of nesting birds protected by the MBTA, including raptors (birds-of-prey).	4.4-5(a) If construction is to occur between March 15 and August 30, the project applicant shall conduct a pre-construction breeding-season survey of the project site within 30 days of construction onset. Surveys for nesting raptors shall be conducted within 1/4 mile of proposed ground disturbance. The survey shall be conducted by a qualified biologist to determine if any protected raptors are nesting on or directly adjacent to the project site. A nest survey for migratory birds shall be conducted within 500 feet of construction areas to determine if any migratory birds are nesting on or directly adjacent to the project site. The results of the survey shall be valid only for the season when it is conducted. New surveys shall be conducted if construction of the surveyed area extends into the following season, unless all of the potential nesting trees have been removed. A report shall be submitted to the City of Lincoln, following the completion of the bird nesting survey that includes, at a minimum, the following information: i) A description of methodology including dates of field visits, the names of survey personnel with resumes, and a list of references cited and persons contacted. ii) A map showing the location(s) of any protected raptor or migratory bird nests observed on the project site.	Applicant	P	DSD PSD CDFG

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	4.4-5(b) If the above survey does not identify any protected raptor or migratory bird nests on the project site, no further mitigation would be required. However, should any active nests be located on the project site, the project applicant, in consultation with the City of Lincoln and CDFG, shall avoid all protected raptor and migratory bird nest sites located in the project site disturbance area(s) during the breeding season (approximately March 15 through August 30) while the nest is occupied with adults and/or young. This avoidance could consist of delaying construction in close proximity to the nest during the nesting season. Any occupied nest shall be monitored by a qualified biologist to determine when the nest is no longer used. If the construction cannot be delayed, avoidance shall include the establishment of a non-disturbance buffer zone around the nest site. The size of the buffer zone will be determined in consultation with the City and CDFG. The buffer zone shall be delineated by highly visible temporary construction fencing.	Applicant	C	DSD PSD CDFG
4.4-6 The proposed project could result in the loss of nesting Swainson’s hawk.	4.4-6(a) The project applicant shall retain a qualified biologist to conduct a Swainson’s hawk nesting survey within the area to be disturbed, extending out to ¼ mile. The survey shall be conducted during the nesting season of the same calendar year that construction is expected to begin, and prior to the issuance of any grading permits. If this survey does not identify any nesting Swainson’s hawk in the area within the project site that will be disturbed plus the ¼-mile radius, no further mitigation would be required.	Applicant	P	DSD PSD

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	<p>4.4-6(b) Should any active Swainson’s hawk nests be located within ¼ mile of the disturbance area, no intensive new disturbances (e.g. heavy equipment operation associated with construction, use of cranes or draglines, etc.) or other project-related activities that could cause nest abandonment or forced fledging, shall be initiated within the ¼ mile (buffer zone) of an active nest between March 1 - September 15 (or until August 15 if a Management Authorization or Biological Opinion is obtained for the project). The buffer zone should be increased to 1/2 mile in nesting areas away from urban development (i.e. in areas where disturbance [e.g. heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities] is not a normal occurrence during the nesting season).</p>	Applicant	C	DSD PSD CDFG
	<p>4.4-6(c) Nest trees should not be removed to the extent feasible. If a nest tree must be removed, a Management Authorization (including conditions to off-set the loss of the nest tree) must be obtained with the tree removal period specified in the Management Authorization, generally from October 1 to February 1. If construction or other project related activities that could cause nest abandonment or forced fledging are necessary within the buffer zone, then the project applicant shall retain a qualified biologist to monitor the nest site (to determine if the nest is abandoned).</p>	Applicant	C	DSD PSD CDFG
	<p>4.4-6(d) If an active nest is abandoned and if the nestlings are still alive, the project sponsor shall fund the recovery and hacking (controlled release of captive reared young) of the nestling(s). Routine disturbances such as agricultural activities, commuter traffic, and routine facility maintenance activities within ¼ mile of an active nest shall not be prohibited.</p>	Applicant	C	DSD PSD CDFG

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<p>4.4-7 The proposed project could result in the loss of burrowing owl individuals (eggs, nestlings or juveniles).</p>	<p>4.4-7(a) The project applicant shall hire a qualified biologist to conduct both nesting and wintering season surveys for burrowing owl to determine if potential habitat within 500 feet of ground disturbance is used by this species. The timing and methodology for the surveys shall be based on the CDFG/Burrowing Owl Consortium Survey Guidelines and are detailed below. CDFG may require that these surveys be repeated annually if project construction is expected to span over two or more years.</p> <p><u>Winter Season (December 1 through January 31)</u></p> <ul style="list-style-type: none"> Four site visits on separate days, 2 hours before to 1 hour after sunset or 1 hour before to 2 hours after sunrise. <p><u>Nesting Season (February 1 to August 31)</u></p> <ul style="list-style-type: none"> Four site visits on separate days, 2 hours before to 1 hour after sunset or 1 hour before to 2 hours after sunrise. At least two of the surveys shall be conducted during the peak nesting season between April 15 and July 15. 	Applicant	P	DSD PSD CDFG
	<p>4.4-7(b) In addition to the wintering and nesting season surveys, pre-construction surveys shall be conducted by an experienced biologist within 30-days prior to the start of work activities where land conversions are planned in known or suitable habitat areas. If construction activities are delayed for more than 30 days after the preconstruction surveys, then a new preconstruction survey will be required. All surveys shall be conducted in accordance with the CDFG/Burrowing Owl Consortium survey protocols (Burrowing Owl Consortium, 1993).</p>	Applicant	P	DSD PSD CDFG

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	4.4-7(c) If burrowing owls are discovered in the Phase 1 portion of the project site, the project applicant shall notify the City and CDFG. A qualified biologist shall implement a routine monitoring program and establish a fenced exclusion zone around each occupied burrow. No construction activities shall be allowed within the exclusion zone until such time that the burrows are determined to be unoccupied. The buffer zones shall be a minimum of 150 feet from an occupied burrow during the non-breeding season (September 1 through January 31), and a minimum of 250 feet from an occupied burrow during the breeding season (February 1 through August 31).	Applicant	P, C	DSD PSD CDFG
	4.4-7(d) The project applicant shall provide appropriate mitigation for project related effects on burrowing owl in consultation with CDFG. Mitigation can be conducted either onsite, or at an off-site location that is approved by the CDFG. Preference is for onsite within open space areas, if possible.	Applicant	C	DSD PSD CDFG
	4.4-7(e) The CDFG shall be consulted regarding the implementation of avoidance or passive relocation methods. All activities that will result in a disturbance to burrows shall be approved by CDFG prior to implementation.	Applicant	C	DSD PSD CDFG

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Impact	Mitigation Measures – Phase 1	Responsible Entity	Timing/ Milestone	Monitoring and Enforcement Responsibility
<p>4.4-8 The proposed project could result in the loss of foraging habitat for Swainson’s hawk, white tailed kite, burrowing owl and other raptors.</p>	<p>4.4-8 The project applicant shall preserve annual grasslands or other suitable raptor foraging habitat at a ratio of 0.75 to 1.0 (as approved by the City and CDFG). Preservation may occur through either:</p> <ul style="list-style-type: none"> • Payment of a mitigation fee to the City of Lincoln through a negotiated agreement between the City, the project applicant, and CDFG. The monies would be held in a trust fund, and used to preserve mitigation land through the purchase, monitoring, maintenance, and remediation of lands that supports suitable foraging habitat for Swainson’s hawk. (consistent with CDFG guidelines); or • Purchase of conservation easements or fee title to suitable Swainson’s hawk foraging habitat to protect the habitat from urban development; or • If adopted prior to issuance of the first grading permit for the proposed project, the project applicant may mitigate this impact through participation in the Placer County Natural Community Conservation Plan/Habitat Conservation Plan. If the plan is adopted prior to construction of a future phase, the project applicant may mitigate this impact through participation in the plan. 	<p>Applicant</p>	<p>G</p>	<p>DSD PSD CDFG</p>
<p>4.4-9 The proposed project could result in loss of Valley elderberry longhorn beetles and their habitat.</p>	<p>4.4-9(a) Prior to any ground-disturbing activity, the project proponents shall conduct a survey for potential VELB habitat (elderberry shrubs) within 100 feet) of the area to be disturbed.</p> <p>4.4-9(b) Any ground disturbing activities within 100 feet of elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level shall conform to the following minimum avoidance measures:</p> <ul style="list-style-type: none"> i) Applicants shall provide a minimum setback of at least 20 feet from the drip line of each elderberry plant containing stems measuring 1.0 inch or greater in diameter at ground level. The setbacks shall be fenced and flagged to identify equipment and materials encroachment into the setback zone. Fire fuel breaks (disked land) may not be included within 	<p>Applicant</p> <p>Applicant</p>	<p>P</p> <p>C</p>	<p>DSD PSD</p> <p>DSD PSD</p>

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	<p>the 6 m set back. Where encroachment within the 20 foot setback zone is unavoidable, the applicant shall provide compensatory mitigation at a 50 percent ratio of the standard requirements identified in the table below.</p> <table border="1" data-bbox="590 558 1337 985"> <thead> <tr> <th colspan="6">ELDERBERRY MITIGATION RATIOS</th> </tr> <tr> <th>Location/Stem Size*</th> <th>Exit Holes**</th> <th>Elderberry Seedling Ratio</th> <th>Elderberry Seedling Ratio</th> <th>Elderberry Seedling Ratio</th> <th>Associated Native Plant Ratio</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Stems ≥1" & < 3"</td> <td>No</td> <td>2:1</td> <td>4:1</td> <td>5:1</td> <td>1:1</td> </tr> <tr> <td>Yes</td> <td>4:1</td> <td>8:1</td> <td>10:1</td> <td>2:1</td> </tr> <tr> <td rowspan="2">Stems ≥3"& <5"</td> <td>No</td> <td>3:1</td> <td>6:1</td> <td>8:1</td> <td>1:1</td> </tr> <tr> <td>Yes</td> <td>6:1</td> <td>12:1</td> <td>15:1</td> <td>2:1</td> </tr> <tr> <td rowspan="2">Stems ≥ 5"</td> <td>No</td> <td>4:1</td> <td>8:1</td> <td>10:1</td> <td>1:1</td> </tr> <tr> <td>Yes</td> <td>8:1</td> <td>16:1</td> <td>20:1</td> <td>2:1</td> </tr> </tbody> </table> <p>Notes: * Ratios are shown for elderberry occurring in existing or historic riparian situations. Ratios for elderberry in non-riparian situations are 50 percent of the standard ratio. ** The presence of exit holes in a stem, bush, or contiguous clump applies to the entire site.</p> <p>ii) Construction contractors shall be briefed on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements.</p> <p>iii) Work crews shall be instructed about the status of the beetle and the need to protect its elderberry host plant.</p> <p>iv) No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant shall be used in the buffer areas, or</p>	ELDERBERRY MITIGATION RATIOS						Location/Stem Size*	Exit Holes**	Elderberry Seedling Ratio	Elderberry Seedling Ratio	Elderberry Seedling Ratio	Associated Native Plant Ratio	Stems ≥1" & < 3"	No	2:1	4:1	5:1	1:1	Yes	4:1	8:1	10:1	2:1	Stems ≥3"& <5"	No	3:1	6:1	8:1	1:1	Yes	6:1	12:1	15:1	2:1	Stems ≥ 5"	No	4:1	8:1	10:1	1:1	Yes	8:1	16:1	20:1	2:1			
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	<p>within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.</p> <p>v) Mowing of grasses/ground cover shall occur only from July through April to reduce fire hazard. No mowing shall occur closer than 5 feet to elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., avoid stripping away bark through careless use of mowing/trimming equipment).</p> <p>vi) Trimming of elderberry stems less than 1 inch in diameter may occur between September 1 and March 14. The recommended period for trimming is between November through the first two weeks in February when the plants are dormant and after they have lost their leaves.</p> <p>4.4-9(c) In cases where removal of elderberry shrubs or their stems measuring 1-inch or greater (removal or trimming) is unavoidable, these impacts shall be compensated for by salvaging and planting the affected elderberry shrubs and planting additional elderberry shrubs and associated native riparian plants according to the ratios specified in the table, above. Mitigation planting shall occur, to the maximum extent practicable, in areas adjacent to the impact area and/or located to fill in existing gaps in riparian corridors.</p>	Applicant	C	DSD PSD
<p>4.4-10 The proposed project could result in loss of nesting habitat for tri-colored blackbird and black rail.</p>	<p>4.4-10(a) For portions of the project where the onset of construction occurs between April 1 and August 31, the project applicant shall retain a qualified biologist to conduct pre-construction nesting surveys for tri-colored blackbird colonies and black rail within the disturbance areas on the project site. The survey shall be conducted no more than 30 days from the onset of construction. If ground-disturbing activities are delayed or suspended for more than 30 days after the preconstruction survey, the site shall be re-surveyed. If the survey does not identify any colonies of nesting tricolor blackbirds or black rail on the project site, no further mitigation would be required.</p>	Applicant	P	DSD PSD

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	4.4-10(b) Should any active tricolor blackbird colonies or black rail be found nesting on the project site, the project applicant, in consultation with the City of Lincoln and CDFG, shall avoid all active nest sites located in the project site during the breeding season while the nest site is occupied with adults and/or young. This avoidance could consist of delaying construction to avoid the nesting season or establishing a buffer around the nest site. If the construction cannot be delayed, avoidance shall include the establishment of a non-disturbance buffer zone around the nest site. The size of the buffer zone will be determined in consultation with the City and CDFG, and will be, at a minimum, 250 feet. The buffer zone shall be delineated by highly visible temporary construction fencing. Any occupied nest shall be monitored by a qualified biologist to determine when the nest is no longer used.	Applicant	C	DSD PSD
4.4-11 The proposed project would result in the modification of stream corridors, disrupting the associated habitat, and potential changes in surface water quality that could affect Central Valley steelhead and/or Central Valley fall and late fall run Chinook salmon.	4.4-11 For any work that would involve disturbance of Auburn Ravine, the City shall ensure grading permits and/or improvements plans, as appropriate, include the following requirements: 4.4-11(a) Restrict work in Auburn Ravine to low-flow periods between June 15 and October 15 to avoid effects on adult or juvenile steelhead or salmon life stages during their migratory seasons. 4.4-11(b) Store all equipment outside of all waterways. Install a silt fence around the perimeter of all waterways where construction is to occur adjacent to waterways. The staging areas shall be situated a minimum of 50 feet from existing drainages. 4.4-11(c) Install Environmentally Sensitive Area (ESA) fences in the vicinity of work along Auburn Ravine. The ESA fencing shall be delineated on the final plans and the fence shall be installed and remain on-site until the project is completed. 4.4-11(d) Install silt fences and/or fiber rolls on the slopes adjacent to the work area to prevent silt from entering Auburn Ravine. 4.4-11(e) If dewatering is necessary along portions of Auburn Ravine, use appropriate	Applicant	C	DSD PSD

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	<p>temporary coffer dams to dewater the construction sites and divert water through the area during the construction period to prevent impeding creek flow or water flow through the work areas. If dewatering at a site is required, a qualified biologist shall be present during the dewatering period to inspect and ensure that steelhead and salmon will not be trapped within the temporary coffer dams. If steelhead or salmon are found, qualified biologist will capture and relocate these fish to an appropriate area away from the construction site. The project applicant or their representative shall submit for approval the dewatering and fish capture and relocation plans to the NOAA and CDFG once the design plans are finalized.</p> <p>4.4-11(f) Maintain erosion controls during the construction periods.</p> <p>4.4-11(g) At the completion of the construction project, remove from the streambed all materials used to maintain flow and divert water from the area during the construction period, including coffer dams, pipes, filter fabric, and gravel.</p> <p>4.4-11(h) Dispose of all excess soil at an approved upland site.</p> <p>4.4-11(i) Remove all project-introduced material once the work is complete.</p> <p>4.4-11(j) Recontour any disturbed stream channel areas, to the extent practicable, to pre-project conditions or better.</p> <p>4.4-11(k) Use reflectors on portable light trees to focus the light on the work area and to minimize the amount of light spilling over to adjacent areas during any night work.</p> <p>4.4-11(l) Implement Mitigation Measure 4.3-1 (Construction Air Emissions).</p> <p>4.4-11(m) During bridge construction, implement construction BMPs in accordance with the project’s SWPPP prepared in accordance with the State NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit) (Order No. 2009-0009-DWQ, NPDES No. CAR000002). These BMPs shall be in place throughout the bridge construction phases. The SWPPP shall specifically include specific measures</p>			

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	<p>for water conservation; vehicle and equipment cleaning, fueling and maintenance; dewatering; paving and grinding; temporary stream crossings; concrete finishing and curing; clear water diversion; equipment use over water; directing water away from work areas; use of attachments on construction equipment to catch debris; use of approved covers or platforms to collect debris; stockpiling of accumulated debris and waste generated during demolition away from watercourses; and ensuring safe passage of wildlife, as necessary.</p> <p>4.4-11(n) Implement Mitigation Measure 4.8-7 (Post-Construction Stormwater BMPs). 4.4-11(o) Implement Mitigation Measure 4.10-2 (Construction Noise Reduction).</p>			
4.4-13 Occupancy of the proposed project could result in an increase in ambient light in adjacent undeveloped areas, which could affect wildlife.	4.4-13 Implement Mitigation Measure 4.1-3(a), which requires that light standards be shielded and directed to ensure that light does not fall on adjacent parcels.	Applicant	B	DSD
4.4-14 The proposed project could result in loss of protected oak trees and oak woodlands.	4.4-14 Implement the Village 1 Specific Plan Oak Woodland Mitigation and Management Plan.	Applicant	I	DSD PSD

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4.5 Cultural Resources				
<p>4.5-2 The proposed project could damage or destroy identified archaeological resources.</p>	<p><u>Unsurveyed Portion of Phase 1 Only</u></p> <p>4.5-2(a) As part of the subsequent CEQA review for any small lot tentative map, or grading or improvement plans for projects that do not require a small lot tentative map, in the unsurveyed portion of Phase 1 (APNs 021-272-012 and 021-272-013) of the Village 1 Specific Plan that has not been subject to comprehensive investigation meeting professional standards, the project applicant shall hire a professional who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeologist to survey all previously unsurveyed portions to identify and evaluate any other archaeological resources that could be present. The evaluation conducted by the professional shall include subsurface testing if warranted based on the surface survey. For any site that qualifies as a historical resource or unique archaeological resource, mitigation of impacts on the resource shall follow standard professional procedures, including, but not limited to, avoidance, protection, data recovery, written and photographic documentation, or other measures identified in California Public Resources Code section 21083.2.</p>	Applicant	P,G	DSD

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Impact	Mitigation Measures – Phase 1	Responsible Entity	Timing/ Milestone	Monitoring and Enforcement Responsibility
	Phase 1 (Walkup #1 Only) 4.5-2(c) Avoidance Plan for Walkup #1. The following measures shall be undertaken to protect the prehistoric resources on the Walkup #1 site: i) Prior to issuance of a grading permit and/or approval of improvement plans for development in Phase 1, the project applicant shall hire a professional who meets the Secretary of the Interior’s Professional Qualifications Standards for Archaeologist to confirm and document that project design would avoid the prehistoric component of the resource identified as Walkup #1. ii) A buffer of at least 50 feet, as determined by the archaeologist, shall be established around the feature during construction and post-construction. iii) At the discretion of the City, informative signage may be placed around the site. iv) An archaeological monitor shall be present during excavation and grading activities adjacent to the avoidance area for Walkup #1. In the event subsurface resources associated with Walkup #1 are discovered, the avoidance plan shall be amended accordingly. 4.5-2(d) The UAIC archaeologist shall be notified when ground disturbance is going to occur in the vicinity of the Walkup #1 site. 4.5-2(e) Implement Mitigation Measure 4.5-3 (Unanticipated Discovery).	Applicant Applicant	P,G,C C See MM 4.5-3	DSD DSD

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<p>4.5-3 The proposed project could cause a substantial adverse change in the significance of previously undiscovered prehistoric or historic-period archaeological resources.</p>	<p>4.5-3(a) Construction personnel shall be informed of the possibility of buried cultural resources anywhere within the project site and the protocol to be followed if a cultural resource is encountered. Prior to the onset of grading, the project applicant shall distribute a cultural resources handbook that explains the procedures to follow if cultural resources and human remains are encountered, provide a list of important contact information and phone numbers, and include written descriptions and photographic examples (where possible) of cultural resources. The project applicant may also hire a professional who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology to conduct a pre-construction training of all construction personnel involved in grading and excavation activity.</p>	Applicant	C	DSD
	<p>4.5-3(b) In the event that any previously unidentified subsurface archaeological resources are discovered during construction-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Lincoln (the City) shall be notified. The City shall consult with the archaeologist to assess the significance of the find. If the find is determined to be significant by the archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), then representatives of the City, and the qualified archaeologist shall meet to determine the appropriate course of action, with the City making the final decision. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report shall be prepared by the qualified archaeologist according to current professional standards.</p>	Applicant	C	DSD

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	<p>4.5-3(c) If the archaeologist determines that some or all of the affected property qualifies as a Native American Cultural Place, including a Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (Public Resources Code section 5097.9) or a Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historical Resources pursuant to Public Resources Code §5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (Public Resources Code Section 5097.993), the archaeologist shall recommend to the City potentially feasible mitigation measures that would preserve the integrity of the site or minimize impacts to it, including any or a combination of the following:</p> <ul style="list-style-type: none"> i) Avoidance, preservation, and/or enhancement of all or a portion of the Native American Cultural Place as open space or habitat, with a conservation easement dedicated to the most interested and appropriate tribal organization, if such an organization is willing to accept and maintain such an easement, or alternatively, a cultural resource organization that holds conservation easements; ii) An agreement with any such tribal or cultural resource organization to maintain the confidentiality of the location of the site so as to minimize the danger of vandalism to the site or other damage to its integrity; or iii) Other measures, short of full or partial avoidance or preservation, intended to minimize impacts to the Native American Cultural Place consistent with land use assumptions and the proposed design and footprint of the development project for which the requested grading permit has been approved. 	Applicant	C	DSD

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	<p>4.5-3(d) After receiving such recommendations, the City shall assess the feasibility of the recommendations and impose the most protective mitigation feasible in light of land use assumptions and the proposed design and footprint of the development project. In reaching conclusions with respect to these recommendations, the City shall consult with both the project applicant and the most interested and appropriate tribal organization.</p> <p>4.5-3(e) Implement Mitigation Measure 4.5-4, in the event human remains are discovered.</p>	City	C See MM 4.5-4	DSD
<p>4.5-4 The proposed project could disturb human remains.</p>	<p>4.5-4 If human remains are discovered at any project construction sites during any phase of construction, all ground-disturbing activity within 50 feet of the remains shall be halted immediately, and the City of Lincoln (the City) and the Placer County coroner shall be notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project applicant shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. The City shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of state law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The project applicant shall implement approved mitigation, to be verified by the City, before the resumption of ground-disturbing activities within 50 feet of where the remains were discovered.</p>	Applicant/City	C	DSD

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<p>4.5-5 The proposed project could directly or indirectly destroy unique paleontological resources.</p>	<p>4.5-5(a) Construction personnel shall be informed of the possibility of discovering fossils anywhere within the project site, but primarily in the western part of Phase 1, and the protocol to be followed if a fossil is encountered. This information shall be included in the “cultural resources handbook” prepared under Mitigation Measure 4.5-3. It shall describe procedures to follow if fossils are encountered, provide a list of important contact information and phone numbers, and include written descriptions and photographic examples (where possible) of the fossils. The project applicant may also hire a professional who meets the Society of Vertebrate Paleontology standards to conduct a pre-construction training of all construction personnel involved in grading and excavation activity.</p>	Applicant/City	C	DSD
	<p>4.5-5(b) In the event that paleontological resources are discovered during earth-moving activities, ground-disturbing activity within 50 feet of the resources shall be halted until the project applicant hires a qualified paleontologist to examine the resources and assess its significance. If the resource is determined to be significant, representatives of the City of Lincoln (the City) and the qualified paleontologist shall determine the appropriate course of action (i.e., any additional exploratory measures deemed necessary for the further evaluation of and/or mitigation of adverse impacts to the resources), with the City making the final decision. All significant paleontological resources recovered shall be subject to scientific analysis and professional curation; a report of these activities shall be prepared for the City by the paleontologist according to current professional standards.</p>	Applicant	C	DSD
<p>4.6 Greenhouse Gas Emissions and Climate Change</p>				
<p>4.6-1 The proposed project would generate greenhouse gas emissions, either directly or indirectly, that would contribute to global climate change.</p>	<p>4.6-1(a) An Energy Conservation Plan for all commercial and residential development shall be required prior to recordation of the first small lot Final Map. The plan shall describe the techniques and programs to be employed in the development of the project to achieve a minimum 15 percent energy efficiency above that required by the 2008 Title 24 energy efficiency regulations, or compliance with the then-current Title 24 energy efficiency regulations. These</p>	Applicant	I	DSD

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	<p>programs shall include one or more of the following, or equally effective measures:</p> <p>Participation in the PG&E Energy Star Performance Method. This method is available to builders of single-family and multi-family homes that are at least 15 percent more energy efficient than required by the 2008 Title 24 energy efficiency regulations and meet all US EPA specifications. Participating builders become part of the California Energy Star New Homes Program, and their homes earn the Energy Star label. Incremental incentives can also be earned by adding energy efficient appliances and/or lighting to homes. Plans submitted for Design Review shall include all energy efficiency features to be incorporated into the project.</p> <p>OR</p> <p>Participation in the New Solar Homes Partnership (NSHP) Performance Method. This method is available to builders of single-family homes that are at least 15 percent more efficient than required by the 2008 Title 24 energy efficiency regulations and meet all US EPA specifications. Prior to the issuance of a Building Permit, the floor plans and exterior elevations submitted in conjunction with the Building Permit application, shall show that the applicant has installed the appropriate number of solar panels or Photovoltaic roofing tiles throughout the project (described as lot numbers, locations, and/or building numbers and locations) to offset that development’s share of the 7,599,510 kWh/year total Plan’s onsite renewable energy offsets.</p> <p>OR</p> <p>Participation in the Build It Green Program, which was created by Build It Green, a non-profit organization whose mission is to promote health, durable, energy and resource efficient buildings throughout California. Using the Green Point Checklist, a home can be considered green if it fulfills the prerequisites and earns at least 50 points and meets the minimum points per category: Energy (30 points); Indoor Air Quality (5 points); Resources (6 points); and</p>			

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	<p>Water (9 points). Build It Green uses certified Green Point Raters to measure success with the program and verification of the measures employed to meet the requirements of the checklist.</p> <p>4.6-1(b) The project applicant shall be responsible for having prepared, by an experienced and qualified firm, an Energy Resource Conservation Guide that will provide educational information on how homeowners can increase energy efficiency and conservation in their new homes. The information will be delivered to each original homeowner as part of the move-in package. The information packet shall be reviewed by, and be subject to approval of, City of Lincoln staff. A copy of the Energy Resource Conservation Guide shall be submitted to the City for review prior to the completion of construction activities, and finalized before occupancy.</p> <p>4.6-1(c) Light Emitting Diode (LED) traffic signals and LED street lights, or more energy-efficient signals and streetlights, shall be installed in accordance with City improvement standards or as otherwise approved by the Development Services Director.</p> <p>4.6-1(d) The project applicant shall prepare a tree planting program to guide the planting of shade trees within residential lots and along streets in a manner that reduces radiant heat. Commercial and retail parking lots shall be planted with shade trees that will produce 50% coverage within 15 years. Landscape Plans submitted for Design Review shall include a copy of the tree planting program.</p> <p>4.6-1(e) A tree information planting and care guide shall be delivered to each original homeowner as a part of the move in package. If the guide is prepared by someone other than the City, it shall be reviewed by, and be subject to the approval of, City of Lincoln staff. . A copy of the tree information planting and care guide shall be submitted to the City for review prior to the completion of construction activities, and finalized before occupancy.</p>	<p>Applicant</p> <p>Applicant</p> <p>Applicant</p> <p>Applicant</p>	<p>O</p> <p>G</p> <p>G</p> <p>O</p>	<p>DSD</p> <p>DSD</p> <p>DSD</p> <p>DSD</p>

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	4.6-1(f) Energy efficient lighting fixtures shall be installed as part of the original construction of residential and commercial structures. Plans submitted for Design Review shall include documentation of the energy efficient lighting fixtures to be used. 4.6-1(g) New commercial buildings shall be 15 percent more energy efficient than the 2008 Title 24 building standards based on annual energy usage requirements, or comply with the then-current Title 24 energy efficiency regulations. Plans submitted for Design Review shall include all energy efficiency features to be incorporated into the project. 4.6-1(h) Prior to approval of Improvement Plans, the applicant shall show that the roadway system shall be designed to accommodate the usage of neighborhood electric vehicles (NEVs). 4.6-1(i) Prior to approval of Improvement Plans, the applicant shall show that bus turnouts and transit shelters shall be placed on roadways that are to be served by future bus transit in accordance with City improvement standards and as otherwise directed by City's Development Services Director. 4.6-1(j) Implement Mitigation Measure 4.3-2.	Applicant Applicant Applicant Applicant	B B G G See MM 4.3-2	DSD DSD PSD, DSD PSD, DSD See MM 4.3-2
4.7 Hazardous Materials				
4.7-2 The proposed project could occur in locations where historic land uses are known to have resulted in soil or groundwater contamination or may have the potential to have caused soil or groundwater contamination.	4.7-2(a) Prior to approval of any Tentative Map and/or a specific development permit, the applicant shall submit a Phase I ESA that has been prepared in accordance with the most current ASTM 1527 standard. If the results of the Phase I ESA indicate no recognized environmental conditions, no further action is required. However, the City shall ensure Improvement Plans and/or grading permits include the requirements of Mitigation Measure 4.7-2(b) pertaining to the discovery of previously unidentified conditions or hazards. No Phase I ESA is necessary for the Walkup Ranch property because one has already been prepared.	Applicant	I	DSD

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	4.7-2(b) For any specific development location for which the Phase I ESA completed in accordance with Mitigation Measure 4.7-2(a) identifies recommendations for further investigation and/or remediation, prior to issuance of a grading permit for the affected location, the City shall ensure the recommendations are implemented to the satisfaction of PCDEHS. If contaminants are present at levels that could pose a human health or environmental risk that would be immediately dangerous to life and health, no soil disturbance shall be permitted until the location has been remediated to the satisfaction of PCDEHS. If contaminants are present at levels that do not pose an immediate threat, construction activities may proceed provided a Soil Management Plan and Health and Safety Plan prepared by a qualified professional have been submitted to and approved by PCDEHS.	Applicant	P,G	DSD PCDEHS
4.7-3 Demolition of on-site structures to accommodate development of the Village 1 Specific Plan could expose people to potential health hazards by demolishing buildings on the project site that could contain asbestos and/or lead-based paint.	4.7-3 Prior to demolition of any structures located on the project site, the project applicant(s) shall retain a Cal OSHA-certified lead-based paint and ACBM contractor to conduct a risk assessment of all structures on-site constructed prior to 1978 for the presence of ACBMs and/or lead-based paint. If ACBMs and/or lead-based paint are determined to exist on site, the contractor shall prepare a site-specific ACBM and lead hazard control plan. If the plan calls for the removal of ACBMs and lead-based paints prior to demolition activities, ACBM removal methods may include, but are not limited to: dry stripping, wet controlled stripping, high pressure water jetting, and air management for hot stripping. Paint removal methods may include, but are not limited to: use of a heat gun, tools equipped with HEPA exhaust capability, wet scraping, and chemical removers. If removal is not deemed necessary prior to demolition, the plan shall make other recommendations for the containment of any ACBMs or lead-based paint materials that could be released into the environment during demolition activities, as well as appropriate disposal methods. The plan shall also provide specific instructions for providing protective clothing and gear for abatement personnel.	Applicant	P	DSD

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	<p>Wastes from abatement and demolition activities shall be managed and disposed of at a landfill(s) licensed to accept ACBMs and lead-based waste. Once all abatement measures have been implemented, the project applicant(s) shall provide written documentation to the City that ACBM and lead-based paint testing and abatement, if necessary, has been completed in accordance with all federal, state, and local laws and regulations, including: lead-based paint exposure guidelines provided in “Guidelines for the Evaluation and Control of Lead Based Paint Hazards in Housing” by the U.S. Department of Housing and Urban Development (HUD), Construction Safety Order 1532.1 from Title 8 of the California Code of Regulations (CCR), and the California Department of Health Services.</p>			
4.8 Hydrology and Water Quality				
<p>4.8-1 The proposed project would increase the amount of impervious surfaces and alter drainage patterns, which could increase the potential for localized and downstream flooding.</p>	<p>4.8-1(b) Project applicants shall provide for peak flow mitigation as defined in Village 1 Specific Plan, City of Lincoln, CA, Drainage Master Plan Table IV.A.4 in order to mitigate potential on-site flooding from increased peak flows associated with development of Phase 1. Prior to issuance of a grading permit, project applicants shall demonstrate that provisions for peak flow mitigation in the preliminary grading plan, as defined in Village 1 Specific Plan, City of Lincoln, CA, Drainage Master Plan Table IV.A.4 A. The City Engineer shall review plans for compliance with the applicable portions of Table IV.A.4, as applicable, prior to issuance of a grading permit. Prior to issuing a building permit for any project in the Village 1 Specific Plan, overbank excavation and stabilization of channels that will receive runoff from the area(s) to be developed have been completed. The City Engineer shall confirm that peak flow mitigation has been constructed in accordance with the approved plans.</p>	Applicant	G	PSD

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<p>4.8-2 The proposed project would increase stormwater volumes in Auburn Ravine, Ingram Slough, Orchard Creek, and ultimately the Natomas Cross Canal.</p>	<p>4.8-2(b) Prior to final map approval, the Applicant shall identify 38.1 acre-feet of storage capacity in the watershed to accommodate increased stormwater runoff volumes associated with Phase 1. Storage capacity may be incorporated into on-site design, obtained at the approved LFVMF, if operational at the time of development, or at a location approved by or acceptable to the City.</p> <p>The Applicant shall be required to cover its fair share of costs associated with construction, operation, and maintenance, of the LFVMF to offset increased stormwater volume generated by the Village 1 Specific Plan. For capital improvements, funding shall be through the City’s existing PFE program. Fees for operation and maintenance shall be through an assessment district established during the Final Map processing. Fees shall be paid in conjunction with issuance of building permits.</p> <p>If, at the time the final map is submitted for approval, the regional facilities are not available or operational, or if additional capacity is required, the Applicant shall incorporate in to the final design sufficient on-site storage capacity, or a combination of on-site and off-site capacity, to fully mitigate the 38.1 acre-feet.</p> <p>If off-site facilities are used, the Applicant shall be required to cover its fair share of costs associated with construction, operation, maintenance, and management of the regional retention facilities to offset increased stormwater volume generated by Phase 1. Assuming the regional facility has been constructed, Applicant shall pay the appropriate fees.</p>	<p>Applicant</p>	<p>I</p>	<p>PSD DSD</p>

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<p>4.8-4 The proposed project would increase the types and amounts of pollutants in stormwater runoff that could be discharged to Ingram Slough and its tributaries and Auburn Ravine, which could degrade water quality.</p>	<p>4.8-4 <u>Low Impact Development BMPs.</u> Project Conditions of Approval shall specify that appropriate Best Management Practices (BMPs) be incorporated into project design prior to approval of final grading/improvement plan(s) to reduce urban pollutants in runoff, consistent with goals and standards established under federal and State non-point source discharge NPDES regulations and Basin Plan water quality objectives, the City’s Post-Construction Stormwater Runoff Control Ordinance No. 826B, and Low-Impact Development (LID) alternatives for stormwater quality control per Public Facilities and Services Implementation Measure 3.0 of the adopted 2050 General Plan.</p> <p>The proposed water quality facilities shall be identified and designed in a Water Quality Management Plan prepared in accordance with Section 8.60.40 of the City’s Municipal Code for City review and approval. All water quality facilities identified in the Water Quality Management Plan shall be constructed with the installation of the infrastructure.</p> <p>The Water Quality Management Plan shall include a description of all non-structural BMPs and include Covenants, Codes, and Restrictions (CC&Rs), or similar regulatory mechanism, to enforce implementation of non-structural BMPs. Non-structural BMPs shall include, but not be limited to, “good housekeeping” practices for materials storage and waste management, storm drain system stenciling, landscape chemical use guidelines, and street sweeping.</p> <p>The Water Quality Management Plan shall also include the method or methods for funding the long-term maintenance of the proposed water quality facilities. The City shall formally adopt and implement a funding mechanism specifically to fund the long-term maintenance of the proposed water quality facilities as proposed by the Stormwater Management Plan.</p> <p>The project Applicant shall submit a site-specific BMP plan showing the on-site locations and effectiveness of the BMP facilities proposed for long-term water quality impact reduction prior to project approval. The plan shall include</p>	<p>Applicant</p>	<p>G</p>	<p>PSD DSD</p>

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	<p>a method or methods for financing the long-term maintenance of the proposed site-specific facilities.</p> <p>All BMPs for water quality protection, source control, and treatment control shall be developed in accordance with the Stormwater Quality Design Manual for the Sacramento and South Placer Regions (or other similar source approved by the City) for the project. The BMPs shall be designed to mitigate (minimize, infiltrate, filter, or treat) stormwater runoff. Flow or volume based post-construction BMPs shall be designed at a minimum in accordance with the PCFCWCD and City standards and shall be included for long-term maintenance of BMPs. All BMPs shall reflect the Best Available Technologies (BAT) available at the time of implementation and shall reflect site-specific limitations. The City shall make the final determinations as to the appropriateness of the BMPs proposed for the proposed project and the City shall ensure future implementation, operation, and maintenance of the BMPs.</p> <p>To comply with the requirements of the Placer County Mosquito and Vector Control District, all BMPs shall be designed to discharge all waters within 96 hours of the completion of runoff from a storm event. All graded areas must drain so that no standing water can accumulate for more than 96 hours within water quality facilities.</p> <p>Stormwater runoff from the proposed project’s impervious surfaces (including roads) shall be collected and routed through specially designed water quality treatment facilities (BMPs) for removal of pollutants of concern (i.e. sediment, oil/grease, etc.), as approved by the City. The Applicant shall verify that proposed BMPs are appropriate to treat the pollutants of concern from the proposed project and shall provide for the establishment of vegetation, where specified, by means of proper irrigation, for effective performance of BMPs. Maintenance of these facilities shall be provided by the City. Prior to project approval or Final Map approval, easements shall be created and offered for dedication to the City for maintenance and access to these facilities in</p>			

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	anticipation of possible City maintenance. No water quality facility construction shall be permitted within any identified wetlands area, floodplain, or right-of-way, except as authorized by project approvals.				
4.10 Noise					
4.10-2 The proposed project would expose noise-sensitive land uses to construction noise.	4.10-2(a)	Construction hours shall be limited to 7am to 7pm, Monday through Friday (unless extended by special permit).	Applicant	C	PSD, DSD
	4.10-2(b)	All internal combustion engines associated with stationary and mobile construction equipment shall have adequate mufflers equal to or better than those supplied with the equipment by the manufacturer.			
	4.10-2(c)	Onsite construction staging areas shall be located as far as practical from existing residential areas.			
	4.10-2(d)	Advance notice shall be provided to all residences located within 300 feet of extensive compaction activities, including the approximate start date and duration of such compaction activities.			

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<p>4.10-5 The proposed project could expose future noise-sensitive land uses within the Village 1 Specific Plan area to elevated traffic noise levels.</p>	<p>4.10-5(a) Any residential development proposed within the 60-65 dB Ldn contour distances of Table 4.10-12, as measured from roadway centerline, shall include one of the following measures to ensure traffic noise does not exceed acceptable limits at the exterior and interior spaces of the residences:</p> <ul style="list-style-type: none"> i) The setback from the roadway shall be increased to locate the primary outdoor activity area beyond the 60 dB Ldn contour. OR ii) The primary outdoor activity areas shall be located on portions of the property that are shielded from view of the roadway(s). OR iii) Noise barriers shall be constructed of sufficient height to intercept line of sight between the primary outdoor activity areas and roadway(s) in question. Such barriers could take the form of earthen berms, solid walls, or a combination of the two. OR iv) The residential structures shall be located between the primary outdoor activity area and subject roadway(s). 	Applicant	G	DSD
	<p>4.10-5(b) Air conditioning or mechanical ventilation shall be provided to allow occupants to close doors and windows as desired for acoustical isolation from elevated traffic noise levels.</p>	Applicant	B	DSD

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	4.10-5(c) Any residential development proposed within the 65-70 dB Ldn contour distances of Table 4.10-12, as measured from roadway centerline, shall include all of the following measures in addition to those specified in MM 4.10-5(b) to ensure traffic noise does not exceed acceptable limits at the exterior and interior spaces of the residences: <ul style="list-style-type: none"> i) Noise barriers shall be designed of sufficient height to reduce exterior noise levels to 60 dB Ldn or less in primary outdoor activity areas. AND ii) All windows and sliding glass doors from which the subject roadways are visible shall have a minimum Sound Transmission Class (STC) rating of 32. AND iii) Exterior wall construction shall be stucco siding, or wood siding with a 3/4 inch shear under-layer, or the acoustic equivalent. AND iv) All exterior wall cavities shall be fully insulated. 	Applicant	G, B	DSD
4.12 Public Services				
4.12-7 The proposed project would generate demand for park and recreation facilities.	4.12-7 The project applicant shall pay all applicable fair-share fees to the City pursuant to the established Park In-Lieu Fee Program and the applicable Public Facilities Element fees program to fund the provision of recreational facilities to meet demands created by Phase 1 development.	Applicant	B	DSD

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4.13 Public Utilities				
4.13-1 The proposed project would increase the demand for water supplies.	4.13-1(a) Prior to recordation of each Final Map for each subsequent project, the City of Lincoln shall obtain necessary entitlements demonstrating there will be adequate water supply to serve the portion of the proposed project defined on the Final Map, in accordance with Government Code Section 66473.7(a)(1) – SB 221 Written Verification of Water Supply. The commitment for service will require execution of a service order agreement, and the City shall collect necessary fees at the time of building permit issuance.	Applicant	I	DSD, PSD
4.13-8 The proposed project would use energy for construction and operation.	4.13-8 Implement Mitigation Measures 4.3-1, 4.3-2, 4.6-1, and 4.13-12.	See MMs 4.3-1, 4.3-2, 4.6-1 and 4.13-12		
4.13-12 Construction of the proposed project would generate demolition waste and construction debris.	4.13-12 Prior to issuance of building permits for each individual project, project applicants shall prepare a waste management plan to divert at least 50 percent of the construction materials generated during construction of the particular project to ensure compliance with CALGreen requirements.	Applicant	G	DSD

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4.14 Transportation and Circulation				
4.14-1 The proposed project would increase traffic at intersections within the City of Lincoln.	4.14-1 The City shall construct the following improvements prior to the service level degrading to LOS D and/or when signal warrants are met. These improvements shall be incorporated into the City’s PFE fee program or other appropriate fee program. If there are not enough funds to construct the improvements when they are needed, then the applicant shall provide the necessary funding, subject to reimbursement as PFE fees are collected from City development projects. a) Signalize the intersection of Ferrari Ranch Road and Ingram Parkway or widen Ferrari Ranch Road to four through lanes when the LOS approaches D and/or signal warrants are met. b) Signalize the intersection of Ferrari Ranch Road and Sun City Boulevard or, for Phase 1 only, widen Ferrari Ranch Road to four lanes when the LOS approaches D and/or signal warrants are met.	City	In accordance with mitigation	DSD, PSD
4.14-4 The proposed project would increase traffic on impact a.m. and p.m. peak hour level of service on freeways under Existing Plus Project conditions.	4.14-4 The City shall work with Caltrans on the timing of an additional mainline lane is constructed on SR 65 northbound between I-80 and Galleria Boulevard.	City	O	PSD
4.14-7 The proposed project would contribute to cumulative increases in traffic at intersections outside the City of Lincoln.	4.14-7(a) The proposed project shall contribute its fair share toward restriping to create a separate westbound right turn lane and northbound acceleration lane at the intersection of Sierra College Boulevard & English Colony Way (2030 and 2050).	Applicant	Payment of SPARTA fees	DSD

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	4.14-7(b) If and when the Town of Loomis becomes a participant in SPRTA and/or the City and the Town enter into a reciprocal agreement for payment of fees to offset traffic impacts, the proposed project shall contribute its fair share toward restriping to create a second southbound left turn lane at the intersection of Sierra College Boulevard & King Road (2030 and 2050).	Applicant	If and when Loomis joins SPARTA and/or enters agreement with the City of Lincoln	DSD, PSD
	4.14-7(c) The proposed project shall contribute its fair share toward eliminating southbound U-turns on Wildcat Boulevard and providing a right turn “overlap” signal phase on westbound West Stanford Ranch Road (2030).	Applicant	If and when the cities of Rocklin and Lincoln enter agreement	DSD, PSD
	4.14-7(d) The proposed project shall contribute its fair share toward providing a second eastbound left turn lane on Ranch View Drive at its intersection with Wildcat Boulevard (2030).	Applicant	If and when the cities of Rocklin and Lincoln enter agreement	DSD, PSD
4.14-8 The proposed project would contribute to cumulative increases in traffic on local roadways outside the City of Lincoln.	4.14-8 The proposed project shall contribute its fair share toward the widening of Sierra College Boulevard to 6 lanes if and when this improvement is included in the SPRTA fee program (2030 and 2050).	Applicant	If and when improvement is included in SPARTA fee	DSD, PSD
4.14-9 The proposed project would contribute to cumulative increases in traffic levels on freeways.	4.14-9 The proposed project shall contribute its fair share toward the construction of an auxiliary lane on SR 65 Bypass Southbound from Ferrari Ranch Road to Lincoln Boulevard if and when the improvement is added to the SPRTA fee program and/or an agreement for collection of such fees is entered into by the City and Caltrans (2030).	Applicant	If and when improvement is included in SPARTA fee	DSD, PSD

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Table 5-2
Village 1 Specific Plan
Mitigation Monitoring Program
Full Specific Plan

TABLE 5-2

**VILLAGE 1 SPECIFIC PLAN – PROGRAMMATIC PORTION
MITIGATION MONITORING PROGRAM**

Impact	Mitigation Measures – Programmatic Portion	Responsible Entity	Timing/ Milestone	Monitoring and Enforcement Responsibility
4.1 Aesthetics and Visual Quality				
4.1-3 The proposed project would introduce light and glare into the project area.	4.1-3(a) All light standards shall be shielded and directed downward so that no light falls onto adjacent properties. 4.1-3(b) Surfaces of multi-story buildings facing streets, open space, parks or residential neighborhoods shall not have reflective surfaces large enough to generate glare that creates a nuisance or safety hazard. 4.1-3(c) <ul style="list-style-type: none"> i. If future uses within any park include nighttime activities requiring overhead lights, the project applicant shall use site design and orientation in combination with a configuration of exterior light fixtures that emphasize close spacing and lower intensity light that is directed downward in order to minimize exposure of adjacent uses to lighting and to minimize the amount of light that is visible above the horizontal plane of the light fixture. ii.a. Activity-related lights (as opposed to security lighting) shall be turned off no later than 10:00 p.m. to reduce the amount of disruption to adjacent receptors; and/or ii.b. The City shall place a nuisance easement over parcels that will have direct views of such lights. 	Applicant	O	DSD
4.2 Agriculture				
4.2-2 The proposed project would result in the development of lands currently under Williamson Act contracts.	4.2-2 No development shall be permitted on land under Williamson Act contract until the contract has expired or been cancelled.	City	I	DSD

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4.3 Air Quality				
4.3-1 Construction of the proposed project would generate emissions of PM₁₀ and PM_{2.5}, ROG, NOx, and CO.	4.3-1 The following mitigation measures shall be implemented by the applicant(s) during all grading activities:	Applicant	G/C	PSD PCAPCD
	4.3-1(a) Prior to issuance of a grading permit, the applicant(s) shall submit to the City of Lincoln, as the lead agency, and receive approval of a Construction Emission/Dust Control Plan. The plan shall be submitted to the PCAPCD for review and comment prior to approval by the City. This plan must address the minimum Administrative Requirements found in section 300 and 400 of PCAPCD Rule 228, Fugitive Dust. 4.3-1(b) The prime contractor shall submit to the District a comprehensive inventory (i.e. make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. The project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreperson. The project shall provide a plan for approval by the District demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average up to 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average. The District should be contacted for average fleet emission data. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.	Applicant	P, C	PSD PCAPCD
4.3-1 Construction of the proposed project would generate emissions of PM₁₀ and PM_{2.5}, ROG, NOx, and CO.	4.3-1(c) In order to control dust, an operational watering truck shall be on site during construction hours. In addition, dry chemical sweeping is prohibited. Watering at the construction site shall be carried out in the compliance with operating APCD rules and City of Lincoln requirements.	Applicant	C	PSD

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	4.3-1(d) The contractor shall suspend all grading operations when fugitive dusts exceed District Rule 228 Fugitive Dust limitations. The prime contractor shall be responsible for having an individual, certified by CARB to perform Visible Emissions Evaluations (VEE), who shall routinely evaluate compliance to Rule 228, Fugitive Dust, on a weekly basis. Fugitive dust is not to exceed 40% opacity and not go beyond property boundary at any time. If lime or other drying agents are used to dry out wet grading areas they shall be controlled as to not exceed District Rule 228 Fugitive Dust limitations.	Applicant	C	PSD
	4.3-1(e) The prime contractor shall be responsible for keeping adjacent public thoroughfares clean of silt, dirt, mud, and debris, and shall “wet broom” the streets (or use another method to control dust as approved by the City) if silt, dirt, mud or debris is carried over to adjacent public thoroughfares.	Applicant	C	PSD
	4.3-1(f) The prime contractor shall apply methods such as surface stabilization, establishment of the vegetative cover, paving, or other methods to control dust approved by the City.	Applicant	C	PSD
	4.3-1(g) The prime contractor shall apply water or use other method to control dust impacts offsite. Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site.	Applicant	C	PSD
	4.3-1(h) No open burning of removed vegetation shall be allowed unless permitted by the PCAPCD. All removed vegetation material shall either be chipped on site or taken to an appropriate recycling site, or if a recycling site is not available, a licensed disposal site.	Applicant	C	PSD
	4.3-1(i) Traffic speeds on all unpaved surfaces shall be limited to 15 miles per hour or less.	Applicant	C	PSD
4.3-1 Construction of the proposed project would generate emissions of PM₁₀ and PM_{2.5}, ROG, NO_x, and CO.	4.3-1(j) The prime contractor shall suspend all grading activities when wind speeds (including instantaneous gusts) are high (typically winds greater than 25 miles per hour), and dust is traveling off-site.	Applicant	C	PSD

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	<p>4.3-1(k) If required by the Engineering Division and/or the Department of Public Works, the contractor shall hold a pre-construction meeting prior to any grading activities. The contractor may invite the PCAPCD to the pre-construction meeting in order to discuss the construction emission/dust control plan with employees and/or contractors.</p> <p>4.3-1(l) Stockpiles of dirt shall be covered when not being used or otherwise controlled to prevent erosion and/or dust.</p> <p>4.3-1(m) During construction, the contractor shall use existing power sources (e.g., power poles) or clean fuel (e.g., gasoline, biodiesel, natural gas) generators rather than temporary diesel power generators where feasible.</p> <p>4.3-(n) A person shall not discharge into the atmosphere volatile organic compounds (VOC's) caused by the use or manufacture of Cutback or Emulsified asphalts for paving, road construction or road maintenance, unless such manufacture or use complies with the provisions of Rule 217.</p>	Applicant	C	PSD PCAPCD
<p>4.3-2 Operation of the proposed project would generate criteria pollutant emissions (ROG, NOx, CO, PM₁₀, and PM_{2.5}).</p>	<p>4.3-2(a) Wood burning or pellet appliances shall not be allowed in any residential units. Only natural gas or propane fired fireplace appliances shall be installed.</p> <p>4.3-2(b) Where natural gas is available, gas outlets shall be provided in residential backyards for use with outdoor cooking appliances, such as gas barbecues.</p> <p>4.3-2(c) For those projects that include stationary sources (e.g., gasoline dispensing facility, dry cleaning, large HVAC units), the applicant shall obtain an Authority to Construct (ATC) permit prior to issuance of a Certificate of Occupancy.</p> <p>4.3-2(d) Prior to approval of Improvement Plans, the applicant shall show that a Class 1, 2, or 3 bicycle lane(s) is provided in areas as approved by the Engineering Division and/or the Department of Public Works (or similar divisions within each jurisdiction), as defined elsewhere in these conditions of approval.</p>	Applicant	B	DSD
		Applicant	B	DSD
		Applicant	O	DSD
		Applicant	G	PSD

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	<p>4.3-2(e) Prior to Design Review Approval, the Site Plan shall show that the applicant has provided the appropriate number of preferential parking spaces for employees that carpool/vanpool/rideshare as well as the appropriate preferential parking for NEVs as required by the District and City Policy. Such stalls shall be clearly demarcated with signage as approved by the approving committee.</p> <p>4.3-2(f) Prior to Design Review approval, the applicant shall show that on-stie bicycle racks are provided.</p>	<p>Applicant</p> <p>Applicant</p>	<p>G</p> <p>B</p>	<p>DSD</p> <p>DSD</p>
<p>4.3-5 The proposed project would contribute to cumulative increases in criteria air pollutant emissions.</p>	<p>4.3-5(a) At the time a final map is submitted, the City, in coordination with PCAPCD, shall calculate the emissions associated with the land uses to be approved under that particular tentative map. Based on that calculation, the applicant shall do one or a combination of the following to ensure NOx emissions do not exceed 10 lbs within the full Plan Area. Once the 10 lbs per day has been reached, subsequent projects must demonstrate no net increase in NOx emissions. The City shall consult with the PCAPCD to determine whether the measures proposed by the applicant would fully offset project emissions.</p> <ul style="list-style-type: none"> i) Reduce emissions on-site by incorporating design features that would reduce NOx emissions. These features may include, but would not be limited to, energy conservation or “green” building features such solar panels, energy efficient heating and cooling, energy star appliances, and/or measures that would reduce vehicle use, such as bike lockers and transit services, as provided for in Mitigation Measure 4.6-1. ii) Reduce emissions off-site within the same region (i.e., City of Lincoln, Placer County) by participating in an offsite mitigation program coordinated by the PCAPCD and/or by funding energy-efficiency measures (e.g., installation of insulation and/or dual pane windows in existing buildings), vehicle emission reduction measures (e.g., replace diesel school buses with natural gas buses), and/or trip-reduction measures (e.g., bike lanes and/or NEV lanes on streets that do not have 	<p>Applicant</p>	<p>I</p>	<p>DSD PCAPCD</p>

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	<p>them).</p> <p>iii) Participate in the Placer County Air Pollution District Offsite Mitigation Program by paying fees based on the project’s contribution of pollutants (ROG and NOx), adjusted by credit received for any applicable measures implemented by the project on or offsite. The actual amount to be paid shall be determined, and satisfied per current California Air Resources Board guidelines, at the time of recordation of small lot tentative maps.</p>				
4.4 Biological Resources					
4.4-1 The proposed project would result in the filling or adverse modification of jurisdictional wetland/ other “waters of the U.S.”	4.4-1(a)	For projects developed within the programmatic portion, the project applicant shall retain a qualified biologist to conduct a wetland delineation for each project prior to the issuance of a grading permit. This delineation shall be submitted to the US Army Corps of Engineers (Corps) for verification prior to the issuance of any grading permits for the programmatic portion of the project site. If no wetlands are determined to be present, no further mitigation would be required.	Applicant	P	DSD Corps
	4.4-1(b)	The project applicant shall prepare a wetland mitigation plan that ensures no net loss of wetlands, consistent with Lincoln General Plan Policies OSC-5.6, OSC-5.7, OSC-5.8, and OSC-5.9. The wetland mitigation plan shall be based on the wetland delineation verified by the Corps. This measure may be implemented through the 404 permit and/or Streambed Alteration Agreement processes. The plan shall include the following or equally effective components.	Applicant	G	DSD Corps CDFG

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	4.4-1(c) The project proponent shall compensate for the loss of wetland habitat through a combination of preservation of vernal pools and seasonal wetlands in open space preserves, on-site restoration/enhancement, and the purchase of mitigation credits at an approved mitigation bank. The ratio of compensation shall be determined in consultation with the Corps and California Department of Fish and Game (CDFG), as part of the 404-permit process, but shall not be less than 1:1.	Applicant	G	DSD Corps CDFG
	4.4-1(d) All preserved wetlands shall be dedicated to the City or a non-profit organization acceptable to the City and preserved through perpetual covenants enforceable by the City or other appropriate agencies, to ensure their maintenance and survival.	Applicant/City	O	City
	4.4-1(e) Prior to any construction activities on the site, a protective fence shall be erected around the boundaries of wetlands to be preserved in proximity to the areas that would be disturbed by construction. This fence shall remain in place until all construction activity in the immediate area is completed. No activity shall be permitted within the protected areas except for those expressly permitted by the Corps and/or CDFG.	Applicant	P	DSD
	4.4-1(f) A buffer shall be provided along all preserved wetlands in accordance with the 404 permit. Only those uses allowed in the 404 Permit and/or the Streambed Alteration Agreements shall be permitted in the wetlands preserve and its buffer.	Applicant	I	DSD
	4.4-1(g) Water quality in the wetlands preserve shall be protected using erosion control techniques including (as appropriate), but not necessarily limited to, preservation of existing vegetation, mulches (e.g., hydraulic, straw, wood, etc.), and geotextiles and mats, during construction in the watershed. Additionally, urban runoff shall be managed to protect water quality in the wetlands preserve using techniques such as velocity dissipation devices, sediment basins and pollution collection devices.	Applicant	G,P,C,O	DSD

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	4.4-1(h) Landscape irrigation runoff shall only be permitted to directly enter the wetlands preserve according to the provisions of the 404 Permit and/or the Streambed Alteration Agreement.	Applicant	O	DSD PSD
	4.4-1(i) Mowing and other maintenance activities shall be limited to those detailed in the 404 Permit and/or the Streambed Alteration Agreement.	Applicant	O	DSD PSD
4.4-2 The proposed project could result in the loss of special-status vernal pool crustacean and amphibian species and degradation and/or loss of their habitat.	4.4-2(a) The project applicant for projects within the programmatic portion of the project site shall retain a qualified biologist permitted by the US Fish and Wildlife Service (USFWS) to conduct vernal pool crustacean following current USFWS protocol. Alternatively, the project applicant could forgo the surveys and assume presence of vernal pool crustaceans in all appropriate habitat within the project site. The survey or assumption of presence shall occur prior to the issuance of any grading permits for the programmatic portion of the project site.	Applicant	G,P,C	DSD
4.4-2(b) The project applicant for projects within the programmatic portion of the project site shall retain a qualified biologist to conduct aquatic surveys for the western spadefoot toad. Because a formal protocol does not exist for western spadefoot toad surveys, the scope of the surveys shall be determined in consultation with CDFG. At a minimum, the aquatic surveys for the western spadefoot toad shall include a search for spadefoot larvae during the appropriate season by a qualified biologist to determine presence or absence and potential project-related impacts to breeding sites.				
4.4-2(c) The following or equally effective measures (as approved by the City and USFWS and/or CDFG shall be required for any vernal pool crustacean and/or western spadefoot habitat identified through protocol surveys or assumed to be present in lieu of surveys. The selected measures may be part of the permitting process. i) The project proponents shall obtain a Biological Opinion from the U.S Fish and Wildlife Service and comply with the conditions and mitigation requirements the Biological Opinion to ensure that no net loss of habitat				

