

**National Indian Gaming Commission  
Record of Decision**

**Approval of Management Contract for Gaming Facility at the  
Wilfred Site in Sonoma County, California, for the Federated  
Indians of the Graton Rancheria**

## **NATIONAL INDIAN GAMING COMMISSION**

### **ACTION:**

Record of Decision (ROD) for the approval of a management contract for a gaming facility to be located at the 252-acre Wilfred Site (Preferred Alternative) in Sonoma County, California, pursuant to 25 U.S.C. § 2711 for the Federated Indians of the Graton Rancheria (Tribe).

### **SUMMARY:**

The proposed gaming facility to be located at the Wilfred Site in Sonoma County, California, for the Federated Indians of the Graton Rancheria was analyzed in a Draft Environmental Impact Statement (DEIS) issued for public review on March 9, 2007. The Draft EIS (DEIS) and the Final EIS (FEIS), issued February 27, 2009, considered various alternatives to meet the purpose and need of the Proposed Action and analyzed in detail the potential effects of various reasonable alternatives. After considering input received during the FEIS waiting period, the National Indian Gaming Commission (NIGC) has decided to choose a reduced intensity project. This reduced intensity project is described in more detail in this ROD and is referred to as Variant H-sub1. A Notice of Intent (NOI) was issued May 7, 2008 to accept the Wilfred Site into trust by the United States for the Tribe's benefit. A federal court subsequently dismissed a lawsuit challenging the decision to accept the Wilfred Site into trust on April 21, 2009, which ruling has been appealed to the Court of Appeals for the 9<sup>th</sup> Circuit. Once in trust, the Wilfred Site would be eligible for gaming under the Indian Gaming Regulatory Act (IGRA). With the issuance of this ROD, the National Indian Gaming Commission (NIGC) announces that Variant H-sub1 as described in this ROD is the Preferred Action and is the action to be implemented. The NIGC has determined that Variant H-sub1 would not create significant, unmitigated impacts to the human environment after the implementation of mitigation measures contained in this ROD. The NIGC decision is based on its review of the DEIS, the FEIS, the entire administrative record and comments received from the public, federal agencies, state agencies, local government entities, and potentially affected Tribes.

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**Attachment 1** - Notice of Final Determination to Take Land into Federal Trust

**Attachment 2** - Tribal Resolution 09-03-GC

**Attachment 3** - Variant H-sub1

**Attachment 4** - Variant H-sub1 Technical Studies

**Attachment 5** - Responses to Public Comments on FEIS

**Attachment 6** - Mitigation Monitoring and Enforcement Plan

**Attachment 7** - PM<sub>2.5</sub> Technical Memorandum



## **1.0 INTRODUCTION**

### **1.1 DESCRIPTION OF THE PROPOSED ACTION**

Under the Proposed Action, the NIGC would approve a management contract for the proposed gaming facility to be located at the 252-acre Wilfred Site in Sonoma County, California, for the Federated Indians of the Graton Rancheria. The Tribe's gaming management agreement is with SC Sonoma Management, LLC (SC Sonoma). The Tribe's proposed project is a casino/hotel resort development on the Wilfred Site. The facility would include gaming conducted in accordance with the Indian Gaming Regulatory Act, 25 U.S.C. § 2701-2721 (IGRA), and requirements within a Tribal-State Gaming Compact between the Tribe and the State of California. On the site, the Tribe has proposed development of a 408,150 square foot (sf) casino development, 8-story, 300-room hotel, 1,500 seat show room, and 6,100 space parking facility.

After considering input received during the FEIS waiting period, the NIGC has decided to include a new reduced intensity version of this project (Variant H-sub1). During the course of the NEPA process the NIGC decided that the most appropriate alternative to select as the Preferred Alternative would be Variant H-sub 1. Variant H-sub 1 includes a reduced intensity project would include a 317,750 sf casino development and a 6-story, 200-room hotel (see Attachment 3 for more detail).

The Tribe is in need of a sustainable source of net income adequate to allow it to achieve self-sufficiency, self-determination, and a strong Tribal government, and to enable the Tribe to meet the needs of its members. The purpose of the Proposed Action is to generate a dependable stream of net income that the Tribe would use to perform the functions of a Tribal government and to meet the needs of its members in accordance with Federal policies enunciated in the IGRA, the Indian Reorganization Act (IRA), and related laws and regulations.

### **1.2 PROCEDURAL BACKGROUND**

The Tribe and SC Sonoma have executed a management agreement setting out their dual obligations for the operation and management of the Tribe's gaming facility as required under IGRA. The management contract between the Tribe and SC Sonoma requires the establishment of a gaming enterprise on Indian lands for the conduct of gaming, in accordance with IGRA to serve the social, economic, educational, and health needs of the Tribe, and to increase the Tribal revenues and enhance the Tribe's self-sufficiency and self-determination. The Tribe seeks financial assistance and expertise from SC Sonoma for the management and operation of the gaming enterprise.

In accordance with the Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Regulations (40 C.F.R. Parts 1500-1508), the NIGC published a Notice of Intent (NOI) in the *Federal Register* on February 12, 2004 describing the Proposed Action, announcing the NIGC's intent to prepare an EIS for the Proposed Action, and inviting public and agency comments. An EIS Scoping Report was published in August 2004, which summarized all scoping comments. Due to the addition of an alternative site, the NIGC released a supplemental NOI (Federal Register September 29, 2005) and Scoping Report

(January 2006). Scoping comments from both reports were considered by the NIGC in developing the project alternatives and analytical methodologies presented in both the DEIS and the FEIS. During the NOI comment periods, the NIGC identified four Cooperating Agencies: the Bureau of Indian Affairs (BIA), the U.S. Army Corps of Engineers (USACE), the California Department of Transportation (Caltrans), and Sonoma County (County).

The Notice of Availability (NOA) for the DEIS was published in the *Federal Register* on March 9, 2007 (Volume 72, page 10749), initiating a public comment period. In response to public requests, the public comment period was extended to 88-days, 43 days longer than what is required by the CEQ NEPA Regulators. Two public hearings, presided over by retired Justice Harry Low of the California Court of Appeals, were held at the Spreckles Performing Arts Center in Rohnert Park, California on April 4 and at Wells Fargo Performing Arts Center in Santa Rosa, California on April 5, 2007.

In addition to comments received at the public hearings, written comments on the Draft EIS were received from 366 parties. Responses to the comments received were included in Appendix FF of the FEIS). The FEIS was issued on February 27, 2009. The 30-day waiting period ended on March 27, 2009. A summary of all comments received during this period that were not previously raised and responded to in the EIS process, and NIGC's responses to them are included in Section 3.2 of this ROD.

The Graton Rancheria Restoration Act (Restoration Act) of 2000 (25 U.S.C. Section 1300n) restored the Federated Indians of Graton Rancheria to federally recognized status after 44 years of termination under the California Rancheria Act. The Restoration Act allows the Tribe to establish a reservation through the fee-to-trust process, within its designated service area of Marin and Sonoma Counties. According to the Graton Rancheria Restoration Act, the "Secretary (of the Interior) shall accept into trust for the benefit of the Tribe any real property located in Marin or Sonoma County, California, for the benefit of the Tribe." The Restoration Act further provides that, "Any real property taken into trust for the benefit of the Tribe pursuant to this subchapter shall be part of the Tribe's reservation." 25 U.S.C. Section 1300n-3. The Tribe submitted a fee-to-trust application to the Secretary to take the Wilfred Site into trust, with the Assistant Secretary - Indian Affairs issuing a Notice of Final Agency Determination To Take Land into Trust on May 7, 2008 to accept the Wilfred Site into trust by the United States for the Tribe's benefit. The NIGC has determined that once the site is taken into trust it would qualify as Indian lands under IGRA.

## **2.0 ANALYSIS OF ALTERNATIVES**

### **2.1 ALTERNATIVE SCREENING PROCESS**

The Tribe pursued an extensive search to identify a property within Sonoma or Marin Counties that was environmentally and economically suitable for large-scale commercial development. Through comments during the scoping process and the Tribe's own environmental constraints analysis, various alternative locations were considered.

The Tribe initially identified, and subsequently purchased, an approximately 2,000-acre property located in southern Sonoma County in the vicinity of State Route (SR)-37 and the Lakeville Highway (Lakeville Site). Public notification of the Tribe's intentions to develop

on this site was met with widespread community, environmental, and political opposition. Much of the opposition focused on the sensitive nature of the property, traffic and visual impacts. Therefore, a decision was made to attempt to locate a more suitable and less environmentally controversial location.

The Tribe evaluated approximately 48 sites, eventually focusing on the Stony Point Site. During preparation of the EIS, numerous environmental constraints to the development at the Stony Point Site were identified, including wetlands and flooding. Therefore, the Tribe and its backers, at considerable expense, focused on a new alternative site. This 252-acre site is referred to as the Wilfred Site, which includes the southern 182 acres of the previously evaluated Stony Point Site, plus a 70-acre portion of land to the northeast of the Stony Point Site, located along Wilfred Avenue. A range of possible alternatives to meet the purpose and need were considered in the EIS, including non-casino alternatives, alternative sites, and alternative development configurations. These alternatives include gaming and non-gaming alternatives on three alternative sites in Sonoma County.

### **2.1.1 Non-Casino Alternatives**

In the IGRA, Congress authorized the operation of gaming by Indian tribes as a means of promoting Tribal economic development, self-sufficiency and strong Tribal government, and for the regulation of such gaming as a means of generating Tribal revenue. In hearings on IGRA, Congress considered testimony indicating that gaming was the only source of funds available to Indian tribes to help them address the critical needs in Indian Country.

Nevertheless, the Tribe considered various non-gaming business opportunities and included the analysis of a non-gaming alternative (Alternative E) was included in the EIS. Ultimately, the following non-gaming alternatives were eliminated from further consideration because of the Tribe's limited financial resources and the significant resource needs of the Tribe and its members. These alternatives would not meet or would poorly meet the purpose and need for the Proposed Action. The Tribe has no capital reserves available for economic development purposes and lacks an adequate source of funding that would allow it to start up and sustain a non-casino economic development.

Vineyard and Wine Production Facility Alternative: The Vineyard and Wine Production Facility Alternative would consist of an approximately 300-acre vineyard and a 9,000-square-foot winery with a tasting room. This alternative was not feasible for several reasons. Profits, return on investment, the ability to obtain working capital, and job creation were all very low. Profits were also found to be extremely volatile based on the dependency on a strong grape harvest.

Food Processing Facility Alternative: The Food Processing Facility Alternative would consist of an approximately 20,000-square-foot food processing facility. This alternative was not feasible for several reasons. Profits and job creation were very low. Return on investment would also be fairly low. No current or potential future customer base was identified. Finally, no source of startup capital was identified.

Premium Outlet Retail Shopping Center: The Premium Outlet Retail Shopping Center Alternative would constitute an approximately 200,000-square-foot, high-end, outlet-format, retail center. The shopping center would contain approximately 50 stores with an average size per store of 4,000 square feet. This alternative was not feasible primarily because heavy competition was anticipated with three nearby premium outlet retail shopping centers. These outlets are located in Petaluma, Napa, and St. Helena and are operated by Chelsea Property Group, an experienced operator of over 50 outlet centers across the United States. In addition, no source of startup capital was identified. This alternative failed to fulfill the needs of improving Tribal socioeconomic status and providing employment opportunities (see Section 1.4 of the FEIS).

Office Complex: The Office Complex Alternative would constitute an approximately 100,000-square-foot, mixed-use office and retail center. This alternative was not feasible for several reasons. Profits and return on investment would be very low. There is currently an oversupply of commercial/office square footage in the North San Francisco Bay Area. Finally, no source of startup capital was identified.

Light Industrial Complex: The Light Industrial Complex Alternative would constitute an approximately 100,000-square-foot light industrial complex. This alternative was not feasible for several reasons. Profits and return on investment were very low. There is currently an oversupply of commercial/light industrial square footage in the North San Francisco Bay Area. Finally, no source of startup capital was identified.

Retirement Community Development: The Retirement Community Development Alternative would constitute an approximately 300-unit high-end independent living community. Tenants would be high-functioning retirees living unassisted. The development would have several services and amenities including a dining program, 24-hour staffing, housekeeping services, an activities program, a pool, an exercise room, a game room, and a library. This alternative was not feasible primarily because of low job creation, as well as a lack of expertise to operate such a facility. In addition, no source of startup capital was identified.

### **2.1.2 Alternative Casino Sites**

A number of additional alternative sites were also considered for inclusion in the EIS, but ultimately were eliminated from further consideration for the reasons stated below.

Cotati Alternative: The Cotati Alternative consists of a 60-acre alternative site for development of a gaming facility and hotel located near the City of Cotati. This site was not considered further for several reasons. The site is too small for development of a gaming facility and hotel, the freeway interchange is too small to accommodate increased traffic flows, a housing development was underway, and the site is located outside of the urban growth boundary of the City of Cotati.

Agilent Alternative: The Agilent Alternative consists of a 200-acre alternative site for development of a gaming facility and hotel located in the City of Rohnert Park. There are currently five large buildings encompassing approximately 700,000 square feet, and

associated parking on the site. A preliminary environmental analysis was conducted of the Agilent site to determine its feasibility when compared with the Stony Point Site (Alternatives B and C). This site was not further considered for several reasons, including the site is located adjacent to a large residential development that contains an elementary school and a large park. In consulting with the City of Rohnert Park, officials were extremely concerned with the proximity to this residential development and appeared unlikely to support the siting of the casino on the Agilent site. In addition, the Agilent site is not located near a major freeway. Thus, traffic would be forced to flow through a number of local streets in order to access the site.

Petaluma North Alternative: The Petaluma North Alternative consists of a 190-acre alternative site for development of a gaming facility and hotel. The site is located partly within the City of Petaluma and partly in Sonoma County. This site was not further considered due to the site being located within the 100-year floodplain, causing a potential for flooding. The site has insufficient traffic flow and inadequate access to US-101. Finally, City of Petaluma officials expressed concerns with each of the alternative locations in Petaluma that were considered.

Outlet Mall Alternative: The Outlet Mall Alternative consists of a 115-acre alternative site for development of a gaming facility and hotel located on the site of the Petaluma Outlet Mall. This site was rejected for several reasons, including the land footprint was too long and thin for development of a gaming facility and hotel, the site is located within the 100-year floodplain and is subject to flooding, and the site has poor access to freeway interchanges. Furthermore, a river runs through the property and wetlands are present. Finally, City of Petaluma officials expressed concerns with each of the alternative locations in Petaluma that were considered.

Petaluma South Alternative: The Petaluma South Alternative consists of a 128-acre alternative site for development of a gaming facility and hotel located in the City of Petaluma. This site was not further considered for several reasons. The site is adjacent to residential neighborhoods. Existing roadways restrict access to the site. In addition, the proposed gaming facility and hotel would potentially result in adverse traffic impacts on Lakeview Highway.

Wastewater Plant Alternative: The Wastewater Plant Alternative consists of an alternative site for development of a gaming facility and hotel. The site is located in the vicinity of wastewater disposal fields near the City of Petaluma. This site was not further considered for several reasons. The property appeared to contain extensive wetlands. In addition, the proposed gaming facility and hotel would potentially result in adverse traffic impacts on Lakeville Highway. Finally, the County desires the property for expansion of wastewater facilities.

Haystack Landing Alternative: The Haystack Landing Alternative consists of a 37-acre alternative site for development of a gaming facility and hotel located near the City of Petaluma. This site was ultimately rejected for several reasons. The land footprint is too long and thin and the site is too small for development of a gaming facility and hotel. Existing roadways restrict access to the site. The site is located on bay mud, which could potentially

cause foundation issues. A railroad runs through the property. The property has several potential environmental issues, including leach ponds. The property also contains wetlands, which are connected to the Petaluma River. The City of Petaluma and the County have both voiced opposition to this alternative location. Finally, a previous attempt by another tribe to put the land into trust failed.

Skaggs Island Alternative: Skaggs Island is a 4,400 acre island, which is the site of a former military base. It is located along the San Pablo Bay in southern Sonoma County. This site was suggested by commenters during the scoping period as an alternative site for the development of a gaming facility and hotel. This site was considered but ultimately eliminated from further consideration because it is now an integral part of the San Pablo Bay National Wildlife Refuge and slated for restoration. It is therefore not suitable for large-scale commercial re-development.

Hamilton Air Force Base Alternative: The former Hamilton Air Force Base is located in northern Marin County near the City of Novato. This site was suggested by commenters during the scoping period as an alternative site for the development of a gaming facility and hotel. This site was ultimately eliminated from further consideration for several reasons, as much of the former military base has already been redeveloped for office use, residential use, or wetland restoration, and is thus not available for reuse.

Mare Island Alternative: The former Naval shipyard at Mare Island is a 5,600 acre property located in Solano County, adjacent to the City of Vallejo. This site was suggested by commenters during the scoping period as an alternative site for the development of a gaming facility and hotel. This site was eliminated from further consideration because it is located outside of Sonoma and Marin Counties, which is outside of the Tribe's service area, as designated by the Graton Rancheria Restoration Act.

Mecham Road Landfill Alternative: The Mecham Road Landfill is a 170-acre property in central Sonoma County near the City of Petaluma. This site was suggested by commenters during the scoping period as an alternative site for the development of a gaming facility and hotel. This site was ultimately eliminated from further consideration for several reasons. First, this is still an operating landfill (albeit in limited capacity). Second, large-scale commercial developments are generally not well suited for redevelopment of landfill sites.

Sonomarin Drive In Alternative: The former Sonomarin Drive In is an approximately 40-acre former Drive In movie theater property located on the Sonoma/Marin County border near US-101. This site was suggested by commenters during the scoping period as an alternative site for the development of a gaming facility and hotel. This site was ultimately eliminated from further consideration for several reasons. First, the site is located next to a creek and is currently utilized for flood control purposes. Second, the site is not large enough to accommodate the proposed project.

### **2.1.3 Alternative Casino Sizes**

Proposed Action Size: The proposed facility was sized based on an analysis performed by SC Sonoma using market information that considered many market and industry factors in order

to develop a project that attempts to balance revenues and risks to the Tribe without unnecessarily over sizing or under sizing the facility.

However, both a smaller and larger facility could be financially viable and could provide at least a portion of the financial resources needed to meet the Tribe's goal. Accordingly, a smaller casino was included as an alternative (Alternatives D and H) to the proposed project. A larger version was deemed unnecessary due to the potential for increased development and overhead costs and increased environmental impacts. An additional reduced intensity variant of the proposed project (Variant H-sub1 - see Attachment 3) was developed in consultation with the Tribe and SC Sonoma after receiving comments recommending the selection of a reduced intensity alternative during the FEIS waiting period.

## **2.2 REASONABLE ALTERNATIVES CONSIDERED IN DETAIL**

### **2.2.1 Alternative A – Proposed Project**

Under Alternative A, the Tribe would construct and operate a casino-hotel resort at the Wilfred Site and enter into a gaming management contract with SC Sonoma Management LLC, which would be approved by the NIGC. The Wilfred Site is located in central Sonoma County, California, and is comprised of 11 separate parcels. Ten of the eleven parcels are adjacent to the western boundary of the City of Rohnert Park, while one parcel lies within the boundaries of the City. The approximately 252-acre site is bordered by Wilfred Avenue, residences, and farmland to the north; Stony Point Road, residences, farmland, and a dairy to the west; Rohnert Park Expressway, Laguna de Santa Rosa, and farmland to the south; and a business park, the Rancho Verde Mobile Home Park, rural residences, and farmland to the east. Alternative A would include gaming conducted in accordance with IGRA and a Tribal-State Compact between the Tribe and the State of California. The casino-hotel resort would be approximately 762,300 square feet, including a 300-room, 8-story hotel.

The development of a casino-hotel resort is planned on approximately 66 acres in the northeast corner of the Wilfred Site. The remainder of the Wilfred Site would remain undeveloped and be used for open space, pasture, biological habitat, and recycled water sprayfields. The site would include 6,102 parking spaces through surface parking and a parking structure connected to the southeast corner of the casino. The majority of traffic would arrive via Wilfred Avenue.

A storm water management system is included in Alternative A, including two areas for stormwater detention located south of the hotel/casino development. The first stormwater detention basin would assure that post-development runoff peaks from the Wilfred Site would be equal to the existing conditions. Moreover, the basin would attenuate the increase in peak flow that would be generated by obtaining a permit to release 300,000 gallons per day of tertiary treated effluent from a proposed on-site wastewater treatment plant, should that wastewater disposal option be chosen. The detention of water on-site would reduce potential downstream flooding, erosion, and effects to water quality. Approximately 14 acre-feet of storage would be provided in the stormwater detention basin to account for the increase in runoff created by increased impervious surfaces. A second storm water detention / flood storage area is proposed to be created in the southern portion of the Wilfred Site. This detention area will allow for additional storage during a flood event to offset the loss of

storage resulting from the placement of fill on the Wilfred Site. The storm water facilities would be designed to comply with U.S. Environmental Protection Agency's (USEPA) National Pollutant Discharge Elimination System (NPDES) general permit requirements for storm water discharge.

One off-site and two on-site options have been identified for treating the wastewater flow that would be generated by Alternative A. These options are described below:

- Option 1: Connect to the City of Rohnert Park sewer system. Treat and dispose of wastewater at the Laguna Wastewater Treatment Plant (WWTP), located two miles west of Wilfred Site. Effluent would be disposed to holding ponds for reuse for agricultural and urban irrigation, creation of wetlands and the Geysers Recharge Project for creating electricity. From October to May, a portion of the effluent would be discharged into the Laguna de Santa Rosa.
- Option 2: Construction of an on-site WWTP in the northeast area of the Wilfred Site, southeast of the Casino. Effluent would be disposed of through sprayfields in the southern half of the site from April to October, and in the Laguna de Santa Rosa via the Bellevue-Wilfred Channel during the remainder of the year.
- Option 3: Construction of an on-site wastewater treatment plant in the northeast area of the Wilfred Site, southeast of the Casino. Effluent disposed of through sprayfields of increased acreage in the southern half of the Wilfred Site from April to October and stored in an on-site reservoir during the remainder of the year.

Water for domestic use, emergency supply, and fire protection would be provided by on-site wells. Elements of the proposed on-site water facilities include two on-site wells (one for continuous supply and one for redundancy in case of malfunction or maintenance of the primary well), an iron and manganese treatment plant, a steel water storage tank, and a water distribution pump system. The approximate depth of the wells would be 650 feet and screening would occur between 200 and 650 feet below the surface. Water tank capacity would be based on fire flow requirements developed after review by local fire authorities. The estimated capacity would be approximately 1.2 million gallons, which would be stored in a welded steel tank designed to meet American Water Works Association (AWWA) specifications. A potable water pump station with two water pumps would convey water from the storage tank to facilities requiring potable water. The potable water main for the Wilfred Site would be sized for the peak daily demand.

If an on-site wastewater treatment plant is constructed, the water system would be dual plumbed for use of recycled water for such uses as landscape irrigation, toilet flushing, and cooling towers. If wastewater service is obtained from the Laguna WWTP, recycled water would be obtained from a connection to the City of Santa Rosa Subregional System. Recycled water from the Subregional System would be used for landscape irrigation only.

The Tribe has agreed in an Memorandum of Understanding (MOU) with the City of Rohnert Park to construct the gaming facility and all supporting buildings in accordance with standards no less stringent than those set forth in the Uniform Building Code, including all



Uniform Fire, Plumbing, Electrical, Mechanical, and related Building Codes, as adopted, amended, and incorporated into the Rohnert Park Municipal Code. Construction of the facility would also comply with the best management practices (BMPs), including BMPs for paving operations, structure construction, painting, material delivery/storage, material use, spill prevention/control, solid waste management, hazardous waste management, concrete waste management, sanitary/septic waste management, vehicle/equipment cleaning, vehicle/equipment fueling, and vehicle/equipment maintenance. In addition, construction activities would comply with all applicable federal standards, including Occupational Safety and Health Administration (OSHA) requirements and the federal Americans with Disabilities Act (P.L. 101-336, as amended, 42 U.S.C. Section 12101 *et seq.*).

Public safety services, consisting of law enforcement, emergency medical, and fire suppression services, would be provided by several jurisdictions surrounding the Wilfred Site. Absent an agreement with the Rohnert Park Police Department, and given that the majority of the site is currently located within the unincorporated area of Sonoma County, it is assumed that Sonoma County Sheriff's Department would have jurisdiction to provide primary law enforcement services to the hotel/casino resort under Public Law 280. A MOU between the Tribe and Sonoma County provides reasonable and fair share compensation for any public services provided by the County. Due to the proximity of Alternative A to the City of Rohnert Park and contributions for facilities in the Memorandum of Understanding (MOU) between the Tribe and the City of Rohnert Park, it is assumed that the Tribe would most likely contract with the City of Rohnert Park for fire protection and emergency medical services.

### **2.2.2 Alternative B – Northwest Stony Point Casino**

The Stony Point Site is located in central Sonoma County, CA, adjacent to the western boundary of the City of Rohnert Park. The approximately 360-acre site consists of 37 separate parcels, bordered by Wilfred Avenue, residences, and farmland to the north; Stony Point Road, farmland, and a dairy to the west; Rohnert Park Expressway, farmland, and the Laguna de Santa Rosa to the south; and the Rancho Verde Mobile Home Park, a business/industrial park, and farmland to the east.

The development of a casino/hotel development would occur on approximately 76 acres of the northwest corner of the Stony Point Site. The design and components of the casino and hotel facilities would be identical to those of Alternative A, including construction standards and guidelines, as discussed above in Section 2.2.1. The exterior design of the casino-hotel resort would be very similar to Alternative A, although the exact layout of the various components of the casino-hotel resort would be reconfigured to accommodate the northwest corner of the Stony Point Site. The remainder of the Stony Point Site would remain undeveloped and be used for open space, pasture, biological habitat, and recycled water sprayfields.

A stormwater detention system would be provided on-site to reduce increased peak flows that would result from site development. A total of approximately 113.5 acre-feet of storage would be provided in the stormwater detention system to account for the increase in runoff created by increased impervious surfaces, encroachment of fill into the floodplain and the potential treated wastewater discharge into the Bellevue-Wilfred Channel.

The wastewater treatment facility for Alternative B would not change in size or scope from that proposed for Alternative A and would also be designed to comply with standards established by the USEPA. Wastewater disposal would take place by either Option 2 or Option 3 described above in Section 2.2.1. Water for domestic use, emergency supply, and fire protection would be provided by on-site wells, similar to Alternative A.

The provisions for construction standards and public safety services (law enforcement, emergency medical services, and fire protection) within the MOUs described in Section 2.2.1 (above) for Alternative A would apply equally to Alternative B.

### **2.2.3 Alternative C – Northeast Stony Point Casino**

Under Alternative C, the development of a casino-hotel resort is planned on approximately 101 acres of the northeast corner of the Stony Point Site (describe above in Section 2.2.2). The remainder of the Stony Point Site would remain undeveloped and be used for open space, pasture, biological habitat, and recycled water sprayfields. The components of the casino-hotel resort would be the same as those proposed for Alternatives A and B.

Wastewater treatment and disposal for Alternative C would be provided by one of two on-site options (Option 2 or Option 3). The wastewater treatment facility planned for Alternative C would not change in size or scope from that proposed for Alternative A and would also be designed to comply with standards established by the USEPA. Water for domestic use, emergency supply, and fire protection would be provided by on-site wells, similar to Alternative A.

The provisions for public services described in Section 2.2.1 for Alternative A would apply equally to Alternative C.

### **2.2.4 Alternative D – Reduced Intensity (Stony Point Site)**

Alternative D consists of a scaled-down version of Alternative B, located at a similar location on the northwest corner of the Stony Point Site. The 413,400 square foot casino/hotel development would consist of facilities similar to those described in Alternative B (Section 2.2.2), without the construction of a spa or events center. A total of 4,650 parking spaces would be provided to serve the patrons and employees of the resort and supporting facilities.

Drainage, water supply, and wastewater disposal methods would be similar to those proposed within Alternative B. Public service agreements would additionally be similar to those within Alternative B. Yet, given the reduced size and scope of the casino-hotel resort proposed for Alternative D, the terms of the MOUs with the City (the City MOU would apply, but the Tribe would likely assert the right to renegotiate certain terms) and County are not expected to apply to Alternative D. The agreements can be amended, however, to account for the reduced intensity of development.

### **2.2.5 Alternative E – Business Park**

Alternative E consists of the development of an approximately 500,000 square foot business park on the northwest corner of the Stony Point Site. Under this alternative the NIGC would not need to approve a gaming management contract between the Tribe and SC Sonoma, and the Tribe would likely need to seek another source of development funding as SC Sonoma and its affiliates are not expected to support a development not related to a gaming operation.

The business park development would include approximately 400,000 square feet of light industrial uses and 100,000 square feet of commercial uses, with 2,000 parking spaces. The remainder of the site would remain undeveloped and used as open space, pasture, biological habitat, and recycled water sprayfields.

A stormwater detention system similar to that planned for Alternative B would be provided on-site to account for the increase in runoff created by increased impervious surfaces. Wastewater disposal options would also be similar to Alternative B.

Water supply and public service provisions are similar to those described under Alternative D (Section 2.2.4). The terms and provisions of the MOUs between the Tribe and the City of Rohnert Park and Sonoma County would not apply to Alternative E, however an amendment can be achieved to account for the shift in development.

### **2.2.6 Alternative F – Lakeville Casino**

Alternative F consists of the development of a casino-hotel resort at an alternative off-site location. Alternative F consists of a casino/hotel resort development located in southern Sonoma County near the intersection of Lakeville Highway and SR-37 (Lakeville Site). The western boundary is at the Petaluma River, nearly two-miles west of the Lakeville Highway along SR-37, and the eastern boundary is at the Sonoma Mountains, less than two-miles east of the Lakeville site. The San Pablo Bay is just south of the Lakeville site, approximately 2.2-miles south of the site. The casino and hotel would be developed just west of Lakeville Highway on approximately 79 acres in the central portion of the approximately 322-acre Lakeville Site. The remainder of the Lakeville Site would remain undeveloped and be used for open space, pasture, biological habitat, and recycled water sprayfields. The components of the resort would be identical to those proposed for Alternative A.

On-site detention basins would be provided to reduce increased peak flows that would result from developing the site. These basins would assure that post-development runoff peaks from the Lakeville Site would be equal to the existing conditions, reducing downstream flooding, erosion, and water quality impacts. A total of 152 acre-feet of storage would be provided in the stormwater detention system.

Water for domestic use, emergency supply, and fire protection would be provided by on-site wells (one primary well and one backup well). Water demand would be similar to Alternative A. The wastewater treatment facility planned for Alternative F would not change in size or scope from that proposed for Alternative A and would also be designed to comply with standards established by the USEPA. On-site wastewater disposal would take place by one of the following two options:

- Option 1: Effluent will be disposed of through sprayfields in the southern half of the Lakeville Site from April to October, but water produced during the wet season will be disposed of in an on-site stream tributary to the Petaluma River.
- Option 2: Effluent will be disposed of through sprayfields of increased acreage in the southern and western halves of the Lakeville Site from April to October and stored in an on-site reservoir or wetlands during the remainder of the year.

Given the different location of the casino-hotel resort proposed for Alternative F, the public service provisions within the City of Rohnert Park MOU would not apply to Alternative F. According to the Sonoma County MOU, the MOU may apply to properties other than the Stony Point Site with the concurrence of the County. The Tribe would most likely contract with the Lakeville Volunteer Fire Department for fire protection and emergency medical services, and the County or other law enforcement agency for law enforcement.

### **2.2.7 Alternative G - No-Action**

Under the No-Action Alternative (Alternative G), the NIGC would not approve a management contract between the Tribe and SC Sonoma. As a result the Lakeville and Stony Point Sites, with no known development plans for the future, would remain in their current condition. However, it is foreseeable and highly probable that in the future, some other form of commercial and residential development would occur on at least a portion of the Wilfred Site. It is assumed that the Wilfred Site would be subject to guidelines within the City of Rohnert Park Northwest Specific Plan Southern Area (Southern Specific Plan). The Southern Specific Plan calls for intensive commercial, industrial and residential development on the northeast portion of the Wilfred Site.

### **2.2.8 Alternative H – Reduced Intensity (Wilfred Site)**

Alternative H was added as a result of input received during the supplemental scoping period. A description and summary analysis of Alternative H was included in the DEIS. A comprehensive analysis was included in the FEIS. Alternative H is a reduced intensity casino alternative with the same components as the reduced intensity Alternative D but located on the Wilfred Site. The 413,400 square foot casino/hotel development would consist of facilities similar to those described in Alternative D. A total of 4,649 parking spaces would be provided to serve the patrons and employees of the resort and supporting facilities.

Drainage, water supply, wastewater disposal methods, and public service agreements would be similar to those proposed within Alternative A.

### **2.2.9 Variant H-sub1 – Wilfred Site Reduced Intensity Casino**

Variant H-sub1 was added to this ROD as a result of comments received on the FEIS. Variant H-sub1 is a 534,900 square foot casino/hotel development that would be in between Alternatives A and H in size and components. A total of 5,511 parking spaces would be

provided to serve the patrons and employees. Variant H-sub1 reduces impacts as compared with Alternative A by reducing the square footage for casino gaming from 80,000 sf to 65,000 sf (the same as Alternative H), by eliminating the show room, and by reducing the hotel size from 300 rooms to 200 rooms (thereby also reducing the building height by two stories) while sharing the same components as Alternative H except that Alternative H had only 100 hotel rooms, and a spa, a restaurant, and prefunction banquet space would be retained from Alternative A (see Attachment 3 for more detail). Variant H-sub1 was also designed to reduce impacts to wetlands below the amounts impacted by both Alternative A and H. Drainage, water supply, wastewater disposal methods, and public service agreements would be similar to those proposed for Alternative A.

### **3.0 ENVIRONMENT IMPACTS AND PUBLIC COMMENTS**

#### **3.1 ENVIRONMENTAL IMPACTS IDENTIFIED IN THE NEPA PROCESS**

A number of specific issues were raised during the EIS scoping process and public and agency comments on the Draft EIS. Each of the alternatives considered in the FEIS was evaluated relative to these and other issues. The categories of the most substantive issues listed in the scoping document include:

- Land Resources (Geology and Soils);
- Water Resources;
- Air Quality;
- Biological Resources, including threatened and endangered species and their habitat;
- Cultural Resources;
- Paleontological Resources
- Socioeconomic Conditions
- Transportation/Circulation
- Land Use
- Public Services
- Noise
- Hazardous Materials
- Aesthetics
- Indirect and Growth Inducing Effects
- Cumulative Effects

The evaluation of impacts included consultations with entities that have jurisdiction or special expertise to ensure that the impact assessments for the FEIS were accomplished using accepted industry standard practice, procedures and the most currently available data and models for each of the issues evaluated in the FEIS. Mitigation measures identified in the design process have been incorporated into the project description. Alternative courses of action and mitigation measures were developed in response to environmental concerns and issues. As described in Attachment 3, the Variant H-sub1 components and overall size of the facilities falls in between Alternatives A and H. Therefore the environmental impacts from Variant H-sub1 generally also fall in between the environmental impacts reported in Section 4.0 of the FEIS for Alternatives A and H. Nonetheless, in the interest of public disclosure and in order to ensure mitigation measures in Section 6.0 of the ROD are applicable to Variant H-

sub1, an additional analysis of the environmental consequences of Variant H-sub1 is included in Attachment 3.

The effects of the alternatives have been evaluated in the NEPA process as follows:

### **3.1.1 Geology and Soils**

Topography - All development alternatives would involve clearing and grading. The alternative sites are essentially flat, and the result of on-site grading would not alter this characteristic. Fill would be incorporated into on-site grading in order to facilitate proper drainage. Operation of the alternatives would not cause significant disturbance to topography.

Soils/Geology - All alternatives are likely to increase the potential for erosion, but not significantly with proper engineering and best management practices included within project design. The Wilfred Site, Stony Point Site, and Lakeville Site have potential safety risks from expansive soils, and liquefaction. Mitigation measures have been proposed within the FEIS to decrease these impacts to less-than-significant levels. None of the alternative locations contain the potential for landslides, subsidence, or high potential for lateral spreading.

Seismicity - Seismic events and related structural damage and resulting hazard to public safety would be considered a potentially significant impact, due to the location of the alternative sites within an area of seismic activity. Mitigation measures have been proposed within the FEIS to decrease impacts related to seismicity to less-than-significant levels.

Mineral Resources - None of the development alternatives would result in the loss of mineral resources, thus, this impact is less than significant.

### **3.1.2 Water Resources**

Flooding - Alternatives A, H-sub-1, and H are located outside the 100-year floodplain, thus impacts would be less than significant.

Under Alternatives B, C, D, E, and F, less than half of the hardscape proposed would be located within the 100-year floodplain. Proposed design plans would elevate the buildings and structures five feet in elevation above the footprint of the 100-year floodplain. The parking areas would be at least one-foot above the floodplain. Mitigation measures related to flooding on these alternative sites appear in the FEIS to reduce any significant impacts.

Surface Water Quality/Construction Effects - Project construction under all alternatives would result in ground disturbance, increasing impervious surfaces through the conversion of undeveloped land into buildings and parking lots. Discharges of pollutants to surface waters from construction wastes, fuel spills, and leaks would be a potentially significant impact. Mitigation measures related to surface water quality are included within the FEIS to reduce these impacts to a less than significant level.

Surface Water Quality/Stormwater - Under all alternatives on-site stormwater runoff would be diverted into specific on-site detention systems that would be sized to accommodate excess

water draining from impervious surfaces. Since the detention basins would be developed as part of the project, the impact of stormwater runoff would be less than significant.

Wastewater – Under Alternatives A, H-sub1, and H, wastewater would either be conveyed to a local off-site WWTP or treated at an on-site WWTP. Under Alternatives B, C, D and F wastewater would be treated at an on-site WWTP. Compliance with all NPDES permit requirements would provide a less-than-significant impact to water quality from the discharge of tertiary treated wastewater. Nonetheless, mitigation measures have been included within the FEIS that would further reduce impacts from wastewater.

Alternatives B, C, D, E and F would not result in the development of a conveyance system to an off-site WWTP, therefore no significant impacts are anticipated. On-site wastewater treatment would occur as described for Alternatives A and H.

Under Alternative G, wastewater could potentially be generated from the development associated with the Northwest Specific Plan on the northeast portion of the Wilfred site. The City of Rohnert Park has access to sufficient unused capacity to serve the Northwest Specific Plan. Treated wastewater would be discharged under an existing NPDES permit held by the wastewater disposal system. Impacts from wastewater would be less than significant.

Groundwater - All development alternatives would increase the demand for groundwater, but would not significantly deplete supplies or degrade water quality in violation of ground water standards or threaten public safety. However, due to drawdown, significant and potentially significant impacts to well operation would occur at wells within the vicinity of the sites soon after pumping begins for the project. Mitigation measures contained in the FEIS would reduce these impacts to a less-than-significant level. An additional detailed monitoring and mitigation program would be implemented in order to clarify the impacts that actually result as well as provide appropriate mitigation.

### **3.1.3 Air Quality**

Construction Emissions - All development alternatives would generate air pollutants through construction although they would not exceed regulatory emissions threshold levels. Reactive organic gases (ROG), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), sulfur oxides (SO<sub>x</sub>), particulate mater (PM)<sub>2.5</sub>,<sup>1</sup> and PM<sub>10</sub> construction emissions would result in a less-than-significant impact. Mitigation measures were included within the FEIS to further reduce potential construction emission impacts.

Operational Emissions - All development alternatives would result in operational emissions, primarily from traffic generated by the project. Mitigation has been incorporated to reduce traffic congestion, indoor air quality impacts, and odor impacts to a less than significant level. Impacts ROG, NO<sub>x</sub>, PM<sub>2.5</sub>, and PM<sub>10</sub> emissions from the project alternatives would be

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<sup>1</sup> In the EIS PM<sub>2.5</sub> emissions are estimated using PM<sub>10</sub> emissions as a surrogate, based on a CARB speciation profile for gasoline powered engines. In Attachment 7 of this ROD, a representative sample of actual PM2.5 emissions model results demonstrates that the surrogated emissions estimates are conservative in that they tend to overestimate emissions.

significant, yet with mitigation measures recommended within the FEIS, shall further decrease operational emissions to less than significant levels.

### **3.1.4 Biological Resources**

Wildlife and Habitats - Development of all alternatives would result in habitat disturbances, including potential impacts to seasonal pools, wetlands, marshes, cultivated fields, and irrigated pastures. The development area proposed for Alternatives A, H-sub1, and H is less biologically sensitive when compared to the other alternatives, thus impacts to biological resources are lessened. For instance, although the development footprint for Alternative A (on the Wilfred Site) is similar to Alternative B (on the Stony Point Site), wetland impacts are reduced by approximately 90 percent. Alternative H is expected to have a slightly reduced footprint when compared with Alternatives A and G, resulting in further reductions in impacts to biological resources. Alternative H-sub1 footprint is similar to Alternative H, but has been arranged to further avoid impacts to sensitive biological areas. Specific disturbance characteristics are provided within the FEIS and ROD Attachment 3. Mitigation measures are presented within the FEIS to reduce site specific impacts to wildlife and habitat to less than significant levels.

Waters of the U.S - All alternatives would significantly affect jurisdictional Waters of the U.S through project grading or placement of on-site wastewater treatment options.

Alternative A would impact between 1.25 acres (Option 1), 2.08 acres (Option 2), and 2.37 acres (Option 3) of wetlands/drainages depending on the selected wastewater treatment option. Mitigation measures provided within the FEIS would reduce impacts to less-than-significant levels.

Alternative B would impact approximately 21.87 acres (Option 1) or 27.16 acres (Option 2) of wetlands/seasonal pools and drainages, depending on the selected wastewater treatment option. Similar to Alternative A, implementation of mitigation measures would reduce impacts to less than significant levels.

Alternative C would impact approximately 22.28 acres (Option 1) or 26.28 acres (Option 2) of wetlands/seasonal pools and drainages, depending on the selected wastewater treatment option. Similar to Alternative A, implementation of mitigation measures would reduce impacts to less than significant levels.

Alternative D would impact approximately 20.5 acres (Option 1) or 22.67 acres (Option 2) of wetlands/seasonal pools and drainages, depending on the selected wastewater treatment option. Similar to Alternative A, implementation of mitigation measures would reduce impacts to less than significant levels.

Alternative E would impact approximately 20.41 acres (Option 1) or 21.69 acres (Option 2) of wetlands/seasonal pools and drainages, depending on the selected wastewater treatment option. Similar to Alternative A, implementation of mitigation measures would reduce impacts to less than significant levels.



Alternative F would impact approximately 98.65 acres (Option 1) or 110.65 acres (Option 2) of wetlands/seasonal pools and drainages, depending on the selected wastewater treatment option. Similar to Alternative A, implementation of mitigation measures would reduce impacts to less than significant levels.

Alternative H would impact approximately 1.14 acres (Option 1) or 1.97 acres (Option 2 or Option 3) of wetlands/seasonal pools and drainages, depending on the selected wastewater treatment option. Similar to Alternative A, implementation of mitigation measures would reduce impacts to less than significant levels.

Alternative H-sub1 would impact approximately 0.91 acres of wetlands/seasonal pools and drainages. Similar to Alternative A, implementation of mitigation measures would reduce impacts to less than significant levels.

Under Alternative G, neither the Wilfred/Stony Point sites nor the Lakeville site would be developed, and the sites would remain in their current condition. Future development of either site would be guided by existing land use plans. Potential future development on the Wilfred Site would result in similar impacts to biological resources as those described under Alternative A. As discussed above, potentially significant impacts to biological resources would result from the development of the northeast corner of the Wilfred site.

Federally Listed Species - Two federally listed plant species, Sonoma sunshine and Burke's goldfields, have the potential to occur within the vicinity of the Wilfred and Stony Point Sites. No listed plants were found on the Wilfred or Stony Point Sites during a survey; nonetheless, mitigation has been included within the FEIS to ensure a less than significant effect. Alternative F would remove potential habitat for Callippe Silverspot and Myrtle's Silverspot Butterfly and California red-legged frog, creating a potentially significant impact. Mitigation has been included within the FEIS to ensure a less than significant effect. Implementation of Alternative A, B, C, D, E, G, H-sub1, and H would result in potential impacts to on-site California Tiger Salamander habitat. Mitigation listed in the EIS would reduce potential impacts to federally listed species to less than significant levels. In accordance with Section 7 of the Endangered Species Act (ESA), the NIGC has conducted formal consultation with the U.S. Fish and Wildlife Service (USFWS).

Migratory Birds - Under Alternatives B, C, D, E, and F migratory bird nests could be affected by vegetation removal associated with project construction during the nesting season, creating a potentially significant impact. Development on all alternative sites would result in the loss of a small amount of foraging habitat for raptor species, however, Alternatives A, G, H-sub1, and H site locations do not provide unique significant habitat features. Permanent features associated with proposed facilities under all development alternatives, such as night lighting, may potentially impact migratory bird species. Mitigation listed in the FEIS would reduce potential impacts to migratory bird foraging habitat and nesting locations to less than significant levels.

### **3.1.5 Cultural Resources**

Cultural Resources - Alternatives B, D, and E (development on the northwest corner of the Stony Point Site) would require the excavation and removal of a potentially historic residence foundation and associated unknown artifacts. The other alternatives would have no effect on known cultural resources. Mitigation measures are presented within the FEIS to protect and preserve known resources. Additional mitigation measures are presented in the FEIS for the treatment of unanticipated discoveries.

Paleontological Resources - No paleontological or unique geological resources are known to exist in the local area of the alternative sites. Geologic formations that underlie the sites have a low probability of containing paleontological resources, and no impacts are expected. Mitigation measures are presented in the FEIS for the protection and preservation of unanticipated discoveries of paleontological resources.

### **3.1.6 Socioeconomic Conditions and Environmental Justice**

Socioeconomics Conditions - Alternatives A, B, C, and F would result in the greatest economic stimulus to the region and would result in the greatest beneficial economic impact to the Tribe. All development alternatives would result in potential economic benefits for Sonoma County and the Tribe. Benefits to the County and surrounding municipalities would result from the creation of jobs and payments in-lieu of taxes agreed to in the various MOUs. The greatest economic benefit for the Tribe and the most jobs would be created by development alternatives with gaming. Within the City of Rohnert Park MOU, the Tribe has agreed to contribute annual funds to compensate problem gambling service programs. With this contribution and the implementation of mitigation measures within the FEIS, effects to problem gambling services would be less than significant. The non-gaming alternatives (Alternatives E and G) would not cause any of the social impacts potentially attributable to casinos (such as an increase in the incidence of problem/pathological gambling).

Environmental Justice - None of the development alternatives would result in significant disproportionate effects to low-income or minority populations. The purpose and need described in the FEIS is for the applicant Tribe to generate maximum net revenues to provide services for Tribal members who are members of a minority population and some of which are low income. Alternatives A, B, C, and F have similar higher amounts of net revenues compared to the other alternatives and thus would provide the greatest beneficial effect to the Tribe.

### **3.1.7 Resource Use Patterns**

Transportation/Circulation - The alternatives that include development of the Wilfred or Stony Point Sites generally affect the same local traffic network, but the effects vary depending on the amount of traffic that the alternative is expected to draw, whether currently planned development on the Wilfred Site would be displaced and, to a lesser extent, the development's specific location on the Wilfred or Stony Point Sites. Alternatives A, B, and C are all similarly sized and would draw a similar amount of traffic to their developments through virtually the same road network. Alternative A, however, would take the place of development that would otherwise occur on the Wilfred Site. Thus, the traffic impact of

Alternative A is lower than Alternatives B and C (which would operate in addition to commercial/residential development planned for the Wilfred Site). Alternatives D and E would draw less traffic but would also not displace commercial/residential development at the Wilfred Site. As a result, Alternative D would have similar traffic impacts as Alternative A; Alternative E would have slightly lower traffic impacts than Alternative A. Alternative G (No Action) would include currently planned commercial/residential development on the Wilfred Site and would therefore have an impact over existing conditions but the impact would be lower than the other development alternatives which either propose more intensive development in place of the planned commercial/residential development (Alternative A) or propose development in addition to the planned commercial/residential development. Alternative H will be a reduced intensity alternative (similarly sized to Alternative D), but located on the Wilfred Site. Alternative H would draw a similar number of traffic trips to its developments as Alternative D, but would result in a lower traffic impact because it would displace planned Wilfred Site commercial/residential development, and not create unacceptable levels of service (LOS) along freeway segments and ramps. Specifically, traffic impacts would be slightly lower than Alternative E's impacts. Alternative H-sub1 traffic impacts would be in between those for Alternatives A and H. Alternative F is located at the Lakeville Site in southern Sonoma County along the Lakeville Highway. It would draw a similar number of traffic trips to the hotel/casino as Alternatives A thru C but with impacts primarily affecting intersections and road segments near the Lakeville Site.

All alternatives would add significant vehicle trips to the circulation network, resulting in decreased LOS for certain transportation facilities during the PM peak hours, mitigation measures have been proposed to ensure a less-than-significant impact. However, even with implementation of mitigation measures, significant impacts remain for intersections and freeway/ramp segments under Alternatives B, C, D, E, and F.

Land Use - Alternatives A, H-sub1, and H would result in development on a site that is largely undeveloped. However, the development portion of the Wilfred Site, a portion of which is within the Rohnert Park Sphere of Influence (SOI) area, is located within City's Northwest Specific Plan area, which calls for intensive development on the northeast portion of the Wilfred Site. Alternative A, H-sub1, and H would not create significant impacts to land use, as these developments would not result in any conflicts with surrounding land uses, such as denial of access or preclusion of allowable uses. Alternatives A and H would be located in an area designated as a "community separator" by local planning regulations, creating a loss of open space, however, funding is included within the MOU to contribute to an open space reserve.

Given the inferior quality of agricultural soils where development is proposed, the retention of the southern Williamson Act parcels for agricultural purposes, and the avoidance of land use conflicts with adjacent agricultural operations, Alternatives A, H-sub1, and H would have a less-than-significant impact on agriculture. Nonetheless, an additional mitigation measure has been added to Section 6.7 of this ROD requiring that the Tribe maintain the existing Williamson Act requirements in place as planned.

Alternative B, C, D, and E would result in development on a site that is largely undeveloped and not planned for development. These potential developments would not, however result in

any conflicts with surrounding land uses, such as denial of access or preclusion of allowable uses, and therefore would not create significant impacts to land use. All Stony Point Site alternatives would be located in an area designated as a “community separator” by local planning regulations, creating a loss of open space, however, funding is included within the MOU to contribute to an open space reserve. The impact on regional open space from Alternatives B, C, D, and E would be less than significant. Given the inferior quality of agricultural soils where development is proposed, the retention of the southern Williamson Act parcels for agricultural purposes, and the avoidance of land use conflicts with adjacent agricultural operations, Alternatives B, C, D, and E would have a less-than-significant impact on agriculture.

Current land uses and open space conditions would remain on the Wilfred, Stony Point, and Lakeville sites with implementation of Alternative G (No-Action Alternative). Without project implementation a commercial/industrial/residential development on approximately 66 acres in the northeast corner of the Wilfred site would continue as planned under the Northwest Specific Plan.

Alternative F would be inconsistent with several Sonoma County General Plan land use policies. Alternative F would not result in any land use conflicts, however, such as an obstruction of access or the preclusion of allowable uses. Therefore, a less-than-significant land use effect would result from Alternative F.

Under Alternative F, approximately 79 acres out of a total of 321 acres of the Lakeville Site would be developed. The remaining parcels in the Lakeville site would remain consistent with their current open space and agricultural use, resulting in a less-than-significant loss of open space and agriculture.

### **3.1.8 Public Services**

All alternatives would increase the demand of services for solid waste, gas and electric, telecommunications, fire protection, law enforcement, EMS, court services, inspections and other services from State of California and local government agencies. Alternative A and the other development alternatives would likely have significant public health and safety impacts because they would increase the demand for the services to a level that exceeds the capacity of the existing systems. However, the impacts to public safety services would be reduced to less than significant levels with agreements to provide revenues to maintain capacity for public health and safety, which are recommended to achieve a less than significant impact in the FEIS.

### **3.1.9 Other Values**

Noise - Under all alternatives, construction activities would be temporary in nature, typically occurring during normal daylight hours. The temporary nature of construction noise would result in a less-than-significant impact. Nonetheless, mitigation measures are identified in the FEIS that would result in reductions in construction noise impacts. On-site operational noise levels for all alternatives would exceed acceptable noise levels and result in a significant

impact to sensitive receptors, through on-site equipment or traffic noise. Mitigation measures are presented in the FEIS to reduce these noise impacts to less than significant levels.

Hazardous Materials - The alternatives are not located in areas with hazardous materials contamination. However, demolition of the two existing residential dwellings, built prior to 1960, would be necessary. Although the dwellings are not known to contain asbestos or lead based paint, dwellings built prior to 1978 are likely to contain asbestos containing materials (ACMs) and lead based paints. Demolition contractors are required by the National Emissions Standards for Air Pollutants (NESHAP) regulations to employ Best Management Practices (BMPs); thereby, reduce any potential risks to construction workers.

The potential for discovery of contamination during construction-related earth moving activities could occur. If this should happen, it could pose a risk to human health and/or the environment and be considered as a potentially significant impact. Mitigation measures are presented in the FEIS to reduce these impacts to a less than significant level.

It is likely that all development alternatives would include the use, generation, and storage of hazardous materials during the operation of the facilities. While the impacts would be similar to those of other light industrial operations of this size, there could be a potentially significant impact to the environment and public. Mitigation measures are presented in the FEIS to reduce these potential hazards to a less than significant level.

Visual Resources - Implementation of Alternatives A, H-sub1, and H on the Wilfred Site would visually be consistent with surrounding development activities and within an area planned for intensive development, hence visual impacts to land use planning, regional, and surrounding viewsheds under Alternatives A, H-sub1, and H would be less-than-significant.

The Stony Point alternatives are located in agricultural areas with designated open space. Alternative B, C, D, E propose construction that would be within a community separator and be visually inconsistent with surrounding uses. Therefore, a significant visual impact would occur. Since this impact cannot be mitigated, it would qualify as a significant and unavoidable impact. Alternative F would similarly be constructed in an area of non-urban uses causing a significant and unavoidable impact.

Light and glare from parking lots within all alternatives would be expected to trespass onto adjacent properties, resulting in a significant lighting impact. Mitigation is identified in the FEIS that reduces lighting and glare impacts to a less-than-significant level.

### **3.1.10 Indirect and Growth-Inducing Effects**

Indirect Effects - The development alternatives would not result in significant indirect impacts. Indirect socioeconomic effects on the local and regional economy would result in beneficial effects to surrounding communities including the City of Rohnert Park and Sonoma County.

Indirect Effects from Off-Site Traffic Mitigation - With implementation of proposed mitigation measures, compliance with regulatory permits, and through the Tribe's MOUs there would be no significant indirect impacts from off-site traffic mitigation.

Growth Inducing Effects of Off-Site Pipeline Construction - Under Alternatives A and H, a wastewater pipeline may be constructed to connect the Wilfred Site to the Laguna WWTP (Option 1). If necessary, the construction of off-site pipelines would occur primarily along existing roadways and be temporary in nature. No significant indirect impacts would occur through infrastructure improvements. However, the Laguna WWTP may not have enough capacity, as the City of Rohnert Park's allocation is based on potential development with lower expected flows than Alternative A. This impact would be significant and therefore mitigation is provided in the FEIS to reduce impacts to a less-than-significant level.

### **3.1.11 Cumulative Effects**

With the inclusion of mitigation measures in Section 5.0 of the FEIS, Alternatives A, G, H-sub1, or H, when added to past, present, and reasonably foreseeable future actions would not result in any significant cumulative impacts. Alternatives B, C, D, E, and F would result in significant impacts to traffic through unavoidable impacts to study intersections in the cumulative environment.

Impacts to biological resources under Alternative F, in the cumulative environment, would remain at a significant level due to potential disturbances to several special status species including Sonoma Sunshine, Myrtle's Siverspot, Callippe Silverspot, and California Red-Legged Frog.

With incorporation of mitigation measures included within the FEIS the remainder of the cumulative impacts would be considered less-than-significant.

Climate Change - Since the description of the affected environment in Section 3.4 and the analysis of climate change impacts in Section 4.12 of the FEIS, there have been some developments that are worth noting in this ROD.

- On July 23, 2009, USEPA published a rule which proposes to establish the criteria for including sources or sites in a Registry of Recoverable Waste Energy Sources (Registry), as required by the Energy Independence and Security Act of 2007. Waste energy can be used to produce clean electricity. The clean electricity produced by waste energy would reduce the need for non-renewable forms of electricity production, thus reducing greenhouse gas (GHG) emissions.
- On September 15, 2009, USEPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) proposed a new national program that would reduce GHG emissions and improve fuel economy for all new cars and trucks sold in the United States. USEPA proposed the first national GHG emissions standards under the Clean Air Act,

and NHTSA proposed an increase in the Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act.

- In response to the FY2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110–161), USEPA issued the Final Mandatory Reporting of Greenhouse Gases Rule. Signed by the Administrator on September 22, 2009, the rule requires that suppliers of fossil fuels and industrial GHGs, manufacturers of vehicles and engines outside of the light duty sector, and facilities that emit 25,000 metric tons or more of GHGs per year to submit annual reports to USEPA. The rule is intended to collect accurate and timely emissions data to guide future policy decisions on climate change.
- On September 30, 2009, USEPA proposed new thresholds for greenhouse gas emissions (GHG) that define when Clean Air Act permits under the New Source Review and title V operating permits programs would be required.
- On June 30, 2009, the USEPA granted a Clean Air Act waiver, which the State of California needs in order to implement AB 1493.
- In early December 2008 the California Air Resources Board (CARB) released its scoping plan to the public, which was approved by CARB on December 12, 2008. The scoping plan calls for the reduction of GHG emissions to 1990 levels, which equates to cutting approximately 30 percent of emissions estimated for 2020, or about 15 percent from today’s levels. The scoping plan relies on existing technologies and improving energy efficiency to achieve the 30 percent reduction in GHG emission levels by 2020.
- Signed by the governor on August 24, 2007, SB 97 requires that the Governor’s Office of Planning and Research (OPR) prepare California Environmental Quality Act (CEQA) guidelines for evaluating the effects of GHG emissions and for mitigating such effects. The Natural Resources Agency adopted these guidelines in December 2009.
- On December 15, 2009, the USEPA issued a finding that the changes in the climate caused by GHG emissions endanger the public health and welfare (74 Fed. Reg. 66496).

Finally, on February 18, 2010, the CEQ issued a memorandum entitled “Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions.” The memo contains draft guidance on considering the effects of climate change and GHG emissions in NEPA documents. The CEQ has circulated the draft guidance for public comment and specifically notes in the memo that it “does not intend this guidance to become effective until its issuance in final form.” Nonetheless, considering the pending issuance of this ROD, the NIGC has reviewed the draft guidance and considered its suggestions carefully.

The memo suggests that agencies should both qualitatively and quantitatively assess GHG emissions impacts if direct project emissions are greater than 25,000 metric tons of carbon dioxide equivalent (CO<sub>2</sub>e) emissions. Direct emissions from Alternatives A - H (including H-sub1) range from 389 to 1,394 metric tons of CO<sub>2</sub>e per year. Nonetheless, the NIGC conducted a full quantitative and qualitative assessment of impacts. Furthermore, the assessment of impacts is consistent with the assessment methodology outlined in the draft CEQ guidance. For instance, the CEQ recommends that the environmental document reflect the global context of the climate change issue, which the FEIS does, including the analysis of climate change in the cumulative section of the EIS for this reason. Also, the CEQ draft guidance recommends setting reasonable spatial and temporal boundaries for the assessment, which the FEIS does, analyzing impacts within the cumulative time period identified in the FEIS and within the context of the State of California's efforts to reduce future emissions. The CEQ draft guidance recommends discussing measures to reduce GHG emissions, including the consideration of reasonable alternatives. The FEIS includes the analysis of multiple alternatives resulting in varying levels of GHG emissions. The FEIS also includes numerous climate change related mitigation measures. The CEQ draft guidance notes that the analysis should not try to link project emissions to specific climate changes or environmental impacts, "as such direct linkage is difficult to isolate and to understand." The FEIS acknowledges this fact and does not attempt to provide such links.

#### **3.1.12 Unavoidable Adverse Effects**

Cumulative transportation impacts to Alternative B, C, D, E, and F would continue to be significant after the implementation of mitigation measures included within the FEIS. Significant impacts would occur at two study intersections under Alternative B, one study intersection under Alternative C, one study intersection under Alternative D, one study intersection under Alternative E, and two study freeway/ramp segments under Alternative F.

Alternative F would create an adverse environmental justice impact to minority/low income communities of neighboring Solano County through a significant and unavoidable increase in traffic at two freeway/ramp segments within Solano County.

Cumulative impacts to biological resources at the Lakeville Site (Alternative F) would continue to be significant after the implementation of mitigation measures in the FEIS.

Visual impacts under Alternatives B, C, D, E, and F would continue to be significant after the implementation of mitigation measures provided in the FEIS.

### **3.2 RESPONSES TO COMMENTS ON THE FINAL EIS**

Several public comments on the FEIS were received during the 30-day waiting period following release of the FEIS. Responses to the comments provide additional analysis or indicate specifically where the relevant information requested can be found in the FEIS. The comments and responses are contained in Attachment 5 to this ROD.



#### **4.0 PREFERRED ALTERNATIVE**

For the reasons discussed in FEIS Section 2.11, the NIGC chose originally Alternative A, with wastewater disposal Option 3 as the agency's Preferred Alternative. However, after considering input received during the FEIS waiting period by the United States Environmental Protection Agency (USEPA) and Sonoma County and after consultation with the Tribe, the NIGC has decided to choose as its Preferred Alternative a variant that is in between Alternatives A and H (a reduced intensity alternative) in the size and components of the proposed facilities (Variant H-sub1). For the reasons discussed in FEIS Section 2.11, the NIGC selects on-site wastewater treatment and seasonal storage/sprayfield disposal (see ROD Attachment 3 for more detail) for its Variant H-sub1 Preferred Alternative. Variant H-sub1 meets the purpose and need better than Alternative H while providing a lesser impact on the environment than Alternative A. Also, as with Alternative A (see FEIS Section 2.11), mitigation measures for Variant H-sub1 would ensure that post-mitigation impacts are similar to Alternative H. Thus, Variant H-sub1 is judged by the NIGC to best meet the purpose and need while minimizing impacts on the human environment and now constitutes the NIGC's Preferred Alternative.

The Preferred Alternative is expected to provide a stable source of net income for the Tribe that will allow it to begin to address the substantial and serious needs of its members and pursue its goal, of economic development, self-sufficiency, self-determination and strong Tribal government without resulting in substantial significant negative impacts on the surrounding environment and community. Because of these substantial benefits to the Tribe and its members, NIGC finds that gaming on the Wilfred Site, and in particular Variant H-sub1, is in the best interests of the Tribe.

#### **5.0 ENVIRONMENTALLY PREFERRED ALTERNATIVES**

Either the No-Action Alternative or Alternative H would result in the fewest effects to the biological and physical environment. Alternative H would involve a smaller facility and environmental footprint than any of the other casino alternatives and is located on the Wilfred Site, which is less environmentally sensitive than the Stony Point and Lakeville Sites. Because NIGC cannot predict with certainty the exact type of development that would occur under the No-Action Alternative, it is difficult to assess whether it would result in similar, lesser, or greater impacts to the biological and physical environment than the Alternative H. However, immediately to the east of the proposed facility, there currently exists a major retail center with a Home Depot and a Walmart. However, assuming development at a level consistent with the Northwest Specific Plan (See FEIS Section 2.8.1), the environmental impacts of the No Action Alternative would be similar to Alternative H.

The No-Action Alternative would not meet the purpose and need of the Proposed Action. Specifically, it would not provide any source of net income to allow the Tribe to achieve self-sufficiency, self-determination, or strong Tribal government. Thus, it was not chosen as the preferred alternative.

Alternative H would likely result in lesser economic benefits for present and future Tribal members than the other casino alternatives, including Alternative A. However, Alternative H would help meet the purpose and need better than the No-Action Alternative. As noted above

in Section 4.0, Variant H-sub1 would have similar environmental impacts as Alternative H after mitigation, with a reduced impact to wetland features, as well as better meeting the purpose and need. Variant H-sub1 was therefore chosen as the Preferred Alternative.

## **6.0 MITIGATION MEASURES**

All practicable means to avoid or minimize environmental harm from the Preferred Alternative (Variant H-sub1 with wastewater disposal Option 3) have been identified and adopted. The following mitigation measures and related enforcement and monitoring programs have been adopted as a part of this decision. Where applicable, mitigation measures will be monitored and enforced pursuant to federal law, tribal ordinances, and agreements between the Tribe and appropriate governmental authorities as well as this decision. By implementing these mitigation measures, it is reasonably expected that the Preferred Alternative would not result in any significant adverse impacts to the surrounding community or the environment. Specific best management practices and mitigation measures adopted pursuant to this decision are set forth below:

### **6.1 GEOLOGY AND SOILS**

- A. The following mitigation measures shall be implemented to result in a less than significant impact to the development from expansive soils:
  - a. For structures with a light to moderate bearing load (one to three stories), a shallow, spread footing foundation system would be sufficient to provide support under expansive soil conditions (see FEIS Appendix K for more details and optional systems). However, a shallow foundation system shall be designed to reduce the potential for seasonal moisture variation under the buildings by providing continuous perimeter strip footings that extend below the depth of seasonal moisture variation (typically 18 inches or deeper).
  - b. For structures with a high bearing load, either a post-tensioned concrete slab, or heavily reinforced structural mat slab (shallow foundation systems), or a deep foundation system such as a drilled piers would be necessary to provide support under expansive soil conditions (see FEIS Appendix K for more detail). Shallow system designs applied to high bearing load structures will also be designed to reduce the potential for seasonal moisture variation.
  - c. To mitigate impacts to pavement caused by expansive soil, one or a combination of the following measures shall be required:
    - i. Removal and replacement with non-expansive soils.
    - ii. Lime treatment of soils.
    - iii. Design of pavement sections to withstand potential swelling pressures.
- B. All structures shall be designed in compliance with the California Building Code (CBC) Building Code (Article VI Chapter 6.04) current at the start of construction such that risks to the health or safety of workers or members of the public from earthquake hazards are reduced to a less-than-significant level.

## 6.2 WATER RESOURCES

### *Surface Water*

#### **Construction Impacts**

- A. During construction, surface water quality shall be protected by using BMPs as listed in the Erosion Control recommendations found in FEIS Appendix C. These BMPs would be included in the Stormwater Pollution Prevention Plan (SWPPP) to be filed with the USEPA).
- B. A stormwater sampling and monitoring program shall be developed and implemented to assess the quality of surface water entering and leaving development sites. At a minimum, sampling sites shall include: a location upstream at an elevation above all proposed development; and a location downstream of all development, yet at an interception point prior to surface waters entering the Laguna de Santa Rosa. Analyses shall include total suspended solids (TSS), oils and grease.

#### **Operational Impacts**

- C. Application of fertilizer shall be limited to the minimum amount necessary and shall be adjusted for the nutrient levels in the water used for irrigation. Fertilizer shall not be applied immediately prior to anticipated rain.
- D. The garbage bin area shall be covered. Any runoff or drainage from the garbage bin area shall be directed to the sewer system and treated by the WWTP.
- E. Landscape irrigation shall be adjusted based on weather conditions and shall be reduced or eliminated during the wet portion of the year in order to prevent excessive runoff.

### *Wastewater*

- F. In order to maintain the water balance described in Section 4.3.1 of the FEIS, a minimum of 50 gallon per minute (gpm) of treated wastewater shall be designated for use by the casino and hotel.
- G. The WWTP shall be staffed with operators who are qualified to operate the plant safely, effectively, and in compliance with all permit requirements and regulations. The operators shall have qualifications similar to those required by the State Water Resources Control Board Operator Certification Program for municipal wastewater treatment plants. This program specifies that for tertiary level wastewater treatment plants with design capacities of 1.0 million gallons per day (MGD) or less, the chief plant operator must be a Grade III operator. Supervisors and Shift Supervisors must be Grade II operators. An Operations and Maintenance Program must be followed by the plant operators. Emergency preparedness shall include all appropriate measures, including a high level of redundancy in the major systems.

## *Regional Groundwater*

- H. Existing on-site wells shall be abandoned and sealed. On the Wilfred Site, two wells shall be abandoned and capped.
- I. In order to offset the groundwater used by implementation of the project, the Tribe shall implement one or more of the following measures:
  - a. The Tribe shall work with the City of Rohnert Park and Sonoma County Water Agency (SCWA) to allocate and deliver more surface water, aiding in the City's compliance with the City's settlement with the South County Resource Preservation Committee.
  - b. The Tribe may work with and compensate the City and/or SCWA to implement a water conservation program and/or a conjunctive water use program. The program shall (1) assess existing and potential sources of reclaimed wastewater within SCWA's service area, and determine potential points of use for the reclaimed wastewater, and/or (2) supplement the City's and/or SCWA's existing water conservation programs to identify and implement additional conservation measures within City and/or SCWA service areas. The program(s) shall incorporate reclaimed water use and/or conservation to an extent that would completely offset groundwater pumping associated with the selected project Alternative.
  - c. The Tribe shall participate in the creation of or create an off-site artificial recharge project, such as purchasing a groundwater well in the sub-basin and retiring the well from service in order to offset a portion of the groundwater used by implementation of the project (in lieu recharge).
- J. The Tribe shall cooperate with the conduct of the ongoing Joint USGS/SCWA Study of the Santa Rosa Plain Groundwater Sub-basin by providing its Groundwater Study and any aquifer testing and monitoring data compiled during the EIS mitigation phase. In addition, the Tribe shall join other stakeholders in participating in the *Cooperative Agreement to Provide Funding and Support Information for Santa Rosa Plain Groundwater Study* for Years 4 and 5 of the study and future supplemental studies, subject to the agreement of the other stakeholders in the Tribe's participation. If added to the agreement, the Tribe shall provide funding of an equitable share that is proportionate with other participating non-tribal stakeholders, and that considers its fraction of the municipal groundwater demand in the Santa Rosa Plain Groundwater Basin (currently about 1.8%). In addition, the Tribe shall participate in the identification and implementation of reasonable measures or action plans developed through the study, in the same manner as participating non-tribal stakeholders, and in proportion to its contribution to any basin decline identified by the study.

- K. As part of the Tribe's MOU with the City of Rohnert Park, the Tribe will contribute to help establish or support ongoing water conservation measures city-wide in Rohnert Park.
- L. Water conservation measures including use of reclaimed water for landscape watering, cooling tower makeup water, and toilets shall be implemented. In addition, the following water conservation measures shall be adopted (resulting in a water savings of approximately 12,800 gallons per day for the full size casino/hotel alternatives):
- a. Check steam traps and ensuring return of steam condensate to boiler for reuse.
  - b. Limit boiler blowdown and adjusting for optimal water usage.
  - c. Use low flow faucets and/or aerators in casino and hotel.
  - d. Use low flow showerheads in hotel.
  - e. Encourage voluntary towel re-use by hotel guests.
  - f. Use pressure washers and water brooms instead of hoses for cleaning.
  - g. Use garbage disposal on-demand in restaurant.
  - h. Incorporate a re-circulating cooling loop for water cooled refrigeration and ice machines in restaurants.
  - i. Serve water to customers only upon request at restaurants.
  - j. Use air-cooled units in central plant.
  - k. Use low volume spray rinse valve for pre-cleaning dishes.
  - l. Use low volume dishwasher.
  - m. Operate dishwashers with full loads only.
  - n. Use high pressure/low flow spray rinsers with automatic shut off for pot washing.
  - o. Reuse dishwasher wastewater for low-grade purposes such as pre-washing and garbage disposals.
  - p. Use self-contained (connectionless) vegetable steamers.
  - q. Reduce flow to minimum necessary in scrapper troughs, wash down, and frozen food thawing.

- r. Use air-cooled ice machines.

*Localized Groundwater*

- M. The Tribe shall implement a groundwater monitoring program preceded by a pump test (see FEIS Appendix G for a detailed description of the recommended pump test and monitoring program) as soon as feasible after project approval and preferably at least one year before opening of the project facilities to the public (to allow for baseline monitoring). The pump test shall include at least one shallow monitoring well located in close proximity to the Laguna de Santa Rosa in order to verify that pumping associated with the Preferred Alternative will not affect the Laguna de Santa Rosa.
  
- N. The Tribe shall implement a program to compensate neighboring well owners for impacts to well operation based on interference drawdown caused by project pumping. The actual amount of interference drawdown associated with the project shall be estimated from the proposed pumping test and groundwater level monitoring program (see above and FEIS Appendix G). At least one year of baseline data and one year of data after project pumping begins should be collected prior to implementation of the following well impact compensation program:
  - a. Well Usability (Impacts 1 and 2) – The tribe shall reimburse the owners of wells that become unusable within three years of the onset of project pumping for a portion of the prevailing, customary cost for well replacement, rehabilitation or deepening. The mitigation method for which reimbursement is made shall be the lowest-cost customary and reasonable method to restore the lost well capacity. The percentage of the cost reimbursed by the tribe shall depend upon the degree to which the impact is caused by project pumping vs. pumping by other wells. Reimbursement shall be for replacement in-kind; that is, for a well of similar construction, but deepened so as to restore the lost well capacity. A depreciation allowance shall be subtracted from the reimbursement amount for wells or pumps that have condition issues. In order to be eligible, the well owner must provide the Tribe with documentation of the well location and construction (diameter, depth, screened interval, pump type, etc.), and that the well was constructed and usable before project pumping was initiated.
  
  - b. Diminished groundwater level near or below pump intake (Impact 3) – The Tribe shall reimburse the owners of wells with pumps that require lowering within three years of the onset of project pumping for a portion of the prevailing, customary cost for this service. The percentage of the cost reimbursed by the Tribe shall take into consideration the degree to which the impact is caused by project pumping vs. pumping by other wells, and the degree to which a well’s capacity may have been reduced in the absence of project pumping due to shallow placement of the pump intake. Replacement discharge piping shall not be reimbursed, and replacement of

pumps shall not be reimbursed unless the pump was damaged due to project-related interference drawdown. In order to be eligible, the well owner must provide the Tribe with documentation of the well location and construction, including pump intake depth, and that the well was constructed and usable before project pumping was initiated. The Tribe must be made aware of the cost reimbursement claim prior to lowering of the pump intake, so that the need for possible well deepening, replacement or rehabilitation can be assessed. At the Tribe's discretion, compensation may be paid toward well deepening, replacement, or rehabilitation in lieu of toward lowering the pump intake.

- c. Increased Electrical and Maintenance Cost (Impact 4) – The Tribe shall reimburse well owners pumping more than 100 acre-feet/year for their additional annual electrical costs at the prevailing electrical rate based on the following formula:

$$\text{KWhr/year} = \frac{(\text{gallons Pumped/year}) \times (\text{feet of interference drawdown})}{1,621,629}$$

In order to qualify for reimbursement, the well owner must provide proof of the actual annual volume of water pumped and/or the electrical usage associated with the pumping. As an alternative to annual payments, a one-time lump sum payment of a mutually agreeable amount could be made.

- d. No reimbursement would be made available for wells installed after operation of the project wells commences.
  - e. For any of the above impacts, the Tribe may choose at its discretion to provide the well owner with a connection to a local public or private water supply system in lieu of the above mitigation measures, at reduced cost in proportion to the extent the impact was caused by project pumping.
  - f. The known owners of identified wells within two miles of the project pumping well(s) shall be notified of the well impact compensation program outlined above before project pumping begins.
  - g. We recommend that the Tribe contract with a third party, such as Sonoma County, to oversee this well impact compensation program.
- O. The proposed storm water detention basin shall retain a portion of the storm water runoff, where it will percolate into the ground, if possible without compromising primary stormwater flow control objectives.

### 6.3 AIR QUALITY

#### Construction Impacts

- A. The generation of construction-related PM<sub>10</sub> and PM<sub>2.5</sub> emissions would cause a less-than-significant impact. However, Basic Control Measures and Enhanced

Control Measures from Table 2 of the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines - Assessing the Air Quality Impacts of Projects and Plans are recommended as mitigation during construction.

- a. The Tribe shall designate an on-site Air Quality Construction Mitigation Manager (AQCMM) who shall be responsible for directing compliance with mitigation measures for the construction project.
  - b. Basic Control Measures shall include the following:
    - i. Water all active construction areas at least twice daily.
    - ii. Cover all truckloads hauling soil, sand, and other loose materials or require all truckloads to maintain at least two feet of freeboard.
    - iii. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers to all unpaved access roads, parking areas and staging areas at construction sites.
    - iv. Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
    - v. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
  - c. Enhanced Control Measures shall include the following:
    - i. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
    - ii. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.)
    - iii. Limit traffic speeds on unpaved roads to 15 mph.
    - iv. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
    - v. Replant vegetation in disturbed areas as quickly as possible.
    - vi. Use of construction entrances to reduce soil/dust transport off-site.
    - vii. Time-staged construction shall be used to avoid dust/open soils.
- B. The generation of ROG, NO<sub>x</sub>, PM<sub>10</sub>, and diesel particulate matter emissions from construction equipment would cause a less-than-significant impact. However, implementation of the following basic measures are recommended during construction in order to further reduce the effects from construction activities:
- a. To the extent that equipment and technology is available and cost effective, the contractor shall use catalyst and filtration technologies
  - b. All diesel-fueled engines used in construction shall use ultra-low sulfur diesel fuel containing no more than 15-ppm sulfur, or a suitable alternative fuel.
  - c. All construction diesel engines, which have a rating of 50 hp or more, shall meet the Tier II California Emission Standards for off-road compression-



ignition engines, unless certified by the AQCMM that such an engine is not available for a particular use. In the event that a Tier II engine is not available, Tier I compliant or 1996 (or newer) engines will be used preferentially. Older engines will only be used if the AQCMM certifies that compliance is not feasible.

- d. All diesel fueled engines used in construction shall have clearly visible tags or other suitable means of identification showing that engine meets the above requirements
- e. Idle time shall be minimized to five minutes when the equipment is not in use, unless safety requirements or manufacturers specifications indicate that more time is required.
- f. Heavy duty diesel equipment shall be maintained in optimum running condition.

### **Operational Impacts**

- C. In coordination with the regional transportation agency, such as the Sonoma County Transit, the Golden Gate Transit, and the potential Sonoma Marin Area Rail Transit (SMART) rail, the Tribe shall provide the following to support regularly-scheduled community transit or shuttle service to and from the nearest mutually-acceptable major transit node:
  - a. Transit shelter benches,
  - b. Street lighting,
  - c. Route signs and display, and
  - d. Bus turnouts.
- D. The Tribe shall implement feasible travel demand management (TDM) measures for a project of this type. These measures shall include, but are not limited to:
  - a. Designation of an on-site TDM coordinator.
  - b. Provisions to encourage bicycle commuting. Bicycle lanes and parking areas will be provided wherever appropriate and feasible.
  - c. Provision of transit use incentives, provision of information, printed schedules and commuter promotions.
  - d. Carpool incentives, such as monetary or other rewards will be made available to employees.
  - e. Installation of secure bicycle parking facilities at commercial areas.
- E. Buses and other commercial diesel-fueled vehicles shall comply with the California Air Resource Board's (CARB) Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Section 2485), which requires that the driver of any diesel bus shall not idle for more than five minutes at any location, except in the case of passenger boarding where a ten minute limit

is imposed, or when passengers are onboard. Furthermore, the Tribe shall provide a “Drivers Lounge” for bus and truck drivers to discourage idling.

- F. Where feasible, the Tribe shall use alternative fuels for casino vehicles.
- G. The Tribe shall encourage and facilitate the use of ‘carpools’ for construction workers and facility employees; tour buses for casino patrons to reduce vehicular use and air pollution.
- H. The Tribe shall maintain all vehicles to manufacturer’s specifications.
- I. The Tribe shall ensure that buildings are oriented to take advantage of solar heating and natural cooling, and use passive solar designs.
- J. The Tribe shall ensure use of solar, low-emission, central, or tankless water heaters and install wall insulation that shall exceed Title 24 requirements.
- K. If mechanical ventilation is included in the parking structure design, the exhaust shall be vented in a direction away from inhabited areas. Directing the exhaust away from inhabited areas would reduce the impacts of parking structure-generated CO to a less-than-significant level.
- L. The Tribe shall ensure that all shift changes occur during non-peak hours.
- M. A minimum of 20 percent of landscape maintenance equipment used by the Tribe shall be electric and outlets shall be provided on the exterior of all buildings for this use.
- N. A final Conformity Determination has been issued (see FEIS Appendix W) based upon evidence of conformance with the State Implementation Plan (SIP) for NO<sub>x</sub> and CO through the purchase of 149 tons of NO<sub>x</sub> Emission Reduction Credits (ERCs). The ERCs will be purchased in the BAAQMD pursuant to an enforceable contract to purchase the ERCs before the start of construction (see FEIS Appendix W, Addendum 1).
- O. Regional air quality impacts would be reduced, but not to a level that is less than significant for ROG, NO<sub>x</sub>, or PM<sub>10</sub> with the addition of Mitigation Measures 6.3A-M. However, with the implementation of Mitigation Measures 6.3N, NO<sub>x</sub> impacts are less than significant. With the implementation of Mitigation Measures 6.3P, ROG and PM<sub>10</sub> impacts would be less than significant, assuming Mitigation Measure P is cost and technologically feasible and appropriate mitigation programs are available within the air basin (see **Table 1**). If Mitigation Measure P is not implemented; then a significant and unavoidable impact to air quality would remain.
- P. One or more of the following measures will be implemented to reduce ROG and PM<sub>10</sub> emissions to less than 15 tons per year and PM<sub>2.5</sub> to less than 100 tons per year.
  - a. Pave or resurface unpaved roadway(s) or roadway(s) in a deteriorated state within the San Francisco Bay Area Air Basin, which have a minimum daily vehicle count of 100 vehicles.

- b. Contribute to a program to retrofit residential fireplaces that do not meet USEPA certification standards within the San Francisco Bay Area Air Basin.
- c. Purchase low emission buses to replace older municipal or school buses used within the San Francisco Bay Area Air Basin.
- d. Purchase hybrid vehicles to replace existing governmental fleet vehicles within the San Francisco Bay Area Air Basin.
- e. Purchase and install on-site or within the San Francisco Bay Area Air Basin; a photovoltaic array, wind powered energy, and/or other form(s) of renewable energy.
- f. Contribute a fair share percentage to the synchronization of traffic signals within the San Francisco Bay Area Air Basin.
- g. Purchase Emission Reduction Credits if available from sources within the San Francisco Bay Area Air Basin.

**TABLE 1**  
MITIGATED OPERATION EMISSIONS – VARIANT H-SUB 1

Sources	ROG	NOx	PM <sub>10</sub>	PM <sub>2.5</sub> <sup>1</sup>
	tpy	tpy	tpy	tpy
Mitigated Emissions (all mitigation except 5.2.3 P)	72.38	123.07	139.61	138.49
Reduction from Mitigation Measure 5.2.3 P	57.38	123.07	124.61	38.49
Final Mitigated Emissions	15	0	15	100
Significant Effect?	No	No	No	No

Note: tpy = tons per year. N/A = Not Applicable

<sup>1</sup> CARB speciation profile shows that 99.2% of PM<sub>10</sub> is PM<sub>2.5</sub> for gasoline powered engine emissions and 92.0% for diesel powered engine emissions. 99.2% is assumed here for a conservative analysis. See Attachment 7 to this ROD for a technical memorandum demonstrating the conservative nature of this assumption.

Source: URBEMIS, 2007.

### Odor Impacts

- Q. The WWTP shall be constructed with comprehensive odor control facilities, including the injection of odor control oxidants at the sewage lift station and construction of a covered headworks with odor scrubber at the WWTP.
- R. Spray drift from the WWTP or spray disposal field shall be monitored daily during operation by qualified personnel. Spray drift from these two sources shall not be allowed to migrate out of the plant’s property boundaries. In the event that spray drift emanating from sprayfield does migrate outside of the property boundaries, operational measures shall be taken to eliminate offsite drift of spray.
- S. Spray field irrigation will cease when winds exceed 30 mph.

### Toxic Air Contaminants

- T. Proposed commercial land uses (e.g., loading docks) that have the potential to emit toxic air emissions shall be located as far away as feasibly possible from existing and proposed sensitive receptors in accordance with CARB’s Air Quality and Land Use Handbook. In addition, loading docks will provide refrigeration trucks with electrical outlets. Truck using the loading docks shall not idle for more than five minutes.
- U. Air intakes associated with the heating and cooling system for buildings shall not be located next to potential TAC-emitting locations (e.g., loading docks) in accordance with CARB’s Air Quality and Land Use Handbook.

**Indoor Air Quality**

- V. The Tribe shall ensure that ventilation of outdoor air is consistent with American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE) Standard 62-1999<sup>2</sup> under all operating conditions.
- W. To limit public exposure to environmental tobacco smoke, the Tribe shall provide non-smoking areas, or “smoke-free zones” in the casino gaming area.
- X. The Tribe shall provide non-smoking rooms in the hotel.
- Y. The Tribe shall ensure that comfort levels are acceptable to most occupants, and be consistent with ASHRAE Standard 55-1992<sup>3</sup>, under all operating conditions.
- Z. Signage shall be prominently displayed alerting patrons and employees of areas that permit smoking, noting that environmental tobacco smoke has been found to be deleterious to health, and noting the availability of a brochure(s) describing the health effects of exposure environmental tobacco smoke.
- AA. A brochure(s) describing the health effects of exposure to environmental tobacco smoke shall be made available to casino patrons in common areas that permit smoking.
- BB. Prospective employees shall be informed, prior to their hire, that indoor smoking is permitted in portions of the buildings where they may be employed.
- CC. Prospective employees shall be given a brochure(s) describing the health effects of exposure to environmental tobacco smoke.

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<sup>2</sup> ASHRAE Standard 62-1999, *Ventilation for Acceptable Indoor Air Quality*, is the generally accepted standard for commercial buildings in the United States.

<sup>3</sup> ASHRAE Standard 55-1992, *Thermal Environmental Conditions for Human Occupancy*, identifies many factors that influence thermal comfort and the perception of thermal conditions. Among them are temperature, radiation, humidity, air movement, vertical, and horizontal temperature differences, temperature drift, personal activity, and clothing.

- DD. The Tribe shall ensure that significant expected sources of pollutant emissions are isolated from occupants using physical barriers, exhausts, and pressure controls.
- EE. The Tribe shall ensure that outdoor air entering the building is protected from contamination from local outdoor sources and from building exhausts and sanitation vents.
- FF. The Tribe shall ensure that provisions are made for easy access to heating, ventilation, and air conditioning (HVAC) equipment requiring periodic maintenance.
- GG. The Tribe shall ensure that occupant exposure to construction contaminants is minimized using protocols for material selection, preventive installation procedures, and special ventilation and pressure control isolation techniques.
- HH. The Tribe shall ensure the use of low-emitting building products pursuant to Integrated Waste Management Board’s Section 01350 where feasible.

**Climate Change**

As noted in **Table 2**, a less than significant cumulative impact to global climate change would result after the implementation of Air Quality Mitigation Measures E. In addition, the implementation of the following mitigation measures is recommended, subject to the discretion of the Tribe, to further reduce project climate change impacts.

**TABLE 2  
Preferred Alternative Compliance with State emissions reduction strategies**

Exec Order S-3-05 / AB 32 Strategy	Project Design / Mitigation Measure Compliance
Diesel Anti-Idling: In July 2004, the CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.	Project would be in compliance after implementation of Air Quality Mitigation Measure E.
Achieve 50 percent statewide Recycling Goal: Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills. A diversion rate of 48 percent has been achieved on a statewide basis. Therefore, a 2 percent additional reduction is needed.	Project would be in compliance as discussed in FEIS Section 4.12.
Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions	Project would be in compliance as discussed in FEIS Section 4.12.

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SOURCE: State of California, Environmental Protection Agency, and Climate Action Team, 2006

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- II. The Tribe shall ensure the use of low-emitting building products pursuant to Integrated Waste Management Board’s Section 01350 where feasible.
- JJ. The Tribe shall plant trees and vegetation on-site or fund such plantings off-site. The addition of photosynthesizing plants would reduce atmospheric CO2, because

plants use CO<sub>2</sub> for elemental carbon and energy production. Trees planted near buildings would result in additional benefits by providing shade to the building; thus reducing heat absorption, reducing air conditioning needs and saving energy.

- KK. The Tribe shall ensure use of solar, low-emission, central, or tankless water heaters and install wall insulation that shall exceed Title 24 requirements.
- LL. The Tribe Shall use energy efficient appliances in the hotel and casino.
- MM. Environmentally preferable materials shall be used to the extent practical for construction of facilities.
- NN. The Tribe shall install a photovoltaic cell array(s) on the roof of the proposed parking garage and/or the roof(s) of other on-site structures, if feasible. The installation of photovoltaic (PV) on-site would reduce dependence on Pacific Gas and Electric (PG&E) electricity. PV cells convert energy from the sun into electrical energy with no emission of green house gases (GHGs); thus, the indirect GHG emissions would be reduced.
- OO. The Tribe shall enroll in the ClimateSmart program that is offered to PG&E customs to reduce their indirect GHG emissions form electrical generation to zero. PG&E provides electricity uses with the opportunity to become “carbon neutral” under the ClimateSmart program.
- PP. The Tribe shall purchase CO<sub>2</sub>e offsets to reduce or eliminate GHG impacts, where feasible.
- QQ. The Tribe shall increase the recycling goal noted in Mitigation Measure 5.2.8d from 25 to 50 percent.

#### **6.4 BIOLOGICAL RESOURCES**

- A. For impacts to wetlands or other waters of the U.S., authorization from the USACE is required. Replacement of directly affected wetlands will be at a ratio approved by the USACE. Clean Water Act Section 401 water quality certification will also be required from the USEPA.
- B. Wetland mitigation shall be accomplished through creation/restoration of seasonal wetlands onsite and/or within an open space preserve. This creation/restoration will provide an increase in the inventory of seasonal wetlands for the area. The proposed 1.5:1 ratio of seasonal wetland restoration/creation to impacted acreage is expected to be sufficient to satisfy the ratio of replacement to impacted acreage required by regulatory agencies based on wetland functions and values present on the Wilfred Site. A detailed mitigation plan shall be designed that includes monitoring and reporting requirements, responsibilities, performance success criteria, reporting procedures and contingency requirements.

- C. A plan shall be developed and implemented to conserve ecological resources in the southern portion of the Wilfred Site. The plan shall address management activities to ensure maintenance of breeding, refugial, and dispersal habitats for California tiger salamander (CTS); and should provide a grazing regimen that will conserve populations of Sonoma sunshine and Burke’s goldfields. The current mitigation ratios for listed plants species on the Santa Rosa Plain as required in the Programmatic Biological Opinion are based on the presence of suitable versus occupied habitat, and the potential for presence of Burke's goldfields and Sonoma sunshine; or Sebastopol meadowfoam. The site is considered to be occupied if surveys conducted using the USFWS protocol determined presence of the plants, or if the site had listed plants in the past. Protocol botanical inventories for federal listed plants on the Santa Rosa Plain consist of a minimum of three site visits per year and a minimum of two years of negative survey data within three years of project proposal submission to substantiate a negative finding. Under the Programmatic Biological Opinion, seasonal wetlands such as those present on the Wilfred Site and that are within the range of the three listed plants species are considered suitable habitat for the listed plants even if intensive surveys fail to locate their presence. This provision is necessary because seed banks are often persistent; some plant species may not produce seedlings for many years until conditions are appropriate.

The mitigation requirements for the Preferred Alternative are shown in **Table 3**

**TABLE 3**  
**Preferred Alternative Mitigation Requirement for Impacts to Listed Plant Species of the Santa Rosa Plain**

	<b>Acres</b>
Seasonal Wetland Impacts	0.55
Mitigation – Occupied/Established Habitat	0.55
Mitigation – Established Habitat	0.275
<b>Total Mitigation Requirement</b>	<b>0.775</b>

Source: AES, 2009

- D. Development impacts on CTS aestivation habitat on the Wilfred Site have been evaluated in a USFWS Biological Opinion, issued on February 3, 2009. This approved BO requires mitigation for CTS aestivation habitat at a ratio of 1:1 within 1.3 miles of a known breeding site and 3:1 for projects that are within 500 feet of an adult occurrence.

With impacts to 81.13 acres of CTS habitat, Variant H-sub1 would require the purchase of 88.84 acres in a mitigation bank or of farmland purchase and placement under a conservation easement. Impacts to CTS aestivation habitat shall be mitigated off-site and shall consist of purchase of CTS credits from an approved mitigation bank or purchase of farmland providing suitable habitat for CTS (where CTS are known to occur) and placement of the land under conservation easement.

At least a 50-foot buffer shall be maintained between wetlands and sprayfields. Mitigation plans shall also include relocation of CTS from development areas (including locations of created wetlands), the use of biological monitors on a daily basis during construction and or excavation activities, and fencing to exclude the CTS from entering the construction zone. Prior to construction work beginning each morning, the biological monitor will check equipment for animals and CTS under construction equipment and stored pipes. The biological monitor shall also check all steep-walled holes and trenches greater than one foot in depth for any CTS. The biological monitor shall remove CTS as needed from equipment and construction-related features (i.e., trenches, holes, etc.). Purchase of credits at an off-site mitigation bank may be implemented if determined to be appropriate by the USFWS during the Section 7 consultation process.

- E. A pre-construction survey for burrowing owls shall be conducted to ensure impacts to burrowing owls, if present in the construction area, do not occur during the nesting season. The pre-construction survey shall be conducted within 30 days prior to initiation of construction activity. If active burrows are found prior to the nesting season, passive relocation measures shall be provided for each burrow in the area of the Wilfred Site, as appropriate, that is rendered biologically unsuitable. Passive relocation measures shall include the creation of two natural or artificial burrows for each burrow rendered biologically unsuitable. Daily monitoring shall be implemented until the owls have been relocated to the new burrows. This measure will reduce potential impacts to burrowing owls. Other mitigation measures may be implemented, in lieu of the proposed mitigation, including avoidance or passive relocation with one-way doors, as outlined in the “Staff Report on Burrowing Owl Mitigation” (CDFG, 1995).
- F. Pre-construction surveys for nesting birds shall be conducted within 30 days prior to initiation of construction activity. If feasible, construction and tree removal (grubbing, vegetation removal) should be timed to take place during late summer months and through winter, ideally from September through February, to avoid impacting nesting birds and other sensitive wildlife species. The approximate nesting season extends from February to September, with a peak nesting period between March through June. If construction or grubbing activities are to take place between late February and late June, a pre-construction survey shall be performed by a qualified biologist to identify any active nests or other special-status species, at least two weeks prior to the start of construction. If bird nests are found, appropriate buffer zones shall be established around all active nests to protect nesting adults and their young from construction disturbance. Through direct consultation with wildlife agency staff, the size of buffer zones shall be determined based on site conditions and species involved. If impacts to nests are unavoidable, consultation shall continue with specific agency guidelines followed for relocation. If construction is delayed for more than two weeks, a second survey shall be performed.
- G. All grading and clearing shall be conducted after April 15 and before October 15 of any year, depending on rainfall and/or site conditions to minimize erosion.



Access roads and routes will be limited, as well as the construction staging area, to the minimum size required to achieve the goals of the project. A speed limit of 15 mph on dirt roads shall be maintained. These practices will limit erosion and dust borne particles.

- H. During construction, vegetation shall only be cleared from the permitted construction footprint and necessary lay-down and assembly areas. Areas cleared of vegetation, pavement, or other substrates shall be stabilized as quickly as possible and BMPs applied (erosion fencing, straw and other material applied to soils) to prevent erosion and runoff that could affect steelhead fish in the Laguna de Santa Rosa.
- I. Hazardous materials including fuels, oils, solvents, etc., shall be stored in sealed containers in a designated location at a minimum of 200 feet from aquatic environments. All fueling and maintenance of equipment shall be conducted at a minimum of 200 feet from aquatic environments.
- J. All food items and food-related trash shall be sealed in containers prior to leaving the construction site at the end of the workday; these items shall be removed from the site once every three days. This measure will limit attraction of wildlife and eliminate trash pollution in the Laguna de Santa Rosa.
- K. Where appropriate, vegetation removed as a result of project activities shall be replaced with native species that are of value to local wildlife. Native plants have a significant cultural value, are generally more valuable as wildlife food sources, and require less irrigation, fertilizers, and pesticides than exotic species.
- L. Turn off as many exterior and interior lights as possible during the peak bird migration hours of midnight to dawn to reduce potential building collisions with migration birds.
- M. Install downcast lights with top and side shields to reduce upward and sideways illumination. This will reduce potential disorientation affects from non-directed shine to birds and wildlife species.
- N. The Tribe shall make feasible changes to the parking lot design, in consultation with the USACE, to reduce wetland fill.

## **6.5 CULTURAL RESOURCES**

- A. The Tribe will implement all mitigation measures concurred upon by the State Historic Preservation Officer (SHPO) during the Section 106 consultation process, including, but not limited to, the following:
  - a. Site RPC- 5 shall be avoided by all ground disturbing activity.

- B. To avoid potential impacts to previously unknown cultural resources, including subsurface resources, the Tribe shall include the following requirements in construction contract specifications for the project:
- a. In the event of any inadvertent discovery of archaeological resources during construction-related earth-moving activities, all such finds shall be subject to Section 106 of the National Historic Preservation Act (NHPA) as amended (36 CFR 800). Once the land has been taken into trust for the Tribe, the inadvertent discovery of archaeological resources is also subject to the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC 3001 et seq.) and the Archaeological Resources Protection Act (ARPA) of 1979 (16 U.S.C. 470 aa-mm). Specifically, procedures for post review discoveries without prior planning pursuant to 36 CFR 800.13 shall be followed. The following shall apply to the inadvertent discovery of both archaeological or paleontological resources: All work within 50 feet of the find shall be halted until a professional archaeologist, or paleontologist as appropriate, can assess the significance of the find. If any find is determined to be significant by the archaeologist, or the paleontologist, then representatives of the Tribe and BIA shall meet with the archaeologist, or paleontologist, to determine the appropriate course of action.
  - b. If human remains are discovered during ground-disturbing activities on Tribal lands, pursuant to Native American Grave Protection and Repatriation Act (NAGPRA), Section 10.4 Inadvertent Discoveries, the County coroner, the Tribal Official, and representatives from the BIA and NIGC shall be contacted immediately. No further disturbance shall occur until the County coroner, the Tribal Official, and the BIA and NIGC representatives have made the necessary findings as to the origin and disposition.

## 6.6 SOCIOECONOMIC CONDITIONS AND ENVIRONMENTAL JUSTICE

- A. The Tribe shall provide annual payments of at least \$157,500 to Sonoma County to mitigate for fiscal impacts to Sonoma County. The County and the Tribe are free to negotiate payments greater than this amount; however, a MOU must at least provide for annual payments of \$157,500 in order to mitigate fiscal impacts to a less-than-significant level.
- B. Given that Variant H-sub1 has a gaming component that is smaller than FEIS Alternatives A-C, but still larger than most in California, the same crime mitigation payments cited in FEIS Table 5-5 (**Table 4** below) and the City of Rohnert Park MOU would apply. Thus, the Tribe shall provide annual payments of at least \$500,000 to the City of Rohnert Park and \$700,000 to Sonoma County and the additional neighboring cities (distributed per **Table 4**).

**TABLE 4  
Crime Impact Mitigation**

<b>Jurisdiction</b>	<b>Minimum Mitigation (dollars)</b>
Cotati	\$12,808
Petaluma	\$102,591
Santa Rosa	\$286,923
Sebastopol	\$14,596
Unincorporated Sonoma County	\$283,082

SOURCE: Bay Area Economics, 2008. Final Socio-economic Impact Study for the Proposed Graton Rancheria Hotel/Casino Project, February 8, 2008.

- C. The Tribe shall provide at least \$250,000 per year to a problem gambling treatment and prevention program(s). In order to maximize the effectiveness of MOU payments to treatment and prevention programs, the organization that receives the payments for problem gambling treatment must serve the Sonoma County region, and be accessible to County residents.
- D. The Tribe shall prominently display (including on any automatic teller machines (ATMs) located on-site) materials describing the risk and signs of problem and pathological gambling behaviors. Materials shall also be prominently displayed (including on any ATMs located on-site) that provide available programs for those seeking treatment for problem and pathological gambling disorders, including, but not limited to a toll-free hotline telephone number.
- E. The Tribe shall train employees to recognize domestic violence and sexual assault situations, display domestic violence hotline numbers, and work with local agencies in domestic violence and sexual assault prevention.
- F. The Tribe shall conduct annual customer surveys in an attempt to determine the number of problem and pathological gamblers and make this information available to City of Rohnert Park, Sonoma County, state, or federal gaming regulators upon request.
- G. The Tribe shall undertake responsible gaming practices that at a minimum require that employees be educated to recognize signs of problem gamblers, that employees be trained to provide information to those seeking help, and that a system for voluntary exclusion be made available.
- H. ATMs shall be not be visible from gaming machines and gaming tables.

**6.7 RESOURCE USE PATTERNS**

**Transportation/Circulation**

Recommended intersection improvements identified in the FEIS traffic impact study (FEIS Appendix O) and the revised traffic impact study in ROD Attachment 4 are identified in **Table 5**. Additional detail on the recommended intersection improvements is contained in Appendix O of the FEIS and Attachment 4. Refer to FEIS Appendix O for traffic improvement recommendations that do not differ between Alternatives A and H (and hence would be the same for Variant H-sub1). Where traffic improvement recommendations differ between Alternatives A and H in FEIS Appendix O, refer to Attachment 4 for the Variant H-sub1 improvement recommendations.

In order to reduce or eliminate Variant H-sub1's traffic impact, the Tribe must pay either a proportionate share or the full cost of the implementation of the recommended traffic improvements. A proportionate share is required when the level of service (LOS) at the study intersection is recorded as an unacceptable LOS without the addition of project trips. In such cases, the Tribe shall be responsible for the incremental impact that the added project trips generate, calculated as a percentage of the costs involved for construction of the mitigation measure. The proportionate share is derived from the percentage that the added project trips contribute to the new total trips at the study intersection. The proportionate share calculation methodology recommended by the agency with jurisdiction shall be used for each individual improvement. In most cases, a full share is required when the LOS at the study intersection is recorded as an acceptable LOS without the addition of project trips. An exception to this general requirement is situations where the project's contribution to operation of an intersection may be relatively small, but sufficient to cause an intersection that is on the verge of operating unacceptably to operate at an unacceptable LOS. Note that the Tribe has independently agreed to "fund any and all mitigation improvements for Wilfred Avenue set forth in the FEIS which are within the County's jurisdiction when the improvements are made, including, but not limited to, any required acquisitions for right of way, environmental studies, and road improvements."

The Tribe shall make funding for implementation of the recommended near term road improvements available prior to initiation of project construction. Funding for long term improvements shall be made available prior to 2020. Funds shall be placed in an escrow account for use by the governmental entity with jurisdiction over the road to be improved so that the entity may design (funding shall be for design standards consistent with those required for similar facilities in the region, unless a deviation is approved by the entity with jurisdiction), obtain approvals/permits for, and construct the recommended road improvement (note that the entity may request that the Tribe directly perform some of these tasks). In some cases, the governmental entity may feel that an improvement slightly differing from that recommended may better facilitate traffic flow while still mitigating the alternative's impact. In this case, the terms of the escrow account shall allow use of the funds provided by the Tribe to implement the improvement even though the improvement differs slightly from that recommended by the traffic impact study.

- A. Since Caltrans' funding is limited, the Tribe shall pay for a proportionate share of the remaining costs (if any) to implement the Caltrans high-occupancy vehicle (HOV) projects along US-101 between Wilfred Avenue and Old Redwood

Highway, thereby assisting in a more expedited and timely construction schedule (near term).

- B. The Tribe shall contribute a proportionate share of the costs to widen Wilfred Avenue from Redwood Drive to Langner Avenue to three lanes in the near term and five lanes in the long term (2020).
- C. The Tribe shall support efforts to complete the US-101 HOV lane project so that it can become operational prior to the scheduled completion as estimated by Caltrans (near term).
- D. The Tribe shall contribute a proportionate share of the remaining costs (if any) of the construction of the Wilfred Avenue interchange project, including HOV lanes, ramp metering, and auxiliary lanes and support efforts related to the completion of the project in a timely fashion (near term).
- E. The ramp metering shall be adjusted to account for the additional project traffic at the Wilfred Avenue interchange in the long term (2020).
- F. The Tribe shall contribute a proportionate share to the construction of an additional traffic lane in the southbound direction from Santa Rosa Avenue to Rohnert Park Expressway and from SR-116 to West Sierra Avenue (2020). The Tribe shall contribute a proportionate share to the construction of auxiliary lanes between Rohnert Park Expressway and SR-116 (2020).
- G. Should the above additional traffic lane mitigation on US-101 be infeasible or unavailable as mitigation in the near-term or long-term, the Tribe shall investigate other options to reduce traffic congestion on US-101, such as partial funding of the planned SMART commuter transit system and other regional transit programs.
- H. A Traffic Management Plan (TMP) shall be prepared in accordance with standards set forth in the United State Department of Transportation (USDOT) *Manual on Uniform Traffic Control Devices for Streets and Highways*. The traffic management plan shall be submitted to each affected local jurisdiction and/or agency. Also, prior to construction, the Tribe shall work with emergency service providers to avoid obstructing emergency response service. Police, fire, ambulance, and other emergency response providers shall be notified in advance of the details of the construction schedule, location of construction activities, duration of the construction period, and any access restrictions that could impact emergency response services. The TMP shall include details regarding emergency service coordination. Copies of the TMP shall be provided to all affected emergency service providers.

**TABLE 5  
PREFERRED ALTERNATIVE INTERSECTION MITIGATION**

FEIS Intersection #	Intersection Improvements	Near Term*	2020
		Share	Share
1	<b>Wilfred/Stony Point</b>		
	Signalize	P	P
5	<b>Labath/Wilfred</b>		
	Signalize	P	P
	Add WB left and change WB all shared to through-right	P	
	Add NB right and change NB all shared to left-through	P	P
6	<b>Dowdell/Wilfred</b>		
	Signalize	P	P
	Add WB left and change WB all shared to through right	P	
	Add EB left and change EB all shared to through-right	P	
7	<b>Wilfred/Redwood</b>		
	Change WB left-through to through	F	P
	Change phasing east-west to protected from split	F	P
	Optimize signal timing	F	P
	Add EB left and EB right and change EB all-shared to through-right	F	
10	<b>Golf Course/Commerce</b>		
	Add EB right turn overlap phase	-	P
12	<b>Commerce Blvd./US-101 NB Ramps</b>		
	Construct State Farm – Business Park Overcrossing and a southbound slip ramp from the US-101 NB Ramps to the overcrossing	F	F
14	<b>Business Park/Labath</b>		
	Preferred Alternative access intersection	F	F
17	<b>Labath/Rohnert Park Expwy</b>		
	Extend SB left turn bay to 350 feet (from 100 feet)	F	F
20	<b>US-101 NB Ramps/Rohnert Park Expwy</b>		
	Extend NB left turn lane bay to 400 feet (from 225 feet)	F	F
	Add second NB left turn lane	F	F
21	<b>Commerce Blvd./Rohnert Park Expwy</b>		
	Optimize signal timing	F	-
	Add an EB right turn overlap phase	F	-
22	<b>Stony Point Rd./SR-116</b>		
	Optimize signal timing	-	F
	Add an EB right turn bay for 100 feet	-	F
26	<b>Millbrae/Stony Point Rd</b>		
	Signalize	P	P

NOTE: F = full cost of mitigation measure, P = proportionate cost of mitigation measure, NB = northbound, SB = southbound, EB = eastbound, WB = westbound

- Near term improvements correspond with improvements labeled “2008” in the FEIS. Funding of these improvements shall occur according to the instructions found at the beginning of Section 6.8 in order to ensure that these improvements are in place as near as possible to the project opening date.

SOURCE: Kimley-Horn and Associates, Inc., 2008. Graton Rancheria Casino and Hotel – Alternative A, B, C, D, E, & F Final Traffic Impact Study. July 2008.

- I. Flagging done in consultation with the California Highway Patrol (CHP), Caltrans, and the County's Sheriff's Department, shall be provided when necessary to assist with traffic control.
- J. Importation of construction material shall be scheduled outside of the area wide commute peak hours.
- K. Preferential carpool or vanpool spaces shall be provided at the site to encourage ridesharing by employees and patrons.
- L. The Tribe shall sponsor charter buses from destinations such as Marin County and the North Bay.
- M. The Tribe shall provide a shuttle between the casino and Rohnert Park transit hubs that would operate on a half hour rotational basis during busy hours and on a on call basis in the times when the frequency of employees and patrons arriving or leaving busy is low.
- N. Where feasible, lane closures or obstructions associated with construction shall be limited to off-peak hours to reduce traffic congestion and delays.
- O. Prior to construction, the Tribe shall work to notify all potentially affected parties in the immediate vicinity of the Wilfred Site, as appropriate. Notification shall include a construction schedule, location of construction activities, the duration of construction period, and alternative access provisions.
- P. Emergency service providers shall be notified of the areas that have the greatest potential for unusual traffic delays as a result of construction activities. Specific detours shall be recommended to circumvent any area that might suffer traffic delays.
- Q. The Tribe shall coordinate with the Green Music Center during events that will generate high traffic levels. During that period, traffic control services at the Rohnert Park Expressway interchange may be necessary. Thus, the Tribe shall provide funding for special event traffic monitoring at the Rohnert Park Expressway interchange to identify conflicts during outdoor events generating high traffic levels. Should conflicts occur, the Tribe shall provide traffic management coordination between the project and the Green Music Center, in consultation with the CHP and Caltrans.
- R. Debris along construction vehicle routes shall be monitored daily during construction and the roadways cleaned as necessary.
- S. The Tribe shall contribute their fair share to bicycle and pedestrian facilities that will increase casino patronage. The Tribe shall consider bicycle and pedestrian circulation in the design of intersections and turning movements, and that adequate

sidewalk facilities, striped crosswalks, and pedestrian countdown signals for elderly and disabled citizens be provided.

- T. The Tribe shall minimize the amount of construction fill transported on the surrounding street network by eliminating the off-site travel route except where necessary to obtain materials that cannot be obtained on-site. Potential options for eliminating off-site transport include moving fill material via conveyors across barriers such as creeks and ditches or installing temporary bridges for haul vehicles across the barriers.
- U. Construction material importation shall be scheduled outside of the area wide commute peak hours. Debris along the truck route caused by trucks should be monitored daily and the roadways shall be cleaned as necessary.
- V. Roadways subject to fill truck traffic shall be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. If the third party determines that roadway deterioration has occurred as a result of casino construction, the Tribe shall pay to have surrounding roadways resurfaced to restore the pavement to at least pre-construction condition, unless the resurfacing is already expected to occur within a year or sooner in conjunction with other planned or proposed roadway improvements. In any event, the Tribe shall fully fund the restructuring of Labath Avenue and Langner Avenue between Wilfred Avenue and Business Park Drive following construction to facilitate site access.
- W. Even if Wilfred Avenue is not widened to increase capacity, due to the increased use of the roadway in combination with future cumulative traffic, the Tribe shall make a proportionate share contribution to roadway improvements along Wilfred Avenue from Redwood Drive to Stony Point Road, including widened shoulders and Class II bike lanes consistent with applicable standards.

## **Land Use**

- X. The Tribe shall maintain the existing Williamson Act requirements in place in accordance with the provisions of that Act.

## **6.8 PUBLIC SERVICES**

### **Solid Waste**

#### *Construction*

- A. Construction waste shall be recycled to the fullest extent practical by diverting green waste and recyclable building materials away from the solid waste stream.



- B. Environmentally preferable materials shall be used to the extent practical for construction of facilities.

### *Operation*

- C. A solid waste management plan shall be adopted by the Tribe that addresses recycling and solid waste reduction on-site. The plan shall have a goal of at least 25% diversion of materials from disposal, which includes reduction, recycling, and reuse measures.
- D. The Tribe shall install a trash compactor for cardboard and paper products.
- E. The Tribe shall install recycling bins throughout the facilities for glass, cans, and paper products.
- F. Decorative trash and recycling receptacles shall be placed strategically throughout the area of the Wilfred Site, Stony Point site, or the Lakeville site, as appropriate, to encourage people not to litter at the facilities.
- G. Security guards shall be trained to discourage on-site littering.
- H. The Tribe shall pay all standard fees for trash collection and disposal.

### **Electricity, Natural Gas, and Telecommunication**

- I. Air conditioning and refrigeration systems shall utilize environmentally friendly refrigerants. Energy efficient chillers shall also be utilized.
- J. The air handling systems shall utilize outside air economizer cycles to take advantage of ambient cooling when the outside air temperature is below 55 degrees F
- K. For applicable alternatives, hotel and casino buildings shall be equipped with a direct digital energy management and control system to perform energy conservation measures, such as optimum start/stop, duty cycling, and demand limiting.
- L. The Tribe shall use energy efficient appliances where feasible.

### **Public Health and Safety**

- M. The Tribe shall make an agreement with the applicable City or County department to address inspection, maintenance, and operation of any swimming pools, spas, or hot tubs available to patrons. The terms of the agreement shall include design review of the swimming facilities, inspection of the swimming facilities prior to operation, and at least one annual inspection for seasonal swimming facilities or bi-annual inspections for year-round swimming facilities thereafter. The agreement shall include a commitment to comply with standards for design, maintenance, and operation similar to those followed by non-tribally owned businesses in the City or County, as applicable.

## Law Enforcement

- N. The Tribe shall provide on-site security to reduce and prevent criminal and civil incidents.
- O. The Tribe shall adopt employee training programs and policies relating to responsible beverage services with annual training, which would include, but not be limited to, checking patron identification and refusing service to those who have imbibed beyond their ability to function safely. The Tribe shall collaborate with law enforcement by warning intoxicated patrons not to drive and by reporting drunk drivers to the authorities.
- P. The Tribe shall support local law enforcement efforts in conducting driving under the influence (DUI) checkpoints and other programs known to reduce the impacts of alcohol on the community (support shall include fully funding at least one DUI checkpoint in the vicinity of the Wilfred Site monthly or less frequently at the discretion of local law enforcement providers).
- Q. All parking areas shall be well lit and monitored by parking staff and/or security guards. This will aid in the prevention of auto theft and other related criminal activity.
- R. The Tribe shall provide traffic control with appropriate signage and the presence of peak-hour traffic control staff. This will aid in the prevention of off-site parking, which could create possible security and safety issues.
- S. The Tribe shall pass an ordinance creating a standard policy that encourages responsible drinking and designated driver programs. As part of this policy, the employees serving alcohol shall undergo annual Responsible Beverage Service Training (RBST), also known as “server training.” RBST educates managers, servers and sellers at alcohol establishments about strategies to avoid illegally selling alcohol to underage youth or intoxicated patrons. The goal of RBST is to decrease the number of illegal alcohol sales to underage youth and intoxicated patrons through education programs. Information provided in server training must at a minimum include:

- The importance of checking age identification of customers who appear to be under the age of 30.
  - How to identify fake IDs and what to do once a fake ID is confiscated.
  - How to recognize situations in which adults are buying alcohol for underage youth.
  - How to refuse sales to individuals who may supply alcohol to underage youth.
  - How to identify intoxicated customers.
  - How to refuse service to underage youth and intoxicated customers.
- T. To mitigate potential impacts to law enforcement resources, the Tribe shall adopt rules prohibiting anyone under 21 years of age from gambling, adopt employee training programs and policies relating to responsible beverage services with annual training, conduct background checks of all gaming employees, provide a full complement of security personnel at the Wilfred Site during all times, and adopt programs and policies which discourage gang members from visiting the gaming facilities.
- U. Hotel management shall work collaboratively with school and law enforcement personnel to prevent the use of hotel rooms for parties involving minors and the hotel shall have an internal monitoring program to reduce the incidence of such parties
- V. Areas surrounding the gaming facilities shall have “No Loitering” signs in place, shall be well lit and shall be patrolled regularly. This will aid in the prevention of illegal loitering and loitering behavior that could potentially lead to other criminal acts.

**Fire Protection/Emergency Medical Service**

*Construction*

- W. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws. During construction, staging areas, building areas, and/or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fuel for combustion. To the extent feasible, the contractor shall keep these areas clear of combustible materials to maintain a firebreak.

### *Operation*

- X. The Tribe shall make reasonable provisions for adequate emergency, fire, medical, and related relief and disaster services for patrons and employees including the development of a disaster management plan.
- Y. The Tribe shall use fire resistant construction materials and equip all enclosed buildings with automatic sprinkler systems. The automatic sprinkler systems shall be designed to meet or exceed the National Fire Protection Association (NFPA) standards governing the different occupancies associated with the project structures.
- Z. The Tribe shall employ the most modern construction and fire-engineering techniques in their automatic fire containment system designs so that any fire encountered is contained to the room of origin.
- AA. Through the use of modern fire engineering technology, the Tribe shall create and maintain a facility equipped with early detection systems that assure an initial response time to any fire alarm (automatic, local, or report) within three minutes. These systems shall include automatic sprinkler systems in the occupied areas and smoke detection, along with automatic sprinkler systems, in the areas of the facility that are normally unoccupied, such as storerooms and mechanical areas.
- BB. If only one fire pump is provided, it will be either diesel, or provided with emergency power; thereby, meeting the requirements of the California Fire Code (CFC), and the CBC.
- CC. Prior to operation, the Tribe shall enter into an agreement with a fire service provider to provide primary fire protection services.
- DD. Prior to operation, the Tribe shall enter into a contract with AMR or another entity for ambulance service.

### **6.9 NOISE**

- A. On-site HVAC equipment shall be shielded to reduce noise.
- B. To the extent feasible, HVAC equipment shall be located a significant distance from neighboring houses along Whistler Avenue, Wilfred Avenue, and Labath Avenue. Whenever an HVAC unit is to be placed within 125 feet of an existing residence, an acoustical analysis shall be required to demonstrate that the HVAC noise level does not exceed 45 dBA at the nearest residence.
- C. The Tribe shall fully fund the cost of installation of acoustically-rated, dual pane windows (with a minimum Sound Transmission Class (STC) rating of 30) and acoustically rated doors on the facades facing the noise source(s) to minimize noise effects for residences adjacent to Wilfred Avenue between Redwood Drive and Stony Point Road.

- D. The Tribe shall fully fund the cost for the construction of raised, landscaped berms or solid walls at least 8 feet in height in order to separate sources of unwanted noise (including on-site traffic circulation noise) from potential noise receptors along Wilfred Avenue. Should a wall be installed, it shall be attractively designed. Adjacent landowners and adjacent governmental jurisdictions shall be consulted with prior to finalizing the design of the berm or wall.
- E. Unnecessary vehicle idling shall be prevented during loading dock operations occurring between the hours of 10:00 PM and 7:00 AM.
- F. Buses shall not be allowed to idle unnecessarily in areas adjacent to sensitive receptors. Bus parking areas shall also be located as far as feasible from sensitive receptors.
- G. To the extent feasible, project construction shall not occur prior to 7:00 AM or after 10:00 PM.
- H. Pile driving, should it take place, shall not occur prior to 9:00 AM or after 5:00 PM.
- I. On-site wastewater treatment plant equipment shall be shielded or enclosed.
- J. Stationary noise-producing equipment such as compressors and generators shall be placed as far as practical from homes, and shielding shall be provided between any such equipment and homes when it is necessary to operate the equipment closer than 200 feet from a home.

#### **6.10 HAZARDOUS MATERIALS**

- A. In the event that contaminated soil and/or groundwater are encountered during construction related earth-moving activities, all work shall be halted until a professional hazardous materials specialist or a qualified environmental professional can assess the extent of contamination. If contamination is determined to be significant, representatives of the Tribe shall consult with USEPA to determine the appropriate course of action, which may include the development of a Sampling Plan and Remediation Plan if necessary.
- B. To reduce the potential for accidental releases, fuel, oil, and hydraulic fluids shall be transferred directly from a service truck to construction equipment and shall not otherwise be stored on-site. Paint, paint thinner, solvents, cleaners, sealants, and lubricants used during construction shall be stored in a locked utility building, handled per the manufacturers' directions, and replenished as needed.
- C. Personnel shall follow written standard operating procedures (SOPs) for filling and servicing construction equipment and vehicles. The SOPs, which are designed to

reduce the potential for incidents involving the hazardous materials, shall include the following:

- a. Refueling shall be conducted only with approved pumps, hoses, and nozzles.
  - b. Catch-pans shall be placed under equipment to catch potential spills during servicing.
  - c. All disconnected hoses shall be placed in containers to collect residual fuel from the hose.
  - d. Vehicle engines shall be shut down during refueling.
  - e. No smoking, open flames, or welding shall be allowed in refueling or service areas.
  - f. Refueling shall be performed away from bodies of water to prevent contamination of water in the event of a leak or spill.
  - g. Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents.
  - h. Should a spill contaminate any soil, the soil shall be put into containers and disposed of in accordance with local, state, and federal regulations.
  - i. All containers used to store hazardous materials shall be inspected at least once per week for signs of leaking or failure. All maintenance and refueling areas shall be inspected monthly. Results of inspections shall be recorded in a logbook that shall be maintained on-site.
  - j. Staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fuel for combustion. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak.
  - k. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order.
- D. The amount of hazardous materials used in project construction and operation shall be kept at the lowest required volumes.
- E. The least toxic material capable of achieving the intended result shall be used to the extent practicable. Non-toxic alternatives shall include garden care products and organic non-toxic cleaners when feasible.

- F. A hazardous materials and hazardous waste minimization program shall be developed, implemented, and reviewed annually by the Tribe to determine if additional opportunities for hazardous materials and hazardous waste minimization are feasible, for both project construction and operation.
- G. Use of pesticides and toxic chemicals shall be minimized to the greatest extent feasible in landscaping; or less toxic alternatives shall be used.
- H. In addition to mitigation described under FEIS Section 5.2.2, the following mitigation shall be implemented: During the groundwater monitoring and pump tests, the potential for the vertical and lateral migration of contaminants from nearby leaking underground storage tank (LUST) sites shall be evaluated (see FEIS Appendix Z for detailed recommendations). The pumping test conducted shall include taking water level measurements in wells that are screened in the Lower Intermediate Zone, Upper Intermediate Zone, and uppermost portion of the saturated zone to verify the conclusions based on historical well hydrographs, refine the drawdown model for the Site, and evaluate the potential for contaminant migration using a typical wellhead protection approach. Implementation of the above measures will reduce any potential impacts to less than significant.
- I. Material Safety Data Sheets (MSDS) will be available to casino and emergency personnel and to janitors that identify emergency procedures, safe handling and storage practices. A Hazardous Materials Business Plan for the WWTP will be prepared to address emergency response and employee training in first aid in the event a spill of citric acid and sodium hypochloride occurs that compromises the chemical storage containment vessels.
- J. A Wastewater Contingency Plan shall be prepared for the WWTP prior to construction that shall identify potential system failures and containment measures. These containment measures shall be made part of the WWTP design to ensure no untreated wastewater will be released from the WWTP in the event of a system failure.
- K. Prior to demolition of any residential structures on the Wilfred Site, an asbestos consultant will be hired by the Tribe to determine if Asbestos Containing Materials (ACMs) and lead based paints are present within the residential structures. If ACMs are present within the residential structures, the Tribe shall comply with any federal NESHAP laws requiring BMPs to be employed during demolition as well as recommendations from the asbestos consultant for the removal and disposal of demolition debris that contain lead based paints and ACMs. Recommendations shall at a minimum include BMPs such as applying water to the structures before, during, and after demolition.

## **6.11 AESTHETICS**

- A. Design elements shall be incorporated into the project to minimize the impact of buildings and parking lots on the viewshed. These elements include:
  - a. Incorporation of landscape amenities to complement buildings and parking areas, including setbacks, raised landscaped berms and plantings of trees and shrubs (see Noise Mitigation Measures)
  - b. Use of earth tones in paints and coatings, and native building materials such as stone.
- B. To minimize the impacts of light and glare:
  - a. Placement of floodlights on buildings shall be set so as not to cast trespassing light off-site.
  - b. Uplighting of structures has a high potential for off-site light spillage and shall be minimized by limiting uplighting to the main casino and hotel facades and prohibiting uplighting of the parking structure and ancillary structures. Any uplighting of the main casino and hotel facades shall be directly focused on the structures.
  - c. Shielding, such as with a horizontal shroud, shall be used for all outdoor parking lot lighting so as to ensure it is downcast.
  - d. Timers shall be utilized so as to minimize lighting after a certain hour.
  - e. Signs and facades shall be tastefully designed, without the use of obtrusive light emitting devices such as neon lights or flashing lights.
  - f. All exterior glass shall be non-reflective low-glare glass.

## **6.12 LEED CERTIFICATION**

- A. The Tribe shall pursue LEED Certification for the hotel component of the project.

## **6.13 MITIGATION MEASURES THAT ARE NOT ADOPTED**

CEQ NEPA regulations 40 C.F.R. § 1505.2(c) call for identification in the ROD of any mitigation measures specifically mentioned in the FEIS that are not adopted. There are no mitigation measures listed in the FEIS for the Preferred Alternative that are not included in this ROD.



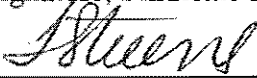
**7.0 DECISION**

The NIGC has determined that it will implement the Preferred Alternative, as described above and in Attachment 3. This decision has been made based upon the environmental impacts identified in the EIS and in Attachment 3, as well as a consideration of economic and technical factors. While the No-Action Alternative (Alternative G) and Wilfred Site Reduced Intensity Alternative (Alternative H) may result in somewhat lower environmental impacts, these alternatives would limit the ability of the Tribe to facilitate and promote tribal economic development, self-determination and self-sufficiency. The No-Action Alternative would result in no net income or other economic benefits to the Tribe, and thus does not meet the stated purpose and need. Likewise, Alternative H would limit the beneficial effects that would otherwise be available to the Tribe under the Preferred Alternative.

The Preferred Alternative results in substantially greater beneficial effects for the Tribe and local communities than any of the other alternatives (see FEIS Section 4.7 and Appendix E (MOU)), with the exception of the full size casino alternatives o (Alternatives A, B, C, and F). However, these alternatives are expected to result in greater environmental effects. All potential impacts from the Preferred Alternative would be reduced to a less than significant level through the implementation of mitigation measures discussed above in Section 6.0. Therefore, the NIGC shall implement the Preferred Alternative subject to implementation of all mitigation measures listed in Section 6.0.

**8.0 SIGNATURE**

By my signature, I indicate my decision to implement the Preferred Alternative.

  
By:  
Its:

10-01-10  
Date

# ***ATTACHMENT 1***

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*Notice of Final Determination to Take Land into Federal Trust*

[Federal Register: May 7, 2008 (Volume 73, Number 89)]  
[Notices]  
[Page 25766-25768]  
From the Federal Register Online via GPO Access [wais.access.gpo.gov]  
[DOCID:fr07my08-106]

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DEPARTMENT OF THE INTERIOR

Bureau of **Indian** Affairs

Land Acquisitions; Federated Indians of Graton Rancheria,  
California

AGENCY: Bureau of **Indian** Affairs, Interior.

ACTION: Notice of Final Agency Determination To Take Land into Trust  
under 25 CFR Part 151.

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SUMMARY: The Assistant Secretary--**Indian** Affairs made a final agency  
determination to acquire approximately 254 acres of land into trust for  
the Federated Indians of Graton Rancheria of California on April 18,  
2008. This notice is published in the exercise of authority delegated  
by the Secretary of the Interior to the Assistant Secretary--**Indian**  
Affairs by 209 Departmental Manual 8.1.

FOR FURTHER INFORMATION CONTACT: George Skibine, Director, Office of  
**Indian** Gaming, MS-3657 MIB, 1849 C Street, NW., Washington, DC 20240;  
Telephone (202) 219-4066.

SUPPLEMENTARY INFORMATION: This notice is published to comply with the  
requirement of 25 CFR Part 151.12(b) that notice be given to the public  
of the Secretary's decision to acquire land in trust at least 30 days  
prior to signatory acceptance of the land into trust. The purpose of  
the 30-day waiting period in 25 CFR 151.12(b) is to afford interested  
parties the opportunity to seek judicial review of final administrative  
decisions to take land in trust for **Indian** tribes and individual  
Indians before transfer of title to the property occurs. On April 18,  
2008, the Assistant Secretary--**Indian** Affairs decided to accept  
approximately 254 acres of land into trust for the Federated Indians of  
Graton Rancheria of California. The Graton Rancheria was restored to  
federal recognition pursuant to Title XIV of Public Law 106-568 (the  
Graton Rancheria Restoration Act), 25 U.S.C. 1300n-3, which mandates  
that, ``the Secretary shall accept into trust for the benefit of the  
Tribe any real property located in Marin or Sonoma County...''. The 254  
acre parcel is located in Sonoma County, California.

The legal description of the property is as follows:

Tract One

Farms 102, 103, 104, 105, 106, 124, 125, 126 and 127, as shown upon  
the Map of Plan of Subdivision of Santa Rosa Farms No. 2, filed March  
7, 1910 in the Office of the County Recorder of Sonoma County in Book  
21 of Maps, Page 14, Sonoma County Records. Certificate of Compliance  
recorded January 28, 1998 as Document No.'s 1998 0008588 through 1998  
0008596, Sonoma County Records. Being Assessors Parcel No. 045-073-001

Tract Two

Parcel One

Farms 130 and 131 as shown upon the Map of Plan of Subdivision of Santa Rosa Farms No. 2 filed March 7, 1910 in the Office of the County Recorder of Sonoma County in Book 21 of Maps, Page 14, Sonoma County Records. Certificate of Compliance recorded January 28, 1998 as Document No.'s 1998 0008597 and 1998 0008598, Sonoma County Records. Being a portion of Assessor's Parcel No. 045-074-009.

[[Page 25767]]

#### Parcel Two

Farm 129 of Santa Rosa Farms No. 2, according to Map thereof filed in the Office of the County Recorder of said County on March 7, 1910 in Book 21 Maps, Page 14, Sonoma County Records.

Being Assessor's Parcel No. 045-074-010.

#### Parcel Three

Farm No. 128 as same is shown upon that certain Map Entitled ``Plan of Subdivision of Santa Rosa Farms No. 2, Sonoma Co., Cal., Etc.'', filed March 7, 1910 in Book 21 of Maps at Page 14.

Saving and Excepting Therefrom, the following:

Commencing at the Southeasterly corner of said Farm No. 128; thence Northerly along the Eastern line thereon, 155 feet and 7 inches to a point, for the actual point of commencement of the tract to be herein described; thence from said point of commencement, South 89[deg] West, 289 feet and 6 inches to a point; thence Northerly, parallel with the Eastern line of said Farm No. 128, a distance of 155 feet and 10 inches to a point; thence North 89[deg] East, 289 feet and 6 inches to the Eastern line of said Farm No. 128; thence Southerly along said Eastern line, 155 feet and 10 inches to the point of commencement.

Also Saving and Excepting Therefrom, the following:

Beginning at a point on the center line of Labath Avenue, which point is the Southeast corner of Lot 128 as shown upon the Map entitled ``Plan Of Subdivision of Santa Rosa Farms No. 2, Sonoma Co., Cal., Etc.'', filed March 7, 1910 in Book 21 of Maps, Page 14, Sonoma County Records; thence North 1[deg] West along the Easterly line of Lot 128, a distance of 155 feet, 7 inches to a point; thence South 89[deg] West, 289.5 feet; thence North 1[deg] West, 77 feet, 10 inches; thence South 89[deg] West, 283.66 feet to the Westerly line of said Lot 128; thence along said line, South 1[deg] East, 233.5 feet to the Southwest corner of said Lot 128; thence along the Southerly line of said Lot, North 89[deg] East, 573.16 feet to the point of beginning.

Being Assessor's Parcel No. 045-073-002.

#### Tract Three

A Portion of Farm No. 128 as shown upon the Map entitled ``Plan of Subdivision of Santa Rosa Farms No. 2, Sonoma County, California'', filed in the Office of the County Recorder of Sonoma County, California, on March 7, 1910 in Book 21 of Maps, page 14, more particularly described as follows:

Commencing at the Southeasterly corner of said Farm No. 128; thence Northerly along the Easterly line thereof, 155 feet, 7 inches to a point for the true point of beginning of the tract to be herein described; thence South 89[deg] West 289 feet, 6 inches to a point; thence Northerly parallel with the Easterly line of said Farm No. 128, a distance of 155 feet, 10 inches to a point; thence North 89[deg] East, 289 feet, 6 inches to the Easterly line of said Farm No. 128; thence Southerly along said Easterly line, 155 feet, 10 inches to the point of beginning.

Being Assessor's Parcel No. 045-073-003.