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	<p>for vernal pool crustaceans occurs. Mitigation may include, but would not be limited to, both onsite and offsite preservation and creation of vernal pools and other suitable habitat for vernal pool crustaceans, purchase of credits at mitigation banks, payment of in lieu fees approved by the agencies, or other agency approved and required mitigation measures.</p> <p>ii) Orange exclusionary fencing shall be placed and maintained around any avoided (preserved) vernal pool crustacean or western spadefoot habitat during construction to prevent impacts from construction vehicles and equipment. This fencing shall be inspected by a qualified biologist throughout the construction period to ensure that it is in good functional condition. After construction, fencing around open space areas containing wetlands or other sensitive habitats shall be replaced by permanent fencing that will be maintained by the City, and/or the local home owners association.</p> <p>iii) Prior to beginning work in the project site, all on-site construction personnel shall receive instruction regarding the presence of listed species and the importance of avoiding impacts to these species and their habitat.</p> <p>iv) The project proponent shall ensure that activities defined by the USFWS, and Corps, RWQCB, and/or CDFG as inconsistent with the maintenance of the suitability of the remaining vernal pool habitat and associated watershed on-site are prohibited.</p> <p>v) If western spadefoot is present, the applicant shall implement additional measures as deemed appropriate by the City and CDFG.</p>			

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4.4-3 The proposed project could result in the loss and/or degradation of rare plant populations.	4.4-3(a) The project applicant shall retain a qualified biologist to conduct focused surveys in seasonal wetlands and non-native annual grassland habitats within the project site for special-status plant species including but not limited to big-scale balsamroot, Boggs Lake hedge-hyssop, dwarf downingia, legenera, and pincushion navarretia during the appropriate time of year (March through June). If no special-status plants are located during the surveys, no further mitigation would be required.	Applicant	P	DSD
	4.4-3(b) If Boggs Lake hedge-hyssop is located during the surveys in areas that would be disturbed by project construction, those populations shall be avoided and preserved in place to the extent feasible.	Applicant	P,C	DSD
	4.4-3(c) If avoidance is not feasible, the project applicant shall consult with CDFG to obtain an incidental take permit, under Section 2081 of the CESA. Mitigation can be accomplished either in the onsite mitigation preserve area, or at an approved offsite mitigation bank. The ratio of mitigation credits shall be determined during this consultation, and may be conducted concurrently with Mitigation Measure 4.4-2.	Applicant	P,C	DSD CDFG
	4.4-3(d) If any other special-status vernal pool plant species, including, but not limited to dwarf downingia and legenera are located during the surveys in areas that cannot be avoided, the project applicant shall implement Mitigation Measure 4.4-2, with the addition of soil/seed bank salvage, for use in created wetlands in mitigation areas.	Applicant	P,C	DSD CDFG

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	4.4-3(e) If the plants cannot be avoided, the project applicant shall consult with the City and the CDFG regarding steps to take to offset the loss of the plants on the project site, such as transplantation, collecting seed or clippings and replanting species in an onsite location, prior to approval of a discretionary permit. At a minimum, at least ten (10) days prior to mass grading in the area that supports special-status plants, the project applicant shall notify the City and CDFG that grading is to occur and aid the CDFG with collection of the plant seeds, if the CDFG so chooses, pursuant to the California Native Plant Protection Act.	Applicant	C	DSD PSD CDFG
4.4-4 The proposed project could result in the loss of western pond turtle and/or degradation of its habitat.	4.4-4(a) Prior to project construction that would disturb any drainages or stock ponds, the project applicant shall retain a qualified biologist to conduct preconstruction surveys of suitable habitat within the area of disturbance and immediately adjacent area on the project site within 30 days prior to project construction to ensure no western pond turtles have established territories. If ground-disturbing activities are delayed or suspended for more than 30 days after the preconstruction survey, the site shall be re-surveyed. If this survey does not identify any western pond turtles on the project site, no further mitigation is required.	Applicant	P	DSD PSD CDFG
	4.4-4(b) If western pond turtles (WPT) are determined to be present within a drainage or stock pond, and the feature is to be retained, exclusionary fencing shall be used to prevent the turtle(s) from entering construction area. The location of the fence shall be determined by a qualified biologist. Any turtles found in or near the construction zone shall be relocated to an appropriate area of suitable habitat a minimum of 100 feet from any active construction zone. Measures shall be implemented to ensure that the drainages and stock ponds will continue to provide adequate habitat for the WPT by protecting water quality and ensuring that the reduction of drainage from the project site does not substantially diminish the water levels in the pond.	Applicant	P,C	DSD PSD CDFG

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Impact	Mitigation Measures – Programmatic Portion	Responsible Entity	Timing/ Milestone	Monitoring and Enforcement Responsibility
	4.4-4(c) If the drainage or stock pond cannot be retained, the project applicant shall relocate any WPT found during surveys in a manner developed by a qualified biologist and approved by the CDFG.	Applicant	C	DSD PSD CDFG
4.4-5 The proposed project could result in the direct loss or disturbance of nesting birds protected by the MBTA, including raptors (birds-of-prey).	4.4-5(a) If construction is to occur between March 15 and August 30, the project applicant shall conduct a pre-construction breeding-season survey of the project site within 30 days of construction onset. Surveys for nesting raptors shall be conducted within 1/4 mile of proposed ground disturbance. The survey shall be conducted by a qualified biologist to determine if any protected raptors are nesting on or directly adjacent to the project site. A nest survey for migratory birds shall be conducted within 500 feet of construction areas to determine if any migratory birds are nesting on or directly adjacent to the project site. The results of the survey shall be valid only for the season when it is conducted. New surveys shall be conducted if construction of the surveyed area extends into the following season, unless all of the potential nesting trees have been removed. A report shall be submitted to the City of Lincoln, following the completion of the bird nesting survey that includes, at a minimum, the following information: i) A description of methodology including dates of field visits, the names of survey personnel with resumes, and a list of references cited and persons contacted. ii) A map showing the location(s) of any protected raptor or migratory bird nests observed on the project site.	Applicant	P,C	DSD PSD CDFG

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	4.4-5(b) If the above survey does not identify any protected raptor or migratory bird nests on the project site, no further mitigation would be required. However, should any active nests be located on the project site, the project applicant, in consultation with the City of Lincoln and CDFG, shall avoid all protected raptor and migratory bird nest sites located in the project site disturbance area(s) during the breeding season (approximately March 15 through August 30) while the nest is occupied with adults and/or young. This avoidance could consist of delaying construction in close proximity to the nest during the nesting season. Any occupied nest shall be monitored by a qualified biologist to determine when the nest is no longer used. If the construction cannot be delayed, avoidance shall include the establishment of a non-disturbance buffer zone around the nest site. The size of the buffer zone will be determined in consultation with the City and CDFG. The buffer zone shall be delineated by highly visible temporary construction fencing.	Applicant	C	DSD PSD CDFG
4.4-6 The proposed project could result in the loss of nesting Swainson’s hawk.	4.4-6(a) The project applicant shall retain a qualified biologist to conduct a Swainson’s hawk nesting survey within the area to be disturbed, extending out to ¼ mile. The survey shall be conducted during the nesting season of the same calendar year that construction is expected to begin, and prior to the issuance of any grading permits. If this survey does not identify any nesting Swainson’s hawk in the area within the project site that will be disturbed plus the ¼-mile radius, no further mitigation would be required.	Applicant	P	DSD PSD

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	4.4-6(b) Should any active Swainson’s hawk nests be located within ¼ mile of the disturbance area, no intensive new disturbances (e.g. heavy equipment operation associated with construction, use of cranes or draglines, etc.) or other project-related activities that could cause nest abandonment or forced fledging, shall be initiated within the ¼ mile (buffer zone) of an active nest between March 1 - September 15 (or until August 15 if a Management Authorization or Biological Opinion is obtained for the project). The buffer zone should be increased to 1/2 mile in nesting areas away from urban development (i.e. in areas where disturbance [e.g. heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities] is not a normal occurrence during the nesting season).	Applicant	C	DSD PSD CDFG
	4.4-6(c) Nest trees should not be removed to the extent feasible. If a nest tree must be removed, a Management Authorization (including conditions to off-set the loss of the nest tree) must be obtained with the tree removal period specified in the Management Authorization, generally from October 1 to February 1. If construction or other project related activities that could cause nest abandonment or forced fledging are necessary within the buffer zone, then the project applicant shall retain a qualified biologist to monitor the nest site (to determine if the nest is abandoned).	Applicant	C	DSD PSD CDFG
	4.4-6(d) If an active nest is abandoned and if the nestlings are still alive, the project sponsor shall fund the recovery and hacking (controlled release of captive reared young) of the nestling(s). Routine disturbances such as agricultural activities, commuter traffic, and routine facility maintenance activities within ¼ mile of an active nest shall not be prohibited.	Applicant	C	DSD PSD CDFG

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MITIGATION MONITORING PROGRAM**

Impact	Mitigation Measures – Programmatic Portion	Responsible Entity	Timing/ Milestone	Monitoring and Enforcement Responsibility
<p>4.4-7 The proposed project could result in the loss of burrowing owl individuals (eggs, nestlings or juveniles).</p>	<p>4.4-7(a) The project applicant shall hire a qualified biologist to conduct both nesting and wintering season surveys for burrowing owl to determine if potential habitat within 500 feet of ground disturbance is used by this species. The timing and methodology for the surveys shall be based on the CDFG/Burrowing Owl Consortium Survey Guidelines and are detailed below. CDFG may require that these surveys be repeated annually if project construction is expected to span over two or more years.</p> <p><u>Winter Season (December 1 through January 31)</u></p> <ul style="list-style-type: none"> Four site visits on separate days, 2 hours before to 1 hour after sunset or 1 hour before to 2 hours after sunrise. <p><u>Nesting Season (February 1 to August 31)</u></p> <ul style="list-style-type: none"> Four site visits on separate days, 2 hours before to 1 hour after sunset or 1 hour before to 2 hours after sunrise. At least two of the surveys shall be conducted during the peak nesting season between April 15 and July 15. 	Applicant	P	DSD PSD CDFG
	<p>4.4-7(b) In addition to the wintering and nesting season surveys, pre-construction surveys shall be conducted by an experienced biologist within 30-days prior to the start of work activities where land conversions are planned in known or suitable habitat areas. If construction activities are delayed for more than 30 days after the preconstruction surveys, then a new preconstruction survey will be required. All surveys shall be conducted in accordance with the CDFG/Burrowing Owl Consortium survey protocols (Burrowing Owl Consortium, 1993).</p>	Applicant	P	DSD PSD CDFG

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4.4-7 The proposed project could result in the loss of burrowing owl individuals (eggs, nestlings or juveniles).	4.4-7(c) If burrowing owls are discovered in the programmatic portions of the project site, the project applicant shall notify the City and CDFG. A qualified biologist shall implement a routine monitoring program and establish a fenced exclusion zone around each occupied burrow. No construction activities shall be allowed within the exclusion zone until such time that the burrows are determined to be unoccupied. The buffer zones shall be a minimum of 150 feet from an occupied burrow during the non-breeding season (September 1 through January 31), and a minimum of 250 feet from an occupied burrow during the breeding season (February 1 through August 31).	Applicant	P,C	DSD PSD CDFG
	4.4-7(d) The project applicant shall provide appropriate mitigation for project related effects on burrowing owl in consultation with CDFG. Mitigation can be conducted either onsite, or at an off-site location that is approved by the CDFG. Preference is for onsite within open space areas, if possible.	Applicant	C	DSD PSD CDFG
	4.4-7(e) The CDFG shall be consulted regarding the implementation of avoidance or passive relocation methods. All activities that will result in a disturbance to burrows shall be approved by CDFG prior to implementation.	Applicant	C	DSD PSD CDFG

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<p>4.4-8 The proposed project could result in the loss of foraging habitat for Swainson’s hawk, white tailed kite, burrowing owl and other raptors.</p>	<p>4.4-8 The project applicant shall preserve annual grasslands or other suitable raptor foraging habitat at a ratio of 0.75 to 1.0 (as approved by the City and CDFG). Preservation may occur through either:</p> <ul style="list-style-type: none"> • Payment of a mitigation fee to the City of Lincoln through a negotiated agreement between the City, the project applicant, and CDFG. The monies would be held in a trust fund, and used to preserve mitigation land through the purchase, monitoring, maintenance, and remediation of lands that supports suitable foraging habitat for Swainson’s hawk. (consistent with CDFG guidelines); or • Purchase of conservation easements or fee title to suitable Swainson’s hawk foraging habitat to protect the habitat from urban development; or • If adopted prior to issuance of the first grading permit for the proposed project, the project applicant may mitigate this impact through participation in the Placer County Natural Community Conservation Plan/Habitat Conservation Plan. If the plan is adopted prior to construction of a future phase, the project applicant may mitigate this impact through participation in the plan. 	<p>Applicant</p>	<p>G</p>	<p>DSD PSD CDFG</p>
<p>4.4-9 The proposed project could result in loss of Valley elderberry longhorn beetles and their habitat.</p>	<p>4.4-9(a) Prior to any ground-disturbing activity, the project proponents shall conduct a survey for potential VELB habitat (elderberry shrubs) within 100 feet of the area to be disturbed.</p> <p>4.4-9(b) Any ground disturbing activities within 100 feet of elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level shall conform to the following minimum avoidance measures:</p> <ul style="list-style-type: none"> i) Applicants shall provide a minimum setback of at least 20 feet from the drip line of each elderberry plant containing stems measuring 1.0 inch or greater in diameter at ground level. The setbacks shall be fenced and flagged to identify equipment and materials encroachment into the setback zone. Fire fuel breaks (disked land) may not be included within 	<p>Applicant</p> <p>Applicant</p>	<p>P</p> <p>C</p>	<p>DSD PSD</p>

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	<p>the 6 m set back. Where encroachment within the 20 foot setback zone is unavoidable, the applicant shall provide compensatory mitigation at a 50 percent ratio of the standard requirements identified in the table below.</p> <table border="1" data-bbox="588 558 1333 1016"> <thead> <tr> <th colspan="6">ELDERBERRY MITIGATION RATIOS</th> </tr> <tr> <th>Location/Stem Size*</th> <th>Exit Holes**</th> <th>Elderberry Seedling Ratio</th> <th>Elderberry Seedling Ratio</th> <th>Elderberry Seedling Ratio</th> <th>Associated Native Plant Ratio</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Stems ≥1" & < 3"</td> <td>No</td> <td>2:1</td> <td>4:1</td> <td>5:1</td> <td>1:1</td> </tr> <tr> <td>Yes</td> <td>4:1</td> <td>8:1</td> <td>10:1</td> <td>2:1</td> </tr> <tr> <td rowspan="2">Stems ≥3"& <5"</td> <td>No</td> <td>3:1</td> <td>6:1</td> <td>8:1</td> <td>1:1</td> </tr> <tr> <td>Yes</td> <td>6:1</td> <td>12:1</td> <td>15:1</td> <td>2:1</td> </tr> <tr> <td rowspan="2">Stems ≥ 5"</td> <td>No</td> <td>4:1</td> <td>8:1</td> <td>10:1</td> <td>1:1</td> </tr> <tr> <td>Yes</td> <td>8:1</td> <td>16:1</td> <td>20:1</td> <td>2:1</td> </tr> </tbody> </table> <p>Notes: * Ratios are shown for elderberry occurring in existing or historic riparian situations. Ratios for elderberry in non-riparian situations are 50 percent of the standard ratio. ** The presence of exit holes in a stem, bush, or contiguous clump applies to the entire site.</p> <p>ii) Construction contractors shall be briefed on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements.</p> <p>iii) Work crews shall be instructed about the status of the beetle and the need to protect its elderberry host plant.</p> <p>iv) No insecticides, herbicides, fertilizers, or other chemicals that might</p>	ELDERBERRY MITIGATION RATIOS						Location/Stem Size*	Exit Holes**	Elderberry Seedling Ratio	Elderberry Seedling Ratio	Elderberry Seedling Ratio	Associated Native Plant Ratio	Stems ≥1" & < 3"	No	2:1	4:1	5:1	1:1	Yes	4:1	8:1	10:1	2:1	Stems ≥3"& <5"	No	3:1	6:1	8:1	1:1	Yes	6:1	12:1	15:1	2:1	Stems ≥ 5"	No	4:1	8:1	10:1	1:1	Yes	8:1	16:1	20:1	2:1			
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	<p>harm the beetle or its host plant shall be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.</p> <p>v) Mowing of grasses/ground cover shall occur only from July through April to reduce fire hazard. No mowing shall occur closer than 5 feet to elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., avoid stripping away bark through careless use of mowing/trimming equipment).</p> <p>vi) Trimming of elderberry stems less than 1 inch in diameter may occur between September 1 and March 14. The recommended period for trimming is between November through the first two weeks in February when the plants are dormant and after they have lost their leaves.</p> <p>4.4-9(c) In cases where removal of elderberry shrubs or their stems measuring 1-inch or greater (removal or trimming) is unavoidable, these impacts shall be compensated for by salvaging and planting the affected elderberry shrubs and planting additional elderberry shrubs and associated native riparian plants according to the ratios specified in the table, above. Mitigation planting shall occur, to the maximum extent practicable, in areas adjacent to the impact area and/or located to fill in existing gaps in riparian corridors.</p>	Applicant	C	DSD PSD
<p>4.4-10 The proposed project could result in loss of nesting habitat for tri-colored blackbird and black rail.</p>	<p>4.4-10(a) For portions of the project where the onset of construction occurs between April 1 and August 31, the project applicant shall retain a qualified biologist to conduct pre-construction nesting surveys for tri-colored blackbird colonies and black rail within the disturbance areas on the project site. The survey shall be conducted no more than 30 days from the onset of construction. If ground-disturbing activities are delayed or suspended for more than 30 days after the preconstruction survey, the site shall be re-surveyed. If the survey does not identify any colonies of nesting tricolor blackbirds or black rail on the project site, no further mitigation would be required.</p>	Applicant	P	DSD PSD

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	4.4-10(b) Should any active tricolor blackbird colonies or black rail be found nesting on the project site, the project applicant, in consultation with the City of Lincoln and CDFG, shall avoid all active nest sites located in the project site during the breeding season while the nest site is occupied with adults and/or young. This avoidance could consist of delaying construction to avoid the nesting season or establishing a buffer around the nest site. If the construction cannot be delayed, avoidance shall include the establishment of a non-disturbance buffer zone around the nest site. The size of the buffer zone will be determined in consultation with the City and CDFG, and will be, at a minimum, 250 feet. The buffer zone shall be delineated by highly visible temporary construction fencing. Any occupied nest shall be monitored by a qualified biologist to determine when the nest is no longer used.	Applicant	C	DSD PSD
4.4-11 The proposed project would result in the modification of stream corridors, disrupting the associated habitat, and potential changes in surface water quality that could affect Central Valley steelhead and/or Central Valley fall and late fall run Chinook salmon.	4.4-11 For any work that would involve disturbance of Auburn Ravine, the City shall ensure grading permits and/or improvements plans, as appropriate, include the following requirements: 4.4-11(a) Restrict work in Auburn Ravine to low-flow periods between June 15 and October 15 to avoid effects on adult or juvenile steelhead or salmon life stages during their migratory seasons. 4.4-11(b) Store all equipment outside of all waterways. Install a silt fence around the perimeter of all waterways where construction is to occur adjacent to waterways. The staging areas shall be situated a minimum of 50 feet from existing drainages. 4.4-11(c) Install Environmentally Sensitive Area (ESA) fences in the vicinity of work along Auburn Ravine. The ESA fencing shall be delineated on the final plans and the fence shall be installed and remain on-site until the project is completed. 4.4-11(d) Install silt fences and/or fiber rolls on the slopes adjacent to the work area to prevent silt from entering Auburn Ravine. 4.4-11(e) If dewatering is necessary along portions of Auburn Ravine, use appropriate	Applicant	C	DSD PSD

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	<p>temporary coffer dams to dewater the construction sites and divert water through the area during the construction period to prevent impeding creek flow or water flow through the work areas. If dewatering at a site is required, a qualified biologist shall be present during the dewatering period to inspect and ensure that steelhead and salmon will not be trapped within the temporary coffer dams. If steelhead or salmon are found, qualified biologist will capture and relocate these fish to an appropriate area away from the construction site. The project applicant or their representative shall submit for approval the dewatering and fish capture and relocation plans to the NOAA and CDFG once the design plans are finalized.</p> <p>4.4-11(f) Maintain erosion controls during the construction periods.</p> <p>4.4-11(g) At the completion of the construction project, remove from the streambed all materials used to maintain flow and divert water from the area during the construction period, including coffer dams, pipes, filter fabric, and gravel.</p> <p>4.4-11(h) Dispose of all excess soil at an approved upland site.</p> <p>4.4-11(i) Remove all project-introduced material once the work is complete.</p> <p>4.4-11(j) Recontour any disturbed stream channel areas, to the extent practicable, to pre-project conditions or better.</p> <p>4.4-11(k) Use reflectors on portable light trees to focus the light on the work area and to minimize the amount of light spilling over to adjacent areas during any night work.</p> <p>4.4-11(l) Implement Mitigation Measure 4.3-1 (Construction Air Emissions).</p> <p>4.4-11(m) During bridge construction, implement construction BMPs in accordance with the project’s SWPPP prepared in accordance with the State NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit) (Order No. 2009-0009-DWQ, NPDES No. CAR000002). These BMPs shall be in place throughout the bridge construction phases. The SWPPP shall specifically include specific measures</p>			

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4.4-14 The proposed project could result in loss of protected oak trees and oak woodlands.	4.4-14 Implement the Village 1 Specific Plan Oak Woodland Mitigation and Management Plan.	Applicant	I	DSD PSD
4.5 Cultural Resources				
4.5-1 The proposed project could damage or destroy known historic-period resources.	4.5-1(a) As part of the subsequent CEQA review for any small lot tentative map, or grading or improvement plans for projects that do not require a small lot tentative map, within the programmatic portion of the Village 1 Specific Plan, the project applicant shall hire a professional who meets the Secretary of the Interior's Professional Qualifications Standards for Historic Architecture to perform the following: i) conduct an historical architectural survey for areas that have not been subject to comprehensive investigation meeting professional standards. ii) identify and evaluate the historic-period resources identified in the cultural resource investigation for the property subject to the grading permit and/or improvement plans. Resources that have been identified to date, but not evaluated, include P-31-0965, P-31-1679-H, P-31-1680, P-31-1682, P-31-1683, P-31-1684, P-31-1686, P-31-1687, P-31-1688, P-31-1689, P-31-1691-H, P-31-1695, P-31-1696, P-31-1698-H, P-31-1708, P-31-1710, P-31-1719, P-31-1721, P-31-1723, P-31-2611-H, and P-31-2612-H. If none of the identified historic resources within the property subject to the grading permit and/or improvement plans are found to be eligible for listing on the NRHP or CRHR, no further action is required.	Applicant	P	DSD

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	<p>4.5-1(b) A design plan shall be prepared by a professional meeting Secretary of Interior standards for all resources found to be eligible for listing pursuant to Mitigation Measure 4.5-1(a). The design plan shall incorporate methods determined appropriate and feasible by the historic architecture professional in coordination with the City of Lincoln. Methods to reduce impacts on historic-period resources shall include, but not be limited to:</p> <ul style="list-style-type: none"> i) If feasible, the resources shall be preserved in place, and, as appropriate, incorporated into parks and open space/corridors; ii) If it is not feasible to preserve the resource in place, it shall be recorded pursuant to Secretary of Interior standards, and architectural features and/or artifacts shall be made available to an appropriate museum and/or historical organization; iii) If the significant historical resource is retained and reused, all rehabilitation, renovation, and additions shall meet Secretary of Interior standards to the extent feasible; iv) Project development to adjacent to significant historical resources that are to be retained shall be designed to be in character with the historic setting of the resources, consistent with Secretary of Interior standards; v) Commemorative markers and interpretive exhibits shall be used to educate the public about the history of the plan area. The content of the commemorative markers and interpretive exhibits could include subjects such as mining, ranching, and Native American activities in the plan area. Markers and exhibits shall be prepared by a historic architecture professional or equally qualified professional. 	Applicant	P,G	DSD

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<p>4.5-2 The proposed project could damage or destroy identified archaeological resources.</p>	<p>4.5-2(a) As part of the subsequent CEQA review for any small lot tentative map, or grading or improvement plans for projects that do not require a small lot tentative map, in the programmatic portion of the Village 1 Specific Plan that has not been subject to comprehensive investigation meeting professional standards, the project applicant shall hire a professional who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeologist to survey all previously unsurveyed portions to identify and evaluate any other archaeological resources that could be present. The evaluation conducted by the professional shall include subsurface testing if warranted based on the surface survey. For any site that qualifies as a historical resource or unique archaeological resource, mitigation of impacts on the resource shall follow standard professional procedures, including, but not limited to, avoidance, protection, data recovery, written and photographic documentation, or other measures identified in California Public Resources Code Section 21083.2.</p>	<p>Applicant</p>	<p>P,G</p>	<p>DSD</p>
<p>4.5-3 The proposed project could cause a substantial adverse change in the significance of previously undiscovered prehistoric or historic-period archaeological resources.</p>	<p>4.5-3(a) Construction personnel shall be informed of the possibility of buried cultural resources anywhere within the project site and the protocol to be followed if a cultural resource is encountered. Prior to the onset of grading, the project applicant shall distribute a cultural resources handbook that explains the procedures to follow if cultural resources and human remains are encountered, provide a list of important contact information and phone numbers, and include written descriptions and photographic examples (where possible) of cultural resources. The project applicant may also hire a professional who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology to conduct a pre-construction training of all construction personnel involved in grading and excavation activity.</p>	<p>Applicant</p>	<p>C</p>	<p>DSD</p>

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	4.5-3(b) In the event that any previously unidentified subsurface archaeological resources are discovered during construction-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Lincoln (the City) shall be notified. The City shall consult with the archaeologist to assess the significance of the find. If the find is determined to be significant by the archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), then representatives of the City, and the qualified archaeologist shall meet to determine the appropriate course of action, with the City making the final decision. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report shall be prepared by the qualified archaeologist according to current professional standards.	Applicant	C	DSD

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	<p>4.5-3(c) If the archaeologist determines that some or all of the affected property qualifies as a Native American Cultural Place, including a Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (Public Resources Code section 5097.9) or a Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historical Resources pursuant to Public Resources Code §5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (Public Resources Code Section 5097.993), the archaeologist shall recommend to the City potentially feasible mitigation measures that would preserve the integrity of the site or minimize impacts to it, including any or a combination of the following:</p> <ul style="list-style-type: none"> i) Avoidance, preservation, and/or enhancement of all or a portion of the Native American Cultural Place as open space or habitat, with a conservation easement dedicated to the most interested and appropriate tribal organization, if such an organization is willing to accept and maintain such an easement, or alternatively, a cultural resource organization that holds conservation easements; ii) An agreement with any such tribal or cultural resource organization to maintain the confidentiality of the location of the site so as to minimize the danger of vandalism to the site or other damage to its integrity; or iii) Other measures, short of full or partial avoidance or preservation, intended to minimize impacts to the Native American Cultural Place consistent with land use assumptions and the proposed design and footprint of the development project for which the requested grading permit has been approved. 	Applicant	C	DSD

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	<p>4.5-3(d) After receiving such recommendations, the City shall assess the feasibility of the recommendations and impose the most protective mitigation feasible in light of land use assumptions and the proposed design and footprint of the development project. In reaching conclusions with respect to these recommendations, the City shall consult with both the project applicant and the most interested and appropriate tribal organization.</p> <p>4.5-3(e) Implement Mitigation Measure 4.5-4, in the event human remains are discovered.</p>	City	C See Measure 4.5-4	DSD
<p>4.5-4 The proposed project could disturb human remains.</p>	<p>4.5-4 If human remains are discovered at any project construction sites during any phase of construction, all ground-disturbing activity within 50 feet of the remains shall be halted immediately, and the City of Lincoln (the City) and the Placer County coroner shall be notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project applicant shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. The City shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of state law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The project applicant shall implement approved mitigation, to be verified by the City, before the resumption of ground-disturbing activities within 50 feet of where the remains were discovered.</p>	Applicant/City	C	DSD

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4.5-5 The proposed project could directly or indirectly destroy unique paleontological resources.	4.5-5(a) Construction personnel shall be informed of the possibility of discovering fossils anywhere within the project site, but primarily in the western part of Phase 1, and the protocol to be followed if a fossil is encountered. This information shall be included in the “cultural resources handbook” prepared under Mitigation Measure 4.5-3. It shall describe procedures to follow if fossils are encountered, provide a list of important contact information and phone numbers, and include written descriptions and photographic examples (where possible) of the fossils. The project applicant may also hire a professional who meets the Society of Vertebrate Paleontology standards to conduct a pre-construction training of all construction personnel involved in grading and excavation activity.	Applicant/City	C	DSD
	4.5-5(b) In the event that paleontological resources are discovered during earth-moving activities, ground-disturbing activity within 50 feet of the resources shall be halted until the project applicant hires a qualified paleontologist to examine the resources and assess its significance. If the resource is determined to be significant, representatives of the City of Lincoln (the City) and the qualified paleontologist shall determine the appropriate course of action (i.e., any additional exploratory measures deemed necessary for the further evaluation of and/or mitigation of adverse impacts to the resources), with the City making the final decision. All significant paleontological resources recovered shall be subject to scientific analysis and professional curation; a report of these activities shall be prepared for the City by the paleontologist according to current professional standards.	Applicant/City	C	DSD
4.6 Greenhouse Gas Emissions and Climate Change				
4.6-1 The proposed project would generate greenhouse gas emissions, either directly or indirectly, that would contribute to global climate change.	4.6-1(a) An Energy Conservation Plan for all commercial and residential development shall be required prior to recordation of the first small lot Final Map. The plan shall describe the techniques and programs to be employed in the development of the project to achieve a minimum 15 percent energy efficiency above that required by the 2008 Title 24 energy efficiency regulations, or compliance with the then-current Title 24 energy efficiency	Applicant	I	DSD

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	<p>regulations. These programs shall include one or more of the following, or equally effective measures:</p> <p><i>Participation in the PG&E Energy Star Performance Method. This method is available to builders of single-family and multi-family homes that are at least 15 percent more energy efficient than required by the 2008 Title 24 energy efficiency regulations and meet all US EPA specifications. Participating builders become part of the California Energy Star New Homes Program, and their homes earn the Energy Star label. Incremental incentives can also be earned by adding energy efficient appliances and/or lighting to homes. Plans submitted for Design Review shall include all energy efficiency features to be incorporated into the project.</i></p> <p>OR</p> <p>Participation in the New Solar Homes Partnership (NSHP) Performance Method. This method is available to builders of single-family homes that are at least 15 percent more efficient than required by the 2008 Title 24 energy efficiency regulations and meet all US EPA specifications. Prior to the issuance of a Building Permit, the floor plans and exterior elevations submitted in conjunction with the Building Permit application, shall show that the applicant has installed the appropriate number of solar panels or Photovoltaic roofing tiles throughout the project (described as lot numbers, locations, and/or building numbers and locations) to offset that development's share of the 7,599,510 kwh/year total Plan's onsite renewable energy offsets.</p> <p>OR</p> <p>Participation in the Build It Green Program, which was created by Build It Green, a non-profit organization whose mission is to promote health, durable, energy and resource efficient buildings throughout California. Using the Green Point Checklist, a home can be considered green if it fulfills the prerequisites and earns at least 50 points and meets the minimum points per category: Energy (30 points); Indoor Air Quality (5 points); Resources (6</p>			

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	<p>points); and Water (9 points). Build It Green uses certified Green Point Raters to measure success with the program and verification of the measures employed to meet the requirements of the checklist. Plans submitted for Design Review shall include a completed copy of the Green Point Checklist.</p> <p>4.6-1(b) The project applicant shall be responsible for having prepared, by an experienced and qualified firm, an Energy Resource Conservation Guide that will provide educational information on how homeowners can increase energy efficiency and conservation in their new homes. The information will be delivered to each original homeowner as part of the move-in package. The information packet shall be reviewed by, and be subject to approval of, City of Lincoln staff. A copy of the Energy Resource Conservation Guide shall be submitted to the City for review prior to the completion of construction activities, and finalized before occupancy.</p> <p>4.6-1(c) Light Emitting Diode (LED) traffic signals and LED street lights, or more energy-efficient signals and streetlights, shall be installed in accordance with City improvement standards or as otherwise approved by the Development Services Director.</p> <p>4.6-1(d) The project applicant shall prepare a tree planting program to guide the planting of shade trees within residential lots and along streets in a manner that reduces radiant heat. Commercial and retail parking lots shall be planted with shade trees that will produce 50% coverage within 15 years. Landscape Plans submitted for Design Review shall include a copy of the tree planting program.</p> <p>4.6-1(e) A tree information planting and care guide shall be delivered to each original homeowner as a part of the move in package. If the guide is prepared by someone other than the City, it shall be reviewed by, and be subject to the approval of, City of Lincoln staff. . A copy of the tree information planting and care guide shall be submitted to the City for review prior to the completion of construction activities, and finalized before occupancy.</p>	<p>Applicant</p> <p>Applicant</p> <p>Applicant</p> <p>Applicant</p>	<p>O</p> <p>G</p> <p>G</p> <p>O</p>	<p>DSD</p> <p>DSD</p> <p>DSD</p> <p>DSD</p>

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	4.6-1(f) Energy efficient lighting fixtures shall be installed as part of the original construction of residential and commercial structures. Plans submitted for Design Review shall include documentation of the energy efficient lighting fixtures to be used.	Applicant	B	DSD
	4.6-1(g) New commercial buildings shall be 15 percent more energy efficient than the 2008 Title 24 building standards based on annual energy usage requirements, or comply with the then-current Title 24 energy efficiency regulations. Plans submitted for Design Review shall include all energy efficiency features to be incorporated into the project.	Applicant	B	DSD
	4.6-1(h) Prior to approval of Improvement Plans, the applicant shall show that the roadway system shall be designed to accommodate the usage of neighborhood electric vehicles (NEVs).	Applicant	G	DSD, PSD
	4.6-1(i) Prior to approval of a Grading Permit, Improvement Plans, or Design Review approval, the applicant shall show that bus turnouts and transit shelters shall be placed on roadways that are to be served by future bus transit in accordance with City improvement standards and as otherwise directed by City’s Development Services Director.	Applicant	G	DSD, PSD
	4.6-1(j) Implement Mitigation Measure 4.3-2.		See MM 4.3-2	
4.7 Hazardous Materials				
4.7-2 The proposed project could occur in locations where historic land uses are known to have resulted in soil or groundwater contamination or may have the potential to have caused soil or groundwater contamination.	4.7-2(a) Prior to approval of any Tentative Map and/or a specific development permit, the applicant shall submit a Phase I ESA that has been prepared in accordance with the most current ASTM 1527 standard. If the results of the Phase I ESA indicate no recognized environmental conditions, no further action is required. However, the City shall ensure Improvement Plans and/or grading permits include the requirements of Mitigation Measure 4.7-2(b) pertaining to the discovery of previously unidentified conditions or hazards. No Phase I ESA is necessary for the Walkup Ranch property because one has already been prepared.	Applicant	I	DSD

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	4.7-2(b) For any specific development location for which the Phase I ESA completed in accordance with Mitigation Measure 4.7-2(a) identifies recommendations for further investigation and/or remediation, prior to issuance of a grading permit for the affected location, the City shall ensure the recommendations are implemented to the satisfaction of PCDEHS. If contaminants are present at levels that could pose a human health or environmental risk that would be immediately dangerous to life and health, no soil disturbance shall be permitted until the location has been remediated to the satisfaction of PCDEHS. If contaminants are present at levels that do not pose an immediate threat, construction activities may proceed provided a Soil Management Plan and Health and Safety Plan prepared by a qualified professional have been submitted to and approved by PCDEHS. The City shall also ensure Improvement Plans and/or grading permits include the requirements of this Mitigation Measure 4.7-2(b) pertaining to the discovery of previously unidentified conditions or hazards. If previously unidentified contamination is discovered in the former Titan missile facility or gun range parcels (PA 15 and PA 66) (parcel numbers are based on the August 2011 Specific Plan), the City shall immediately notify CVRWQCB. Work in those areas shall not resume until approved by CVRWQCB.	Applicant	P,G	DSD PCDEHS CVRWQB
	4.7-2(c) Prior to approval of a Tentative Map that includes development of PA 15 and PA 66 (village mixed use and park/recreation land uses) east of Oak Tree Lane and PA 74 south of Oak Tree Lane (park/recreation land use) (parcel numbers are based on the August 2011 Specific Plan), the City shall ensure the following institutional controls identified in the Titan facility Remedial Action Plan (RAP) for groundwater are included in conditions of approval: <ul style="list-style-type: none"> • Temporary deed covenants shall be recorded for any property overlying the groundwater plume that will prohibit its use or extraction until it has met water quality objectives. • Vapor barriers shall be used on all new construction on properties 	City	I	DSD CVRWQCB

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	<p>overlying the contaminant plume.</p> <ul style="list-style-type: none"> Continued access to the area overlying the most impacted groundwater shall be granted solely for the purposes of cleanup and/or monitoring activities <p>Per CVRWQCB, these institutional controls will not be necessary after the water quality objectives established in the RAP for the permeable reactive barrier (PRB) treatment system and monitored natural attenuation (MNA) have been achieved. The determination whether the water quality objectives have been achieved shall be at the discretion of CVRWQCB. The City may remove any or all of these requirements from the tentative map conditions only upon written authorization from CVRWQCB.</p> <p>In addition to ensuring compliance with the institutional controls until such time as CVRWQCB determines they are not needed, the City of Lincoln shall not issue a grading permit for any portion of PA 15, PA 66, and PA 74 unless the applicant has: (i) provided a written construction and operation/maintenance plan to CVRWQCB that grading, installation of underground utilities, or operation of irrigation systems and maintenance will not adversely affect the groundwater treatment (PRBs) or monitoring system or alter contaminant plume characteristics in a manner that would exacerbate the problem; and (2) received concurrence from CBRWQCB that the proposed construction and operations/maintenance plan is protective of the groundwater treatment system facilities (including the PRBs) and will not create conditions that would diminish the effectiveness of the system to achieve water quality objectives or extend the amount of time required to achieve water quality objectives.</p>			

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	4.7-2(d) No grading permit shall be issued for PA 66 until the soil contamination at the former gun range has been remediated by Placer County to the satisfaction of CVRWQCB, and the applicant has provided a plan approved by CVRWQCB that identifies how site preparation, installation of park/recreation facilities and associated infrastructure (including irrigation lines), operation of irrigation systems, if any, and long-term maintenance will be protective of the selected remedy (most likely an engineered cap) and protective of maintenance workers. If access or maintenance restrictions are imposed by CVRWQCB in conjunction with cleanup approvals, a deed restriction shall be recorded that identifies such restrictions.	City	G	DSD CVRWQCB
	4.7-2(e) If the recommendations from the Phase I ESA for Turkey Creek Estates identify the need for soil sampling and remediation, the City shall not issue a grading permit for the affected location(s) until investigation and remediation, if any, is completed to the satisfaction of PCDEHS.	City	G	DSD PCDEHS
	4.7-2(f) Prior to issuance of a grading permit for the elementary school, WPUSD or the school developer if private shall provide evidence to the City that the site has been investigated for the presence of hazardous materials contamination consistent with the requirements of the California Education Code, and that any hazardous conditions have been remediated as required. Evidence of compliance with CEQA shall also be provided.	Applicant or school district	G	DSD

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<p>4.7-3 Demolition of on-site structures to accommodate development of the Village 1 Specific Plan could expose people to potential health hazards by demolishing buildings on the project site that could contain asbestos and/or lead-based paint.</p>	<p>4.7-3 Prior to demolition of any structures located on the project site, the project applicant(s) shall retain a Cal OSHA-certified lead-based paint and ACBM contractor to conduct a risk assessment of all structures on-site constructed prior to 1978 for the presence of ACBMs and/or lead-based paint. If ACBMs and/or lead-based paint are determined to exist on site, the contractor shall prepare a site-specific ACBM and lead hazard control plan. If the plan calls for the removal of ACBMs and lead-based paints prior to demolition activities, ACBM removal methods may include, but are not limited to: dry stripping, wet controlled stripping, high pressure water jetting, and air management for hot stripping. Paint removal methods may include, but are not limited to: use of a heat gun, tools equipped with HEPA exhaust capability, wet scraping, and chemical removers. If removal is not deemed necessary prior to demolition, the plan shall make other recommendations for the containment of any ACBMs or lead-based paint materials that could be released into the environment during demolition activities, as well as appropriate disposal methods. The plan shall also provide specific instructions for providing protective clothing and gear for abatement personnel.</p> <p>Wastes from abatement and demolition activities shall be managed and disposed of at a landfill(s) licensed to accept ACBMs and lead-based waste.</p> <p>Once all abatement measures have been implemented, the project applicant(s) shall provide written documentation to the City that ACBM and lead-based paint testing and abatement, if necessary, has been completed in accordance with all federal, state, and local laws and regulations, including: lead-based paint exposure guidelines provided in “Guidelines for the Evaluation and Control of Lead Based Paint Hazards in Housing” by the U.S. Department of Housing and Urban Development (HUD), Construction Safety Order 1532.1 from Title 8 of the California Code of Regulations (CCR), and the California Department of Health Services.</p>	<p>Applicant</p>	<p>P</p>	<p>DSD</p>

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4.8 Hydrology and Water Quality				
<p>4.8-1 The proposed project would increase the amount of impervious surfaces and alter drainage patterns, which could increase the potential for localized and downstream flooding.</p>	<p>4.8-1(a) i) Project applicant(s) shall ensure that planned improvements to the SR 193 bridge are operational prior to receiving a grading permit for development in the programmatic portion (beginning with Phase 2). OR ii) If SR 193 bridge improvements are not completed prior to receiving a grading permit for areas within the Auburn Ravine watershed, beginning with Phase 2, the applicant(s) shall provide on-site detention and/or retention to mitigate increases in water surface elevation (WSE) if the results of modeling show a 0.05-foot increase or greater in WSE, or if peak flow rates increase by 1 percent or more within project boundary or downstream of the SR 193 bridge. AND iii) Project applicant(s) shall provide for peak flow mitigation as defined in Village 1 Specific Plan, City of Lincoln, CA, Drainage Master Plan Table II.F.1B for the programmatic portion in order to mitigate potential on-site flooding from increased peak flows associated with development of the projects. Prior to issuance of a grading permit, project applicants shall demonstrate that provisions for peak flow mitigation in the preliminary grading plan, as defined in Village 1 Specific Plan, City of Lincoln, CA, Drainage Master Plan Table II.F.1B and Tables III.A.3A to III.A.3F, as applicable for the project. The City Engineer shall review plans for compliance with the applicable portions of Table II.F.1B and Tables III.A.3A to III.A.3F, as applicable, prior to issuance of a grading permit. Prior to issuing a building permit for any project in the Village 1 Specific Plan, overbank excavation and stabilization of channels that will receive runoff from the area(s) to be developed shall be completed. The City Engineer shall confirm that peak flow mitigation has been constructed in accordance with the approved plans.</p>	<p>Applicant</p>	<p>G</p>	<p>PSD DSD</p>

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	iv) The project applicant for projects within the programmatic portion of the project site shall prohibit development of structures within the modeled floodplains of North and South Ingram Slough as identified in the Village 1 Specific Plan, City of Lincoln, CA, Drainage Master Plan Post-Project 100-Year Floodplain Alt. 193 Fix figures.			
4.8-2 The proposed project would increase stormwater volumes in Auburn Ravine, Ingram Slough, Orchard Creek, and ultimately the Natomas Cross Canal.	4.8-2(a) Prior to approval of the first final map, the Applicant shall identify 87.1 acre-feet of storage capacity in the watershed to accommodate increased stormwater runoff volumes associated with the programmatic portion of the Village 1 Specific Plan. Storage capacity may be incorporated into on-site design, obtained at the approved LFVMF, if operational at the time of development, or at a location approved by or acceptable to the City. The Applicant shall be required to cover its fair share of costs associated with construction, operation, and maintenance of the LFVMF to offset increased stormwater volume generated by the Village 1 Specific Plan. For capital improvements, funding shall be through the City’s existing PFE program. Fees for operation and maintenance shall be through an assessment district established during the Final Map processing. Fees shall be paid in conjunction with issuance of building permits. If, at the time the first final map is submitted for approval, the regional facilities are not available or operational, or if additional capacity is required, the Applicant shall incorporate in to the final design sufficient on-site storage capacity, or a combination of on-site and off-site capacity, to fully mitigate the 87.1 acre-feet. If off-site facilities are used, the Applicant shall be required to cover its fair share of costs associated with construction, operation, maintenance, and management of the regional retention facilities to offset increased stormwater volume generated by the Village1 Specific Plan. Assuming the regional facility has been constructed, Applicant shall pay the appropriate fees.	Applicant	I	PSD DSD

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<p>4.8-3 The proposed project would include placement of fill in the 100-year floodplain (overbank area) to accommodate road crossings, culverts, and other structures.</p>	<p>4.8-3(a) When the Oak Tree Lane bridge is in the design phase, the City shall ensure the bridge is designed to convey 100-year storm event flows in accordance with the Village 1 Specific Plan, City of Lincoln, CA, Drainage Master Plan.</p> <p>4.8-3(b) Implement Mitigation Measure 4.8-1 (V1SP DMP recommendations)</p>	<p>City</p>	<p>G</p>	<p>PSD</p>
<p>4.8-4 The proposed project would increase the types and amounts of pollutants in stormwater runoff that could be discharged to Ingram Slough and its tributaries and Auburn Ravine, which could degrade water quality.</p>	<p>4.8-4 <u>Low Impact Development BMPs.</u> Project Conditions of Approval shall specify that appropriate Best Management Practices (BMPs) be incorporated into project design prior to approval of final grading/improvement plan(s) to reduce urban pollutants in runoff, consistent with goals and standards established under federal and State non-point source discharge NPDES regulations and Basin Plan water quality objectives, the City’s Post-Construction Stormwater Runoff Control Ordinance No. 826B, and Low-Impact Development (LID) alternatives for stormwater quality control per Public Facilities and Services Implementation Measure 3.0 of the adopted 2050 General Plan.</p> <p>The proposed water quality facilities shall be identified and designed in a Water Quality Management Plan prepared in accordance with Section 8.60.40 of the City’s Municipal Code for City review and approval. All water quality facilities identified in the Water Quality Management Plan shall be constructed with the installation of the infrastructure.</p> <p>The Water Quality Management Plan shall include a description of all non-structural BMPs and include Covenants, Codes, and Restrictions (CC&Rs), or similar regulatory mechanism, to enforce implementation of non-structural BMPs. Non-structural BMPs shall include, but not be limited to, “good housekeeping” practices for materials storage and waste management, storm drain system stenciling, landscape chemical use guidelines, and street sweeping.</p> <p>The Water Quality Management Plan shall also include the method or methods for funding the long-term maintenance of the proposed water quality</p>	<p>Applicant</p>	<p>G</p>	<p>PSD DSD</p>

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	<p>facilities. The City shall formally adopt and implement a funding mechanism specifically to fund the long-term maintenance of the proposed water quality facilities as proposed by the Stormwater Management Plan.</p> <p>The project Applicant shall submit a site-specific BMP plan showing the on-site locations and effectiveness of the BMP facilities proposed for long-term water quality impact reduction prior to project approval. The plan shall include a method or methods for financing the long-term maintenance of the proposed site-specific facilities.</p> <p>All BMPs for water quality protection, source control, and treatment control shall be developed in accordance with the Stormwater Quality Design Manual for the Sacramento and South Placer Regions (or other similar source approved by the City) for the project. The BMPs shall be designed to mitigate (minimize, infiltrate, filter, or treat) stormwater runoff. Flow or volume based post-construction BMPs shall be designed at a minimum in accordance with the PCFCWCD and City standards and shall be included for long-term maintenance of BMPs. All BMPs shall reflect the Best Available Technologies (BAT) available at the time of implementation and shall reflect site-specific limitations. The City shall make the final determinations as to the appropriateness of the BMPs proposed for the proposed project and the City shall ensure future implementation, operation, and maintenance of the BMPs.</p> <p>To comply with the requirements of the Placer County Mosquito and Vector Control District, all BMPs shall be designed to discharge all waters within 96 hours of the completion of runoff from a storm event. All graded areas must drain so that no standing water can accumulate for more than 96 hours within water quality facilities.</p> <p>Stormwater runoff from the proposed project’s impervious surfaces (including roads) shall be collected and routed through specially designed water quality treatment facilities (BMPs) for removal of pollutants of concern (i.e. sediment, oil/grease, etc.), as approved by the City. The Applicant shall verify that</p>			

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	proposed BMPs are appropriate to treat the pollutants of concern from the proposed project and shall provide for the establishment of vegetation, where specified, by means of proper irrigation, for effective performance of BMPs. Maintenance of these facilities shall be provided by the City. Prior to project approval or Final Map approval, easements shall be created and offered for dedication to the City for maintenance and access to these facilities in anticipation of possible City maintenance. No water quality facility construction shall be permitted within any identified wetlands area, floodplain, or right-of-way, except as authorized by project approvals.				
4.9 Land Use					
4.9-1 The proposed project could result in internal land use incompatibilities.	4.9-1(a)	Implement Mitigation Measures 4.1-3(a) and 4.10 3.	Applicant	B	DSD
	4.9-1(b)	When occupied residences would be located adjacent to active agricultural operations, including livestock grazing and/or confinement, the applicant shall provide to those home buyers information about the agricultural operations and potential nuisance activities occurring on lands adjacent to the project site, including a copy of Placer County's Right-to-Farm Ordinance. Residential development located next to active agricultural areas shall have a notice included in the deed notifying buyers of the agricultural use.	City	O	DSD
4.9-2 The proposed project could result in incompatibilities with adjacent land uses.	4.9-2	Implement Mitigation Measure 4.9-1(b).	See MM 4.9-1(b)		
4.10 Noise					
4.10-1 The proposed project would increase traffic noise levels at existing noise-sensitive land uses in the project vicinity.	4.10-1	The City shall work with Placer County and the Town of Loomis when Sierra College Boulevard is widened to four lanes from Taylor Road to Twelve Bridges Drive to encourage the use of rubber asphalt or an equally effective noise-suppressing surface.	City	When SCB planned for widening	DSD

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4.10-2 The proposed project would expose noise-sensitive land uses to construction noise.	4.10-2(a) Construction hours shall be limited to 7am to 7pm, Monday through Friday (unless extended by special permit). 4.10-2(b) All internal combustion engines associated with stationary and mobile construction equipment shall have adequate mufflers equal to or better than those supplied with the equipment by the manufacturer. 4.10-2(c) Onsite construction staging areas shall be located as far as practical from existing residential areas. 4.10-2(d) Advance notice shall be provided to all residences located within 300 feet of extensive compaction activities, including the approximate start date and duration of such compaction activities.	Applicant	C	PSD, DSD

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<p>4.10-3 The proposed project would expose noise-sensitive land uses to noise generated by commercial and recreational activities.</p>	<p>4.10-3(a) During design review for the Village Mixed Use area, the applicant shall demonstrate that outdoor areas associated with residential units will be protected from noise by one or a combination of the following and/or equally effective measures:</p> <ul style="list-style-type: none"> i) Mechanical equipment associated with the commercial uses shall be shielded from view of adjacent residential uses by building parapets or located within mechanical equipment rooms, AND/OR ii) Commercial loading docks located within 300 feet of existing or proposed residences shall be positioned in areas shielded from view of those residences by intervening commercial buildings, AND/OR iii) Solid noise barrier shall be constructed at the boundary of the commercial uses of sufficient height to intercept line of sight between heavy trucks and the affected area of the residential use, AND/OR iv) Truck deliveries shall be limited to daytime hours (7 am – 10 pm). AND/OR v) Signs shall be posted prohibiting idling of delivery trucks to 10 minutes or less. 	<p>Applicant</p>	<p>B</p>	<p>DSD</p>

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	4.10-3(b) For recreational uses, one or a combination of the following shall be used to minimize the effects of outdoor noise on nearby residences during evenings and nighttime: <ul style="list-style-type: none"> <li data-bbox="615 500 1438 667">i) Any outdoor activity areas, such as sports fields or an amphitheater that seat large numbers of spectators and/or include mechanical amplification shall be sited and oriented away from residential areas, and shall be designed so that residential areas are shielded from noise from these sources; AND/OR <li data-bbox="615 678 1438 764">ii) Loudspeakers and other forms of amplification shall not be used in outdoor activity areas after 10 pm; AND/OR <li data-bbox="615 776 1438 862">iii) The City shall place a nuisance easement over residential lots in the vicinity of activity areas that would produce amplified noise in the evening or nighttime. 	Applicant	B	DSD
	4.10-3(c) The City shall place a nuisance easement over residential lots in the vicinity of the Turkey Creek Golf Course pertaining to the use of landscaping and maintenance equipment.	City	O	DSD

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Impact	Mitigation Measures – Programmatic Portion	Responsible Entity	Timing/ Milestone	Monitoring and Enforcement Responsibility
<p>4.10-5 The proposed project could expose future noise-sensitive land uses within the Village 1 Specific Plan area to elevated traffic noise levels.</p>	<p>4.10-5(a) Any residential development proposed within the 60-65 dB Ldn contour distances of Table 4.10-12, as measured from roadway centerline, shall include one of the following measures to ensure traffic noise does not exceed acceptable limits at the exterior and interior spaces of the residences:</p> <ul style="list-style-type: none"> i) The setback from the roadway shall be increased to locate the primary outdoor activity area beyond the 60 dB Ldn contour. OR ii) The primary outdoor activity areas shall be located on portions of the property that are shielded from view of the roadway(s). OR iii) Noise barriers shall be constructed of sufficient height to intercept line of sight between the primary outdoor activity areas and roadway(s) in question. Such barriers could take the form of earthen berms, solid walls, or a combination of the two. OR iv) The residential structures shall be located between the primary outdoor activity area and subject roadway(s). 	Applicant	G	DSD
	<p>4.10-5(b) Air conditioning or mechanical ventilation shall be provided to allow occupants to close doors and windows as desired for acoustical isolation from elevated traffic noise levels.</p>	Applicant	B	DSD

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	4.10-5(c) Any residential development proposed within the 65-70 dB Ldn contour distances of Table 4.10-12, as measured from roadway centerline, shall include all of the following measures in addition to those specified in MM 4.10-5(b) to ensure traffic noise does not exceed acceptable limits at the exterior and interior spaces of the residences: i) Noise barriers shall be designed of sufficient height to reduce exterior noise levels to 60 dB Ldn or less in primary outdoor activity areas. AND ii) All windows and sliding glass doors from which the subject roadways are visible shall have a minimum Sound Transmission Class (STC) rating of 32. AND iii) Exterior wall construction shall be stucco siding, or wood siding with a ¾ inch shear under-layer, or the acoustic equivalent. AND iv) All exterior wall cavities shall be fully insulated.	Applicant	G, B	DSD
4.12 Public Services				
4.12-7 The proposed project would generate demand for park and recreation facilities.	4.12-7 The project applicant shall pay all applicable fair-share fees to the City pursuant to the established Park In-Lieu Fee Program and the applicable Public Facilities Element fees program to fund the provision of recreational facilities to meet demands created by Phase 1 development.	Applicant	B	DSD

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4.13 Public Utilities				
4.13-1 The proposed project would increase the demand for water supplies.	4.13-1(a) Prior to recordation of each Final Map for each subsequent project, the City of Lincoln shall obtain necessary entitlements demonstrating there will be adequate water supply to serve the portion of the proposed project defined on the Final Map, in accordance with Government Code Section 66473.7(a)(1) – SB 221 Written Verification of Water Supply. The commitment for service will require execution of a service order agreement, and the City shall collect necessary fees at the time of building permit issuance.	Applicant	I	DSD, PSD
	4.13-1(b) Prior to the approval of the 1,200th connection to the City’s water system or a demand of 1,500 gpm within Village 1 and/or Village 2, whichever occurs first, the City shall ensure the following four improvements, or equally effective improvements for distribution, have been completed and are operational: <ul style="list-style-type: none"> i) new 30-inch pipeline, to be owned by PCWA, connecting the 42-inch pipeline in the Catta Verdera 5 MG storage tank area to the City Pond Area, ii) new PCWA-owned metering station at the City Pond site, similar to the existing PCWA metering station at the Catta Verdera 5 MG tank site, to provide surface water deliveries to the City from the new 30-inch PCWA pipeline, iii) City-owned 16-inch high pressure pipeline to supply portions of the Catta Verdera development by gravity from the new PCWA metering station at the City Pond site so the current City booster pumping station serving the area can be placed on standby, iv) City-owned 36-inch pipeline that will connect the new PCWA metering station to the existing 24-inch pipeline in Twelve Bridges Drive and the existing 30-inch pipeline to supply the Reservoir 1 tank sites from the new PCWA metering station. 	City	Prior to 1,200 th connection	DSD

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	4.13-1(c) Prior to the cessation of the 2004 Temporary Agreement, the City shall provide for its fair share funding of the design and construction of Phase 1 of the NID RWSP 10-mgd treatment facility and associated storage and transmission facilities. Funding shall be timed to ensure that water from the RWSP will be available at the point at which PCWA no longer treats and conveys NID water under the 2004 Temporary Agreement.	City	Prior to cessation of temporary agreement	
4.13-2 The proposed project would contribute to cumulative increases in demand for treated water supplies and distribution.	4.13-2 Implement Mitigation Measure 4.13-1(b) and (c).	See MM 4.13-1(b)		
4.13-5 The proposed project would contribute to cumulative increases in wastewater generation requiring conveyance to and treatment at the WWTRF.	4.13-5 Prior to approval of the first Final Small Lot Map for the first planning area developed in the programmatic portion of the Village 1 Specific Plan, the City shall ensure the planned expansion of the WWTRF provides adequate capacity to accommodate flows from the programmatic portion of the project site. The project applicants shall pay fair-share cost of required fees to fund the expansion of the WWTRF.	City	I	DSD
4.13-8 The proposed project would use energy for construction and operation.	4.13-8 Implement Mitigation Measures 4.3-1, 4.3-2, 4.6-1, and 4.13-12.	See MMs 4.3-1, 4.3-2, 4.6-1 and 4.13-12		
4.13-12 Construction of the proposed project would generate demolition waste and construction debris.	4.13-12 Prior to issuance of building permits for each individual project, project applicants shall prepare a waste management plan to divert at least 50 percent of the construction materials generated during construction of the particular project to ensure compliance with CALGreen requirements.	Applicant	G	DSD

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4.14 Transportation and Circulation				
4.14-1 The proposed project would increase traffic at intersections within the City of Lincoln.	<p>4.14-1 The City shall construct the following improvements prior to the service level degrading to LOS D and/or when signal warrants are met. These improvements shall be incorporated into the City’s PFE fee program or other appropriate fee program. If there are not enough funds to construct the improvements when they are needed, then the applicant shall provide the necessary funding, subject to reimbursement as PFE fees are collected from City development projects.</p> <ul style="list-style-type: none"> a) Signalize the intersection of Ferrari Ranch Road and Ingram Parkway or widen Ferrari Ranch Road to four through lanes when the LOS approaches D and/or signal warrants are met. b) Signalize the intersection of Ferrari Ranch Road and Sun City Boulevard or, for Phase 1 only, widen Ferrari Ranch Road to four lanes when the LOS approaches D and/or signal warrants are met. <p>4.14-1(c) Signalize the intersection of Twelve Bridges Drive and Sierra College Boulevard when the LOS approaches D and/or signal warrants are met.</p>	City	in accordance with mitigation	DSD, PSD
4.14-3 The proposed project would increase traffic on roadways outside the City of Lincoln.	4.14-3 If and when the Town of Loomis becomes a participant in SPARTA and/or the City and the Town enter into a reciprocal agreement for payment of fees to offset traffic impacts, the proposed project shall contribute its fair share toward the widening of Sierra College Boulevard to four lanes from the Town of Loomis limits to Taylor Road.	City, Loomis	If and when Loomis joins SPARTA and/or enters agreement with the City of Lincoln	DSD

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4.14-4 The proposed project would increase traffic on impact a.m. and p.m. peak hour level of service on freeways under Existing Plus Project conditions.	4.14-4 The City shall work with Caltrans on the timing of an additional mainline lane is constructed on SR 65 northbound between I-80 and Galleria Boulevard.	City, Caltrans	O	PSD
4.14-7 The proposed project would contribute to cumulative increases in traffic at intersections outside the City of Lincoln.	4.14-7(a) The proposed project shall contribute its fair share toward restriping to create a separate westbound right turn lane and northbound acceleration lane at the intersection of Sierra College Boulevard & English Colony Way (2030 and 2050).	Applicant	Payment of SPARTA fees	DSD
	4.14-7(b) If and when the Town of Loomis becomes a participant in SPRTA and/or the City and the Town enter into a reciprocal agreement for payment of fees to offset traffic impacts, the proposed project shall contribute its fair share toward restriping to create a second southbound left turn lane at the intersection of Sierra College Boulevard & King Road (2030 and 2050).	Applicant	If and when Loomis joins SPARTA and/or enters agreement with the City of Lincoln	DSD, PSD
	4.14-7(c) The proposed project shall contribute its fair share toward eliminating southbound U-turns on Wildcat Boulevard and providing a right turn “overlap” signal phase on westbound West Stanford Ranch Road (2030).	Applicant	If and when the cities of Rocklin and Lincoln enter agreement	DSD, PSD
	4.14-7(d) The proposed project shall contribute its fair share toward providing a second eastbound left turn lane on Ranch View Drive at its intersection with Wildcat Boulevard (2030).	Applicant	If and when the cities of Rocklin and Lincoln enter agreement	DSD, PSD

Monitoring Responsibility

DSD = City of Lincoln Development Services Department
 PSD = City of Lincoln Public Services Department
 PCAPCD = Placer County Air Pollution Control District
 CDFG = California Department of Fish and Game
 PCDEHS = Placer County Environmental Health Services
 Corps = U.S. Army Corps of Engineers

Timing of Action

I = Prior to Final Map Approval
 G = Prior to Improvement Plan/Grading Permit Approval.
 P = Pre-Construction/Grading
 C = During Construction/Grading
 O = Prior to Occupancy
 B = Prior to Building Permit

TABLE 5-2

**VILLAGE 1 SPECIFIC PLAN – PROGRAMMATIC PORTION
MITIGATION MONITORING PROGRAM**

Impact	Mitigation Measures – Programmatic Portion	Responsible Entity	Timing/ Milestone	Monitoring and Enforcement Responsibility
4.14-8 The proposed project would contribute to cumulative increases in traffic on local roadways outside the City of Lincoln.	4.14-8 The proposed project shall contribute its fair share toward the widening of Sierra College Boulevard to 6 lanes if and when this improvement is included in the SPARTA fee program (2030 and 2050).	Applicant	If and when improvement is included in SPARTA fee	DSD, PSD
4.14-9 The proposed project would contribute to cumulative increases in traffic levels on freeways.	4.14-9 The proposed project shall contribute its fair share toward the construction of an auxiliary lane on SR 65 Bypass Southbound from Ferrari Ranch Road to Lincoln Boulevard if and when the improvement is added to the SPARTA fee program and/or an agreement for collection of such fees is entered into by the City and Caltrans. (2030)	Applicant	If and when improvement is included in SPARTA fee	DSD, PSD

Monitoring Responsibility

DSD = City of Lincoln Development Services Department
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Timing of Action

I = Prior to Final Map Approval
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Revised Technical Appendix
Intersection Level of Service Worksheets

Village 1 EIR

prepared for
City of Lincoln

prepared by
DKS Associates

August 30, 2012

**INTERSECTION LOS WORKSHEETS
EXISTING CONDITIONS**

Lincoln Village 1
Existing Conditions
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base		Future LOS	Future		Change in
		Del/ Veh	V/ C		Del/ Veh	V/ C	
# 19 Twelve Bridges Dr & SR 65 N/B	A	6.7	0.347	A	6.7	0.347	+ 0.000 D/V
# 20 Twelve Bridges Dr & SR 65 S/B	B	11.7	0.235	B	11.7	0.235	+ 0.000 D/V
# 21 SR 193 & Sierra College Blvd	B	10.9	0.380	B	10.9	0.380	+ 0.000 V/C
# 28 Sierra College Blvd & I-80 W/B	B	15.1	0.325	B	15.1	0.325	+ 0.000 D/V
# 29 Sierra College Blvd & I-80 E/B	B	10.5	0.437	B	10.5	0.437	+ 0.000 D/V

Lincoln Village 1
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.347
 Loss Time (sec): 9 Average Delay (sec/veh): 6.7
 Optimal Cycle: 26 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ignore Include Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
 Base Vol: 28 8 274 0 0 0 94 258 0 0 709 138
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 28 8 274 0 0 0 94 258 0 0 709 138
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.00
 PHF Volume: 30 9 0 0 0 0 102 280 0 0 771 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 30 9 0 0 0 0 102 280 0 0 771 0
 PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 30 9 0 0 0 0 102 280 0 0 771 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 0.98 1.00 1.00 1.00 1.00 0.93 0.93 1.00 1.00 0.93 1.00
 Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
 Final Sat.: 1583 1862 1900 0 0 0 1769 3538 0 0 3538 1900

Capacity Analysis Module:
 Vol/Sat: 0.02 0.00 0.00 0.00 0.00 0.00 0.06 0.08 0.00 0.00 0.22 0.00
 Crit Moves: ****
 Green/Cycle: 0.06 0.06 0.00 0.00 0.00 0.00 0.17 0.79 0.00 0.00 0.63 0.00
 Volume/Cap: 0.35 0.08 0.00 0.00 0.00 0.00 0.35 0.10 0.00 0.00 0.35 0.00
 Delay/Veh: 29.7 27.2 0.0 0.0 0.0 0.0 22.8 1.4 0.0 0.0 5.4 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 29.7 27.2 0.0 0.0 0.0 0.0 22.8 1.4 0.0 0.0 5.4 0.0
 LOS by Move: C C A A A A C A A A A A
 HCM2kAvgQ: 1 0 0 0 0 0 2 1 0 0 4 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.235
Loss Time (sec): 9 Average Delay (sec/veh): 11.7
Optimal Cycle: 23 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control (Protected, Include, Ignore), Rights, Min. Green, Y+R, and Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume. Columns for North, South, East, West Bound.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat. Columns for North, South, East, West Bound.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ. Columns for North, South, East, West Bound.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)
Intersection #21 SR 193 & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.380
Loss Time (sec): 0 Average Delay (sec/veh): 10.9
Optimal Cycle: 0 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control (Stop Sign, Include, Ignore), Rights, Min. Green, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume. Columns for North, South, East, West Bound.

Saturation Flow Module: Adjustment, Lanes, Final Sat. Columns for North, South, East, West Bound.

Capacity Analysis Module: Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApprAdjDel, LOS by Appr, AllWayAvgQ. Columns for North, South, East, West Bound.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.325
Loss Time (sec): 0 Average Delay (sec/veh): 15.1
Optimal Cycle: 34 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 0 0 3 0 1 1 0 0 0 1 2 0 0 1 1

Volume Module:
Base Vol: 0 411 37 0 669 8 0 0 5 573 6 230
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 411 37 0 669 8 0 0 5 573 6 230
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 447 0 0 727 9 0 0 5 623 7 250
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 447 0 0 727 9 0 0 5 623 7 250
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 447 0 0 727 9 0 0 5 623 7 250

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 1.00 0.89 0.83 1.00 1.00 0.83 0.90 0.84 0.84
Lanes: 1.00 3.00 1.00 0.00 3.00 1.00 1.00 0.00 1.00 2.00 0.05 1.95
Final Sat.: 1900 5083 1900 0 5083 1583 1900 0 1583 3432 81 3099

Capacity Analysis Module:
Vol/Sat: 0.00 0.09 0.00 0.00 0.14 0.01 0.00 0.00 0.00 0.18 0.08 0.08
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.44 0.00 0.00 0.44 0.44 0.00 0.00 0.00 0.56 0.56 0.56
Volume/Cap: 0.00 0.20 0.00 0.00 0.32 0.01 0.00 0.00 xxxx 0.32 0.14 0.14
Delay/Veh: 0.0 17.2 0.0 0.0 18.3 15.7 0.0 0.0 0.0 12.0 10.6 10.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 17.2 0.0 0.0 18.3 15.7 0.0 0.0 0.0 12.0 10.6 10.6
LOS by Move: A B A A B B A A A B B B
HCM2kAvgQ: 0 3 0 0 5 0 0 0 0 5 2 2

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.437
Loss Time (sec): 9 Average Delay (sec/veh): 10.5
Optimal Cycle: 31 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 2 0 2 0 1 2 0 2 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 508 1 0 1020 116 184 1 123 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 508 1 0 1020 116 184 1 123 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 552 1 0 1109 0 200 1 134 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 552 1 0 1109 0 200 1 134 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 552 1 0 1109 0 200 1 134 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 0.83 0.97 0.93 1.00 0.81 0.93 0.83 1.00 1.00 1.00
Lanes: 0.00 4.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 1.00 0.00 1.00
Final Sat.: 0 6778 1583 3686 3538 1900 3070 3538 1583 1900 0 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.08 0.00 0.00 0.31 0.00 0.07 0.00 0.08 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.72 0.72 0.00 0.72 0.00 0.19 0.19 0.19 0.00 0.00 0.00
Volume/Cap: 0.00 0.11 0.00 0.00 0.44 0.00 0.34 0.00 0.44 0.00 0.00 0.00
Delay/Veh: 0.0 4.4 4.0 0.0 6.0 0.0 35.2 32.6 36.6 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 4.4 4.0 0.0 6.0 0.0 35.2 32.6 36.6 0.0 0.0 0.0
LOS by Move: A A A A A A A D C D A A A
HCM2kAvgQ: 0 1 0 0 7 0 3 0 4 0 0 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1 SR 65 & Wise Rd	E	36.1	0.110	E	36.1	0.110	+ 0.000 D/V
# 2 SR 65 & Gladding Rd	F	77.8	0.441	F	77.8	0.441	+ 0.000 D/V
# 3 SR 65 & 7th Street	C	31.3	0.859	C	31.3	0.859	+ 0.000 D/V
# 4 SR 65 & SR 193 (McBean Park Dr	E	69.8	1.058	E	69.8	1.058	+ 0.000 D/V
# 5 SR 65 & 1st St	E	65.8	1.086	E	65.8	1.086	+ 0.000 D/V
# 6 SR 65 & Ferrari Ranch Rd	C	24.4	0.720	C	24.4	0.720	+ 0.000 D/V
# 7 SR 65 & Sterling Pkwy	C	21.2	0.960	C	21.2	0.960	+ 0.000 D/V
# 8 Joiner Pkwy & Ferrari Ranch Rd	A xxxxx	0.429		A xxxxx	0.429		+ 0.000 V/C
# 9 Joiner Pkwy & Sterling Pkwy	A xxxxx	0.566		A xxxxx	0.566		+ 0.000 V/C
# 10 E. Lincoln Pkwy & Del Webb (N)	B	11.9	0.481	B	11.9	0.481	+ 0.000 V/C
# 11 E. Lincoln Pkwy & Del Webb (S)	A xxxxx	0.297		A xxxxx	0.297		+ 0.000 V/C
# 12 Ferrari Ranch Rd & Ingram Pkwy	C	18.1	0.787	C	18.1	0.787	+ 0.000 V/C
# 13 Ferrari Ranch Rd & Sun City Bl	B	13.8	0.602	B	13.8	0.602	+ 0.000 V/C
# 14 SR 193 & Ferrari Ranch Rd	C	24.0	0.545	C	24.0	0.545	+ 0.000 D/V
# 15 SR 193 & East Ave	B	15.4	0.669	B	15.4	0.669	+ 0.000 D/V
# 16 SR 193 & Oak Tree Ln	C	20.4	0.046	C	20.4	0.046	+ 0.000 D/V
# 17 Twelve Bridges Dr & Sierra Col	D	32.2	0.229	D	32.2	0.229	+ 0.000 D/V
# 18 Twelve Bridges Dr & E Lincoln	A xxxxx	0.371		A xxxxx	0.371		+ 0.000 V/C
# 19 Twelve Bridges Dr & SR 65 N/B	B	11.6	0.332	B	11.6	0.332	+ 0.000 D/V
# 20 Twelve Bridges Dr & SR 65 S/B	B	10.9	0.305	B	10.9	0.305	+ 0.000 D/V
# 21 SR 193 & Sierra College Blvd	C	22.4	0.855	C	22.4	0.855	+ 0.000 V/C
# 22 Sierra College Blvd & English	B	14.9	0.149	B	14.9	0.149	+ 0.000 D/V
# 23 Sierra College Blvd & King Rd	B	11.7	0.469	B	11.7	0.469	+ 0.000 D/V

Lincoln Village 1
Existing Conditions
PM Peak Hour

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 24 Sierra Collage & Bankhead	C	23.9	0.108	C	23.9	0.108	+ 0.000 D/V
# 25 Sierra College Blvd & Taylor R	C	28.6	0.578	C	28.6	0.578	+ 0.000 D/V
# 26 Sierra College & Brace	B	12.8	0.492	B	12.8	0.492	+ 0.000 D/V
# 27 Sierra College Blvd & Granite	A xxxxx	0.358		A xxxxx	0.358		+ 0.000 V/C
# 28 Sierra College Blvd & I-80 W/B	B	13.9	0.240	B	13.9	0.240	+ 0.000 D/V
# 29 Sierra College Blvd & I-80 E/B	B	12.1	0.280	B	12.1	0.280	+ 0.000 D/V

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 SR 65 & Wise Rd

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: E[36.1]

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 1 0 0 1 0 1 0 0 1 0 0 0 0 1 0 0

Volume Module:

Base Vol:	6 778	4	31 762	1	2	6	15	5	3	31
Growth Adj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6 778	4	31 762	1	2	6	15	5	3	31
User Adj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89 0.89	0.89	0.89 0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	7 874	4	35 856	1	2	7	17	6	3	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0
Final Volume:	7 874	4	35 856	1	2	7	17	6	3	35

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxx	4.1	xxxx	xxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxx	2.2	xxxx	xxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	857	xxxx	xxxx	879	xxxx	xxxx	1835	1819	857	1828	1817	876
Potent Cap.:	771	xxxx	xxxx	756	xxxx	xxxx	59	79	360	60	79	351
Move Cap.:	771	xxxx	xxxx	756	xxxx	xxxx	49	74	360	51	75	351
Volume/Cap:	0.01	xxxx	xxxx	0.05	xxxx	xxxx	0.05	0.09	0.05	0.11	0.05	0.10

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxx	0.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	9.7	xxxx	xxxx	10.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	141	xxxx	xxxx	172	xxxx	xxxx
SharedQueue:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.6	xxxx	xxxx	1.0	xxxx	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	36.1	xxxx	xxxx	33.0	xxxx	xxxx
Shared LOS:	*	*	*	*	*	*	E	*	*	D	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	36.1	xxxxxx	xxxxxx	33.0	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	E	*	*	D	*	*

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 SR 65 & Gladding Rd

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: F[77.8]

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1 0 0 1 0 1 0 0 0 0 0 0 0 1 0 0

Volume Module:

Base Vol:	1 790	80	1 820	0	0	0	0	32	0	2
Growth Adj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1 790	80	1 820	0	0	0	0	32	0	2
User Adj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89 0.89	0.89	0.89 0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	1 888	90	1 921	0	0	0	0	36	0	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0
Final Volume:	1 888	90	1 921	0	0	0	0	36	0	2

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxx	4.1	xxxx	xxxx	xxxx	xxxx	xxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxx	2.2	xxxx	xxxx	xxxx	xxxx	xxxx	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	921	xxxx	xxxx	978	xxxx	xxxx	xxxx	xxxx	xxxx	1858	1858	933
Potent Cap.:	729	xxxx	xxxx	694	xxxx	xxxx	xxxx	xxxx	xxxx	82	74	326
Move Cap.:	729	xxxx	xxxx	694	xxxx	xxxx	xxxx	xxxx	xxxx	81	74	326
Volume/Cap:	0.00	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.44	0.00	0.01

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxx	0.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	9.9	xxxx	xxxx	10.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	85	xxxx	xxxx
SharedQueue:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1.9	xxxx	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	77.8	xxxx	xxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	F	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	77.8	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	*	*	*	F	*	*

Note: Queue reported is the number of cars per lane.

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Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 SR 65 & 7th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.859
Loss Time (sec): 9 Average Delay (sec/veh): 31.3
Optimal Cycle: 85 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	9	0	4	9	0	4	9	0	4	9	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	71	669	37	40	753	58	35	122	50	28	143	145
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	669	37	40	753	58	35	122	50	28	143	145
User Adj:	1.00	1.12	1.00	1.00	1.17	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	74	781	39	42	918	60	36	127	52	29	149	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	781	39	42	918	60	36	127	52	29	149	151
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	74	781	39	42	918	60	36	127	52	29	149	151

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.81	0.85	0.85	0.81	0.85	0.85	0.86	0.86	0.86	0.86	0.90	0.77
Lanes:	1.00	0.95	0.05	1.00	0.94	0.06	1.00	0.71	0.29	1.00	1.00	1.00
Final Sat.:	1547	1540	76	1547	1514	100	1625	1160	475	1625	1710	1454

Capacity Analysis Module:

Vol/Sat:	0.05	0.51	0.51	0.03	0.61	0.61	0.02	0.11	0.11	0.02	0.09	0.10
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.05	0.69	0.69	0.05	0.69	0.69	0.05	0.12	0.12	0.04	0.12	0.12
Volume/Cap:	0.88	0.73	0.73	0.49	0.88	0.88	0.49	0.88	0.88	0.45	0.73	0.87
Delay/Veh:	106.3	12.3	12.3	50.4	20.3	20.3	51.6	75.2	75.2	51.8	55.3	78.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	106.3	12.3	12.3	50.4	20.3	20.3	51.6	75.2	75.2	51.8	55.3	78.6
LOS by Move:	F	E	E	D	C	C	D	E	E	D	E	E
HCM2kAvgQ:	5	17	17	2	27	27	2	8	8	1	6	7

Note: Queue reported is the number of cars per lane.

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Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 SR 65 & SR 193 (McBean Park Dr)

Cycle (sec): 120 Critical Vol./Cap.(X): 1.058
Loss Time (sec): 9 Average Delay (sec/veh): 69.8
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	4	9	0	4	9	0	4	4	0	4	9	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	0	0	1	0	1	0

Volume Module:

Base Vol:	4	838	78	108	782	1	1	2	11	174	2	104
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	838	78	108	782	1	1	2	11	174	2	104
User Adj:	1.00	1.08	1.02	1.26	1.16	1.00	1.00	1.00	1.00	1.04	1.00	1.40
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	4	984	86	148	986	1	1	2	12	197	2	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	984	86	148	986	1	1	2	12	197	2	158
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	984	86	148	986	1	1	2	12	197	2	158

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.81	0.76	0.76	0.81	0.77	0.77	0.68	0.68	0.68	0.82	0.82	0.65
Lanes:	1.00	0.92	0.08	1.00	0.99	0.01	0.07	0.14	0.79	0.99	0.01	1.00
Final Sat.:	1547	1323	116	1547	1455	2	93	185	1019	1534	17	1238

Capacity Analysis Module:

Vol/Sat:	0.00	0.74	0.74	0.10	0.68	0.68	0.01	0.01	0.01	0.13	0.13	0.13
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.04	0.69	0.69	0.09	0.74	0.74	0.03	0.03	0.03	0.12	0.12	0.12
Volume/Cap:	0.08	1.08	1.08	1.08	0.92	0.92	0.35	0.35	0.35	1.08	1.08	1.08
Delay/Veh:	56.5	73.4	73.4	156.3	25.2	25.2	61.6	61.6	61.6	143.8	144	150.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.5	73.4	73.4	156.3	25.2	25.2	61.6	61.6	61.6	143.8	144	150.8
LOS by Move:	E	E	E	F	C	C	E	E	E	F	F	F
HCM2kAvgQ:	0	54	54	10	34	34	1	1	1	13	13	11

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 SR 65 & 1st St

Cycle (sec): 120 Critical Vol./Cap.(X): 1.086
Loss Time (sec): 9 Average Delay (sec/veh): 65.8
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes values for Min. Green, Y+R, and Lanes.

Volume Module: Table with 4 columns (Approaches) and 3 rows (Movements). Includes Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with 4 columns (Approaches) and 3 rows (Movements). Includes Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 4 columns (Approaches) and 3 rows (Movements). Includes Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 SR 65 & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.720
Loss Time (sec): 12 Average Delay (sec/veh): 24.4
Optimal Cycle: 62 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes values for Min. Green, Y+R, and Lanes.

Volume Module: Table with 4 columns (Approaches) and 3 rows (Movements). Includes Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with 4 columns (Approaches) and 3 rows (Movements). Includes Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 4 columns (Approaches) and 3 rows (Movements). Includes Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

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 Lincoln Village 1
 Existing Conditions
 PM Peak Hour

 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #7 SR 65 & Sterling Pkwy

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.960
 Loss Time (sec): 9 Average Delay (sec/veh): 21.2
 Optimal Cycle: 147 Level Of Service: C

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 1

 Volume Module:
 Base Vol: 0 1518 1037 33 1144 0 0 0 0 508 0 24
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1518 1037 33 1144 0 0 0 0 508 0 24
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
 PHF Volume: 0 1581 1080 34 1192 0 0 0 0 529 0 25
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1581 1080 34 1192 0 0 0 0 529 0 25
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1581 1080 34 1192 0 0 0 0 529 0 25

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.90 0.81 0.90 0.90 1.00 1.00 1.00 1.00 0.92 1.00 0.85
 Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
 Final Sat.: 0 3437 1537 1718 3437 0 0 0 0 3502 0 1615

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.46 0.70 0.02 0.35 0.00 0.00 0.00 0.00 0.15 0.00 0.02
 Crit Moves: **** **
 Green/Cycle: 0.00 0.73 0.73 0.02 0.75 0.00 0.00 0.00 0.00 0.16 0.00 0.16
 Volume/Cap: 0.00 0.63 0.96 0.96 0.46 0.00 0.00 0.00 0.00 0.96 0.00 0.10
 Delay/Veh: 0.0 7.2 30.1 182.8 4.8 0.0 0.0 0.0 0.0 70.3 0.0 36.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 7.2 30.1 182.8 4.8 0.0 0.0 0.0 0.0 70.3 0.0 36.2
 LOS by Move: A A C F A A A A E A D
 HCM2kAvgQ: 0 13 36 3 7 0 0 0 0 13 0 1

 Note: Queue reported is the number of cars per lane.

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 Lincoln Village 1
 Existing Conditions
 PM Peak Hour

 Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #8 Joiner Pkwy & Ferrari Ranch Rd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.429
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 40 Level Of Service: A

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Ignore Ignore Ignore Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 2 0 1 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1

 Volume Module:
 Base Vol: 144 171 228 52 229 63 51 386 41 429 797 38
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 144 171 228 52 229 63 51 386 41 429 797 38
 User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
 PHF Volume: 144 171 0 52 229 0 51 386 0 429 797 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 144 171 0 52 229 0 51 386 0 429 797 0
 PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
 MLF Adj: 1.10 1.00 0.00 1.10 1.00 0.00 1.00 1.00 0.00 1.10 1.00 0.00
 FinalVolume: 158 171 0 57 229 0 51 386 0 472 797 0

 Saturation Flow Module:
 Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
 Final Sat.: 3000 3000 1500 3000 3000 1500 1500 3000 1500 3000 3000 1500

 Capacity Analysis Module:
 Vol/Sat: 0.05 0.06 0.00 0.02 0.08 0.00 0.03 0.13 0.00 0.16 0.27 0.00
 Crit Volume: 79 114 51 399
 Crit Moves: **** **

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Joiner Pkwy & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.566
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 53 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Volume, Crit Moves.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #10 E. Lincoln Pkwy & Del Webb (N)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.481
Loss Time (sec): 0 Average Delay (sec/veh): 11.9
Optimal Cycle: 0 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, AllWayAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 E. Lincoln Pkwy & Del Webb (S)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.297
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 0 1 1 0 0 1 0

Volume Module:
Base Vol: 3 244 156 65 199 13 29 17 5 119 9 55
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 3 244 156 65 199 13 29 17 5 119 9 55
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 3 244 156 65 199 13 29 17 5 119 9 55
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 3 244 156 65 199 13 29 17 5 119 9 55
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 3 244 156 65 199 13 29 17 5 119 9 55

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.94 0.06 1.00 1.00 1.00 1.00 0.14 0.86
Final Sat.: 1500 1500 1500 1500 1408 92 1500 1500 1500 1500 211 1289

Capacity Analysis Module:
Vol/Sat: 0.00 0.16 0.10 0.04 0.14 0.14 0.02 0.01 0.00 0.08 0.04 0.04
Crit Volume: 244 65 17 119
Crit Moves: **** **

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #12 Ferrari Ranch Rd & Ingram Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.787
Loss Time (sec): 0 Average Delay (sec/veh): 18.1
Optimal Cycle: 0 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0 0

Volume Module:
Base Vol: 59 0 25 0 0 0 0 0 511 98 30 358 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 59 0 25 0 0 0 0 0 511 98 30 358 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume: 63 0 27 0 0 0 0 0 544 104 32 381 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 63 0 27 0 0 0 0 0 544 104 32 381 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 63 0 27 0 0 0 0 0 544 104 32 381 0

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 467 0 551 0 0 0 0 0 691 786 597 660 0

Capacity Analysis Module:
Vol/Sat: 0.13 xxxx 0.05 xxxx xxxx xxxx xxxx 0.79 0.13 0.05 0.58 xxxx
Crit Moves: **** **
Delay/Veh: 10.9 0.0 9.0 0.0 0.0 0.0 0.0 24.0 7.9 8.9 15.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.9 0.0 9.0 0.0 0.0 0.0 0.0 24.0 7.9 8.9 15.0 0.0
LOS by Move: B * A * * * * C A A B *
ApproachDel: 10.4 xxxxxx 21.4 14.5
Delay Adj: 1.00 xxxxxx 1.00 1.00
ApprAdjDel: 10.4 xxxxxx 21.4 14.5
LOS by Appr: B * * * C B
AllWayAvgQ: 0.1 0.0 0.0 0.0 0.0 0.0 0.0 3.1 0.1 0.1 1.3 0.0

Note: Queue reported is the number of cars per lane.

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Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #13 Ferrari Ranch Rd & Sun City Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.602
Loss Time (sec): 0 Average Delay (sec/veh): 13.8
Optimal Cycle: 0 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	1	0	0	0	0	1	0	0

Volume Module:

Base Vol:	0	362	172	66	273	0	0	0	0	117	0	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	362	172	66	273	0	0	0	0	117	0	59
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	389	185	71	294	0	0	0	0	126	0	63
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	389	185	71	294	0	0	0	0	126	0	63
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	389	185	71	294	0	0	0	0	126	0	63

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.00	1.00	0.19	0.81	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	647	738	124	514	0	0	0	0	483	0	574

Capacity Analysis Module:

Vol/Sat:	xxxx	0.60	0.25	0.57	0.57	xxxx	xxxx	xxxx	xxxx	0.26	xxxx	0.11
Crit Moves:	****			****						****		
Delay/Veh:	0.0	15.9	9.1	15.5	15.5	0.0	0.0	0.0	0.0	12.0	0.0	9.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	15.9	9.1	15.5	15.5	0.0	0.0	0.0	0.0	12.0	0.0	9.2
LOS by Move:	*	C	A	C	C	*	*	*	*	B	*	A
ApproachDel:	13.7			15.5		xxxxxx				11.1		
Delay Adj:	1.00			1.00		xxxxxx				1.00		
ApprAdjDel:	13.7			15.5		xxxxxx				11.1		
LOS by Appr:	B			C		*				B		A
AllWayAvgQ:	0.0	1.4	0.3	1.2	1.2	1.2	0.0	0.0	0.0	0.3	0.0	0.1

Note: Queue reported is the number of cars per lane.

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Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 SR 193 & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.545
Loss Time (sec): 9 Average Delay (sec/veh): 24.0
Optimal Cycle: 37 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0	0	0	0	0	0	1	0	1	0

Volume Module:

Base Vol:	292	0	141	0	0	0	0	316	178	157	452	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	292	0	141	0	0	0	0	316	178	157	452	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	311	0	150	0	0	0	0	336	189	167	481	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	311	0	150	0	0	0	0	336	189	167	481	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	311	0	150	0	0	0	0	336	189	167	481	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.81	0.90	0.95	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Final Sat.:	1461	0	1615	0	0	0	0	1809	1537	1718	1809	0

Capacity Analysis Module:

Vol/Sat:	0.21	0.00	0.09	0.00	0.00	0.00	0.00	0.19	0.12	0.10	0.27	0.00
Crit Moves:	****			****						****		
Green/Cycle:	0.39	0.00	0.39	0.00	0.00	0.00	0.00	0.34	0.34	0.18	0.52	0.00
Volume/Cap:	0.54	0.00	0.24	0.00	0.00	0.00	0.00	0.54	0.36	0.54	0.51	0.00
Delay/Veh:	24.7	0.0	20.7	0.0	0.0	0.0	0.0	27.7	25.2	39.4	16.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.7	0.0	20.7	0.0	0.0	0.0	0.0	27.7	25.2	39.4	16.2	0.0
LOS by Move:	C	A	C	A	A	A	A	C	C	D	B	A
HCM2kAvgQ:	8	0	3	0	0	0	0	9	5	5	10	0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 SR 193 & East Ave

Cycle (sec): 60 Critical Vol./Cap.(X): 0.669
Loss Time (sec): 9 Average Delay (sec/veh): 15.4
Optimal Cycle: 43 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 1 0 0 1 0 1 0 1 0 1

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 1 0 0 1 0 1 0 1 0 1

Volume Module:

Base Vol: 0 0 0 263 0 136 105 243 0 1 273 478
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 263 0 136 105 243 0 1 273 478
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 0 0 289 0 149 115 267 0 1 300 525
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 289 0 149 115 267 0 1 300 525
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 289 0 149 115 267 0 1 300 525

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.90 0.95 1.00 0.90 0.95 0.81
Lanes: 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
Final Sat.: 0 1900 0 1809 0 1615 1718 1809 0 1718 1809 1537

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.16 0.00 0.09 0.07 0.15 0.00 0.00 0.17 0.34
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.24 0.00 0.24 0.10 0.61 0.00 0.00 0.51 0.51
Volume/Cap: 0.00 0.00 0.00 0.67 0.00 0.39 0.67 0.24 0.00 0.24 0.32 0.67
Delay/Veh: 0.0 0.0 0.0 24.7 0.0 19.8 35.7 5.5 0.0 55.9 8.8 13.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 24.7 0.0 19.8 35.7 5.5 0.0 55.9 8.8 13.1
LOS by Move: A A A C A B D A A E A B
HCM2kAvgQ: 0 0 0 6 0 3 3 2 0 0 3 8

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #16 SR 193 & Oak Tree Ln

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C [20.4]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0

Volume Module:
Base Vol: 10 0 1 0 0 0 0 0 452 7 2 588 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 10 0 1 0 0 0 0 0 452 7 2 588 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume: 11 0 1 0 0 0 0 0 481 7 2 626 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 11 0 1 0 0 0 0 0 481 7 2 626 0

Critical Gap Module:

Critical Gp: 6.4 6.5 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 2.2 xxxxx xxxxxx

Capacity Module:

Cnflct Vol: 1114 1114 485 xxxx xxxx xxxxxx xxxxx xxxx xxxxxx 488 xxxxx xxxxxx
Potent Cap.: 232 210 586 xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 1059 xxxxx xxxxxx
Move Cap.: 232 209 586 xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 1059 xxxxx xxxxxx
Volume/Cap: 0.05 0.00 0.00 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.00 xxxxx xxxxx

Level Of Service Module:

2Way95thQ: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx
Control Del: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 8.4 xxxxx xxxxxx
LOS by Move: * * * * * * * * * * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 245 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
SharedQueue: xxxxxx 0.1 xxxxxx xxxxxx xxxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Shrd ConDel: xxxxxx 20.4 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shared LOS: * C * * * * * * * * * * * * * * * * * * * * * *
ApproachDel: 20.4 xxxxxxxx xxxxxxxx xxxxxxxx
ApproachLOS: C * * * * * * * * * * * * * * * * * * * * * *

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 Twelve Bridges Dr & Sierra College Bl

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: D[32.2]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Ignore Include Ignore Include
Lanes: 1 0 1 0 0 0 0 1 0 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 207 497 0 0 223 43 36 0 123 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 207 497 0 0 223 43 36 0 123 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.92
PHF Volume: 225 540 0 0 242 47 39 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 225 540 0 0 242 47 39 0 0 0 0 0

Critical Gap Module:
Critical Gp: 4.1 xxx xxx xxx xxx xxx 6.4 xxx 6.2 xxx xxx xxx
FollowUpTim: 2.2 xxx xxx xxx xxx xxx 3.5 xxx 3.3 xxx xxx xxx

Capacity Module:
Cnflct Vol: 289 xxx xxx xxx xxx 1233 xxx 242 xxx xxx xxx
Potent Cap.: 1284 xxx xxx xxx xxx 197 xxx 801 xxx xxx xxx
Move Cap.: 1284 xxx xxx xxx xxx 171 xxx 801 xxx xxx xxx
Volume/Cap: 0.18 xxx xxx xxx xxx 0.23 xxx 0.00 xxx xxx xxx

Level Of Service Module:
2Way95thQ: 0.6 xxx xxx xxx xxx 0.8 xxx xxx xxx xxx
Control Del: 8.4 xxx xxx xxx xxx 32.2 xxx xxx xxx xxx
LOS by Move: A * * * * D * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx
SharedQueue: xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx
Shrd ConDel: xxx xxx xxx xxx xxx xxx xxx xxx xxx xxx
Shared LOS: * * * * *
ApproachDel: xxx xxx xxx xxx 32.2 xxx xxx
ApproachLOS: * * * * D * * * *

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #18 Twelve Bridges Dr & E Lincoln Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.371
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module:
Base Vol: 17 152 114 88 137 106 213 390 18 116 206 81
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 17 152 114 88 137 106 213 390 18 116 206 81
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 17 152 114 88 137 106 213 390 18 116 206 81
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 17 152 114 88 137 106 213 390 18 116 206 81
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 17 152 114 88 137 106 213 390 18 116 206 81

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1500 1500 1500 1500 1500 1500 1500 3000 1500 1500 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.01 0.10 0.08 0.06 0.09 0.07 0.14 0.13 0.01 0.08 0.07 0.05
Crit Volume: 152 88 213 103
Crit Moves: **** * * * * * * * *

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.332
Loss Time (sec): 9 Average Delay (sec/veh): 11.6
Optimal Cycle: 26 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
Base Vol: 59 3 467 0 0 0 199 244 0 0 408 163
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 59 3 467 0 0 0 199 244 0 0 408 163
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.00
PHF Volume: 64 3 0 0 0 0 216 265 0 0 443 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 64 3 0 0 0 0 216 265 0 0 443 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 64 3 0 0 0 0 216 265 0 0 443 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.85 1.00 1.00 1.00 1.00 1.00 0.95 0.95 1.00 1.00 0.95 1.00
Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 1615 1900 1900 0 0 0 1805 3610 0 0 3610 1900

Capacity Analysis Module:
Vol/Sat: 0.04 0.00 0.00 0.00 0.00 0.00 0.12 0.07 0.00 0.00 0.12 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.12 0.12 0.00 0.00 0.00 0.00 0.36 0.73 0.00 0.00 0.37 0.00
Volume/Cap: 0.33 0.01 0.00 0.00 0.00 0.00 0.33 0.10 0.00 0.00 0.33 0.00
Delay/Veh: 25.2 23.3 0.0 0.0 0.0 0.0 14.2 2.4 0.0 0.0 13.7 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 25.2 23.3 0.0 0.0 0.0 0.0 14.2 2.4 0.0 0.0 13.7 0.0
LOS by Move: C C A A A A B A A A B A
HCM2kAvgQ: 1 0 0 0 0 0 3 1 0 0 3 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.305
Loss Time (sec): 9 Average Delay (sec/veh): 10.9
Optimal Cycle: 25 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1

Volume Module:
Base Vol: 0 0 0 126 0 87 26 331 0 0 124 354
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 126 0 87 26 331 0 0 124 354
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.00
PHF Volume: 0 0 0 134 0 93 28 352 0 0 132 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 134 0 93 28 352 0 0 132 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 134 0 93 28 352 0 0 132 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1805 0 1615 1805 1900 0 0 1900 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.07 0.00 0.06 0.02 0.19 0.00 0.00 0.07 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.00 0.00 0.24 0.00 0.24 0.11 0.61 0.00 0.00 0.50 0.00
Volume/Cap: 0.00 0.00 0.00 0.31 0.00 0.24 0.14 0.31 0.00 0.00 0.14 0.00
Delay/Veh: 0.0 0.0 0.0 19.0 0.0 18.5 24.5 5.8 0.0 0.0 8.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 19.0 0.0 18.5 24.5 5.8 0.0 0.0 8.2 0.0
LOS by Move: A A A B A B C A A A A A
HCM2kAvgQ: 0 0 0 2 0 2 1 3 0 0 1 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #21 SR 193 & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.855
Loss Time (sec): 0 Average Delay (sec/veh): 22.4
Optimal Cycle: 0 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0
Lanes: 0 0 1! 0 0 0 0 0 0 1 0 0 0 1 0

Volume Module:
Base Vol: 394 1 123 0 0 1 2 216 199 71 202 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 394 1 123 0 0 1 2 216 199 71 202 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 424 1 132 0 0 1 2 232 0 76 217 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 424 1 132 0 0 1 2 232 0 76 217 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 424 1 132 0 0 1 2 232 0 76 217 0

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.76 0.01 0.23 0.00 0.00 1.00 0.01 0.99 1.00 1.00 1.00 0.00
Final Sat.: 496 1 155 0 0 541 5 508 568 485 520 0

Capacity Analysis Module:
Vol/Sat: 0.85 0.85 0.85 xxxx xxxx 0.00 0.46 0.46 0.00 0.16 0.42 xxxx
Crit Moves: **** **
Delay/Veh: 30.9 30.9 30.9 0.0 0.0 8.9 14.4 14.4 0.0 11.0 13.6 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 30.9 30.9 30.9 0.0 0.0 8.9 14.4 14.4 0.0 11.0 13.6 0.0
LOS by Move: D D D * * A B B * B B *
ApproachDel: 30.9 8.9 14.4 12.9
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 30.9 8.9 14.4 12.9
LOS by Appr: D A B B
AllWayAvgQ: 4.1 4.1 4.1 0.0 0.0 0.0 0.7 0.7 0.0 0.2 0.6 0.6

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #22 Sierra College Blvd & English Colony Way

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B [14.9]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 1 0 1 0 0 0 0 0 0 1! 0 0

Volume Module:
Base Vol: 0 612 4 48 321 0 0 0 0 3 0 62
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 612 4 48 321 0 0 0 0 3 0 62
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 673 4 53 353 0 0 0 0 3 0 68
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 673 4 53 353 0 0 0 0 3 0 68

Critical Gap Module:
Critical Gp:xxxx xxxx xxxx 4.1 xxxx xxxx xxxx xxxx 6.4 6.5 6.2
FollowUpTim:xxxx xxxx xxxx 2.2 xxxx xxxx xxxx xxxx 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: xxxx xxxx xxxx 677 xxxx xxxx xxxx xxxx 1133 1133 675
Potent Cap.: xxxx xxxx xxxx 924 xxxx xxxx xxxx xxxx 226 205 458
Move Cap.: xxxx xxxx xxxx 924 xxxx xxxx xxxx xxxx 217 193 458
Volume/Cap: xxxx xxxx xxxx 0.06 xxxx xxxx xxxx xxxx 0.02 0.00 0.15

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxx 0.2 xxxx xxxx xxxx xxxx xxxx
Control Del:xxxx xxxx xxxx 9.1 xxxx xxxx xxxx xxxx xxxx
LOS by Move: * * * A * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 435 xxxx
SharedQueue:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.6 xxxx
Shrd ConDel:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 14.9 xxxx
Shared LOS: * * * * * * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx 14.9
ApproachLOS: * * * * * * * * * * * * * * *
Note: Queue reported is the number of cars per lane.

Note: Queue reported is the number of cars per lane.

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Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sierra College Blvd & King Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.469
Loss Time (sec):	9	Average Delay (sec/veh):	11.7
Optimal Cycle:	32	Level Of Service:	B

Approach:		North Bound		South Bound		East Bound		West Bound	
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Permitted	Permitted					
Rights:	Include	Include	Include	Include					
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 0 1 0	1 0 0 1 0	0 0 1 1 0 0	0 0 1 1 0 0	0 0 1 1 0 0	0 0 1 1 0 0	0 0 1 1 0 0	0 0 1 1 0 0	0 0 1 1 0 0

Volume Module:

Base Vol:	4	578	22	77	402	8	3	7	9	31	10	50
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	578	22	77	402	8	3	7	9	31	10	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	4	590	22	79	410	8	3	7	9	32	10	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	590	22	79	410	8	3	7	9	32	10	51
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	590	22	79	410	8	3	7	9	32	10	51

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.99	0.99	0.95	1.00	1.00	0.90	0.90	0.90	0.83	0.83	0.83
Lanes:	1.00	0.96	0.04	1.00	0.98	0.02	0.16	0.37	0.47	0.34	0.11	0.55
Final Sat.:	1805	1819	69	1805	1857	37	270	631	811	536	173	865

Capacity Analysis Module:

Vol/Sat:	0.00	0.32	0.32	0.04	0.22	0.22	0.01	0.01	0.01	0.06	0.06	0.06
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.01	0.69	0.69	0.09	0.78	0.78	0.13	0.13	0.13	0.13	0.13	0.13
Volume/Cap:	0.28	0.47	0.47	0.47	0.28	0.28	0.09	0.09	0.09	0.47	0.47	0.47
Delay/Veh:	59.9	7.3	7.3	45.1	3.3	3.3	38.8	38.8	38.8	42.4	42.4	42.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	59.9	7.3	7.3	45.1	3.3	3.3	38.8	38.8	38.8	42.4	42.4	42.4
LOS by Move:	E	A	A	D	A	A	D	D	D	D	D	D
HCM2kAvgQ:	0	9	9	3	4	4	1	1	1	3	3	3

Note: Queue reported is the number of cars per lane.

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Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #24 Sierra Collage & Bankhead

Average Delay (sec/veh):	0.7	Worst Case Level Of Service:	C [23.9]
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Approach:		North Bound		South Bound		East Bound		West Bound	
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled					
Rights:	Include	Include	Include	Include					
Lanes:	0 0 1 0 0	1 0 0 0 0	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0	0 0 1 0 0

Volume Module:

Base Vol:	1	1	10	23	0	0	2	307	2	7	661	48
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	1	10	23	0	0	2	307	2	7	661	48
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	1	10	23	0	0	2	307	2	7	661	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	1	10	23	0	0	2	307	2	7	661	48

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	xxxx	xxxxx	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	xxxx	xxxxx	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1011	1035	308	1017	xxxx	xxxxx	709	xxxx	xxxxx	309	xxxx	xxxxx
Potent Cap.:	220	234	737	218	xxxx	xxxxx	899	xxxx	xxxxx	1263	xxxx	xxxxx
Move Cap.:	219	232	737	213	xxxx	xxxxx	899	xxxx	xxxxx	1263	xxxx	xxxxx
Volume/Cap:	0.00	0.00	0.01	0.11	xxxx	xxxxx	0.00	xxxx	xxxxx	0.01	xxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	23.9	xxxx	xxxxx	9.0	xxxx	xxxxx	7.9	xxxx	xxxxx
LOS by Move:	*	*	*	C	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	534	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shrd ConDel:	xxxxx	11.9	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	*	*	*
ApproachDel:	11.9			23.9			xxxxxx			xxxxxx		
ApproachLOS:	B			C			*			*		

Note: Queue reported is the number of cars per lane.

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 Lincoln Village 1
 Existing Conditions
 PM Peak Hour

 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #25 Sierra College Blvd & Taylor Rd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.578
 Loss Time (sec): 8 Average Delay (sec/veh): 28.6
 Optimal Cycle: 37 Level Of Service: C

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1

 Volume Module:
 Base Vol: 82 456 187 20 238 79 140 274 103 150 244 40
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 82 456 187 20 238 79 140 274 103 150 244 40
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
 PHF Volume: 91 507 208 22 264 88 156 304 114 167 271 44
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 91 507 208 22 264 88 156 304 114 167 271 44
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 91 507 208 22 264 88 156 304 114 167 271 44

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85
 Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 1805 1900 1615 1805 1900 1615 1805 1900 1615 1805 1900 1615

 Capacity Analysis Module:
 Vol/Sat: 0.05 0.27 0.13 0.01 0.14 0.05 0.09 0.16 0.07 0.09 0.14 0.03
 Crit Moves: **** **** **** ****
 Green/Cycle: 0.13 0.46 0.46 0.02 0.35 0.35 0.16 0.28 0.28 0.16 0.27 0.27
 Volume/Cap: 0.39 0.58 0.28 0.58 0.39 0.15 0.52 0.58 0.26 0.58 0.52 0.10
 Delay/Veh: 41.1 20.7 16.8 68.4 24.6 22.2 39.9 32.7 28.4 41.8 31.8 27.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 41.1 20.7 16.8 68.4 24.6 22.2 39.9 32.7 28.4 41.8 31.8 27.3
 LOS by Move: D C E E C D C D C C
 HCM2kAvgQ: 3 12 4 2 6 2 5 9 3 6 7 1

 Note: Queue reported is the number of cars per lane.

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 Lincoln Village 1
 Existing Conditions
 PM Peak Hour

 Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #26 Sierra College & Brace

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.492
 Loss Time (sec): 8 Average Delay (sec/veh): 12.8
 Optimal Cycle: 31 Level Of Service: B

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Protected Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 1 0 1 1 0 1 0 0 0 0 0 0 1 1 0 0 0 1

 Volume Module:
 Base Vol: 0 678 105 83 386 0 0 0 73 62 0 80
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 678 105 83 386 0 0 0 73 62 0 80
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 678 105 83 386 0 0 0 73 62 0 80
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 678 105 83 386 0 0 0 73 62 0 80
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 678 105 83 386 0 0 0 73 62 0 80

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 0.85 0.95 1.00 1.00 1.00 1.00 0.87 0.77 1.00 0.85
 Lanes: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 1.00
 Final Sat.: 0 1900 1615 1805 1900 0 0 0 1644 1461 0 1615

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.36 0.07 0.05 0.20 0.00 0.00 0.00 0.04 0.04 0.00 0.05
 Crit Moves: **** **** **** ****
 Green/Cycle: 0.00 0.73 0.73 0.09 0.82 0.00 0.00 0.00 0.10 0.10 0.00 0.10
 Volume/Cap: 0.00 0.49 0.09 0.49 0.25 0.00 0.00 0.00 0.44 0.42 0.00 0.49
 Delay/Veh: 0 6.1 4.1 45.3 2.1 0 0 0 44.2 44.2 0 44.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0 6.1 4.1 45.3 2.1 0 0 0 44.2 44.2 0 44.9
 LOS by Move: A A A D A A A A D D A D
 HCM2kAvgQ: 0 9 1 3 3 0 0 0 3 2 0 3

 Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #27 Sierra College Blvd & Granite Dr

Cycle (sec): 100 Critical Vol./Cap.(X): 0.358
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 0 1

Volume Module:
Base Vol: 105 550 64 62 406 88 130 32 159 113 25 32
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 105 550 64 62 406 88 130 32 159 113 25 32
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 105 550 64 62 406 88 130 32 159 113 25 32
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 105 550 64 62 406 88 130 32 159 113 25 32
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00
FinalVolume: 105 550 64 62 406 88 130 32 175 113 25 32

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 1500 3000 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.07 0.18 0.04 0.04 0.14 0.06 0.09 0.02 0.06 0.08 0.02 0.02
Crit Volume: 275 62 87 113
Crit Moves: **** **** **** ****

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.240
Loss Time (sec): 0 Average Delay (sec/veh): 13.9
Optimal Cycle: 30 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 0 0 3 0 1 1 0 0 0 1 2 0 0 1 1

Volume Module:
Base Vol: 7 573 61 0 650 8 7 0 14 291 6 176
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 7 573 61 0 650 8 7 0 14 291 6 176
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 8 623 0 0 707 9 8 0 15 316 7 191
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 8 623 0 0 707 9 8 0 15 316 7 191
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 8 623 0 0 707 9 8 0 15 316 7 191

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 1.00 1.00 0.91 0.85 0.95 1.00 0.85 0.92 0.86 0.86
Lanes: 1.00 3.00 1.00 0.00 3.00 1.00 1.00 0.00 1.00 2.00 0.07 1.93
Final Sat.: 1805 5187 1900 0 5187 1615 1805 0 1615 3502 107 3142

Capacity Analysis Module:
Vol/Sat: 0.00 0.12 0.00 0.00 0.14 0.01 0.00 0.00 0.01 0.09 0.06 0.06
Crit Moves: **** ****
Green/Cycle: 0.02 0.58 0.00 0.00 0.57 0.57 0.03 0.00 0.04 0.38 0.39 0.39
Volume/Cap: 0.24 0.21 0.00 0.00 0.24 0.01 0.16 0.00 0.24 0.24 0.16 0.16
Delay/Veh: 52.4 9.8 0.0 0.0 10.9 9.4 49.1 0.0 48.6 21.5 20.0 20.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.4 9.8 0.0 0.0 10.9 9.4 49.1 0.0 48.6 21.5 20.0 20.0
LOS by Move: D A A A B A D A D C B B
HCM2kAvgQ: 0 3 0 0 4 0 0 0 1 3 2 2

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.280
Loss Time (sec): 9 Average Delay (sec/veh): 12.1
Optimal Cycle: 25 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 2 0 2 0 1 2 0 2 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 758 2 2 577 198 262 1 40 0 0 2
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 758 2 2 577 198 262 1 40 0 0 2
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 824 2 2 627 0 285 1 43 0 0 2
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 824 2 2 627 0 285 1 43 0 0 2
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 824 2 2 627 0 285 1 43 0 0 2

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 0.92 0.95 1.00 0.92 0.95 0.85 1.00 1.00 0.85
Lanes: 0.00 4.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 1.00 0.00 1.00
Final Sat.: 0 6916 1615 3502 3610 1900 3502 3610 1615 1900 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.12 0.00 0.00 0.17 0.00 0.08 0.00 0.03 0.00 0.00 0.00
Crit Moves: **** **** ****
Green/Cycle: 0.00 0.62 0.62 0.00 0.62 0.00 0.29 0.29 0.29 0.00 0.00 0.00
Volume/Cap: 0.00 0.19 0.00 0.19 0.28 0.00 0.28 0.00 0.09 0.00 0.00 xxxx
Delay/Veh: 0.0 8.4 7.4 58.0 8.8 0.0 27.6 25.2 26.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.4 7.4 58.0 8.8 0.0 27.6 25.2 26.0 0.0 0.0 0.0
LOS by Move: A A A E A A C C C A A A
HCM2kAvgQ: 0 3 0 0 5 0 4 0 1 0 0 0

Note: Queue reported is the number of cars per lane.

**INTERSECTION LOS WORKSHEETS
EXISTING PLUS VILLAGE 1 BUILDOUT CONDITIONS**

Lincoln Village 1
Existing Plus Village 1 Buildout
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	LOS	Base		LOS	Future		Change in
		Del/ Veh	V/ C		Del/ Veh	V/ C	
# 19 Twelve Bridges Dr & SR 65 N/B	A	7.1	0.356	A	7.1	0.356	+ 0.000 D/V
# 20 Twelve Bridges Dr & SR 65 S/B	B	12.1	0.334	B	12.1	0.334	+ 0.000 D/V
# 21 SR 193 & Sierra College Blvd	A	9.4	0.315	A	9.4	0.315	+ 0.000 V/C
# 28 Sierra College Blvd & I-80 W/B	B	15.1	0.360	B	15.1	0.360	+ 0.000 D/V
# 29 Sierra College Blvd & I-80 E/B	B	10.4	0.458	B	10.4	0.458	+ 0.000 D/V

Lincoln Village 1
Existing Plus Village 1 Buildout
AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.356
Loss Time (sec): 9 Average Delay (sec/veh): 7.1
Optimal Cycle: 27 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
Base Vol: 28 8 256 0 0 0 104 247 0 0 714 138
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 28 8 256 0 0 0 104 247 0 0 714 138
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.00
PHF Volume: 30 9 0 0 0 0 113 268 0 0 776 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 30 9 0 0 0 0 113 268 0 0 776 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 30 9 0 0 0 0 113 268 0 0 776 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.83 0.98 1.00 1.00 1.00 1.00 0.93 0.93 1.00 1.00 0.93 1.00
Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 1583 1862 1900 0 0 0 1769 3538 0 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.02 0.00 0.00 0.00 0.00 0.00 0.06 0.08 0.00 0.00 0.22 0.00
Crit Moves: ****
Green/Cycle: 0.05 0.05 0.00 0.00 0.00 0.00 0.18 0.80 0.00 0.00 0.62 0.00
Volume/Cap: 0.36 0.09 0.00 0.00 0.00 0.00 0.36 0.10 0.00 0.00 0.36 0.00
Delay/Veh: 29.9 27.3 0.0 0.0 0.0 0.0 22.3 1.4 0.0 0.0 5.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 29.9 27.3 0.0 0.0 0.0 0.0 22.3 1.4 0.0 0.0 5.8 0.0
LOS by Move: C C A A A A C A A A A A
HCM2kAvgQ: 1 0 0 0 0 0 2 1 0 0 4 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.334
Loss Time (sec): 9 Average Delay (sec/veh): 12.1
Optimal Cycle: 26 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 1 0 1

Volume Module:
Base Vol: 0 0 0 167 0 221 10 173 0 0 226 514
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 167 0 221 10 173 0 0 226 514
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.00
PHF Volume: 0 0 0 178 0 235 11 184 0 0 240 0
Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 178 0 235 11 184 0 0 240 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 178 0 235 11 184 0 0 240 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.98 1.00 1.00 0.98 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 1862 0 0 1862 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.10 0.00 0.15 0.01 0.10 0.00 0.00 0.13 0.00
Crit Moves: **** **
Green/Cycle: 0.00 0.00 0.00 0.45 0.00 0.45 0.02 0.40 0.00 0.00 0.39 0.00
Volume/Cap: 0.00 0.00 0.00 0.23 0.00 0.33 0.33 0.24 0.00 0.00 0.33 0.00
Delay/Veh: 0.0 0.0 0.0 10.4 0.0 11.1 35.2 12.0 0.0 0.0 13.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 10.4 0.0 11.1 35.2 12.0 0.0 0.0 13.2 0.0
LOS by Move: A A A B A B D B A A B A
HCM2kAvgQ: 0 0 0 2 0 3 1 2 0 0 3 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #21 SR 193 & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.315
Loss Time (sec): 0 Average Delay (sec/veh): 9.4
Optimal Cycle: 0 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 0 0 1 0 0 0 1 0 0 1 1 0 0 1 0

Volume Module:
Base Vol: 109 0 67 0 2 1 0 201 435 9 95 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 109 0 67 0 2 1 0 201 435 9 95 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 117 0 72 0 2 1 0 216 0 10 102 0
Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 117 0 72 0 2 1 0 216 0 10 102 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 117 0 72 0 2 1 0 216 0 10 102 0

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.67 0.33 0.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 593 0 738 0 417 208 0 687 788 611 669 0

Capacity Analysis Module:
Vol/Sat: 0.20 xxxx 0.10 xxxx 0.01 0.01 xxxx 0.31 0.00 0.02 0.15 xxxx
Crit Moves: **** **
Delay/Veh: 9.9 0.0 7.8 0.0 8.4 8.4 0.0 10.1 0.0 8.5 8.8 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 9.9 0.0 7.8 0.0 8.4 8.4 0.0 10.1 0.0 8.5 8.8 0.0
LOS by Move: A * A * A A * B * A A *
ApproachDel: 9.1 8.4 10.1 8.8
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 9.1 8.4 10.1 8.8
LOS by Appr: A A A B A
AllWayAvgQ: 0.2 0.2 0.1 0.0 0.0 0.0 0.4 0.4 0.0 0.0 0.2 0.2

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.360
Loss Time (sec): 0 Average Delay (sec/veh): 15.1
Optimal Cycle: 36 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 0 0 3 0 1 1 0 0 0 1 2 0 0 1 1

Volume Module:
Base Vol: 0 438 37 0 806 8 0 0 5 594 6 229
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 438 37 0 806 8 0 0 5 594 6 229
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 476 0 0 876 9 0 0 5 646 7 249
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 476 0 0 876 9 0 0 5 646 7 249
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 476 0 0 876 9 0 0 5 646 7 249

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 1.00 0.89 0.83 1.00 1.00 0.83 0.90 0.84 0.84
Lanes: 1.00 3.00 1.00 0.00 3.00 1.00 1.00 0.00 1.00 2.00 0.05 1.95
Final Sat.: 1900 5083 1900 0 5083 1583 1900 0 1583 3432 81 3099

Capacity Analysis Module:
Vol/Sat: 0.00 0.09 0.00 0.00 0.17 0.01 0.00 0.00 0.00 0.19 0.08 0.08
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.48 0.00 0.00 0.48 0.48 0.00 0.00 0.00 0.52 0.52 0.52
Volume/Cap: 0.00 0.20 0.00 0.00 0.36 0.01 0.00 0.00 xxxx 0.36 0.15 0.15
Delay/Veh: 0.0 15.1 0.0 0.0 16.5 13.7 0.0 0.0 0.0 14.2 12.5 12.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 15.1 0.0 0.0 16.5 13.7 0.0 0.0 0.0 14.2 12.5 12.5
LOS by Move: A B A A B B A A A B B B
HCM2kAvgQ: 0 3 0 0 6 0 0 0 0 6 2 2

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.458
Loss Time (sec): 9 Average Delay (sec/veh): 10.4
Optimal Cycle: 32 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 2 0 2 0 1 2 0 2 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 526 1 0 1083 115 193 1 123 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 526 1 0 1083 115 193 1 123 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 572 1 0 1177 0 210 1 134 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 572 1 0 1177 0 210 1 134 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 572 1 0 1177 0 210 1 134 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 0.83 0.97 0.93 1.00 0.81 0.93 0.83 1.00 1.00 1.00
Lanes: 0.00 4.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 1.00 0.00 1.00
Final Sat.: 0 6778 1583 3686 3538 1900 3070 3538 1583 1900 0 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.08 0.00 0.00 0.33 0.00 0.07 0.00 0.08 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.73 0.73 0.00 0.73 0.00 0.18 0.18 0.18 0.00 0.00 0.00
Volume/Cap: 0.00 0.12 0.00 0.00 0.46 0.00 0.37 0.00 0.46 0.00 0.00 0.00
Delay/Veh: 0.0 4.1 3.8 0.0 5.8 0.0 36.1 33.3 37.5 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 4.1 3.8 0.0 5.8 0.0 36.1 33.3 37.5 0.0 0.0 0.0
LOS by Move: A A A A A A D C D A A A
HCM2kAvgQ: 0 1 0 0 8 0 3 0 4 0 0 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in	
	LOS	Del/ Veh C	LOS	Del/ Veh C		
# 1 SR 65 & Wise Rd	E	47.6 0.253	E	47.6 0.253	+ 0.000	D/V
# 2 SR 65 & Gladding Rd	F	107.7 0.680	F	107.7 0.680	+ 0.000	D/V
# 3 SR 65 & 7th Street	D	53.4 1.011	D	53.4 1.011	+ 0.000	D/V
# 4 SR 65 & SR 193 (McBean Park Dr	F	79.2 1.114	E	79.2 1.114	+ 0.000	D/V
# 5 SR 65 & 1st St	E	61.0 1.065	E	61.0 1.065	+ 0.000	D/V
# 6 SR 65 & Ferrari Ranch Rd	C	32.9 0.912	C	32.9 0.912	+ 0.000	D/V
# 7 SR 65 & Sterling Pkwy	B	19.2 0.937	B	19.2 0.937	+ 0.000	D/V
# 8 Joiner Pkwy & Ferrari Ranch Rd	A xxxxx	0.416	A xxxxx	0.416	+ 0.000	V/C
# 9 Joiner Pkwy & Sterling Pkwy	A xxxxx	0.600	A xxxxx	0.600	+ 0.000	V/C
# 10 E. Lincoln Pkwy & Del Webb (N)	C	15.8 0.723	C	15.8 0.723	+ 0.000	V/C
# 11 E. Lincoln Pkwy & Del Webb (S)	A xxxxx	0.500	A xxxxx	0.500	+ 0.000	V/C
# 12 Ferrari Ranch Rd & Ingram Pkwy	F	85.9 1.152	F	85.9 1.152	+ 0.000	V/C
# 13 Ferrari Ranch Rd & Sun City Bl	F	140.7 1.391	F	140.7 1.391	+ 0.000	V/C
# 14 SR 193 & Ferrari Ranch Rd	D	45.9 0.969	D	45.9 0.969	+ 0.000	D/V
# 15 SR 193 & East Ave	B	14.7 0.610	B	14.7 0.610	+ 0.000	D/V
# 17 Twelve Bridges Dr & Sierra Col	F OVRFL	3.329	F OVRFL	3.329	+ 0.000	D/V
# 18 Twelve Bridges Dr & E Lincoln	B xxxxx	0.678	B xxxxx	0.678	+ 0.000	V/C
# 19 Twelve Bridges Dr & SR 65 N/B	B	11.5 0.355	B	11.5 0.355	+ 0.000	D/V
# 20 Twelve Bridges Dr & SR 65 S/B	B	10.7 0.383	B	10.7 0.383	+ 0.000	D/V
# 21 SR 193 & Sierra College Blvd	C	23.4 0.867	C	23.4 0.867	+ 0.000	V/C
# 22 Sierra College Blvd & English	D	32.2 0.565	D	32.2 0.565	+ 0.000	D/V
# 23 Sierra College Blvd & King Rd	B	12.1 0.585	B	12.1 0.585	+ 0.000	D/V
# 24 Sierra Collage & Bankhead	D	33.5 0.125	D	33.5 0.125	+ 0.000	D/V

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Intersection	Base		Future		Change in	
	LOS	Del/ Veh C	LOS	Del/ Veh C		
# 25 Sierra College Blvd & Taylor R	C	30.6 0.730	C	30.6 0.730	+ 0.000	D/V
# 26 Sierra College & Brace	B	14.1 0.546	B	14.1 0.546	+ 0.000	D/V
# 27 Sierra College Blvd & Granite	A xxxxx	0.397	A xxxxx	0.397	+ 0.000	V/C
# 28 Sierra College Blvd & I-80 W/B	B	13.2 0.255	B	13.2 0.255	+ 0.000	D/V
# 29 Sierra College Blvd & I-80 E/B	B	14.0 0.317	B	14.0 0.317	+ 0.000	D/V
# 30 Ferrari Ranch Rd & Oak Tree Ln	B	10.5 0.432	B	10.5 0.432	+ 0.000	V/C
# 31 Sierra College Blvd & Oak Tree	C xxxxx	0.715	C xxxxx	0.715	+ 0.000	V/C
# 32 Virginiatown Rd & Oak Tree Ln	A	9.8 0.317	A	9.8 0.317	+ 0.000	V/C
# 33 SR 193 & Village 1 Coll	A xxxxx	0.500	A xxxxx	0.500	+ 0.000	V/C
# 34 Oak Tree Ln & Village 1 Coll	A xxxxx	0.257	A xxxxx	0.257	+ 0.000	V/C
#116 SR 193 & Oak Tree Ln	C	26.2 0.613	C	26.2 0.613	+ 0.000	D/V

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 SR 65 & 7th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 1.011
Loss Time (sec): 9 Average Delay (sec/veh): 53.4
Optimal Cycle: 180 Level Of Service: D

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Include), Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 SR 65 & SR 193 (McBean Park Dr)

Cycle (sec): 120 Critical Vol./Cap.(X): 1.114
Loss Time (sec): 9 Average Delay (sec/veh): 79.2
Optimal Cycle: 180 Level Of Service: E

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Include, Split Phase), Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 SR 65 & 1st St

Cycle (sec): 120 Critical Vol./Cap.(X): 1.065
Loss Time (sec): 9 Average Delay (sec/veh): 61.0
Optimal Cycle: 180 Level Of Service: E

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 SR 65 & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.912
Loss Time (sec): 12 Average Delay (sec/veh): 32.9
Optimal Cycle: 116 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North, South, East, West bounds.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 SR 65 & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.937
Loss Time (sec): 9 Average Delay (sec/veh): 19.2
Optimal Cycle: 127 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Include), and Y+R (4.0 4.0 4.0).