#### Tract Four

Beginning at a point on the center line of Labath Avenue which point is the Southeast corner Lot 128 as shown upon the Map entitled Plan of Subdivision of Santa Rosa Farms No. 2, Sonoma County, California, etc., filed March 7, 1910 in Book 21 of Maps, page 14, Sonoma County Records; thence North 1[deg] West along the Easterly line of Lot 128, a distance of 155 feet 7 inches to a point; thence South 89[deg] West, 289.5 feet; thence North 1[deg] West, 77 feet 10 inches; thence 89[deg] West, 283.66 feet to the Westerly line of said Lot 128; thence along said line South 1[deg] East, 233.5 feet to the Southwest corner of said Lot 128; thence along the Southerly line of said Lot, North 89[deg] East, 573.16 feet to the point of beginning.

Being Assessor's Parcel No. 045-073-004.

#### Tract Five

A tract of land, being a portion of the Rancho Llano de Santa Rosa, and commencing on the boundary line of said Rancho on the line between Section 21 and 22, in Township 6 North, Range 8 West, Mount Diablo Base & Meridian, at a point in the center of the County Road known as the Santa Rosa and Stony Point Road, from which point the post for the railing of the bridge, across the Laguna and standing on the Southeast corner of the same, is North 31[deg] West, 13 links distant; thence from said point of beginning, North 89[deg] 30' East, 11.92 chains, South 39[deg] 05' East, 2.61 chains, South 53[deg] East, 1.36 chains, South 64[deg] East, 1.23 chains, South 77[deg] 15' East, 2.62 chains, South 88[deg] 05' East, 3.94 chains, North 4[deg] 15' East, 1.43 chains, South 88[deg] East, 2.03 chains, South 56[deg] East, 2.44 chains, North 87[deg] 15' East, 22.62 chains to the Northwest boundary line of the Cotati Rancho; thence along said line, North 29[deg] 15' East, 39.44 chains; thence leaving said line, West 67.92 chains to the center of the aforesaid Road and Section line; thence South, 32.18 chains to the point of beginning. Magnetic Variation 17[deg] East.

Excepting therefrom those portions of land described in the Deeds from Manuel T. Pimentel, et al, to the Sonoma County Flood Control and Water Conservation District, recorded August 16, 1961 in Book 1840 of Official Records, page 280, Serial No. G-60050, Sonoma County Records, and recorded September 24, 1963 in Book 1989 of Official Records, page 575, Serial No. H-56600, Sonoma County Records.

Also excepting therefrom that portion of land described in the Deed from Mary C. Pimentel, et al, to the Sonoma County Flood Control and Water Conservation District, recorded February 11, 1966 in Book 2187 of Official Records, page 957, Serial No. J-83549, Sonoma County Records.

Also excepting therefrom that portion of land described in the Deed to the City of Rohnert Park, recorded January 11, 1989, as Document No. 89002750 of Official Records of Sonoma County.

Also excepting therefrom that portion of land described in the Deed to the County of Sonoma, recorded May 17, 1996 as Document No. 1996 0044116 of Official Records of Sonoma County.

An easement for cattle and agricultural equipment crossing, as described in the Deed from the Sonoma County Flood Control and Water Conservation District to Manuel L. Pimentel and Mary C. Pimentel, recorded August 15, 1961 in Book 1840 of Official Records, page 284, Serial No. G-60051, Sonoma County Records.

An easement for cattle and agricultural equipment crossing, as described in the Deed from the Sonoma County Flood Control and Water Conservation District to Manuel L. Pimentel and Mary C. Pimentel, recorded August 15, 1961 in Book 1840 of Official Records, page 288, Serial No. G-60052, Sonoma County Records.

Being Assessor's Parcel Nos. 046-021-020 & 021,046-021-039 & 040.

#### Tract Six

All that certain real property situated in the City of Rohnert Park, County of Sonoma, State of California, described as follows: Lot

6, as shown on the map of ``Rohnert Business Park Subdivision'', filed August 12, 1985 in the office of the County Recorder in Book 375 of Maps, at pages 10 and 11, Sonoma County Records.

Being Assessor's Parcel No. 143-040-068.

[[Page 25768]]

Dated: April 18, 2008.

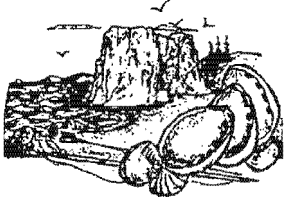
Carl J. Artman,  
Assistant Secretary--**Indian** Affairs.

[FR Doc. E8-10064 Filed 5-6-08; 8:45 am]  
BILLING CODE 4310-4N-P

# ***ATTACHMENT 2***

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*Tribal Resolution 09-03-GC*



FEDERATED INDIANS OF *Graton Rancheria* **FEDERATED INDIANS OF GRATON RANCHERIA**

RESOLUTION AUTHORIZING TRIBAL COMPLIANCE WITH THE WILLIAMSON ACT CONTRACT, CALIFORNIA GOVERNMENT CODE § 51200 *ET. SEQ.*, ON 181 ACRES OF LAND THAT COMPRISE A PORTION OF CERTAIN LANDS WHICH HAVE BEEN APPROVED TO BE TAKEN INTO TRUST FOR THE TRIBE PURSUANT TO THE GRATON RANCHERIA RESTORATION ACT ON APRIL 18, 2008, AND A LIMITED WAIVER OF THE TRIBE'S SOVEREIGN IMMUNITY IN FAVOR OF THE COUNTY OF SONOMA WITH RESPECT TO THE FUTURE ENFORCEABILITY OF THE WILLIAMSON ACT CONTRACT.

GENERAL COUNCIL RESOLUTION NO.: 09-03-GC

DATE APPROVED: February 14, 2009

**WHEREAS:** The Federated Indians of Graton Rancheria (the "Tribe") is a federally recognized Indian tribe organized pursuant to the Constitution of the Federated Indians of Graton Rancheria, approved by the Secretary of the Interior on December 23, 2002, (the "Constitution"); and

**WHEREAS:** Article III, Section 1 of the Constitution provides that the governing body of the Tribe is the Tribal Council; and

**WHEREAS:** Article VI, Section 2 of the Constitution reserves to the General Council the power to waive the Tribe's sovereign immunity to unconsented suit; and

**WHEREAS,** The Tribe has requested the Secretary to acquire certain lands in trust for the Tribe as the Tribe's reservation pursuant to the Graton Rancheria Restoration Act, 25 U.S.C. §1300n; and

**WHEREAS,** Some of these lands are currently subject to a contract that restricts the primary use of those lands to agricultural and compatible uses pursuant to the California Land Conversation Act of 1965, California Government Code § 51200 *et. seq.* (the "Williamson Act"); and

**WHEREAS:** The Tribe intends to comply with the land use restrictions of the Williamson Act contract until, if ever, the County of Sonoma is given notice of non-renewal, and the contract expires by its own terms; and

**WHEREAS:** The Tribe wishes to eliminate any ambiguity concerning whether the terms of the Williamson Act contract are enforceable once the Tribe becomes the beneficial owner of these lands; and





**WHEREAS:** The Tribe wishes to eliminate any ambiguity concerning whether the terms of the Williamson Act contract are enforceable once the Tribe becomes the beneficial owner of these lands; and

**WHEREAS:** The Tribe fully expects to enter into an agreement with the County of Sonoma providing for joint recognition of the validity of the Williamson Act contract on said lands pursuant to the legally binding Memorandum of Understanding between the Tribe and the County of Sonoma dated November 1, 2004 ("2004 County MOU"), which obligates the Tribe to enter into an intergovernmental agreement "with the County regarding the loss of any open space, community separator, and Williamson Act issues"; and

**WHEREAS:** The Tribal Council has requested that the General Council confirm future compliance with the land use provisions of the Williamson Act and approve a limited waiver of the Tribe's sovereign immunity with regard to disputes specifically arising under the Williamson Act contract in order to resolve any ambiguities concerning future enforceability of said contract, and to consent to State court jurisdiction as provided for herein; and

**WHEREAS:** Providing for the enforceability of the Williamson Act contract is consistent with the intent of the 2004 County MOU and the Tribe's commitment to respect local land use laws as demonstrated by the Tribe's willingness to relocate its proposed resort project site to lands within the urban growth boundary of the City of Rohnert Park and to address the applicability of land use laws on other lands which the Tribe may acquire in the future pursuant to the Tribe's Memoranda of Understanding with the County of Sonoma and the County of Marin respectively, each dated July 22, 2008.

**NOW, THEREFORE, BE IT RESOLVED THAT** the Tribe will comply with the land use restrictions of the Williamson Act for those lands that are subject to a Williamson Act, and that are more particularly described in Exhibit A to this agreement, until such time, if ever, that the Williamson Act contract term expires; and

**BE IT FURTHER RESOLVED THAT** the General Council hereby expressly grants a limited waiver of the Tribe's sovereign immunity in favor of the County of Sonoma (but not as to any other person or entity) pertaining solely to disputes specifically related to or arising under the Williamson Act contract that pertains to the lands described in Exhibit A and consents to the jurisdiction of the State courts for the resolution of such disputes; and

**BE IT FURTHER RESOLVED THAT** the General Council hereby exercises its delegated authority to approve the enforceability of the land use provisions of the Williamson Act contract in favor of the County of Sonoma; and

**BE IT FURTHER RESOLVED THAT** the Tribe, through the General Council in exercising its delegated authority, declares that the Williamson Act contract upon the Tribe becoming the beneficial or legal owner of said lands shall be and become a valid and legal obligation of the Tribe; and

**BE IT FURTHER RESOLVED THAT** the limited waiver of sovereign immunity shall only apply to injunctive or declarative relief and does not apply to monetary damages, attorneys fees, court costs or any other payment of monies; and

**BE IT FURTHER RESOLVED THAT** the Tribe, through the General Council in exercising its delegated authority, hereby determines that no laws, ordinances, resolutions or other actions of the Tribe, Tribal Council, Board, or any of the agencies or instrumentalities of the Tribe, either written or established by custom or tradition, prohibit the General Council from approving the enactment of this resolution; and

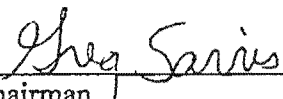
**BE IT FURTHER RESOLVED THAT** the limited waiver of sovereign immunity shall only expire if and when the Williamson Act contract expires by its own terms should the Tribe choose not to renew it in accordance with the Williamson Act or if the contract is cancelled by the County in accordance with Williamson Act; and

**BE IT FURTHER RESOLVED THAT** nothing herein shall be construed as a waiver by the Tribe not to exercise it's right not to renew the contract should it decide to do so; and

**BE IT FURTHER RESOLVED THAT** the General Council or Tribal Council shall not pass or adopt any resolutions or approve or allow any other action of the Tribe, or any of its officers, employees, agents, subdivisions, agencies or instrumentalities, or any nature that shall impair the obligations of the Tribe under this resolution or that would rescind or modify this waiver of sovereign immunity or ratification of the applicability of the Williamson Act contract once the land is placed in trust for the benefit of the Tribe.

#### CERTIFICATION

We the undersigned do hereby certify that the foregoing resolution was duly adopted by the General Membership on the 14 day of February, 2009, at a General Council meeting at which a quorum of the registered voters was present, by a vote of 90 for 0 opposed, and 0 abstaining, and that said Resolution has not been rescinded or amended in any way.

  
\_\_\_\_\_  
Chairman

ATTEST:  
  
\_\_\_\_\_  
Secretary

# ***ATTACHMENT 3***

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*Variant H-sub1*

# VARIANT H-SUB1

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The Final Environmental Impact Statement (FEIS) identified Alternative A as both the Proposed Project and the National Indian Gaming Commission's (NIGC) Preferred Alternative. However, in letters received during the FEIS waiting period by the United States Environmental Protection Agency (USEPA) and Sonoma County, it was suggested that the NIGC consider adopting a reduced intensity version of Alternative A. After carefully considering this input, the NIGC has decided to approve a slightly modified version of Alternative H (hereinafter referred to as Variant H-sub1 or the Preferred Alternative) rather than Alternative A. Modifications include (1) reconfiguring the layout of Alternative H in order to further reduce potential impacts on biological resources, and (2) providing certain hotel and restaurant amenities in order to better meet the purpose and need for the federal action. This decision is responsive to comments from Sonoma County and the USEPA recommending that the NIGC adopt a reduced-intensity alternative to the proposed project. At the same time this decision is consistent with the purpose and need for the federal action. Finally, as explained below, the Preferred Alternative falls within the range of alternatives analyzed in the EIS and has been thoroughly evaluated by the NIGC.

In short, this decision represents a reasonable and fair accommodation of the interests expressed by the Tribe, the County, the USEPA, and interested members of the public. This decision is also a continuing demonstration of the results of the application of the National Environmental Policy Act (NEPA) process, of which this Record of Decision (ROD) is the final step, which has resulted in continuing measures being taken to reduce environmental impacts (see FEIS Sections 1.0 and 2.0 for more on the history of this process). This process of reducing impacts has continued right up through the ROD, which further reduces impacts from those involved in the preferred alternative that was identified in the FEIS. This is an example of the NEPA process successfully resulting in reducing the environmental impact of what has been proposed.

A description and an analysis of the environmental impacts of Variant H-sub1 is included below. Required mitigation has been modified in Section 6.0 of the ROD to account for reductions in impacts that would occur under Variant H-sub1.

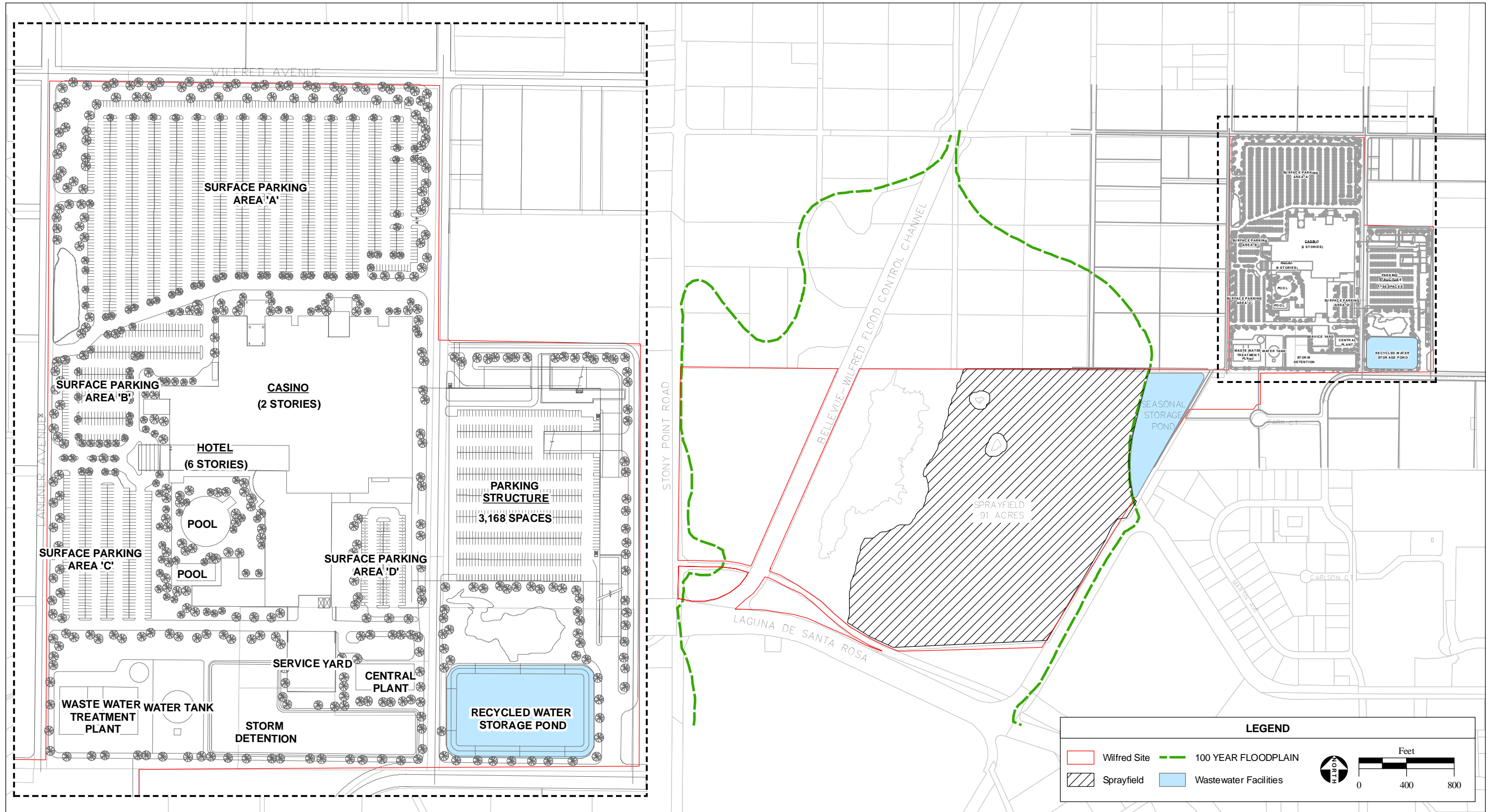
## 1.1 PROJECT DESCRIPTION

Variant H-sub1 consists of the NIGC's approval of a gaming management contract between the Tribe and SC Sonoma Management, LLC leading to the development of a casino-hotel resort on a portion of

approximately 252-acres of land (Wilfred Site) that is proposed to be taken into trust for the Tribe (see ROD, Attachment 1). The Wilfred Site is described in more detail in FEIS Section 1.3.

The development of Variant H-sub1 would occur on the northeast corner of the Wilfred Site. Access to the casino-hotel resort would be gained from access points at Business Park Drive and Wilfred Avenue. **Figure 1** shows the site plan for Variant H-sub1, including supporting facilities. The remainder of the Wilfred Site would remain undeveloped and be used for open space, pasture, biological habitat, and recycled water sprayfields (uses consistent with the Williamson Act restrictions currently present on the southern portion of the Wilfred Site). In response to input received from the USEPA, the Variant H-sub1 development footprint was designed with an emphasis on reduced impacts to wetlands.

Variant H-sub1 would include restaurants, a hotel, nightclub, banquet/meeting space, a pool, and spa. **Table 1** shows the breakdown of proposed uses with associated square footages for the proposed casino-hotel resort. Variant H-sub1 would be 227,400 square feet (sf) smaller than Alternative A and 121,500 sf larger than Alternative H. The primary differences between Alternatives A and H-sub1 are the smaller scale of Variant H-sub1 gaming floor (same sized gaming floor as Alternative H) and hotel (200 rooms vs. 300 rooms for Alternative A and 100 rooms for Alternative H), and the absence of a show room venue. Construction of the casino-hotel resort is estimated to directly employ 750 construction workers, while operation of is anticipated to employ an average of 2,250.



**Figure 1**  
Variant H -Sub 1 Site Plan

**TABLE 1**  
VARIANT H-SUB1 – COMPONENTS

Area	Alternative A		Variant H-sub1		Alternative H	
	Seats/Rooms/ Parking Spaces	Approximate Square Footage	Seats/Rooms/ Parking Spaces	Approximate Square Footage	Seats/Rooms/ Parking Spaces	Approximate Square Footage
<b>CASINO &amp; ENTERTAINMENT</b>						
<i>Casino</i>						
Casino Gaming		80,000		65,000		65,000
Casino Circulation		26,000		26,000		26,000
High Limit Gaming		5,000		5,000		5,000
Asian Gaming		3,600		3,600		3,600
Salons (2 total)		4,000		4,000		4,000
Entry Vestibules (5 total)		2,500		2,500		2,500
Restrooms (5 total)		6,000		6,000		6,000
Rewards Center		750		750		750
Cage		6,000		6,000		6,000
Back of House		70,000		55,000		55,000
Gift Shop		1,000		1,000		1,000
<i>Food and Beverage</i>						
Buffet	500 seats	23,500	500 seats	23,500	500 seats	23,500
Bars (3 total)		4,500		4,500		4,500
Service Bars (4 total)		4,000		4,000		4,000
Lease Restaurants	480 seats	20,000	480 seats	20,000	290 seats	12,000
Coffee Shop	225 seats	8,800	225 seats	8,800	225 seats	8,800
Steakhouse	200 seats	10,000	200 seats	10,000	200 seats	10,000
Food Court (6 tenants)	210 seats	12,600	210 seats	12,600	210 seats	12,600
<i>Entertainment</i>						
Nightclub		6,500		6,500		0
Show Room	1,500 seats	35,400	---	---	----	---
Lounge		8,000		8,000		8,000
<i>Banquet</i>						
Banquet Meeting Space		30,000		30,000		30,000
Pre-Function/Kitchen/Storage/Office/Support		40,000		15,000		15,000
<i>Total Casino &amp; Related Square Footage</i>		<i>408,150</i>		<i>317,750</i>		<i>293,250</i>
<b>HOTEL &amp; SPA</b>						
<i>Hotel</i>						
Lodging Area	300 rooms (20% suites)	291,000	200 rooms (12.5% suites)	154,000	100 rooms (10% suites)	77,000
Lobby/Bar/Back of House		13,750		13,750		13,750
Sundries		1,000		1,000		1,000
<i>Pool &amp; Spa</i>						
Spa		20,000		20,000		0
Pool Restrooms		2,600		2,600		2,600
Pool Concessions		1,500		1,500		1,500
Pool Grill		3,000		3,000		3,000
<i>Total Hotel &amp; Spa Square Footage</i>		<i>332,850</i>		<i>195,850</i>		<i>98,850</i>
<b>CENTRAL PLANT</b>		<b>21,300</b>		<b>21,300</b>		<b>21,300</b>
<b>Total Square Footage</b>		<b>762,300</b>		<b>534,900</b>		<b>413,400</b>
<b>PARKING</b>						
Surface Parking	4,102		2,343		2,650	
Parking Structure	2,000		3,168		2,000	
<b>Total Parking Spaces</b>	<b>6,102</b>		<b>5,511</b>		<b>4,650</b>	

SOURCE: Friedmutter Group, 2009; AES, 2009.

The Tribe would enter into a Tribal-State Compact, as required by the Indian Gaming Regulatory Act (IGRA) to govern the conduct of Class III gaming activities, or comply with procedures established by

the Secretary of the Interior (pursuant to IGRA and 25 C.F.R. 291) in the event that the State and the Tribe are unable to agree to a compact. Except for provisions related to revenues, Tribal-State Compact (or Secretarial procedures) requirements are not expected to differ from those of Alternative A (see FEIS Section 2.2).

### **1.1.1 MANAGEMENT CONTRACT**

As with Alternative A (see FEIS Section 2.2.1), Variant H-sub1 would require NIGC approval of a management contract between the Tribe and SC Sonoma Management or its affiliates before gaming could take place on the northwest corner of the Wilfred site.

### **1.1.2 CASINO AND RELATED AMENITIES**

The two-story casino would consist of a mixture of uses, including, banking and administrative facilities, gaming commission offices, a primary gaming area, a high-limit gaming area, and a small gift shop. Numerous food and beverage outlets would be included in the facility, including, three bars, four service bars, a 500-seat buffet, a six-vender food court, and four restaurants. The facility would also contain a night club venue and banquet/meeting space. A detailed listing of each component of the facility is contained in **Table 1**. Variant H-sub1 includes reductions from Alternative A in the size of the gaming floor, back-of-house facilities, lodging areas, and removal of the proposed show room venue.

Alcohol would be served throughout the casino, including the gaming floor. Accordingly, casino patrons would be required to be at least 21 years old, and the Tribe would adopt a “Responsible Alcoholic Beverage Policy” that would include, but not be limited to, verifying the age of patrons and refusing service to those who are visibly intoxicated. Smoking would be permitted within the casino; however, non-smoking sections would be provided.

### **1.1.3 HOTEL AND SPA**

A 200-room, 6-story hotel tower would be located adjacent to the pool and spa area. This is a reduction from Alternative A’s proposed 300-room, 8-story hotel. A detailed listing of each hotel and spa component is provided in **Table 1**.

### **1.1.4 PARKING**

A total of approximately 5,511 parking spaces would be provided to serve the patrons and employees of the resort and supporting facilities. A parking structure, providing 3,168 out of 5,511 parking spaces, would be located east of the casino.

### **1.1.5 CONSTRUCTION**

The construction duration of Variant H-sub1 is estimated at 26 months. Among other activities, construction would involve earthwork; placement of concrete foundations; steel, wood and concrete



structural framing; masonry; electrical and mechanical work; building and site finishing; and paving. On site grading would follow the preliminary grading plan in FEIS Appendix C, except with a reduction in scope to account for the smaller Variant H-sub1 footprint.

Construction the gaming facility and all supporting buildings would be in accordance with standards no less stringent than those set forth in the California Building Code, including all Uniform Fire, Plumbing, Electrical, Mechanical, and related Building Codes. Construction of the facility would also comply with the best management practices (BMPs) listed in Appendix D of the Site Grading and Storm Drainage Report (reproduced in FEIS Appendix C), including BMPs for paving operations, structure construction, painting, material delivery/storage, material use, spill prevention/control, solid waste management, hazardous waste management, concrete waste management, sanitary/septic waste management, vehicle/equipment cleaning, vehicle/equipment fueling, and vehicle/equipment maintenance. In addition, construction activities would comply with all applicable federal standards, including Occupational Safety and Health Administration (OSHA) requirements and the federal Americans with Disabilities Act (P.L. 101-336, as amended, 42 U.S.C. Section 12101 *et seq.*).

### 1.1.6 DRAINAGE

On site drainage facilities would follow the preliminary grading and drainage plan in FEIS Appendix C, except with a reduction in scope to account for the smaller Variant H-sub1 footprint. Similar to the Alternative A preliminary grading and drainage plan, Variant H-sub1 development shall incorporate fill to elevate the proposed gaming facility sufficiently to allow stormwater to gravity flow and empty into a detention basin, located on the southwest corner of the development near Langner Avenue. The development area for Variant H-sub1 is outside of the 100-year floodplain, with all of the proposed facilities being constructed at least one foot above the 100-year floodplain elevation. Specifically, the buildings would be approximately five feet above the floodplain and the parking lot would be approximately one foot above the floodplain. It is estimated that 285,000 cubic yards of earthwork will be required for Variant H-sub1. On-site excavation adjacent to the development area would yield approximately 25,000 cubic yards of fill material. On-site excavation from the southern portion of the site would yield the remaining fill material, resulting in a “balanced” site.

Runoff from the Variant H-sub1 development would be conveyed by an underground drainage system to the detention basin, and, after filtration, to Labath Creek, which feeds into Hinebaugh Creek and then into the Laguna de Santa Rosa (**Figure 1**). Drainage patterns and on-site drainage improvements would be the same as those discussed under Alternative A in FEIS Section 2.2.6.

The grading and drainage plan incorporates two areas for storm water detention to reduce increased peak flows resulting from increased impervious surfaces to pre-project levels and to offset reduced floodplain storage caused by the development of project facilities. The first stormwater detention basin would assure that post-development runoff peaks from Variant H-sub1 would be equal to the existing conditions. Moreover, the basin would attenuate the increase in peak flow that would be generated by obtaining a

permit to release 275,000 gallons per day of tertiary treated effluent from a proposed on-site wastewater treatment plant. The detention of water on-site would reduce potential downstream erosion and effects to water quality. Approximately 14 acre-feet of storage would be provided in the stormwater detention basin to account for the increase in runoff created by increased impervious surfaces. The detention system would be located on the southern edge of the proposed casino-hotel development area (**Figure 1**).

A second storm water detention / flood storage area is proposed to be created in the southern portion of the Wilfred site (similar to the storage area in Figure 2.7 of the FEIS). This detention area will allow for additional storage area to more than account for the fill placed in the non-regulated Zone X floodplain.

### **1.1.7 WASTEWATER TREATMENT AND DISPOSAL**

Wastewater quality issues, on-site treatment technology, and disposal options would be the same as Alternatives A and H (see FEIS Section 2.2.7). However, as explained in FEIS Section 2.11, while the FEIS provides a thorough and complete evaluation of all treatment/disposal options, only on-site treatment and sprayfield/seasonal storage disposal (wastewater option 3 for both Alternatives A and H) is a viable option at this time. Thus, only on-site treatment and disposal (through sprayfields seasonally) is discussed under Variant H-sub1. Variant H-sub1 wastewater generation rates would be 194,000 gallons per day (gpd) during average weekday flows and 273,000 gpd during weekend flows. A capacity of 300,000 gpd is anticipated for treatment. It is assumed that all effluent will be disposed upon 91-acres of sprayfields in the southern half of the Wilfred Site from April to October and stored in an 156 acre feet on-site reservoir during the remainder of the year. The sizing of the sprayfields and storage facility is in direct correlation to the decrease in wastewater flows from Alternative A estimates. A recycled water storage tank would supply the facility and landscaping with recycled water, similar to the system discussed under Alternative A in Section 2.2.7 of the FEIS.

### **1.1.8 WATER SUPPLY**

As with Alternative A, water for domestic use, emergency supply, and fire protection would be provided by on-site wells (see FEIS Section 2.2.8). Elements of the proposed on-site water facilities include two on-site wells, an iron and manganese treatment plant, a steel water storage tank, and a water distribution pump system. As noted above in Section 1.1.7, on-site wastewater treatment and recycled water use are assumed for Variant H-sub1 (see FEIS Section 2.2.8 for more detail on recycled water uses). Based on assumptions within the Water and Wastewater Feasibility Study (Appendix D of the FEIS), the estimated average water demand would be 127 gallons per minute (gpm), with peak water demand (typically occurring on weekends) estimated at 174 gpm. These estimates are between the water demand required for Alternatives A and H. Water tank capacity would be based on fire flow requirements developed after review by local fire authorities. The estimated capacity would be approximately 1.2 million gallons stored in a welded steel tank designed to meet American Water Works Association (AWWA) specifications, similar in size to the tank recommended for Alternatives A and H in the FEIS.

Water conservation measures proposed for Alternative A (see FEIS Section 2.2.8) would also be applied to Variant H-sub1.

### **1.1.9 FUEL STORAGE**

As for Alternative A (see FEIS Section 2.2.9), diesel fuel storage tanks would be needed for the operation of four emergency generators at the casino, one emergency generator and one fire pump for the hotel, and one emergency generator for the wastewater treatment facility. Fuel tanks would be housed above ground within the individual generator units. The largest generators would have storage tanks of approximately 1,000 gallons. Onsite fuel storage practices would be the same as for Alternative A (see FEIS Section 2.2.9).

### **1.1.10 MEMORANDA OF UNDERSTANDING**

The Memorandum of Understanding (MOU) with the City of Rohnert Park does not apply to the Wilfred Site. In addition, given the reduced size and scope of the casino-hotel resort proposed for Variant H-sub1, as with Alternative H, the terms of the MOU are not assumed to apply to Variant H-sub1. Of course, it remains possible to modify the MOU with the City for the reduced intensity development. We assume that the Sonoma County MOU, which is applicable to the Wilfred Site, would apply to Variant H-sub1. The project labor agreements with the Sonoma, Lake and Mendocino County Building and Construction Trades Council and with the Hotel Employees and Restaurant Employees International Union, AFL-CIO would also apply to Variant H-sub1.

## **1.2 ENVIRONMENTAL CONSEQUENCES**

### **1.2.1 INTRODUCTION**

As noted above, the Variant H-sub1 components and overall size of the facilities falls in between Alternatives A and H, as described in the FEIS. Therefore the environmental impacts from Variant H-sub1 must necessarily also fall in between the environmental impact reported in Section 4.0 of the FEIS for Alternatives A and H. Nonetheless, in the interest of public disclosure and in order to ensure mitigation measures in Section 6.0 of the ROD are applicable to Variant H-sub1, an additional analysis of the environmental consequences is included below.

### **1.2.2 LAND RESOURCES**

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H, as described above and in FEIS Section 2.0. Therefore, Variant H-sub1's impacts to land resources, including impacts to topography, mineral resources, soils, and seismicity would fall in between the impacts of Alternatives A and H (see FEIS Section 4.2). Thus, less than significant impacts to topography and mineral resources under Alternatives A and H would also be less than significant under Variant H-sub1. Potentially significant soils and seismicity impacts under Alternatives A and H would also be potentially significant under Variant H-

sub1. Mitigation measures contained in ROD Section 6.1 would reduce these impacts to a less than significant level.

### 1.2.3 WATER RESOURCES

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H, as described above and in FEIS Section 2.0. Therefore, Variant H-sub1's impacts to water resources, including impacts to surface water and groundwater would fall in between the impacts of Alternatives A and H (see FEIS Section 4.3). For instance, water demand would be an average of 127 gpm for Variant H-sub1, compared to 165 gpm and 115 gpm for Alternatives A and H. Thus, significant surface water and groundwater impacts under Alternatives A and H would also be significant under Variant H-sub1. Mitigation measures contained in the ROD Section 6.2 would reduce these impacts to a less than significant level.

### 1.2.4 AIR QUALITY

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H, as described above and in FEIS Section 2.0. Therefore, Variant H-sub1's impacts to air quality, including construction and operational pollutant emissions, odor impacts, toxic air contaminant (TAC) impacts, impacts to Federal Class I Areas, and indoor air quality impacts, would fall in between the impacts of Alternatives A and H (see FEIS Section 4.4). Thus, less than significant construction pollutant emissions, odor, TAC, and Federal Class I Area impacts under Alternatives A and H would also be less than significant under Variant H-sub1. Potentially significant operational pollutant emissions and indoor air quality impacts under Alternatives A and H would also be potentially significant under Variant H-sub1. For instance, Nitrogen Oxide (NO<sub>x</sub>) emissions would be 135.53 tons per year (tpy) for Variant H-sub1, as compared to 156 tpy and 109 tpy for Alternatives A and H. Other Variant H-sub1 operational emissions are estimated in **Table 2**. Detailed emissions model results are contained in Attachment 4 to this ROD. Mitigation measures contained in the ROD Section 6.3 would reduce these impacts to a less than significant level.

### *Conformity*

As with Alternatives A and H, Variant H-sub1 exceeds the conformity *de minimis* thresholds for NO<sub>x</sub> and Carbon Monoxide (CO). A Conformity Determination was conducted for NO<sub>x</sub> and CO to determine further requirements and is shown in Appendix W of the FEIS. It was determined that conformity requirements are met for CO emissions under Alternative A and therefore, would be met for Variant H-sub1, warranting no further action. It was determined that 149 tpy of NO<sub>x</sub> emissions would have to be fully offset with emissions credits (effectively lowering NO<sub>x</sub> emissions to zero) for Alternative A to be in conformity with the applicable State Implementation Plan (SIP). The Tribe entered into an agreement to purchase 149 tons of NO<sub>x</sub> credits (see FEIS Appendix W). The purchase of 149 tons of NO<sub>x</sub> credits would more than fully offset Variant H-sub1 emissions; therefore, conforming to the applicable SIP.

**TABLE 2**  
UNMITIGATED OPERATION EMISSIONS – VARIANT H-SUB1

Sources	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub> <sup>1</sup>
	tpy	tpy	tpy	tpy
Area	0.56	0.73	0.00	0.00
Mobile	73.62	122.49	143.04	141.89
<b>Total Emissions</b>	<b>74.18</b>	<b>126.24</b>	<b>143.04</b>	<b>141.89</b>
<i>Conformity Threshold</i>	100	100	N/A	N/A
<b><i>Exceeds Conformity Threshold</i></b>	<b>No</b>	<b>Yes</b>	<b>N/A</b>	<b>N/A</b>
<i>BAAQMD Threshold</i>	15	15	15	N/A
<b><i>Exceeds BAAQMD Threshold</i></b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>N/A</b>

Note: tpy = tons per year. N/A = Not Applicable

<sup>1</sup> CARB speciation profile shows that 99.2% of PM<sub>10</sub> is PM<sub>2.5</sub> for gasoline powered engine emissions and 92.0% for diesel powered engine emissions. 99.2% is assumed here for a conservative analysis. See ROD Attachment 7 for a technical memorandum demonstrating the conservative nature of this assumption.

Source: URBEMIS, 2007.

## 1.2.5 BIOLOGICAL RESOURCES

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H. Therefore, Variant H-sub1's impacts to habitats, special status species, and waters of the U.S. would fall in between the impacts of Alternatives A and H (see FEIS Section 4.2). Thus, potentially significant impacts to wildlife and habitats, federally listed species, and waters of the U.S. under Alternatives A and H would also be potentially significant under Variant A-sub1. For instance, the development of Variant H-sub1 would result in impacts to 81.13 acres of CTS aestivation habitat (see ROD Attachment 4). Also, approximately 0.55 acres of seasonal pools and wetlands, and 0.36 acres of drainages would be graded and filled by construction of the on-site WWTP (see ROD Attachment 4). As shown in **Table 3**, Variant H-sub1 would result in substantially lower impacts to wetlands than even Alternative H due to the rearrangement of on-site facilities to avoid wetland impacts. Mitigation measures contained in ROD Section 6.4 would reduce these impacts to a less than significant level.

**TABLE 3**  
WETLAND COMPARISONS- ALTERNATIVES A, H, AND VARIANT H-SUB1

	<b>Alternative A</b>	<b>Variant H-sub1</b>	<b>Alternative H</b>
<b>Wetland Feature</b>	<b>Acreage Affected</b>		
Seasonal Ponds and Wetlands	1.60	0.55	1.49
Drainage Ditches	0.77	0.36	0.48
<b>Total</b>	<b>2.37</b>	<b>0.91</b>	<b>1.97</b>

Source: The Huffman-Broadway Group, Inc., 2007; AES, 2009

### 1.2.6 CULTURAL AND PALEONTOLOGICAL RESOURCES

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H, as described above and in FEIS Section 2.0. Therefore, Variant H-sub1's impacts to cultural and paleontological resources would fall in between the impacts of Alternatives A and H (see FEIS Section 4.6). Thus, potentially significant cultural and paleontological impacts under Alternatives A and H would also be potentially significant under Variant H-sub1. Mitigation measures contained in the ROD Section 6.5 would reduce these impacts to a less than significant level.

### 1.2.7 SOCIOECONOMIC CONDITIONS AND ENVIRONMENTAL JUSTICE

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H, as described above and in FEIS Section 2.0. Therefore, Variant H-sub1's impacts to socioeconomic conditions and environmental justice would fall in between the impacts of Alternatives A and H (see FEIS Section 4.7). Thus, beneficial direct, indirect, and induced economic impacts under Alternatives A and H would also be beneficial under Variant H-sub1. For instance, Variant H-sub1 is expected to employ 750 workers during construction (the same as Alternatives A and H) and 2,250 workers during operation (as compared to 2,400 workers on average for Alternative A and 2,100 workers for Alternative H). Less than significant substitution, property values, and environmental justice impacts under Alternatives A and H would also be less than significant under Variant H-sub1. Potentially significant fiscal impacts to local jurisdictions and social impacts under Alternatives A and H would also be potentially significant under Variant H-sub1. For instance, fiscal impacts to Sonoma County would be \$157,500 pursuant to the fiscal impact methodology described in FEIS Appendix N (this is compared to \$167,745 on average for Alternative A and \$146,777 for Alternative H). Mitigation measures contained in the ROD Section 6.6 would reduce fiscal and social impacts to a less than significant level.

### 1.2.8 RESOURCE USE PATTERNS

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H, as described above and in FEIS Section 2.0. Therefore, Variant H-sub1's impacts to resource use patterns, including impacts to

transportation/circulation, land use, and agriculture would fall in between the impacts of Alternatives A and H (see FEIS Section 4.8). Thus, less than significant impacts to land use and agriculture under Alternatives A and H would also be less than significant under Variant H-sub1. Potentially significant transportation/circulation impacts under Alternatives A and H would also be potentially significant under Variant H-sub1. For instance, as reported in a revised traffic impact study (see ROD Attachment 4), Variant H-sub1 would generate 14,724 daily vehicle trips, as compared to 18,261 daily trips for Alternative A and 12,696 daily trips for Alternative H. Mitigation measures contained in the ROD Section 6.7 would reduce these impacts to a less than significant level.

### **1.2.9 PUBLIC SERVICES**

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H, as described above and in FEIS Section 2.0. Therefore, Variant H-sub1's impacts to public services, including impacts to water supply; wastewater; solid waste; electricity, natural gas, and telecommunications; public health and safety; and schools would fall in between the impacts of Alternatives A and H (see FEIS Section 4.9). Thus, less than significant impacts to water supply; wastewater; solid waste; electricity, natural gas, and telecommunications; and schools under Alternatives A and H would also be less than significant under Variant H-sub1. Potentially significant public health and safety impacts under Alternatives A and H would also be potentially significant under Variant H-sub1. Mitigation measures contained in the ROD Sections 6.6 and 6.8 would reduce these impacts to a less than significant level.

### **1.2.10 OTHER VALUES**

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H, as described above and in FEIS Section 2.0. Therefore, Variant H-sub1's impacts to other values, including noise, hazardous materials, and visual resources impacts, would fall in between the impacts of Alternatives A and H (see FEIS Section 4.10). Thus, less than significant impacts to visual resources under Alternatives A and H would also be less than significant under Variant H-sub1. For instance, the Variant H-sub1 parking garage would be 6 stories, as compared to 8 stories for Alternative A and 5 stories for Alternative H. Potentially significant noise and hazardous materials impacts under Alternatives A and H would also be potentially significant under Variant H-sub1. Mitigation measures contained in the ROD Sections 6.9 and 6.10 would reduce these impacts to a less than significant level.

### **1.2.11 INDIRECT AND GROWTH INDUCING EFFECTS**

#### ***GROWTH INDUCING EFFECTS***

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H, as described above and in FEIS Section 2.0. Therefore, Variant H-sub1's potential to induce growth due to the development of the proposed facilities

or related improvements to infrastructure and utilities would be in between the potential created by Alternatives A and H (see FEIS Section 4.11). As noted in FEIS Section 4.11, neither Alternative A nor Alternative H (or any infrastructure/utilities associated with Alternatives A or H) would have any growth inducing effects. Thus, Variant H-sub1 would also not result in any growth inducing effects.

***INDIRECT EFFECTS FROM OFF-SITE CONSTRUCTION***

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H, as described above and in FEIS Section 2.0. Therefore, Variant H-sub1's impacts and recommended off-site traffic improvements to mitigate traffic impacts would fall in between the impacts and recommended off-site traffic improvements for Alternatives A and H (see FEIS Sections 4.8, 4.12, 5.2.7, Appendix O and ROD Section 6.7 and Attachment 4). Thus, less than significant indirect impacts from the off-site construction of roadway/intersection improvements less than significant impacts to topography and mineral resources under Alternatives A and H would also be less than significant under Variant H-sub1.

Although only on-site wastewater treatment is a viable option at this time, note that off-site sewer pipeline construction would not differ between Alternatives A, H, and H-sub1.

**1.2.12 CUMULATIVE EFFECTS**

The development footprint, development components, and the size of the development under Variant H-sub1 would be in between that of Alternatives A and H, as described above and in FEIS Section 2.0. Therefore, Variant H-sub1's cumulative impacts would fall in between the impacts of Alternatives A and H (see FEIS Section 4.12.3). Thus, less than significant impacts to land resources and water resources under Alternatives A and H would also be less than significant under Variant H-sub1. Potentially significant air quality, biological resources, cultural resources, socioeconomic conditions, resources use patterns, public services, and other values impacts under Alternatives A and H would also be potentially significant under Variant H-sub1. For instance, Nitrogen Oxide (NO<sub>x</sub>) emissions would be 44.31 tons per year (tpy) for Variant H-sub1, as compared to 54 tpy and 37 tpy for Alternatives A and H. Other Variant H-sub1 cumulative criteria pollutant and greenhouse gas emissions are estimated in **Tables 5 and 6**. Mitigation measures contained in the ROD Section 6.0 would reduce potentially significant cumulative impacts to a less than significant level.



**TABLE 5**  
UNMITIGATED CUMULATIVE OPERATION EMISSIONS – VARIANT H-SUB1

Sources	ROG	NOx	PM <sub>10</sub>	PM <sub>2.5</sub> <sup>1</sup>
	tpy	tpy	tpy	tpy
Area	0.06	0.47	0.00	0.00
Mobile	26.29	46.08	123.45	122.462
<b>Total Emissions</b>	<b>26.35</b>	<b>44.31</b>	<b>123.45</b>	<b>122.462</b>
<i>BAAQMD Threshold</i>	15	15	15	N/A
<b>Exceeds BAAQMD Threshold</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>N/A</b>

Note: tpy = tons per year. N/A = Not Applicable

<sup>1</sup> CARB speciation profile shows that 99.2% of PM<sub>10</sub> is PM<sub>2.5</sub> for gasoline powered engine emissions and 92.0% for diesel powered engine emissions. 99.2% is assumed here for a conservative analysis. See ROD Attachment 7 for a technical memorandum demonstrating the conservative nature of this assumption.

Source: URBEMIS, 2007.

**TABLE 6**  
ESTIMATED VARIANT H-SUB1 OPERATIONAL GHG EMISSIONS

CO <sub>2</sub> Emissions <sup>1</sup>					
Mobile Sources		Area Sources		Total CO <sub>2</sub> e	
tpy		tpy		tpy	
70,704		701		71,405	
CH <sub>4</sub> and N <sub>2</sub> O Emission from Mobile Sources <sup>2</sup>					
Emission Factor (CH <sub>4</sub> /N <sub>2</sub> O)	Miles Traveled	CH <sub>4</sub>	N <sub>2</sub> O	Total CO <sub>2</sub> e	
g/mile	miles/day	tpy	tpy	tpy	
0.05/0.05	491,791	9.2	9.2	3,045	
Indirect GHG emissions <sup>2</sup>					
Emission Factor (Kg of CO <sub>2</sub> /CH <sub>4</sub> /N <sub>2</sub> O)	Estimated kW-h Usage <sup>3</sup>	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Indirect CO <sub>2</sub> e
lb/MW-h	MW-h/year	tons per year			
804.54/0.006/0.0037	49	10	0.0	0.0	10
<b>Total Operation CO<sub>2</sub>e tons per year</b>					<b>74,460</b>

<sup>1</sup> Estimated from EPA and CARB approved URBEMIS 2007 air quality program; tpy = tons per year.

<sup>2</sup> Emission factors from Climate Change Action Registry

<sup>3</sup> Estimated using 4,500 kilowatts-hours/month of power used.

Source: URBEMIS, 2007; Climate Change Action Registry, 2007.

# ***ATTACHMENT 4***

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*Variant H-sub1 Technical Studies*

*Air Quality*

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton Variant H-Sub1\Gr  
Project Name: Graton Variant H-Sub1 - Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	0.51	2.57	3.60	0.00	0.01
TOTALS (lbs/day, mitigated)	0.42	2.06	2.88	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	328.18	632.49	5,535.19	3.84	678.75
TOTALS (lbs/day, mitigated)	313.76	604.23	5,287.36	3.67	648.43

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	328.69	635.07	5,538.78	3.84	678.76
TOTALS (lbs/day, mitigated)	314.18	606.29	5,290.24	3.67	648.44

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton VJ\Graton Variant H-Sub1\Gr  
Project Name: Graton Variant H-Sub1 - Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.07	0.47	0.52	0.00	0.00
TOTALS (tpy, mitigated)	0.06	0.38	0.42	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	67.16	135.06	1,024.68	0.70	123.87
TOTALS (tpy, mitigated)	64.18	129.02	978.80	0.67	118.34

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	67.22	135.53	1,025.20	0.70	123.87
TOTALS (tpy, mitigated)	64.24	129.40	979.22	0.67	118.34

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton Variant H-Sub1\Gr  
Project Name: Graton Variant H-Sub1 - Near Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.19	2.57	2.16	0	0.00
Hearth - No summer emissions					
Landscaping	0.22	0.01	1.44	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.10	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.51	2.57	3.60	0.00	0.01

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.15	2.05	1.72	0	0.00
Hearth - No summer emissions					
Landscaping	0.18	0.01	1.15	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.10	-	-	-	-
TOTALS (lbs/day, mitigated)	0.42	2.06	2.88	0.00	0.01

Area Source Mitigation Measures

- Residential Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Commercial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Industrial Increase Efficiency Beyond Title 24  
Percent Reduction: 20
- Residential Electric Landscape Maintenance Equipment  
Percent Reduction: 20
- Commercial/Industrial Electric Landscape Maintenance Equipment  
Percent Reduction: 20

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	313.83	609.12	5,330.68	3.70	653.67
Hotel	14.35	23.37	204.51	0.14	25.08
TOTAL EMISSIONS (lbs/day)	328.18	632.49	5,535.19	3.84	678.75

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2008 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	359.62	14,179.82
Hotel		2.72 trips/rooms	200.00	544.00
Sum of Total Trips				14,723.82
Total Vehicle Miles Traveled				448,407.39

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			

% of Trips - Commercial (by land use)

Casino	5.0	2.5	92.5
Hotel	5.0	2.5	92.5

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	299.94	581.91	5,092.01	3.53	624.47
Hotel	13.81	22.32	195.35	0.14	23.96
TOTAL EMISSIONS (lbs/day)	313.76	604.23	5,287.36	3.67	648.43
PERCENTAGE REDUCTION %	4	4	4	4	4

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2008 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino (Worker Trip Rate: 36.81)		37.68 trips/1000 sq. ft.	359.6213	551.76
Hotel (Worker Trip Rate: 2.54)		2.60 trips/rooms	200.00	519.90
Sum of Total Trips				14,071.66
Total Vehicle Miles Traveled				428,376.55

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.00	1.60	98.00	0.40
Light Truck < 3,750 lbs	15.00	2.70	95.30	2.00
Light Truck 3,751- 5,750	16.20	1.20	97.50	1.30
Med Truck 5,751- 8,500	7.20	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.70	76.50	23.50	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Casino				5.0	2.5	92.5
Hotel				5.0	2.5	92.5



MITIGATION OPTIONS SELECTED

Non-Residential Mitigation Measures

=====

Non-Residential Local-Serving Retail Mitigation

-----

Percent Reduction in Trips is 2%

Inputs Selected:

The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

-----

Percent Reduction in Trips is 0.25%

Inputs Selected:

The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 24

The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0

The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Pedestrian/Bicycle Friendliness Mitigation

-----

Percent Reduction in Trips is 2.18%

Inputs Selected:

The Number of Intersections per Square Mile is 100

The Percent of Streets with Sidewalks on One Side is 50%

The Percent of Streets with Sidewalks on Both Sides is 10%

The Percent of Arterials/Collectors with Bike Lanes or where Suitable,

Direct Parallel Routes Exist is 30%

Non-Residential Free Transit Passes Mitigation

-----

Percent Reduction in Trips is 0.06%

Note that the above percent is applied ONLY to worker trips.

Inputs Selected:

The Free Transit Passes checkbox was selected.

Non-Residential Other Transportation Demand Measures Mitigation

-----

Percent Reduction in Trips is 2.24%

Note that the above percent is applied ONLY to worker trips.

Inputs Selected:

The 'Showers/Changing Facilities Provided' measure was selected

The 'Guaranteed Ride Home Program Provided' measure was selected

The 'Information provided on Transportation Alternatives' measure was selected

The 'Dedicated Employee Transportation Coordinator' measure was selected

The 'Carpool Matching Programs' measure was selected

The 'Preferential Carpool/Vanpool Parking' measure was selected

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The area source mitigation measure option switch changed from off to on.  
The landscape year changed from 2005 to 2007.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
Mitigation measure Residential Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Commercial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Industrial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Residential Electric Landscape Maintenance Equipment  
has been changed from off to on.  
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment  
has been changed from off to on.

Changes made to the default values for Operations

The mitigation option switch changed from off to on.  
The operational emission year changed from 2005 to 2008.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.  
The Res and Non-Res Local-Serving Retail Mitigation changed from off to on.  
The Res and Non-Res Transit Service Mitigation changed from off to on.  
The Res and Non-Res Ped/Bike Mitigation changed from off to on.  
The Res and Non-Res Trans Demand Mgmt Measures Mitigation changed from off to on.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton Variant H-Sub1\Gr  
Project Name: Graton Variant H-Sub1 - Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.46	2.59	3.42	0.00	0.01

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	128.84	215.83	2,095.00	3.82	676.45

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	129.30	218.42	2,098.42	3.82	676.46

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton Variant H-Sub1\Gr  
Project Name: Graton Variant H-Sub1 - Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	0.06	0.47	0.51	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	26.29	46.08	384.93	0.69	123.45

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (tpy, unmitigated)	26.35	46.55	385.43	0.69	123.45

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton Variant H-Sub1\Gr  
Project Name: Graton Variant H-Sub1 - Long Term  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.19	2.57	2.16	0	0.00
Hearth - No summer emissions					
Landscaping	0.18	0.02	1.26	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.10	-	-	-	-
TOTALS (lbs/day, unmitigated)	0.46	2.59	3.42	0.00	0.01

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Casino	122.84	207.86	2,017.60	3.68	651.46
Hotel	6.00	7.97	77.40	0.14	24.99
TOTAL EMISSIONS (lbs/day)	128.84	215.83	2,095.00	3.82	676.45

Includes correction for passby trips.  
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2020 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Casino		39.43 trips/1000 sq. ft.	359.62	14,179.82
Hotel		2.72 trips/rooms	200.00	544.00
Sum of Total Trips				14,723.82
Total Vehicle Miles Traveled				448,407.39

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.40	0.40	99.40	0.20
Light Truck < 3,750 lbs	15.30	0.70	98.00	1.30
Light Truck 3,751- 5,750	16.40	0.60	98.80	0.60
Med Truck 5,751- 8,500	7.30	0.00	98.60	1.40
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.80	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.20	0.00	50.00	50.00
Motorcycle	1.60	50.00	50.00	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.50	0.00	93.30	6.70

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	35.5	35.5
Trip Speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	27.3	21.2	51.5			

% of Trips - Commercial (by land use)

Casino	5.0	2.5	92.5
Hotel	5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 85  
The Diverted Trip % for Blank changed from 10 to 15  
The Primary Trip % for Hotel changed from 60 to 85  
The Diverted Trip % for Hotel changed from 35 to 15  
The Pass-By Trip % for Hotel changed from 5 to 0

Changes made to the default values for Area

The hearth option switch changed from on to off.  
The landscape year changed from 2005 to 2020.  
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.  
Mitigation measure Commercial Increase Efficiency Beyond Title 24  
has been changed from off to on.  
Mitigation measure Commercial/Industrial Electric Landscape Maintenance Equipment  
has been changed from off to on.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2020.  
The home based work selection item changed from 7 to 6.  
The home based shopping trip speed changed from 30 to 50.  
The home based shopping selection item changed from 7 to 10.  
The home based shopping urban trip length changed from 4.6 to 35.5.  
The home based other trip speed changed from 30 to 50.  
The home based other selection item changed from 7 to 10.  
The home based other urban trip length changed from 6.1 to 35.5.  
The commercial based commute selection item changed from 7 to 6.  
The commercial based non-work trip speed changed from 30 to 50.  
The commercial based non-work selection item changed from 7 to 10.  
The commercial based non-work urban trip length changed from 5.0 to 35.5.  
The commercial based non-work rural trip length changed from 10 to 35.5.  
The commercial based customer trip speed changed from 30 to 50.  
The commercial based customer selection item changed from 7 to 10.  
The commercial based customer urban trip length changed from 5.0 to 35.5.  
The commercial based customer rural trip length changed from 10 to 35.5.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton Variant H-Sub1\Gr  
Project Name: Graton Variant H-Sub1 - Constuction  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 ***							
TOTALS (lbs/day,unmitigated)	26.73	193.02	211.86	0.05	55.56	7.43	48.13
*** 2008 ***							
TOTALS (lbs/day,unmitigated)	38.42	120.83	172.68	0.00	4.83	4.42	0.41
*** 2009 ***							
TOTALS (lbs/day,unmitigated)	7.64	45.84	62.58	0.00	1.48	1.47	0.01



URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton Variant H-Sub1\Gr  
Project Name: Graton Variant H-Sub1 - Constuction  
Project Location: San Francisco Bay Area  
On-Road Motor Vehicle Emissions Based on EMPAC2002 version 2.2

SUMMARY REPORT  
(Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007 *** TOTALS (tpy, unmitigated)	1.75	12.41	13.67	0.00	3.23	0.50	2.73
*** 2008 *** TOTALS (tpy, unmitigated)	2.41	11.25	15.13	0.00	0.47	0.43	0.04
*** 2009 *** TOTALS (tpy, unmitigated)	0.16	1.00	1.37	0.00	0.03	0.03	0.00

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Graton V3\Graton Variant H-Sub1\Gr  
 Project Name: Graton Variant H-Sub1 - Constuction  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2007  
 Construction Duration: 27  
 Total Land Use Area to be Developed: 56 acres  
 Maximum Acreage Disturbed Per Day: 4.8 acres  
 Single Family Units: 0 Multi-Family Units: 0  
 Retail/Office/Institutional/Industrial Square Footage: 459628

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	7.09	-	7.09
Off-Road Diesel	10.75	79.71	81.01	-	3.45	3.45	0.00
On-Road Diesel	1.42	20.44	5.27	0.04	0.70	0.60	0.10
Worker Trips	0.06	0.10	1.73	0.00	0.01	0.00	0.01
Maximum lbs/day	12.23	100.25	88.01	0.04	11.25	4.05	7.20
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	48.00	-	48.00
Off-Road Diesel	25.06	165.65	204.75	-	6.76	6.76	0.00
On-Road Diesel	1.57	27.31	5.86	0.05	0.78	0.67	0.11
Worker Trips	0.10	0.06	1.25	0.00	0.02	0.00	0.02
Maximum lbs/day	26.73	193.02	211.86	0.05	55.56	7.43	48.13
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.62	76.09	81.91	-	3.19	3.19	0.00
Bldg Const Worker Trips	1.11	0.68	14.31	0.00	0.21	0.01	0.20
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	11.73	76.76	96.21	0.00	3.40	3.20	0.20
Max lbs/day all phases	26.73	193.02	211.86	0.05	55.56	7.43	48.13

*** 2008***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	10.62	72.88	83.96	-	2.88	2.88	0.00
Bldg Const Worker Trips	1.02	0.63	13.33	0.00	0.21	0.01	0.20
Arch Coatings Off-Gas	18.11	-	-	-	-	-	-
Arch Coatings Worker Trips	1.02	0.63	13.33	0.00	0.21	0.01	0.20
Asphalt Off-Gas	0.15	-	-	-	-	-	-
Asphalt Off-Road Diesel	7.41	46.00	61.26	-	1.50	1.50	0.00
Asphalt On-Road Diesel	0.04	0.66	0.14	0.00	0.02	0.02	0.00
Asphalt Worker Trips	0.05	0.03	0.66	0.00	0.01	0.00	0.01
Maximum lbs/day	38.42	120.83	172.68	0.00	4.83	4.42	0.41
Max lbs/day all phases	38.42	120.83	172.68	0.00	4.83	4.42	0.41

\*\*\* 2009\*\*\*

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.15	-	-	-	-	-	-
Asphalt Off-Road Diesel	7.41	45.21	61.84	-	1.46	1.46	0.00
Asphalt On-Road Diesel	0.04	0.60	0.13	0.00	0.01	0.01	0.00
Asphalt Worker Trips	0.05	0.03	0.60	0.00	0.01	0.00	0.01
Maximum lbs/day	7.64	45.84	62.58	0.00	1.48	1.47	0.01
Max lbs/day all phases	7.64	45.84	62.58	0.00	1.48	1.47	0.01

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Jun '07  
 Phase 1 Duration: 1.0 months  
 Building Volume Total (cubic feet): 85540  
 Building Volume Daily (cubic feet): 16875  
 On-Road Truck Travel (VMT): 936  
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Other Equipment	190	0.620	8.0
2	Rubber Tired Dozers	352	0.590	8.0
1	Rubber Tired Loaders	165	0.465	8.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jul '07  
 Phase 2 Duration: 5 months  
 On-Road Truck Travel (VMT): 1041.5  
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Crawler Tractors	143	0.575	8.0
3	Graders	174	0.575	8.0
1	Off Highway Trucks	417	0.490	8.0
2	Other Equipment	190	0.620	8.0
1	Rubber Tired Loaders	165	0.465	8.0
2	Scrapers	313	0.660	8.0
3	Tractor/Loaders/Backhoes	79	0.465	8.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Dec '07  
 Phase 3 Duration: 21 months  
 Start Month/Year for SubPhase Building: Dec '07  
 SubPhase Building Duration: 13 months  
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Concrete/Industrial saws	84	0.730	8.0
1	Cranes	190	0.430	8.0
2	Other Equipment	190	0.620	8.0
2	Rough Terrain Forklifts	94	0.475	8.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Sep '08

SubPhase Architectural Coatings Duration: 3 months

Start Month/Year for SubPhase Asphalt: Oct '08

SubPhase Asphalt Duration: 5 months

Acres to be Paved: 6.4

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Pavers	132	0.590	8.0
2	Paving Equipment	111	0.530	8.0
3	Rollers	114	0.430	8.0



Changes made to the default values for Land Use Trip Percentages

The Primary Trip % for Blank changed from 90 to 100  
The Diverted Trip % for Blank changed from 10 to 0  
The Primary Trip % for Hotel changed from 60 to 100  
The Diverted Trip % for Hotel changed from 35 to 0  
The Pass-By Trip % for Hotel changed from 5 to 0  
The Primary Trip % for Office park changed from 80 to 100  
The Diverted Trip % for Office park changed from 15 to 0  
The Pass-By Trip % for Office park changed from 5 to 0

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths  
Site Grading Truck Haul Capacity (yds3) changed from 20 to 12  
Site Grading Miles/Round Trip changed from 20 to 5  
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013  
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013  
Phase 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas  
has been changed from off to on.  
Phase 2 mitigation measure Soil Disturbance: Replace ground cover in disturbed areas quickly  
has been changed from off to on.  
Phase 2 mitigation measure Soil Disturbance: Water exposed surfaces - 2x daily  
has been changed from off to on.

Urbemis 2007 Version 9.2.4

Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Graton H-Sub 1\Graton - Variant H-Sub1.urb924

Project Name: Graton - Variant H-Sub1

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	<u>CO2</u>
2007 TOTALS (tons/year unmitigated)	730.51
2007 TOTALS (tons/year mitigated)	730.51
Percent Reduction	0.00
2008 TOTALS (tons/year unmitigated)	1,322.34
2008 TOTALS (tons/year mitigated)	1,322.34
Percent Reduction	0.00
2009 TOTALS (tons/year unmitigated)	555.03
2009 TOTALS (tons/year mitigated)	555.03
Percent Reduction	0.00

AREA SOURCE EMISSION ESTIMATES

	<u>CO2</u>
TOTALS (tons/year, unmitigated)	875.96
TOTALS (tons/year, mitigated)	700.87
Percent Reduction	19.99

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>CO2</u>
TOTALS (tons/year, unmitigated)	72,443.31
TOTALS (tons/year, mitigated)	70,704.09
Percent Reduction	2.40

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>CO2</u>
TOTALS (tons/year, unmitigated)	73,319.27
TOTALS (tons/year, mitigated)	71,404.96
Percent Reduction	2.61

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Graton H-Sub 1\Graton - Variant H-Sub1.urb924

Project Name: Graton - Variant H-Sub1

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

CO2

2007 TOTALS (lbs/day unmitigated)	17,542.56
2007 TOTALS (lbs/day mitigated)	17,542.56
2008 TOTALS (lbs/day unmitigated)	10,094.21
2008 TOTALS (lbs/day mitigated)	10,094.21
2009 TOTALS (lbs/day unmitigated)	11,835.16
2009 TOTALS (lbs/day mitigated)	11,835.16

AREA SOURCE EMISSION ESTIMATES

CO2

TOTALS (lbs/day, unmitigated)	4,802.58
TOTALS (lbs/day, mitigated)	3,843.19
Percent Reduction	19.98



OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	417,413.05
TOTALS (lbs/day, mitigated)	407,391.78
Percent Reduction	2.40

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	422,215.63
TOTALS (lbs/day, mitigated)	411,234.97
Percent Reduction	2.60

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	<u>CO2</u>
Time Slice 6/1/2007-6/14/2007 Active Days: 10	3,294.71
Demolition 06/01/2007- 06/30/2007	3,294.71
Fugitive Dust	0.00
Demo Off Road Diesel	2,281.38
Demo On Road Diesel	862.48
Demo Worker Trips	150.84

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Time Slice 6/15/2007-6/29/2007	10,012.46
Active Days: 11	
Demolition 06/01/2007-06/30/2007	3,294.71
Fugitive Dust	0.00
Demo Off Road Diesel	2,281.38
Demo On Road Diesel	862.48
Demo Worker Trips	150.84
Mass Grading 06/15/2007-09/01/2007	6,717.76
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	3,007.48
Mass Grading On Road Diesel	3,559.44
Mass Grading Worker Trips	150.84
Time Slice 7/2/2007-8/14/2007	6,717.76
Active Days: 32	
Mass Grading 06/15/2007-09/01/2007	6,717.76
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	3,007.48
Mass Grading On Road Diesel	3,559.44
Mass Grading Worker Trips	150.84

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Time Slice 8/15/2007-8/31/2007 17,542.56

Active Days: 13

Fine Grading 08/15/2007-  
09/15/2007 10,824.80

Fine Grading Dust 0.00

Fine Grading Off Road Diesel 3,007.48

Fine Grading On Road Diesel 7,666.48

Fine Grading Worker Trips 150.84

Mass Grading 06/15/2007-  
09/01/2007 6,717.76

Mass Grading Dust 0.00

Mass Grading Off Road Diesel 3,007.48

Mass Grading On Road Diesel 3,559.44

Mass Grading Worker Trips 150.84

Time Slice 9/3/2007-9/14/2007 10,824.80

Active Days: 10

Fine Grading 08/15/2007-  
09/15/2007 10,824.80

Fine Grading Dust 0.00

Fine Grading Off Road Diesel 3,007.48

Fine Grading On Road Diesel 7,666.48

Fine Grading Worker Trips 150.84

Time Slice 9/17/2007-10/5/2007 10,061.72

Active Days: 15

Building 09/15/2007-05/15/2009 10,061.72

Building Off Road Diesel 3,197.75

Building Vendor Trips 3,314.23

Building Worker Trips 3,549.74

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Time Slice 10/8/2007-12/31/2007 10,093.97  
Active Days: 61

Building 09/15/2007-05/15/2009 10,061.72

Building Off Road Diesel 3,197.75

Building Vendor Trips 3,314.23

Building Worker Trips 3,549.74

Coating 10/08/2007-05/31/2009 32.25

Architectural Coating 0.00

Coating Worker Trips 32.25

Time Slice 1/1/2008-12/31/2008 10,094.21  
Active Days: 262

Building 09/15/2007-05/15/2009 10,061.97

Building Off Road Diesel 3,197.75

Building Vendor Trips 3,314.35

Building Worker Trips 3,549.87

Coating 10/08/2007-05/31/2009 32.25

Architectural Coating 0.00

Coating Worker Trips 32.25

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Time Slice 1/1/2009-2/13/2009	10,095.72
Active Days: 32	
Building 09/15/2007-05/15/2009	10,063.46
Building Off Road Diesel	3,197.75
Building Vendor Trips	3,314.38
Building Worker Trips	3,551.33
Coating 10/08/2007-05/31/2009	32.26
Architectural Coating	0.00
Coating Worker Trips	32.26
Time Slice 2/16/2009-5/15/2009	<u>11,835.16</u>
Active Days: 65	
Asphalt 02/15/2009-05/31/2009	1,739.43
Paving Off-Gas	0.00
Paving Off Road Diesel	1,131.92
Paving On Road Diesel	366.06
Paving Worker Trips	241.46
Building 09/15/2007-05/15/2009	10,063.46
Building Off Road Diesel	3,197.75
Building Vendor Trips	3,314.38
Building Worker Trips	3,551.33
Coating 10/08/2007-05/31/2009	32.26
Architectural Coating	0.00
Coating Worker Trips	32.26

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Time Slice 5/18/2009-5/29/2009	1,771.69
Active Days: 10	
Asphalt 02/15/2009-05/31/2009	1,739.43
Paving Off-Gas	0.00
Paving Off Road Diesel	1,131.92
Paving On Road Diesel	366.06
Paving Worker Trips	241.46
Coating 10/08/2007-05/31/2009	32.26
Architectural Coating	0.00
Coating Worker Trips	32.26

Phase Assumptions

Phase: Demolition 6/1/2007 - 6/30/2007 - Type Your Description Here

Building Volume Total (cubic feet): 85540

Building Volume Daily (cubic feet): 16875

On Road Truck Travel (VMT): 234.38

Off-Road Equipment:

1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Fine Grading 8/15/2007 - 9/15/2007 - Default Fine Site Grading Description

Total Acres Disturbed: 21.1

Maximum Daily Acreage Disturbed: 5.28

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 2083.33

Off-Road Equipment:

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- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 6/15/2007 - 9/1/2007 - Type Your Description Here

Total Acres Disturbed: 21.1

Maximum Daily Acreage Disturbed: 5.28

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 967.26

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 2/15/2009 - 5/31/2009 - Default Paving Description

Acres to be Paved: 5.28

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 9/15/2007 - 5/15/2009 - Default Building Construction Description

Off-Road Equipment:

- 2 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 3 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 2 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

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3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 10/8/2007 - 5/31/2009 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	<u>CO2</u>
Time Slice 6/1/2007-6/14/2007	3,294.71
Active Days: 10	
Demolition 06/01/2007-06/30/2007	3,294.71
Fugitive Dust	0.00
Demo Off Road Diesel	2,281.38
Demo On Road Diesel	862.48
Demo Worker Trips	150.84



5/12/2009 3:45:42 PM

Time Slice 6/15/2007-6/29/2007	10,012.46
Active Days: 11	
Demolition 06/01/2007-06/30/2007	3,294.71
Fugitive Dust	0.00
Demo Off Road Diesel	2,281.38
Demo On Road Diesel	862.48
Demo Worker Trips	150.84
Mass Grading 06/15/2007-09/01/2007	6,717.76
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	3,007.48
Mass Grading On Road Diesel	3,559.44
Mass Grading Worker Trips	150.84
Time Slice 7/2/2007-8/14/2007	6,717.76
Active Days: 32	
Mass Grading 06/15/2007-09/01/2007	6,717.76
Mass Grading Dust	0.00
Mass Grading Off Road Diesel	3,007.48
Mass Grading On Road Diesel	3,559.44
Mass Grading Worker Trips	150.84

5/12/2009 3:45:42 PM

Time Slice 8/15/2007-8/31/2007      17,542.56  
 Active Days: 13

Fine Grading 08/15/2007-  
 09/15/2007      10,824.80

Fine Grading Dust      0.00

Fine Grading Off Road Diesel      3,007.48

Fine Grading On Road Diesel      7,666.48

Fine Grading Worker Trips      150.84

Mass Grading 06/15/2007-  
 09/01/2007      6,717.76

Mass Grading Dust      0.00

Mass Grading Off Road Diesel      3,007.48

Mass Grading On Road Diesel      3,559.44

Mass Grading Worker Trips      150.84

Time Slice 9/3/2007-9/14/2007      10,824.80  
 Active Days: 10

Fine Grading 08/15/2007-  
 09/15/2007      10,824.80

Fine Grading Dust      0.00

Fine Grading Off Road Diesel      3,007.48

Fine Grading On Road Diesel      7,666.48

Fine Grading Worker Trips      150.84

Time Slice 9/17/2007-10/5/2007      10,061.72  
 Active Days: 15

Building 09/15/2007-05/15/2009      10,061.72

Building Off Road Diesel      3,197.75

Building Vendor Trips      3,314.23

Building Worker Trips      3,549.74

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Time Slice 10/8/2007-12/31/2007 10,093.97  
Active Days: 61

Building 09/15/2007-05/15/2009 10,061.72

Building Off Road Diesel 3,197.75

Building Vendor Trips 3,314.23

Building Worker Trips 3,549.74

Coating 10/08/2007-05/31/2009 32.25

Architectural Coating 0.00

Coating Worker Trips 32.25

Time Slice 1/1/2008-12/31/2008 10,094.21  
Active Days: 262

Building 09/15/2007-05/15/2009 10,061.97

Building Off Road Diesel 3,197.75

Building Vendor Trips 3,314.35

Building Worker Trips 3,549.87

Coating 10/08/2007-05/31/2009 32.25

Architectural Coating 0.00

Coating Worker Trips 32.25

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Time Slice 1/1/2009-2/13/2009	10,095.72
Active Days: 32	
Building 09/15/2007-05/15/2009	10,063.46
Building Off Road Diesel	3,197.75
Building Vendor Trips	3,314.38
Building Worker Trips	3,551.33
Coating 10/08/2007-05/31/2009	32.26
Architectural Coating	0.00
Coating Worker Trips	32.26
Time Slice 2/16/2009-5/15/2009	<u>11,835.16</u>
Active Days: 65	
Asphalt 02/15/2009-05/31/2009	1,739.43
Paving Off-Gas	0.00
Paving Off Road Diesel	1,131.92
Paving On Road Diesel	366.06
Paving Worker Trips	241.46
Building 09/15/2007-05/15/2009	10,063.46
Building Off Road Diesel	3,197.75
Building Vendor Trips	3,314.38
Building Worker Trips	3,551.33
Coating 10/08/2007-05/31/2009	32.26
Architectural Coating	0.00
Coating Worker Trips	32.26

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Time Slice 5/18/2009-5/29/2009	1,771.69
Active Days: 10	
Asphalt 02/15/2009-05/31/2009	1,739.43
Paving Off-Gas	0.00
Paving Off Road Diesel	1,131.92
Paving On Road Diesel	366.06
Paving Worker Trips	241.46
Coating 10/08/2007-05/31/2009	32.26
Architectural Coating	0.00
Coating Worker Trips	32.26

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Demolition 6/1/2007 - 6/30/2007 - Type Your Description Here

For Concrete/Industrial Saws, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Concrete/Industrial Saws, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Fine Grading 8/15/2007 - 9/15/2007 - Default Fine Site Grading Description

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Graders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Water Trucks, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Water Trucks, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Mass Grading 6/15/2007 - 9/1/2007 - Type Your Description Here

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

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PM10: 55% PM25: 55%

For Graders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Graders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Water Trucks, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Water Trucks, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Paving 2/15/2009 - 5/31/2009 - Default Paving Description

For Cement and Mortar Mixers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Pavers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Pavers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Paving Equipment, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Paving Equipment, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

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For Rollers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rollers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Building Construction 9/15/2007 - 5/15/2009 - Default Building Construction Description

For Cranes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Generator Sets, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Generator Sets, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Welders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Welders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Architectural Coating 10/8/2007 - 5/31/2009 - Default Architectural Coating Description

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%



Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>CO2</u>
Natural Gas	4,796.96
Hearth - No Summer Emissions	
Landscape	5.62
Consumer Products	
Architectural Coatings	
TOTALS (lbs/day, unmitigated)	4,802.58

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

<u>Source</u>	<u>CO2</u>
Natural Gas	3,837.57
Hearth - No Summer Emissions	
Landscape	5.62
Consumer Products	
Architectural Coatings	
TOTALS (lbs/day, mitigated)	3,843.19

Area Source Mitigation Measures Selected

<u>Mitigation Description</u>	<u>Percent Reduction</u>
Commercial Increase Energy Efficiency Beyond Title 24	20.00
Percent of Commercial and Industrial Landscape Equipment that are Electrically Powered and have Electrical Outlets Available	20.00
For Nonresidential Interior Use Low VOC Coating	10.00
For Nonresidential Exterior Use Low VOC Coating	10.00

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	CO2
Hotel	15,145.00
Casino and Entertainment	402,268.05
TOTALS (lbs/day, unmitigated)	417,413.05

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

<u>Source</u>	CO2
Hotel	14,781.23
Casino and Entertainment	392,610.55
TOTALS (lbs/day, mitigated)	407,391.78

Operational Mitigation Options Selected

Residential Mitigation Measures

Nonresidential Mitigation Measures

Non-Residential Local-Serving Retail Mitigation

-----  
Percent Reduction in Trips is 2%

Inputs Selected:

The Presence of Local-Serving Retail checkbox was selected.

Non-Residential Transit Service Mitigation

Nonresidential Mitigation Measures

---

Percent Reduction in Trips is 0.4%

Inputs Selected:

The Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 24

The Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 0

The Number of Dedicated Daily Shuttle Trips is 0

Non-Residential Free Transit Passes Mitigation

---

Percent Reduction in Trips is 0.1%

Note that the above percent is applied ONLY to worker trips.

Inputs Selected:

The Free Transit Passes checkbox was selected.

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2008 Temperature (F): 85 Season: Summer

Ermfac: Version : Ermfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Hotel		2.72	rooms	200.00	544.00	16,567.28

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Casino and Entertainment		39.43	1000 sq ft	359.62	14,179.82	440,787.75
					14,723.82	457,355.03

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	53.9	2.0	97.6	0.4
Light Truck < 3750 lbs	12.9	3.1	93.0	3.9
Light Truck 3751-5750 lbs	19.7	1.0	98.5	0.5
Med Truck 5751-8500 lbs	6.5	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.9	0.0	77.8	22.2
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.4	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.2	78.1	21.9	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.6	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5

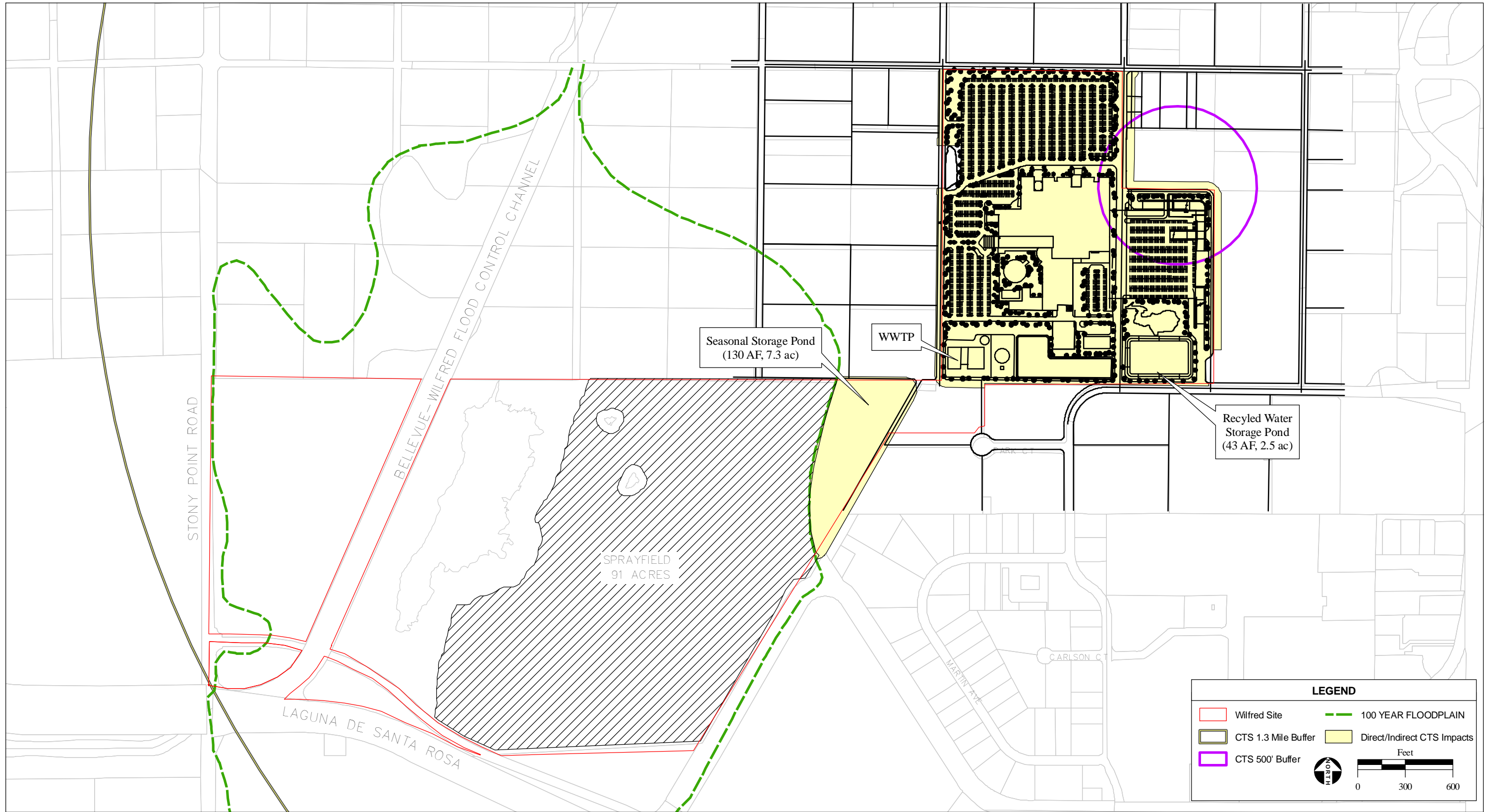
Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	30.0	50.0	50.0	30.0	50.0	50.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Casino and Entertainment				2.0	1.0	97.0

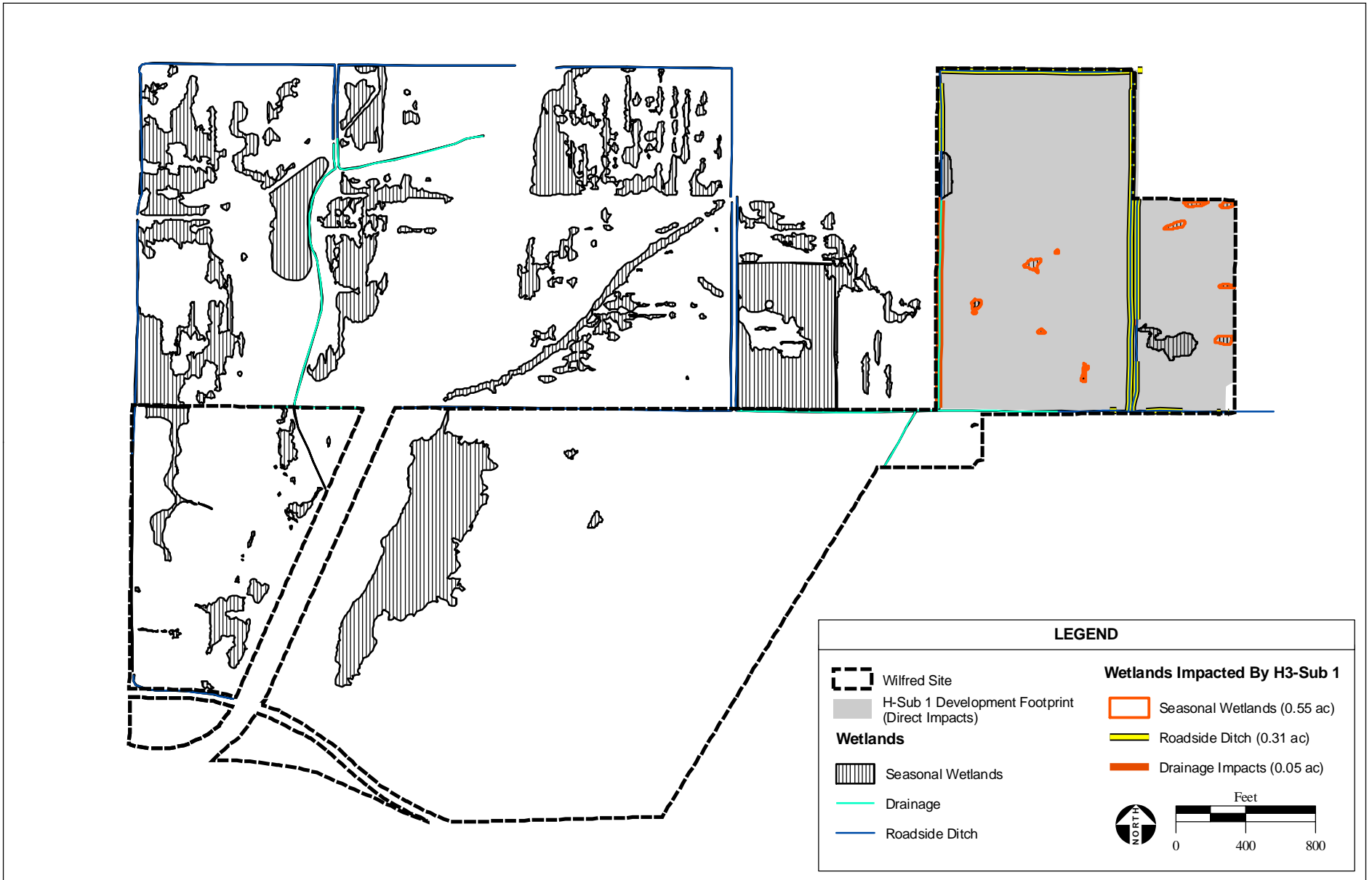
Operational Changes to Defaults

- Home-based work average speed changed from 35 mph to 30 mph
- Home-based work urban trip length changed from 10.8 miles to 11.8 miles
- Home-based shop average speed changed from 35 mph to 50 mph
- Home-based shop urban trip length changed from 7.3 miles to 35.5 miles
- Home-based other average speed changed from 35 mph to 50 mph
- Home-based other urban trip length changed from 7.5 miles to 35.5 miles
- Commercial-based commute average speed changed from 35 mph to 30 mph
- Commercial-based commute urban trip length changed from 9.5 miles to 11.8 miles
- Commercial-based non-work average speed changed from 35 mph to 50 mph
- Commercial-based non-work urban trip length changed from 7.35 miles to 35.5 miles
- Commercial-based customer average speed changed from 35 mph to 50 mph
- Commercial-based customer urban trip length changed from 7.35 miles to 35.5 miles

*Biology*







*Traffic*

*Final Traffic Impact Study*

**GRATON RANCHERIA  
CASINO AND HOTEL -  
ALTERNATIVES A, B, C, D, E, & H  
AND VARIANT H-SUB1  
SONOMA COUNTY, CA**

May 2009

**Prepared for:**

Analytical Environmental Services

**Prepared by:**

Kimley-Horn and Associates, Inc.

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## EXECUTIVE SUMMARY

Kimley-Horn and Associates, Inc. (KHA) was retained by Analytical Environmental Services to prepare a traffic impact study for a casino and hotel proposed to be located west of Rohnert Park, California. There were seven alternatives evaluated at this location – No Action Alternative, Wilfred Avenue Alternative, Northwest Stony Point Alternative, Northeast Stony Point Alternative, Northwest Stony Point Reduced Intensity Alternative, Business Park Alternative, and Wilfred Avenue Reduced Intensity Alternative.

When completed, it is proposed that the casino will be 450,000 square feet with a 300 room hotel at the Wilfred Avenue, Northwest Stony Point, and Northeast Stony Point sites. This new development will generate roughly 18,261 daily trips. During the peak hours of the weekday, approximately 1,384 AM peak hour trips and 2,287 PM peak hour trips will enter or exit the casino/hotel and affect nearby intersections and roadway segments.

The Reduced Intensity Alternative casino will be 315,100 square feet with a 100 room hotel. This new development will generate roughly 12,696 daily trips. During the peak hours of the weekday, approximately 949 AM peak hour trips and 1,580 PM peak hour trips will enter or exit the casino/hotel and affect nearby intersections and roadway segments.

The Business Park Alternative will have 400,000 square feet of light industrial and 100,000 square feet of commercial space. This new development will generate roughly 7,082 daily trips. During the peak hours of the weekday, approximately 471 AM peak hour trips and 621 PM peak hour trips will enter or exit the business park and affect nearby intersections and roadway segments.

There are extensive mitigations for all scenarios as a result of the proposed alternatives.

## INTRODUCTION

Kimley-Horn and Associates, Inc was retained by Analytical Environmental Services to prepare a traffic impact study for a casino and hotel proposed to be located west of Rohnert Park, California. The site is immediately west of the city's sphere of influence in land identified as community separator in the Rohnert Park General Plan. It is proposed that the casino and hotel be completed by late 2007/early 2008.

The purpose of this study is to address the traffic and transportation effects of the proposed casino and hotel development and to assist the Tribe's environmental consultant in the preparation of an Environmental Impact Statement for the project. This traffic study was prepared based on discussions with, and criteria set forth by, the City of Rohnert Park, County of Sonoma, and the California Department of Transportation (Caltrans).

### Study Methodology

This traffic study was based on planning conditions assumed in the Rohnert Park General Plan (adopted July 2000), the Sonoma County General Plan (adopted 1989), as well as information provided by Caltrans and Sonoma County Regional Transportation Authority. Because none of the agencies' planning and project programming documents anticipated a casino and hotel development or its potential impacts, this study evaluated the addition of a casino and hotel near the intersection of Stony Point Road and Wilfred Avenue.

### Development Conditions

The traffic study was based on the following study scenarios:

- Existing Conditions – evaluates current traffic counts, existing roadway geometry, and existing development conditions.
- 2008 Conditions – evaluates existing traffic volumes with the addition of planned projects anticipated to be completed by 2008 assuming an average 2% per year increase in the background traffic.
- 2008 Conditions Plus Project – evaluates effects of traffic from each Development Alternative on 2008 traffic operations.
- 2020 Cumulative Conditions – analysis of build-out conditions in the area projected for 2020 using the forecast from the Sonoma County travel forecasting model.
- 2020 Cumulative Plus Project Conditions – evaluates effects of traffic from each Development Alternative on 2020 Cumulative traffic operations.

## **Development Alternatives**

Six development alternatives are analyzed in this report. A seventh development alternative, which was proposed along Lakeville Highway near the intersection of SR-39, is analyzed in a separate report.

- No Action Alternative – assumes no action would be taken; evaluates conditions that would occur without the proposed project.
- Alternative A – Wilfred Site – assumes casino/hotel resort approximately 762,300 total square feet with access from Business Park Drive and Wilfred Avenue.
- Alternative B – Northwest Stony Point Site – assumes casino/hotel resort approximately 762,300 total square feet with access from Wilfred Avenue and Stony Point Road.
- Alternative C – Northeast Stony Point Site – assumes casino/hotel resort approximately total 762,300 square feet with access from Wilfred Avenue.
- Alternative D – Northwest Stony Point Reduced Intensity Site – assumes Reduced Intensity casino/hotel resort approximately 413,400 total square feet with access from Wilfred Avenue and Stony Point Road.
- Alternative E – Northwest Stony Point Business Park Site – assumes Business Park approximately 500,000 total square feet of space with access from Wilfred Avenue and Stony Point Road.
- Alternative H – Wilfred Avenue Reduced Intensity Site – assumes Reduced Intensity casino/hotel resort approximately 413,400 total square feet with access from Business Park Drive and Wilfred Avenue.
- Variant H-sub1 – Wilfred Avenue Reduced Intensity Site – assumes Reduced Intensity casino/hotel resort with approximately 534,900 total square feet with access from Business Park Drive and Wilfred Avenue.

## **Operating Conditions and Criteria**

Operating conditions experienced by drivers are described in terms of Level of Service (LOS), which is a qualitative measure of factors such as delay, speed, travel time, freedom to maneuver, and driving comfort and convenience. Levels of service are represented by a letter scale from LOS A to LOS F, with LOS A representing the best performance and LOS F representing the poorest performance.

**Table 1** relates the operational characteristics associated with each level of service category for both signalized and unsignalized intersections. **Table 2** summarizes the local level of service standards. LOS F (with delay reported as OVRFL) indicates that the intersection is in a state of overflow such that the analysis software is unable to calculate an average delay.

**Table 1 – Intersection Level of Service Definitions**

Level of Service	Description	Signalized (Avg. control delay per vehicle sec/veh)	Unsignalized (Avg. control delay per vehicle sec/veh)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream	≤ 10	≤ 10
B	Stable traffic. Traffic flows smoothly with few delays.	> 10 – 20	> 10 – 15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	> 20 – 35	> 15 – 25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	> 35 – 55	> 25 – 35
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	> 55 – 80	> 35 – 50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	> 80	> 50

Source: Transportation Research Board, *Highway Capacity Manual 2000*, National Research Council, 2000.

**Table 2 – Local Level Of Service Criteria**

Jurisdiction	Satisfactory Criteria	Significance Criteria
Sonoma County	D	Project causes LOS to fall below D or adds > 5 seconds to intersection already operating at LOS D or worse
Rohnert Park	C	<p>Project causes LOS to fall below C.</p> <p>Lower LOS is permitted if otherwise below or if no feasible improvement is available and project does not cause further decrease in LOS.</p> <p>The following study area study intersections are permitted to operate at LOS D:</p> <p>Wilfred Avenue / Redwood Drive</p> <p>Golf Course Drive Commerce Blvd</p>
Caltrans	<p>D - signalized intersections and highways</p> <p>E – freeway segments and ramps</p>	<p>Project causes LOS to fall below D at intersections and highways</p> <p>Project causes LOS to fall below E for freeway segments</p> <p>Project causes vehicle queues to extend outside of available storage or onto the freeway</p> <p>Project causes freeway ramp merge/diverge LOS to be worse than freeway LOS</p> <p>If LOS already below criteria, the existing LOS and related measure of effectiveness (MOE) are to be maintained.</p>

The change to the LOS standard was contained in a Caltrans response<sup>1</sup> during the scoping period of the project. Normally the standard would be LOS C or better for intersections (per Caltrans' Guide for the Preparation of Traffic Impact Studies) but in the letter, Caltrans indicated at the Rohnert Park site, a lower level of service was acceptable before mitigation would be required.

<sup>1</sup> Timothy Sable (Caltrans) letter to Christine Nagle (NIGC), 1 April 2004.

Traffic analysis was completed using Synchro software at all intersections and Highway Capacity Software (HCS) at ramps and freeway segments. Both software platforms are based on the methodology of the *Highway Capacity Manual*.

## Intersections Included in Analysis

The proposed project will generate new vehicular trips that will increase traffic volumes on the nearby street network. To assess changes in traffic conditions associated with the project, the following intersections, illustrated in **Figure 1**, were evaluated in this traffic study:

1. Stony Point Rd and Wilfred Ave
2. Primrose Ave and Wilfred Ave
3. Whistler Ave and Wilfred Ave
4. Langner Ave and Wilfred Ave
5. Labath Ave and Wilfred Ave
6. Dowdell Ave and Wilfred Ave
7. Redwood Dr and Wilfred Ave
8. Redwood Dr and Commerce Blvd (evaluated as existing and near-term only – changes as part of the Caltrans interchange project and not evaluated in the cumulative scenario)
9. Wilfred Avenue and US 101 SB Ramps (future intersection)
10. Golf Course Dr and Commerce Blvd
11. Golf Course Dr and Roberts Lake Rd
12. Commerce Blvd and US 101 NB Ramps
13. Project Driveway and Stony Point Rd
14. Business Park Dr and Labath Ave
15. Business Park Dr and Redwood Dr
16. Rohnert Park Expressway and Stony Point Rd
17. Rohnert Park Expressway and Labath Ave
18. Rohnert Park Expressway and Redwood Dr
19. Rohnert Park Expressway and US 101 SB Ramps
20. Rohnert Park Expressway and US 101 NB Ramps
21. Rohnert Park Expressway and Commerce Blvd
22. Gravenstein Hwy (SR-116) and Stony Point Rd
23. Gravenstein Hwy (SR-116) and Redwood Dr
24. Gravenstein Hwy (SR-116) and SB US 101 Ramps
25. Gravenstein Hwy (SR-116) and NB US 101 Off-Ramp
26. Millbrae Ave and Stony Point Rd
27. Millbrae Ave and Primrose Ave
28. Millbrae Ave and Whistler Ave
29. Millbrae Ave and Langner Ave
30. Millbrae Ave and Labath Ave
31. Millbrae Ave and Dowdell Ave

## Freeway Segments and Ramps Included in Analysis

The following freeway segments and ramps were evaluated in this traffic study.

### Segments

- Northbound US-101 south of Gravenstein Highway (SR-116)
- Northbound US-101 between Gravenstein Highway (SR-116) and Rohnert Park Expressway
- Northbound US-101 between Rohnert Park Expressway and Wilfred Avenue
- Northbound US-101 between Wilfred Avenue and Santa Rosa Avenue
- Northbound US-101 north of Santa Rosa Avenue
- Southbound US-101 north of Santa Rosa Avenue
- Southbound US-101 between Santa Rosa Avenue and Wilfred Avenue
- Southbound US-101 between Wilfred Avenue and Rohnert Park Expressway
- Southbound US-101 between Rohnert Park Expressway and Gravenstein Highway (SR-116)
- Southbound US-101 south of Gravenstein Highway (SR-116)

### Ramps

- Northbound Gravenstein Highway (SR-116) on-ramp
- Northbound Rohnert Park Expressway loop on-ramp
- Northbound Rohnert Park Expressway on-ramp
- Northbound Wilfred Avenue on-ramp
- Southbound Santa Rosa Avenue on-ramp
- Southbound Wilfred Avenue on-ramp
- Southbound Rohnert Park Expressway loop on-ramp
- Southbound Rohnert Park Expressway on-ramp
- Southbound Gravenstein Highway (SR-116) on-ramp
- Northbound Gravenstein Highway (SR-116) off-ramp
- Northbound Rohnert Park Expressway off-ramp
- Northbound Wilfred Avenue off-ramp
- Northbound Santa Rosa Avenue off-ramp
- Southbound Wilfred Avenue off-ramp
- Southbound Rohnert Park Expressway off-ramp
- Southbound Gravenstein Highway (SR-116) off-ramp



## EXISTING CONDITIONS

### Existing Site Uses

Both the Wilfred Avenue and Stony Point casino and hotel sites are generally level and currently used for agricultural purposes. Most of the Stony Point site is vacant; however, a large barn and related building are located in the northwest portion of the project site. The project area is divided by the Bellevue-Wilfred Flood Control Channel that passes diagonally through the site. Most of the Wilfred Avenue site is vacant as well with less than five single family dwellings on the site.

### Existing Uses in Vicinity of Sites

Land areas north, south and west of the Stony Point site are currently used for rural agricultural purposes and are not expected to change in the next 20 years. Land uses east of the Stony Point site consist of County Community Separator or are within the City of Rohnert Park and are designated for medium and high density residential, industrial, business park, and commercial uses. Much of the area in Rohnert Park is still vacant and is expected to develop as identified in the Rohnert Park General Plan, the Northwest Specific Plan, and the Wilfred-Dowdell Specific Plan.

Land areas north and west of the Wilfred Avenue site are currently used for agricultural purposes and are not expected to change in the next 20 years. Land areas south and east of the Wilfred Avenue site are currently being developed or are developed as identified in the Rohnert Park General Plan, the Northwest Specific Plan, and the Wilfred-Dowdell Specific Plan.

### Existing Roadways, Freeway Segments, and Ramps

Below is a description of the roadway facilities, freeway segments, and ramps included in the traffic impact study.

#### Roadway Facilities

**Business Park Drive** – is a two lane roadway with curbs and gutters and no parking. The road is classified in the Rohnert Park General Plan as a Minor Collector.

**Dowdell Avenue** – is a narrow two lane roadway with open roadside ditches and no shoulders from south of Wilfred to 385 feet north of Wilfred Avenue where the roadway widens slightly and curbs and gutters are present. The road is classified in the Rohnert Park General Plan as a Minor Collector in the future.

**Commerce Boulevard** – is an urban roadway with curbs and gutters and is classified as a Major Arterial in the Rohnert Park General Plan. The road width varies from two lanes to five lanes wide with left (and sometimes right) turn lanes at major intersections.

**Golf Course Drive** – is an urban roadway with curbs and gutters and is classified as a Major Arterial in the Rohnert Park General Plan. The road is five lanes wide near the Wilfred interchange with left turn lanes at major intersections.

**Gravenstein Highway (SR-116)** – is an urban roadway with curbs and gutters and is classified in the Rohnert Park General Plan as a Minor Arterial west of Redwood Drive and as a Major Arterial east of Redwood Drive. In the unincorporated area of Sonoma County, SR-116 is classified as a Rural Principal Arterial in the Sonoma County General Plan. The road is four lanes wide with left turn lanes at major intersections.

**Labath Avenue** – is classified as a Minor Collector in the Rohnert Park General Plan (between Rohnert Park Expressway and Wilfred Avenue). Other segments of Labath Avenue are classified as Local Roads. The road is two lanes wide with on-street parking, curbs and gutters south of Business Park Drive. Between Business Park Drive and Wilfred Avenue, the street is one to two lanes wide and unimproved. North of Wilfred Avenue the street is a narrow two lane roadway with open roadside ditches and no shoulders. Currently there is a missing segment north of Business Park Drive but the Rohnert Park General Plan shows the completion of the segment as lands are developed in the vicinity.

**Langner Avenue** – is a two lane roadway with open roadside ditches and no shoulders. The roadway is classified as a local road in the Sonoma County General Plan.

**Millbrae Avenue** – is a narrow two lane roadway with open roadside ditches and no shoulders. The road is classified as a Rural Minor Collector in the Draft 2020 Sonoma County General Plan.

**Primrose Avenue** – is a narrow two lane roadway with open roadside ditches and no shoulders. The road is classified as a local road in the Sonoma County General Plan.

**Redwood Drive** – is an urban roadway with curbs and gutters and is classified as a Major Arterial in the Rohnert Park General Plan. The road is five lanes wide with left (and sometimes right) turn lanes at major intersections.

**Rohnert Park Expressway** – is an urban roadway with curbs and gutters and is classified as a Major Arterial in the Rohnert Park General Plan. The road is six lanes wide (with turn lanes) near the US-101 freeway but narrows to only two lanes at the city limit. Rohnert Park Expressway between the city limit and Stony Point Road is a two lane facility with wide paved shoulders and is classified as a Minor Arterial in the Rohnert Park General Plan and as a Rural Principal Arterial in the unincorporated areas of Sonoma County in the Sonoma County General Plan.

**Stony Point Road** – is a two lane rural roadway with open roadside ditches, wide shoulders, and left turn bays at major intersections. The road is classified as a Rural Principal Arterial and is shown in the Sonoma County General Plan.

**Whistler Avenue** – is a narrow two lane roadway with open roadside ditches and no shoulders. The road is classified as a local road in the Sonoma County General Plan.

**Wilfred Avenue** – is a rural two lane roadway with open roadside ditches and no shoulders. Designated as Major Arterial in the Rohnert Park General Plan within the City’s Sphere of Influence and as a Rural Major Collector outside Rohnert Park as shown in the Sonoma County General Plan, the road is planned to be expanded in the future to 4 lanes within the city limits.

### **Segments**

Northbound/Southbound US-101 south of Gravenstein Highway (SR-116) – is two lanes in each direction with paved shoulders and narrow grassy median and guard rail.

Northbound/Southbound US-101 between Gravenstein Highway (SR-116) and Rohnert Park Expressway – is two lanes in each direction with paved shoulders and narrow grassy median and guard rail.

Northbound/Southbound US-101 between Rohnert Park Expressway and Wilfred Avenue – is two lanes in each direction with paved shoulders and narrow grassy median and guard rail.

Northbound/Southbound US-101 between Wilfred Avenue and Santa Rosa Avenue – is three lanes in each direction with paved shoulders and K-rail in the median. One of the lanes in each direction is for high occupancy vehicles.

Northbound/Southbound US-101 north of Santa Rosa Avenue – is three lanes in each direction with paved shoulders and K-rail in the median. One of the lanes in each direction is for high occupancy vehicles.

### **Ramps**

Northbound Gravenstein Highway (SR-116) on-ramp – consists of a single lane on-ramp.

Northbound Rohnert Park Expressway loop on-ramp – consists of a single lane on-ramp.

Northbound Rohnert Park Expressway on-ramp – consists of a single lane on-ramp.

Northbound Wilfred Avenue on-ramp – consists of a single lane on-ramp.

Southbound Santa Rosa Avenue on-ramp – consists of a single lane on-ramp.

Southbound Wilfred Avenue on-ramp – consists of a single lane on-ramp.

Southbound Rohnert Park Expressway loop on-ramp – consists of a single lane on-ramp.

Southbound Rohnert Park Expressway on-ramp – consists of a single lane on-ramp.

Southbound Gravenstein Highway (SR-116) on-ramp – consists of a single lane on-ramp.

Northbound Gravenstein Highway (SR-116) off-ramp – consists of a single lane off-ramp that widens to two lanes at the intersection with Gravenstein Highway (SR-116).

Northbound Rohnert Park Expressway off-ramp – consists of a single lane off-ramp that widens to two lanes at the intersection with Rohnert Park Expressway.

Northbound Wilfred Avenue off-ramp – consists of a single lane off-ramp that widens to three lanes at the intersection with Commerce Boulevard.

Northbound Santa Rosa Avenue off-ramp – consists of a single lane off-ramp that widens to three lanes at the intersection with Santa Rosa Avenue.

Southbound Wilfred Avenue off-ramp – consists of a single lane off-ramp that widens to three lanes at the intersection with Redwood Drive.

Southbound Rohnert Park Expressway off-ramp – consists of a single lane off-ramp that widens to three lanes at the intersection with Rohnert Park Expressway.

Southbound Gravenstein Highway (SR-116) off-ramp – consists of a single lane off-ramp that widens to three lanes at the intersection with Gravenstein Highway (SR-116).

## **Existing Lane Configurations and Traffic Control**

Existing intersection lane configurations and traffic control at study intersections are illustrated in **Figure 2**. Traffic signals are located at most study intersections near the freeway; whereas, study intersections near the project site are generally unsignalized. The figure also shows the length of the right and left turn bays when present.

## **Existing Traffic Turning Movement Volumes**

Weekday intersection turning movement volumes were manually collected in July and August 2005 at most project study area intersections as well as in November 2006 along Millbrae Avenue and are shown in **Figure 3**. Volumes were collected during the AM and PM peak periods of the day in the middle of the week. It should be noted that a segment of Wilfred Avenue from Stony Point Road to Langner Avenue was closed for

construction when the 2005 counts were being conducted. Traffic was diverted around the closure; therefore, 2004 volumes were used at these locations.

School traffic typically affects AM and mid-afternoon traffic conditions but has little effect on PM peak traffic levels which is the time period evaluated in the TIS. In addition, when schools are in session there would not be a significant increase in traffic due to a high volume of linked trips. Linked trips result from parents dropping off children at school on the way to work or other destinations. Therefore, traffic counts are believed to accurately portray the existing condition during the PM peak period.

Twenty-four hour freeway volumes and percent of trucks and RVs were collected in May and June 2004. Volumes were collected in each direction for US-101 segments north of the Wilfred interchange, south of the Rohnert Park Expressway interchange, and between the two interchanges. Freeway segment volume north of Santa Rosa Avenue and south of Gravenstein Highway (SR-116) was obtained from the 2004 Traffic Volumes on the California State Highway System available on the Caltrans website.

Traffic volume data sheets are available in the **Appendix**.

## **Existing Pedestrian and Bicycle Facilities**

There are currently Class II bikeways (i.e. bicycle lanes) through project study intersections on Stony Point Road and Rohnert Park Expressway west of Labath Avenue and east of Commerce Boulevard. Furthermore, there are a Class I bikeways (i.e. multi-use paths) alongside Commerce Boulevard between Golf Course Drive and Redwood Drive as well as between Copeland Creek and East Cotati Avenue. There is another Class I bikeway along Golf Course Drive from Roberts Lake Road extending to the east.

According to the Rohnert Park General Plan, Class II bicycle lanes are planned for Redwood Drive, on Wilfred Avenue (within the city limits) when the road is improved in the future, Langner Avenue south of Wilfred Avenue, Gravenstein Highway (SR-116) east of Stony Point Road, and on Old Redwood Highway to Commerce Boulevard. A Class I bikeway is also planned along Commerce Boulevard between Golf Course Drive and Rohnert Park Expressway. Business Park Drive is a Class III bikeway (i.e. bike route) as well as Labath Avenue south of Business Park Drive.

## **Existing Transit Service**

Sonoma County Transit operates several intra-city routes that pass through a transfer station near the intersection of Commerce Drive and Rohnert Park Expressway (immediately east of the US-101/Rohnert Park Expressway interchange). Intra-city routes include #10, #11, #12, and #14. Buses pass through the transfer station approximately every 30-40 minutes on weekdays and approximately every hour on weekends.

Sonoma County Transit also provides several inter-city routes that serve Sebastopol and Santa Rosa. Inter-city routes include #26, #44, and #48 and connect to a separate transfer station near the intra-city station. Bus frequencies are similar to intra-city service.

Golden Gate Transit operates routes along US-101 that pass through Rohnert Park and connect with cities including San Francisco, San Rafael, Petaluma, and Santa Rosa. During the weekday, routes #72, #74, #75, and #76 operate in the AM and PM peak travel directions and stop at the Rohnert Park inter-city transfer station. Route #80, which offers service all day long, also stops at the Rohnert Park station.

Currently Sonoma County Transit and Golden Gate Transit do not provide service near the site and have no plans to provide service. Serving the casino and hotel site would require a large route deviation and would impact the transit agencies ability to timely manage their current service area. Furthermore, the density in the vicinity of the project site is considered too low for cost-effective service.

A future opportunity for a connection to transit service is with Sonoma-Marin Area Rail Transit (SMART). The proposed rail service would connect San Francisco Bay ferry service terminals to Cloverdale (north of Santa Rosa). If implemented, the proposed rail corridor will pass through Rohnert Park with a stop at a station adjacent to the Wilfred Avenue interchange. The SMART project is planned to add a second track near the Wilfred interchange station. Trains could serve up to 13 other stations, 8 in Sonoma County and 5 in Marin, running every 30 minutes during peak periods, with up to 12-16 trains per day. A bicycle corridor is also proposed on the SMART right-of-way, which parallels US-101 for most of the distance. An Environmental Impact Report (EIR) was prepared to evaluate the impacts of the commuter rail service. If funding is secured, service could begin as early as 2007; however, voters rejected the proposed project in November of 2006 so the actual service start is uncertain.

## Existing Collision History

Caltrans provided Kimley-Horn with a computer generated report summarizing accidents that occurred between 2002 and 2004 at the study intersections as well as on US-101 between Sierra Avenue and Todd Road. The reports provided information about each accident, including the direction of travel and the time of day. The data is helpful in determining any trends that may exist in the traffic accidents that have occurred over the three-year study period. The identification of such trends is crucial for an initial analysis of potential improvements to an intersection.

The summary data provided does have limitations when recommending improvements to the study intersections, to that end, the recommendations below are reflective of the analysis of the data provided to Kimley-Horn and our field observations at each study intersection and freeway segment.

## Study Intersections

### Stony Point Road/Wilfred Avenue.

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>6</u>
	6

The prevailing accident trends at this intersection are broadside and rear-end mainly caused by traveling at unsafe speeds and improper turning.

### Labath Avenue/Wilfred Avenue.

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>2</u>
	2

The accident trends at this intersection are sideswipe and head-on accidents caused by right of way violation.

### Redwood Drive/Wilfred Avenue.

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>3</u>
	3

There was a sideswipe, a broadside, and a rear-end accident at this intersection caused by traveling at unsafe speeds or unsafe lane changes.

### Redwood Drive/Commerce Boulevard.

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	1
Vehicle/Vehicle	<u>25</u>
	26

The prevailing accident trends are rear-end and broadside accidents at this intersection caused by traveling at unsafe speeds, improper turning, or right of way violations.

**Golf Course Drive/Commerce Boulevard.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>35</u>
	35

The prevailing accident trend is broadside accidents at this intersection caused by automobile right of way violation.

**Golf Course Drive/Roberts Lake Road.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>7</u>
	7

The prevailing accident trend is sideswipe accidents at this intersection caused by traveling at unsafe speeds and improper turning.

**Commerce Boulevard/US 101 NB Ramps.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>4</u>
	4

There was a sideswipe, a head-on, and a rear-end accident at this intersection caused by traveling at unsafe speeds or improper turning.



### Redwood Drive/Business Park Drive.

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>3</u>
	3

There were two rear-end accidents caused by traveling at unsafe speeds and improper starting/backing as well as one broadside accident at this intersection caused by automobile right of way violation.

### Rohnert Park Expressway/Stony Point Road.

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>5</u>
	5

There were an equal number of broadside and sideswipe accidents caused by traveling at unsafe speeds or automobile right of way violation.

### Rohnert Park Expressway/Labath Avenue.

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>4</u>
	4

The prevailing accident trend at this intersection is broadside accidents caused by traveling at unsafe speeds and automobile right of way violation.

### Rohnert Park Expressway/Redwood Drive.

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	1
Vehicle/Vehicle	<u>49</u>
	49

There are fairly equal number of broadside and rear-end accidents caused by traveling at unsafe speeds, right of way violation, and improper turning.

### **Rohnert Park Expressway/US 101 SB Ramps.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>31</u>
	31

The prevailing accident trend is rear-end collisions resulting from failure to comply with traffic signals and signs or unsafe speed.

### **Rohnert Park Expressway/US 101 NB Ramps.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>70</u>
	70

The prevailing accident trends are broadside and rear-end collisions resulting from failure to comply with traffic signals and signs, traveling at unsafe speeds, and improper turning.

### **Rohnert Park Expressway/Commerce Boulevard.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	2
Bicycle/Vehicle	4
Vehicle/Vehicle	<u>55</u>
	61

The prevailing accident trends are broadside and rear-end accidents that were caused by improper turning, traveling at unsafe speeds, and automobile right of way violation.

### **Gravenstein Highway (SR-116)/Stony Point Road.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>39</u>
	39

There are fairly equal amounts of rear-end, broadside, and sideswipe accidents at this intersection caused by traveling at unsafe speeds, improper turning, improper starting/backing, and automobile right of way violation.

**Gravenstein Highway (SR-116)/Redwood Drive.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>18</u>
	18

The prevailing accident trends are rear-end and broadside accidents at this intersection caused by traveling at unsafe speeds and from failure to comply with traffic signals and signs.

**Gravenstein Highway (SR-116)/ US 101 NB Off-Ramp.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	1
Vehicle/Vehicle	<u>9</u>
	10

The prevailing accident trend is rear-end accidents at this intersection caused by traveling at unsafe speeds and improper starting/backing.

**Millbrae Avenue/Stony Point Road.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>8</u>
	8

The prevailing accident trend is rear-end accidents at this intersection caused by traveling at unsafe speeds and improper starting/backing.

**Millbrae Avenue/Primrose Avenue.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>4</u>
	4

The prevailing accident trend is broadside accidents at this intersection caused by automobile right of way violation.

**Millbrae Avenue/Whistler Avenue.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>2</u>
	2

There was a sideswipe and an overturned vehicle accident at this intersection caused by improper passing or improper turning.

**Millbrae Avenue/Langner Avenue.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>5</u>
	5

The prevailing accident trend is broadside accidents at this intersection caused by automobile right of way violation.

**Millbrae Avenue/Labath Avenue.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>1</u>
	1

There was a broadside accident at this intersection caused by improper starting/backing.

**Millbrae Avenue/Dowdell Avenue.**

<u>Accident Type</u>	<u>Number of Accidents</u>
Pedestrian/Vehicle	0
Bicycle/Vehicle	0
Vehicle/Vehicle	<u>1</u>
	1

There was a rear-end accident at this intersection caused by traveling at unsafe speeds.

There were no accidents at the following intersections during the three years studied:

- Primrose Avenue/Wilfred Avenue
- Whistler Avenue/Wilfred Avenue
- Langner Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue.
- Gravenstein Highway (SR-116)/US 101 SB Ramps

## Highway Segments

### US-101 from Sierra Avenue to SR-116.

<u>Accident Type</u>	<u>Number of Accidents (Northbound)</u>	<u>Number of Accidents (Southbound)</u>
Broadside	0	0
Rear-End	14	11
Sideswipe	3	0
Other	<u>5</u>	<u>7</u>
	22	18

The prevailing accident trend is rear-end accidents throughout this freeway segment caused by traveling at unsafe speeds, following too closely, and improper turning.

### US-101 from SR-116 to Rohnert Park Expressway.

<u>Accident Type</u>	<u>Number of Accidents (Northbound)</u>	<u>Number of Accidents (Southbound)</u>
Broadside	41	1
Rear-End	63	46
Sideswipe	9	5
Other	<u>26</u>	<u>7</u>
	139	59

The prevailing accident trend is rear-end accidents throughout this freeway segment caused by traveling at unsafe speeds, following too closely, and improper turning.

**US-101 from Rohnert Park Expressway to Wilfred Avenue.**

<u>Accident Type</u>	<u>Number of Accidents (Northbound)</u>	<u>Number of Accidents (Southbound)</u>
Broadside	6	5
Rear-End	45	36
Sideswipe	9	12
Other	<u>13</u>	<u>11</u>
	73	64

The prevailing accident trend is rear-end accidents throughout this freeway segment caused by traveling at unsafe speeds and improper turning.

**US-101 from Wilfred Avenue to Santa Rosa Avenue.**

<u>Accident Type</u>	<u>Number of Accidents (Northbound)</u>	<u>Number of Accidents (Southbound)</u>
Broadside	0	1
Rear-End	33	53
Sideswipe	10	18
Other	<u>4</u>	<u>23</u>
	47	95

The prevailing accident trend is rear-end accidents throughout this freeway segment caused by traveling at unsafe speeds, following too closely and improper lane changes.

**US-101 from Santa Rosa Avenue to Todd Road.**

<u>Accident Type</u>	<u>Number of Accidents (Northbound)</u>	<u>Number of Accidents (Southbound)</u>
Broadside	6	1
Rear-End	43	32
Sideswipe	6	12
Other	<u>23</u>	<u>10</u>
	78	55

The prevailing accident trend is rear- accidents throughout this freeway segment caused by traveling at unsafe speeds, following too closely and improper lane changes.

Caltrans provided accident data from “Table B” of the Traffic Accident Surveillance and Analysis System (TASAS) for 2002 to 2004. Actual and average accident rates are shown in **Table 3**. It should be noted that the collision history summarized above and accident rates are from a couple of years before the counts were conducted. During the time between the accident history and the counts, improvements were made to some of

the locations. The US-101 NB Off-Ramp/Rohnert Park Expressway intersection, for example, has been improved since the accident rate data was collected.

**Table 3 – Accident Rate Data**

Location	Number of Accidents					Accident Rate (acc/mv*)					
	Total	Fat.	Inj.	Wet	Dark	Actual			Average		
						Fat.	F+I	Total	Fat.	F+I	Total
101 NB off to SR-116	5	0	1	0	0	0.00	0.14	0.70	.005	0.61	1.50
101 NB off to Rohnert Park Exp.	66	0	15	13	13	0.00	1.79	7.89	.005	0.61	1.50
101 SB on from Rohnert Park Exp.	15	0	5	3	3	0.00	0.64	1.93	.002	.032	0.80
101 NB on from Rohnert Park Exp.	15	0	5	3	7	0.00	0.63	1.89	.002	0.32	0.80
101NB off to Commerce Blvd	4	0	1	0	2	0.00	0.18	0.72	.005	0.39	1.15
101 SB on from Wilfred Ave	1	0	0	1	1	0.00	0.00	0.18	.002	0.20	0.60
101 NB on from Commerce	2	0	0	0	0	0.00	0.00	0.20	.002	0.20	0.60
101SB off to Wilfred Ave	8	0	2	2	1	0.00	0.17	0.70	.005	0.39	1.15

\*acc/mv = accident per million vehicles

## Existing Levels of Service at Study Intersections

Traffic operations were evaluated under existing traffic conditions. As noted previously LOS C or better is established as the criteria for satisfactory operation at intersections within the City of Rohnert Park, with the exception of the following study area intersections that are permitted to operate at LOS D.

- Wilfred Avenue / Redwood Drive
- Wilfred Avenue / US-101 SB Ramps
- Golf Course Drive / Commerce Boulevard
- US-101 NB Ramps / Commerce Boulevard

Intersections that are already operating at LOS D or lower are permitted if no feasible improvements exist to improve the LOS and provided that LOS is not permitted to deteriorate further due to the proposed development project.

LOS D or better is established as the criteria for satisfactory operation at intersections within Sonoma County. Project intersections currently operating below the county standard are considered to be significantly impacted if the average delay per vehicle increases by 5 seconds or more.

LOS D or better is established as the criteria for satisfactory operation at intersections at freeway ramp terminals, freeway segments and ramps (unless specifically noted otherwise above). Intersections currently operating less than the established LOS are expected to maintain the existing measure of effectiveness (i.e. delay per vehicle at intersections and density for ramps and freeway segments).

Results of the analysis are presented in **Table 4**, along with the jurisdictional standard for acceptable level of service (as previously described on p. 2 in Operating Conditions and Criteria). The signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections. The worst approach is reported because as stated in the *Highway Capacity Manual*, "the LOS criteria for two-way stop-controlled (TWSC) intersections are different from the criteria for signalized intersections primarily because different transportation facilities create different driver perceptions. The expectation is that a signalized intersection is designed to carry higher traffic volumes and experience greater delay than an unsignalized intersection. LOS for a TWSC intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS is not defined for the intersection as a whole. At TWSC intersections the critical movement may control the overall performance of the intersection." Additional detail of the analysis is provided in the **Appendix**. Results of the analysis indicate some existing study area intersections currently operate at unacceptable levels of service based on established significance criteria. (Results shown as bold in the table do not meet operational standards.)





**Table 4 – Existing Levels of Service**

	Intersection	Criteria	Signal Control	2005	
				LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	<b>F</b>	<b>180.8</b>
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3
8	Redwood Dr/ Commerce Blvd	C	TS	<b>F</b>	<b>86.1</b>
9	Wilfred Ave/ US-101 SB Ramps	D	-	-	-
10	Golf Course Dr/ Commerce Blvd	D	TS	<b>F</b>	<b>103.4</b>
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0
14	Business Park Dr/ Labath Ave	D	-	-	-
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	<b>D</b>	<b>39.2</b>
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1
26	Millbrae Ave/ Stony Point Rd	D	TWSC	<b>E</b>	<b>43.9</b>
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3

Intersections and approaches not meeting standards include the following:

- Stony Point Road/Wilfred Avenue
- Redwood Drive/Commerce Boulevard
- Golf Course Drive/Commerce Boulevard
- Rohnert Park Expressway/Commerce Boulevard
- Millbrae Avenue/Stony Point Road

## Existing Conditions Traffic Signal Warrant Analysis

Traffic signals may be justified when traffic operations fall below acceptable thresholds and when one or more signal warrants are satisfied.

Existing traffic volumes at the unsignalized study intersections were compared against the peak hour warrant in the *2003 Manual on Uniform Traffic Control Devices (MUTCD)* and the *California Supplement*. Traffic Signal Warrant #3 – Peak Hour Volume Warrant (formerly known as Warrant #11) is satisfied when traffic volumes on the major and minor approaches exceed thresholds for one hour of the day. As specified in the *MUTCD* and *California Supplement*, predetermined minimum thresholds for intersections include volume on the minor street of 100 vehicles per hour for one moving lane of traffic and 150 vehicles per hour for two moving lanes of traffic as well as the total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches and 800 vehicles per hour for intersections with four or more approaches.

This warrant is generally the first warrant to be satisfied. The warrant applies to traffic conditions during a one hour peak that are sufficiently high such that minor street traffic experiences excessive delay in entering and crossing the street due to the high traffic volumes on the main street.

Results of the analysis showed that the following intersections currently satisfy Warrant #3:

- Stony Point Road/Wilfred Avenue
- Stony Point Road/Millbrae Avenue

Other warrants such as for minimum vehicle volumes, interruption of continuous traffic, and traffic progression were not evaluated because they generally require higher traffic volumes to be satisfied. Accident history and school areas were also not evaluated based on the results of field observations, which noted that neither of these warrant thresholds was likely to be met. A copy of the analysis summary for Warrant #3 is included in the **Appendix**.

## Existing Levels of Service at Freeway Segments and Ramps

Existing traffic volumes on US-101 near the project site were collected using digital wave radar technology to measure vehicle volume and speed per lane. For less critical traffic information at locations farther from the project site, the information was obtained from the Caltrans website.

Traffic analyses were completed to evaluate the existing weekday operation of the study segments and ramps. Results of the analyses are presented in **Table 5**. (Results shown as bold in the table do not meet operational standards.)

**Table 5 – Existing US-101 Levels of Service**

### Existing

US-101 Section/Ramp	Criteria	Existing	
	LOS	LOS	Density (pc/mi/ln)
<b>Northbound</b>			
US-101 South of Gravenstein Highway (NB)	E	C	22.2
Gravenstein Highway NB Off-Ramp	E	D	30.8
Gravenstein Highway NB On-Ramp	E	D	34.5
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1
Rohnert Park Expressway NB Off-Ramp	E	D	33.6
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1
Rohnert Park Expressway NB On-Ramp	E	D	32.5
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9
Wilfred Avenue NB Off-Ramp	E	E	35.4
Wilfred Avenue NB On-Ramp	E	<b>F</b>	<b>42.0</b>
US-101 Between Wilfred Avenue and Santa Rosa Avenue (NB)	E	D	26.7
Santa Rosa Avenue NB Off-Ramp	E	E	37.2
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3
<b>Southbound</b>			
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9
Santa Rosa Avenue SB On-Ramp	E	D	31.2
US-101 Between Santa Rosa Avenue and Wilfred Avenue (SB)	E	D	31.5
Wilfred Avenue SB Off-Ramp	E	E	38.0
Wilfred Avenue SB On-Ramp	E	D	33.7
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2
Rohnert Park Expressway SB Off-Ramp	E	E	38.0
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0
Rohnert Park Expressway SB On-Ramp	E	E	35.1
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1
Gravenstein Highway SB Off-Ramp	E	D	33.9
Gravenstein Highway SB On-Ramp	E	D	33.7
US-101 South of Gravenstein Highway (SB)	E	C	24.7

Results of the analysis indicate that the northbound on-ramp at Wilfred Avenue currently operates at unacceptable levels of service based on established significance criteria.

## **NO ACTION ALTERNATIVE**

The No Action Alternative represents the evaluation of traffic conditions without the construction of the proposed casino and hotel. Traffic conditions were evaluated for the near-term (2008) and the long-term (2020). 2008 analysis corresponds with the proposed opening year of the casino and hotel. 2020 analysis represents cumulative traffic conditions for the area based upon available traffic forecasts from the Sonoma County travel forecast model provided by the Sonoma County Regional Transportation Authority (SCTA). SCTA made refinements in Rohnert Park to the roadways and TAZs from the most recent information from the Sonoma County General Plan, the Rohnert Park General Plan, and the adopted specific plan assumptions.

The No Action Alternative serves as a baseline for comparison to each of the project alternatives, including the Wilfred Avenue site (Alternative A). It is assumed that if the site is not developed as a casino, it will be built out as it was planned in the Rohnert Park General Plan, the Northwest Specific Plan, and the Wilfred-Dowdell Specific Plan.

### **Proposed Roadway Projects in Vicinity of Site**

Several major projects are planned in the future that may affect traffic conditions near the project site. These projects are planned to be completed regardless of the proposed casino and hotel.

Caltrans plans to reconstruct the US-101/Wilfred Avenue interchange. The change will connect Golf Course Drive directly with Wilfred Avenue and raise the freeway over the new street connection. Commerce Drive under the freeway (between Golf Course Drive and Redwood Drive) will be removed in the long-term but will remain in the near-term. The project will also include other widening and intersection improvements.

With the reconstruction of the US-101/Wilfred Avenue interchange, the southbound on-ramp at Santa Rosa Avenue will join with the southbound off-ramp traffic at Wilfred Avenue to a distributor/collector road and will enter the freeway with the southbound on-ramp traffic at Wilfred Avenue.

Also with the reconstruction of the US-101/Wilfred Avenue interchange, auxiliary lanes will be constructed from the Rohnert Park Expressway Overcrossing to the Wilfred Avenue interchange and northbound from Wilfred Avenue to Santa Rosa Avenue Overcrossing. The existing northbound and southbound on-ramps at Wilfred Avenue will be widened for ramp metering which will be installed with the completion of the interchange.

According to Caltrans, the interchange will remain open during construction, including the freeway ramps. The project will be constructed in three general phases:

1. Build collector-distributor road from Santa Rosa interchange and southbound on-ramp.
2. Demolish and build northbound structures.
3. Demolish and build southbound structures.

Environmental studies for the proposed interchange project are completed and design is currently in progress with reconstruction planned to begin in 2008 and be completed by 2011. Because the interchange is expected to be completed at approximately the same time as the casino, it was assumed that the US-101/Wilfred Avenue interchange was completed in the 2008 analysis scenarios.

The analysis in this report is based off of the most current information received from Caltrans (at the time the report was prepared). However, it should be noted that the final configuration of the interchange is still being developed and may result in a configuration slightly different from what is analyzed in this report.

Caltrans also plans to add high occupancy vehicle lanes (HOV) to the US-101 freeway from SR-37 through Santa Rosa. HOV lane projects near the site are as follows:

- HOV lanes on US-101 from Old Redwood Highway (in Petaluma) to Rohnert Park Expressway. Construction would start approximately 2009 or 2010. Environmental studies are currently underway but actual construction may be delayed due to funding limitations.
- HOV lanes on US-101 from Rohnert Park Expressway to Wilfred Avenue. This project is to be completed at the same time as the Wilfred Avenue interchange. Environmental studies are currently underway but actual construction may be delayed due to funding limitations.
- HOV lanes on US-101 from Wilfred Avenue to SR-12 (Santa Rosa). This project was completed in 2003.

Other intersection projects are identified in the Rohnert Park General Plan. Some of the projects are intended to increase intersection capacities near the US-101 interchanges. Wilfred Avenue will be widened to four lanes plus left turn lanes from the 1999 City Limits to the Urban Growth Boundary (at Langner Avenue). The left turn lanes on Wilfred Avenue were assumed to be 150 feet long. In addition, the city plans to construct an overpass across US-101 that connects Business Park Drive to the west with State Farm Drive to the east. Exact configuration of the overpass has not been determined by the city; therefore, lane geometry in this evaluation was assumed based on engineering judgment.

The overpass is expected to be used by few casino and hotel visitors but would help to relieve congestion from the Wilfred Avenue and Rohnert Park Expressway

interchanges, which, in turn, would make available additional capacity at the interchanges for the casino/hotel and other traffic growth.

## Proposed Development Projects in Vicinity of Sites

No specific development projects were identified as being constructed by the year 2008; however, near-term traffic growth in the study area was prorated based on long-term traffic forecast information provided by Sonoma County Transportation Authority (SCTA). The assumed traffic growth included the Green Music Center and Northwest Specific Plan area east of the proposed casino for future high-density residential, industrial, business park, and regional commercial development as well as other developments. It was assumed in this study that the designated areas would be developed per the Rohnert Park General Plan, the Northwest Specific Plan, and the Wilfred-Dowdell Specific Plan.

## Near-Term Lane Configurations and Traffic Control

As discussed above, roadway improvements are planned for the study intersections, particularly at or near the US-101 interchanges. Some improvements are anticipated to be in place before or at approximately the same time as the proposed opening year of the casino and hotel. **Figure 4** illustrates the roadway geometry and traffic control expected to be in place in 2008 regardless of the casino and hotel. Some projects, including the planned reconstruction of the Wilfred Avenue interchange, are expected to occur before or at the same time as the proposed opening of the casino and hotel.

## Near-Term Traffic Volumes (No Project)

To reflect the traffic levels anticipated to occur in the year 2008, Kimley-Horn obtained from SCTA base year and cumulative forecast year data for roadways in the study area. The prorated incremental increase in traffic volumes that reflects growth from 2005 to 2008 (from the forecast model) was added to existing traffic volumes to determine near-term cumulative volumes by intersection approach. Approach volumes were then converted to turning movement volumes using a Furness process. Lastly, some turn movements were manually adjusted to balance traffic between intersections or correct for forecast model inconsistencies. The rate of increase per year differs widely based on the roadway segment and the proximity to anticipated development. On average, the increase in traffic volume is roughly 2 percent per year. **Figure 5** shows the assumed increase in background traffic at the study intersections. These volumes represent anticipated traffic levels in the year 2008, regardless of the proposed casino and hotel.

## Long-Term Lane Configurations and Traffic Control

Additional roadway improvements are expected within the project study area by the year 2020 including the completion of the HOV lanes on US-101, the overpass across US-101 that connects Business Park Drive to the west with State Farm Drive to the east, and the widening of Wilfred Avenue to four lanes with turn lanes from the 1999

City Limits to the Urban Growth Boundary (Langner Avenue) after the area is annexed by the City. **Figure 6** illustrates the intersection geometry and traffic control assumed in the long-term analysis.

## Long-Term Cumulative Forecast (No Project)

Additional development projects in the vicinity of the site are expected to be completed by the year 2020 and will contribute to a cumulative increase in background traffic regardless of the casino and hotel. These projects include growth in residential, industrial, business park, and commercial land uses located within the city's Urban Growth Boundary, east of the project site. This land use growth, along with other development in the City of Rohnert Park and Sonoma County comprise the long-term cumulative traffic forecast. The cumulative forecast for this study is based on the year 2020 modeling which is consistent with the land use assumptions contained in the Sonoma County General Plan, Rohnert Park General Plan, and other applicable specific plans. Kimley-Horn worked with SCTA to obtain base year and cumulative forecast year data for roadways in the study area. The incremental increases in traffic volumes (from the forecast model) were added to existing traffic volumes to determine long-term cumulative volumes by intersection approach. Approach volumes were then converted to turning movement volumes using a Furness process. Lastly, some turn movements were manually adjusted to balance traffic between intersections or correct for forecast model inconsistencies. **Figure 7** shows the long-term cumulative traffic volumes.