Volume Module:

Table with 10 columns and 14 rows of traffic volume and adjustment factors (Base Vol, Growth Adj, Initial Bse, etc.).

Saturation Flow Module:

Table with 10 columns and 4 rows of saturation flow data (Sat/Lane, Adjustment, Lanes, Final Sat.).

Capacity Analysis Module:

Table with 10 columns and 10 rows of capacity analysis data (Vol/Sat, Crit Moves, Green/Cycle, etc.).

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #8 Joiner Pkwy & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.416
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected, Ignore), and Y+R (4.0 4.0 4.0).

Volume Module:

Table with 10 columns and 14 rows of traffic volume and adjustment factors (Base Vol, Growth Adj, Initial Bse, etc.).

Saturation Flow Module:

Table with 10 columns and 4 rows of saturation flow data (Sat/Lane, Adjustment, Lanes, Final Sat.).

Capacity Analysis Module:

Table with 10 columns and 10 rows of capacity analysis data (Vol/Sat, Crit Moves, Green/Cycle, etc.).

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Joiner Pkwy & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.600
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 57 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 11 columns for traffic flows and 11 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 11 columns for lanes and 4 rows for Adjustment, Lanes, Final Sat., etc.

Capacity Analysis Module: Table with 11 columns for lanes and 4 rows for Vol/Sat, Crit Moves, Delay/Veh, etc.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #10 E. Lincoln Pkwy & Del Webb (N)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.723
Loss Time (sec): 0 Average Delay (sec/veh): 15.8
Optimal Cycle: 0 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Lanes.

Volume Module: Table with 11 columns for traffic flows and 11 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 11 columns for lanes and 4 rows for Adjustment, Lanes, Final Sat., etc.

Capacity Analysis Module: Table with 11 columns for lanes and 4 rows for Vol/Sat, Crit Moves, Delay/Veh, etc.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 E. Lincoln Pkwy & Del Webb (S)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.500
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 0 1 1 0 0 1 0

Volume Module:
Base Vol: 3 562 313 62 210 13 29 17 5 109 9 55
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 3 562 313 62 210 13 29 17 5 109 9 55
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 3 562 313 62 210 13 29 17 5 109 9 55
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 3 562 313 62 210 13 29 17 5 109 9 55
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 3 562 313 62 210 13 29 17 5 109 9 55

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.94 0.06 1.00 1.00 1.00 1.00 0.14 0.86
Final Sat.: 1500 1500 1500 1500 1413 87 1500 1500 1500 1500 211 1289

Capacity Analysis Module:
Vol/Sat: 0.00 0.37 0.21 0.04 0.15 0.15 0.02 0.01 0.00 0.07 0.04 0.04
Crit Volume: 562 62 17 109
Crit Moves: **** **

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #12 Ferrari Ranch Rd & Ingram Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 1.152
Loss Time (sec): 0 Average Delay (sec/veh): 85.9
Optimal Cycle: 0 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0 0

Volume Module:
Base Vol: 65 0 168 0 0 0 0 0 628 73 51 633 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 65 0 168 0 0 0 0 0 628 73 51 633 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume: 69 0 179 0 0 0 0 0 668 78 54 673 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 69 0 179 0 0 0 0 0 668 78 54 673 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 69 0 179 0 0 0 0 0 668 78 54 673 0

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 456 0 536 0 0 0 0 0 586 656 537 585 0

Capacity Analysis Module:
Vol/Sat: 0.15 xxxx 0.33 xxxx xxxx xxxx 1.14 0.12 0.10 1.15 xxxx
Crit Moves: **** **
Delay/Veh: 12.0 0.0 12.7 0.0 0.0 0.0 0.0 105 8.9 10.1 109 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.0 0.0 12.7 0.0 0.0 0.0 0.0 105 8.9 10.1 109 0.0
LOS by Move: B * B * * * F A B F *
ApproachDel: 12.5 xxxxxx 94.8 101.7
Delay Adj: 1.00 xxxxxx 1.00 1.00
ApprAdjDel: 12.5 xxxxxx 94.8 101.7
LOS by Appr: B * * * F
AllWayAvgQ: 0.2 0.0 0.5 0.0 0.0 0.0 0.0 15.6 0.1 0.1 16.3 0.0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #13 Ferrari Ranch Rd & Sun City Blvd

 Cycle (sec): 100 Critical Vol./Cap.(X): 1.391
 Loss Time (sec): 0 Average Delay (sec/veh): 140.7
 Optimal Cycle: 0 Level Of Service: F

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 0 0 1 0 1 0 0 1 0 0 0 1
 Volume Module:
 Base Vol: 0 769 24 84 563 0 0 0 0 123 0 99
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 769 24 84 563 0 0 0 0 123 0 99
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
 PHF Volume: 0 827 26 90 605 0 0 0 0 132 0 106
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 827 26 90 605 0 0 0 0 132 0 106
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 827 26 90 605 0 0 0 0 132 0 106
 Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 1.00 1.00 0.13 0.87 0.00 0.00 0.00 0.00 1.00 0.00 1.00
 Final Sat.: 0 595 670 77 518 0 0 0 0 459 0 540
 Capacity Analysis Module:
 Vol/Sat: xxxx 1.39 0.04 1.17 1.17 xxxx xxxx xxxx 0.29 xxxx 0.20
 Crit Moves: ****
 Delay/Veh: 0.0 204 8.3 114.5 115 0.0 0.0 0.0 0.0 13.7 0.0 11.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 204 8.3 114.5 115 0.0 0.0 0.0 0.0 13.7 0.0 11.0
 LOS by Move: * F A F F * * * B * B
 ApproachDel: 198.0 114.5 xxxxxx 12.5
 Delay Adj: 1.00 xxxxxx 1.00
 ApprAdjDel: 198.0 114.5 xxxxxx 12.5
 LOS by Appr: F F F B
 AllWayAvgQ: 0.0 32.2 0.0 17.5 17.5 17.5 0.0 0.0 0.0 0.4 0.0 0.2
 Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #14 SR 193 & Ferrari Ranch Rd

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.969
 Loss Time (sec): 9 Average Delay (sec/veh): 45.9
 Optimal Cycle: 158 Level Of Service: D

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Permitted Protected Protected
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 1 0 1 1 0 2 0 1 1 0
 Volume Module:
 Base Vol: 36 343 648 0 214 45 119 685 36 393 487 33
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 36 343 648 0 214 45 119 685 36 393 487 33
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
 PHF Volume: 38 365 689 0 228 48 127 729 38 418 518 35
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 38 365 689 0 228 48 127 729 38 418 518 35
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 38 365 689 0 228 48 127 729 38 418 518 35
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.54 1.00 0.85 1.00 1.00 0.85 0.90 0.90 0.81 0.90 0.90 0.90
 Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 1.87 0.13
 Final Sat.: 1022 1900 1615 1900 1900 1615 1718 3437 1537 1718 3190 216
 Capacity Analysis Module:
 Vol/Sat: 0.04 0.19 0.43 0.00 0.12 0.03 0.07 0.21 0.02 0.24 0.16 0.16
 Crit Moves: ****
 Green/Cycle: 0.44 0.44 0.44 0.00 0.44 0.44 0.15 0.22 0.22 0.25 0.32 0.32
 Volume/Cap: 0.09 0.44 0.97 0.00 0.27 0.07 0.50 0.97 0.11 0.97 0.50 0.50
 Delay/Veh: 16.4 19.8 53.6 0.0 18.0 16.2 40.9 64.1 31.5 72.4 27.7 27.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 16.4 19.8 53.6 0.0 18.0 16.2 40.9 64.1 31.5 72.4 27.7 27.7
 LOS by Move: B B D A B B D E C E C C
 HCM2kAvgQ: 1 8 27 0 4 1 4 17 1 18 8 8
 Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
*****
Intersection #15 SR 193 & East Ave
*****
Cycle (sec):          60          Critical Vol./Cap.(X):      0.610
Loss Time (sec):      9           Average Delay (sec/veh):    14.7
Optimal Cycle:        39          Level Of Service:          B
*****
Approach:  North Bound      South Bound      East Bound      West Bound
Movement:  L - T - R        L - T - R        L - T - R        L - T - R
-----
Control:    Split Phase    Split Phase    Protected      Protected
Rights:     Include        Include        Include         Include
Lanes:      0 0 1 0 0        0 1 0 0 1      1 0 0 1 0      1 0 1 0 1
-----
Min. Green: 0 0 0          0 0 0          0 0 0          0 0 0
Y+R:        4.0 4.0 4.0      4.0 4.0 4.0    4.0 4.0 4.0    4.0 4.0 4.0
Lanes:      0 0 1 0 0          0 1 0 0 1      1 0 0 1 0      1 0 1 0 1
-----
Volume Module:
Base Vol:    0 0 0          293 0 138      107 559 0      1 337 91
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 0 0 0          293 0 138      107 559 0      1 337 91
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91  0.91 0.91 0.91
PHF Volume:  0 0 0          322 0 152      118 614 0      1 370 100
Reduced Vol: 0 0 0          0 0 0          0 0 0          0 0 0
Reduced Vol: 0 0 0          322 0 152      118 614 0      1 370 100
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume: 0 0 0          322 0 152      118 614 0      1 370 100
-----
Saturation Flow Module:
Sat/Lane:    1900 1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900
Adjustment: 1.00 1.00 1.00  0.95 1.00 0.85  0.90 0.95 1.00  0.90 0.95 0.81
Lanes:      0.00 1.00 0.00  1.00 0.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
Final Sat.: 0 1900 0      1809 0 1615  1718 1809 0      1718 1809 1537
-----
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00  0.18 0.00 0.09  0.07 0.34 0.00  0.00 0.20 0.07
Crit Moves:  ****          ****          ****
Green/Cycle: 0.00 0.00 0.00  0.29 0.00 0.29  0.14 0.56 0.00  0.00 0.42 0.42
Volume/Cap:  0.00 0.00 0.00  0.61 0.00 0.32  0.49 0.61 0.00  0.61 0.49 0.16
Delay/Veh:   0.0 0.0 0.0  20.4 0.0 17.0  25.4 10.0 0.0  282.9 13.3 11.0
User DelAdj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
AdjDel/Veh:  0.0 0.0 0.0  20.4 0.0 17.0  25.4 10.0 0.0  282.9 13.3 11.0
LOS by Move: A A A          C A B          C B A          F B B          E
HCM2kAvgQ:   0 0 0          6 0 2          3 8 0          0 5 1
*****
Note: Queue reported is the number of cars per lane.
*****

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Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
*****
Intersection #17 Twelve Bridges Dr & Sierra College Bl
*****
Average Delay (sec/veh): 159.0 Worst Case Level Of Service: F[1160.5]
*****
Approach:  North Bound      South Bound      East Bound      West Bound
Movement:  L - T - R        L - T - R        L - T - R        L - T - R
-----
Control:    Uncontrolled    Uncontrolled    Stop Sign      Stop Sign
Rights:     Ignore          Include         Ignore          Include
Lanes:      1 0 1 0 0          0 0 1 0 1      1 0 0 0 1      0 0 0 0 0
-----
Volume Module:
Base Vol:    190 862 0      0 387 90 241 0 111 0 0 0
Growth Adj: 1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse: 190 862 0      0 387 90 241 0 111 0 0 0
User Adj:    1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00
PHF Adj:     0.92 0.92 0.00  0.92 0.92 0.92  0.92 0.92 0.00  0.92 0.92 0.92
PHF Volume:  207 937 0      0 421 98 262 0 0 0 0 0
Reduced Vol: 0 0 0          0 0 0          0 0 0          0 0 0
FinalVolume: 207 937 0      0 421 98 262 0 0 0 0 0
-----
Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx  6.4 xxxxx  6.2 xxxxx xxxxx xxxxx
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx  3.5 xxxxx  3.3 xxxxx xxxxx xxxxx
-----
Capacity Module:
Cnflct Vol:  518 xxxxx xxxxx xxxxx xxxxx xxxxx  1771 xxxxx  421 xxxxx xxxxx xxxxx
Potent Cap.: 1058 xxxxx xxxxx xxxxx xxxxx xxxxx  93 xxxxx  637 xxxxx xxxxx xxxxx
Move Cap.:   1058 xxxxx xxxxx xxxxx xxxxx xxxxx  79 xxxxx  637 xxxxx xxxxx xxxxx
Volume/Cap:  0.20 xxxxx xxxxx xxxxx xxxxx xxxxx  3.33 xxxxx  0.00 xxxxx xxxxx xxxxx
-----
Level Of Service Module:
2Way95thQ:   0.7 xxxxx xxxxx xxxxx xxxxx xxxxx  26.6 xxxxx xxxxx xxxxx xxxxx
Control Del: 9.2 xxxxx xxxxx xxxxx xxxxx xxxxx 1160 xxxxx xxxxx xxxxx xxxxx
LOS by Move: A * *          * * *          F * *          * * *
Movement:    LT - LTR - RT  LT - LTR - RT  LT - LTR - RT  LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS:  * * *          * * *          * * *          * * *
ApproachDel: xxxxxx          xxxxxx          1160.5          xxxxxx
ApproachLOS: *              *              F
*****
Note: Queue reported is the number of cars per lane.
*****

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Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #18 Twelve Bridges Dr & E Lincoln Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.678
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 71 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module:
Base Vol: 15 562 248 81 167 86 282 415 15 135 184 77
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 15 562 248 81 167 86 282 415 15 135 184 77
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 15 562 248 81 167 86 282 415 15 135 184 77
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 15 562 248 81 167 86 282 415 15 135 184 77
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 15 562 248 81 167 86 282 415 15 135 184 77

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1500 1500 1500 1500 1500 1500 1500 3000 1500 1500 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.01 0.37 0.17 0.05 0.11 0.06 0.19 0.14 0.01 0.09 0.06 0.05
Crit Volume: 562 81 282 92
Crit Moves: **** **** **** ****

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.355
Loss Time (sec): 9 Average Delay (sec/veh): 11.5
Optimal Cycle: 27 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
Base Vol: 59 3 255 0 0 0 262 297 0 0 347 149
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 59 3 255 0 0 0 262 297 0 0 347 149
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.00
PHF Volume: 64 3 0 0 0 0 285 323 0 0 377 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 64 3 0 0 0 0 285 323 0 0 377 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 64 3 0 0 0 0 285 323 0 0 377 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.85 1.00 1.00 1.00 1.00 1.00 0.95 0.95 1.00 1.00 0.95 1.00
Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 1615 1900 1900 0 0 0 1805 3610 0 0 3610 1900

Capacity Analysis Module:
Vol/Sat: 0.04 0.00 0.00 0.00 0.00 0.00 0.16 0.09 0.00 0.00 0.10 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.11 0.11 0.00 0.00 0.00 0.00 0.44 0.74 0.00 0.00 0.29 0.00
Volume/Cap: 0.36 0.02 0.00 0.00 0.00 0.00 0.36 0.12 0.00 0.00 0.36 0.00
Delay/Veh: 25.9 23.7 0.0 0.0 0.0 0.0 11.3 2.3 0.0 0.0 16.9 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 25.9 23.7 0.0 0.0 0.0 0.0 11.3 2.3 0.0 0.0 16.9 0.0
LOS by Move: C C A A A A B A A A B A
HCM2kAvgQ: 2 0 0 0 0 0 4 1 0 0 3 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.383
Loss Time (sec): 9 Average Delay (sec/veh): 10.7
Optimal Cycle: 28 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 0 1

Volume Module:

Base Vol: 0 0 0 127 0 113 26 447 0 0 120 298
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 127 0 113 26 447 0 0 120 298
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.00
PHF Volume: 0 0 0 135 0 120 28 476 0 0 128 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 135 0 120 28 476 0 0 128 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 135 0 120 28 476 0 0 128 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1805 0 1615 1805 1900 0 0 1900 1900

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.07 0.00 0.07 0.02 0.25 0.00 0.00 0.07 0.00
Crit Moves: **** **** ****
Green/Cycle: 0.00 0.00 0.00 0.20 0.00 0.20 0.12 0.65 0.00 0.00 0.53 0.00
Volume/Cap: 0.00 0.00 0.00 0.38 0.00 0.38 0.13 0.38 0.00 0.00 0.13 0.00
Delay/Veh: 0.0 0.0 0.0 21.7 0.0 21.7 23.8 5.0 0.0 0.0 7.1 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 21.7 0.0 21.7 23.8 5.0 0.0 0.0 7.1 0.0
LOS by Move: A A A C A C C A A A A
HCM2kAvgQ: 0 0 0 3 0 2 1 4 0 0 1 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #21 SR 193 & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.867
Loss Time (sec): 0 Average Delay (sec/veh): 23.4
Optimal Cycle: 0 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 0 0 1 0 0 0 1 0 0 0 1 0

Volume Module:

Base Vol: 469 1 70 0 0 1 2 112 118 78 240 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 469 1 70 0 0 1 2 112 118 78 240 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 504 1 75 0 0 1 2 120 0 84 258 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 504 1 75 0 0 1 2 120 0 84 258 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
FinalVolume: 504 1 75 0 0 1 2 120 0 84 258 0

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.86 0.01 0.13 0.00 0.00 1.00 0.02 0.98 1.00 1.00 1.00 0.00
Final Sat.: 582 1 87 0 0 584 9 501 566 506 545 0

Capacity Analysis Module:

Vol/Sat: 0.87 0.87 0.87 xxxx xxxx 0.00 0.24 0.24 0.00 0.17 0.47 xxxx
Crit Moves: **** **** ****
Delay/Veh: 31.9 31.9 31.9 0.0 0.0 8.6 11.3 11.3 0.0 10.8 14.2 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 31.9 31.9 31.9 0.0 0.0 8.6 11.3 11.3 0.0 10.8 14.2 0.0
LOS by Move: D D D * * A B B * B B *
ApproachDel: 31.9 8.6 11.3 13.3
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 31.9 8.6 11.3 13.3
LOS by Appr: D A B B
AllWayAvgQ: 4.4 4.4 4.4 0.0 0.0 0.0 0.3 0.3 0.0 0.2 0.8 0.8

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
Intersection #24 Sierra Collage & Bankhead
Average Delay (sec/veh): 0.7 Worst Case Level Of Service: D[33.5]
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 1 0 0 0 0 0 1! 0 0 0 0 1! 0 0
Volume Module:
Base Vol: 2 1 10 18 1 0 2 446 2 7 771 42
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 1 10 18 1 0 2 446 2 7 771 42
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1 10 18 1 0 2 446 2 7 771 42
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 2 1 10 18 1 0 2 446 2 7 771 42
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 6.5 xxxxx 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 xxxxx 2.2 xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Cnflct Vol: 1258 1278 447 1263 1258 xxxxx 813 xxxx xxxxx 448 xxxx xxxxx
Potent Cap.: 149 168 616 148 172 xxxxx 823 xxxx xxxxx 1123 xxxx xxxxx
Move Cap.: 148 166 616 144 171 xxxxx 823 xxxx xxxxx 1123 xxxx xxxxx
Volume/Cap: 0.01 0.01 0.02 0.12 0.01 xxxx 0.00 xxxx xxxx 0.01 xxxx xxxx
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx 0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 9.4 xxxx xxxxx 8.2 xxxx xxxxx
LOS by Move: * * * * * A * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 363 xxxxx 145 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx 0.1 xxxxx 0.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx 15.3 xxxxx 33.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * C * * D * * * * *
ApproachDel: 15.3 33.5 xxxxxxx xxxxxxx
ApproachLOS: C D * *
Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #25 Sierra College Blvd & Taylor Rd
Cycle (sec): 100 Critical Vol./Cap.(X): 0.730
Loss Time (sec): 8 Average Delay (sec/veh): 30.6
Optimal Cycle: 52 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1
Volume Module:
Base Vol: 78 625 83 24 353 95 135 345 86 145 244 34
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 78 625 83 24 353 95 135 345 86 145 244 34
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 87 694 92 27 392 106 150 383 96 161 271 38
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 87 694 92 27 392 106 150 383 96 161 271 38
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 87 694 92 27 392 106 150 383 96 161 271 38
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1805 1900 1615 1805 1900 1615 1805 1900 1615 1805 1900 1615
Capacity Analysis Module:
Vol/Sat: 0.05 0.37 0.06 0.01 0.21 0.07 0.08 0.20 0.06 0.09 0.14 0.02
Crit Moves: **** *
Green/Cycle: 0.10 0.50 0.50 0.02 0.42 0.42 0.15 0.28 0.28 0.12 0.25 0.25
Volume/Cap: 0.49 0.73 0.11 0.73 0.49 0.15 0.57 0.73 0.21 0.73 0.57 0.09
Delay/Veh: 44.8 22.5 13.3 102.4 21.5 17.9 42.5 37.9 28.1 54.0 34.2 28.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 44.8 22.5 13.3 102.4 21.5 17.9 42.5 37.9 28.1 54.0 34.2 28.7
LOS by Move: D C B F C B D D C D C C
HCM2kAvgQ: 3 18 1 2 9 2 5 12 2 6 8 1
Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Sierra College & Brace

Cycle (sec): 100 Critical Vol./Cap.(X): 0.546
Loss Time (sec): 8 Average Delay (sec/veh): 14.1
Optimal Cycle: 35 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 1 1 0 1 0 0 0 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 717 102 83 478 0 0 0 0 73 62 0 103
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 717 102 83 478 0 0 0 0 73 62 0 103
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 717 102 83 478 0 0 0 0 73 62 0 103
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 717 102 83 478 0 0 0 0 73 62 0 103
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 717 102 83 478 0 0 0 0 73 62 0 103

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 0.85 0.95 1.00 1.00 1.00 1.00 0.87 0.95 1.00 0.85
Lanes: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 1.00
Final Sat.: 0 1900 1615 1805 1900 0 0 0 0 1644 1805 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.38 0.06 0.05 0.25 0.00 0.00 0.00 0.04 0.03 0.00 0.06
Crit Moves: ****
Green/Cycle: 0.00 0.69 0.69 0.08 0.78 0.00 0.00 0.00 0.08 0.06 0.00 0.14
Volume/Cap: 0.00 0.55 0.09 0.55 0.32 0.00 0.00 0.00 0.55 0.55 0.00 0.44
Delay/Veh: 0.0 8.1 5.1 48.0 3.5 0.0 0.0 0.0 48.8 50.9 0.0 40.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.1 5.1 48.0 3.5 0.0 0.0 0.0 48.8 50.9 0.0 40.4
LOS by Move: A A A D A A A D D A D
HCM2kAvgQ: 0 11 1 3 4 0 0 0 3 3 0 3

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #27 Sierra College Blvd & Granite Dr

Cycle (sec): 100 Critical Vol./Cap.(X): 0.397
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 38 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 0 2 1 0 1 0 1

Volume Module:
Base Vol: 94 677 64 62 489 97 39 32 150 113 25 33
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 94 677 64 62 489 97 39 32 150 113 25 33
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 94 677 64 62 489 97 39 32 150 113 25 33
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 94 677 64 62 489 97 39 32 150 113 25 33
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00
FinalVolume: 94 677 64 62 489 97 39 32 165 113 25 33

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 1500 1500 3000 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.06 0.23 0.04 0.04 0.16 0.06 0.03 0.02 0.06 0.08 0.02 0.02
Crit Volume: 339 62 83 113
Crit Moves: ****

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.255
Loss Time (sec): 0 Average Delay (sec/veh): 13.2
Optimal Cycle: 31 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 0 0 3 0 1 1 0 0 0 1 2 0 0 1 1

Volume Module:
Base Vol: 7 690 61 0 723 8 7 0 14 289 6 174
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 7 690 61 0 723 8 7 0 14 289 6 174
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 8 750 0 0 786 9 8 0 15 314 7 189
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 8 750 0 0 786 9 8 0 15 314 7 189
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 8 750 0 0 786 9 8 0 15 314 7 189

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 1.00 1.00 0.91 0.85 0.95 1.00 0.85 0.92 0.86 0.86
Lanes: 1.00 3.00 1.00 0.00 3.00 1.00 1.00 0.00 1.00 2.00 0.07 1.93
Final Sat.: 1805 5187 1900 0 5187 1615 1805 0 1615 3502 108 3141

Capacity Analysis Module:
Vol/Sat: 0.00 0.14 0.00 0.00 0.15 0.01 0.00 0.00 0.01 0.09 0.06 0.06
Crit Moves: ****
Green/Cycle: 0.02 0.61 0.00 0.00 0.59 0.59 0.03 0.00 0.04 0.35 0.36 0.36
Volume/Cap: 0.25 0.24 0.00 0.00 0.25 0.01 0.17 0.00 0.25 0.25 0.17 0.17
Delay/Veh: 53.0 8.9 0.0 0.0 9.7 8.3 49.4 0.0 49.1 23.2 21.6 21.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 53.0 8.9 0.0 0.0 9.7 8.3 49.4 0.0 49.1 23.2 21.6 21.6
LOS by Move: D A A A A A D C C C
HCM2kAvgQ: 1 4 0 0 4 0 0 0 1 4 2 2

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.317
Loss Time (sec): 9 Average Delay (sec/veh): 14.0
Optimal Cycle: 26 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ignore Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 2 0 2 0 1 2 0 2 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 804 2 2 597 181 350 1 40 0 0 2
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 804 2 2 597 181 350 1 40 0 0 2
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 874 2 2 649 0 380 1 43 0 0 2
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 874 2 2 649 0 380 1 43 0 0 2
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 874 2 2 649 0 380 1 43 0 0 2

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 0.92 0.95 1.00 0.92 0.95 0.85 1.00 1.00 0.85
Lanes: 0.00 4.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 1.00 0.00 1.00
Final Sat.: 0 6916 1615 3502 3610 1900 3502 3610 1615 1900 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.13 0.00 0.00 0.18 0.00 0.11 0.00 0.03 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.56 0.56 0.00 0.57 0.00 0.34 0.34 0.34 0.00 0.00 0.00
Volume/Cap: 0.00 0.22 0.00 0.22 0.32 0.00 0.32 0.00 0.08 0.00 0.00 xxxx
Delay/Veh: 0.0 10.9 9.5 61.1 11.5 0.0 24.4 21.6 22.3 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 10.9 9.5 61.1 11.5 0.0 24.4 21.6 22.3 0.0 0.0 0.0
LOS by Move: A B A E B A C C C A A A
HCM2kAvgQ: 0 4 0 0 5 0 4 0 1 0 0 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #30 Ferrari Ranch Rd & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.432
Loss Time (sec): 0 Average Delay (sec/veh): 10.5
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 9 133 0 0 83 187 252 0 24 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 9 133 0 0 83 187 252 0 24 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 9 133 0 0 83 187 252 0 24 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 9 133 0 0 83 187 252 0 24 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 9 133 0 0 83 187 252 0 24 0 0 0 0

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 567 618 0 0 633 724 584 0 718 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.02 0.22 xxxx 0.13 0.26 0.43 xxxx 0.03 xxxx xxxx xxxx
Crit Moves: ****
Delay/Veh: 8.9 9.7 0.0 0.0 9.0 9.1 12.9 0.0 7.6 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.9 9.7 0.0 0.0 9.0 9.1 12.9 0.0 7.6 0.0 0.0 0.0
LOS by Move: A A * * A B * A * *
ApproachDel: 9.7 9.0 12.4 xxxxxx
Delay Adj: 1.00 1.00 1.00 xxxxxx
ApprAdjDel: 9.7 9.0 12.4 xxxxxx
LOS by Appr: A A B *
AllWayAvgQ: 0.0 0.2 0.0 0.0 0.1 0.3 0.7 0.0 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #31 Sierra College Blvd & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.715
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 80 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 0 0 0 1 0 1 1 0 0 0 0 0

Volume Module:
Base Vol: 626 492 0 0 177 18 4 0 306 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 626 492 0 0 177 18 4 0 306 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 626 492 0 0 177 18 4 0 306 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 626 492 0 0 177 18 4 0 306 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 626 492 0 0 177 18 4 0 306 0 0 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 1550 1550 0 0 1550 1550 1550 0 1550 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.40 0.32 0.00 0.00 0.11 0.01 0.00 0.00 0.20 0.00 0.00 0.00
Crit Volume: 626 177 306 0
Crit Moves: ****

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #32 Virginiatown Rd & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.317
Loss Time (sec): 0 Average Delay (sec/veh): 9.8
Optimal Cycle: 0 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control (Stop Sign), Rights (Include), Min. Green, and Lanes.

Volume Module: Table with 11 columns for volume and 11 rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with 11 columns for saturation and 4 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 11 columns for capacity and 11 rows for Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, AllWayAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #33 SR 193 & Village 1 Coll

Cycle (sec): 100 Critical Vol./Cap.(X): 0.500
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control (Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module: Table with 11 columns for volume and 11 rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with 11 columns for saturation and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 11 columns for capacity and 11 rows for Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, AllWayAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #34 Oak Tree Ln & Village 1 Coll

Cycle (sec): 100 Critical Vol./Cap.(X): 0.257
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 1 0 1

Volume Module:
Base Vol: 0 0 0 36 0 52 118 293 0 0 229 97
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 36 0 52 118 293 0 0 229 97
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 36 0 52 118 293 0 0 229 97
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 36 0 52 118 293 0 0 229 97
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 36 0 52 118 293 0 0 229 97

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1550 0 1550 1550 1550 0 0 1550 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.02 0.00 0.03 0.08 0.19 0.00 0.00 0.15 0.06
Crit Volume: 0 52 118 229
Crit Moves: **** **

Lincoln Village 1
Existing Plus Village 1 Buildout
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #116 SR 193 & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.613
Loss Time (sec): 12 Average Delay (sec/veh): 26.2
Optimal Cycle: 49 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module:
Base Vol: 199 74 7 49 78 124 255 725 362 10 589 105
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 199 74 7 49 78 124 255 725 362 10 589 105
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume: 212 79 7 52 83 132 271 771 385 11 627 112
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 212 79 7 52 83 132 271 771 385 11 627 112
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 212 79 7 52 83 132 271 771 385 11 627 112

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.90 0.90 0.81 0.90 0.90 0.81
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1805 1900 1615 1805 1900 1615 1718 3437 1537 1718 3437 1537

Capacity Analysis Module:
Vol/Sat: 0.12 0.04 0.00 0.03 0.04 0.08 0.16 0.22 0.25 0.01 0.18 0.07
Crit Moves: **** **
Green/Cycle: 0.19 0.19 0.19 0.13 0.13 0.13 0.26 0.54 0.54 0.01 0.30 0.30
Volume/Cap: 0.61 0.22 0.02 0.22 0.33 0.61 0.61 0.41 0.46 0.46 0.61 0.24
Delay/Veh: 40.3 34.4 32.9 39.1 40.0 46.0 35.3 13.7 14.4 63.0 31.3 26.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 40.3 34.4 32.9 39.1 40.0 46.0 35.3 13.7 14.4 63.0 31.3 26.9
LOS by Move: D C C D D D B B E C C
HCM2kAvgQ: 7 2 0 2 3 5 8 7 7 1 9 3

Note: Queue reported is the number of cars per lane.

**INTERSECTION LOS WORKSHEETS
EXISTING PLUS PHASE 1 CONDITIONS**

Lincoln Village 1
Existing Plus Project Specific
AM Peak hour

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base		Future LOS	Future		Change in
		Del/ Veh	V/ C		Del/ Veh	V/ C	
# 19 Twelve Bridges Dr & SR 65 N/B	A	6.9	0.340	A	6.9	0.340	+ 0.000 D/V
# 20 Twelve Bridges Dr & SR 65 S/B	B	11.7	0.259	B	11.7	0.259	+ 0.000 D/V
# 21 SR 193 & Sierra College Blvd	B	10.7	0.386	B	10.7	0.386	+ 0.000 V/C
# 28 Sierra College Blvd & I-80 W/B	B	15.1	0.325	B	15.1	0.325	+ 0.000 D/V
# 29 Sierra College Blvd & I-80 E/B	B	10.5	0.441	B	10.5	0.441	+ 0.000 D/V

Lincoln Village 1
Existing Plus Project Specific
AM Peak hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.340
 Loss Time (sec): 9 Average Delay (sec/veh): 6.9
 Optimal Cycle: 26 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ignore Include Include Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
 Base Vol: 28 8 271 0 0 0 95 251 0 0 687 138
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 28 8 271 0 0 0 95 251 0 0 687 138
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.00
 PHF Volume: 30 9 0 0 0 0 103 273 0 0 747 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 30 9 0 0 0 0 103 273 0 0 747 0
 PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
 FinalVolume: 30 9 0 0 0 0 103 273 0 0 747 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 0.98 1.00 1.00 1.00 1.00 0.93 0.93 1.00 1.00 0.93 1.00
 Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
 Final Sat.: 1583 1862 1900 0 0 0 1769 3538 0 0 3538 1900

Capacity Analysis Module:
 Vol/Sat: 0.02 0.00 0.00 0.00 0.00 0.00 0.06 0.08 0.00 0.00 0.21 0.00
 Crit Moves: ****
 Green/Cycle: 0.06 0.06 0.00 0.00 0.00 0.00 0.17 0.79 0.00 0.00 0.62 0.00
 Volume/Cap: 0.34 0.08 0.00 0.00 0.00 0.00 0.34 0.10 0.00 0.00 0.34 0.00
 Delay/Veh: 29.5 27.2 0.0 0.0 0.0 0.0 22.5 1.4 0.0 0.0 5.5 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 29.5 27.2 0.0 0.0 0.0 0.0 22.5 1.4 0.0 0.0 5.5 0.0
 LOS by Move: C C A A A A C A A A A A
 HCM2kAvgQ: 1 0 0 0 0 0 2 1 0 0 4 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
AM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.259
Loss Time (sec): 9 Average Delay (sec/veh): 11.7
Optimal Cycle: 24 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 0 1

Volume Module:
Base Vol: 0 0 0 167 0 185 10 167 0 0 142 571
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 167 0 185 10 167 0 0 142 571
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.00
PHF Volume: 0 0 0 178 0 197 11 178 0 0 151 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 178 0 197 11 178 0 0 151 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 178 0 197 11 178 0 0 151 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.98 1.00 1.00 0.98 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 1862 0 0 1862 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.10 0.00 0.12 0.01 0.10 0.00 0.00 0.08 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.48 0.00 0.48 0.03 0.37 0.00 0.00 0.34 0.00
Volume/Cap: 0.00 0.00 0.00 0.21 0.00 0.26 0.24 0.26 0.00 0.00 0.24 0.00
Delay/Veh: 0.0 0.0 0.0 9.1 0.0 9.4 31.4 13.4 0.0 0.0 14.3 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 9.1 0.0 9.4 31.4 13.4 0.0 0.0 14.3 0.0
LOS by Move: A A A A A A C B A A B A
HCM2kAvgQ: 0 0 0 2 0 2 0 2 0 0 2 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
AM Peak hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #21 SR 193 & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.386
Loss Time (sec): 0 Average Delay (sec/veh): 10.7
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 0 1 0 0 1

Volume Module:
Base Vol: 183 0 52 0 2 1 0 172 363 146 184 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 183 0 52 0 2 1 0 172 363 146 184 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 197 0 56 0 2 1 0 185 0 157 198 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 197 0 56 0 2 1 0 185 0 157 198 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 197 0 56 0 2 1 0 185 0 157 198 0

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.77 0.01 0.22 0.00 0.67 0.33 0.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 510 0 145 0 398 199 0 619 701 595 649 0

Capacity Analysis Module:
Vol/Sat: 0.39 0.00 0.39 xxxx 0.01 0.01 xxxx 0.30 0.00 0.26 0.30 xxxx
Crit Moves: ****
Delay/Veh: 11.3 11.3 11.3 0.0 8.5 8.5 0.0 10.5 0.0 10.6 10.4 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.3 11.3 11.3 0.0 8.5 8.5 0.0 10.5 0.0 10.6 10.4 0.0
LOS by Move: B B B * A A * B * B B *
ApproachDel: 11.3 8.5 10.5 10.5
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 11.3 8.5 10.5 10.5
LOS by Appr: B A A B B
AllWayAvgQ: 0.5 0.5 0.5 0.0 0.0 0.0 0.4 0.4 0.0 0.3 0.4 0.4

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
AM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.325
Loss Time (sec): 0 Average Delay (sec/veh): 15.1
Optimal Cycle: 34 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 0 0 3 0 1 1 0 0 0 1 2 0 0 1 1

Volume Module:
Base Vol: 0 413 37 0 678 8 0 0 5 567 6 230
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 413 37 0 678 8 0 0 5 567 6 230
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 449 0 0 737 9 0 0 5 616 7 250
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 449 0 0 737 9 0 0 5 616 7 250
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 449 0 0 737 9 0 0 5 616 7 250

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 1.00 0.89 0.83 1.00 1.00 0.83 0.90 0.84 0.84
Lanes: 1.00 3.00 1.00 0.00 3.00 1.00 1.00 0.00 1.00 2.00 0.05 1.95
Final Sat.: 1900 5083 1900 0 5083 1583 1900 0 1583 3432 81 3099

Capacity Analysis Module:
Vol/Sat: 0.00 0.09 0.00 0.00 0.14 0.01 0.00 0.00 0.00 0.18 0.08 0.08
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.45 0.00 0.00 0.45 0.45 0.00 0.00 0.00 0.55 0.55 0.55
Volume/Cap: 0.00 0.20 0.00 0.00 0.32 0.01 0.00 0.00 xxxx 0.32 0.15 0.15
Delay/Veh: 0.0 16.8 0.0 0.0 18.0 15.4 0.0 0.0 0.0 12.3 10.9 10.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 16.8 0.0 0.0 18.0 15.4 0.0 0.0 0.0 12.3 10.9 10.9
LOS by Move: A B A A B B A A A B B B
HCM2kAvgQ: 0 3 0 0 5 0 0 0 0 5 2 2

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
AM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.441
Loss Time (sec): 9 Average Delay (sec/veh): 10.5
Optimal Cycle: 31 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 2 0 2 0 1 2 0 2 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 509 1 0 1031 116 185 1 123 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 509 1 0 1031 116 185 1 123 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 553 1 0 1121 0 201 1 134 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 553 1 0 1121 0 201 1 134 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 553 1 0 1121 0 201 1 134 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 0.83 0.97 0.93 1.00 0.81 0.93 0.83 1.00 1.00 1.00
Lanes: 0.00 4.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 1.00 0.00 1.00
Final Sat.: 0 6778 1583 3686 3538 1900 3070 3538 1583 1900 0 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.08 0.00 0.00 0.32 0.00 0.07 0.00 0.08 0.00 0.00 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.72 0.72 0.00 0.72 0.00 0.19 0.19 0.19 0.00 0.00 0.00
Volume/Cap: 0.00 0.11 0.00 0.00 0.44 0.00 0.34 0.00 0.44 0.00 0.00 0.00
Delay/Veh: 0.0 4.3 4.0 0.0 5.9 0.0 35.3 32.7 36.7 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 4.3 4.0 0.0 5.9 0.0 35.3 32.7 36.7 0.0 0.0 0.0
LOS by Move: A A A A A A A D C D A A A
HCM2kAvgQ: 0 1 0 0 8 0 3 0 4 0 0 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Impact Analysis Report
Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1 SR 65 & Wise Rd	E	39.5	0.130	E	39.5	0.130	+ 0.000 D/V
# 2 SR 65 & Gladding Rd	F	82.6	0.475	F	82.6	0.475	+ 0.000 D/V
# 3 SR 65 & 7th Street	C	33.4	0.879	C	33.4	0.879	+ 0.000 D/V
# 4 SR 65 & SR 193 (McBean Park Dr	E	59.2	1.036	E	59.2	1.036	+ 0.000 D/V
# 5 SR 65 & 1st St	E	65.1	1.081	E	65.1	1.081	+ 0.000 D/V
# 6 SR 65 & Ferrari Ranch Rd	C	25.2	0.752	C	25.2	0.752	+ 0.000 D/V
# 7 SR 65 & Sterling Pkwy	B	19.9	0.945	B	19.9	0.945	+ 0.000 D/V
# 8 Joiner Pkwy & Ferrari Ranch Rd	A xxxxx	0.423		A xxxxx	0.423		+ 0.000 V/C
# 9 Joiner Pkwy & Sterling Pkwy	A xxxxx	0.573		A xxxxx	0.573		+ 0.000 V/C
# 10 E. Lincoln Pkwy & Del Webb (N)	B	12.6	0.546	B	12.6	0.546	+ 0.000 V/C
# 11 E. Lincoln Pkwy & Del Webb (S)	A xxxxx	0.365		A xxxxx	0.365		+ 0.000 V/C
# 12 Ferrari Ranch Rd & Ingram Pkwy	D	34.9	0.985	D	34.9	0.985	+ 0.000 V/C
# 13 Ferrari Ranch Rd & Sun City Bl	D	28.2	0.918	D	28.2	0.918	+ 0.000 V/C
# 14 SR 193 & Ferrari Ranch Rd	C	27.8	0.584	C	27.8	0.584	+ 0.000 D/V
# 15 SR 193 & East Ave	B	14.3	0.598	B	14.3	0.598	+ 0.000 D/V
# 17 Twelve Bridges Dr & Sierra Col	E	40.0	0.339	E	40.0	0.339	+ 0.000 D/V
# 18 Twelve Bridges Dr & E Lincoln	A xxxxx	0.448		A xxxxx	0.448		+ 0.000 V/C
# 19 Twelve Bridges Dr & SR 65 N/B	B	12.4	0.373	B	12.4	0.373	+ 0.000 D/V
# 20 Twelve Bridges Dr & SR 65 S/B	B	10.8	0.327	B	10.8	0.327	+ 0.000 D/V
# 21 SR 193 & Sierra College Blvd	E	35.2	0.979	E	35.2	0.979	+ 0.000 V/C
# 22 Sierra College Blvd & English	C	16.0	0.161	C	16.0	0.161	+ 0.000 D/V
# 23 Sierra College Blvd & King Rd	B	12.5	0.488	B	12.5	0.488	+ 0.000 D/V
# 24 Sierra Collage & Bankhead	C	23.3	0.105	C	23.3	0.105	+ 0.000 D/V

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 25 Sierra College Blvd & Taylor R	C	28.7	0.612	C	28.7	0.612	+ 0.000 D/V
# 26 Sierra College & Brace	B	14.3	0.526	B	14.3	0.526	+ 0.000 D/V
# 27 Sierra College Blvd & Granite	A xxxxx	0.360		A xxxxx	0.360		+ 0.000 V/C
# 28 Sierra College Blvd & I-80 W/B	B	13.9	0.239	B	13.9	0.239	+ 0.000 D/V
# 29 Sierra College Blvd & I-80 E/B	B	11.9	0.280	B	11.9	0.280	+ 0.000 D/V
#116 SR 193 & Oak Tree Ln	B	17.7	0.588	B	17.7	0.588	+ 0.000 D/V

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 SR 65 & Wise Rd

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: E[39.5]

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Uncontrolled, Stop Sign), Rights (Include), Lanes (1 0 0 1 0, 1 0 0 1 0, 0 0 1! 0 0, 0 0 1! 0 0)

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume

Critical Gap Module: Critical Gp, FollowUpTim

Capacity Module: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 SR 65 & Gladding Rd

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: F[82.6]

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Uncontrolled, Stop Sign), Rights (Include), Lanes (0 0 1! 0 0, 1 0 1 0 0, 0 0 0 0 0, 0 0 1! 0 0)

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume

Critical Gap Module: Critical Gp, FollowUpTim

Capacity Module: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 SR 65 & 7th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.879
Loss Time (sec): 9 Average Delay (sec/veh): 33.4
Optimal Cycle: 93 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 4 9 0 4 9 0 4 9 0 4 9 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1

Volume Module:
Base Vol: 67 681 37 39 758 57 43 121 76 28 147 165
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 67 681 37 39 758 57 43 121 76 28 147 165
User Adj: 1.00 1.12 1.00 1.00 1.17 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
PHF Volume: 70 795 39 41 924 59 45 126 79 29 153 172
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 70 795 39 41 924 59 45 126 79 29 153 172
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 70 795 39 41 924 59 45 126 79 29 153 172

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 0.85 0.85 0.81 0.85 0.85 0.86 0.85 0.85 0.86 0.90 0.77
Lanes: 1.00 0.95 0.05 1.00 0.94 0.06 1.00 0.61 0.39 1.00 1.00 1.00
Final Sat.: 1547 1542 75 1547 1516 97 1625 989 621 1625 1710 1454

Capacity Analysis Module:
Vol/Sat: 0.05 0.52 0.52 0.03 0.61 0.61 0.03 0.13 0.13 0.02 0.09 0.12
Crit Moves: ****
Green/Cycle: 0.05 0.68 0.68 0.05 0.68 0.68 0.05 0.14 0.14 0.04 0.14 0.14
Volume/Cap: 0.90 0.76 0.76 0.50 0.90 0.90 0.60 0.90 0.90 0.45 0.66 0.87
Delay/Veh: 116.0 14.1 14.1 50.9 23.3 23.3 59.7 75.9 75.9 51.8 47.8 73.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 116.0 14.1 14.1 50.9 23.3 23.3 59.7 75.9 75.9 51.8 47.8 73.9
LOS by Move: F B B D C C E E D D E
HCM2kAvgQ: 4 18 18 2 29 29 2 9 9 1 6 8

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
AM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 SR 65 & SR 193 (McBean Park Dr)

Cycle (sec): 120 Critical Vol./Cap.(X): 1.036
Loss Time (sec): 9 Average Delay (sec/veh): 59.2
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 4 9 0 4 9 0 4 4 0 4 9 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 0 1

Volume Module:
Base Vol: 4 871 64 142 760 1 1 2 11 195 2 83
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 4 871 64 142 760 1 1 2 11 195 2 83
User Adj: 1.00 1.08 1.02 1.26 1.16 1.00 1.00 1.00 1.00 1.04 1.00 1.40
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 4 1022 71 194 958 1 1 2 12 220 2 126
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 4 1022 71 194 958 1 1 2 12 220 2 126
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 4 1022 71 194 958 1 1 2 12 220 2 126

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 0.85 0.85 0.81 0.86 0.86 0.86 0.76 0.76 0.76 0.82 0.82 0.73
Lanes: 1.00 0.94 0.06 1.00 0.99 0.01 0.07 0.14 0.79 0.99 0.01 1.00
Final Sat.: 1547 1507 105 1547 1626 2 104 207 1139 1536 15 1384

Capacity Analysis Module:
Vol/Sat: 0.00 0.68 0.68 0.13 0.59 0.59 0.01 0.01 0.01 0.14 0.14 0.09
Crit Moves: ****
Green/Cycle: 0.04 0.64 0.64 0.12 0.72 0.72 0.03 0.03 0.03 0.14 0.14 0.14
Volume/Cap: 0.07 1.06 1.06 1.06 0.82 0.82 0.31 0.31 0.31 1.06 1.06 0.68
Delay/Veh: 55.9 68.0 68.0 137.1 16.6 16.6 60.4 60.4 60.4 131.7 132 58.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 55.9 68.0 68.0 137.1 16.6 16.6 60.4 60.4 60.4 131.7 132 58.9
LOS by Move: E E E F B B E E E F F E
HCM2kAvgQ: 0 53 53 12 26 26 1 1 1 14 14 6

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 SR 65 & 1st St

Cycle (sec): 120 Critical Vol./Cap.(X): 1.081
Loss Time (sec): 9 Average Delay (sec/veh): 65.1
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Protected, Include), Rights, Min. Green, Y+R, and Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume. Columns for each approach and movement.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat. Columns for each approach and movement.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ. Columns for each approach and movement.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 SR 65 & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.752
Loss Time (sec): 12 Average Delay (sec/veh): 25.2
Optimal Cycle: 67 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Protected, Include), Rights, Min. Green, Y+R, and Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume. Columns for each approach and movement.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat. Columns for each approach and movement.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ. Columns for each approach and movement.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 SR 65 & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.945
Loss Time (sec): 9 Average Delay (sec/veh): 19.9
Optimal Cycle: 133 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 0 2 0 0 0 1

Volume Module:
Base Vol: 0 1631 1015 33 1190 0 0 0 0 511 0 24
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1631 1015 33 1190 0 0 0 0 511 0 24
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
PHF Volume: 0 1699 1057 34 1240 0 0 0 0 532 0 25
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1699 1057 34 1240 0 0 0 0 532 0 25
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1699 1057 34 1240 0 0 0 0 532 0 25

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.90 0.81 0.90 0.90 1.00 1.00 1.00 1.00 0.92 1.00 0.85
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3437 1537 1718 3437 0 0 0 0 3502 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.49 0.69 0.02 0.36 0.00 0.00 0.00 0.00 0.15 0.00 0.02
Crit Moves: ****
Green/Cycle: 0.00 0.73 0.73 0.02 0.75 0.00 0.00 0.00 0.00 0.16 0.00 0.16
Volume/Cap: 0.00 0.68 0.94 0.94 0.48 0.00 0.00 0.00 0.00 0.94 0.00 0.10
Delay/Veh: 0.0 8.1 27.3 175.5 5.1 0.0 0.0 0.0 0.0 66.4 0.0 35.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.1 27.3 175.5 5.1 0.0 0.0 0.0 0.0 66.4 0.0 35.9
LOS by Move: A A C F A A A A E A D
HCM2kAvgQ: 0 15 34 3 8 0 0 0 0 12 0 1

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #8 Joiner Pkwy & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.423
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 39 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Ignore Ignore Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 143 174 229 59 229 63 42 390 40 432 798 57
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 143 174 229 59 229 63 42 390 40 432 798 57
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 143 174 0 59 229 0 42 390 0 432 798 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 143 174 0 59 229 0 42 390 0 432 798 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
MLF Adj: 1.10 1.00 0.00 1.10 1.00 0.00 1.00 1.00 0.00 1.10 1.00 0.00
FinalVolume: 157 174 0 65 229 0 42 390 0 475 798 0

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 1500 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.05 0.06 0.00 0.02 0.08 0.00 0.03 0.13 0.00 0.16 0.27 0.00
Crit Volume: 79 114 42 399
Crit Moves: ****

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Joiner Pkwy & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.573
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 53 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 11 columns representing different traffic movements and 11 rows of volume data including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table with 11 columns for lanes and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 11 columns for lanes and 4 rows for Vol/Sat, Crit Moves, Delay/Veh, and Delay Adj.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #10 E. Lincoln Pkwy & Del Webb (N)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.546
Loss Time (sec): 0 Average Delay (sec/veh): 12.6
Optimal Cycle: 0 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Lanes.

Volume Module: Table with 11 columns for traffic movements and 11 rows of volume data including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table with 11 columns for lanes and 4 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 11 columns for lanes and 4 rows for Vol/Sat, Crit Moves, Delay/Veh, and Delay Adj.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 E. Lincoln Pkwy & Del Webb (S)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.365
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: Table with 10 columns and 10 rows showing traffic volume and adjustment factors.

Saturation Flow Module: Table with 10 columns and 4 rows showing saturation flow and lane adjustments.

Capacity Analysis Module: Table with 10 columns and 4 rows showing capacity and delay metrics.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #12 Ferrari Ranch Rd & Ingram Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.985
Loss Time (sec): 0 Average Delay (sec/veh): 34.9
Optimal Cycle: 0 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 10 columns and 10 rows showing traffic volume and adjustment factors.

Saturation Flow Module: Table with 10 columns and 4 rows showing saturation flow and lane adjustments.

Capacity Analysis Module: Table with 10 columns and 10 rows showing capacity and delay metrics.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #13 Ferrari Ranch Rd & Sun City Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.918
Loss Time (sec): 0 Average Delay (sec/veh): 28.2
Optimal Cycle: 0 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Stop Sign, Include), Rights, Min. Green, and Lanes.

Volume Module: Table with 10 columns for volume and growth factors. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table with 10 columns for saturation flow. Rows include Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 10 columns for capacity analysis. Rows include Vol/Sat, Crit Moves, Delay/Veh, Delay Adj, AdjDel/Veh, LOS by Move, ApproachDel, Delay Adj, ApprAdjDel, LOS by Appr, and AllWayAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 SR 193 & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.584
Loss Time (sec): 9 Average Delay (sec/veh): 27.8
Optimal Cycle: 40 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Protected, Include), Rights, Min. Green, and Lanes.

Volume Module: Table with 10 columns for volume and growth factors. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module: Table with 10 columns for saturation flow. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 10 columns for capacity analysis. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1 Existing Plus Project Specific PM Peak hour

Level Of Service Computation Report 2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 SR 193 & East Ave
Cycle (sec): 60 Critical Vol./Cap.(X): 0.598
Loss Time (sec): 9 Average Delay (sec/veh): 14.3
Optimal Cycle: 38 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 1
Volume Module:
Base Vol: 0 0 0 262 0 135 105 344 0 1 302 395
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 262 0 135 105 344 0 1 302 395
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 0 0 288 0 148 115 378 0 1 332 434
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 288 0 148 115 378 0 1 332 434
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 288 0 148 115 378 0 1 332 434
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.90 0.95 1.00 0.90 0.95 0.81
Lanes: 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
Final Sat.: 0 1900 0 1809 0 1615 1718 1809 0 1718 1809 1537
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.16 0.00 0.09 0.07 0.21 0.00 0.00 0.18 0.28
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.27 0.00 0.27 0.11 0.58 0.00 0.00 0.47 0.47
Volume/Cap: 0.00 0.00 0.00 0.60 0.00 0.35 0.60 0.36 0.00 0.36 0.39 0.60
Delay/Veh: 0.0 0.0 0.0 21.3 0.0 18.3 30.5 6.8 0.0 89.9 10.5 13.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 21.3 0.0 18.3 30.5 6.8 0.0 89.9 10.5 13.0
LOS by Move: A A A C A B C A A F B E
HCM2kAvgQ: 0 0 0 6 0 3 3 4 0 0 4 7
Note: Queue reported is the number of cars per lane.