## LOS Conditions and Impacts

Traffic operations were evaluated under the following development conditions:

- Near-term conditions without project (year 2008)
- Long-term Cumulative conditions without project (year 2020)

Results of the analysis are presented in **Table 6**. The signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections. Additional detail is provided in the **Appendix**. As seen in the results, the following intersections and approaches will fail to meet acceptable level of service thresholds based on established significance criteria, regardless of the casino and hotel project. (Results shown as bold in the table do not meet operational standards.)

At the intersection of Rohnert Park Expressway/US 101 SB Ramps, between near-term and long-term, the level of service slightly improves as a result of the installation of the overpass across US-101 connecting Business Park Drive with State Farm Drive. The overpass helps relieve traffic volumes away from the interchanges. On the other hand, there is a large increase in delay between the near-term and the long-term at the

intersection of Wilfred Avenue/Redwood Drive due to the different lane geometry currently proposed for the new Wilfred Avenue interchange. Similar changes occur in Alternatives A through E.

### **2008 Results**

- Stony Point Road/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Rohnert Park Expressway/Commerce Boulevard
- Millbrae Avenue/Stony Point Road

### **2020 Results**

- Stony Point Road/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Rohnert Park Expressway/Commerce Boulevard
- Millbrae Avenue/Stony Point Road

As noted in the table, significant delays are expected, particularly at the Wilfred Avenue/Stony Point Road intersection and on Wilfred Avenue from Labath Avenue to Redwood Drive, regardless of the proposed casino and hotel project.

## **Traffic Signal Warrant Analysis**

Near-term and long-term traffic volumes (without the project) at unsignalized study intersections were compared against the peak hour warrant in the *2003 Manual on Uniform Traffic Control Devices (MUTCD)* and the *California Supplement*.

Results of the analysis showed that the following intersection will satisfy traffic signal Warrant #3 by the year 2008 and 2020, regardless of the proposed project.

- Stony Point Road/Wilfred Avenue (2008 and 2020)
- Labath Avenue/Wilfred Avenue (2020)
- Dowdell Avenue/Wilfred Avenue (2008 and 2020)
- Millbrae Avenue/Stony Point Road (2008 and 2020)

Other warrants such as minimum vehicle volumes, interruption of continuous traffic, and traffic progression were not evaluated because they generally require higher traffic volumes to be satisfied. Accident history and school areas were also not evaluated based on the results of field observations, which noted that neither of these warrant





thresholds was likely to be met. A copy of the analysis summary for Warrant #3 is included in the **Appendix**.



**Table 6 – No Action Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008		2020	
				Existing		Base (w/o Proj.)		Base (w/o Proj.)	
				LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	841.3
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	B	12.5
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	B	12.5
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	B	12.5
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	OVRFL
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	OVRFL
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	169.9
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	26.8
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	E	74.2
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	19.0
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	D	50.8
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	A	0.0
14	Business Park Dr/ Labath Ave	D	-	-	-	-	-	-	-
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	C	16.7
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	B	18.5
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	C	28.2
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	29.1
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.0
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	12.3
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	E	63.4
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	45.5
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	D	42.4
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	B	18.1
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	11.5
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	F	90.2
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	12.4
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	12.5
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	B	11.3
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	14.7
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.7

## LOS Conditions and Impacts on Freeway and Ramps

Year 2010 and year 2030 freeway forecast information was provided by Caltrans within the study area. The year 2010 forecasts reported volumes for freeway travel lanes operating as mixed-use lanes; whereas, the 2030 forecast separated the data for mixed-use and HOV lanes, to reflect the completion of the US-101 HOV lane project.

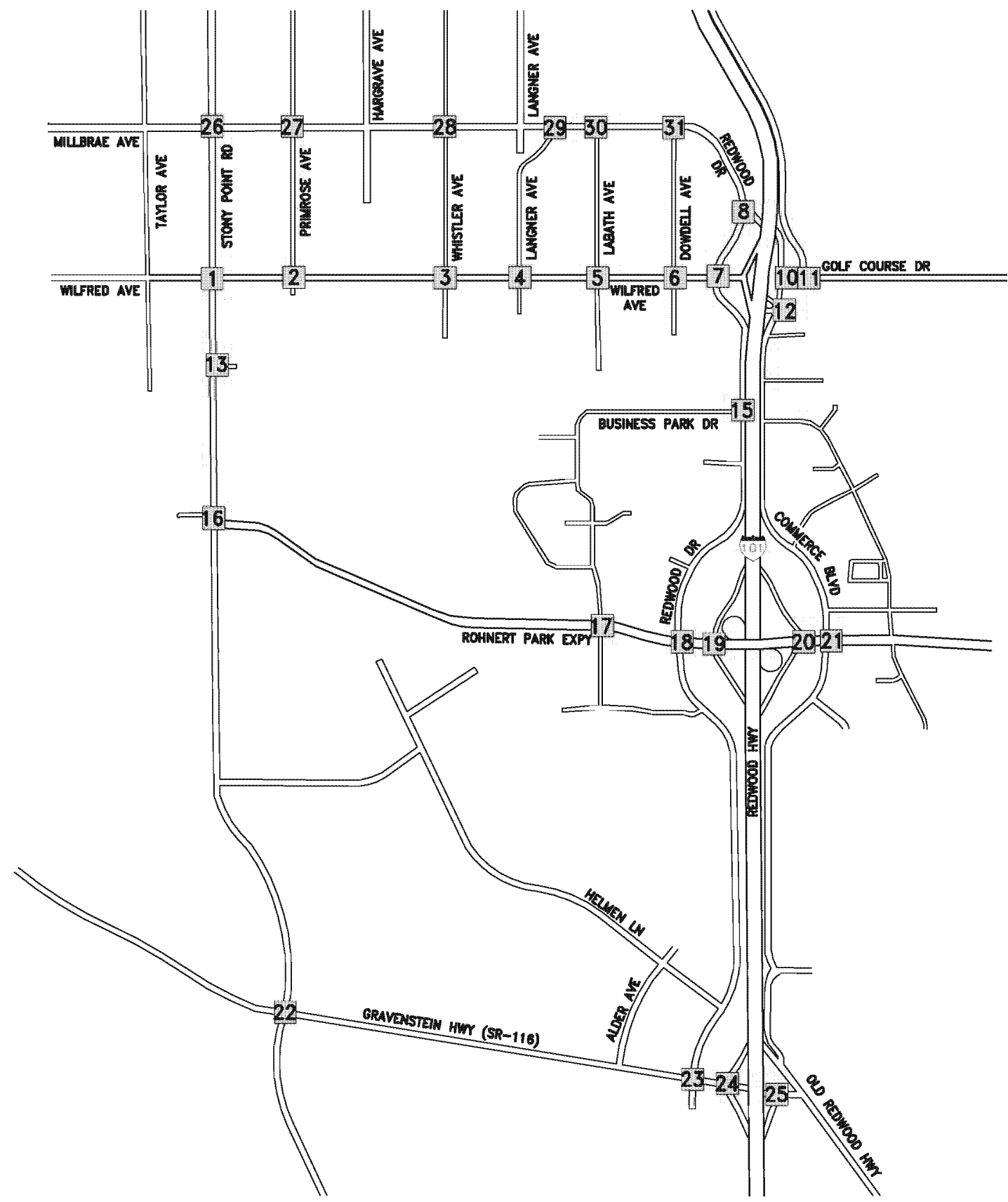
Because this study is using different analysis years, growth rates were determined from the Caltrans data and then applied to the freeway traffic counts to generate a 2008 and 2020 freeway forecast. On-ramp volumes were obtained from the Sonoma County travel forecast model.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2008 and 2020. Freeway segment analyses were limited to the mix-use travel lanes, which are expected to have significantly more congestion than the future HOV lanes.

Results of the analyses are presented in **Table 7**. As shown in the table, all of the freeway segments and on/off ramps are expected to operate at acceptable levels of service based on established significance criteria in the near-term. In the cumulative condition there are some segments and ramps that operate at unacceptable levels of service in the southbound direction. These levels of service are anticipated to occur even with the completion of the HOV lane project through Rohnert Park and the new auxiliary lanes. (Results shown as bold in the table do not meet operational standards.)

**Table 7 – No Action Alternative Freeway Levels of Service**

US-101 Section/Ramp	Criteria	Existing		2008		2020	
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
<b>Northbound</b>							
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	25.6
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	D	34.1
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	E	36.1
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	D	32.3
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	E	37.1
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	C	23.2
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	D	29.0
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	D	29.0
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	D	29.0
Wilfred Avenue NB On-Ramp	E	<b>F</b>	<b>42.0</b>	D	30.3	E	40.4
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	E	40.4
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	E	40.4
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	D	29.7
<b>Southbound</b>							
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	D	28.5
Santa Rosa Avenue SB On-Ramp	E	D	31.2				
US-101 Between Santa Rosa Avenue and Wilfed Avenue (SB)	E	D	31.5	D	32.7	<b>F</b>	-
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	<b>F</b>	<b>44.8</b>
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	E	39.9
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	E	39.9
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	E	39.9
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	E	38.5
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	<b>F</b>	<b>37.5</b>
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	E	36.6
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	<b>F</b>	<b>40.3</b>
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	<b>F</b>	<b>42.3</b>
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	D	32.0

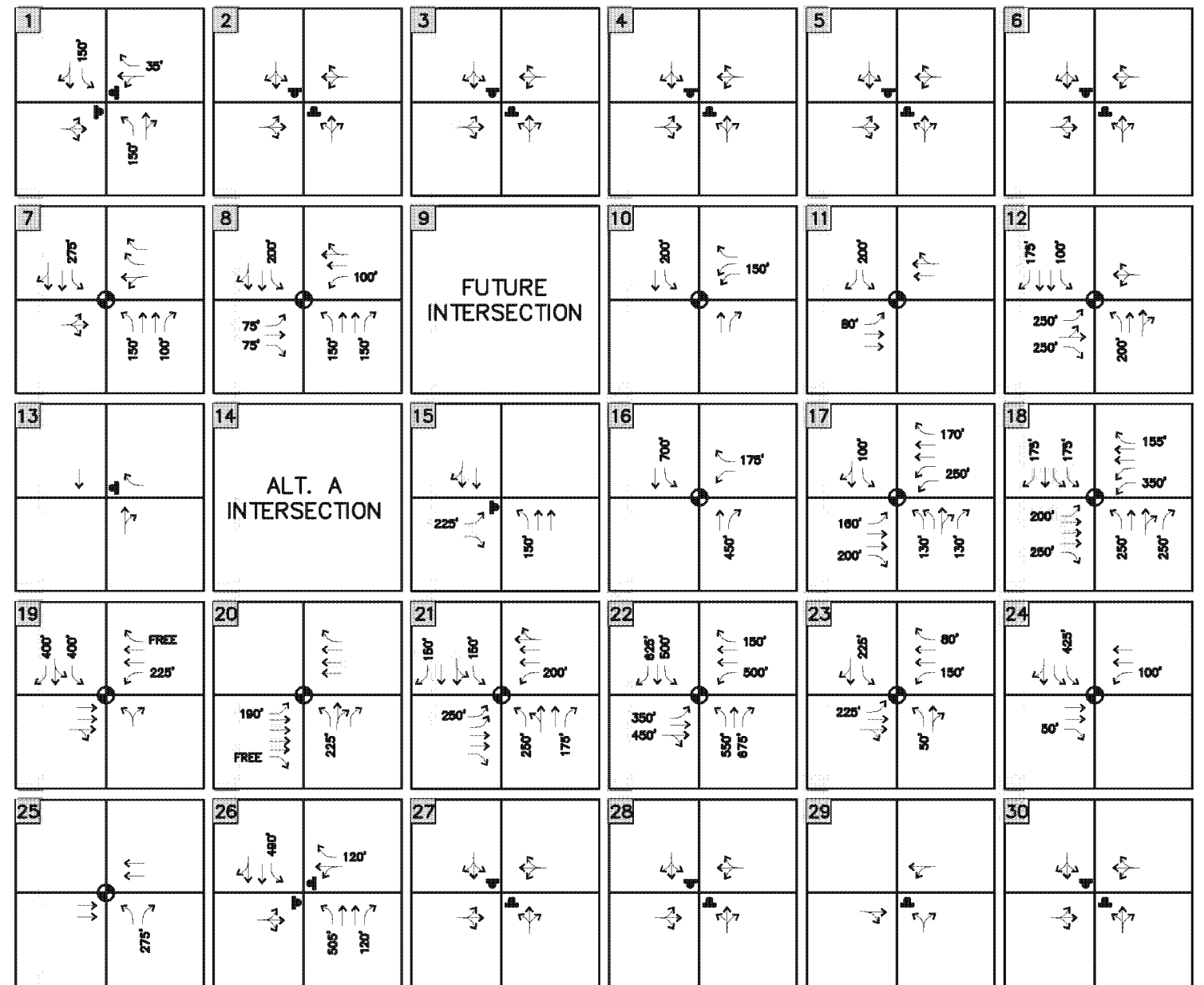
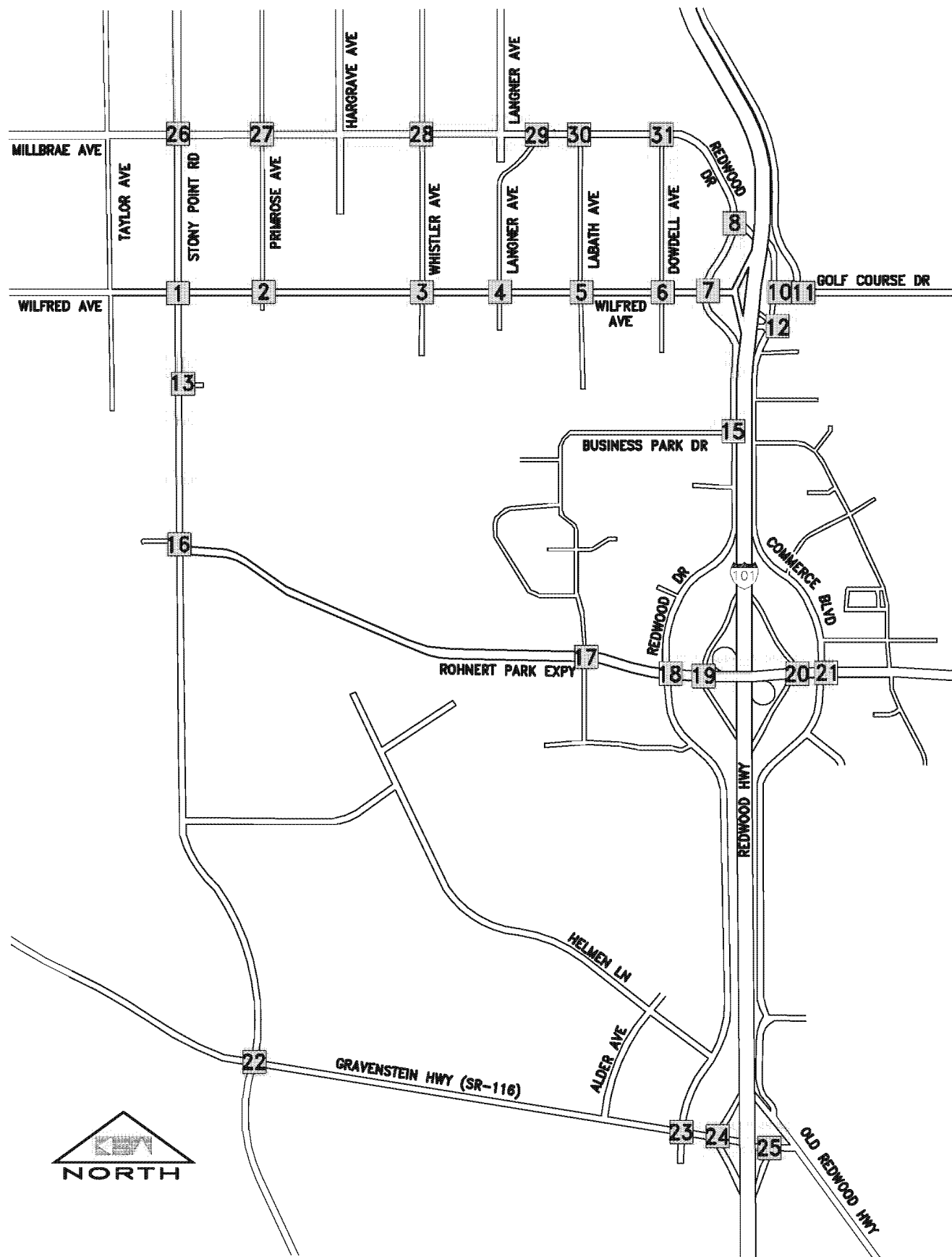


Graton Rancheria No Project – Rohnert Park, CA

PROJECT STUDY INTERSECTIONS

FIGURE 1





**LEGEND**

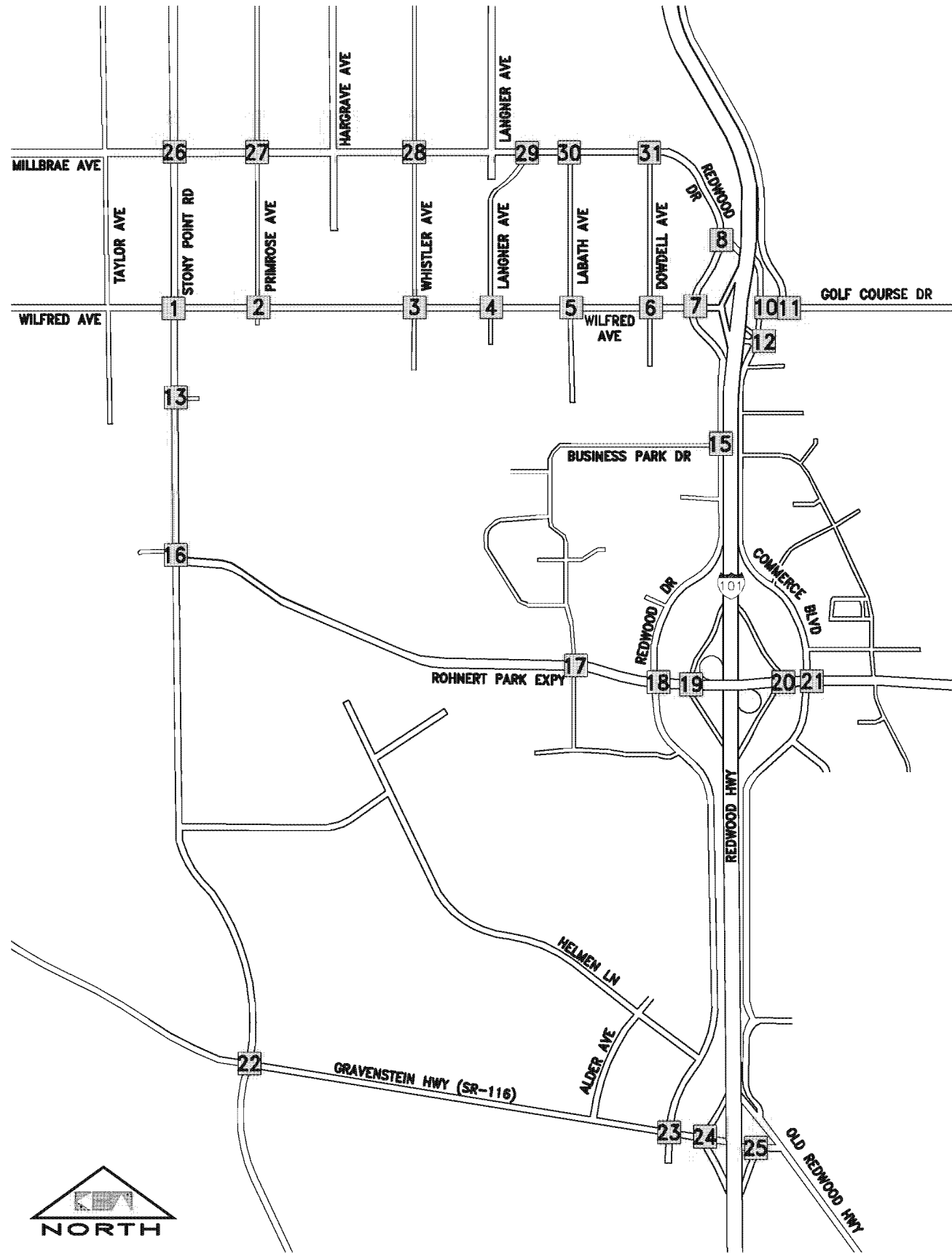
- X STUDY AREA INTERSECTIONS
- ⊕ TRAFFIC SIGNAL
- ⊖ STOP SIGN
- XX' STORAGE LENGTH

Graton Rancheria No Project - Rohnert Park, CA

EXISTING LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE 2





1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31					

FUTURE INTERSECTION

ALT. A INTERSECTION

**LEGEND**

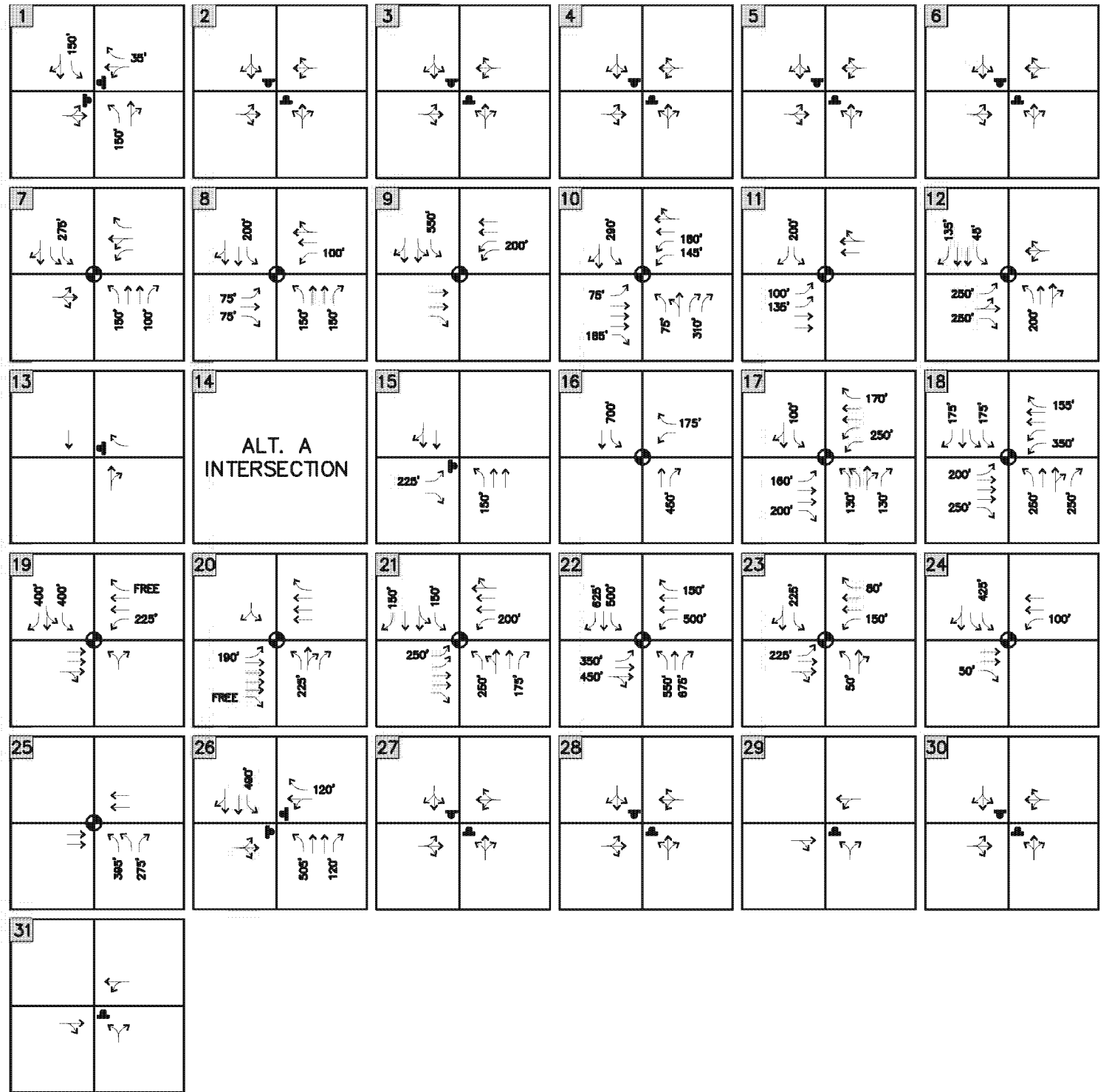
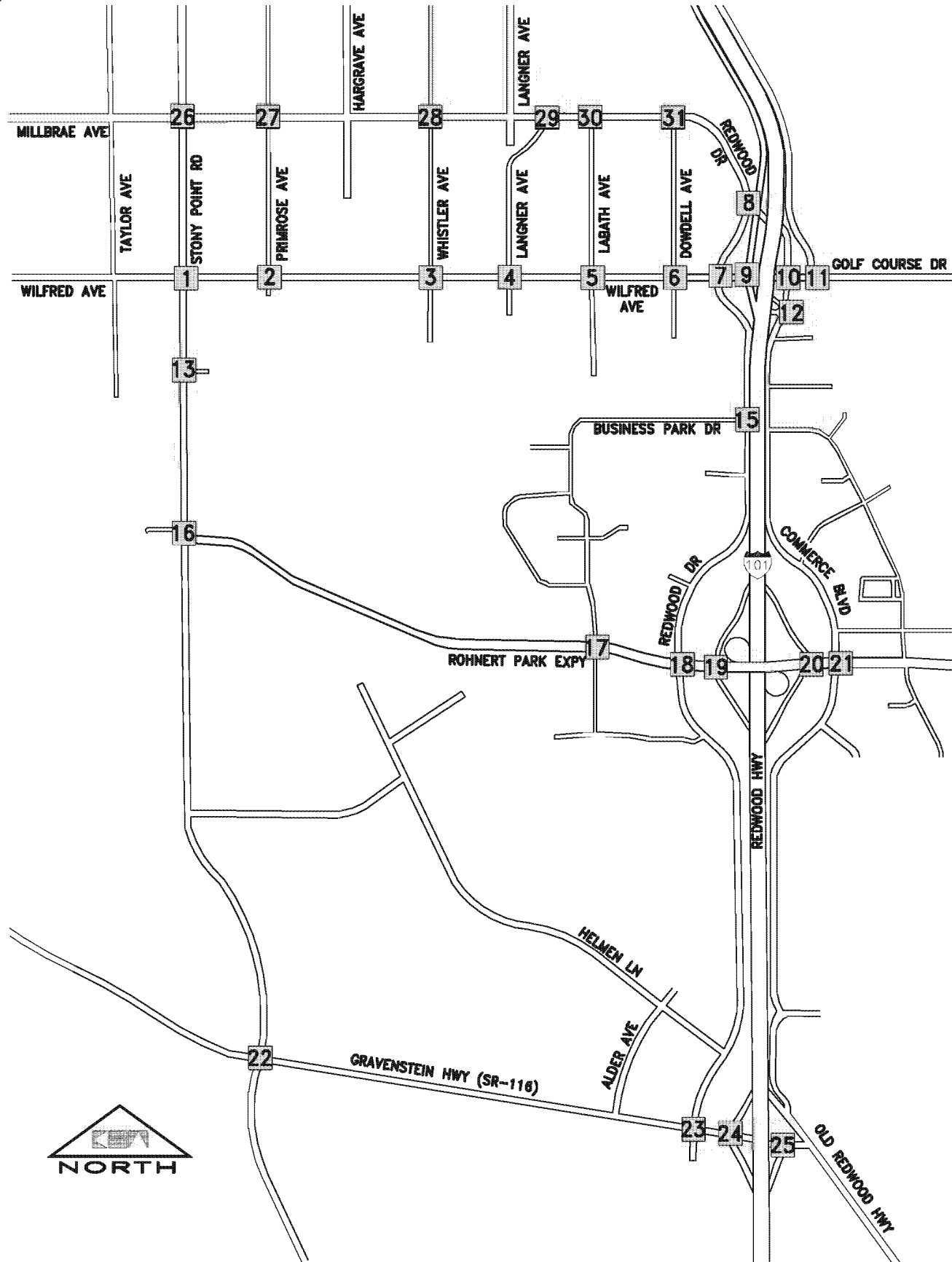
- X STUDY AREA INTERSECTIONS
- XX PM TRAFFIC VOLUMES

Graton Rancheria No Project - Rohnert Park, CA

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES

FIGURE 3





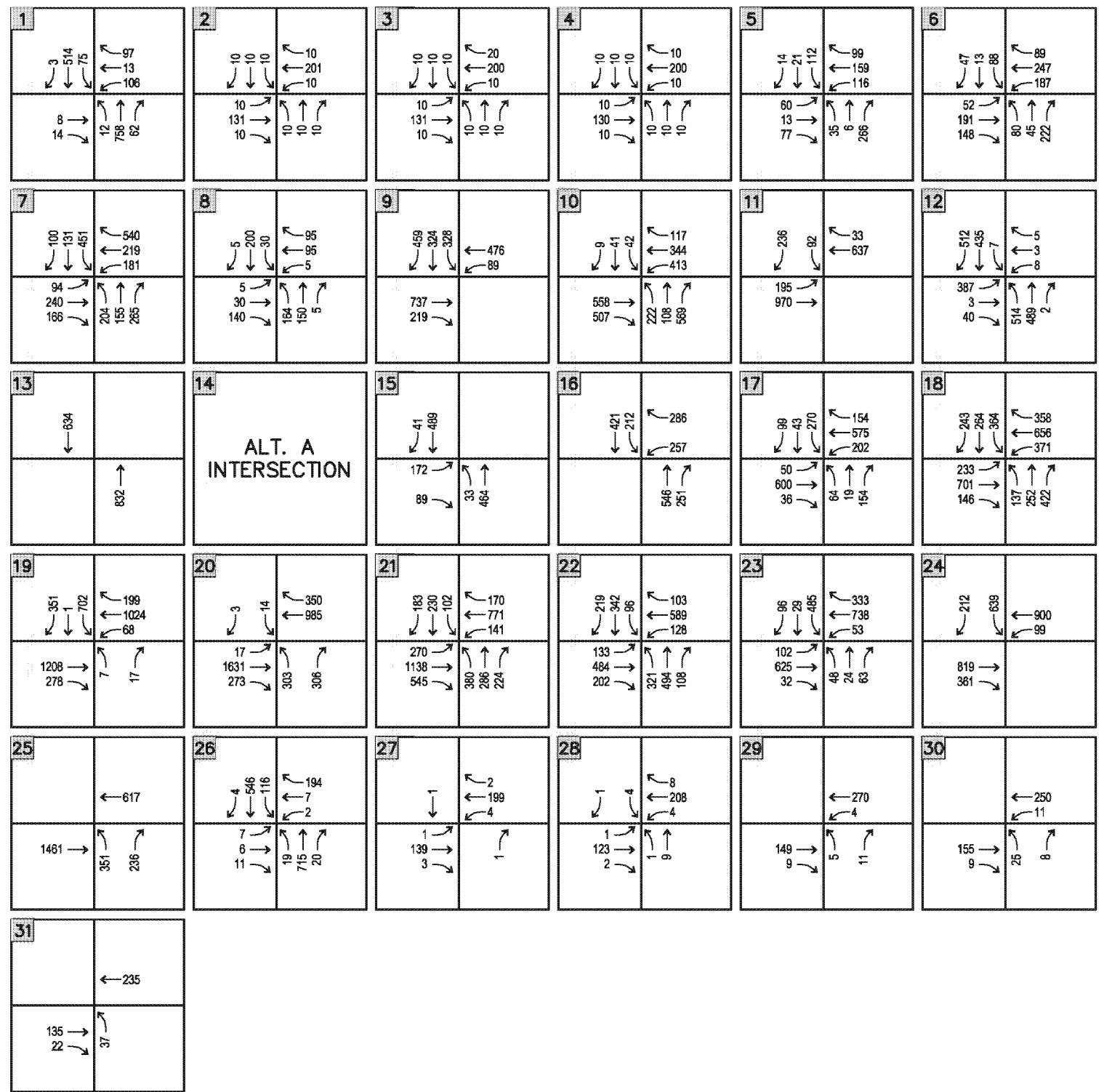
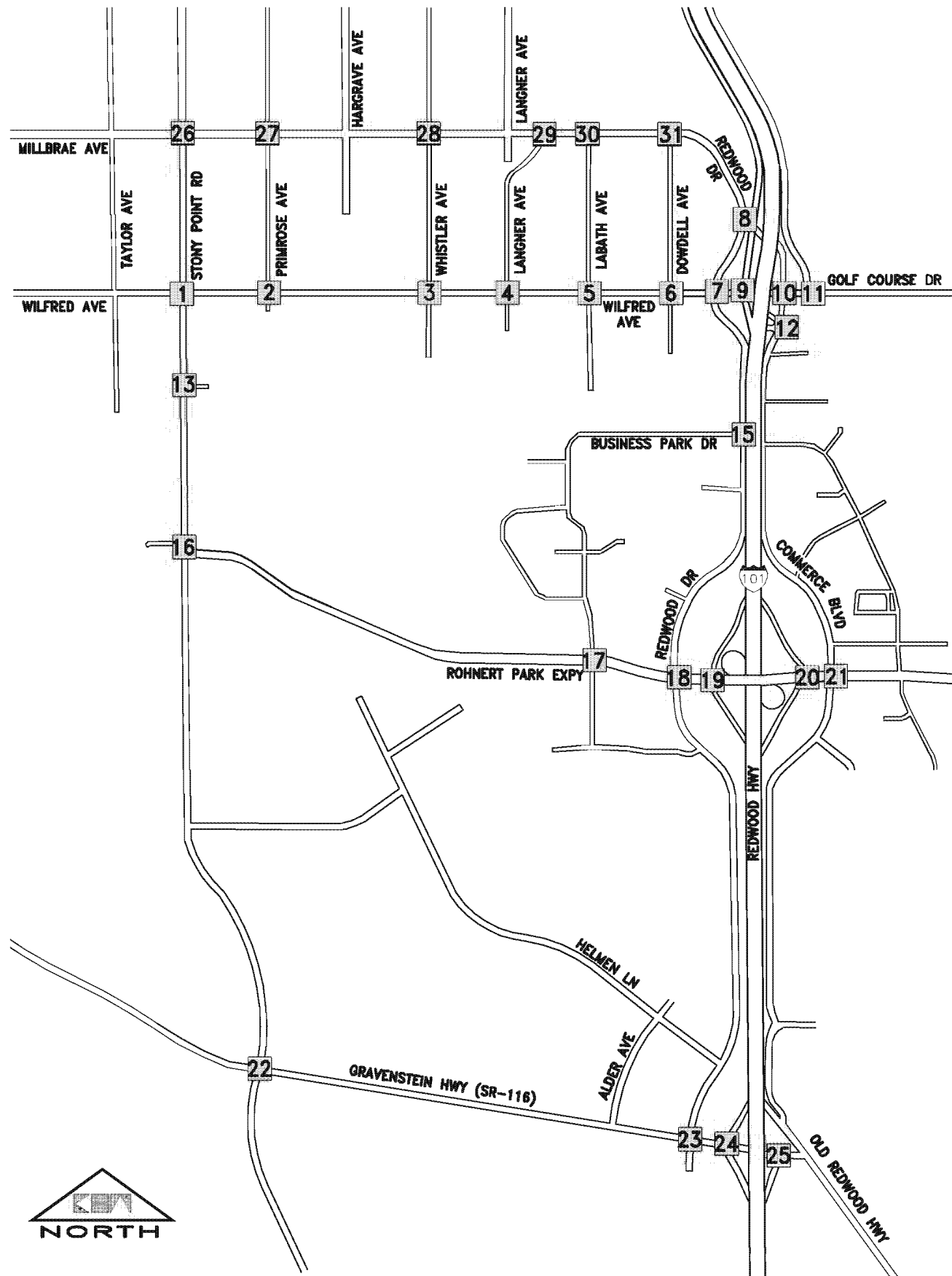
**LEGEND**

- STUDY AREA INTERSECTIONS
- TRAFFIC SIGNAL
- STOP SIGN
- XX'** STORAGE LENGTH

Graton Rancheria No Project - Rohnert Park, CA

FIGURE 4





**LEGEND**

**X** STUDY AREA INTERSECTIONS

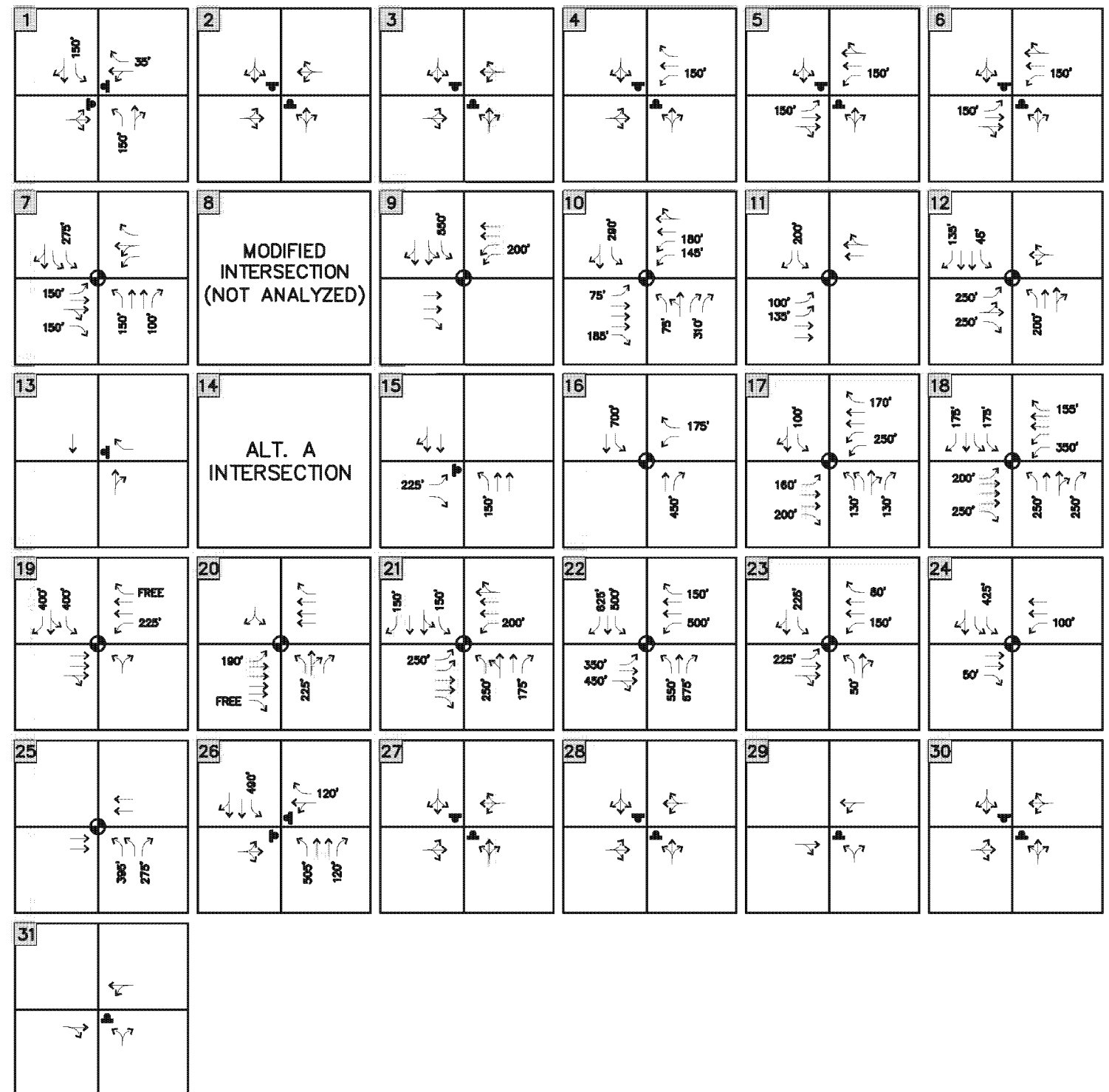
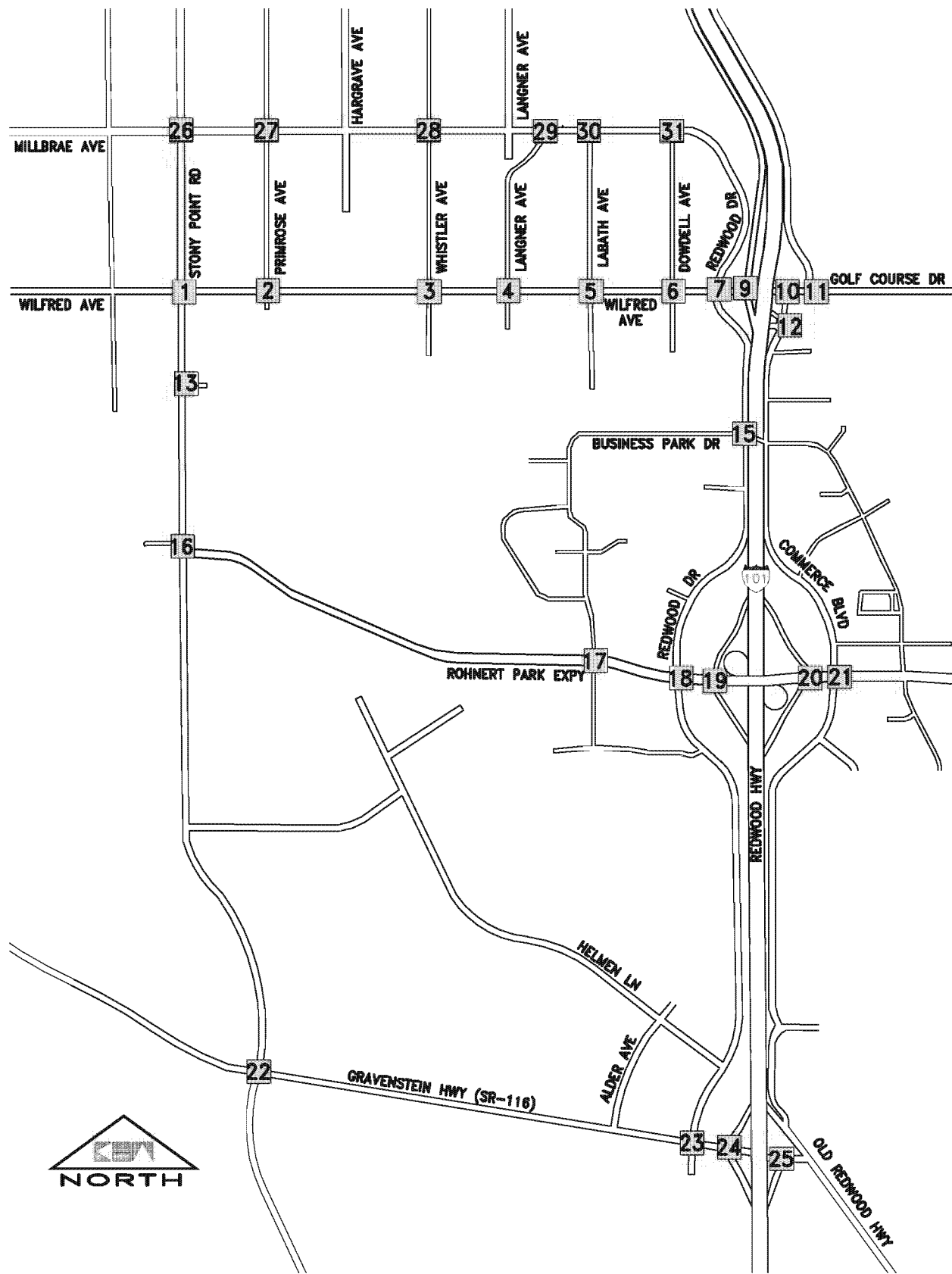
**XX** PM TRAFFIC VOLUMES

Graton Rancheria No Project - Rohnert Park, CA

NEAR-TERM PM TRAFFIC VOLUMES

FIGURE 5



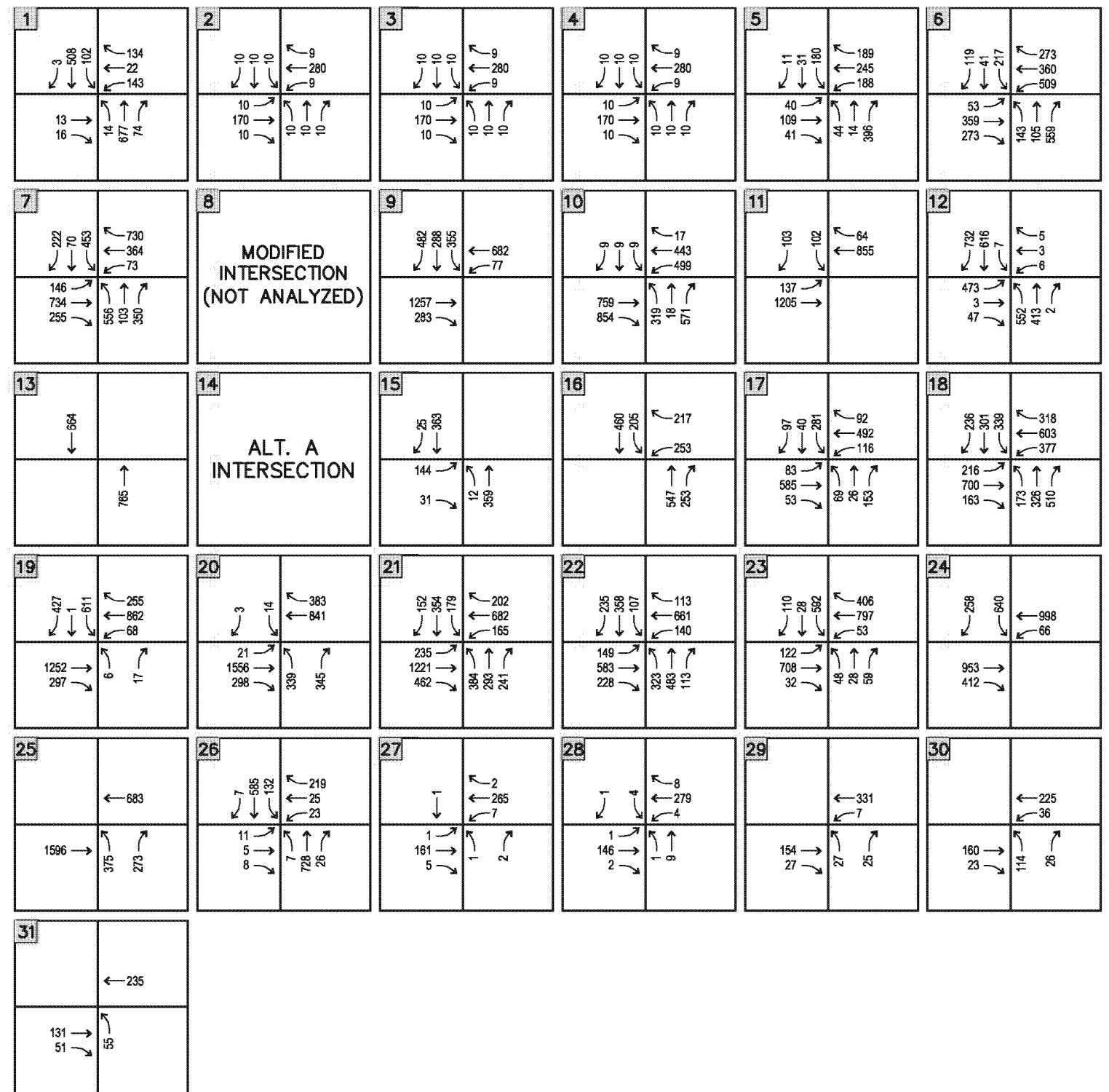
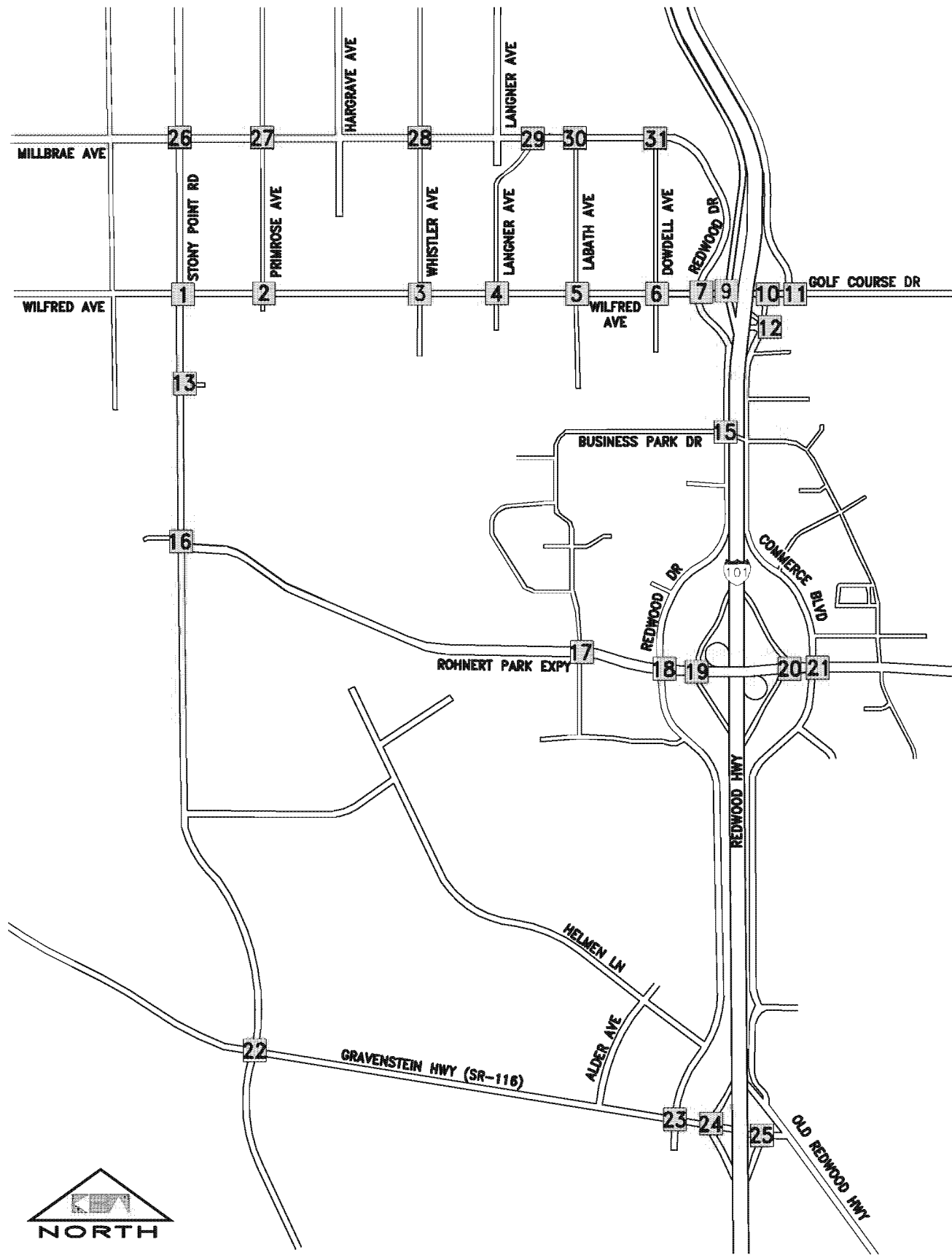


**LEGEND**

- X STUDY AREA INTERSECTIONS
- ⊕ TRAFFIC SIGNAL
- ⊖ STOP SIGN
- XX' STORAGE LENGTH

Graton Rancheria No Project - Rohnert Park, CA

FIGURE 6



**LEGEND**  
 X STUDY AREA INTERSECTIONS  
 XX PM TRAFFIC VOLUMES

Graton Rancheria No Project - Rohnert Park, CA

LONG-TERM CUMULATIVE PM TRAFFIC VOLUMES

FIGURE 7



## GENERAL PROJECT INFORMATION

This section presents a description of elements of the analyses that are common to multiple study alternatives included in this study. Traffic impacts were evaluated for the following scenarios:

- 2008 analyses correspond with the proposed opening year of the casino and hotel.
- 2020 analyses represents cumulative traffic conditions for the area based upon available traffic forecasts from the Sonoma County travel forecast model provided by Sonoma County Regional Transportation Authority (SCTA). SCTA made refinements in Rohnert Park to the roadways and TAZs from the most recent information from the Sonoma County General Plan, the Rohnert Park General Plan, and the adopted specific plan assumptions.

The Memorandum of Understanding (MOU) promised funds to the City of Rohnert Park to mitigate potential impacts on transportation and traffic which includes monies to install an on-demand activated traffic signal at the entrance to the Rancho Verde Mobile Home Park on Rohnert Park Expressway.

### Project Trip Generation

Trip generation for Native American gaming facilities generally peaks on Saturday evenings; however, background traffic on adjacent streets is lower than during peak weekday periods, making the overall number of vehicles on the road lower as well. In addition, casino facilities are open 24/7 and typically do not generate extreme peaks like other uses. Instead, casino/hotel traffic follows a smoother curve that builds steadily from early morning until about 7:00 PM, after which traffic levels slowly decline. Based on existing traffic volume information and expected trip generation from the casino and hotel, it was determined that the weekday PM peak period represents the worst case period to evaluate.

Trip generation for development projects is typically based on rates contained in the Institute of Transportation Engineer's publication *Trip Generation, 7th Edition*. This manual is a standard reference used by jurisdictions throughout the country and is based on actual trip generation studies at numerous locations in areas of various populations. However, *Trip Generation* does not have a land use for casinos similar to the type proposed by Graton Rancheria.

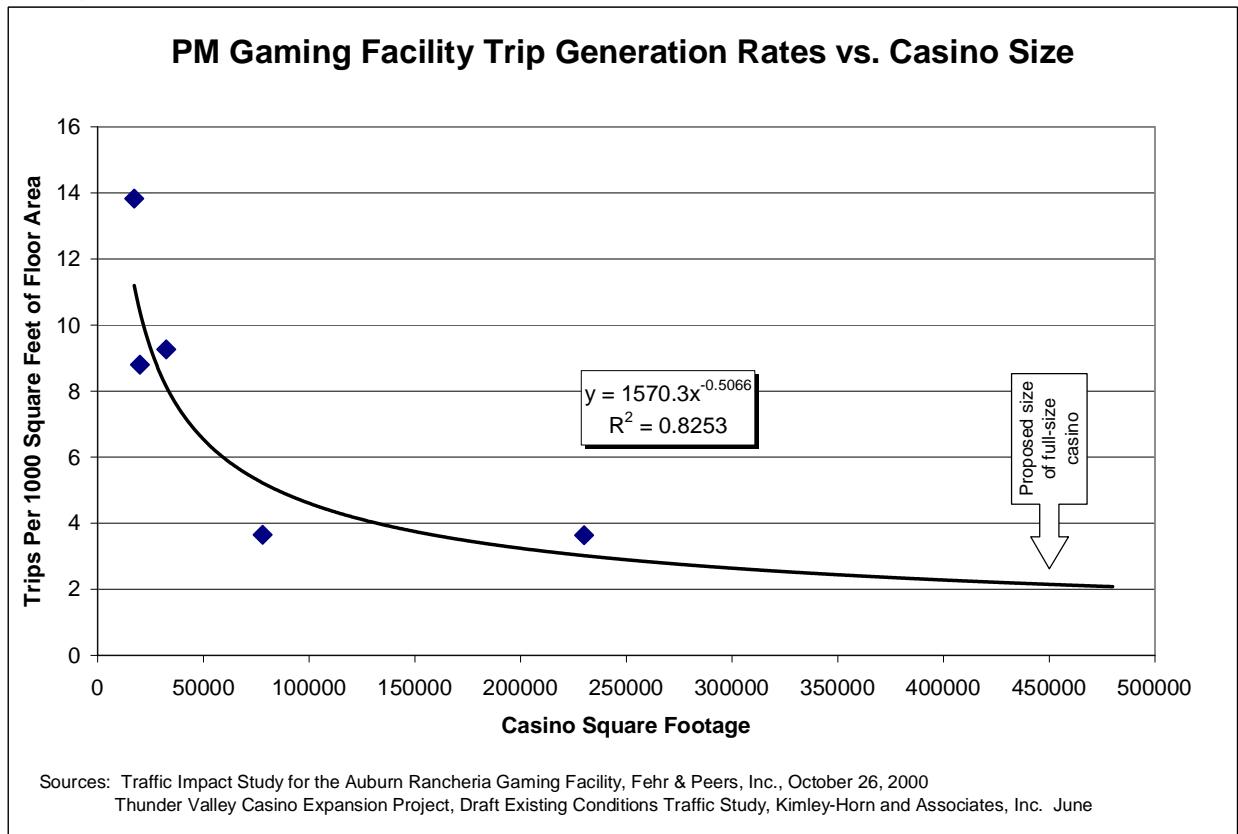
Research has been performed for hotel/casinos such as commonly found in Las Vegas and Reno, but the information is generally not applicable to this project. As a result this project relied on trip generation information obtained from other Native American casino and hotel facilities.

As part of a traffic impact study prepared for the Auburn Rancheria Gaming Facility (A.K.A. Thunder Valley Casino), trip generation was collected at four northern California gaming facilities. Data was reported for the weekday PM peak hour (i.e. the highest one-hour period between 4:00 and 6:00 PM) which is the time in which the greatest amount of combined traffic congestion commonly occurs.

Trip information from the four facilities showed that the smaller gaming facilities had higher trip rates than larger facilities, similar to the trip generation characteristics of shopping centers where small centers generate trips at a somewhat higher rate than larger centers.

Auburn Rancheria traffic study data was supplemented by more recent information collected at the completed Thunder Valley Casino by Kimley-Horn. Based on 2005 traffic data, the facility has a PM peak hour trip generation rate of 3.64 trips per 1,000 square feet of floor area. This rate occurs during the 5:00-6:00 PM period of the weekday and reinforces the principle that trip rates are lower at larger facilities.

Information from the Auburn Rancheria Traffic study and the more recent Thunder Valley Casino data was plotted and clearly shows that the highest trip generation rates based on square footage correspond to the smallest facility and the lowest rate occurs at the largest facility. The data also indicates that trip rates based on building square footages are not linear. A regression analysis showed a  $R^2$  of 0.83 which indicates a strong fit to the data. In Update on Impacts of Tribal Economic Development Projects in



San Diego County (April 2003), San Diego County concludes the same premise that trip rates are lower for larger gaming facilities because they include "several accessory uses to encourage customers to stay longer."

The development alternatives in this study are much larger than the facilities documented in the Auburn report and consequently, the Graton Casino and Hotel project is expected to have a lower rate trip rate. The Graton Casino is proposed to include 315,100 - 450,000 square feet for the casino and related functions, plus up to a 300 room hotel. Extrapolation of the fitted curve suggests that the PM trip rate for the much larger casino would be approximately two trips per 1000 square feet. Although the data suggest a PM peak trip rate of 2/1000 s.f. is reasonable, it was determined that a higher and more conservative rate should be considered.

Therefore, the Shingle Springs casino environmental impact report/environmental assessment was also reviewed. The Shingle Springs casino is proposed to include approximately 238,500 square feet and was determined to have the following trip rates.

- Weekday AM Peak Hour: 2.95 trips/1,000 square feet
- Weekday PM Peak Hour: 4.95 trips/1,000 square feet
- Weekday (Daily trips): 39.43 trips/1,000 square feet

Based on the information from the Shingle Springs reports and in comparison with the plotted Auburn Rancheria /Thunder Valley Casino data, it was determined that the trip rate used for Shingle Springs is a reasonable but more conservative assumption for this traffic study to eliminate the possibility of underestimating project trips. Therefore, trip generation also considered the Shingle Springs DEIR/EA which evaluated additional sources of trip generation including San Diego County which, for example, recommends calculation of daily casino trips at 100 trips per 1,000 square feet of gaming area. San Diego rates are based on empirical data from several casinos in southern California and if applied to the Graton project's gaming area, the daily trip generation would be approximately 11,860 trips which is thousands below the number assumed in the Shingle Springs DEIR/EA. Therefore, trip rates used in this analysis are the same as for Shingle Springs and which are listed above. Actual trip rates for the Graton casino are likely to be lower. The Graton PM rate represents a 36% increase over the Thunder Valley data and a 148% increase over data from the combined 5 northern California gaming facilities. Using a trip generation rate that is higher ensures a conservative approach to identifying project impacts and associated mitigations.

As noted earlier, trip generation was prepared in consideration of actual data from five northern California gaming facilities. The largest of the facilities was Thunder Valley Casino located along Highway 65 and which is less than 7 miles from I-80. Thunder Valley is considered by many gaming operators to be the most successful casino in California. It offers slot machines, table games, a wide variety of restaurants, bars, and

professional entertainment similar to the proposed Graton Casino. Thunder Valley's location is within roughly 30 miles of 1.9 million people residing in 5 Sacramento area counties (2000 census). At a similar distance from the proposed Graton casino located near Santa Rosa there are four counties with a combined population of approximately 1.0 million (2000 census). Based on this information, comparisons between Thunder Valley and Graton casino are considered reasonable and valid.

Trip generation for the 300 room hotel was based on data contained in ITE *Trip Generation* but adjusted with the assumption that most guests at the hotel would also be guests of the casino. The casino is expected to implement a pricing structure for the rooms that favors casino guests. Therefore, the ITE hotel rate was reduced by 2/3 to account for internal capture to and from the casino. Reducing the rate is based on professional judgment and is consistent with the Shingle Springs report which researched this issue and ultimately assumed a 3/4 reduction for hotel rooms.

Sometimes developments also attract trips that are already on the road that stop as they pass by the site. These are not new vehicle trips but are considered to be pass-by trips. Although some trips to the site will be pass-by trips, no empirical data was readily available to determine a reasonable pass-by rate. Therefore, pass-by trips are conservatively not assumed in the analysis.

Furthermore, development projects also attract diverted link trips. These are also trips that are already on the road but change their route to access to the site. These trips originate from adjacent freeways, highways, or city streets. Although some trips to the casino site will be diverted link trips, no empirical data was readily available to determine a reasonable rate. Therefore, diverted link trips are conservatively not assumed in the analysis.

Although pass-by and diverted link reductions are not assumed in the analysis, it is reasonable to assume that 15 percent or more of the project trips are from these two trip types. Therefore, trips associated with the proposed casino (at 4.95/1000 s.f.) are conservatively overestimated by approximately 15 percent (due to pass-by and diverted link trips) already on the freeway and intersections away from the general vicinity of the project site.

It is recognized that some incidental trips may occur in relation to the casino such as wine tasting tours, costal activities, and other off-site attractions; however, because of the conservative nature of the casino trip generation rate assumptions, these incidental trips are accounted for in the PM trip generation calculations.

## **Project Trip Distribution and Assignment**

In preparation of the traffic distribution, Kimley-Horn reviewed the project's use in proximity to the surrounding population centers. Because of the nature of the project,

customers and employees are expected to travel from nearby locations and beyond. Much of the trips are expected to travel to/from US-101. The location of the San Francisco Bay Area population in relation to the project site, as well as peak hour turning movement volumes at the study intersections, the likely customer and employee base for the site, major connections to highways, and potential access limitations, were evaluated in order to estimate the likely distribution of project traffic.

Trip generation and distribution for the casino/hotel includes a mixture of passenger cars, trucks, and RVs and was evaluated based on the assumption that two percent of the vehicles on roads accessing the site would be trucks or RVs.

### **Potential Conflicts with Special Event Traffic**

The project sites are located more than 4 miles driving distance from the Spreckels Performing Arts Center and Sonoma State University (SSU) which is the home of the future Green Music Center as well as the Evert B. Person Theatre.

Spreckels Performing Arts Center houses two theatres – the Nellie W. Coddington Theatre which seats 550 patrons and the Bette Condiotti Experimental Theatre which seats up to 125 patrons. Most events occur on Saturday or Sunday with start times between 7:30 and 8:00 PM. Some weekday events also occur but they are frequently held in the middle of the day.

SSU houses many performance spaces – the Warren Auditorium seating up to 182 patrons, Ives 119 seating up to 200 patrons, PE 1 Studio Theatre seating up to 150 patrons, Ives 76 Studio Theatre seating 50 patrons, the Evert B Person Theatre seating up to 475 patrons. The future Green Music Center which is scheduled to open in spring of 2008 will include an inside concert hall seating up to 1,400 patrons with an outside venue for events up to 10,000 patrons. Events are scheduled on weekdays and weekends with start times between 7:30 and 8:00 PM. Occasionally, some weekday events are also scheduled in the middle of the day.

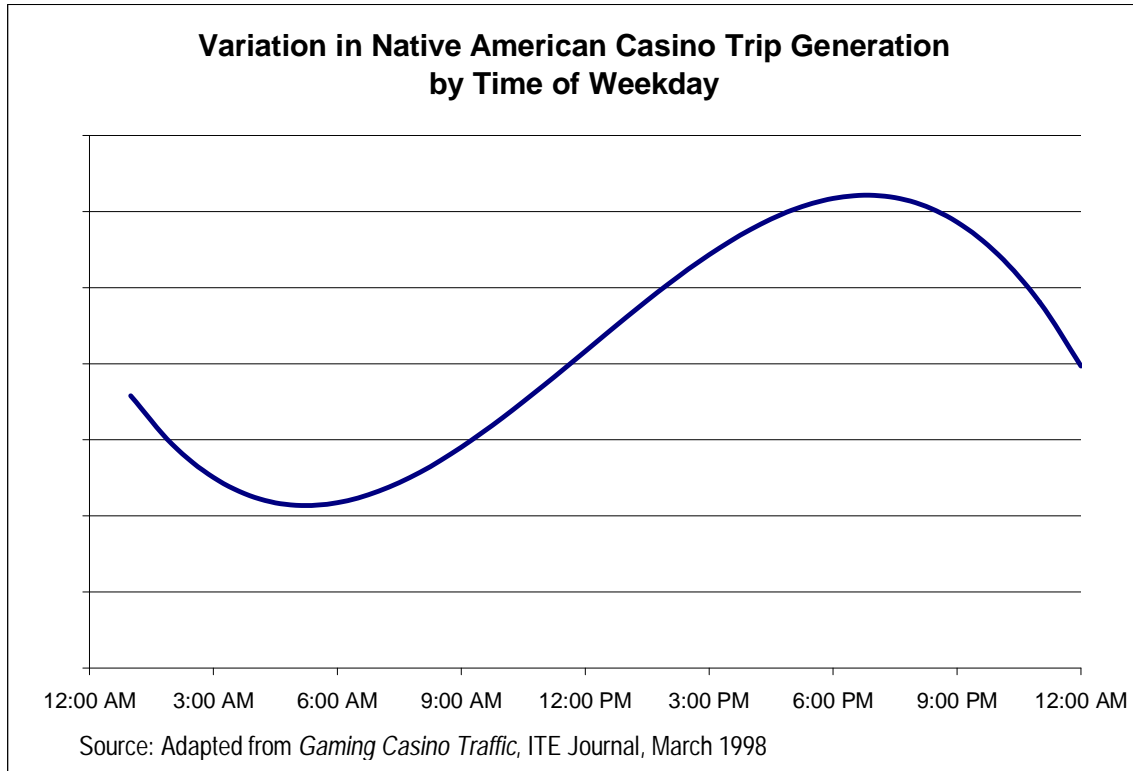
According to the Executive Director of the Green Music Center at SSU, the events with the greatest attendance are most likely to occur during the summer months between June and September and will attract between 3,000-10,000 people per event. Events of this magnitude are expected to occur about once per week (primarily on Saturdays). Other smaller events, with attendance up to 1,000 people, include concerts and other performances, and occur roughly ten times per month throughout the year. Concert times have not been determined but it is assumed that they will be similar to other SSU events.

Due to the proximity of the performing arts centers and concert start times, conflicts between casino/hotel traffic and the performing arts centers will be limited. The centers are located on the east side of the freeway and traffic generally travels through different intersections. However, on days when events are held at the performing arts centers,



surges of traffic commonly occur, with a sharp peak immediately following the conclusion of the event.

As noted earlier, casino traffic follows a different arrival and departure pattern, with weekday traffic following a smoother curve that builds steadily from early morning until about 7:00 PM, after which traffic levels slowly decline. On weekends, the peak is generally delayed until around 9:00 PM or later.



Although peak traffic generated by the hotel and casino would not regularly coincide with peak traffic generated by the performing arts centers, there will be times when traffic events overlap and when the size of the events conflict. During summer months when large outdoor events are held, combined traffic congestion will potentially have an adverse effect on traffic operations. This conflict will most likely occur at the Rohnert Park Expressway interchange. Although the frequency of the occurrences is expected to be low, the casino/hotel project should provide funding for special event traffic monitoring at the Rohnert Park Expressway interchange to identify conflicts during outdoor events generate high traffic levels. If conflicts occur, the project should provide traffic management coordination between the casino/hotel project and Green Music Center in consultation with CHP and Caltrans to assist in traffic control. It should be noted that with the Northwest Stony Point Reduced Intensity Alternative and the Wilfred Avenue Reduced Intensity Alternative there will be less traffic conflicting with special event traffic.

## Potential Effects on Transit, Bicycle, and Pedestrian Mobility

As noted earlier, Sonoma County Transit and Golden Gate Transit do not provide service near the site and have no plans to provide service. Therefore, this traffic study conservatively assumed no reduction in peak hour vehicular traffic due to travel by public transit. Transit ridership could be increased if the project operated a shuttle between the casino and Rohnert Park transit hubs. This would allow patrons to reach the site from many areas of the Bay using conventional transit routes. Shuttle service could circulate between the two destinations, thus helping reduce traffic generated by the project. The casino should also sponsor charter buses from farther away destinations such as Marin County and the south Bay. The buses could serve specific groups such as senior citizens or social clubs, while reducing the number of single occupancy vehicles to the site. Preferential carpool or vanpool spaces should also be provided at the project site to encourage ridesharing by patrons and employees. The casino should provide employee incentives such as subsidized transit passes, flexible work schedules, the validation of transit tickets to provide free return trips, or subsidized shuttle services.

Although Sonoma County Transit and Golden Gate Transit have previously indicated that they do not plan to provide bus service to the casino sites, the project will include transit facilities/amenities at transit access points, for public and private transit operations. Flexible work schedules and subsidized shuttle service could also be provided; however, subsidized transit passes and validation of transit tickets will not be useful to employees or customers unless Sonoma County Transit and Golden Gate Transit choose to provide service to the casino.

According to the 2000 U.S. Census, 4.7% of Rohnert Park residents use transit to travel to work. This typically represents the highest level of transit ridership during the day. If it is conservatively assumed that 4.7% of employees or customers will use transit (assuming a shuttle connection is provided by the casino) during the peak hours of the day, it represents approximately 107 in the weekday PM peak periods.

Data was not readily available for peak hour ridership levels on the Sonoma County Transit or Golden Gate Transit systems but during the weekday periods, the routes operate every 30 minutes and observations indicate the sufficient capacity exists on the buses to accommodate the potential additional transit demand. Furthermore, dispersion of the project-generated riders to the bus routes would result in a minimal effect on transit capacity. Thus the project impact on transit service is determined to be less than significant.

The effect of the casino/hotel on the proposed Sonoma-Marin Area Rail Transit (SMART) was also evaluated. It was determined that because the SMART system will only operate during the AM and PM commute hours, there is little opportunity for casino employees or patrons to use service. Therefore the project impact on SMART service is determined to be less than significant.

Park and ride facilities at the Rohnert Park Expressway interchange are not expected to be affected development of either a casino or business park.

Due to the low volume of pedestrians and bicyclists in the vicinity of the sites, the lack of continuous sidewalks and bikeways, and the nature of the casino/hotel project, it is unlikely that significant numbers of project patrons will walk or bike to the site. Furthermore, the project is not expected to have a notable effect on current mobility for bicyclists and pedestrians.

## Construction Traffic Impacts

The day-to-day construction operations for the proposed construction of the Graton Rancheria Casino and Hotel will include traffic impacts related to construction employees, fill, and construction material importation. The principal activities expected to generate traffic related to the construction are listed below:

- Employee trips are based on the number of employees estimated to be on site during different points throughout the project. Each employee is assumed to drive to and from the site alone each day and it is assumed that 20% of the workers leave and return to the site for various purposes during the day.
- Construction import is based on the number of trucks required to deliver construction materials to the site, including building materials such as wood, steel, and masonry as well as fill from a nearby borrow pit.
- Heavy equipment is based on the number of large construction vehicles expected during the project duration. The heavy equipment expected as part of this project was provided by Station Casinos.

Using the expected traffic information above, construction related traffic generation was estimated. Each construction activity listed above will generate different volumes of traffic at different points in the project. For example, the delivery and removal of heavy equipment to the project site will happen only a few times during the project duration. The construction related traffic is expected to remain relatively consistent throughout the project.

It is estimated that it will take between 20 and 27 months to complete construction of the project including 4 to 5 months for the grading of the site for Alternatives A through E and Alternative H. Alternatives A, B, and C are estimated to take 27 months to complete construction. Alternatives D and H are estimated to take 24 months to complete construction and Alternative E is estimated to take 20 months to complete construction.

Construction Material Import – It is estimated that 300,000 cubic yards of earthwork will be required to develop the site for Alternative A. It is expected that construction of the proposed project will involve 25,000 cubic yards of earthwork from an on-site location

adjacent to the development area which would not generate any traffic on the surrounding roadways.

275,000 cubic yards of fill will be taken from an on-site location separated from the development area which would generate traffic on the surrounding roadways. The on-site separated location is the southern portion of the Wilfred site where truck traffic will travel on a 5 mile loop from Rohnert Park Expressway to Stony Point Road to Wilfred Avenue to Redwood and back to Rohnert Park Expressway. Trucks will leave/enter the on-site fill location at the Rohnert Park Expressway driveway just east of the Bellevue-Wilfred Channel. The trucks will leave/enter the development area at the Wilfred/Labath intersection. Based on a carrying capacity of 12 cubic yards per truck, it is estimated that it would take approximately 22,917 trucks to complete this task. Doubling to account for the inbound and outbound component of each round trip, this would result in approximately 45,834 trip ends. Assuming that these were spread out over a period of 5 months, with trucks operating at 6 days per week, 10 hours per day, this would result in 191 trucks making 382 trip ends on an average day with 19 trucks making 38 trip ends in any given hour (including potentially the peak hour) on the 5 mile loop.

It is estimated that 150,000 cubic yards of earthwork will be required to develop the site for Alternative B, Alternative D and Alternative E. It is expected that construction will involve 150,000 cubic yards of fill that will be taken from an on-site location separated from the development area which would generate traffic on the surrounding roadways. The on-site separated location is the southern portion of the Stony Point site where truck traffic will travel on a 5 mile loop from Rohnert Park Expressway to Stony Point Road to Wilfred Avenue to Redwood and back to Rohnert Park Expressway. Trucks will leave/enter the on-site fill location at the Rohnert Park Expressway driveway just east of the Bellevue-Wilfred Channel. The trucks will leave/enter the development area at the Stony Point Road/Project Driveway intersection. Assuming that the trips were spread out over a period of 4 months, with trucks operating at 6 days per week, 10 hours per day, this would result in 131 trucks making 262 trip ends on an average day with 13 trucks making 26 trip ends in any given hour (including potentially the peak hour) on the 5 mile loop.

It is estimated that 350,000 cubic yards of earthwork will be required to develop the site for Alternative C. It is expected that construction will involve 350,000 cubic yards of fill that will be taken from an on-site location separated from the development area which would generate traffic on the surrounding roadways. The on-site separated location is the southern portion of the Wilfred site where truck traffic will travel on a 5 mile loop from Rohnert Park Expressway to Stony Point Road to Wilfred Avenue to Redwood and back to Rohnert Park Expressway. Trucks will leave/enter the on-site fill location at the Rohnert Park Expressway driveway just east of the Bellevue-Wilfred Channel. The trucks will leave/enter the development area at the Wilfred/Whistler intersection. Assuming that the trips were spread out over a period of 5 months, with trucks operating at 6 days per week, 10 hours per day, this would result in 243 trucks making 486 trip

ends on an average day with 25 trucks making 50 trip ends in any given hour (including potentially the peak hour) on the 5 mile loop.

It is estimated that 270,000 cubic yards of earthwork will be required to develop the site for Alternative H. It is expected that construction will involve 25,000 cubic yards of earthwork from an on-site location adjacent to development area which would not generate any traffic on the surrounding roadways.

245,000 cubic yards of fill will be taken from an on-site location separated from the development area which would generate traffic on the surrounding roadways. The on-site separated location is the southern portion of the Wilfred site where truck traffic will travel on a 5 mile loop from Rohnert Park Expressway to Stony Point Road to Wilfred Avenue to Redwood and back to Rohnert Park Expressway. Trucks will leave/enter the on-site fill location at the Rohnert Park Expressway driveway just east of the Bellevue-Wilfred Channel. The trucks will leave/enter the development area at the Wilfred/Labath intersection. Assuming that these were spread out over a period of 5 months, with trucks operating at 6 days per week, 10 hours per day, this would result in 171 trucks making 342 trip ends on an average day with 17 trucks making 34 trip ends in any given hour (including potentially the peak hour) on the 5 mile loop.

Once the site is graded, the project will also require the importation of construction material including, raw materials, the building pad, concrete, the parking lot base and asphalt paving. This results in a material importation of 3,000 to 4,000 truckloads of material which will occur over approximately 23 months (or less, depending on the alternative). The importation will require approximately 8 to 9 truck trips per day outside of the off-site fill delivery. Each truck will generate 1 inbound and 1 outbound trip, accounting for 2 trips. Therefore, during the peak construction period the project will generate about 18 truck trips ends per day.

Because the import truck traffic generates significantly less traffic than the project's equivalent passenger car traffic generation (even when added to employee trips described below) and the vehicle path travels through generally uncongested intersection movements, it should not significantly impact the capacity of any study intersection. However, this level of truck traffic may have an impact on quality of life including increased noise, visual impact, perception of lower traffic safety, and the track of debris and mud onto roadways may create a perceptual impact as well as a physical impact. See Project Mitigations section for measures to address these impacts.

Employees – The weekday work will begin around 7:00 a.m. and end around 4:00 p.m. The construction worker arrival peak occurs between 6:30 a.m. and 7:30 a.m., and the departure peak occurs between 4:00 p.m. and 5:00 p.m. This is generally prior to the areawide commute peaks between 7:30 a.m. and 8:30 a.m. and between 4:30 p.m. and 5:30 p.m. with a period of overlap into the commute peak periods. There will be 600 to 800 employees on-site during construction and only half will be on the roadway during the peak hours.

Workers will generate peak parking demand equivalent to roughly 800 vehicles during the peak construction period. Additionally, deliveries, visits, and other activities may generate peak non-worker parking demand of up to another 50 trucks and autos. Therefore, an approximate demand of 850 vehicle parking spaces will be required during the peak construction period for the construction employees. It is anticipated that this demand will be able to be met on site at the casino construction site. As an alternative, the project could lease a remote lot and shuttle employees to the construction site.

The impacts of construction related employee traffic and parking are considered less than significant because the construction commute peak and the areawide commute peak will only have a brief period of overlap and the parking demand will be able to be met at the casino construction site.

**Heavy Equipment** – A total of approximately 30 pieces of heavy equipment will be used based on wide-load permits necessary at various times over the course of the construction period. Delivery and removal of heavy equipment will occur outside of the areawide commute peak and equipment will be moved in and out of the site on different days. The periodic delivery during off-peak hours constitutes a minimum disruption of traffic.

The impacts of the periodic delivery and removal of heavy equipment during off-peak hours constitutes a minimum disruption of traffic and thus is considered less than significant.

## ALTERNATIVE A – WILFRED AVENUE SITE

The Alternative A casino and hotel is proposed to be located as shown in **Figure A1**, which is bordered by Wilfred Avenue in the north, Business Park Drive in the south, Langner Avenue in the west, and Dowdell Avenue in the east.

The site layout as shown in **Figure A2** includes a main building of approximately 450,000 square feet for a casino, restaurants, food court, event center, banquet facilities, lobby, pool, and other ancillary functions. In addition, the project is planned to include up to 300 hotel rooms, primarily for casino guests.

A breakdown of square footage as it relates to traffic impacts is shown below:

- Casino and Entertainment areas – 408,150 s.f.
- Lobby/Bar/Back of House/Sundries – 14,750 s.f.
- Pool and Spa – 27,100 s.f.  
450,000 s.f.
  
- Hotel Rooms – 291,000 s.f.

The site plan also shows supporting uses such as parking lots, parking structure, and wastewater treatment facilities.

Within each alternative there is a reference made to the “project site” which changes for each alternative. There is not a specific project site that is being evaluated for all of the alternatives.

### Site Access

The main access points to the project are located on Langner Avenue and Labath Avenue via Wilfred Avenue. These approaches are assumed to operate as full movement driveways with no turn limitations. The project will extend Labath Avenue to the south to intersect Business Park Drive. A third project access will be on Labath Avenue just north of Business Park Drive and is assumed to be a full movement driveway with no turn limitations.

Currently, none of the accesses are signalized.

### Trip Generation – Alternatives A, B, and C

Trip generation was calculated based on the previous discussions and is reported in **Table A1**. Additional trip generation calculations are contained in the **Appendix**. Since Alternatives A, B and C are all casinos with the same amount of gaming space and hotel space, trip generation numbers are the same for all three Alternatives. As seen in

the table Alternatives A, B and C are expected to generate 1,384 new trips in the AM and 2,287 new trips in the weekday PM peak hour. Although project trip generation was prepared for daily, AM, and PM periods, only the PM traffic conditions were evaluated in this report because it represents the time period where the project will contribute to the greatest amount of congestion and potential mitigation. Other time periods that were considered included weekday AM, weekday late PM, and Saturday. On weekday late evenings and Saturday evenings the casino facility will generate more trips than during the 4-6 PM weekdays, but the background traffic is lower, making the overall number of vehicles on the road lower as well. Therefore, the PM peak represents the worst case period to evaluate.

**Table A 1 – Alternatives A, B and C Project Trip Generation**

LAND USE	Trips						
	Daily	AM Peak Hour			PM Peak Hour		
	Total	Entering	Exiting	Total	Entering	Exiting	Total
Casino 450,000 s.f.	17,744	930	398	1,328	1,181	1,047	2,228
Hotel 300 Room*	817	34	22	56	31	28	59
Net New Vehicle Trips	18,261	964	420	1,384	1,212	1,075	2,287

\*Trip rate is ITE Land Use Code 310 – Hotel. Rate reduced by 2/3 to account for internal capture to/from casino.

## Project Trip Distribution and Assignment

Based on the factors discussed in the General Project Information section above it was determined that approximately 30% of the project traffic would be distributed to destinations north of the site, with the remaining 70% distributed south of the site. To be conservative, only a small percentage of project traffic was assumed to be generated or attracted in the immediate vicinity of the project site. The project traffic distribution is shown in **Figure A3** and **Figure A4**. **Figure A5** illustrates project traffic assigned to the study intersections based on the assumed trip distribution. As seen in **Figure A5**, most of the project traffic is expected to come from the freeway therefore it was assumed that most of the traffic would use Labath Avenue because of its closer proximity to the freeway. As noted in the distribution, some traffic leaving the project site is expected to avoid congestion at Wilfred Avenue and Stony Point Road by using Millbrae Avenue.

## Near-Term Plus Project Traffic Volumes

Near-term 2008 traffic volumes were combined with vehicle trips expected to be generated by the Alternative A casino and hotel project. **Figure A6** illustrates the combined near-term turning movement volumes at the study intersections.



## Long-Term Plus Project Traffic Volumes

Long-term 2020 traffic volumes were combined with vehicle trips expected to be generated by the Alternative A casino and hotel project. **Figure A7** illustrates the combined long-term turning movement volumes at the study intersections.

## Alternative A LOS Conditions and Impacts at Intersections

Traffic operations were evaluated under the following development conditions:

- Near-term conditions with Alternative A (year 2008)
- Long-term Cumulative conditions with Alternative A (year 2020)

In the near-term analysis for Alternative A, it was assumed that the Wilfred Avenue widening project will not have taken place before the casino/hotel opens. The Memorandum of Understanding (MOU) between the City of Rohnert Park and the Federated Indians of the Graton Rancheria stated that the tribe would help financially to speed up the timeline of the widening project to occur before the casino/hotel opens in 2008. The MOU was negotiated before Alternative A existed, but it was assumed that the MOU will be renegotiated to apply to Alternative A as well.

Results of the analysis are presented in **Table A2**. (Results shown as bold in the table do not meet operational standards.) The signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections. Additional detail is provided in the **Appendix**. As shown in the results, the following intersections and approaches will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic.

### 2008 Results

- Stony Point Road/Wilfred Avenue
- Langner Avenue/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps
- Rohnert Park Expressway/Labath Avenue
- Rohnert Park Expressway/Commerce Boulevard
- Millbrae Avenue/Stony Point Road



**Table A 2 – Alternative A Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008				2020			
				Existing		Base (w/o Proj.)		With Project		Base (w/o Proj.)		With Project	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	OVRFL	F	841.3	F	OVRFL
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	B	13.8	B	12.5	C	16.2
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	B	13.8	B	12.5	C	15.8
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	F	51.3	B	12.5	F	111.1
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	OVRFL	F	OVRFL	F	OVRFL
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	OVRFL	F	OVRFL	F	OVRFL
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	148.7	F	169.9	F	182.3
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	C	22.5	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	27.7	C	26.8	D	45.7
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	E	69.4	E	74.2	F	96.2
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	14.6	B	19.0	B	19.7
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	E	64.8	D	50.8	E	66.2
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
14	Business Park Dr/ Labath Ave	D	-	-	-	-	-	B	10.6	-	-	B	10.3
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	C	16.7	C	22.2
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	B	19.8	B	18.5	C	21.7
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	D	43.3	C	28.2	D	40.6
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	26.0	C	29.1	C	26.4
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.2	B	16.0	B	16.0
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	18.5	B	12.3	B	17.4
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	D	38.9	E	63.4	C	33.0
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	37.6	D	45.5	F	118.2
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	28.0	C	28.0	D	42.4	E	56.3
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	B	17.4	B	18.1	B	19.6
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	11.4	B	11.5	B	11.4
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	F	72.0	F	90.2	F	156.3
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.6	B	12.4	B	12.2
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.7	B	12.5	B	12.4
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	B	11.0	B	11.3	B	11.4
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	12.0	B	14.7	B	13.7
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.7	B	11.4

## **2020 Results**

- Stony Point Road/Wilfred Avenue
- Langner Avenue/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps
- Rohnert Park Expressway/Labath Avenue
- Gravenstein Highway (SR-116)/Stony Point Road
- Gravenstein Highway (SR-116)/Redwood Drive
- Millbrae Avenue/Stony Point Road

## **Alternative A Traffic Signal Warrant Analysis**

Alternative A, near-term and long-term, traffic volumes at unsignalized study intersections were compared against peak hour warrant in the *2003 Manual on Uniform Traffic Control Devices (MUTCD)* and the *California Supplement*.

Results of the analysis showed that the following intersections will satisfy traffic signal Warrant #3 by year 2008 and 2020.

- Stony Point Road/Wilfred Avenue (2008 and 2020)
- Langner Avenue/Wilfred Avenue (2020)
- Labath Avenue/Wilfred Avenue (2008 and 2020)
- Dowdell Avenue/Wilfred Avenue (2008 and 2020)
- Millbrae Avenue/Stony Point Road (2008 and 2020)

Other warrants such as for minimum vehicle volumes, interruption of continuous traffic, and traffic progression were not evaluated because they generally require higher traffic volumes to be satisfied. Accident history and school areas were also not evaluated based on the results of field observations, which noted that neither of these warrant thresholds was likely to be met. A copy of the analysis summary for Warrant #3 is included in the **Appendix**.

## Alternative A LOS Conditions and Impacts on Freeway and Ramps

Project trips generated by the proposed casino and hotel were added to the year 2008 and 2020 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2008 and 2020, with the addition on the casino and hotel project. Freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the analyses are presented in **Table A3**. (Results shown as bold in the table do not meet operational standards.) As shown in the table, project traffic will add to the background congestion of the freeway. Significant congestion is expected with the project.

**Table A 3 – Alternative A Freeway Levels of Service**

US-101 Section/Ramp	Criteria		Existing		2008		2008 + Alt A		2020		2020 + Alt A	
	LOS	LOS	Density (pc/mi/lN)	LOS	Density (pc/mi/lN)	LOS	Density (pc/mi/lN)	LOS	Density (pc/mi/lN)	LOS	Density (pc/mi/lN)	
<b>Northbound</b>												
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	D	26.9	C	25.6	E	38.4	
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	E	35.2	D	34.1	F	41.8	
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	E	36.5	E	36.1	F	43.1	
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	D	31.7	D	32.3	F	-	
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	33.9	E	37.1	F	42.1	
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	C	24.5	C	23.2	C	25.9	
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	D	31.2	D	29.0	E	39.1	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	D	31.2	D	29.0	E	39.1	
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	D	31.2	D	29.0	E	39.1	
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	33.6	E	40.4	E	41.0	
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	33.6	E	40.4	E	41.0	
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	33.6	E	40.4	E	41.0	
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	23.8	D	29.7	D	32.6	
<b>Southbound</b>												
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	D	26.1	D	28.5	D	31.2	
Santa Rosa Avenue SB On-Ramp	E	D	31.2									
US-101 Between Santa Rosa Avenue and Wilfed Avenue (SB)	E	D	31.5	D	32.7	E	36.2	F	-	F	-	
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	40.8	F	44.8	F	46.8	
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	E	39.4	E	39.9	F	48.8	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	E	39.4	E	39.9	F	48.8	
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	E	39.4	E	39.9	F	48.8	
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	35.4	E	38.5	F	41.3	
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	36.1	F	37.5	F	43.0	
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	D	29.8	E	36.6	F	-	
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	E	36.1	F	40.3	F	47.2	
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	E	38.3	F	42.3	F	48.5	
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	D	29.0	D	32.0	F	-	

## Potential Effects on Intersection Safety

Traffic volumes generated by the project were reviewed in consideration of existing intersection collision history and the potential for increased accidents. According to collision data, accidents involving bicyclist and pedestrians are very low. Many intersections did not report any collisions of this type during the survey period. This suggests that bicycle and pedestrian volumes are relatively low and study intersections have minimal safety hazards for individuals biking or walking. Although the project will introduce increased traffic volumes at some intersections, bicyclists and pedestrians are expected to be able to travel through study intersections with similar levels of safety. Historically casinos do not attract a significant amount of bicycle and pedestrian traffic. Therefore, the expected amount of pedestrian and bicycle traffic is nominal and a significant increase in bicycle and pedestrian accidents is unlikely.

The potential for increased collisions between motorized vehicles was also considered. Collision frequency and severity are a function of many complex factors that vary depending on the location and type of intersection or roadway segment. Factors include traffic control such as signals or stop signs, lane and shoulder widths, grades, driveway densities, roadside hazards or obstacles, presence of left and right turn lanes, sight distance, congestion, and others.

Because of the number and interrelationships of the variables, accurate crash prediction is difficult. However, the proposed casino and hotel project will increase roadway congestion, a factor which could result in an increase in traffic collisions if left unmitigated. Other factors are expected to remain unaffected.

As noted previously, the purpose of this study is to address the traffic and transportation effects of the proposed casino and hotel development. This includes mitigation improvements to restore traffic operations to levels within acceptable standards or to levels as good as or better than without the casino/hotel project. Any potential increases in accidents due to project-related traffic would be offset by the implementation of roadway improvements included as mitigation. Therefore, if mitigations are implemented as proposed in this report, no significant increase in daytime or nighttime collisions is expected.

## Queuing Summary

As congestion increases it is common for traffic at signals and stop signs to form lines of stopped (or queued) vehicles. Queue lengths were determined for each lane and measure the distance that vehicles will backup in each direction approaching an intersection. The 95th percentile queue is calculated by using 95th percentile traffic to account for fluctuations in traffic and represents a condition where 95 percent of the time during the peak period, traffic volumes and related queuing will be at, or less, than determined by the analysis. Average queuing is generally less. Ninety-fifth percentile queuing was checked under the various future year development conditions and in consideration of the planned intersection and signal timing improvements. A typical vehicle length of 25 feet is used in the queuing analysis. A summary of the queuing results can be seen in **Table A4**. The results indicate dedicated turn lanes where queuing may exceed their storage limits. It should be noted that some variations in intersection queuing between scenarios is a result of planned intersection and signal timing improvements.



**Table A 4 – Alternative A Queuing Summary**

Intersection	Turning Movement	Bay Length	Queue Length		Intersection	Turning Movement	Bay Length	Queue Length	
			2008	2020				2008	2020
1 Stony Point Road and Wilfred Avenue	EBL				16 Stony Point Road and Rohnert Park Expy	EBL			
	EBR					EBR			
	WBL					WBL			
	WBR	35	OVRFL	OVRFL		WBR	175	54	60
	NBL	150	25	25		NBL	450	38	40
	NBR					SBL	700	194	213
4 Langner Avenue and Wilfred Avenue	SBL	150	26	35	SBR				
	SBR				17 Labath Avenue and Rohnert Park Expy	EBL	160	61	67
	EBL					EBR	200	25	26
	EBR					WBL	250	62	41
	WBL	150		25		WBR	170	25	25
	WBR					NBL	130	36	38
NBL				NBR		130	36	33	
5 Labath Avenue and Wilfred Avenue	NBR				SBL	100	573	547	
	SBL				SBR				
	SBR				18 Redwood Drive and Rohnert Park Expy	EBL	200	109	98
	EBL	150		25		EBR	200	25	25
	EBR					WBL	350	154	204
	WBL	150		98		WBR	155	36	41
WBR				NBL		250	157	136	
NBL				NBR		250	65	64	
6 Dowdell Avenue and Wilfred Avenue	NBR				SBL	175	188	237	
	SBL				SBR	175	58	56	
	SBR				19 SB US 101 Ramps and Rohnert Park Expy	EBL			
	EBL	150		25		EBR			
	EBR					WBL	225	56	63
	WBL	150		80		WBR			
WBR				NBL					
NBL				NBR					
7 Redwood Drive and Wilfred Avenue	NBR				SBL	400	318	311	
	SBL				SBR	400	228	203	
	SBR				EBL	190	25	25	
	EBL	150		111	20 NB US 101 Ramps and Rohnert Park Expy	EBR			
	EBR	150		168		WBL			
	WBL					WBR			
WBR				NBL		225	473	495	
NBL	150	317	352	NBR					
NBR	100	97	110	SBL					
8 Redwood Drive and Commerce Boulevard	SBL	275	314	474	SBR				
	SBR				21 Commerce Blvd and Rohnert Park Expy	EBL	250	69	69
	EBL	75	25	25		EBR			
	EBR	75	49	49		WBL	200	187	264
	WBL	100	25	25		WBR			
	WBR					NBL	250	210	245
NBL	150	131	131	NBR		175	56	75	
9 Wilfred Avenue and SB US 101 Ramps	NBR	150	25	25	SBL	150	98	147	
	SBL	200	40	40	SBR	150	51	50	
	SBR				22 Stony Point Road and Gravenstein Hwy	EBL	350	162	183
	EBL					EBR			
	EBR					WBL	500	155	138
	WBL	200	30	25		WBR	150	43	42
WBR				NBL		550	296	290	
NBL				NBR		675	30	29	
10 Golf Course Drive and Commerce Blvd	NBR				SBL	500	169	344	
	SBL	550	261	405	SBR	625	49	51	
	SBR				EBL	225	161	171	
	EBL				23 Redwood Road and Gravenstein Hwy	EBR			
	EBR					WBL	150	63	79
	WBL	180	191	99		WBR	80	25	32
WBR				NBL		50	65	65	
NBL	75	284	116	NBR					
NBR				SBL		225	388	513	
11 Roberts Lake Drive and Golf Course Drive	SBL	290	45	25	SBR				
	SBR				24 Gravenstein Hwy and SB US 101 Ramps	EBL	50	101	102
	EBL	100	107	68		EBR			
	EBR					WBL	100	104	124
	WBL					WBR			
	WBR					NBL			
NBL				NBR					
12 Commerce Blvd and NB US 101 Ramps	NBR				SBL	425	222	216	
	SBL	200	77	106	SBR				
	SBR				25 Gravenstein Hwy and NB US 101 Ramps	EBL			
	EBL	250	442	460		EBR			
	EBR	250	23	37		WBL			
	WBL					WBR			
WBR				NBL		395	144	150	
NBL	200	478	531	NBR		275	178	191	
15 Business Park Drive and Redwood Drive	NBR				SBL				
	SBL	100	25	25	SBR				
	SBR	175	236	203	26 Stony Point Road and Millbrae Avenue	EBL			
	EBL	225	97	75		EBR			
	EBR					WBL			
	WBL					WBR	120	48	132
WBR				NBL		505	25	25	
NBL	150	25	25	NBR		120	25	25	
16 Stony Point Road and Wilfred Avenue	NBR				SBL	490	25	25	
	SBL				SBR				
	SBR								
	EBL								
	EBR								
	WBL								



## Alternative A Mitigations

Intersections with levels of service below established thresholds were investigated to determine the role of the Alternative A traffic in the projected operating conditions at those intersections. The evaluation disclosed that the following improvements as shown on **Table A5** are needed in the near-term (2008) and long-term (2020) to mitigate project impacts.

**Table A6** summarizes the expected levels of service with the proposed mitigation. Roadway improvements will be consistent with design standards for local jurisdictions in providing facilities and amenities for bicycles and pedestrians. This includes improvements such as sidewalks, countdown signals, and striped crosswalks if required by local design standards.

As mentioned previously, the signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections. **Figures A8 and 9** illustrate the mitigated lane geometry and traffic control.

Traffic signal interconnect and coordinated timing plans are included in the proposed traffic signals for Wilfred Avenue.

The combination of casino traffic and other nearby future development will require Wilfred Avenue to ultimately be widened to five lanes (including Class II bike lanes) from Redwood Drive to Langner Avenue at the edge of the project site. From Langner Avenue west to Stony Point Road, Wilfred Avenue should be two lanes with improved pavement and shoulders and it is recommended that the upgrade of Wilfred Avenue to include improved pavement and shoulders should be designed to the County standard and should include Class II bike lanes out to Stony Point Road to connect into the Class II bike lanes on Stony Point Road. Casino traffic alone can be accommodated on a three lane roadway section from Redwood Drive to Langner Avenue, therefore, they will contribute a proportionate share for the ultimate cost of the widening of Wilfred Avenue.

Langner Avenue and Labath Avenue should be improved and either removed from County jurisdiction or designed to the County standard.

An overcrossing should be built from State Farm Drive to Business Park Drive over US-101 with a southbound slip ramp lane that would open up just south of the US-101 NB off-ramp directly to the overcrossing. The overcrossing helps redirect project traffic away from the Wilfred interchange to a new facility capable of accommodating casino traffic. Additional right-of-way is necessary on State Farm Drive as well as Business Park Drive. Access to State Farm Drive will need to be modified and adjusted, but it is not anticipated that there will need to be any closures associated with the overcrossing. The overcrossing should begin east of the State Farm Drive/Commerce Boulevard intersection and touch down west of the Business Park Drive/Redwood Drive intersection. With this mitigation, all of the existing turning movements at the

Commerce/State Farm and the Redwood/Business Park intersections will be permitted as they currently exist.

In addition to the overcrossing in the long-term, modification of the Commerce Boulevard/US-101 NB Ramps intersection should be completed which would realign Wilfred Avenue, Commerce Boulevard, Golf Course Drive, and US-101 NB Ramps and combine with the Golf Course Dr/Commerce Blvd intersection. The southbound approach from Wilfred Avenue will be two left turn lanes, one through lane, and a free right turn lane. The northbound approach from Commerce Boulevard will be two left turn lanes, two through lanes, and a right turn lane. The eastbound approach from the US-101 NB off-ramp will be two left turn lanes, one through lane, and one right turn lane. The westbound approach from Golf Course Drive will be a left turn lane, a through lane, and a right turn lane.

Modification to any interchanges requires review and approval from Caltrans' Department Headquarters Division of Design.



**Table A 5 – Alternative A Summary of Mitigations**

Period	#	Intersection	Mitigation	Requires ROW?	Reason
2008	1	Stony Point Rd/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> </ul>	No	Capacity
	2	Primrose Ave/ Wilfred Ave	No mitigation necessary	-	-
	3	Whistler Ave/ Wilfred Ave	No mitigation necessary	-	-
	4	Langer Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Add NB left and change all shared to through-right</li> <li>Add a WB left turn lane and change all shared to through-right <sup>1</sup></li> </ul>	Tribe land Yes	Capacity Capacity
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add EB left and change EB all shared to through-right <sup>1</sup></li> <li>Add WB left and change WB all shared to through-right <sup>1</sup></li> <li>Add NB right and change NB all shared to left-through</li> </ul>	No Yes Yes Yes	Capacity Capacity Capacity Tribeland
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add WB left and change WB all shared to through-right <sup>1</sup></li> <li>Add EB left and change EB all shared to through-right <sup>1</sup></li> </ul>	No Yes Yes	Capacity Capacity Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>Change WB left-through to WB through</li> <li>Change phasing east-west to protected from split</li> <li>Add EB left and EB right and change EB all shared to through <sup>1</sup></li> </ul>	No No Yes	Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	No mitigation necessary	-	-
	9	Wilfred Ave/ US-101 SB Ramps	No mitigation necessary	-	-
	10	Golf Course Dr/ Commerce Blvd	Commerce Blvd/US-101 NB Ramps mitigation alleviates the impact	-	-
	11	Golf Course Dr/ Roberts Lake Rd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Construct the State Farm-Business Park Overcrossing and a southbound slip ramp from the US-101 NB Ramps to the overcrossing</li> </ul>	Yes	Capacity
	13	Project Driveway/ Stony Point Rd	No mitigation necessary	-	-
	14	Business Park Dr/ Labath Ave	No mitigation necessary	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	No mitigation necessary	-	-
	17	Rohnert Park Expwy/ Labath Ave	<ul style="list-style-type: none"> <li>Change SB through-right to all-shared</li> <li>Change NB/SB phasing from protected to split phasing</li> <li>Extend SB left turn bay to 350 feet (from 100 feet)</li> </ul>	Yes No Yes	Capacity Capacity Queue
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Extend NB left turn bay to 400 feet (from 225 feet)</li> <li>Add second NB left turn lane</li> </ul>	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	<ul style="list-style-type: none"> <li>Optimize signal timing</li> </ul>	No	Capacity
	22	Gravenstein Hwy/ Stony Point Rd	No mitigation necessary	-	-
	23	Gravenstein Hwy/ Redwood Dr	No mitigation necessary	-	-
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	<ul style="list-style-type: none"> <li>Signalize</li> </ul>	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-

<sup>1</sup> In summary, widen Wilfred Ave to three lanes from Langer Ave to Redwood Dr



Period	#	Intersection	Mitigation	Requires ROW?	Reason
2020	1	Stony Point Rd/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> </ul>	No	Capacity
	2	Primrose Ave/ Wilfred Ave	No mitigation necessary	-	-
	3	Whistler Ave/ Wilfred Ave	No mitigation necessary	-	-
	4	Langer Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Add NB left and change all shared to through-right *</li> <li>Signalize</li> </ul>	Tribe land No	Capacity Capacity
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Optimize signal timing</li> <li>Add NB right and change NB all shared to through-left *</li> </ul>	No No Tribe land	Capacity Capacity Capacity
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Optimize signal timing</li> </ul>	No No	Capacity Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>Optimize signal timing</li> <li>Change WB left-through to through *</li> <li>Change phasing east-west to protected from split *</li> </ul>	No Yes No	Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	Modified Intersection (not analyzed)	-	-
	9	Wilfred Ave/ US-101 SB Ramps	No mitigation necessary	-	-
	10	Golf Course Dr/ Commerce Blvd	Modified Intersection (Combined with Intersection #12)	-	-
	11	Golf Course Dr/ Roberts Lake Rd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Modify intersection to realign Wilfred Avenue, Commerce Boulevard, Golf Course Drive, and US-101 NB Ramps and combine with the Golf Course Dr/Commerce Blvd intersection. The southbound approach will be from Wilfred Avenue, the northbound approach will be from Commerce Boulevard, the eastbound approach will be from the US-101 NB off-ramp, and the westbound approach will be from Golf Course Drive.</li> <li>Construct the State Farm-Business Park Overcrossing and a southbound slip ramp from the US-101 NB Ramps to the overcrossing*</li> </ul>	Yes  Yes	Capacity  Capacity
	13	Project Driveway/ Stony Point Rd	No mitigation necessary	-	-
	14	Business Park Dr/ Labath Ave	No mitigation necessary	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	No mitigation necessary	-	-
	17	Rohnert Park Expwy/ Labath Ave	<ul style="list-style-type: none"> <li>Change SB through-right to all-shared *</li> <li>Change NB/SB phasing from protected to split phasing *</li> <li>Extend SB left turn bay to 350 feet (from 100 feet) *</li> </ul>	Yes No Yes	Capacity Capacity Queue
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Extend NB left turn bay to 400 feet (from 225 feet) *</li> <li>Add second NB left turn lane *</li> </ul>	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	No mitigation necessary	-	-
	22	Gravenstein Hwy/ Stony Point Rd	<ul style="list-style-type: none"> <li>Add an EB right turn bay for 100 feet</li> <li>Optimize signal timing</li> </ul>	Yes No	Capacity Capacity
	23	Gravenstein Hwy/ Redwood Dr	<ul style="list-style-type: none"> <li>Optimize signal timing</li> </ul>	No	Capacity
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	<ul style="list-style-type: none"> <li>Signalize</li> </ul>	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-

\* Improvement assumed to occur with 2008 mitigation



**Table A 6 – Alternative A Mitigated Intersection Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008						2020					
				Existing		Base (w/o Proj.)		With Project		Mitigated		Base (w/o Proj.)		With Project		Mitigated	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	OVRFL	C	25.4	F	841.3	F	OVRFL	D	35.2
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	B	13.8	B	13.8	B	12.5	C	16.2	C	16.2
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	B	13.8	B	13.8	B	12.5	C	15.8	C	15.8
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	F	51.3	C	18.0	B	12.5	F	111.1	C	26.5
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	OVRFL	C	26.9	F	OVRFL	F	OVRFL	C	25.8
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	OVRFL	B	10.8	F	OVRFL	F	OVRFL	C	35.0
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	148.7	D	37.5	F	169.9	F	182.3	D	40.2
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	C	22.5	C	27.5	-	-	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	27.7	C	22.3	C	26.8	D	45.7	C	24.3
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	E	69.4	C	46.9	E	74.2	F	96.2	-	-
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	14.6	C	20.1	B	19.0	B	19.7	B	12.4
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	E	64.8	D	48.5	D	50.8	E	66.2	C	28.5
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
14	Business Park Dr/ Labath Ave	D	-	-	-	-	-	B	10.6	B	12.9	-	-	B	10.3	B	12.4
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	D	27.5	C	16.7	C	22.2	C	22.2
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	B	19.8	B	19.8	B	18.5	C	21.7	C	21.7
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	D	43.3	C	28.6	C	28.2	D	40.6	C	28.2
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	26.0	C	26.8	C	29.1	C	26.4	C	27.0
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.2	B	18.6	B	16.0	B	16.0	B	16.0
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	18.5	B	12.5	B	12.3	B	17.4	B	11.3
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	D	38.9	C	32.0	E	63.4	C	33.0	C	37.2
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	37.6	D	37.6	D	45.5	F	118.2	D	54.5
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	C	27.0	C	27.0	D	42.4	E	56.3	D	52.8
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	B	19.1	B	19.1	B	18.1	B	19.6	B	19.6
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	11.4	B	11.4	B	11.5	B	11.4	B	11.4
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	F	72.0	B	10.6	F	90.2	F	156.3	B	10.1
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.6	B	11.6	B	12.4	B	12.2	B	12.2
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.7	B	11.7	B	12.5	B	12.4	B	12.4
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	B	11.0	B	11.0	B	11.3	B	11.4	B	11.4
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	12.0	B	12.0	B	14.7	B	13.7	B	13.7
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.4	B	11.7	B	11.4	B	11.4

Results indicate that the freeway will not meet standards with the project, even with the future construction of HOV lanes, ramp metering, and auxiliary lanes associated with the Wilfred interchange project. As mitigation the project should do the following which will result in the mitigated levels of service shown in **Table A7**:

- Adjust the ramp metering to account for the additional project traffic at the Wilfred Avenue interchange in the long-term (2020). Most metering adjustments can be minor and are not expected to have queuing effects on the local street network. However, the southbound on-ramp will require heavy metering to obtain an acceptable level of service for the freeway ramp merge area which may create a long queue backed up on the ramp.
- The project should contribute a proportionate share of the costs of the construction of auxiliary lanes between Rohnert Park Expressway and Gravenstein Highway (SR-116) in the long-term (2020).
- The project should contribute a proportionate share of the costs of the construction of the Wilfred Avenue interchange project, including HOV lanes, ramp metering, and auxiliary lanes in the near-term (2008).
- The project should contribute a proportionate share of the costs of the construction of an additional traffic lane in the southbound direction from Santa Rosa Avenue to south of Gravenstein Highway (SR-116) as well as an additional traffic lane in the northbound direction from West Sierra Avenue to Gravenstein Highway (SR-116) in the long-term (2020).

Aside from roadway improvements to mitigate protect impacts, the casino and hotel should coordinate with the Green Music Center during outdoor events that will generate high traffic levels. During that period, traffic control services at the Rohnert Park interchange may be necessary. Therefore, the casino/hotel project should provide funding for special event traffic monitoring at the Rohnert Park Expressway interchange to identify conflicts during outdoor events generate high traffic levels. If conflicts occur, the project should provide traffic management coordination between the casino/hotel project and Green Music Center in consultation with CHP and Caltrans to assist in traffic control

Because no fixed route service will be available at the project site, the casino/hotel should provide a shuttle that serves the two Rohnert Park transfer stations. The shuttle should run throughout the day or could be called out on demand. The casino should also sponsor charter buses from farther away destinations such as Marin County and the south Bay. The buses could serve specific groups such as senior citizens or social clubs, while reducing the number of single occupancy vehicles to the site. Preferential carpool or vanpool spaces should also be provided at the project site to encourage ridesharing by patrons and employees. The casino should provide employee incentives such as subsidized transit passes, flexible work schedules, the validation of transit tickets to provide free return trips, or subsidized shuttle services.

**Table A 7 – Alternative A Mitigated Freeway Level of Service Summary**

US-101 Section/Ramp	Criteria		Existing		2008		2008 + Alt A		2020		2020 + Alt A		2020 + Alt A Mitigated		
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
<b>Northbound</b>															
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	D	26.9	C	25.6	E	38.4	E	38.4		
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	E	35.2	D	34.1	F	41.8	D	29.1		
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	E	36.5	E	36.1	F	43.1	E	40.4		
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	D	31.7	D	32.3	F	-	E	40.4		
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	33.9	E	37.1	F	42.1	E	40.4		
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	C	24.5	C	23.2	C	25.9	C	25.9		
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	D	31.2	D	29.0	E	39.1	E	39.1		
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	D	31.2	D	29.0	E	39.1	E	39.1		
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	D	31.2	D	29.0	E	39.1	E	39.1		
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	33.6	E	40.4	E	41.0	E	41.0		
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	33.6	E	40.4	E	41.0	E	41.0		
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	33.6	E	40.4	E	41.0	E	41.0		
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	23.8	D	29.7	D	32.6	D	32.6		
<b>Southbound</b>															
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	D	26.1	D	28.5	D	31.2	D	31.2		
Santa Rosa Avenue SB On-Ramp	E	D	31.2												
US-101 Between Santa Rosa Avenue and Wilfed Avenue (SB)	E	D	31.5	D	32.7	E	36.2	F	-	F	-	C	24.8		
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	40.8	F	44.8	F	46.8	D	33.0		
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	E	39.4	E	39.9	F	48.8	D	34.2		
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	E	39.4	E	39.9	F	48.8	D	34.2		
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	E	39.4	E	39.9	F	48.8	D	34.2		
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	35.4	E	38.5	F	41.3	C	26.1		
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	36.1	F	37.5	F	43.0	D	40.0		
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	D	29.8	E	36.6	F	-	D	40.0		
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	E	36.1	F	40.3	F	47.2	D	40.0		
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	E	38.3	F	42.3	F	48.5	D	29.7		
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	D	29.0	D	32.0	F	-	C	23.5		

It is recommended that the casino contribute to the operation of SMART if it is implemented. Implementation of the SMART transit option will reduce the commuter congestion on US-101.

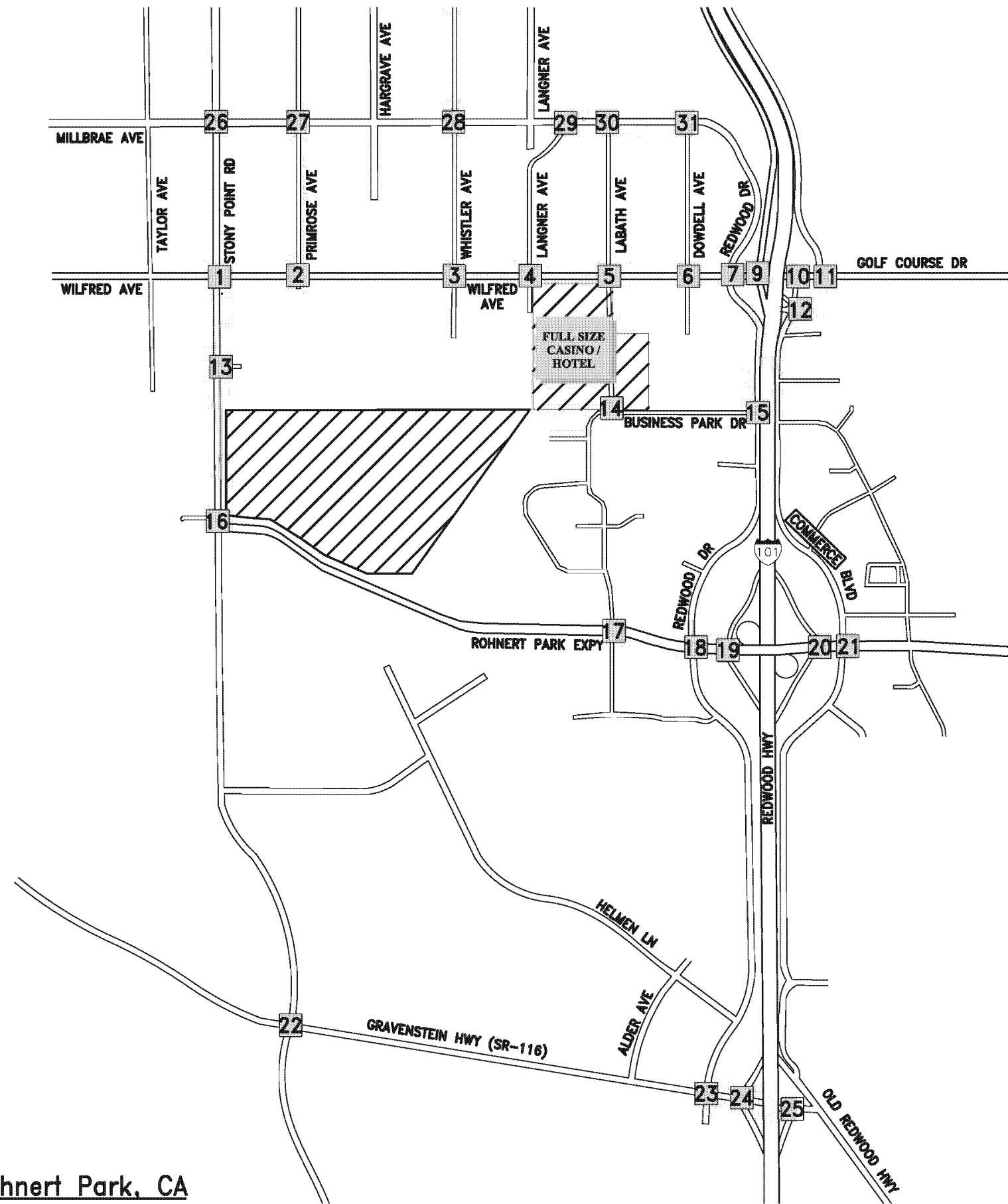
Mitigations to reduce the impact of the construction include the implementation of a construction traffic management plan for the duration of construction of the project and training for construction delivery vehicle drivers.

It is recommended that the project attempt to minimize the amount of construction fill transported on the surrounding street network by eliminating the off-site travel route. Potential options for eliminating off-site transport include moving fill material via conveyors across barriers such as creeks and ditches or installing temporary bridges for haul vehicles across the barriers.

If there is a special exception and off-site fill is necessary, construction material importation should be scheduled outside of the areawide commute peak hours. Debris along the truck route caused by trucks should be monitored daily and the roadways should be cleaned as necessary. Roadways subject to fill truck traffic should be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. If the third party determines that roadway deterioration has occurred as a result of casino construction, it is recommended that the developer pay to have surrounding roadways resurfaced to restore the pavement to the pre-construction condition, unless the resurfacing is already expected to occur within a year or sooner in conjunction with other planned or proposed roadway improvements.

To help ensure adequate public safety during construction, particularly near the project site, the tribe should provide flagging when necessary in consultation with CHP, Caltrans, and the County's Sheriff's Department to assist with traffic control.