Lincoln Village 1 Existing Plus Project Specific PM Peak hour

Level Of Service Computation Report 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #17 Twelve Bridges Dr & Sierra College Bl
Average Delay (sec/veh): 3.4 Worst Case Level Of Service: E[40.0]
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Ignore Include Ignore Include
Lanes: 1 0 1 0 0 0 0 1 0 0 1 0 0 0 0 0 0
Volume Module:
Base Vol: 206 561 0 0 230 44 48 0 120 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 206 561 0 0 230 44 48 0 120 0 0 0
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92
PHF Volume: 224 610 0 0 250 48 52 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 224 610 0 0 250 48 52 0 0 0 0 0
Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx xxxxx xxxxx xxxxx 6.4 xxxxx 6.2 xxxxx xxxxx xxxxx
FollowUpTim: 2.2 xxxxx xxxxx xxxxx xxxxx xxxxx 3.5 xxxxx 3.3 xxxxx xxxxx xxxxx
Capacity Module:
Cnflct Vol: 298 xxxxx xxxxx xxxxx xxxxx xxxxx 1308 xxxxx 250 xxxxx xxxxx xxxxx
Potent Cap.: 1275 xxxxx xxxxx xxxxx xxxxx xxxxx 178 xxxxx 794 xxxxx xxxxx xxxxx
Move Cap.: 1275 xxxxx xxxxx xxxxx xxxxx xxxxx 154 xxxxx 794 xxxxx xxxxx xxxxx
Volume/Cap: 0.18 xxxxx xxxxx xxxxx xxxxx xxxxx 0.34 xxxxx 0.00 xxxxx xxxxx xxxxx
Level Of Service Module:
2Way95thQ: 0.6 xxxxx xxxxx xxxxx xxxxx xxxxx 1.4 xxxxx xxxxx xxxxx xxxxx
Control Del: 8.4 xxxxx xxxxx xxxxx xxxxx xxxxx 40.0 xxxxx xxxxx xxxxx xxxxx
LOS by Move: A * * * * * E * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx 40.0 xxxxxx
ApproachLOS: * * * * * E * * * * *
Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #18 Twelve Bridges Dr & E Lincoln Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.448
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module:
Base Vol: 16 266 140 87 139 106 216 372 17 116 205 82
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 16 266 140 87 139 106 216 372 17 116 205 82
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 16 266 140 87 139 106 216 372 17 116 205 82
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 266 140 87 139 106 216 372 17 116 205 82
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 16 266 140 87 139 106 216 372 17 116 205 82

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1500 1500 1500 1500 1500 1500 1500 3000 1500 1500 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.01 0.18 0.09 0.06 0.09 0.07 0.14 0.12 0.01 0.08 0.07 0.05
Crit Volume: 266 87 216 103
Crit Moves: **** **** **** ****

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.373
Loss Time (sec): 9 Average Delay (sec/veh): 12.4
Optimal Cycle: 27 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
Base Vol: 59 3 472 0 0 0 260 214 0 0 402 159
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 59 3 472 0 0 0 260 214 0 0 402 159
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.00
PHF Volume: 64 3 0 0 0 0 283 233 0 0 437 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 64 3 0 0 0 0 283 233 0 0 437 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 64 3 0 0 0 0 283 233 0 0 437 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.85 1.00 1.00 1.00 1.00 1.00 0.95 0.95 1.00 1.00 0.95 1.00
Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 1615 1900 1900 0 0 0 1805 3610 0 0 3610 1900

Capacity Analysis Module:
Vol/Sat: 0.04 0.00 0.00 0.00 0.00 0.00 0.16 0.06 0.00 0.00 0.12 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.11 0.11 0.00 0.00 0.00 0.00 0.42 0.74 0.00 0.00 0.32 0.00
Volume/Cap: 0.37 0.02 0.00 0.00 0.00 0.00 0.37 0.09 0.00 0.00 0.37 0.00
Delay/Veh: 26.3 24.0 0.0 0.0 0.0 0.0 12.3 2.1 0.0 0.0 15.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 26.3 24.0 0.0 0.0 0.0 0.0 12.3 2.1 0.0 0.0 15.8 0.0
LOS by Move: C C A A A A B A A A B A
HCM2kAvgQ: 2 0 0 0 0 0 4 1 0 0 4 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.327
Loss Time (sec): 9 Average Delay (sec/veh): 10.8
Optimal Cycle: 26 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 1 0 1

Volume Module:

Base Vol: 0 0 0 127 0 92 26 363 0 0 123 349
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 127 0 92 26 363 0 0 123 349
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.00
PHF Volume: 0 0 0 135 0 98 28 386 0 0 131 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 135 0 98 28 386 0 0 131 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 135 0 98 28 386 0 0 131 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1805 0 1615 1805 1900 0 0 1900 1900

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.07 0.00 0.06 0.02 0.20 0.00 0.00 0.07 0.00
Crit Moves: **** **** ****
Green/Cycle: 0.00 0.00 0.00 0.23 0.00 0.23 0.11 0.62 0.00 0.00 0.51 0.00
Volume/Cap: 0.00 0.00 0.00 0.33 0.00 0.26 0.14 0.33 0.00 0.00 0.14 0.00
Delay/Veh: 0.0 0.0 0.0 19.8 0.0 19.4 24.3 5.6 0.0 0.0 7.9 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 19.8 0.0 19.4 24.3 5.6 0.0 0.0 7.9 0.0
LOS by Move: A A A B A B C A A A A
HCM2kAvgQ: 0 0 0 2 0 2 1 4 0 0 1 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #21 SR 193 & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.979
Loss Time (sec): 0 Average Delay (sec/veh): 35.2
Optimal Cycle: 0 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 0 0 1 0 1 0 0 1 0

Volume Module:

Base Vol: 460 1 134 0 0 1 2 197 208 72 219 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 460 1 134 0 0 1 2 197 208 72 219 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 495 1 144 0 0 1 2 212 0 77 235 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 495 1 144 0 0 1 2 212 0 77 235 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 495 1 144 0 0 1 2 212 0 77 235 0

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.77 0.01 0.22 0.00 0.00 1.00 0.01 0.99 1.00 1.00 1.00 0.00
Final Sat.: 505 1 147 0 0 546 5 509 571 490 526 0

Capacity Analysis Module:

Vol/Sat: 0.98 0.98 0.98 xxxx xxxx 0.00 0.42 0.42 0.00 0.16 0.45 xxxx
Crit Moves: **** ****
Delay/Veh: 52.7 52.7 52.7 0.0 0.0 9.1 14.3 14.3 0.0 11.3 14.7 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.7 52.7 52.7 0.0 0.0 9.1 14.3 14.3 0.0 11.3 14.7 0.0
LOS by Move: F F F * * A B B * B B *
ApproachDel: 52.7 9.1 14.3 13.8
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 52.7 9.1 14.3 13.8
LOS by Appr: F A B B
AllWayAvgQ: 8.0 8.0 8.0 0.0 0.0 0.0 0.7 0.7 0.0 0.2 0.8 0.8

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
Intersection #22 Sierra College Blvd & English Colony Way
Average Delay (sec/veh): 1.3 Worst Case Level Of Service: C [16.0]
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 1 0 1 0 0 0 0 0 0 0 0 0 1 0 0
Volume Module:
Base Vol: 0 677 4 44 329 0 0 0 0 3 0 61
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 677 4 44 329 0 0 0 0 3 0 61
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 744 4 48 362 0 0 0 0 3 0 67
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 744 4 48 362 0 0 0 0 3 0 67
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx xxxxx xxxx xxxxx 6.4 6.5 6.2
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx xxxxx xxxx xxxxx 3.5 4.0 3.3
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 748 xxxx xxxxx xxxx xxxx xxxxx 1204 1204 746
Potent Cap.: xxxx xxxx xxxxx 869 xxxx xxxxx xxxx xxxx xxxxx 205 186 417
Move Cap.: xxxx xxxx xxxxx 869 xxxx xxxxx xxxx xxxx xxxxx 196 175 417
Volume/Cap: xxxx xxxx xxxx 0.06 xxxx xxxx xxxx xxxx xxxx 0.02 0.00 0.16
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx 0.2 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx 9.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * A * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 396 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxxx 0.6 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 16.0 xxxxx
Shared LOS: * * * * * * * * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx 16.0
ApproachLOS: * * * * * C
Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #23 Sierra College Blvd & King Rd
Cycle (sec): 100 Critical Vol./Cap.(X): 0.488
Loss Time (sec): 9 Average Delay (sec/veh): 12.5
Optimal Cycle: 33 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 0 0 0 1 0 0
Volume Module:
Base Vol: 4 606 22 77 410 8 35 7 9 31 10 54
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 4 606 22 77 410 8 35 7 9 31 10 54
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 4 618 22 79 418 8 36 7 9 32 10 55
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 4 618 22 79 418 8 36 7 9 32 10 55
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 4 618 22 79 418 8 36 7 9 32 10 55
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 1.00 0.95 1.00 1.00 0.73 0.73 0.73 0.83 0.83 0.83
Lanes: 1.00 0.96 0.04 1.00 0.98 0.02 0.68 0.14 0.18 0.33 0.10 0.57
Final Sat.: 1805 1824 66 1805 1858 36 956 191 246 512 165 891
Capacity Analysis Module:
Vol/Sat: 0.00 0.34 0.34 0.04 0.23 0.23 0.04 0.04 0.04 0.06 0.06 0.06
Crit Moves: ****
Green/Cycle: 0.01 0.69 0.69 0.09 0.78 0.78 0.13 0.13 0.13 0.13 0.13 0.13
Volume/Cap: 0.29 0.49 0.49 0.49 0.29 0.29 0.30 0.30 0.30 0.49 0.49 0.49
Delay/Veh: 60.5 7.4 7.4 45.7 3.4 3.4 40.6 40.6 40.6 42.5 42.5 42.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 60.5 7.4 7.4 45.7 3.4 3.4 40.6 40.6 40.6 42.5 42.5 42.5
LOS by Move: E A A D A A D D D D D D
HCM2kAvgQ: 0 9 9 3 4 4 2 2 2 3 3 3
Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)
Intersection #24 Sierra Collage & Bankhead
Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C [23.3]
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 1 0 0 0 0 0 1! 0 0 0 0 1! 0 0
Volume Module:
Base Vol: 1 1 10 23 1 0 2 315 2 7 634 47
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 1 10 23 1 0 2 315 2 7 634 47
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 1 10 23 1 0 2 315 2 7 634 47
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 1 1 10 23 1 0 2 315 2 7 634 47
Critical Gap Module:
Critical Gp: 7.1 6.5 6.2 7.1 6.5 xxxxx 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 xxxxx 2.2 xxxx xxxxx 2.2 xxxx xxxxx
Capacity Module:
Cnflct Vol: 992 1015 316 997 993 xxxxx 681 xxxx xxxxx 317 xxxx xxxxx
Potent Cap.: 227 240 729 225 248 xxxxx 921 xxxx xxxxx 1255 xxxx xxxxx
Move Cap.: 225 238 729 220 246 xxxxx 921 xxxx xxxxx 1255 xxxx xxxxx
Volume/Cap: 0.00 0.00 0.01 0.10 0.00 xxxx 0.00 xxxx xxxx 0.01 xxxx xxxx
Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx 0.0 xxxx xxxxx
Control Del: xxxxx xxxx xxxxx xxxxx xxxx xxxxx 8.9 xxxx xxxxx 7.9 xxxx xxxxx
LOS by Move: * * * * * A * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 537 xxxxx 221 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue: xxxxx 0.1 xxxxx 0.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel: xxxxx 11.9 xxxxx 23.3 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * B * C * * * * * * * * * *
ApproachDel: 11.9 23.3 xxxxxxx xxxxxxx
ApproachLOS: B C * *
Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #25 Sierra College Blvd & Taylor Rd
Cycle (sec): 100 Critical Vol./Cap.(X): 0.612
Loss Time (sec): 8 Average Delay (sec/veh): 28.7
Optimal Cycle: 39 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1
Volume Module:
Base Vol: 82 497 161 20 245 81 124 288 100 149 246 42
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 82 497 161 20 245 81 124 288 100 149 246 42
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 91 552 179 22 272 90 138 320 111 166 273 47
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 91 552 179 22 272 90 138 320 111 166 273 47
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 91 552 179 22 272 90 138 320 111 166 273 47
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1805 1900 1615 1805 1900 1615 1805 1900 1615 1805 1900 1615
Capacity Analysis Module:
Vol/Sat: 0.05 0.29 0.11 0.01 0.14 0.06 0.08 0.17 0.07 0.09 0.14 0.03
Crit Moves: **** * * * * *
Green/Cycle: 0.13 0.47 0.47 0.02 0.37 0.37 0.15 0.28 0.28 0.15 0.28 0.28
Volume/Cap: 0.39 0.61 0.23 0.61 0.39 0.15 0.52 0.61 0.25 0.61 0.52 0.10
Delay/Veh: 41.0 20.7 15.7 75.7 23.8 21.4 41.2 33.7 28.5 43.9 31.4 27.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 41.0 20.7 15.7 75.7 23.8 21.4 41.2 33.7 28.5 43.9 31.4 27.0
LOS by Move: D C B E C D C D C D C
HCM2kAvgQ: 3 13 3 2 6 2 5 9 3 6 7 1
Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Sierra College & Brace

Cycle (sec): 100 Critical Vol./Cap.(X): 0.526
Loss Time (sec): 8 Average Delay (sec/veh): 14.3
Optimal Cycle: 33 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 1 1 0 1 0 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 685 105 80 391 0 0 0 0 73 62 0 88
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 685 105 80 391 0 0 0 0 73 62 0 88
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 685 105 80 391 0 0 0 0 73 62 0 88
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 685 105 80 391 0 0 0 0 73 62 0 88
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 685 105 80 391 0 0 0 0 73 62 0 88

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 0.85 0.95 1.00 1.00 1.00 1.00 0.87 0.95 1.00 0.85
Lanes: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 1.00
Final Sat.: 0 1900 1615 1805 1900 0 0 0 1644 1805 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.36 0.07 0.04 0.21 0.00 0.00 0.00 0.04 0.03 0.00 0.05
Crit Moves: ****
Green/Cycle: 0.00 0.69 0.69 0.08 0.77 0.00 0.00 0.00 0.08 0.07 0.00 0.15
Volume/Cap: 0.00 0.53 0.09 0.53 0.27 0.00 0.00 0.00 0.53 0.53 0.00 0.36
Delay/Veh: 0.0 8.1 5.3 47.2 3.4 0.0 0.0 0.0 47.5 49.6 0.0 39.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.1 5.3 47.2 3.4 0.0 0.0 0.0 47.5 49.6 0.0 39.2
LOS by Move: A A A D A A A D A D
HCM2kAvgQ: 0 10 1 3 4 0 0 0 3 3 0 3

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #27 Sierra College Blvd & Granite Dr

Cycle (sec): 100 Critical Vol./Cap.(X): 0.360
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 0 2 1 0 1 0 1

Volume Module:
Base Vol: 103 565 64 62 409 89 122 32 150 113 25 32
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 103 565 64 62 409 89 122 32 150 113 25 32
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 103 565 64 62 409 89 122 32 150 113 25 32
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 103 565 64 62 409 89 122 32 150 113 25 32
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00
FinalVolume: 103 565 64 62 409 89 122 32 165 113 25 32

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 1500 1500 3000 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.07 0.19 0.04 0.04 0.14 0.06 0.08 0.02 0.06 0.08 0.02 0.02
Crit Volume: 283 62 83 113
Crit Moves: ****

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.239
Loss Time (sec): 0 Average Delay (sec/veh): 13.9
Optimal Cycle: 30 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 0 0 3 0 1 1 0 0 0 1 2 0 0 1 1

Volume Module:
Base Vol: 7 586 61 0 644 8 7 0 14 290 6 176
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 7 586 61 0 644 8 7 0 14 290 6 176
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 8 637 0 0 700 9 8 0 15 315 7 191
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 8 637 0 0 700 9 8 0 15 315 7 191
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 8 637 0 0 700 9 8 0 15 315 7 191

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 1.00 1.00 0.91 0.85 0.95 1.00 0.85 0.92 0.86 0.86
Lanes: 1.00 3.00 1.00 0.00 3.00 1.00 1.00 0.00 1.00 2.00 0.07 1.93
Final Sat.: 1805 5187 1900 0 5187 1615 1805 0 1615 3502 107 3142

Capacity Analysis Module:
Vol/Sat: 0.00 0.12 0.00 0.00 0.13 0.01 0.00 0.00 0.01 0.09 0.06 0.06
Crit Moves: ****
Green/Cycle: 0.02 0.58 0.00 0.00 0.57 0.57 0.03 0.00 0.04 0.38 0.39 0.39
Volume/Cap: 0.24 0.21 0.00 0.00 0.24 0.01 0.16 0.00 0.24 0.24 0.16 0.16
Delay/Veh: 52.3 9.9 0.0 0.0 11.0 9.5 49.0 0.0 48.5 21.4 19.9 19.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.3 9.9 0.0 0.0 11.0 9.5 49.0 0.0 48.5 21.4 19.9 19.9
LOS by Move: D A A A B A D C B B B
HCM2kAvgQ: 0 3 0 0 4 0 0 0 1 3 2 2

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
PM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.280
Loss Time (sec): 9 Average Delay (sec/veh): 11.9
Optimal Cycle: 25 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 2 0 2 0 1 2 0 2 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 777 2 2 579 189 258 1 40 0 0 2
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 777 2 2 579 189 258 1 40 0 0 2
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 845 2 2 629 0 280 1 43 0 0 2
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 845 2 2 629 0 280 1 43 0 0 2
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 845 2 2 629 0 280 1 43 0 0 2

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 0.92 0.95 1.00 0.92 0.95 0.85 1.00 1.00 0.85
Lanes: 0.00 4.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 1.00 0.00 1.00
Final Sat.: 0 6916 1615 3502 3610 1900 3502 3610 1615 1900 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.12 0.00 0.00 0.17 0.00 0.08 0.00 0.03 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.62 0.62 0.00 0.62 0.00 0.29 0.29 0.29 0.00 0.00 0.00
Volume/Cap: 0.00 0.20 0.00 0.20 0.28 0.00 0.28 0.00 0.09 0.00 0.00 xxxx
Delay/Veh: 0.0 8.2 7.2 58.3 8.6 0.0 27.8 25.5 26.3 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.2 7.2 58.3 8.6 0.0 27.8 25.5 26.3 0.0 0.0 0.0
LOS by Move: A A A E A A C C C A A A
HCM2kAvgQ: 0 3 0 0 5 0 3 0 1 0 0 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Existing Plus Project Specific
AM Peak hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #116 SR 193 & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.588
Loss Time (sec): 12 Average Delay (sec/veh): 17.7
Optimal Cycle: 47 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1

Volume Module:
Base Vol: 18 1 3 21 1 79 204 440 11 3 614 40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 18 1 3 21 1 79 204 440 11 3 614 40
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 18 1 3 21 1 79 204 440 11 3 614 40
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 18 1 3 21 1 79 204 440 11 3 614 40
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 18 1 3 21 1 79 204 440 11 3 614 40

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.90 0.95 0.81 0.90 0.95 0.81
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1805 1900 1615 1805 1900 1615 1718 1809 1537 1718 1809 1537

Capacity Analysis Module:
Vol/Sat: 0.01 0.00 0.00 0.01 0.00 0.05 0.12 0.24 0.01 0.00 0.34 0.03
Crit Moves: **** **
Green/Cycle: 0.02 0.01 0.01 0.09 0.08 0.08 0.20 0.77 0.77 0.01 0.58 0.58
Volume/Cap: 0.59 0.04 0.13 0.13 0.01 0.59 0.59 0.31 0.01 0.31 0.59 0.05
Delay/Veh: 75.2 49.3 51.5 42.6 42.1 50.8 38.7 3.5 2.6 67.5 14.4 9.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 75.2 49.3 51.5 42.6 42.1 50.8 38.7 3.5 2.6 67.5 14.4 9.2
LOS by Move: E D D D D D D A A E B A
HCM2kAvgQ: 1 0 0 1 0 3 6 4 0 0 12 1

Note: Queue reported is the number of cars per lane.

**INTERSECTION LOS WORKSHEETS
2030 NO PROJECT CONDITIONS**

Lincoln Village 1
2030 No Project
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in	
		LOS	Del/Veh	LOS	Del/Veh		
# 19	Twelve Bridges Dr & SR 65 N/B	C	23.7 0.835	C	23.7 0.835	+ 0.000	D/V
# 20	Twelve Bridges Dr & SR 65 S/B	B	14.3 0.542	B	14.3 0.542	+ 0.000	D/V
# 21	SR 193 & Sierra College Blvd	C	19.2 0.728	C	19.2 0.728	+ 0.000	V/C
# 28	Sierra College Blvd & I-80 W/B	C	20.7 0.539	C	20.7 0.539	+ 0.000	D/V
# 29	Sierra College Blvd & I-80 E/B	C	29.8 0.690	C	29.8 0.690	+ 0.000	D/V
# 41	SR 65 Bypass NB & Ferrari Ranc	C	21.9 0.598	C	21.9 0.598	+ 0.000	D/V
# 42	SR 65 Bypass SB & Ferrari Ranc	B	12.5 0.841	B	12.5 0.841	+ 0.000	D/V
# 43	SR 65 NB & Industrial/Lincoln	C	26.3 0.831	C	26.3 0.831	+ 0.000	D/V
# 44	SR 65 SB & Industrial/Lincoln	A	2.8 0.392	A	2.8 0.392	+ 0.000	D/V

Lincoln Village 1
2030 No Project
AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.835
 Loss Time (sec): 9 Average Delay (sec/veh): 23.7
 Optimal Cycle: 64 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ignore Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
 Base Vol: 552 8 422 0 0 0 190 410 0 0 896 249
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 552 8 422 0 0 0 190 410 0 0 896 249
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 552 8 0 0 0 0 190 410 0 0 896 249
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 552 8 0 0 0 0 190 410 0 0 896 249
 PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 552 8 0 0 0 0 190 410 0 0 896 249

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 0.98 1.00 1.00 1.00 1.00 0.93 0.93 1.00 1.00 0.93 0.83
 Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
 Final Sat.: 1583 1862 1900 0 0 0 1769 3538 0 0 3538 1583

Capacity Analysis Module:
 Vol/Sat: 0.35 0.00 0.00 0.00 0.00 0.00 0.11 0.12 0.00 0.00 0.25 0.16
 Crit Moves: ****
 Green/Cycle: 0.42 0.42 0.00 0.00 0.00 0.00 0.13 0.43 0.00 0.00 0.30 0.30
 Volume/Cap: 0.83 0.01 0.00 0.00 0.00 0.00 0.83 0.27 0.00 0.00 0.83 0.52
 Delay/Veh: 24.6 10.2 0.0 0.0 0.0 0.0 48.0 11.0 0.0 0.0 25.3 18.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 24.6 10.2 0.0 0.0 0.0 0.0 48.0 11.0 0.0 0.0 25.3 18.3
 LOS by Move: C B A A A A D B A A C B
 HCM2kAvgQ: 12 0 0 0 0 0 6 3 0 0 11 4

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.542
Loss Time (sec): 9 Average Delay (sec/veh): 14.3
Optimal Cycle: 35 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 0 1 0 2 0 0 0 0 0 2 0 1

Volume Module:
Base Vol: 0 0 0 289 26 159 91 300 0 0 780 665
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 289 26 159 91 300 0 0 780 665
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 289 26 159 91 300 0 0 780 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 289 26 159 91 300 0 0 780 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 289 26 159 91 300 0 0 780 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.80 0.80 0.80 0.93 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 1.00 0.14 0.86 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1528 215 1313 1769 3538 0 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.19 0.12 0.12 0.05 0.08 0.00 0.00 0.22 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.35 0.35 0.35 0.09 0.50 0.00 0.00 0.41 0.00
Volume/Cap: 0.00 0.00 0.00 0.54 0.35 0.35 0.54 0.17 0.00 0.00 0.54 0.00
Delay/Veh: 0.0 0.0 0.0 16.4 14.6 14.6 29.5 8.2 0.0 0.0 14.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 16.4 14.6 14.6 29.5 8.2 0.0 0.0 14.0 0.0
LOS by Move: A A A B B B C A A A B A
HCM2kAvgQ: 0 0 0 5 3 3 3 2 0 0 6 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #21 SR 193 & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.728
Loss Time (sec): 0 Average Delay (sec/veh): 19.2
Optimal Cycle: 0 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 0 0 1 0 0 0 1 0 0 1 1 0 0 1 0

Volume Module:
Base Vol: 292 0 77 0 2 1 0 274 495 290 417 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 292 0 77 0 2 1 0 274 495 290 417 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 292 0 77 0 2 1 0 274 0 290 417 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 292 0 77 0 2 1 0 274 0 290 417 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 292 0 77 0 2 1 0 274 0 290 417 0

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.67 0.33 0.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 473 0 557 0 287 143 0 521 568 529 573 0

Capacity Analysis Module:
Vol/Sat: 0.62 xxxx 0.14 xxxx 0.01 0.01 xxxx 0.53 0.00 0.55 0.73 xxxx
Crit Moves: ****
Delay/Veh: 20.7 0.0 9.9 0.0 10.6 10.6 0.0 16.4 0.0 17.0 23.2 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 20.7 0.0 9.9 0.0 10.6 10.6 0.0 16.4 0.0 17.0 23.2 0.0
LOS by Move: C * A * B B * C * C C *
ApproachDel: 18.4 10.6 16.4 20.7
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 18.4 10.6 16.4 20.7
LOS by Appr: C B C C
AllWayAvgQ: 1.4 1.4 0.1 0.0 0.0 0.0 1.0 1.0 0.0 1.1 2.3 2.3

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.539
Loss Time (sec): 0 Average Delay (sec/veh): 20.7
Optimal Cycle: 49 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 0 0 3 0 1 1 0 0 0 1 2 0 0 1 1

Volume Module:
Base Vol: 176 974 37 0 1218 8 0 0 87 496 52 417
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 176 974 37 0 1218 8 0 0 87 496 52 417
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 176 974 0 0 1218 8 0 0 87 496 52 417
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 176 974 0 0 1218 8 0 0 87 496 52 417
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 176 974 0 0 1218 8 0 0 87 496 52 417

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.89 1.00 1.00 0.89 0.83 1.00 1.00 0.83 0.90 0.85 0.85
Lanes: 1.00 3.00 1.00 0.00 3.00 1.00 1.00 0.00 1.00 2.00 0.22 1.78
Final Sat.: 1769 5083 1900 0 5083 1583 1900 0 1583 3432 358 2871

Capacity Analysis Module:
Vol/Sat: 0.10 0.19 0.00 0.00 0.24 0.01 0.00 0.00 0.05 0.14 0.15 0.15
Crit Moves: **** **** **** ****
Green/Cycle: 0.18 0.63 0.00 0.00 0.44 0.44 0.00 0.00 0.10 0.27 0.37 0.37
Volume/Cap: 0.54 0.30 0.00 0.00 0.54 0.01 0.00 0.00 0.54 0.54 0.39 0.39
Delay/Veh: 38.7 8.5 0.0 0.0 20.5 15.5 0.0 0.0 46.3 31.9 23.4 23.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 38.7 8.5 0.0 0.0 20.5 15.5 0.0 0.0 46.3 31.9 23.4 23.4
LOS by Move: D A A A C B A D C C C C
HCM2kAvgQ: 6 5 0 0 10 0 0 0 3 7 5 5

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.690
Loss Time (sec): 9 Average Delay (sec/veh): 29.8
Optimal Cycle: 50 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 2 0 2 0 1 2 0 2 0 1 0 1 0 1 0

Volume Module:
Base Vol: 0 529 80 172 1025 114 736 253 143 57 29 194
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 529 80 172 1025 114 736 253 143 57 29 194
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 529 80 172 1025 0 736 253 143 57 29 194
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 529 80 172 1025 0 736 253 143 57 29 194
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 529 80 172 1025 0 736 253 143 57 29 194

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 0.83 0.90 0.93 1.00 0.90 0.93 0.83 0.83 0.83 0.83
Lanes: 0.00 4.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 0.66 0.34 1.00
Final Sat.: 0 6778 1583 3432 3538 1900 3432 3538 1583 1040 529 1569

Capacity Analysis Module:
Vol/Sat: 0.00 0.08 0.05 0.05 0.29 0.00 0.21 0.07 0.09 0.05 0.05 0.12
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.26 0.26 0.16 0.42 0.00 0.31 0.31 0.31 0.19 0.18 0.18
Volume/Cap: 0.00 0.31 0.20 0.31 0.69 0.00 0.69 0.23 0.30 0.30 0.31 0.69
Delay/Veh: 0.0 30.1 29.4 37.1 25.1 0.0 32.2 26.1 26.9 35.3 35.8 43.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 30.1 29.4 37.1 25.1 0.0 32.2 26.1 26.9 35.3 35.8 43.4
LOS by Move: A C C D C A C C C D D D
HCM2kAvgQ: 0 4 2 3 14 0 11 3 3 3 3 7

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 SR 65 Bypass NB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.598
Loss Time (sec): 0 Average Delay (sec/veh): 21.9
Optimal Cycle: 57 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 1 0 3 0 0 0 0 3 0 1

Volume Module:
Base Vol: 323 0 510 0 0 0 120 1003 0 0 1059 121
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 323 0 510 0 0 0 120 1003 0 0 1059 121
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 323 0 510 0 0 0 120 1003 0 0 1059 121
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 323 0 510 0 0 0 120 1003 0 0 1059 121
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 323 0 510 0 0 0 120 1003 0 0 1059 121

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.83 1.00 1.00 1.00 0.93 0.89 1.00 1.00 0.89 0.83
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 3.00 0.00 0.00 3.00 1.00
Final Sat.: 1769 0 1583 0 0 0 1769 5083 0 0 5083 1583

Capacity Analysis Module:
Vol/Sat: 0.18 0.00 0.32 0.00 0.00 0.00 0.07 0.20 0.00 0.00 0.21 0.08
Crit Moves: ****
Green/Cycle: 0.54 0.00 0.54 0.00 0.00 0.00 0.11 0.46 0.00 0.00 0.35 0.35
Volume/Cap: 0.34 0.00 0.60 0.00 0.00 0.00 0.60 0.43 0.00 0.00 0.60 0.22
Delay/Veh: 13.2 0.0 16.9 0.0 0.0 0.0 47.1 18.2 0.0 0.0 27.4 23.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 13.2 0.0 16.9 0.0 0.0 0.0 47.1 18.2 0.0 0.0 27.4 23.2
LOS by Move: B A B A A D B A A C C
HCM2kAvgQ: 6 0 11 0 0 0 4 8 0 0 10 3

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 SR 65 Bypass SB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.841
Loss Time (sec): 0 Average Delay (sec/veh): 12.5
Optimal Cycle: 143 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 0 0 3 0 1 0 0 3 0 1

Volume Module:
Base Vol: 0 0 0 337 0 55 0 988 1029 0 552 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 337 0 55 0 988 1029 0 552 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 337 0 55 0 988 1029 0 552 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 337 0 55 0 988 1029 0 552 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 337 0 55 0 988 1029 0 552 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 1.00 0.89 0.83 1.00 0.89 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 3.00 1.00 0.00 3.00 1.00
Final Sat.: 0 0 0 1769 0 1583 0 5083 1583 0 5083 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.19 0.00 0.03 0.00 0.19 0.65 0.00 0.11 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.23 0.00 0.23 0.00 0.77 0.77 0.00 0.77 0.00
Volume/Cap: 0.00 0.00 0.00 0.84 0.00 0.15 0.00 0.25 0.84 0.00 0.14 0.00
Delay/Veh: 0.0 0.0 0.0 51.6 0.0 31.2 0.0 3.2 12.7 0.0 2.9 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 51.6 0.0 31.2 0.0 3.2 12.7 0.0 2.9 0.0
LOS by Move: A A A D A C A A B A A A
HCM2kAvgQ: 0 0 0 13 0 1 0 3 23 0 2 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 SR 65 NB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.831
Loss Time (sec): 0 Average Delay (sec/veh): 26.3
Optimal Cycle: 135 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 0 0 0 3 0 0 0 1

Volume Module:
Base Vol: 0 114 0 0 1858 0 0 0 0 0 0 0 737
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 114 0 0 1858 0 0 0 0 0 0 0 737
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 114 0 0 1858 0 0 0 0 0 0 0 737
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 114 0 0 1858 0 0 0 0 0 0 0 737
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 114 0 0 1858 0 0 0 0 0 0 0 737

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 1.00 0.89 1.00 1.00 1.00 1.00 1.00 1.00 0.83
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 5083 0 0 5083 0 0 0 0 1900 0 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.02 0.00 0.00 0.37 0.00 0.00 0.00 0.00 0.00 0.00 0.47
Crit Moves: **** ****
Green/Cycle: 0.00 0.44 0.00 0.00 0.44 0.00 0.00 0.00 0.00 0.00 0.00 0.56
Volume/Cap: 0.00 0.05 0.00 0.00 0.83 0.00 0.00 0.00 0.00 0.00 0.00 0.83
Delay/Veh: 0.0 16.1 0.0 0.0 27.5 0.0 0.0 0.0 0.0 0.0 0.0 24.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 16.1 0.0 0.0 27.5 0.0 0.0 0.0 0.0 0.0 0.0 24.8
LOS by Move: A B A A C A A A A A A C
HCM2kAvgQ: 0 1 0 0 21 0 0 0 0 0 0 21

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 SR 65 SB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.392
Loss Time (sec): 0 Average Delay (sec/veh): 2.8
Optimal Cycle: 37 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 1 0 3 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 0 114 0 653 1205 0 0 0 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 114 0 653 1205 0 0 0 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 114 0 653 1205 0 0 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 114 0 653 1205 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 114 0 653 1205 0 0 0 0 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 0.93 0.89 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 0 5083 1900 1769 5083 0 0 0 0 0 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.02 0.00 0.37 0.24 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: **** ****
Green/Cycle: 0.00 0.06 0.00 0.94 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.39 0.00 0.39 0.24 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 46.3 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 46.3 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A D A A A A A A A A A A
HCM2kAvgQ: 0 2 0 2 0 0 0 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
230 No Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 1 Lincoln Blvd & Wise Rd	C	23.4 0.212	C	23.4 0.212	+ 0.000	D/V
# 2 Lincoln Blvd & Gladding Rd	C	18.0 0.225	C	18.0 0.225	+ 0.000	D/V
# 3 Lincoln Blvd & 7th Street	A	xxxxx 0.474	A	xxxxx 0.474	+ 0.000	V/C
# 4 Lincoln Blvd & McBean Park Dr	A	xxxxx 0.447	A	xxxxx 0.447	+ 0.000	V/C
# 5 Lincoln Blvd & 1st St	C	xxxxx 0.734	C	xxxxx 0.734	+ 0.000	V/C
# 6 Lincoln Blvd & Ferrari Ranch R	A	xxxxx 0.575	A	xxxxx 0.575	+ 0.000	V/C
# 7 Lincoln Blvd & Sterling Pkwy	A	xxxxx 0.514	A	xxxxx 0.514	+ 0.000	V/C
# 8 Joiner Pkwy & Ferrari Ranch Rd	D	xxxxx 0.898	D	xxxxx 0.898	+ 0.000	V/C
# 9 Joiner Pkwy & Sterling Pkwy	A	xxxxx 0.528	A	xxxxx 0.528	+ 0.000	V/C
# 10 E. Joiner Pkwy & Del Webb (N)	B	xxxxx 0.607	B	xxxxx 0.607	+ 0.000	V/C
# 11 E. Joiner Pkwy & Del Webb (S)	A	xxxxx 0.486	A	xxxxx 0.486	+ 0.000	V/C
# 12 Ferrari Ranch Rd & Ingram Pkwy	A	xxxxx 0.338	A	xxxxx 0.338	+ 0.000	V/C
# 13 Ferrari Ranch Rd & Sun City Bl	A	xxxxx 0.320	A	xxxxx 0.320	+ 0.000	V/C
# 14 McBean Park Dr & Ferrari Ranch	D	xxxxx 0.815	D	xxxxx 0.815	+ 0.000	V/C
# 15 McBean Park Dr & East Ave	D	xxxxx 0.900	D	xxxxx 0.900	+ 0.000	V/C
# 16 McBean Park Dr & Oak Tree Ln	A	xxxxx 0.339	A	xxxxx 0.339	+ 0.000	V/C
# 17 Twelve Bridges Dr & Sierra Col	A	xxxxx 0.560	A	xxxxx 0.560	+ 0.000	V/C
# 18 Twelve Bridges Dr & E Joiner P	B	xxxxx 0.631	B	xxxxx 0.631	+ 0.000	V/C
# 19 Twelve Bridges Dr & SR 65 N/B	B	20.0 0.839	B	20.0 0.839	+ 0.000	D/V
# 20 Twelve Bridges Dr & SR 65 S/B	C	20.2 0.885	C	20.2 0.885	+ 0.000	D/V
# 21 Lincoln-Newcastle Hwy & Sierra	D	xxxxx 0.808	D	xxxxx 0.808	+ 0.000	V/C
# 22 Sierra College Blvd & English	C	xxxxx 0.766	C	xxxxx 0.766	+ 0.000	V/C
# 23 Sierra College Blvd & King Rd	D	37.1 0.898	D	37.1 0.898	+ 0.000	D/V

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Lincoln Village 1
230 No Project
PM Peak Hour

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 24 Sierra Collage & Bankhead	F	347.2 0.899	F	347.2 0.899	+ 0.000	D/V
# 25 Sierra College Blvd & Taylor R	D	40.6 0.900	D	40.6 0.900	+ 0.000	D/V
# 26 Sierra College & Brace	C	25.5 0.720	C	25.5 0.720	+ 0.000	D/V
# 27 Sierra College Blvd & Granite	C	xxxxx 0.722	C	xxxxx 0.722	+ 0.000	V/C
# 28 Sierra College Blvd & I-80 W/B	C	23.9 0.675	C	23.9 0.675	+ 0.000	D/V
# 29 Sierra College Blvd & I-80 E/B	D	36.8 0.769	D	36.8 0.769	+ 0.000	D/V

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Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Lincoln Blvd & Wise Rd

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: C [23.4]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 0 1 0 1 0 0 1 0 0 0 0 0 1 0 0

Volume Module: Base Vol: 9 324 4 78 487 1 3 49 13 5 23 12 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Initial Bse: 9 324 4 78 487 1 3 49 13 5 23 12 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PHF Volume: 9 324 4 78 487 1 3 49 13 5 23 12 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Final Volume: 9 324 4 78 487 1 3 49 13 5 23 12

Critical Gap Module: Critical Gp: 4.1 xxx xx 4.1 xxx xx 7.1 6.5 6.2 7.1 6.5 6.2 FollowUpTim: 2.2 xxx xx 2.2 xxx xx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module: Cnflct Vol: 488 xxx xx 328 xxx xx 1005 990 488 1019 988 326 Potent Cap.: 1060 xxx xx 1215 xxx xx 222 249 584 217 249 720 Move Cap.: 1060 xxx xx 1215 xxx xx 191 231 584 168 231 720 Volume/Cap: 0.01 xxx xx 0.06 xxx xx 0.02 0.21 0.02 0.03 0.10 0.02

Level Of Service Module: 2Way95thQ: 0.0 xxx xx 0.2 xxx xx Control Del: 8.4 xxx xx 8.2 xxx xx LOS by Move: A * * A * * Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT Shared Cap.: xxx xx 260 xxx xx 274 xxx xx SharedQueue: xxx xx 1.0 xxx xx 0.5 xxx xx Shrd ConDel: xxx xx 23.4 xxx xx 20.4 xxx xx Shared LOS: * * * * * ApproachDel: xxx xx 23.4 20.4 ApproachLOS: * * C C

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Lincoln Blvd & Gladding Rd

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C [18.0]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 1 0 1 0 0 0 0 0 0 0 1 0 0

Volume Module: Base Vol: 1 293 377 1 355 0 0 0 0 76 0 24 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Initial Bse: 1 293 377 1 355 0 0 0 0 76 0 24 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PHF Volume: 1 293 377 1 355 0 0 0 0 76 0 24 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Final Volume: 1 293 377 1 355 0 0 0 0 76 0 24

Critical Gap Module: Critical Gp: 4.1 xxx xx 4.1 xxx xx xxx xx xxx xx 6.4 6.5 6.2 FollowUpTim: 2.2 xxx xx 2.2 xxx xx xxx xx xxx xx 3.5 4.0 3.3

Capacity Module: Cnflct Vol: 355 xxx xx 670 xxx xx xxx xx xxx xx 841 841 482 Potent Cap.: 1187 xxx xx 906 xxx xx xxx xx xxx xx 338 304 589 Move Cap.: 1187 xxx xx 906 xxx xx xxx xx xxx xx 337 303 589 Volume/Cap: 0.00 xxx xx 0.00 xxx xx xxx xx xxx xx 0.23 0.00 0.04

Level Of Service Module: 2Way95thQ: 0.0 xxx xx 0.0 xxx xx xxx xx xxx xx xxx xx xxx xx Control Del: 8.0 xxx xx 9.0 xxx xx xxx xx xxx xx xxx xx xxx xx LOS by Move: A * * A * * Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT Shared Cap.: xxx xx 376 xxx xx 376 xxx xx SharedQueue: xxx xx 1.1 xxx xx 1.1 xxx xx Shrd ConDel: xxx xx xxx xx xxx xx xxx xx xxx xx xxx xx 18.0 xxx xx Shared LOS: * * * * * ApproachDel: xxx xx xxx xx 18.0 ApproachLOS: * * C C

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Lincoln Blvd & 7th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.474
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1

Volume Module:
Base Vol: 75 462 36 24 393 13 2 89 75 25 139 193
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 75 462 36 24 393 13 2 89 75 25 139 193
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 75 462 36 24 393 13 2 89 75 25 139 193
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 75 462 36 24 393 13 2 89 75 25 139 193
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 75 462 36 24 393 13 2 89 75 25 139 193

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.93 0.07 1.00 0.97 0.03 1.00 0.54 0.46 1.00 1.00 1.00
Final Sat.: 1500 1392 108 1500 1452 48 1500 814 686 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.05 0.33 0.33 0.02 0.27 0.27 0.00 0.11 0.11 0.02 0.09 0.13
Crit Volume: 498 24 164 25
Crit Moves: **** **** **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Lincoln Blvd & McBean Park Dr

Cycle (sec): 120 Critical Vol./Cap.(X): 0.447
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 0 0 1 0 0 1

Volume Module:
Base Vol: 4 588 22 0 508 1 1 2 11 45 2 39
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 4 588 22 0 508 1 1 2 11 45 2 39
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 4 588 22 0 508 1 1 2 11 45 2 39
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 4 588 22 0 508 1 1 2 11 45 2 39
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 4 588 22 0 508 1 1 2 11 45 2 39

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.96 0.04 1.00 0.99 0.01 0.07 0.14 0.79 0.96 0.04 1.00
Final Sat.: 1500 1446 54 1500 1497 3 107 214 1179 1436 64 1500

Capacity Analysis Module:
Vol/Sat: 0.00 0.41 0.41 0.00 0.34 0.34 0.01 0.01 0.01 0.03 0.03 0.03
Crit Volume: 610 0 14 47
Crit Moves: **** **** **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Lincoln Blvd & 1st St

Cycle (sec): 120 Critical Vol./Cap.(X): 0.734
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 70 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 0 1 0

Volume Module:
Base Vol: 176 699 88 6 596 31 30 75 156 67 88 3
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 176 699 88 6 596 31 30 75 156 67 88 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 176 699 88 6 596 31 30 75 156 67 88 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 176 699 88 6 596 31 30 75 156 67 88 3
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 176 699 88 6 596 31 30 75 156 67 88 3

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.95 0.05 1.00 0.32 0.68 1.00 0.97 0.03
Final Sat.: 1500 1500 1500 1500 1426 74 1500 487 1013 1500 1451 49

Capacity Analysis Module:
Vol/Sat: 0.12 0.47 0.06 0.00 0.42 0.42 0.02 0.15 0.15 0.04 0.06 0.06
Crit Volume: 176 627 231 67
Crit Moves: **** **** **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Lincoln Blvd & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.575
Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ovl Ovl Include Ovl

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 1 0 2 0 2 0 1

Volume Module:
Base Vol: 158 920 318 116 760 152 94 297 47 184 384 42
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 158 920 318 116 760 152 94 297 47 184 384 42
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 158 920 318 116 760 152 94 297 47 184 384 42
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 158 920 318 116 760 152 94 297 47 184 384 42
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00
FinalVolume: 158 920 318 116 760 152 94 297 47 202 384 42

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.73 0.27 2.00 2.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 1500 2590 410 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.11 0.31 0.21 0.08 0.25 0.10 0.06 0.11 0.11 0.07 0.13 0.03
Crit Volume: 460 116 94 192
Crit Moves: **** **** **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Lincoln Blvd & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.514
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 38 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 0 2 0 0 0 1

Volume Module:

Base Vol: 0 1167 314 99 884 0 0 0 0 101 0 114
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1167 314 99 884 0 0 0 0 101 0 114
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1167 314 99 884 0 0 0 0 101 0 114
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1167 314 99 884 0 0 0 0 101 0 114
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00
FinalVolume: 0 1167 314 99 884 0 0 0 0 111 0 114

Saturation Flow Module:

Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3100 1550 1550 3100 0 0 0 0 3100 0 1550

Capacity Analysis Module:

Vol/Sat: 0.00 0.38 0.20 0.06 0.29 0.00 0.00 0.00 0.00 0.04 0.00 0.07
Crit Volume: 584 99 0 114
Crit Moves: **** **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #8 Joiner Pkwy & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.898
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Ignore Ignore Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1

Volume Module:

Base Vol: 930 493 265 30 569 30 29 127 600 886 324 13
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 930 493 265 30 569 30 29 127 600 886 324 13
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 930 493 0 30 569 0 29 127 0 886 324 0
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 930 493 0 30 569 0 29 127 0 886 324 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
MLF Adj: 1.10 1.00 0.00 1.10 1.00 0.00 1.00 1.00 0.00 1.10 1.00 0.00
FinalVolume: 1023 493 0 33 569 0 29 127 0 975 324 0

Saturation Flow Module:

Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 1500 3000 1500 3000 3000 1500

Capacity Analysis Module:

Vol/Sat: 0.34 0.16 0.00 0.01 0.19 0.00 0.02 0.04 0.00 0.32 0.11 0.00
Crit Volume: 512 285 64 487
Crit Moves: **** **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Joiner Pkwy & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.528
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 1 0 1 1 0 1 0 1 1 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 462 29 220 36 16 53 53 194 64 253 865 64
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 462 29 220 36 16 53 53 194 64 253 865 64
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 462 29 0 36 16 53 53 194 0 253 865 64
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 462 29 0 36 16 53 53 194 0 253 865 64
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.10 1.00 1.00
FinalVolume: 508 29 0 36 16 53 53 194 0 278 865 64

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 2.00 1.00 2.00 1.00
Final Sat.: 3000 1500 1500 1500 1500 1500 1500 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.17 0.02 0.00 0.02 0.01 0.04 0.04 0.06 0.00 0.09 0.29 0.04
Crit Volume: 254 53 53 433
Crit Moves: **** **** **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 E. Joiner Pkwy & Del Webb (N)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.607
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 58 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 0 1 0 1 0 0 1 0 0 1

Volume Module:
Base Vol: 1 964 169 230 329 0 2 1 1 78 1 196
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 964 169 230 329 0 2 1 1 78 1 196
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 964 169 230 329 0 2 1 1 78 1 196
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1 964 169 230 329 0 2 1 1 78 1 196
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 1 964 169 230 329 0 2 1 1 78 1 196

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 0.00 1.00 0.50 0.50 0.99 0.01 1.00
Final Sat.: 1500 3000 1500 1500 3000 0 1500 750 750 1481 19 1500

Capacity Analysis Module:
Vol/Sat: 0.00 0.32 0.11 0.15 0.11 0.00 0.00 0.00 0.00 0.05 0.05 0.13
Crit Volume: 482 230 2
Crit Moves: **** **** **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 E. Joiner Pkwy & Del Webb (S)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.486
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 1 0 0 1 0

Volume Module:
Base Vol: 27 1093 78 61 370 13 29 17 5 104 14 50
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 27 1093 78 61 370 13 29 17 5 104 14 50
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 27 1093 78 61 370 13 29 17 5 104 14 50
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 27 1093 78 61 370 13 29 17 5 104 14 50
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 27 1093 78 61 370 13 29 17 5 104 14 50

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.93 0.07 1.00 1.00 1.00 1.00 0.22 0.78
Final Sat.: 1500 3000 1500 1500 2898 102 1500 1500 1500 1500 328 1172

Capacity Analysis Module:
Vol/Sat: 0.02 0.36 0.05 0.04 0.13 0.13 0.02 0.01 0.00 0.07 0.04 0.04
Crit Volume: 547 61 17 104
Crit Moves: **** **

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Ferrari Ranch Rd & Ingram Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.338
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module:
Base Vol: 35 0 109 0 0 0 0 0 719 25 56 612 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 35 0 109 0 0 0 0 0 719 25 56 612 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 35 0 109 0 0 0 0 0 719 25 56 612 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 35 0 109 0 0 0 0 0 719 25 56 612 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 35 0 109 0 0 0 0 0 719 25 56 612 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 1550 0 1550 0 0 0 0 3100 1550 1550 3100 0

Capacity Analysis Module:
Vol/Sat: 0.02 0.00 0.07 0.00 0.00 0.00 0.00 0.23 0.02 0.04 0.20 0.00
Crit Volume: 109 0 360 56
Crit Moves: **** **

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Ferrari Ranch Rd & Sun City Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.320
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 785 20 26 562 0 0 0 0 77 0 22
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 785 20 26 562 0 0 0 0 77 0 22
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 785 20 26 562 0 0 0 0 77 0 22
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 785 20 26 562 0 0 0 0 77 0 22
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 785 20 26 562 0 0 0 0 77 0 22

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 3100 1550 1550 3100 0 0 0 0 1550 0 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.25 0.01 0.02 0.18 0.00 0.00 0.00 0.00 0.05 0.00 0.01
Crit Volume: 393 26 0 77
Crit Moves: **** **

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #14 McBean Park Dr & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.815
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 101 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Ovl Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0

Volume Module:
Base Vol: 482 0 355 0 0 0 0 437 189 345 690 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 482 0 355 0 0 0 0 437 189 345 690 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 482 0 355 0 0 0 0 437 189 345 690 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 482 0 355 0 0 0 0 437 189 345 690 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 482 0 355 0 0 0 0 437 189 345 690 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 1550 0 1550 0 0 0 0 1550 1550 1550 1550 0

Capacity Analysis Module:
Vol/Sat: 0.31 0.00 0.23 0.00 0.00 0.00 0.00 0.28 0.12 0.22 0.45 0.00
Crit Volume: 482 0 437 345
Crit Moves: **** **

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #15 McBean Park Dr & East Ave

Cycle (sec): 60 Critical Vol./Cap.(X): 0.900
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 1 0 0 1 0 1 0 1 0 1

Volume Module:

Base Vol: 0 0 0 493 0 128 105 145 0 1 382 797
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 493 0 128 105 145 0 1 382 797
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 493 0 128 105 145 0 1 382 797
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 493 0 128 105 145 0 1 382 797
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 493 0 128 105 145 0 1 382 797

Saturation Flow Module:

Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
Final Sat.: 0 1550 0 1550 0 1550 1550 1550 0 1550 1550 1550

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.32 0.00 0.08 0.07 0.09 0.00 0.00 0.25 0.51
Crit Volume: 0 493 105 797
Crit Moves: ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #16 McBean Park Dr & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.339
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module:

Base Vol: 18 0 3 0 0 0 0 786 11 3 1015 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 18 0 3 0 0 0 0 786 11 3 1015 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 18 0 3 0 0 0 0 786 11 3 1015 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 18 0 3 0 0 0 0 786 11 3 1015 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 18 0 3 0 0 0 0 786 11 3 1015 0

Saturation Flow Module:

Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1550 1550 1550 1550 1550 1550 1550 3100 1550 1550 3100 1550

Capacity Analysis Module:

Vol/Sat: 0.01 0.00 0.00 0.00 0.00 0.00 0.25 0.01 0.00 0.33 0.00
Crit Volume: 18 0 0 507
Crit Moves: ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #17 Twelve Bridges Dr & Sierra College Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 0.560
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 0 0 0 2 0 1 1 0 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 301 1011 0 0 461 49 55 0 337 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 301 1011 0 0 461 49 55 0 337 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 301 1011 0 0 461 49 55 0 337 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 301 1011 0 0 461 49 55 0 337 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 301 1011 0 0 461 49 55 0 337 0 0 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 1550 3100 0 0 3100 1550 1550 0 1550 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.19 0.33 0.00 0.00 0.15 0.03 0.04 0.00 0.22 0.00 0.00 0.00
Crit Volume: 301 231 337 0
Crit Moves: **** **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #18 Twelve Bridges Dr & E Joiner Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.631
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 62 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 15 783 214 78 299 90 286 752 10 183 276 115
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 15 783 214 78 299 90 286 752 10 183 276 115
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 15 783 214 78 299 90 286 752 10 183 276 115
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 15 783 214 78 299 90 286 752 10 183 276 115
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
FinalVolume: 15 783 214 78 299 90 315 752 10 201 276 115

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 3000 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.01 0.26 0.14 0.05 0.10 0.06 0.10 0.25 0.01 0.07 0.09 0.08
Crit Volume: 392 78 376 101
Crit Moves: **** **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.839
Loss Time (sec): 9 Average Delay (sec/veh): 20.0
Optimal Cycle: 65 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
Base Vol: 131 4 585 0 0 0 824 579 0 0 633 163
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 131 4 585 0 0 0 824 579 0 0 633 163
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 131 4 0 0 0 0 824 579 0 0 633 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 131 4 0 0 0 0 824 579 0 0 633 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 131 4 0 0 0 0 824 579 0 0 633 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.85 1.00 1.00 1.00 1.00 1.00 0.95 0.95 1.00 1.00 0.95 1.00
Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 1615 1900 1900 0 0 0 1805 3610 0 0 3610 1900

Capacity Analysis Module:
Vol/Sat: 0.08 0.00 0.00 0.00 0.00 0.00 0.46 0.16 0.00 0.00 0.18 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.10 0.10 0.00 0.00 0.00 0.00 0.54 0.75 0.00 0.00 0.21 0.00
Volume/Cap: 0.84 0.02 0.00 0.00 0.00 0.00 0.84 0.21 0.00 0.00 0.84 0.00
Delay/Veh: 57.8 24.6 0.0 0.0 0.0 0.0 18.0 2.2 0.0 0.0 31.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 57.8 24.6 0.0 0.0 0.0 0.0 18.0 2.2 0.0 0.0 31.0 0.0
LOS by Move: E C A A A A B A A C A A
HCM2kAvgQ: 5 0 0 0 0 0 16 2 0 0 9 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.885
Loss Time (sec): 9 Average Delay (sec/veh): 20.2
Optimal Cycle: 75 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1

Volume Module:
Base Vol: 0 0 0 234 0 162 371 1183 0 0 302 473
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 234 0 162 371 1183 0 0 302 473
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 0 0 0 234 0 162 371 1183 0 0 302 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 234 0 162 371 1183 0 0 302 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 234 0 162 371 1183 0 0 302 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1805 0 1615 1805 1900 0 0 1900 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.13 0.00 0.10 0.21 0.62 0.00 0.00 0.16 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.00 0.00 0.15 0.00 0.15 0.40 0.70 0.00 0.00 0.31 0.00
Volume/Cap: 0.00 0.00 0.00 0.89 0.00 0.68 0.52 0.89 0.00 0.00 0.52 0.00
Delay/Veh: 0.0 0.0 0.0 52.9 0.0 32.4 14.4 14.4 0.0 0.0 18.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 52.9 0.0 32.4 14.4 14.4 0.0 0.0 18.0 0.0
LOS by Move: A A A D A C B B A A B A
HCM2kAvgQ: 0 0 0 8 0 4 6 21 0 0 5 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #21 Lincoln-Newcastle Hwy & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.808
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 97 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 1 0 0 1 0 0 0 0 1 1 0 1 0 1 0 0

Volume Module:
Base Vol: 709 1 384 0 0 1 2 355 410 132 327 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 709 1 384 0 0 1 2 355 410 132 327 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 709 1 384 0 0 1 2 355 410 132 327 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 709 1 384 0 0 1 2 355 410 132 327 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 709 1 384 0 0 1 2 355 410 132 327 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.99 0.01 1.00 0.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 1548 2 1550 0 0 1550 1550 1550 1550 1550 0

Capacity Analysis Module:
Vol/Sat: 0.46 0.46 0.25 0.00 0.00 0.00 0.00 0.23 0.26 0.09 0.21 0.00
Crit Volume: 709 1 410 132
Crit Moves: **** **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #22 Sierra College Blvd & English Colony Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 80 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 1 0 2 0 0 0 0 0 0 0 0 1 0 0

Volume Module:
Base Vol: 0 1584 52 209 815 0 0 0 0 20 0 141
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1584 52 209 815 0 0 0 0 20 0 141
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1584 52 209 815 0 0 0 0 20 0 141
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1584 52 209 815 0 0 0 0 20 0 141
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1584 52 209 815 0 0 0 0 20 0 141

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.94 0.06 1.00 2.00 0.00 0.00 0.00 0.00 0.12 0.00 0.88
Final Sat.: 0 3001 99 1550 3100 0 0 0 0 193 0 1357

Capacity Analysis Module:
Vol/Sat: 0.00 0.53 0.53 0.13 0.26 0.00 0.00 0.00 0.00 0.10 0.00 0.10
Crit Volume: 818 209 0 161
Crit Moves: **** ****

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)
 Intersection #23 Sierra College Blvd & King Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.898
 Loss Time (sec): 9 Average Delay (sec/veh): 37.1
 Optimal Cycle: 102 Level Of Service: D

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 1 1 0	1 0 1 1 0	0 0 1 1 0 0	0 0 1 1 0 0

Volume Module:

Base Vol:	2 787	22 536 759	15 165 33	9 31 12 347
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00
Initial Bse:	2 787	22 536 759	15 165 33	9 31 12 347
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Volume:	2 787	22 536 759	15 165 33	9 31 12 347
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0 0
Reduced Vol:	2 787	22 536 759	15 165 33	9 31 12 347
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00
FinalVolume:	2 787	22 536 759	15 165 33	9 31 12 347

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.95 0.95 0.95	0.95 0.95 0.95	0.37 0.37 0.37	0.85 0.85 0.85
Lanes:	1.00 1.95 0.05	1.00 1.96 0.04	0.80 0.16 0.04	0.08 0.03 0.89
Final Sat.:	1805 3498 98	1805 3529 70	559 112 30	128 50 1436

Capacity Analysis Module:

Vol/Sat:	0.00 0.22 0.22	0.30 0.22 0.22	0.30 0.30 0.30	0.24 0.24 0.24
Crit Moves:	***	***	***	***
Green/Cycle:	0.00 0.25 0.25	0.33 0.58 0.58	0.33 0.33 0.33	0.33 0.33 0.33
Volume/Cap:	0.37 0.90 0.90	0.90 0.37 0.37	0.90 0.90 0.90	0.73 0.73 0.73
Delay/Veh:	88.2 48.0 48.0	48.3 11.5 11.5	65.3 65.3 65.3	35.0 35.0 35.0
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00
AdjDel/Veh:	88.2 48.0 48.0	48.3 11.5 11.5	65.3 65.3 65.3	35.0 35.0 35.0
LOS by Move:	F D D	D B B	E E E	C C C
HCM2kAvgQ:	0 16 16	19 7 7	9 9 9	12 12 12

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)
 Intersection #24 Sierra Collage & Bankhead

Average Delay (sec/veh): 14.9 Worst Case Level Of Service: F[347.2]

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 1 0 0 1	0 1 0 0 1	0 1 0 1 0	0 1 0 1 0

Volume Module:

Base Vol:	22 22 120	34 15 0	2 632 34	203 790 12
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	22 22 120	34 15 0	2 632 34	203 790 12
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	22 22 120	34 15 0	2 632 34	203 790 12
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
FinalVolume:	22 22 120	34 15 0	2 632 34	203 790 12

Critical Gap Module:

Critical Gp:	7.5 6.5 6.9	7.5 6.5 6.9	4.1 xxxx xxxxx	4.1 xxxx xxxxx
FollowUpTim:	3.5 4.0 3.3	3.5 4.0 3.3	2.2 xxxx xxxxx	2.2 xxxx xxxxx

Capacity Module:

Cnflct Vol:	1462 1861 333	1533 1872 401	802 xxxx xxxxx	666 xxxx xxxxx
Potent Cap.:	92 74 669	81 73 604	830 xxxx xxxxx	933 xxxx xxxxx
Move Cap.:	59 56 669	38 55 604	830 xxxx xxxxx	933 xxxx xxxxx
Volume/Cap:	0.37 0.40 0.18	0.90 0.27 0.00	0.00 xxxx xxxxx	0.22 xxxx xxxxx

Level Of Service Module:

2Way95thQ:	xxxx xxxx 0.6	xxxx xxxx xxxxx	0.0 xxxx xxxxx	0.8 xxxx xxxxx
Control Del:	xxxx xxxx 11.6	xxxx xxxx xxxxx	9.3 xxxx xxxxx	9.9 xxxx xxxxx
LOS by Move:	* * B	* * *	A * *	A * *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	57 xxxx xxxxx	42 xxxx xxxxx	xxxx xxxx xxxxx	xxxx xxxx xxxxx
SharedQueue:	3.3 xxxx xxxxx	4.8 xxxx xxxxx	0.0 xxxx xxxxx	0.8 xxxx xxxxx
Shrd ConDel:	172.2 xxxx xxxxx	347.2 xxxx xxxxx	9.3 xxxx xxxxx	9.9 xxxx xxxxx
Shared LOS:	F * *	F * *	A * *	A * *
ApproachDel:	54.7	347.2	xxxxxx	xxxxxx
ApproachLOS:	F	F	*	*

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Sierra College Blvd & Taylor Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.900
Loss Time (sec): 8 Average Delay (sec/veh): 40.6
Optimal Cycle: 100 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control (Protected/Include), Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 10 columns for volume and 10 rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with 10 columns for Sat/Lane and 10 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 10 columns for Vol/Sat and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Sierra College & Brace

Cycle (sec): 100 Critical Vol./Cap.(X): 0.720
Loss Time (sec): 8 Average Delay (sec/veh): 25.5
Optimal Cycle: 51 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control (Protected/Include/Permitted), Rights, Min. Green, Y+R, and Lanes.

Volume Module: Table with 10 columns for volume and 10 rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with 10 columns for Sat/Lane and 10 rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 10 columns for Vol/Sat and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #27 Sierra College Blvd & Granite Dr

Cycle (sec): 100 Critical Vol./Cap.(X): 0.722
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 82 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Protected), Rights (Include), Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns representing different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Volume, and Crit Moves.

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.675
Loss Time (sec): 0 Average Delay (sec/veh): 23.9
Optimal Cycle: 70 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Protected), Rights (Ignore, Include), Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns representing different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Volume, and Crit Moves.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
230 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.769
Loss Time (sec): 9 Average Delay (sec/veh): 36.8
Optimal Cycle: 62 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	4	0	1	1	2	0	2	0	1	0

Volume Module:

Base Vol:	0	966	98	215	773	131	479	233	41	146	54	555
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	966	98	215	773	131	479	233	41	146	54	555
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	966	98	215	773	0	479	233	41	146	54	555
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	966	98	215	773	0	479	233	41	146	54	555
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	966	98	215	773	0	479	233	41	146	54	555

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.91	0.85	0.92	0.95	1.00	0.92	0.95	0.85	0.84	0.84	0.84
Lanes:	0.00	4.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	0.73	0.27	1.00
Final Sat.:	0	6916	1615	3502	3610	1900	3502	3610	1615	1161	429	1590

Capacity Analysis Module:

Vol/Sat:	0.00	0.14	0.06	0.06	0.21	0.00	0.14	0.06	0.03	0.13	0.13	0.35
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.19	0.19	0.09	0.28	0.00	0.18	0.21	0.21	0.42	0.45	0.45
Volume/Cap:	0.00	0.72	0.31	0.72	0.77	0.00	0.77	0.30	0.12	0.30	0.28	0.77
Delay/Veh:	0.0	39.8	35.2	53.0	36.8	0.0	45.0	33.2	31.8	19.5	17.1	26.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	39.8	35.2	53.0	36.8	0.0	45.0	33.2	31.8	19.5	17.1	26.7
LOS by Move:	A	D	D	D	D	A	D	C	C	B	B	C
HCM2kAvgQ:	0	9	3	5	13	0	9	3	1	4	4	17

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in	
		LOS	Veh	LOS	Veh		
# 41 SR 65 Bypass NB & Ferrari Ranc	C	31.5	0.906	C	31.5 0.906	+ 0.000	D/V
# 42 SR 65 Bypass SB & Ferrari Ranc	A	5.5	0.434	A	5.5 0.434	+ 0.000	D/V
# 43 SR 65 NB & Industrial/Lincoln	C	25.5	0.753	C	25.5 0.753	+ 0.000	D/V
# 44 SR 65 SB & Industrial/Lincoln	C	22.5	0.762	C	22.5 0.762	+ 0.000	D/V

Lincoln Village 1
2030 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 SR 65 Bypass NB & Ferrari Ranch Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.906
Loss Time (sec):	0	Average Delay (sec/veh):	31.5
Optimal Cycle:	180	Level Of Service:	C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 0 0 0 1	0 0 0 0 0	1 0 3 0 0	0 0 3 0 1

Volume Module:

Base Vol:	1100	0	819	0	0	0	32	453	0	0	1353	410
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1100	0	819	0	0	0	32	453	0	0	1353	410
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1100	0	819	0	0	0	32	453	0	0	1353	410
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1100	0	819	0	0	0	32	453	0	0	1353	410
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1100	0	819	0	0	0	32	453	0	0	1353	410

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	1.00	0.83	1.00	1.00	1.00	0.93	0.89	1.00	1.00	0.89	0.83
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	1769	0	1583	0	0	0	1769	5083	0	0	5083	1583

Capacity Analysis Module:

Vol/Sat:	0.62	0.00	0.52	0.00	0.00	0.00	0.02	0.09	0.00	0.00	0.27	0.26
Crit Moves:	****						****				****	
Green/Cycle:	0.69	0.00	0.69	0.00	0.00	0.00	0.02	0.31	0.00	0.00	0.29	0.29
Volume/Cap:	0.91	0.00	0.75	0.00	0.00	0.00	0.91	0.28	0.00	0.00	0.91	0.88
Delay/Veh:	22.9	0.0	13.2	0.0	0.0	0.0	162.3	26.0	0.0	0.0	42.3	51.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.9	0.0	13.2	0.0	0.0	0.0	162.3	26.0	0.0	0.0	42.3	51.3
LOS by Move:	C	A	B	A	A	A	F	C	A	A	D	D
HCM2kAvgQ:	32	0	18	0	0	0	3	4	0	0	19	15

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 SR 65 Bypass SB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.434
Loss Time (sec): 0 Average Delay (sec/veh): 5.5
Optimal Cycle: 40 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 3 0 1 0 0 3 0 0

Volume Module:
Base Vol: 0 0 0 148 0 87 0 336 519 0 1780 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 148 0 87 0 336 519 0 1780 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 148 0 87 0 336 519 0 1780 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 148 0 87 0 336 519 0 1780 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 148 0 87 0 336 519 0 1780 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 1.00 0.89 0.83 1.00 0.89 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 3.00 1.00 0.00 3.00 0.00
Final Sat.: 0 0 0 1769 0 1583 0 5083 1583 0 5083 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.08 0.00 0.05 0.00 0.07 0.33 0.00 0.35 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.00 0.00 0.19 0.00 0.19 0.00 0.81 0.81 0.00 0.81 0.00
Volume/Cap: 0.00 0.00 0.00 0.43 0.00 0.29 0.00 0.08 0.41 0.00 0.43 0.00
Delay/Veh: 0.0 0.0 0.0 36.4 0.0 35.0 0.0 2.0 3.0 0.0 2.9 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 36.4 0.0 35.0 0.0 2.0 3.0 0.0 2.9 0.0
LOS by Move: A A A D A C A A A A A A
HCM2kAvgQ: 0 0 0 4 0 2 0 1 5 0 6 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 SR 65 NB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.753
Loss Time (sec): 0 Average Delay (sec/veh): 25.5
Optimal Cycle: 92 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 0 0 0 0 3 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 1372 0 0 0 1085 0 0 0 0 0 0 0 0 0 764
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1372 0 0 0 1085 0 0 0 0 0 0 0 0 0 764
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1372 0 0 0 1085 0 0 0 0 0 0 0 0 0 764
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1372 0 0 0 1085 0 0 0 0 0 0 0 0 0 764
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1372 0 0 0 1085 0 0 0 0 0 0 0 0 0 764

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 1.00 0.89 1.00 1.00 1.00 1.00 1.00 1.00 0.83
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 3.00 0.00 0.00 3.00 0.00
Final Sat.: 0 5083 0 0 0 5083 0 0 0 0 1900 0 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.27 0.00 0.00 0.21 0.00 0.00 0.00 0.00 0.00 0.00 0.48
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.36 0.00 0.00 0.36 0.00 0.00 0.00 0.00 0.00 0.00 0.64
Volume/Cap: 0.00 0.75 0.00 0.00 0.60 0.00 0.00 0.00 0.00 0.00 0.00 0.75
Delay/Veh: 0.0 30.0 0.0 0.0 26.7 0.0 0.0 0.0 0.0 0.0 0.0 15.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 30.0 0.0 0.0 26.7 0.0 0.0 0.0 0.0 0.0 0.0 15.6
LOS by Move: A C A A C A A A A A A B
HCM2kAvgQ: 0 15 0 0 10 0 0 0 0 0 0 18

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 SR 65 SB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.762
Loss Time (sec): 0 Average Delay (sec/veh): 22.5
Optimal Cycle: 96 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 1 0 3 0 0 0 0 0 0 0 0

Volume Module:

Base Vol: 0 1372 3 870 215 0 0 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1372 3 870 215 0 0 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1372 3 870 215 0 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1372 3 870 215 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1372 3 870 215 0 0 0 0 0 0 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 0.83 0.93 0.89 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 0 5083 1583 1769 5083 0 0 0 0 0 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.27 0.00 0.49 0.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.35 0.35 0.65 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.76 0.01 0.76 0.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 30.5 20.9 15.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 30.5 20.9 15.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A C C B A A A A A A A A
HCM2kAvgQ: 0 15 0 20 0 0 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Rocklin GP 2030 Plus Project
Village 1 No Project

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
#137 W Stanford Ranch Rd & Wildcat	C xxxxx	0.782	C xxxxx	0.782	+ 0.000 V/C
#142 Wildcat Bl & Whitney Ranch Pkw	B xxxxx	0.656	B xxxxx	0.656	+ 0.000 V/C
#145 Wildcat Bl & Ranch View Dr	C xxxxx	0.763	C xxxxx	0.763	+ 0.000 V/C
#163 Park Dr & Valley View Pkwy	A xxxxx	0.569	A xxxxx	0.569	+ 0.000 V/C
#164 Nature Trail Wy & Valley View	C xxxxx	0.711	C xxxxx	0.711	+ 0.000 V/C
#165 Sierra College Bl & Valley Vie	A xxxxx	0.587	A xxxxx	0.587	+ 0.000 V/C

Lincoln Village 1
Rocklin GP 2030 Plus Project
Village 1 No Project

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #137 W Stanford Ranch Rd & Wildcat Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 0.782
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 104 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	0	2	0	2	0	1	1

Volume Module:

Base Vol:	14	437	0	571	127	502	579	613	13	1	244	340
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	437	0	571	127	502	579	613	13	1	244	340
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	437	0	571	127	502	579	613	13	1	244	340
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	437	0	571	127	502	579	613	13	1	244	340
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	437	0	571	127	502	579	613	13	1	244	340

Saturation Flow Module:

Sat/Lane:	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	2.00	2.00	2.00	1.00	1.00	3.00	1.00
Final Sat.:	1450	2900	1450	2900	1450	2900	2900	2900	1450	1450	4350	1450

Capacity Analysis Module:

Vol/Sat:	0.01	0.15	0.00	0.20	0.09	0.17	0.20	0.21	0.01	0.00	0.06	0.23
Crit Volume:	219			286			290					340
Crit Moves:	****			****			****					****

Lincoln Village 1
Rocklin GP 2030 Plus Project
Village 1 No Project

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #142 Wildcat Bl & Whitney Ranch Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.656
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 66 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 3 0 1 2 0 2 0 1

Volume Module:
Base Vol: 349 741 49 84 343 200 421 699 377 49 319 109
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 349 741 49 84 343 200 421 699 377 49 319 109
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 349 741 49 84 343 200 421 699 377 49 319 109
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 349 741 49 84 343 200 421 699 377 49 319 109
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 349 741 49 84 343 200 421 699 377 49 319 109

Saturation Flow Module:
Sat/Lane: 1450 1450 1450 1450 1450 1450 1450 1450 1450 1450 1450 1450
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00
Final Sat.: 1450 2900 1450 1450 2900 1450 2900 4350 1450 2900 2900 1450

Capacity Analysis Module:
Vol/Sat: 0.24 0.26 0.03 0.12 0.14 0.15 0.16 0.26 0.02 0.11 0.08
Crit Volume: 349 200 377 24
Crit Moves: **** **** ****

Lincoln Village 1
Rocklin GP 2030 Plus Project
Village 1 No Project

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #145 Wildcat Bl & Ranch View Dr

Cycle (sec): 100 Critical Vol./Cap.(X): 0.763
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 96 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 0 1 0 1 0 0 1 0

Volume Module:
Base Vol: 2 1097 55 28 507 75 467 31 6 45 3 33
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 1097 55 28 507 75 467 31 6 45 3 33
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1097 55 28 507 75 467 31 6 45 3 33
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 1097 55 28 507 75 467 31 6 45 3 33
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 1097 55 28 507 75 467 31 6 45 3 33

Saturation Flow Module:
Sat/Lane: 1450 1450 1450 1450 1450 1450 1450 1450 1450 1450 1450 1450
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.90 0.10 1.00 1.74 0.26 1.00 0.84 0.16 1.00 0.08 0.92
Final Sat.: 1450 2762 138 1450 2526 374 1450 1215 235 1450 121 1329

Capacity Analysis Module:
Vol/Sat: 0.00 0.40 0.40 0.02 0.20 0.20 0.32 0.03 0.03 0.03 0.02 0.02
Crit Volume: 576 28 467 36
Crit Moves: **** **** ****

Lincoln Village 1
Rocklin GP 2030 Plus Project
Village 1 No Project

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #163 Park Dr & Valley View Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.569
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 53 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 60 393 654 25 0 0 0 0 169 0 326
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 60 393 654 25 0 0 0 0 169 0 326
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 0 60 0 654 25 0 0 0 0 169 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 60 0 654 25 0 0 0 0 169 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 60 0 654 25 0 0 0 0 169 0 0

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 3000 1500 1500 3000 0 0 0 0 1500 0 1500

Capacity Analysis Module:
Vol/Sat: 0.00 0.02 0.00 0.44 0.01 0.00 0.00 0.00 0.00 0.11 0.00 0.00
Crit Volume: 30 654 0 169
Crit Moves: **** **** ****

Lincoln Village 1
Rocklin GP 2030 Plus Project
Village 1 No Project

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #164 Nature Trail Wy & Valley View Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.711
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 79 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 1 1 0 1 0 1 0 0

Volume Module:
Base Vol: 14 0 8 0 0 5 19 990 37 22 476 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 14 0 8 0 0 5 19 990 37 22 476 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 14 0 8 0 0 5 19 990 37 22 476 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 14 0 8 0 0 5 19 990 37 22 476 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 14 0 8 0 0 5 19 990 37 22 476 0

Saturation Flow Module:
Sat/Lane: 1450 1450 1450 1450 1450 1450 1450 1450 1450 1450 1450
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 1450 0 1450 0 0 1450 1450 1450 1450 1450 1450 0

Capacity Analysis Module:
Vol/Sat: 0.01 0.00 0.01 0.00 0.00 0.00 0.01 0.68 0.03 0.02 0.33 0.00
Crit Volume: 14 990 22
Crit Moves: **** **** ****

 Lincoln Village 1
 Rocklin GP 2030 Plus Project
 Village 1 No Project

Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #165 Sierra College Bl & Valley View Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.587
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 55 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	0	2	0	0	2	0	0	2

Volume Module:

Base Vol:	262	1361	0	0	717	291	399	0	613	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	262	1361	0	0	717	291	399	0	613	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	262	1361	0	0	717	291	399	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	262	1361	0	0	717	291	399	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	262	1361	0	0	717	291	399	0	0	0	0	0

Saturation Flow Module:

Sat/Lane:	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	3000	3000	0	0	3000	1500	3000	0	1500	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.09	0.45	0.00	0.00	0.24	0.19	0.13	0.00	0.00	0.00	0.00	0.00
Crit Volume:	681			0			200			0		
Crit Moves:	****			****			****					

**INTERSECTION LOS WORKSHEETS
2030 PLUS PROJECT CONDITIONS**

Lincoln Village 1
2030 Plus Project
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in	
		LOS	Veh	LOS	Veh		
# 19	Twelve Bridges Dr & SR 65 N/B	C	23.4 0.842	C	23.4 0.842	+ 0.000	D/V
# 20	Twelve Bridges Dr & SR 65 S/B	B	15.6 0.586	B	15.6 0.586	+ 0.000	D/V
# 21	SR 193 & Sierra College Blvd	B	12.3 0.507	B	12.3 0.507	+ 0.000	V/C
# 28	Sierra College Blvd & I-80 W/B	C	20.6 0.554	C	20.6 0.554	+ 0.000	D/V
# 29	Sierra College Blvd & I-80 E/B	C	29.9 0.718	C	29.9 0.718	+ 0.000	D/V
# 41	SR 65 Bypass NB & Ferrari Ranc	C	20.6 0.632	C	20.6 0.632	+ 0.000	D/V
# 42	SR 65 Bypass SB & Ferrari Ranc	B	12.0 0.855	B	12.0 0.855	+ 0.000	D/V
# 43	SR 65 NB & Industrial/Lincoln	D	39.7 0.969	D	39.7 0.969	+ 0.000	D/V
# 44	SR 65 SB & Industrial/Lincoln	A	2.9 0.454	A	2.9 0.454	+ 0.000	D/V

Lincoln Village 1
2030 Plus Project
AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.842
 Loss Time (sec): 9 Average Delay (sec/veh): 23.4
 Optimal Cycle: 65 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ignore Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
 Base Vol: 504 8 403 0 0 0 212 447 0 0 981 240
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 504 8 403 0 0 0 212 447 0 0 981 240
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 504 8 0 0 0 0 212 447 0 0 981 240
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 504 8 0 0 0 0 212 447 0 0 981 240
 PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 504 8 0 0 0 0 212 447 0 0 981 240

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 0.98 1.00 1.00 1.00 1.00 0.93 0.93 1.00 1.00 0.93 0.83
 Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
 Final Sat.: 1583 1862 1900 0 0 0 1769 3538 0 0 3538 1583

Capacity Analysis Module:
 Vol/Sat: 0.32 0.00 0.00 0.00 0.00 0.00 0.12 0.13 0.00 0.00 0.28 0.15
 Crit Moves: ****
 Green/Cycle: 0.38 0.38 0.00 0.00 0.00 0.00 0.14 0.47 0.00 0.00 0.33 0.33
 Volume/Cap: 0.84 0.01 0.00 0.00 0.00 0.00 0.84 0.27 0.00 0.00 0.84 0.46
 Delay/Veh: 27.4 11.7 0.0 0.0 0.0 0.0 46.8 9.7 0.0 0.0 24.4 16.5
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 27.4 11.7 0.0 0.0 0.0 0.0 46.8 9.7 0.0 0.0 24.4 16.5
 LOS by Move: C B A A A A D A A C B
 HCM2kAvgQ: 12 0 0 0 0 0 7 3 0 0 12 4

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.586
Loss Time (sec): 9 Average Delay (sec/veh): 15.6
Optimal Cycle: 37 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 0 1 0 2 0 0 0 0 0 2 0 1

Volume Module:
Base Vol: 0 0 0 333 23 99 119 315 0 0 749 733
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 333 23 99 119 315 0 0 749 733
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 333 23 99 119 315 0 0 749 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 333 23 99 119 315 0 0 749 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 333 23 99 119 315 0 0 749 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.80 0.80 0.80 0.93 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 1.00 0.19 0.81 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1522 287 1235 1769 3538 0 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.22 0.08 0.08 0.07 0.09 0.00 0.00 0.21 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.37 0.37 0.37 0.11 0.48 0.00 0.00 0.36 0.00
Volume/Cap: 0.00 0.00 0.00 0.59 0.21 0.21 0.59 0.19 0.00 0.00 0.59 0.00
Delay/Veh: 0.0 0.0 0.0 16.2 12.8 12.8 29.6 9.1 0.0 0.0 16.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 16.2 12.8 12.8 29.6 9.1 0.0 0.0 16.2 0.0
LOS by Move: A A A B B B C A A A B A
HCM2kAvgQ: 0 0 0 6 2 2 3 2 0 0 7 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #21 SR 193 & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.507
Loss Time (sec): 0 Average Delay (sec/veh): 12.3
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 0 0 1 0 0 0 1 0 1 0 1 0 0 1 0

Volume Module:
Base Vol: 156 0 78 0 2 1 0 312 614 234 176 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 156 0 78 0 2 1 0 312 614 234 176 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 156 0 78 0 2 1 0 312 0 234 176 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 156 0 78 0 2 1 0 312 0 234 176 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 156 0 78 0 2 1 0 312 0 234 176 0

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.67 0.33 0.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 503 0 604 0 328 164 0 615 688 579 628 0

Capacity Analysis Module:
Vol/Sat: 0.31 xxxx 0.13 xxxx 0.01 0.01 xxxx 0.51 0.00 0.40 0.28 xxxx
Crit Moves: ****
Delay/Veh: 12.3 0.0 9.1 0.0 9.6 9.6 0.0 13.9 0.0 12.7 10.4 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.3 0.0 9.1 0.0 9.6 9.6 0.0 13.9 0.0 12.7 10.4 0.0
LOS by Move: B * A * A A * B * B B *
ApproachDel: 11.2 9.6 13.9 11.7
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 11.2 9.6 13.9 11.7
LOS by Appr: B A A B
AllWayAvgQ: 0.4 0.4 0.1 0.0 0.0 0.0 0.9 0.9 0.0 0.6 0.4 0.4

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.554
Loss Time (sec): 0 Average Delay (sec/veh): 20.6
Optimal Cycle: 51 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Protected, Ignore), Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.718
Loss Time (sec): 9 Average Delay (sec/veh): 29.9
Optimal Cycle: 54 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Protected, Ignore), Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 SR 65 Bypass NB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.632
Loss Time (sec): 0 Average Delay (sec/veh): 20.6
Optimal Cycle: 62 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 1 0 0 3 0 0 0 0 0 3 0 1

Volume Module:
Base Vol: 327 0 475 0 0 0 116 939 0 0 1356 102
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 327 0 475 0 0 0 116 939 0 0 1356 102
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 327 0 475 0 0 0 116 939 0 0 1356 102
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 327 0 475 0 0 0 116 939 0 0 1356 102
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 327 0 475 0 0 0 116 939 0 0 1356 102

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.83 1.00 1.00 1.00 0.93 0.89 1.00 1.00 0.89 0.83
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 3.00 0.00 0.00 3.00 1.00
Final Sat.: 1769 0 1583 0 0 0 1769 5083 0 0 5083 1583

Capacity Analysis Module:
Vol/Sat: 0.18 0.00 0.30 0.00 0.00 0.00 0.07 0.18 0.00 0.00 0.27 0.06
Crit Moves: ****
Green/Cycle: 0.47 0.00 0.47 0.00 0.00 0.00 0.10 0.53 0.00 0.00 0.42 0.42
Volume/Cap: 0.39 0.00 0.63 0.00 0.00 0.00 0.63 0.35 0.00 0.00 0.63 0.15
Delay/Veh: 17.2 0.0 21.5 0.0 0.0 0.0 50.0 13.9 0.0 0.0 23.4 18.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 17.2 0.0 21.5 0.0 0.0 0.0 50.0 13.9 0.0 0.0 23.4 18.0
LOS by Move: B A C A A A D B A A C B
HCM2kAvgQ: 6 0 12 0 0 0 5 6 0 0 13 2

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 SR 65 Bypass SB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.855
Loss Time (sec): 0 Average Delay (sec/veh): 12.0
Optimal Cycle: 158 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 0 0 3 0 1 0 0 3 0 1

Volume Module:
Base Vol: 0 0 0 305 0 55 0 875 1081 0 716 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 305 0 55 0 875 1081 0 716 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 305 0 55 0 875 1081 0 716 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 305 0 55 0 875 1081 0 716 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 305 0 55 0 875 1081 0 716 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 1.00 0.89 0.83 1.00 0.89 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 3.00 1.00 0.00 3.00 1.00
Final Sat.: 0 0 0 1769 0 1583 0 5083 1583 0 5083 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.17 0.00 0.03 0.00 0.17 0.68 0.00 0.14 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.20 0.00 0.20 0.00 0.80 0.80 0.00 0.80 0.00
Volume/Cap: 0.00 0.00 0.00 0.86 0.00 0.17 0.00 0.22 0.86 0.00 0.18 0.00
Delay/Veh: 0.0 0.0 0.0 56.5 0.0 33.3 0.0 2.5 12.3 0.0 2.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 56.5 0.0 33.3 0.0 2.5 12.3 0.0 2.4 0.0
LOS by Move: A A A E A C A A B A A A
HCM2kAvgQ: 0 0 0 12 0 1 0 2 24 0 2 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 SR 65 NB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.969
Loss Time (sec): 0 Average Delay (sec/veh): 39.7
Optimal Cycle: 180 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 0 0 0 3 0 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 137 0 0 2209 0 0 0 0 0 0 0 846
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 137 0 0 2209 0 0 0 0 0 0 0 846
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 137 0 0 2209 0 0 0 0 0 0 0 846
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 137 0 0 2209 0 0 0 0 0 0 0 846
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 137 0 0 2209 0 0 0 0 0 0 0 846

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 1.00 0.89 1.00 1.00 1.00 1.00 1.00 1.00 0.83
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 5083 0 0 5083 0 0 0 0 1900 0 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.03 0.00 0.00 0.43 0.00 0.00 0.00 0.00 0.00 0.00 0.53
Crit Moves: **** ****
Green/Cycle: 0.00 0.45 0.00 0.00 0.45 0.00 0.00 0.00 0.00 0.00 0.00 0.55
Volume/Cap: 0.00 0.06 0.00 0.00 0.97 0.00 0.00 0.00 0.00 0.00 0.00 0.97
Delay/Veh: 0.0 15.6 0.0 0.0 39.3 0.0 0.0 0.0 0.0 0.0 0.0 44.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 15.6 0.0 0.0 39.3 0.0 0.0 0.0 0.0 0.0 0.0 44.7
LOS by Move: A B A A D A A A A A A D
HCM2kAvgQ: 0 1 0 0 30 0 0 0 0 0 0 31

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 SR 65 SB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.454
Loss Time (sec): 0 Average Delay (sec/veh): 2.9
Optimal Cycle: 42 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 1 0 3 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 0 137 0 755 1454 0 0 0 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 137 0 755 1454 0 0 0 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 137 0 755 1454 0 0 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 137 0 755 1454 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 137 0 755 1454 0 0 0 0 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 0.93 0.89 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 0 5083 1900 1769 5083 0 0 0 0 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.03 0.00 0.43 0.29 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: **** ****
Green/Cycle: 0.00 0.06 0.00 0.94 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.45 0.00 0.45 0.29 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 46.5 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 46.5 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A D A A A A A A A A A A
HCM2kAvgQ: 0 2 0 3 0 0 0 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
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Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	LOS	Del/ Veh C	LOS	Del/ Veh C	
# 1 Lincoln Blvd & Wise Rd	C	24.9 0.290	C	24.9 0.290	+ 0.000 D/V
# 2 Lincoln Blvd & Gladding Rd	C	16.6 0.184	C	16.6 0.184	+ 0.000 D/V
# 3 Lincoln Blvd & 7th Street	A	xxxxx 0.490	A	xxxxx 0.490	+ 0.000 V/C
# 4 Lincoln Blvd & McBean Park Dr	A	xxxxx 0.469	A	xxxxx 0.469	+ 0.000 V/C
# 5 Lincoln Blvd & 1st St	C	xxxxx 0.710	C	xxxxx 0.710	+ 0.000 V/C
# 6 Lincoln Blvd & Ferrari Ranch R	B	xxxxx 0.700	B	xxxxx 0.700	+ 0.000 V/C
# 7 Lincoln Blvd & Sterling Pkwy	B	xxxxx 0.615	B	xxxxx 0.615	+ 0.000 V/C
# 8 Joiner Pkwy & Ferrari Ranch Rd	D	xxxxx 0.896	D	xxxxx 0.896	+ 0.000 V/C
# 9 Joiner Pkwy & Sterling Pkwy	A	xxxxx 0.533	A	xxxxx 0.533	+ 0.000 V/C
# 10 E. Joiner Pkwy & Del Webb (N)	B	xxxxx 0.626	B	xxxxx 0.626	+ 0.000 V/C
# 11 E. Joiner Pkwy & Del Webb (S)	A	xxxxx 0.559	A	xxxxx 0.559	+ 0.000 V/C
# 12 Ferrari Ranch Rd & Ingram Pkwy	B	xxxxx 0.680	B	xxxxx 0.680	+ 0.000 V/C
# 13 Ferrari Ranch Rd & Sun City Bl	A	xxxxx 0.582	A	xxxxx 0.582	+ 0.000 V/C
# 14 McBean Park Dr & Ferrari Ranch	D	xxxxx 0.815	D	xxxxx 0.815	+ 0.000 V/C
# 15 McBean Park Dr & East Ave	C	xxxxx 0.705	C	xxxxx 0.705	+ 0.000 V/C
# 16 McBean Park Dr & Oak Tree Ln	B	xxxxx 0.689	B	xxxxx 0.689	+ 0.000 V/C
# 17 Twelve Bridges Dr & Sierra Col	B	xxxxx 0.687	B	xxxxx 0.687	+ 0.000 V/C
# 18 Twelve Bridges Dr & E Joiner P	C	xxxxx 0.737	C	xxxxx 0.737	+ 0.000 V/C
# 19 Twelve Bridges Dr & SR 65 N/B	B	14.3 0.745	B	14.3 0.745	+ 0.000 D/V
# 20 Twelve Bridges Dr & SR 65 S/B	C	23.4 0.930	C	23.4 0.930	+ 0.000 D/V
# 21 Lincoln-Newcastle Hwy & Sierra	C	xxxxx 0.766	C	xxxxx 0.766	+ 0.000 V/C
# 22 Sierra College Blvd & English	E	xxxxx 0.983	E	xxxxx 0.983	+ 0.000 V/C
# 23 Sierra College Blvd & King Rd	D	54.7 1.023	D	54.7 1.023	+ 0.000 D/V

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Intersection	Base		Future		Change in
	LOS	Del/ Veh C	LOS	Del/ Veh C	
# 24 Sierra Collage & Bankhead	F	482.7 1.096	F	482.7 1.096	+ 0.000 D/V
# 25 Sierra College Blvd & Taylor R	D	43.3 0.935	D	43.3 0.935	+ 0.000 D/V
# 26 Sierra College & Brace	C	24.7 0.710	C	24.7 0.710	+ 0.000 D/V
# 27 Sierra College Blvd & Granite	C	xxxxx 0.721	C	xxxxx 0.721	+ 0.000 V/C
# 28 Sierra College Blvd & I-80 W/B	C	23.5 0.673	C	23.5 0.673	+ 0.000 D/V
# 29 Sierra College Blvd & I-80 E/B	D	37.2 0.774	D	37.2 0.774	+ 0.000 D/V
# 30 Ferrari Ranch Rd & Oak Tree Ln	A	xxxxx 0.474	A	xxxxx 0.474	+ 0.000 V/C
# 31 Sierra College Blvd & Oak Tree	A	xxxxx 0.383	A	xxxxx 0.383	+ 0.000 V/C
# 32 Virginiatown Rd & Oak Tree Ln	A	xxxxx 0.533	A	xxxxx 0.533	+ 0.000 V/C
# 33 McBean Park Dr & Village 1 Col	A	xxxxx 0.499	A	xxxxx 0.499	+ 0.000 V/C
# 34 Oak Tree Ln & Village 1 Coll	A	xxxxx 0.277	A	xxxxx 0.277	+ 0.000 V/C

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Lincoln Blvd & 7th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.490
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1

Volume Module:
Base Vol: 90 421 36 22 398 13 3 106 103 25 138 174
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 90 421 36 22 398 13 3 106 103 25 138 174
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 90 421 36 22 398 13 3 106 103 25 138 174
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 90 421 36 22 398 13 3 106 103 25 138 174
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 90 421 36 22 398 13 3 106 103 25 138 174

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.92 0.08 1.00 0.97 0.03 1.00 0.51 0.49 1.00 1.00 1.00
Final Sat.: 1500 1382 118 1500 1453 47 1500 761 739 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.06 0.30 0.30 0.01 0.27 0.27 0.00 0.14 0.14 0.02 0.09 0.12
Crit Volume: 90 411 209 25
Crit Moves: **** **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Lincoln Blvd & McBean Park Dr

Cycle (sec): 120 Critical Vol./Cap.(X): 0.469
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 0 0 1 0 0 1

Volume Module:
Base Vol: 4 573 48 0 482 1 1 2 11 66 2 18
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 4 573 48 0 482 1 1 2 11 66 2 18
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 4 573 48 0 482 1 1 2 11 66 2 18
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 4 573 48 0 482 1 1 2 11 66 2 18
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 4 573 48 0 482 1 1 2 11 66 2 18

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.92 0.08 1.00 0.99 0.01 0.07 0.14 0.79 0.97 0.03 1.00
Final Sat.: 1500 1384 116 1500 1497 3 107 214 1179 1456 44 1500

Capacity Analysis Module:
Vol/Sat: 0.00 0.41 0.41 0.00 0.32 0.32 0.01 0.01 0.01 0.05 0.05 0.01
Crit Volume: 621 0 14 68
Crit Moves: **** **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Lincoln Blvd & 1st St

Cycle (sec): 120 Critical Vol./Cap.(X): 0.710
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 64 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 0 1 0

Volume Module:
Base Vol: 173 693 116 6 580 33 37 78 149 52 85 3
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 173 693 116 6 580 33 37 78 149 52 85 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 173 693 116 6 580 33 37 78 149 52 85 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 173 693 116 6 580 33 37 78 149 52 85 3
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 173 693 116 6 580 33 37 78 149 52 85 3

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.95 0.05 1.00 0.34 0.66 1.00 0.97 0.03
Final Sat.: 1500 1500 1500 1500 1419 81 1500 515 985 1500 1449 51

Capacity Analysis Module:
Vol/Sat: 0.12 0.46 0.08 0.00 0.41 0.41 0.02 0.15 0.15 0.03 0.06 0.06
Crit Volume: 173 613 227 52
Crit Moves: **** **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Lincoln Blvd & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.700
Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 76 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ovl Ovl Include Ovl

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 1 0 2 0 2 0 1

Volume Module:
Base Vol: 119 915 708 112 729 138 109 412 47 437 381 48
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 119 915 708 112 729 138 109 412 47 437 381 48
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 119 915 708 112 729 138 109 412 47 437 381 48
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 119 915 708 112 729 138 109 412 47 437 381 48
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00
FinalVolume: 119 915 708 112 729 138 109 412 47 481 381 48

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.80 0.20 2.00 2.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 1500 2693 307 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.08 0.31 0.47 0.07 0.24 0.09 0.07 0.15 0.15 0.16 0.13 0.03
Crit Volume: 708 112 230 0
Crit Moves: **** **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Lincoln Blvd & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.615
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 2 0 0 0 1

Volume Module:
Base Vol: 0 1499 308 96 1094 0 0 0 0 87 0 107
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1499 308 96 1094 0 0 0 0 87 0 107
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1499 308 96 1094 0 0 0 0 87 0 107
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1499 308 96 1094 0 0 0 0 87 0 107
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00
FinalVolume: 0 1499 308 96 1094 0 0 0 0 96 0 107

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3100 1550 1550 3100 0 0 0 0 3100 0 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.48 0.20 0.06 0.35 0.00 0.00 0.00 0.00 0.03 0.00 0.07
Crit Volume: 750 96 0 107
Crit Moves: **** **

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #8 Joiner Pkwy & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.896
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Ignore Ignore Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 953 648 270 31 555 30 24 128 609 869 336 31
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 953 648 270 31 555 30 24 128 609 869 336 31
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 953 648 0 31 555 0 24 128 0 869 336 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 953 648 0 31 555 0 24 128 0 869 336 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
MLF Adj: 1.10 1.00 0.00 1.10 1.00 0.00 1.00 1.00 0.00 1.10 1.00 0.00
FinalVolume: 1048 648 0 34 555 0 24 128 0 956 336 0

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 1500 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.35 0.22 0.00 0.01 0.19 0.00 0.02 0.04 0.00 0.32 0.11 0.00
Crit Volume: 524 278 64 478
Crit Moves: **** **

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Joiner Pkwy & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.533
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 1 0 1 1 0 1 0 1 1 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 449 29 223 36 16 53 53 215 54 246 892 64
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 449 29 223 36 16 53 53 215 54 246 892 64
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 449 29 0 36 16 53 53 215 0 246 892 64
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 449 29 0 36 16 53 53 215 0 246 892 64
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.10 1.00 1.00
FinalVolume: 494 29 0 36 16 53 53 215 0 271 892 64

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 1500 1500 1500 1500 1500 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.16 0.02 0.00 0.02 0.01 0.04 0.04 0.07 0.00 0.09 0.30 0.04
Crit Volume: 247 53 53 446
Crit Moves: **** **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 E. Joiner Pkwy & Del Webb (N)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.626
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 61 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 0 1 0 1 0 0 1 0 0 1

Volume Module:
Base Vol: 1 982 379 246 337 0 2 1 1 128 1 200
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 982 379 246 337 0 2 1 1 128 1 200
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 982 379 246 337 0 2 1 1 128 1 200
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1 982 379 246 337 0 2 1 1 128 1 200
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 1 982 379 246 337 0 2 1 1 128 1 200

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 0.00 1.00 0.50 0.50 0.99 0.01 1.00
Final Sat.: 1500 3000 1500 1500 3000 0 1500 750 750 1488 12 1500

Capacity Analysis Module:
Vol/Sat: 0.00 0.33 0.25 0.16 0.11 0.00 0.00 0.00 0.00 0.09 0.09 0.13
Crit Volume: 491 246 2
Crit Moves: **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 E. Joiner Pkwy & Del Webb (S)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.559
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 52 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 1 0 0 1 0

Volume Module:
Base Vol: 28 1335 117 59 427 13 29 17 5 95 14 38
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 28 1335 117 59 427 13 29 17 5 95 14 38
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 28 1335 117 59 427 13 29 17 5 95 14 38
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 28 1335 117 59 427 13 29 17 5 95 14 38
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 28 1335 117 59 427 13 29 17 5 95 14 38

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.94 0.06 1.00 1.00 1.00 1.00 0.27 0.73
Final Sat.: 1500 3000 1500 1500 2911 89 1500 1500 1500 1500 404 1096

Capacity Analysis Module:
Vol/Sat: 0.02 0.45 0.08 0.04 0.15 0.15 0.02 0.01 0.00 0.06 0.03 0.03
Crit Volume: 668 59 17 95
Crit Moves: **** **

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Ferrari Ranch Rd & Ingram Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.680
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 71 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module:
Base Vol: 34 0 312 0 0 0 0 1271 19 107 900 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 34 0 312 0 0 0 0 1271 19 107 900 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 34 0 312 0 0 0 0 1271 19 107 900 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 34 0 312 0 0 0 0 1271 19 107 900 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 34 0 312 0 0 0 0 1271 19 107 900 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 1550 0 1550 0 0 0 0 3100 1550 1550 3100 0

Capacity Analysis Module:
Vol/Sat: 0.02 0.00 0.20 0.00 0.00 0.00 0.00 0.41 0.01 0.07 0.29 0.00
Crit Volume: 312 0 636 107
Crit Moves: **** **

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Ferrari Ranch Rd & Sun City Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.582
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 1575 29 39 913 0 0 0 0 68 0 75
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1575 29 39 913 0 0 0 0 68 0 75
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1575 29 39 913 0 0 0 0 68 0 75
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1575 29 39 913 0 0 0 0 68 0 75
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1575 29 39 913 0 0 0 0 68 0 75

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 3100 1550 1550 3100 0 0 0 0 1550 0 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.51 0.02 0.03 0.29 0.00 0.00 0.00 0.00 0.04 0.00 0.05
Crit Volume: 788 39 0 75
Crit Moves: **** **

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #14 McBean Park Dr & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.815
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 101 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Ovl Ovl Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1 1 0 1 1 0

Volume Module:
Base Vol: 127 592 967 10 282 32 65 574 30 611 625 11
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 127 592 967 10 282 32 65 574 30 611 625 11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 127 592 967 10 282 32 65 574 30 611 625 11
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 127 592 967 10 282 32 65 574 30 611 625 11
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 127 592 967 10 282 32 65 574 30 611 625 11

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.97 0.03
Final Sat.: 1550 3100 1550 1550 3100 1550 1550 3100 1550 1550 3046 54

Capacity Analysis Module:
Vol/Sat: 0.08 0.19 0.62 0.01 0.09 0.02 0.04 0.19 0.02 0.39 0.21 0.21
Crit Volume: 967 10 287 0
Crit Moves: **** **

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #15 McBean Park Dr & East Ave

Cycle (sec): 60 Critical Vol./Cap.(X): 0.705
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 63 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 1 0 0 1 0 1

Volume Module:

Base Vol: 0 0 0 481 0 128 105 200 0 1 285 506
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 481 0 128 105 200 0 1 285 506
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 481 0 128 105 200 0 1 285 506
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 481 0 128 105 200 0 1 285 506
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 481 0 128 105 200 0 1 285 506

Saturation Flow Module:

Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
Final Sat.: 0 1550 0 1550 0 1550 1550 1550 0 1550 1550 1550

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.31 0.00 0.08 0.07 0.13 0.00 0.00 0.18 0.33
Crit Volume: 0 481 105 506
Crit Moves: ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #16 McBean Park Dr & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.689
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 73 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 2 0 1

Volume Module:

Base Vol: 226 98 15 96 95 116 245 896 408 21 894 252
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 226 98 15 96 95 116 245 896 408 21 894 252
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 226 98 15 96 95 116 245 896 408 21 894 252
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 226 98 15 96 95 116 245 896 408 21 894 252
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 226 98 15 96 95 116 245 896 408 21 894 252

Saturation Flow Module:

Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1500 1500 1500 1500 1500 1500 1500 3000 1500 1500 3000 1500

Capacity Analysis Module:

Vol/Sat: 0.15 0.07 0.01 0.06 0.06 0.08 0.16 0.30 0.27 0.01 0.30 0.17
Crit Volume: 226 116 245 447
Crit Moves: ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #17 Twelve Bridges Dr & Sierra College Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 0.687
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 73 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 0 0 0 2 0 1 1 0 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 276 1525 0 0 654 90 276 0 302 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 276 1525 0 0 654 90 276 0 302 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 276 1525 0 0 654 90 276 0 302 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 276 1525 0 0 654 90 276 0 302 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 276 1525 0 0 654 90 276 0 302 0 0 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 1550 3100 0 0 3100 1550 1550 0 1550 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.18 0.49 0.00 0.00 0.21 0.06 0.18 0.00 0.19 0.00 0.00 0.00
Crit Volume: 763 0 302 0
Crit Moves: **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #18 Twelve Bridges Dr & E Joiner Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.737
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 87 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 15 967 232 81 353 79 382 862 10 200 246 108
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 15 967 232 81 353 79 382 862 10 200 246 108
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 15 967 232 81 353 79 382 862 10 200 246 108
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 15 967 232 81 353 79 382 862 10 200 246 108
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
FinalVolume: 15 967 232 81 353 79 420 862 10 220 246 108

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 3000 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.01 0.32 0.15 0.05 0.12 0.05 0.14 0.29 0.01 0.07 0.08 0.07
Crit Volume: 484 81 431 110
Crit Moves: **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.745
Loss Time (sec): 9 Average Delay (sec/veh): 14.3
Optimal Cycle: 51 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
Base Vol: 71 48 657 0 0 0 777 698 0 0 573 166
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 71 48 657 0 0 0 777 698 0 0 573 166
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 71 48 0 0 0 777 698 0 0 573 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 71 48 0 0 0 777 698 0 0 573 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 71 48 0 0 0 777 698 0 0 573 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.85 1.00 1.00 1.00 1.00 1.00 0.95 0.95 1.00 1.00 0.95 1.00
Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 1615 1900 1900 0 0 0 1805 3610 0 0 3610 1900

Capacity Analysis Module:
Vol/Sat: 0.04 0.03 0.00 0.00 0.00 0.00 0.43 0.19 0.00 0.00 0.16 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.06 0.06 0.00 0.00 0.00 0.00 0.58 0.79 0.00 0.00 0.21 0.00
Volume/Cap: 0.74 0.43 0.00 0.00 0.00 0.00 0.74 0.24 0.00 0.00 0.74 0.00
Delay/Veh: 54.7 29.9 0.0 0.0 0.0 0.0 12.3 1.7 0.0 0.0 26.1 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 54.7 29.9 0.0 0.0 0.0 0.0 12.3 1.7 0.0 0.0 26.1 0.0
LOS by Move: D C A A A A B A A C A A
HCM2kAvgQ: 3 1 0 0 0 0 12 2 0 0 7 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.930
Loss Time (sec): 9 Average Delay (sec/veh): 23.4
Optimal Cycle: 89 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1

Volume Module:
Base Vol: 0 0 0 220 0 154 347 1270 0 0 221 433
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 220 0 154 347 1270 0 0 221 433
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 0 0 0 220 0 154 347 1270 0 0 221 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 220 0 154 347 1270 0 0 221 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 220 0 154 347 1270 0 0 221 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1805 0 1615 1805 1900 0 0 1900 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.12 0.00 0.10 0.19 0.67 0.00 0.00 0.12 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.00 0.00 0.13 0.00 0.13 0.45 0.72 0.00 0.00 0.27 0.00
Volume/Cap: 0.00 0.00 0.00 0.93 0.00 0.73 0.43 0.93 0.00 0.00 0.43 0.00
Delay/Veh: 0.0 0.0 0.0 65.4 0.0 37.0 11.7 18.5 0.0 0.0 18.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 65.4 0.0 37.0 11.7 18.5 0.0 0.0 18.6 0.0
LOS by Move: A A A E A D B B A A B A
HCM2kAvgQ: 0 0 0 8 0 5 5 26 0 0 4 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #21 Lincoln-Newcastle Hwy & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 79 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 1 0 0 1 0 0 0 0 1 1 0 1 0 1 0 0

Volume Module:
Base Vol: 791 1 340 0 0 1 2 166 269 126 356 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 791 1 340 0 0 1 2 166 269 126 356 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 791 1 340 0 0 1 2 166 269 126 356 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 791 1 340 0 0 1 2 166 269 126 356 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 791 1 340 0 0 1 2 166 269 126 356 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.99 0.01 1.00 0.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 1548 2 1550 0 0 1550 1550 1550 1550 1550 1550 0

Capacity Analysis Module:
Vol/Sat: 0.51 0.51 0.22 0.00 0.00 0.00 0.00 0.11 0.17 0.08 0.23 0.00
Crit Volume: 791 1 269 126
Crit Moves: ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #22 Sierra College Blvd & English Colony Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.983
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 1 0 2 0 0 0 0 0 0 0 0 1 0 0

Volume Module:
Base Vol: 0 1827 45 212 931 0 0 0 0 20 0 355
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1827 45 212 931 0 0 0 0 20 0 355
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1827 45 212 931 0 0 0 0 20 0 355
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1827 45 212 931 0 0 0 0 20 0 355
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1827 45 212 931 0 0 0 0 20 0 355

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.95 0.05 1.00 2.00 0.00 0.00 0.00 0.00 0.05 0.00 0.95
Final Sat.: 0 3025 75 1550 3100 0 0 0 0 83 0 1467

Capacity Analysis Module:
Vol/Sat: 0.00 0.60 0.60 0.14 0.30 0.00 0.00 0.00 0.00 0.24 0.00 0.24
Crit Volume: 936 212 0 375
Crit Moves: ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sierra College Blvd & King Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.023
Loss Time (sec): 9 Average Delay (sec/veh): 54.7
Optimal Cycle: 180 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Lanes: 0 1 0 0 1 0 1 0 0 1 0 0 1 0 0

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 0 1 0 0

Volume Module:
Base Vol: 2 842 22 542 815 46 322 37 10 31 12 216
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 842 22 542 815 46 322 37 10 31 12 216
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 842 22 542 815 46 322 37 10 31 12 216
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 842 22 542 815 46 322 37 10 31 12 216
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 842 22 542 815 46 322 37 10 31 12 216

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.95 0.95 0.94 0.94 0.50 0.50 0.50 0.83 0.83 0.83
Lanes: 1.00 1.95 0.05 1.00 1.89 0.11 0.87 0.10 0.03 0.12 0.05 0.83
Final Sat.: 1805 3504 92 1805 3390 191 826 95 26 188 73 1309

Capacity Analysis Module:
Vol/Sat: 0.00 0.24 0.24 0.30 0.24 0.24 0.39 0.39 0.39 0.17 0.17 0.17
Crit Moves: ****
Green/Cycle: 0.00 0.23 0.23 0.29 0.53 0.53 0.38 0.38 0.38 0.38 0.38 0.38
Volume/Cap: 0.46 1.02 1.02 1.02 0.46 0.46 1.02 1.02 1.02 0.43 0.43 0.43
Delay/Veh: 110.7 75.1 75.1 80.3 15.0 15.0 84.2 84.2 84.2 23.4 23.4 23.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 110.7 75.1 75.1 80.3 15.0 15.0 84.2 84.2 84.2 23.4 23.4 23.4
LOS by Move: F E E F B B F F F C C C
HCM2kAvgQ: 0 21 21 24 9 9 18 18 18 6 6 6

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #24 Sierra Collage & Bankhead

Average Delay (sec/veh): 19.9 Worst Case Level Of Service: F[482.7]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 1 0

Volume Module:
Base Vol: 25 22 117 34 16 0 2 686 36 200 841 5
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 25 22 117 34 16 0 2 686 36 200 841 5
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 25 22 117 34 16 0 2 686 36 200 841 5
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 25 22 117 34 16 0 2 686 36 200 841 5

Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: 1537 1954 361 1602 1970 423 846 xxxx xxxxx 722 xxxx xxxxx
Potent Cap.: 81 65 641 72 63 585 800 xxxx xxxxx 889 xxxx xxxxx
Move Cap.: 48 48 641 31 47 585 800 xxxx xxxxx 889 xxxx xxxxx
Volume/Cap: 0.52 0.46 0.18 1.10 0.34 0.00 0.00 xxxx xxxxx 0.22 xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx 0.7 xxxx xxxx xxxxx 0.0 xxxx xxxxx 0.9 xxxx xxxxx
Control Del:xxxxx xxxx 11.9 xxxxx xxxx xxxxx 9.5 xxxx xxxxx 10.2 xxxx xxxxx
LOS by Move: * * B * * * A * * B * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 48 xxxx xxxxx 35 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue: 4.1 xxxx xxxxx 5.4 xxxx xxxxx 0.0 xxxx xxxxx 0.9 xxxx xxxxx
Shrd ConDel:254.4 xxxx xxxxx 482.7 xxxx xxxxx 9.5 xxxx xxxxx 10.2 xxxx xxxxx
Shared LOS: F * * F * * A * * B * *

ApproachDel: 81.4 482.7 xxxxxx xxxxxx
ApproachLOS: F F * *
Note: Queue reported is the number of cars per lane.

Note: Queue reported is the number of cars per lane.