Graton Rancheria Alternative A - Rohnert Park, CA

PROJECT LOCATION

FIGURE A1



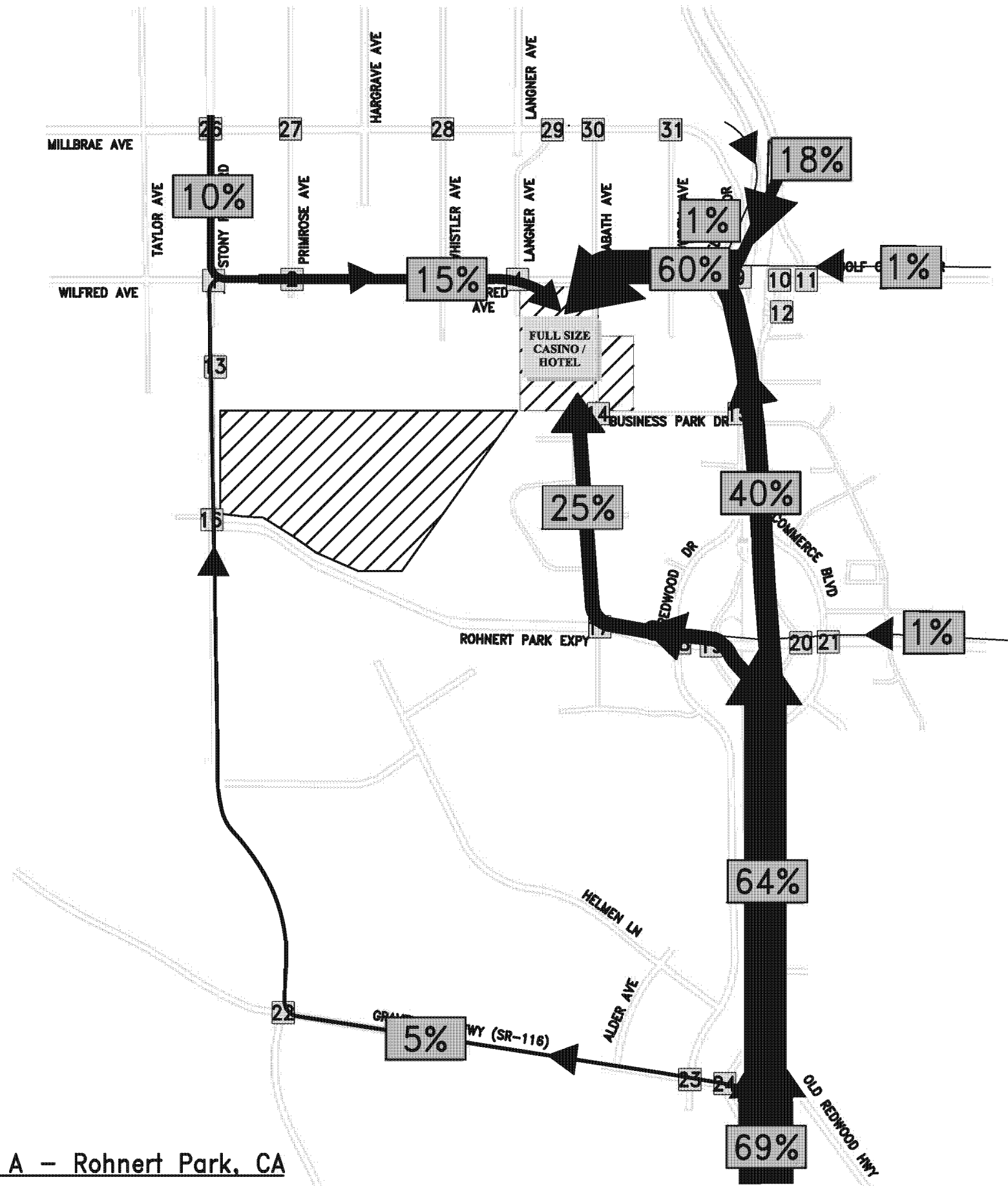


Graton Rancheria Alternative A - Rohnert Park, CA

SITE PLAN

FIGURE A2



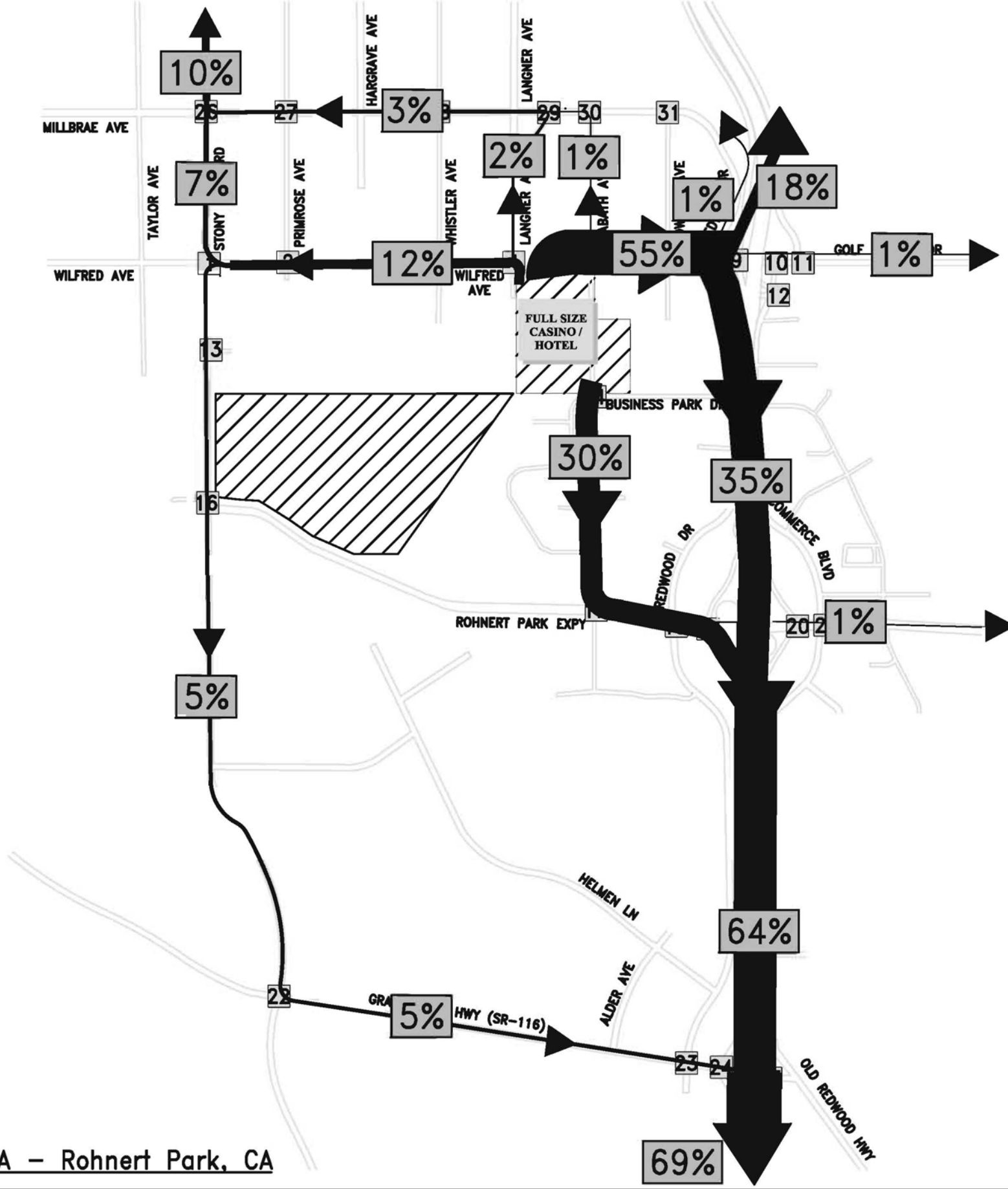


Graton Rancheria Alternative A – Rohnert Park, CA

TRIP DISTRIBUTION – IN

FIGURE A3





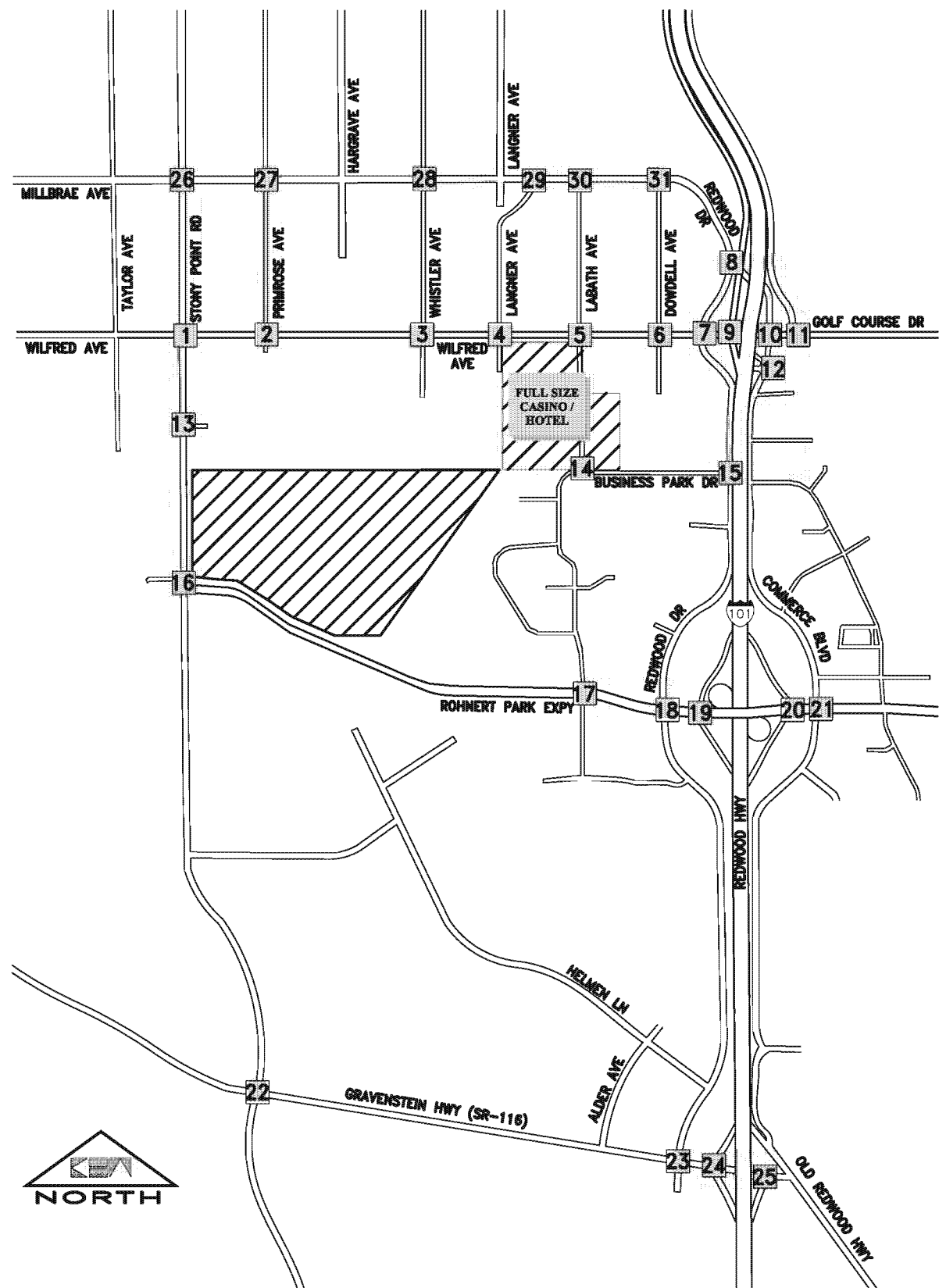
NORTH

Graton Rancheria Alternative A - Rohnert Park, CA

TRIP DISTRIBUTION - OUT

FIGURE A4





1	121 75 52 59	2	127	3	127	4	19 186 30 149 108 11 150	5	186 541 150 30 19 22 493	6	727 593
7	12 11 583	8	12 11	9	218 497 204 378	10	12 11 194 485	11	12 11	12	194 485
13	52 59	14	322 305	15		16	52 59	17	322 305	18	305 322
19	305 11 312	20	12 11 293	21	12 11	22	52 59	23	59 52	24	59 52
25	59	26	121 32 75	27	32	28	32	29	22 11	30	22
31											

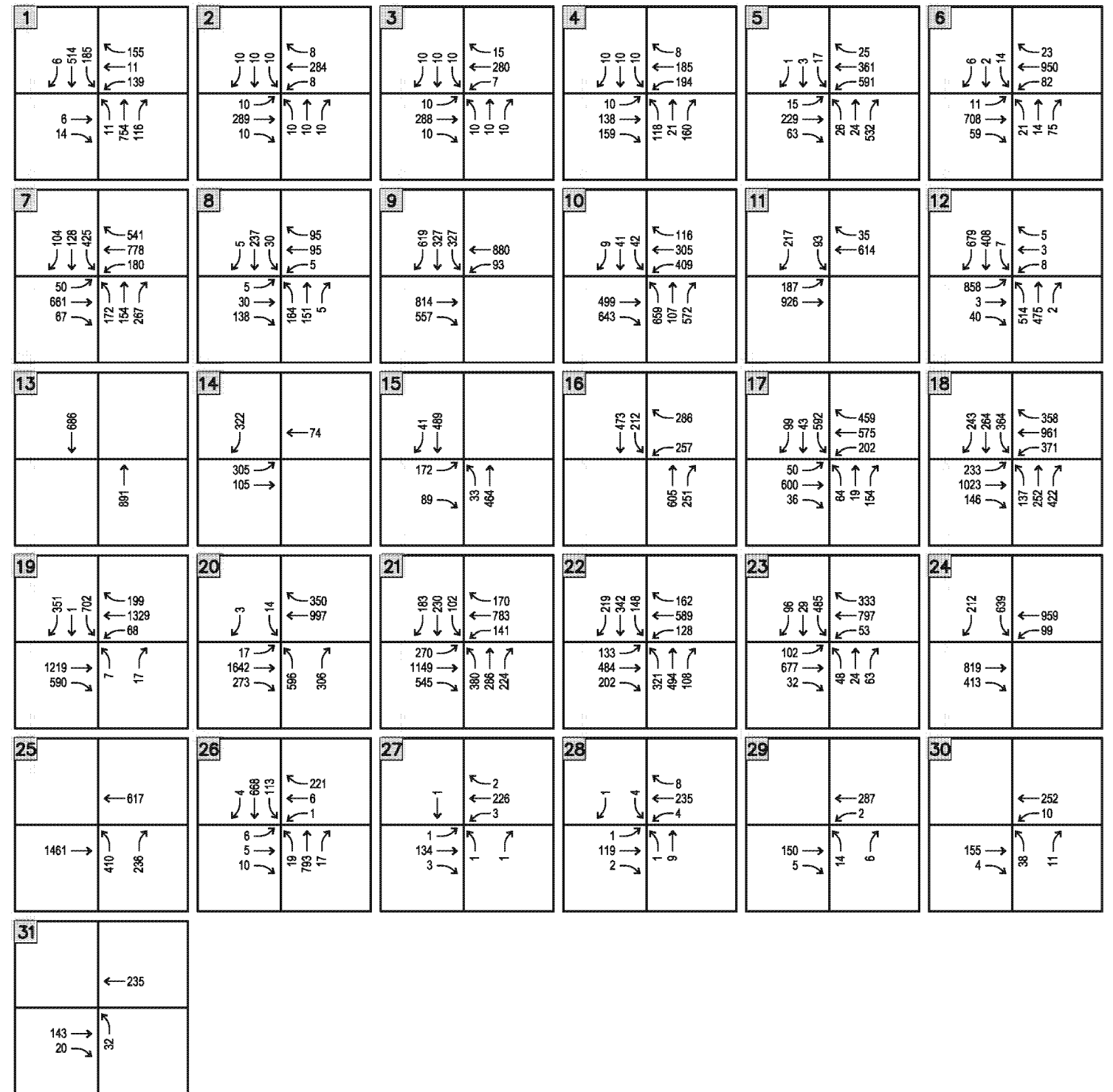
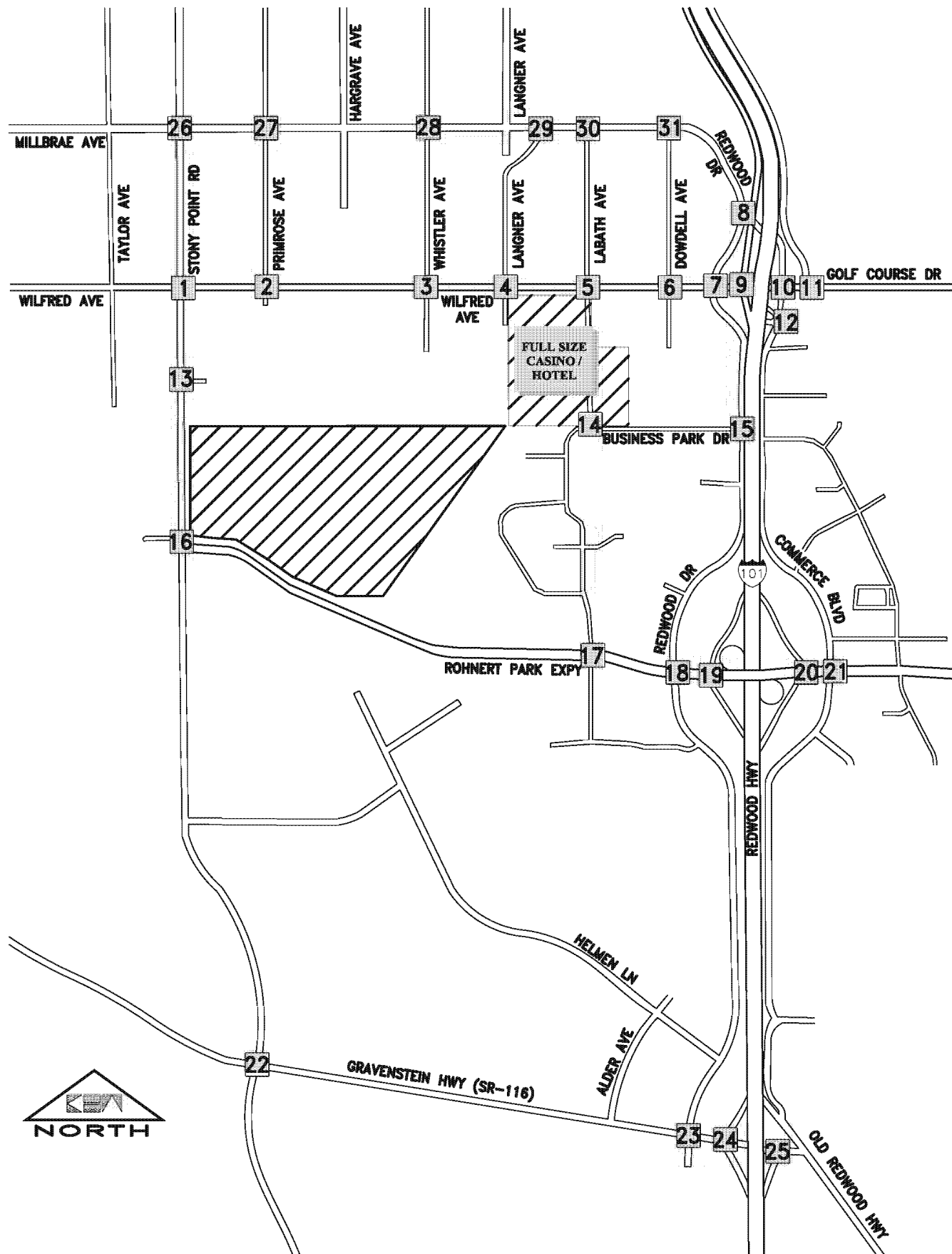
LEGEND  
 X STUDY AREA INTERSECTIONS  
 XX TRAFFIC VOLUMES

Graton Rancheria Alternative A - Rohnert Park, CA

PROJECT GENERATED PM TRAFFIC VOLUMES

FIGURE A5





**LEGEND**

**X** STUDY AREA INTERSECTIONS

**XX** TRAFFIC VOLUMES

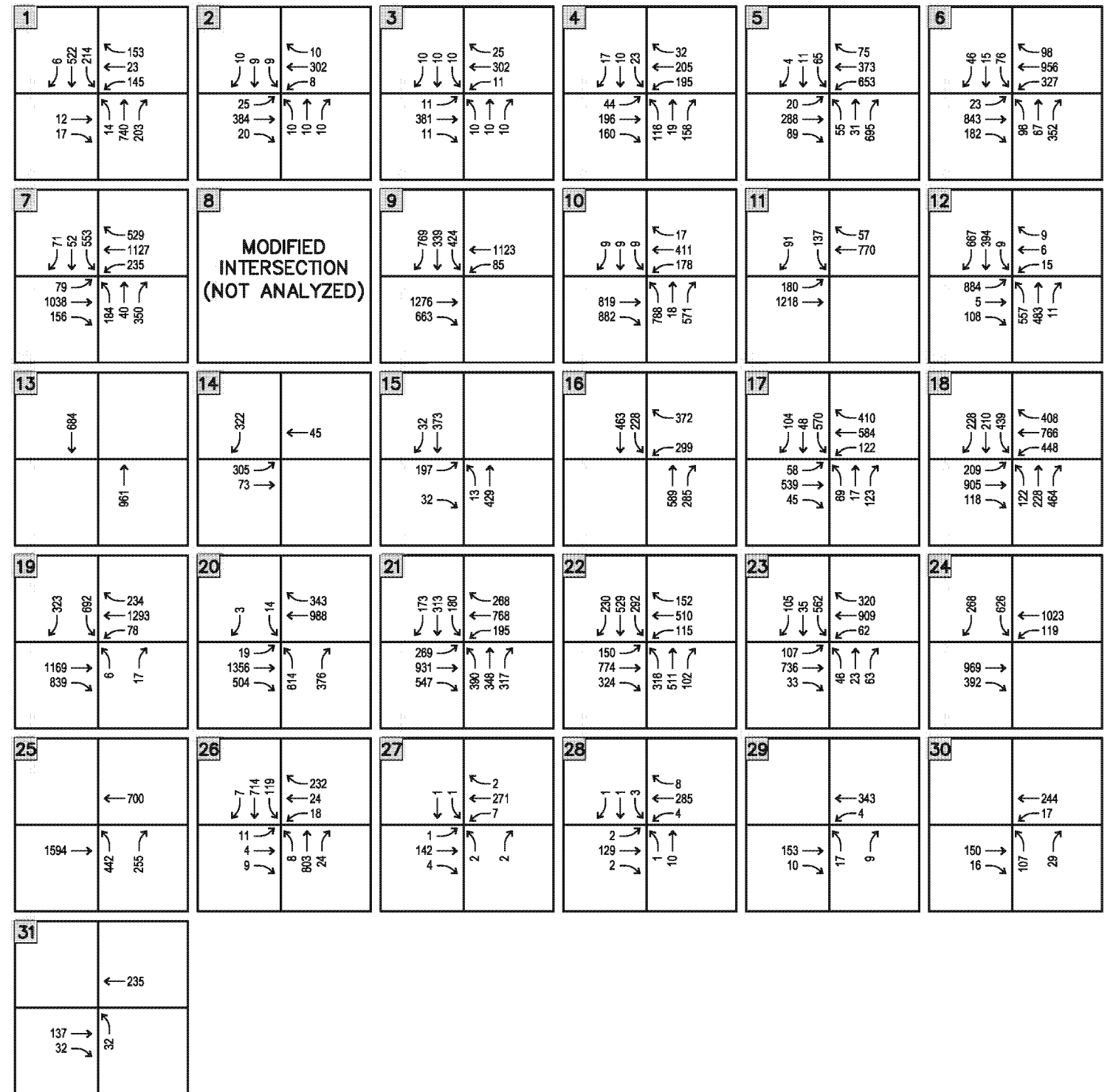
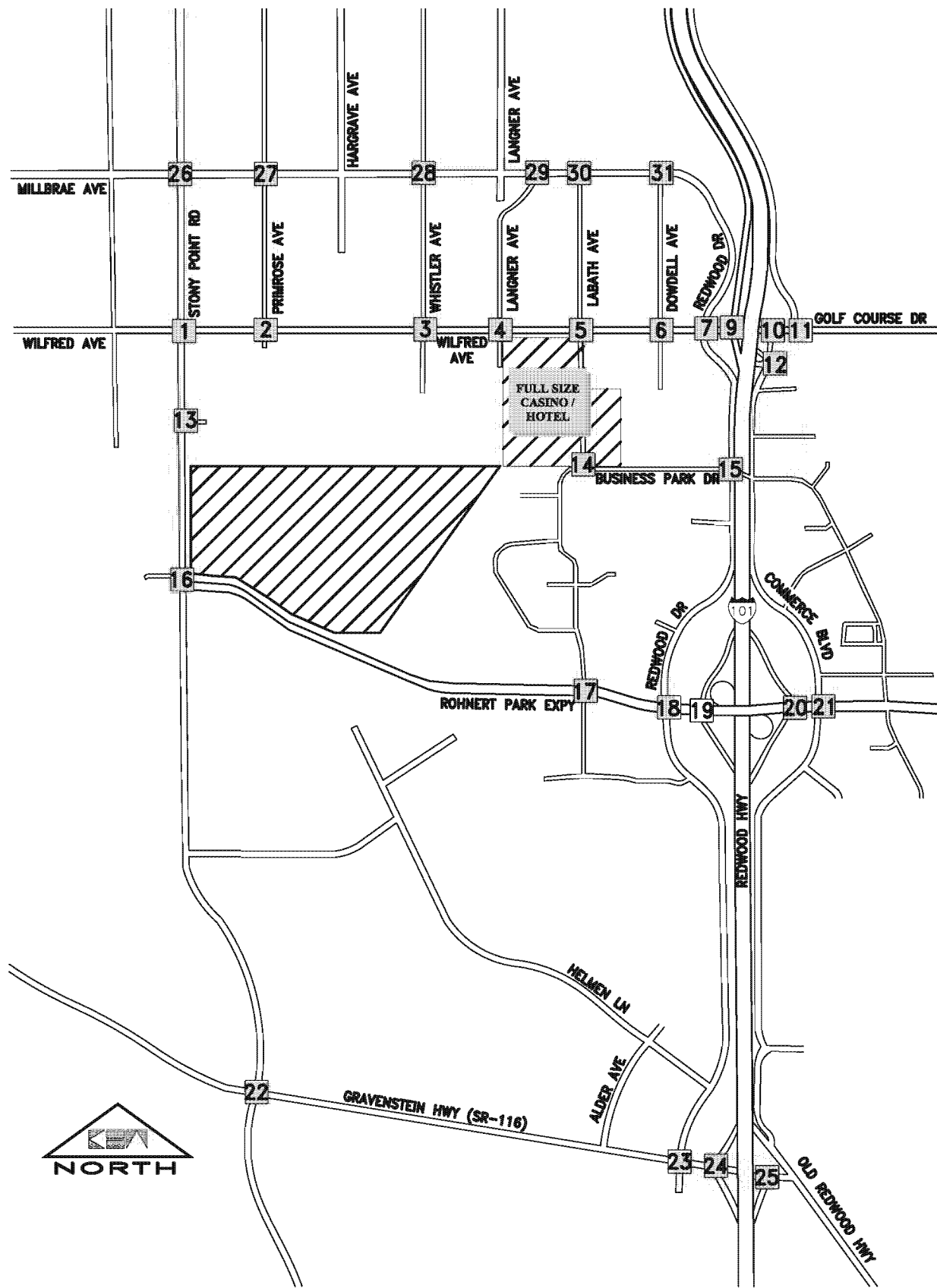
Graton Rancheria Alternative A - Rohnert Park, CA

NEAR-TERM + PROJECT PM TRAFFIC VOLUMES

FIGURE A6



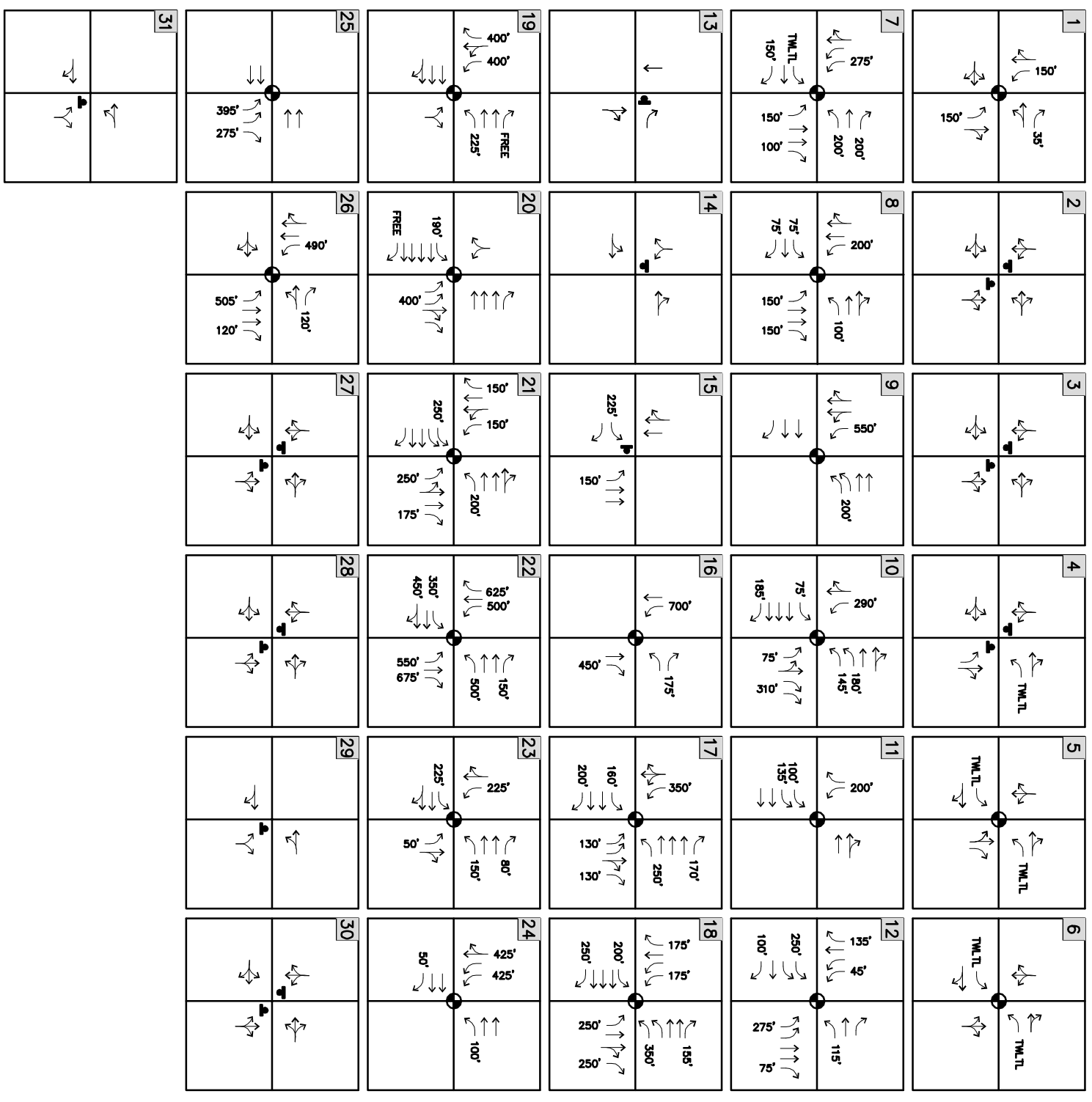
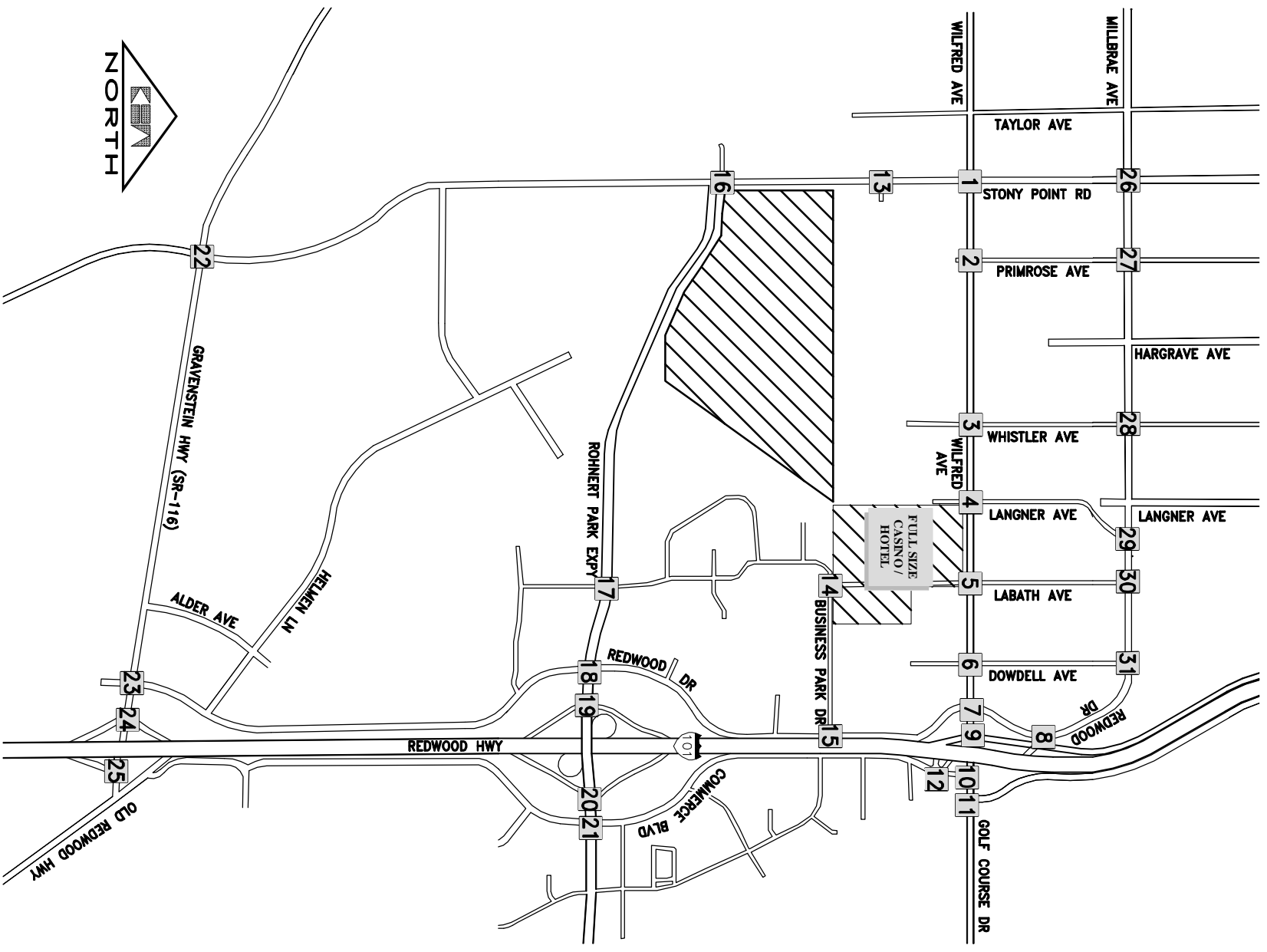




**LEGEND**  
 [X] STUDY AREA INTERSECTIONS  
 XX TRAFFIC VOLUMES

Graton Rancheria Alternative A - Rohnert Park, CA

FIGURE A7



**LEGEND**

- STUDY AREA INTERSECTIONS
- TRAFFIC SIGNAL
- STOP SIGN
- STORAGE LENGTH

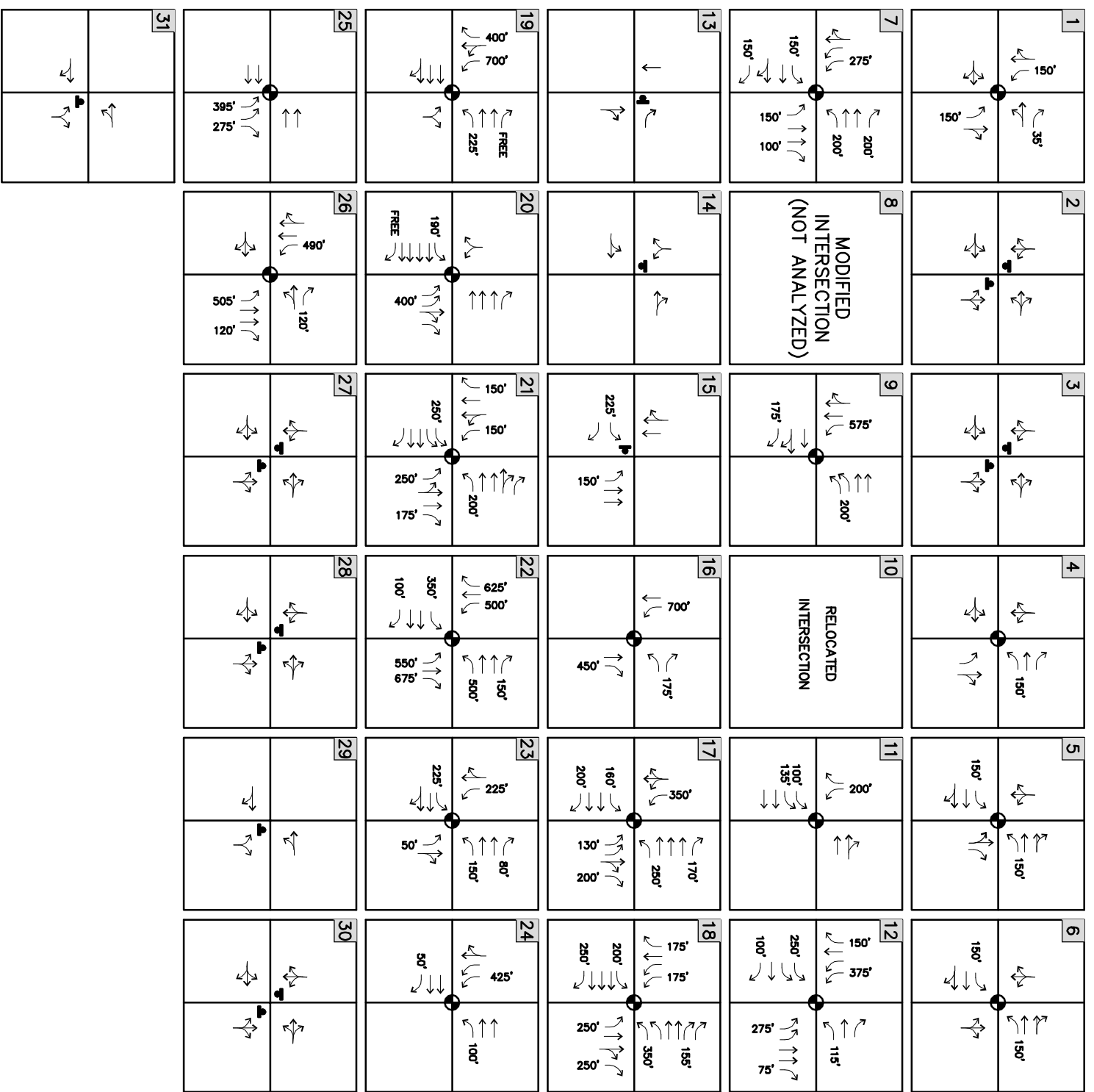
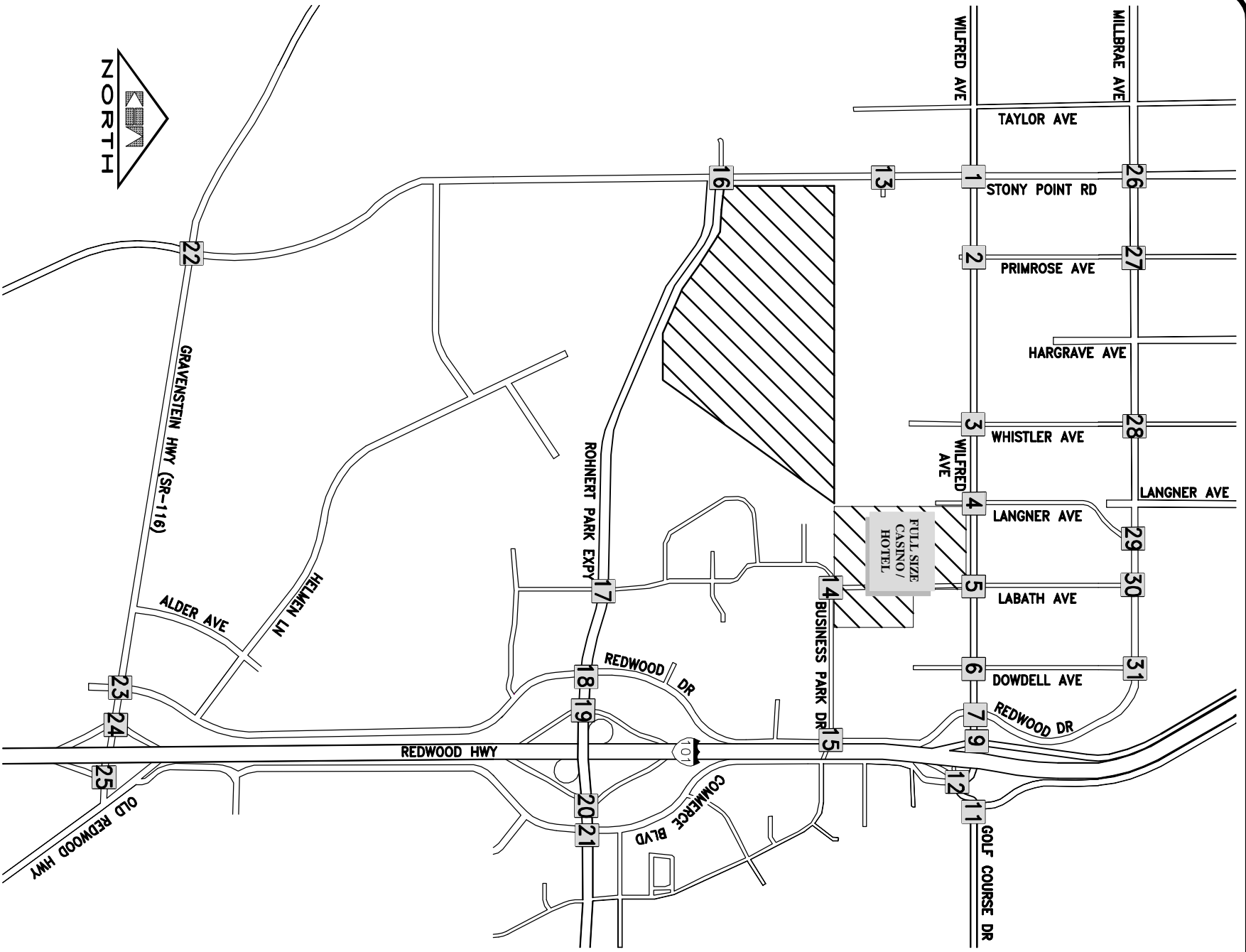
Graton Rancheria Alternative A – Rohnert Park, CA

NEAR-TERM MITIGATED LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE A8







**LEGEND**

- X STUDY AREA INTERSECTIONS
- TRAFFIC SIGNAL
- ▲ STOP SIGN
- XX' STORAGE LENGTH

Graton Rancheria Alternative A – Rohnert Park, CA

LONG-TERM MITIGATED LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE A9



## ALTERNATIVE B – NORTHWEST STONY POINT SITE

The Alternative B casino and hotel is proposed to be located as shown in **Figure B1**, which is bordered by Wilfred Avenue in the north, Rohnert Park Expressway in the south, Stony Point Road in the west, and Langner Avenue in the east.

The site layout as shown in **Figure B2** includes a main building of approximately 450,000 square feet for a casino, restaurants, food court, event center, banquet facilities, lobby, pool, and other ancillary functions. In addition, the project is planned to include up to 300 hotel rooms, primarily for casino guests.

A breakdown of square footage as it relates to traffic impacts is shown below:

- Casino and Entertainment areas – 408,150 s.f.
- Lobby/Bar/Back of House/Sundries – 14,750 s.f.
- Pool and Spa – 27,100 s.f.  
450,000 s.f.
  
- Hotel Rooms – 291,000 s.f.

The site plan also shows supporting uses such as parking lots, parking structure, and wastewater treatment facilities.

Within each alternative there is a reference made to the “project site” which changes for each alternative. There is not a specific project site that is being evaluated for all of the alternatives.

### Site Access

The main project access is from the south side of Wilfred Avenue, where an existing driveway aligns with Primrose Avenue. This approach is assumed to operate as a full movement driveway with no turn limitations.

A second project access from Stony Point Road is located on this plan approximately 880 feet south of the Stony Point Road/Wilfred Avenue intersection. The location is at an existing driveway access; however, due to conflicts with the northbound turn bay at the Stony Point Road/Wilfred Avenue intersection, the access is assumed to be limited to right in/out operation.

Currently, neither access is signalized.

### Trip Generation – Alternative B

Trip generation for Alternative B is identical to Alternative A. See Trip Generation – Alternatives A, B, and C section under Alternative A for specific information.

## Project Trip Distribution and Assignment

Based on the factors discussed in the General Project Information section above it was determined that approximately 30% of the project traffic would be distributed to destinations north of the site, with the remaining 70% distributed south of the site. To be conservative, only a small percentage of project traffic was assumed to be generated or attracted in the immediate vicinity of the project site. The project traffic distribution is shown in **Figure B3** and **Figure B4**. **Figure B5** illustrates project traffic assigned to the study intersections based on the assumed trip distribution. As seen in **Figure B5**, most of the project traffic is expected to come from the freeway therefore it was assumed that most of the traffic would use Primrose Avenue because of its closer proximity to the freeway. As noted in the distribution, some traffic leaving the project site is expected to avoid congestion at Wilfred Avenue and Stony Point Road by using Millbrae Avenue.

## Near-Term Plus Project Traffic Volumes

Near-term 2008 traffic volumes were combined with vehicle trips expected to be generated by the Alternative B casino and hotel project. **Figure B6** illustrates the combined near-term turning movement volumes at the study intersections.

## Cumulative Plus Project Traffic Volumes

Long-term 2020 traffic volumes were combined with vehicle trips expected to be generated by the Alternative B casino and hotel project. **Figure B7** illustrates the combined long-term turning movement volumes at the study intersections.

## Alternative B LOS Conditions and Impacts at Intersections

Traffic operations were evaluated under the following development conditions:

- Near-term conditions with Alternative B (year 2008)
- Long-term Cumulative conditions with Alternative B (year 2020)

In the near-term analysis for Alternative B, it was assumed that the Wilfred Avenue widening project will not have taken place before the casino/hotel opens. The Memorandum of Understanding (MOU) between the City of Rohnert Park and the Federated Indians of the Graton Rancheria stated that the tribe would help financially to speed up the timeline of the widening project to occur before the casino/hotel opens in 2008.

Results of the analysis are presented in **Table B1**. (Results shown as bold in the table do not meet operational standards.) The signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst

approach is reported in the table. The overall level of service is reported for signalized intersections. Additional detail is provided in the **Appendix**. As shown in the results, the following intersections and approaches will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic.

### **2008 Results**

- Stony Point Road/Wilfred Avenue
- Primrose Avenue/Wilfred Avenue
- Whistler Avenue/Wilfred Avenue
- Langner Avenue/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps
- Rohnert Park Expressway/Labath Avenue
- Rohnert Park Expressway/Commerce Boulevard
- Millbrae Avenue/Stony Point Road

### **2020 Results**

- Stony Point Road/Wilfred Avenue
- Primrose Avenue/Wilfred Avenue
- Whistler Avenue/Wilfred Avenue
- Langner Avenue/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Wilfred Avenue/US-101 SB Ramps
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps
- Rohnert Park Expressway/Labath Avenue
- Rohnert Park Expressway/Commerce Boulevard
- Gravenstein Highway (SR-116)/Redwood Drive
- Millbrae Avenue/Stony Point Road



**Table B 1 – Alternative B Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008				2020			
				Existing		Base (w/o Proj.)		With Project		Base (w/o Proj.)		With Project	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	OVRFL	F	841.3	F	OVRFL
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	F	OVRFL	B	12.5	F	OVRFL
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	F	86.6	B	12.5	F	115.2
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	F	82.9	B	12.5	F	114.3
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	OVRFL	F	OVRFL	F	OVRFL
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	OVRFL	F	OVRFL	F	OVRFL
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	313.1	F	169.9	F	274.0
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	C	25.0	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	32.0	C	26.8	D	36.7
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	F	82.3	E	74.2	F	127.2
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	18.5	B	19.0	B	19.3
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	E	60.5	D	50.8	F	129.0
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	D	27.6	A	0.0	C	24.6
14	Business Park Dr/ Labath Ave	D	TWSC	-	-	-	-	-	-	-	-	-	-
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	C	16.7	C	16.7
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	D	43.0	B	18.5	C	32.2
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	D	39.5	C	28.2	E	59.8
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	26.1	C	29.1	C	28.1
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.7	B	16.0	B	16.0
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	C	21.3	B	12.3	C	23.3
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	D	38.1	E	63.4	E	57.6
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	44.0	D	45.5	D	52.8
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	C	28.1	D	42.4	E	63.8
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	C	20.4	B	18.1	B	18.6
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	12.8	B	11.5	B	12.6
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	F	69.0	F	90.2	F	204.7
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.5	B	12.4	B	12.4
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.5	B	12.5	B	12.5
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	A	9.9	B	11.3	B	11.3
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	11.7	B	14.7	B	14.7
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.7	B	11.7

## Alternative B Traffic Signal Warrant Analysis

Alternative B, near-term and long-term, traffic volumes at unsignalized study intersections were compared against peak hour warrant in the *2003 Manual on Uniform Traffic Control Devices (MUTCD)* and the *California Supplement*.

Results of the analysis showed that the following intersections will satisfy traffic signal Warrant #3 by year 2008 and 2020.

- Stony Point Road/Wilfred Avenue (2008 and 2020)
- Primrose Avenue/Wilfred Avenue (2008 and 2020)
- Labath Avenue/Wilfred Avenue (2008 and 2020)
- Dowdell Avenue/Wilfred Avenue (2008 and 2020)
- Project Driveway/Stony Point Road (2008 and 2020)
- Millbrae Avenue/Stony Point Road (2008 and 2020)

Other warrants such as for minimum vehicle volumes, interruption of continuous traffic, and traffic progression were not evaluated because they generally require higher traffic volumes to be satisfied. Accident history and school areas were also not evaluated based on the results of field observations, which noted that neither of these warrant thresholds was likely to be met. A copy of the analysis summary for Warrant #3 is included in the **Appendix**.

## Alternative B LOS Conditions and Impacts on Freeway and Ramps

Project trips generated by the proposed casino and hotel were added to the year 2008 and 2020 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2008 and 2020, with the addition on the casino and hotel project. Freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the analyses are presented in **Table B2**. (Results shown as bold in the table do not meet operational standards.) As shown in the table, project traffic will add to the background congestion of the freeway. Significant congestion is expected with the project.

**Table B 2 – Alternative B Freeway Levels of Service**

US-101 Section/Ramp	Criteria		Existing		2008		2008 + Alt B		2020		2020 + Alt B	
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	
<b>Northbound</b>												
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	25.1	C	25.6	E	38.4	
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	D	33.7	D	34.1	F	41.8	
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	E	35.2	E	36.1	F	43.1	
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	D	28.8	D	32.3	F	-	
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	34.2	E	37.1	F	43.7	
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	C	21.8	C	23.2	C	26.7	
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	D	29.1	D	29.0	E	37.4	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	D	29.1	D	29.0	E	37.4	
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	D	29.1	D	29.0	E	37.4	
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	33.9	E	40.4	F	44.3	
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	33.9	E	40.4	F	44.3	
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	33.9	E	40.4	F	44.3	
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	23.8	D	29.7	D	32.6	
<b>Southbound</b>												
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	D	26.1	D	28.5	D	31.2	
Santa Rosa Avenue SB On-Ramp	E	D	31.2									
US-101 Between Santa Rosa Avenue and Wilfed Avenue (SB)	E	D	31.5	D	32.7	E	39.3	F	-	F	-	
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	40.8	F	44.8	F	49.7	
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	F	45.0	E	39.9	F	54.1	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	F	45.0	E	39.9	F	54.1	
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	F	45.0	E	39.9	F	54.1	
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	34.5	E	38.5	F	43.0	
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	34.1	F	37.5	F	42.3	
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	D	27.1	E	36.6	F	-	
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	34.0	F	40.3	F	46.2	
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	E	37.2	F	42.3	F	48.5	
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	D	27.4	D	32.0	F	-	

## Potential Effects on Intersection Safety

Traffic volumes generated by the project were reviewed in consideration of existing intersection collision history and the potential for increased accidents. According to collision data, accidents involving bicyclist and pedestrians are very low. Many intersections did not report any collisions of this type during the survey period. This suggests that bicycle and pedestrian volumes are relatively low and study intersections have minimal safety hazards for individuals biking or walking. Although the project will introduce increased traffic volumes at some intersections, bicyclists and pedestrians are expected to be able to travel through study intersections with similar levels of safety. Historically casinos do not attract a significant amount of bicycle and pedestrian traffic. . Therefore, the expected amount of pedestrian and bicycle traffic is nominal and a significant increase in bicycle and pedestrian accidents is unlikely.

The potential for increased collisions between motorized vehicles was also considered. Collision frequency and severity are a function of many complex factors that vary depending on the location and type of intersection or roadway segment. Factors include traffic control such as signals or stop signs, lane and shoulder widths, grades, driveway densities, roadside hazards or obstacles, presence of left and right turn lanes, sight distance, congestion, and others.

Because of the number and interrelationships of the variables, accurate crash prediction is difficult. However, the proposed casino and hotel project will increase roadway congestion, a factor which could result in an increase in traffic collisions if left unmitigated. Other factors are expected to remain unaffected.

As noted previously, the purpose of this study is to address the traffic and transportation effects of the proposed casino and hotel development. This includes mitigation improvements to restore traffic operations to levels within acceptable standards or to levels as good as or better than without the casino/hotel project. Any potential increases in accidents due to project-related traffic would be offset by the implementation of roadway improvements included as mitigation. Therefore, if mitigations are implemented as proposed in this report, no significant increase in daytime or nighttime collisions is expected.



## Queuing Summary

As congestion increases it is common for traffic at signals and stop signs to form lines of stopped (or queued) vehicles. Queue lengths were determined for each lane and measure the distance that vehicles will backup in each direction approaching an intersection. The 95th percentile queue is calculated by using 95th percentile traffic to account for fluctuations in traffic and represents a condition where 95 percent of the time during the peak period, traffic volumes and related queuing will be at, or less, than determined by the analysis. Average queuing is generally less. Ninety-fifth percentile queuing was checked under the various future year development conditions and in consideration of the planned intersection and signal timing improvements. A typical vehicle length of 25 feet is used in the queuing analysis. A summary of the queuing results can be seen in **Table B3**. The results indicate dedicated turn lanes where queuing may exceed their storage limits. It should be noted that some variations in intersection queuing between scenarios is a result of planned intersection and signal timing improvements.



**Table B 3 – Alternative B Queuing Summary**

Intersection	Turning Movement	Bay Length	Queue Length		Intersection	Turning Movement	Bay Length	Queue Length	
			2008	2020				2008	2020
1 Stony Point Road and Wilfred Avenue	EBL	/	/	/	16 Stony Point Road and Rohnert Park Expy	EBL	/	/	/
	EBR	/	/	/		EBR	/	/	/
	WBL	/	/	/		WBL	/	/	/
	WBR	35	OVFL	OVFL		WBR	175	359	289
	NBL	150	25	25		NBL	450	38	38
	NBR	150	30	32		NBR	700	264	257
	SBL	/	/	/	SBL	/	/	/	
	SBR	/	/	/	SBR	/	/	/	
4 Langner Avenue and Wilfred Avenue	EBL	/	/	/	17 Labath Avenue and Rohnert Park Expy	EBL	160	61	111
	EBR	/	/	/		EBR	200	25	29
	WBL	150	/	25		WBL	250	57	31
	WBR	/	/	/		WBR	170	25	25
	NBL	/	/	/		NBL	130	36	38
	NBR	/	/	/		NBR	130	36	37
	SBL	/	/	/	SBL	100	193	202	
	SBR	/	/	/	SBR	/	/	/	
5 Labath Avenue and Wilfred Avenue	EBL	150	/	25	18 Redwood Drive and Rohnert Park Expy	EBL	200	136	113
	EBR	/	/	/		EBR	200	25	25
	WBL	150	/	29		WBL	350	148	150
	WBR	/	/	/		WBR	155	33	29
	NBL	/	/	/		NBL	250	157	210
	NBR	/	/	/		NBR	250	65	106
	SBL	/	/	/	SBL	175	188	172	
	SBR	/	/	/	SBR	175	58	57	
6 Dowdell Avenue and Wilfred Avenue	EBL	150	/	25	19 SB US 101 Ramps and Rohnert Park Expy	EBL	/	/	/
	EBR	/	/	/		EBR	/	/	/
	WBL	150	/	529		WBL	225	51	53
	WBR	/	/	/		WBR	/	/	/
	NBL	/	/	/		NBL	/	/	/
	NBR	/	/	/		NBR	/	/	/
	SBL	/	/	/	SBL	400	318	238	
	SBR	/	/	/	SBR	400	230	302	
7 Redwood Drive and Wilfred Avenue	EBL	150	/	203	20 NB US 101 Ramps and Rohnert Park Expy	EBL	190	25	25
	EBR	150	/	304		EBR	/	/	/
	WBL	/	/	/		WBL	/	/	/
	WBR	/	/	/		WBR	225	543	587
	NBL	150	402	1271		NBL	/	/	/
	NBR	100	95	110		NBR	/	/	/
	SBL	275	350	350	SBL	/	/	/	
	SBR	/	/	/	SBR	/	/	/	
8 Redwood Drive and Commerce Boulevard	EBL	75	25	/	21 Commerce Blvd and Rohnert Park Expy	EBL	250	65	55
	EBR	75	50	/		EBR	200	187	222
	WBL	100	25	/		WBL	/	/	/
	WBR	/	/	/		WBR	250	210	214
	NBL	150	134	/		NBL	175	56	58
	NBR	150	25	/		NBR	150	98	158
	SBL	200	40	/	SBL	150	51	47	
	SBR	/	/	/	SBR	350	162	183	
9 Wilfred Avenue and SB US 101 Ramps	EBL	/	/	/	22 Stony Point Road and Gravenstein Hwy	EBL	/	/	/
	EBR	/	/	/		EBR	/	/	/
	WBL	300	30	25		WBL	500	155	170
	WBR	/	/	/		WBR	150	50	51
	NBL	/	/	/		NBL	550	296	298
	NBR	/	/	/		NBR	675	30	31
	SBL	250	229	251	SBL	500	243	255	
	SBR	/	/	/	SBR	625	49	54	
10 Golf Course Drive and Commerce Blvd	EBL	/	/	/	23 Redwood Road and Gravenstein Hwy	EBL	225	161	194
	EBR	/	/	/		EBR	/	/	/
	WBL	150	789	1000		WBL	150	57	54
	WBR	/	/	/		WBR	80	25	261
	NBL	150	876	1007		NBL	50	65	65
	NBR	/	/	/		NBR	225	388	556
	SBL	200	94	30	SBL	/	/	/	
	SBR	/	/	/	SBR	/	/	/	
11 Roberts Lake Drive and Golf Course Drive	EBL	80	100	52	24 Gravenstein Hwy and SB US 101 Ramps	EBL	/	/	/
	EBR	/	/	/		EBR	50	111	123
	WBL	/	/	/		WBL	100	103	72
	WBR	/	/	/		WBR	/	/	/
	NBL	/	/	/		NBL	/	/	/
	NBR	/	/	/		NBR	/	/	/
	SBL	200	76	83	SBL	425	222	222	
	SBR	/	/	/	SBR	/	/	/	
12 Commerce Blvd and NB US 101 Ramps	EBL	250	372	430	25 Gravenstein Hwy and NB US 101 Ramps	EBL	/	/	/
	EBR	250	25	25		EBR	/	/	/
	WBL	/	/	/		WBL	/	/	/
	WBR	/	/	/		WBR	/	/	/
	NBL	200	478	524		NBL	395	162	162
	NBR	/	/	/		NBR	275	176	201
	SBL	100	25	25	SBL	/	/	/	
	SBR	175	215	256	SBR	/	/	/	
15 Business Park Drive and Redwood Drive	EBL	225	97	40	26 Stony Point Road and Millbrae Avenue	EBL	/	/	/
	EBR	/	/	/		EBR	/	/	/
	WBL	/	/	/		WBL	/	/	/
	WBR	/	/	/		WBR	120	46	201
	NBL	150	25	25		NBL	505	25	25
	NBR	/	/	/		NBR	120	25	25
	SBL	/	/	/	SBL	490	25	25	
	SBR	/	/	/	SBR	/	/	/	

## Alternative B Mitigations

Intersections with levels of service below established thresholds were investigated to determine the role of the Alternative B traffic in the projected operating conditions at those intersections. The evaluation disclosed that the following improvements as shown on **Table B4** are needed in the near-term (2008) and long-term (2020) to mitigate project impacts.

The basis of the Alternative B mitigations is the assumption that intersection #13, the Project Driveway at Stony Point Road, should be relocated further south along Stony Point Road and be signalized so that it can function as a full movement access. This change permits more project traffic to conveniently arrive and exit from the site and use the Rohnert Park Expressway interchange, thus relieving some the traffic pressure through the Wilfred Avenue interchange. In the event that intersection #13 cannot be relocated and signalized as discussed above, additional mitigation improvements will be needed, particularly at intersections surrounding the Wilfred Avenue interchange. The project will create a significant unavoidable impact at the intersection of Commerce Boulevard/US-101 NB Ramps regardless of the relocation of intersection #13.

**Table B5** summarizes the expected levels of service with the proposed mitigation. Roadway improvements will be consistent with design standards for local jurisdictions in providing facilities and amenities for bicycles and pedestrians. This includes improvements such as sidewalks, countdown signals, and striped crosswalks if required by local design standards.

As mentioned previously, the signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections.

**Figures B8 and B9** illustrate the mitigated lane geometry and traffic control.

A single asterisk in the table denotes an intersection that operates at an acceptable level of service and does not require mitigation, but a mitigated level of service and delay are provided for reference as a result of the mitigation to signalize the Project Driveway/Stony Point Road which changes traffic patterns at some intersections. A double asterisk indicates an intersection where the delay increases as a result of the mitigation to signalize the Project Driveway/Stony Point Road intersection.

Traffic signal interconnect and coordinated timing plans are included in the proposed traffic signals for Wilfred Avenue.

The combination of casino traffic and other nearby future development will require Wilfred Avenue to ultimately be widened to five lanes (including Class II bike lanes) from Redwood Drive to the Urban Growth Boundary. From Langner Avenue west to Stony Point Road, Wilfred Avenue should be three lanes with improved pavement and shoulders and it is recommended that the upgrade of Wilfred Avenue to include improved pavement and shoulders should be designed to the County standard and

should include Class II bike lanes out to Stony Point Road to connect into the Class II bike lanes on Stony Point Road. Casino traffic alone can be accommodated on a three lane roadway section from Redwood Drive to Stony Point Road, therefore, they will contribute a proportionate share for the ultimate cost of the widening of Wilfred Avenue.

Modification to any interchanges requires review and approval from Caltrans' Department Headquarters Division of Design.



**Table B 4 – Alternative B Summary of Mitigations**

Period	#	Intersection	Mitigation	Requires ROW?	Reason
2008	1	Stony Point Rd/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Widen Wilfred to 3 lanes (Add WB left) <sup>1</sup></li> </ul>	No Yes	Capacity Capacity
	2	Primrose Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add a NB right and change NB all shared to left-through</li> <li>Widen Wilfred to 3 lanes (Add EB left &amp; WB left) <sup>1</sup></li> </ul>	No Tribe land Yes	Capacity Capacity Capacity
	3	Whistler Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Widen Wilfred to 3 lanes (Add EB left &amp; WB left) <sup>1</sup></li> </ul>	Yes	Capacity
	4	Langer Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Widen Wilfred to 3 lanes (Add EB left &amp; WB left) <sup>1</sup></li> </ul>	Yes	Capacity
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Widen Wilfred to 3 lanes (Add EB left &amp; WB left) <sup>1</sup></li> </ul>	No Yes	Capacity Capacity
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add NB right and change NB all shared to left-through</li> <li>Widen Wilfred to 3 lanes (Add EB left &amp; WB left) <sup>1</sup></li> </ul>	No Yes Yes	Capacity Capacity Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>Add EB left <sup>1</sup> and through and change EB all-shared to through-right</li> <li>Change WB left-through to through</li> <li>Change phasing east-west to protected from split</li> </ul>	Yes No No	Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	No mitigation necessary	-	-
	9	Wilfred Ave/ US-101 SB Ramps	No mitigation necessary	-	-
	10	Golf Course Dr/ Commerce Blvd	<ul style="list-style-type: none"> <li>Add an EB right overlap phase</li> </ul>	No	Capacity
	11	Golf Course Dr/ Roberts Lake Rd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Extend SB right turn bay back to the Golf Course Dr/Commerce Blvd intersection as a drop lane (to 345 feet from 175 feet)</li> <li>Add a SB right overlap phase</li> </ul>	Yes No	Queue Capacity
	13	Project Driveway/ Stony Point Rd	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add NB right and change NB through-right to through</li> <li>Add WB left out of project driveway</li> </ul>	No Tribe land Tribe land	Capacity Capacity Capacity
	14	Business Park Dr/ Labath Ave	Alternative A intersection	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	<ul style="list-style-type: none"> <li>Extend WB right turn bay to 400 feet (from 175 feet)</li> </ul>	Tribe land	Queue
	17	Rohnert Park Expwy/ Labath Ave	<ul style="list-style-type: none"> <li>Optimize signal timing</li> </ul>	No	Capacity
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Extend NB left turn bay to 600 feet (from 225 feet)</li> <li>Add a second NB left turn bay</li> </ul>	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	<ul style="list-style-type: none"> <li>Optimize signal timing</li> </ul>	No	Capacity
	22	Gravenstein Hwy/ Stony Point Rd	<ul style="list-style-type: none"> <li>Add an EB right turn bay for 100 feet</li> <li>Optimize signal timing</li> </ul>	Yes No	Capacity Capacity
	23	Gravenstein Hwy/ Redwood Dr	No mitigation necessary	-	-
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	<ul style="list-style-type: none"> <li>Signalize</li> </ul>	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-

<sup>1</sup> In summary, widen Wilfred Ave to three lanes from Stony Point Rd to Redwood Dr



Period	#	Intersection	Mitigation	Requires ROW?	Reason
2020	1	Stony Point Rd/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Widen Wilfred to 3 lanes (Add WB left) <sup>1*</sup></li> </ul>	No Yes	Capacity Capacity
	2	Primrose Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Add a NB right *</li> <li>Add a NB left and change all shared to through</li> <li>Widen Wilfred to 3 lanes (Add WB left and EB left) <sup>1*</sup></li> </ul>	No Tribe land Tribe land Yes	Capacity Capacity Capacity Capacity
	3	Whistler Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Widen Wilfred to 3 lanes (Add WB left and EB left) <sup>1*</sup></li> </ul>	Yes	Capacity
	4	Langer Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Widen Wilfred to 3 lanes (Add EB left) <sup>1*</sup></li> </ul>	Yes	Capacity
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Optimize signal timing</li> </ul>	No No	Capacity Capacity
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Optimize signal timing</li> <li>Add a second WB left turn (250 feet)</li> <li>Add an EB right turn bay and change the EB through-right to through *</li> <li>Add 1 SB left turn bay and change all shared to through-right</li> <li>Add a NB right overlap phase</li> <li>Add 1 NB left turn bay and 1 NB right turn bay* and change all shared to through-right</li> </ul>	No No Yes Yes Yes No Yes	Capacity Capacity Capacity Capacity Capacity Capacity Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>Add WB through</li> <li>Change NB through to left-through</li> <li>Change phasing north-south to split from protected</li> <li>Optimize signal timing</li> <li>Change WB left-through to through *</li> <li>Change phasing east-west to protected from split *</li> </ul>	Yes Yes No No No No	Capacity Capacity Capacity Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	Modified Intersection (not analyzed)	-	-
	9	Wilfred Ave/ US-101 SB Ramps	No mitigation necessary	-	-
	10	Golf Course Dr/ Commerce Blvd	<ul style="list-style-type: none"> <li>Add an EB right overlap phase *</li> </ul>	No	Capacity
	11	Golf Course Dr/ Roberts Lake Rd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	<ul style="list-style-type: none"> <li><b>Significant Unavoidable Impact</b></li> </ul>		
	13	Project Driveway/ Stony Point Rd	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Add NB right and change NB through-right to through *</li> <li>Add WB left out of project driveway *</li> </ul>	No Tribe land Tribe land	Capacity Capacity Capacity
	14	Business Park Dr/ Labath Ave	Alternative A intersection	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	<ul style="list-style-type: none"> <li>Extend WB right turn bay to 400 feet (from 175 feet) *</li> </ul>	Tribe land	Queue
	17	Rohnert Park Expwy/ Labath Ave	<ul style="list-style-type: none"> <li>Optimize signal timing</li> </ul>	No	Capacity
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Extend NB left turn bay to 600 feet (from 225 feet) *</li> <li>Add a second NB left turn bay *</li> </ul>	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	<ul style="list-style-type: none"> <li>Optimize signal timing *</li> <li>Add a third EB through lane that merges back into 2 lanes east of the intersection</li> </ul>	No Yes	Capacity Capacity
	22	Gravenstein Hwy/ Stony Point Rd	<ul style="list-style-type: none"> <li>Add an EB right turn bay for 100 feet *</li> <li>Optimize signal timing *</li> </ul>	Yes No	Capacity Capacity
	23	Gravenstein Hwy/ Redwood Dr	<ul style="list-style-type: none"> <li>Add a WB right turn overlap phase</li> <li>Optimize signal timing</li> </ul>	No No	Queue Capacity
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	<ul style="list-style-type: none"> <li>Signalize</li> </ul>	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-

<sup>1</sup> In summary, widen Wilfred Ave to three lanes from Stony Point Rd to the Urban Growth Boundary

\* Improvement assumed to occur in 2008 mitigation



**Table B 5 – Alternative B Mitigated Intersection Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008						2020					
				Existing		Base (w/o Proj.)		With Project		Mitigated		Base (w/o Proj.)		With Project		Mitigated	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	OVRFL	C	23.6	F	841.3	F	OVRFL	C	34.3
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	F	OVRFL	C	20.2	B	12.5	F	OVRFL	C	25.6
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	F	86.6	F	51.4	B	12.5	F	115.2	F	64.9
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	F	85.0	F	193.4	B	12.5	F	114.3	F	279.6
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	OVRFL	C	27.5	F	OVRFL	F	OVRFL	C	30.0
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	OVRFL	D	48.3	F	OVRFL	F	OVRFL	D	38.1
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	313.1	D	53.3	F	169.9	F	274.0	D	44.7
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	C	25.0	C	25.8	-	-	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	32.0	C	31.3	C	26.8	D	36.7	C	24.0 *
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	F	82.3	D	49.6	E	74.2	F	127.2	D	53.5
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	18.5	B	18.7	B	19.0	B	19.3	B	15.1
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	E	60.5	C	28.4	D	50.8	F	129.0	F	116.7
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	D	27.6	B	10.5	A	0.0	C	24.6	A	9.9
14	Business Park Dr/ Labath Ave	D	TWSC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	D	27.5	C	16.7	C	16.7	C	16.7
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	D	43.0	D	51.4 **	B	18.5	C	32.2	D	44.0
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	D	39.5	C	24.4	C	28.2	E	59.8	C	25.2
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	26.1	C	27.3	C	29.1	C	28.1	C	29.1
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.7	B	19.6 **	B	16.0	B	16.0	B	18.1
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	C	21.3	C	13.8	B	12.3	C	23.3	B	14.3
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	D	38.1	C	32.0	E	63.4	E	57.6	C	31.9
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	44.0	D	43.9	D	45.5	D	52.8	D	46.5
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	C	28.1	D	37.4 **	D	42.4	E	63.8	D	41.7
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	C	20.4	C	21.2 **	B	18.1	B	18.6	B	26.2 **
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	12.8	B	14.3 **	B	11.5	B	12.6	B	13.9 **
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	F	69.0	A	9.9	F	90.2	F	204.7	B	10.4
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.5	B	11.5	B	12.4	B	12.4	B	12.4
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.5	B	11.5	B	12.5	B	12.5	B	12.5
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	A	9.9	A	9.9	B	11.3	B	11.3	B	11.3
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	11.7	B	11.7	B	14.7	B	14.7	B	14.7
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.4	B	11.7	B	11.7	B	11.7

Results indicate that the freeway will not meet standards with the project, even with the future construction of HOV lanes, ramp metering, and auxiliary lanes associated with the Wilfred interchange project. As mitigation the project should do the following which will result in the mitigated levels of service shown in **Table B6**:

- Adjust the ramp metering to account for the additional project traffic at the Wilfred Avenue interchange in the near-term (2008). Most metering adjustments can be minor and are not expected to have queuing effects on the local street network. However, the southbound on-ramp will require heavy metering to obtain an acceptable level of service for the freeway ramp merge area which may create a long queue backed up on the ramp.
- The project should contribute a proportionate share of the costs of the construction of auxiliary lanes between Rohnert Park Expressway and Gravenstein Highway (SR-116) in the long-term (2020).
- The project should contribute a proportionate share of the costs of the construction of the Wilfred Avenue interchange project, including HOV lanes, ramp metering, and auxiliary lanes in the near-term (2008).
- The project should contribute a proportionate share of the costs of the construction of an additional traffic lane in the southbound direction from Santa Rosa Avenue to Wilfred Avenue and from Gravenstein Highway (SR-116) to West Sierra Avenue as well as an additional traffic lane in the northbound direction from West Sierra Avenue to Gravenstein Highway (SR-116) in the long-term (2020).

Aside from roadway improvements to mitigate protect impacts, the casino and hotel should coordinate with the Green Music Center during outdoor events that will generate high traffic levels. During that period, traffic control services at the Rohnert Park interchange may be necessary. Therefore, the casino/hotel project should provide funding for special event traffic monitoring at the Rohnert Park Expressway interchange to identify conflicts during outdoor events generate high traffic levels. If conflicts occur, the project should provide traffic management coordination between the casino/hotel project and Green Music Center in consultation with CHP and Caltrans to assist in traffic control.

Because no fixed route service will be available at the project site, the casino/hotel should provide a shuttle that serves the two Rohnert Park transfer stations. The shuttle should run throughout the day or could be called out on demand.

The casino should also sponsor charter buses from farther away destinations such as Marin County and the south Bay. The buses could serve specific groups such as senior citizens or social clubs, while reducing the number of single occupancy vehicles to the site. Preferential carpool or vanpool spaces should also be provided at the project site to encourage ridesharing by patrons and employees. The casino should provide employee incentives such as subsidized transit passes, flexible work schedules, the validation of transit tickets to provide free return trips, or subsidized shuttle services.



**Table B 6 – Alternative B Mitigated Freeway Level of Service Summary**

US-101 Section/Ramp	Criteria		Existing		2008		2008 + Alt B		2008 + Alt B Mitigated		2020		2020 + Alt B		2020 + Alt B Mitigated		
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
<b>Northbound</b>																	
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	25.1	C	25.1	C	25.6	E	38.4	E	38.4	D	29.3
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	D	33.7	D	33.7	D	34.1	F	41.8	D	29.3		
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	E	35.2	E	35.2	E	36.1	F	43.1	E	42.1		
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	D	28.8	D	28.8	D	32.3	F	-	E	42.1		
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	34.2	D	34.2	E	37.1	F	43.7	E	42.1		
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	C	21.8	C	21.8	C	23.2	C	26.7	C	26.7		
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	D	29.1	D	29.1	D	29.0	E	37.4	E	37.4		
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	D	29.1	D	29.1	D	29.0	E	37.4	E	37.4		
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	D	29.1	D	29.1	D	29.0	E	37.4	E	37.4		
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	33.9	D	33.9	E	40.4	F	44.3	E	43.0		
US-101 Between Wilfred Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	33.9	D	33.9	E	40.4	F	44.3	E	43.0		
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	33.9	D	33.9	E	40.4	F	44.3	E	43.0		
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	23.8	C	23.8	D	29.7	D	32.6	D	32.6		
<b>Southbound</b>																	
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	D	26.1	D	26.1	D	28.5	D	31.2	D	31.2		
Santa Rosa Avenue SB On-Ramp	E	D	31.2	D	32.7	E	39.3	E	39.3	F	-	F	-	C	24.8		
US-101 Between Santa Rosa Avenue and Wilfred Avenue (SB)	E	D	31.5	D	32.7	E	39.3	E	39.3	F	-	F	-	C	24.8		
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	40.8	E	40.8	F	44.8	F	49.7	D	34.1		
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	F	45.0	D	33.6	E	39.9	F	54.1	E	43.0		
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	F	45.0	D	33.6	E	39.9	F	54.1	E	43.0		
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	F	45.0	D	33.6	E	39.9	F	54.1	E	43.0		
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	34.5	D	34.5	E	38.5	F	43.0	E	39.8		
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	34.1	D	34.1	F	37.5	F	42.3	E	39.8		
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	D	27.1	D	27.1	E	36.6	F	-	E	39.8		
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	34.0	D	34	F	40.3	F	46.2	E	39.8		
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	E	37.2	E	37.2	F	42.3	F	48.5	D	29.1		
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	D	27.4	D	27.4	D	32.0	F	-	C	23.5		

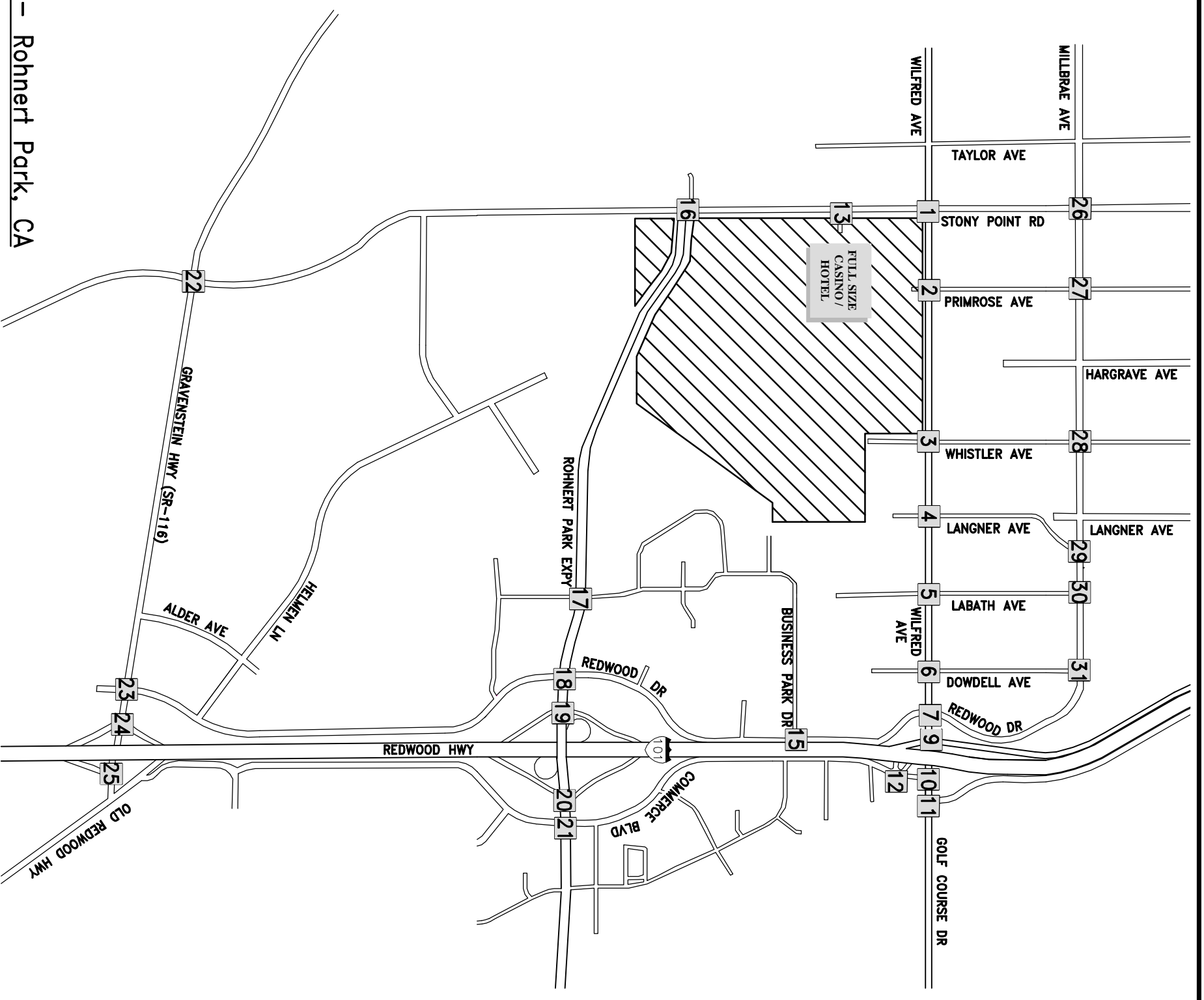
It is recommended that the casino contribute to the operation of SMART if it is implemented. Implementation of the SMART transit option will reduce the commuter congestion on US-101.

Mitigations to reduce the impact of the construction include the implementation of a construction traffic management plan for the duration of construction of the project and training for construction delivery vehicle drivers.

It is recommended that the project attempt to minimize the amount of construction fill transported on the surrounding street network by eliminating or shortening the off-site travel route. Potential options for eliminating off-site transport include moving fill material via conveyors across barriers such as creeks and ditches or installing temporary bridges for haul vehicles across the barriers.

If there is a special exception and off-site fill is necessary, construction material importation should be scheduled outside of the areawide commute peak hours. Debris along the truck route caused by trucks should be monitored daily and the roadways should be cleaned as necessary. Roadways subject to fill truck traffic should be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. If the third party determines that roadway deterioration has occurred as a result of casino construction, it is recommended that the developer pay to have surrounding roadways resurfaced to restore the pavement to the pre-construction condition, unless the resurfacing is already expected to occur within a year or sooner in conjunction with other planned or proposed roadway improvements.

To help ensure adequate public safety during construction, particularly near the project site, the tribe should provide flagging when necessary in consultation with CHP, Caltrans, and the County's Sheriff's Department to assist with traffic control.



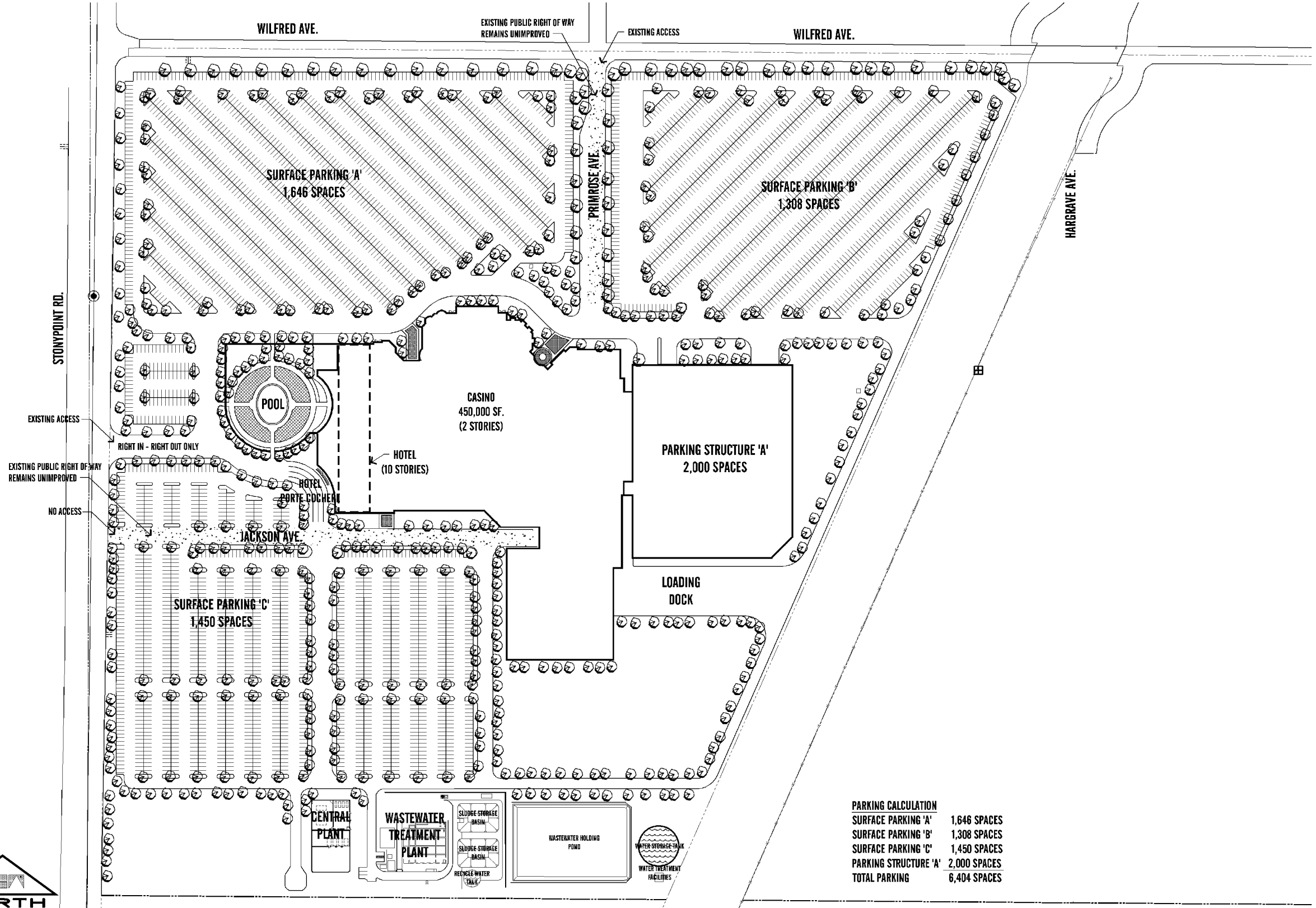
Graton Rancheria Alternative B - Rohnert Park, CA

PROJECT LOCATION

FIGURE B1



Kimley-Horn and Associates, Inc.



**PARKING CALCULATION**

SURFACE PARKING 'A'	1,646 SPACES
SURFACE PARKING 'B'	1,308 SPACES
SURFACE PARKING 'C'	1,450 SPACES
PARKING STRUCTURE 'A'	2,000 SPACES
<b>TOTAL PARKING</b>	<b>6,404 SPACES</b>

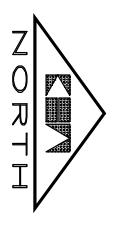
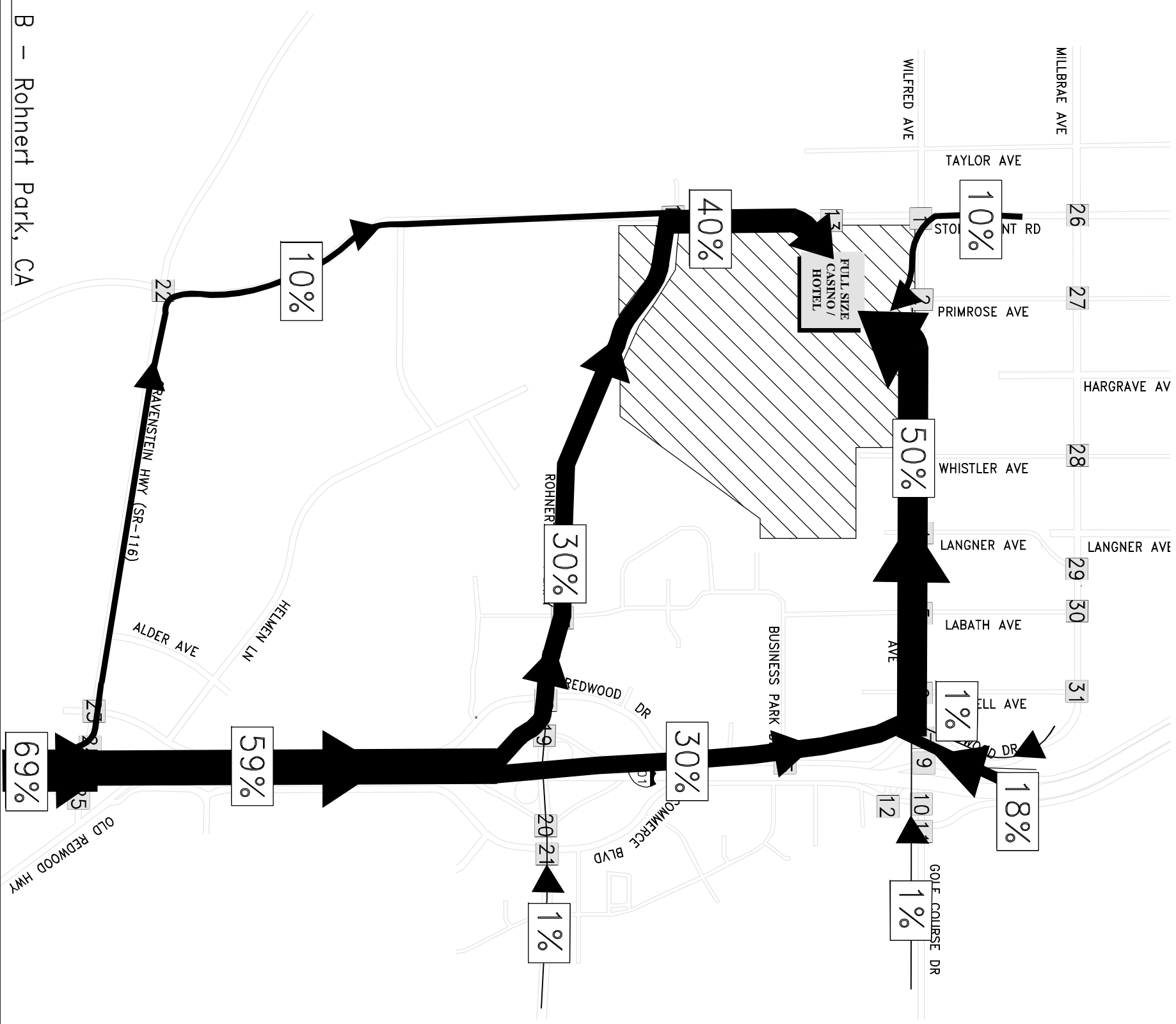


**Graton Rancheria Alternative B – Rohnert Park, CA**

**SITE PLAN**

**FIGURE B2**

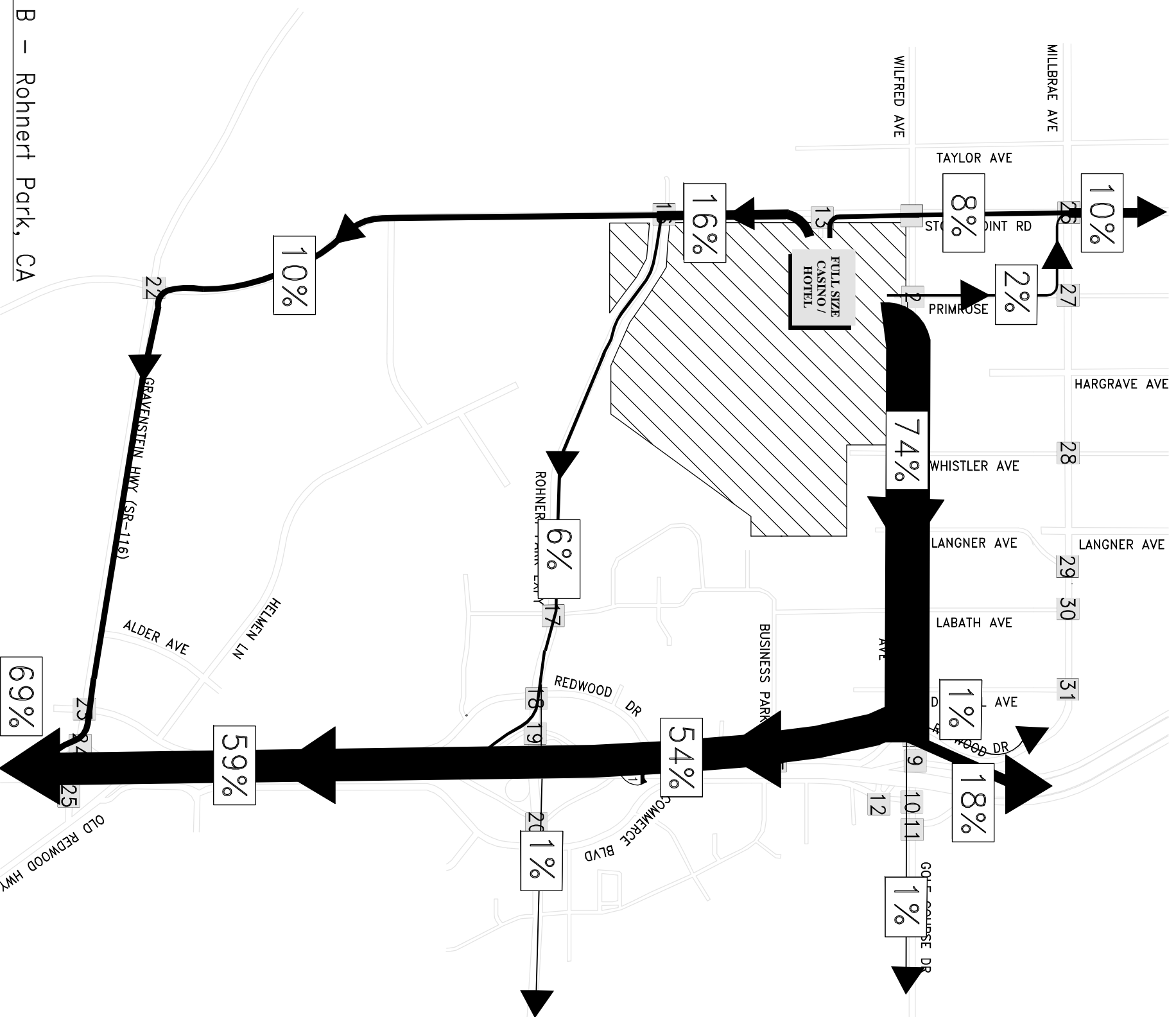




Graton Rancheria Alternative B - Rohnert Park, CA

TRIP DISTRIBUTION - IN

FIGURE B3



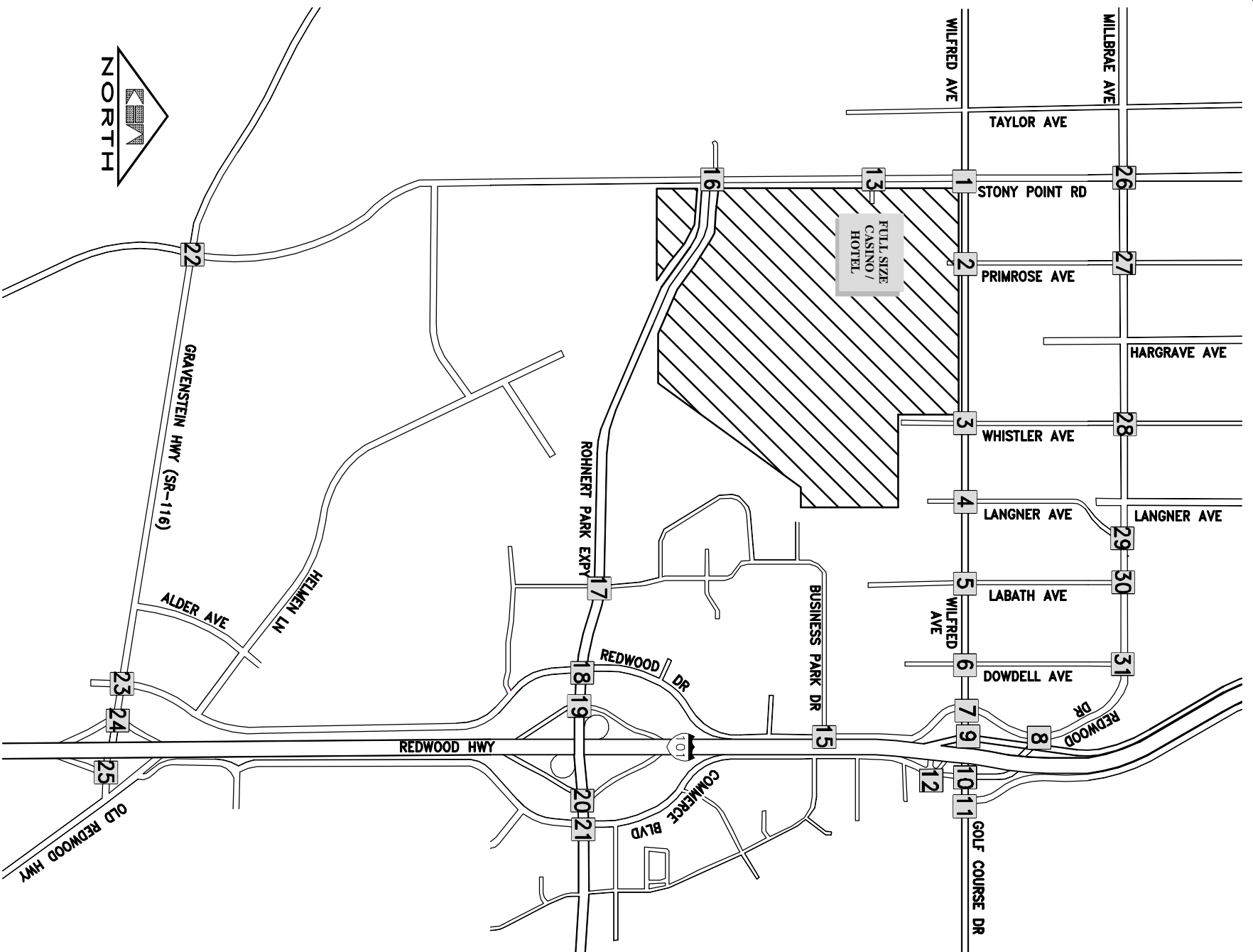
Graton Rancheria Alternative B - Rohnert Park, CA

TRIP DISTRIBUTION - OUT

FIGURE B4



Kimley-Horn and Associates, Inc.



1	121 ← 174 88 →	2	121 ← 610 174 → 22 → 66 →	3	794 → ← 610	4	794 → ← 610	5	794 → ← 610	6	794 → ← 610	
7	12 ← 598 11 → 783 →	8	12 ← 11	9	218 ← 380 204 → 579 →	10	11 → 194 → ← 12 98 →	11	11 → ← 12	12	81 ← 388 81 →	
13	174 ← 86 480 →	14	AL.T. A INTERSECTION		15	148(41) 187(496) 40(139) 10(22) 14(14) 120(452)	16	111 83 ← 383 117 →	17	83 → ← 383	18	83 → ← 383
19	11 → 52 → ← 383	20	11 → 12 15 →	21	11 → ← 12	22	111 ← 117	23	111 → ← 117	24	111 → ← 117	
25	117 →	26	121 ← 22 88 →	27	22 →	28		29		30		
31												

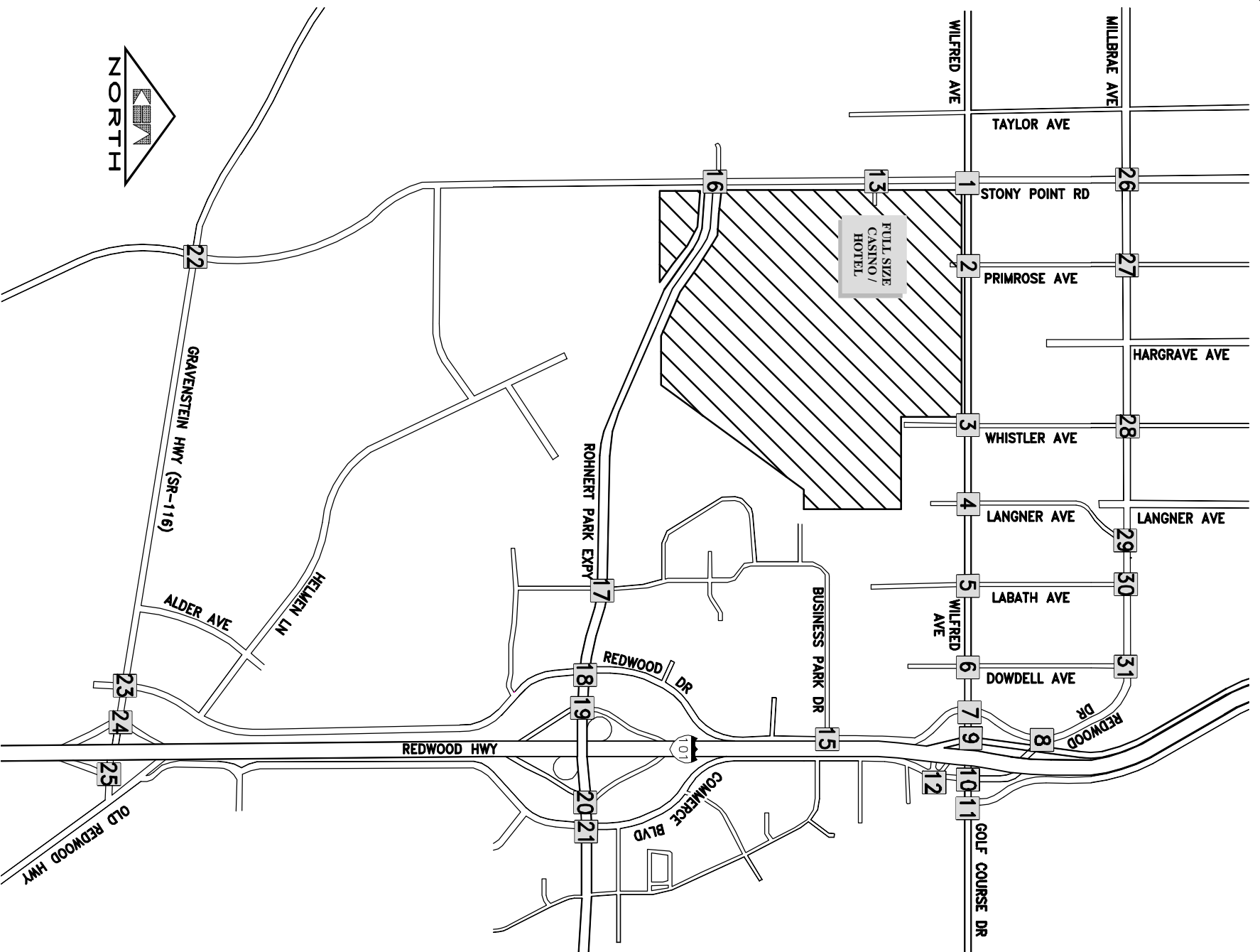
LEGEND

STUDY AREA INTERSECTIONS

TRAFFIC VOLUMES

Graton Rancheria Alternative B – Rohnert Park, CA

FIGURE B5



1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31					

LEGEND  
 X STUDY AREA INTERSECTIONS  
 XX TRAFFIC VOLUMES



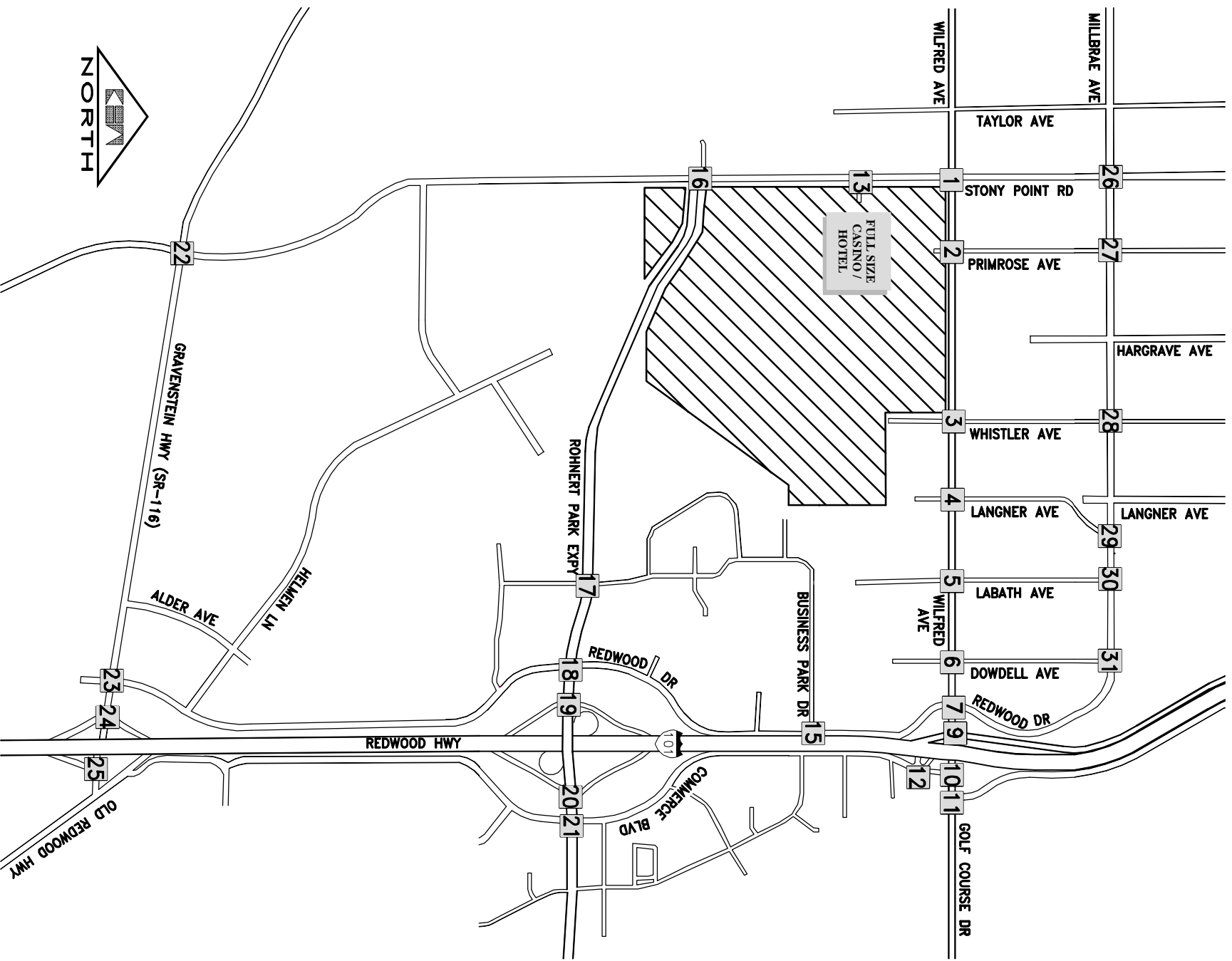
Graton Rancheria Alternative B - Rohnert Park, CA

NEAR-TERM + PROJECT PM TRAFFIC VOLUMES

FIGURE B6







1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31					

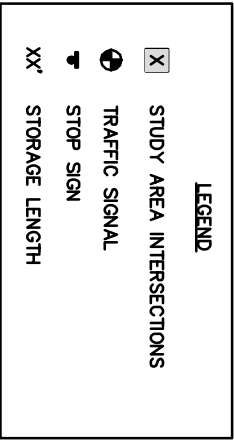
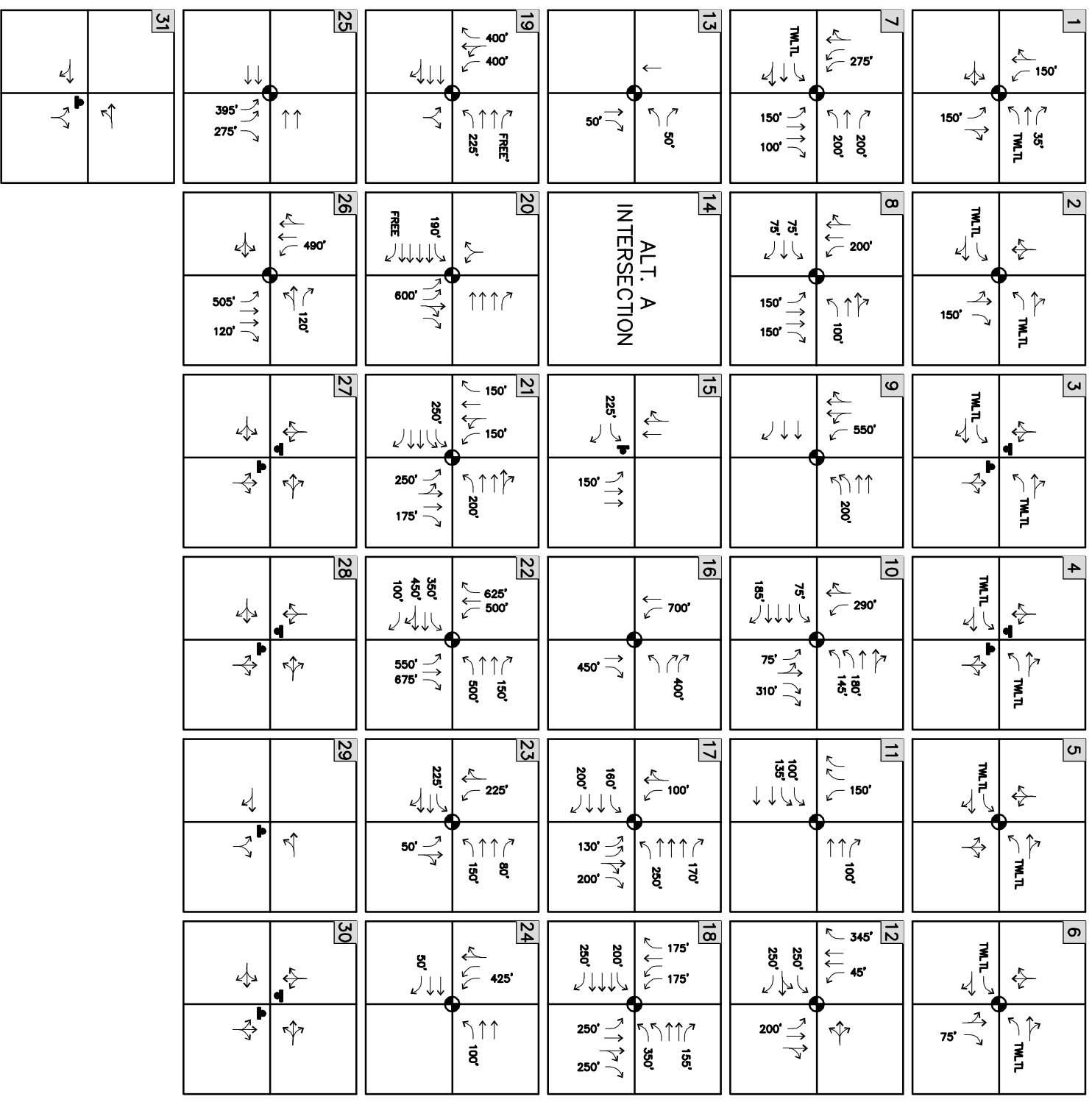
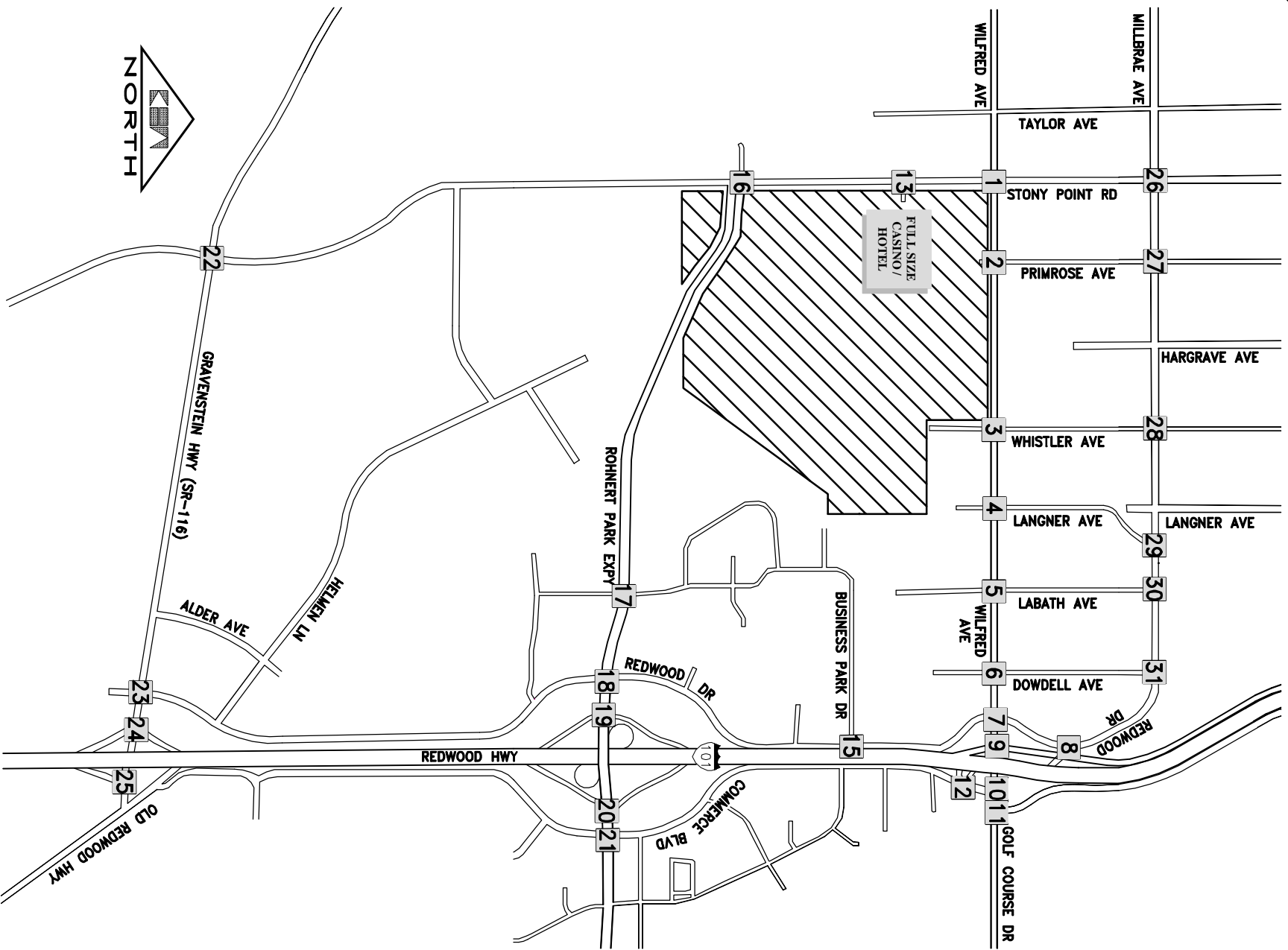
LEGEND

X STUDY AREA INTERSECTIONS

XX TRAFFIC VOLUMES

Graton Rancheria Alternative B – Rohnert Park, CA

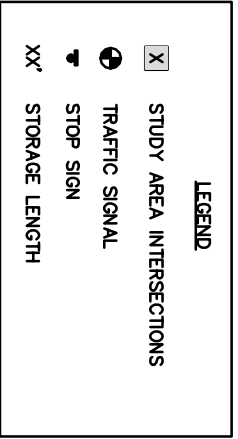
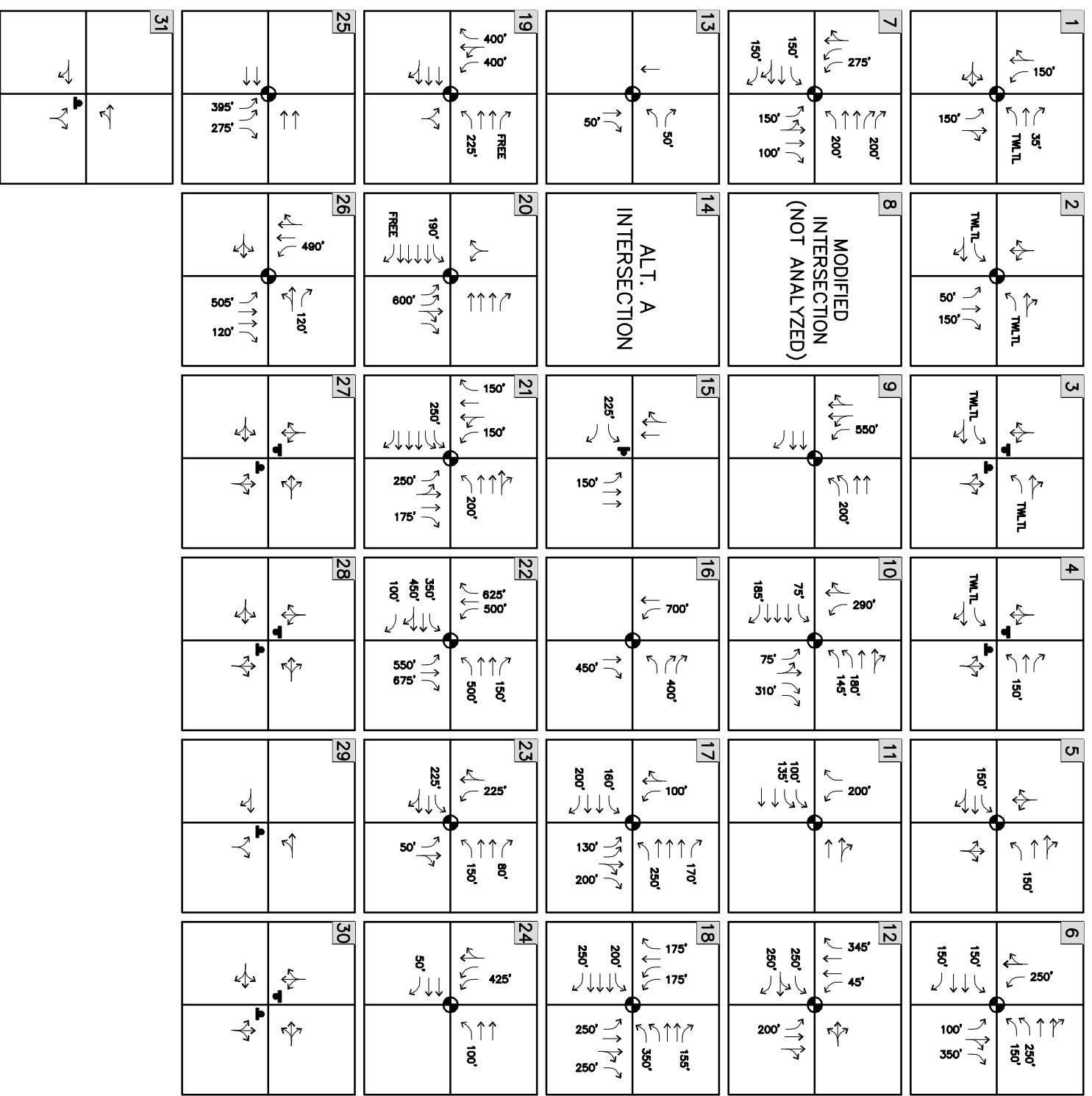
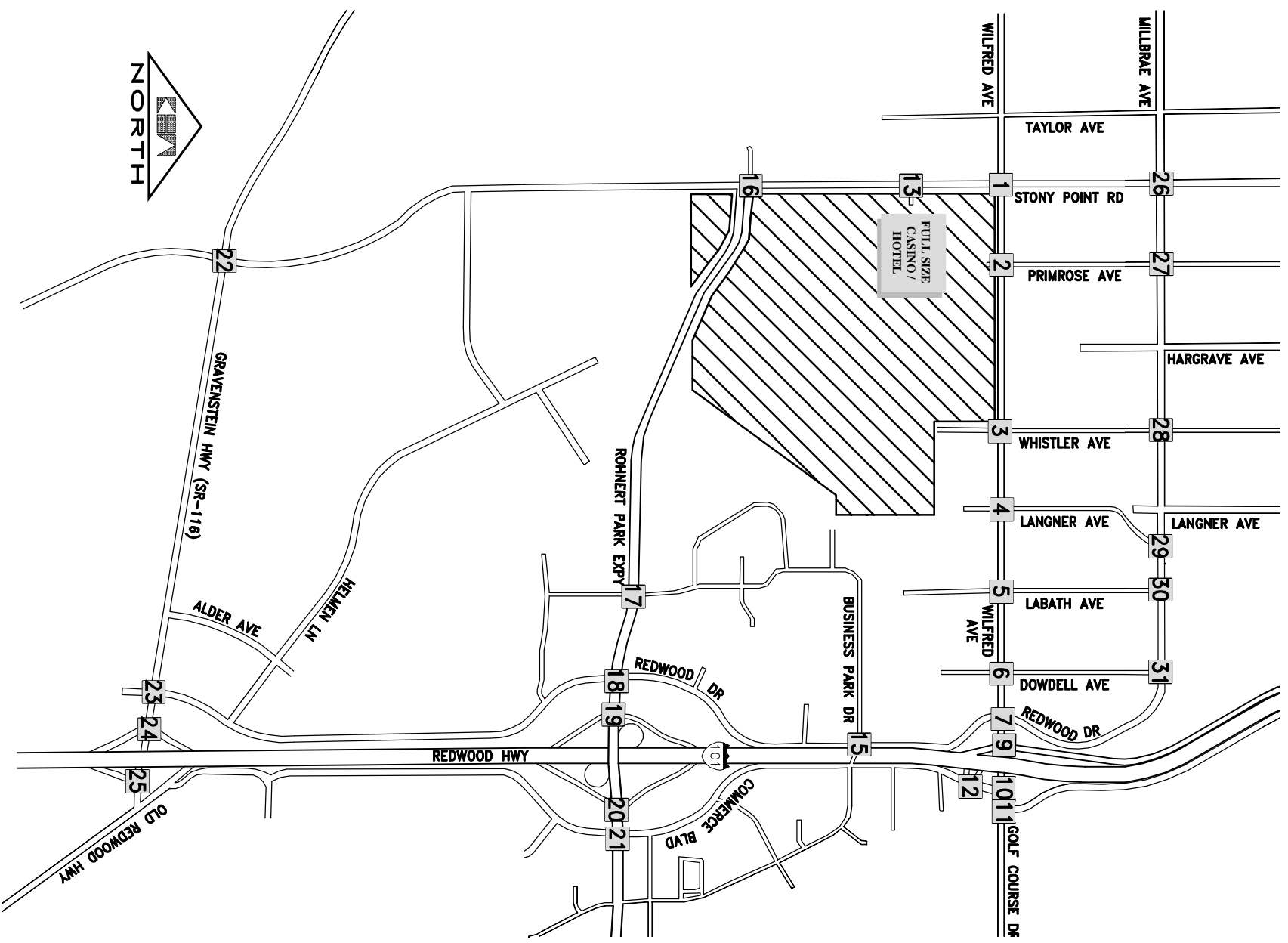
FIGURE B7



Graton Rancheria Alternative B – Rohnert Park, CA

NEAR-TERM MITIGATED LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE B8



Graton Rancheria Alternative B – Rohnert Park, CA

LONG-TERM MITIGATED LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE B9

## ALTERNATIVE C – NORTHEAST STONY POINT SITE

The Alternative C casino and hotel is proposed to be located as shown in **Figure C1**, which is bordered by Wilfred Avenue in the north, Rohnert Park Expressway in the south, Stony Point Road in the west, and Langner Avenue in the east.

**Figure C2** shows the proposed layout of the casino and hotel facility. As seen in the figure, the buildings and other related facilities are located in the northwest corner of the site. The site layout includes a main building of approximately 450,000 square feet for a casino, restaurants, food court, event center, banquet facilities, lobby, pool, and other ancillary functions. In addition the project is planned to include up to 300 hotel rooms, primarily for casino guests.

A breakdown of square footage as it relates to traffic impacts is shown below:

- Casino and Entertainment areas – 408,150 s.f.
- Lobby/Bar/Back of House/Sundries – 14,750 s.f.
- Pool and Spa – 27,100 s.f.
- 450,000 s.f.
  
- Hotel Rooms – 291,000 s.f.

The site plan also shows supporting uses such as parking lots, parking structure, and wastewater treatment facilities. This layout is virtually the same as Alternative A except in a different location on the project site.

Within each alternative there is a reference made to the “project site” which changes for each alternative. There is not a specific project site that is being evaluated for all of the alternatives.

### Site Access

The only project access is from Wilfred Avenue from the south leg of Whistler Avenue. This approach is assumed to operate as a full movement intersection with no turn limitations. Currently, the access is unsignalized.

### Trip Generation – Alternative C

Trip generation for Alternative C is identical to Alternative A. See Trip Generation – Alternatives A, B, and C section under Alternative A for specific information.

### Project Trip Distribution and Assignment

Based on the factors discussed in the General Project Information section above it was determined that approximately 30% of the project traffic would be distributed to

destinations north of the site, with the remaining 70% distributed south of the site. To be conservative, no project traffic was assumed to be generated or attracted in the immediate vicinity of the project site. The project traffic distribution is shown in **Figure C3** and **Figure C4**. **Figure C5** illustrates project traffic assigned to the study intersections based on the assumed trip distribution. As seen in **Figure C5**, most of the project traffic is expected to come from the freeway therefore it was assumed that most of the traffic would use Whistler Avenue because of its closer proximity to the freeway. As noted in the distribution, some traffic leaving the project site is expected to avoid congestion at Wilfred Avenue and Stony Point Road by using Millbrae Avenue.

### **Near-Term Plus Project Traffic Volumes**

Near-term 2008 traffic volumes were combined with vehicle trips expected to be generated by the Alternative C casino and hotel project. **Figure C6** illustrates the combined near-term turning movement volumes at the study intersections.

### **Cumulative Long -Term Plus Project Traffic Volumes**

Long-term 2020 traffic volumes were combined with vehicle trips expected to be generated by the Alternative C casino and hotel project. **Figure C7** illustrates the combined long-term turning movement volumes at the study intersections.

### **Alternative C LOS Conditions and Impacts at Intersections**

Traffic operations were evaluated under the following development conditions:

- Near-term conditions with Alternative C (year 2008)
- Long-term Cumulative conditions with Alternative C (year 2020)

In the near-term analysis for Alternative C, it was assumed that the Wilfred Avenue widening project will not have taken place before the casino/hotel opens. The Memorandum of Understanding (MOU) between the City of Rohnert Park and the Federated Indians of the Graton Rancheria stated that the tribe would help financially to speed up the timeline of the widening project to occur before the casino/hotel opens in 2008.

Results of the analysis are presented in **Table C1**. (Results shown as bold in the table do not meet operational standards.) The signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections. Additional detail is provided in the Appendix. As shown in the results, the following intersections and approaches will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic.



**Table C 1 – Alternative C Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008				2020			
				Existing		Base (w/o Proj.)		With Project		Base (w/o Proj.)		With Project	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	OVRFL	F	841.3	F	OVRFL
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	C	24.7	B	12.5	D	29.3
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	F	OVRFL	B	12.5	F	OVRFL
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	F	132.1	B	12.5	F	192.1
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	OVRFL	F	OVRFL	F	OVRFL
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	OVRFL	F	OVRFL	F	OVRFL
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	334.5	F	169.9	F	311.0
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	C	24.9	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	33.8	C	26.8	D	36.5
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	F	116.7	E	74.2	F	154.4
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	18.5	B	19.0	B	19.3
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	F	83.8	D	50.8	F	153.7
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
14	Business Park Dr/ Labath Ave	D	TWSC	-	-	-	-	-	-	-	-	-	-
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	C	16.7	C	16.7
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	D	39.8	B	18.5	D	37.6
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	C	29.6	C	28.2	C	31.6
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	24.9	C	29.1	C	28.0
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.5	B	16.0	B	15.7
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	13.6	B	12.3	B	15.1
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	D	43.0	E	63.4	E	61.9
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	43.0	D	45.5	D	51.6
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	C	28.3	D	42.4	E	63.3
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	B	19.3	B	18.1	B	18.6
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	12.1	B	11.5	B	12.6
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	F	69.6	F	90.2	F	207.1
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.7	B	12.4	B	12.6
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.6	B	12.5	B	12.7
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	A	9.9	B	11.3	B	11.3
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	11.7	B	14.7	B	14.7
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.7	B	11.7

## **2008 Results**

- Stony Point Road/Wilfred Avenue
- Whistler Avenue/Wilfred Avenue
- Langner Avenue/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps
- Rohnert Park Expressway/Commerce Boulevard
- Millbrae Avenue/Stony Point Road

## **2020 Results**

- Stony Point Road/Wilfred Avenue
- Whistler Avenue/Wilfred Avenue
- Langner Avenue/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps
- Rohnert Park Expressway/Commerce Boulevard
- Gravenstein Highway (SR-116)/Redwood Drive
- Millbrae Avenue/Stony Point Road

## **Alternative C Traffic Signal Warrant Analysis**

Alternative C, near-term and long-term, traffic volumes at unsignalized study intersections were compared against the peak hour warrant in the *2003 Manual on Uniform Traffic Control Devices (MUTCD)* and the *California Supplement*.

Results of the analysis showed that the following intersections will satisfy traffic signal Warrant #3 by the year 2008 and 2020.

- Stony Point Road/Wilfred Avenue (2008 and 2020)
- Whistler Avenue/Wilfred Avenue (2008 and 2020)
- Labath Avenue/Wilfred Avenue (2008 and 2020)
- Dowdell Avenue/Wilfred Avenue (2008 and 2020)
- Millbrae Avenue/Stony Point Road (2008 and 2020)

Other warrants such as for minimum vehicle volumes, interruption of continuous traffic, and traffic progression were not evaluated because they generally require higher traffic volumes to be satisfied. Accident history and school areas were also not evaluated

based on the results of field observations, which noted that neither of these warrant thresholds was likely to be met. A copy of the analysis summary for Warrant #3 is included in the **Appendix**.

### **Alternative C LOS Conditions and Impacts on Freeway and Ramps**

Project trips generated by the proposed Alternative C casino and hotel were added to the year 2008 and 2020 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2008 and 2020, with the addition on the casino and hotel project. Freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the analyses are presented in **Table C2**. (Results shown as bold in the table do not meet operational standards.) As shown in the table, project traffic will add to the background congestion of the freeway. Significant congestion is expected with the project.



**Table C 2 – Alternative C Freeway Levels of Service**

US-101 Section/Ramp	Criteria		Existing		2008		2008 + Alt C		2020		2020 + Alt C	
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	
<b>Northbound</b>												
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	25.1	C	25.6	E	38.4	
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	D	31.8	D	34.1	F	41.8	
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	D	33.4	E	36.1	F	43.1	
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	D	28.8	D	32.3	F	-	
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	32.5	E	37.1	F	43.7	
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	D	31.4	C	23.2	F	41.8	
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	D	30.4	D	29.0	E	38.6	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	D	30.4	D	29.0	E	38.6	
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	D	30.4	D	29.0	E	38.6	
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	33.9	E	40.4	F	44.3	
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	33.9	E	40.4	F	44.3	
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	33.9	E	40.4	F	44.3	
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	23.8	D	29.7	D	32.6	
<b>Southbound</b>												
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	D	26.1	D	28.5	D	31.2	
Santa Rosa Avenue SB On-Ramp	E	D	31.2									
US-101 Between Santa Rosa Avenue and Wilfed Avenue (SB)	E	D	31.5	D	32.7	E	36.2	F	-	F	-	
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	40.8	F	44.8	F	46.8	
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	F	46.6	E	39.9	F	50.7	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	F	46.6	E	39.9	F	50.7	
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	F	46.6	E	39.9	F	50.7	
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	33.4	E	38.5	F	43.4	
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	32.8	F	37.5	F	43.3	
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	D	27.1	E	36.6	F	-	
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	32.5	F	40.3	F	46.2	
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	E	35.7	F	42.3	F	48.4	
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	D	27.4	D	32.0	F	-	

## Potential Effects on Intersection Safety

Traffic volumes generated by the project were reviewed in consideration of existing intersection collision history and the potential for increased accidents. According to collision data, accidents involving bicyclist and pedestrians are very low. Many intersections did not report any collisions of this type during the survey period. This suggests that bicycle and pedestrian volumes are relatively low and study intersections have minimal safety hazards for individuals biking or walking. Although the project will introduce increased traffic volumes at some intersections, bicyclists and pedestrians are expected to be able to travel through study intersections with similar levels of safety. Historically casinos do not attract a significant amount of bicycle and pedestrian traffic. . Therefore, the expected amount of pedestrian and bicycle traffic is nominal and a significant increase in bicycle and pedestrian accidents is unlikely.

The potential for increased collisions between motorized vehicles was also considered. Collision frequency and severity are a function of many complex factors that vary depending on the location and type of intersection or roadway segment. Factors include traffic control such as signals or stop signs, lane and shoulder widths, grades, driveway densities, roadside hazards or obstacles, presence of left and right turn lanes, sight distance, congestion, and others.

Because of the number and interrelationships of the variables, accurate crash prediction is difficult. However, the proposed casino and hotel project will increase roadway congestion, a factor which could result in an increase in traffic collisions if left unmitigated. Other factors are expected to remain unaffected.

As noted previously, the purpose of this study is to address the traffic and transportation effects of the proposed casino and hotel development. This includes mitigation improvements to restore traffic operations to levels within acceptable standards or to levels as good as or better than without the casino/hotel project. Any potential increases in accidents due to project-related traffic would be offset by the implementation of roadway improvements included as mitigation. Therefore, if mitigations are implemented as proposed in this report, no significant increase in daytime or nighttime collisions is expected.

## Queuing Summary

As congestion increases it is common for traffic at signals and stop signs to form lines of stopped (or queued) vehicles. Queue lengths were determined for each lane and measure the distance that vehicles will backup in each direction approaching an intersection. The 95th percentile queue is calculated by using 95th percentile traffic to account for fluctuations in traffic and represents a condition where 95 percent of the time during the peak period, traffic volumes and related queuing will be at, or less, than determined by the analysis. Average queuing is generally less. Ninety-fifth percentile queuing was checked under the various future year development conditions and in consideration of the planned intersection and signal timing improvements. A typical vehicle length of 25 feet is used in the queuing analysis. A summary of the queuing results can be seen in **Table C3**. The results indicate dedicated turn lanes where queuing may exceed their storage limits. It should be noted that some variations in intersection queuing between scenarios is a result of planned intersection and signal timing improvements.



**Table C 3 – Alternative C Queuing Summary**

Intersection	Turning Movement	Bay Length	Queue Length		Intersection	Turning Movement	Bay Length	Queue Length	
			2008	2020				2008	2020
1 Stony Point Road and Wilfred Avenue	EBL				16 Stony Point Road and Rohnert Park Expy	EBL			
	EBR					EBR			
	WBL					WBL			
	WBR	35	OVFL	OVFL		WBR	175	104	59
	NBL	150	25	25		NBL	450	38	38
4 Langner Avenue and Wilfred Avenue	NBR				17 Labath Avenue and Rohnert Park Expy	NBR	700	329	320
	SBL	150	37	40		SBR			
	SBR					EBL	160	61	111
	EBL					EBR	200	25	29
	EBR					WBL	250	90	38
5 Labath Avenue and Wilfred Avenue	WBL	150		25	18 Redwood Drive and Rohnert Park Expy	WBR	170	25	25
	WBR					NBL	130	36	38
	NBL					NBR	130	36	37
	NBR					SBL	100	193	202
	SBL					SBR			
6 Dowdell Avenue and Wilfred Avenue	SBR				19 SB US 101 Ramps and Rohnert Park Expy	EBL	200	107	98
	EBL	150		25		EBR	200	25	25
	EBR					WBL	350	159	157
	WBL	150		28		WBR	155	28	27
	WBR					NBL	250	157	210
7 Redwood Drive and Wilfred Avenue	NBL				20 NB US 101 Ramps and Rohnert Park Expy	NBR	250	65	108
	NBR					SBL	175	188	172
	SBL					SBR	175	58	57
	SBR					EBL			
	EBL	150		203		EBR			
8 Redwood Drive and Commerce Boulevard	EBR	150		302	21 Commerce Blvd and Rohnert Park Expy	WBL	225	70	67
	WBL					WBR			
	WBR					NBL			
	NBL	150	402	1271		NBR	400	318	238
	NBR	100	95	110		SBL	400	217	268
9 Wilfred Avenue and SB US 101 Ramps	SBL	275	350	350	22 Stony Point Road and Gravenstein Hwy	SBR	190	25	25
	SBR					EBL			
	EBL	75	25			EBR			
	EBR	75	50			WBL	200	187	222
	WBL	100	25			WBR			
10 Golf Course Drive and Commerce Blvd	WBR				23 Redwood Road and Gravenstein Hwy	NBL	250	210	214
	WBR					NBR	175	56	58
	NBL	150	136			SBL	150	98	158
	NBR	150	25			SBR	150	51	47
	SBL	200	40			EBL	350	162	183
11 Roberts Lake Drive and Golf Course Drive	SBR				24 Gravenstein Hwy and SB US 101 Ramps	EBR			
	EBL					EBR			
	EBR					WBL	500	155	170
	WBL	300	25	25		WBR	150	50	51
	WBR					NBL	550	296	298
12 Commerce Blvd and NB US 101 Ramps	NBL				25 Gravenstein Hwy and NB US 101 Ramps	NBR	675	30	31
	NBR					SBL	500	234	247
	SBL	250	229	251		SBR	625	49	54
	SBR					EBL	225	161	194
	EBL					EBR			
15 Business Park Drive and Redwood Drive	EBR				26 Stony Point Road and Millbrae Avenue	WBL	150	56	54
	EBL					WBR	80	25	261
	WBL	150	789	1000		NBL	50	65	65
	WBR					NBR			
	NBL	150	1131	1194		SBL	225	388	556
16 Business Park Drive and Redwood Drive	NBR				27 Stony Point Road and Millbrae Avenue	SBR			
	SBL	200	94	30		EBL			
	SBR					EBR			
	EBL	80	102	54		WBL	50	110	122
	EBR					WBR	100	101	72
17 Business Park Drive and Redwood Drive	WBL				28 Stony Point Road and Millbrae Avenue	NBL			
	WBR					NBR			
	NBL					SBL	425	222	222
	NBR	200	76	83		SBR			
	SBL	200	76	83		EBL			
18 Commerce Blvd and Commerce Boulevard	SBR				29 Stony Point Road and Millbrae Avenue	EBR			
	EBL	250	523	580		WBL	120	49	195
	EBR	250	25	25		NBL	505	25	25
	WBL					NBR	120	25	25
	WBR					SBL	490	25	25
19 Commerce Blvd and Commerce Boulevard	NBL	200	478	524	30 Stony Point Road and Millbrae Avenue	SBR			
	NBR					EBL			
	SBL	100	25	25		EBR			
	SBR	175	217	256		WBL			
	EBL	225	95	40		WBR			
20 Commerce Blvd and Commerce Boulevard	EBL				31 Stony Point Road and Millbrae Avenue	NBL			
	EBR					NBR			
	WBL					SBL			
	WBR					SBR			
	NBL	200	478	524					

## Alternative C Mitigations

Intersections with levels of service below established thresholds were investigated to determine the role of the Alternative C traffic in the projected operating conditions at those intersections. The evaluation disclosed that the following improvements as shown in **Table C4** are needed in the near-term (2008) and long-term (2020).

**Table C5** summarizes the expected levels of service with the proposed mitigation. Roadway improvements will be consistent with design standards for local jurisdictions in providing facilities and amenities for bicycles and pedestrians. This includes improvements such as sidewalks, countdown signals, and striped crosswalks if required by local design standards.

As mentioned previously, the signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections.

**Figures C8 and C9** illustrate the mitigated lane geometry and traffic control.

Traffic signal interconnect and coordinated timing plans are included in the proposed traffic signals for Wilfred Avenue.

The combination of casino traffic and other nearby future development will require Wilfred Avenue to ultimately be widened to five lanes (including Class II bike lanes) from Redwood Drive to the Urban Growth Boundary. From Langner Avenue west to Stony Point Road, Wilfred Avenue should be three lanes with improved pavement and shoulders and it is recommended that the upgrade of Wilfred Avenue to include improved pavement and shoulders should be designed to the County standard and should include Class II bike lanes out to Stony Point Road to connect into the Class II bike lanes on Stony Point Road. Casino traffic alone can be accommodated on a three lane roadway section from Redwood Drive to Stony Point Road, therefore, they will contribute a proportionate share for the ultimate cost of the widening of Wilfred Avenue.

Modification to any interchanges requires review and approval from Caltrans' Department Headquarters Division of Design.

The project will create a significant unavoidable impact at the intersection of Golf Course Drive/Commerce Boulevard.



**Table C 4 – Alternative C Summary of Mitigations**

Period	#	Intersection	Mitigation	Requires ROW?	Reason
2008	1	Stony Point Rd/ Wilfred Ave	<ul style="list-style-type: none"> <li>• Signalize</li> <li>• Add NB right and change through-right to through</li> </ul>	No Tribe land	Capacity Capacity
	2	Primrose Ave/ Wilfred Ave	No mitigation necessary	-	-
	3	Whistler Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>• Signalize</li> <li>• Add EB right and change EB all shared to left-through</li> <li>• Add a NB right and change all shared to left-through</li> <li>• Add 2 WB lefts and change all shared to through-right</li> </ul>	No Tribe land Tribe land Yes	Capacity Capacity Capacity Capacity
	4	Langer Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>• Widen Wilfred to 3 lanes (Add EB left &amp; WB left) <sup>1</sup></li> </ul>	Yes	Capacity
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>• Signalize</li> <li>• Widen Wilfred to 3 lanes (Add EB left &amp; WB left) <sup>1</sup></li> <li>• Add NB right and change NB all shared to left-through</li> </ul>	No Yes Yes	Capacity Capacity Capacity
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>• Signalize</li> <li>• Widen Wilfred to 3 lanes (Add EB left &amp; WB left) <sup>1</sup></li> <li>• Add an EB right turn lane and change all shared to through</li> <li>• Add WB through</li> </ul>	No Yes Yes Yes	Capacity Capacity Capacity Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>• Add WB through</li> <li>• Change WB left-through to through</li> <li>• Add EB through</li> <li>• Add EB left and EB right and change EB all-shared to through</li> <li>• Change phasing east-west to protected from split</li> </ul>	Yes No Yes Yes No	Capacity Capacity Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	No mitigation necessary	-	-
	9	Wilfred Ave/ US-101 SB Ramps	No mitigation necessary	-	-
	10	Golf Course Dr/ Commerce Blvd	<ul style="list-style-type: none"> <li>• Add an EB right turn overlap phase</li> <li>• <b>Significant Unavoidable Impact</b></li> </ul>	Yes	Capacity
	11	Golf Course Dr/ Roberts Lake Rd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>• Add a SB right turn overlap phase</li> </ul>	No	Capacity
	13	Project Driveway/ Stony Point Rd	No mitigation necessary	-	-
	14	Business Park Dr/ Labath Ave	Alternative A intersection	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	No mitigation necessary	-	-
	17	Rohnert Park Expwy/ Labath Ave	No mitigation necessary	-	-
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>• Extend NB left turn bay to 275 feet (from 225 feet)</li> <li>• Add second NB left turn lane</li> </ul>	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	<ul style="list-style-type: none"> <li>• Optimize signal timing</li> <li>• Add an EB right overlap phase</li> </ul>	No No	Capacity Capacity
	22	Gravenstein Hwy/ Stony Point Rd	No mitigation necessary	-	-
	23	Gravenstein Hwy/ Redwood Dr	No mitigation necessary	-	-
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	<ul style="list-style-type: none"> <li>• Signalize</li> </ul>	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-

<sup>1</sup> In summary, widen Wilfred Ave to three lanes from Stony Point Rd to Redwood Dr



Period	#	Intersection	Mitigation	Requires ROW?	Reason
2020	1	Stony Point Rd/ Wilfred Ave	<ul style="list-style-type: none"> <li>• Signalize *</li> <li>• Add WB left and change WB left-through to through</li> <li>• Add NB right and change through-right to through *</li> <li>• Extend WB right turn bay to 75 feet (from 35 feet)</li> <li>• Optimize signal timing</li> </ul>	No Yes Tribe land Yes No	Capacity Capacity Capacity Queue Capacity
	2	Primrose Ave/ Wilfred Ave	No mitigation necessary	-	-
	3	Whistler Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>• Signalize *</li> <li>• Add EB right and change EB all shared to left-through *</li> <li>• Add a NB right and change all shared to left-through *</li> <li>• Add 2 WB lefts and change all shared to through-right *</li> </ul>	No Tribe land Tribe land Yes	Capacity Capacity Capacity Capacity
	4	Langer Ave/ Wilfred Ave	• Add EB left *	Yes	Capacity
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>• Signalize *</li> <li>• Add NB right and change NB all shared to left-through *</li> <li>• Optimize signal timing</li> <li>• Add a SB left and change SB all shared to through-right</li> </ul>	No Yes No Yes	Capacity Capacity Capacity Capacity
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>• Signalize *</li> <li>• Add an EB right turn lane and change through-right to through *</li> <li>• Optimize signal timing</li> <li>• Add a second WB left turn</li> <li>• Add a NB right overlap phase</li> <li>• Add 1 SB left turn bay and 1 SB right turn bay and change all shared to through</li> <li>• Add 1 NB left turn bay and 1 NB right turn bay and change all shared to through-right</li> </ul>	No Yes No No Yes No Yes Yes	Capacity Capacity Capacity Capacity Capacity Capacity Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>• Add WB through *</li> <li>• Optimize signal timing</li> <li>• Change NB through to left-through &amp; change north-south phasing to split from protected</li> <li>• Change WB left-through to through *</li> <li>• Change phasing east-west to protected from split *</li> </ul>	Yes No No Yes No	Capacity Capacity Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	Modified Intersection (not analyzed)	-	-
	9	Wilfred Ave/ US-101 SB Ramps	No mitigation necessary	-	-
	10	Golf Course Dr/ Commerce Blvd	<ul style="list-style-type: none"> <li>• Add an exclusive EB right turn overlap phase *</li> <li>• Add a second exclusive EB right turn lane</li> <li>• <b>Significant Unavoidable Impact</b></li> </ul>	Yes Yes	Capacity Capacity
	11	Golf Course Dr/ Roberts Lake Rd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>• Add a SB right turn overlap phase *</li> <li>• Add a second SB right turn lane. Will require a two lane on-ramp with one lane as an auxiliary lane between the Wilfred Avenue and Santa Rosa Avenue interchanges. May require additional bridge structure widening over Wilfred Avenue as well as over the Northwest Pacific Railroad tracks.</li> <li>• Optimize signal timing</li> </ul>	No Yes No	Capacity Queue Capacity
	13	Project Driveway/ Stony Point Rd	No mitigation necessary	-	-
	14	Business Park Dr/ Labath Ave	Alternative A intersection	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	No mitigation necessary	-	-
	17	Rohnert Park Expwy/ Labath Ave	No mitigation necessary	-	-
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>• Extend NB left turn bay to 275 feet (from 225 feet) *</li> <li>• Add second NB left turn lane *</li> </ul>	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	<ul style="list-style-type: none"> <li>• Optimize signal timing *</li> <li>• Add a third EB through lane that merges back into 2 lanes east of the intersection</li> </ul>	No Yes	Capacity Capacity
	22	Gravenstein Hwy/ Stony Point Rd	No mitigation necessary	-	-
	23	Gravenstein Hwy/ Redwood Dr	<ul style="list-style-type: none"> <li>• Add a WB right overlap phase</li> <li>• Optimize signal timing</li> </ul>	No No	Queue Capacity
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	• Signalize *	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-

\* Improvement assumed to occur with 2008 mitigation



**Table C 5 – Mitigated Intersection Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008						2020					
				Existing		Base (w/o Proj.)		With Project		Mitigated		Base (w/o Proj.)		With Project		Mitigated	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	OVRFL	D	37.2	F	841.3	F	OVRFL	D	39.8
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	C	24.7	C	24.7	B	12.5	D	29.3	D	29.3
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	F	OVRFL	C	25.7	B	12.5	F	OVRFL	C	26.3
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	F	136.3	F	OVRFL	B	12.5	F	192.1	F	OVRFL
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	OVRFL	D	38.8	F	OVRFL	F	OVRFL	C	27.3
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	OVRFL	D	47.5	F	OVRFL	F	OVRFL	D	35.5
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	334.5	D	54.8	F	169.9	F	311.0	D	41.9
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	C	24.9	C	25.3	-	-	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	33.8	C	30.3	C	26.8	D	36.5	C	26.5
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	F	116.7	E	67.9	E	74.2	F	154.4	E	63.6
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	18.5	B	18.5	B	19.0	B	19.3	B	18.2
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	F	83.8	D	40.9	D	50.8	F	153.7	D	50.3
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
14	Business Park Dr/ Labath Ave	D	TWSC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	D	27.5	C	16.7	C	16.7	C	16.7
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	D	39.8	D	39.8	B	18.5	D	37.6	D	37.6
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	C	29.6	C	29.6	C	28.2	C	31.6	C	31.6
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	24.9	C	25.2	C	29.1	C	28.0	C	28.3
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.5	B	18.5	B	16.0	B	15.7	B	15.9
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	13.6	B	10.6	B	12.3	B	15.1	B	11.5
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	D	43.0	C	30.9	E	63.4	E	61.9	C	32.6
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	43.0	D	43.0	D	45.5	D	51.6	D	51.6
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	C	28.3	C	28.3	D	42.4	E	63.3	D	38.0
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	B	19.3	B	19.3	B	18.1	B	18.6	C	24.4
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	12.1	B	12.1	B	11.5	B	12.6	B	12.6
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	F	69.6	A	10.0	F	90.2	F	207.1	B	10.4
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.7	B	11.7	B	12.4	B	12.6	B	12.6
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.6	B	11.6	B	12.5	B	12.7	B	12.7
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	A	9.9	A	9.9	B	11.3	B	11.3	B	11.3
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	11.7	B	11.7	B	14.7	B	14.7	B	14.7
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.4	B	11.7	B	11.7	B	11.7



Results indicate that the freeway will not meet standards with the project, even with the future construction of HOV lanes, ramp metering, and auxiliary lanes associated with the Wilfred interchange project. As mitigation the project should do the following which will result in the mitigated levels of service shown in **Table C6**:

- Adjust the ramp metering to account for the additional project traffic at the Wilfred Avenue interchange in the near-term (2008). Most metering adjustments can be minor and are not expected to have queuing effects on the local street network. However, the southbound on-ramp will require heavy metering to obtain an acceptable level of service for the freeway ramp merge area which may create a long queue backed up on the ramp.
- The project should contribute a proportionate share of the costs of the construction of auxiliary lanes between Rohnert Park Expressway and Gravenstein Highway (SR-116) in the long-term (2020).
- The project should contribute a proportionate share of the costs of the construction of the Wilfred Avenue interchange project, including HOV lanes, ramp metering, and auxiliary lanes in the near-term (2008).
- The project should contribute a proportionate share of the costs of the construction of an additional traffic lane in the southbound direction from Santa Rosa Avenue to Wilfred Avenue and from Gravenstein Highway (SR-116) to West Sierra Avenue as well as an additional traffic lane in the northbound direction from West Sierra Avenue to Gravenstein Highway (SR-116) in the long-term (2020).