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Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Sierra College Blvd & Taylor Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.935
Loss Time (sec): 8 Average Delay (sec/veh): 43.3
Optimal Cycle: 123 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1

Volume Module:
Base Vol: 260 815 501 39 722 74 132 236 259 317 272 74
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 260 815 501 39 722 74 132 236 259 317 272 74
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 260 815 501 39 722 74 132 236 259 317 272 74
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 260 815 501 39 722 74 132 236 259 317 272 74
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 260 815 501 39 722 74 132 236 259 317 272 74

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1805 1900 1615 1805 1900 1615 1805 1900 1615 1805 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.14 0.43 0.31 0.02 0.38 0.05 0.07 0.12 0.16 0.18 0.14 0.05
Crit Moves: ****
Green/Cycle: 0.15 0.53 0.53 0.03 0.41 0.41 0.12 0.17 0.17 0.19 0.24 0.24
Volume/Cap: 0.93 0.80 0.58 0.80 0.93 0.11 0.60 0.72 0.93 0.93 0.60 0.19
Delay/Veh: 78.6 23.8 16.8 109.8 46.8 18.5 46.3 47.0 77.8 72.4 36.2 30.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 78.6 23.8 16.8 109.8 46.8 18.5 46.3 47.0 77.8 72.4 36.2 30.7
LOS by Move: E C B F D B D D E E D C
HCM2kAvgQ: 12 22 11 3 26 1 5 8 12 14 8 2

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Sierra College & Brace

Cycle (sec): 100 Critical Vol./Cap.(X): 0.710
Loss Time (sec): 8 Average Delay (sec/veh): 24.7
Optimal Cycle: 50 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 1 0 2 1 0 0 0 0 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 1365 335 355 921 0 0 0 73 283 0 243
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1365 335 355 921 0 0 0 73 283 0 243
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1365 335 355 921 0 0 0 73 283 0 243
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1365 335 355 921 0 0 0 73 283 0 243
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1365 335 355 921 0 0 0 73 283 0 243

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 0.95 0.91 0.91 1.00 1.00 0.87 0.77 1.00 0.85
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 1.00 1.00 0.00 1.00
Final Sat.: 0 5187 1615 1805 5187 0 0 0 1644 1461 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.21 0.20 0.18 0.00 0.00 0.00 0.04 0.19 0.00 0.15
Crit Moves: ****
Green/Cycle: 0.00 0.37 0.37 0.28 0.65 0.00 0.00 0.00 0.27 0.27 0.00 0.27
Volume/Cap: 0.00 0.71 0.56 0.71 0.27 0.00 0.00 0.00 0.16 0.71 0.00 0.55
Delay/Veh: 0.0 28.2 26.2 37.3 7.6 0.0 0.0 0.0 27.9 38.7 0.0 32.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 28.2 26.2 37.3 7.6 0.0 0.0 0.0 27.9 38.7 0.0 32.6
LOS by Move: A C C D A A A A C D A C
HCM2kAvgQ: 0 14 9 11 4 0 0 0 2 9 0 7

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #27 Sierra College Blvd & Granite Dr

Cycle (sec): 100 Critical Vol./Cap.(X): 0.721
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 82 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 0 1

Volume Module:
Base Vol: 163 1153 136 60 974 248 323 44 350 239 35 30
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 163 1153 136 60 974 248 323 44 350 239 35 30
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 163 1153 136 60 974 248 323 44 350 239 35 30
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 163 1153 136 60 974 248 323 44 350 239 35 30
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00
FinalVolume: 163 1153 136 60 974 248 323 44 385 239 35 30

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 1500 3000 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.11 0.38 0.09 0.04 0.32 0.17 0.22 0.03 0.13 0.16 0.02 0.02
Crit Volume: 163 487 193 239
Crit Moves: **** **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.673
Loss Time (sec): 0 Average Delay (sec/veh): 23.5
Optimal Cycle: 70 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 0 0 3 0 1 0 1 0 1 0 2 0 0 1 1

Volume Module:
Base Vol: 158 1191 61 0 1535 8 9 26 312 313 45 289
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 158 1191 61 0 1535 8 9 26 312 313 45 289
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 158 1191 0 0 1535 8 9 26 312 313 45 289
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 158 1191 0 0 1535 8 9 26 312 313 45 289
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 158 1191 0 0 1535 8 9 26 312 313 45 289

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 1.00 1.00 0.91 0.85 0.82 0.82 0.82 0.92 0.87 0.87
Lanes: 1.00 3.00 1.00 0.00 3.00 1.00 0.00 0.26 0.74 1.00 2.00 0.27 1.73
Final Sat.: 1805 5187 1900 0 5187 1615 401 1159 1560 3502 445 2861

Capacity Analysis Module:
Vol/Sat: 0.09 0.23 0.00 0.00 0.30 0.00 0.02 0.02 0.20 0.09 0.10 0.10
Crit Moves: **** **** **** ****
Green/Cycle: 0.13 0.57 0.00 0.00 0.44 0.44 0.08 0.30 0.30 0.13 0.35 0.35
Volume/Cap: 0.67 0.40 0.00 0.00 0.67 0.01 0.29 0.08 0.67 0.67 0.29 0.29
Delay/Veh: 48.9 12.1 0.0 0.0 23.1 15.8 43.6 25.3 34.3 45.1 23.5 23.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 48.9 12.1 0.0 0.0 23.1 15.8 43.6 25.3 34.3 45.1 23.5 23.5
LOS by Move: D B A A C B D C D C C
HCM2kAvgQ: 6 7 0 0 14 0 1 1 10 6 4 4

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.774
Loss Time (sec): 9 Average Delay (sec/veh): 37.2
Optimal Cycle: 63 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 2 0 2 0 1 2 0 2 0 1 0 1 0 1 0

Volume Module:
Base Vol: 0 1009 96 222 780 131 469 230 40 143 52 563
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1009 96 222 780 131 469 230 40 143 52 563
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1009 96 222 780 0 469 230 40 143 52 563
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1009 96 222 780 0 469 230 40 143 52 563
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1009 96 222 780 0 469 230 40 143 52 563

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 0.92 0.95 1.00 0.92 0.95 0.85 0.84 0.84 0.84
Lanes: 0.00 4.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 0.73 0.27 1.00
Final Sat.: 0 6916 1615 3502 3610 1900 3502 3610 1615 1166 424 1590

Capacity Analysis Module:
Vol/Sat: 0.00 0.15 0.06 0.06 0.22 0.00 0.13 0.06 0.02 0.12 0.12 0.35
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.19 0.19 0.08 0.28 0.00 0.17 0.22 0.22 0.42 0.46 0.46
Volume/Cap: 0.00 0.75 0.31 0.75 0.77 0.00 0.77 0.30 0.11 0.30 0.27 0.77
Delay/Veh: 0.0 40.4 35.0 54.9 36.9 0.0 45.6 33.1 31.7 19.6 16.8 26.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 40.4 35.0 54.9 36.9 0.0 45.6 33.1 31.7 19.6 16.8 26.7
LOS by Move: A D D D D A D C C B B C
HCM2kAvgQ: 0 10 3 5 13 0 9 3 1 4 4 17

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #30 Ferrari Ranch Rd & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.474
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 0 0 0 1 0 1 1 0 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 41 286 0 0 164 244 450 0 22 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 41 286 0 0 164 244 450 0 22 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 41 286 0 0 164 244 450 0 22 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 41 286 0 0 164 244 450 0 22 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 41 286 0 0 164 244 450 0 22 0 0 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 1550 1550 0 0 1550 1550 1550 0 1550 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.03 0.18 0.00 0.00 0.11 0.16 0.29 0.00 0.01 0.00 0.00 0.00
Crit Volume: 41 244 450 0
Crit Moves: **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #31 Sierra College Blvd & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.383
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 0 0 0 0 2 0 1 1 0 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 720 1154 0 0 388 8 4 0 399 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 720 1154 0 0 388 8 4 0 399 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 720 1154 0 0 388 8 4 0 399 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 720 1154 0 0 388 8 4 0 399 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 792 1154 0 0 388 8 4 0 399 0 0 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 0.00 0.00 2.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 3100 3100 0 0 3100 1550 1550 0 1550 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.26 0.37 0.00 0.00 0.13 0.01 0.00 0.00 0.26 0.00 0.00 0.00
Crit Volume: 396 194 4 0
Crit Moves: **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #32 Virginiatown Rd & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.533
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1

Volume Module:
Base Vol: 392 205 139 2 88 1 1 32 238 82 30 4
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 392 205 139 2 88 1 1 32 238 82 30 4
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 392 205 139 2 88 1 1 32 238 82 30 4
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 392 205 139 2 88 1 1 32 238 82 30 4
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 392 205 139 2 88 1 1 32 238 82 30 4

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.26 0.14 0.09 0.00 0.06 0.00 0.00 0.02 0.16 0.05 0.02 0.00
Crit Volume: 392 88 238 82
Crit Moves: **** **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #33 McBean Park Dr & Village 1 Coll

Cycle (sec): 100 Critical Vol./Cap.(X): 0.499
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
Base Vol: 93 18 78 0 14 72 171 351 220 129 826 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 93 18 78 0 14 72 171 351 220 129 826 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 93 18 78 0 14 72 171 351 220 129 826 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 93 18 78 0 14 72 171 351 220 129 826 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 93 18 78 0 14 72 171 351 220 129 826 0

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 1500 1500 1500 1500 1500 1500 3000 1500 1500 3000 0

Capacity Analysis Module:
Vol/Sat: 0.06 0.01 0.05 0.00 0.01 0.05 0.11 0.12 0.15 0.09 0.28 0.00
Crit Volume: 93 72 171 413
Crit Moves: **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #34 Oak Tree Ln & Village 1 Coll

Cycle (sec): 100 Critical Vol./Cap.(X): 0.277
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 1 0 1

Volume Module:
Base Vol: 0 0 0 39 0 50 117 348 0 0 273 100
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 39 0 50 117 348 0 0 273 100
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 39 0 50 117 348 0 0 273 100
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 39 0 50 117 348 0 0 273 100
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 39 0 50 117 348 0 0 273 100

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1550 0 1550 1550 1550 0 0 1550 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.03 0.08 0.22 0.00 0.00 0.18 0.06
Crit Volume: 0 39 117 273
Crit Moves: **** **** ****

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		LOS	Veh C	LOS	Veh C	
# 41 SR 65 Bypass NB & Ferrari Ranc	C	30.4	0.890	C 30.4	0.890	+ 0.000 D/V
# 42 SR 65 Bypass SB & Ferrari Ranc	A	4.9	0.413	A 4.9	0.413	+ 0.000 D/V
# 43 SR 65 NB & Industrial/Lincoln	C	28.9	0.852	C 28.9	0.852	+ 0.000 D/V
# 44 SR 65 SB & Industrial/Lincoln	C	27.2	0.874	C 27.2	0.874	+ 0.000 D/V

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 SR 65 Bypass NB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.890
Loss Time (sec): 0 Average Delay (sec/veh): 30.4
Optimal Cycle: 180 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 1 0 3 0 0 0 0 3 0 1

Volume Module:
Base Vol: 1085 0 936 0 0 0 34 629 0 0 1306 373
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1085 0 936 0 0 0 34 629 0 0 1306 373
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1085 0 936 0 0 0 34 629 0 0 1306 373
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1085 0 936 0 0 0 34 629 0 0 1306 373
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 1085 0 936 0 0 0 34 629 0 0 1306 373

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.83 1.00 1.00 1.00 0.93 0.89 1.00 1.00 0.89 0.83
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 3.00 0.00 0.00 3.00 1.00
Final Sat.: 1769 0 1583 0 0 0 1769 5083 0 0 5083 1583

Capacity Analysis Module:
Vol/Sat: 0.61 0.00 0.59 0.00 0.00 0.00 0.02 0.12 0.00 0.00 0.26 0.24
Crit Moves: ****
Green/Cycle: 0.69 0.00 0.69 0.00 0.00 0.00 0.02 0.31 0.00 0.00 0.29 0.29
Volume/Cap: 0.89 0.00 0.86 0.00 0.00 0.00 0.89 0.40 0.00 0.00 0.89 0.82
Delay/Veh: 20.8 0.0 18.7 0.0 0.0 0.0 151.0 27.3 0.0 0.0 41.1 44.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 20.8 0.0 18.7 0.0 0.0 0.0 151.0 27.3 0.0 0.0 41.1 44.0
LOS by Move: C A B A A A F C A A D D
HCM2kAvgQ: 30 0 25 0 0 0 3 6 0 0 18 13

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 SR 65 Bypass SB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.413
Loss Time (sec): 0 Average Delay (sec/veh): 4.9
Optimal Cycle: 39 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 0 0 3 0 1 0 0 0 3 0 1

Volume Module:
Base Vol: 0 0 0 131 0 84 0 531 527 0 1724 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 131 0 84 0 531 527 0 1724 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 131 0 84 0 531 527 0 1724 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 131 0 84 0 531 527 0 1724 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 131 0 84 0 531 527 0 1724 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 1.00 0.89 0.83 1.00 0.89 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 3.00 1.00 0.00 3.00 1.00
Final Sat.: 0 0 0 1769 0 1583 0 5083 1583 0 5083 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.07 0.00 0.05 0.00 0.10 0.33 0.00 0.34 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.00 0.00 0.18 0.00 0.18 0.00 0.82 0.82 0.00 0.82 0.00
Volume/Cap: 0.00 0.00 0.00 0.41 0.00 0.30 0.00 0.13 0.41 0.00 0.41 0.00
Delay/Veh: 0.0 0.0 0.0 37.3 0.0 36.2 0.0 1.8 2.6 0.0 2.5 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 37.3 0.0 36.2 0.0 1.8 2.6 0.0 2.5 0.0
LOS by Move: A A A D A D A A A A A A
HCM2kAvgQ: 0 0 0 4 0 2 0 1 5 0 5 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 SR 65 NB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.852
Loss Time (sec): 0 Average Delay (sec/veh): 28.9
Optimal Cycle: 154 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 0 0 0 0 3 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1

Volume Module:
Base Vol: 0 1570 0 0 0 1279 0 0 0 0 0 0 0 0 0 859
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1570 0 0 0 1279 0 0 0 0 0 0 0 0 859
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1570 0 0 0 1279 0 0 0 0 0 0 0 0 859
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1570 0 0 0 1279 0 0 0 0 0 0 0 0 859
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1570 0 0 0 1279 0 0 0 0 0 0 0 0 859

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 1.00 0.89 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.83
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 3.00 0.00 0.00 3.00 0.00 1.00 0.00 1.00
Final Sat.: 0 5083 0 0 0 5083 0 0 0 0 1900 0 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.31 0.00 0.00 0.25 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.54
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.36 0.00 0.00 0.36 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.64
Volume/Cap: 0.00 0.85 0.00 0.00 0.69 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.85
Delay/Veh: 0.0 33.4 0.0 0.0 28.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 33.4 0.0 0.0 28.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 21.4
LOS by Move: A C A A C A A A A A A A C
HCM2kAvgQ: 0 19 0 0 13 0 0 0 0 0 0 0 24

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2030 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 SR 65 SB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.874
Loss Time (sec): 0 Average Delay (sec/veh): 27.2
Optimal Cycle: 180 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 0 1 0 3 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 0 1570 0 1000 279 0 0 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1570 0 1000 279 0 0 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1570 0 1000 279 0 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1570 0 1000 279 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1570 0 1000 279 0 0 0 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 0.93 0.89 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 3.00 0.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 0 5083 0 1769 5083 0 0 0 0 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.31 0.00 0.57 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.35 0.00 0.65 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.87 0.00 0.87 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 35.4 0.0 22.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 35.4 0.0 22.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A D A C A A A A A A A A
HCM2kAvgQ: 0 20 0 28 0 0 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
Rocklin GP 2030 Plus Project
Plus Village 1

Impact Analysis Report
Level Of Service

Table with columns: Intersection, Base Del/LOS, Base V/C, Future Del/LOS, Future V/C, Change in. Rows include #137 W Stanford Ranch Rd & Wildcat, #142 Wildcat Bl & Whitney Ranch Pkw, #145 Wildcat Bl & Ranch View Dr, #163 Park Dr & Valley View Pkwy, #164 Nature Trail Wy & Valley View, #165 Sierra College Bl & Valley Vie.

Lincoln Village 1
Rocklin GP 2030 Plus Project
Plus Village 1

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)
Intersection #137 W Stanford Ranch Rd & Wildcat Bl
Cycle (sec): 100, Critical Vol./Cap.(X): 0.811, Loss Time (sec): 0, Average Delay (sec/veh): xxxxxx, Optimal Cycle: 121, Level Of Service: D
Approach: North Bound, South Bound, East Bound, West Bound
Movement: L - T - R, L - T - R, L - T - R, L - T - R
Control: Protected, Protected, Protected, Protected
Rights: Include, Include, Include, Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 2 0 1 0 2 2 0 2 0 1 1 0 3 0 1
Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume
Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat
Capacity Analysis Module: Vol/Sat, Crit Volume, Crit Moves

Lincoln Village 1
Rocklin GP 2030 Plus Project
Plus Village 1

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #142 Wildcat Bl & Whitney Ranch Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.712
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 79 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for volume and 12 columns for growth adj. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Volume, and Crit Moves. Rows include Vol/Sat, Crit Volume, and Crit Moves.

Lincoln Village 1
Rocklin GP 2030 Plus Project
Plus Village 1

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #145 Wildcat Bl & Ranch View Dr

Cycle (sec): 100 Critical Vol./Cap.(X): 0.849
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 151 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with 12 columns for volume and 12 columns for growth adj. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Volume, and Crit Moves. Rows include Vol/Sat, Crit Volume, and Crit Moves.

Lincoln Village 1
Rocklin GP 2030 Plus Project
Plus Village 1

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #163 Park Dr & Valley View Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.575
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 63 434 641 25 0 0 0 0 190 0 322
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 63 434 641 25 0 0 0 0 190 0 322
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 0 63 0 641 25 0 0 0 0 190 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 63 0 641 25 0 0 0 0 190 0 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 63 0 641 25 0 0 0 0 190 0 0

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 3000 1500 1500 3000 0 0 0 0 1500 0 1500

Capacity Analysis Module:
Vol/Sat: 0.00 0.02 0.00 0.43 0.01 0.00 0.00 0.00 0.00 0.13 0.00 0.00
Crit Volume: 32 641 0 190
Crit Moves: **** **** ****

Lincoln Village 1
Rocklin GP 2030 Plus Project
Plus Village 1

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #164 Nature Trail Wy & Valley View Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.729
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 84 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 1 1 0 1 0 1 0 0

Volume Module:
Base Vol: 14 0 7 0 0 5 19 1019 37 19 492 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 14 0 7 0 0 5 19 1019 37 19 492 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 14 0 7 0 0 5 19 1019 37 19 492 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 14 0 7 0 0 5 19 1019 37 19 492 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 14 0 7 0 0 5 19 1019 37 19 492 0

Saturation Flow Module:
Sat/Lane: 1450 1450 1450 1450 1450 1450 1450 1450 1450 1450 1450
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 1450 0 1450 0 0 1450 1450 1450 1450 1450 1450 0

Capacity Analysis Module:
Vol/Sat: 0.01 0.00 0.00 0.00 0.00 0.01 0.70 0.03 0.01 0.34 0.00
Crit Volume: 14 5 1019 19
Crit Moves: **** **** ****

 Lincoln Village 1
 Rocklin GP 2030 Plus Project
 Plus Village 1

Level Of Service Computation Report
 Circular 212 Planning Method (Base Volume Alternative)

 Intersection #165 Sierra College Bl & Valley View Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.664
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 68 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	0	0	0	2	0	0	0	0	0

Volume Module:

Base Vol:	240	1528	0	0	829	318	465	0	574	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	240	1528	0	0	829	318	465	0	574	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	240	1528	0	0	829	318	465	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	240	1528	0	0	829	318	465	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	240	1528	0	0	829	318	465	0	0	0	0	0

Saturation Flow Module:

Sat/Lane:	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	3000	3000	0	0	3000	1500	3000	0	1500	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.08	0.51	0.00	0.00	0.28	0.21	0.16	0.00	0.00	0.00	0.00	0.00
Crit Volume:	764			0			233			0		
Crit Moves:	****			****			****					

**INTERSECTION LOS WORKSHEETS
2050 NO PROJECT CONDITIONS**

Lincoln Village 1
2050 No Project
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in	
		LOS	Del/Veh	LOS	Del/Veh		
# 19	Twelve Bridges Dr & SR 65 N/B	C	31.9 0.964	C	31.9 0.964	+ 0.000	D/V
# 20	Twelve Bridges Dr & SR 65 S/B	B	15.8 0.648	B	15.8 0.648	+ 0.000	D/V
# 21	SR 193 & Sierra College Blvd	F	76.9 1.218	F	76.9 1.218	+ 0.000	V/C
# 28	Sierra College Blvd & I-80 W/B	C	20.7 0.523	C	20.7 0.523	+ 0.000	D/V
# 29	Sierra College Blvd & I-80 E/B	C	29.8 0.681	C	29.8 0.681	+ 0.000	D/V
# 41	SR 65 Bypass NB & Ferrari Ranc	C	26.5 0.816	C	26.5 0.816	+ 0.000	D/V
# 42	SR 65 Bypass SB & Ferrari Ranc	C	25.2 0.949	C	25.2 0.949	+ 0.000	D/V
# 43	SR 65 NB & Industrial/Lincoln	D	39.1 0.961	D	39.1 0.961	+ 0.000	D/V
# 44	SR 65 SB & Industrial/Lincoln	A	3.9 0.624	A	3.9 0.624	+ 0.000	D/V

Lincoln Village 1
2050 No Project
AM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.964
 Loss Time (sec): 9 Average Delay (sec/veh): 31.9
 Optimal Cycle: 103 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ignore Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
 Base Vol: 477 8 622 0 0 0 220 593 0 0 1392 431
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 477 8 622 0 0 0 220 593 0 0 1392 431
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 477 8 0 0 0 0 220 593 0 0 1392 431
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 477 8 0 0 0 0 220 593 0 0 1392 431
 PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 477 8 0 0 0 0 220 593 0 0 1392 431

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 0.98 1.00 1.00 1.00 1.00 0.93 0.93 1.00 1.00 0.93 0.83
 Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
 Final Sat.: 1583 1862 1900 0 0 0 1769 3538 0 0 3538 1583

Capacity Analysis Module:
 Vol/Sat: 0.30 0.00 0.00 0.00 0.00 0.00 0.12 0.17 0.00 0.00 0.39 0.27
 Crit Moves: ****
 Green/Cycle: 0.31 0.31 0.00 0.00 0.00 0.00 0.13 0.54 0.00 0.00 0.41 0.41
 Volume/Cap: 0.96 0.01 0.00 0.00 0.00 0.00 0.96 0.31 0.00 0.00 0.96 0.67
 Delay/Veh: 51.5 14.2 0.0 0.0 0.0 0.0 75.2 7.8 0.0 0.0 33.2 17.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 51.5 14.2 0.0 0.0 0.0 0.0 75.2 7.8 0.0 0.0 33.2 17.1
 LOS by Move: D B A A A A E A A A C B
 HCM2kAvgQ: 15 0 0 0 0 0 8 3 0 0 20 8

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.648
Loss Time (sec): 9 Average Delay (sec/veh): 15.8
Optimal Cycle: 41 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 1

Volume Module:
Base Vol: 0 0 0 426 0 234 92 376 0 0 914 952
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 426 0 234 92 376 0 0 914 952
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 426 0 234 92 376 0 0 914 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 426 0 234 92 376 0 0 914 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 426 0 234 92 376 0 0 914 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.24 0.00 0.15 0.05 0.11 0.00 0.00 0.26 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.37 0.00 0.37 0.08 0.48 0.00 0.00 0.40 0.00
Volume/Cap: 0.00 0.00 0.00 0.65 0.00 0.40 0.65 0.22 0.00 0.00 0.65 0.00
Delay/Veh: 0.0 0.0 0.0 17.9 0.0 14.4 36.8 9.2 0.0 0.0 15.7 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 17.9 0.0 14.4 36.8 9.2 0.0 0.0 15.7 0.0
LOS by Move: A A A B A B D A A A B A
HCM2kAvgQ: 0 0 0 8 0 4 3 2 0 0 8 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #21 SR 193 & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.218
Loss Time (sec): 0 Average Delay (sec/veh): 76.9
Optimal Cycle: 0 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 0 0 1 0 0 0 1 0 0 1 1 0 0 1 0

Volume Module:
Base Vol: 455 0 63 0 2 1 0 245 527 180 636 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 455 0 63 0 2 1 0 245 527 180 636 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 455 0 63 0 2 1 0 245 0 180 636 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 455 0 63 0 2 1 0 245 0 180 636 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 455 0 63 0 2 1 0 245 0 180 636 0

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.67 0.33 0.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 474 0 559 0 276 138 0 474 520 480 522 0

Capacity Analysis Module:
Vol/Sat: 0.96 xxxx 0.11 xxxx 0.01 0.01 xxxx 0.52 0.00 0.37 1.22 xxxx
Crit Moves: ****
Delay/Veh: 59.1 0.0 9.9 0.0 11.4 11.4 0.0 17.8 0.0 14.4 137 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 59.1 0.0 9.9 0.0 11.4 11.4 0.0 17.8 0.0 14.4 137 0.0
LOS by Move: F * A * B B * C * B F *
ApproachDel: 53.2 11.4 17.8 110.0
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 53.2 11.4 17.8 110.0
LOS by Appr: F B C F
AllWayAvgQ: 6.4 6.4 0.1 0.0 0.0 0.0 1.0 1.0 0.0 0.6 18.5 18.5

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.523
Loss Time (sec): 0 Average Delay (sec/veh): 20.7
Optimal Cycle: 48 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 0 0 3 0 1 1 0 0 0 1 2 0 0 1 1

Volume Module:
Base Vol: 186 985 37 0 1158 8 0 0 87 465 51 409
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 186 985 37 0 1158 8 0 0 87 465 51 409
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 186 985 0 0 1158 8 0 0 87 465 51 409
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 186 985 0 0 1158 8 0 0 87 465 51 409
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 186 985 0 0 1158 8 0 0 87 465 51 409

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.89 1.00 1.00 0.89 0.83 1.00 1.00 0.83 0.90 0.85 0.85
Lanes: 1.00 3.00 1.00 0.00 3.00 1.00 1.00 0.00 1.00 2.00 0.22 1.78
Final Sat.: 1769 5083 1900 0 5083 1583 1900 0 1583 3432 358 2871

Capacity Analysis Module:
Vol/Sat: 0.11 0.19 0.00 0.00 0.23 0.01 0.00 0.00 0.05 0.14 0.14 0.14
Crit Moves: ****
Green/Cycle: 0.20 0.64 0.00 0.00 0.44 0.44 0.00 0.00 0.11 0.26 0.36 0.36
Volume/Cap: 0.52 0.30 0.00 0.00 0.52 0.01 0.00 0.00 0.52 0.52 0.39 0.39
Delay/Veh: 37.1 8.3 0.0 0.0 20.9 16.0 0.0 0.0 45.4 32.3 23.8 23.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 37.1 8.3 0.0 0.0 20.9 16.0 0.0 0.0 45.4 32.3 23.8 23.8
LOS by Move: D A A A C B A D C C C C
HCM2kAvgQ: 6 5 0 0 10 0 0 0 3 7 5 5

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 9 Average Delay (sec/veh): 29.8
Optimal Cycle: 49 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 2 0 2 0 1 2 0 2 0 1 0 1 0 1 0

Volume Module:
Base Vol: 0 522 81 164 985 114 742 257 143 55 28 196
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 522 81 164 985 114 742 257 143 55 28 196
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 522 81 164 985 0 742 257 143 55 28 196
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 522 81 164 985 0 742 257 143 55 28 196
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 522 81 164 985 0 742 257 143 55 28 196

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 0.83 0.90 0.93 1.00 0.90 0.93 0.83 0.82 0.82 0.82
Lanes: 0.00 4.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 0.66 0.34 1.00
Final Sat.: 0 6778 1583 3432 3538 1900 3432 3538 1583 1039 529 1567

Capacity Analysis Module:
Vol/Sat: 0.00 0.08 0.05 0.05 0.28 0.00 0.22 0.07 0.09 0.05 0.05 0.13
Crit Moves: ****
Green/Cycle: 0.00 0.25 0.25 0.16 0.41 0.00 0.32 0.32 0.32 0.19 0.18 0.18
Volume/Cap: 0.00 0.31 0.20 0.31 0.68 0.00 0.68 0.23 0.29 0.29 0.29 0.68
Delay/Veh: 0.0 30.4 29.7 37.7 25.6 0.0 31.5 25.3 26.0 35.2 35.4 42.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 30.4 29.7 37.7 25.6 0.0 31.5 25.3 26.0 35.2 35.4 42.7
LOS by Move: A C C D C A C C C D D D
HCM2kAvgQ: 0 4 2 3 14 0 11 3 3 2 2 7

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 SR 65 Bypass NB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.816
Loss Time (sec): 0 Average Delay (sec/veh): 26.5
Optimal Cycle: 124 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 1 0 0 3 0 0 0 0 0 3 0 1

Volume Module:
Base Vol: 279 0 596 0 0 0 234 1123 0 0 1392 486
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 279 0 596 0 0 0 234 1123 0 0 1392 486
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 279 0 596 0 0 0 234 1123 0 0 1392 486
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 279 0 596 0 0 0 234 1123 0 0 1392 486
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 279 0 596 0 0 0 234 1123 0 0 1392 486

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.83 1.00 1.00 1.00 0.93 0.89 1.00 1.00 0.89 0.83
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 3.00 0.00 0.00 3.00 1.00
Final Sat.: 1769 0 1583 0 0 0 1769 5083 0 0 5083 1583

Capacity Analysis Module:
Vol/Sat: 0.16 0.00 0.38 0.00 0.00 0.00 0.13 0.22 0.00 0.00 0.27 0.31
Crit Moves: ****
Green/Cycle: 0.46 0.00 0.46 0.00 0.00 0.00 0.16 0.54 0.00 0.00 0.38 0.38
Volume/Cap: 0.34 0.00 0.82 0.00 0.00 0.00 0.82 0.41 0.00 0.00 0.73 0.82
Delay/Veh: 17.5 0.0 30.4 0.0 0.0 0.0 56.8 13.8 0.0 0.0 28.2 36.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 17.5 0.0 30.4 0.0 0.0 0.0 56.8 13.8 0.0 0.0 28.2 36.6
LOS by Move: B A C A A A E B A A C D
HCM2kAvgQ: 5 0 18 0 0 0 9 7 0 0 15 16

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 SR 65 Bypass SB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.949
Loss Time (sec): 0 Average Delay (sec/veh): 25.2
Optimal Cycle: 180 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 0 0 3 0 1 1 0 3 0 0

Volume Module:
Base Vol: 0 0 0 489 0 75 0 1015 1016 55 607 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 489 0 75 0 1015 1016 55 607 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 489 0 75 0 1015 1016 55 607 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 489 0 75 0 1015 1016 55 607 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 489 0 75 0 1015 1016 55 607 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 1.00 0.89 0.83 0.93 0.89 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 3.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1769 0 1583 0 5083 1583 1769 5083 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.28 0.00 0.05 0.00 0.20 0.64 0.03 0.12 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.29 0.00 0.29 0.00 0.68 0.68 0.03 0.71 0.00
Volume/Cap: 0.00 0.00 0.00 0.95 0.00 0.16 0.00 0.30 0.95 0.95 0.17 0.00
Delay/Veh: 0.0 0.0 0.0 62.1 0.0 26.5 0.0 6.6 31.4 148.0 4.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 62.1 0.0 26.5 0.0 6.6 31.4 148.0 4.8 0.0
LOS by Move: A A A E A C A A C F A A
HCM2kAvgQ: 0 0 0 20 0 2 0 5 34 4 2 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 SR 65 NB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.961
Loss Time (sec): 0 Average Delay (sec/veh): 39.1
Optimal Cycle: 180 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 0 0 0 3 0 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 141 0 0 2060 0 0 0 0 0 0 0 880
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 141 0 0 2060 0 0 0 0 0 0 0 880
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 141 0 0 2060 0 0 0 0 0 0 0 880
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 141 0 0 2060 0 0 0 0 0 0 0 880
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 141 0 0 2060 0 0 0 0 0 0 0 880

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 1.00 0.89 1.00 1.00 1.00 1.00 1.00 1.00 0.83
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 5083 0 0 5083 0 0 0 0 1900 0 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.03 0.00 0.00 0.41 0.00 0.00 0.00 0.00 0.00 0.00 0.56
Crit Moves: **** ****
Green/Cycle: 0.00 0.42 0.00 0.00 0.42 0.00 0.00 0.00 0.00 0.00 0.00 0.58
Volume/Cap: 0.00 0.07 0.00 0.00 0.96 0.00 0.00 0.00 0.00 0.00 0.00 0.96
Delay/Veh: 0.0 17.2 0.0 0.0 39.8 0.0 0.0 0.0 0.0 0.0 0.0 40.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 17.2 0.0 0.0 39.8 0.0 0.0 0.0 0.0 0.0 0.0 40.9
LOS by Move: A B A A D A A A A A D
HCM2kAvgQ: 0 1 0 0 28 0 0 0 0 0 0 32

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 SR 65 SB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.624
Loss Time (sec): 0 Average Delay (sec/veh): 3.9
Optimal Cycle: 61 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 1 0 3 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 0 141 2 1054 1006 0 0 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 141 2 1054 1006 0 0 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 141 2 1054 1006 0 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 141 2 1054 1006 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 141 2 1054 1006 0 0 0 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 0.83 0.93 0.89 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 0 5083 1583 1769 5083 0 0 0 0 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.03 0.00 0.60 0.20 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: **** ****
Green/Cycle: 0.00 0.04 0.04 0.96 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.62 0.03 0.62 0.20 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 52.3 45.9 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 52.3 45.9 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A D D A A A A A A A A A
HCM2kAvgQ: 0 3 0 5 0 0 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 3 Lincoln Blvd & 7th Street	A	xxxxx 0.567	A	xxxxx 0.567	+ 0.000	V/C
# 4 Lincoln Blvd & McBean Park Dr	A	xxxxx 0.581	A	xxxxx 0.581	+ 0.000	V/C
# 5 Lincoln Blvd & 1st St	D	xxxxx 0.834	D	xxxxx 0.834	+ 0.000	V/C
# 6 Lincoln Blvd & Ferrari Ranch R	C	xxxxx 0.725	C	xxxxx 0.725	+ 0.000	V/C
# 7 Lincoln Blvd & Sterling Pkwy	B	xxxxx 0.655	B	xxxxx 0.655	+ 0.000	V/C
# 8 Joiner Pkwy & Ferrari Ranch Rd	E	xxxxx 0.918	E	xxxxx 0.918	+ 0.000	V/C
# 9 Joiner Pkwy & Sterling Pkwy	A	xxxxx 0.441	A	xxxxx 0.441	+ 0.000	V/C
# 10 E. Joiner Pkwy & Del Webb (N)	A	xxxxx 0.554	A	xxxxx 0.554	+ 0.000	V/C
# 11 E. Joiner Pkwy & Del Webb (S)	A	xxxxx 0.404	A	xxxxx 0.404	+ 0.000	V/C
# 12 Ferrari Ranch Rd & Ingram Pkwy	A	xxxxx 0.548	A	xxxxx 0.548	+ 0.000	V/C
# 13 Ferrari Ranch Rd & Sun City Bl	A	xxxxx 0.485	A	xxxxx 0.485	+ 0.000	V/C
# 14 McBean Park Dr & Ferrari Ranch	E	xxxxx 0.961	E	xxxxx 0.961	+ 0.000	V/C
# 15 McBean Park Dr & East Ave	C	xxxxx 0.790	C	xxxxx 0.790	+ 0.000	V/C
# 16 McBean Park Dr & Oak Tree Ln	A	xxxxx 0.528	A	xxxxx 0.528	+ 0.000	V/C
# 17 Twelve Bridges Dr & Sierra Col	B	xxxxx 0.671	B	xxxxx 0.671	+ 0.000	V/C
# 18 Twelve Bridges Dr & E Joiner P	B	xxxxx 0.691	B	xxxxx 0.691	+ 0.000	V/C
# 19 Twelve Bridges Dr & SR 65 N/B	C	20.2 0.870	C	20.2 0.870	+ 0.000	D/V
# 20 Twelve Bridges Dr & SR 65 S/B	D	46.0 1.056	D	46.0 1.056	+ 0.000	D/V
# 21 Lincoln-Newcastle Hwy & Sierra	E	xxxxx 0.985	E	xxxxx 0.985	+ 0.000	V/C
# 22 Sierra College Blvd & English	D	xxxxx 0.808	D	xxxxx 0.808	+ 0.000	V/C
# 23 Sierra College Blvd & King Rd	D	48.4 0.970	D	48.4 0.970	+ 0.000	D/V
# 24 Sierra Collage & Bankhead	F	311.8 0.837	F	311.8 0.837	+ 0.000	D/V
# 25 Sierra College Blvd & Taylor R	D	43.0 0.933	D	43.0 0.933	+ 0.000	D/V

Lincoln Village 1
2050 No Project
PM Peak Hour

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 26 Sierra College & Brace	C	25.5 0.714	C	25.5 0.714	+ 0.000	D/V
# 27 Sierra College Blvd & Granite	C	xxxxx 0.740	C	xxxxx 0.740	+ 0.000	V/C
# 28 Sierra College Blvd & I-80 W/B	C	23.8 0.686	C	23.8 0.686	+ 0.000	D/V
# 29 Sierra College Blvd & I-80 E/B	D	36.5 0.766	D	36.5 0.766	+ 0.000	D/V
#100 Wise Rd & Old SR 65 Jug Handle	B	xxxxx 0.670	B	xxxxx 0.670	+ 0.000	V/C
#101 Lincoln Blvd & Wise Rd Jug Han	A	xxxxx 0.512	A	xxxxx 0.512	+ 0.000	V/C
#102 SR 65 & Ramos Rd	B	18.1 0.618	B	18.1 0.618	+ 0.000	D/V

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Lincoln Blvd & 7th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.567
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1

Volume Module:
Base Vol: 30 587 36 42 603 22 5 140 20 25 169 194
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 30 587 36 42 603 22 5 140 20 25 169 194
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 30 587 36 42 603 22 5 140 20 25 169 194
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 30 587 36 42 603 22 5 140 20 25 169 194
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 30 587 36 42 603 22 5 140 20 25 169 194

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.94 0.06 1.00 0.96 0.04 1.00 0.88 0.12 1.00 1.00 1.00
Final Sat.: 1500 1413 87 1500 1447 53 1500 1313 188 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.02 0.42 0.42 0.03 0.42 0.42 0.00 0.11 0.11 0.02 0.11 0.13
Crit Volume: 623 42 160 25
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Lincoln Blvd & McBean Park Dr

Cycle (sec): 120 Critical Vol./Cap.(X): 0.581
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 0 0 1 0 0 1

Volume Module:
Base Vol: 4 806 16 2 610 1 1 2 11 32 2 19
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 4 806 16 2 610 1 1 2 11 32 2 19
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 4 806 16 2 610 1 1 2 11 32 2 19
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 4 806 16 2 610 1 1 2 11 32 2 19
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 4 806 16 2 610 1 1 2 11 32 2 19

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.98 0.02 1.00 0.99 0.01 0.07 0.14 0.79 0.94 0.06 1.00
Final Sat.: 1500 1471 29 1500 1498 2 107 214 1179 1412 88 1500

Capacity Analysis Module:
Vol/Sat: 0.00 0.55 0.55 0.00 0.41 0.41 0.01 0.01 0.01 0.02 0.02 0.01
Crit Volume: 822 2 14 34
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Lincoln Blvd & 1st St

Cycle (sec): 120 Critical Vol./Cap.(X): 0.834
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 112 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 0 1 0

Volume Module:
Base Vol: 169 881 65 6 669 28 37 72 157 135 86 3
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 169 881 65 6 669 28 37 72 157 135 86 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 169 881 65 6 669 28 37 72 157 135 86 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 169 881 65 6 669 28 37 72 157 135 86 3
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 169 881 65 6 669 28 37 72 157 135 86 3

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.96 0.04 1.00 0.31 0.69 1.00 0.97 0.03
Final Sat.: 1500 1500 1500 1500 1440 60 1500 472 1028 1500 1449 51

Capacity Analysis Module:
Vol/Sat: 0.11 0.59 0.04 0.00 0.46 0.46 0.02 0.15 0.15 0.09 0.06 0.06
Crit Volume: 881 6 229 135
Crit Moves: **** **

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Lincoln Blvd & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.725
Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 83 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ovl Ovl Include Ovl

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module:
Base Vol: 115 1088 587 119 871 190 93 544 45 237 563 43
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 115 1088 587 119 871 190 93 544 45 237 563 43
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 115 1088 587 119 871 190 93 544 45 237 563 43
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 115 1088 587 119 871 190 93 544 45 237 563 43
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00
FinalVolume: 115 1088 587 119 871 190 93 544 45 261 563 43

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.85 0.15 2.00 2.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 1500 2771 229 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.08 0.36 0.39 0.08 0.29 0.13 0.06 0.20 0.20 0.09 0.19 0.03
Crit Volume: 544 119 295 130
Crit Moves: **** **

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Lincoln Blvd & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.655
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 2 0 0 0 1

Volume Module:
Base Vol: 0 1601 349 125 1020 0 0 0 0 86 0 90
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1601 349 125 1020 0 0 0 0 86 0 90
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1601 349 125 1020 0 0 0 0 86 0 90
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1601 349 125 1020 0 0 0 0 86 0 90
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00
FinalVolume: 0 1601 349 125 1020 0 0 0 0 95 0 90

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3100 1550 1550 3100 0 0 0 0 3100 0 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.52 0.23 0.08 0.33 0.00 0.00 0.00 0.00 0.03 0.00 0.06
Crit Volume: 801 125 0
Crit Moves: **** **

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #8 Joiner Pkwy & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.918
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Ignore Ignore Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 1012 793 400 33 797 27 28 35 768 736 228 1
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1012 793 400 33 797 27 28 35 768 736 228 1
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 1012 793 0 33 797 0 28 35 0 736 228 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1012 793 0 33 797 0 28 35 0 736 228 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
MLF Adj: 1.10 1.00 0.00 1.10 1.00 0.00 1.00 1.00 0.00 1.10 1.00 0.00
FinalVolume: 1113 793 0 36 797 0 28 35 0 810 228 0

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 1500 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.37 0.26 0.00 0.01 0.27 0.00 0.02 0.01 0.00 0.27 0.08 0.00
Crit Volume: 557 399 18 405
Crit Moves: **** **

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Joiner Pkwy & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.441
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 1 0 1 1 0 1 0 1 1 0 2 0 1

Volume Module:
Base Vol: 470 29 296 36 16 53 53 429 61 225 595 64
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 470 29 296 36 16 53 53 429 61 225 595 64
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 470 29 0 36 16 53 53 429 0 225 595 64
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 470 29 0 36 16 53 53 429 0 225 595 64
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.10 1.00 1.00
FinalVolume: 517 29 0 36 16 53 53 429 0 248 595 64

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 1500 1500 1500 1500 1500 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.17 0.02 0.00 0.02 0.01 0.04 0.04 0.14 0.00 0.08 0.20 0.04
Crit Volume: 259 53 53 298
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 E. Joiner Pkwy & Del Webb (N)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.554
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 51 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 0 1 0 1 0 0 1 0 0 1

Volume Module:
Base Vol: 1 660 174 296 574 0 2 1 1 126 1 203
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 660 174 296 574 0 2 1 1 126 1 203
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 660 174 296 574 0 2 1 1 126 1 203
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1 660 174 296 574 0 2 1 1 126 1 203
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 1 660 174 296 574 0 2 1 1 126 1 203

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 0.00 1.00 0.50 0.50 0.99 0.01 1.00
Final Sat.: 1500 3000 1500 1500 3000 0 1500 750 750 1488 12 1500

Capacity Analysis Module:
Vol/Sat: 0.00 0.22 0.12 0.20 0.19 0.00 0.00 0.00 0.00 0.08 0.08 0.14
Crit Volume: 330 296 2
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 E. Joiner Pkwy & Del Webb (S)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.404
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 38 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 1 0 0 1 0

Volume Module:
Base Vol: 61 807 166 75 619 13 29 17 5 110 21 54
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 61 807 166 75 619 13 29 17 5 110 21 54
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 61 807 166 75 619 13 29 17 5 110 21 54
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 61 807 166 75 619 13 29 17 5 110 21 54
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 61 807 166 75 619 13 29 17 5 110 21 54

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.96 0.04 1.00 1.00 1.00 1.00 0.28 0.72
Final Sat.: 1500 3000 1500 1500 2938 62 1500 1500 1500 1500 420 1080

Capacity Analysis Module:
Vol/Sat: 0.04 0.27 0.11 0.05 0.21 0.21 0.02 0.01 0.00 0.07 0.05 0.05
Crit Volume: 404 75 17 110
Crit Moves: **** **

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Ferrari Ranch Rd & Ingram Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.548
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module:
Base Vol: 34 0 146 0 0 0 0 1222 27 93 807 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 34 0 146 0 0 0 0 1222 27 93 807 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 34 0 146 0 0 0 0 1222 27 93 807 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 34 0 146 0 0 0 0 1222 27 93 807 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 34 0 146 0 0 0 0 1222 27 93 807 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 1550 0 1550 0 0 0 0 3100 1550 1550 3100 0

Capacity Analysis Module:
Vol/Sat: 0.02 0.00 0.09 0.00 0.00 0.00 0.00 0.39 0.02 0.06 0.26 0.00
Crit Volume: 146 0 611 93
Crit Moves: **** **

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Ferrari Ranch Rd & Sun City Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.485
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 1254 48 31 713 0 0 0 0 93 0 35
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1254 48 31 713 0 0 0 0 93 0 35
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1254 48 31 713 0 0 0 0 93 0 35
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1254 48 31 713 0 0 0 0 93 0 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1254 48 31 713 0 0 0 0 93 0 35

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 3100 1550 1550 3100 0 0 0 0 1550 0 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.40 0.03 0.02 0.23 0.00 0.00 0.00 0.00 0.06 0.00 0.02
Crit Volume: 627 31 0 93
Crit Moves: **** **

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #14 McBean Park Dr & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.961
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Ovl Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0

Volume Module:
Base Vol: 446 0 906 0 0 0 0 0 494 168 550 372 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 446 0 906 0 0 0 0 0 494 168 550 372 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 446 0 906 0 0 0 0 0 494 168 550 372 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 446 0 906 0 0 0 0 0 494 168 550 372 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 446 0 906 0 0 0 0 0 494 168 550 372 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00 1.00 1.00 1.00 1.00
Final Sat.: 1550 0 1550 0 0 0 0 0 1550 1550 1550 1550 0

Capacity Analysis Module:
Vol/Sat: 0.29 0.00 0.58 0.00 0.00 0.00 0.00 0.32 0.11 0.35 0.24 0.00
Crit Volume: 446 0 494 550
Crit Moves: **** **

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #15 McBean Park Dr & East Ave

Cycle (sec): 60 Critical Vol./Cap.(X): 0.790
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 88 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 1 0 0 1 0 1

Volume Module:

Base Vol: 0 0 0 509 0 128 105 165 0 1 214 610
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 509 0 128 105 165 0 1 214 610
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 509 0 128 105 165 0 1 214 610
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 509 0 128 105 165 0 1 214 610
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 509 0 128 105 165 0 1 214 610

Saturation Flow Module:

Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
Final Sat.: 0 1550 0 1550 0 1550 1550 1550 0 1550 1550 1550

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.33 0.00 0.08 0.07 0.11 0.00 0.00 0.14 0.39
Crit Volume: 0 509 105 610
Crit Moves: **** **** ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #16 McBean Park Dr & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.528
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 2 0 1

Volume Module:

Base Vol: 28 7 6 127 3 83 263 1124 18 4 790 348
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 28 7 6 127 3 83 263 1124 18 4 790 348
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 28 7 6 127 3 83 263 1124 18 4 790 348
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 28 7 6 127 3 83 263 1124 18 4 790 348
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 28 7 6 127 3 83 263 1124 18 4 790 348

Saturation Flow Module:

Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1500 1500 1500 1500 1500 1500 1500 3000 1500 1500 3000 1500

Capacity Analysis Module:

Vol/Sat: 0.02 0.00 0.00 0.08 0.00 0.06 0.18 0.37 0.01 0.00 0.26 0.23
Crit Volume: 7 127 263 395
Crit Moves: **** **** ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #17 Twelve Bridges Dr & Sierra College Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 0.671
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 0 0 0 2 0 1 1 0 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 331 921 0 0 604 62 74 0 407 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 331 921 0 0 604 62 74 0 407 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 331 921 0 0 604 62 74 0 407 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 331 921 0 0 604 62 74 0 407 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 331 921 0 0 604 62 74 0 407 0 0 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 1550 3100 0 0 3100 1550 1550 0 1550 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.21 0.30 0.00 0.00 0.19 0.04 0.05 0.00 0.26 0.00 0.00 0.00
Crit Volume: 331 302 407 0
Crit Moves: **** **** ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #18 Twelve Bridges Dr & E Joiner Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 74 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 40 456 328 140 433 118 321 868 38 244 353 176
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 40 456 328 140 433 118 321 868 38 244 353 176
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 40 456 328 140 433 118 321 868 38 244 353 176
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 40 456 328 140 433 118 321 868 38 244 353 176
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
FinalVolume: 40 456 328 140 433 118 353 868 38 268 353 176

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 3000 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.03 0.15 0.22 0.09 0.14 0.08 0.12 0.29 0.03 0.09 0.12 0.12
Crit Volume: 328 140 434 134
Crit Moves: **** **** ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.870
Loss Time (sec): 9 Average Delay (sec/veh): 20.2
Optimal Cycle: 71 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
Base Vol: 142 3 779 0 0 0 732 939 0 0 888 361
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 142 3 779 0 0 0 732 939 0 0 888 361
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 142 3 0 0 0 0 732 939 0 0 888 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 142 3 0 0 0 0 732 939 0 0 888 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 142 3 0 0 0 0 732 939 0 0 888 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.85 1.00 1.00 1.00 1.00 1.00 0.95 0.95 1.00 1.00 0.95 1.00
Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 1615 1900 1900 0 0 0 1805 3610 0 0 3610 1900

Capacity Analysis Module:
Vol/Sat: 0.09 0.00 0.00 0.00 0.00 0.00 0.41 0.26 0.00 0.00 0.25 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.10 0.10 0.00 0.00 0.00 0.00 0.47 0.75 0.00 0.00 0.28 0.00
Volume/Cap: 0.87 0.02 0.00 0.00 0.00 0.00 0.87 0.35 0.00 0.00 0.87 0.00
Delay/Veh: 62.7 24.3 0.0 0.0 0.0 0.0 24.1 2.6 0.0 0.0 28.7 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 62.7 24.3 0.0 0.0 0.0 0.0 24.1 2.6 0.0 0.0 28.7 0.0
LOS by Move: E C A A A A C A A C A
HCM2kAvgQ: 5 0 0 0 0 0 16 3 0 0 12 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 1.056
Loss Time (sec): 9 Average Delay (sec/veh): 46.0
Optimal Cycle: 180 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1

Volume Module:
Base Vol: 0 0 0 384 0 209 357 1302 0 0 384 657
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 384 0 209 357 1302 0 0 384 657
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 0 0 0 384 0 209 357 1302 0 0 384 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 384 0 209 357 1302 0 0 384 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 384 0 209 357 1302 0 0 384 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1805 0 1615 1805 1900 0 0 1900 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.21 0.00 0.13 0.20 0.69 0.00 0.00 0.20 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.00 0.00 0.20 0.00 0.20 0.32 0.65 0.00 0.00 0.33 0.00
Volume/Cap: 0.00 0.00 0.00 1.06 0.00 0.64 0.62 1.06 0.00 0.00 0.62 0.00
Delay/Veh: 0.0 0.0 0.0 86.8 0.0 26.3 19.3 52.5 0.0 0.0 18.9 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 86.8 0.0 26.3 19.3 52.5 0.0 0.0 18.9 0.0
LOS by Move: A A A F A C B D A A B A
HCM2kAvgQ: 0 0 0 15 0 5 7 40 0 0 7 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #21 Lincoln-Newcastle Hwy & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.985
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 1 0 0 1 0 0 0 0 1 1 0 1 0 1 0 0

Volume Module:
Base Vol: 786 1 239 0 0 1 2 631 594 109 367 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 786 1 239 0 0 1 2 631 594 109 367 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 786 1 239 0 0 1 2 631 594 109 367 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 786 1 239 0 0 1 2 631 594 109 367 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 786 1 239 0 0 1 2 631 594 109 367 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.99 0.01 1.00 0.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 1548 2 1550 0 0 1550 1550 1550 1550 1550 0

Capacity Analysis Module:
Vol/Sat: 0.51 0.51 0.15 0.00 0.00 0.00 0.00 0.41 0.38 0.07 0.24 0.00
Crit Volume: 786 631 109
Crit Moves: ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #22 Sierra College Blvd & English Colony Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.808
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 97 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 1 0 2 0 0 0 0 0 0 0 0 1 0 0

Volume Module:
Base Vol: 0 1463 69 289 901 0 0 0 0 0 43 0 154
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1463 69 289 901 0 0 0 0 0 43 0 154
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1463 69 289 901 0 0 0 0 0 43 0 154
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1463 69 289 901 0 0 0 0 0 43 0 154
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1463 69 289 901 0 0 0 0 0 43 0 154

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.91 0.09 1.00 2.00 0.00 0.00 0.00 0.00 0.22 0.00 0.78
Final Sat.: 0 2960 140 1550 3100 0 0 0 0 0 338 0 1212

Capacity Analysis Module:
Vol/Sat: 0.00 0.49 0.49 0.19 0.29 0.00 0.00 0.00 0.00 0.13 0.00 0.13
Crit Volume: 766 289 0
Crit Moves: ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sierra College Blvd & King Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.970
Loss Time (sec): 9 Average Delay (sec/veh): 48.4
Optimal Cycle: 159 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Lanes: 0 1 0 0 1 0 1 0 0 1 0 0 1 0 0

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 0 1 0 0

Volume Module:
Base Vol: 2 802 22 661 806 24 142 25 9 31 12 415
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 802 22 661 806 24 142 25 9 31 12 415
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 802 22 661 806 24 142 25 9 31 12 415
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 802 22 661 806 24 142 25 9 31 12 415
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 802 22 661 806 24 142 25 9 31 12 415

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.95 0.95 0.95 0.95 0.32 0.32 0.32 0.85 0.85 0.85
Lanes: 1.00 1.95 0.05 1.00 1.94 0.06 0.81 0.14 0.05 0.07 0.03 0.90
Final Sat.: 1805 3500 96 1805 3492 104 494 87 31 110 42 1469

Capacity Analysis Module:
Vol/Sat: 0.00 0.23 0.23 0.37 0.23 0.23 0.29 0.29 0.29 0.28 0.28 0.28
Crit Moves: ****
Green/Cycle: 0.00 0.24 0.24 0.38 0.61 0.61 0.30 0.30 0.30 0.30 0.30 0.30
Volume/Cap: 0.38 0.97 0.97 0.97 0.38 0.38 0.97 0.97 0.97 0.95 0.95 0.95
Delay/Veh: 89.6 61.6 61.6 57.7 10.0 10.0 92.7 92.7 92.7 63.9 63.9 63.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 89.6 61.6 61.6 57.7 10.0 10.0 92.7 92.7 92.7 63.9 63.9 63.9
LOS by Move: F E E E A A F F F E E E
HCM2kAvgQ: 0 19 19 26 7 7 9 9 9 19 19 19

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #24 Sierra Collage & Bankhead

Average Delay (sec/veh): 11.8 Worst Case Level Of Service: F[311.8]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 1 0

Volume Module:
Base Vol: 24 18 122 30 9 0 2 669 42 200 805 38
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 24 18 122 30 9 0 2 669 42 200 805 38
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 24 18 122 30 9 0 2 669 42 200 805 38
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 24 18 122 30 9 0 2 669 42 200 805 38

Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: 1501 1937 356 1572 1939 422 843 xxxx xxxxx 711 xxxx xxxxx
Potent Cap.: 86 66 647 76 66 586 802 xxxx xxxxx 898 xxxx xxxxx
Move Cap.: 59 49 647 36 49 586 802 xxxx xxxxx 898 xxxx xxxxx
Volume/Cap: 0.40 0.37 0.19 0.84 0.18 0.00 0.00 xxxx xxxxx 0.22 xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx 0.7 xxxx xxxx xxxxx 0.0 xxxx xxxxx 0.9 xxxx xxxxx
Control Del:xxxxx xxxx 11.9 xxxxx xxxx xxxxx 9.5 xxxx xxxxx 10.2 xxxx xxxxx
LOS by Move: * * B * * * A * * B * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: 55 xxxx xxxxx 38 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue: 3.3 xxxx xxxxx 3.9 xxxx xxxxx 0.0 xxxx xxxxx 0.9 xxxx xxxxx
Shrd ConDel:179.1 xxxx xxxxx 311.8 xxxx xxxxx 9.5 xxxx xxxxx 10.2 xxxx xxxxx
Shared LOS: F * * F * * A * B * *
ApproachDel: 54.7 311.8 xxxxxx xxxxxx
ApproachLOS: F F * *

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Sierra College Blvd & Taylor Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.933
Loss Time (sec): 8 Average Delay (sec/veh): 43.0
Optimal Cycle: 121 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1

Volume Module:
Base Vol: 259 784 509 42 693 85 117 199 277 322 266 74
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 259 784 509 42 693 85 117 199 277 322 266 74
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 259 784 509 42 693 85 117 199 277 322 266 74
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 259 784 509 42 693 85 117 199 277 322 266 74
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 259 784 509 42 693 85 117 199 277 322 266 74

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1805 1900 1615 1805 1900 1615 1805 1900 1615 1805 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.14 0.41 0.32 0.02 0.36 0.05 0.06 0.10 0.17 0.18 0.14 0.05
Crit Moves: ****
Green/Cycle: 0.15 0.52 0.52 0.03 0.39 0.39 0.12 0.18 0.18 0.19 0.26 0.26
Volume/Cap: 0.93 0.80 0.61 0.80 0.93 0.13 0.55 0.57 0.93 0.93 0.55 0.18
Delay/Veh: 78.2 24.7 18.5 105.3 47.8 19.7 44.4 39.4 75.1 71.4 33.4 29.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 78.2 24.7 18.5 105.3 47.8 19.7 44.4 39.4 75.1 71.4 33.4 29.2
LOS by Move: E C B F D B D E C C C
HCM2kAvgQ: 12 21 12 3 25 2 4 6 12 14 8 2

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Sierra College & Brace

Cycle (sec): 100 Critical Vol./Cap.(X): 0.714
Loss Time (sec): 8 Average Delay (sec/veh): 25.5
Optimal Cycle: 50 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 1 0 2 0 1 0 0 0 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 1330 347 364 906 0 0 0 73 290 0 255
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1330 347 364 906 0 0 0 73 290 0 255
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1330 347 364 906 0 0 0 73 290 0 255
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1330 347 364 906 0 0 0 73 290 0 255
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1330 347 364 906 0 0 0 73 290 0 255

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 0.95 0.95 1.00 1.00 1.00 0.87 0.77 1.00 0.85
Lanes: 0.00 3.00 1.00 1.00 2.00 1.00 0.00 0.00 1.00 1.00 0.00 1.00
Final Sat.: 0 5187 1615 1805 3610 1900 0 0 1644 1461 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.21 0.20 0.25 0.00 0.00 0.00 0.04 0.20 0.00 0.16
Crit Moves: ****
Green/Cycle: 0.00 0.36 0.36 0.28 0.64 0.00 0.00 0.00 0.28 0.28 0.00 0.28
Volume/Cap: 0.00 0.71 0.60 0.71 0.39 0.00 0.00 0.00 0.16 0.71 0.00 0.57
Delay/Veh: 0.0 28.9 27.9 37.0 8.7 0.0 0.0 0.0 27.4 38.4 0.0 32.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 28.9 27.9 37.0 8.7 0.0 0.0 0.0 27.4 38.4 0.0 32.7
LOS by Move: A C C D A A A A C D A C
HCM2kAvgQ: 0 14 9 11 7 0 0 0 2 9 0 7

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #27 Sierra College Blvd & Granite Dr

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 88 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 0 1

Volume Module:
Base Vol: 164 1110 139 60 995 223 351 44 373 243 35 30
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 164 1110 139 60 995 223 351 44 373 243 35 30
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 164 1110 139 60 995 223 351 44 373 243 35 30
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 164 1110 139 60 995 223 351 44 373 243 35 30
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.00
FinalVolume: 164 1110 139 60 995 223 351 44 410 243 35 30

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 1500 1500 3000 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.11 0.37 0.09 0.04 0.33 0.15 0.23 0.03 0.14 0.16 0.02 0.02
Crit Volume: 164 497 205 243
Crit Moves: **** **** ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.686
Loss Time (sec): 0 Average Delay (sec/veh): 23.8
Optimal Cycle: 72 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 0 0 3 0 1 0 1 0 1 0 2 0 0 1 1

Volume Module:
Base Vol: 163 1143 61 0 1583 8 10 38 317 308 44 297
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 163 1143 61 0 1583 8 10 38 317 308 44 297
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 163 1143 0 0 1583 8 10 38 317 308 44 297
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 163 1143 0 0 1583 8 10 38 317 308 44 297
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 163 1143 0 0 1583 8 10 38 317 308 44 297

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 1.00 1.00 0.91 0.85 0.83 0.83 0.83 0.92 0.87 0.87
Lanes: 1.00 3.00 1.00 0.00 3.00 1.00 0.00 0.21 0.79 1.00 2.00 0.26 1.74
Final Sat.: 1805 5187 1900 0 5187 1615 327 1242 1569 3502 426 2876

Capacity Analysis Module:
Vol/Sat: 0.09 0.22 0.00 0.00 0.31 0.00 0.03 0.03 0.20 0.09 0.10 0.10
Crit Moves: **** **** ****
Green/Cycle: 0.13 0.58 0.00 0.00 0.45 0.45 0.10 0.29 0.29 0.13 0.33 0.33
Volume/Cap: 0.69 0.38 0.00 0.00 0.69 0.01 0.32 0.10 0.69 0.69 0.32 0.32
Delay/Veh: 49.5 11.6 0.0 0.0 23.0 15.5 42.2 25.7 34.9 46.0 25.5 25.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.5 11.6 0.0 0.0 23.0 15.5 42.2 25.7 34.9 46.0 25.5 25.5
LOS by Move: D B A A C B D C D C C
HCM2kAvgQ: 6 7 0 0 15 0 2 1 10 6 4 4

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
Loss Time (sec): 9 Average Delay (sec/veh): 36.5
Optimal Cycle: 61 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 4 0 1 2 0 2 0 1 2 0 2 0 1 0 1 0 1 0

Volume Module:
Base Vol: 0 937 96 210 774 131 515 239 41 148 65 536
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 937 96 210 774 131 515 239 41 148 65 536
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 937 96 210 774 0 515 239 41 148 65 536
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 937 96 210 774 0 515 239 41 148 65 536
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 937 96 210 774 0 515 239 41 148 65 536

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 0.92 0.95 1.00 0.92 0.95 0.85 0.84 0.84 0.84
Lanes: 0.00 4.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00 0.69 0.31 1.00
Final Sat.: 0 6916 1615 3502 3610 1900 3502 3610 1615 1109 487 1596

Capacity Analysis Module:
Vol/Sat: 0.00 0.14 0.06 0.06 0.21 0.00 0.15 0.07 0.03 0.13 0.13 0.34
Crit Moves: ****
Green/Cycle: 0.00 0.19 0.19 0.09 0.28 0.00 0.19 0.21 0.21 0.42 0.44 0.44
Volume/Cap: 0.00 0.70 0.31 0.70 0.77 0.00 0.77 0.32 0.12 0.32 0.30 0.77
Delay/Veh: 0.0 39.2 35.1 51.5 36.6 0.0 43.6 33.7 32.3 19.4 18.3 27.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 39.2 35.1 51.5 36.6 0.0 43.6 33.7 32.3 19.4 18.3 27.4
LOS by Move: A D D D D A D C B B C
HCM2kAvgQ: 0 9 3 5 13 0 10 3 1 5 4 16

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #100 Wise Rd & Old SR 65 Jug Handle

Cycle (sec): 100 Critical Vol./Cap.(X): 0.670
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module:
Base Vol: 125 0 155 0 0 0 0 0 1690 370 39 624 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 125 0 155 0 0 0 0 0 1690 370 39 624 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 125 0 155 0 0 0 0 0 1690 370 39 624 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 125 0 155 0 0 0 0 0 1690 370 39 624 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 125 0 155 0 0 0 0 0 1690 370 39 624 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 1550 0 1550 0 0 0 0 0 3100 1550 1550 3100 0

Capacity Analysis Module:
Vol/Sat: 0.08 0.00 0.10 0.00 0.00 0.00 0.00 0.55 0.24 0.03 0.20 0.00
Crit Volume: 155 0 845 39
Crit Moves: ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #101 Lincoln Blvd & Wise Rd Jug Handle

Cycle (sec): 100 Critical Vol./Cap.(X): 0.512
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 47 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 1 1 0 1 0 0 0 1

Volume Module:
Base Vol: 0 129 134 145 501 0 0 0 0 292 0 117
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 129 134 145 501 0 0 0 0 292 0 117
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 129 134 145 501 0 0 0 0 292 0 117
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 129 134 145 501 0 0 0 0 292 0 117
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 129 134 145 501 0 0 0 0 292 0 117

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 1550 1550 1550 1550 0 0 0 0 1550 0 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.08 0.09 0.09 0.32 0.00 0.00 0.00 0.00 0.19 0.00 0.08
Crit Volume: 0 501 292
Crit Moves: **** **** ****

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #102 SR 65 & Ramos Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.618
Loss Time (sec): 9 Average Delay (sec/veh): 18.1
Optimal Cycle: 43 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 1 0 0 1 1 0 1 0 0 0 1

Volume Module:
Base Vol: 1 356 451 57 518 0 0 0 0 149 0 39
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 356 451 57 518 0 0 0 0 149 0 39
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 356 451 57 518 0 0 0 0 149 0 39
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1 356 451 57 518 0 0 0 0 149 0 39
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 1 356 451 57 518 0 0 0 0 149 0 39

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00 0.77 1.00 0.85
Lanes: 0.01 0.99 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 5 1895 1615 1805 1900 0 0 0 0 1461 0 1615

Capacity Analysis Module:
Vol/Sat: 0.19 0.19 0.28 0.03 0.27 0.00 0.00 0.00 0.00 0.10 0.00 0.02
Crit Moves: **** **** ****
Green/Cycle: 0.30 0.67 0.67 0.08 0.44 0.00 0.00 0.00 0.00 0.16 0.00 0.16
Volume/Cap: 0.62 0.28 0.42 0.42 0.62 0.00 0.00 0.00 0.00 0.62 0.00 0.15
Delay/Veh: 31.9 6.9 7.8 46.2 22.9 0.0 0.0 0.0 0.0 43.6 0.0 36.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 31.9 6.9 7.8 46.2 22.9 0.0 0.0 0.0 0.0 43.6 0.0 36.0
LOS by Move: C A A D C A A A A D A D
HCM2kAvgQ: 10 4 6 2 13 0 0 0 0 5 0 1

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	LOS	Veh C	LOS	Veh C	
# 41 SR 65 Bypass NB & Ferrari Ranc	C	23.2 0.830	C	23.2 0.830	+ 0.000 D/V
# 42 SR 65 Bypass SB & Ferrari Ranc	B	16.7 0.643	B	16.7 0.643	+ 0.000 D/V
# 43 SR 65 NB & Industrial/Lincoln	C	23.4 0.721	C	23.4 0.721	+ 0.000 D/V
# 44 SR 65 SB & Industrial/Lincoln	C	24.3 0.830	C	24.3 0.830	+ 0.000 D/V

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 SR 65 Bypass NB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.830
Loss Time (sec): 0 Average Delay (sec/veh): 23.2
Optimal Cycle: 134 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	1 1 0 0 2	0 0 0 0 0	1 0 3 0 0	0 0 3 0 1

Volume Module:

Base Vol:	1094	0	1020	0	0	0	104	964	0	0	1464	641
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1094	0	1020	0	0	0	104	964	0	0	1464	641
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1094	0	1020	0	0	0	104	964	0	0	1464	641
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1094	0	1020	0	0	0	104	964	0	0	1464	641
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1094	0	1020	0	0	0	104	964	0	0	1464	641

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	1.00	0.73	1.00	1.00	1.00	0.93	0.89	1.00	1.00	0.89	0.83
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	1.00	3.00	0.00	0.00	3.00	1.00
Final Sat.:	3545	0	2786	0	0	0	1769	5083	0	0	5083	1583

Capacity Analysis Module:

Vol/Sat:	0.31	0.00	0.37	0.00	0.00	0.00	0.06	0.19	0.00	0.00	0.29	0.41
Crit Moves:	****						****					****
Green/Cycle:	0.44	0.00	0.44	0.00	0.00	0.00	0.07	0.56	0.00	0.00	0.49	0.49
Volume/Cap:	0.70	0.00	0.83	0.00	0.00	0.00	0.83	0.34	0.00	0.00	0.59	0.83
Delay/Veh:	24.0	0.0	29.5	0.0	0.0	0.0	80.9	12.1	0.0	0.0	18.8	29.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.0	0.0	29.5	0.0	0.0	0.0	80.9	12.1	0.0	0.0	18.8	29.6
LOS by Move:	C	A	C	A	A	A	F	B	A	A	B	C
HCM2kAvgQ:	14	0	18	0	0	0	5	6	0	0	12	19

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 SR 65 Bypass SB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.643
Loss Time (sec): 0 Average Delay (sec/veh): 16.7
Optimal Cycle: 64 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 0 0 3 0 1 1 0 3 0 0

Volume Module:
Base Vol: 0 0 0 521 0 249 0 547 474 0 1773 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 521 0 249 0 547 474 0 1773 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 521 0 249 0 547 474 0 1773 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 521 0 249 0 547 474 0 1773 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 521 0 249 0 547 474 0 1773 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 1.00 0.89 0.83 1.00 0.89 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 3.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1769 0 1583 0 5083 1583 1900 5083 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.29 0.00 0.16 0.00 0.11 0.30 0.00 0.35 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.46 0.00 0.54 0.54 0.00 0.54 0.00 0.54 0.00
Volume/Cap: 0.00 0.00 0.00 0.64 0.00 0.34 0.00 0.20 0.55 0.00 0.64 0.00
Delay/Veh: 0.0 0.0 0.0 22.6 0.0 17.7 0.0 11.8 15.7 0.0 16.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 22.6 0.0 17.7 0.0 11.8 15.7 0.0 16.6 0.0
LOS by Move: A A A C A B A B A A B A
HCM2kAvgQ: 0 0 0 13 0 5 0 3 10 0 14 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 SR 65 NB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.721
Loss Time (sec): 0 Average Delay (sec/veh): 23.4
Optimal Cycle: 82 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 0 0 0 0 3 0 0 0 0 0 0 0 0 1 0 0 0 2

Volume Module:
Base Vol: 0 1158 0 0 0 1292 0 0 0 0 0 0 0 0 0 1300
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1158 0 0 0 1292 0 0 0 0 0 0 0 0 0 1300
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1158 0 0 0 1292 0 0 0 0 0 0 0 0 0 1300
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1158 0 0 0 1292 0 0 0 0 0 0 0 0 0 1300
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1158 0 0 0 1292 0 0 0 0 0 0 0 0 0 1300

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 1.00 0.89 1.00 1.00 1.00 1.00 1.00 1.00 0.73
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 3.00 0.00 1.00 0.00 2.00
Final Sat.: 0 5083 0 0 5083 0 0 0 0 1900 0 2786

Capacity Analysis Module:
Vol/Sat: 0.00 0.23 0.00 0.00 0.25 0.00 0.00 0.00 0.00 0.00 0.00 0.47
Crit Moves: ****
Green/Cycle: 0.00 0.35 0.00 0.00 0.35 0.00 0.00 0.00 0.00 0.00 0.00 0.65
Volume/Cap: 0.00 0.65 0.00 0.00 0.72 0.00 0.00 0.00 0.00 0.00 0.00 0.72
Delay/Veh: 0.0 28.0 0.0 0.0 29.6 0.0 0.0 0.0 0.0 0.0 0.0 13.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 28.0 0.0 0.0 29.6 0.0 0.0 0.0 0.0 0.0 0.0 13.1
LOS by Move: A C A A C A A A A A A B
HCM2kAvgQ: 0 12 0 0 14 0 0 0 0 0 0 16

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 No Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 SR 65 SB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.830
Loss Time (sec): 0 Average Delay (sec/veh): 24.3
Optimal Cycle: 134 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 1 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 0 1158 4 1065 227 0 0 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1158 4 1065 227 0 0 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1158 4 1065 227 0 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1158 4 1065 227 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1158 4 1065 227 0 0 0 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 0.83 0.93 0.89 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 0 5083 1583 1769 5083 0 0 0 0 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.23 0.00 0.60 0.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.27 0.27 0.73 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.83 0.01 0.83 0.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 38.4 26.4 14.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 38.4 26.4 14.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A D C B A A A A A A A A
HCM2kAvgQ: 0 15 0 25 0 0 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

**INTERSECTION LOS WORKSHEETS
2050 PLUS PROJECT CONDITIONS**

Lincoln Village 1
2050 Plus Project
AM Peak Hour

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in	
		LOS	Del/Veh	LOS	Del/Veh		
# 19	Twelve Bridges Dr & SR 65 N/B	C	31.4 0.962	C	31.4 0.962	+ 0.000	D/V
# 20	Twelve Bridges Dr & SR 65 S/B	B	15.4 0.628	B	15.4 0.628	+ 0.000	D/V
# 21	SR 193 & Sierra College Blvd	B	13.6 0.461	B	13.6 0.461	+ 0.000	V/C
# 28	Sierra College Blvd & I-80 W/B	C	20.6 0.540	C	20.6 0.540	+ 0.000	D/V
# 29	Sierra College Blvd & I-80 E/B	C	29.9 0.704	C	29.9 0.704	+ 0.000	D/V
# 41	SR 65 Bypass NB & Ferrari Ranc	C	26.8 0.800	C	26.8 0.800	+ 0.000	D/V
# 42	SR 65 Bypass SB & Ferrari Ranc	C	26.9 0.969	C	26.9 0.969	+ 0.000	D/V
# 43	SR 65 NB & Industrial/Lincoln	E	61.3 1.050	E	61.3 1.050	+ 0.000	D/V
# 44	SR 65 SB & Industrial/Lincoln	A	4.4 0.693	A	4.4 0.693	+ 0.000	D/V

Lincoln Village 1
2050 Plus Project
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.962
 Loss Time (sec): 9 Average Delay (sec/veh): 31.4
 Optimal Cycle: 102 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Ignore Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
 Base Vol: 443 8 604 0 0 0 239 580 0 0 1425 444
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 443 8 604 0 0 0 239 580 0 0 1425 444
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 443 8 0 0 0 0 239 580 0 0 1425 444
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 443 8 0 0 0 0 239 580 0 0 1425 444
 PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 443 8 0 0 0 0 239 580 0 0 1425 444

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 0.98 1.00 1.00 1.00 1.00 0.93 0.93 1.00 1.00 0.93 0.83
 Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
 Final Sat.: 1583 1862 1900 0 0 0 1769 3538 0 0 3538 1583

Capacity Analysis Module:
 Vol/Sat: 0.28 0.00 0.00 0.00 0.00 0.00 0.14 0.16 0.00 0.00 0.40 0.28
 Crit Moves: ****
 Green/Cycle: 0.29 0.29 0.00 0.00 0.00 0.00 0.14 0.56 0.00 0.00 0.42 0.42
 Volume/Cap: 0.96 0.01 0.00 0.00 0.00 0.00 0.96 0.29 0.00 0.00 0.96 0.67
 Delay/Veh: 53.2 15.2 0.0 0.0 0.0 0.0 72.1 7.1 0.0 0.0 32.3 16.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 53.2 15.2 0.0 0.0 0.0 0.0 72.1 7.1 0.0 0.0 32.3 16.8
 LOS by Move: D B A A A A E A A A C B
 HCM2kAvgQ: 14 0 0 0 0 0 9 3 0 0 20 8

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.628
Loss Time (sec): 9 Average Delay (sec/veh): 15.4
Optimal Cycle: 40 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 1

Volume Module:
Base Vol: 0 0 0 417 0 242 90 390 0 0 875 990
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 417 0 242 90 390 0 0 875 990
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 417 0 242 90 390 0 0 875 990
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 417 0 242 90 390 0 0 875 990
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 417 0 242 90 390 0 0 875 990

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 0.93 0.93 1.00 1.00 0.93 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 0 0 0 1769 0 1583 1769 3538 0 0 3538 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.24 0.00 0.15 0.05 0.11 0.00 0.00 0.25 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.38 0.00 0.38 0.08 0.47 0.00 0.00 0.39 0.00
Volume/Cap: 0.00 0.00 0.00 0.63 0.00 0.41 0.63 0.23 0.00 0.00 0.63 0.00
Delay/Veh: 0.0 0.0 0.0 17.2 0.0 14.3 35.3 9.4 0.0 0.0 15.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 17.2 0.0 14.3 35.3 9.4 0.0 0.0 15.6 0.0
LOS by Move: A A A B A B D A A B A
HCM2kAvgQ: 0 0 0 7 0 4 3 2 0 0 8 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #21 SR 193 & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.461
Loss Time (sec): 0 Average Delay (sec/veh): 13.6
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 0 0 1 0 0 0 1 0 0 1 1 0 0 1 0

Volume Module:
Base Vol: 226 0 68 0 2 1 0 263 572 253 278 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 226 0 68 0 2 1 0 263 572 253 278 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 226 0 68 0 2 1 0 263 572 253 278 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 226 0 68 0 2 1 0 263 572 253 278 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 226 0 68 0 2 1 0 263 572 253 278 0

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.67 0.33 0.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 496 0 590 0 314 157 0 570 632 559 606 0

Capacity Analysis Module:
Vol/Sat: 0.46 xxxx 0.12 xxxx 0.01 0.01 xxxx 0.46 0.00 0.45 0.46 xxxx
Crit Moves: ****
Delay/Veh: 15.0 0.0 9.2 0.0 9.9 9.9 0.0 13.8 0.0 14.0 13.2 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 15.0 0.0 9.2 0.0 9.9 9.9 0.0 13.8 0.0 14.0 13.2 0.0
LOS by Move: C * A * A A * B * B B *
ApproachDel: 13.7 9.9 13.8 13.5
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 13.7 9.9 13.8 13.5
LOS by Appr: B A A B
AllWayAvgQ: 0.7 0.7 0.1 0.0 0.0 0.0 0.8 0.8 0.0 0.8 0.8 0.8

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.540
Loss Time (sec): 0 Average Delay (sec/veh): 20.6
Optimal Cycle: 50 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Protected, Ignore), Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.704
Loss Time (sec): 9 Average Delay (sec/veh): 29.9
Optimal Cycle: 52 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Protected, Ignore), Rights, Min. Green, Y+R, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 SR 65 Bypass NB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.800
Loss Time (sec): 0 Average Delay (sec/veh): 26.8
Optimal Cycle: 114 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 1 0 3 0 0 0 0 3 0 1

Volume Module:
Base Vol: 293 0 583 0 0 0 233 1081 0 0 1527 467
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 293 0 583 0 0 0 233 1081 0 0 1527 467
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 293 0 583 0 0 0 233 1081 0 0 1527 467
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 293 0 583 0 0 0 233 1081 0 0 1527 467
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 293 0 583 0 0 0 233 1081 0 0 1527 467

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.83 1.00 1.00 1.00 0.93 0.89 1.00 1.00 0.89 0.83
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 1.00 3.00 0.00 0.00 3.00 1.00
Final Sat.: 1769 0 1583 0 0 0 1769 5083 0 0 5083 1583

Capacity Analysis Module:
Vol/Sat: 0.17 0.00 0.37 0.00 0.00 0.00 0.13 0.21 0.00 0.00 0.30 0.30
Crit Moves: ****
Green/Cycle: 0.46 0.00 0.46 0.00 0.00 0.00 0.16 0.54 0.00 0.00 0.38 0.38
Volume/Cap: 0.36 0.00 0.80 0.00 0.00 0.00 0.80 0.39 0.00 0.00 0.80 0.79
Delay/Veh: 17.7 0.0 29.4 0.0 0.0 0.0 54.7 13.5 0.0 0.0 30.4 34.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 17.7 0.0 29.4 0.0 0.0 0.0 54.7 13.5 0.0 0.0 30.4 34.6
LOS by Move: B A C A A A D B A A C C
HCM2kAvgQ: 6 0 17 0 0 0 9 7 0 0 17 15

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 SR 65 Bypass SB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.969
Loss Time (sec): 0 Average Delay (sec/veh): 26.9
Optimal Cycle: 180 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 0 0 3 0 1 1 0 3 0 0

Volume Module:
Base Vol: 0 0 0 483 0 73 0 963 1051 56 690 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 483 0 73 0 963 1051 56 690 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 483 0 73 0 963 1051 56 690 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 483 0 73 0 963 1051 56 690 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 483 0 73 0 963 1051 56 690 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 1.00 0.89 0.83 0.93 0.89 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 3.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1769 0 1583 0 5083 1583 1769 5083 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.27 0.00 0.05 0.00 0.19 0.66 0.03 0.14 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.28 0.00 0.28 0.00 0.69 0.69 0.03 0.72 0.00
Volume/Cap: 0.00 0.00 0.00 0.97 0.00 0.16 0.00 0.28 0.97 0.97 0.19 0.00
Delay/Veh: 0.0 0.0 0.0 67.7 0.0 27.2 0.0 6.1 34.8 155.1 4.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 67.7 0.0 27.2 0.0 6.1 34.8 155.1 4.6 0.0
LOS by Move: A A A E A C A A C F A A
HCM2kAvgQ: 0 0 0 20 0 2 0 4 37 4 3 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 SR 65 NB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 1.050
Loss Time (sec): 0 Average Delay (sec/veh): 61.3
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 0 0 0 3 0 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 162 0 0 2295 0 0 0 0 0 0 0 948
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 162 0 0 2295 0 0 0 0 0 0 0 948
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 162 0 0 2295 0 0 0 0 0 0 0 948
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 162 0 0 2295 0 0 0 0 0 0 0 948
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 162 0 0 2295 0 0 0 0 0 0 0 948

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 1.00 0.89 1.00 1.00 1.00 1.00 1.00 1.00 0.83
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 5083 0 0 5083 0 0 0 0 1900 0 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.03 0.00 0.00 0.45 0.00 0.00 0.00 0.00 0.00 0.00 0.60
Crit Moves: **** ****
Green/Cycle: 0.00 0.43 0.00 0.00 0.43 0.00 0.00 0.00 0.00 0.00 0.00 0.57
Volume/Cap: 0.00 0.07 0.00 0.00 1.05 0.00 0.00 0.00 0.00 0.00 0.00 1.05
Delay/Veh: 0.0 16.8 0.0 0.0 62.6 0.0 0.0 0.0 0.0 0.0 0.0 65.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 16.8 0.0 0.0 62.6 0.0 0.0 0.0 0.0 0.0 0.0 65.6
LOS by Move: A E A A E A A A A A A E
HCM2kAvgQ: 0 1 0 0 36 0 0 0 0 0 0 40

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 SR 65 SB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.693
Loss Time (sec): 0 Average Delay (sec/veh): 4.4
Optimal Cycle: 74 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 1 0 3 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 0 162 0 1170 1125 0 0 0 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 162 0 1170 1125 0 0 0 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 162 0 1170 1125 0 0 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 162 0 1170 1125 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 162 0 1170 1125 0 0 0 0 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 0.93 0.89 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 0 5083 1900 1769 5083 0 0 0 0 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.03 0.00 0.66 0.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: **** ****
Green/Cycle: 0.00 0.05 0.00 0.95 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.69 0.00 0.69 0.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 55.7 0.0 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 55.7 0.0 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A E A A A A A A A A A A
HCM2kAvgQ: 0 3 0 7 0 0 0 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 3 Lincoln Blvd & 7th Street	A	xxxxx 0.581	A	xxxxx 0.581	+ 0.000 V/C
# 4 Lincoln Blvd & McBean Park Dr	A	xxxxx 0.576	A	xxxxx 0.576	+ 0.000 V/C
# 5 Lincoln Blvd & 1st St	D	xxxxx 0.800	D	xxxxx 0.800	+ 0.000 V/C
# 6 Lincoln Blvd & Ferrari Ranch R	C	xxxxx 0.786	C	xxxxx 0.786	+ 0.000 V/C
# 7 Lincoln Blvd & Sterling Pkwy	B	xxxxx 0.689	B	xxxxx 0.689	+ 0.000 V/C
# 8 Joiner Pkwy & Ferrari Ranch Rd	E	xxxxx 0.929	E	xxxxx 0.929	+ 0.000 V/C
# 9 Joiner Pkwy & Sterling Pkwy	A	xxxxx 0.473	A	xxxxx 0.473	+ 0.000 V/C
# 10 E. Joiner Pkwy & Del Webb (N)	B	xxxxx 0.631	B	xxxxx 0.631	+ 0.000 V/C
# 11 E. Joiner Pkwy & Del Webb (S)	A	xxxxx 0.459	A	xxxxx 0.459	+ 0.000 V/C
# 12 Ferrari Ranch Rd & Ingram Pkwy	C	xxxxx 0.756	C	xxxxx 0.756	+ 0.000 V/C
# 13 Ferrari Ranch Rd & Sun City Bl	B	xxxxx 0.609	B	xxxxx 0.609	+ 0.000 V/C
# 14 McBean Park Dr & Ferrari Ranch	E	xxxxx 0.926	E	xxxxx 0.926	+ 0.000 V/C
# 15 McBean Park Dr & East Ave	C	xxxxx 0.770	C	xxxxx 0.770	+ 0.000 V/C
# 16 McBean Park Dr & Oak Tree Ln	B	xxxxx 0.698	B	xxxxx 0.698	+ 0.000 V/C
# 17 Twelve Bridges Dr & Sierra Col	C	xxxxx 0.716	C	xxxxx 0.716	+ 0.000 V/C
# 18 Twelve Bridges Dr & E Joiner P	C	xxxxx 0.728	C	xxxxx 0.728	+ 0.000 V/C
# 19 Twelve Bridges Dr & SR 65 N/B	B	17.2 0.827	B	17.2 0.827	+ 0.000 D/V
# 20 Twelve Bridges Dr & SR 65 S/B	D	49.2 1.072	D	49.2 1.072	+ 0.000 D/V
# 21 Lincoln-Newcastle Hwy & Sierra	C	xxxxx 0.779	C	xxxxx 0.779	+ 0.000 V/C
# 22 Sierra College Blvd & English	E	xxxxx 0.964	E	xxxxx 0.964	+ 0.000 V/C
# 23 Sierra College Blvd & King Rd	E	75.7 1.129	E	75.7 1.129	+ 0.000 D/V
# 24 Sierra Collage & Bankhead	F	440.6 0.987	F	440.6 0.987	+ 0.000 D/V
# 25 Sierra College Blvd & Taylor R	D	44.7 0.947	D	44.7 0.947	+ 0.000 D/V

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 26 Sierra College & Brace	C	24.7 0.705	C	24.7 0.705	+ 0.000 D/V
# 27 Sierra College Blvd & Granite	C	xxxxx 0.737	C	xxxxx 0.737	+ 0.000 V/C
# 28 Sierra College Blvd & I-80 W/B	C	23.5 0.681	C	23.5 0.681	+ 0.000 D/V
# 29 Sierra College Blvd & I-80 E/B	D	37.0 0.775	D	37.0 0.775	+ 0.000 D/V
# 30 Ferrari Ranch Rd & Oak Tree Ln	B	xxxxx 0.613	B	xxxxx 0.613	+ 0.000 V/C
# 31 Sierra College Blvd & Oak Tree	A	xxxxx 0.389	A	xxxxx 0.389	+ 0.000 V/C
# 32 Virginiatown Rd & Oak Tree Ln	B	xxxxx 0.690	B	xxxxx 0.690	+ 0.000 V/C
# 33 McBean Park Dr & Village 1 Col	A	xxxxx 0.536	A	xxxxx 0.536	+ 0.000 V/C
# 34 Oak Tree Ln & Village 1 Coll	A	xxxxx 0.338	A	xxxxx 0.338	+ 0.000 V/C
#100 Wise Rd & Old SR 65 Jug Handle	C	xxxxx 0.712	C	xxxxx 0.712	+ 0.000 V/C
#101 Lincoln Blvd & Wise Rd Jug Han	A	xxxxx 0.586	A	xxxxx 0.586	+ 0.000 V/C
#102 SR 65 & Ramos Rd	B	18.4 0.592	B	18.4 0.592	+ 0.000 D/V

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #3 Lincoln Blvd & 7th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.581
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1

Volume Module:
Base Vol: 34 569 36 45 626 21 4 140 26 25 167 186
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 34 569 36 45 626 21 4 140 26 25 167 186
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 34 569 36 45 626 21 4 140 26 25 167 186
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 34 569 36 45 626 21 4 140 26 25 167 186
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 34 569 36 45 626 21 4 140 26 25 167 186

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.94 0.06 1.00 0.97 0.03 1.00 0.84 0.16 1.00 1.00 1.00
Final Sat.: 1500 1411 89 1500 1451 49 1500 1265 235 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.02 0.40 0.40 0.03 0.43 0.43 0.00 0.11 0.11 0.02 0.11 0.12
Crit Volume: 34 647 166 25
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #4 Lincoln Blvd & McBean Park Dr

Cycle (sec): 120 Critical Vol./Cap.(X): 0.576
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 0 1 0 0 1 0 0 0 1 0 0 1

Volume Module:
Base Vol: 4 776 18 6 573 1 1 2 11 48 2 19
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 4 776 18 6 573 1 1 2 11 48 2 19
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 4 776 18 6 573 1 1 2 11 48 2 19
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 4 776 18 6 573 1 1 2 11 48 2 19
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 4 776 18 6 573 1 1 2 11 48 2 19

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.98 0.02 1.00 0.99 0.01 0.07 0.14 0.79 0.96 0.04 1.00
Final Sat.: 1500 1466 34 1500 1497 3 107 214 1179 1440 60 1500

Capacity Analysis Module:
Vol/Sat: 0.00 0.53 0.53 0.00 0.38 0.38 0.01 0.01 0.01 0.03 0.03 0.01
Crit Volume: 794 6 14 50
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #5 Lincoln Blvd & 1st St

Cycle (sec): 120 Critical Vol./Cap.(X): 0.800
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 93 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 0 1 0 1 0

Volume Module:
Base Vol: 159 858 183 6 659 30 36 77 149 126 85 3
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 159 858 183 6 659 30 36 77 149 126 85 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 159 858 183 6 659 30 36 77 149 126 85 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 159 858 183 6 659 30 36 77 149 126 85 3
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 159 858 183 6 659 30 36 77 149 126 85 3

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 0.96 0.04 1.00 0.34 0.66 1.00 0.97 0.03
Final Sat.: 1500 1500 1500 1500 1435 65 1500 511 989 1500 1449 51

Capacity Analysis Module:
Vol/Sat: 0.11 0.57 0.12 0.00 0.46 0.46 0.02 0.15 0.15 0.08 0.06 0.06
Crit Volume: 159 689 226 126
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #6 Lincoln Blvd & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.786
Loss Time (sec): 12 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 106 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ovl Ovl Include Ovl

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 1 0 2 0 2 0 1

Volume Module:
Base Vol: 114 1049 768 111 843 189 212 554 45 426 587 43
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 114 1049 768 111 843 189 212 554 45 426 587 43
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 114 1049 768 111 843 189 212 554 45 426 587 43
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 114 1049 768 111 843 189 212 554 45 426 587 43
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00
FinalVolume: 114 1049 768 111 843 189 212 554 45 469 587 43

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.85 0.15 2.00 2.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 1500 2775 225 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.08 0.35 0.51 0.07 0.28 0.13 0.14 0.20 0.20 0.16 0.20 0.03
Crit Volume: 768 111 300 0
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #7 Lincoln Blvd & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.689
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 60 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 2 0 0 0 1

Volume Module:
Base Vol: 0 1779 331 139 1155 0 0 0 0 71 0 29
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1779 331 139 1155 0 0 0 0 71 0 29
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1779 331 139 1155 0 0 0 0 71 0 29
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1779 331 139 1155 0 0 0 0 71 0 29
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00
FinalVolume: 0 1779 331 139 1155 0 0 0 0 78 0 29

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3100 1550 1550 3100 0 0 0 0 3100 0 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.57 0.21 0.09 0.37 0.00 0.00 0.00 0.00 0.03 0.00 0.02
Crit Volume: 890 139 0 39
Crit Moves: **** **

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #8 Joiner Pkwy & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.929
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Ignore Ignore Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 1 2 0 2 0 1 1 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 1037 826 524 33 816 29 23 36 752 721 236 103
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1037 826 524 33 816 29 23 36 752 721 236 103
User Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 1037 826 0 33 816 0 23 36 0 721 236 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1037 826 0 33 816 0 23 36 0 721 236 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 0.00
MLF Adj: 1.10 1.00 0.00 1.10 1.00 0.00 1.00 1.00 0.00 1.10 1.00 0.00
FinalVolume: 1141 826 0 36 816 0 23 36 0 793 236 0

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 3000 1500 3000 3000 1500 1500 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.38 0.28 0.00 0.01 0.27 0.00 0.02 0.01 0.00 0.26 0.08 0.00
Crit Volume: 570 408 18 397
Crit Moves: **** **

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #9 Joiner Pkwy & Sterling Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.473
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 1 0 1 1 0 1 0 1 1 0 2 0 1

Volume Module:
Base Vol: 452 29 306 36 16 53 53 563 52 164 711 64
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 452 29 306 36 16 53 53 563 52 164 711 64
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 452 29 0 36 16 53 53 563 0 164 711 64
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 452 29 0 36 16 53 53 563 0 164 711 64
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.10 1.00 1.00
FinalVolume: 497 29 0 36 16 53 53 563 0 180 711 64

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3000 1500 1500 1500 1500 1500 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.17 0.02 0.00 0.02 0.01 0.04 0.04 0.19 0.00 0.06 0.24 0.04
Crit Volume: 249 53 53 356
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #10 E. Joiner Pkwy & Del Webb (N)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.631
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 62 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 0 1 0 1 0 0 1 0 0 1

Volume Module:
Base Vol: 1 718 337 385 628 0 2 1 1 165 1 200
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1 718 337 385 628 0 2 1 1 165 1 200
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1 718 337 385 628 0 2 1 1 165 1 200
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1 718 337 385 628 0 2 1 1 165 1 200
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 1 718 337 385 628 0 2 1 1 165 1 200

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 0.00 1.00 0.50 0.50 0.99 0.01 1.00
Final Sat.: 1500 3000 1500 1500 3000 0 1500 750 750 1491 9 1500

Capacity Analysis Module:
Vol/Sat: 0.00 0.24 0.22 0.26 0.21 0.00 0.00 0.00 0.00 0.11 0.11 0.13
Crit Volume: 359 385 2
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #11 E. Joiner Pkwy & Del Webb (S)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.459
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 1 0 0 1 0

Volume Module:
Base Vol: 61 992 267 74 712 13 29 17 5 102 20 53
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 61 992 267 74 712 13 29 17 5 102 20 53
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 61 992 267 74 712 13 29 17 5 102 20 53
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 61 992 267 74 712 13 29 17 5 102 20 53
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 61 992 267 74 712 13 29 17 5 102 20 53

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.96 0.04 1.00 1.00 1.00 1.00 0.27 0.73
Final Sat.: 1500 3000 1500 1500 2946 54 1500 1500 1500 1500 411 1089

Capacity Analysis Module:
Vol/Sat: 0.04 0.33 0.18 0.05 0.24 0.24 0.02 0.01 0.00 0.07 0.05 0.05
Crit Volume: 496 74 17 102
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #12 Ferrari Ranch Rd & Ingram Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.756
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 93 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module:
Base Vol: 34 0 309 0 0 0 0 1453 24 136 1054 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 34 0 309 0 0 0 0 1453 24 136 1054 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 34 0 309 0 0 0 0 1453 24 136 1054 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 34 0 309 0 0 0 0 1453 24 136 1054 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 34 0 309 0 0 0 0 1453 24 136 1054 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 1550 0 1550 0 0 0 0 3100 1550 1550 3100 0

Capacity Analysis Module:
Vol/Sat: 0.02 0.00 0.20 0.00 0.00 0.00 0.00 0.47 0.02 0.09 0.34 0.00
Crit Volume: 309 0 727 136
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #13 Ferrari Ranch Rd & Sun City Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.609
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 58 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 2 0 1 1 0 2 0 0 0 0 0 0 0 1

Volume Module:
Base Vol: 0 1703 2 7 1023 0 0 0 0 85 0 79
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1703 2 7 1023 0 0 0 0 85 0 79
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1703 2 7 1023 0 0 0 0 85 0 79
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1703 2 7 1023 0 0 0 0 85 0 79
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1703 2 7 1023 0 0 0 0 85 0 79

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 2.00 1.00 1.00 2.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 3100 1550 1550 3100 0 0 0 0 1550 0 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.55 0.00 0.00 0.33 0.00 0.00 0.00 0.00 0.05 0.00 0.05
Crit Volume: 852 7 0 85
Crit Moves: **** **

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #14 McBean Park Dr & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.926
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Ovl Ovl Ovl Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 1 0

Volume Module:
Base Vol: 149 678 1033 10 317 33 70 765 47 704 532 11
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 149 678 1033 10 317 33 70 765 47 704 532 11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 149 678 1033 10 317 33 70 765 47 704 532 11
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 149 678 1033 10 317 33 70 765 47 704 532 11
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 149 678 1033 10 317 33 70 765 47 704 532 11

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.96 0.04
Final Sat.: 1550 3100 1550 1550 3100 1550 1550 3100 1550 1550 3037 63

Capacity Analysis Module:
Vol/Sat: 0.10 0.22 0.67 0.01 0.10 0.02 0.05 0.25 0.03 0.45 0.18 0.18
Crit Volume: 339 10 383 704
Crit Moves: **** **

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #15 McBean Park Dr & East Ave

Cycle (sec): 60 Critical Vol./Cap.(X): 0.770
Loss Time (sec): 9 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 81 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 1 0 0 1 0 1

Volume Module:

Base Vol: 0 0 0 602 0 128 105 293 0 1 235 486
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 602 0 128 105 293 0 1 235 486
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 602 0 128 105 293 0 1 235 486
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 602 0 128 105 293 0 1 235 486
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 602 0 128 105 293 0 1 235 486

Saturation Flow Module:

Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
Final Sat.: 0 1550 0 1550 0 1550 1550 1550 0 1550 1550 1550

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.39 0.00 0.08 0.07 0.19 0.00 0.00 0.15 0.31
Crit Volume: 0 602 105 486
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #16 McBean Park Dr & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.698
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 76 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module:

Base Vol: 252 150 15 143 117 125 245 1101 468 7 851 300
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 252 150 15 143 117 125 245 1101 468 7 851 300
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 252 150 15 143 117 125 245 1101 468 7 851 300
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 252 150 15 143 117 125 245 1101 468 7 851 300
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 252 150 15 143 117 125 245 1101 468 7 851 300

Saturation Flow Module:

Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 1500 3000 1500 1500 3000 1500

Capacity Analysis Module:

Vol/Sat: 0.17 0.05 0.01 0.10 0.04 0.08 0.16 0.37 0.31 0.00 0.28 0.20
Crit Volume: 252 125 245 426
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #17 Twelve Bridges Dr & Sierra College Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 0.716
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 80 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 0 0 0 2 0 1 1 0 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 309 1413 0 0 680 105 300 0 403 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 309 1413 0 0 680 105 300 0 403 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 309 1413 0 0 680 105 300 0 403 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 309 1413 0 0 680 105 300 0 403 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 309 1413 0 0 680 105 300 0 403 0 0 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 1550 3100 0 0 3100 1550 1550 0 1550 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.20 0.46 0.00 0.00 0.22 0.07 0.19 0.00 0.26 0.00 0.00 0.00
Crit Volume: 707 0 403 0
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #18 Twelve Bridges Dr & E Joiner Pkwy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.728
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 84 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 2 0 2 0 1 2 0 2 0 1

Volume Module:
Base Vol: 39 591 333 186 468 116 462 871 36 249 337 174
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 39 591 333 186 468 116 462 871 36 249 337 174
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 39 591 333 186 468 116 462 871 36 249 337 174
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 39 591 333 186 468 116 462 871 36 249 337 174
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00
FinalVolume: 39 591 333 186 468 116 508 871 36 274 337 174

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 3000 3000 1500 3000 3000 1500

Capacity Analysis Module:
Vol/Sat: 0.03 0.20 0.22 0.12 0.16 0.08 0.17 0.29 0.02 0.09 0.11 0.12
Crit Volume: 333 186 436 137
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Twelve Bridges Dr & SR 65 N/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 0.827
Loss Time (sec): 9 Average Delay (sec/veh): 17.2
Optimal Cycle: 63 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 1 1 0 0 0 0 0 1 0 2 0 0 0 0 2 0 1

Volume Module:
Base Vol: 130 3 864 0 0 0 695 1002 0 0 856 392
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 130 3 864 0 0 0 695 1002 0 0 856 392
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 130 3 0 0 0 0 695 1002 0 0 856 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 130 3 0 0 0 0 695 1002 0 0 856 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 130 3 0 0 0 0 695 1002 0 0 856 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.85 1.00 1.00 1.00 1.00 1.00 0.95 0.95 1.00 1.00 0.95 1.00
Lanes: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
Final Sat.: 1615 1900 1900 0 0 0 1805 3610 0 0 3610 1900

Capacity Analysis Module:
Vol/Sat: 0.08 0.00 0.00 0.00 0.00 0.00 0.39 0.28 0.00 0.00 0.24 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.10 0.10 0.00 0.00 0.00 0.00 0.47 0.75 0.00 0.00 0.29 0.00
Volume/Cap: 0.83 0.02 0.00 0.00 0.00 0.00 0.83 0.37 0.00 0.00 0.83 0.00
Delay/Veh: 55.4 24.5 0.0 0.0 0.0 0.0 20.7 2.6 0.0 0.0 25.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 55.4 24.5 0.0 0.0 0.0 0.0 20.7 2.6 0.0 0.0 25.6 0.0
LOS by Move: E C A A A A C A A A C A
HCM2kAvgQ: 5 0 0 0 0 0 14 4 0 0 11 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Twelve Bridges Dr & SR 65 S/B Ramps

Cycle (sec): 60 Critical Vol./Cap.(X): 1.072
Loss Time (sec): 9 Average Delay (sec/veh): 49.2
Optimal Cycle: 180 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1

Volume Module:
Base Vol: 0 0 0 336 0 203 339 1377 0 0 360 636
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 336 0 203 339 1377 0 0 360 636
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Volume: 0 0 0 336 0 203 339 1377 0 0 360 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 336 0 203 339 1377 0 0 360 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 0 0 0 336 0 203 339 1377 0 0 360 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.95 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1805 0 1615 1805 1900 0 0 1900 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.19 0.00 0.13 0.19 0.72 0.00 0.00 0.19 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.00 0.00 0.17 0.00 0.17 0.34 0.68 0.00 0.00 0.34 0.00
Volume/Cap: 0.00 0.00 0.00 1.07 0.00 0.72 0.56 1.07 0.00 0.00 0.56 0.00
Delay/Veh: 0.0 0.0 0.0 95.9 0.0 32.4 17.4 56.4 0.0 0.0 17.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 95.9 0.0 32.4 17.4 56.4 0.0 0.0 17.2 0.0
LOS by Move: A A A A F A C B E A A B A
HCM2kAvgQ: 0 0 0 14 0 5 6 43 0 0 6 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #21 Lincoln-Newcastle Hwy & Sierra College Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.779
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 84 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 1 0 0 1 0 0 0 0 1 1 0 1 0 1 1 0 1 0 0

Volume Module:
Base Vol: 756 1 321 0 0 1 2 288 342 109 352 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 756 1 321 0 0 1 2 288 342 109 352 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 756 1 321 0 0 1 2 288 342 109 352 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 756 1 321 0 0 1 2 288 342 109 352 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 756 1 321 0 0 1 2 288 342 109 352 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.99 0.01 1.00 0.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Final Sat.: 1548 2 1550 0 0 1550 1550 1550 1550 1550 0

Capacity Analysis Module:
Vol/Sat: 0.49 0.49 0.21 0.00 0.00 0.00 0.00 0.19 0.22 0.07 0.23 0.00
Crit Volume: 756 1 342 109
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #22 Sierra College Blvd & English Colony Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.964
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 1 0 2 0 0 0 0 0 0 0 0 0 0 1 0 0

Volume Module:
Base Vol: 0 1752 49 261 971 0 0 0 0 0 23 0 310
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1752 49 261 971 0 0 0 0 0 23 0 310
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1752 49 261 971 0 0 0 0 0 23 0 310
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1752 49 261 971 0 0 0 0 0 23 0 310
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1752 49 261 971 0 0 0 0 0 23 0 310

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.95 0.05 1.00 2.00 0.00 0.00 0.00 0.00 0.00 0.07 0.00 0.93
Final Sat.: 0 3016 84 1550 3100 0 0 0 0 0 107 0 1443

Capacity Analysis Module:
Vol/Sat: 0.00 0.58 0.58 0.17 0.31 0.00 0.00 0.00 0.00 0.00 0.21 0.00 0.21
Crit Volume: 901 261 0 333
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Sierra College Blvd & King Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.129
Loss Time (sec): 9 Average Delay (sec/veh): 75.7
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control (Protected, Permitted), Rights (Include), and Y+R values.

Volume Module table with 12 columns for approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MFL Adj, and Final Volume.

Saturation Flow Module table with 12 columns for approaches and movements. Rows include Sat/Lane, Adjust, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for approaches and movements. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #24 Sierra Collage & Bankhead

Average Delay (sec/veh): 17.5 Worst Case Level Of Service: F[440.6]

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes.

Volume Module table with 12 columns for approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Critical Gap Module table with 12 columns for approaches and movements. Rows include Critical Gap and FollowUpTim.

Capacity Module table with 12 columns for approaches and movements. Rows include Cnflct Vol, Potent Cap, Move Cap, and Volume/Cap.

Level Of Service Module table with 12 columns for approaches and movements. Rows include 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap, SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Sierra College Blvd & Taylor Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.947
Loss Time (sec): 8 Average Delay (sec/veh): 44.7
Optimal Cycle: 134 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1

Volume Module:
Base Vol: 270 817 486 43 720 72 123 231 271 316 271 70
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 270 817 486 43 720 72 123 231 271 316 271 70
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 270 817 486 43 720 72 123 231 271 316 271 70
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 270 817 486 43 720 72 123 231 271 316 271 70
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 270 817 486 43 720 72 123 231 271 316 271 70

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85 0.95 1.00 0.85
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1805 1900 1615 1805 1900 1615 1805 1900 1615 1805 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.15 0.43 0.30 0.02 0.38 0.04 0.07 0.12 0.17 0.18 0.14 0.04
Crit Moves: ****
Green/Cycle: 0.16 0.53 0.53 0.03 0.40 0.40 0.12 0.18 0.18 0.18 0.24 0.24
Volume/Cap: 0.95 0.81 0.57 0.81 0.95 0.11 0.58 0.69 0.95 0.95 0.58 0.18
Delay/Veh: 80.8 24.6 16.8 108.7 49.7 18.9 45.9 44.4 79.7 75.8 35.1 30.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 80.8 24.6 16.8 108.7 49.7 18.9 45.9 44.4 79.7 75.8 35.1 30.0
LOS by Move: F C B F D B D E E D C
HCM2kAvgQ: 12 23 10 3 27 1 4 8 12 14 8 2

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Sierra College & Brace

Cycle (sec): 100 Critical Vol./Cap.(X): 0.705
Loss Time (sec): 8 Average Delay (sec/veh): 24.7
Optimal Cycle: 49 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 1 0 2 1 0 0 0 0 0 1 1 0 0 0 1

Volume Module:
Base Vol: 0 1348 343 350 936 0 0 0 73 285 0 258
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1348 343 350 936 0 0 0 73 285 0 258
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1348 343 350 936 0 0 0 73 285 0 258
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1348 343 350 936 0 0 0 73 285 0 258
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1348 343 350 936 0 0 0 73 285 0 258

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 0.95 0.91 0.91 1.00 1.00 0.87 0.77 1.00 0.85
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 1.00 1.00 0.00 1.00
Final Sat.: 0 5187 1615 1805 5187 0 0 0 1644 1461 0 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.21 0.19 0.18 0.00 0.00 0.00 0.04 0.20 0.00 0.16
Crit Moves: ****
Green/Cycle: 0.00 0.37 0.37 0.27 0.64 0.00 0.00 0.00 0.28 0.28 0.00 0.28
Volume/Cap: 0.00 0.71 0.58 0.71 0.28 0.00 0.00 0.00 0.16 0.71 0.00 0.58
Delay/Veh: 0.0 28.2 26.7 37.2 7.8 0.0 0.0 0.0 27.6 38.1 0.0 33.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 28.2 26.7 37.2 7.8 0.0 0.0 0.0 27.6 38.1 0.0 33.0
LOS by Move: A C C D A A A C D A C
HCM2kAvgQ: 0 14 9 11 5 0 0 0 2 9 0 7

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #27 Sierra College Blvd & Granite Dr

Cycle (sec): 100 Critical Vol./Cap.(X): 0.737
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 87 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 2 0 1 1 0 1 0 1

Volume Module:
Base Vol: 163 1161 137 60 1003 231 304 44 366 239 35 30
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 163 1161 137 60 1003 231 304 44 366 239 35 30
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 163 1161 137 60 1003 231 304 44 366 239 35 30
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 163 1161 137 60 1003 231 304 44 366 239 35 30
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00
FinalVolume: 163 1161 137 60 1003 231 304 44 403 239 35 30

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 1.00
Final Sat.: 1500 3000 1500 1500 3000 1500 1500 1500 3000 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.11 0.39 0.09 0.04 0.33 0.15 0.20 0.03 0.13 0.16 0.02 0.02
Crit Volume: 163 502 201 239
Crit Moves: **** **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Sierra College Blvd & I-80 W/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 0 Average Delay (sec/veh): 23.5
Optimal Cycle: 72 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ignore Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 0 0 3 0 1 0 1 0 1 0 2 0 0 1 1

Volume Module:
Base Vol: 160 1194 61 0 1580 8 10 35 314 307 45 294
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 160 1194 61 0 1580 8 10 35 314 307 45 294
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 160 1194 0 0 1580 8 10 35 314 307 45 294
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 160 1194 0 0 1580 8 10 35 314 307 45 294
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 160 1194 0 0 1580 8 10 35 314 307 45 294

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 1.00 1.00 0.91 0.85 0.82 0.82 0.82 0.92 0.87 0.87
Lanes: 1.00 3.00 1.00 0.00 3.00 1.00 0.22 0.78 1.00 2.00 0.27 1.73
Final Sat.: 1805 5187 1900 0 5187 1615 348 1219 1567 3502 439 2867

Capacity Analysis Module:
Vol/Sat: 0.09 0.23 0.00 0.00 0.30 0.00 0.03 0.03 0.20 0.09 0.10 0.10
Crit Moves: **** **** **** ****
Green/Cycle: 0.13 0.58 0.00 0.00 0.45 0.45 0.09 0.29 0.29 0.13 0.33 0.33
Volume/Cap: 0.68 0.40 0.00 0.00 0.68 0.01 0.31 0.10 0.68 0.68 0.31 0.31
Delay/Veh: 49.4 11.7 0.0 0.0 22.8 15.4 42.5 25.7 34.8 45.8 25.2 25.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.4 11.7 0.0 0.0 22.8 15.4 42.5 25.7 34.8 45.8 25.2 25.2
LOS by Move: D B A A C B D C D C C
HCM2kAvgQ: 6 7 0 0 15 0 2 1 10 6 4 4

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Sierra College Blvd & I-80 E/B Ramps

Cycle (sec): 100 Critical Vol./Cap.(X): 0.775
Loss Time (sec): 9 Average Delay (sec/veh): 37.0
Optimal Cycle: 63 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected/Include), and Y+R values.

Volume Module: Table with 11 columns for volume and 11 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 11 columns for Sat/Lane and 11 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 11 columns for Vol/Sat and 11 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #30 Ferrari Ranch Rd & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.613
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 59 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Protected/Include), and Y+R values.

Volume Module: Table with 11 columns for volume and 11 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module: Table with 11 columns for Sat/Lane and 11 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 11 columns for Vol/Sat and 11 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #31 Sierra College Blvd & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.389
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Ovl Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 2 0 2 0 0 0 0 2 0 1 1 0 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 685 1099 0 0 444 6 4 0 381 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 685 1099 0 0 444 6 4 0 381 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 685 1099 0 0 444 6 4 0 381 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 685 1099 0 0 444 6 4 0 381 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 754 1099 0 0 444 6 4 0 381 0 0 0

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 2.00 0.00 0.00 2.00 1.00 1.00 0.00 1.00 0.00 0.00 0.00
Final Sat.: 3100 3100 0 0 3100 1550 1550 0 1550 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.24 0.35 0.00 0.00 0.14 0.00 0.00 0.00 0.25 0.00 0.00 0.00
Crit Volume: 0 222 381 0
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #32 Virginiatown Rd & Oak Tree Ln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.690
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 74 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1

Volume Module:
Base Vol: 491 258 201 2 111 1 1 70 340 93 37 6
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 491 258 201 2 111 1 1 70 340 93 37 6
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 491 258 201 2 111 1 1 70 340 93 37 6
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 491 258 201 2 111 1 1 70 340 93 37 6
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 491 258 201 2 111 1 1 70 340 93 37 6

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500

Capacity Analysis Module:
Vol/Sat: 0.33 0.17 0.13 0.00 0.07 0.00 0.00 0.05 0.23 0.06 0.02 0.00
Crit Volume: 491 111 340 93
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #33 McBean Park Dr & Village 1 Coll

Cycle (sec): 100 Critical Vol./Cap.(X): 0.536
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:
Base Vol: 101 16 84 0 14 77 196 546 244 132 861 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 101 16 84 0 14 77 196 546 244 132 861 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 101 16 84 0 14 77 196 546 244 132 861 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 101 16 84 0 14 77 196 546 244 132 861 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 101 16 84 0 14 77 196 546 244 132 861 0

Saturation Flow Module:
Sat/Lane: 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500 1500
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 1500 1500 1500 1500 1500 1500 3000 1500 1500 3000 0

Capacity Analysis Module:
Vol/Sat: 0.07 0.01 0.06 0.00 0.01 0.05 0.13 0.18 0.16 0.09 0.29 0.00
Crit Volume: 101 77 196 431
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #34 Oak Tree Ln & Village 1 Coll

Cycle (sec): 100 Critical Vol./Cap.(X): 0.338
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 1 0 1

Volume Module:
Base Vol: 0 0 0 34 0 58 137 399 0 0 329 83
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 34 0 58 137 399 0 0 329 83
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 34 0 58 137 399 0 0 329 83
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 34 0 58 137 399 0 0 329 83
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 34 0 58 137 399 0 0 329 83

Saturation Flow Module:
Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Final Sat.: 0 0 0 1550 0 1550 1550 1550 0 0 1550 1550

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.02 0.00 0.04 0.09 0.26 0.00 0.00 0.21 0.05
Crit Volume: 0 58 137 329
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #100 Wise Rd & Old SR 65 Jug Handle

Cycle (sec): 100 Critical Vol./Cap.(X): 0.712
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 79 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module:

Base Vol: 138 0 152 0 0 0 0 0 1835 460 34 623 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 138 0 152 0 0 0 0 0 1835 460 34 623 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 138 0 152 0 0 0 0 0 1835 460 34 623 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 138 0 152 0 0 0 0 0 1835 460 34 623 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 138 0 152 0 0 0 0 0 1835 460 34 623 0

Saturation Flow Module:

Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 1550 0 1550 0 0 0 0 0 3100 1550 1550 3100 0

Capacity Analysis Module:

Vol/Sat: 0.09 0.00 0.10 0.00 0.00 0.00 0.00 0.59 0.30 0.02 0.20 0.00
Crit Volume: 152 0 918 34
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
Circular 212 Planning Method (Base Volume Alternative)

Intersection #101 Lincoln Blvd & Wise Rd Jug Handle

Cycle (sec): 100 Critical Vol./Cap.(X): 0.586
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 1 1 0 1 0 0 0 0 0 0 0 0 1 0 0 0 1

Volume Module:

Base Vol: 0 126 144 146 514 0 0 0 0 0 394 0 100
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 126 144 146 514 0 0 0 0 0 394 0 100
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 126 144 146 514 0 0 0 0 0 394 0 100
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 126 144 146 514 0 0 0 0 0 394 0 100
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 126 144 146 514 0 0 0 0 0 394 0 100

Saturation Flow Module:

Sat/Lane: 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550 1550
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 1.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 0.00 1.00
Final Sat.: 0 1550 1550 1550 1550 0 0 0 0 1550 0 1550

Capacity Analysis Module:

Vol/Sat: 0.00 0.08 0.09 0.09 0.33 0.00 0.00 0.00 0.00 0.25 0.00 0.06
Crit Volume: 0 514 394
Crit Moves: **** **** ****

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #102 SR 65 & Ramos Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.592
Loss Time (sec): 9 Average Delay (sec/veh): 18.4
Optimal Cycle: 40 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	1	0	0	0	0	0	1	0

Volume Module:

Base Vol:	1	285	494	96	551	0	0	0	0	0	143	0	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	285	494	96	551	0	0	0	0	0	143	0	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	285	494	96	551	0	0	0	0	0	143	0	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	285	494	96	551	0	0	0	0	0	143	0	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	285	494	96	551	0	0	0	0	0	143	0	43

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.95	1.00	1.00	1.00	1.00	1.00	0.77	1.00	0.85	0.85
Lanes:	0.01	0.99	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00	1.00
Final Sat.:	7	1893	1615	1805	1900	0	0	0	0	1461	0	1615	0

Capacity Analysis Module:

Vol/Sat:	0.15	0.15	0.31	0.05	0.29	0.00	0.00	0.00	0.00	0.10	0.00	0.03	0.03
Crit Moves:	****			****						****			
Green/Cycle:	0.25	0.63	0.63	0.11	0.49	0.00	0.00	0.00	0.00	0.17	0.00	0.17	0.17
Volume/Cap:	0.59	0.24	0.48	0.48	0.59	0.00	0.00	0.00	0.00	0.59	0.00	0.16	0.16
Delay/Veh:	34.7	8.0	10.0	43.6	19.3	0.0	0.0	0.0	0.0	42.5	0.0	36.1	36.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.7	8.0	10.0	43.6	19.3	0.0	0.0	0.0	0.0	42.5	0.0	36.1	36.1
LOS by Move:	C	A	A	D	E	A	A	A	A	D	A	D	D
HCM2kAvgQ:	8	4	8	3	12	0	0	0	0	5	0	1	1

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Impact Analysis Report
Level Of Service

Intersection		Base		Future		Change in
		LOS	Veh	LOS	Veh	
# 41 SR 65 Bypass NB & Ferrari Ranc	C	23.4	0.845	C	23.4 0.845	+ 0.000 D/V
# 42 SR 65 Bypass SB & Ferrari Ranc	B	17.0	0.648	B	17.0 0.648	+ 0.000 D/V
# 43 SR 65 NB & Industrial/Lincoln	C	24.8	0.776	C	24.8 0.776	+ 0.000 D/V
# 44 SR 65 SB & Industrial/Lincoln	C	28.8	0.900	C	28.8 0.900	+ 0.000 D/V

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 SR 65 Bypass NB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.845
Loss Time (sec): 0 Average Delay (sec/veh): 23.4
Optimal Cycle: 147 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 1 0 0 2 0 0 0 0 0 1 0 3 0 0 0 0 3 0 1

Volume Module:
Base Vol: 1107 0 1038 0 0 0 102 1080 0 0 1408 657
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 1107 0 1038 0 0 0 102 1080 0 0 1408 657
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 1107 0 1038 0 0 0 102 1080 0 0 1408 657
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 1107 0 1038 0 0 0 102 1080 0 0 1408 657
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 1107 0 1038 0 0 0 102 1080 0 0 1408 657

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 1.00 0.73 1.00 1.00 1.00 0.93 0.89 1.00 1.00 0.89 0.83
Lanes: 2.00 0.00 2.00 0.00 0.00 0.00 1.00 3.00 0.00 0.00 3.00 1.00
Final Sat.: 3545 0 2786 0 0 0 1769 5083 0 0 5083 1583

Capacity Analysis Module:
Vol/Sat: 0.31 0.00 0.37 0.00 0.00 0.00 0.06 0.21 0.00 0.00 0.28 0.42
Crit Moves: ****
Green/Cycle: 0.44 0.00 0.44 0.00 0.00 0.00 0.07 0.56 0.00 0.00 0.49 0.49
Volume/Cap: 0.71 0.00 0.85 0.00 0.00 0.00 0.85 0.38 0.00 0.00 0.56 0.85
Delay/Veh: 24.3 0.0 30.5 0.0 0.0 0.0 85.3 12.4 0.0 0.0 18.2 30.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 24.3 0.0 30.5 0.0 0.0 0.0 85.3 12.4 0.0 0.0 18.2 30.6
LOS by Move: C A C A A A F B A A B C
HCM2kAvgQ: 15 0 19 0 0 0 5 7 0 0 11 20

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 SR 65 Bypass SB & Ferrari Ranch Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.648
Loss Time (sec): 0 Average Delay (sec/veh): 17.0
Optimal Cycle: 65 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 1 0 0 0 1 0 0 3 0 1 1 0 3 0 0

Volume Module:
Base Vol: 0 0 0 535 0 246 0 646 482 0 1755 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 535 0 246 0 646 482 0 1755 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 535 0 246 0 646 482 0 1755 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 535 0 246 0 646 482 0 1755 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 0 0 535 0 246 0 646 482 0 1755 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.93 1.00 0.83 1.00 0.89 0.83 1.00 0.89 1.00
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 3.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1769 0 1583 0 5083 1583 1900 5083 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.30 0.00 0.16 0.00 0.13 0.30 0.00 0.35 0.00
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.00 0.00 0.47 0.00 0.47 0.00 0.53 0.53 0.00 0.53 0.00
Volume/Cap: 0.00 0.00 0.00 0.65 0.00 0.33 0.00 0.24 0.57 0.00 0.65 0.00
Delay/Veh: 0.0 0.0 0.0 22.2 0.0 17.1 0.0 12.5 16.6 0.0 17.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 22.2 0.0 17.1 0.0 12.5 16.6 0.0 17.2 0.0
LOS by Move: A A A C A B A B B A B A
HCM2kAvgQ: 0 0 0 13 0 5 0 4 10 0 15 0

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 SR 65 NB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.776
Loss Time (sec): 0 Average Delay (sec/veh): 24.8
Optimal Cycle: 102 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 0 0 0 0 3 0 0 0 0 0 0 0 1 0 0 0 2

Volume Module:
Base Vol: 0 1297 0 0 0 1417 0 0 0 0 0 0 0 0 0 0 1385
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1297 0 0 0 1417 0 0 0 0 0 0 0 0 0 0 1385
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1297 0 0 0 1417 0 0 0 0 0 0 0 0 0 0 1385
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1297 0 0 0 1417 0 0 0 0 0 0 0 0 0 0 1385
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1297 0 0 0 1417 0 0 0 0 0 0 0 0 0 0 1385

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 1.00 1.00 0.89 1.00 1.00 1.00 1.00 1.00 1.00 0.73
Lanes: 0.00 3.00 0.00 0.00 3.00 0.00 0.00 3.00 0.00 1.00 0.00 2.00
Final Sat.: 0 5083 0 0 0 5083 0 0 0 0 1900 0 2786

Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.00 0.00 0.28 0.00 0.00 0.00 0.00 0.00 0.00 0.50
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.36 0.00 0.00 0.36 0.00 0.00 0.00 0.00 0.00 0.00 0.64
Volume/Cap: 0.00 0.71 0.00 0.00 0.78 0.00 0.00 0.00 0.00 0.00 0.00 0.78
Delay/Veh: 0.0 28.9 0.0 0.0 30.6 0.0 0.0 0.0 0.0 0.0 0.0 15.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 28.9 0.0 0.0 30.6 0.0 0.0 0.0 0.0 0.0 0.0 15.0
LOS by Move: A C A A C A A A A A A B
HCM2kAvgQ: 0 14 0 0 16 0 0 0 0 0 0 19

Note: Queue reported is the number of cars per lane.

Lincoln Village 1
2050 Plus Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 SR 65 SB & Industrial/Lincoln

Cycle (sec): 100 Critical Vol./Cap.(X): 0.900
Loss Time (sec): 0 Average Delay (sec/veh): 28.8
Optimal Cycle: 180 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 3 0 1 1 0 3 0 0 0 0

Volume Module:
Base Vol: 0 1297 8 1140 277 0 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1297 8 1140 277 0 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1297 8 1140 277 0 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1297 8 1140 277 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 1297 8 1140 277 0 0 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.89 0.83 0.93 0.89 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 0 5083 1583 1769 5083 0 0 0 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.01 0.64 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.28 0.28 0.72 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.90 0.02 0.90 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 42.4 25.8 20.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 42.4 25.8 20.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move: A D C C A A A A A A A A
HCM2kAvgQ: 0 18 0 32 0 0 0 0 0 0 0 0

Note: Queue reported is the number of cars per lane.