Aside from roadway improvements to mitigate protect impacts, the casino and hotel should coordinate with the Green Music Center during outdoor events that will generate high traffic levels. During that period, traffic control services at the Rohnert Park interchange may be necessary. Therefore, the casino/hotel project should provide funding for special event traffic monitoring at the Rohnert Park Expressway interchange to identify conflicts during outdoor events generate high traffic levels. If conflicts occur, the project should provide traffic management coordination between the casino/hotel project and Green Music Center in consultation with CHP and Caltrans to assist in traffic control.

Because no fixed route service will be available at the project site, the casino/hotel should provide a shuttle that serves the two Rohnert Park transfer stations. The shuttle should run throughout the day or could be called out on demand.

The casino should also sponsor charter buses from farther away destinations such as Marin County and the south Bay. The buses could serve specific groups such as senior citizens or social clubs, while reducing the number of single occupancy vehicles to the site. Preferential carpool or vanpool spaces should also be provided at the project site to encourage ridesharing by patrons and employees. The casino should provide employee incentives such as subsidized transit passes, flexible work schedules, the validation of transit tickets to provide free return trips, or subsidized shuttle services.

**Table C 6 – Alternative C Mitigated Freeway Level of Service Summary**

US-101 Section/Ramp	Criteria		Existing		2008		2008 + Alt C		2008 + Alt C Mitigated		2020		2020 + Alt C		2020 + Alt C Mitigated	
	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
<b>Northbound</b>																
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	25.1	C	25.1	C	25.6	E	38.4	E	38.4	
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	D	31.8	D	31.8	D	34.1	F	41.8	D	29.3	
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	D	33.4	D	33.4	E	36.1	F	43.1	E	39.3	
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	D	28.8	D	28.8	D	32.3	F	-	E	39.3	
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	32.5	D	32.5	E	37.1	F	43.7	E	39.3	
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	D	31.4	D	31.4	C	23.2	F	41.8	E	38.6	
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	D	30.4	D	30.4	D	29.0	E	38.6	E	38.6	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	D	30.4	D	30.4	D	29.0	E	38.6	E	38.6	
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	D	30.4	D	30.4	D	29.0	E	38.6	E	38.6	
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	33.9	D	33.9	E	40.4	F	44.3	E	43.0	
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	33.9	D	33.9	E	40.4	F	44.3	E	43.0	
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	33.9	D	33.9	E	40.4	F	44.3	E	43.0	
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	23.8	C	23.8	D	29.7	D	32.6	D	32.6	
<b>Southbound</b>																
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	D	26.1	D	26.1	D	28.5	D	31.2	D	31.2	
Santa Rosa Avenue SB On-Ramp	E	D	31.2													
US-101 Between Santa Rosa Avenue and Wilfed Avenue (SB)	E	D	31.5	D	32.7	E	36.2	E	36.2	F	-	F	-	C	24.8	
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	40.8	E	40.8	F	44.8	F	46.8	D	32.7	
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	F	46.6	E	52.2	E	39.9	F	50.7	E	43.0	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	F	46.6	E	52.2	E	39.9	F	50.7	E	43.0	
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	F	46.6	E	52.2	E	39.9	F	50.7	E	43.0	
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	33.4	D	33.4	E	38.5	F	43.4	E	40.7	
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	32.8	D	32.8	F	37.5	F	43.3	E	40.7	
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	D	27.1	D	27.1	E	36.6	F	-	E	40.7	
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	32.5	D	32.5	F	40.3	F	46.2	E	40.7	
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	E	35.7	E	35.7	F	42.3	F	48.4	D	29.1	
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	D	27.4	D	27.4	D	32.0	F	-	C	23.5	

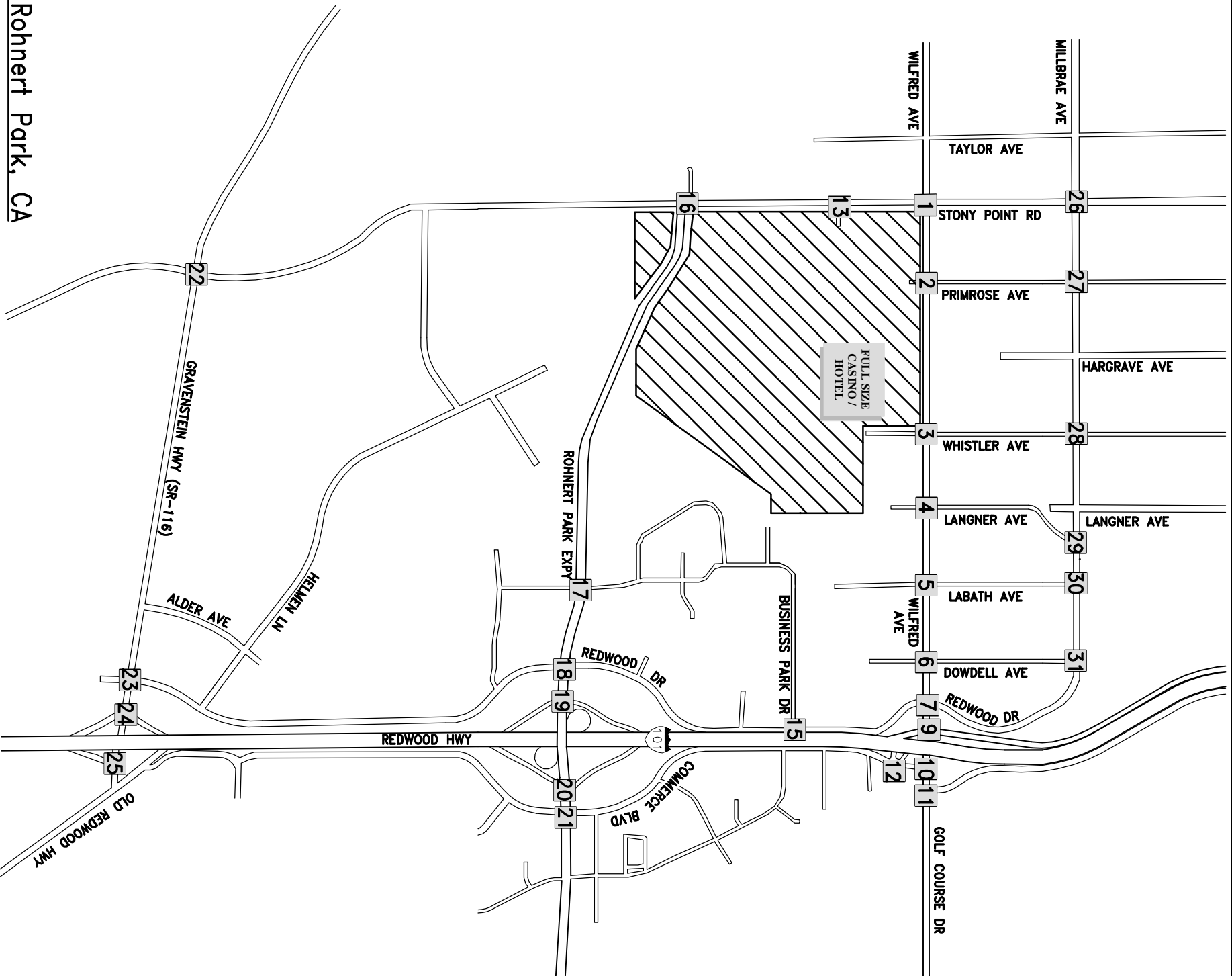
It is recommended that the casino contribute to the operation of SMART if it is implemented. Implementation of the SMART transit option will reduce the commuter congestion on US-101.

Mitigations to reduce the impact of the construction include the implementation of a construction traffic management plan for the duration of construction of the project and training for construction delivery vehicle drivers.

It is recommended that the project attempt to minimize the amount of construction fill transported on the surrounding street network by eliminating or shortening the off-site travel route. Potential options for eliminating off-site transport include moving fill material via conveyors across barriers such as creeks and ditches or installing temporary bridges for haul vehicles across the barriers.

If there is a special exception and off-site fill is necessary, construction material importation should be scheduled outside of the areawide commute peak hours. Debris along the truck route caused by trucks should be monitored daily and the roadways should be cleaned as necessary. Roadways subject to fill truck traffic should be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. If the third party determines that roadway deterioration has occurred as a result of casino construction, it is recommended that the developer pay to have surrounding roadways resurfaced to restore the pavement to the pre-construction condition, unless the resurfacing is already expected to occur within a year or sooner in conjunction with other planned or proposed roadway improvements.

To help ensure adequate public safety during construction, particularly near the project site, the tribe should provide flagging when necessary in consultation with CHP, Caltrans, and the County's Sheriff's Department to assist with traffic control.



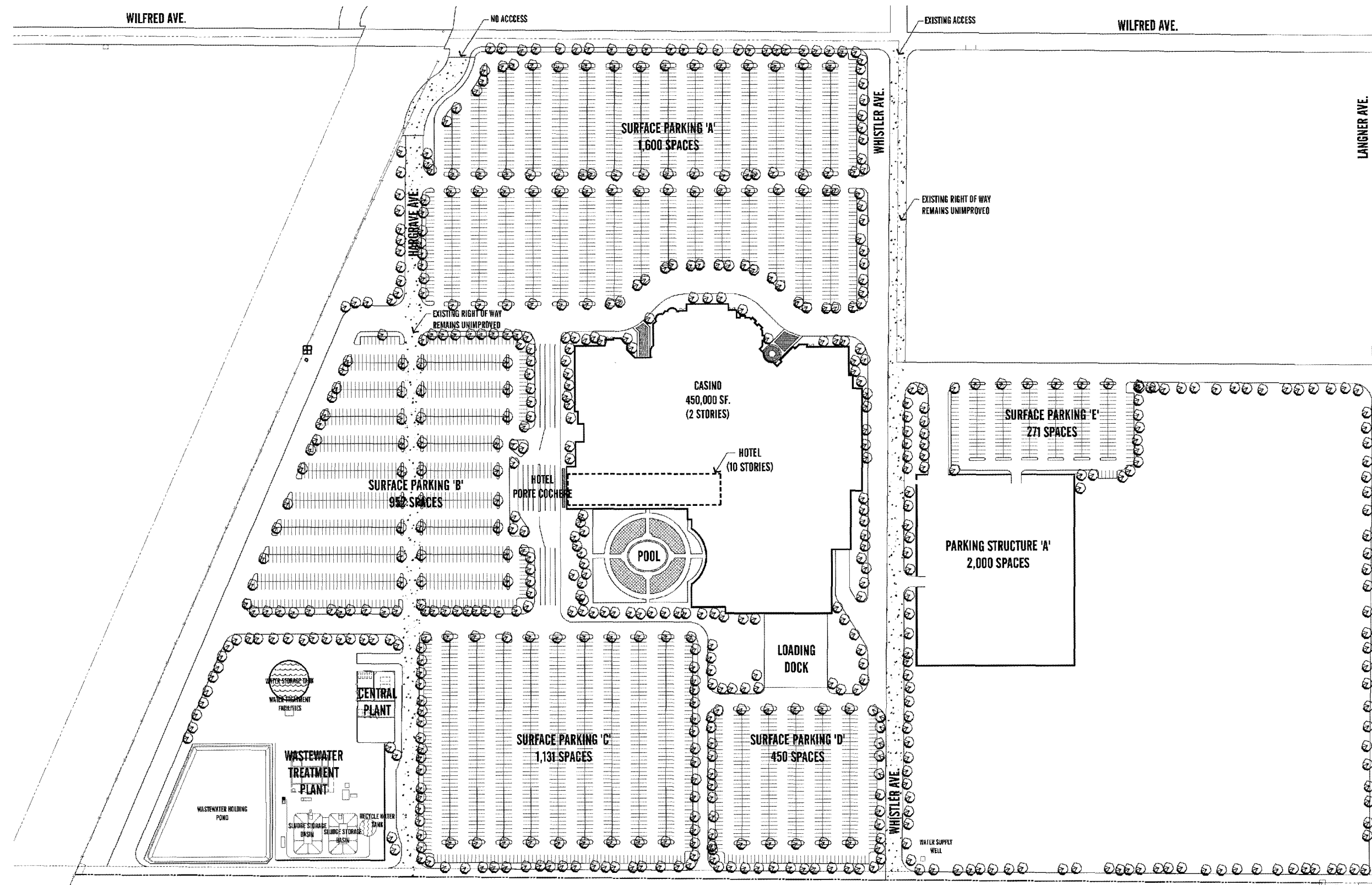
Graton Rancheria Alternative C - Rohnert Park, CA

PROJECT LOCATION

FIGURE C1



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PARKING CALCULATION	
SURFACE PARKING 'A'	1,600 SPACES
SURFACE PARKING 'B'	952 SPACES
SURFACE PARKING 'C'	1,131 SPACES
SURFACE PARKING 'D'	450 SPACES
SURFACE PARKING 'E'	271 SPACES
PARKING STRUCTURE 'A'	2,000 SPACES
<b>TOTAL PARKING</b>	<b>6,404 SPACES</b>



Graton Rancheria Alternative C - Rohnert Park, CA

SITE PLAN

FIGURE C2



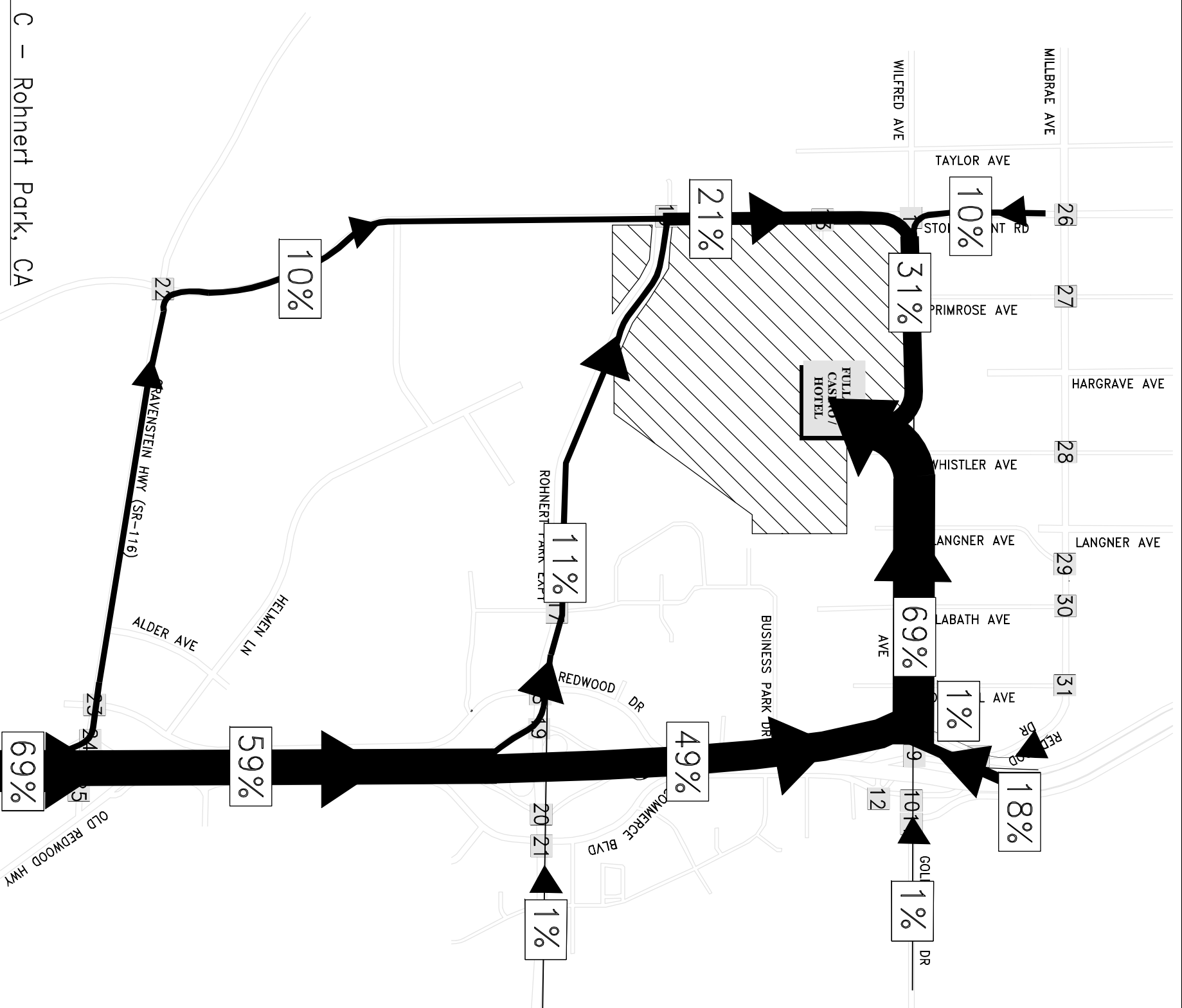
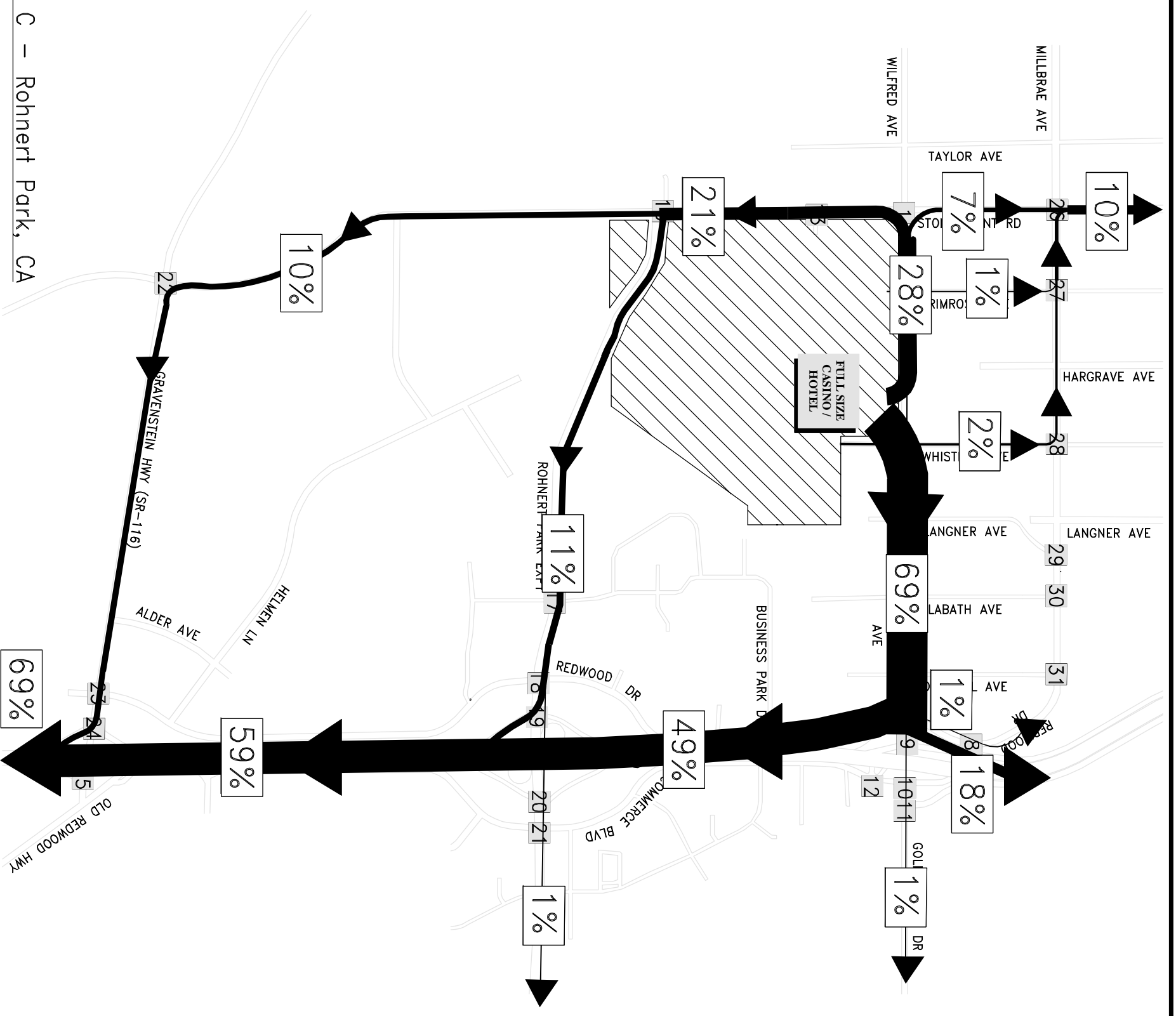


FIGURE C3



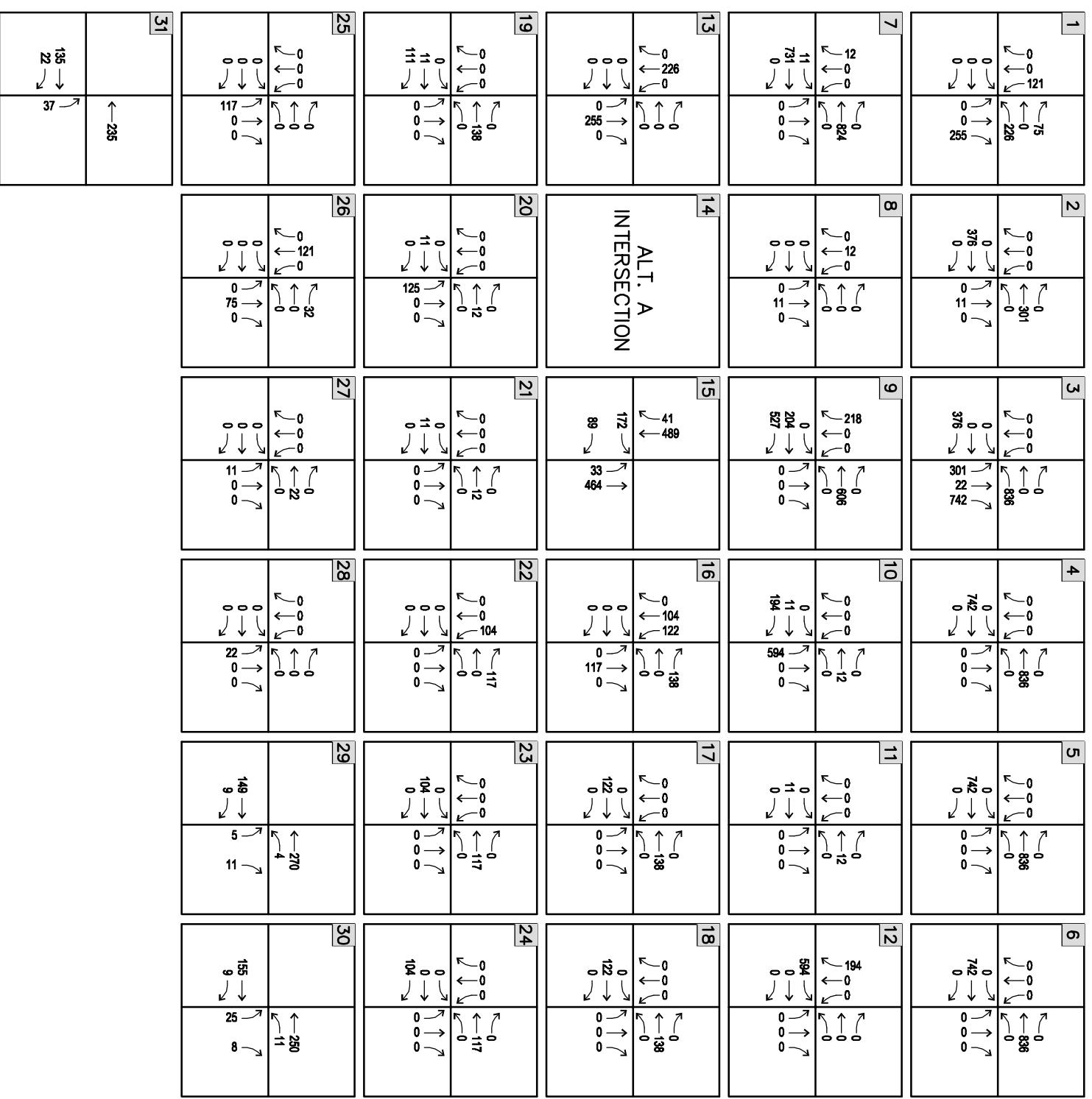
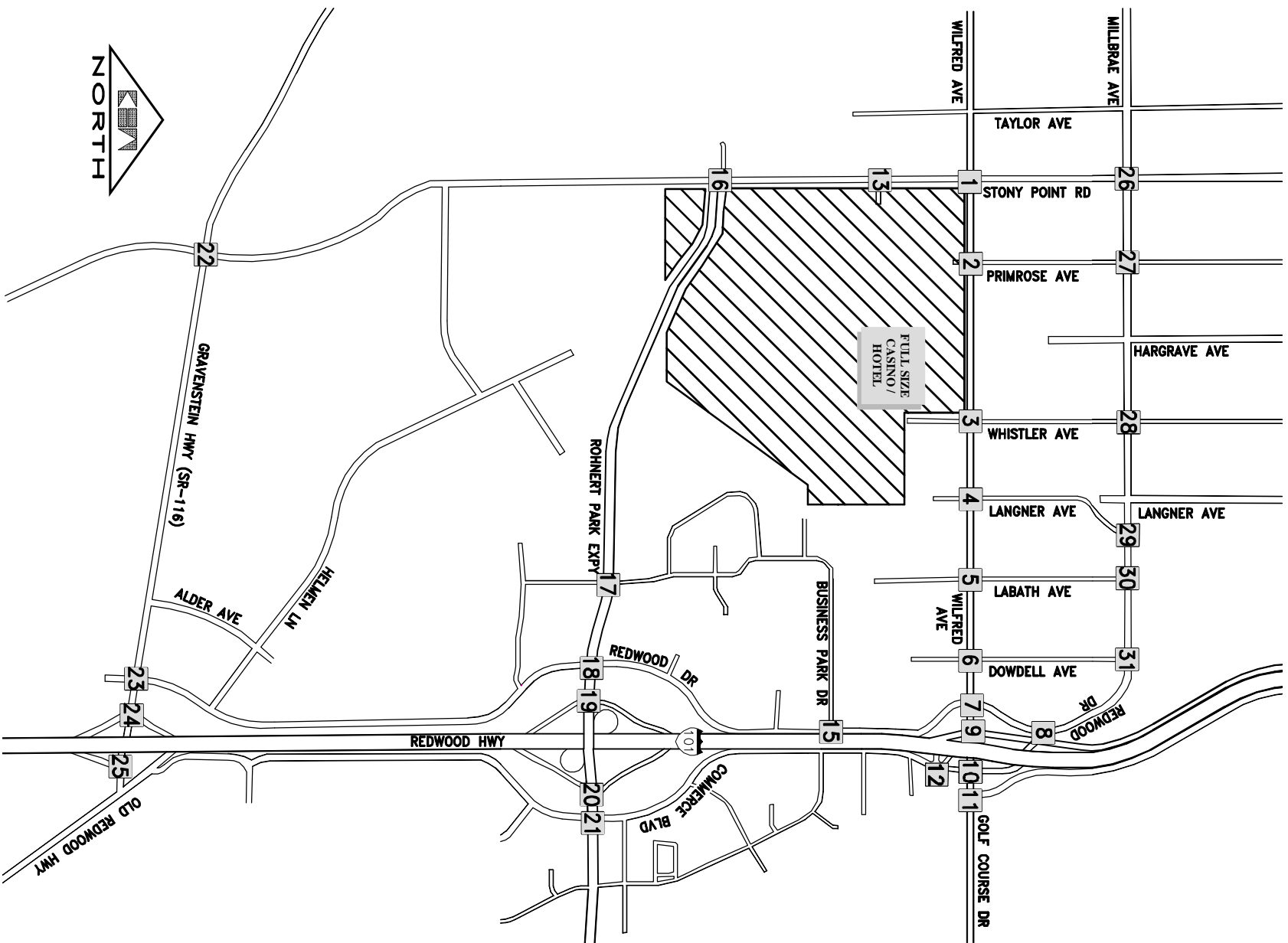
Graton Rancheria Alternative C - Rohnert Park, CA



FIGURE C4



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LEGEND

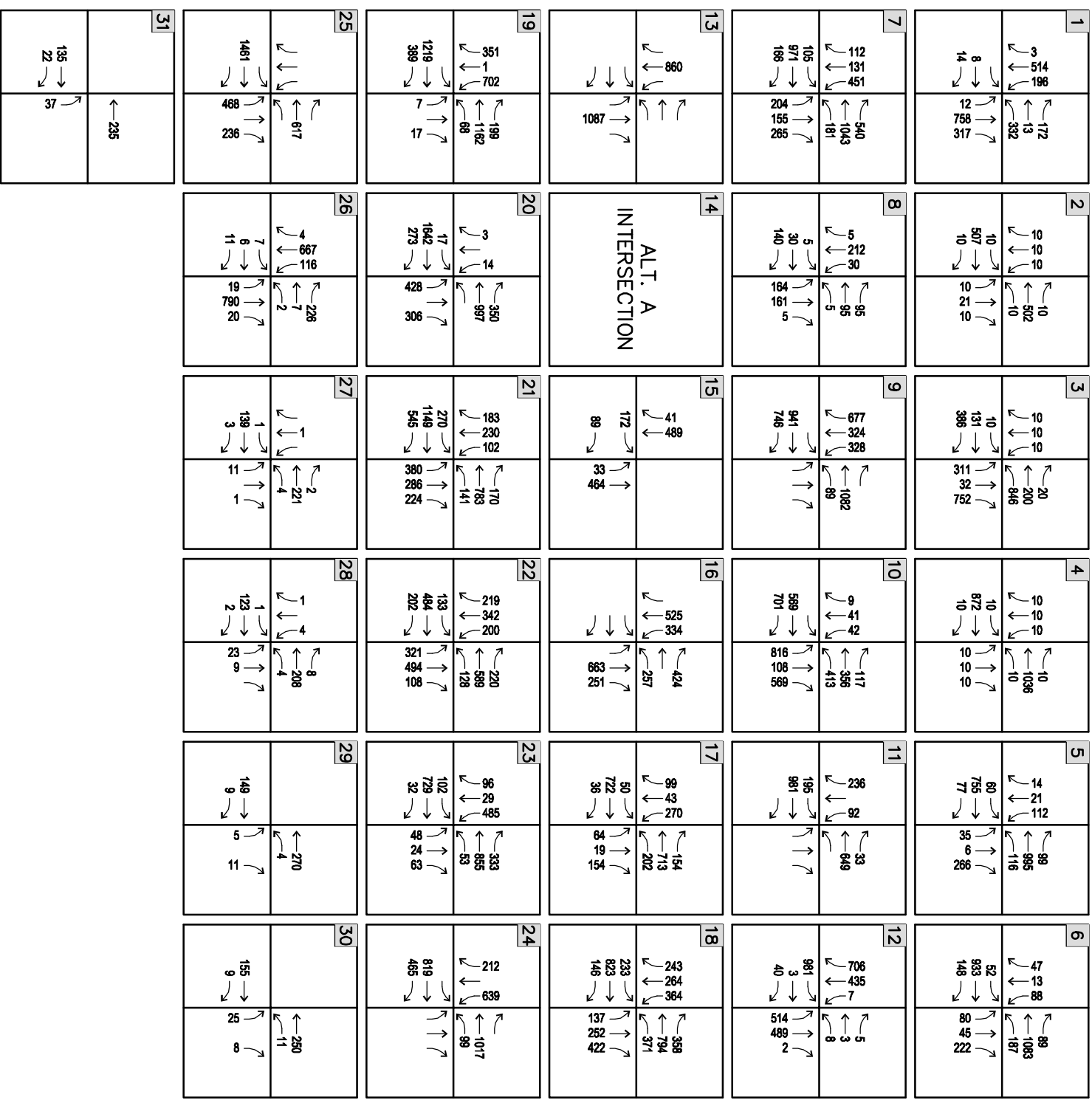
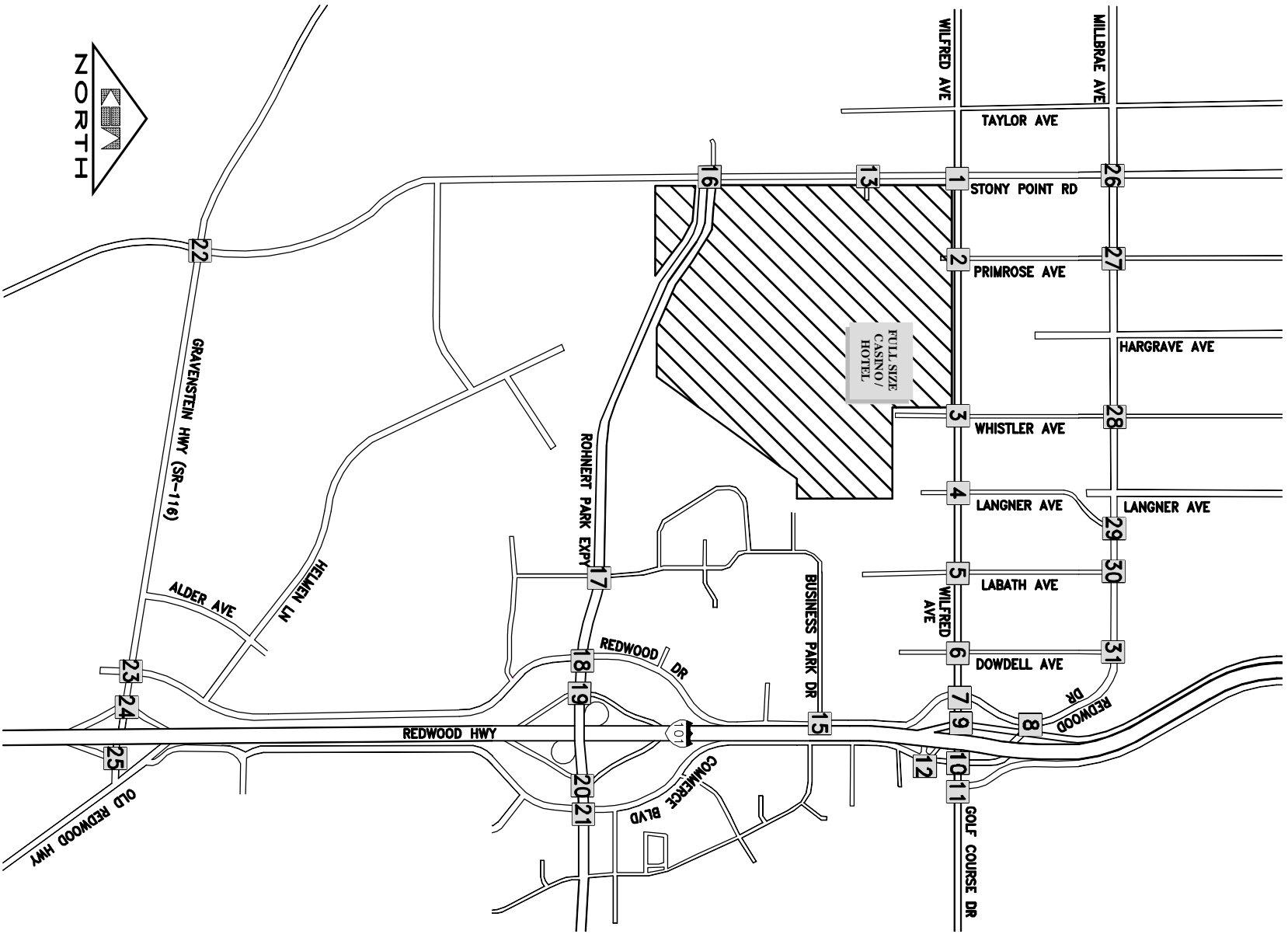
STUDY AREA INTERSECTIONS

TRAFFIC VOLUMES

Graton Rancheria Alternative C – Rohnert Park, CA

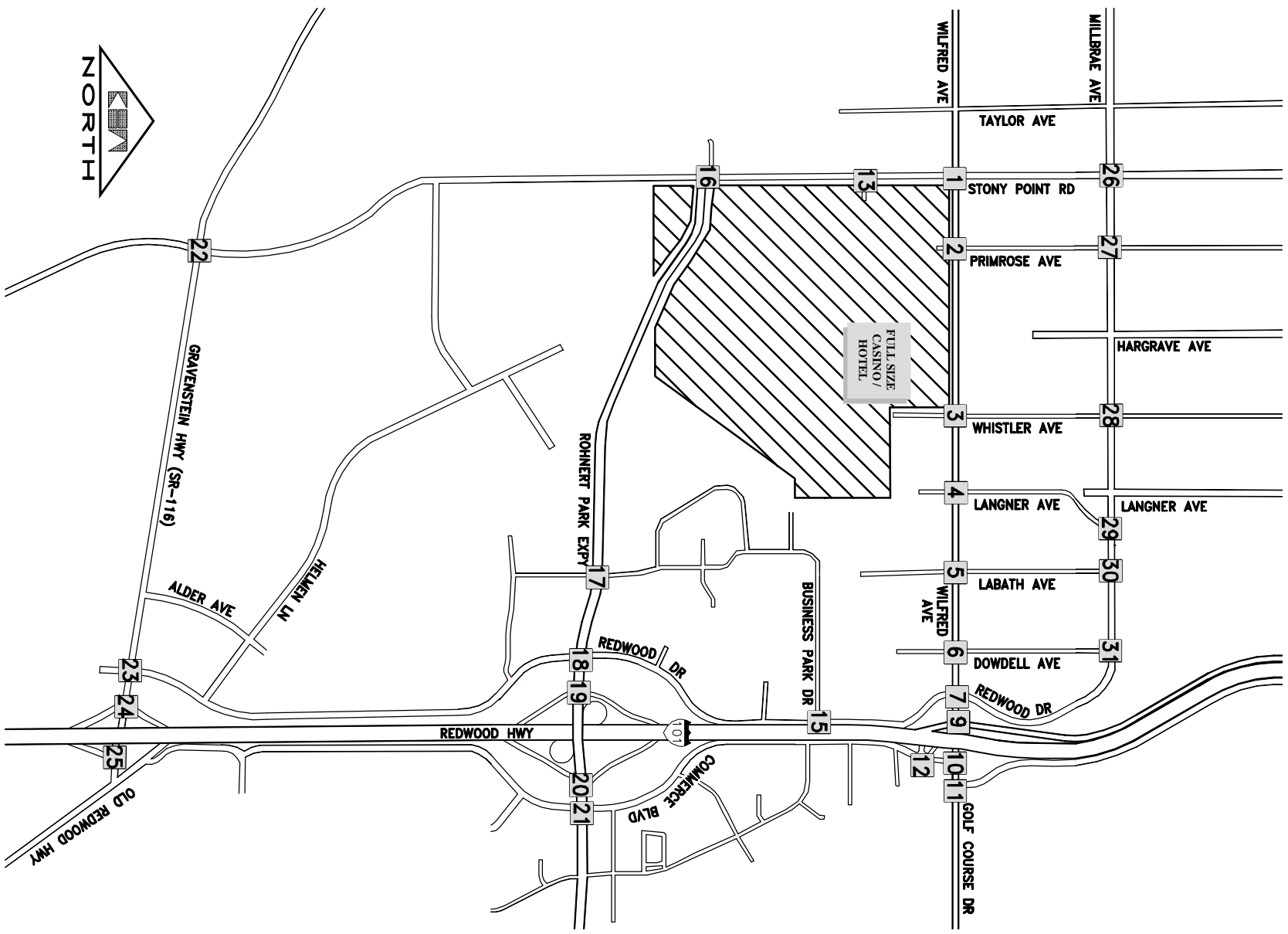
FIGURE C5





Graton Rancheria Alternative C – Rohnert Park, CA

FIGURE C6



1	2	3	4	5	6
3 58 223 209 22 389 13 16 14 677 328	9 581 10 546 10 9 21	9 280 445 10 170 388 9 111 72	9 1116 10 912 10 17 455 499 1048 516 75	11 81 41 189 1081 188 40 851 41 47 96	911 217 273 1196 509 53 1101 273 193 501 95
7	8	9	10	11	12
23 54 730 187 1485 285 730 188 73 95 95	MODIFIED INTERSECTION (NOT ANALYZED)	92 82 55 1481 810 1288 77	17 455 499 770 1048 17 455 499 516 75	93 92 137 1216 64 887	1067 926 616 3 7 1067 3 47 5 3 8 592 113 2
13	14	15	16	17	18
88 1020	ALT. A INTERSECTION	88 144 38 31 88 21	35 327 355 233 355 233	59 82 707 53 92 630 116 88 82 51	92 106 683 216 822 163 318 741 377 171 326 95
19	20	21	22	23	24
427 111 1283 408 255 1000 68 6 17	3 4 383 883 21 1567 288 4 58	52 56 82 1232 482 202 694 165 236 1232 482 788 15	32 88 111 230 881 140 149 583 228 23 89 11	91 82 85 122 812 32 406 914 53 99 89 85	82 94 93 516 1115 66
25	26	27	28	29	30
1586 482 273 683	11 5 8 902 13 25 251 23 5 8 23 92	1 181 5 2 287 7 2	1 148 2 8 279 8 279	154 27 331 7 92	180 23 225 36 92
31					
131 51 55 235					

LEGEND

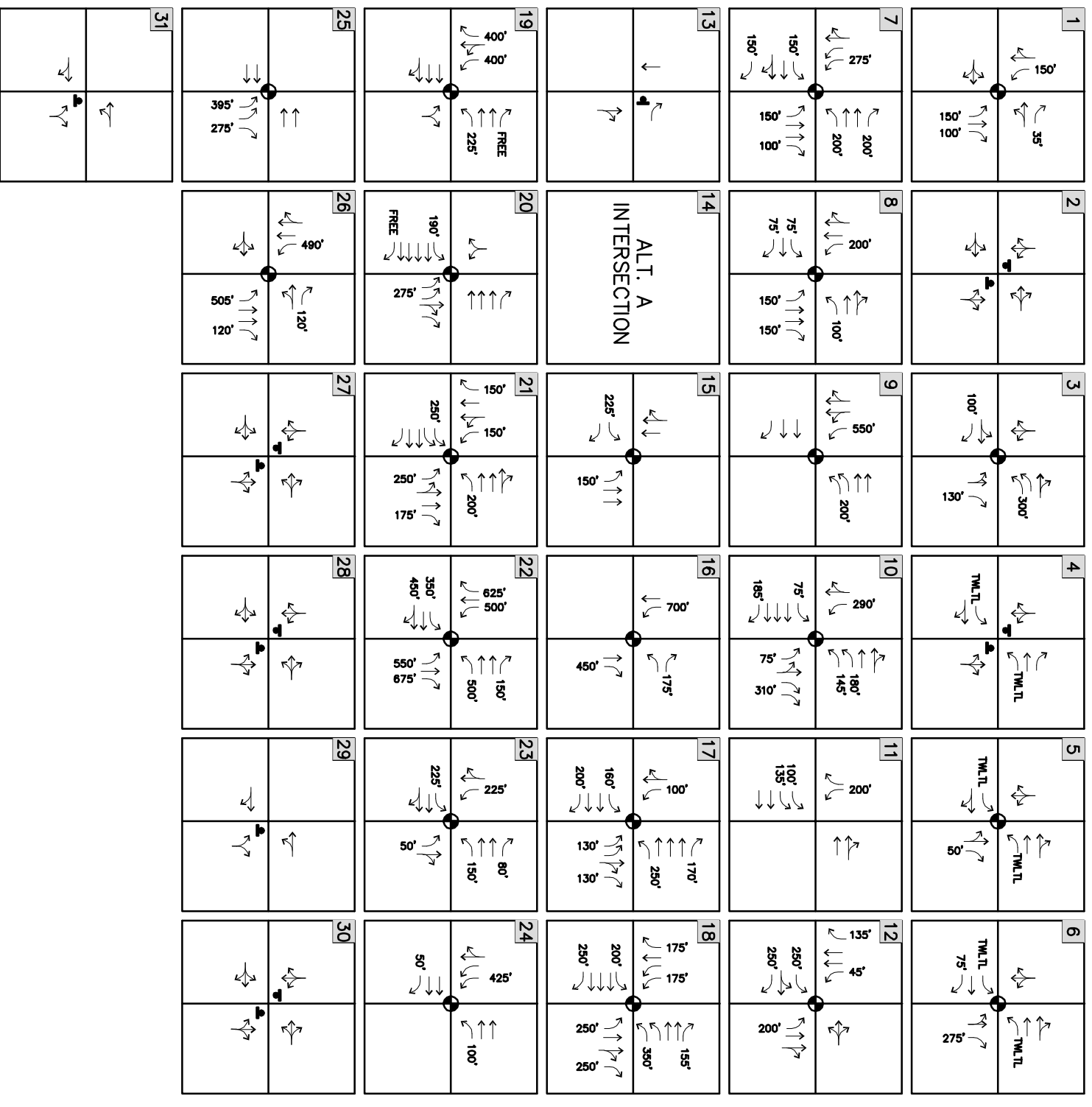
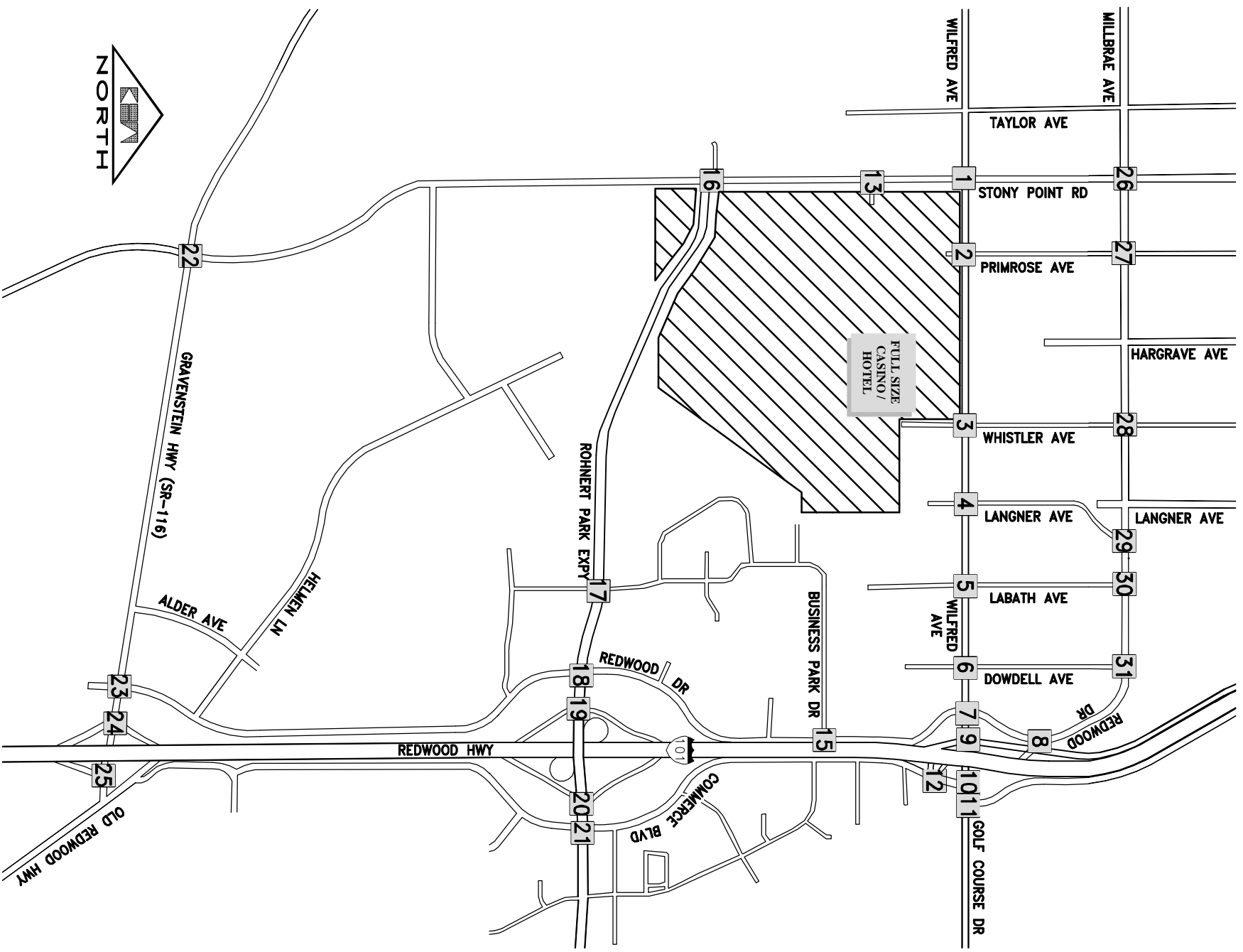
X STUDY AREA INTERSECTIONS

XX TRAFFIC VOLUMES

Graton Rancheria Alternative C – Rohnert Park, CA

FIGURE C7





**LEGEND**

- X STUDY AREA INTERSECTIONS
- TRAFFIC SIGNAL
- STOP SIGN
- XX' STORAGE LENGTH

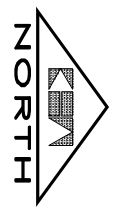
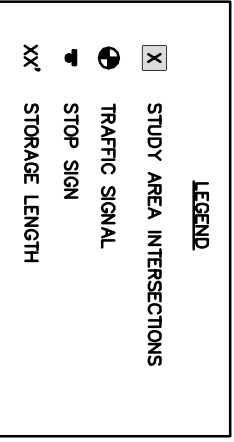
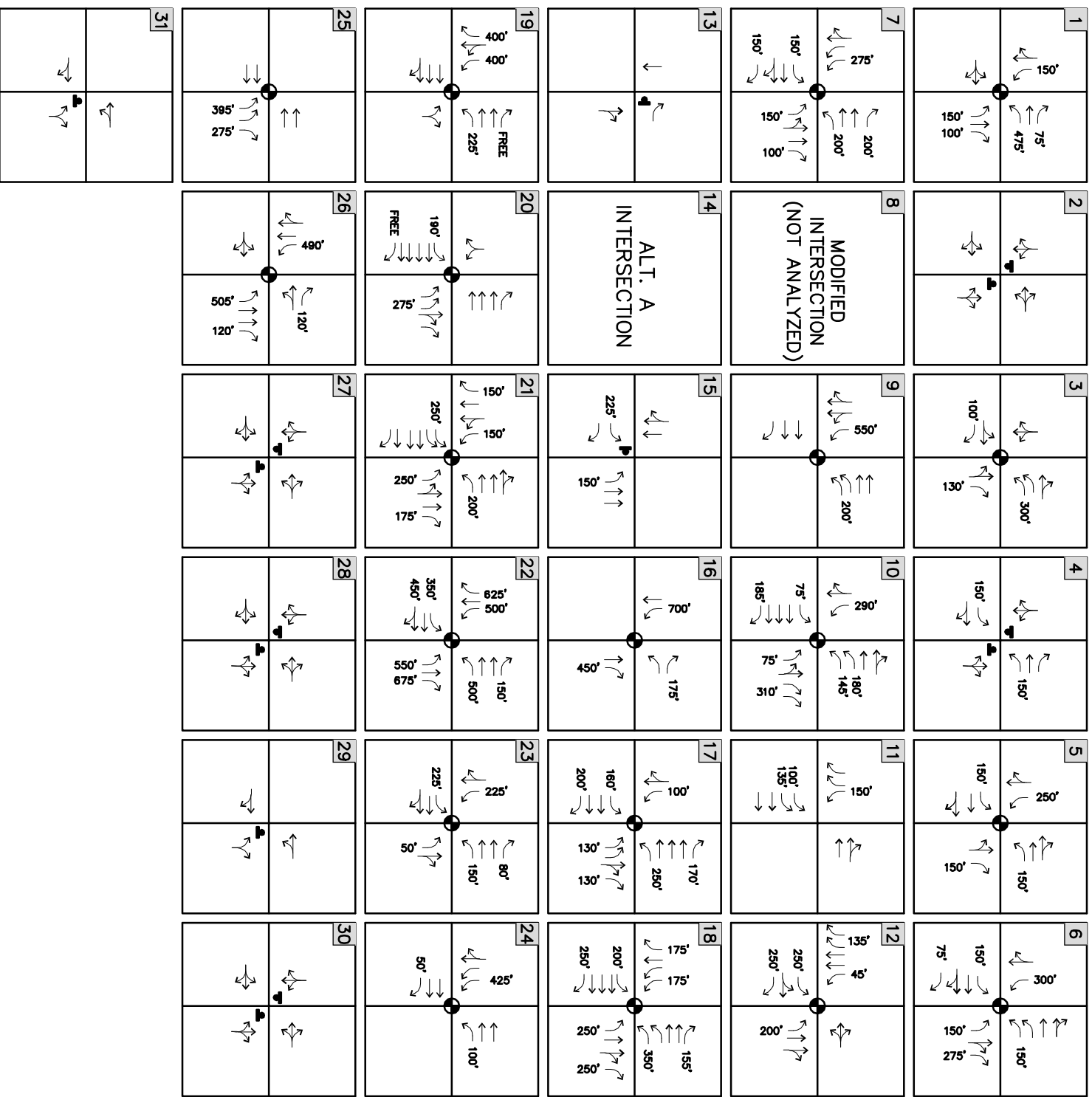
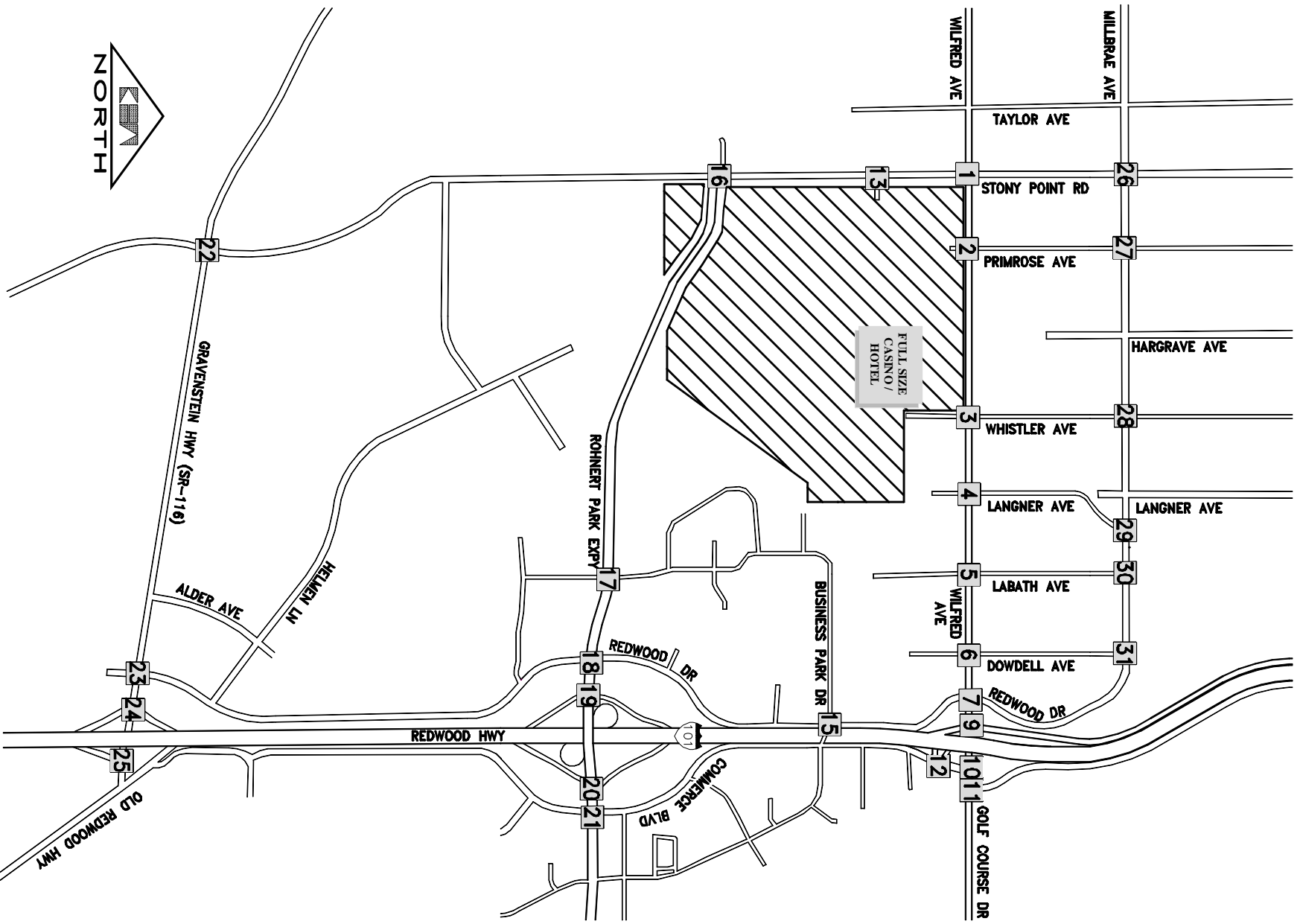


Graton Rancheria Alternative C – Rohnert Park, CA

NEAR-TERM MITIGATED LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE C8





Graton Rancheria Alternative C – Rohnert Park, CA

LONG-TERM MITIGATED LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE C9



Kimley-Horn and Associates, Inc.

## ALTERNATIVE D – NORTHWEST STONY POINT REDUCED INTENSITY OPTION

The Alternative D casino and hotel is proposed to be located as shown in **Figure D1**, which is bordered by Wilfred Avenue in the north, Rohnert Park Expressway in the south, Stony Point Road in the west, and Langner Avenue in the east.

**Figure D2** shows the proposed layout of the casino and hotel facility. As seen in the figure, the buildings and other related facilities are located in the northwest corner of the site. The site layout includes a main building of approximately 315,100 square feet for a casino, restaurants, food court, event center, banquet facilities, lobby, pool, and other ancillary functions. In addition the project is planned to include up to 100 hotel rooms, primarily for casino guests.

A breakdown of square footage as it relates to traffic impacts is shown below:

- Casino and Entertainment areas – 293,250 s.f.
- Lobby/Bar/Back of House/Sundries – 14,750 s.f.
- Pool – 7,100 s.f.
- 315,100 s.f.
  
- Hotel Rooms – 77,000 s.f.

The site plan also shows supporting uses such as parking lots, parking structure, and wastewater treatment facilities. This layout is virtually the same as Alternative A except that the project has been reduced in size and intensity.

Within each alternative there is a reference made to the “project site” which changes for each alternative. There is not a specific project site that is being evaluated for all of the alternatives.

### Site Access

The main project access is from the south side of Wilfred Avenue, where an existing driveway aligns with Primrose Avenue. This approach is assumed to operate as a full movement driveway with no turn limitations.

A second project access from Stony Point Road is located on this plan approximately 880 feet south of the Stony Point Road/Wilfred Avenue intersection. The location is at an existing driveway access; however, due to conflicts with the northbound turn bay at the Stony Point Road/Wilfred Avenue intersection, the access is assumed to be limited to right in/out operation.

Currently, neither access is signalized.

## Trip Generation – Alternative D

Project trip generation for Alternative D is shown in **Table D1**. Additional trip generation calculations are contained in the **Appendix**. Since Alternatives D and H are both casinos with the same amount of gaming and hotel space, trip generation numbers are the same for both Alternatives. As seen in the table Alternatives D and H are expected to generate 949 new trips in the AM and 1,580 new trips in the PM peak hour. Although project trip generation was prepared for daily, AM, and PM periods, only the weekday PM traffic conditions were evaluated in this report because it represents the time period where the project will contribute to the greatest amount of congestion and potential mitigation. Other time periods that were considered included weekday AM, weekday late PM, and Saturday. On weekday late evenings and Saturday evenings the casino facility will generate more trips than during the 4-6 PM weekdays, but the background traffic is lower, making the overall number of vehicles on the road lower as well. Therefore, the PM peak represents the worst case period to evaluate.

**Table D 1 – Alternatives D and H Project Trip Generation**

LAND USE	Trips						
	Daily	AM Peak Hour			PM Peak Hour		
	Total	Entering	Exiting	Total	Entering	Exiting	Total
Casino 315,100 s.f.	12,424	651	279	930	827	733	1,560
Hotel 100 Room*	272	12	7	19	11	9	20
Net New Vehicle Trips	12,696	663	286	949	838	742	1,580

\*Trip rate is ITE Land Use Code 310 – Hotel. Rate reduced by 2/3 to account for internal capture to/from casino.

## Project Trip Distribution and Assignment

Based on the factors discussed in the General Project Information section above it was determined that approximately 30% of the project traffic would be distributed to destinations north of the site, with the remaining 70% distributed south of the site. To be conservative, no project traffic was assumed to be generated or attracted in the immediate vicinity of the project site. The project traffic distribution is shown in **Figure D3** and **Figure D4**. **Figure D5** illustrates project traffic assigned to the study intersections based on the assumed trip distribution. As seen in **Figure D5**, most of the project traffic is expected to come from the freeway therefore it was assumed that most of the traffic would use Primrose Avenue because of its closer proximity to the freeway. As noted in the distribution, some traffic leaving the project site is expected to avoid congestion at Wilfred Avenue and Stony Point Road by using Millbrae Avenue.

## Near-Term Plus Project Traffic Volumes

Near-term 2008 traffic volumes were combined with vehicle trips expected to be generated by the Alternative D casino and hotel project. **Figure D6** illustrates the combined near-term turning movement volumes at the study intersections.

## Cumulative Plus Project Traffic Volumes

Long-term 2020 traffic volumes were combined with vehicle trips expected to be generated by the Alternative D casino and hotel project. **Figure D7** illustrates the combined long-term turning movement volumes at the study intersections.

## Alternative D LOS Conditions and Impacts at Intersections

Traffic operations were evaluated under the following development conditions:

- Near-term conditions with Alternative D (year 2008)
- Long-term Cumulative conditions with Alternative D (year 2020)

In the near-term analysis for Alternative D, it was assumed that the Wilfred Avenue widening project will not have taken place before the casino/hotel opens. The Memorandum of Understanding (MOU) between the City of Rohnert Park and the Federated Indians of the Graton Rancheria stated that the tribe would help financially to speed up the timeline of the widening project to occur before the casino/hotel opens in 2008.

Results of the analysis are presented in **Table D2**. (Results shown as bold in the table do not meet operational standards.) The signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections. Additional detail is provided in the **Appendix**. As shown in the results, the following intersections and approaches will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic.

**Table D 2 – Alternative D Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008				2020			
				Existing		Base (w/o Proj.)		With Project		Base (w/o Proj.)		With Project	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	OVRFL	F	841.3	F	OVRFL
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	F	743.6	B	12.5	F	OVRFL
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	E	35.5	B	12.5	E	42.9
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	E	35.1	B	12.5	E	42.7
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	OVRFL	F	OVRFL	F	OVRFL
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	OVRFL	F	OVRFL	F	OVRFL
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	206.0	F	169.9	F	215.4
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	C	25.0	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	25.7	C	26.8	C	28.9
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	F	83.0	E	74.2	F	101.1
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	18.4	B	19.0	B	19.1
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	E	61.7	D	50.8	F	85.6
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	C	21.8	A	0.0	C	19.9
14	Business Park Dr/ Labath Ave	D	TWSC	-	-	-	-	-	-	-	-	-	-
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	C	16.7	C	16.7
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	C	26.1	B	18.5	C	23.2
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	C	29.0	C	28.2	D	39.4
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	25.2	C	29.1	C	28.2
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.6	B	16.0	B	16.0
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	17.2	B	12.3	B	18.7
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	D	39.9	E	63.4	E	58.6
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	39.6	D	45.5	D	48.1
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	C	27.4	D	42.4	E	55.6
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	B	19.2	B	18.1	B	18.4
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	11.7	B	11.5	B	12.2
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	F	59.1	F	90.2	F	153.9
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.5	B	12.4	B	12.4
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.5	B	12.5	B	12.5
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	A	9.9	B	11.3	B	11.3
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	11.7	B	14.7	B	14.7
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.7	B	11.7



## **2008 Results**

- Stony Point Road/Wilfred Avenue
- Primrose Avenue/Wilfred Avenue
- Whistler Avenue/Wilfred Avenue
- Langner Avenue/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps
- Rohnert Park Expressway/Commerce Boulevard
- Millbrae Avenue/Stony Point Road

## **2020 Results**

- Stony Point Road/Wilfred Avenue
- Primrose Avenue/Wilfred Avenue
- Whistler Avenue/Wilfred Avenue
- Langner Avenue/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps
- Rohnert Park Expressway/Labath Avenue
- Rohnert Park Expressway/Commerce Boulevard
- Gravenstein Highway (SR-116)/Redwood Drive
- Millbrae Avenue/Stony Point Road

## **Alternative D Traffic Signal Warrant Analysis**

Alternative D, near-term and long-term, traffic volumes at unsignalized study intersections were compared against peak hour warrant in the *2003 Manual on Uniform Traffic Control Devices (MUTCD)* and the *California Supplement*.

Results of the analysis showed that the following intersections will satisfy traffic signal Warrant #3 by the year 2008 and 2020.

- Stony Point Road/Wilfred Avenue (2008 and 2020)
- Primrose Avenue/Wilfred Avenue (2008 and 2020)
- Labath Avenue/Wilfred Avenue (2008 and 2020)
- Dowdell Avenue/Wilfred Avenue (2008 and 2020)
- Millbrae Avenue/Stony Point Road (2008 and 2020)

Other warrants such as for minimum vehicle volumes, interruption of continuous traffic, and traffic progression were not evaluated because they generally require higher traffic volumes to be satisfied. Accident history and school areas were also not evaluated based on the results of field observations, which noted that neither of these warrant thresholds was likely to be met. A copy of the analysis summary for Warrant #3 is included in the **Appendix**.

### **Alternative D LOS Conditions and Impacts on Freeway and Ramps**

Project trips generated by the proposed Alternative D, reduced-intensity casino and hotel were added to the year 2008 and 2020 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2008 and 2020, with the addition on the casino and hotel project. Freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the analyses are presented in **Table D3**. (Results shown as bold in the table do not meet operational standards.) As shown in the table, project traffic will add to the background congestion of the freeway. Significant congestion is expected with the project; however the congestion is reduced as a result of the smaller casino and hotel.

**Table D 3 – Alternative D Freeway Levels of Service**

US-101 Section/Ramp	Criteria		Existing		2008		2008 + Alt D		2020		2020 + Alt D	
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	
<b>Northbound</b>												
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	23.1	C	25.6	D	33.4	
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	D	31.8	D	34.1	E	39.4	
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	D	33.4	E	36.1	F	40.9	
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	D	27.0	D	32.3	E	40.4	
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	32.5	E	37.1	F	41.6	
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	D	31.4	C	23.2	F	39.9	
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	C	26.8	D	29.0	D	34.7	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	C	26.8	D	29.0	D	34.7	
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	C	26.8	D	29.0	D	34.7	
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	32.8	E	40.4	F	43.1	
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	32.8	E	40.4	F	43.1	
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	32.8	E	40.4	F	43.1	
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	23.2	D	29.7	D	31.7	
<b>Southbound</b>												
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	C	25.5	D	28.5	D	30.3	
Santa Rosa Avenue SB On-Ramp	E	D	31.2	/	/	/	/	/	/	/	/	
US-101 Between Santa Rosa Avenue and Wilfed Avenue (SB)	E	D	31.5	D	32.7	D	31.0	F	-	F	-	
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	40.2	F	44.8	F	46.2	
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	F	43.3	E	39.9	F	47.1	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	F	43.3	E	39.9	F	47.1	
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	F	43.3	E	39.9	F	47.1	
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	33.4	E	38.5	F	41.6	
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	32.8	F	37.5	F	40.8	
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	C	25.5	E	36.6	F	-	
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	32.5	F	40.3	F	44.4	
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	E	35.7	F	42.3	F	46.6	
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	C	25.5	D	32.0	E	41.4	

## Potential Effects on Intersection Safety

Traffic volumes generated by the project were reviewed in consideration of existing intersection collision history and the potential for increased accidents. According to collision data, accidents involving bicyclist and pedestrians are very low. Many intersections did not report any collisions of this type during the survey period. This suggests that bicycle and pedestrian volumes are relatively low and study intersections have minimal safety hazards for individuals biking or walking. Although the project will introduce increased traffic volumes at some intersections, bicyclists and pedestrians are expected to be able to travel through study intersections with similar levels of safety. Historically casinos do not attract a significant amount of bicycle and pedestrian traffic. . Therefore, the expected amount of pedestrian and bicycle traffic is nominal and a significant increase in bicycle and pedestrian accidents is unlikely.

The potential for increased collisions between motorized vehicles was also considered. Collision frequency and severity are a function of many complex factors that vary depending on the location and type of intersection or roadway segment. Factors include traffic control such as signals or stop signs, lane and shoulder widths, grades, driveway densities, roadside hazards or obstacles, presence of left and right turn lanes, sight distance, congestion, and others.

Because of the number and interrelationships of the variables, accurate crash prediction is difficult. However, the proposed casino and hotel project will increase roadway congestion, a factor which could result in an increase in traffic collisions if left unmitigated. Other factors are expected to remain unaffected.

As noted previously, the purpose of this study is to address the traffic and transportation effects of the proposed casino and hotel development. This includes mitigation improvements to restore traffic operations to levels within acceptable standards or to levels as good as or better than without the casino/hotel project. Any potential increases in accidents due to project-related traffic would be offset by the implementation of roadway improvements included as mitigation. Therefore, if mitigations are implemented as proposed in this report, no significant increase in daytime or nighttime collisions is expected.

## Queuing Summary

As congestion increases it is common for traffic at signals and stop signs to form lines of stopped (or queued) vehicles. Queue lengths were determined for each lane and measure the distance that vehicles will backup in each direction approaching an intersection. The 95th percentile queue is calculated by using 95th percentile traffic to account for fluctuations in traffic and represents a condition where 95 percent of the time during the peak period, traffic volumes and related queuing will be at, or less, than determined by the analysis. Average queuing is generally less. Ninety-fifth percentile queuing was checked under the various future year development conditions and in consideration of the planned intersection and signal timing improvements. A typical vehicle length of 25 feet is used in the queuing analysis. A summary of the queuing results can be seen in **Table D4**. The results indicate dedicated turn lanes where queuing may exceed their storage limits. It should be noted that some variations in intersection queuing between scenarios is a result of planned intersection and signal timing improvements.

**Table D 4 – Alternative D Queuing Summary**

Intersection	Turning Movement	Bay Length	Queue Length		Intersection	Turning Movement	Bay Length	Queue Length	
			2008	2020				2008	2020
1 Stony Point Road and Wilfred Avenue	EBL				16 Stony Point Road and Rohnert Park Expy	EBL			
	EBC					EBC			
	WBL					WBL			
	WBR	35	OVFL	OVFL		WBR	175	235	139
	NBL	150	25	25		NBL			
	NBR					NBR	450	38	38
	SBL	150	25	25		SBL	700	242	234
4 Langner Avenue and Wilfred Avenue	SBR				SBR				
	EBL				17 Labath Avenue and Rohnert Park Expy	EBL	160	61	111
	EBC					EBC	200	25	29
	WBL	150		25		WBL	250	76	34
	WBR					WBR	170	25	25
	NBL					NBL	130	36	38
	NBR					NBR	130	36	37
SBL				SBL		100	193	202	
5 Labath Avenue and Wilfred Avenue	SBR				SBR				
	EBL	150		25	18 Redwood Drive and Rohnert Park Expy	EBL	200	168	124
	EBC					EBC	200	25	25
	WBL	150		25		WBL	350	153	156
	WBR					WBR	155	37	30
	NBL					NBL	250	157	210
	NBR					NBR	250	65	104
SBL				SBL		175	188	172	
6 Dowdell Avenue and Wilfred Avenue	SBR				SBR	175	58	57	
	EBL	150		25	19 SB US 101 Ramps and Rohnert Park Expy	EBL			
	EBC					EBC			
	WBL	150		324		WBL	225	62	62
	WBR					WBR			
	NBL					NBL			
	NBR					NBR			
SBL				SBL		400	318	238	
7 Redwood Drive and Wilfred Avenue	SBR				SBR	400	224	284	
	EBL	150		199	EBL	190	25	25	
	EBC	150		289	20 NB US 101 Ramps and Rohnert Park Expy	EBR			
	WBL					WBL			
	WBR					WBR			
	NBL	150	402	1271		NBL	225	413	456
	NBR	100	95	110		NBR			
SBL	275	351	350	SBL					
SBR				SBR					
8 Redwood Drive and Commerce Boulevard	EBL	75	<25		21 Commerce Blvd and Rohnert Park Expy	EBL	250	69	58
	EBC	75	50			EBC			
	WBL	100	<25			WBL	200	187	222
	WBR					WBR			
	NBL	150	131			NBL	250	210	214
	NBR	150	<25			NBR	175	56	58
	SBL	200	40			SBL	150	98	158
9 Wilfred Avenue and SB US 101 Ramps	SBR				SBR	150	51	47	
	EBL				EBL	350	162	183	
	EBC				22 Stony Point Road and Gravenstein Hwy	EBC			
	WBL	300	35	27		WBL	500	155	170
	WBR					WBR	150	45	47
	NBL					NBL	550	296	298
	NBR					NBR	675	30	31
SBL	250	229	251	SBL		500	200	214	
SBR				SBR		625	49	54	
10 Golf Course Drive and Commerce Blvd	EBL				EBL	225	161	194	
	EBC				23 Redwood Road and Gravenstein Hwy	EBC			
	WBL	150	788	997		WBL	150	60	55
	WBR					WBR	80	25	183
	NBL	150	674	854		NBL	50	65	65
	NBR					NBR			
	SBL	200	94	30		SBL	225	388	556
SBR				SBR					
11 Roberts Lake Drive and Golf Course Drive	EBL	80	100	52	EBL				
	EBC				EBC	50	106	122	
	WBL				WBL	100	102	74	
	WBR				WBR				
	NBL				NBL				
	NBR				NBR				
	SBL	200	76	83	SBL	425	222	222	
12 Commerce Blvd and NB US 101 Ramps	SBR				24 Gravenstein Hwy and SB US 101 Ramps	SBR			
	EBL	250	295	353		EBL			
	EBC	250	25	25		EBC			
	WBL					WBL			
	WBR					WBR			
	NBL	200	478	524		NBL			
	NBR					NBR			
15 Business Park Drive and Redwood Drive	SBL	100	25	25	25 Gravenstein Hwy and NB US 101 Ramps	SBL			
	SBR	175	123	197		SBL	395	152	150
	EBL	225	97	40		NBR	275	178	201
	EBC					SBL			
	WBL					SBR			
	WBR					EBL			
	NBL	150	25	25		EBC			
26 Stony Point Road and Millbrae Avenue	NBR				EBR				
	SBL				WBL				
	SBR				WBR				
	EBL				NBL	395	152	150	
	EBC				NBR	275	178	201	
	WBL				SBL				
	WBR	120	43	163	SBR				

## Alternative D Mitigations

Intersections with levels of service below established thresholds were investigated to determine the role of the Alternative D traffic in the projected operating conditions at those intersections. The evaluation disclosed that the following improvements as shown in **Table D5** are needed in the near-term (2008) and long-term (2020).

The basis of the Alternative D mitigations is the assumption that intersection #13, the Project Driveway at Stony Point Road, should be relocated further south along Stony Point Road and be signalized so that it can function as a full movement access. This change permits more project traffic to conveniently arrive and exit from the site and use the Rohnert Park Expressway interchange, thus relieving some the traffic pressure through the Wilfred Avenue interchange.

In the event that intersection #13 cannot be relocated and signalized as discussed above, additional mitigation improvements will be needed, particularly at intersections surrounding the Wilfred Avenue interchange.

**Table D6** summarizes the expected levels of service with the proposed mitigation. Roadway improvements will be consistent with design standards for local jurisdictions in providing facilities and amenities for bicycles and pedestrians. This includes improvements such as sidewalks, countdown signals, and striped crosswalks if required by local design standards.

As mentioned previously, the signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections.

**Figures D8 and D9** illustrate the mitigated lane geometry and traffic control.

At an unsignalized intersection, the impact is considered significant if the intersection overall operates at an unacceptable level of service. It should be noted that the worst approach of the Langner Avenue/Wilfred Avenue intersection operates unacceptably in the 2020 + Alternative D scenario, but the intersection overall operates acceptably.

A single asterisk in the table denotes an intersection that operates at an acceptable level of service and does not require mitigation, but a mitigated level of service and delay are provided for reference as a result of the mitigation to signalize the Project Driveway/ Stony Point Road which changes traffic patterns at some intersections. A double asterisk indicates an intersection where the delay increases as a result of the mitigation to signalize the Project Driveway/Stony Point Road intersection.

Traffic signal interconnect and coordinated timing plans are included in the proposed traffic signals for Wilfred Avenue. The combination of casino traffic and other nearby future development will require Wilfred Avenue to ultimately be widened to five lanes (including Class II bike lanes) from Redwood Drive to the Urban Growth Boundary.

From Langner Avenue west to Stony Point Road, Wilfred Avenue should be three lanes with improved pavement and shoulders and it is recommended that the upgrade of Wilfred Avenue to include improved pavement and shoulders should be designed to the County standard and should include Class II bike lanes out to Stony Point Road to connect into the Class II bike lanes on Stony Point Road. Casino traffic alone can be accommodated on a three lane roadway section from Redwood Drive to Stony Point Road, therefore, they will contribute a proportionate share for the ultimate cost of the widening of Wilfred Avenue.

Modification to any interchanges requires review and approval from Caltrans' Department Headquarters Division of Design.





**Table D 5 – Alternative D Summary of Mitigations**

Period	#	Intersection	Mitigation	Requires ROW?	Reason
2008	1	Stony Point Rd/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> </ul>	No	Capacity
	2	Primrose Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> </ul>	No	Capacity
	3	Whistler Ave/ Wilfred Ave	No mitigation necessary	-	-
	4	Langer Ave/ Wilfred Ave	No mitigation necessary	-	-
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add NB right and change NB all shared to left-through</li> <li>Add SB left and change SB all shared to through-right</li> </ul>	No Yes Yes	Capacity Capacity Capacity
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add NB right and change NB all shared to left-through</li> <li>Add WB left (drop lane) and change all shared to through-right</li> </ul>	No Yes Yes	Capacity Capacity Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>Add EB through</li> <li>Add EB left and change all-shared to through-right</li> <li>Change WB left-through to WB through</li> <li>Change phasing east-west to protected from split</li> </ul>	Yes Yes No No	Capacity Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	No mitigation necessary	-	-
	9	Wilfred Ave/ US-101 SB Ramps	No mitigation necessary	-	-
	10	Golf Course Dr/ Commerce Blvd	<ul style="list-style-type: none"> <li>Add an exclusive EB right turn overlap phase</li> </ul>	No	Capacity
	11	Golf Course Dr/ Roberts Lake Rd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	Mitigation at Intersection #13 alleviated the impact here	-	-
	13	Project Driveway/ Stony Point Rd	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add NB right and change NB through-right to through</li> <li>Add WB left out of project driveway</li> </ul>	No Tribe land Tribe land	Capacity Capacity Capacity
	14	Business Park Dr/ Labath Ave	Alternative A intersection	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	<ul style="list-style-type: none"> <li>Extend WB right turn bay to 250 feet</li> </ul>	Tribe land	Queue
	17	Rohnert Park Expwy/ Labath Ave	No mitigation necessary	-	-
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Extend NB left turn bay to 400 feet (from 225 feet)</li> <li>Add a second NB left turn lane</li> </ul>	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	<ul style="list-style-type: none"> <li>Add an EB right turn overlap phase</li> <li>Optimize signal timing</li> </ul>	No No	Capacity Capacity
	22	Gravenstein Hwy/ Stony Point Rd	No mitigation necessary	-	-
	23	Gravenstein Hwy/ Redwood Dr	No mitigation necessary	-	-
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	<ul style="list-style-type: none"> <li>Signalize</li> </ul>	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-



Period	#	Intersection	Mitigation	Requires ROW?	Reason
2020	1	Stony Point Rd/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> </ul>	No	Capacity
	2	Primrose Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Add NB right and change NB all shared to left-through</li> </ul>	No Tribe land	Capacity Capacity
	3	Whistler Ave/ Wilfred Ave	No mitigation necessary	-	-
	4	Langer Ave/ Wilfred Ave	No mitigation necessary	-	-
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Optimize signal timing</li> <li>Add NB right and change NB all shared to through-left *</li> <li>Add SB left and change SB all shared to through-right *</li> </ul>	No No Yes Yes	Capacity Capacity Capacity Capacity
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Optimize signal timing</li> <li>Add 2nd WB left (drop lane)</li> <li>Add a SB left and change SB all shared to through-right</li> <li>Add NB right and change NB all shared to left-through *</li> <li>Add a NB left and second NB right and change all shared to through</li> </ul>	No No Yes Yes Yes Yes	Capacity Capacity Capacity Capacity Capacity Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>Change NB through to left-through &amp; change north-south phasing to split from protected</li> <li>Optimize signal timing</li> <li>Change WB left-through to through *</li> <li>Change phasing east-west to protected from split *</li> </ul>	No No No No	Capacity Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	Modified Intersection (not analyzed)	-	-
	9	Wilfred Ave/ US-101 SB Ramps	<ul style="list-style-type: none"> <li>Optimize signal timing</li> </ul>	No	Capacity
	10	Golf Course Dr/ Commerce Blvd	<ul style="list-style-type: none"> <li>Add an exclusive EB right turn overlap phase *</li> <li>Add a second exclusive EB right turn bay and change EB through-right to through</li> </ul>	No Yes	Capacity Capacity
	11	Golf Course Dr/ Roberts Lake Rd	<ul style="list-style-type: none"> <li>Optimize signal timing</li> </ul>	No	Capacity
	12	Commerce Blvd/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Add a second SB right turn lane. Will require a two lane on-ramp with one lane as an auxiliary lane between the Wilfred Avenue and Santa Rosa Avenue interchanges. May require additional bridge structure widening over Wilfred Avenue as well as over the Northwest Pacific Railroad tracks.</li> <li>Optimize signal timing</li> <li>Add a SB right turn overlap phase</li> </ul>	Yes No No	Capacity Capacity Capacity
	13	Project Driveway/ Stony Point Rd	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Add NB right and change NB through-right to through *</li> <li>Add WB left out of project driveway *</li> </ul>	No Tribe land Tribe land	Capacity Capacity Capacity
	14	Business Park Dr/ Labath Ave	Alternative A intersection	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	No mitigation necessary	-	-
	17	Rohnert Park Expwy/ Labath Ave	<ul style="list-style-type: none"> <li>Change SB through-right to all-shared</li> <li>Change NB/SB phasing from protected to split phasing</li> </ul>	Yes No	Capacity Capacity
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Extend NB left turn bay to 400 feet (from 225 feet) *</li> <li>Add a second NB left turn lane *</li> </ul>	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	<ul style="list-style-type: none"> <li>Add an EB right turn overlap phase *</li> <li>Optimize signal timing *</li> <li>Add a third EB through lane that merges back into 2 lanes east of the intersection</li> </ul>	No No Yes	Capacity Capacity Capacity
	22	Gravenstein Hwy/ Stony Point Rd	<ul style="list-style-type: none"> <li>Add an EB right turn bay for 100 feet</li> <li>Optimize signal timing</li> </ul>	Yes No	Capacity Capacity
	23	Gravenstein Hwy/ Redwood Dr	<ul style="list-style-type: none"> <li>Optimize signal timing</li> </ul>	No	Capacity
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	<ul style="list-style-type: none"> <li>Signalize *</li> </ul>	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-

\* Improvement assumed to occur with 2008 mitigation



**Table D 6 – Alternative D Mitigated Intersection Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008						2020					
				Existing		Base (w/o Proj.)		With Project		Mitigated		Base (w/o Proj.)		With Project		Mitigated	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	OVRFL	C	20.7	F	841.3	F	OVRFL	C	24.2
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	F	743.6	B	11.7	B	12.5	F	OVRFL	B	12.5
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	E	35.5	D	27.7 *	B	12.5	E	42.9	D	32.7 *
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	E	35.1	D	32.6 *	B	12.5	E	42.7	E	49.2
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	OVRFL	C	21.1	F	OVRFL	F	OVRFL	C	24.3
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	OVRFL	C	30.2	F	OVRFL	F	OVRFL	C	33.1
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	206.0	D	51.6	F	169.9	F	215.4	D	52.2
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	C	25.0	C	25.9 **	-	-	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	25.7	C	25.9 **	C	26.8	C	28.9	C	21.4
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	F	83.0	D	45.8	E	74.2	F	101.1	D	52.2
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	18.4	B	18.3 **	B	19.0	B	19.1	B	13.7
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	E	61.7	D	54.6	D	50.8	F	85.6	D	37.1
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	C	21.8	A	8.6	A	0.0	C	19.9	A	8.2
14	Business Park Dr/ Labath Ave	D	TWSC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	D	27.5	C	16.7	C	16.7	C	16.7
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	C	26.1	C	30.0 **	B	18.5	C	23.2	C	26.6 **
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	C	29.0	C	29.1	C	28.2	D	39.4	C	26.1
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	25.2	C	25.4 **	C	29.1	C	28.2	C	28.9 **
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.6	B	19.1	B	16.0	B	16.0	C	18.1 **
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	17.2	B	12.3	B	12.3	B	18.7	B	13.1
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	D	39.9	C	30.9	E	63.4	E	58.6	C	31.8
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	39.6	D	51.0 **	D	45.5	D	48.1	D	42.9
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	C	27.4	C	30.6 **	D	42.4	E	55.6	D	42.8
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	B	19.2	B	19.5 **	B	18.1	B	18.4	C	25.0 **
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	11.7	B	12.6 **	B	11.5	B	12.2	B	13.2 **
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	F	59.1	A	9.9	F	90.2	F	153.9	B	10.4
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.5	B	11.5	B	12.4	B	12.4	B	12.4
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.5	B	11.5	B	12.5	B	12.5	B	12.5
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	A	9.9	A	9.9	B	11.3	B	11.3	B	11.3
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	11.7	B	11.7	B	14.7	B	14.7	B	14.7
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.4	B	11.7	B	11.7	B	11.7

Results indicate that the freeway will not meet standards with the project, even with the future construction of HOV lanes, ramp metering, and auxiliary lanes associated with the Wilfred interchange project. As mitigation the project should do the following which will result in the mitigated levels of service shown in **Table D7**:

- Adjust the ramp metering to account for the additional project traffic at the Wilfred Avenue interchange in the near-term (2008). Most metering adjustments can be minor and are not expected to have queuing effects on the local street network. However, the southbound on-ramp will require heavy metering to obtain an acceptable level of service for the freeway ramp merge area which may create a long queue backed up on the ramp.
- The project should contribute a proportionate share of the costs of the construction of auxiliary lanes between Rohnert Park Expressway and Gravenstein Highway (SR-116) in the long-term (2020).
- The project should contribute a proportionate share of the costs of the construction of the Wilfred Avenue interchange project, including HOV lanes, ramp metering, and auxiliary lanes in the near-term (2008).
- The project should contribute a proportionate share of the costs of the construction of an additional traffic lane in the southbound direction from Santa Rosa Avenue to Wilfred Avenue and from Gravenstein Highway (SR-116) to West Sierra Avenue as well as an additional traffic lane in the northbound direction from Wilfred Avenue to Santa Rosa Avenue in the long-term (2020).

Aside from roadway improvements to mitigate protect impacts, the casino and hotel should coordinate with the Green Music Center during outdoor events that will generate high traffic levels. During that period, traffic control services at the Rohnert Park interchange may be necessary. Therefore, the casino/hotel project should provide funding for special event traffic monitoring at the Rohnert Park Expressway interchange to identify conflicts during outdoor events generate high traffic levels. If conflicts occur, the project should provide traffic management coordination between the casino/hotel project and Green Music Center in consultation with CHP and Caltrans to assist in traffic control.

Because no fixed route service will be available at the project site, the casino/hotel should provide a shuttle that serves the two Rohnert Park transfer stations. The shuttle should run throughout the day or could be called out on demand.

The casino should also sponsor charter buses from farther away destinations such as Marin County and the south Bay. The buses could serve specific groups such as senior citizens or social clubs, while reducing the number of single occupancy vehicles to the site. Preferential carpool or vanpool spaces should also be provided at the project site to encourage ridesharing by patrons and employees. The casino should provide employee incentives such as subsidized transit passes, flexible work schedules, the validation of transit tickets to provide free return trips, or subsidized shuttle services.

**Table D 7 – Alternative D Mitigated Freeway Level of Service Summary**

US-101 Section/Ramp	Criteria		Existing		2008		2008 + Alt D		2008 + Alt D Mitigated		2020		2020 + Alt D		2020 + Alt D Mitigated		
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
<b>Northbound</b>																	
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	23.1	C	23.1	C	25.6	D	33.4	D	33.4	D	33.4
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	D	31.8	D	31.8	D	34.1	E	39.4	E	39.4	E	39.4
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	D	33.4	D	33.4	E	36.1	F	40.9	E	39.1	E	39.1
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	D	27.0	D	27.0	D	32.3	E	40.4	E	39.1	E	39.1
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	32.5	D	32.5	E	37.1	F	41.6	E	39.1	E	39.1
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	D	31.4	D	31.4	C	23.2	F	39.9	D	34.7	D	34.7
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	C	26.8	C	26.8	D	29.0	D	34.7	D	34.7	D	34.7
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	C	26.8	C	26.8	D	29.0	D	34.7	D	34.7	D	34.7
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	C	26.8	C	26.8	D	29.0	D	34.7	D	34.7	D	34.7
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	32.8	D	32.8	E	40.4	F	43.1	D	29.7	D	29.7
US-101 Between Wilfred Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	32.8	D	32.8	E	40.4	F	43.1	D	29.7	D	29.7
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	32.8	D	32.8	E	40.4	F	43.1	D	29.7	D	29.7
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	23.2	C	23.2	D	29.7	D	31.7	D	31.7	D	31.7
<b>Southbound</b>																	
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	C	25.5	C	25.5	D	28.5	D	30.3	D	30.3	D	30.3
Santa Rosa Avenue SB On-Ramp	E	D	31.2	D	31.2	D	31.0	D	31.0	F	-	F	-	C	24.4	C	24.4
US-101 Between Santa Rosa Avenue and Wilfred Avenue (SB)	E	D	31.5	D	32.7	D	31.0	D	31.0	F	-	F	-	C	24.4	C	24.4
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	40.2	E	40.2	F	44.8	F	46.2	D	32.2	D	32.2
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	F	43.3	D	33.8	E	39.9	F	47.1	E	43.0	E	43.0
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	F	43.3	D	33.8	E	39.9	F	47.1	E	43.0	E	43.0
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	F	43.3	D	33.8	E	39.9	F	47.1	E	43.0	E	43.0
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	33.4	D	33.4	E	38.5	F	41.6	E	38.1	E	38.1
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	32.8	D	32.8	F	37.5	F	40.8	E	38.1	E	38.1
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	C	25.5	C	25.5	E	36.6	F	-	E	38.1	E	38.1
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	32.5	D	32.5	F	40.3	F	44.4	E	38.1	E	38.1
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	E	35.7	E	35.7	F	42.3	F	46.6	D	28.2	D	28.2
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	C	25.5	C	25.5	D	32.0	E	41.4	E	41.4	E	41.4

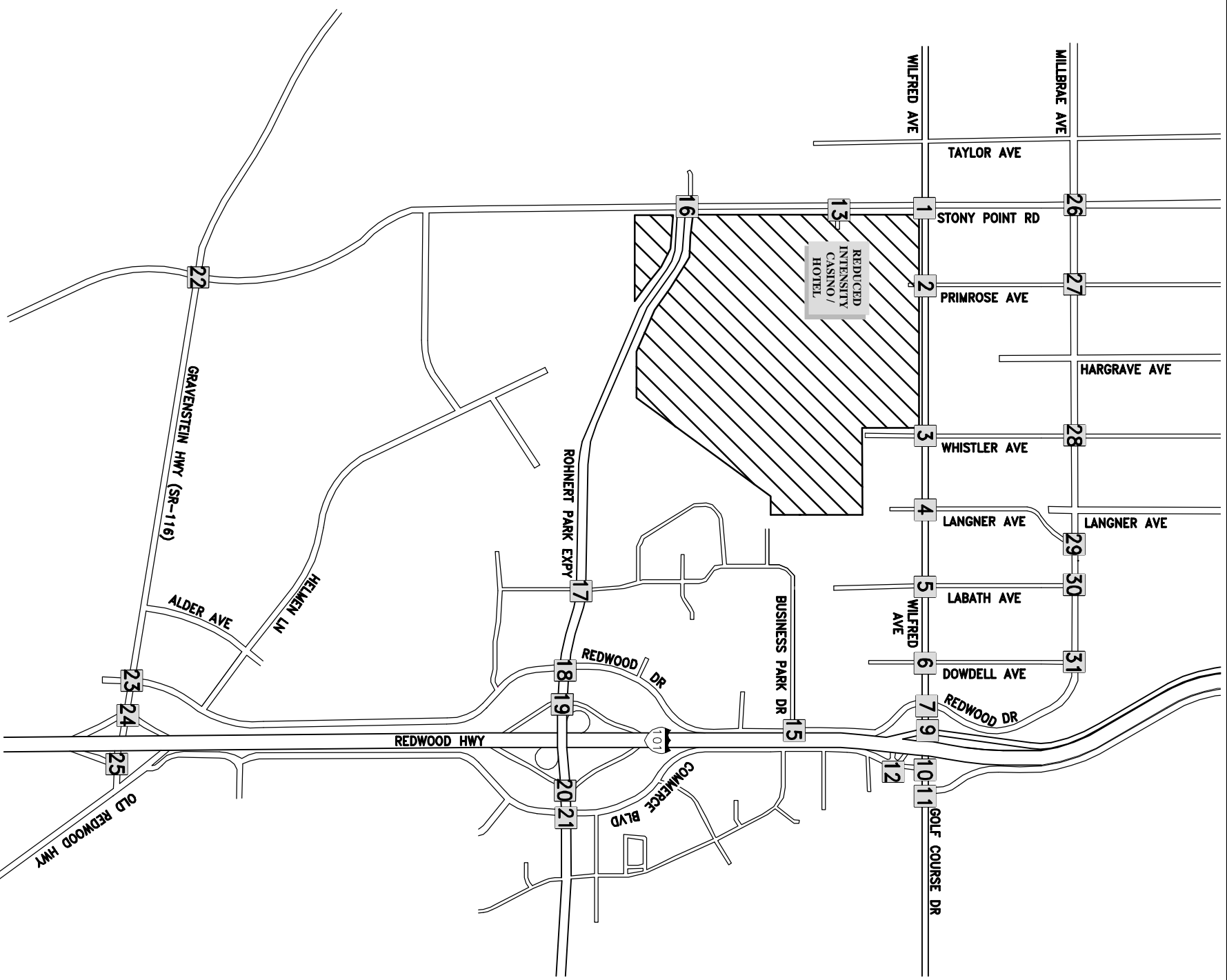
It is recommended that the casino contribute to the operation of SMART if it is implemented. Implementation of the SMART transit option will reduce the commuter congestion on US-101.

Mitigations to reduce the impact of the construction include the implementation of a construction traffic management plan for the duration of construction of the project and training for construction delivery vehicle drivers.

It is recommended that the project attempt to minimize the amount of construction fill transported on the surrounding street network by eliminating or shortening the off-site travel route. Potential options for eliminating off-site transport include moving fill material via conveyors across barriers such as creeks and ditches or installing temporary bridges for haul vehicles across the barriers.

If there is a special exception and off-site fill is necessary, construction material importation should be scheduled outside of the areawide commute peak hours. Debris along the truck route caused by trucks should be monitored daily and the roadways should be cleaned as necessary. Roadways subject to fill truck traffic should be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. If the third party determines that roadway deterioration has occurred as a result of casino construction, it is recommended that the developer pay to have surrounding roadways resurfaced to restore the pavement to the pre-construction condition, unless the resurfacing is already expected to occur within a year or sooner in conjunction with other planned or proposed roadway improvements.

To help ensure adequate public safety during construction, particularly near the project site, the tribe should provide flagging when necessary in consultation with CHP, Caltrans, and the County's Sheriff's Department to assist with traffic control.



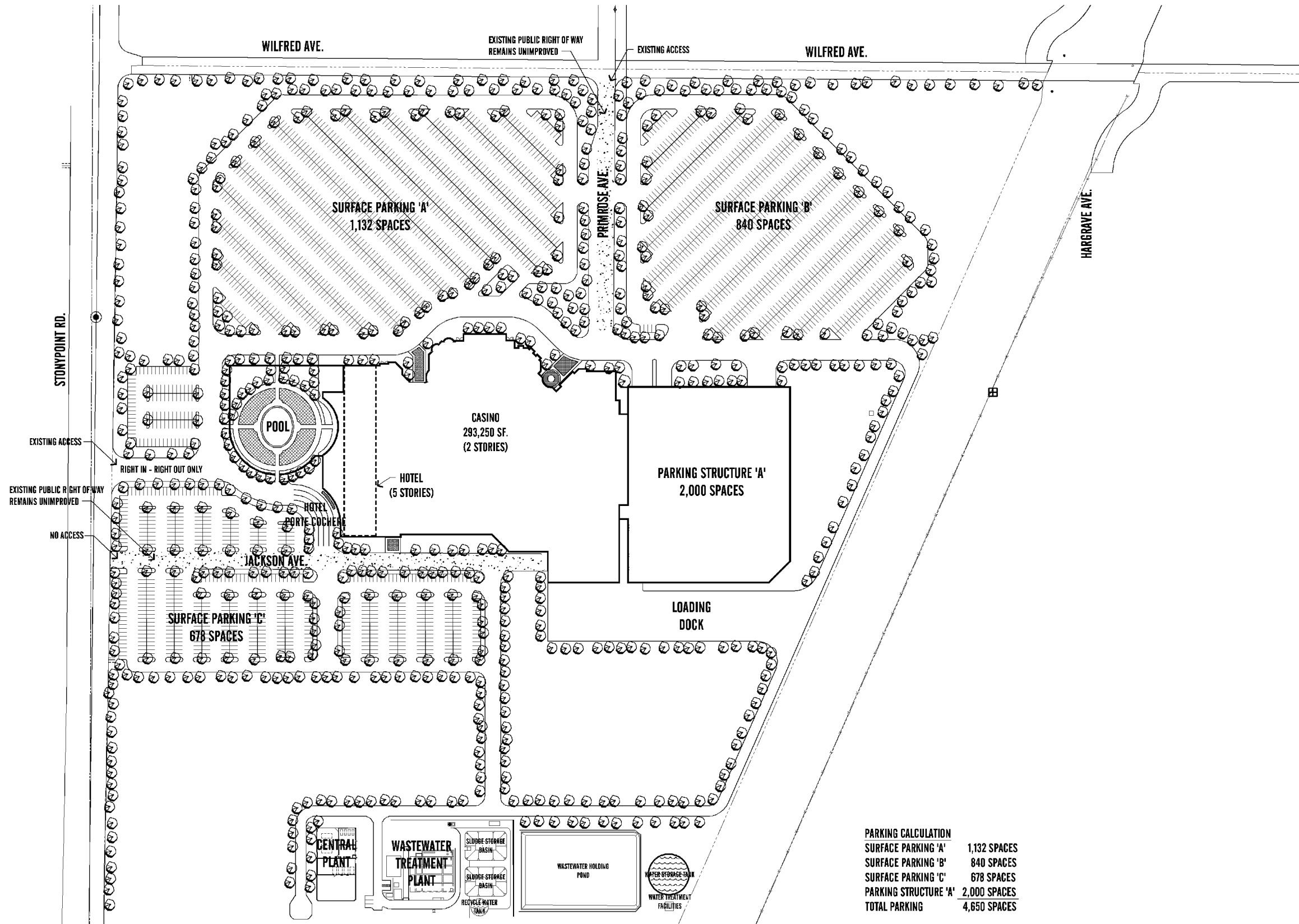
Graton Rancheria Alternative D - Rohnert Park, CA

PROJECT LOCATION

FIGURE D1



Kimley-Horn and Associates, Inc.



**PARKING CALCULATION**

SURFACE PARKING 'A'	1,132 SPACES
SURFACE PARKING 'B'	840 SPACES
SURFACE PARKING 'C'	678 SPACES
PARKING STRUCTURE 'A'	2,000 SPACES
<b>TOTAL PARKING</b>	<b>4,650 SPACES</b>



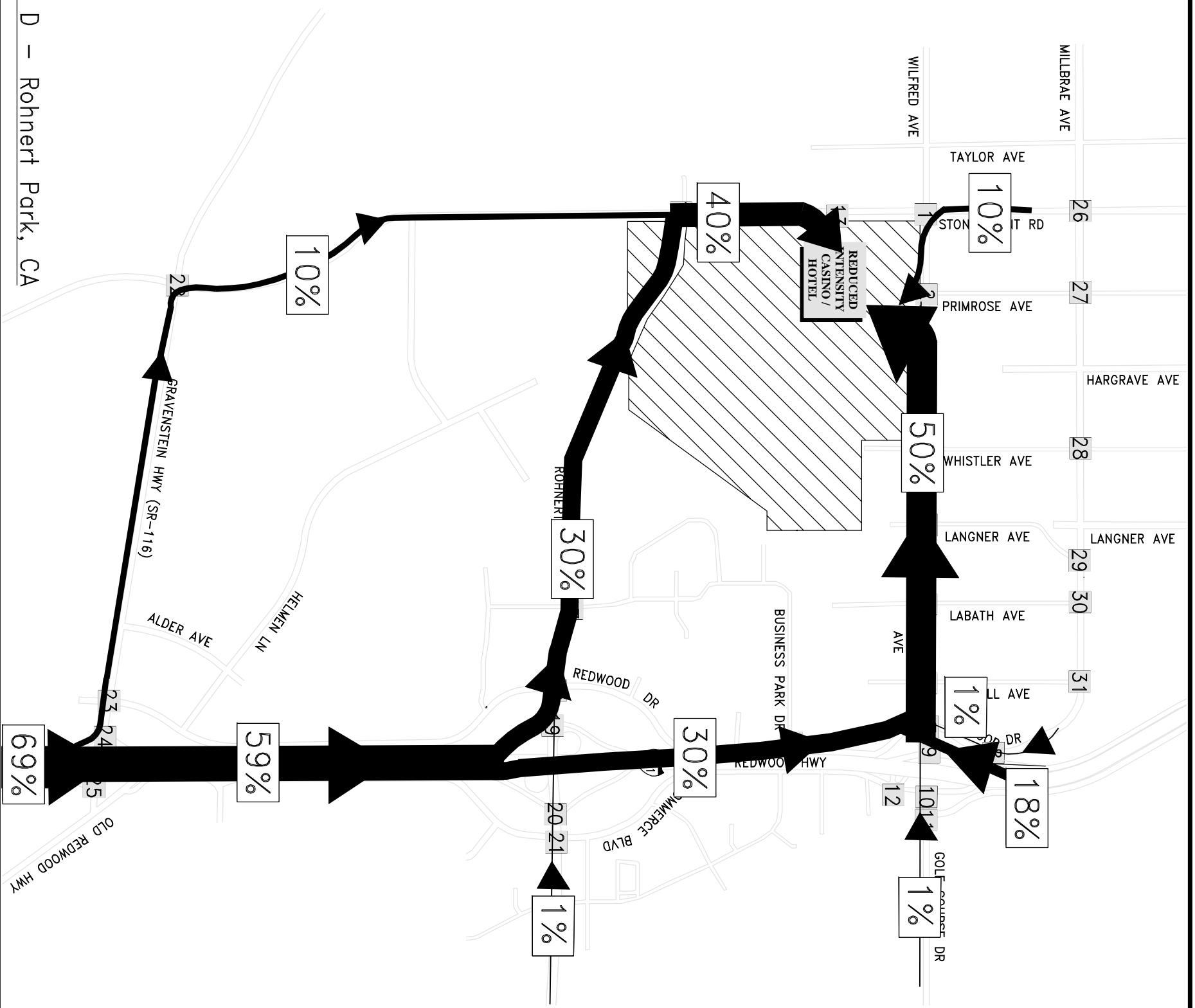
Graton Rancheria Alternative D – Rohnert Park, CA

SITE PLAN

FIGURE D2







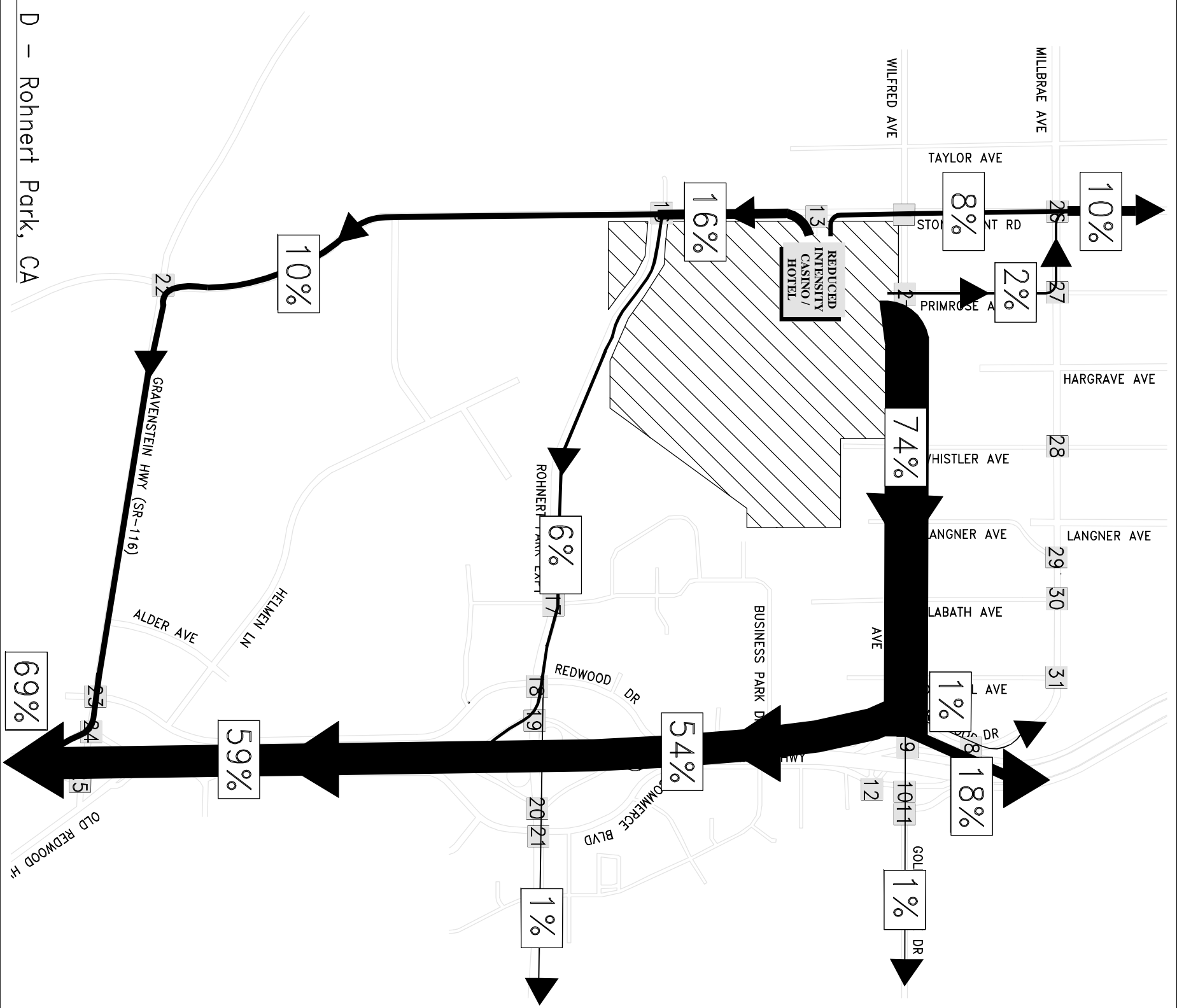
Graton Rancheria Alternative D - Rohnert Park, CA



FIGURE D3



Kimley-Horn and Associates, Inc.



Graton Rancheria Alternative D - Rohnert Park, CA

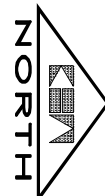
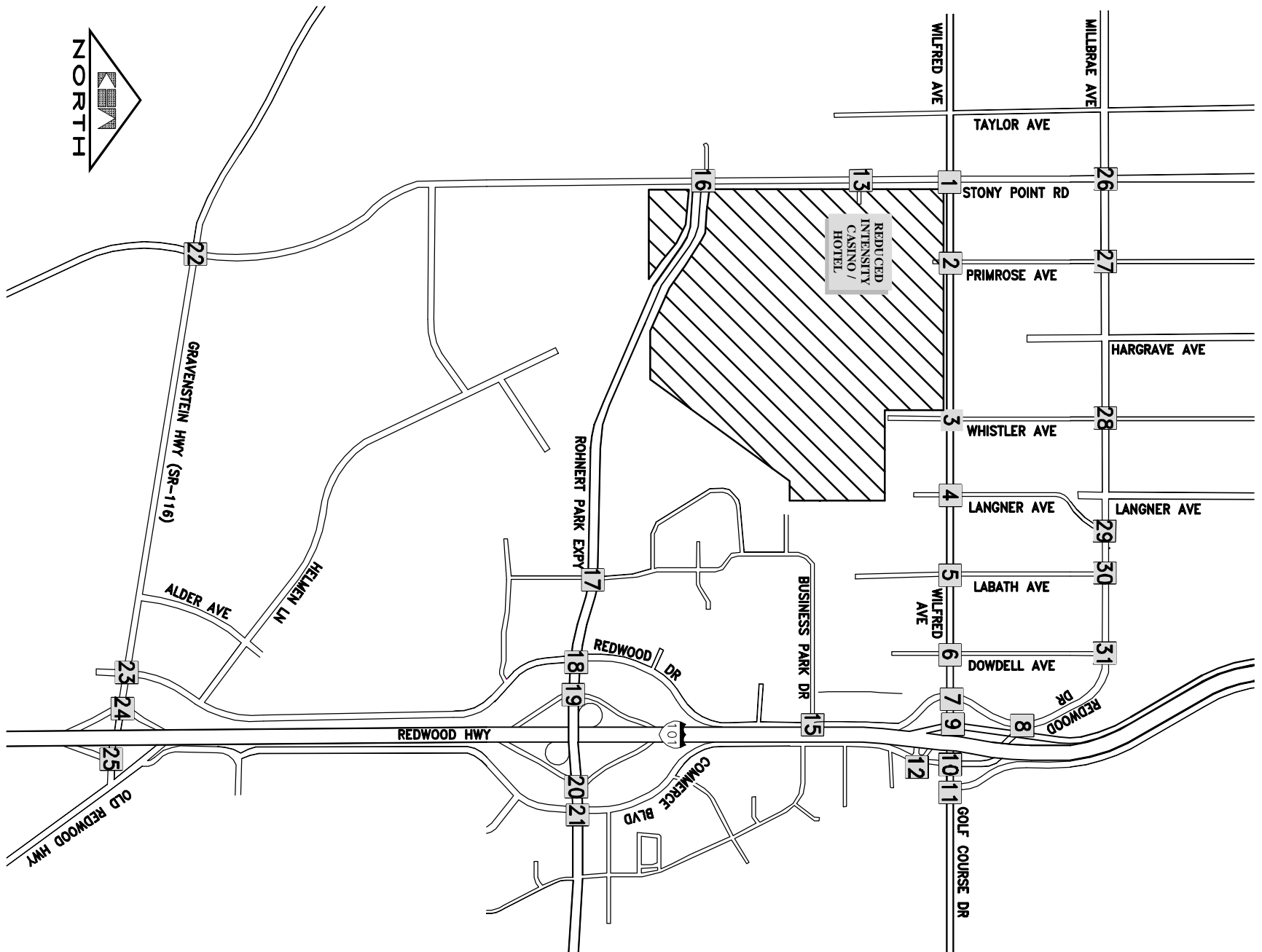
TRIP DISTRIBUTION - OUT

FIGURE D4



Kimley-Horn and Associates, Inc.

Graton Rancheria Alternative D – Rohnert Park, CA



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7	8 ←414 540 →	8	8 7	9	15 ←283 141 → 389	10	7 ←8 134 → 52	11	7 → ←8	12	134 ←254	
13	82 ←89 332	14	ALT. A INTERSECTION		15		16	77 ←251 18	17	43 → ←251	18	43 → ←251
16		20	7 → ←8 243	21	7 → ←8	22	77 ←81	23	77 → ←81	24	77 → ←81	
19	7 ←251 36	25	8 ←15 88	26	8 ←15 88	27	15	29		30		
25		28		29		30		31				

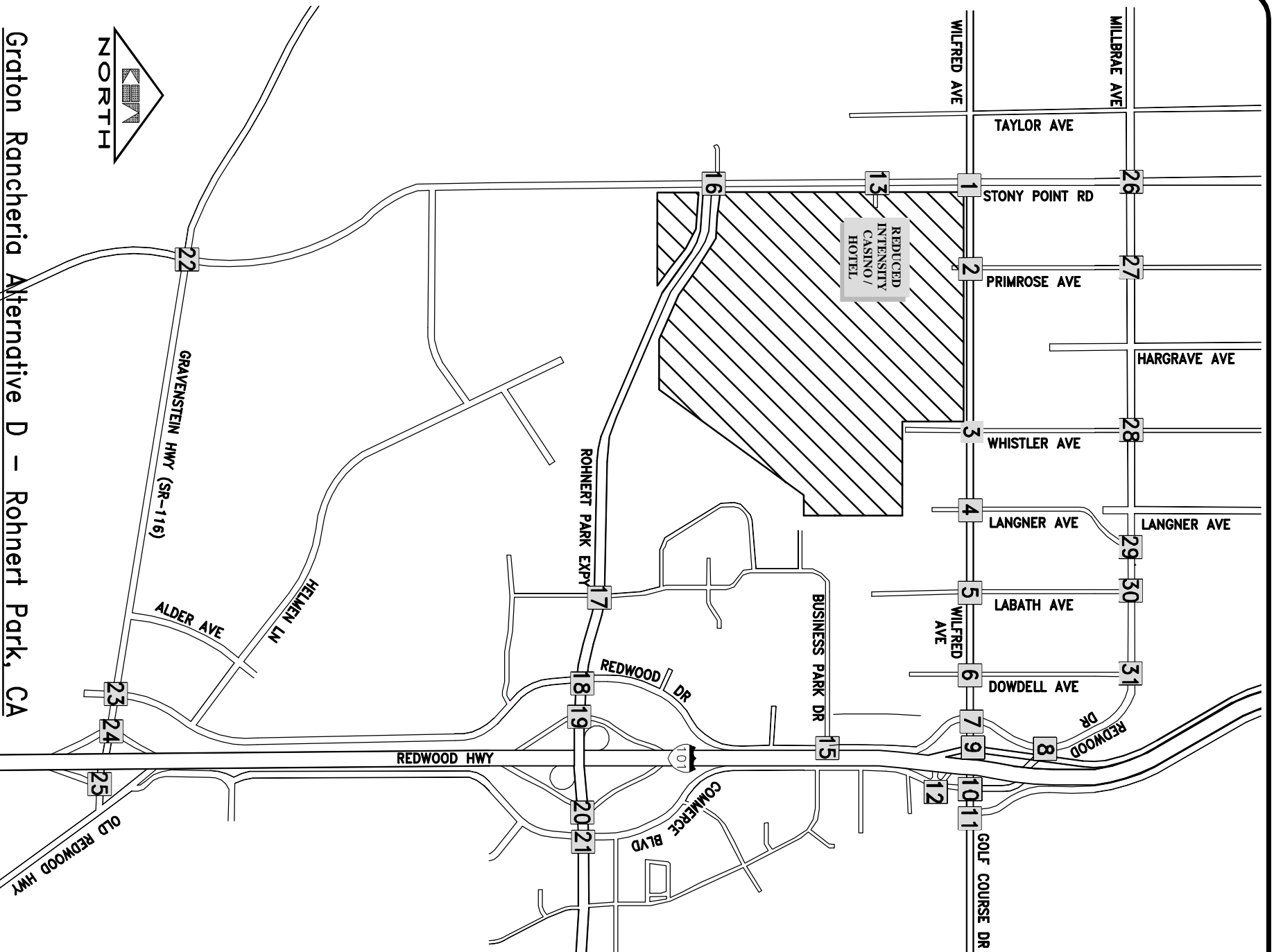
LEGEND

X STUDY AREA INTERSECTIONS

XX TRAFFIC VOLUMES

FIGURE D5

NEAR-TERM + PROJECT PM TRAFFIC VOLUMES



1	14 81 15 97 13 228 817 28	2	10 201 432 131 94 91 88 95	3	20 622 10 679 10 91 91	4	10 622 10 678 10 91 91	5	112 561 116 60 531 77 96 98	6	89 689 187 52 738 148 88 54 222		
7	801 131 151 101 780 166 640 633 181 201 51 52	8	802 96 95 5 30 140 5 5 5	9	919 225 282 739 89 878 618	10	117 352 413 17 54 641 565 176 95	11	362 28 645 188 977	12	5 3 8 641 3 14 89 2		
13	751 89 328 328	14	ALT. A INTERSECTION		15	172 89 83 84	16	537 257 127 151	17	88 271 626 50 643 36 154 626 202 51 51	18	389 24 907 371 233 744 146 389 96 907 371	
19	156 702 189 1275 81 1216 314 17	20	350 893 17 1638 273 306	21	170 779 141 270 1145 545 82 82 82	22	184 589 128 133 484 202 128 91	23	333 819 53 102 702 32 86 82 85	24	212 83 981 819 438	25	617 236 1461
26	617 236 1461	27	199 199 1 2 199 1	28	208 123 2	29	270 148 9	30	250 11 155 9	31	235 87 135 22		

LEGEND

X STUDY AREA INTERSECTIONS

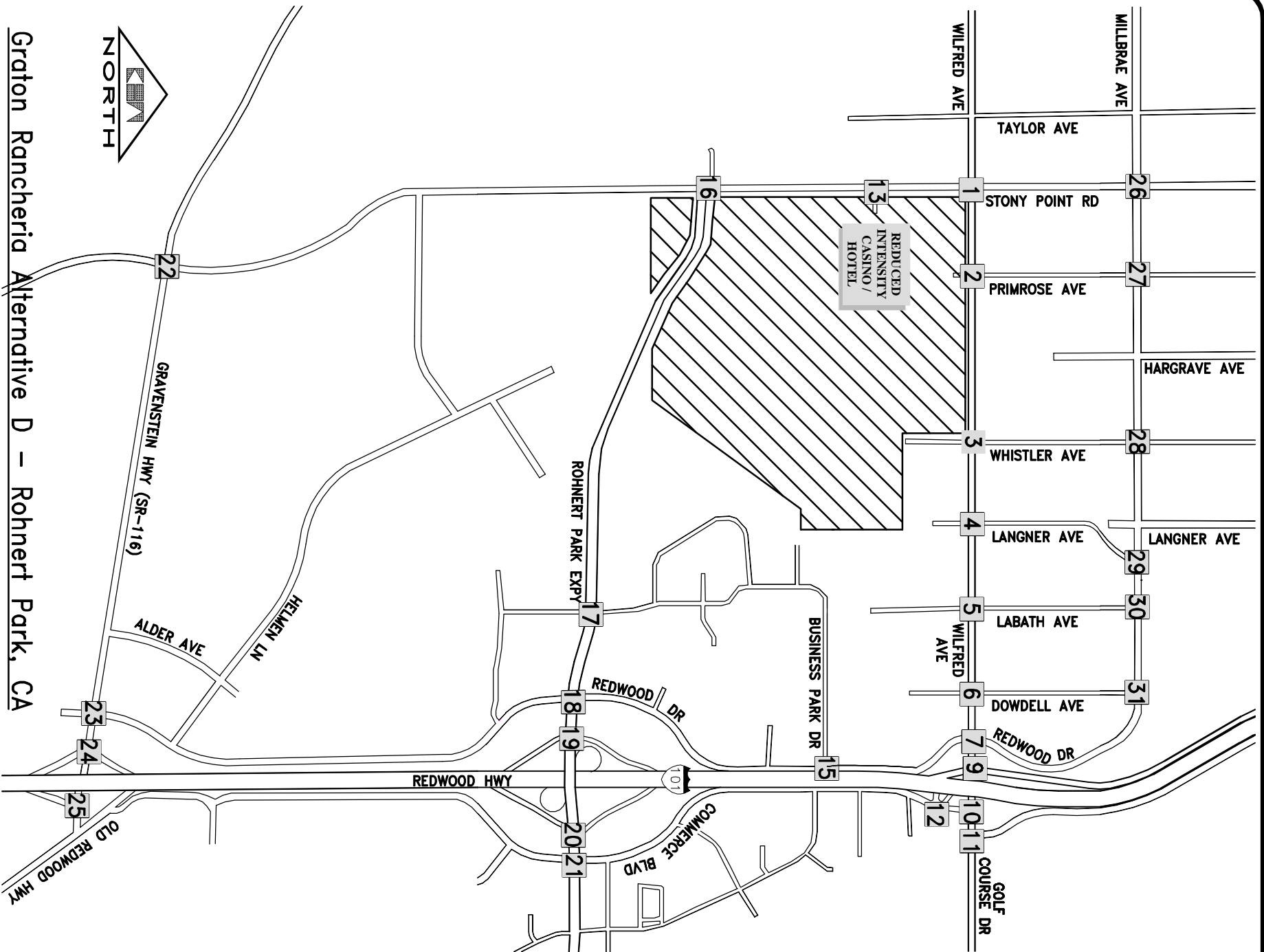
XX TRAFFIC VOLUMES



Graton Rancheria Alternative D - Rohnert Park, CA

FIGURE D6



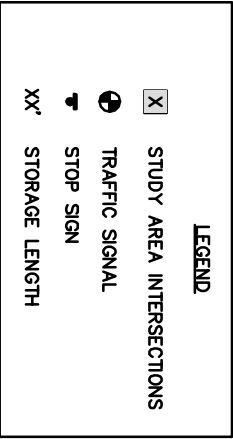
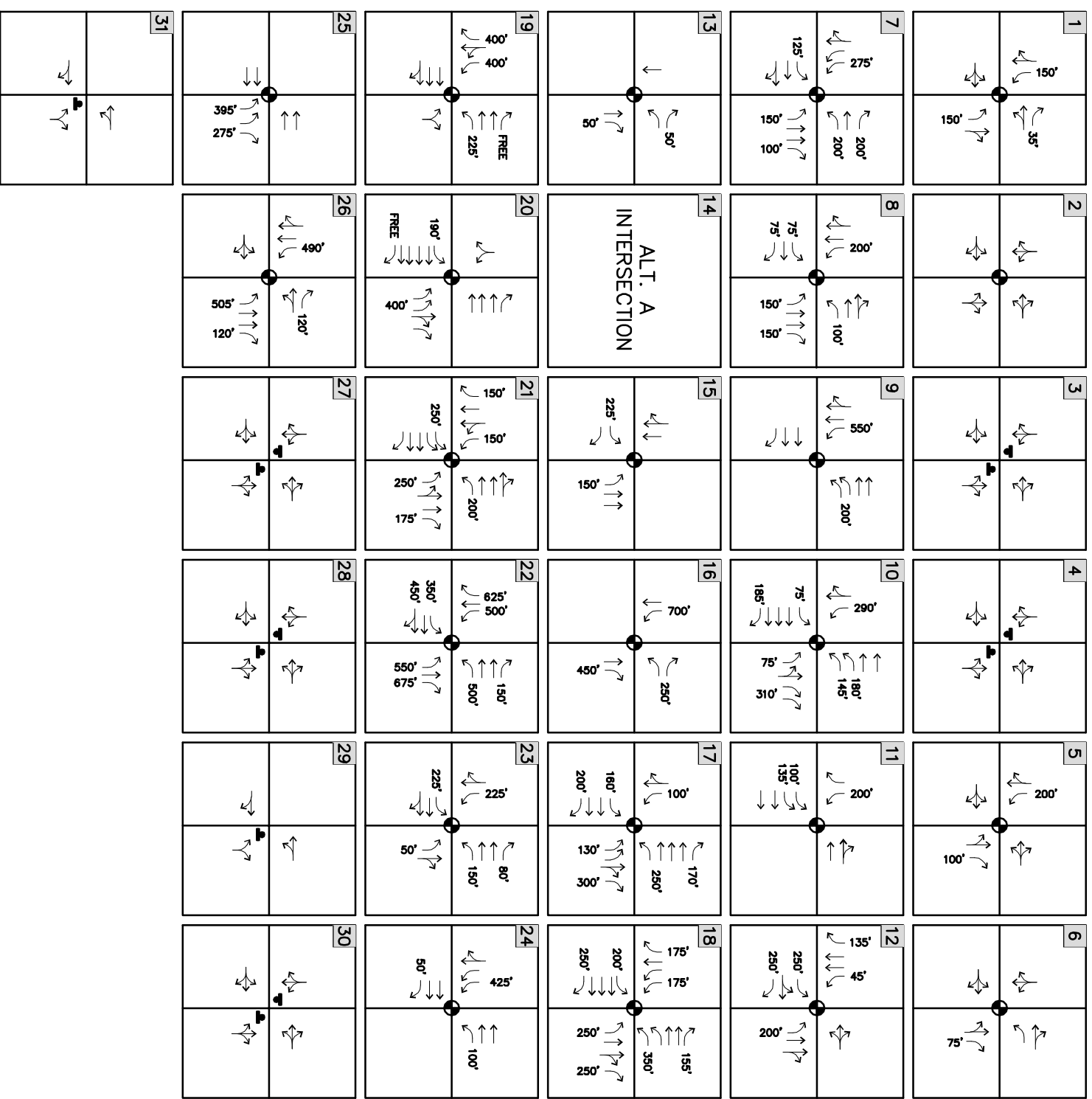
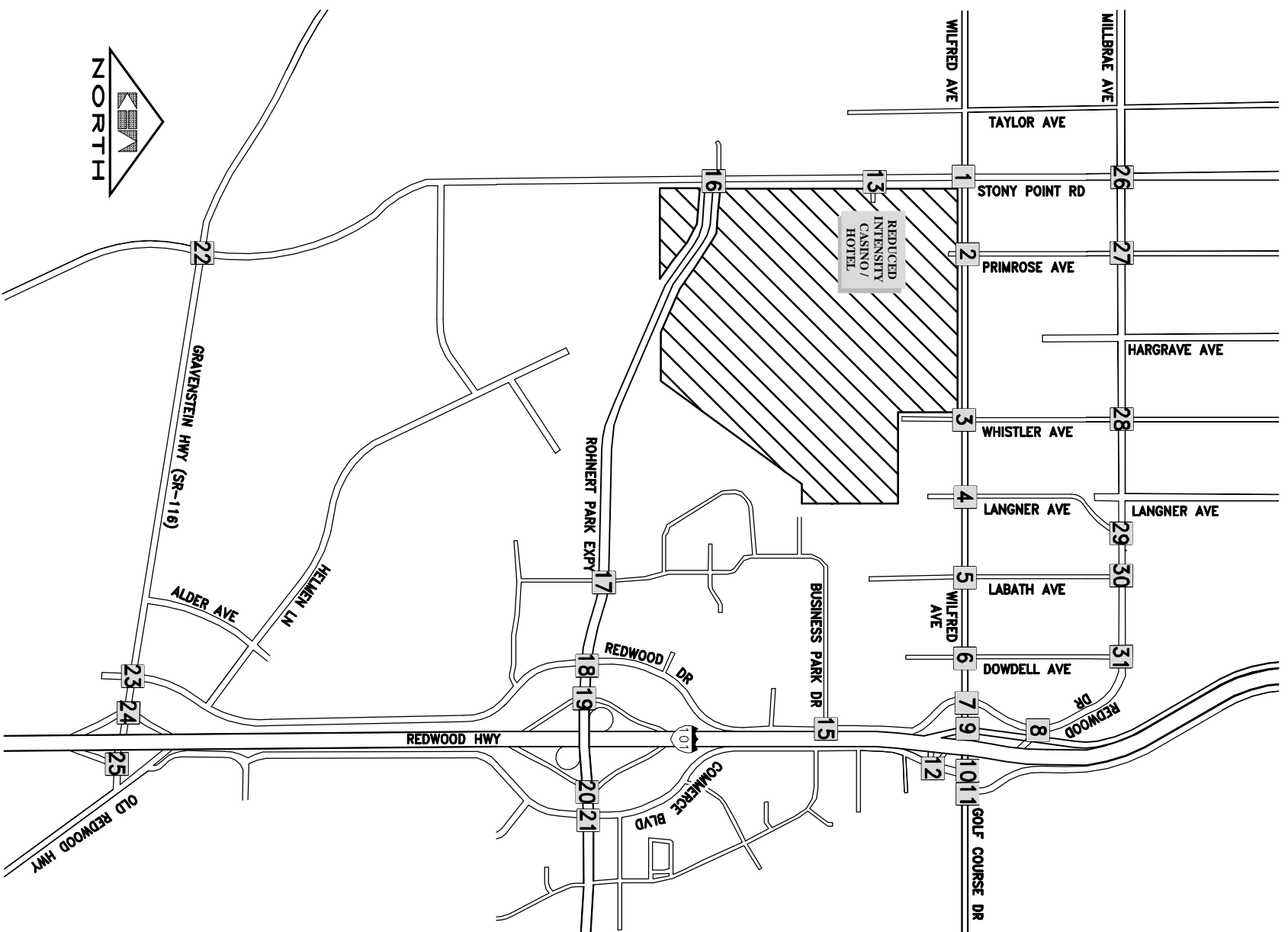


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LEGEND  
 X STUDY AREA INTERSECTIONS  
 XX TRAFFIC VOLUMES

FIGURE D7

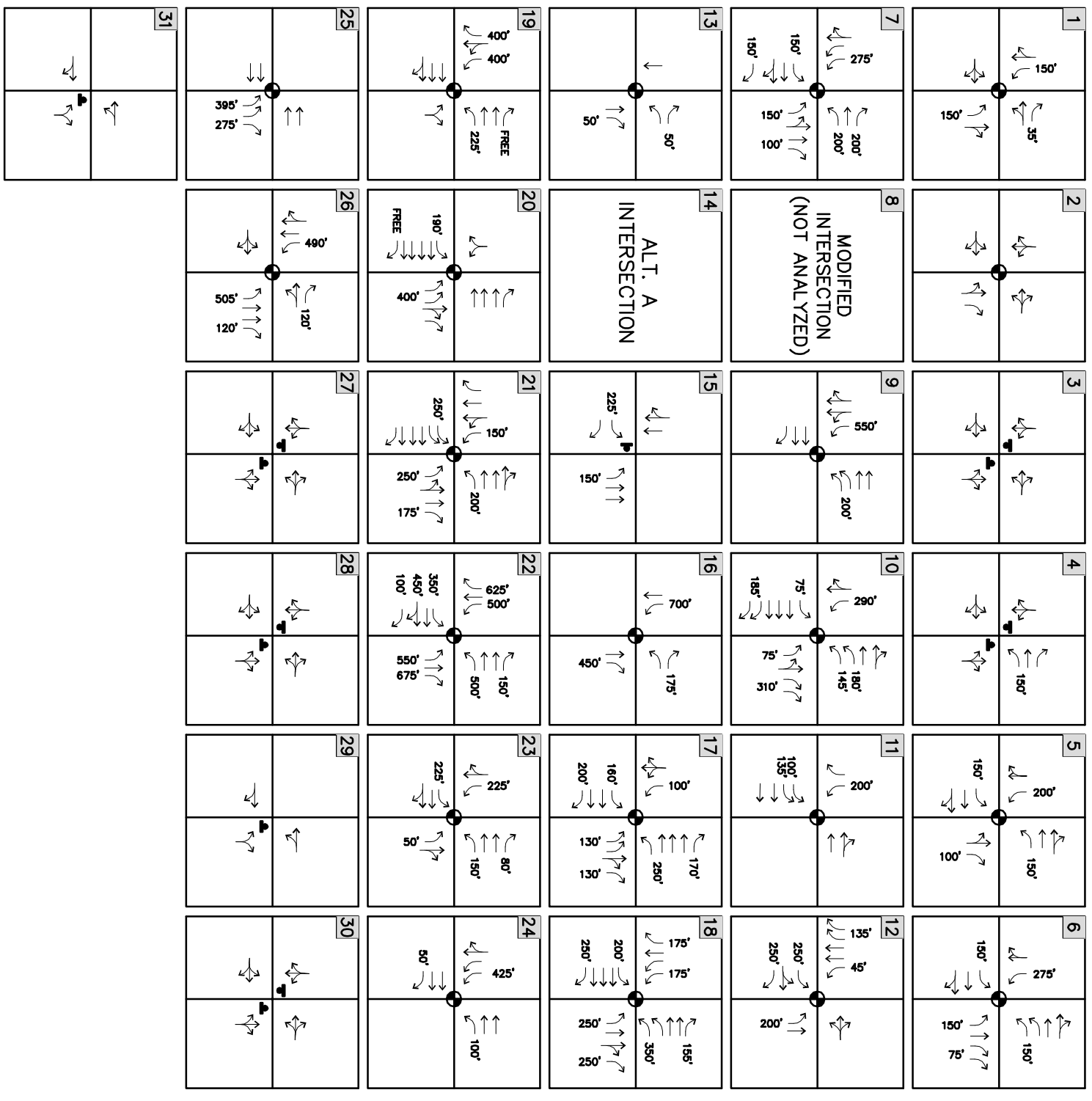
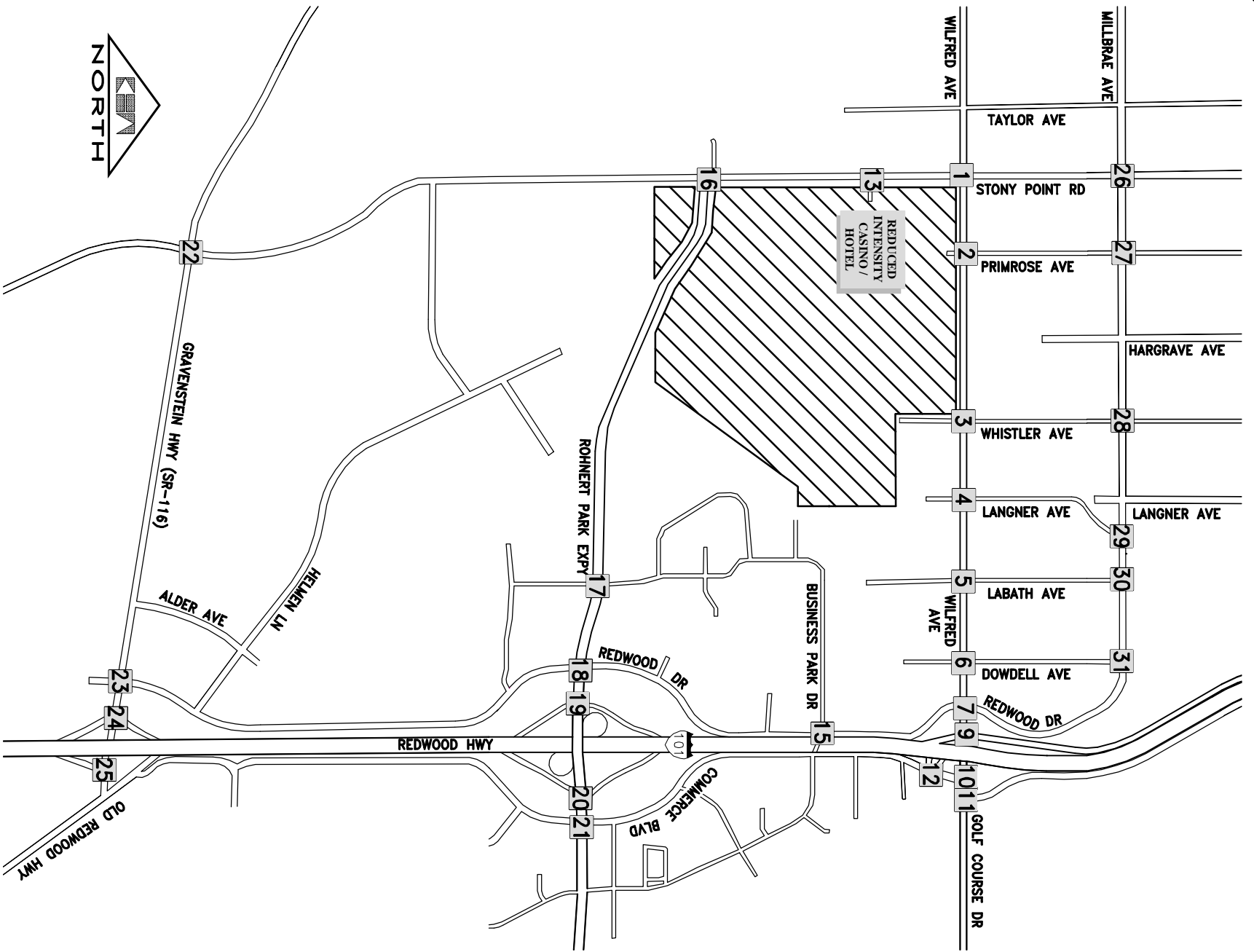
Graton Rancheria Alternative D - Rohnert Park, CA



Graton Rancheria Alternative D – Rohnert Park, CA

NEAR-TERM MITIGATED LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE D8



**LEGEND**

- X STUDY AREA INTERSECTIONS
- TRAFFIC SIGNAL
- ◼ STOP SIGN
- XX' STORAGE LENGTH

Graton Rancheria Alternative D – Rohnert Park, CA

LONG-TERM MITIGATED LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE D9



Kimley-Horn and Associates, Inc.

## ALTERNATIVE E – NORTHWEST STONY POINT BUSINESS PARK OPTION

The Alternative E business park option is proposed to be located as shown in **Figure E1**, which is bordered by Wilfred Avenue in the north, Rohnert Park Expressway in the south, Stony Point Road in the west, and Langner Avenue in the east.

**Figure E2** shows the proposed layout of six buildings and other related facilities located in the northwest corner of the site. The site layout includes approximately 400,000 square feet for light industrial uses and 100,000 square feet for commercial uses. The site plan also shows supporting uses such as parking lots and wastewater treatment facilities.

Within each alternative there is a reference made to the “project site” which changes for each alternative. There is not a specific project site that is being evaluated for all of the alternatives.

### Site Access

The main project access is from the south side of Wilfred Avenue, where an existing driveway aligns with Primrose Avenue. This approach is assumed to operate as a full movement driveway with no turn limitations.

A second project access from Stony Point Road is located on this plan approximately 880 feet south of the Stony Point Road/Wilfred Avenue intersection. The location is at an existing driveway access; however, due to conflicts with the northbound turn bay at the Stony Point Road/Wilfred Avenue intersection, the access is assumed to be limited to right in/out operation.

Neither access is currently signalized.

### Trip Generation – Alternative E

Trip generation was based on rates contained in the Institute of Transportation Engineer’s publication *Trip Generation, 7th Edition*. This manual is a standard reference used by jurisdictions throughout the country and is based on actual trip generation studies at numerous locations in areas of various populations.

Project trip generation for Alternative E is shown in **Table E1**. Additional trip generation calculations are contained in the **Appendix**. Because the project includes light industrial land uses, it is expected to include truck trips. However, no information in ITE *Trip Generation* was available regarding typical truck percentages for Land Use Code



110. Therefore, it was assumed that the trucks associated with the light industrial component of the project would be 10 percent of the total project traffic during the peak hour at the site. It should be noted that depending on the intersection location, the overall truck percentage is lower as project truck trips mix with other background traffic. Thus, the percentage of truck traffic diminishes away from the project site.

Sometimes developments attract trips that are already on the road that stop as they pass by the site. These are not new vehicle trips but are considered to be pass-by trips. Thus, a portion of the commercial trips will be attracted from Stony Point Road and Wilfred Avenue as they pass from their origin to their ultimate destination.

A pass-by reduction was applied to the project trip generation to determine the net new trips expected to be produced by the industrial and commercial center. Pass-by factors were derived from the Institute of Transportation Engineers *Trip Generation Handbook*. It should be noted that pass-by trips do not typically occur with industrial uses; therefore, pass-by rates were only applied to the commercial uses.

As seen in the table the project is expected to generate 471 new trips in the AM and 621 new trips in the PM peak hour. Although project trip generation was prepared for daily, AM, and PM periods, only the weekday PM traffic conditions were evaluated in this report because it represents the time period where the project will contribute to the greatest amount of congestion and potential mitigation. In addition, only PM peak hour future year traffic forecast data was available from the City of Rohnert Park to complete a cumulative traffic analysis of the proposed industrial and commercial development.

**Table E 1 – Alternative E Project Trip Generation**

LAND USE	Trips						
	Daily	AM Peak Hour			PM Peak Hour		
	Total	Entering	Exiting	Total	Entering	Exiting	Total
Light Industrial 400,000 s.f.	2,788	324	44	368	47	345	392
Commercial 100,000 s.f.	4,294	63	40	103	180	195	375
Subtotal	7,082	387	84	471	227	540	767
Commercial Pass-by Reduction	N/A	N/A	N/A	N/A	-70	-76	-146
Net New Vehicle Trips	7,082	387	84	471	157	464	621

### Project Trip Distribution and Assignment

Based on the factors discussed in the General Project Information section above it was determined that approximately 30% of the project traffic would be distributed to

destinations north of the site, with 20% directed to the Rohnert Park area, and the remaining 50% distributed south of the site. The project traffic distribution is shown in **Figure E3** and **Figure E4**. **Figure E5** illustrates project traffic assigned to the study intersections based on the assumed trip distribution. As seen in **Figure E5**, most of the project traffic is expected to come from the freeway therefore it was assumed that the majority of traffic would use Primrose Avenue because of its closer proximity to the freeway. As noted in the distribution, some traffic leaving the project site is expected to avoid congestion at Wilfred Avenue and Stony Point Road by using Millbrae Avenue.

### **Near-Term Plus Project Traffic Volumes**

Near-term 2008 traffic volumes were combined with vehicle trips expected to be generated by the industrial and commercial project. **Figure E6** illustrates the combined near-term turning movement volumes at the study intersections.

### **Long -Term Plus Project Traffic Volumes**

Long-term 2020 traffic volumes were combined with vehicle trips expected to be generated by the industrial and commercial project. **Figure E7** illustrates the combined long-term turning movement volumes at the study intersections.

### **Alternative E LOS Conditions and Impacts at Intersections**

Traffic operations were evaluated under the following development conditions:

- Near-term conditions with Alternative E (year 2008)
- Long-term Cumulative conditions with Alternative E (year 2020)

Results of the analysis are presented in **Table E2**. (Results shown as bold in the table do not meet operational standards.) The signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections. Additional detail is provided in the **Appendix**. As shown in the results, the following intersections and approaches will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic.

**Table E 2 – Alternative E Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008				2020			
				Existing		Base (w/o Proj.)		With Project		Base (w/o Proj.)		With Project	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	OVRFL	F	841.3	F	OVRFL
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	D	27.0	B	12.5	E	40.5
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	C	16.3	B	12.5	C	18.3
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	C	16.2	B	12.5	C	18.2
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	541.2	F	OVRFL	F	OVRFL
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	OVRFL	F	OVRFL	F	OVRFL
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	136.1	F	169.9	F	171.1
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	C	25.8	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	21.6	C	26.8	C	26.2
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	E	77.0	E	74.2	F	84.4
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	18.5	B	19.0	B	19.3
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	D	52.4	D	50.8	D	48.9
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	C	17.2	A	0.0	C	16.0
14	Business Park Dr/ Labath Ave	D	TWSC	-	-	-	-	-	-	-	-	-	-
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	C	16.7	C	16.7
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	C	27.2	B	18.5	C	25.5
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	C	27.0	C	28.2	C	30.4
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	25.7	C	29.1	C	28.5
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.7	B	16.0	B	15.9
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	11.5	B	12.3	B	13.0
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	C	30.8	E	63.4	E	68.8
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	37.4	D	45.5	D	45.6
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	C	26.7	D	42.4	D	45.8
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	B	18.8	B	18.1	B	18.0
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	10.9	B	11.5	B	11.6
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	E	46.0	F	90.2	F	109.6
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.5	B	12.4	B	12.4
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.5	B	12.5	B	12.5
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	A	9.9	B	11.3	B	11.3
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	11.7	B	14.7	B	14.7
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.7	B	11.7

### **2008 Results**

- Stony Point Road/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Millbrae Avenue/Stony Point Road

### **2020 Results**

- Stony Point Road/Wilfred Avenue
- Primrose Avenue/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Rohnert Park Expressway/Commerce Boulevard
- Millbrae Avenue/Stony Point Road

## **Alternative E Traffic Signal Warrant Analysis**

Alternative E, near-term and long-term, traffic volumes at unsignalized study intersections were compared against peak hour warrant in the *2003 Manual on Uniform Traffic Control Devices (MUTCD)* and the *California Supplement*.

Results of the analysis showed that the following intersections will satisfy traffic signal Warrant #3 by the year 2008 and 2020.

- Stony Point Road/Wilfred Avenue (2008 and 2020)
- Primrose Avenue/Wilfred Avenue (2008 and 2020)
- Labath Avenue/Wilfred Avenue (2008 and 2020)
- Dowdell Avenue/Wilfred Avenue (2008 and 2020)
- Millbrae Avenue/Stony Point Road (2008 and 2020)

Other warrants such as for minimum vehicle volumes, interruption of continuous traffic, and traffic progression were not evaluated because they generally require higher traffic volumes to be satisfied. Accident history and school areas were also not evaluated based on the results of field observations, which noted that neither of these warrant thresholds was likely to be met. A copy of the analysis summary for Warrant #3 is included in the **Appendix**.

## **Alternative E LOS Conditions and Impacts on Freeway and Ramps**

Project trips generated by the proposed Alternative E industrial and commercial development were added to the year 2008 and 2020 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2008 and 2020, with the addition on the industrial and commercial uses. Freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the analyses are presented in **Table E3**. (Results shown as bold in the table do not meet operational standards.) As shown in the table, project traffic will add to the background congestion of the freeway. Significant congestion is expected with the project: however the congestion is reduced as a result of the different land use.

### **Potential Conflicts with Special Event Traffic**

Potential conflicts with special event traffic from nearby performing arts venues will not occur under this Alternative due to the arrival and departure patterns associated with this type of land use. Periods of heavy traffic for the business park will not coincide with those of the performance venues.

**Table E 3 – Alternative E Freeway Levels of Service**

US-101 Section/Ramp	Criteria	Existing		2008		2008 + Alt E		2020		2020 + Alt E	
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
<b>Northbound</b>											
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	19.6	C	25.6	D	26.4
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	C	28.0	D	34.1	D	34.8
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	D	30.0	E	36.1	E	36.7
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	C	23.9	D	32.3	D	37.6
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	29.3	E	37.1	E	37.6
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	D	34.0	C	23.2	E	36.2
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	C	22.5	D	29.0	D	29.5
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	C	22.5	D	29.0	D	29.5
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	C	22.5	D	29.0	D	29.5
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	31.9	E	40.4	E	42.1
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	31.9	E	40.4	E	42.1
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	31.9	E	40.4	E	42.1
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	22.8	D	29.7	F	47.7
<b>Southbound</b>											
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	C	24.4	D	28.5	D	28.8
Santa Rosa Avenue SB On-Ramp	E	D	31.2	/	/	/	/	/	/	/	/
US-101 Between Santa Rosa Avenue and Wilfed Avenue (SB)	E	D	31.5	D	32.7	D	33.1	F	-	F	-
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	39.1	F	44.8	F	45.1
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	E	38.5	E	39.9	F	43.3
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	E	38.5	E	39.9	F	43.3
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	E	38.5	E	39.9	F	43.3
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	32.0	E	38.5	F	39.9
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	31.4	F	37.5	F	39.0
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	C	23.6	E	36.6	E	40.4
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	30.6	F	40.3	F	42.0
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	D	33.7	F	42.3	F	44.2
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	C	23.4	D	32.0	E	35.6

## Potential Effects on Intersection Safety

Traffic volumes generated by the project were reviewed in consideration of existing intersection collision history and the potential for increased accidents. According to collision data, accidents involving bicyclist and pedestrians are very low. Many intersections did not report any collisions of this type during the survey period. This suggests that bicycle and pedestrian volumes are relatively low and study intersections have minimal safety hazards for individuals biking or walking. Although the project will introduce increased traffic volumes at some intersections, bicyclists and pedestrians are expected to be able to travel through study intersections with similar levels of safety. Historically casinos do not attract a significant amount of bicycle and pedestrian traffic. . Therefore, the expected amount of pedestrian and bicycle traffic is nominal and a significant increase in bicycle and pedestrian accidents is unlikely.

The potential for increased collisions between motorized vehicles was also considered. Collision frequency and severity are a function of many complex factors that vary depending on the location and type of intersection or roadway segment. Factors include traffic control such as signals or stop signs, lane and shoulder widths, grades, driveway densities, roadside hazards or obstacles, presence of left and right turn lanes, sight distance, congestion, and others.

Because of the number and interrelationships of the variables, accurate crash prediction is difficult. However, the proposed casino and hotel project will increase roadway congestion, a factor which could result in an increase in traffic collisions if left unmitigated. Other factors are expected to remain unaffected.

As noted previously, the purpose of this study is to address the traffic and transportation effects of the proposed casino and hotel development. This includes mitigation improvements to restore traffic operations to levels within acceptable standards or to levels as good as or better than without the casino/hotel project. Any potential increases in accidents due to project-related traffic would be offset by the implementation of roadway improvements included as mitigation. Therefore, if mitigations are implemented as proposed in this report, no significant increase in daytime or nighttime collisions is expected.

## Potential Effects on Transit

The effect of the industrial/commercial uses on the proposed Sonoma-Marín Area Rail Transit (SMART) was also evaluated. It was determined that because the SMART system will operate during the AM and PM commute hours, some project employees may use the service, if a shuttle is provided between the SMART station and the project. The exact number is unknown but is not anticipated to be greater than for conventional transit. Therefore, the impact of this alternative on the SMART system is determined to be less than significant.

## Queuing Summary

As congestion increases it is common for traffic at signals and stop signs to form lines of stopped (or queued) vehicles. Queue lengths were determined for each lane and measure the distance that vehicles will backup in each direction approaching an intersection. The 95th percentile queue is calculated by using 95th percentile traffic to account for fluctuations in traffic and represents a condition where 95 percent of the time during the peak period, traffic volumes and related queuing will be at, or less, than determined by the analysis. Average queuing is generally less. Ninety-fifth percentile queuing was checked under the various future year development conditions and in consideration of the planned intersection and signal timing improvements. A typical vehicle length of 25 feet is used in the queuing analysis. A summary of the queuing results can be seen in **Table E4**. The results indicate dedicated turn lanes where queuing may exceed their storage limits. It should be noted that some variations in intersection queuing between scenarios is a result of planned intersection and signal timing improvements.





**Table E 4 – Alternative E Queuing Summary**

Intersection	Turning Movement	Bay Length	Queue Length		Intersection	Turning Movement	Bay Length	Queue Length	
			2008	2020				2008	2020
1 Stony Point Road and Wilfred Avenue	EBL				16 Stony Point Road and Rohnert Park Expy	EBL			
	EBR					EBR			
	WBL					WBL			
	WBR	35	OVRFLOVRFL	OVRFLOVRFL		WBR	175	57	52
	NBL	150	25	25		NBL			
	NBR					NBR	450	38	38
4 Langner Avenue and Wilfred Avenue	SBL	150	25	25	SBL	700	272	264	
	SBR				SBR				
	EBL				EBL	160	61	111	
	EBR				EBR	200	25	29	
	WBL	150		25	WBL	250	104	40	
	WBR				WBR	170	25	25	
5 Labath Avenue and Wilfred Avenue	NBL				NBL	130	36	38	
	NBR				NBR	130	36	37	
	SBL				SBL	100	193	202	
	SBR				SBR				
	EBL	150		25	EBL	200	133	111	
	EBR				EBR	200	25	25	
6 Dowdell Avenue and Wilfred Avenue	WBL	150		25	WBL	350	167	160	
	WBR				WBR	155	47	42	
	NBL				NBL	250	157	210	
	NBR				NBR	250	65	107	
	SBL				SBL	175	188	172	
	SBR				SBR	175	58	57	
7 Redwood Drive and Wilfred Avenue	EBL	150		25	19 SB US 101 Ramps and Rohnert Park Expy	EBL			
	EBR	150		182		EBR			
	WBL					WBL	225	71	71
	WBR					WBR			
	NBL					NBL			
	NBR					NBR			
8 Redwood Drive and Commerce Boulevard	SBL				SBL	400	318	238	
	SBR				SBR	400	209	255	
	EBL	150		195	EBL	190	25	25	
	EBR	150		268	EBR				
	WBL				WBL				
	WBR				WBR				
9 Wilfred Avenue and SB US 101 Ramps	NBL	150	402	1271	20 NB US 101 Ramps and Rohnert Park Expy	NBL	225	210	223
	NBR	100	95	110		NBR			
	SBL	275	351	350		SBL			
	SBR					SBR			
	EBL	75	25			EBL	250	87	66
	EBR	75	50			EBR			
10 Golf Course Drive and Commerce Blvd	WBL	100	25		21 Commerce Blvd and Rohnert Park Expy	WBL	200	187	222
	WBR					WBR	250	210	214
	NBL	150	131			NBL	175	56	58
	NBR	150	25			NBR	150	98	158
	SBL	200	40			SBL	150	51	47
	SBR					SBR	350	162	183
11 Roberts Lake Drive and Golf Course Drive	EBL				22 Stony Point Road and Gravenstein Hwy	EBL			
	EBR					EBR	500	155	170
	WBL	300	40	31		WBL	150	37	39
	WBR					WBR	550	296	298
	NBL					NBL	675	30	31
	NBR					NBR	500	161	176
12 Commerce Blvd and NB US 101 Ramps	SBL	250	229	251	23 Redwood Road and Gravenstein Hwy	SBL	625	49	54
	SBR					SBR	225	161	194
	EBL					EBL	150	69	58
	EBR					EBR	80	25	111
	WBL	150	786	1003		WBL	50	65	65
	WBR	150	342	411		WBR	225	388	556
13 Wilfred Avenue and SB US 101 Ramps	NBL				24 Gravenstein Hwy and SB US 101 Ramps	NBL			
	NBR					NBR			
	SBL	200	94	30		SBL	425	222	222
	SBR					SBR			
	EBL	80	95	50		EBL			
	EBR					EBR	50	101	121
14 Business Park Drive and Redwood Drive	WBL				25 Gravenstein Hwy and NB US 101 Ramps	WBL	100	108	78
	WBR					WBR			
	NBL					NBL			
	NBR					NBR			
	SBL	200	76	83		SBL	425	222	222
	SBR					SBR			
15 Stony Point Road and Millbrae Avenue	EBL	250	168	204	26 Stony Point Road and Millbrae Avenue	EBL			
	EBR	250	25	25		EBR			
	WBL					WBL			
	WBR					WBR			
	NBL	200	578	524		NBL	395	129	131
	NBR					NBR	275	178	205
16 Stony Point Road and Millbrae Avenue	SBL	100	25	25	26 Stony Point Road and Millbrae Avenue	SBL			
	SBR	175	107	142		EBL			
	EBL	225	97	40		EBR			
	EBR					WBL			
	WBL					WBR	120	38	126
	WBR					NBL	505	25	25
17 Labath Avenue and Rohnert Park Expy	NBL	150	25	25	26 Stony Point Road and Millbrae Avenue	NBR	120	25	25
	NBR					SBL	490	25	25
	SBL					SBR			
	SBR								
	EBL								
	EBR								

## Alternative E Mitigations

Intersections with levels of service below established thresholds were investigated to determine the role of the Alternative E traffic in the projected operating conditions at those intersections. The evaluation disclosed that the following improvements as shown in **Table E5** are needed in the near-term (2008) and long-term (2020).

The basis of the Alternative E mitigations is the assumption that intersection #13, the Project Driveway at Stony Point Road, should be relocated further south along Stony Point Road and be signalized so that it can function as a full movement access. This change permits more project traffic to conveniently arrive and exit from the site and use the Rohnert Park Expressway interchange, thus relieving some the traffic pressure through the Wilfred Avenue interchange.

In the event that intersection #13 cannot be relocated and signalized as discussed above, additional mitigation improvements will be needed, particularly at intersections surrounding the Wilfred Avenue interchange. The project will create a significant unavoidable impact at the intersection of Golf Course Drive/Commerce Boulevard regardless of whether intersection #13 is relocated.

**Table E6** summarizes the expected levels of service with the proposed mitigation. Roadway improvements will be consistent with design standards for local jurisdictions in providing facilities and amenities for bicycles and pedestrians. This includes improvements such as sidewalks, countdown signals, and striped crosswalks if required by local design standards.

As mentioned previously, the signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections.

**Figures E8 and E9** illustrate the mitigated lane geometry and traffic control.

A single asterisk in the table denotes an intersection that operates at an acceptable level of service and does not require mitigation, but a mitigated level of service and delay are provided for reference as a result of the mitigation to signalize the Project Driveway/ Stony Point Road which changes traffic patterns at some intersections. A double asterisk indicates an intersection where the delay increases as a result of the mitigation to signalize the Project Driveway/Stony Point Road intersection.

Traffic signal interconnect and coordinated timing plans are included in the proposed traffic signals for Wilfred Avenue. The combination of casino traffic and other nearby future development will require Wilfred Avenue to ultimately be widened to five lanes (including Class II bike lanes) from Redwood Drive to the Urban Growth Boundary. From Langner Avenue west to Stony Point Road, Wilfred Avenue should be three lanes with improved pavement and shoulders and it is recommended that the upgrade of Wilfred Avenue to include improved pavement and shoulders should be designed to the County standard and should include Class II bike lanes out to Stony Point Road to

connect into the Class II bike lanes on Stony Point Road. Casino traffic alone can be accommodated on a three lane roadway section from Redwood Drive to Stony Point Road, therefore, they will contribute a proportionate share for the ultimate cost of the widening of Wilfred Avenue.

Modification to any interchanges requires review and approval from Caltrans' Department Headquarters Division of Design.



**Table E 5 – Alternative E Summary of Mitigations**

Period	#	Intersection	Mitigation	Requires ROW?	Reason
2008	1	Stony Point Rd/ Wilfred Ave	• Signalize	No	Capacity
	2	Primrose Ave/ Wilfred Ave	No mitigation necessary	-	-
	3	Whistler Ave/ Wilfred Ave	No mitigation necessary	-	-
	4	Langer Ave/ Wilfred Ave	No mitigation necessary	-	-
	5	Labath Ave/ Wilfred Ave	• Signalize	No	Capacity
	6	Dowdell Ave/ Wilfred Ave	• Signalize	No	Capacity
	7	Redwood Dr/ Wilfred Ave	• Add EB right and change EB all-shared to left-through • Change WB left-through to through • Change phasing east-west to protected & permitted from split	Yes No No	Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	No mitigation necessary	-	-
	9	Wilfred Ave/ US-101 SB Ramps	No mitigation necessary	-	-
	10	Golf Course Dr/ Commerce Blvd	• Add an EB right overlap phase	No	Capacity
	11	Golf Course Dr/ Roberts Lake Rd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	No mitigation necessary	-	-
	13	Project Driveway/ Stony Point Rd	• Signalize • Add NB right and change NB through-right to through • Add WB left out of project driveway	No Tribe land Tribe land	Capacity Capacity Capacity
	14	Business Park Dr/ Labath Ave	Alternative A intersection	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	No mitigation necessary	-	-
	17	Rohnert Park Expwy/ Labath Ave	No mitigation necessary	-	-
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	• Add a second NB left turn lane	Yes	Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	No mitigation necessary	-	-
	22	Gravenstein Hwy/ Stony Point Rd	No mitigation necessary	-	-
	23	Gravenstein Hwy/ Redwood Dr	No mitigation necessary	-	-
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	• Signalize	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-



Period	#	Intersection	Mitigation	Requires ROW?	Reason
2020	1	Stony Point Rd/ Wilfred Ave	<ul style="list-style-type: none"> <li>● Signalize *</li> </ul>	No	Capacity
	2	Primrose Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>● Signalize</li> </ul>	No	Capacity
	3	Whistler Ave/ Wilfred Ave	No mitigation necessary	-	-
	4	Langer Ave/ Wilfred Ave	No mitigation necessary	-	-
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>● Signalize *</li> </ul>	No	Capacity
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>● Signalize *</li> <li>● Add SB left and change SB all shared to through-right</li> <li>● Add a second WB left</li> <li>● Add a NB left and NB right and change NB all shared to through-right</li> </ul>	No Yes Yes Yes	Capacity Capacity Capacity Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>● Change WB left-through to through *</li> <li>● Change NB through to through-left and change north-south phasing to split from protected</li> <li>● Change phasing east-west to protected from split *</li> <li>● Optimize signal timing</li> </ul>	No No No No	Capacity Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	Modified Intersection (not analyzed)	-	-
	9	Wilfred Ave/ US-101 SB Ramps	No mitigation necessary	-	-
	10	Golf Course Dr/ Commerce Blvd	<ul style="list-style-type: none"> <li>● Add an EB right overlap phase *</li> <li>● <b>Unavoidable Significant Impact</b></li> </ul>	No	Capacity
	11	Golf Course Dr/ Roberts Lake Rd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	No mitigation necessary	-	-
	13	Project Driveway/ Stony Point Rd	<ul style="list-style-type: none"> <li>● Signalize *</li> <li>● Add NB right and change NB through-right to through *</li> <li>● Add WB left out of project driveway *</li> </ul>	No Tribe land Tribe land	Capacity Capacity Capacity
	14	Business Park Dr/ Labath Ave	Alternative A intersection	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	No mitigation necessary	-	-
	17	Rohnert Park Expwy/ Labath Ave	No mitigation necessary	-	-
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>● Add a second NB left turn lane *</li> </ul>	Yes	Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	<ul style="list-style-type: none"> <li>● Optimize signal timing</li> <li>● Add a third EB through lane that merges back into 2 lanes east of the intersection</li> </ul>	No Yes	Capacity Capacity
	22	Gravenstein Hwy/ Stony Point Rd	No mitigation necessary	-	-
	23	Gravenstein Hwy/ Redwood Dr	No mitigation necessary	-	-
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	<ul style="list-style-type: none"> <li>● Signalize *</li> </ul>	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-

\* Improvement assumed to occur with 2008 mitigation



**Table E 6 – Alternative E Mitigated Intersection Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008						2020					
				Existing		Base (w/o Proj.)		With Project		Mitigated		Base (w/o Proj.)		With Project		Mitigated	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	OVRFL	B	17.5	F	841.3	F	OVRFL	C	20.2
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	D	27.0	C	19.4 *	B	12.5	E	40.5	A	8.5
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	C	16.3	C	16.3	B	12.5	C	18.3	C	18.3
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	C	16.2	C	16.2	B	12.5	C	18.2	C	19.3
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	541.2	C	34.0	F	OVRFL	F	OVRFL	C	31.9
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	OVRFL	C	21.0	F	OVRFL	F	OVRFL	D	35.8
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	136.1	D	51.1	F	169.9	F	171.1	D	45.5
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	C	25.8	C	26.5	-	-	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	21.6	C	21.7 *	C	26.8	C	26.2	C	22.0
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	E	77.0	D	43.7	E	74.2	F	84.4	E	55.3
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	18.5	B	18.4 **	B	19.0	B	19.3	B	19.4
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	D	52.4	D	47.4	D	50.8	D	48.9	D	43.1
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	C	17.2	A	6.9	A	0.0	C	16.0	A	6.7
14	Business Park Dr/ Labath Ave	D	TWSC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	D	27.5	C	16.7	C	16.7	C	16.7
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	C	27.2	C	27.2	B	18.5	C	25.5	C	25.5
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	C	27.0	C	27.0	C	28.2	C	30.4	C	30.4
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	25.7	C	25.7	C	29.1	C	28.5	C	29.0
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.7	B	17.8	B	16.0	B	15.9	B	17.2
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	11.5	A	8.7	B	12.3	B	13.0	B	10.5
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	C	30.8	C	33.5	E	63.4	E	68.8	C	31.3
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	37.4	D	37.4	D	45.5	D	45.6	D	45.6
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	C	26.7	C	26.7	D	42.4	D	45.8	D	45.8
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	B	18.8	B	18.8	B	18.1	B	18.0	B	18.0
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	10.9	B	10.9	B	11.5	B	11.6	B	11.6
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	E	46.0	B	10.0	F	90.2	F	109.6	B	10.5
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.5	B	11.5	B	12.4	B	12.4	B	11.8
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.5	B	11.5	B	12.5	B	12.5	B	12.5
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	A	9.9	A	9.9	B	11.3	B	11.3	B	11.3
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	11.7	B	11.7	B	14.7	B	14.7	B	14.7
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.4	B	11.7	B	11.7	B	11.7

Results indicate that the freeway will not meet standards with the project, even with the future construction of HOV lanes, ramp metering, and auxiliary lanes associated with the Wilfred interchange project. As mitigation the project should do the following which will result in the mitigated levels of service shown in **Table E7**:

- Adjust the ramp metering to account for the additional project traffic at the Wilfred Avenue interchange in the long-term (2020). Most metering adjustments can be minor and are not expected to have queuing effects on the local street network. However, the southbound on-ramp will require heavy metering to obtain an acceptable level of service for the freeway ramp merge area which may create a long queue backed up on the ramp.
- The project should contribute a proportionate share of the costs of the construction of auxiliary lanes between Rohnert Park Expressway and Gravenstein Highway (SR-116) in the long-term (2020).
- The project should contribute a proportionate share of the costs of the construction of the Wilfred Avenue interchange project, including HOV lanes, ramp metering, and auxiliary lanes in the near-term (2008).
- The project should contribute a proportionate share of the costs of the construction of an additional traffic lane in the southbound direction from Santa Rosa Avenue to Wilfred Avenue and from Gravenstein Highway (SR-116) to West Sierra Avenue in the long-term (2020).

Aside from roadway improvements to mitigate protect impacts, the industrial/commercial project should provide a shuttle that serves the two Rohnert Park transfer stations and the SMART rail station. The shuttle should run throughout the day.

Preferential carpool or vanpool spaces should also be provided at the project site to encourage ridesharing by employees. The casino should provide employee incentives such as subsidized transit passes, flexible work schedules, the validation of transit tickets to provide free return trips, or subsidized shuttle services.

It is recommended that the casino help contribute to the operation of SMART if it is implemented. Implementation of the SMART transit option will reduce the commuter congestion on US-101.

Mitigations to reduce the impact of the construction include the implementation of a construction traffic management plan for the duration of construction of the project and training for construction delivery vehicle drivers.

It is recommended that the project attempt to minimize the amount of construction fill transported on the surrounding street network by eliminating or shortening the off-site travel route. Potential options for eliminating off-site transport include moving fill material via conveyors across barriers such as creeks and ditches or installing temporary bridges for haul vehicles across the barriers.

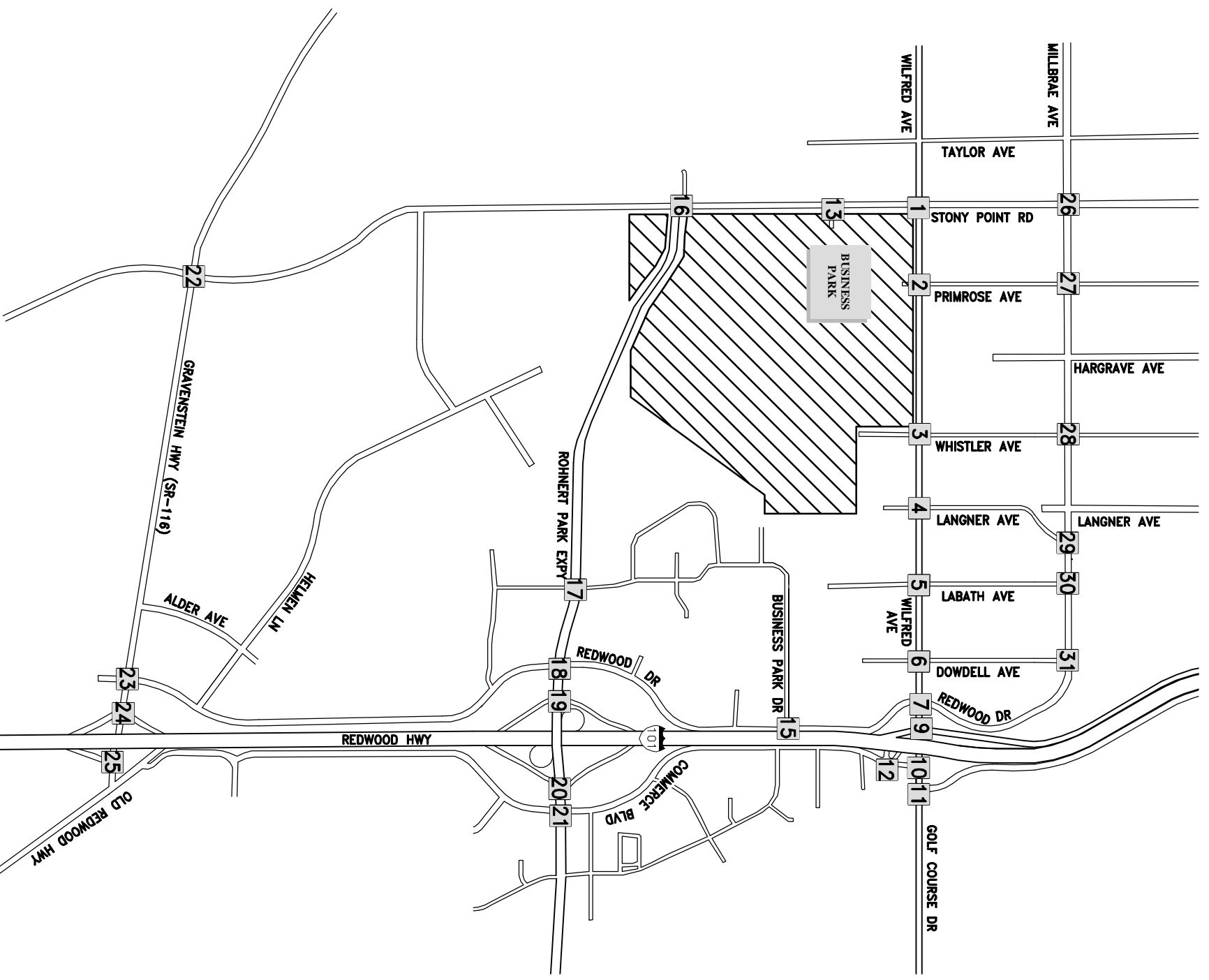
If there is a special exception and off-site fill is necessary, construction material importation should be scheduled outside of the areawide commute peak hours. Debris along the truck route caused by trucks should be monitored daily and the roadways should be cleaned as necessary. Roadways subject to fill truck traffic should be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. If the third party determines that roadway deterioration has occurred as a result of casino construction, it is recommended that the developer pay to have surrounding roadways resurfaced to restore the pavement to the pre-construction condition, unless the resurfacing is already expected to occur within a year or sooner in conjunction with other planned or proposed roadway improvements.

To help ensure adequate public safety during construction, particularly near the project site, the tribe should provide flagging when necessary in consultation with CHP, Caltrans, and the County's Sheriff's Department to assist with traffic control.



**Table E 7 – Mitigated Freeway Level of Service Summary**

US-101 Section/Ramp	Criteria	Existing		2008		2008 + Alt E		2020		2020 + Alt E		2020 + Alt E Mitigated	
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
<b>Northbound</b>													
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	19.6	C	25.6	D	26.4	D	26.4
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	C	28.0	D	34.1	D	34.8	D	34.8
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	D	30.0	E	36.1	E	36.7	D	33.3
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	C	23.9	D	32.3	D	37.6	D	33.3
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	29.3	E	37.1	E	37.6	D	33.3
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	D	34.0	C	23.2	E	36.2	E	36.2
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	C	22.5	D	29.0	D	29.5	D	29.5
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	C	22.5	D	29.0	D	29.5	D	29.5
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	C	22.5	D	29.0	D	29.5	D	29.5
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	31.9	E	40.4	E	42.1	E	42.1
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	31.9	E	40.4	E	42.1	E	42.1
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	31.9	E	40.4	E	42.1	E	42.1
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	22.8	D	29.7	D	31.0	D	31.0
<b>Southbound</b>													
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	C	24.4	D	28.5	D	28.8	D	28.8
Santa Rosa Avenue SB On-Ramp	E	D	31.2	/	/	/	/	/	/	/	/	/	/
US-101 Between Santa Rosa Avenue and Wilfed Avenue (SB)	E	D	31.5	D	32.7	D	33.1	F	-	F	-	C	23.6
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	39.1	F	44.8	F	45.1	D	64.0
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	E	38.5	E	39.9	F	43.3	E	42.7
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	E	38.5	E	39.9	F	43.3	E	42.7
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	E	38.5	E	39.9	F	43.3	E	42.7
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	32.0	E	38.5	F	39.9	E	36.2
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	31.4	F	37.5	F	39.0	E	36.2
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	C	23.6	E	36.6	E	40.4	E	36.2
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	30.6	F	40.3	F	42.0	E	36.2
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	D	33.7	F	42.3	F	44.2	C	26.9
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	C	23.4	D	32.0	E	35.6	E	35.6



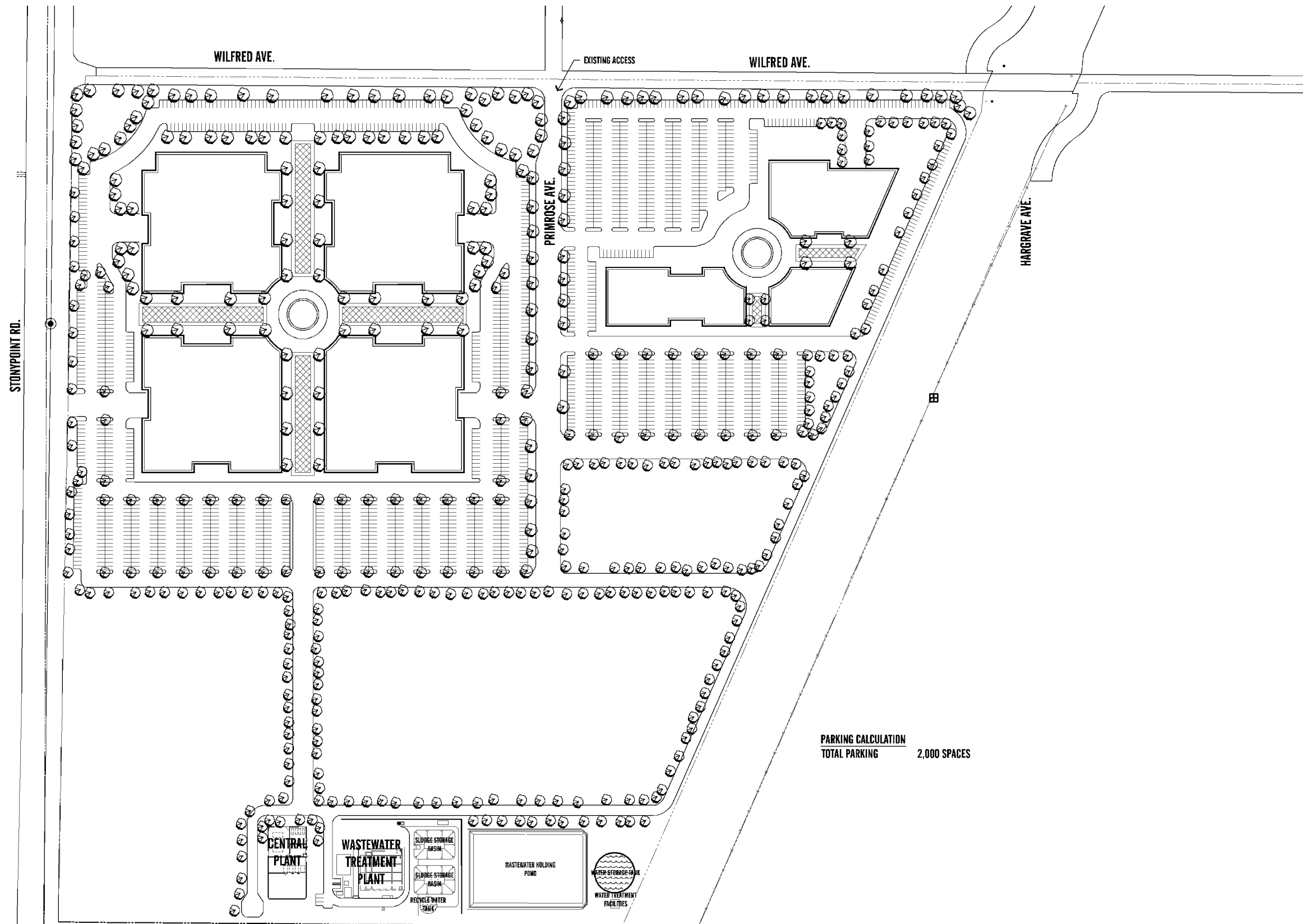
Graton Rancheria Alternative E - Rohnert Park, CA

PROJECT LOCATION

FIGURE E1



Kimley-Horn and Associates, Inc.



PARKING CALCULATION  
TOTAL PARKING 2,000 SPACES

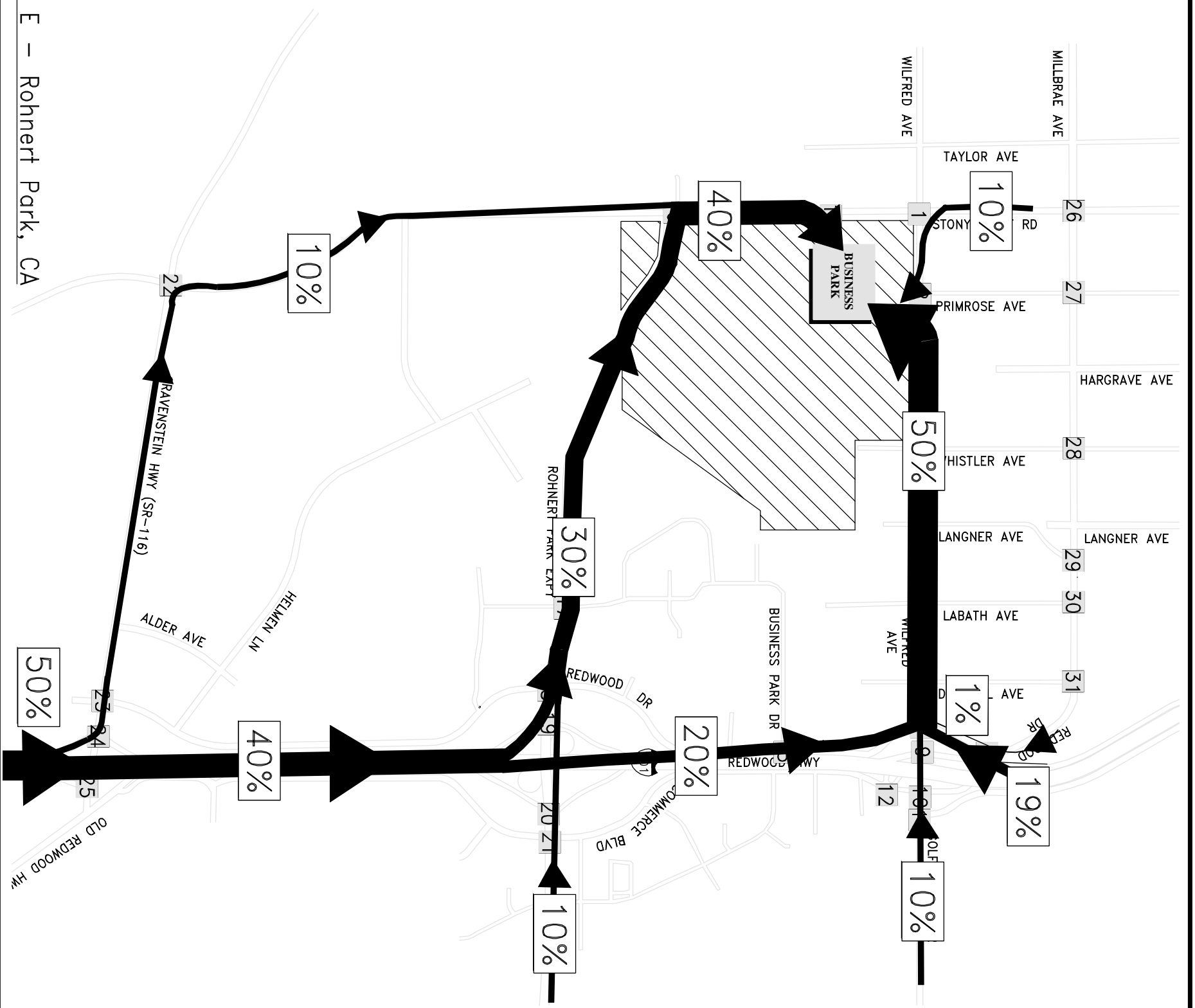


Graton Rancheria Alternative E - Rohnert Park, CA

FIGURE E2

SITE PLAN





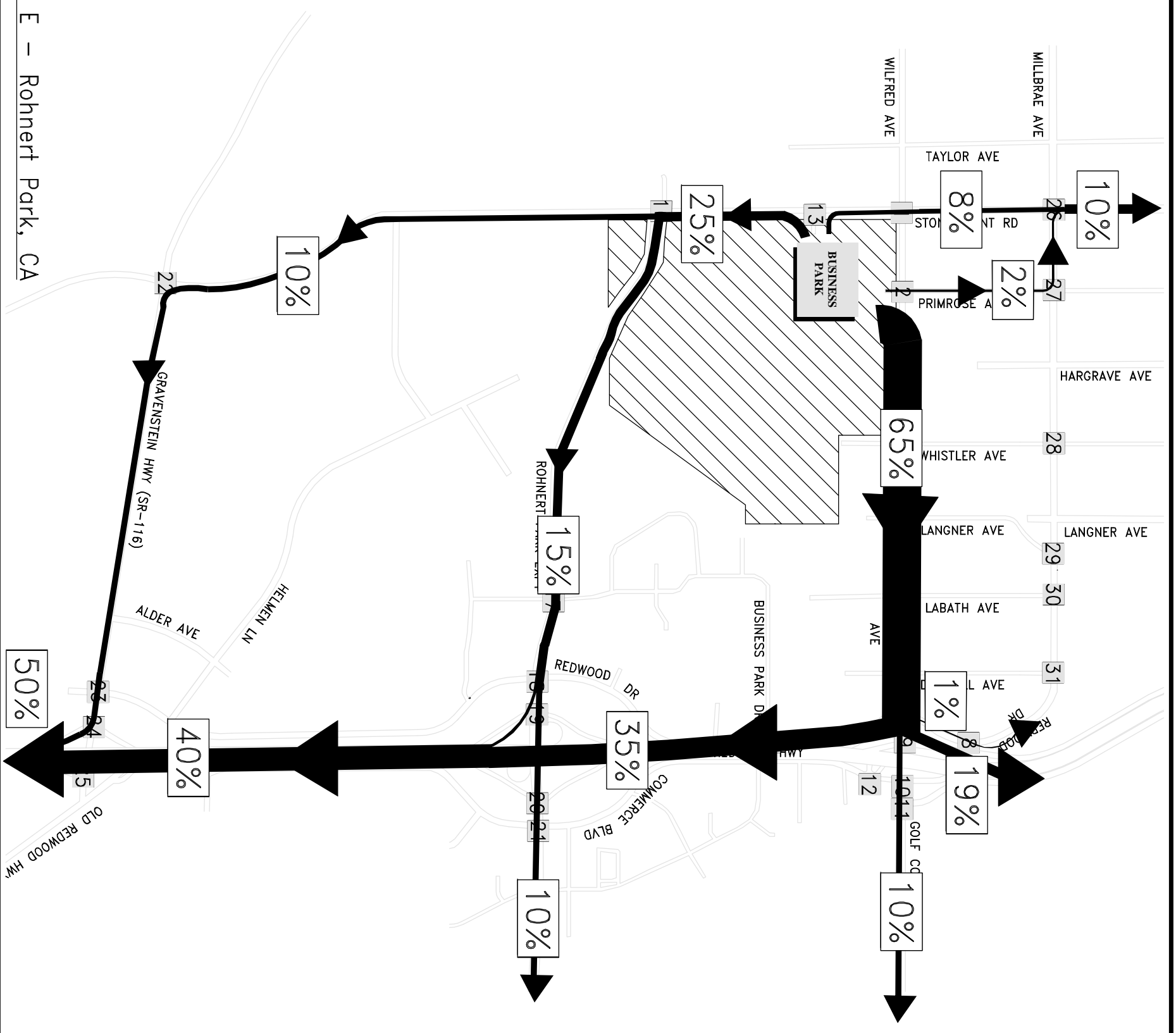
Graton Rancheria Alternative E - Rohnert Park, CA

TRIP DISTRIBUTION - IN

FIGURE E3



Kimley-Horn and Associates, Inc.



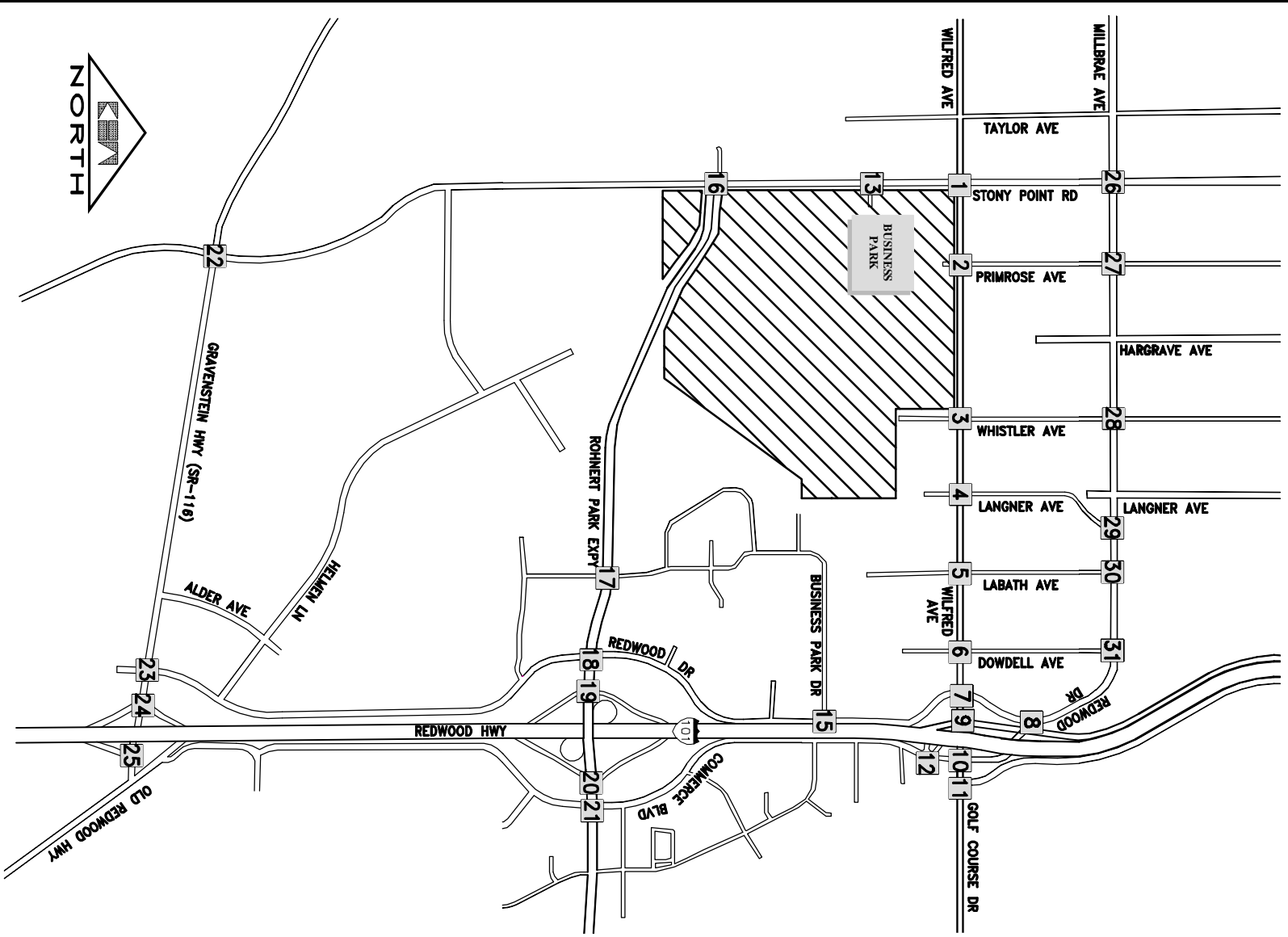
Graton Rancheria Alternative E - Rohnert Park, CA

TRIP DISTRIBUTION - OUT

FIGURE E4



Kimley-Horn and Associates, Inc.



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LEGEND

X STUDY AREA INTERSECTIONS

XX TRAFFIC VOLUMES

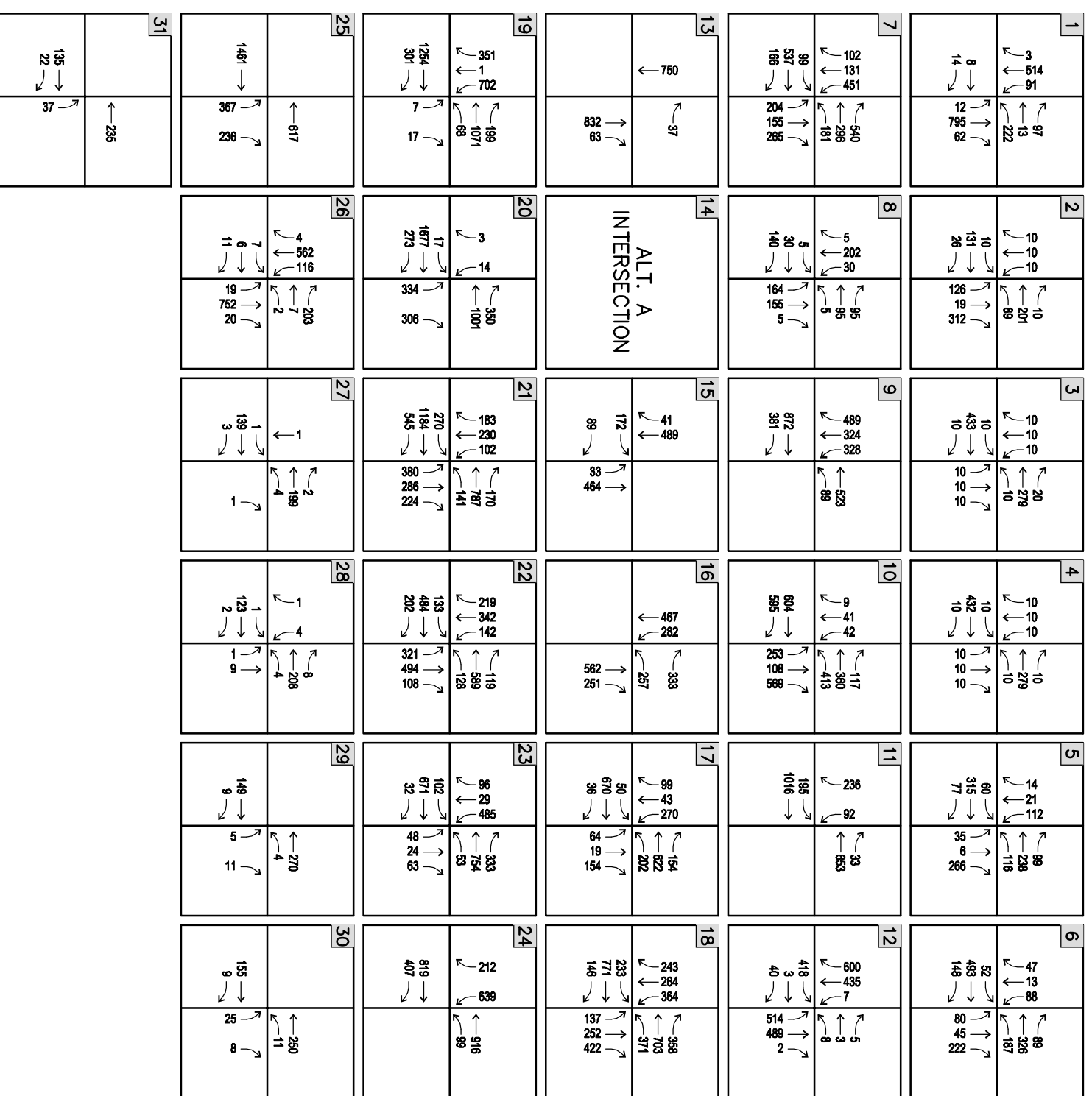
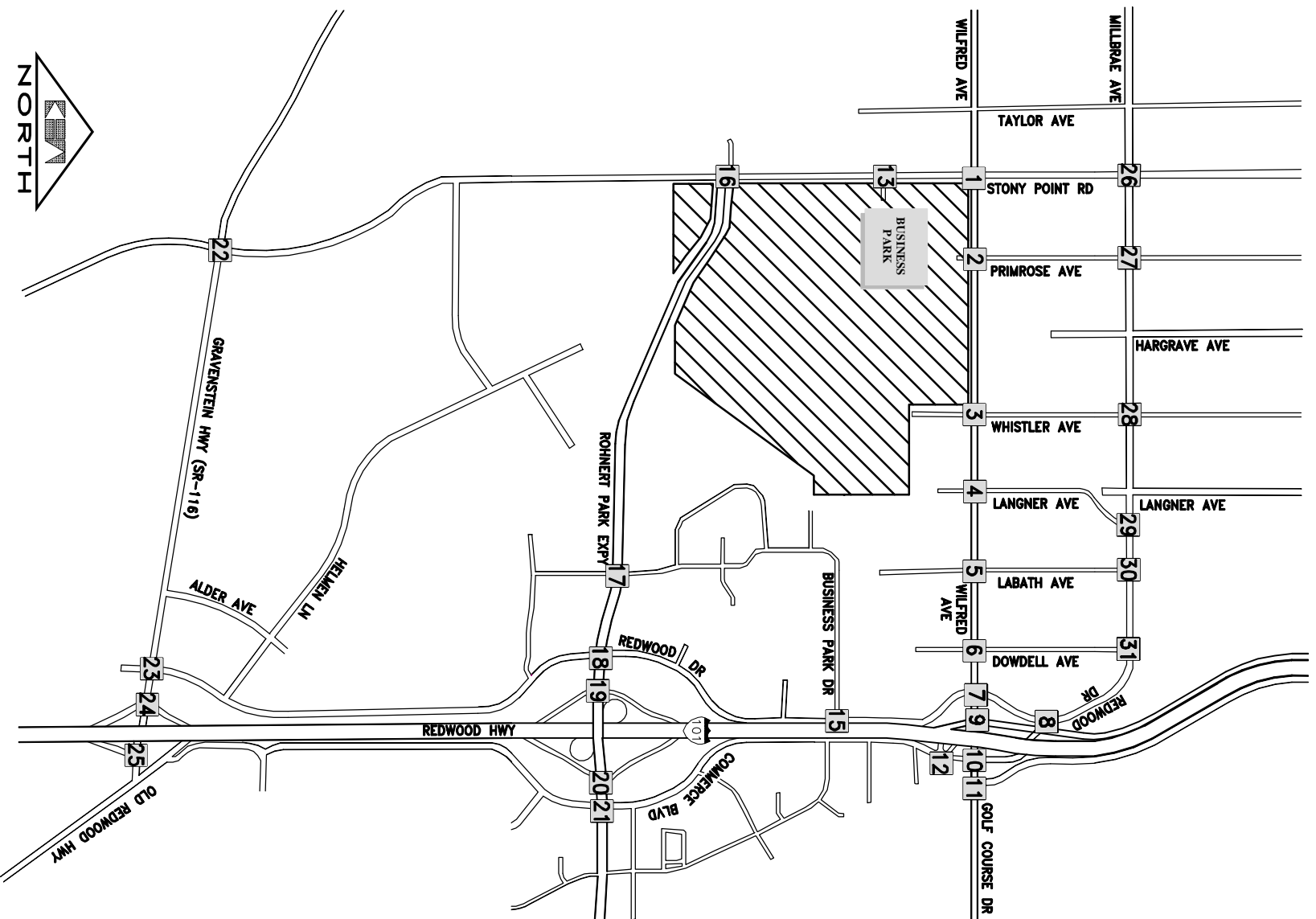
Graton Rancheria Alternative E – Rohnert Park, CA

PROJECT GENERATED PM TRAFFIC VOLUMES

FIGURE E5



Kimley-Horn and Associates, Inc.



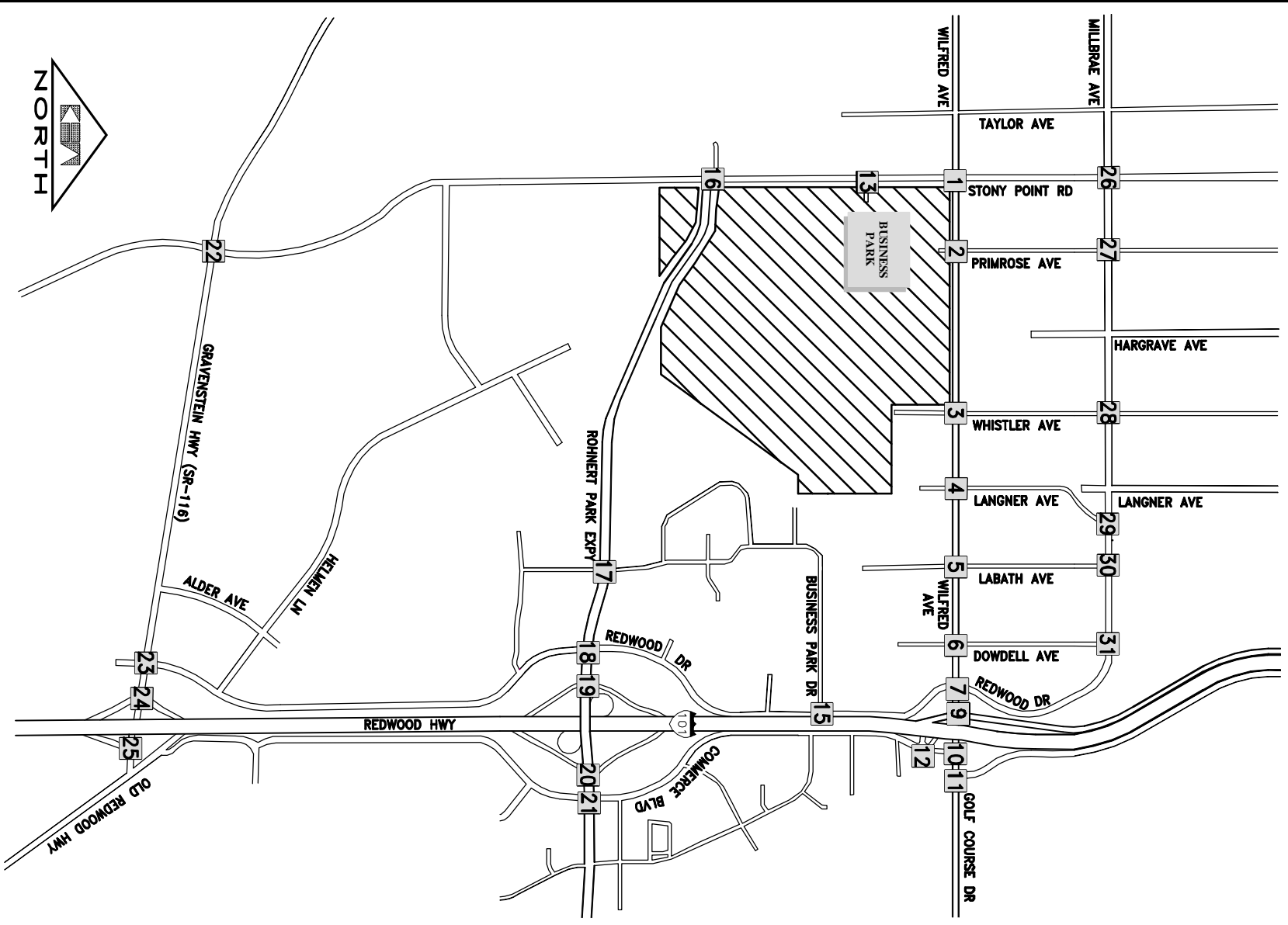
LEGEND  
 X STUDY AREA INTERSECTIONS  
 XX TRAFFIC VOLUMES

Graton Rancheria Alternative E - Rohnert Park, CA

NEAR-TERM + PROJECT PM TRAFFIC VOLUMES

FIGURE E6





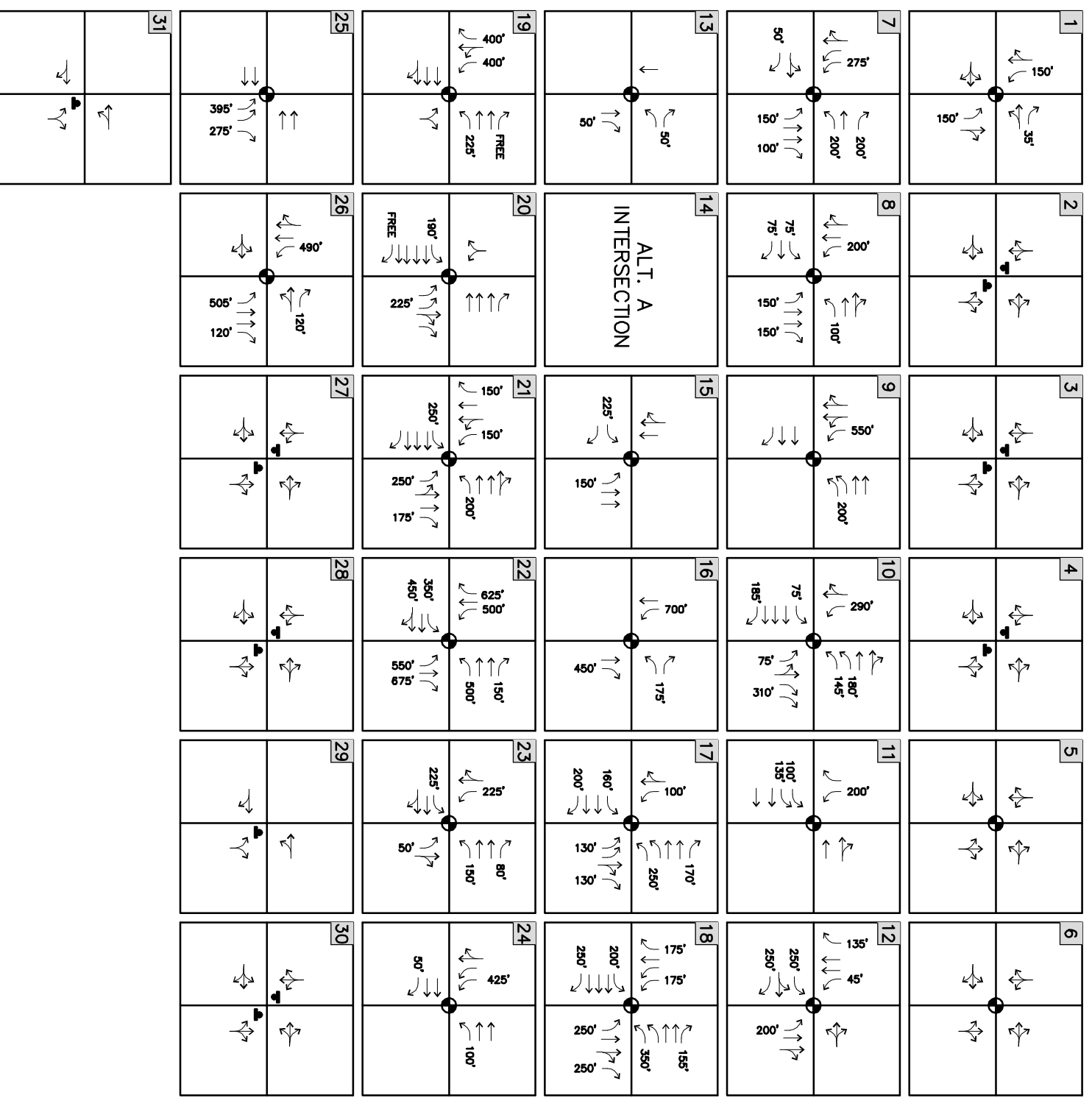
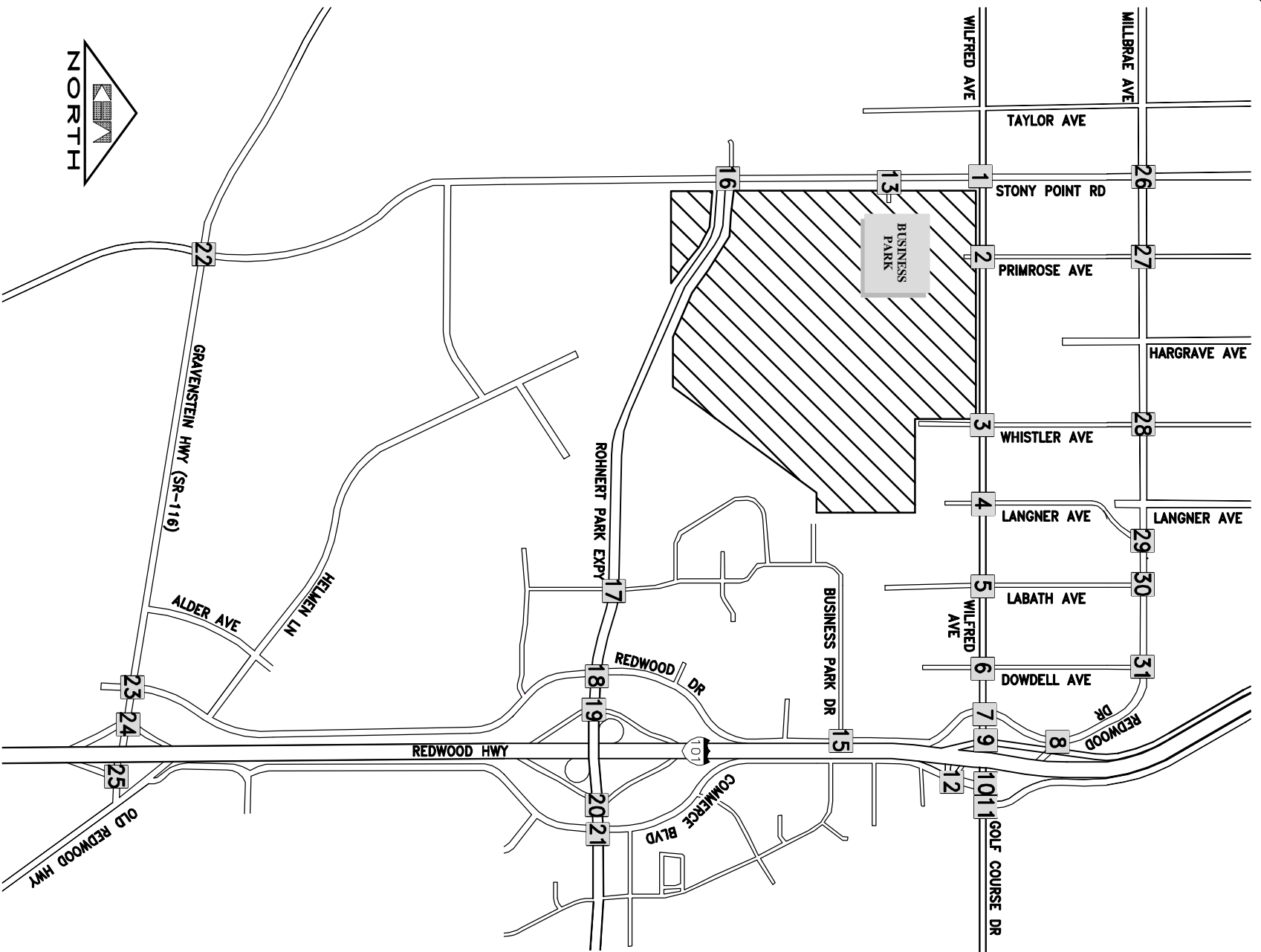
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LEGEND  
 X STUDY AREA INTERSECTIONS  
 XX TRAFFIC VOLUMES

Graton Rancheria Alternative E - Rohnert Park, CA

FIGURE E7





**LEGEND**

- X STUDY AREA INTERSECTIONS
- TRAFFIC SIGNAL
- ▲ STOP SIGN
- XX' STORAGE LENGTH



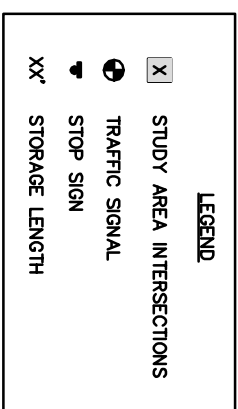
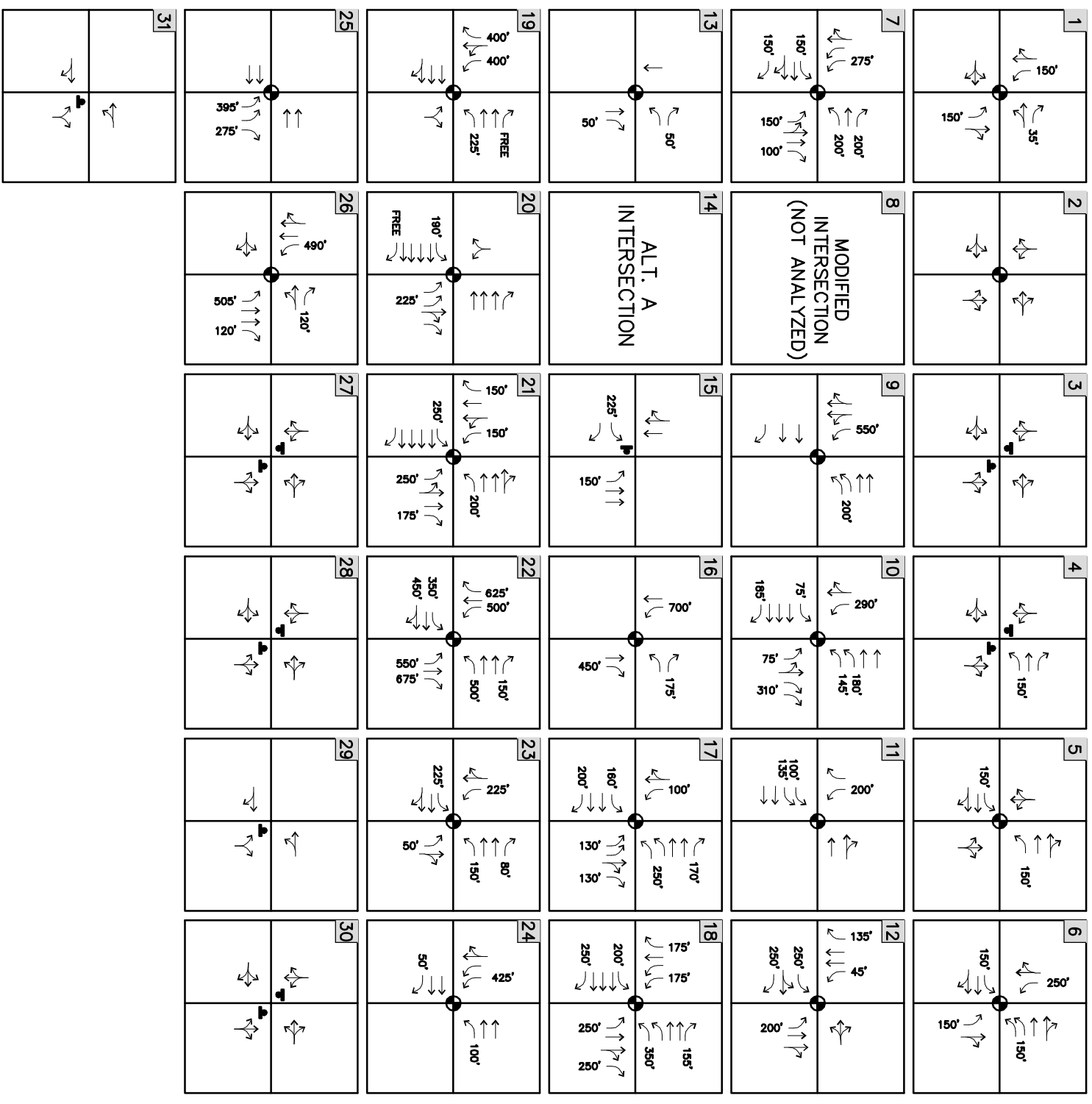
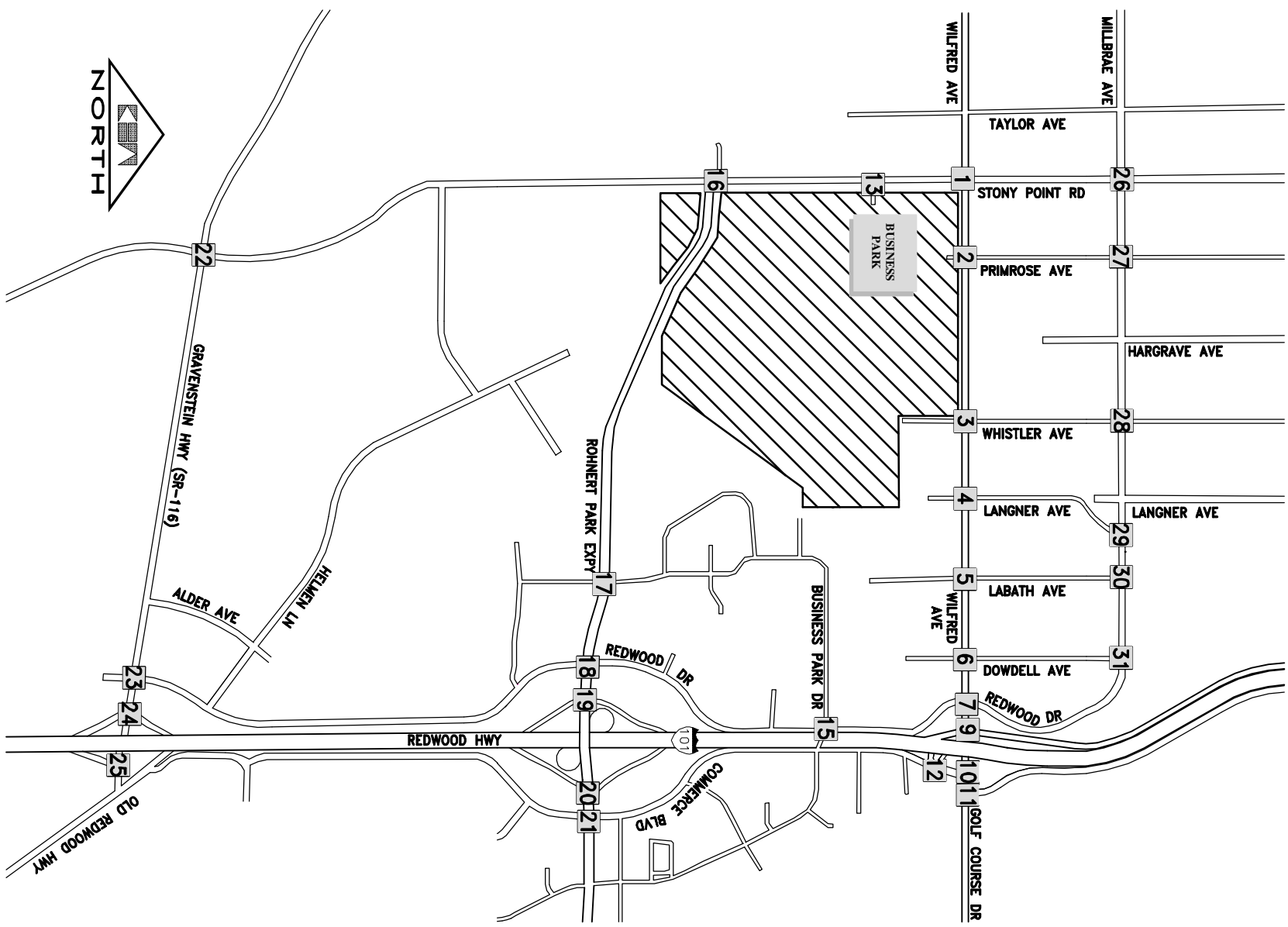
Graton Rancheria No Project – Rohnert Park, CA

NEAR-TERM MITIGATED LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE E8



Kimley-Horn and Associates, Inc.



Graton Rancheria No Project – Rohnert Park, CA

LONG-TERM MITIGATED LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE E9

## ALTERNATIVE H – WILFRED AVENUE SITE REDUCED INTENSITY OPTION

The Alternative H casino and hotel is proposed to be located as shown in **Figure H1**, which is bordered by Wilfred Avenue in the north, Business Park Drive in the south, Langner Avenue in the west, and Dowdell Avenue in the east.

**Figure H2** shows the proposed layout of the casino and hotel facility. The site layout includes a main building of approximately 315,100 square feet for a casino, restaurants, food court, event center, banquet facilities, lobby, pool, and other ancillary functions. In addition the project is planned to include 100 hotel rooms, primarily for casino guests.

A breakdown of square footage as it relates to traffic impacts is shown below:

- Casino and Entertainment areas – 293,250 s.f.
- Lobby/Bar/Back of House/Sundries – 14,750 s.f.
- Pool – 7,100 s.f.
- 315,100 s.f.
  
- Hotel Rooms – 77,000 s.f.

The site plan also shows supporting uses such as parking lots, parking structure, and wastewater treatment facilities. This layout is virtually the same as Alternative A except that the project has been reduced in size and intensity.

Within each alternative there is a reference made to the “project site” which changes for each alternative. There is not a specific project site that is being evaluated for all of the alternatives.

### Site Access

There are three access points to the project. The main access points to the project are located on Langner Avenue and Labath Avenue via Wilfred Avenue. These approaches are assumed to operate as full movement driveways with no turn limitations. With the addition of the project, Labath Avenue will be extended to the south to intersect Business Park Drive. A third project access will be on Labath Avenue just north of Business Park Drive in the new extension and is assumed to be a full movement driveway with no turn limitations as well.

Currently, none of the accesses are signalized.

## Trip Generation – Alternative H

Trip generation for Alternative H is identical to Alternative D. See Trip Generation – Alternatives D and H section under Alternative D for specific information.

## Project Trip Distribution and Assignment

Based on the factors discussed in the General Project Information section above it was determined that approximately 30% of the project traffic would be distributed to destinations north of the site, with the remaining 70% distributed south of the site. To be conservative, only a small percentage of project traffic was assumed to be generated or attracted in the immediate vicinity of the project site. The project traffic distribution is shown in **Figure H3** and **Figure H4**. **Figure H5** illustrates project traffic assigned to the study intersections based on the assumed trip distribution. As seen in **Figure H5**, most of the project traffic is expected to come from the freeway therefore it was assumed that most of the traffic would use Labath Avenue because of its closer proximity to the freeway. As noted in the distribution, some traffic leaving the project site is expected to avoid congestion at Wilfred Avenue and Stony Point Road by using Millbrae Avenue.

## Near-Term Plus Project Traffic Volumes

Near-term 2008 traffic volumes were combined with vehicle trips expected to be generated by the Alternative H casino and hotel project. **Figure H6** illustrates the combined near-term turning movement volumes at the study intersections.

## Cumulative Plus Project Traffic Volumes

Long-term 2020 traffic volumes were combined with vehicle trips expected to be generated by the Alternative H casino and hotel project. **Figure H7** illustrates the combined long-term turning movement volumes at the study intersections.

## Alternative H LOS Conditions and Impacts at Intersections

Traffic operations were evaluated under the following development conditions:

- Near-term conditions with Alternative H (year 2008)
- Long-term Cumulative conditions with Alternative H (year 2020)

In the near-term analysis for Alternative H, it was assumed that the Wilfred Avenue widening project will not have taken place before the casino/hotel opens. The Memorandum of Understanding (MOU) between the City of Rohnert Park and the Federated Indians of the Graton Rancheria stated that the tribe would help financially to speed up the timeline of the widening project to occur before the casino/hotel opens in 2008.

Results of the analysis are presented in **Table H1**. (Results shown as bold in the table do not meet operational standards.) The signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections may operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections. Additional detail is provided in the **Appendix**. As shown in the results, the following intersections and approaches will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic.

### **2008 Results**

- Stony Point Road/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps
- Rohnert Park Expressway/Commerce Boulevard
- Millbrae Avenue/Stony Point Road

### **2020 Results**

- Stony Point Road/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps
- Gravenstein Highway/Stony Point Road
- Millbrae Avenue/Stony Point Road

**Table H 1 – Alternative H Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008				2020			
				Existing		Base (w/o Proj.)		With Project		Base (w/o Proj.)		With Project	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	<b>F</b>	<b>180.8</b>	<b>F</b>	<b>495.5</b>	<b>F</b>	<b>OVRFL</b>	<b>F</b>	<b>841.3</b>	<b>F</b>	<b>OVRFL</b>
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	B	12.7	B	12.5	B	14.7
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	B	12.6	B	12.5	B	14.4
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	C	20.1	B	12.5	D	28.5
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	<b>F</b>	<b>77.4</b>	<b>F</b>	<b>557.9</b>	<b>F</b>	<b>OVRFL</b>	<b>F</b>	<b>OVRFL</b>
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	<b>F</b>	<b>623.3</b>	<b>F</b>	<b>323.7</b>	<b>F</b>	<b>OVRFL</b>	<b>F</b>	<b>OVRFL</b>
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	<b>E</b>	<b>77.6</b>	<b>F</b>	<b>83.4</b>	<b>F</b>	<b>169.9</b>	<b>F</b>	<b>116.2</b>
8	Redwood Dr/ Commerce Blvd	C	TS	<b>F</b>	<b>86.1</b>	C	26.0	C	24.6	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	24.0	C	26.8	D	36.0
10	Golf Course Dr/ Commerce Blvd	D	TS	<b>F</b>	<b>103.4</b>	<b>E</b>	<b>71.7</b>	<b>F</b>	<b>82.7</b>	<b>E</b>	<b>74.2</b>	<b>F</b>	<b>87.0</b>
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	17.9	B	19.0	B	19.6
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	<b>E</b>	<b>63.3</b>	D	50.8	<b>E</b>	<b>55.9</b>
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
14	Business Park Dr/ Labath Ave	D	TWSC	-	-	-	-	A	9.8	-	-	A	9.6
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	C	16.7	C	22.2
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	B	19.6	B	18.5	C	21.5
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	C	29.6	C	28.2	C	29.1
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	25.7	C	29.1	C	26.9
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.3	B	16.0	B	16.1
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	15.6	B	12.3	B	14.9
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	<b>D</b>	<b>39.2</b>	<b>D</b>	<b>44.6</b>	<b>D</b>	<b>40.6</b>	<b>E</b>	<b>63.4</b>	C	34.0
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	36.9	D	45.5	<b>F</b>	<b>114.9</b>
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	C	26.8	D	42.4	D	52.8
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	B	19.0	B	18.1	B	19.6
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	11.2	B	11.5	B	11.2
26	Millbrae Ave/ Stony Point Rd	D	TWSC	<b>E</b>	<b>43.9</b>	<b>E</b>	<b>43.5</b>	<b>F</b>	<b>61.3</b>	<b>F</b>	<b>90.2</b>	<b>F</b>	<b>120.3</b>
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.6	B	12.4	B	12.1
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.7	B	12.5	B	12.3
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	B	10.7	B	11.3	B	11.1
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	11.7	B	14.7	B	13.5
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.7	B	11.4

## Alternative H Traffic Signal Warrant Analysis

Alternative H, near-term and long-term, traffic volumes at unsignalized study intersections were compared against peak hour warrant in the *2003 Manual on Uniform Traffic Control Devices (MUTCD)* and the *California Supplement*.

Results of the analysis showed that the following intersections will satisfy traffic signal Warrant #3 by the year 2008 and 2020.

- Stony Point Road/Wilfred Avenue (2008 and 2020)
- Labath Avenue/Wilfred Avenue (2008 and 2020)
- Dowdell Avenue/Wilfred Avenue (2008 and 2020)
- Millbrae Avenue/Stony Point Road (2008 and 2020)

Other warrants such as for minimum vehicle volumes, interruption of continuous traffic, and traffic progression were not evaluated because they generally require higher traffic volumes to be satisfied. Accident history and school areas were also not evaluated based on the results of field observations, which noted that neither of these warrant thresholds was likely to be met. A copy of the analysis summary for Warrant #3 is included in the **Appendix**.

## Alternative H LOS Conditions and Impacts on Freeway and Ramps

Project trips generated by the proposed Alternative H, reduced-intensity casino and hotel were added to the year 2008 and 2020 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2008 and 2020, with the addition on the casino and hotel project. Freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the analyses are presented in **Table H2**. (Results shown as bold in the table do not meet operational standards.) As shown in the table, project traffic will add to the background congestion of the freeway. Significant congestion is expected with the project; however the congestion is reduced as a result of the smaller casino and hotel.

**Table H 2 – Alternative H Freeway Levels of Service**

US-101 Section/Ramp	Criteria		Existing		2008		2008 + Alt H		2020		2020 + Alt H	
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	
<b>Northbound</b>												
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	24.1	C	25.6	D	33.3	
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	D	32.8	D	34.1	E	39.4	
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	D	34.0	E	36.1	F	40.6	
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	D	28.4	D	32.3	E	41.4	
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	33.8	E	37.1	F	42.0	
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	C	23.4	C	23.2	C	24.8	
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	C	27.7	D	29.0	E	35.2	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	C	27.7	D	29.0	E	35.2	
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	C	27.7	D	29.0	E	35.2	
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	31.2	E	40.4	E	39.8	
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	31.2	E	40.4	E	39.8	
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	31.2	E	40.4	E	39.8	
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	23.2	D	29.7	D	31.7	
<b>Southbound</b>												
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	C	25.5	D	28.5	D	30.3	
Santa Rosa Avenue SB On-Ramp	E	D	31.2	/	/	/	/	/	/	/	/	
US-101 Between Santa Rosa Avenue and Wilfed Avenue (SB)	E	D	31.5	D	32.7	E	35.1	F	-	F	-	
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	40.2	F	44.8	F	46.2	
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	E	40.9	E	39.9	F	45.4	
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	E	40.9	E	39.9	F	45.4	
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	E	40.9	E	39.9	F	45.4	
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	33.1	E	38.5	F	40.7	
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	33.9	F	37.5	F	41.3	
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	D	26.8	E	36.6	F	-	
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	33.6	F	40.3	F	44.7	
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	E	36.4	F	42.3	F	46.6	
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	D	26.5	D	32.0	E	41.3	



## Potential Effects on Intersection Safety

Traffic volumes generated by the project were reviewed in consideration of existing intersection collision history and the potential for increased accidents. According to collision data, accidents involving bicyclist and pedestrians are very low. Many intersections did not report any collisions of this type during the survey period. This suggests that bicycle and pedestrian volumes are relatively low and study intersections have minimal safety hazards for individuals biking or walking. Although the project will introduce increased traffic volumes at some intersections, bicyclists and pedestrians are expected to be able to travel through study intersections with similar levels of safety. Historically casinos do not attract a significant amount of bicycle and pedestrian traffic. . Therefore, the expected amount of pedestrian and bicycle traffic is nominal and a significant increase in bicycle and pedestrian accidents is unlikely.

The potential for increased collisions between motorized vehicles was also considered. Collision frequency and severity are a function of many complex factors that vary depending on the location and type of intersection or roadway segment. Factors include traffic control such as signals or stop signs, lane and shoulder widths, grades, driveway densities, roadside hazards or obstacles, presence of left and right turn lanes, sight distance, congestion, and others.

Because of the number and interrelationships of the variables, accurate crash prediction is difficult. However, the proposed casino and hotel project will increase roadway congestion, a factor which could result in an increase in traffic collisions if left unmitigated. Other factors are expected to remain unaffected.

As noted previously, the purpose of this study is to address the traffic and transportation effects of the proposed casino and hotel development. This includes mitigation improvements to restore traffic operations to levels within acceptable standards or to levels as good as or better than without the casino/hotel project. Any potential increases in accidents due to project-related traffic would be offset by the implementation of roadway improvements included as mitigation. Therefore, if mitigations are implemented as proposed in this report, no significant increase in daytime or nighttime collisions is expected.

## Queuing Summary

As congestion increases it is common for traffic at signals and stop signs to form lines of stopped (or queued) vehicles. Queue lengths were determined for each lane and measure the distance that vehicles will backup in each direction approaching an intersection. The 95th percentile queue is calculated by using 95th percentile traffic to account for fluctuations in traffic and represents a condition where 95 percent of the time during the peak period, traffic volumes and related queuing will be at, or less, than determined by the analysis. Average queuing is generally less. Ninety-fifth percentile queuing was checked under the various future year development conditions and in consideration of the planned intersection and signal timing improvements. A typical vehicle length of 25 feet is used in the queuing analysis. A summary of the queuing results can be seen in **Table H3**. The results indicate dedicated turn lanes where queuing may exceed their storage limits. It should be noted that some variations in intersection queuing between scenarios is a result of planned intersection and signal timing improvements.



**Table H 3 – Alternative H Queuing Summary**

Intersection	Turning Movement	Bay Length	Queue Length		Intersection	Turning Movement	Bay Length	Queue Length	
			2008	2020				2008	2020
1 Stony Point Road and Wilfred Avenue	EBL				16 Stony Point Road and Rohnert Park Expy	EBL			
	EBR					EBR			
	WBL					WBL			
	WBR	35	OVRFL	OVRFL		WBR	175	54	60
	NBL	150	25	25		NBL			
	NBR					NBR	450	38	40
4 Langner Avenue and Wilfred Avenue	SBL	150	25	26	SBL	700	194	213	
	SBR				SBR				
	EBL				EBL	160	61	67	
	EBR				EBR	200	25	26	
	WBL	150		25	WBL	250	80	43	
	WBR				WBR	170	25	25	
5 Labath Avenue and Wilfred Avenue	NBL				NBL	130	36	38	
	NBR				NBR	130	36	33	
	SBL				SBL	100	451	424	
	SBR				SBR				
	EBL	150		25	EBL	200	116	106	
	EBR				EBR	200	25	25	
6 Dowdell Avenue and Wilfred Avenue	WBL	150		52	WBL	350	156	211	
	WBR				WBR	155	37	48	
	NBL				NBL	250	157	136	
	NBR				NBR	250	65	64	
	SBL				SBL	175	188	237	
	SBR				SBR	175	58	56	
7 Redwood Drive and Wilfred Avenue	EBL	150		25	EBL				
	EBR				EBR				
	WBL	150		59	WBL	225	65	78	
	WBR				WBR				
	NBL				NBL				
	NBR				NBR				
8 Redwood Drive and Commerce Boulevard	SBL				SBL	400	318	311	
	SBR				SBR	400	222	197	
	EBL	150		106	EBL	190	25	25	
	EBR	150		154	EBR				
	WBL				WBL				
	WBR				WBR				
9 Wilfred Avenue and SB US 101 Ramps	NBL	150	317	352	NBL	225	321	342	
	NBR	100	97	110	NBR				
	SBL	275	316	474	SBL				
	SBR				SBR				
	EBL	75	25		EBL	250	69	70	
	EBR	75	49		EBR				
10 Golf Course Drive and Commerce Blvd	WBL	100	25		WBL	200	187	264	
	WBR				WBR				
	NBL	150	132		NBL	250	210	245	
	NBR	150	25		NBR	175	56	75	
	SBL	200	40		SBL	150	98	147	
	SBR				SBR	150	51	50	
11 Roberts Lake Drive and Golf Course Drive	EBL				EBL	350	162	183	
	EBR				EBR				
	WBL	300	34	27	WBL	500	155	138	
	WBR				WBR	150	41	39	
	NBL				NBL	550	296	290	
	NBR				NBR	675	30	29	
12 Commerce Blvd and NB US 101 Ramps	SBL	250	229	342	SBL	500	148	325	
	SBR				SBR	625	49	51	
	EBL				EBL	225	161	171	
	EBR				EBR				
	WBL	150	778	190	WBL	150	65	81	
	WBR				WBR	80	25	33	
15 Business Park Drive and Redwood Drive	NBL	150	718	1011	NBL	50	65	65	
	NBR				NBR	225	388	513	
	SBL	200	94	30	SBL				
	SBR				SBR				
	EBL	80	107	67	EBL				
	EBR				EBR	50	99	99	
16 Commerce Blvd and Gravenstein Hwy	WBL				WBL	100	106	125	
	WBR				WBR				
	NBL				NBL				
	NBR				NBR				
	SBL	200	77	107	SBL	425	222	216	
	SBR				SBR				
17 Labath Avenue and Rohnert Park Expy	EBL	250	341	360	EBL				
	EBR	250	25	37	EBR				
	WBL				WBL				
	WBR				WBR				
	NBL	200	478	531	NBL	395	137	144	
	NBR				NBR	275	178	192	
18 Redwood Drive and Rohnert Park Expy	SBL	100	25	25	SBL				
	SBR	175	152	195	SBR				
	EBL	225	97	75	EBL				
	EBR				EBR				
	WBL				WBL				
	WBR				WBR				
19 SB US 101 Ramps and Rohnert Park Expy	NBL	150	25	25	NBL	120	43	110	
	NBR				NBR	505	25	25	
	SBL				SBL	120	25	25	
	SBR				SBR	490	25	25	
	EBL				EBL				
	EBR				EBR				
20 NB US 101 Ramps and Rohnert Park Expy	WBL				WBL				
	WBR				WBR				
	NBL				NBL				
	NBR				NBR				
	SBL				SBL				
	SBR				SBR				
21 Commerce Blvd and Rohnert Park Expy	EBL				EBL				
	EBR				EBR				
	WBL				WBL				
	WBR				WBR				
	NBL				NBL				
	NBR				NBR				
22 Wilfred Avenue and SB US 101 Ramps	SBL				SBL				
	SBR				SBR				
	EBL				EBL				
	EBR				EBR				
	WBL				WBL				
	WBR				WBR				
23 Redwood Road and Gravenstein Hwy	NBL				NBL				
	NBR				NBR				
	SBL				SBL				
	SBR				SBR				
	EBL				EBL				
	EBR				EBR				
24 Gravenstein Hwy and SB US 101 Ramps	WBL				WBL				
	WBR				WBR				
	NBL				NBL				
	NBR				NBR				
	SBL				SBL				
	SBR				SBR				
25 Commerce Blvd and Gravenstein Hwy and NB US 101 Ramps	EBL				EBL				
	EBR				EBR				
	WBL				WBL				
	WBR				WBR				
	NBL				NBL				
	NBR				NBR				
26 Stony Point Road and Millbrae Avenue	SBL				SBL				
	SBR				SBR				
	EBL				EBL				
	EBR				EBR				
	WBL				WBL				
	WBR				WBR				

## Alternative H Mitigations

Intersections with levels of service below established thresholds were investigated to determine the role of the Alternative H traffic in the projected operating conditions at those intersections. The evaluation disclosed that the following improvements as shown in **Table H4** are needed in the near-term (2008) and long-term (2020).

**Table H5** summarizes the expected levels of service with the proposed mitigation. Roadway improvements will be consistent with design standards for local jurisdictions in providing facilities and amenities for bicycles and pedestrians. This includes improvements such as sidewalks, countdown signals, and striped crosswalks if required by local design standards.

As mentioned previously, the signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections.

**Figures H8 and H9** illustrate the mitigated lane geometry and traffic control. Some mitigations are associated with queuing impacts.

Traffic signal interconnect and coordinated timing plans are included in the proposed traffic signals for Wilfred Avenue.

The combination of casino traffic and other nearby future development will require Wilfred Avenue to ultimately be widened to five lanes (including Class II bike lanes) from Redwood Drive to Langner Avenue at the edge of the project site. From Langner Avenue west to Stony Point Road, Wilfred Avenue should be two lanes with improved pavement and shoulders and it is recommended that the upgrade of Wilfred Avenue to include improved pavement and shoulders should be designed to the County standard and should include Class II bike lanes out to Stony Point Road to connect into the Class II bike lanes on Stony Point Road. Casino traffic alone can be accommodated on a three lane roadway section from Redwood Drive to Langner Avenue, therefore, they will contribute a proportionate share for the ultimate cost of the widening of Wilfred Avenue.

Langner Avenue and Labath Avenue should be improved and either removed from County jurisdiction or designed to the County standard.

An overcrossing should be built from State Farm Drive to Business Park Drive over US-101 with a southbound slip ramp lane that would open up just south of the US-101 NB off-ramp directly to the overcrossing. The overcrossing helps redirect project traffic away from the Wilfred interchange to a new facility capable of accommodating casino traffic. Additional right-of-way is necessary on State Farm Drive as well as Business Park Drive. Access to State Farm Drive will need to be modified and adjusted, but it is not anticipated that there will need to be any closures associated with the overcrossing. The overcrossing should begin east of the State Farm Drive/Commerce Boulevard intersection and touch down west of the Business Park Drive/Redwood Drive

intersection. With this mitigation, all of the existing turning movements at the Commerce/State Farm and the Redwood/Business Park intersections will be permitted as they currently exist.

Modification to any interchanges requires review and approval from Caltrans' Department Headquarters Division of Design.



**Table H 4 – Alternative H Summary of Mitigations**

Period	#	Intersection	Mitigation	Requires ROW?	Reason
2008	1	Stony Point Rd/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> </ul>	No	Capacity
	2	Primrose Ave/ Wilfred Ave	No mitigation necessary	-	-
	3	Whistler Ave/ Wilfred Ave	No mitigation necessary	-	-
	4	Langer Ave/ Wilfred Ave	No mitigation necessary	-	-
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add WB left and change WB all shared to through-right <sup>1</sup></li> <li>Add NB right and change NB all shared to left-through</li> </ul>	No Yes Yes	Capacity Capacity Tribelands
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add WB left and change WB all shared to through-right <sup>1</sup></li> <li>Add EB left and change EB all shared to through-right <sup>1</sup></li> </ul>	No Yes Yes	Capacity Capacity Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>Change WB left-through to WB through</li> <li>Change phasing east-west to protected from split</li> <li>Optimize signal timing</li> <li>Add EB left and change EB all shared to through-right <sup>1</sup></li> </ul>	No No No Yes	Capacity Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	No mitigation necessary	-	-
	9	Wilfred Ave/ US-101 SB Ramps	No mitigation necessary	-	-
	10	Golf Course Dr/ Commerce Blvd	No mitigation necessary	-	-
	11	Golf Course Dr/ Roberts Lake Rd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Construct the State Farm-Business Park Overcrossing and a southbound slip ramp from the US-101 NB Ramps to the overcrossing</li> </ul>	Yes	Capacity
	13	Project Driveway/ Stony Point Rd	No mitigation necessary	-	-
	14	Business Park Dr/ Labath Ave	No mitigation necessary	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	No mitigation necessary	-	-
	17	Rohnert Park Expwy/ Labath Ave	<ul style="list-style-type: none"> <li>Extend SB left turn bay to 300 feet (from 100 feet)</li> </ul>	Yes	Queue
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Extend NB left turn bay to 350 feet (from 225 feet)</li> <li>Add second NB left turn lane</li> </ul>	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	<ul style="list-style-type: none"> <li>Add an EB right turn overlap phase</li> <li>Optimize signal timing</li> </ul>	Yes No	Capacity Capacity
	22	Gravenstein Hwy/ Stony Point Rd	No mitigation necessary	-	-
	23	Gravenstein Hwy/ Redwood Dr	No mitigation necessary	-	-
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	<ul style="list-style-type: none"> <li>Signalize</li> </ul>	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-

<sup>1</sup> In summary, widen Wilfred Ave to three lanes from Labath Ave to Redwood Dr



Period	#	Intersection	Mitigation	Requires ROW?	Reason
2020	1	Stony Point Rd/ Wilfred Ave	• Signalize *	No	Capacity
	2	Primrose Ave/ Wilfred Ave	No mitigation necessary	-	-
	3	Whistler Ave/ Wilfred Ave	No mitigation necessary	-	-
	4	Langer Ave/ Wilfred Ave	No mitigation necessary	-	-
	5	Labath Ave/ Wilfred Ave	• Signalize * • Add NB right and change NB all shared to left-through *	No Yes	Capacity Tribeland
	6	Dowdell Ave/ Wilfred Ave	• Signalize *	No	Capacity
	7	Redwood Dr/ Wilfred Ave	• Optimize signal timing * • Change WB left-through to WB through * • Change phasing east-west to protected from split *	No No No	Capacity Capacity Capacity
	8	Redwood Dr/ Commerce Blvd	Modified Intersection (not analyzed)	-	-
	9	Wilfred Ave/ US-101 SB Ramps	No mitigation necessary	-	-
	10	Golf Course Dr/ Commerce Blvd	• Add EB right turn overlap phase	No	Capacity
	11	Golf Course Dr/ Roberts Lake Rd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	• Construct the State Farm-Business Park Overcrossing and a southbound slip ramp from the US-101 NB Ramps to the overcrossing *	Yes	Capacity
	13	Project Driveway/ Stony Point Rd	No mitigation necessary	-	-
	14	Business Park Dr/ Labath Ave	No mitigation necessary	-	-
	15	Business Park Dr/ Redwood Dr	No mitigation necessary	-	-
	16	Rohnert Park Expwy/ Stony Point Rd	No mitigation necessary	-	-
	17	Rohnert Park Expwy/ Labath Ave	• Extend SB left turn bay to 300 feet (from 100 feet) *	Yes	Queue
	18	Rohnert Park Expwy/ Redwood Dr	No mitigation necessary	-	-
	19	Rohnert Park Expwy/ US-101 SB Ramps	No mitigation necessary	-	-
	20	Rohnert Park Expwy/ US-101 NB Ramps	• Extend NB left turn bay to 350 feet (from 225 feet) * • Add second NB left turn lane *	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	No mitigation necessary	-	-
	22	Gravenstein Hwy/ Stony Point Rd	• Add a EB right turn bay for 100 feet • Optimize signal timing	Yes No	Capacity Capacity
	23	Gravenstein Hwy/ Redwood Dr	No mitigation necessary	-	-
	24	Gravenstein Hwy/ US-101 SB Ramps	No mitigation necessary	-	-
	25	Gravenstein Hwy/ US-101 NB Off-Ramp	No mitigation necessary	-	-
	26	Millbrae Ave/ Stony Point Rd	• Signalize *	No	Capacity
	27	Millbrae Ave/ Primrose Ave	No mitigation necessary	-	-
	28	Millbrae Ave/ Whistler Ave	No mitigation necessary	-	-
	29	Millbrae Ave/ Langner Ave	No mitigation necessary	-	-
	30	Millbrae Ave/ Labath Ave	No mitigation necessary	-	-
	31	Millbrae Ave/ Dowdell Ave	No mitigation necessary	-	-

\* Improvement assumed to occur with 2008 mitigation



**Table H 5 – Alternative H Mitigated Intersection Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008						2020					
				Existing		Base (w/o Proj.)		With Project		Mitigated		Base (w/o Proj.)		With Project		Mitigated	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	Stony Point Rd/ Wilfred Ave	D	TWSC	F	180.8	F	495.5	F	OVRFL	C	21.2	F	841.3	F	OVRFL	C	28.1
2	Primrose Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	B	12.7	B	12.7	B	12.5	B	14.7	B	14.7
3	Whistler Ave/ Wilfred Ave	D	TWSC	A	9.4	B	11.4	B	12.6	B	12.6	B	12.5	B	14.4	B	14.4
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	C	20.1	C	16.5	B	12.5	D	28.5	C	21.4
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	557.9	C	26.3	F	OVRFL	F	OVRFL	C	25.8
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	323.7	C	24.7	F	OVRFL	F	OVRFL	C	35.1
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	83.4	D	38.6	F	169.9	F	116.2	D	53.1
8	Redwood Dr/ Commerce Blvd	C	TS	F	86.1	C	26.0	C	24.6	C	25.6	-	-	-	-	-	-
9	Wilfred Ave/ US-101 SB Ramps	D	TS	-	-	C	23.2	C	24.0	C	20.7	C	26.8	D	36.0	C	26.5
10	Golf Course Dr/ Commerce Blvd	D	TS	F	103.4	E	71.7	F	82.7	D	52.1	E	74.2	F	87.0	D	54.8
11	Golf Course Dr/ Roberts Lake Rd	C	TS	B	14.8	B	18.3	B	17.9	B	17.8	B	19.0	B	19.6	B	19.4
12	Commerce Blvd/ US-101 NB Ramps	D	TS	C	28.2	D	46.7	E	63.3	D	47.9	D	50.8	E	55.9	D	43.8
13	Project Driveway/ Stony Point Rd	D	TWSC	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
14	Business Park Dr/ Labath Ave	D	TWSC	-	-	-	-	A	9.8	B	10.9	-	-	A	9.6	B	10.6
15	Business Park Dr/ Redwood Dr	D	TWSC	C	23.9	D	27.5	D	27.5	D	27.5	C	16.7	C	22.2	C	22.2
16	Rohnert Park Expwy/ Stony Point Rd	D	TS	B	20.0	B	19.1	B	19.6	B	19.6	B	18.5	C	21.5	C	21.5
17	Rohnert Park Expwy/ Labath Ave	C	TS	C	24.6	C	25.8	C	29.6	C	29.6	C	28.2	C	29.1	C	29.1
18	Rohnert Park Expwy/ Redwood Dr	C	TS	C	24.2	C	26.3	C	25.7	C	25.8	C	29.1	C	26.9	C	26.9
19	Rohnert Park Expwy/ US-101 SB Ramps	D	TS	B	16.5	B	16.9	B	16.3	B	18.5	B	16.0	B	16.1	B	17.8
20	Rohnert Park Expwy/ US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	15.6	B	11.5	B	12.3	B	14.9	B	12.5
21	Rohnert Park Expwy/ Commerce Blvd	C	TS	D	39.2	D	44.6	D	40.6	C	30.9	E	63.4	C	34.0	C	33.7
22	Gravenstein Hwy/ Stony Point Rd	D	TS	C	32.1	D	37.1	D	36.9	D	36.9	D	45.5	F	114.9	D	52.7
23	Gravenstein Hwy/ Redwood Dr	D	TS	C	22.1	C	26.2	C	26.8	C	26.8	D	42.4	D	52.8	D	52.8
24	Gravenstein Hwy/ US-101 SB Ramps	D	TS	B	20.0	B	19.9	B	19.0	B	19.0	B	18.1	B	19.6	B	19.6
25	Gravenstein Hwy/ US-101 NB Off-Ramp	D	TS	B	13.1	B	11.5	B	11.2	B	11.2	B	11.5	B	11.2	B	11.2
26	Millbrae Ave/ Stony Point Rd	D	TWSC	E	43.9	E	43.5	F	61.3	A	9.8	F	90.2	F	120.3	B	10.1
27	Millbrae Ave/ Primrose Ave	D	TWSC	B	11.1	B	11.5	B	11.6	B	11.6	B	12.4	B	12.1	B	12.1
28	Millbrae Ave/ Whistler Ave	D	TWSC	B	11.4	B	11.5	B	11.7	B	11.7	B	12.5	B	12.3	B	12.3
29	Millbrae Ave/ Langner Ave	D	TWSC	A	9.7	A	9.9	B	10.7	B	10.7	B	11.3	B	11.1	B	11.1
30	Millbrae Ave/ Labath Ave	D	TWSC	B	11.3	B	11.7	B	11.7	B	11.7	B	14.7	B	13.5	B	13.5
31	Millbrae Ave/ Dowdell Ave	D	TWSC	B	11.3	B	11.4	B	11.4	B	11.4	B	11.7	B	11.4	B	11.4



Results indicate that the freeway will not meet standards with the project, even with the future construction of HOV lanes, ramp metering, and auxiliary lanes associated with the Wilfred interchange project. As mitigation the project should do the following which will result in the mitigated levels of service shown in **Table H6**:

- The project should contribute a proportionate share of the costs of the construction of auxiliary lanes between Rohnert Park Expressway and Gravenstein Highway (SR-116) in the long-term (2020).
- The project should contribute a proportionate share of the costs of the construction of the Wilfred Avenue interchange project, including HOV lanes, ramp metering, and auxiliary lanes in the near-term (2008).
- The project should contribute a proportionate share of the costs of the construction of an additional traffic lane in the southbound direction from Santa Rosa Avenue to Rohnert Park Expressway and from Gravenstein Highway (SR-116) to West Sierra Avenue in the long-term (2020).

Aside from roadway improvements to mitigate protect impacts, the casino and hotel should coordinate with the Green Music Center during outdoor events that will generate high traffic levels. During that period, traffic control services at the Rohnert Park interchange may be necessary. Therefore, the casino/hotel project should provide funding for special event traffic monitoring at the Rohnert Park Expressway interchange to identify conflicts during outdoor events generate high traffic levels. If conflicts occur, the project should provide traffic management coordination between the casino/hotel project and Green Music Center in consultation with CHP and Caltrans to assist in traffic control.

Because no fixed route service will be available at the project site, the casino/hotel should provide a shuttle that serves the two Rohnert Park transfer stations. The shuttle should run throughout the day or could be called out on demand.

The casino should also sponsor charter buses from farther away destinations such as Marin County and the south Bay. The buses could serve specific groups such as senior citizens or social clubs, while reducing the number of single occupancy vehicles to the site. Preferential carpool or vanpool spaces should also be provided at the project site to encourage ridesharing by patrons and employees. The casino should provide employee incentives such as subsidized transit passes, flexible work schedules, the validation of transit tickets to provide free return trips, or subsidized shuttle services.

**Table H 6 – Alternative H Mitigated Freeway Level of Service Summary**

US-101 Section/Ramp	Criteria		Existing		2008		2008 + Alt H		2008 + Alt H Mitigated		2020		2020 + Alt H		2020 + Alt H Mitigated		
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
<b>Northbound</b>																	
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	24.1	C	24.1	C	25.6	D	33.3	D	33.3		
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	D	32.8	D	32.8	D	34.1	E	39.4	E	39.4		
Gravenstein Highway NB On-Ramp	E	D	34.5	D	29.5	D	34.0	D	34	E	36.1	F	40.6	E	42.5		
US-101 Between Gravenstein Highway and Rohnert Park Expressway (NB)	E	D	28.1	C	23.5	D	28.4	D	28.4	D	32.3	E	41.4	E	42.5		
Rohnert Park Expressway NB Off-Ramp	E	D	33.6	D	28.8	D	33.8	D	33.8	E	37.1	F	42.0	E	42.5		
Rohnert Park Expressway NB On-Ramp (Loop Ramp)	E	D	32.1	C	21.8	C	23.4	C	23.4	C	23.2	C	24.8	C	24.8		
Rohnert Park Expressway NB On-Ramp	E	D	32.5	C	22.1	C	27.7	C	27.7	D	29.0	E	35.2	E	35.2		
US-101 Between Rohnert Park Expressway and Wilfred Avenue (NB)	E	D	28.9	C	22.1	C	27.7	C	27.7	D	29.0	E	35.2	E	35.2		
Wilfred Avenue NB Off-Ramp	E	E	35.4	C	22.1	C	27.7	C	27.7	D	29.0	E	35.2	E	35.2		
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	31.2	D	31.2	E	40.4	E	39.8	E	39.8		
US-101 Between Wilfred Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	31.2	D	31.2	E	40.4	E	39.8	E	39.8		
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	31.2	D	31.2	E	40.4	E	39.8	E	39.8		
US-101 North of Santa Rosa Avenue (NB)	E	C	20.3	C	22.0	C	23.2	C	23.2	D	29.7	D	31.7	D	31.7		
<b>Southbound</b>																	
US-101 North of Santa Rosa Avenue (SB)	E	C	22.9	C	24.1	C	25.5	C	25.5	D	28.5	D	30.3	D	30.3		
Santa Rosa Avenue SB On-Ramp	E	D	31.2	D	32.7	E	35.1	E	35.1	F	-	F	-	C	24.4		
US-101 Between Santa Rosa Avenue and Wilfred Avenue (SB)	E	D	31.5	D	32.7	E	35.1	E	35.1	F	-	F	-	C	24.4		
Wilfred Avenue SB Off-Ramp	E	E	38.0	E	38.8	E	40.2	E	40.2	F	44.8	F	46.2	D	32.2		
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	E	40.9	E	40.9	E	39.9	F	45.4	D	32.4		
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	E	40.9	E	40.9	E	39.9	F	45.4	D	32.4		
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	E	40.9	E	40.9	E	39.9	F	45.4	D	32.4		
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	33.1	D	33.1	E	38.5	F	40.7	C	26.0		
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	33.9	D	33.9	F	37.5	F	41.3	E	38.5		
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	D	26.8	D	26.8	E	36.6	F	-	E	38.5		
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	33.6	D	33.6	F	40.3	F	44.7	E	38.5		
Gravenstein Highway SB On-Ramp	E	D	33.7	D	32.1	E	36.4	E	36.4	F	42.3	F	46.6	D	30.6		
US-101 South of Gravenstein Highway (SB)	E	C	24.7	C	21.8	D	26.5	D	26.5	D	32.0	E	41.3	C	22.2		

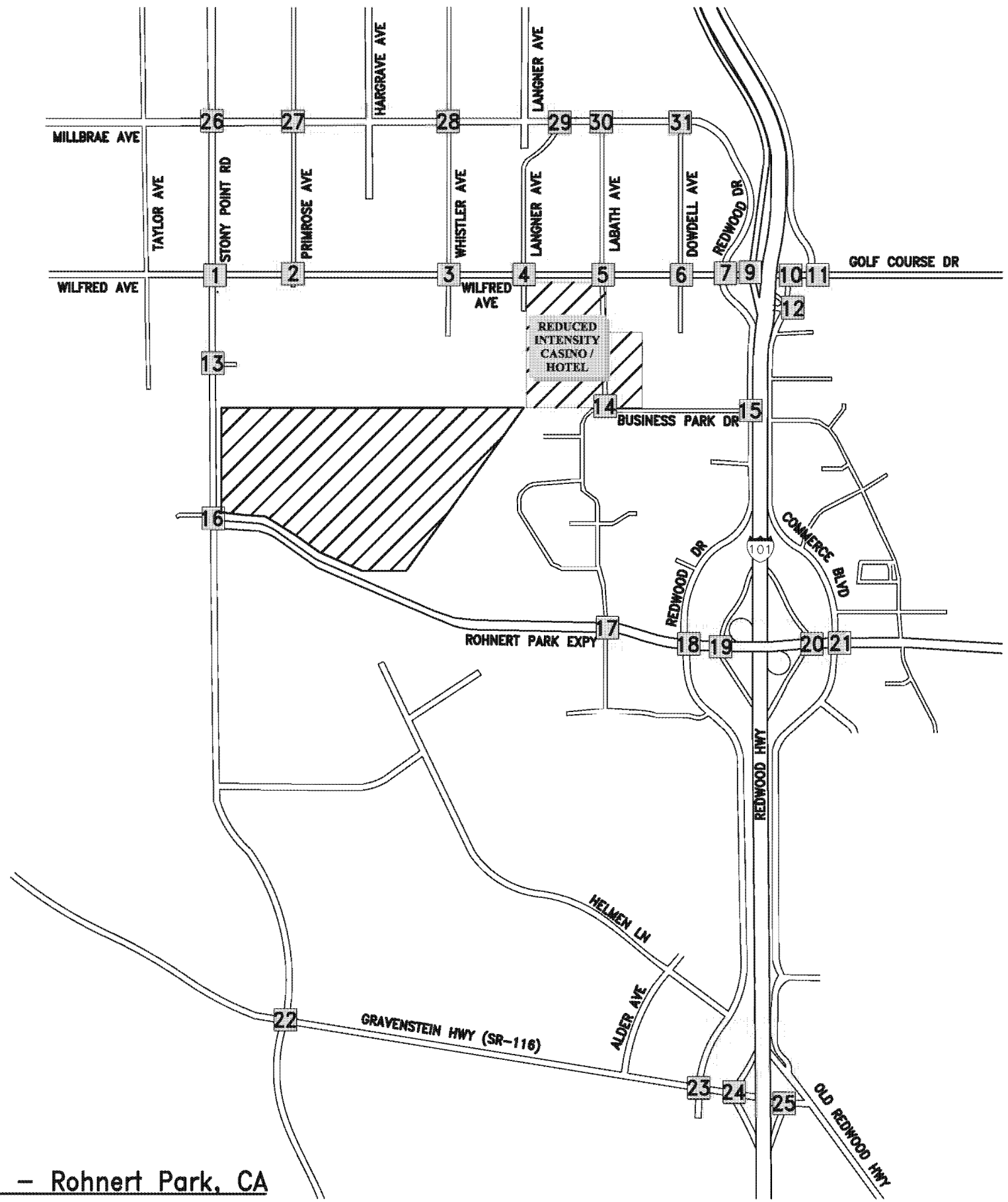
It is recommended that the casino contribute to the operation of SMART if it is implemented. Implementation of the SMART transit option will reduce the commuter congestion on US-101.

Mitigations to reduce the impact of the construction include the implementation of a construction traffic management plan for the duration of construction of the project and training for construction delivery vehicle drivers.

It is recommended that the project attempt to minimize the amount of construction fill transported on the surrounding street network by eliminating or shortening the off-site travel route. Potential options for eliminating off-site transport include moving fill material via conveyors across barriers such as creeks and ditches or installing temporary bridges for haul vehicles across the barriers.

If there is a special exception and off-site fill is necessary, construction material importation should be scheduled outside of the areawide commute peak hours. Debris along the truck route caused by trucks should be monitored daily and the roadways should be cleaned as necessary. Roadways subject to fill truck traffic should be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. If the third party determines that roadway deterioration has occurred as a result of casino construction, it is recommended that the developer pay to have surrounding roadways resurfaced to restore the pavement to the pre-construction condition, unless the resurfacing is already expected to occur within a year or sooner in conjunction with other planned or proposed roadway improvements.

To help ensure adequate public safety during construction, particularly near the project site, the tribe should provide flagging when necessary in consultation with CHP, Caltrans, and the County's Sheriff's Department to assist with traffic control.

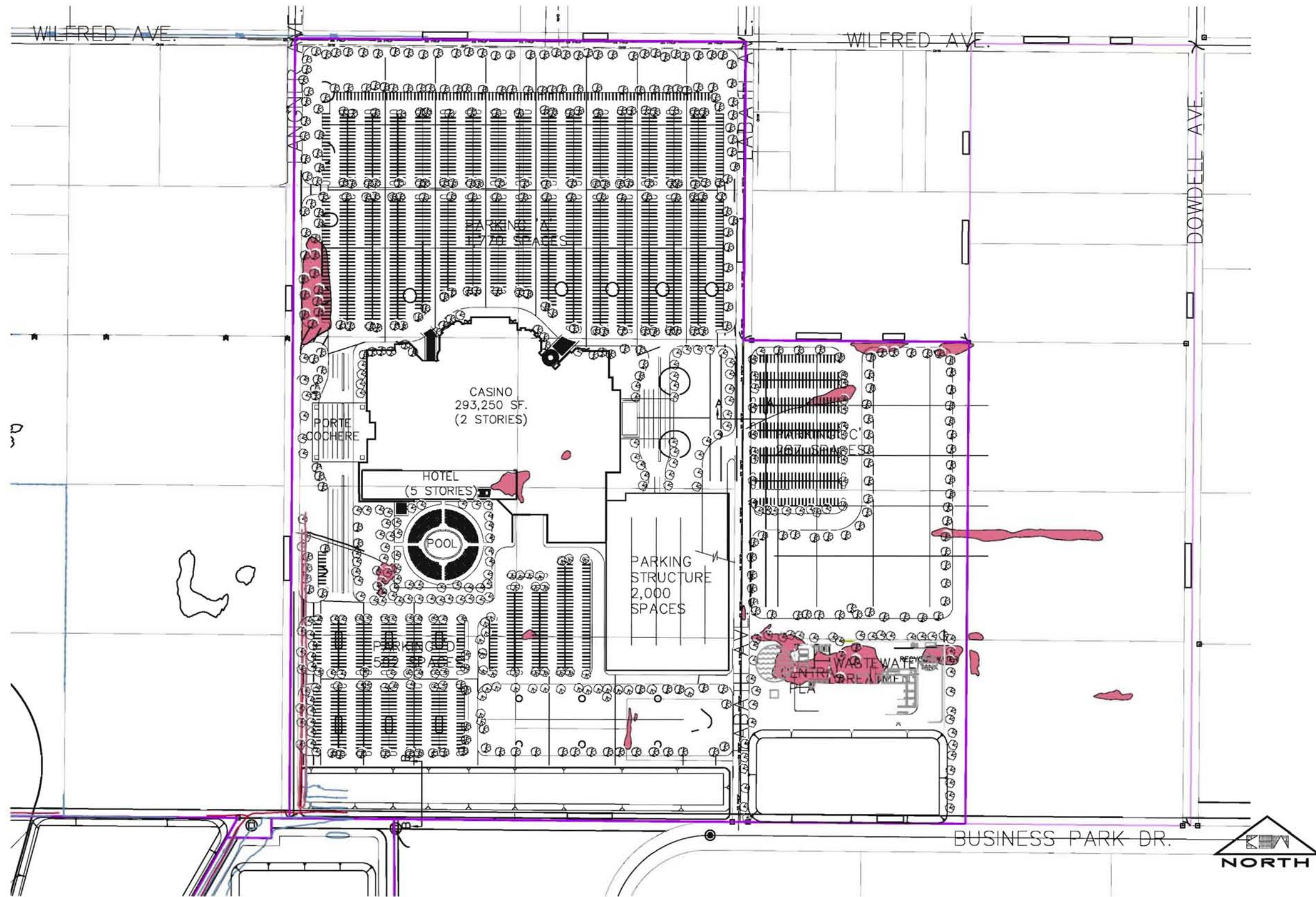


Graton Rancheria Alternative H – Rohnert Park, CA

PROJECT LOCATION

FIGURE H1



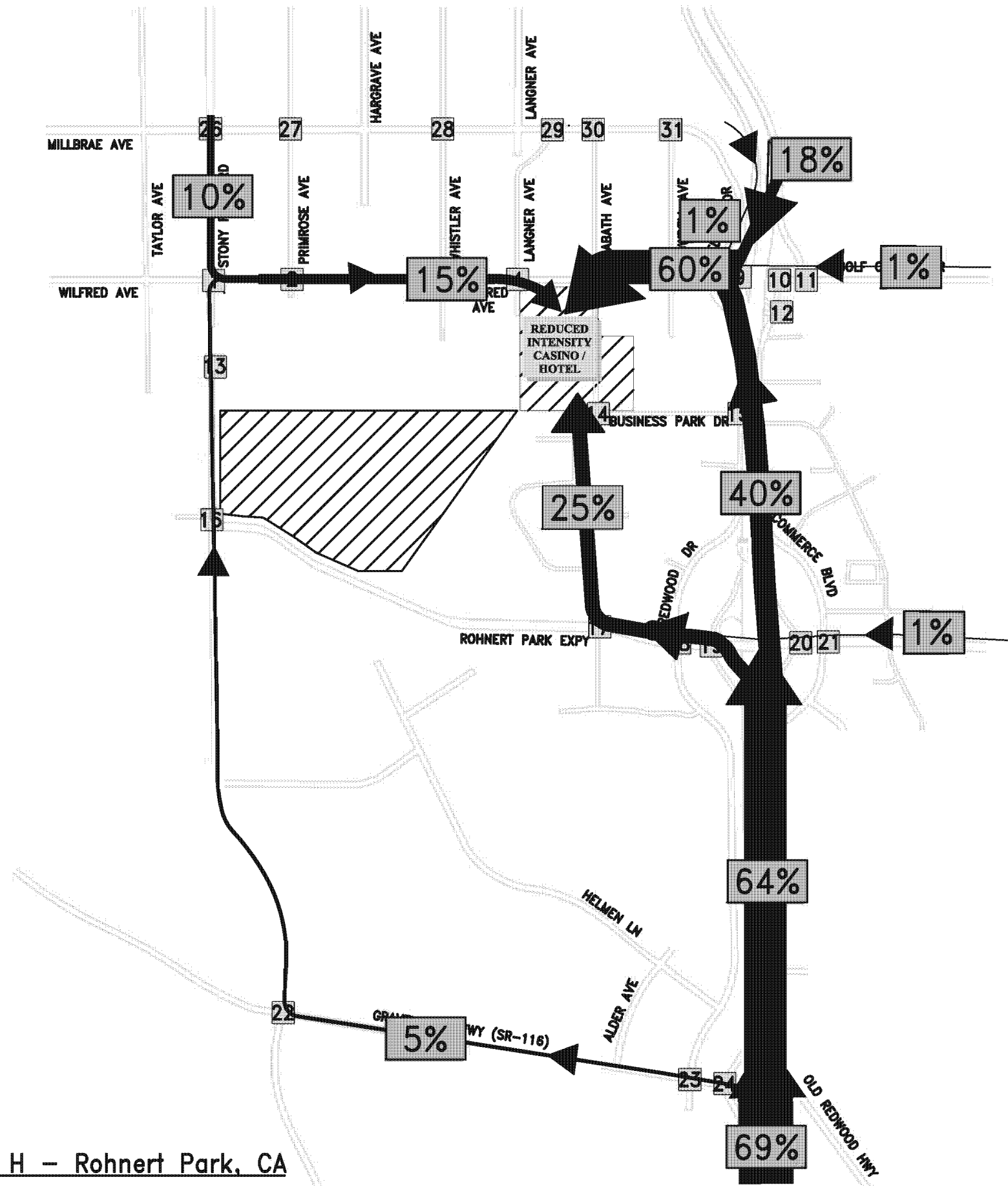


Graton Rancheria Alternative H – Rohnert Park, CA

SITE PLAN

FIGURE H2





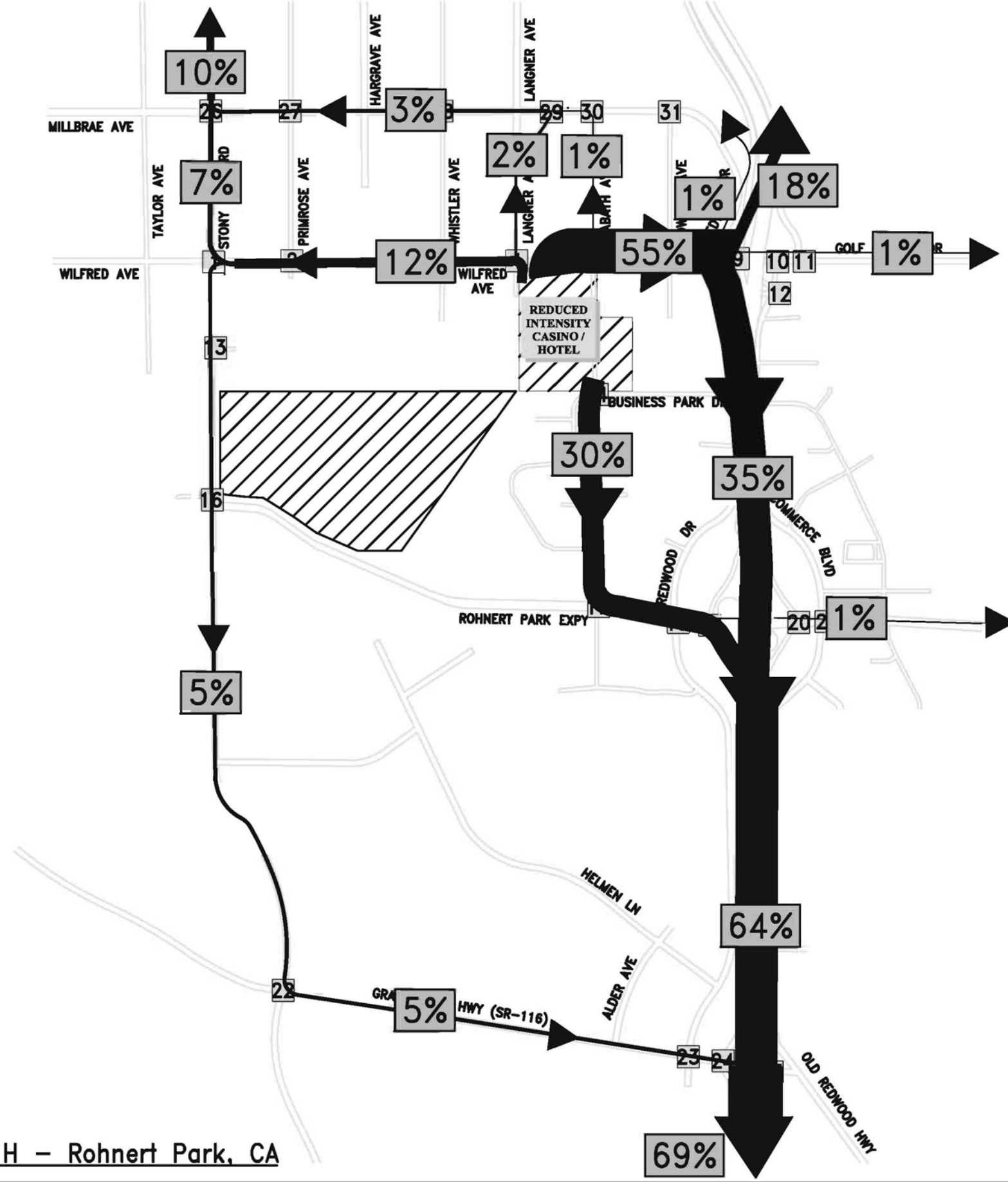
Graton Rancheria Alternative H – Rohnert Park, CA

TRIP DISTRIBUTION – IN

FIGURE H3







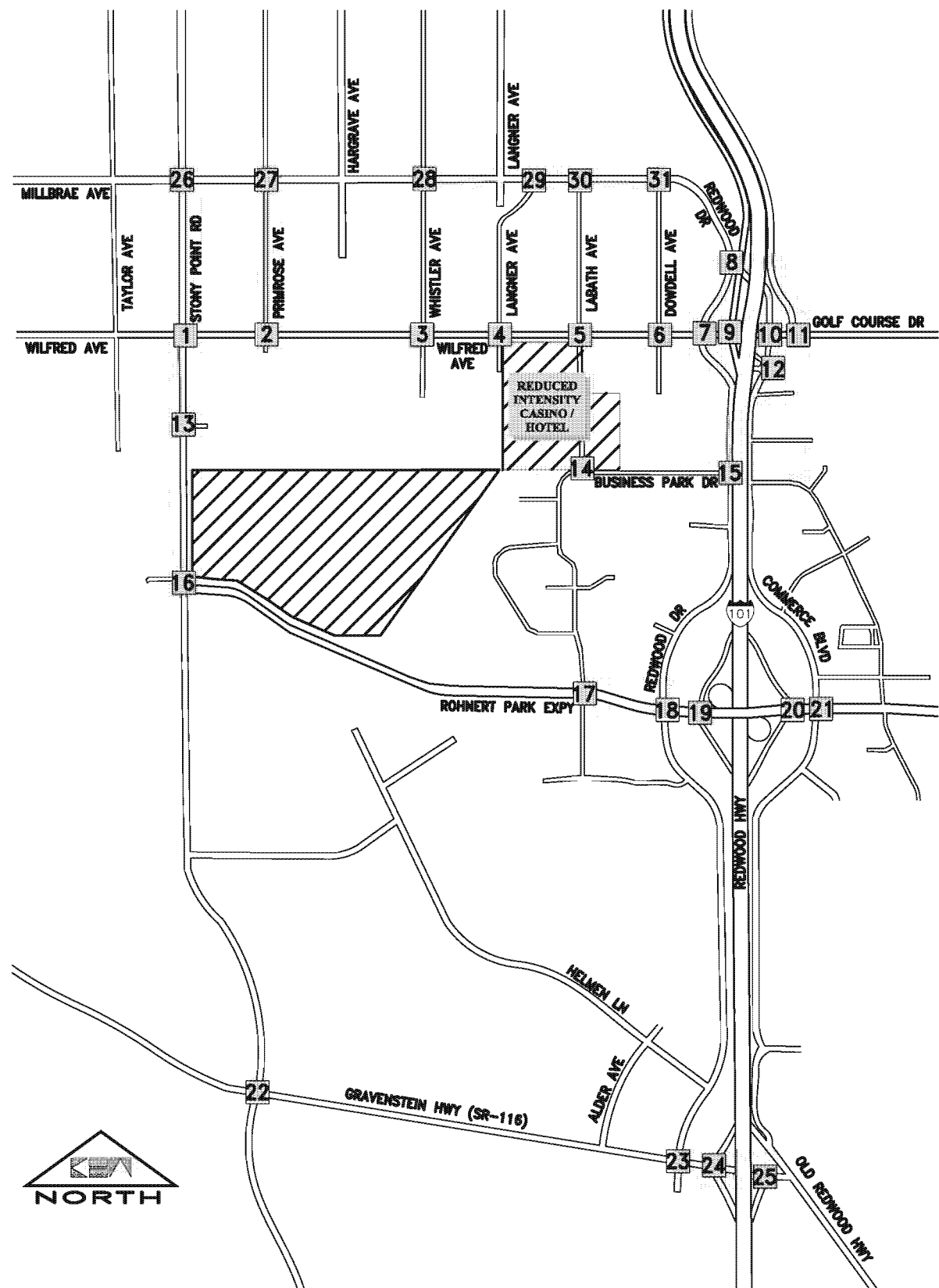
NORTH

Graton Rancheria Alternative H – Rohnert Park, CA

TRIP DISTRIBUTION – OUT

FIGURE H4





1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31					

LEGEND	
X	STUDY AREA INTERSECTIONS
XX	TRAFFIC VOLUMES

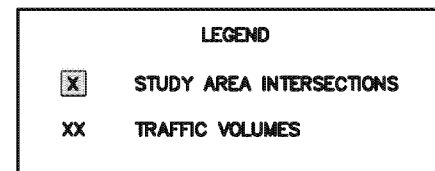
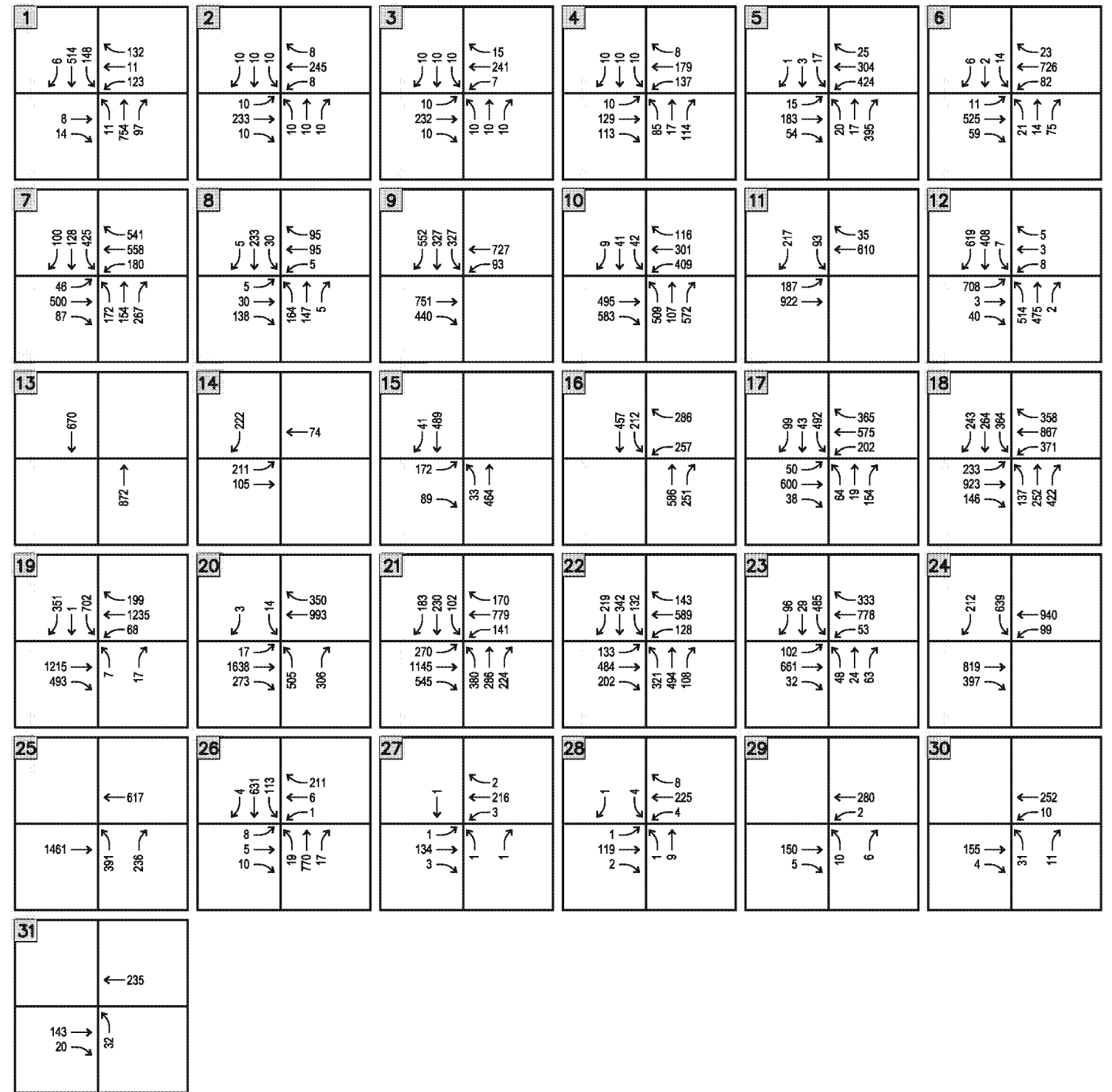
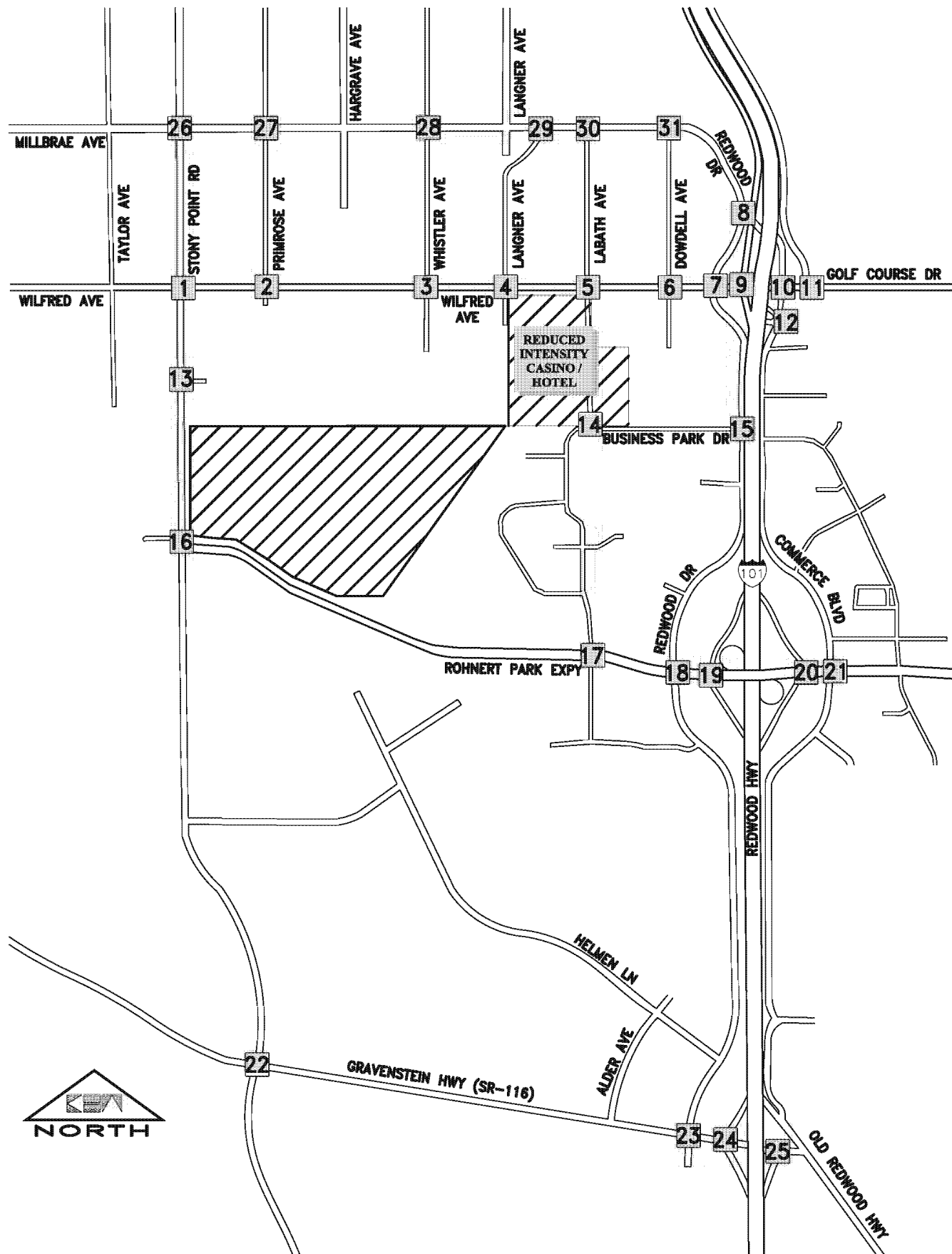
Graton Rancheria Alternative H - Rohnert Park, CA

PROJECT GENERATED PM TRAFFIC VOLUMES

FIGURE H5





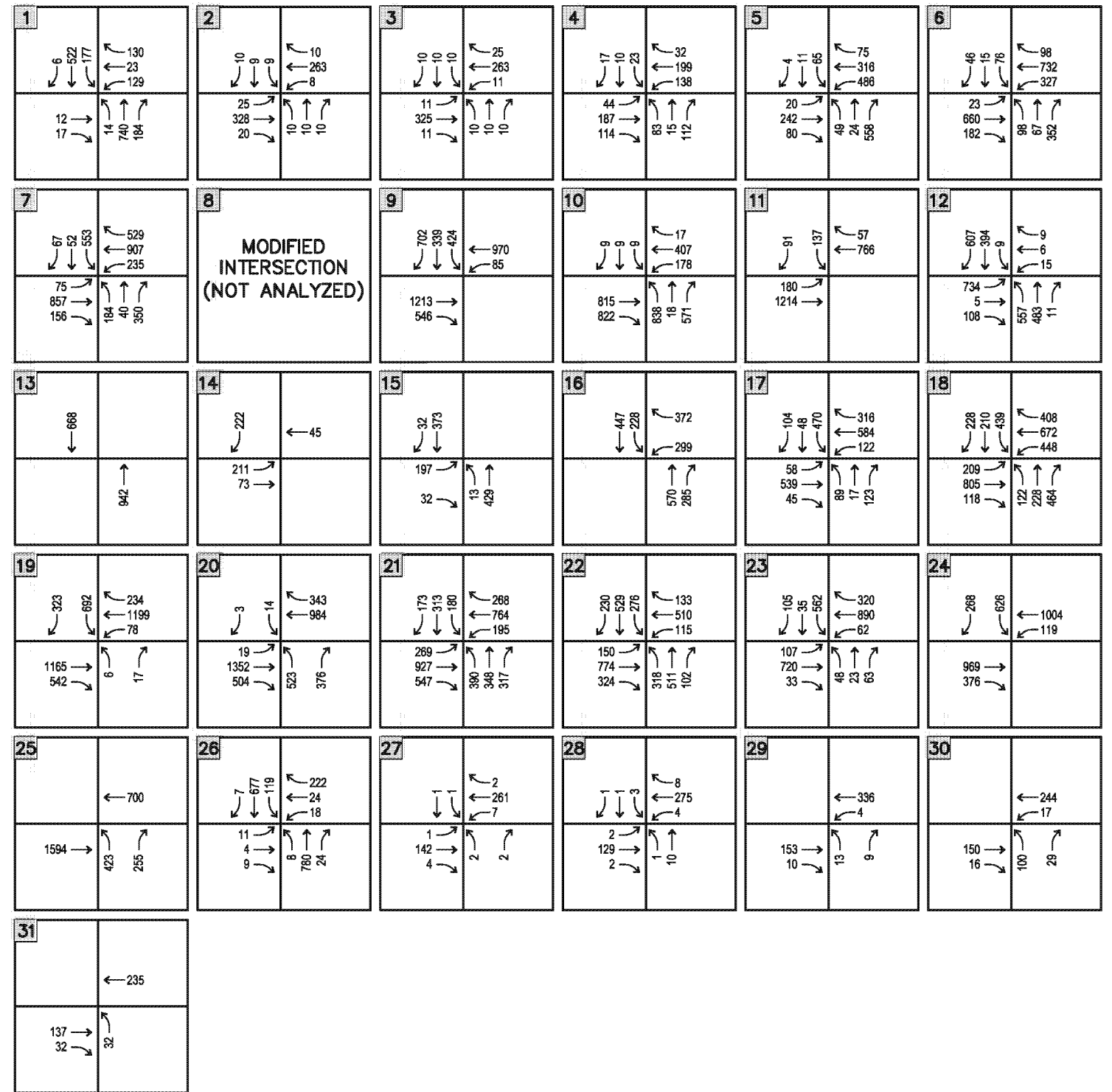
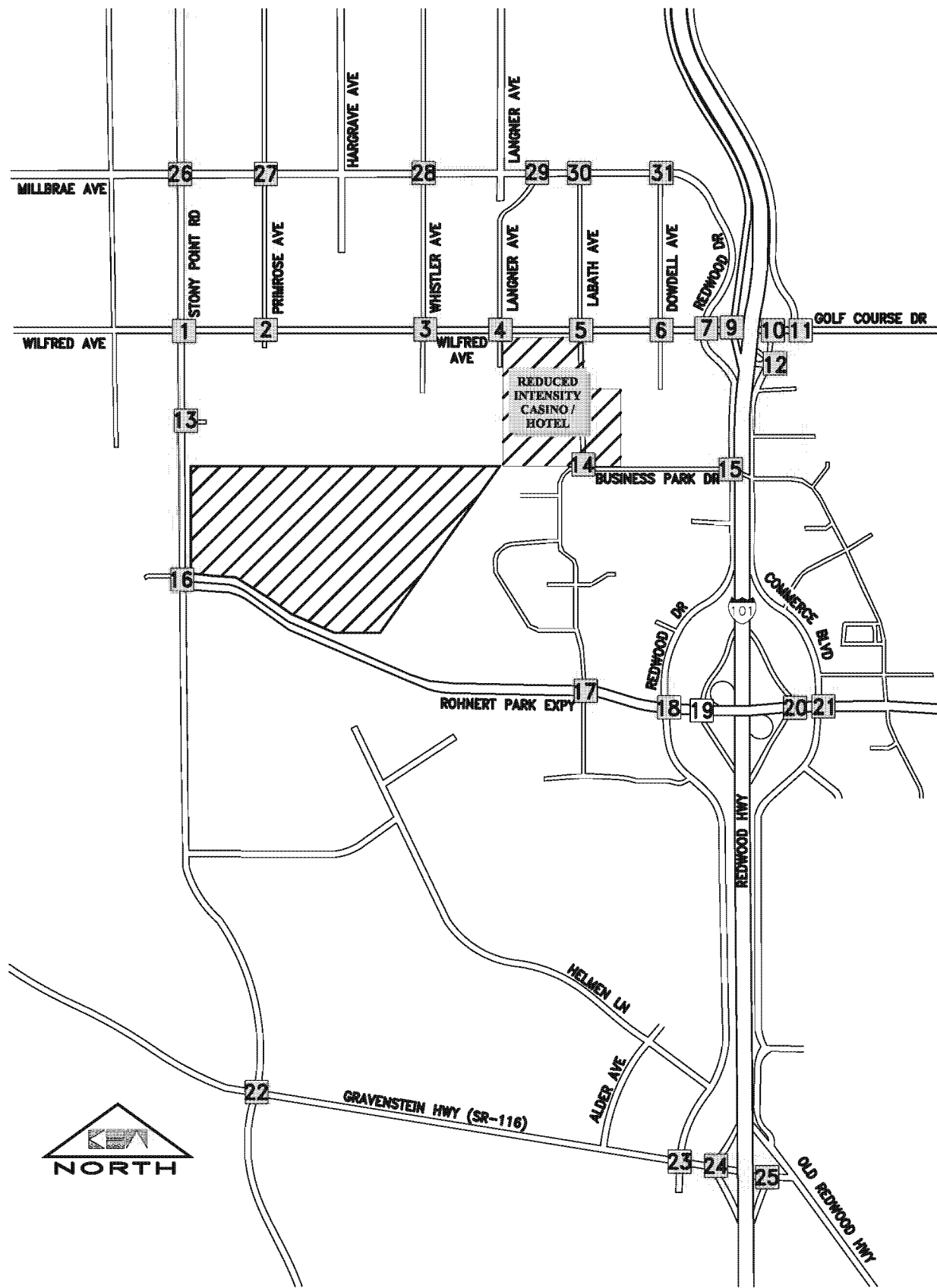


Graton Rancheria Alternative H - Rohnert Park, CA

NEAR-TERM + PROJECT PM TRAFFIC VOLUMES

FIGURE H6





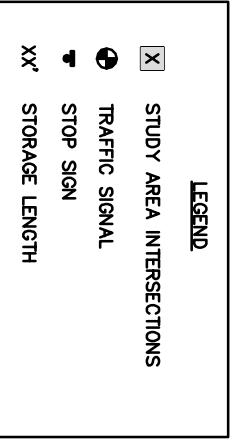
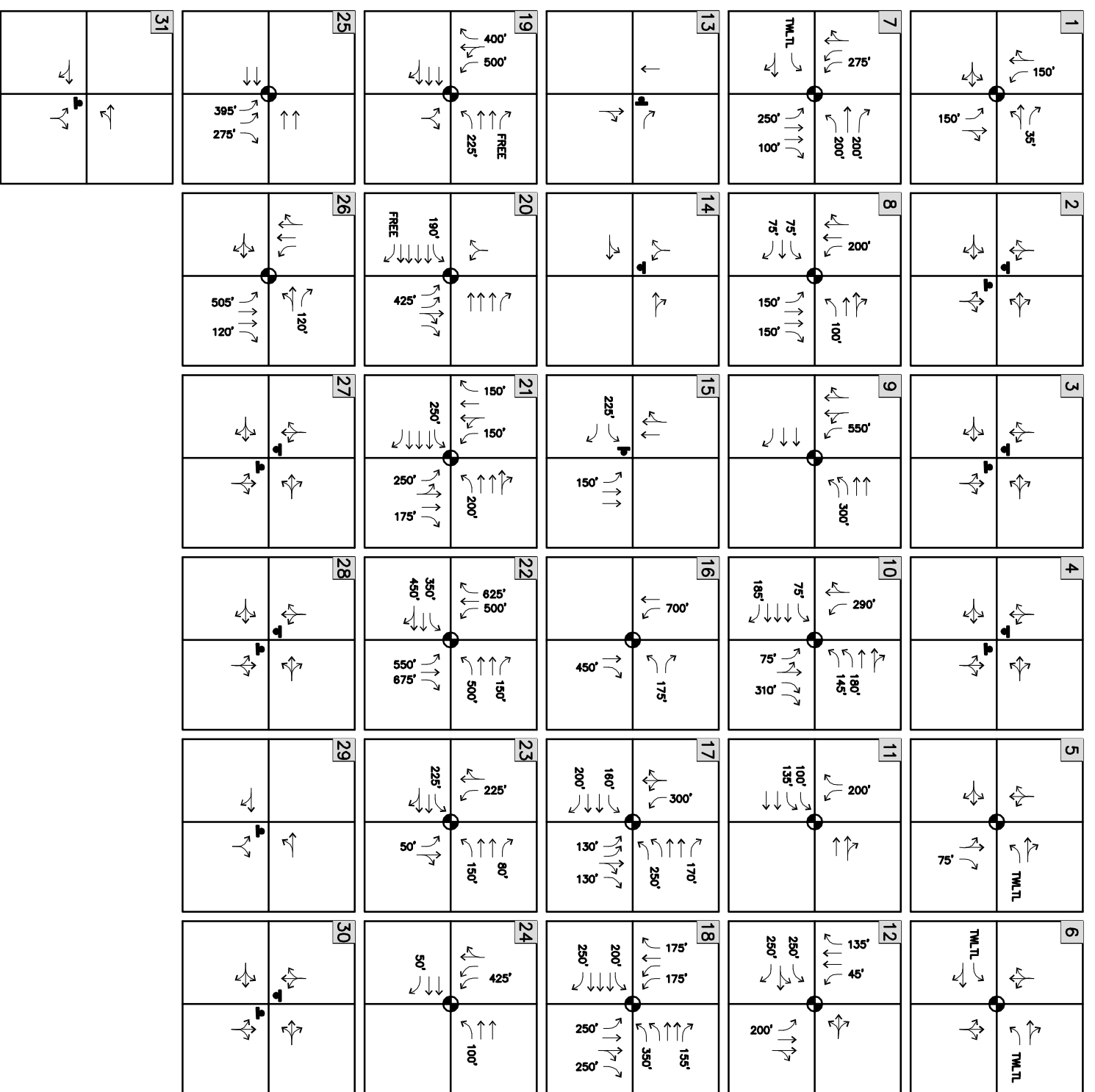
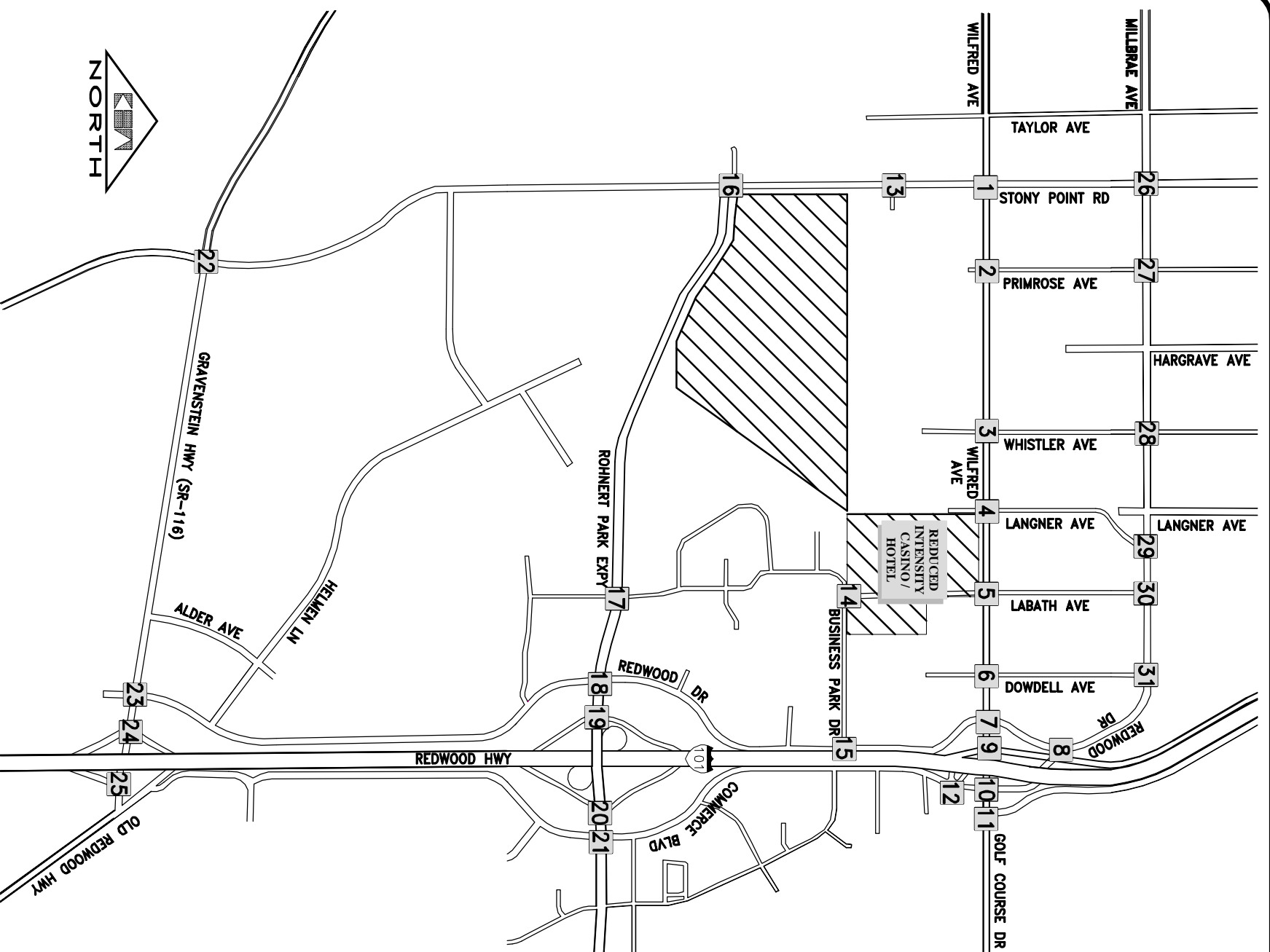
**LEGEND**  
 [X] STUDY AREA INTERSECTIONS  
 XX TRAFFIC VOLUMES

Graton Rancheria Alternative H - Rohnert Park, CA

LONG-TERM CUMULATIVE + PROJECT PM TRAFFIC VOLUMES

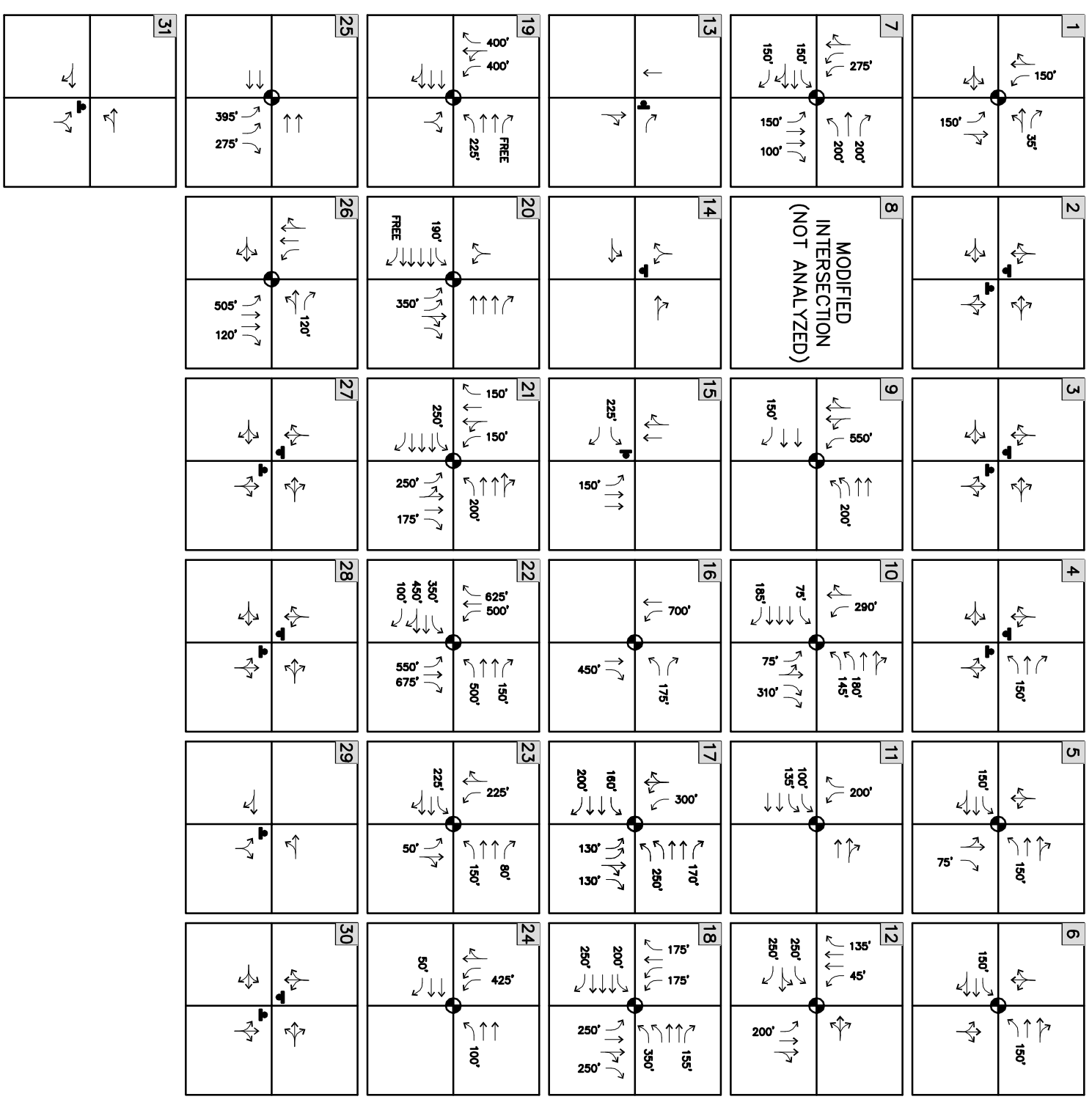
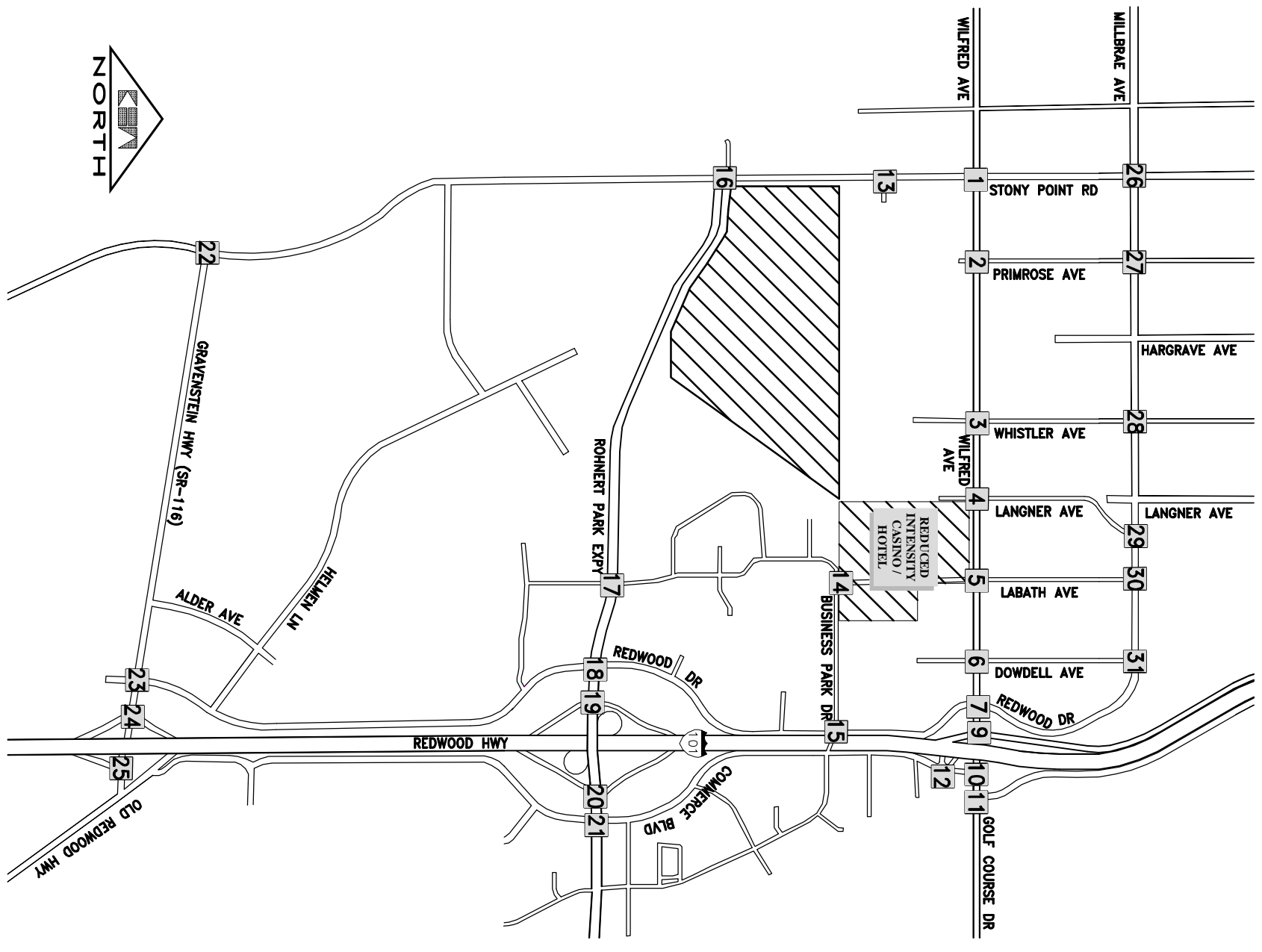
FIGURE H7





Graton Rancheria Alternative H – Rohnert Park, CA

FIGURE H8



**LEGEND**

X STUDY AREA INTERSECTIONS

● TRAFFIC SIGNAL

▲ STOP SIGN

XX' STORAGE LENGTH

Graton Rancheria Alternative H - Rohnert Park, CA

LONG TERM MITIGATED LANE GEOMETRY AND TRAFFIC CONTROL

FIGURE H9



Kimley-Horn and Associates, Inc.

## VARIANT H-SUB1 – WILFRED AVENUE SITE REDUCED INTENSITY OPTION

The Variant H-sub1 casino and hotel is proposed to be at the same site location as Alternative H, which is bordered by Wilfred Avenue in the north, Business Park Drive in the south, Langner Avenue in the west, and Dowdell Avenue in the east.

The proposed layout of the casino and hotel facility includes a main building of approximately 359,600 square feet for a casino, restaurants, food court, event center, banquet facilities, lobby, pool, spa, and other ancillary functions. In addition the project is planned to include 200 hotel rooms, primarily for casino guests.

A breakdown of square footage as it relates to traffic impacts is shown below:

- Casino and Entertainment areas – 317,750 s.f.
- Lobby/Bar/Back of House/Sundries – 14,750 s.f.
- Spa – 20,000 s.f.
- Pool – 7,100 s.f.
- 359,600 s.f.
  
- Hotel Rooms – 154,000 s.f.

The site plan also shows supporting uses such as parking lots, parking structure, and wastewater treatment facilities. This layout is virtually the same as Alternative H except that the project has been increased in size and intensity.

Within each alternative there is a reference made to the “project site” which changes for each alternative. There is not a specific project site that is being evaluated for all of the alternatives.

Because Variant H-sub1 represents a level of development between the preferred Alternative A and reduced intensity Alternative H, analysis of this alternative only addressed roadway facilities where the impacts and mitigations were different between the high and low intensity alternatives. Intersections, freeway segments, and freeway ramps where the impacts and mitigations were the same between Alternative A and Alternative H did not need to be analyzed further because they would be the same for Variant H-sub1.

### Trip Generation – Variant H-sub1

Project trip generation for Variant H-sub1 is shown in **Table H-sub1 1**. Additional trip generation calculations are contained in the **Appendix**. As seen in the table Variant H-sub1 is expected to generate 1,098 new trips in the AM and 1,819 new trips in the PM

peak hour. Although project trip generation was prepared for daily, AM, and PM periods, only the weekday PM traffic conditions were evaluated in this report because it represents the time period where the project will contribute to the greatest amount of congestion and potential mitigation. Other time periods that were considered included weekday AM, weekday late PM, and Saturday. On weekday late evenings and Saturday evenings the casino facility will generate more trips than during the 4-6 PM weekdays, but the background traffic is lower, making the overall number of vehicles on the road lower as well. Therefore, the PM peak represents the worst case period to evaluate.

**Table H-sub1 1 – Variant H-sub1 Project Trip Generation**

LAND USE	Trips						
	Daily	AM Peak Hour			PM Peak Hour		
	Total	Entering	Exiting	Total	Entering	Exiting	Total
Casino 359,600 s.f.	14,179	743	318	1,061	943	837	1,780
Hotel 200 Rooms*	545	23	14	37	21	18	39
Net New Vehicle Trips	14,724	766	332	1,098	964	855	1,819

\*Trip rate is ITE Land Use Code 310 – Hotel. Rate reduced by 2/3 to account for internal capture to/from casino.

### Project Trip Distribution and Assignment

Based on the factors discussed in the General Project Information section above it was determined that approximately 30% of the project traffic would be distributed to destinations north of the site, with the remaining 70% distributed south of the site. To be conservative, only a small percentage of project traffic was assumed to be generated or attracted in the immediate vicinity of the project site. Most of the project traffic is expected to come from the freeway therefore it was assumed that most of the traffic would use Labath Avenue because of its closer proximity to the freeway. Some traffic leaving the project site is expected to avoid congestion at Wilfred Avenue and Stony Point Road by using Millbrae Avenue.

### Near-Term Plus Project Traffic Volumes

Near-term 2008 traffic volumes were combined with vehicle trips expected to be generated by the Variant H-sub1 casino and hotel project.

### Cumulative Plus Project Traffic Volumes

Long-term 2020 traffic volumes were combined with vehicle trips expected to be generated by the Variant H-sub1 casino and hotel project.

## **Variant H-sub1 LOS Conditions and Impacts at Intersections**

Traffic operations were evaluated under the following development conditions at the following study intersections, freeway segments and ramps:

- Near-term conditions with Variant H-sub1 (year 2008)
- Long-term Cumulative conditions with Variant H-sub1 (year 2020)

### **Intersections**

- #4 - Langner Ave and Wilfred Ave
- #5 - Labath Ave and Wilfred Ave
- #6 - Dowdell Ave and Wilfred Ave
- #7 - Redwood Dr and Wilfred Ave
- #10 - Golf Course Dr and Commerce Blvd
- #12 - Commerce Blvd and US 101 NB Ramps
- #17 - Rohnert Park Expressway and Labath Ave
- #20 - Rohnert Park Expressway and US 101 NB Ramps
- #21 - Rohnert Park Expressway and Commerce Blvd

### **Freeway Segments**

- Northbound US-101 south of Gravenstein Highway (SR-116)
- Northbound US-101 between Wilfred Avenue and Santa Rosa Avenue
- Southbound US-101 between Wilfred Avenue and Rohnert Park Expressway
- Southbound US-101 between Rohnert Park Expressway and Gravenstein Highway (SR-116)

### **Freeway Ramps**

- Northbound Wilfred Avenue on-ramp
- Southbound Wilfred Avenue on-ramp
- Southbound Rohnert Park Expressway loop on-ramp
- Southbound Rohnert Park Expressway on-ramp
- Northbound Gravenstein Highway (SR-116) off-ramp
- Northbound Santa Rosa Avenue off-ramp
- Southbound Rohnert Park Expressway off-ramp
- Southbound Gravenstein Highway (SR-116) off-ramp

In the near-term analysis for Variant H-sub1, it was assumed that the Wilfred Avenue widening project will not have taken place before the casino/hotel opens. The Memorandum of Understanding (MOU) between the City of Rohnert Park and the Federated Indians of the Graton Rancheria stated that the tribe would help financially to speed up the timeline of the widening project to occur before the casino/hotel opens in 2008.

Results of the analysis are presented in **Table H-sub1 2**. (Results shown as bold in the table do not meet operational standards.) The signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections may operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections. Additional detail is provided in the **Appendix**. As shown in the results, the following intersections and approaches will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic.

### **2008 Results**

- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps
- Rohnert Park Expressway/Commerce Boulevard

### **2020 Results**

- Langner Avenue/Wilfred Avenue
- Labath Avenue/Wilfred Avenue
- Dowdell Avenue/Wilfred Avenue
- Redwood Drive/Wilfred Avenue
- Golf Course Drive/Commerce Boulevard
- Commerce Boulevard/US-101 NB Ramps



**Table H-sub1 2 – Variant H-sub1 Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008				2020			
				Existing		Base (w/o Proj.)		With Project		Base (w/o Proj.)		With Project	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	D	25.2	B	12.5	E	40.3
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	1325.1	F	OVRFL	F	OVRFL
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	709.3	F	OVRFL	F	OVRFL
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	101.9	F	169.9	F	137.9
10	Golf Course Dr/Commerce Blvd	D	TS	F	103.4	E	71.7	F	87.3	E	74.2	F	89.3
12	Commerce Blvd/US-101 NB Ramps	D	TS	C	28.2	D	46.7	E	67.3	D	50.8	E	59.5
17	Rohnert Park Expwy/Labath Ave	C	TS	C	24.6	C	25.8	C	33.2	C	28.2	C	31.8
20	Rohnert Park Expwy/US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	16.5	B	12.3	B	15.7
21	Rohnert Park Expwy/Commerce Blvd	C	TS	D	39.2	D	44.6	D	40.2	E	63.4	C	33.8

### Variant H-sub1 Traffic Signal Warrant Analysis

Variant H-sub1, near-term and long-term, traffic volumes at the unsignalized study intersection of Langner Avenue/Wilfred Avenue were compared against peak hour warrant in the *2003 Manual on Uniform Traffic Control Devices (MUTCD)* and the *California Supplement*. Results of the analysis showed that the intersection will not satisfy traffic signal Warrant #3 in the year 2008 or 2020.

Other warrants such as for minimum vehicle volumes, interruption of continuous traffic, and traffic progression were not evaluated because they generally require higher traffic volumes to be satisfied. Accident history and school areas were also not evaluated based on the results of field observations, which noted that neither of these warrant thresholds was likely to be met. A copy of the analysis summary for Warrant #3 is included in the **Appendix**.

### Variant H-sub1 LOS Conditions and Impacts on Freeway and Ramps

Project trips generated by the proposed Variant H-sub1, reduced-intensity casino and hotel were added to the year 2008 and 2020 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2008 and 2020, with the addition on the casino and hotel project. Freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the analyses are presented in **Table H-sub1 3**. (Results shown as bold in the table do not meet operational standards.) As shown in the table, project traffic will add to the background congestion of the freeway. Significant congestion is expected with the project; however the congestion is reduced as a result of the smaller casino and hotel.

**Table H-sub1 3 – Variant H-sub1 Freeway Levels of Service**

<b>Northbound</b>											
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	24.5	C	25.6	D	34.0
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	D	33.1	D	34.1	E	39.8
Wilfred Avenue NB On-Ramp	E	<b>F</b>	<b>42.0</b>	D	30.3	D	33.1	E	40.4	E	40.2
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	33.1	E	40.4	E	40.2
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	33.1	E	40.4	E	40.2
<b>Southbound</b>											
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	E	41.8	E	39.9	<b>F</b>	<b>46.3</b>
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	E	41.8	E	39.9	<b>F</b>	<b>46.3</b>
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	E	41.8	E	39.9	<b>F</b>	<b>46.3</b>
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	33.4	E	38.5	<b>F</b>	<b>41.1</b>
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	34.5	<b>F</b>	<b>37.5</b>	<b>F</b>	<b>41.9</b>
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	D	27.5	E	36.6	<b>F</b>	-
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	34.3	<b>F</b>	<b>40.3</b>	<b>F</b>	<b>45.4</b>

## Queuing Summary

As congestion increases it is common for traffic at signals and stop signs to form lines of stopped (or queued) vehicles. Queue lengths were determined for each lane and measure the distance that vehicles will backup in each direction approaching an intersection. The 95th percentile queue is calculated by using 95th percentile traffic to account for fluctuations in traffic and represents a condition where 95 percent of the time during the peak period, traffic volumes and related queuing will be at, or less, than determined by the analysis. Average queuing is generally less. Ninety-fifth percentile queuing was checked under the various future year development conditions and in consideration of the planned intersection and signal timing improvements. A typical vehicle length of 25 feet is used in the queuing analysis. A summary of the queuing results can be seen in **Table H-sub1 4**. The results indicate dedicated turn lanes where queuing may exceed their storage limits. It should be noted that some variations in intersection queuing between scenarios is a result of planned intersection and signal timing improvements.

**Table H-sub1 4 – Variant H-sub1 Queuing Summary**

Intersection	Turning Movement	Bay Length	Queue Length	
			2008	2020
17 Labath Avenue and Rohnert Park Expy	EBL	160	61	67
	EBR	200	<25	26
	WBL	250	77	42
	WBR	170	<25	<25
	NBL	130	36	38
	NBR	130	36	33
	SBL	100	494	466
	SBR			
20 NB US 101 Ramps and Rohnert Park Expy	EBL	190	<25	<25
	EBR			
	WBL			
	WBR			
	NBL	225	370	422
	NBR			
	SBL			
SBR				

## Variant H-sub1 Mitigations

Intersections with levels of service below established thresholds were investigated to determine the role of the Variant H-sub1 traffic in the projected operating conditions at those intersections. The evaluation disclosed that the following improvements as shown in **Table H-sub1 5** are needed in the near-term (2008) and long-term (2020).

**Table H-sub1 6** summarizes the expected levels of service with the proposed mitigation. Roadway improvements will be consistent with design standards for local jurisdictions in providing facilities and amenities for bicycles and pedestrians. This includes improvements such as sidewalks, countdown signals, and striped crosswalks if required by local design standards.

As mentioned previously, the signal control is listed as TS for a signalized intersection and TWSC for a two-way stop-controlled intersection. Two-way stop-controlled (TWSC) intersections maybe operate acceptably overall but only the worst approach is reported in the table. The overall level of service is reported for signalized intersections. Some mitigations are associated with queuing impacts.

Traffic signal interconnect and coordinated timing plans are included in the proposed traffic signals for Wilfred Avenue.

The combination of casino traffic and other nearby future development will require Wilfred Avenue to ultimately be widened to five lanes (including Class II bike lanes) from Redwood Drive to Langner Avenue at the edge of the project site. From Langner Avenue west to Stony Point Road, Wilfred Avenue should be two lanes with improved pavement and shoulders and it is recommended that the upgrade of Wilfred Avenue to include improved pavement and shoulders should be designed to the County standard and should include Class II bike lanes out to Stony Point Road to connect into the Class II bike lanes on Stony Point Road. Casino traffic alone can be accommodated on a three lane roadway section from Redwood Drive to Langner Avenue, therefore, they will contribute a proportionate share for the ultimate cost of the widening of Wilfred Avenue.

Langner Avenue and Labath Avenue should be improved and either removed from County jurisdiction or designed to the County standard.

An overcrossing should be built from State Farm Drive to Business Park Drive over US-101 with a southbound slip ramp lane that would open up just south of the US-101 NB off-ramp directly to the overcrossing. The overcrossing helps redirect project traffic away from the Wilfred interchange to a new facility capable of accommodating casino traffic. Additional right-of-way is necessary on State Farm Drive as well as Business Park Drive. Access to State Farm Drive will need to be modified and adjusted, but it is not anticipated that there will need to be any closures associated with the overcrossing. The overcrossing should begin east of the State Farm Drive/Commerce Boulevard intersection and touch down west of the Business Park Drive/Redwood Drive intersection. With this mitigation, all of the existing turning movements at the

Commerce/State Farm and the Redwood/Business Park intersections will be permitted as they currently exist.

Modification to any interchanges requires review and approval from Caltrans' Department Headquarters Division of Design.

**Table H-sub1 5 – Variant H-sub1 Summary of Mitigations**

Period	#	Intersection	Mitigation	Requires ROW?	Reason
2008	4	Langer Ave/ Wilfred Ave	No mitigation necessary	-	-
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add WB left and change WB all shared to through-right <sup>1</sup></li> <li>Add NB right and change NB all shared to left-through</li> </ul>	No Yes Yes	Capacity Capacity Tribeland
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize</li> <li>Add WB left and change WB all shared to through-right <sup>1</sup></li> <li>Add EB left and change EB all shared to through-right <sup>1</sup></li> </ul>	No Yes Yes	Capacity Capacity Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>Change WB left-through to WB through</li> <li>Change phasing east-west to protected from split</li> <li>Optimize signal timing</li> <li>Add EB left and change EB all shared to through-right <sup>1</sup></li> </ul>	No No No Yes	Capacity Capacity Capacity Capacity
	10	Golf Course Dr/ Commerce Blvd	No mitigation necessary	-	-
	12	Commerce Blvd/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Construct the State Farm-Business Park Overcrossing and a southbound slip ramp from the US-101 NB Ramps to the overcrossing</li> </ul>	Yes	Capacity
	17	Rohnert Park Expwy/ Labath Ave	<ul style="list-style-type: none"> <li>Extend SB left turn bay to 350 feet (from 100 feet)</li> </ul>	Yes	Queue
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Extend NB left turn bay to 400 feet (from 225 feet)</li> <li>Add second NB left turn lane</li> </ul>	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	<ul style="list-style-type: none"> <li>Add an EB right turn overlap phase</li> <li>Optimize signal timing</li> </ul>	Yes No	Capacity Capacity

<sup>1</sup> In summary, widen Wilfred Ave to three lanes from Labath Ave to Redwood Dr

Period	#	Intersection	Mitigation	Requires ROW?	Reason
2020	4	Langer Ave/ Wilfred Ave	No mitigation necessary	-	-
	5	Labath Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> <li>Add NB right and change NB all shared to left-through *</li> </ul>	No Yes	Capacity Tribeland
	6	Dowdell Ave/ Wilfred Ave	<ul style="list-style-type: none"> <li>Signalize *</li> </ul>	No	Capacity
	7	Redwood Dr/ Wilfred Ave	<ul style="list-style-type: none"> <li>Optimize signal timing *</li> <li>Change WB left-through to WB through *</li> <li>Change phasing east-west to protected from split *</li> </ul>	No No No	Capacity Capacity Capacity
	10	Golf Course Dr/ Commerce Blvd	<ul style="list-style-type: none"> <li>Add EB right turn overlap phase</li> </ul>	No	Capacity
	12	Commerce Blvd/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Construct the State Farm-Business Park Overcrossing and a southbound slip ramp from the US-101 NB Ramps to the overcrossing *</li> </ul>	Yes	Capacity
	17	Rohnert Park Expwy/ Labath Ave	<ul style="list-style-type: none"> <li>Extend SB left turn bay to 350 feet (from 100 feet) *</li> </ul>	Yes	Queue
	20	Rohnert Park Expwy/ US-101 NB Ramps	<ul style="list-style-type: none"> <li>Extend NB left turn bay to 400 feet (from 225 feet) *</li> <li>Add second NB left turn lane *</li> </ul>	Yes Yes	Queue Capacity
	21	Rohnert Park Expwy/ Commerce Blvd	No mitigation necessary	-	-

\* Improvement assumed to occur with 2008 mitigation

**Table H-sub1 6 – Variant H-sub1 Mitigated Intersection Levels of Service**

	Intersection	Criteria	Signal Control	2005		2008						2020					
				Existing		Base (w/o Proj.)		With Project		Mitigated		Base (w/o Proj.)		With Project		Mitigated	
				LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
4	Langer Ave/Wilfred Ave	D	TWSC	A	9.4	B	11.3	D	25.2	C	18.8	B	12.5	E	40.3	D	26.0
5	Labath Ave/Wilfred Ave	D	TWSC	A	9.1	F	77.4	F	1325.1	C	26.8	F	OVRFL	F	OVRFL	C	27.3
6	Dowdell Ave/Wilfred Ave	D	TWSC	A	9.1	F	623.3	F	709.3	C	23.1	F	OVRFL	F	OVRFL	C	33.8
7	Redwood Dr/Wilfred Ave	D	TS	C	23.3	E	77.6	F	101.9	D	41.0	F	169.9	F	137.9	D	53.7
10	Golf Course Dr/Commerce Blvd	D	TS	F	103.4	E	71.7	F	87.3	D	53.4	E	74.2	F	89.3	D	54.1
12	Commerce Blvd/US-101 NB Ramps	D	TS	C	28.2	D	46.7	E	67.3	D	49.1	D	50.8	E	59.5	D	43.1
17	Rohnert Park Expwy/Labath Ave	C	TS	C	24.6	C	25.8	C	33.2	C	33.2	C	28.2	C	31.8	C	31.8
20	Rohnert Park Expwy/US-101 NB Ramps	D	TS	A	9.8	B	10.8	B	16.5	B	11.8	B	12.3	B	15.7	B	12.8
21	Rohnert Park Expwy/Commerce Blvd	C	TS	D	39.2	D	44.6	D	40.2	C	30.9	E	63.4	C	33.8	C	33.7

Only the intersections of Rohnert Park Expressway/Labath Avenue and Rohnert Park Expressway/US-101 NB Ramps have mitigations for Variant H-sub1 that are different from Alternative H.

Results indicate that the freeway will not meet standards with the project, even with the future construction of HOV lanes, ramp metering, and auxiliary lanes associated with the Wilfred interchange project. As mitigation the project should do the following which will result in the mitigated levels of service shown in **Table H-sub1 7**:

- The project should contribute a proportionate share of the costs of the construction of auxiliary lanes between Rohnert Park Expressway and Gravenstein Highway (SR-116) in the long-term (2020).
- The project should contribute a proportionate share of the costs of the construction of the Wilfred Avenue interchange project, including HOV lanes, ramp metering, and auxiliary lanes in the near-term (2008).
- The project should contribute a proportionate share of the costs of the construction of an additional traffic lane in the southbound direction from Santa Rosa Avenue to Rohnert Park Expressway and from Gravenstein Highway (SR-116) to West Sierra Avenue in the long-term (2020).

The freeway mitigations for Variant H-sub1 are the same as for Alternative H.

Aside from roadway improvements to mitigate protect impacts, the casino and hotel should coordinate with the Green Music Center during outdoor events that will generate high traffic levels. During that period, traffic control services at the Rohnert Park interchange may be necessary. Therefore, the casino/hotel project should provide funding for special event traffic monitoring at the Rohnert Park Expressway interchange to identify conflicts during outdoor events generate high traffic levels. If conflicts occur,

the project should provide traffic management coordination between the casino/hotel project and Green Music Center in consultation with CHP and Caltrans to assist in traffic control.

Because no fixed route service will be available at the project site, the casino/hotel should provide a shuttle that serves the two Rohnert Park transfer stations. The shuttle should run throughout the day or could be called out on demand.

The casino should also sponsor charter buses from farther away destinations such as Marin County and the south Bay. The buses could serve specific groups such as senior citizens or social clubs, while reducing the number of single occupancy vehicles to the site. Preferential carpool or vanpool spaces should also be provided at the project site to encourage ridesharing by patrons and employees. The casino should provide employee incentives such as subsidized transit passes, flexible work schedules, the validation of transit tickets to provide free return trips, or subsidized shuttle services.

It is recommended that the casino contribute to the operation of SMART if it is implemented. Implementation of the SMART transit option will reduce the commuter congestion on US-101.

Mitigations to reduce the impact of the construction include the implementation of a construction traffic management plan for the duration of construction of the project and training for construction delivery vehicle drivers.

It is recommended that the project attempt to minimize the amount of construction fill transported on the surrounding street network by eliminating or shortening the off-site travel route. Potential options for eliminating off-site transport include moving fill material via conveyors across barriers such as creeks and ditches or installing temporary bridges for haul vehicles across the barriers.

If there is a special exception and off-site fill is necessary, construction material importation should be scheduled outside of the areawide commute peak hours. Debris along the truck route caused by trucks should be monitored daily and the roadways should be cleaned as necessary. Roadways subject to fill truck traffic should be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. If the third party determines that roadway deterioration has occurred as a result of casino construction, it is recommended that the developer pay to have surrounding roadways resurfaced to restore the pavement to the pre-construction condition, unless the resurfacing is already expected to occur within a year or sooner in conjunction with other planned or proposed roadway improvements.

To help ensure adequate public safety during construction, particularly near the project site, the tribe should provide flagging when necessary in consultation with CHP, Caltrans, and the County's Sheriff's Department to assist with traffic control.



**Table H-sub1 7 – Variant H-sub1 Mitigated Freeway Level of Service Summary**

US-101 Section/Ramp	Criteria		Existing		2008		2008 + Alt H.1		2008 + Alt H.1 Mitigated		2020		2020 + Alt H.1		2020 + Alt H.1 Mitigated		
	LOS	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
<b>Northbound</b>																	
US-101 South of Gravenstein Highway (NB)	E	C	22.2	C	19.1	C	24.5	C	24.5	C	25.6	D	34.0	D	34.0		
Gravenstein Highway NB Off-Ramp	E	D	30.8	C	27.4	D	33.1	D	33.1	D	34.1	E	39.8	E	39.8		
Wilfred Avenue NB On-Ramp	E	F	42.0	D	30.3	D	33.1	D	33.1	E	40.4	E	40.2	E	40.2		
US-101 Between Wilfed Avenue and Santa Rosa Avenue (NB)	E	D	26.7	D	30.3	D	33.1	D	33.1	E	40.4	E	40.2	E	40.2		
Santa Rosa Avenue NB Off-Ramp	E	E	37.2	D	30.3	D	33.1	D	33.1	E	40.4	E	40.2	E	40.2		
<b>Southbound</b>																	
Wilfred Avenue SB On-Ramp	E	D	33.7	D	33.4	E	41.8	E	41.8	E	39.9	F	46.3	D	33.1		
US-101 Between Rohnert Park Expressway and Wilfred Avenue (SB)	E	E	35.2	D	33.4	E	41.8	E	41.8	E	39.9	F	46.3	D	33.1		
Rohnert Park Expressway SB Off-Ramp	E	E	38.0	D	33.4	E	41.8	E	41.8	E	39.9	F	46.3	D	33.1		
Rohnert Park Expressway SB On-Ramp (Loop Ramp)	E	E	36.0	D	30.9	D	33.4	D	33.4	E	38.5	F	41.1	C	26.2		
Rohnert Park Expressway SB On-Ramp	E	E	35.1	D	30.1	D	34.5	D	34.5	F	37.5	F	41.9	E	39.4		
US-101 Between Rohnert Park Expressway and Gravenstein Highway (SB)	E	D	27.1	C	22.3	D	27.5	D	27.5	E	36.6	F	-	E	39.4		
Gravenstein Highway SB Off-Ramp	E	D	33.9	D	29.2	D	34.3	D	34.3	F	40.3	F	45.4	E	39.4		

## REFERENCES CONSULTED

- Collision History – Caltrans
- Countywide Transportation Plan for Sonoma County, 2001
- Freeway Forecast – Caltrans
- Golden Gate Transit
- Guide for the Preparation of Traffic Impact Studies, Caltrans, December 2002.
- ITE Trip Generation, 7<sup>th</sup> Edition
- Meeting with Caltrans, November 2004
- Northwest Specific Plan, Final Draft, 2004
- Public Scoping Comments – Caltrans letter to Christine Nagle, NIGC, April 1, 2004
- Rohnert Park General Plan, July 2000.
- Shingle Springs Interchange Project – Final Environmental Impact Report/Environmental Assessment, September 2002.
- Sonoma County General Plan, March 1989.
- Sonoma County Travel Forecast provided by SCTA
- Telephone and email communications with Chris Barney, Sonoma County Transportation Authority, September 2005.
- Telephone and email communications with Elijah Henley, Sonoma County Transportation Authority, September 2005.
- Telephone and email communications with Miaja Cottle, Caltrans
- Telephone and email communications with Ray Centeno, Caltrans
- Telephone and email communications with Rod Noda, Caltrans,
- Telephone communications with Brian Albie, General Manager - Sonoma County Transit, October 6, 2003.
- Telephone communications with Floyd Ross – Executive Director of the Green Music Center, Sonoma State University, September 2005.
- Telephone communications with Norma Jellison, Golden Gate Bride Authority
- Telephone communications with Rick Kennedy, Executive Director, Northwestern Pacific Railroad Authority
- Traffic Impact Study for the Auburn Rancheria Residential Project – Draft Report, Fehr & Peers Associates, Inc., January 28, 1999.
- Wilfred Avenue Interchange Project, Initial Study, Environmental Assessment, July 2004 - Caltrans
- Wilfred-Dowdell Specific Plan, Draft, 2004
- Telephone communication with David Stewart, Utility Engineer, Consumer Protection and Safety Division, Rail Crossings Engineering Section, Public Utilities Commission, December 14, 2006.
- Telephone communication with Suzanne Smith, Sonoma County Transportation Authority, December 2006.

**The traffic study technical appendix is 1011 pages in length. It has therefore not been reproduced in the Record of Decision in order to reduce unnecessary duplication and paperwork pursuant to the Council on Environmental Quality's National Environmental Policy Act Regulations (40 C.F.R §§ 1500.4 and 1503.4). The technical appendix is available in full upon request from the National Indian Gaming Commission.**

# ***ATTACHMENT 5***

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*Responses to Public Comments on FEIS*

# CHAPTER 1.0

## COMMENTS

Commenters that submitted written comments on the Final EIS are listed in **Table 1**. During the FEIS waiting period of total of 19 letters were received. These comment letters have been bracketed into individual comments and assigned a number (see **Chapter 2.0**). **Chapter 3.0** contains responses to substantial environmental concerns raised during the waiting period.

**TABLE 1**  
LIST OF COMMENTERS

Letter	Individual or Signatory	Affiliation	Address	Date
<b>Government Agencies</b>				
G-1	Paul L. Kelley, Chair	Sonoma County Board of Supervisors	575 Administration Drive, Room 100A, Santa Rosa, CA, 95403	3/30/2009
G-2	Kathleen M. Goforth	U.S. Environmental Protection Agency-Region IX	75 Hawthorne Street, San Francisco, CA 94105-3901	3/26/2009
G-3	Michael Ban	City of Petaluma- Water Resources and Conservation Department	202 North McDowell Blvd., Petaluma, CA 94952	3/24/2009
G-4	Katy Sanchez	Native American Heritage Commission	915 Capital Mall, Room 364, Sacramento, CA 95814	3/10/2009
G-5	Mike Moore	City of Petaluma- Community Development	11 English Street, Petaluma, CA 94952	3/26/2009
G-6	Lisa Carboni	California Department of Transportation	111 Grand Avenue, P.O. Box 23660, Oakland, CA 94623-0660	3/19/2009
G-7	Andrea Hoch	California Office of the Governor- Legal Affairs Secretary	Governor's Office- State Capital (Attention: Legal Affairs Secretary) Sacramento, CA 95814	5/01/2006
G-8	Pamela Torliatt	City of Petaluma	P.O. Box 61, Petaluma, CA 94953-0061	4/01/2009
G-9	Douglas A. Williams	Rincon Valley Fire Protection District	8200 Old Redwood Highway, P.O. Box 530, Windsor, CA 95492	3/10/2009
G-10	Terry Roberts	California Governor's Office of Planning and Research	1400 10 <sup>th</sup> Street, P.O. Box 3044, Sacramento, CA 95812-3044	5/7/2009
G-11	Kathleen M. Goforth	U.S. Environmental Protection Agency-Region IX	75 Hawthorne Street, San Francisco, CA 94105-3901	5/27/2009
G-12	Jared Huffman	Assemblymember, California Legislature	3501 Civic Center Drive, Suite 412, San Rafael, CA 94903	6/15/2009
<b>Business and Non-Governmental Agencies</b>				
B-1	Chip Worthington	Stop the Casino 101	4695 Snyder Lane, Rohnert Park, CA 94928	3/24/2009
B-2	Alan Titus	Robb & Ross	591 Redwood Highway, Suite 2250, Mill Valley, CA 94941	3/26/2009
B-3	David Grundman	Reclaiming Our Environmental Rights	6715 Dexter Circle, Rohnert Park, CA 94928	3/26/2009
B-4	Chip Worthington	Stop the Casino 101	4695 Snyder Lane, Rohnert	3/20/2009

<b>Letter</b>	<b>Individual or Signatory</b>	<b>Affiliation</b>	<b>Address</b>	<b>Date</b>
			Park, CA 94928	
B-5	Marilee Montgomery	Stop the Casino 101	152 Wilfred Avenue, Santa Rosa, CA 95407	4/21/2009
B-6	Marilee Montgomery	Stop the Casino 101	152 Wilfred Avenue, Santa Rosa, CA 95407	5/07/2009
<b>Individuals</b>				
I-1	Paul D. Stutrud		P.O. Box 2205, Rohnert Park, CA 94927	2/25/2009
I-2	Eunice Edgington		990 Echo Court, Rohnert Park, CA 94928	3/06/2009
I-3	Marilee Montgomery		152 Wilfred Avenue, Santa Rosa, CA 95407	3/11/2009
I-4	Dan Monte		33 Jefferson Avenue, San Rafael, CA 94903	3/27/2009
I-5	Linda M Long		944 Helene Court, Rohnert Park, CA 94928	3/20/2009

# **CHAPTER 2.0**

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## **COMMENT LETTERS**

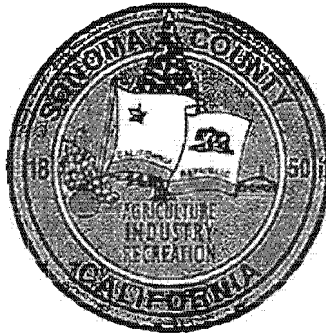
- **GOVERNMENT AGENCY LETTERS**
  
- **BUSINESS AND NON-GOVERNMENT AGENCY LETTERS**
  
- **INDIVIDUAL LETTERS**

*Government Agency Letters*



## Comment Letter G-1

COUNTY OF SONOMA  
BOARD OF SUPERVISORS  
575 ADMINISTRATION DRIVE, RM. 100A  
SANTA ROSA, CALIFORNIA 95403  
  
(707) 565-2241  
FAX (707) 565-3778



### MEMBERS OF THE BOARD

PAUL L. KELLEY  
CHAIR

VALERIE BROWN  
VICE CHAIR

MIKE KERNS

SHIRLEE ZANE

EFREN CARRILLO

March 30, 2009

Mr. Brad Mehaffy  
NEPA Compliance Officer  
National Indian Gaming Commission  
1441 L Street, NW, Suite 9100  
Washington, D.C. 20005

Dear Mr. Mehaffy:

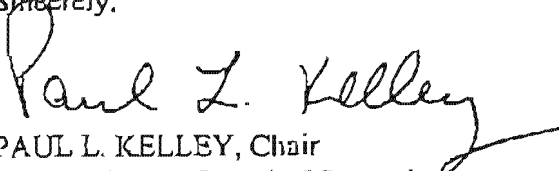
At its meeting of March 24, 2009, the Sonoma County Board of Supervisors and Board of Directors of the Sonoma County Water Agency formally approved the attached comments on the Final Environmental Impacts Statement ("FEIS") for the Federated Indians of Graton Rancheria Casino and Hotel Project ("proposed project"). Please include these comments in any Record of Decision for the proposed project.

The attached comments are intended to identify those areas in which the FEIS remains deficient and out of compliance with the National Environmental Policy Act ("NEPA"). Among other issues, the FEIS includes incorrect background information, including about the County General Plan; fails to analyze the impacts of necessary project components, including the widening of Wilfred Avenue west of the project site; and fails to properly mitigate the project's significant adverse impacts related to flooding and drainage, problem and pathological gamblers, and other resources.

The County hereby requests that the FEIS be revised to better address these issues. The County appreciates the efforts to date of the NIGC, EIS preparers, and the Tribe, and we remain committed to working with all parties to ensure that all impacts and alternatives are disclosed, analyzed, and fully mitigated before project approval.

Thank you in advance for your consideration of the County's comments. If you have questions or require additional information, please contact Jeffrey Brax, Deputy County Counsel, at (707) 565-2421.

Sincerely,

  
PAUL L. KELLEY, Chair  
Sonoma County Board of Supervisors  
Sonoma County Water Agency

G-1.1

**County of Sonoma and Sonoma County Water Agency**

**Comments on the Graton Rancheria Casino and Hotel Project  
Final Environmental Impact Statement (FEIS)**

The following comprises the comments of the County of Sonoma and Sonoma County Water Agency (collectively "County") on the FEIS for the Graton Rancheria Casino and Hotel Project (proposed project). We acknowledge and appreciate the changes that were made to the Draft EIS, and to the Preliminary Final EIS (PFEIS), in response to our suggestions and the comments of others. We also appreciate the courtesy and cooperation of the both the National Indian Gaming Commission and the EIS preparers in providing copies of the document and information about issuance of the Record of Decision (ROD).

As detailed below, we believe the FEIS does not appropriately respond to several important comments on the Draft EIS, and does not meet the National Environmental Policy Act requirement that it take a "hard look" at the project's impacts and mitigate them to a less-than-significant level. We respectfully request that the NIGC direct the revision of the FEIS as outlined below, and circulate the revised document for public review.

G-1.1  
cont.

If the NIGC instead proceeds with the ROD, we hereby reiterate our agreement with the United States Environmental Protection Agency that the NIGC should approve Alternative H, the reduced intensity project, rather than Alternative A.

**I. Traffic**

**A. Local Roads**

**1. Wilfred Avenue**

The County has consistently and repeatedly commented that any project alternative located on Wilfred Avenue would create significant adverse traffic safety and capacity impacts on the roadway. As the FEIS acknowledges at p. 3.8-1, Wilfred Avenue is a rural two-lane roadway with open roadside ditches and no shoulders. It cannot safely accommodate any substantial increase in traffic without widening to three lanes from Stony Point Rd. to the Urban Growth Boundary (UGB).

G-1.2

The FEIS includes several project alternatives located on Wilfred Ave, including Alternative C, which is adjacent to Alternative A—immediately west of Langer Ave instead of immediately east. The FEIR correctly acknowledges that these alternatives would result in significant adverse impacts on Wilfred Avenue, and requires widening to three lanes from Stony Point Rd. to the UGB. (Pp. 5-38 and 42, fn. 4.)

The PFEIS incorrectly omitted a similar requirement for Alternative A, despite its location and generation of substantial traffic on Wilfred Ave. In conversations with the County, the EIS preparers stated that this was an inadvertent omission, and would be corrected in the FEIS. The error has not been corrected, however. The FEIS continues to require widening only for Alternatives B and C. (Pp. 5-38 and 42, fn. 4.)

This is a significant omission and, if not corrected, renders the FEIS deficient as a matter of law. The FEIS concedes that Alternative A would generate 18,261 new vehicle trips per day (p. 4.8-19), 15 percent of which would enter and 12 percent would exit using the County portion of Wilfred Avenue (Figures 4.8-4 and -5.) Those figures are likely understated, but even if accurate, they reveal that Alternative A would generate more than 4,930 new vehicle trips every day on a rural two-lane roadway with open roadside ditches and no shoulders. Wilfred Avenue cannot safely accommodate 4,930 new, daily vehicle trips without widening to three lanes with full 12' width lanes and full 8' width shoulders with turn lanes for intersecting roads. There is no legitimate basis for treating Alternative A differently than the immediately-adjacent Alternative C, or for declining to require widening of Wilfred Avenue from the project site to Stony Point Rd.

G-1.2  
cont.

On p. 5-65, the FEIS states that if Wilfred Avenue is not widened to increase capacity, "it is recommended that" the Tribe pay a contribution to potential future roadway improvements. This measure is inadequate. No significant development is slated west of the project site, and the County has no plans to widen Wilfred Avenue. The proposed project alone would generate at least 4,930 new trips every day, from the first day it opens. A "recommended" fair share would not reduce the project's adverse traffic capacity and safety impacts to a less than significant level.

## **2. Langner Avenue and Labath Avenue South of Wilfred Avenue**

As the County has previously commented, the FEIS requires only funding of the restructuring of these roads subsequent to project construction, and does not require any roadway improvements (such as widening) to mitigate traffic safety and capacity impacts resulting from project operation. As with Wilfred Avenue, these avenues are rural, two-

G-1.3

lane roadways with open roadside ditches and no shoulders. They cannot accommodate project construction, much less operations, without substantial improvement.

G-1.3  
cont.

The FEIS should also identify whether these roads would remain in public ownership after the project opens, or whether the Tribe would petition the County to relinquish these roads from public ownership.

**3. Roads North of Wilfred Ave (Millbrae Ave and its connectors to Wilfred Ave)**

As the County has previously commented, the FEIS requires only a fair share of a future traffic signal at the Stony Point/Millbrae intersection, and requires no measures to mitigate the project's operational traffic safety and capacity impacts on the roadways themselves. The County has consistently advised that project traffic will undoubtedly find its way onto those roads, which exhibit a variety of non-standard roadway features, including fragile pavement structure. Traffic safety concerns are exacerbated since project traffic would typically be non-local and typically unfamiliar with the roads' deficient conditions. The potential for project traffic to use these roads also would increase if the Tribe does not widen Wilfred Ave between Stony Point Rd to the UGB.

G-1.4

**B. Highway 101**

The FEIS continues to misstate the relevant threshold of significance. At page 3.8-7, the FEIS states that Level of Service (LOS) E is acceptable to Caltrans. In fact, Caltrans does not allow LOS D or lower to be made worse by development-generated traffic. Current LOS D or less must be maintained at present levels.

The failure to apply the actual threshold of significance is a fundamental problem that must be corrected before issuance of the ROD. The FEIS should be revised to disclose the correct threshold and mitigate traffic conditions that would fall below it upon project implementation.

G-1.5

The FEIS also continues to improperly rely on funding of the Hwy 101/Wilfred Avenue and other HOV projects as mitigation. As the County has repeatedly commented, those projects were developed to address existing conditions and planned growth in the region without the project. Indeed, the FEIS acknowledges at Table 4.8-1 that Hwy 101 operates already unacceptably in 2008 at LOS E. Caltrans did not account for additional project-generated traffic in performing modeling and operational analysis for the any of the Hwy 101 HOV projects. As a result, contributing to the HOV projects would not mitigate the project's significant traffic impacts.

It is especially inappropriate to claim credit for funding the Wilfred Project. The Wilfred Project has already been awarded and will start construction in spring of 2009. No further funding is necessary, and the FEIS should not claim to the contrary, much less pretend that a monetary contribution would mitigate the project's significant traffic impacts.

Instead, the FEIS should recognize that the project would add the equivalent of one entire traffic lane of volume to the entire Hwy 101 corridor from Rohnert Park southbound. The FEIS should disclose that the project would generate close to 1600 vph during peak traffic times, which Caltrans uses a LOS C volume for freeway segments.

The FEIS should be revised to discuss the actual measure that would be necessary to mitigate the project—the addition of another full lane to the entire Hwy 101 corridor south of Rohnert Park. If this measure is infeasible because of physical or economic constraints, the FEIS should pragmatically address the project's significant short- and long-term impacts to provide at least some positive traffic congestion relief. Specifically, the Central B Project HOV Project (Pepper Road to Old Redwood Hwy) will be 100% designed by late 2009, but is funded only through design. The funding shortfall for construction is approximately \$32 million.

G-1.5  
cont.

The FEIS states that the Tribe "support(s) efforts related to the completion of the project (Wilfred Avenue to Old Redwood Hwy HOV projects) in a timely fashion (2008)." As a result, the FEIS should require the Tribe to contribute the entire cost of construction for the last remaining segment (Central B) of HOV lanes between Wilfred Avenue and Old Redwood Hwy as its fair share to all of the projects it counts as its mitigation. The \$32 million cost identified above is approximately the cost of one freeway lane of traffic between Wilfred Ave and Old Redwood Hwy—i.e. the cost to mitigate the increased freeway traffic generated by the project alone.

It would also be appropriate to require the Tribe to fund SCTA's administrative effort to seek and program funds for the completion of other HOV projects south of the project site, since 69% of project traffic would come from south of Rohnert Park. In particular, a "proportional share" for the Hwy 101 Marin-Sonoma Narrows (MSN) projects currently under design appears warranted, since the project would impact this portion of Hwy 101.

The FEIS should also be revised to identify the methodology to be used to calculate the Tribe's contribution to roadway improvements contemplated on page 5-37. For state highways, Caltrans uses the Method For Calculating Equitable Mitigation

Measures” outlined in the “Guide For The Preparation Of Traffic Impact Studies.” The formulas should be used when “a project has impacts that do not immediately warrant mitigation, but their cumulative effects are significant and will require mitigating in the future,” and when “[a] project has an immediate impact and the lead agency has assumed responsibility for addressing the improvements.”

G-1.5  
cont.

The FEIS should also be revised to disclose whether the establishment of escrow accounts for project contributions would apply to Caltrans or SCTA as well as the County for both 2008 and 2020 mitigation.

### **C. Timing of Roadway Improvements.**

As the County has previously commented, all identified full-share road improvements should be constructed by the Tribe instead of simply being funded, as the FEIR indicates (2<sup>nd</sup> paragraph of Section 5.2.7, Mitigation for Intersections). The County’s standard practice in conditioning all other development projects requires the developer to construct road improvements necessary to mitigate project impacts. This developer should not be treated differently. Nor should the County be expected to incur the administrative and organizational burden of designing and constructing such developer-driven road improvements.

G-1.6

In addition, all full-share improvements listed must be constructed prior to project occupancy/operation start-up. This is necessary to ensure timely mitigation of the project’s significant traffic safety and capacity impacts.

### **D. Construction Traffic.**

In Appendix FF Section 2.11.13, Construction Impacts response, page 291, the FEIS seems to present the specious argument that the County and other public agencies have the responsibility to ensure that their roads have the structural ability to withstand traffic loads commensurate with road classifications. It would follow, then, that the FEIS intends to assess the project’s construction traffic impacts relative to that idealized condition. In fact, the County’s road classifications represent only the roads’ actual use, independent of whether they have been engineered and constructed to a particular standard. A case in point is Wilfred Avenue. The FEIS should therefore recognize that the project’s construction traffic impacts on the structural integrity of any affected roads must be analyzed and mitigated in direct response to the reasonably predicted and (ultimately) actual damage to the road given its existing condition.

G-1.7

The County has previously commented that the massive importation of fill required to construct the proposed project would destroy Wilfred Avenue and significantly impact other County roads. In previous conversations, the EIR preparers indicated they were willing to prohibit the use of County roads to import fill, and to specify exact routes for other construction traffic.

These measures do not appear to have been incorporated into the FEIS. Instead, the FEIS states that County roads will be used "whenever necessary." This remains inappropriate. Wilfred Avenue in particular could not stand up to haul truck traffic and would need repeated and timely maintenance to provide on-going serviceability of the pavement, including but not limited to pothole patching, repair of distorted areas, and additional paving to maintain smoothness. The FEIS offers third party review of the pavement condition upon completion of the haul operation, but does not allow County approval of the consultant and does not specify the methodology to be used in assessing the degree of the final pavement mitigation. Absent further analysis and mitigation, the FEIS fails to meet its NEPA duty of taking a "hard look" at construction traffic impacts.

G-1.7  
cont.

Page 5-64 states that lane closures are to be off-peak "when feasible." In fact, lane closures must be prohibited for traffic congestion and safety reasons, and exceptions allowed only at the sole discretion of the County.

Page 5-65 states that importation of construction material shall be scheduled outside area-wide commute peak hours. In fact, the fill is scheduled for 10-hour days, 6 days a week, for several months (page 4.8-16). It is impossible to meet this schedule and still avoid commute hours. The County has previously identified this issue, but the EIS preparers have not addressed it.

#### E. Specific Comments

Page 3.8-6 should be revised to refer to SCT (Sonoma County Transit) and delete the word "Authority." The FEIS also should be revised to update its information regarding the Sonoma Marin Area Rail Transit project. Measure Q passed in the November 2008 election with 68.5% of the vote, raising the sales tax by one quarter percent to pay for construction and operations of the project.

G-1.8

Page 3.8-8 should be revised to clarify that the Rohnert Park Expressway (RPX) SB ramp has been completed and in service for at least two years.

As the County has previously commented, Section 5.0 of the FEIS should be revised to clearly identify operational traffic impact mitigations for the various impacted

road segments. The FEIS contains a footnoted reference to the Wilfred Avenue segment (Table 5.7, Intersection Improvements) but no other segment improvements are noted. Cases in point include Langner and Labath Avenues.

Page 5-58 conditions the Tribe's proportional share contribution for the HOV projects between Wilfred Avenue and Old Redwood Hwy to "remaining costs (if any)." The FEIS thus appears to use state and local tax measure funding as mitigation for the project's significant LOS impacts to the Hwy 101 corridor. This is inappropriate. As discussed above, Caltrans did not account for project-generated traffic in its traffic operational analyses for the HOV projects. The HOV projects do not mitigate the project's traffic impact.

G-1.8  
cont.

On page 5-61, Table 5-12 does not include a column for Alt. A Mitigated 2008 LOS.

## II. Law Enforcement

Similar to previous versions of the document, the FEIS fails to take a "hard look" at the project's impacts on law enforcement. The FEIS fails to present a detailed analysis of fiscal impacts, and instead repeatedly states that the Tribe will negotiate an agreement to compensate the County. This is entirely inappropriate. As the County has repeatedly commented, the sole purpose of an FEIS is to disclose, analyze, and mitigate impacts before project approval. Relying on a deferred negotiation is an inadequate substitute that does nothing to fill in the FEIS's analytical and mitigation gaps.

The FEIS also fails to adequately respond to the County's previous comments regarding the annual payments necessary to mitigate general law enforcement impacts, detention and justice services, and County-wide special services including SWAT, Bomb, and Helicopter units. The FEIS argues only that since the latter were included in the overall County budget, they were already factored into the funding level proposed to mitigate fiscal impacts. This claim is insufficient to fully disclose and analyze the fiscal impacts to the Sheriff's Department.

G-1.9

In response to previous County comments, the FEIS has updated its references to jurisdictional authority. The FEIS now correctly states that assuming no agreements to the contrary between the Sheriff's Department and another agency, the Sheriff's Department would be the primary law enforcement service provider unless the project site is annexed by Rohnert Park. The FEIS should be further revised to actually analyze



the likelihood of such annexation, and the ways in which it would alter the provision of public services to the project.

G-1.9  
cont.

Finally, the FEIS states that Creekside Middle School is served by Rohnert Park via a contract. In fact, the school was annexed by Rohnert Park in late 2006 or early 2007, and the City is directly responsible for providing services.

### III. Fire and Emergency Services

Although the FEIS offers proposed mitigations for the primary fire department responder, it fails to address the impacts that will be realized by other jurisdictions serving the area. An assessment of these service area impacts, with corresponding mitigations, requires the completion of a "Standards of Cover for Emergency Response" analysis consistent with a nationally recognized standard.

The analysis needs to emphasize the delivery of an effective firefighting force, with specific attention to the impacts upon regional resource draw down (especially in the Hwy 101 corridor) and the need to dynamically relocate resources as incidents occur. The analysis should include a remedy to the financial impacts associated with increased service delivery.

Absent this analysis, the FEIS fails to meet NEPA standards. It is not sufficient merely to state that the provider of primary services could be the Rohnert Park Department of Public Safety, and that the Tribe would enter an agreement that "could consider mutual aid services." Such statements fail to analyze and ensure mitigation of the project's direct impacts on fire services, much less its significant cumulative effects on regional fire services providers.

G-1.10

The FEIS also should be revised to update its information regarding the Sutter-Memorial Hospital transaction. In January 2007, Sutter Medical Center of Santa Rosa (SMCSR) and Santa Rosa Memorial Hospital (Memorial) announced they signed a letter of intent that included the transfer of certain HCAA obligations from SMCSR to Memorial. In March 2008, SMCSR and Memorial announced the termination of their negotiations. SMCSR is proposing a revised Business Plan to present to the Board of Supervisors to allow SMCSR to more efficiently comply with its HCAA obligations through 2021. SMCSR has indicated that the proposed revised Business Plan will include construction of a 70 bed hospital at the Wells Fargo Center for the Arts site. The hospital will include an ER, ICU, Medical/Surgical, Labor & Delivery, a Neonatal

Intensive Care Unit, and SMCSR will continue to serve the County's uninsured and underinsured through 2021.

G-1.10  
cont.

SMCSR's proposed plan may be viewed on the County's website at [www.sonoma-county.org/county-sutter-proposal](http://www.sonoma-county.org/county-sutter-proposal). Additional information is available at [www.sonomacounty.org/health/admin/pdf/press\\_release\\_sutter\\_submits\\_proposed\\_plan\\_to\\_county\\_11\\_20\\_08.pdf](http://www.sonomacounty.org/health/admin/pdf/press_release_sutter_submits_proposed_plan_to_county_11_20_08.pdf).

#### **IV. Socioeconomics and Health Services**

##### **A. Problem and Pathological Gambling**

The FEIS errs by relying on information 11 years out of date, including outdated findings from the California Council on Problem Gambling (CCPG). The CCPG has made more recent findings regarding the need for formal intensive treatment, help lines, and public awareness and prevention campaigns targeting the public, gamblers, and casino employees. The CCPG also recommends youth education to address underage gambling utilizing web based resources, measures to prevent youth gambling-related health problems, and programs to protect vulnerable and at risk youth. The FEIS proposes inadequate funding to address these and other prevention and treatment options for Sonoma County residents.

The FEIS also fails to address increased prevalence among adolescents, older adults, ethnic and cultural, and other groups. The scientific literature, including the study attached hereto as Exhibit A, identifies a 13.3 percent prevalence rate for problem and pathological gambling by adolescents, and that men, the young, and those with concurrent substance abuse or mental illness are at greater risk of a gambling-related problem. (Exh. A at 62-63.) The FEIS should revise its estimates of new problem and pathological gamblers to identify these special populations, and require targeted treatment to mitigate impacts.

G-1.11

In addition, the FEIS errs by proposing funding calculation for treatment limited to problem and pathological gamblers who seek help. The FEIS proposes minimal to no public awareness and education campaign, which would serve to skew funding formulas by generating artificially low projections of gamblers needing problem and pathological gambling treatment services. Artificially reducing the number of problem and pathological gamblers affected by the project would in turn generate insufficient mitigation funding for prevention, education and treatment capacity.

The FEIS should be revised to include a neutral and frank evaluation of the project's potentially significant socioeconomic and related impacts, including its obvious community risk for developing problem and pathological gambling. The scientific literature notes that lower-income households spend proportionately more on gaming activities than higher-income households, and that gaming projects impose great costs to families in terms of dysfunctional relationships, violence and abuse, financial pressure, and disruption of growth and development of children. (Exh. A at 63.)

The FEIS should be revised to require mitigation including but not limited to:

- Requiring a determination of baseline gambling impact indicators and their current levels prior to opening. Participation in the Healthy Sonoma website to track community health impacts associated with the project.
- Incorporation of known successful employee training programs, including those listed in the American Gaming Association's 2004 publications listing casino properties in 14 states that participate in successful education programs about responsible gaming.
- Incorporation of problem gambling and domestic violence prevention education to be distributed through a community education media campaign including Healthy Sonoma website resources.
- Requiring ongoing tracking and monitoring for changes in indicators to inform the community Tribe, cities and County.
- Requiring funding for intervention and action when indicators/statistics move in the wrong direction.
- Requiring true-up of projected impacts with actual findings (data/statistics) over agreed upon timeframes.
- Periodic analysis of indicator changes and application of emerging CCPG research findings.

G-1.12

#### **B. Child Abuse and Neglect and Relationship to Domestic Violence**

The County has previously commented that the EIS did not include adequate mitigation for the significant project impacts of child abuse and neglect and domestic violence.

G-1.13

The FEIS has revised Section 5.2.6 to include a statement that the Tribe shall train employees to recognize domestic violence and sexual assault situations, display domestic violence hotline numbers, and work with local agencies in domestic violence and sexual assault situations. But the FEIS has not been revised to include any mitigation addressing child abuse and neglect. Appendix FF instead states that "Appendix N indicates that casino impact researchers did not find a remarkable relationship between casinos and child abuse."

That statement is false. Information from the Department of Health and Human Services indicates that 53% of men involved in domestic violence also abuse their children. Since the FEIS correctly recognizes the nexus between casino operations and domestic violence, it should also recognize the secondary nexus with child abuse and neglect.

The FEIS should be revised to mitigate project impacts by requiring the Tribe, at a minimum, to train employees to recognize child abuse situations and respective reporting requirements, display the appropriate hotline number, and work with local agencies in child abuse prevention.

#### **C. Substance Abuse**

The FEIS correctly notes in Appendix N that casinos generate a universal demand for substance abuse assistance from affected social service departments. But the FEIS does not yet provide adequate mitigation for the project's increased demand for treatment. Access to treatment on demand for substance abuse is for the most part not available in Sonoma County. Currently there is insufficient capacity to absorb increased treatment on demand for services in the community without new funding. The FEIS should be revised to require the Tribe to work with local entities and fund treatment on demand for substance abuse, addiction and problem gambling.

#### **D. Access by Vulnerable Adults**

The County has previously commented that the EIS should require the Tribe to adopt measures to limit access to vulnerable adults. The FEIS does not appear to respond to this comment, either in Appendix FF or Section 5.2.6. At a minimum, the FEIS should be revised to require the Tribe to train employees to recognize mental health issues and elder abuse situations, understand the relevant reporting requirements, display the appropriate hotline number, and work with local agencies to limit and prevent impacts.

G-1.13  
cont.

**E. Public Assistance Costs**

The County previously commented that the EIS should use the full cost of public assistance in calculating annual service costs for the new service population, and not just the County share. The figures remain unchanged in the FEIS; there is no reference or response in the document explaining why it was not changed.

**F. Drug Arrests and Diversion**

The FEIS cites Special Enforcement Unit (SEU) funding for enforcement efforts against gangs, drugs, and repeat offenders, but fails to address costs born by the County for diversion into treatment, particularly for repeat offenders with addiction disorders. The FEIS acknowledges that the project would result in a 95% increase in drug arrests, but fails to include adequate funding to address the resulting demand for diversion into substance abuse treatment.

G-1.13  
cont.

**G. Indoor Air Quality**

The FEIS proposes to mitigate indoor air quality impacts simply by providing optional segregation of smokers from non-smokers. This measure fails to address significant health risks associated with the project. The Surgeon General's June 2006 report on the issue found that there is no safe level of exposure to secondhand smoke, and the California Air Resources Board and CalEPA have labeled secondhand smoke as a Class A carcinogen. The EIS fails to protect public health in the proposed mitigation. The FEIS states "The Tribe shall ensure that comfort levels are acceptable to most occupants..." and ignores the impact of second hand smoke on patrons and employees including those who may be pregnant or living with breathing disorders.

G-1.14

The EIS mitigation should be revised to require that the project be developed, advertised, and promoted as a "smoke-free" environment, and prohibit the sale and use of tobacco products throughout the project footprint. Smoke-free tribal casinos exist in both California (Lucky Bear in Hoopa) and New Mexico, and smoke-free non-tribal casinos exist throughout the country. Smoke-free casinos report few difficulties with enforcement and document significant economic, health and safety benefits related to reduced rates of employee illness and absenteeism, lower cleaning and maintenance costs, and reduced insurance costs due to decreased fire risk.

Implementation of this policy would entirely prevent exposure to secondhand smoke. Costs would be negligible and, in fact, significant savings would be achieved

through the reduced rates of employee illness, reduced cleaning and maintenance costs, and reduced fire risk.

G-1.14  
cont.

## **H. Mitigation Measures**

Measure F on page 5-33 should be revised to require, at a minimum, that the results of customer surveys be made available to city and County as well as state and federal officials.

Measures Q, U, and V on pages 5-68 and -69 state that employees will be trained to identify intoxicated and underage drinkers, but they do not require policies to limit or prevent patrons from becoming intoxicated in the first place. The FEIS should be revised to require policies addressing drink counting and pricing, serving sizes, and food service.

Measure W on page 5-69 should be revised to specify that the internal monitoring program would support enforcement of the Tribe's zero tolerance for underage drinking and parties involving minors.

G-1.15

Measure X on page 5-69 should be revised to specifically direct that on-site security work with law enforcement to prevent sexual assault, human trafficking and prostitution by reporting known registered sex offenders/predators. The measure should also require the Tribe to train employees in human trafficking recognition and partner with cities and the County in anti-human trafficking efforts.

Measure Y on page 5-69 should be revised to require the Tribe to collaborate with law enforcement by warning intoxicated patrons not to drive and dialing 911 to report drunk drivers.

## **V. Land Use, Agriculture, and Growth**

### **A. General Plan 2020**

The FEIS requires an overhaul to update its analysis of the project's consistency with the Sonoma County General Plan. In September 2008, the Board of Supervisors adopted the GP2020 update, which changed many of the goals, objectives, and policies of the General Plan. Among other changes, GP2020 includes a new Water Resources Element with many new policies on water quality, groundwater and public water systems; combines the Open Space and Resource Conservation Elements; designates more Biotic Habitat Areas and Riparian Corridors; and adds new policies in all elements. The FEIS should be revised to revise obsolete references, address the project's

G-1.16

consistency with new and revised policies, and impose mitigation measures to address significant inconsistencies and project impacts.

Among other changes, Table 4.8.3 should be revised as follows to reflect the current policy language in the Sonoma County General Plan:

- Change Policy LU-3c to read: “ Policy LU-3c: Avoid urban sprawl by limiting extension of sewer or water services outside of designated Urban Service Areas pursuant to the policies of the Public Facilities and Services Element.”
- Either following Policy LU-3 or under a separate heading for “Public Facilities and Services Element,” add summary of Policy PF-if to read: “Avoid extension of public sewer services outside of either a sphere of influence adopted by LAFCO or the Urban Service Area, except to resolve a public health hazard resulting from existing development, where a substantial overriding public benefit would result, or to allow an affordable housing project adjoining an urban service boundary. “
- Change reference from LU-5c to 5c & b.
- Change reference from Goal LU-8 to LU-9.
- Change reference from Objective LU-8.1 to Objective LU-9.1.
- Change reference from Objective LU-8.2 to Objective 9.2.
- Change reference from Goal LU-9 to Goal LU-10.
- Change reference from Open Space Element to Open Space and Resource Conservation Element and change all policy and figure references from “OS” to “OSRC.”
- Change reference from OS-1b to OSRC-1b & d.

## **B. Land Use**

The County previously commented that Section 2.13.2 incorrectly stated that “any development planned within the designated sphere of influence would be subject to approval by the City, while development outside of the sphere of influence would be subject to approval by Sonoma County.” In fact, regardless of any sphere of influence,

G-1.16  
cont.

any development proposed on non-trust land outside City limits is subject to County approval. Development is subject solely to City approval only after annexation of the relevant parcel.

The FEIS continues to be in error. The relevant sentence on page 335 should be revised to read: "This important because any development planned within the designated sphere of influence would be subject to review and comment by the City but would not be subject to approval by the City until annexation took place, while development outside of the sphere of influence would be subject to approval by Sonoma County."

The FEIS also should revise response 2.13.11, which incorrectly claims that the site's future trust status renders it consistent with General Plan goals regarding intense development in the designated community separator. This claim is unavailing. Regardless of who owns the project site, the proposed project site is inconsistent with the General Plan, a significant impact.

The response also falsely states that "the appearance of the proposed development would be consistent with the commercial activities" to the east and is therefore consistent with a General Plan goal. In fact, the proposed project would be 10 stories, much taller than allowed by either the City or the County in the vicinity. The project's appearance would not be remotely consistent with the commercial activities to the east.

G-1.16  
cont.

The FEIS also should revise response 2.22.11, which incorrectly states that the project is consistent with Goals LU-5 and OS-3, which address the community separator open space designation. The project would not be consistent with these goals unless and until the City of Rohnert Park annexes the site. Since the FEIS does not propose annexation, the project lies outside of the City on lands that are designated for open space and agriculture and is not consistent with the County General Plan.

### C. Agriculture

The FEIS should revise Appendix FF response 2.20.4, which incorrectly claims that soil quality is the only relevant measure of a site's agricultural potential. As the County has previously commented, this claim is incorrect. In Sonoma County in particular, many soil types that were thought to be marginal by NCRS or Storie Index are in productive and profitable use. The FEIS should acknowledge that the project would result in a cumulatively significant loss of potentially productive agricultural land.

The FEIS also should be revised to include mitigation measures to reduce the project's significant land use compatibility impacts. These include:



- Redesigning the project layout and implementing construction techniques to reduce the impact of odors from neighboring farm operations on project patrons, particularly during the summer.
- Requiring the Tribe to accept responsibility for educating project customers regarding the types of agriculture that occur in the area and their potential impacts. This could be accomplished through brochures passed out during registration, signs in the halls, and training of staff regarding the nature of the operations and the County's Right to Farm protection.
- Requiring the Tribe to avoid referring to the County customer complaints about odors and other impacts from properly conducted farming operations in the vicinity of the project.

G-1.16  
cont.

The County previously recommended all of these measures in comments to the EIS preparers, yet the FEIS continues to include no mitigation measures for effects on agriculture.

Finally, Page 3.8-50 and Table 3.8-8 should be revised to explain that the project site is considered "Farmland of Local Importance," in productive agricultural use, and designated for continued agricultural use by the County General Plan.

#### **D. Growth-Inducing Impacts**

As the County previously commented, response 2.14.1 does not contain evidence supporting its claim that widening Wilfred Ave between the project site and Stony Point Rd would not induce growth. Land use planners have long recognized that road capacity improvements through rural agricultural areas cause growth pressures over time unless mitigation is provided at the outset. The FEIS should be revised to disclose and mitigate the growth pressures and development applications that would result from implementation of the proposed project.

G-1.17

The FEIS should also revise response 2.14.2, which incorrectly presumes that the project is similar in size and scope and has the same growth-inducing potential as the development contemplated by the Northwest Area Specific Plan. The proposed casino, hotel, restaurants, spa, conference rooms, and other tourist-driven amenities would receive far more visitors and vehicle trips that would have ever occurred under the City's plan for the area. As a result, the project would generate far more traffic along Stony Point Rd and Wilfred Ave, leading to greater growth pressures and developer interest along both roadways. The FEIS should be revised to include measures to mitigate these

pressures, rather than incorrectly claim that the project is really no different than the development contemplated by the Specific Plan.

## VI. Water Resources

The County has repeatedly and emphatically commented that the project should be revised to avoid proposed discharges to the Bellevue-Wilfred Flood Control Channel. The channel remains owned by the Sonoma County Water Agency (SCWA), which has discretion over the project's access and ability to use the channel. The channel is already impacted, and that any increase in discharge would be a significant adverse effect. The FEIS should be revised to require the Tribe to submit its detailed building plans to review under the updated SCWA *Flood Control Design Criteria* (FCDC), as any private developer would be required to do, and obtain an easement, license, or other entitlement to use the channel.

Response 2.5.44 falsely claims that the Tribe has the legal right to use SCWA property to convey stormwater and wastewater "as long as such use is reasonable and does not result in injury to others." It also incorrectly states that the Tribe need not submit to FCDC review to determine whether the proposed use is in fact reasonable or would result in injury, and that SCWA thus would have no oversight or approval authority over the discharges and their environmental impacts.

G-1.18

This response is unavailing. We note the Regional Board's previous comments that the Laguna de Santa Rosa is already impaired for nitrogen, phosphorous, sediment, low temperature, low dissolved oxygen, and mercury, and agree with the Regional Board that we "cannot support the introduction of a new discharge of impairing pollutants to this troubled watershed."

The FEIS also errs in its response to comments noting that one-third of the project site is located in a Zone X flood area, and the project would thus contribute to both localized drainage problems and a significant reduction in the flood-carrying capacity of the floodplain. The FEIS responds by noting that the Federal Emergency Management Agency (FEMA) does not regulate Zone X, which is beside the point. NEPA requires that the FEIS analyze all environmental impacts, regardless of whether affected resources are concurrently regulated another federal agency. The project site is designated Zone X because it floods during a 100-year event, and implementation of the proposed project would displace those waters and impact neighboring properties and the environment.

The FEIS should be revised to disclose and analyze the project's real drainage and stormwater impacts, both on neighboring parcels and the floodplain as a whole. In addition, the FEIS should mitigate impacts by requiring that the project implement additional detention facilities and other measures, sufficient to trap all stormwater and other discharges on the project site.

The FEIS should also be revised to fully address the impacts of placing a treatment plant on top of wetlands, as shown in Figures 2-6 and 2-7. The County previously commented that the EIS should be revised to indicate whether mitigation measures or a U.S. Army Corps of Engineers permit would be required to destroy wetlands. Appendix FF truncates the County's comment, and does not actually respond to either issue. It states only that a NPDES permit for wastewater discharges, which misses the point.

The FEIS should also be revised to provide additional information and justification for the monthly Irrigation Efficiency factors used in Appendix D, Attachment B, page 3 (labeled "p.2"). The attachment states at page 1 that "[t]he irrigation efficiency was assumed to vary throughout the year from 0.6 in the summer to 0.95 in the winter," but provides no additional information, much less a citation, calculation, or formula to check the presented data. The County has attempted to research the issue, but has not identified any methodology for deriving or validating the efficiency factors. The FEIS should be revised to explain how it derived the information used to justify the proposed wastewater discharges.

G-1.18  
cont.

The FEIS should also be revised to disclose whether its Irrigation Efficiency calculations are based on a normal year of rainfall, which appears to be the case, rather than a wet or 100-year rainfall year. Appendix D, Attachment B, page 3 (labeled "p.2") identifies 6.3 inches as the "Peak Monthly Precip." Yet the chart on the previous page shows that 6.3 inches is close to the average precipitation in a normal January, and nowhere close to a peak monthly precipitation. The chart instead shows that peak precipitation would be 12.71 inches in January, 10.92 in December, and 10.60 in February, among others.

Wet and flood years are reasonably foreseeable in the project area, and the increased rainfall could drastically alter the irrigation efficiency of the proposed discharge site. The FEIS should be revised to clarify how the monthly irrigation efficiencies were developed, and make corrections to account for reasonably foreseeable rainfall years.

## VII. Air Quality

The FEIS indicates at pages 4.4-11 and 5-16 (see also Table 5-1) that ROG, PM10, and PM2.5 emissions would exceed daily and annual thresholds, and would therefore be considered significant environmental effects. The FEIS further notes at page 5-16 that implementation of Mitigation Measures A – V (FEIS pages 5-11 through 5-15) for construction and operational emissions would not reduce project ROG, PM10, or PM2.5 emissions to less than significant levels.

Accordingly, the FEIS includes a final air quality mitigation measure, Measure W, which actually includes seven possible measures (including the purchase of emission reduction credits), and which commits the Tribe to implementing one or more of these seven measures if and only if these new measures prove to be “cost and technologically feasible and appropriate mitigation programs are available within the air basin.” The FEIS goes on to note at page 5-16 that if Mitigation Measure W is not implemented, all project alternatives would result in significant and unavoidable impacts to air quality.

While it is encouraging to see the measures included in Measure W, reliance on this measure to mitigate project emissions of ROG, PM10, and PM2.5 emissions to less than significant levels is meaningless in the absence of a formal commitment to implement this measure. It is not appropriate to rely on non-binding measures that may not result in mitigation of significant impacts.

Finally, we note that the FEIS has added at page 4.4-2 a brief mention of potential project concerns related to Diesel Particulate Matter (DPM). However, without any apparent quantitative analysis the FEIS simply concludes that diesel emissions would be less than significant because the project area is sparsely populated, and construction-related emissions would be reduced by virtue of the implementation of Mitigation Measure B. At a minimum, the FEIS should be revised to include a screening level analysis of the potential health risk from DPM from both construction-related and operational emissions. If this analysis shows significant DPM impacts, the FEIS should be revised to include mitigation measures and commit to their implementation. Absent this analysis, it is inappropriate to claim that this impact has been reduced to a less than significant level.

G-1.19

## VIII. Noise

We recognize that the FEIS revised Chapter 3.10 to show the locations of noise monitoring and sensitive receptors, and explain the basis for the survey methods used to establish existing ambient noise levels at the representative sensitive receptor locations. We also recognize that Chapter 4.10 has been revised to include an analysis of noise from onsite sources with respect to hourly daytime and nighttime noise limits. While the analysis did not follow County guidelines, it at least provides a quantitative assessment of impacts from stationary noise sources and on-site vehicle circulation.

By contrast, the FEIS's assessment of construction noise continues to be qualitative rather than quantitative, and thus fails to properly disclose and mitigate impacts. The size, scope, and duration of the proposed construction would result in substantial noise, especially when viewed in connection with other reasonably foreseeable projects, such as the proposed commercial and residential development immediately east and north of the Wilfred site. A quantitative analysis is economically feasible, essential to a determination of whether direct and cumulative construction noise would significantly impact sensitive receptors, and necessary for informed public review under NEPA. It is not sufficient simply to state that worst-case average sound levels at sensitive receptors would be 79 ldn, a 24-hour day/night average noise level.

G-1.20

The FEIS should be revised to estimate direct and cumulative construction noise levels at the most affected receptors, and compare the levels to existing ambient levels and other appropriate criteria for speech, activity, and sleep disturbance. The FEIS should further mitigate construction noise impacts by, at a minimum, prohibiting noise-generating construction activities during nighttime and early morning hours. Currently only two mitigation measures address construction noise (at p. 5-71). One calls for project construction to be limited, to the extent feasible, to the period 7:00 AM to 10:00 PM, and the other calls for pile driving (if needed) to be limited to the period 9:00 AM to 5:00 PM. It is not appropriate to rely on measures that would be implemented only when deemed "feasible" by the Tribe. In addition, the FEIS makes no attempt to quantify either the effect of these measures or, more importantly, the mitigation required to reduce construction noise to less than significant levels.

The FEIS also should be revised to correct its assumption that nighttime (10:00 p.m. to 7:00 a.m.) traffic would constitute just 13 percent of the daily total. Traffic noise modeling commonly assumes an 87 percent/13 percent split between daytime and nighttime traffic, and this assumption is appropriate for determining the baseline. It does not appear appropriate for assessing project impacts, however, because the proposed

project would be a 24-hour operation and would generate traffic at all hours. It is incorrect for the FEIS and Appendix R to assume that noise levels during the quiet nighttime hours would fall as low as 35 dBA, 15 to 20 decibels lower than noise levels during the peak hours that correspond to the Ldn. The project would instead generate substantial traffic noise during nighttime hours, and result in substantially higher increases in noise levels than those presented in Table 4.10-4. The FEIS does not respond to previous comments on this issue, and does not provide decision-makers or the public with an adequate description of the effects on the noise environment.

G-1.20  
cont.

Finally, the FEIS has been correctly revised to include at pages 5-56 and -57 quantitative goals for noise levels from HVAC equipment or other stationary sources. Mitigation measures remain vague and open-ended, however, and the FEIS does not commit the Tribe to mitigate noise to achieve the quantitative limits. It is still not possible to know whether measures such as sound rated windows and other building sound insulation treatments, or the construction of berms or walls, constitute feasible mitigation that would result in a substantial reduction in noise.

#### **IX. Visual Resources**

Response 2.22.1 in Appendix FF correctly acknowledges that the project would be larger than any single commercial building in the vicinity. Indeed, the project would be substantially larger than any other commercial building, because Rohnert Park limits structures to 65 feet in height. The fact that this regulation would not apply on trust land is beside the point; the building would greatly exceed the General Plan and zoning regulations of both the County of Sonoma and City of Rohnert Park, and exceed the significance criteria stated in the FEIS.

Specifically, the structure would introduce physical features that would be substantially larger than planned development to the north and east, and substantially out of character with the limited development to the south and west. It would also significantly alter the natural landscape, dominate the view, and appear as a substantial, obvious, and disharmonious modification of the overall scene, which includes rural uses and much smaller commercial development.

G-1.21

The FEIS should be revised to mitigate the project's visual impacts to a less-than-significant level. Alternative H demonstrates that it is possible to reduce the height of project structures while still meeting the Tribe's economic needs and producing a feasible project. Reducing the height would allow the project to match other planned development in the City and significantly mitigate visual impacts.

# **EXHIBIT A**

# Expansion of gambling in Canada: implications for health and social policy

David A. Korn

## Abstract

CANADA EXPERIENCED A DRAMATIC INCREASE IN LEGALIZED GAMBLING IN THE 1990s, primarily because of governments' need to increase revenue without additional taxation. This article examines gambling from a public health perspective. The major public health issues include gambling addiction, family dysfunction and gambling by youth. Debates have emerged about the health, social and economic costs and benefits of gambling. Stakeholder and social policy groups have expressed concern about the impact of expanded gambling on the quality of life of individuals, families and communities. Epidemiological studies show that the prevalence of gambling in the general adult population is low but increasing. Of particular concern is the high though steady prevalence of gambling among youth. New technologies have been linked to gambling-related problems such as addiction to gambling by video lottery terminals. Gambling by means of the Internet represents another emerging issue. The article concludes with recommendations for health and social policy related to gambling. These recommendations incorporate a broad public health approach to create a strong research program and to balance risks and benefits.

**G**ambling is as old as human history. Yet, as we move into the third millennium, Canada is experiencing a new phenomenon — the dramatic expansion of government-owned legal gambling. This shift in government policy is based on the intent to generate additional revenue without increasing taxation, to stimulate economic development primarily in the leisure and entertainment sector, and to strengthen support for charitable gaming.<sup>1</sup> Other factors contributing to increased participation in gambling include the rise of new technologies (e.g., video lottery terminals), mega-lotteries and Internet gambling (e.g., online cypercasinos).

Until recently, gambling has not been framed as a public health matter.<sup>2</sup> A public health perspective on this problem will balance risks and benefits and will encourage full community participation and involvement of medical practitioners. But the examination of the health, social and economic impacts of the rapid expansion of gambling is still in its infancy. There is a need to enhance awareness within the medical profession about gambling-related problems and to develop effective strategies to prevent and treat pathological gambling.<sup>3</sup>

## An evolving health interest

In 1972 Dr. Robert Custer, a psychiatrist working at a Veterans' Administration hospital in Ohio, first proposed a medical syndrome associated with gambling, which he termed "compulsive gambling."<sup>4</sup> His efforts brought the problems associated with gambling into the health care arena. In 1980 the American Psychiatric Association included "pathological gambling" in its *Diagnostic and Statistical Manual of Mental Disorders (DSM)*, categorizing it as an impulse disorder.<sup>5</sup> Since then, psychiatry has accepted severe problems associated with gambling as constituting a legitimate disorder. The essential feature of pathological gambling is persistent and recurrent maladaptive gambling behaviour. The psychiatric definition focuses on impaired ability to control gambling-related behaviour; adverse social consequences that disrupt personal, family or vocational pursuits; and tolerance (need to gamble with increasing amounts of money to achieve the desired excitement) and withdrawal. The diagnosis is not made if the gambling behaviour can be better accounted for by a manic

## Review

## Synthèse

Dr. Korn is a health and addictions consultant and a faculty member of the Department of Public Health Sciences, University of Toronto, Toronto, Ont.

This article has been peer reviewed.

CMAJ 2000;163(1):61-4



episode. To be eligible for a *DSM-IV* diagnosis of pathological gambling, a person must satisfy at least 5 of the 10 criteria described in the current edition of the manual.<sup>4</sup> In the late 1980s Lesieur and Blume developed a clinical screening tool, the South Oaks Gambling Screen, to assist clinicians in identifying this disorder.<sup>5</sup> This tool has become the main instrument used to study the prevalence of problem and pathological gambling in communities.

The first Canadian group of Gamblers Anonymous, a self-help and mutual support fellowship rooted in the 12-step movement, was established in Toronto in 1964 to assist people who identified themselves as having a gambling addiction. The Canadian Foundation on Compulsive Gambling (Ontario) was founded in 1983 to advocate for health services for compulsive gamblers and to enhance public awareness of the problems associated with gambling.

The federal legal framework for gambling in this country is the Criminal Code of Canada. A 1985 amendment gave provinces exclusive control of gambling and of legalized computer, video and slot devices. Provincial governments now own and operate a wide variety of gambling products. The 1990s saw a dramatic growth in the numbers of casinos, slot machines and video lottery terminals across Canada, associated with significant increases in revenues for provincial governments. There are now more than 50 permanent casinos (in 7 provinces), 21 000 slot machines, 38 000 video lottery terminals, 20 000 annual bingo events and 44 permanent horse race tracks in Canada.<sup>6</sup> By 1997 Canadians were wagering \$6.8 billion annually on some form of government-run gambling activity, 2.5 times the amount in 1992, with casinos and video lottery terminals accounting for almost 60% of government revenue from gambling. During the same period, profits for provincial governments from this source also rose dramatically: in 1997 gambling accounted for at least 3% of total government revenue in all provinces.<sup>7</sup>

Only recently has attention become focused on the health and social policy agenda. Beginning in 1993, provincial governments, led by New Brunswick and Alberta, began to fund services for people with gambling problems. By 1997/98, every province except Prince Edward Island was allocating monies specifically for such services, with expenditures totaling about \$15 million.<sup>8</sup> The public ownership model thus places provincial governments in the position of carrying out multiple roles and responsibilities: regulator, owner-operator and service provider for gambling-related problems. Concerns have been raised by stakeholder and social policy groups such as the National Council of Welfare<sup>9</sup> and the Canada West Foundation<sup>10</sup> about the role of governments in encouraging gambling and at the same time protecting the public interest.

The Canadian Public Health Association (CPHA) has been engaged in this issue since the early 1990s. In 1993, the CPHA passed a resolution at its annual general meeting calling for a national assessment of the health impacts of regulated gambling.<sup>11</sup> Rather than pursuing funding for the national assessment at that time, the CPHA decided to

gather information on the rising number of health-related initiatives underway across the country. It reported in the *CPHA Health Digest* the information it gathered on provincial and territorial initiatives related to the health impacts of gambling, and made it available to its membership upon request.<sup>12</sup> The CPHA continues to monitor the evolution of gambling across Canada; in 1999, a second resolution related to video lottery terminals was approved.<sup>13</sup>

The Canadian research literature on the health aspects of gambling is limited but growing. *CMAJ* has published only one article on the subject of gambling, a cover story in 1996, in which Kezwer<sup>14</sup> solicited opinion from physicians and gambling experts on the impact of gambling. Also in 1996 the Canadian Centre on Substance Abuse National Working Group on Addiction Policy produced its first examination of the issue, a policy discussion paper on problem gambling.<sup>15</sup> This document expanded the scope of interest in addiction to gambling to incorporate the concept of a continuum of gambling behaviour. It also included a broad definition of problem gambling: "a progressive disorder characterized by a continuous or periodic loss of control over gambling; a preoccupation with gambling and with obtaining money with which to gamble; irrational thinking; and a continuation of the behavior despite adverse consequences." In the area of epidemiological research, the Canadian Centre on Substance Abuse is currently developing a new survey instrument, the Canadian Problem Gambling Index, for use in population studies.<sup>16</sup> The survey instrument, to be completed in fall 2000, will place greater emphasis than existing prevalence tools on measuring the social impacts of gambling on family, coworkers and the community at large.

Most provincial studies on the prevalence of gambling-related problems in the general adult population were undertaken in the mid-1990s.<sup>16-20</sup> In addition, several epidemiological reports have described the impact of gambling in vulnerable and special populations such as youth, women, older adults and aboriginal people.<sup>21-23</sup> A recent meta-analysis<sup>24</sup> revealed that, as of 1997, 152 prevalence studies had been conducted in North America. More than half of these studies had been released since 1992, which reflects recent strong interest in the topic.

The Division on Addictions at Harvard Medical School completed a landmark meta-analysis of these available studies, including 35 Canadian prevalence estimates.<sup>24</sup> This study showed that over the previous 25 years, the estimated prevalence of gambling problems in the general adult population had been low but rising, whereas among youth and people living in institutions it had been high but steady. The estimated lifetime prevalence in the general adult population for problem and pathological gambling combined (levels 2 and 3 of the Harvard nomenclature) was reported at 5.5%. A similar combined prevalence estimate for the adolescent study population was 13.3%. There were no significant differences in prevalence rates between the United States and Canada. Male sex, youth, and concurrent substance abuse or mental

illness placed people at greater risk of a gambling-related problem. Research done in the United States has indicated a higher prevalence rate in states with high per-capita lottery sales<sup>21</sup> and in areas within 50 miles (80 km) of casinos.<sup>22</sup> There have been no Canadian national prevalence studies of problem and pathological gambling.

Primary care providers have not yet embraced screening for gambling as part of their routine practice pattern. However, these matters are beginning to change. For instance, in 1997 the CMA carried out a needs assessment for physician practice in the area of problem gambling as the first phase of a project to develop office resources.<sup>23</sup> Clinicians seeking resources to assist with the detection and management of patients with gambling-related problems might best contact their provincial health ministry, help line or addiction agency.

## A public health matter

A public health approach to gambling is valuable because it offers a broad perspective on the gambling phenomenon and does not focus solely on the more specific area of gambling addiction. It recognizes that there are health, social and economic costs and benefits for individuals, families and communities, and that intervention strategies must provide a balance between these costs and benefits.<sup>2</sup> This perspective on gambling incorporates current views on the socioeconomic and behavioural determinants of health, while acknowledging that there are population groups vulnerable to its harm.

There has been considerable interest in the relation between gambling and socioeconomic status. Recent Statistics Canada reports are instructive.<sup>24,25</sup> These reports indicated that participation rates in general increased with household income, a trend that held for the purchase of government lottery tickets, spending at casinos and use of slot machines. Bingo was the only gambling activity studied for which there was an inverse correlation with income. In terms of actual expenditures, high-income households spent more than low-income households on gaming activities (specifically lotteries, casinos, slot machines, video lottery terminals and bingo). Of note, however, is the finding that lower-income households spent proportionately more than higher-income households. For example, among households in which at least one person was involved in gambling, those with incomes of less than \$20 000 spent an annual average of \$296 on gambling pursuits, which represented 2.2% of total household income, whereas those with an income of \$80 000 or more spent \$536, only 0.5% of total income. Given that gambling revenue goes to the government, these data suggest that gambling expenditures may be regarded as a voluntary regressive tax that has a proportionately greater impact on people with lower incomes.

A number of public health issues associated with gambling expansion deserve attention. The dominant concern is the emergence of gambling addiction that appears to be

stimulated by increased availability and promotion of casinos and lotteries. Several populations are vulnerable to the impacts of gambling, in addition to lower socioeconomic groups. The cost to families in terms of dysfunctional relationships, violence and abuse, financial pressure, and disruption of growth and development of children can be great.<sup>26,27</sup> The high prevalence of gambling and gambling-related problems among youth, including betting on sports at colleges and universities, is cause for concern and invites innovative approaches to prevention.<sup>24,25</sup> Other financially vulnerable and marginalized populations such as older adults, various ethnocultural groups and individuals with substance use and mental health disorders<sup>28</sup> may be negatively affected by the expansion of gambling and deserve further study as to the health, social and economic impact.

Technology has become a significant dimension of gambling. Emerging health issues are linked to computer-based innovations and their effect on the frequency, accessibility and types of gambling. Concerns have been raised about the wide availability and addictive potential of video lottery terminals, as well as the dramatic rise of unregulated casino-style gambling Web sites. Although not traditionally defined as gambling, stock speculation and day trading in financial markets represent an important area of activity that can have a profound impact on individuals and social institutions.

## Policy implications

Five recommendations are made to strengthen health and social policy regarding gambling.

**Balance the public interest:** In 1985 provinces were given exclusive control over gambling. All provinces now own a variety of gambling products, receive significant revenue from gambling and fulfill several roles related to gambling, including regulation of the industry and provision of services to those with gambling problems. Policy-makers at all levels of government should regularly monitor and assess the public owner-operator models now in place, to ensure that there is a responsible balance between encouraging gambling as entertainment and protecting the public from gambling-related harm.

**Monitor gambling advertising:** Public guardians and government regulatory bodies should scrutinize the scope of gambling advertising and, in particular, the messages to youth, lower socioeconomic groups and vulnerable populations. Health officials should advocate in this area and, where possible, ensure that owners and operators prominently display the odds of winning and losing for each of their gambling activities.

**Assess the impact on quality of life:** Policy analysts should assess the impact of the expansion of gambling on the quality of life of individuals, families and communities. Quality of life encompasses the interplay among social, health, economic and environmental conditions.<sup>29</sup> To better inform policy, government should fund a credible scientific body to develop a standard methodology to estimate

the health, social and economic costs and benefits of gambling and related problems. Key stakeholders should be involved in building consensus, and public health expertise should be represented in this activity.

**Foster a research agenda:** The health research establishment, such as the new Canadian Institutes for Health Research, should support an agenda for gambling that incorporates population health, neurobiological and behavioural research, and health services research. Such knowledge would greatly enhance our understanding of the determinants of gambling-related problems, the relation of gambling to substance abuse and other mental illness, and gambling's health, social and economic costs and benefits. This research would result in more effective primary and secondary prevention programs, as well as lead to more innovative interventions, including brief treatments and pharmacological strategies.

**Adopt harm reduction:** Health authorities should adopt harm-reduction strategies directed toward minimizing the adverse health, social and economic consequences of gambling behaviour for individuals, families and communities. These strategies would include healthy-gambling guidelines for the general public<sup>14</sup> (similar to low-risk drinking guidelines<sup>15</sup>) and creative approaches to the early identification of gambling problems, as well as the incorporation of moderation and abstinence goals for problem gamblers, offered in a nonjudgemental fashion.

## Conclusion

There is a need for enhanced awareness on the part of health care professionals about the potential impact of gambling on vulnerable, at-risk individuals and special populations. The rapid expansion of gambling represents a significant public health concern that challenges our values, quality of life and public priorities. A broad research agenda is required to better inform a range of questions and solutions. Because gambling is in the public domain in Canada, our health, social policy and political leaders have a special responsibility to make informed and wise choices about costs and benefits and to demonstrate public accountability.

I express my appreciation to my colleagues Dr. Howard Shaffer, Director, Division on Addictions, Harvard Medical School, and Dr. Harvey Skinner, Chair, Department of Public Health Sciences, University of Toronto, for their support, collaboration and interest in my work on gambling.

Competing Interests: None declared.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

March 26, 2009

Brad Mehaffy  
NEPA Compliance Officer  
National Indian Gaming Commission  
1441 L Street NW, Suite 9100  
Washington, DC 20005

Subject: Final Environmental Impact Statement (FEIS), Graton Rancheria Casino and Hotel Project, Sonoma County, California (CEQ # 20090050)

Dear Mr. Mehaffy:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act.

EPA reviewed the Draft Environmental Impact Statement (DEIS) and provided comments to the National Indian Gaming Commission (NIGC) on June 4, 2007. We rated the DEIS as Environmental Concerns - Insufficient Information (EC-2) because of concerns regarding impacts to groundwater resources from the preferred Alternative A. The DEIS determined these impacts would be significant to neighboring shallow wells and that the project's groundwater use would represent approximately 4.5% of all current and future pumping in the Southern Santa Rosa plain, a relatively large percentage for a single project in what may be an overdrafted groundwater basin\*. We recommended selection of Alternative H, a reduced intensity casino on the Wilfred site, because this alternative would require substantially less sustained groundwater pumping than the preferred alternative.

The FEIS concludes that groundwater levels are rebounding from an historical overdraft condition due to decreasing groundwater pumping since the late 1990's (Appendix G, p. 73). Nevertheless, we continue to have concerns regarding groundwater resources and recommend selection of Alternative H, which meets the project purpose and need while avoiding certain environmental impacts. Alternative H would pump 40% less groundwater than the preferred Alternative A and require a smaller parking lot that could be reconfigured to avoid wetlands. The site plan included for Alternative H (Fig 2-37), however, does not show wetland avoidance. Wetlands could be avoided on the eastern portion of the parcel by reconfiguring the parking lot, and by relocating the wastewater treatment plant north. We recommend these changes be made

\* A determination of whether or not the basin is overdrafted will be made by a joint Sonoma County Water Agency (SCWA) and US Geological Survey (USGS) study in future years

G-2.1

if Alternative H is selected. A reduced project footprint could also benefit the federally endangered California tiger salamander. The impact avoidance that could occur under Alternative H is more consistent with the goals and purposes of NEPA (42 U.S.C. § 4331).

G-2.1  
cont.

Offsite wastewater treatment would benefit wetlands and the California tiger salamander by obviating the need for an onsite wastewater treatment plant and related habitat disturbance. The FEIS acknowledges that offsite treatment is preferred (App. FF, p. 85), but indicates that this option is not viable since an agreement with the regional sewer authority has not been reached at this time. We recommend that the project proponents continue to pursue such an agreement if the project moves forward.

G-2.2

EPA reviewed the final general conformity determination (Appendix W). Our comments on that determination are attached. We understand that offsets from stationary sources have been purchased to mitigate project impacts, and that an alternative "equally enforceable measure" for the acquisition of emission credits, referenced on p. 9 of the final conformity determination, is no longer being considered.

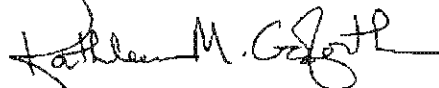
G-2.3

The FEIS includes 75 pages of mitigation measures. We recommend commitments to all mitigation measures be included in the Record of Decision (ROD), and that a mitigation monitoring and enforcement plan, per 40 CFR 1505.2(c), be developed to ensure mitigation is implemented. This is vital because the project will result in significant impacts to environmental resources including soil, water, air, and biological resources, unless mitigation measures are fully implemented and successful.

G-2.4

EPA appreciates the opportunity to review this FEIS. When the ROD is signed, please send a copy to the address above (mail code: CED-2). If you have any questions, please contact me at 415-972-3521, or Karen Vitulano, the lead reviewer for this project, at 415-947-4178 or [vitulano.karen@epa.gov](mailto:vitulano.karen@epa.gov).

Sincerely,



Kathleen M. Goforth, Manager  
Environmental Review Office (CED-2)

CC: Greg Sarris, Tribal Chairman, Federated Indians of the Graton Rancheria  
Devin Chatoian, Environmental Director, Federated Indians of the Graton Rancheria  
Patrick O'Mallan, Bureau of Indian Affairs  
Greg Tholen, Bay Area Air Quality Management District

*Specific SIP Allowance, page 8*

Characterization of SIP status is inaccurate: On April 22, 2004, EPA made a finding that the San Francisco Bay Area had attained the 1-hr ozone standard. In doing so, EPA determined that the Clean Air Act's requirements for reasonable further progress, attainment demonstrations, and contingency measures were not applicable to the Bay Area, and, therefore, did not take action on those plan components. In that same action, EPA approved certain elements of the 2001 plan, including the emissions inventory, but did not approve the attainment demonstration nor the plan as a whole. Note that a finding of attainment suspends certain requirements, but does not result in a change of attainment status.

G-2.5

Characterization of status with respect to 8-hr ozone standard is out of date: Ambient monitoring data indicate that the San Francisco Bay Area attained the 8-hr standard by June 15, 2007. However, the BAAQMD has not submitted a redesignation request nor a maintenance plan, both of which are required in order for EPA to consider reclassifying the area as an ozone maintenance area, and does not appear to be pursuing redesignation. In the meantime, a stricter ambient air quality standard for ozone has been promulgated by EPA. Monitoring data indicate the Bay Area is not attaining the 2008 ozone standard; however, final designations will not be made for at least a year.

*Conclusion, Section 5.0*

There appears to be a typographical error. The reference to 40 CFR 93.155(d) should probably be 40 CFR 93.155(b).

CITY OF PETALUMA, CALIFORNIA  
MEMORANDUM


---

Water Resources and Conservation Department, 202 North McDowell Blvd., Petaluma, CA 94952  
(707) 778-4546 Fax (707) 778-4508 E-mail: [dwr@ci.petaluma.ca.us](mailto:dwr@ci.petaluma.ca.us)

---

DATE: March 24, 2009

TO: Mike Moore, Director Community Development

FROM: Michael Ban, Director Water Resources & Conservation 

SUBJECT: Graton Rancheria Casino FEIS

XC: John C. Brown, City Manager  
Steve Simmons – Utility Manager  
Rem Scherzinger – Engineering Manager  
Pamela Tuft – Special Projects Coordinator  
project file

---

We have reviewed the FEIS and offer the following comments on its adequacy in responding to our comments on the DEIS:

1. Water Supply: FEIS Section 5 reflects the change of assumption to the use of all groundwater thereby eliminating Mitigation Measure Y (working with SCWA to obtain additional surface water). However on page 9 of 76, Mitigation Measures Section 5, the document retains Measure Y for Alternative F (the Lakeville site). No discussion is offered as to the cumulative impact of implementing this mitigation measure and providing Russian River water for a casino at the Alternative F location, or the cumulative growth inducing impacts of extending a water service line into the southern Sonoma County area.
2. Groundwater impacts: Page 12 of 76 (same section) offers a conclusion statement of "less-than-significant level for Alternatives A, B, C, D, E and H..." then fails to find a finding of *significant and unavoidable* for Alternative F, which should be clearly stated within the document.
3. Mitigation Measure CC.f, Section 5, requires the casino to notify well owners within 2 miles of the casino proposed wells to offer impact compensation from saltwater intrusion due to excessive drawdown of the water table in the southern Sonoma County area. Paying off someone who experiences saltwater intrusion due to overdrafting of the groundwater table by a casino well is not a reasonable and foreseeable reality; it is not adequately quantified, and no guarantee is put into place to ensure compliance. Mitigation AA (page 9 of 75, Section 5) is inadequate, vague, unenforceable, and does not address the long-term, cumulative impact of significantly impairing the groundwater supplies for this agricultural area.

G-3.1

Thank you for the opportunity to review the FEIS and for your work to compile the City's comments.



NATIVE AMERICAN HERITAGE COMMISSION  
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March 10, 2009

Brad Mehaffy  
National Indian Gaming Commission  
1441 L Street NW, Suite 9100  
Washington, DC 20005

RE: Notice of Completion for the Graton Rancheria Casino and Hotel; Sonoma  
County. SCH#2007034002.

Dear Mr. Mehaffy:

The Commission has reviewed the above-mentioned Notice of Completion for the  
Graton Rancheria Casino and Hotel; Sonoma County. SCH#2007034002 and does not  
have any comments.



G-4.1

Sincerely,

Katy Sanchez  
Program Analyst

CC: State Clearinghouse  
Janielle Jenkins, Office of the Governor, Legal Affairs ✓  
Sara Drake, Department of Justice  
Andrea Hoch, Legal Affairs ✓

05-2011 21 50  
MAY 17 10:50 AM '09

**From:** Moore, Mike [mailto:MMOORE@ci.petaluma.ca.us]  
**Sent:** Thursday, March 26, 2009 8:17 PM  
**To:** graton\_eis  
**Cc:** Brown, John; Marengo, Vincent; Bates, Curtis; Duiven, Scott; Ban, Michael; Danly, Eric  
**Subject:** City of Petaluma Graton Rancheria FEIS Comments  
**Importance:** High

National Indian Gaming Commission  
Attn: Brad Mehaffy

Dear Mr. Mehaffy:

In order to meet the comment period deadline of March 29, 2009, as provided in the Notice of Availability for the Graton Rancheria Casino FEIS, the City of Petaluma is sending you these comments electronically. An original hard copy of these comments, signed by the Mayor of Petaluma, will follow next week by fax and regular U.S. Mail. For your information, I have attached a copy of the City's comment letter on the Graton Rancheria DEIS. In addition, I have attached a memorandum from the City of Petaluma Water Resources and Conservation Department with their FEIS comments related to water issues.

The following comments are from the City's Public Works Department:

#### TRAFFIC

The City of Petaluma appreciates the responses and changes made with respect to our earlier comments. However, the City remains concerned with the adequacy of the traffic analyses with respect to the distribution of traffic through Petaluma. Additional analysis is needed to assess the potential impacts and identify mitigations within the context of project completion prior to Highway 101 improvements as well as after completion of the planned highway improvements. The proposed casino's trip generation (estimated at 18,000 per day) will result in significant congestion on Highway 101 south of Rohnert Park and consequently the use of alternate, parallel routes through Petaluma by those seeking to avoid that congestion. In particular the City is concerned about impacts to the Lakeville Highway corridor and the Old Redwood Highway interchange and Stony Point Road and intersection with Old Redwood Highway in Petaluma.

The City of Petaluma echoes the concerns of the County of Sonoma with respect to Highway 101 impacts and the FEIS at a minimum should address any funding shortfalls associated with the Highway 101 HOV projects. In addition, should the Record of Decision be issued, the NIGC should select the reduced intensity project as a means of reducing the number of trips and associated impacts.

We thank the NIGC in advance for its consideration of these comments in its decision-making process. If you have any questions or require further information, please do not hesitate to contact me.

Mike Moore  
Community Development Director  
City of Petaluma  
11 English Street  
Petaluma, CA 94952  
Phone: 707-778-4301  
E-Mail: [mmoore@ci.petaluma.ca.us](mailto:mmoore@ci.petaluma.ca.us)  
Web: <http://cityofpetaluma.net/cdd/index.html>

## DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE  
 P. O. BOX 23660  
 OAKLAND, CA 94623-0660  
 PHONE (510) 622-5491  
 FAX (510) 286-5559  
 TTY 711

## Comment Letter G-6



*Flex your power!  
 Be energy efficient!*

March 19, 2009

SON-101-15.02  
 SON101877  
 SCH # 2007034002

Mr. Brad Mehaffy, NEPA Compliance Officer  
 National Indian Gaming Commission  
 1441 L Street, NW, Suite 9100  
 Washington D.C. 20005

Dear Mr. Mehaffy:

**Graton Rancheria Casino and Hotel Project – Final Environmental Impact Statement (FEIS)**

Thank you for continuing to include the California Department of Transportation (Department) in the environmental review process for the proposed project. Please find our comments below based on the review of the FEIS, in particular the Transportation section, and the Final Traffic Impact Study (FTIS) (Appendix O):

***Alternative A: Intersection Mitigation Measures***

The FTIS's cumulative forecast and the mitigation analysis is based on the year 2020 modeling. For mitigation projects involving State right-of-way (ROW), a 20-year study horizon from completion of construction will be required to evaluate cumulative conditions. If it is determined that mitigation proposed in the FEIS is not sufficient to mitigate cumulative conditions in the 20-year study horizon, the Tribe will be responsible for additional mitigation to reduce the Casino project's cumulative impacts to a level of insignificance.

G-6.1

***Alternative A: Mainline Mitigation Measures***

Comparing the LOS results for the "2008" condition with "2008 + Alt A" condition as well as the "2020" condition with "2020 + Alt A" condition as listed in Table A7 on page 70 of the FTIS, the proposed project will adversely impact various freeway segments between Santa Rosa Avenue and south of Gravenstein Highway. If adding capacity to maintain the same level of freeway operation as in the 2020 (without project) condition is not feasible in the near term, mitigation measures should be considered and implemented to improve weaving conditions in those segments.

G-6.2

It is stated on page 69 of the FTIS that "The project should contribute a proportional share of the costs of the construction of an additional traffic lane in the southbound direction from Santa Rosa Avenue to south of Gravenstein Highway (SR-116) as well as an additional traffic lane in the northbound direction from West Sierra Avenue to Gravenstein Highway (SR-116) in the long-term." Because the analysis for this project did not identify freeway bottleneck locations and their

associated congestion queues, adding traffic lanes at the proposed locations might only transfer congestion to downstream segments of the US 101 mainline. Further analysis should be conducted prior to considering the option of adding any traffic lanes on sections of US 101. Moreover, adding traffic lanes may not be feasible due to ROW and/or environmental constraints. To address mainline impacts, the Tribe may want to consider contributing to planned improvement projects in the US 101 corridor, such as the installation of Traffic Operations System (TOS) elements (fiber optic cables, changeable message signs), High Occupancy Vehicle (HOV) lane projects within Sonoma County, and/or the Marin-Sonoma Narrows project.

G-6.2  
cont.

*Other Considerations*

The feasibility of mitigation measures proposed within the State's ROW will depend on various factors including the willingness of the City or County to implement the improvements, lead agency determination, and the approval of design exceptions by the Department in particular for changes to the Commerce Boulevard northbound off-ramps. Further details will have to be worked out between the Tribe and the various agencies to ensure that this project's impacts will be mitigated to the level of insignificance.

G-6.3

Should you require further information or have any questions regarding this letter, please call Ina Gerhard of my staff at (510) 286-5737.

Sincerely,



LISA CARBONI  
District Branch Chief  
Local Development/Intergovernmental Review

- c: Scott Morgan, State Clearinghouse
- Sara Drake, California Department of Justice
- Janielle Desomer, Office of Governor Arnold Schwarzenegger, Legal Affairs



OFFICE OF THE GOVERNOR

May 1, 2006

Via Facsimile (202) 632-7066 and U.S. Mail

Ms. Andrea Lord, Staff Attorney  
National Indian Gaming Commission  
1441 L Street NW, Suite 9100  
Washington, D.C. 20005

Re: Federated Indians of Graton Rancheria's Request for Restored Lands Determination

Dear Ms. Lord:

I am responding to your letter requesting the State's assistance in determining whether land near Robert Park in Sonoma County, California constitutes "restored lands" of the Federated Indians of Graton Rancheria (Tribe) pursuant to Title 25 United States Code section 2719(b)(1)(B)(iii) in the Indian Gaming Regulatory Act (IGRA). Thank you for extending the State's time to comment until May 1, 2006.

We do not dispute that pursuant to the Graton Rancheria Restoration Act of 2000 (25 U.S.C. § 1300n et seq.; Restoration Act), Congress restored federal recognition for the Tribe, and all rights and privileges of its members that were diminished or lost under the California Rancheria Act of 1958 (Pub.L. No. 85-671, 72 Stat. 619) (25 U.S.C. § 1300n-2(a)-(b)). Also, the Restoration Act's mandatory land acquisition language (see 25 U.S.C. § 1300n-3(a)) supports a conclusion that establishing a reservation in Marin or Sonoma Counties is part of the Tribe's restoration process and, accordingly, such lands become the Tribe's "restored lands" within the meaning of IGRA. The Restoration Act, however, clearly limits the lands eligible for restoration.

G-7.1

<sup>1</sup> The State is currently awaiting responses from various federal agencies to requests for records under the Freedom of Information Act (FOIA) (5 U.S.C. § 552 et seq.) that are relevant to this analysis. The State reserves the right to submit supplemental comments or supporting material as additional information becomes available.

Ms. Andrea Lord, Staff Attorney  
May 1, 2005.  
Page 2

Specifically, the Restoration Act restricts eligible lands to unincorporated "Indian owned fee land" held by distributees or dependent members (as defined in the 1959 distribution plan, or those persons' heirs or successors in interest, (25 U.S.C. § 1300a-3(a)-(b)). County records indicate the land is currently owned in part by SC Sonoma Development LLC, a subsidiary of Station Casinos and the Tribe's gaming development investor, and Redwood Equities Investment LLC. Therefore, the subject land does not appear to be immediately eligible for mandatory trust acquisition under the Restoration Act.


G-7.1  
cont.

Additionally, we note that large portions of the proposed trust acquisition are subject to land use restrictions set forth in the California Land Conservation Act (Govt Code, § 51200 et seq.), otherwise known as the Williamson Act. It appears the portion of the property on which the Tribe proposes to build the gaming facility is not subject to a Williamson Act contract, but the remaining portion, which the Tribe indicates it will use for environmental mitigation purposes, is subject to the Act. The State has recently been provided a copy of the Tribe's fee-to-trust application, but has not had a chance to review it to determine whether the Williamson Act contract restrictions have been addressed. During the fee-to-trust application process, the State would appreciate the opportunity to comment on this matter to the Bureau of Indian Affairs.

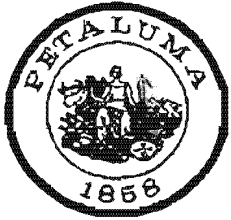
G-7.2

Thank you for considering our comments on the matter.

Sincerely,

  
ANDREA LYNN HOCH  
Legal Affairs Secretary

cc: Penny Coleman, Acting General Counsel, NIGC  
Philip Hogan, Chairman, NIGC  
Clay Gregory, Regional Director, BIA  
Grag Smith, Chairperson, Federated Indians of Graton Rancheria  
John Major, Esq.



# CITY OF PETALUMA

POST OFFICE BOX 61  
PETALUMA, CA 94953-0061

Pamela Torbiatt  
Mayor

Teresa Barrett  
David Glass  
Mike Harris  
Mike Healy  
David Rabbitt  
Tiffany Renée  
Councilmembers

April 1, 2009

National Indian Gaming Commission  
Attn: Brad Mehaffy  
1441 L Street NW  
Suite 9100  
Washington, DC 20005

RE: City of Petaluma Comments on the Final Environmental  
Impact Statement for the Graton Rancheria Casino

Dear Mr. Mehaffy:

The City of Petaluma provided electronic comments on the Final Environmental Impact Statement (FEIS) for the Graton Rancheria Casino in Rohnert Park, California on March 26, 2009 in order to respond for the record prior to the March 29, 2009 date in the Notice of Availability. This letter reiterates those comments and represents the City of Petaluma's official position regarding the adequacy of the FEIS.

We ask that the National Indian Gaming Commission (NIGC) consider these and the comments of other local government agencies in Sonoma County who are greatly concerned about the significant and unresolved impacts associated with the proposed casino. Especially in these uncertain economic times, the NIGC needs to be even more mindful of the limited ability of local government to simply absorb the unmitigated impacts of the proposed Graton Rancheria Casino. We further request that no final decision be made unless and until the FEIS and, if necessary, the project are modified to insure that all identified impacts can be adequately and feasibly mitigated to the satisfaction of the affected surrounding jurisdictions, including the City of Petaluma.

Our formal comments on the FEIS are as follows and, again, restate the comments that were submitted electronically prior to March 29, 2009:

1. Water Supply: FEIS Section 5 reflects the change of assumption to the use of all groundwater thereby eliminating Mitigation Measure Y (working with SCWA to obtain additional surface water). However, in Section 5 - Mitigation Measures Section 5, Measure Y ("...work with the Cities of Rohnert Park and Petaluma and SCWA to find and deliver more surface water...") is retained for Alternative F (the Lakeville site). No information is provided on the source of the surface water, as mentioned in our comment for the Draft Environmental Impact Statement. If the source is Russian River water, more information needs to be provided. Also, the EIS would have to address the cumulative impact of implementing this mitigation measure and providing Russian River water for a casino at the Alternative F location, and the cumulative growth

City Manager's Office  
11 English Street  
Petaluma, CA 94952

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citymgr@ci.petaluma.ca.us

Human Resources  
Phone (707) 778-4334  
Fax (707) 778-4539  
E-Mail  
humanresources@ci.petaluma.ca.us

Information Technology  
Phone (707) 778-4411  
Fax (707) 776-3623  
E-Mail  
it@ci.petaluma.ca.us

Risk Management  
11 English Street  
Petaluma, CA 94953  
Phone (707) 776-3695  
Fax (707) 776-3697  
E-Mail  
riskmgr@ci.petaluma.ca.us

G-8.1

G-8.2

inducing impacts of extending a water service line into the southern Sonoma County area.

2. Groundwater impacts: Page 12 of 76 (same section) offers a conclusion statement of "less-than-significant level for Alternatives A, B, C, D, E and H..." then fails to find a finding of *significant and unavoidable* for Alternative F, which should be clearly stated within the document.
3. Mitigation Measure CC.f, Section 5, requires the casino to notify well owners within 2 miles of the casino proposed wells to offer impact compensation from saltwater intrusion due to excessive drawdown of the water table in the southern Sonoma County area. Paying off someone who experiences saltwater intrusion due to overdrafting of the groundwater table by a casino well is not a reasonable and foreseeable reality; it is not adequately quantified, and no guarantee is put into place to ensure compliance. Mitigation AA (page 9 of 75, Section 5) is inadequate, vague, unenforceable, and does not address the long-term, cumulative impact of significantly impairing the groundwater supplies for this agricultural area.
4. The City of Petaluma appreciates the responses and changes made with respect to our earlier comments. However, the City remains concerned with the adequacy of the traffic analyses with respect to the distribution of traffic through Petaluma. Additional analysis is needed to assess the potential impacts and identify mitigations within the context of project completion prior to Highway 101 improvements as well as after completion of the planned highway improvements. The proposed casino's trip generation (estimated at 18,000 per day) will result in significant congestion on Highway 101 south of Rohnert Park and consequently the use of alternate, parallel routes through Petaluma by those seeking to avoid that congestion. In particular the City is concerned about impacts to the Lakeville Highway corridor and the Old Redwood Highway interchange and Stony Point Road and intersection with Old Redwood Highway in Petaluma.
5. The City of Petaluma echoes the concerns of the County of Sonoma with respect to Highway 101 impacts and the FEIS at a minimum should address any funding shortfalls associated with the Highway 101 HOV projects. In addition, should the Record of Decision be issued, the NIGC should select the reduced intensity project as a means of reducing the number of trips and associated impacts.

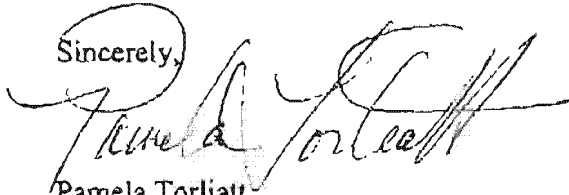
G-8.2  
cont.

G-8.3



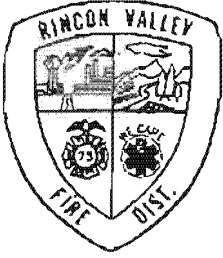
On behalf of the City Council and the citizens of Petaluma, I want to thank the NIGC in advance for its consideration of these comments in its decision-making process. If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Pamela Torliatt', written in black ink.

Pamela Torliatt  
Mayor

c: City Council  
City Manager  
City Attorney  
Sonoma County Board of Supervisors  
Sonoma County Mayors  
Governor Arnold Schwarzenegger  
Senator Diane Feinstein  
Senator Barbara Boxer  
Congressmember Lynn Woolsey  
California Senator Mark Leno  
California Assemblymember Jared Huffman



Comment Letter G-9

## RINCON VALLEY FIRE PROTECTION DISTRICT

8200 Old Redwood Hwy. P.O. Box 530, Windsor, California 95492  
Business (707) 539-1801 FAX (707) 539-3046

DOUGLAS WILLIAMS  
*Fire Chief*

JOHN LANTZ  
*Assistant Chief*

March 10, 2009

National Indian Gaming Commission  
Attn: Brad Mehafty  
1441 L Street NW  
Suite 9100  
Washington, DC 20005-3584

Subject: Final Environmental Impact Statement  
Graton Rancheria  
Casino and Hotel Project

Thank you for the opportunity to respond to the Final Environmental Impact Statement for the Graton Rancheria Casino and Hotel Project.

Although the FEIS offers proposed mitigations for fire department response considerations, it fails to address the impacts that will be realized by other jurisdictions serving the area. An assessment of these service area impacts, with corresponding mitigations, requires the completion of a "Standards of Cover for Emergency Response" analysis consistent with a nationally recognized standard.

The analysis needs to emphasize the delivery of an effective firefighting force with specific attention to the impacts upon regional resource draw down (especially in the Highway 101 corridor) and the need to dynamically relocate resources as incidents occur. A remedy to the financial impacts associated with increased service delivery needs to be included in the analysis.

Thank you for your consideration. Please contact me at (707) 539-1801 if you have any questions.

Respectfully,

A handwritten signature in black ink, appearing to read "Doug Williams", written over a horizontal line.

Douglas A. Williams  
Fire Chief

G-9.1



ARNOLD SCHWARZENEGGER  
GOVERNOR

STATE OF CALIFORNIA  
GOVERNOR'S OFFICE of PLANNING AND RESEARCH  
STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT  
DIRECTOR

May 7, 2009

**Comment Letter G-10**

Brad Mehaffy  
National Indian Gaming Commission  
1441 L Street, NW Suite 9100  
Washington, DC 20005

Subject: Graton Rancheria Casino and Hotel  
SCH#: 2007034002

Dear Brad Mehaffy:

The enclosed comment (s) on your Final Document was (were) received by the State Clearinghouse after the end of the state review period, which closed on March 27, 2009. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2007034002) when contacting this office.

Sincerely,

Terry Roberts  
Senior Planner, State Clearinghouse

Enclosures  
cc: Resources Agency

G-10.1

2009 MAY 15 PM 1:03

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915 CAPITOL MALL, ROOM 364  
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(916) 653-4082  
Fax (916) 657-5390



March 10, 2009

*Clear*  
*3-27-09*  
*l. fe*  
*C*



Brad Mehaffy  
National Indian Gaming Commission  
1441 L Street NW, Suite 9100  
Washington, DC 20005

RE: Notice of Completion for the Graton Rancheria Casino and Hotel; Sonoma County. SCH#2007034002.

Dear Mr. Mehaffy:

The Commission has reviewed the above-mentioned Notice of Completion for the Graton Rancheria Casino and Hotel; Sonoma County. SCH#2007034002 and does not have any comments.

Sincerely,

*Katy Sanchez*

Katy Sanchez  
Program Analyst

CC: State Clearinghouse  
Janielle Jenkins, Office of the Governor, Legal Affairs  
Sara Drake, Department of Justice  
Andrea Hoch, Legal Affairs

NOTICE

TO: STATE AGENCY REVIEWERS

RE: TRIBAL RELATED DOCUMENTS

Please review and prepare comments for the attached notice and provide a draft to the Governor's Legal Affairs Office no later than 3-23-09.

Submit comments to:

Janielle Jenkins  
Office of the Governor  
Legal Affairs  
State Capitol  
Sacramento, CA 95814  
(916) 445-0873 (phone)  
(916) 324-6946 (fax)  
Janielle.Jenkins@gov.ca.gov

*Business and Non-Government Agency Letters*

**Comment Letter B-1**

re: FEIS, Graton Rancheria Casino & Hotel Project, Sonoma County, CA  
Comments submitted by Pastor Chip Worthington and Marilee Montgomery  
Mail: c/o 4693 Snyder Lane, Rohnert Park, CA 94928  
Phone: 707-793-2355

**STOP THE CASINO 101 COALITION**

*Representing the People of Sonoma County & Marin County, California*

[www.stopthecasino101.com](http://www.stopthecasino101.com)

If you have trouble with this fax, please call 707-588-9926

**DATE:** March 24, 2008

**TO:** Mr. Brad Michaffy, NEPA Compliance Officer  
1441 L Street, Suite 9100  
Washington, DC 20005

**FROM:** Pastor Chip Worthington  
Marilee Montgomery  
Phone: 707-793-2355  
Email: [info@stopthecasino101.com](mailto:info@stopthecasino101.com)

**re:** re: FEIS, Graton Rancheria Casino & Hotel Project, Sonoma County, CA

Page One of 4

Dear Mr. Michaffy:

With regard to the Final Environmental Impact Statement (FEIS) for the above-referenced project (Project), we believe that FEIS is deficient in every issue area, and does not meet NEPA's requirement to take a "hard look" at the project's significant impacts and measures to mitigate them to a less-than-significant level. For the purposes of this letter, we herein cite and affirm our agreement with the FEIS Comments of the County of Sonoma and the Sonoma County Water Agency (SCWA) on all the issues areas addressed in those comments.

B-1.1

In addition, as a concerned citizen and resident of the area, we herein submit our own comments.

**The California Environmental Quality Act:** While a Native American tribe is not subject to CEQA on trust land, the California courts have been quite clear about the duty of local government to ensure that CEQA studies are performed for projects pertaining to Native American endeavors, or to agreements between a government and a tribe that include such projects, when those projects are subject to CEQA.

B-1.2

CEQA studies will be required for all mitigation measures in the FEIS that involve state,

re: FEIS, Graton Rancheria Casino & Hotel Project, Sonoma County, CA  
 Comments submitted by Pastor Chip Worthington and Marilee Montgomery  
 Mail c/o 4695 Snyder Lane, Rohnert Park, CA 94928  
 Phone: 707-793-2355

county or city roads, and agreements with local agencies for services, such as utilizing the Santa Rosa Municipal Utility District's wastewater facilities or buying water from the County water agency.

Until such studies are completed, no mitigation involving these aspects of the Project can be offered by the Tribe, as it is not known at this time whether or not CEQA will be satisfied, thus it cannot be known if the proposed mitigation measures will be feasible, rendering those mitigation measures meaningless at this point in time.

B-1.2  
cont.

The FEIS should be revised to indicate which aspects of the proposed mitigations would be subject to CEQA, and should include language to reflect that such proposed mitigations are tentative until the successful completion of any and all required CEQA studies. The Tribe should bear the burden of the cost of these studies, as any other developer would do.

**Bellevue-Wilfred Channel:** This channel is incorrectly identified in the FEIS as an "agricultural channel". It is not an agricultural channel, nor is it used for agricultural purposes such as irrigation. The Channel is a short stretch of engineered streambed that is part of the headwaters of the Laguna de Santa Rosa, and is fed by creeks upstream. Prior to the engineering of this waterway, which was undertaken as a flood control project, it was a meandering stream. The FEIS should be corrected to reflect the truth about this channel.

B-1.3

**Fertilizer:** The Laguna is severely polluted, and fertilizers will exacerbate that pollution. No fertilizers should be used on this property.

**Water:** The water element and proposed mitigations are completely inadequate, and are fatally flawed. Please refer to the DEIS Comments submitted by the O.W.L. Foundation of Penngrove, CA, and the comments of the United States Environmental Protection Agency pertaining to groundwater usage by this Project, both documents which I herein affirm and reiterate.

B-1.4

**Groundwater:** (Y): "The Tribe shall work with the City of Rohnert Park, Petaluma and SCWA to find and deliver more surface water, reducing pressures on the Cities to pump additional groundwater." This is not mitigation.

First of all, this betrays an ignorance of the local aquifers that one would not expect after a five year NEPA study. The City of Petaluma does not itself use the aquifer that would be affected by the Project.

B-1.5

Secondly, while the FEIS goes into great detail about low-flow showerheads and toilets and other, pedestrian water conservation measures, it becomes strangely vague in explaining what is meant by this rather cryptic sentence. The FEIS fails to provide details of how, exactly, the Tribe will "find" more surface water. Sources of surface water in Sonoma County are well-identified, and have been for many, many years.



re: FEIS, Graton Rancheria Casino & Hotel Project, Sonoma County, CA  
Comments submitted by Pastor Chip Worthington and Marilee Montgomery  
Mail: c/o 4695 Snyder Lane, Rohnert Park, CA 94928  
Phone: 707-793-2355

The FEIS should be revised to include details of what measures the Tribe would use to "find and deliver more surface water", including if the Tribe, either acting on its own or in concert with any other entity, plans to invoke the Winters Doctrine in order to gain control of local or other, river basins and/or other sources of surface water, and what that would mean to all Sonoma County residents and governments.

The FEIS should also include information if the Tribe is planning on building dams and any other pertinent information that would fully explain the actual meaning of this sentence.

These steps must be taken so that a determination can be made as to whether or not this action on the part of the Tribe would result in more impacts and hardship on the community from the Project.

Private Wells: Individuals whose wells would be affected by the Project's groundwater usage are completely reliant on those wells for water, and there are no options available to them through their local government.

The proposed mitigation for neighboring well-owners is inadequate and unrealistic in part, because it imposes a three year deadline on when claims may be made. Overdrafting of this particular portion of the aquifer is well-documented. While one can predict with reasonable accuracy that this Project will affect local wells, no one can predict when a well might run dry as a result of the casino's water usage. Imposing an artificial deadline will not help those well owners whose well might run dry three years and two months after the project is built.

The Project is so big, that it will continue to create problems with neighboring wells throughout its lifetime. A Sonoma County resident who sinks his well in accordance with local zoning and permitting does so in good faith. Refusal to compensate those whose wells were installed after the completion of the Project is an unrealistic burden to impose on the general public.

The FEIS should be revised so that there would be no deadline of any kind imposed for area well owners to make their claims.

Further, stating that the Tribe should "contract with a (unnamed) third party" to oversee the well compensation program is not mitigation. The entity must be clearly identified in the FEIS, and at the very least, a preliminary agreement for such services must be in place and included in the exhibits in the FEIS.

Wastewater: "Interim" wastewater discharge into the Laguna de Santa Rosa is currently illegal, as no TMDL is yet completed.

Should you have any questions regarding these Comments, please feel free to contact us

B-1.5  
cont.

B-1.6

B-1.7

even the FIGR's own 1997 report submitted to the government doesn't make that claim. In fact, the FIGR submitted very few historical or archival documents on the Graton Rancheria to the federal government. There is good evidence that the FIGR's lead genealogist, Sylvia Thalman, utilized the National Archives. There is evidence in documents obtained under a number of Freedom of Information Act (FOIA) requests that the FIGR was very selective in those archival records it submitted to the federal government to support restoration based on the Graton Rancheria. The vast body of archival record on the Rancheria, which does *not* support the FIGR's claims, is missing from Graton's submissions.

As far as when and why then-Assistant Secretary for Indian Affairs Kevin Gover gave his blessing to the Graton Restoration Act, that piece of the puzzle may have been found. Not surprisingly, it follows the same pattern that the FIGR followed: Gover's approval was based on a statement that was simply not factual and that was completely unsupported by the record, as follows:

In a December 21, 2000, letter to Jacob I. Lew, Director of the Office of Management and Budget, Mr. Gover defended a number of the Titles in H.R. 5528, the Omnibus Indian Advancement Act, in an apparent attempt to prevent a Presidential veto of the Bill. In the third-to-last paragraph in the five page letter, Mr. Gover says,

"Title XIV ( *the Graton Restoration Act* ) is a broadly supported restoration of a terminated California tribe, the Graton Rancheria, which has been seeking equity for almost 40 years ( *emphasis the author's* ). Accordingly, the Department ( *of the Interior* ) supports Title XIV."

B-1.7  
cont.

The problem with Mr. Gover's statement is that (1) *as has already been demonstrated*, there was no tribe at Graton Rancheria, and (2) there is no record that **Graton Rancheria** or its residents had been "seeking equity for almost 40 years".

Mr. Gover's statement would suggest that Graton had been "seeking equity" since the early 1960's. However, the dissolution of the Graton Rancheria was not finalized until February 18, 1966. Not even the FIGR's 1997 Report makes the claim that Graton Rancheria or anyone associated with it had been "seeking equity for almost 40 years". In fact, the movement for the restoration of the Graton Rancheria dates back only to 1997. Here is timeline of events from the final dissolution of the Graton Rancheria in 1966 to the point that led to the Graton Restoration Act first proposed in 1998:

- In 1966, Frank Truvido became the sole resident on the land. In addition to his own apportionment, he also inherited Andrew Sears' property. Fred Evrill's property went to his heirs as determined by the courts.

It is clear from the record that Mr. Truvido did not want other Indians living on his property. A 1968 letter from the Indian Agency to the Sonoma County District Attorney states that Mr.

re: FEIS, Graton Rancheria Casino & Hotel Project, Sonoma County, CA  
Comments submitted by Pastor Chip Worthington and Marilee Montgomery  
Mail: c/o 4695 Snyder Lane, Rohnert Park, CA 94928  
Phone: 707-793-2355

by mail to c/o 4695 Snyder Lane, Rohnert Park, CA 94928, or by phone to 707-793-2355.



Pastor Chip Worthington



Marilee Taylor Montgomery

# ROBB & ROSS

AN ASSOCIATION OF PROFESSIONAL CORPORATIONS

Comment Letter B-2

JOSEPH W. ROBB\*  
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PLANNING, PROBATE AND TRUST  
LAW, THE STATE BAR OF CALIFORNIA  
BOARD OF LEGAL SPECIALIZATION

March 26, 2009

Mr. Brad Mehaffy  
National Indian Gaming Commission  
1441 L Street, NW, Suite 9100  
Washington, DC 20005

Re: Graton Rancheria Casino and Hotel Project

Dear Mr. Mehaffy:

I write with comments on the Final Environmental Impact Statement for the Graton Rancheria Casino and Hotel Project, specifically on NIGC power to approve a management contract.

I submitted comments on the Draft EIS to the effect that NIGC lacks authority over the land Graton intends to purchase and lacks authority to consider the application to approve a management contract. IGRA allows Indian gaming only on Indian lands under the jurisdiction of the tribe. Here, even if the target lands are taken into trust for the Graton, the state will continue to have jurisdiction over land use and gambling at the site. NIGC responds to those comments at Appendix FF, section 2.2.15, and we take issue with the responses.

B-2.1

In the EIS, NIGC states that these are not "substantive NEPA issues." However, whether the issues are considered substantive or procedural is of no consequence. If the NIGC lacks jurisdiction to approve the management contract, no NEPA evaluation is required. The EIS states that this issue will be considered as part of the review of the Management Contract. However, the EIS assumes throughout that NIGC has jurisdiction and bases all of its recommendations on this assumption. This is improper. Jurisdiction is a major "threshold issue" (*Citizens Against Casino Gaming in Erie County v. Kempthorne*, 471 F.Supp.2d 295 (2007) ["CACGEC"]) and should not be assumed. Issues of jurisdiction must be resolved before one can consider whether an action is appropriate. The EIS provides no justification for delaying determination.

Mr. Brad Mehaffy  
National Indian Gaming Commission  
March 27, 2009  
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The EIS further responds, "...the NIGC was complying with federal law in beginning to prepare the EIS in February 2004 rather than waiting until after making all findings necessary for management contract approvals under IGRA before commencing the NEPA process." However, federal law requires the tribe to identify the land on which the casino will exist and requires NIGC to make a "threshold" determination that such land is Indian land under the jurisdiction of the tribe. (CACGEC) Since NIGC is not following that directive, it is not complying with federal law.

The EIS further responds that the Graton Act provides that any land taken into trust will be part of the Tribe's reservation, and IGRA treats as Indian lands all lands within the limits of any reservation. The EIS therefore concludes, "once the Secretary accepts land into trust for the benefit of the Tribe pursuant to the [Act], such lands will be part of the Tribe's reservation and will constitute Indian lands within the meaning of the Indian Gaming Regulatory Act." We have two responses. First, this does not address the issue. IGRA requires that in order to conduct Class II or Class III gaming on the Indian lands, the lands must be under the "jurisdiction" of the tribal group. See 2710(b) and (d). It is not enough that the lands are "Indian lands". They must also be under the jurisdiction of the tribe. Not all Indian land is under tribal jurisdiction. See *City of Sherrill v. Oneida Indian Nation*, 544 US 197 (2005).

B-2.1  
cont.

Second, division of the approval process into two successive steps violates BIA policy. Since 1990, BIA has consistently required that if a tribe submits an application to take land into trust for gaming, the Secretary must first make an Indian lands determination. This is required by the Checklist for Gaming Acquisitions, Gaming Related Acquisitions and IGRA issued September 21, 2007. It also is required by the Memorandum of Agreement between the National Indian Gaming Commission and the Department of the Interior. The response contemplates two successive steps that would base the finding that the land is under the jurisdiction of the tribe on the fact it was taken into trust. This is essentially a bootstrap argument, and is not valid. This would scuttle the community protection provisions built into IGRA and is totally improper. It violates IGRA and it violates BIA's procedures that have been followed for 19 years. Justification for a finding of jurisdiction must be independent of the action being taken.

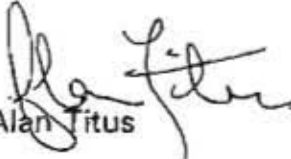
Mr. Brad Mehaffy  
National Indian Gaming Commission  
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The EIS' final response is that under 18 USC 1151(a), Indian Country includes "all lands within the limits of any Indian reservation" and tribes are presumed to possess tribal jurisdiction within "Indian Country." However, NIGC fails to provide the full quote and omits the most relevant part. The full quote provides that Indian Country includes reservation lands only if they are under the jurisdiction of the Federal government. It reads: "...the term 'Indian Country'... means ... all lands within the limits of any Indian reservation under the jurisdiction of the United States Government." Thus, the fact that the land is called a reservation does not answer anything. The reservation must be under federal jurisdiction to be Indian Country. Even then, it would not necessarily be under Indian jurisdiction. See *Alaska v. Native Village of Venetie*, 522 US 520, ft 1 (1998).

B-2.1  
cont.

I appreciate your consideration of these comments.

Sincerely,

  
Alan Titus

## Comment Letter B-3

March 26, 2009

David Grundman  
6715 Dexter Circle  
Rohnert Park, CA  
94928  
707 584-1964

Brad Mehaffy  
National Indian Gaming Commission  
1441 L Street NW, Suite 9100  
Washington, DC, 20005

Via e-mail to [graton\\_eis@nigc.gov](mailto:graton_eis@nigc.gov)

RE: Graton Rancheria FEIS Review Comments

Dear Mr. Mehaffy:

I am a registered civil engineer licensed in the State of California and have been so for over thirty years with considerable experience in water, wastewater, and drainage.

I represent a local concerned citizens group: Reclaiming Our Environmental Rights (ROER) which, is a registered group. I have been reviewing the text of the FIES from a technical point of view based upon my technical knowledge and ability to analyze data.

The ROER met last night and reviewed my comments on the FEIS. It was suggested that the comments be forwarded to you under the public comment period. My comments follow this note.

Thank you for your kind attention to this issue for our local community.

David Grundman



March 19, 2009

David Grundman  
5715 Dexter Circle  
Rohnert Park, CA  
94928  
707 584-1964

RE: Graton Rancheria (GR) FEIS Review Comments

## 1. General Comments

The printed version of the FEIS was not available to the public until about one week after the disk version was available. This reduced the effective review time to 3-weeks.

The disk version moved all of the exhibits (diagrams, maps, etc) away from their intended location to a rear section of the document making it very difficult to follow the text unless you printed out the items and followed the text that way. As such, the disk version is not the same as the printed version further supporting the reduced effective review time to 3-weeks.

As a minimum, the review period should be extended for at least one more week.

A review of the sections dealing with the water supply, wastewater, solid waste, police, fire all exhibit similar shortcomings. Generally, all are out of date using or displaying data ending in 2002. The current date is in 2009, some 7-years later.

## 2. WATER SUPPLY COMMENTS

There are a number of discussions vacillating between several options. It appears that the FEIS plan is to sink two deep wells for a water supply. There is ample discussion about how the City of Rohnert Park will be reducing their use of wells to a point in 2010 when the city plans to not use it's well system except in an emergency. This action would seem to support GR in their plan to draft from the same aquifer.

The City of Rohnert Park is under some sort of agreement to minimize the use of the city's well system until 2010 when the well system will be used only in an emergency. It is planned that the Sonoma County Water Agency (SCWA) will furnish the city's water needs. As part of the science of this, the city must not draft more water than what was determined to be the aquifer replenishment rate.

The City of Rohnert Park was contacted regarding the statements about not using the city's well system. A letter from the city dated March 10, 2009

B-3.1

B-3.2



suggests that we look at the city's 2000 General plan, Section 5.5 Water Supply and Conservation.

The relative cost of water discussion starts on page 5-30, but seems to be just an overview with little to back up statements that SCWA water was less expensive than that from the city's well system. Last year the SCWA increased its rates to the city by about 10 percent and this year, according to information made public during the city's Water Issues Committee Meeting held in Rohnert Park on March 19, 2009, another 10 percent raise in the SCWA rates is soon to come. That will be 20% in 2-years. Maybe the city's well system is not so expensive after all. However, if the city continues to use the well system, the casino may not be able to draw sufficient water from the proposed wells and/or the city's wells will suffer a general loss of capacity.

However, the SCWA is now operating under an impaired condition of delivery. This means that the SCWA will not be able to provide sufficient water to meet the city's needs until such time certain environment conditions are addressed and additional amounts of water can be extracted from the SCWA source(s) of water. It is expected that this impaired operating condition will last for a significant time.

On the surface, this would seem to suggest that the city needs to continue to use the city well system. If so, the plan by GR to draft from the same aquifer would have a detrimental effect on the aquifer levels and the city's ability to use its well system.

A backup plan for a water supply would be to make a connection to the SCWA aqueduct. However, that supply of water is, again impaired.

The last item appeared in the testimony given at the April 5, 2008 states that there are several MTBE leaks very near the casino site. As such, heavy drafting of water in this area would likely cause the MTBE plume to move and possibly contaminate the proposed Casino wells along with other wells in the area.

The addition of two more wells to an aquifer that cannot support its intended emergency use (City of Rohnert Park) together with the large question of the MTBE contamination is a very poor idea. Appendix Y of the DEIS discusses this very problem. Appendix Y of the FEIS shows a paper investigation of the possibility of migration of the MTBE.

The conclusion shown in that paper investigation was an opinion that lateral movement of the MTBE plume was unlikely (this is not sure) and the plume may have an increase in the vertical downward gradient. The report goes on to suggest that the responsible parties (MTBE) will clean things up. The

B-3.2  
cont.

report dated January 15, 2007 does not state that the MTBE is being cleaned up.

The second source of water, SCWA, is currently impaired and will be for some time.

Summary: It appears that the casino does not have a viable source of water and no known third party agreements exist to furnish water to the casino.

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cont.

## 2. WASTEWATER COMMENTS

The FEIS considered several options for addressing the wastewater issue. The preferred plan is to construct an on-site treatment plant and reuse a portion of the effluent for toilet flushing with the remainder being used for landscape irrigation and field irrigation.

During the wet season when irrigation must be reduced, the plan is to place the effluent in holding ponds and/or discharge into the Laguna de Santa Rosa, a very sensitive environmental area.

As a backup plan it is suggested that the casino would connect to the City of Rohnert Park and use the city's facilities/capacities to take care of the wastewater. The city states that this will not be allowed, but this is really a political decision. A second backup plan is to purchase additional capacity in the Laguna Plant for the casino, build their own pipeline to the plant and become a partner in the Laguna Plant. This would likely require the agreement of the other partners, again another political decision. Such an agreement would be very unusual as all of the existing partners are public entities and the casino is private. If the casino were allowed to become a partner in the Laguna Plant, this would set a dangerous precedent.

B-3.3

We must also consider the possibility that the City of Rohnert Park may cooperate with GR by "wheeling" wastewater under the city's entitlement to the Laguna Plant, a political decision, but no agreement to do so is known to exist at this time.

In summary, it is expected that the wet season has a good potential to compromise the on-site treatment plant and holding pond, thus necessitating the release of treated sewage into the Laguna de Santa Rosa. A better and more secure plan would be to connect to the Laguna Plant, however no third party agreement to do so is known to exist at this time.

## 3. SOLID WASTE

The FEIS states that the solid waste-recycling rate in Sonoma County is at 40 percent in 2000. Again this information is old. The current recycling rate

B-3.4

stands at 64 percent according to Patrick Carter of the County' waste Management Department.

B-3.4  
cont.

This is yet another example of how out of date the FEIS data is.

#### 4. FIRE SERVICE COMMENTS

The FEIS has old data shown for 1998-2002. According to a letter from the Rohnert Park Department of Public Safety dated March 16, 2009, fire statistics in a similar table form as shown in the FEIS is not readily available without significant research. It was suggested that raw data was furnished to GR and they arrived at the data table shown in the FEIS.

However, there does exist a document "Fire Division, 2008 Annual Report" in which a table summary of "incident types" is shown. The total of the incident types in that report is 3259 of which 56 percent are "Emergency Medical Services". This compares to a projected (by proportions) 2002 figure of 2342. This appears to be a 39% increase in 7 years.

It is odd that the incident calls increased 39 percent, yet the population did not increase.

B-3.5

The City of Rohnert Park's 2000 General Plan (Section 5.5 Water Supply and Conservation p 5-32) states that the population of Rohnert Park in 2000 was about 41,000 people. According to an Internet source ([www.city-data.com/city/Rohnert-Park-California.html](http://www.city-data.com/city/Rohnert-Park-California.html)), the population of Rohnert Park has decreased slightly to 40,534 people as of July 2007.

But, projecting the fire incident increase over the next twenty years would yield an incident increase starting in 2008 of 111%. This is without the influence of the casino. One can only imagine what the casino will add particularly in "Emergency Medical Services".

No third party agreements are known to exist that would provide fire service to the casino.

#### 5. POLICE SERVICES COMMENTS

The FEIS contains a table on page 3.9-14 which is a comparison of criminal activity in Rohnert Park for 1998-2002. The table lacks a column showing percentage increase/decrease for each of the criminal categories shown.

B-3.6

Some incident items that could be expected to increase with the opening of a casino would be homicide: 200%, Assault: 437%, Burglary: 120%, and Vehicle Theft: 177%.

The table also lacked a total for the criminal activity. The total for 1998 is 1811 incidents and for the year 2002, 2060 incidents. This is a 14% increase in 4 years.

However, in that same letter from the City of Rohnert Park Department of Public Safety dated March 16, 2009, a table of criminal activity matching the one shown on page 3.9-14 was provided for the years 2003 –2008. The provided table also lacked a total, but based upon the information provided, the totals suggest that crime has decreased by 38% during the past 5 years.

Will the crime level increase if a casino is built? It is expected to increase based upon statements contained in the MOU agreement between the City of Rohnert Park and GR. As a result of this acknowledgement by GR, the GR has contributed \$2.863 million to the Special Enforcement Unit under the terms of the MOU signed in 2004. It seems to be working.

***Why would the GR contribute so much money to the police?***

In summary, the criminal activity appears to be decreasing most likely due to the Special Enforcement Unit that has been paid for by GR. It is not clear if this arrangement will continue nor who will pay for it, but it will likely be needed should the casino open. It is also expected that crime will increase per statements in the MOU.

No third party agreement is known to exist that will provide regular police services at the casino.

**6. FINAL SUMMARY**

The FIES as printed differs from the disk version as the diagrams; maps etc are located in another section making the FEIS very difficult to follow. Additional review time should be allowed.

The proposed well water supply seems to rely on the City of Rohnert Park not using its well system and there are unanswered questions about nearby MTBE contamination of well water. Other sources of water may not be available for an extended period of time. Therefore, the water supply called for in the FEIS cannot be considered reliable and no other sources have been arranged for.

The proposed onsite wastewater system has a good potential to be compromised during the wet season necessitating the release of treated

B-3.6  
cont.

B-3.7

sewage into the Laguna de Santa Rosa. No other proposal to deal with the wastewater has been arranged for, so it is likely that a failure of the proposed wastewater system will be seen.

The data for the solid waste recycling countywide is out of date with the current figure placed at 64 percent.

The fire service figures show a 39 percent increase in calls over a 7-year period with no increase in population. This translates into a 111 percent increase over a 20-year period without the influence of the casino.

The police services had a 14 percent increase in criminal incidents from 1998-2002. The GR has been contributing funds to a Special enforcement Unit to reduce crime since the signing of the MOU in 2004. The unit seems to be working well, but why is the GR contributing so much money to the police?

There is little discussion about what is planned and what to do if something does not work out. Much of the data used in the FEIS is out of date by some 7-years. Things have changed particularly for the water supply.

No third party agreements are known to exist to address the current conditions, which now raises many unanswered questions. While the project was well thought out in concept, current conditions will likely cause the project to fail as proposed. It should also be noted that the casino lies outside of the City of Rohnert Park with the exception of a small parcel. That parcel will not entitle the adjoining GR lands to city services.

Since this document was only a small sampling of some of the issues of concern for the proposed casino FEIS, it is expected that an actual comprehensive review of the FEIS will yield a considerable of out of date data, inaccurate information all leading to the conclusion that the FEIS is not adequate today.

B-3.7  
cont.

# Comment Letter B-4

re: FEIS, Graton Rancheria Casino & Hotel Project, Sonoma County, CA  
Comments submitted by Pastor Chip Worthington and Marilee Montgomery  
Mail: c/o 4695 Snyder Lane, Rohnert Park, CA 94928  
Phone: 707-793-2355

## STOP THE CASINO 101 COALITION

*Representing the People of Sonoma County & Marin County, California*

[www.stopthecasino101.com](http://www.stopthecasino101.com)

If you have trouble with this fax, please call 707-588-9926

**DATE:** March 30, 2008

**TO:** Mr. Brad Mehaffy, NEPA Compliance Officer  
1441 L Street, Suite 9100  
Washington, DC 20005

**FROM:** Pastor Chip Worthington  
Marilee Montgomery  
Phone: 707-793-2355  
Email: [info@stopthecasino101.com](mailto:info@stopthecasino101.com)

**re:** Addendum: FEIS, Graton Rancheria Casino & Hotel Project, Sonoma County, CA

Page One of 2

Dear Mr. Mehaffy:

With regard to the Final Environmental Impact Statement (FEIS) for the above-referenced project (Project), having done additional review of the FEIS over the weekend, we would like to add to our earlier Comments that we do not believe that our individual DEIS Comments were answered in detail and in writing, as required by NEPA.

B-4.1

Further, we herein assert that the National Gaming Commission lacks authority over the land in question, as that land is not Indian-owned.

As the NIGC is well aware, the property that has been the subject of the NEPA study is wholly owned in fee by SC Sonoma Development, LLC, a California Limited Liability Company which itself is not Indian-owned or controlled, but is an affiliate of Station Casinos, Inc. of Las Vegas.

B-4.2

The NIGC says in the FEIS that

"...the Graton Rancheria Restoration Act provides that "Any real property taken into trust for the benefit of the Tribe pursuant to this [Act] shall be part of the Tribe's reservation." [cite omitted] The Indian Gaming Regulatory Act provides



re: FEIS, Graton Rancheria Casino & Hotel Project, Sonoma County, CA  
 Comments submitted by Pastor Chip Worthington and Marilee Montgomery  
 Mail: c/o 4693 Snyder Lane, Rohnert Park, CA 94928  
 Phone: 707-793-2355

that the term "Indian lands" includes "all lands within the limits of any reservation." (cite omitted) Therefore, once the Secretary accepts land into trust for the benefit of the Tribe pursuant to the Graton Rancheria Restoration Act, such lands will be part of the Tribe's reservation and will constitute Indian lands within the meaning of the Indian Gaming Regulatory Act."

( Appendix FF section 2.2.15, p.29. )

However, the land is not yet in trust, and may not ever be taken into trust, as there is currently litigation in the federal courts which seeks to stop that from happening. ( Stop the Casino 101 Coalition et al v. Dirk Kempthorne et al )

So not only is the land not yet Indian land, it may never be Indian land, and the NIGC is incorrect in assuming that it will absolutely happen that the land be taken into trust. The NIGC's authority is not based on assumptions of future, potential actions.

It is also an assumption that the land will automatically be eligible for gaming. That decision cannot be made until the land is taken into trust. Since the land has not yet been taken into trust, such a determination cannot be made as a certainty.

Therefore, we believe that, since the NIGC lacks authority over privately-owned fee land, the NIGC has "jumped the gun" by conducting this NEPA study. We ask that your agency remove itself from this Study until such time as

1. the federal court makes a determination regarding the trust land acquisition, and
2. the trust land is then determined to be eligible or ineligible for gambling under IGRA.

Should you have any questions regarding these Comments, please feel free to contact us by mail to c/o 4693 Snyder Lane, Rohnert Park, CA 94928, or by phone to 707-793-2355.

B-4.2  
 cont.

**From:** Stop the Casino 101 Coalition  
**To:** Mehaffy, Bradley  
**Sent:** Tue Apr 21 13:30:53 2009  
**Subject:** GRaton Rancheria Casino/Hotel FEIS

Dear Mr. Mehaffy:

We first brought the information regarding the litigation pertaining to the Wilfred Avenue Overpass to your attention on September 30, 2008. For your information, 09-15750 *Rohnert Park Citizens to Enforce CEQA v. United States Department of Transportation, et al* has been docketed in the U.S. court of appeal.

Clearly, this lawsuit continues to impact the Graton Rancheria project, and in view of the County's FEIS Comments regarding Wilfred Avenue, the several alternatives located along Wilfred, etc., this litigation still prevents the EIS from being concluded in a meaningful way. Should the Plaintiff be successful in their lawsuit, a NEPA review of the Wilfred Avenue Overpass would be required, and that would delay the Wilfred project for several years. Any traffic projections employing an Overpass over Wilfred Avenue are, at this time, moot. This constitutes a "fatal flaw" under the National Environmental Protection Act, one that is serious enough and obvious enough that a judge (or an agency legal counsel) would deem an EA or EIS unacceptable as written.

B-5.1

MariJee Montgomery

**From:** [ca9\\_ecfnoticing@ca9.uscourts.gov](mailto:ca9_ecfnoticing@ca9.uscourts.gov) [mailto:[ca9\\_ecfnoticing@ca9.uscourts.gov](mailto:ca9_ecfnoticing@ca9.uscourts.gov)]  
**Sent:** Monday, April 20, 2009 1:43 PM  
**To:** [rzoja@sbcglobal.net](mailto:rzoja@sbcglobal.net)  
**Subject:** 09-15750 Rohnert Park Citizens to Enfor v. United States Department of Tr, et al "Civil Case Docketed"

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**United States Court of Appeals for the Ninth Circuit**

**Notice of Docket Activity**

The following transaction was entered on 04/20/2009 at 1:40:31 PM PDT and filed on 04/20/2009

**Case Name:** Rohnert Park Citizens to Enfor v. United States Department of Tr, et al

**Case Number:** 09-15750



**Document(s):** [Document\(s\)](#)

**Docket Text:**

DOCKETED CAUSE AND ENTERED APPEARANCES OF COUNSEL. SEND CADS: No. The schedule is set as follows: Designation of RT for Appellant Rohnert Park Citizens to Enforce CEQA due 04/24/2009. Designation of RT for Appellee Federal Highway Administration and United States Department of Transportation due 05/04/2009. Transcript order for Appellant Rohnert Park Citizens to Enforce CEQA due 05/14/2009. Transcript due for Orig Clerk USDC, San Francisco on 06/15/2009. Certificate of record due 06/22/2009. Appellant Rohnert Park Citizens to Enforce CEQA opening brief due 07/30/2009. Appellee Federal Highway Administration and Appellee United States Department of Transportation answering brief due 08/31/2009. Appellant's optional reply brief is due 14 days after service of the answering brief. (RT)

The following document(s) are associated with this transaction:

**Document Description:**Civil Docketing Letter

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**Filename:**/opt/ACECF/live/forms/rubent\_0915750\_6888967\_CivilDocketingLetter\_101.pdf

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[STAMP acecfStamp\_ID=1106763461 [Date=04/20/2009] [FileNumber=6888967-0]  
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b6e2218f886f11c7b8b80e94dcb91accd7c2dadbb6ebb9f4]]

**Recipients:**

- [McVickar, Sahar, Court Reporter](#)
- [O'Connor, Charles Michael](#)
- [USDC, San Francisco](#)
- [Zoia, Rose](#)

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068b2a1b779a224842695ae75bea625cddfdd86ca717c41ff]]

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- [O'Connor, Charles Michael](#)
- [USDC, San Francisco](#)
- [Zoia, Rose](#)

**Notice will be electronically mailed to:**

USDC, San Francisco  
Zoia, Rose

**Notice will be mailed to:**

McVickar, Sahar, Court Reporter  
OFFICIAL COURT REPORTER  
United States District Court  
450 Golden Gate Avenue  
P.O. Box 36052  
San Francisco, CA 94102

O'Connor, Charles Michael  
OFFICE OF THE U.S. ATTORNEY  
450 Golden Gate Avenue  
P.O. Box 36055  
San Francisco, CA 94102-3495

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**STOP THE CASINO 101 COALITION**

*The Voice of the People*

979 Golf Course Drive, No. 170  
Rohnert Park, CA 94928  
www.stopthecasino101.com

If you have trouble with this fax, please call 707-588-9926

**DATE:** May 7, 2009

**TO:** Mr. Philip Hogen, Chairman, National Indian Gaming Commission

**cc:** The Honorable Dianne Feinstein, U.S. Senate  
The Honorable Barbara Boxer, U.S. Senate  
The Honorable Lynn Woolsey, U.S. House of Representatives  
The Honorable Mark Leno, California State Senate  
The Honorable Jared Huffman, California State Assembly

**FROM:** Marilee Montgomery  
Community Outreach Coordinator  
Phone: 707-548-4756 (Mon. - Fri. 9 a.m. to 5 p.m.)  
Email: [Marilee@stopthecasino101.com](mailto:Marilee@stopthecasino101.com)

**re:** Graton Rancheria Casino/Hotel Project, Sonoma County, CA  
FATAL FLAW" in Graton Rancheria NEPA study

Page One of Three

Included below is an article in today's Press Democrat regarding a recent settlement on the Sonoma County population of California Tiger Salamander (CTS). As you can see, the settlement restores as CTS habitat 74,000 acres, including the Santa Rosa Plain and the proposed casino site.

The casino site is the subject of a NEPA study resulting in the recent release of the FEIS. The NEPA study includes CTS habitat and proposed mitigations for same.

The casino site is included within the boundary of the Fish and Wildlife Service map delineating the

B-6.1

potential range of the endangered California tiger salamander. According to the Center for Biological Diversity's Noah Greenwald, the Sonoma County population of the California tiger salamander is on the brink of extinction and needs protection for its habitat in order for this sub-species to have any chance of survival.

U.S. Fish and Wildlife states in the article below that, "...the agreement calls for (the) agency to repropose the 74,000 critical habitat designation by August. The federal agency would then begin public hearings, take new public comment and conduct an economic analysis of the impact." No decision would be announced on Fish and Wildlife's findings until July 2011.

We feel that this new development constitutes a "FATAL FLAW" in the Graton Rancheria NEPA study, especially as the NIGC may have had knowledge of the lawsuit in question at the time the study was being prepared. We feel that it would be inappropriate and even reckless for the National Indian Gaming Commission to enter a Record of Decision for the Graton Rancheria FEIS until Fish and Wildlife has finished its analysis in the matter of Sonoma County CTS habitat, as this settlement changes the rules under which the FEIS was conducted and by which U.S. Fish and Wildlife gave its approval to the casino project. Those rules included reducing Sonoma County CTS habitat from 74,000 acres to zero.

B-6.1  
cont.

Please give your every attention to this most critical matter.

## Wider tiger salamander protections restored

By **BLEYS W. ROSE**  
THE PRESS DEMOCRAT

Published: Wednesday, May 6, 2009 at 3:28 pm

Environmentalists and federal wildlife regulators have settled a federal lawsuit on tiger salamander habitat, agreeing to roll back the clock to 2005 and return to the days when all 74,000 acres of the Santa Rosa Plain were considered as protected.

The agreement reverses the U.S. Fish and Wildlife's 2005 attempt to limit habitat consideration to 21,000 acres west of Highway 101. It also renders moot a locally inspired attempt to craft building permit procedures and mitigation banks in lieu of any habitat designation.

The agreement approved April 10 by the U.S. Court of Appeals in San Francisco was hailed by environmentalists, who feel it saves the salamander. But it was criticized by real estate interests, who said it could bar already-restricted development, particularly in southwest Santa Rosa.

"If anywhere near 74,000 acres is adopted, the housing industry in Sonoma County might never recover," said Paul Campos, vice-president and general counsel at the Home Builders Association of Northern California. "It is on life support now, this might just pull the plug."

But Peter Galvin of the Center for Biological Diversity, which sued the federal government to force full habitat designation, said development interests are using the slumping economy to justify bad environmental practices.

"It is an important victory because we wanted to make sure the tiger salamander stayed on the list of endangered species, that recovery plans for habitat protection remain and that the process is re-energized," Galvin said. "Developers tried to take environmental protections away and they failed."

The 74,000-acre plain stretches from the Laguna de Santa Rosa to the eastern hills of Santa Rosa and from Windsor Creek to Skillman Road in northern Petaluma.

The Center for Biological Diversity, an environmental group based in Arizona, filed the legal challenge to the Fish and Wildlife Service's decision in late 2005 to reduce from 74,000 to 21,000 the number of acres to be considered for critical habitat designation.

Such designation would require developers to study whether salamanders are present and to mitigate impacts if the nocturnal amphibians are adversely affected by construction.

The agreement effectively puts an end to the group of industry, environmental and government leaders called Santa Rosa Plain Conservation Strategy, which attempted to streamline the permitting process and establish mitigation banks for habitat preservation. That effort was put on hold about a year ago when Sonoma County supervisors and Santa Rosa council members said they could no longer fund it.

County planning director Pete Parkinson said the effort has not gone to waste because developers have been getting project approvals by agreeing to fund mitigation banks that are increasing the extent of salamander habitat.

"Although the conservation strategy was never adopted by anybody, the city and the county are still using the guidelines because it shows where mitigation can take place and shows the way projects can

B-6.1  
cont.

move ahead," Parkinson said. "Frankly, critical habitat designation is not going to change anything very much."

Al Donner, assistant field supervisor for the U.S. Fish and Wildlife Service, said the agreement calls for his agency to repropose the 74,000 critical habitat designation by August. The federal agency would then begin public hearings, take new public comment and conduct an economic analysis of the impact.

By July 2011, the agency is supposed to announce a decision, he said.

B-6.1  
cont.

## *Individual Letters*

Paul D. Stutrud  
P. O. Box 2205  
Rohnert Park CA 94927

25 February 2009

Mr. Chad Broussard  
Analytical Environmental Services  
1801 7<sup>th</sup> Street, Suite 100  
Sacramento CA 95811

Re: NIGC Final Environmental Impact Statement and Conformity Determination

Dear Mr. Broussard:

I received your letter dated 18 February 2009 and the DVD that is supposed to be the Final Environmental Impact Statement. I cannot accept this as it is. I require the paper version so that I can read it. Unless you want to furnish me with a 24 inch monitor and computer to access the information.

I think that amount of time to review all of this information in the FEIS should be at least 90 days, preferably six months.

As for your statement that a hard copy of the FEIS is available for public review at the Rohnert Park-Cotati Regional Library is not very encouraging. I protest that one copy is not sufficient and the hours of operation of the library are also detriments to a whole-hearted review of the documentation in the FEIS.

You may mail a copy of the FEIS to my address of 712 Hudis Street, Rohnert Park CA 94928.

You may also mail a copy if the FEIS to my attorney, John F. Hudson at 399 Bonnie Avenue, Rohnert Park CA 94928.

Thank you,

  
Paul D. Stutrud

received  
2/27/09

I-1.1



Comment Letter I-2

990 Echo Ct.  
Rohnert Park Ca 94928

March 6, 2009

United States Dept. of the Interior  
Office of the Secretary  
Washington, D.C. 20240

Dear Mr. Mchaffy:

May 16, 2008 I wrote to Dirk Kempthorne, Secretary of Interior regarding the BIA publishing notice of intent to take land just outside of Rohnert Park into trust for the Federated Indians of Graton Rancheria for the purpose of establishing a Las Vegas style casino before an EIS document was completed.

June 27, 2008 I received a letter from Paula Hart, Acting Director, Office of Indian Gaming In it she states NEPA generally requires publication of an environmental review document before land is placed into trust for an Indian tribe. "In this instance, the acquisition of the property for the Graton Rancheria is explicitly mandated by Congress under the Graton Rancheria Restoration Act, 25 U.S.C. 1300n-3. Because the Secretary exercises little or no discretion in acquisition the property for Graton Rancheria, NEPA is not applicable."

February 24, 2009 the Supreme court of the United States Carcieri, Governor of Rhode Island, et al. v Salazar, Secretary of the Interior, et al. in a decision 6-3 ruling the supreme court states Indian tribes for whom land can be taken into trust are those that were "recognized" and under federal jurisdiction" as of June 1934.

Furthermore, taking land into trust such as in our neighborhood is a violation of the 10<sup>th</sup> amendment to the U.S. Constitution. The tribe clearly does not have sovereignty over the 254 acres and the doctrine has never been used to create such "sovereignty"

Sincerely,

*Eunice Edgington*  
Eunice Edgington

CC: Senator Mark Leno  
Assemblymand Jared Huffman, 6<sup>th</sup> District

3100977

I-2.1

82:1 11 1:28

**Comment Letter I-3**

**MARILEE TAYLOR MONTGOMERY**

152 Wilfred Avenue  
 Santa Rosa, CA 95407  
 ttnagal@erdc.net

**URGENT FAX: PLEASE ROUTE TO RECIPIENT ASAP**

**DATE:** March 11, 2009

**TO:** Mr. Bradley Mahaffy, NEPA Coordinator  
 NIGC  
 Fax: 202-632-7066

**FROM:** Marilee Montgomery  
 Santa Rosa, CA 95407  
 707-548-4756

**re:** Graton Rancheria casino/hotel project, Sonoma County, CA

Page One of One

With regard to the above-referenced project, I'd like to obtain a copy of both the Scoping Comments from both Scoping Hearings (if applicable) and the DEIS Comments submitted by the Laguna de Santa Rosa Foundation, a California 501(c)(3) non-profit located at 2150 W. College Avenue, Santa Rosa, CA 95401.

If the documents can be emailed, please email them to [sonomarental@yahoo.com](mailto:sonomarental@yahoo.com). If the need to be mailed, please mail them to 4427 Taylor Avenue, Santa Rosa, CA 95407.

Thank you in advance for your anticipated cooperation. Please feel free to contact me if you have any questions at all.



I-3.1

Mr. Bradley Mehaffy  
NEPA Compliance Officer  
National Indian Gaming Commission  
1441 L Street NW  
Washington, D.C. 20005

Dear Mr. Mehaffy

In September 2008 the first commercial ship sailed through the Northwest Passage. A member of the crew is reported to have claimed that, there was no ice whatsoever. This was a first in human history. No one had predicted it would happen this soon. We're many years ahead of schedule in terms of the loss of the Arctic sea ice. If this loss of surface ice doesn't sway our decision making process now then we are headed for an impending disaster. Our State, our County and all nine Cities in Sonoma have agreed to reduce greenhouse gas emissions from all sources including the 60% of which comes from transportation. Sonoma County staff have declared that the FEIS is deficient in many areas; traffic being one, and that the 18,000 vehicle car trips is most likely an underestimate.

I-4.1

Climate change is the by-product of planning decisions. This casino, essentially a recreational facility, is an attractive nuisance for vehicle use and the consequential carbon gas production. If this project comes to fruition in terms of traffic, even at the low estimated level, it will represent the load of the fifth largest city in Sonoma County. There exists a united effort to reduce our carbon footprint. Here is an opportunity to not increase the difficulty of that obligation.

I am asking you to heed the calls of the local community and reject this FEIS as insufficient on the above reasons, but also because of the following:

- The Casino will cause harm the existing nearby businesses.
- The Casino will cause an increase in crime.
- The Casino will cause an increase in the traffic on Petaluma Hill Road and Stony Point Road, changing the rural character of the communities they serve.
- The Casino will cause environmental impacts detrimental to the habitat for the California Tiger Salamander and other native species.
- The Casino will cause an over drafting of the neighboring wells. The FEIS only states hypothetical scenarios involving the cooperation of others not named in the documents for mitigation and only after the neighbors' wells go dry would they begin trying to find solutions.
- This proposed project would take from the County's control its stated intentions for a ground water management plan and place it in the hands of the courts.

I-4.2

Dan Monte  
33 Jefferson Ave  
San Rafael, CA 94903

March 27, 2009

IE &  
INDIAN  
MISSION

To: Mr. Brad Mehaffy, NEPA Compliance Officer  
National Indian Gaming Commission  
1441 L Street NW  
Washington, DC 20005

March 20, 2009

From: Linda M. Long  
944 Helene Ct.  
Rohnert Park, CA 94928

**Response to Graton Rancheria Casino and Hotel EIS/FEIS Alternative A (Wilfred Site) and other sites in the area**

Please refer to my comments letter sent on the EIS and to the comments orally expressed by me at the SCOPING hearing regarding the EIS.

The FEIS fails to take a hard look at the concerns stated in my comments letter.

The FEIS fails to take a hard look, as required by NEPA, at the Wilfred Interchange Project, a proposed and approved underpass project on Highway 101 at Wilfred Avenue and Golf Course Drive linking those two streets thus causing thousands of residents on the east side on 101 to be on the same street as the proposed casino resort.

I-5.1

Figure 4.12-6 2020 Cumulative Plus Project PM traffic volumes-Alternative A indicates that #8 modified intersection is not analyzed. A hard look is mandated according to NEPA.

Failure to take a hard look at the impact of the 762,000 casino resort on residents who would be on the same street as the casino is counter to what is mandated by NEPA. Environmental impacts of traffic drawn to/from the casino resort through neighborhoods, within 125 feet of Hahn Elementary School and directly past Honeybee Park and Pool east of 101 must be analyzed.

Thank you,

  
Linda M. Long

Linda M. Long

*[Faint, illegible text and stamps at the bottom of the page]*

# CHAPTER 3.0

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## RESPONSE TO COMMENTS ON THE FEIS

This attachment to the Record of Decision (ROD) contains responses to comments that were received on the Final Environmental Impact Statement (FEIS).

### GOVERNMENT AGENCY COMMENTS

#### **G-1 – SONOMA COUNTY BOARD OF SUPERVISORS/ SONOMA COUNTY WATER AGENCY**

- G-1.1** As requested, Comment Letter G-1 has been considered in the ROD. The commenter provides a summary of comments that are made later in the letter. Responses to the summarized comments are therefore provided below in response to the detailed comments made throughout the letter.

Regarding recirculation, please see FEIS Appendix FF, Response to Comment 2.1.7. As will be demonstrated in specific responses to comments below, after over five years of consultation and analysis culminating in a FEIS that is over 8,000 pages long and that has been found to be more than adequate by the U.S. Environmental Protection Agency (USEPA - see FEIS Appendix AA, Comment Letter G-29), the National Indian Gaming Commission (NIGC) has taken a “hard look” at all potential environmental impacts. In addition, note that supplementation of a FEIS is required only if “there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. 1502.9(c)(1)(ii). As will be demonstrated in specific responses to comments below, none of the claimed deficiencies noted by Comment Letter G-1 constitute significant new circumstances or information that would necessitate the supplementation of the FEIS.

The County’s position on the approval of Alternative H is noted for the record. After this comment and input received during the FEIS waiting period by the United States Environmental Protection Agency (USEPA), the NIGC has decided to choose a development that is in between Alternatives A and H in the size and components of the proposed facilities. This development is hereby referred to as Variant H-sub1. Variant H-sub1 is fully encompassed within the range of

alternatives included in the FEIS and is therefore appropriately included within the ROD (40 C.F.R § 1505.1(e)). A description and an analysis of the environmental impacts of Variant H-sub1 is included in the ROD, Attachment 3. Required mitigation has been modified in Section 6.0 of the ROD to account for reductions in impacts that would occur under Variant H-sub1.

Although Variant H-sub1 is in between Alternatives A and H in size and components, it is closer in design to Alternative H. As described in ROD, Attachment 3, Variant H-sub1 is 227,400 square feet (sf) smaller than Alternative A and only 121,500 sf larger than Alternative H. Furthermore, the gaming floor of Variant H-sub1 is identical in size to Alternative H and like Alternative H, Variant H-sub1 does not include a show room.

- G-1.2** Please see FEIS Appendix FF, Responses to Comments 2.10.36, 2.11.4, 2.11.6, 2.11.10, 2.11.45, and 2.14.1. Widening of Wilfred Avenue from Redwood Drive to the Urban Growth Boundary to five lanes is proposed in the Rohnert Park General Plan. In addition, as noted in FEIS Section 5.2.7, the Federated Indians of Graton Rancheria (Tribe) has agreed in a Memorandum of Understanding (MOU) with the City of Rohnert Park to compensate the City for one half of the actual cost of the Wilfred Avenue widening from Redwood Drive to the Urban Growth Boundary that is included in the City's General Plan. The Tribe has further stated its intention to pay the full cost of this widening (subject to future reimbursement) should this segment of Wilfred Avenue remain subject to County jurisdiction. Finally, the FEIS traffic study (Appendix O) recommends widening Wilfred Avenue to three lanes in the near term (this recommendation is also referenced in FEIS Appendix FF, Response to Comment 2.11.10) and to five lanes in the long term. This recommendation has been added to Section 6.0 of the ROD as required mitigation in response to this comment.

Regarding the mitigation measure to contribute to safety improvements along Wilfred Avenue, this was meant to improve the safety of the roadway west of the Urban Growth Boundary, where relatively few project trips would be travelling. Thus, capacity improvements are not needed (see FEIS Appendix O and Sections 4.8 and 4.12 for an analysis of intersection operations along Wilfred Avenue). Safety improvements, however, would be beneficial even absent a need to increase capacity. Thus, this measure was added after reviewing comments and discussing the issue with County staff in an attempt to improve even the portions of Wilfred Avenue where the project impact is substantially reduced.

Regarding the use of “recommended” language in Section 5 of the FEIS, please see FEIS Appendix FF, Responses to Comments 2.6.4 and 2.11.44. Please see FEIS Appendix FF, Responses to Comments 2.11.1, 2.11.4, and 2.11.18 regarding the methodology for estimating project traffic trips. As noted in FEIS Appendix FF, trips are more likely overstated rather than understated, as suggested by the commenter. Also, please see Response to Comment G-1.1 regarding the selection of Variant H-sub1. Variant H-sub1 would result in a reduction of daily trips of almost 20 percent, from 18,261 to 14,724. Please see ROD Attachments 3 and 4 for more detail on expected traffic impacts of Variant H-sub1, which would be in between the impacts that would occur for Alternatives A and H.

- G-1.3** Please see FEIS Appendix FF, Response to Comment 2.10.36. In response to previous Sonoma County comments, a mitigation measure was added to FEIS Section 5.2.7 that recommends that the Tribe “fully funds the restructuring of Labath Avenue and Langner Avenue between Wilfred Avenue and Business Park Drive following construction associated with Alternatives A or H to facilitate site access.” Facilitation of site access necessarily requires the widening of at least portions of Labath and Langner to allow vehicles to transition from the roadway to parking facilities. The FEIS recommends that improvements to Langner and Labath take place to facilitate access whether or not the roads remain in public ownership. It is not known whether the Tribe would petition the County to relinquish these roads from public ownership.
- G-1.4** Regarding the distribution of project trips, the analysis of traffic impacts, and traffic safety, please see FEIS Appendix FF, Responses to Comments 2.11.4, 2.11.10, 2.11.19, 2.11.24, and 2.11.25. Pursuant to analysis in FEIS Appendix O and Sections 4.8 and 4.12, while various intersection improvements are recommended, no road segment capacity improvements are warranted along either Stony Point Road or Millbrae Avenue. It is assumed that “non-local” traffic would be more likely to use primary access routes from U.S. Route 101 (US-101) rather than secondary routes along Millbrae Avenue due to unfamiliarity with the local street network. In addition, it is reasonable to assume most drivers can travel safely along roadways with less than perfect pavement structure. Regarding reduced traffic impacts under Variant H-sub1, please see Responses to Comments G-1.1 and G-1.2.
- G-1.5** Regarding the acceptable level of service (LOS) standard, please see FEIS Appendix FF, Response to Comment 2.11.15. Regarding the analysis of impacts and recommended mitigation measures along US-101, please see FEIS Appendix FF, Responses to Comments 2.11.2, 2.11.3, 2.11.10, 2.11.12, 2.11.14, 2.11.23, and



2.16.3. The FEIS traffic analysis (Appendix O and Sections 4.8 and 4.12) considers the project traffic in addition to cumulative background traffic on a roadway network that is reasonably foreseeable for the analysis year. The FEIS acknowledges that many of the high occupancy vehicle lane projects and the Wilfred interchange project are either fully or partially funded at this time. The FEIS recommends that the Tribe fund a fair share of the “remaining costs (if any)” of these projects. Therefore, contrary to the contention of the commenter, the FEIS does not rely at all on the need for these projects to require additional funding. As noted in FEIS Section 4.8.2, in the near term “no freeway segments or ramps would operate at an unacceptable LOS with the addition of Alternative A traffic.” Thus, the near term freeway segment measures cited by the commenter are mitigation measures that are recommended to further reduce less than significant impacts, not to reduce significant impacts to a less than significant level. This is in contrast to future cumulative conditions with Alternative A traffic, where several freeway segments and ramps are forecast to operate at an unacceptable LOS (see FEIS Section 4.12.3). Thus, additional freeway mitigation measures are proposed, including capacity and/or transit measures, to mitigate significant future traffic impacts (see FEIS Section 5.2.7).

The California Department of Transportation (Caltrans) Methods for Calculating Equitable Mitigation Measures (Appendix B of the Caltrans Guide for the Preparation of Traffic Impact Studies) includes several alternative formulas for calculating proportionate share. The FEIS is not inconsistent with any of these formulas. As noted in FEIS Section 5.2.7, “The proportionate share calculation methodology recommended by the agency with jurisdiction shall be used for each individual improvement.” Therefore, for improvements over which Caltrans has jurisdiction, Caltrans will dictate the methodology for calculating proportionate share. For improvements over which Sonoma County has jurisdiction, the County could choose to use the Caltrans methodology or some other methodology preferred by the County. The FEIS recommendation to establish an escrow account prior to construction applies to near term traffic improvements. A requirement has been added to Section 6.0 of the ROD which clarifies that an escrow account shall be established for cumulative improvements prior to 2020. Please also see FEIS Appendix FF, Responses to Comments 2.6.4, 2.11.18, 2.11.23, and 2.16.3. Regarding reduced traffic impacts under Variant H-sub1, please see Responses to Comments G-1.1 and G-1.2.

**G-1.6** As noted in FEIS Appendix FF, Response to Comment 2.11.10, where a full-share road improvement is recommended, “the Tribe would be responsible for full payment of the costs to construct the mitigation measure.” Also see FEIS Section



5.2.7, which states that funds provided by the tribes shall be for design, approvals/permits, and construction. Therefore, the County would not incur any unfunded administrative or organizational burden. Please also see FEIS Appendix FF, Responses to Comments 2.11.18, 2.11.34, 2.11.44, and 2.16.3.

- G-1.7** Regarding mitigation for impacts to roadways from construction traffic, please see FEIS Section 5.2.7, and Appendix FF, Responses to Comments 2.10.36 and 2.11.13. FEIS Section 5.2.7 includes a mitigation measure to ensure surrounding roadways are resurfaced to “at least pre-construction condition” if roadway deterioration has occurred as a result of construction.

The mitigation measure restricting the importation of fill material is misquoted in the comment and it is quoted out of context, which distorts the meaning of the measure. The full measure in FEIS Section 5.2.7, which was added after consultation with Sonoma County, states that the Tribe shall, “minimize the amount of construction fill transported on the surrounding street network by eliminating the off-site travel route except where necessary to obtain materials that cannot be obtained on-site. Potential options for eliminating off-site transport include moving fill material via conveyors across barriers such as creeks and ditches or installing temporary bridges for haul vehicles across the barriers.” Soil generated from earthwork on the southern portion of the property would accommodate the vast majority of fill needed in the northern development area, as demonstrated in FEIS Section 2.0 and Appendix C, which show that on-site excavation would provide a sufficient amount of fill material to result in a “balanced” site, without the need to obtain additional fill material off-site. Nonetheless, a minimal amount of materials may be needed from off-site in order to maintain optimum engineered soil conditions for development.

Lane closures can only be allowed at the discretion of the County. Please see FEIS Appendix FF, Response to Comment 2.16.3. The expected fill importation schedule cited from FEIS Section 4.8 is prior to the application of the mitigation measure limiting off-site importation of fill material. With the implementation of this mitigation measure, most and possibly all off-site fill trips would be eliminated. Thus, the remaining off-site fill trips that are necessary (if any) would be able to meet a requirement to be scheduled outside area-wide commute peak hours.

- G-1.8** Please see Responses to Comments G-1.1, G-1.2, G-1.3, and G-1.5.

FEIS Page 3.8-6 currently refers to SCT (Sonoma County Transit). Thus, it is clear from both the text and the context that the reference made is to Sonoma County Transit and not the Sonoma County Transportation Authority (SCTA).

Regarding the current funding status of the Sonoma Marin Rail Transit (SMART) project, future construction of the SMART project was addressed in the FEIS where relevant (see FEIS Sections 4.12.2, 5.2.3, and 5.2.7; FEIS Appendix FF, Responses to Comments 2.6.4, 2.6.16, 2.11.8, and 2.11.10; and FEIS Appendix O). No reduction of project trips were assumed due to the future construction of the SMART project, however, in order to provide a conservative traffic analysis that provides a worst case analysis of potential traffic impacts. The passage of Measure Q does not change the analysis in the FEIS nor require the revision of the FEIS.

There is no reference to the southbound Rohnert Park Expressway ramp on FEIS page 3.8-8. Assuming the commenter is referring to the reference to this ramp on page 3.8-9, the language is meant to confer the conditions that were in place at the time of the traffic survey. As noted in the text, in Table 3.8-3, and in Appendix O, pre-construction conditions were reported as existing conditions. This methodology is conservative in that it likely represents a worst case traffic condition in the near term given that the completion of the ramp has improved the traffic condition. The ramp is assumed to be complete in future cumulative baseline conditions. Please see FEIS Appendix FF, Responses to Comments 2.4.11 and 2.11.18.

As noted in FEIS Section 5.2.7 and Appendix O, except for possible contributions to HOV lane projects, most of which are nearly complete (and thus were not credited to the receipt of mitigation funds from the Tribe in Table 5-12), no near-term freeway segment improvements are recommended for Alternative A. Hence, a near term LOS after Mitigation column was not necessary in FEIS Table 5-12 for Alternative A.

- G-1.9** Please see FEIS Appendix FF, Responses to Comments 2.9.2, 2.9.26, 2.10.6, 2.10.10, 2.10.27, and 2.10.32. The existing MOU between the Tribe and Sonoma County is a fully executed and binding document that creates obligations on both the Tribe and Sonoma County should the project move forward. Thus, it would be improper for the FEIS to ignore the existence or implications of the MOU. Nonetheless, contrary to the contention of the commenter, the FEIS does not rely on the MOU as a substitute for the analysis and mitigation of impacts. As noted in FEIS Section 4.9.1, “With the fiscal mitigation listed in Section 5.2.6, (law enforcement services) impacts to the County would be less than significant.” Thus,

the FEIS is relying on the mitigation payments specified in Section 5.2.6, which were developed by the NIGC and its socioeconomic consultants and is not reliant on any future MOU negotiations.

Regarding the impact of future annexation on the provision of law enforcement services, please see FEIS Appendix FF, Response to Comment 2.10.6. The recent annexation of Creekside Middle School by the City of Rohnert Park does not alter the conclusion stated in Response 2.10.6 that the City of Rohnert Park could provide law enforcement services to the site by contract, similar to the City's provision of services to the Creekside Middle School before it was annexed. The 2006 agreement to provide services to the Creekside Middle School is entitled, "An Agreement Between the County of Sonoma and the City of Rohnert Park for the Extension of Law Enforcement Services, as Limited and Defined Herein, by the City of Rohnert Park to Creekside Middle School in the Unincorporated Area of the County of Sonoma." The agreement clearly states that Creekside Middle School is located in unincorporated Sonoma County (which was true at the time of the agreement) adjacent to the City of Rohnert Park and that pursuant to the agreement the City will provide law enforcement services to the school. The agreement notes that the Rohnert Park City Council and the Rancho Cotati School District "are in the process of discussing possibly annexing the School into the City," but the agreement does not rely on that potential future annexation in any way.

- G-1.10** Please see FEIS Appendix FF, Responses to Comments 2.10.4, 2.10.7, 2.10.11, 2.10.12, and 2.10.19. As noted in FEIS Section 4.9.1, the Tribe could contract with any one of a number of service providers for primary fire protection services and "An agreement for primary services would prevent a reliance on mutual/automatic aid services, ensuring a less than significant impact to mutual/automatic aid services."

Regarding the Sutter-Memorial Hospital transaction, please see FEIS Appendix FF, Responses to Comments 2.10.2 and 2.10.19. The recently proposed business plan by the Sutter Medical Center (including construction of a 70-bed hospital) does not affect the conclusion in FEIS Section 4.9.1 that multiple hospitals would continue to serve the Wilfred site (even absent the construction of new facilities by the Sutter Medical Center). Thus, revisions to the FEIS are not required. Please see Response to Comment G-1.1.

- G-1.11** Please see FEIS Appendix FF, Responses to Comments 2.9.2, 2.9.3, and 2.9.23. The FEIS analyzes multiple studies, many of which are more current than the 2000

study cited by the commenter, to develop comprehensive estimates for new problem and pathological gamblers rather than to attempt to develop complicated and potentially less accurate estimates for increases in problem gambling according to certain segments of the population. The comprehensive estimates in the FEIS account for increased prevalence rates for certain population groups and decreased prevalence rates for other population groups. FEIS Section 5.2.6 includes several mitigation measures designed to prevent or reduce the incidence of problem gambling for all segments of the population. FEIS Section 5.2.6 also includes mitigation measures that recommend compensation to problem gambling treatment and prevention programs. The FEIS properly leaves the specific distribution of the mitigation funds to the operators of these programs, whom are in the best position to determine whether to focus the funding on certain segments of the population, on the general population, or both.

**G-1.12** Please see Response to Comment G-1.11. Please see FEIS Appendix FF, Response to Comment 2.16.4.

**G-1.13** Please see Response to Comment G-1.11. Please see FEIS Appendix FF, Responses to Comments 2.9.2, 2.9.7, 2.9.8, 2.9.30, 2.10.6, 2.10.26, 2.10.27, and 2.10.28. As noted in Response to Comment 2.9.2, while there may be a relationship or a correlation between problem or pathological gambling and domestic violence, “problem and pathological gambling does not cause the previously mentioned social ailments (domestic violence, divorce, child neglect, homelessness).” The mitigation language referred to by the commenter in FEIS Section 5.2.6 was added at the request of Sonoma County but is not evidence of a “nexus” between casino operations and domestic violence.

Regarding the methodology for calculating fiscal impacts to the County, please see Responses to Comments 2.9.26, 2.10.6, 2.10.26, 2.10.27, 2.10.28, and 2.10.37.

Regarding the City of Rohnert Park Special Enforcement Unit (SEU) and potential impacts to crime, please see FEIS Section 4.7.1; Appendix II; and Appendix FF, Responses to Comments 2.9.2, 2.9.7, and 2.9.10. As noted in the responses to comments, the Tribe has continued to fund the SEU at the request of the City of Rohnert Park, even though it is not currently obligated to do so under the MOU between the City and the Tribe. The FEIS in no way “acknowledges that the project would result in a 95% increase in drug arrests...” The City of Rohnert Park Resolution in FEIS Appendix II acknowledges that “the SEU has been extremely successful in reducing criminal activity in Rohnert Park as noted by the 36% decrease in burglaries and the 95% increase in drug arrests.” The City of Rohnert

Park resolution reports the situation following the negotiation of the MOU between the City and the Tribe and the Tribe's recent willingness to voluntarily continue these donations. If the use of these funds to make drug arrests by the City is burdening County treatment programs, the County should encourage the City to reduce drug arrests to manageable levels, utilize City programs for substance abuse treatment, and/or compensate the County for increased treatment costs.

**G-1.14** Comment noted. Please see FEIS Section 5.2.3 for mitigation for indoor air quality impacts, which are not limited to segregation of smokers from non-smokers. Please also see FEIS Section 4.4.2 and FEIS Appendix FF, Responses to Comments 2.6.8 and 2.6.16.

**G-1.15** The customer survey mitigation measure has been revised as recommended in Section 6.0 of the ROD. Regarding alcohol use at the casino, please see FEIS Appendix FF, Responses to Comments 2.9.2, 2.9.7, 2.9.14, and 2.9.30. Mitigation measure W on FEIS page 5-69 clearly states that the Tribe's internal monitoring program would support enforcement of the incidence of parties involving minors. Underage drinking is a common occurrence at such parties. Thus, utilizing the internal monitoring program for reducing the incidence of these parties would also serve to reduce the incidence of underage drinking. Regarding potential impacts to crime, including prostitution, please see FEIS Appendix FF, Responses to Comments 2.9.1, 2.9.2, 2.9.3, 2.9.7, and 2.9.8. Mitigation measure Y on FEIS page 5-69 has been revised as recommended in Section 6.0 of the ROD.

**G-1.16** Responses have been provided for similar Sonoma County comments within Appendix FF of the FEIS, under Response to Comments 2.13.2, 2.13.5, and 2.13.11. The comment is noted with regards to jurisdictional authority of Sonoma County on land within the Rohnert Park sphere of influence. Development proposed on non-trust land outside of city limits is subject to Sonoma County approval. However, in the anticipation of annexation, Rohnert Park has adopted land use plans for areas within its sphere of influence. The referenced statement in FEIS Appendix FF, Response to Comment 2.13.2 that the City of Rohnert Park retains approval authority within its sphere of influence is not correct until this area is annexed by the City. However, the same response notes that "...the majority of the Wilfred site is currently located within the unincorporated County and that development on non-trust lands outside of the City of Rohnert Park located within the unincorporated County would be subject to County approval." Thus, a full reading of the response clarifies any misconceptions that might be made after only a partial reading. Furthermore, although the FEIS does not reflect the recent update to the Sonoma County General Plan, the analysis of land use and

agricultural impacts within the FEIS was completed under the assumption that the Wilfred site was designated for agricultural purposes as determined through designation as Diverse and Land Extensive Agriculture by Sonoma County. As noted in both the DEIS and the FEIS, the Proposed Project would not be consistent with local land designations for the Wilfred Site. This conclusion remains unchanged after the recent Sonoma County General Plan update. Thus, there is no need to revise or supplement the FEIS, as stated in Response to Comment G-1.1.

Please refer to FEIS Response to Comment 2.22.1 regarding visual impacts from the Proposed Project. As stated in FEIS Section 2.0, the Proposed Project includes a 2-story casino and an 8-story hotel. Please see Response to Comment G-1.1 regarding Variant H-sub1, which would reduce the height of the hotel to 6 stories. Wilfred Site development would occur in close proximity to existing developments in Rohnert Park (see FEIS Figure 3.8-9), including a Home Depot, a WalMart, a Target, a movie theatre, several hotels, a business park with several large light industrial operations, and dozens of other commercial establishments.

Information describing the meeting of requirements within the Sonoma County Right-to-Farm Ordinance is located within Section 4.8 of the FEIS. A response to similar comments on the Right-to-Farm Ordinance can found under FEIS Appendix FF, Responses to Comments 2.13.13 and 2.20.6. Please refer to FEIS Appendix FF, Response to Comments 2.20.3, 2.20.5, and 2.20.7 to find responses to differing claims of site soil quality and claims of incorrect FEIS analysis of localized and Sonoma County agricultural impacts. As stated in Response to Comment 2.20.5, “it should also be emphasized that the Wilfred Site, Stony Point Site, and Lakeville Site are currently utilized for non-irrigated pasturelands, and there is no prior history of intensive agriculture practices for high value crop production at these locations. It is projected that, while it may be possible to achieve such yields on the sites, the local conditions make each of the sites undesirable for such uses.”

- G-1.17** As noted in FEIS Appendix FF, Response to Comment 2.14.1, improvements would serve to mitigate cumulative impacts rather than creating excess capacity for future unplanned growth. FEIS Appendix FF, Response to Comment 2.14.2 does not make any claims or presumptions that the proposed project is “similar in size and scope and has the same growth-inducing potential as the development contemplated by the Northwest Area Specific Plan.” Nor does the response claim that the project is “really no different than the development contemplated by the Specific Plan.” Instead this response and Section 4.11.1 of the FEIS independently assess the potential for commercial growth inducement considering existing and

planned development in the area, in addition to the nature of the development that would occur on-site under the Proposed Project. Please see Response to Comment G-1.1 regarding Variant H-sub1, which would be reduced in size and scope when compared to the Proposed Project.

**G-1.18** Regarding potential stormwater and wastewater discharges to the Bellevue-Wilfred Flood Control Channel, please see FEIS Appendix FF, Responses to Comments 2.5.8, 2.5.9, 2.5.10, 2.5.11, 2.5.22, 2.5.23, 2.5.31, 2.5.33, 2.5.34, 2.5.35, 2.5.42, 2.5.44.

Regarding potential impacts to the floodplain, please see FEIS Appendix FF, Responses to Comments 2.5.2, 2.5.27, 2.5.30, 2.5.31, 2.5.32, 2.5.33, 2.5.43, 2.5.45, and 2.5.46. As noted in Responses to Comments 2.5.2 and 2.5.45, the proposed commercial development area under the proposed project would be located within Zone X, which is considered a 500-year floodplain, although shallow flooding could occur during a 100-year flood. FEIS Appendix C and Sections 4.3 and 4.12 fully analyze potential flooding impacts, even during a 500-year storm event.

Regarding mitigation for stormwater and flood storage impacts, Response to Comment 2.5.2 includes the following response:

“As stated in **Appendix C** of the FEIS, Alternatives A and H have been revised to include two detention basins (as is proposed in the DEIS for Alternatives B-E). The first detention basin would be located on the northeastern corner of the site near the development area and would be sized to limit the post project runoff due to the new impervious areas to the pre-project peak runoff levels. The second detention basin is located in the southern portion of the site in an area bounded by the Bellevue-Wilfred Channel on the West, Hinebaugh Creek on the East and Rohnert Park Expressway on the South. This basin is sized to more than offset the encroachment in the Zone X non-regulated floodplain by the proposed fill.”

The FEIS currently addresses the impacts of all proposed development to wetland areas (see FEIS Sections 4.5 and 4.12). As noted in FEIS Sections 4.5 and 5.2.4, a U.S. Army Corps of Engineers Clean Water Act Section 404 permit would be required before the fill of any wetlands. Please also see FEIS Appendix FF, Response to Comment 2.7.3 regarding impacts to wetlands. Please see Response to Comment G-1.1 regarding Variant H-sub1, which has a reduced footprint when



compared to the Proposed Project and has been designed to move the wastewater treatment plant to avoid impacts to the wetland area referenced by the commenter.

Please see FEIS Appendix FF, Response to Comment 2.5.11 regarding the irrigation efficiency factors utilized in FEIS Appendix D.

- G-1.19** Mitigation Measure W has been included in Section 6.0 of the ROD which requires its implementation if feasible. As noted by the commenter, the FEIS acknowledges that if full implementation of Measure W is infeasible, a significant and unavoidable impact would remain. Thus, the FEIS is not relying on this measure to reduce potentially significant air quality impacts to a less than significant level if it proves to be infeasible to implement. Please see Response to Comment G-1.1 regarding Variant H-sub1, which would result in reduced impacts to air quality.

Regarding the potential emissions of diesel particulate matter (DPM), please see FEIS Appendix FF, Responses to Comments 2.6.5, 2.6.18, and 2.6.19. As noted in Response to Comment 2.6.5, mitigation recommended by the Bay Area Air Quality Management District (BAAQMD) for emissions of DPM was added to FEIS Section 5.2.3. The BAAQMD CEQA guidelines state that the BAAQMD does not have a recommended methodology for quantifying DPM emission. Also, the BAAQMD, City of Rohnert Park, and the State of California do not have a health risk threshold (level) for DPM; therefore any quantification of DPM emissions would not result in a reasonable assessment of the health risk due to DPM. However, the FEIS does present the risk of DPM impacts and provides mitigation which reduces any potential risk during construction and operation of the Proposed Project; thus, meeting NEPA requirements.

- G-1.20** As noted by commenter, a quantitative construction noise assessment was conducted that considered temporary noise impacts at the sensitive receptors (see FEIS Section 4.10.1 and Appendix R). The daytime operational limitation for pile driving, which has the potential to be disruptive to sleep, does not include any feasibility qualification.

Regarding the noise analysis methodology, please see FEIS Appendix FF, Responses to Comments 2.12.6 and 2.12.11. Regarding noise mitigation measures, please see FEIS Appendix FF, Response to Comment 2.12.7. Please see Response to Comment G-1.1 regarding Variant H-sub1, which would result in reduced noise impacts when compared to the Proposed Project.



**G-1.21** Please see FEIS Appendix FF, Responses to Comments 2.22.1, 2.22.2, 2.22.6, and 2.22.8. Please also see Response to Comment G-1.16.

## **G-2 – UNITED STATES ENVIRONMENTAL PROTECTION AGENCY – REGION IX**

**G-2.1** According to the USEPA’s comment letter on the DEIS (FEIS Appendix AA, Letter G-29), “the DEIS did not evaluate a reduced intensity alternative on the Wilfred site, and this is the basis for our ‘2’ rating above.” Thus, the NIGC proceeded to include a full analysis in the FEIS of Alternative H, a reduced intensity alternative on the Wilfred site. It is noted that the USEPA commended the “thoroughness of study, a good range of alternatives, avoidance of wetlands, and substantial mitigation measures.” All mitigation measures contained in the DEIS are included in the ROD.

Several new and expanded mitigation measures were added to the FEIS in response to public comments on the DEIS, including comments by the USEPA. In particular, in response to comments concerning water usage and groundwater impacts, water conservation mitigation measures were added to FEIS Section 5.2.2 that would result in an estimated water savings of 12,800 gallons per day. Mitigation measures were also added to FEIS Section 5.2.2 that include contributions to a water conservation and conjunctive use programs to supplement the City of Rohnert Park’s and the Sonoma County Water Agency’s (SCWA) water conservation and reclamation programs in order to offset groundwater pumping. Please also see FEIS Appendix FF, Responses to Comments 2.5.3, 2.5.4, 2.5.13, 2.5.14, and 2.5.20. Regarding wetland impacts, a mitigation measure was added to FEIS Section 5.2.4 recommending redesigning the parking areas in consultation with the U.S. Army Corps of Engineers (USACE) in order to further reduce wetland impacts (also see FEIS Appendix FF, Response to Comment 2.7.3). Thus, with the mitigation measures added to the FEIS and contained in Section 6.0 of the ROD requiring offsetting of groundwater impacts and further avoidance of wetland impacts, the post-mitigation impacts of Alternative A will be the same or very similar to Alternative H.

Please see Response to Comment G-1.1 regarding Variant H-sub1, which would result in additional reductions to groundwater impacts and biological resources impacts, including wetlands and special status species. For instance, water demand has been reduced by 23 percent from 165 gallons per minute (gpm) under Alternative A to 127 gpm under Variant H-sub1 (note that Alternative H would pump 30 percent less groundwater than Alternative A, at 115 gpm). In addition, in response to this comment, the Variant H-sub1 site plan has been reconfigured with

a smaller surface parking lot and a relocated wastewater treatment plant, resulting in a substantial reduction in impacts to wetlands, including complete avoidance of the wetland areas referenced by the commenter.

- G-2.2** Comment noted. The Tribe plans to continue to aggressively pursue an off-site wastewater treatment connection.
- G-2.3** Please see Response to Comment G-2.5. The understanding of the USEPA noted in this comment is accurate.
- G-2.4** As recommended, a mitigation monitoring and enforcement plan has been included in the ROD (Attachment 6), pursuant to 40 C.F.R. 1505.2(c). Mitigation Measures adopted within the NIGC's ROD for the Preferred Alternative have been incorporated into Section 6.0 of the NIGC's Decision Package. All adopted mitigation measures will be monitored and enforced pursuant to Federal law, tribal ordinances, and agreements between the Tribe and applicable governmental authorities. The Tribe's MOUs are enforceable through the Tribe's grant of a waiver of sovereign immunity which allows the City of Rohnert Park and Sonoma County to seek relief in State Court to enforce both the mitigation provisions and the waiver of sovereign immunity. Finally, NIGC has the authority and ability to enforce the Tribe's gaming regulations with powers that include closure of the gaming operation. Please see Response to Comment G-1.1 regarding Variant H-sub1.
- G-2.5** The commenter correctly states the history of the EPA's action on the current State Implementation Plan (SIP) for 1-hour ozone. However, as stated by the commenter, the SIP emissions inventory that is used in determining conformity was approved by the EPA. Another element of conformity is the attainment status of the region in which the project is being built. Since the EPA action did not approve the attainment demonstration of the region, the assumption of nonattainment is valid and no revisions are required to the FEIS or the conformity determination.

Regarding the characterization of the 8-hour ozone standard, the conformity determination concludes (as does the commenter) that the status of 8-hour ozone is nonattainment. With respect to the BAAQMD not attaining the new 2008 8-hour ozone standard, the stricter standard would not change the nonattainment status of the region, as assumed in the conformity determination. The analysis and conclusion in the conformity determination would be unaffected since the attainment status would remain unchanged regardless of what standard is used. Please see Response to Comment G-1.1.

The commenter is correct there is a typo regarding 40 CFR 93.155 (d). As assumed by the commenter, the correct reference should be 40 CFR 93.155 (b). However, no revisions to the conformity determination are necessary given that the underlying reference to 40 CFR 93.155 (which does not contain a subpart d) is accurate.

### **G-3 – CITY OF PETALUMA- WATER RESOURCES AND CONSERVATION DEPARTMENT**

**G-3.1** Mitigation Measure 5.2.2Y does not propose actually extending a water line to the Lakeville site, but attempting to supplement existing municipal water supplies to ease groundwater pumping pressures in the region. As stated on FEIS page 5-9, after mitigation, Alternative F impacts would be less than significant. Mitigation Measure 5.2.2CC.f. simply requires that well owners be notified of the compensation program for drawdown impacts to their wells so that they will be on notice to seek compensation if they notice an impact to their well caused by pumping of the project. This mitigation requirement and the compensation program described in Mitigation Measure 5.2.2CC are unrelated to potential seawater intrusion impacts. Pursuant to Mitigation Measure 5.2.2CC, a well owner would of course be owed compensation if seawater intrusion caused by Alternative F caused their well to become unusable. However, seawater intrusion is governed by the much more stringent Mitigation Measure 5.2.2AA, which is designed to insure that seawater intrusion does not occur and that if it is found to occur that measures be taken immediately to halt the intrusion. Mitigation Measure 5.2.2 is specific and enforceable in requiring the Tribe to “sign a legally binding agreement, prior to opening the hotel/casino resort to the public, agreeing not to operate their facility in such a way to cause seawater intrusion and agreeing to comply with the terms of a seawater intrusion elimination plan as described above should signs of seawater intrusion be detected.” The seawater intrusion elimination plan includes monitoring and consultation with the San Francisco Bay Regional Water Quality Control Board, the U.S. Geological Services, and Sonoma County.

### **G-4 – NATIVE AMERICAN HERITAGE COMMISSION**

**G-4.1** Comment noted.

**G-5 – CITY OF PETALUMA – COMMUNITY DEVELOPMENT DEPARTMENT**

- G-5.1** Regarding impacts to US-101, Lakeville Highway, and the Old Redwood Highway interchange, please see FEIS Appendix FF, Response to Comment 2.11.3. Regarding impacts to Stony Point Road, please see FEIS Appendix FF, Responses to Comments 2.11.4, 2.11.5, 2.11.19, and 2.11.25. Regarding the concerns stated by Sonoma County regarding US-101 mitigation, please see Response to Comment G-1.5. The commenter’s preference for the selection of a reduced intensity alternative is noted for the record. Regarding the reduction of traffic impacts under Variant H-sub1, please see Responses to Comments G-1.1 and G-1.2.

**G-6 – CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)**

- G-6.1** Comment noted. Please see FEIS Appendix FF, Response to Comment 2.11.6.
- G-6.2** Regarding the consideration of bottleneck effects on US-101, please see FEIS Appendix FF, Response to Comment 2.17.6. Contributions to planned improvements to US-101 are included in FEIS Section 5.2.7. FEIS Section 5.2.7 also includes alternative mitigation measures should additional traffic lanes on US-101 prove to be infeasible. Regarding the reduction of traffic impacts under Variant H-sub1, please see Responses to Comments G-1.1 and G-1.2.
- G-6.3** Comment noted.

**G-7 – OFFICE OF THE GOVERNOR – LEGAL AFFAIRS**

- G-7.1** Please see FEIS Appendix FF, Response to Comment 2.2.10.
- G-7.2** Please see FEIS Appendix FF, Responses to Comments 2.13.9, 2.13.11, and 2.20.2. Legal Affairs Secretary Andrea Hoch raised the question in her May 1, 2006, letter to Andrea Lord, Staff Attorney, NIGC, whether the Williamson Act contract restrictions have been addressed. They have. As Ms. Hoch accurately observed, “the portion of the property on which the Tribe proposes to build the gaming facility is not subject to a Williamson Act contract, . . .” The land that is subject to the Williamson Act will remain subject to the Williamson Act after the land is in trust. On February 14, 2009, the Tribe adopted General Council Resolution 09-03-GC which committed the Tribe to “comply with the land use restrictions of the Williamson Act for those land that are subject to a Williamson Act . . . until such time, if ever, that the Williamson Act contract term expires; . . .” To ensure the enforceability of this commitment, the Tribe also “expressly grants a limited

waiver of sovereign immunity in favor of the County of Sonoma” for Williamson Act enforcement purposes (see ROD Attachment 1).

## **G-8 – CITY OF PETALUMA**

- G-8.1** Comment noted. Please refer to Response to Comment G-1.1.
- G-8.2** Please refer to Response to Comment G-3.1 for responses to similar comments received in the March 24, 2009 City of Petaluma Water Resources and Conservation Department letter.
- G-8.3** Please refer to Response to Comment G-5.1 for responses to similar comments received in the March 26, 2009 City of Petaluma Community Development Department letter.

## **G-9 – RINCON VALLEY FIRE PROTECTION DISTRICT**

- G-9.1** Please see Response to Comment G-1.10.

## **G-10 – CALIFORNIA GOVERNOR’S OFFICE OF PLANNING AND RESEARCH**

- G-10.1** Please see Response to Comment G-4.1, as the comment letter from the Native American Heritage Commission was received on March 10, 2009.

## **G-11 – UNITED STATES ENVIRONMENTAL PROTECTION AGENCY – REGION IX**

- G-11.1** Despite the environmental benefits of Variant H-sub1 when compared to Alternative A and even when compared to some aspects of Alternative H, the NIGC agrees that Alternative H along with the No Action Alternative remain the environmentally preferable alternatives per 40 C.F.R. 1505.2(b). Although Alternatives D and H are reasonable alternatives, they are less financially viable than Alternative A or Variant H-sub1, particularly in light of the current economic recession.
- G-11.2** Comment noted.
- G-11.3** With the exception of a few mitigation measures which are not applicable to Variant H-sub1, all mitigation measures recommended for Alternative A have been included in the ROD. Regarding the development of a mitigation monitoring and enforcement plan, please see Response to Comment G-2.4. As stated at the April

28, 2009 meeting, the Tribe's intent remains to utilize recycled water whether wastewater treatment occurs on-site or off-site (this is also required by FEIS Section 5.2.2). This commitment is not needed in the ROD for Variant H-sub1, however, for it does not include an off-site wastewater treatment option. Regarding Williamson Act protections, please see Response to Comment G-7.2. Finally, a mitigation measure has been added to Section 6.11 of the ROD, requiring that the Tribe pursue LEED certification for the hotel component of the project.

## **G-12 – JARED HUFFMAN, CALIFORNIA ASSEMBLYMEMEBER**

- G-12.1** Please see Response to Comment B-6.1. As noted in the Biological Opinion (FEIS Appendix JJ), California Tiger Salamander habitat would be impacted only on portions of the site proposed for development and outside of the 100-year floodplain, not the entire site. Note further that impact to habitat does not equate to the incidental taking of salamanders. The Biological Opinion contains measures that would minimize the taking of salamanders during construction on-site.

## **BUSINESS AND NON-GOVERNMENT AGENCY COMMENTS**

### **B-1 – STOP THE CASINO 101**

- B-1.1** Please see Responses to Comments G-1.1 through G-1.21.
- B-1.2** Regarding the adequacy of mitigation and the applicability of the California Environmental Quality Act (CEQA), please see FEIS Appendix FF, Responses to Comments 2.2.9, 2.5.48, 2.7.11, 2.11.44, and 2.16.3.
- B-1.3** The Bellevue-Wilfred Channel is typically referred to as a flood control channel, but it has many uses, one of which is to convey drainage from agricultural operations throughout the region, including the Wilfred and Stony Point Sites. Regarding the use of fertilizers, please see FEIS Appendix FF, Response to Comment 2.5.9.
- B-1.4** Responses to Comments on the DEIS submitted by the O.W.L. Foundation and the USEPA are contained in FEIS Appendix FF. In addition, please see Response to Comment G-2.1.

- B-1.5** Please see FEIS Appendix FF, Responses to Comments 2.5.1, 2.5.3, 2.5.4, 2.5.20, and 2.16.3. Additional groundwater mitigation measures were added to FEIS Section 5.2.2 in addition to the one measure cited by the commenter. The timing provisions in Mitigation Measure 5.2.2CC are appropriate because this mitigation measure is meant to mitigate for impacts to surrounding wells caused by interference drawdown. Interference drawdown caused by the Proposed Project will not increase over time. Groundwater levels may decrease over time, however due to other factors such as the operation of neighboring agricultural wells. The timing restriction ensures a nexus between the mitigation measure and the impact of the on-site well operation. In order to demonstrate an impact caused by the pumping of the Tribe's well, a baseline groundwater elevation at a neighboring well must be established prior to the operation of the Tribe's well. Please see Response to Comment G-2.1 regarding the reduced groundwater impacts of Variant H-sub1.
- B-1.6** Please see FEIS Appendix FF Responses to Comments 2.5.11 and 2.5.23.
- B-1.7** Please see FEIS Appendix FF, Responses to Comments 2.2.2, 2.2.5, 2.2.6, 2.2.7, and 2.2.8.

## **B-2 – ALAN TITUS, ROBB & ROSS**

- B-2.1** Please see FEIS Appendix FF, Responses to Comments 2.2.9, 2.2.10, and 2.2.15. The Erie County decision does not require that issues of jurisdiction be settled prior to the NEPA analysis, which as noted in the Appendix FF responses referenced above, would be contrary to the basic requirements of NEPA. Instead, the decision holds that issues of jurisdiction be settled prior to agency action (in Erie County the action at issue was approval of a Gaming Ordinance). The NIGC will issue a ROD on the FEIS only after making a final agency determination on the Tribe's management contract with SC Sonoma Management LLC pursuant to IGRA. As part of a determination to approve the contract, the NIGC must determine that the gaming contemplated under the contract will occur on Indian lands over which the Tribe exercises jurisdiction. The NIGC must further determine that such Indian lands would be eligible for the gaming contemplated under the contract pursuant to Section 20 of IGRA. Thus, in taking final agency action to approve the management contract, the NIGC must properly consider "the applicability of Section 20 of the IGRA" and provide "an explanation of the basis for its determinations." *Citizens Against Casino Gaming in Erie County v. Kempthorne*, 471 F.Supp.2d 295, 327 (2007).

In his April 18, 2008 determination letter to take the lands comprising the Wilfred Site into trust for the Tribe (see ROD Attachment 2), the Assistant Secretary of Indian Affairs explained that “[a] determination on whether the property to be acquired will be eligible for gaming under the Indian Gaming Regulatory act (IGRA) has not been made because such a determination is unnecessary when the Secretary’s decision on whether to acquire the land in trust is not discretionary, but mandated by an act of Congress.” The Memorandum of Understanding between the National Indian Gaming Commission and the Department of the Interior referenced by the commenter was (i) not in effect at the time of the decision, (ii) did not contemplate a mandatory trust acquisition; and (iii) provided a mechanism for the BIA to refer Indian lands requests to NIGC and vice-versa. Finally, the law does not support commenter’s contention that the state would continue to exercise jurisdiction over land use and gambling on lands acquired for the Tribe pursuant to the Graton Rancheria Restoration Act. Once in trust, the lands will become part of the Tribe’s reservation pursuant to that Act. 25 U.S.C. § 1300n-3(c). The state does not exercise civil regulatory jurisdiction over land use and gambling on reservations in California. See *California v. Cabazon Band of Mission Indians*, 480 U.S. 202, 214 and 222 (1987).

### **B-3 – DAVID GRUNDMAN, RECLAIMING OUR ENVIRONMENTAL RIGHTS (ROER)**

**B-3.1** NEPA does not require that a printed version of the FEIS be made available for public review. Nonetheless, printed versions of the FEIS were made available at the Rohnert Park - Cotati Regional Library and at the Santa Rosa Central Library. Furthermore, the FEIS was made available at <http://www.gratoneis.com> a little over a week prior to the publication of the Notice of Availability in the federal register by the NIGC and USEPA (a CD and a copy of the notice was also mailed out to all interested parties at that time). Thus, an electronic version of the FEIS was made available for review for greater than 30 days. Regarding the formatting of the CD, please see FEIS Appendix FF, Response to Comment 2.1.3. Comments on water supply, wastewater, solid waste, police, and fire are responded to as addressed in detail, below.

**B-3.2** As summarized in FEIS Section 2.2.8, “Elements of the proposed on-site water facilities include two on-site wells (one for continuous supply and one for redundancy in case of malfunction or maintenance of the primary well), an iron and manganese treatment plant, a steel water storage tank, and a water distribution pump system.” FEIS Section 2.2.8 also makes clear that the City of Rohnert Park would not supply water to the proposed project. Regarding the City of Rohnert



Park's ability to ramp up production of its water supply wells in the future, please see FEIS Appendix FF, Response to Comment 2.5.48. Regarding the potential for the on-site wells to cause the migration of groundwater MTBE plumes, please see FEIS Appendix FF, Responses to Comments 2.5.7, 2.5.12, and 2.21.4. Please see Response to Comment G-2.1 regarding the reduced groundwater impacts of Variant H-sub1.

**B-3.3** Comment noted. Note that under the Variant H-sub1, sprayfield disposal areas and seasonal storage ponds would be reduced in size and no wastewater discharge into the Laguna de Santa Rosa would occur. Please see Response to Comment G-1.1.

**B-3.4** A change in the Sonoma County solid waste-recycling rate does not impact the analysis within the FEIS. Solid waste impacts are discussed in Section 4.9 of the FEIS. The FEIS states that solid waste generation would be considered an insignificant contribution to the waste stream. Mitigation measures B through I in Section 5.2.8 of the FEIS have been created to provide methods of on-site waste reduction during construction and operation. Please see Response to Comment G-1.1.

**B-3.5** The analysis of the demand for fire protection services would not change regardless of the need for additional services in the community. The FEIS Section 4.9 includes an analysis of this demand and Sections 5.2.6 and 5.2.8 include mitigation measures that would ensure that this demand is fully mitigated regardless of the other demands placed on the local fire department. Please see Response to Comment G-1.1.

**B-3.6** The FEIS provides a thorough and accurate discussion of impacts to law enforcement services in Sections 4.9, 4.11, and 4.12. Refer to FEIS Section 5.2.6 (A and B) of the FEIS for a discussion of ongoing payment and MOU agreements regarding law enforcement impacts. Section 5.2.8 Mitigation Measures P through Z provide specific law enforcement provisions. Please refer to FEIS Appendix FF, Response to Comments 2.9.2 for a response to impacts of crime.

Appendix N, Section 4.7 and Section 4.9 of the FEIS states that, absent an agreement stating otherwise, the Sonoma County Sheriff's Department would provide law enforcement services to the development of federal trust land per Public Law 83-280 (18 U.S.C. § 1162, 28 U.S.C. § 1360).

**B-3.7** Please see Responses to Comments B-3.1 through B-3.6.

## **B-4 – STOP THE CASINO 101**

**B-4.1** It is not clear why the commenter believes that their earlier comments on the DEIS were not answered in detail or in writing pursuant to the requirements of NEPA. As explained in FEIS Appendix FF: “Although the National Environmental Policy Act (NEPA) only requires that substantive comments be attached to a Final EIS (40 C.F.R. § 1503.4(b)), all comment letters have been included in Appendices AA – EE. Each comment was assessed and considered both individually and collectively. Substantive comments are summarized below by issue area. Responses to each summarized comment are also included below.” Thus, all substantive comments were summarized by issue area and responded to in detail in FEIS Appendix FF (which is over 400 pages in length). The responses to comments contained in the FEIS fully meet the requirements for NEPA responses in the CEQ NEPA Regulations (40 CFR 1503.4).

**B-4.2** Please see Responses to Comments B-1.7 and B-2.1.

## **B-5 – STOP THE CASINO 101**

**B-5.1** Please see FEIS Appendix FF, Response to Comment 2.11.6.

## **B-6 – STOP THE CASINO 101**

**B-6.1** Please see FEIS Appendix FF, Responses to Comments 2.7.1 and 2.7.9. FEIS Section 3.5 acknowledges the presence of California Tiger Salamander (CTS) habitat on the Wilfred Site, as does the Biological Opinion (BO), which was issued by the U.S. Fish & Wildlife Service (USFWS) in compliance with Section 7 of the Endangered Species Act on February 3, 2009 (see FEIS Appendix JJ). The BO recounts the litigation history of the legal action cited by the commenter in detail. The Tribe is required to comply with the requirements of the Endangered Species Act independent of any NEPA requirements. Therefore, CTS mitigation will be undertaken pursuant to the requirements of the Endangered Species Act, as directed by the USFWS.

Regarding the comment that the NIGC should wait to issue a ROD until a critical habitat map is delineated and presumably a supplemental NEPA document can be prepared, please see Response to Comment G-1.1. The FEIS Section 4.5 acknowledges that a significant impact to CTS would occur. Even if a portion of the Wilfred Site were designated as critical habitat, this would not constitute significant new information requiring the supplementation of the FEIS. NEPA does not require that lead agencies withhold decisions on proposed actions in order

to wait for information that may not be available at the time that the decision is to be made (40 C.F.R. 1502.22).

## INDIVIDUAL COMMENTS

### I-1 – PAUL D. STUTRUD

- I-1.1** In response to commenter concerns regarding an allegedly deficient FEIS CD and issues regarding the number of FEIS copies at the Rohnert Park – Cotati Regional Library, a printed copy of the FEIS was sent to Mr. Paul D. Stutrud. However, due to the limited production of printed copies due to the high cost of production, an additional printed copy was not sent to the commenter’s attorney, as requested. However the commenter’s attorney, John F. Hudson, was sent a CD copy of the FEIS.

### I-2 – EUNICE EDGINGTON

- I-2.1** Please see FEIS Appendix FF, Responses to Comments 2.2.2, 2.2.5, 2.2.6, 2.2.7, and 2.2.8. Please also see Responses to Comments B-1.7 and B-2.1. The commenter is misinterpreting the Carcieri decision, which does not apply to the Department of the Interior’s decision to take land into trust for the benefit of the Tribe. The Carcieri decision applies to actions by the Department of the Interior to take land into trust under the Indian Reorganization Act of 1934 (25 U.S.C. 461 et seq.). *Carcieri v. Salazar*, 129 S. Ct. 1058 (2009). The Carcieri decision does not apply to actions mandated by Congress under the Graton Rancheria Restoration Act (25 U.S.C. 1300n et seq.).

Regarding the Tenth Amendment comment, a decision to take the land into trust would not violate the Constitution. The Tenth Amendment provides that “powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.” (U.S. Const. amend. X) Since the power to regulate Indians affairs has been directly delegated to Congress by the Constitution, the acquisition of land for the benefit of a tribe does not violate the Tenth Amendment. See, e.g., *Cotton Petroleum Corp. v. New Mexico*, 490 U.S. 163, 192 (1989) (“The central function of the Indian Commerce Clause is to provide Congress with plenary power to legislate in the field of Indian affairs.”); see also *New York v. United States*, 505 U.S. 144, 156 (1992) (“If a power is delegated to Congress in the Constitution, the Tenth Amendment expressly disclaims any reservation of that power to the States . . .”).

### **I-3 – MARILEE MONTGOMERY**

- I-3.1** The commenter has been sent all letters requested. Individual comments received from the non-profit group, Laguna de Santa Rosas Foundation, are included for public reference at the Graton NEPA website located at <http://www.gratoneis.com>. Comments received during the scoping periods can be found in the Scoping Report (August 2004), the Supplemental Scoping Report (February 2006), and comments received during the DEIS comment period are located in the FEIS, all of which are also available for public reference at the Graton NEPA website.

### **I-4 – DAN MONTE**

- I-4.1** An analysis of potential impacts to climate change from greenhouse gas emissions is included within FEIS Sections 4.4 and 4.12. Mitigation Measures BBB through JJJ within FEIS Section 5.2.3 shall provide for project design features and prevention methods to decrease project related greenhouse gas emissions. Please also see FEIS Appendix FF, Response to Comment 2.6.2. Regarding Variant H-sub1 and the accuracy of the trip generation estimates in the FEIS, please see Response to Comment G-1.2.
- I-4.2** Commenter concerns regarding the potential for negative impacts to local businesses have been analyzed in the FEIS Sections 3.7 and 4.7, as well as responded to in FEIS Appendix FF, Response to Comment 2.9.5. Analysis of project related crime and law enforcement provisions are within FEIS Sections 4.7, 4.9, and 4.12. Responses to similar comments can be found in FEIS Appendix FF, Responses to Comments 2.9.2, 2.9.8, 2.9.10, 2.9.14, 2.9.24, and 2.10.6. Responses to comments regarding the potential for traffic impacts along Petaluma Hill Road and Stony Point Road are located within FEIS Appendix FF, Responses to Comments 2.11.4, 2.11.18, and 2.11.46.

Analysis of the California Tiger Salamander and other native biological species can be found in FEIS Sections 3.5 and 4.5, with specific responses to previous comments found under FEIS Appendix FF, Responses to Comments 2.7.1 through 2.7.21. Analysis on area groundwater resources can be found in FEIS Sections 3.3 and 4.3. Please also see FEIS Appendix FF, Responses to Comments 2.5.1, 2.5.3, 2.5.4, and 2.5.5.

Regarding reduced environmental impacts under Variant H-sub1, please also see Responses to Comments G-1.1, G-1.2, and G-2.1. Variant H-sub1 would also result in reduced impacts to the California Tiger Salamander.

**I-5 – LINDA M. LONG**

**I-5.1** As stated in FEIS Appendix FF, Response to Comment 2.11.2, “The traffic study and DEIS relied on traffic forecast information provided by the Sonoma County Transportation Authority and Caltrans which was considered to be sources for the most reliable data, including at the Wilfred Interchange. Additional information regarding the Wilfred Interchange project was obtained from Caltrans including the Initial Study and Environmental Assessment, and subsequent revisions to the planned design. All have been incorporated into the analysis. Data from other sources was considered to be second hand and less comprehensive.”

FEIS Appendix FF, Response to Comment 2.11.20 includes responses to Ms. Long’s comments regarding the need for an expanded range of traffic analysis.

Regarding the reduced size and traffic impacts of Variant H-sub1, please see Responses to Comments G-1.1 and G-1.2.

# ***ATTACHMENT 6***

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*Mitigation Monitoring and Enforcement Plan*

# GRATON RANCHERIA CASINO AND HOTEL PROJECT

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## MITIGATION MONITORING AND ENFORCEMENT PLAN

### INTRODUCTION

The Council on Environmental Quality (CEQ) directs all federal agencies to include in an Environmental Impact Statement (EIS) the appropriate means to mitigate any adverse environmental impacts (40 C.F.R. 1502.16(h)). CEQ also requires that a Mitigation Monitoring and Enforcement Plan (MMEP) be adopted and summarized in the Record of Decision (ROD) (40 C.F.R. 1505.2(c)). The National Indian Gaming Commission (NIGC) is the lead agency for National Environmental Policy Act (NEPA) compliance purposes. Mitigation Measures adopted within the NIGC's ROD for the Preferred Alternative have been incorporated into this MMEP in a manner consistent with the CEQ NEPA Regulations and with the draft CEQ Guidance for NEPA Mitigation and Monitoring issued on February 18, 2010.

### MITIGATION MONITORING OVERVIEW

This MMEP has been developed to guide mitigation compliance before, during, and after implementation of the NIGC's Preferred Alternative. The mitigation measures described below in **Table 1** were developed through the analysis of potential impacts within the Final EIS (FEIS) and in ROD Attachment 3. As specified in **Table 1**, responsibility for ensuring compliance with mitigation measures lies with various agencies, including the NIGC, United States Fish and Wildlife Service (USFWS), United States Army Corps of Engineers (USACE), California Department of Transportation (Caltrans), and the United States Environmental Protection Agency (USEPA) as indicated in the description of each measure. The MMEP provides:

- Requirements for compliance of the mitigation measures specifically created to mitigate impacts;
- Identification of responsible parties;
- Identification of implementing party;
- Timing of mitigation measure implementation.

Where applicable, mitigation measures will be monitored and enforced pursuant to Federal law, tribal ordinances, and agreements between the Tribe and appropriate governmental authorities, as well as the ROD. Requests for mitigation status updates will be responded to consistent with the requirements of the CEQ NEPA Regulations.

**TABLE 1**

**MITIGATION MONITORING AND ENFORCEMENT PROGRAM FOR THE PREFERRED ALTERNATIVE**

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
<b><i>Geology and Soils</i></b>			
<p>A. The following mitigation measures shall be implemented to result in a less than significant impact to the development from expansive soils:</p> <ul style="list-style-type: none"> <li>a. For structures with a light to moderate bearing load (one to three stories), a shallow, spread footing foundation system would be sufficient to provide support under expansive soil conditions (see FEIS Appendix K for more details and optional systems). However, a shallow foundation system shall be designed to reduce the potential for seasonal moisture variation under the buildings by providing continuous perimeter strip footings that extend below the depth of seasonal moisture variation (typically 18 inches or deeper).</li> <li>b. For structures with a high bearing load, either a post-tensioned concrete slab, or heavily reinforced structural mat slab (shallow foundation systems), or a deep foundation system such as a drilled piers would be necessary to provide support under expansive soil conditions (see FEIS Appendix K for more detail). Shallow system designs applied to high bearing load structures will also be designed to reduce the potential for seasonal moisture variation.</li> <li>c. To mitigate impacts to pavement caused by expansive soil, one or a combination of the following measures shall be required:               <ul style="list-style-type: none"> <li>i. Removal and replacement with non-expansive soils.</li> <li>ii. Lime treatment of soils.</li> <li>iii. Design of pavement sections to withstand potential swelling pressures.</li> </ul> </li> </ul>	NIGC	Tribe	Planning Phase  Construction Phase
<p>B. All structures shall be designed in compliance with the California Building Code (CBC) Building Code (Article VI Chapter 6.04) current at the start of construction such that risks to the health or safety of workers or members of the public from earthquake hazards are reduced to a less-than-significant level.</p>	NIGC	Tribe	Planning
<b><i>Water Resources</i></b>			
<p>A. During construction, surface water quality shall be protected by using BMPs as listed in the Erosion Control recommendations found in FEIS Appendix C. These BMPs would be included in the Stormwater Pollution Prevention Plan (SWPPP) to be filed with the USEPA.</p>	USEPA	Tribe	Planning  Construction
<p>B. A stormwater sampling and monitoring program shall be developed and implemented to assess the quality of surface water entering and leaving development sites. At a minimum, sampling sites shall include: a location upstream at an elevation above all proposed development; and a location downstream of all development, yet at an interception point prior to surface waters entering the Laguna de Santa Rosa. Analyses shall include total suspended solids (TSS), oils</p>	USEPA  NIGC	Tribe	Planning  Construction



MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
and grease.			
C. Application of fertilizer shall be limited to the minimum amount necessary and shall be adjusted for the nutrient levels in the water used for irrigation. Fertilizer shall not be applied immediately prior to anticipated rain.	USEPA NIGC	Tribe	Operation Phase
D. The garbage bin area shall be covered. Any runoff or drainage from the garbage bin area shall be directed to the sewer system and treated by the WWTP.	USEPA NIGC	Tribe	Planning Construction Operation
E. Landscape irrigation shall be adjusted based on weather conditions and shall be reduced or eliminated during the wet portion of the year in order to prevent excessive runoff.	NIGC	Tribe	Planning Construction Operation
F. In order to maintain the water balance described in Section 4.3.1 of the FEIS, a minimum of 50 gallon per minute (gpm) of treated wastewater shall be designated for use by the casino and hotel.	NIGC	Tribe	Planning Construction
G. The WWTP shall be staffed with operators who are qualified to operate the plant safely, effectively, and in compliance with all permit requirements and regulations. The operators shall have qualifications similar to those required by the State Water Resources Control Board Operator Certification Program for municipal wastewater treatment plants. This program specifies that for tertiary level wastewater treatment plants with design capacities of 1.0 million gallons per day (MGD) or less, the chief plant operator must be a Grade III operator. Supervisors and Shift Supervisors must be Grade II operators. An Operations and Maintenance Program must be followed by the plant operators. Emergency preparedness shall include all appropriate measures, including a high level of redundancy in the major systems.	NIGC USEPA	Tribe	Planning Construction Operation
H. Existing on-site wells shall be abandoned and sealed. On the Wilfred Site, two wells shall be abandoned and capped.	USEPA BIA	Tribe	Planning Construction
I. In order to offset the groundwater used by implementation of the project, the Tribe shall implement one or more of the following measures:	NIGC	Tribe	Planning

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
<p>a. The Tribe shall work with the City of Rohnert Park and Sonoma County Water Agency (SCWA) to allocate and deliver more surface water, aiding in the City's compliance with the City's settlement with the South County Resource Preservation Committee.</p> <p>b. The Tribe may work with and compensate the City and/or SCWA to implement a water conservation program and/or a conjunctive water use program. The program shall (1) assess existing and potential sources of reclaimed wastewater within SCWA's service area, and determine potential points of use for the reclaimed wastewater, and/or (2) supplement the City's and/or SCWA's existing water conservation programs to identify and implement additional conservation measures within City and/or SCWA service areas. The program(s) shall incorporate reclaimed water use and/or conservation to an extent that would completely offset groundwater pumping associated with the selected project Alternative.</p> <p>c. The Tribe shall participate in the creation of or create an off-site artificial recharge project, such as purchasing a groundwater well in the sub-basin and retiring the well from service in order to offset a portion of the groundwater used by implementation of the project (in lieu recharge).</p>		<p>City of Rohnert Park</p> <p>SCWA</p>	<p>Construction</p>
<p>J. The Tribe shall cooperate with the conduct of the ongoing Joint USGS/SCWA Study of the Santa Rosa Plain Groundwater Sub-basin by providing its Groundwater Study and any aquifer testing and monitoring data compiled during the EIS mitigation phase. In addition, the Tribe shall join other stakeholders in participating in the <i>Cooperative Agreement to Provide Funding and Support Information for Santa Rosa Plain Groundwater Study</i> for Years 4 and 5 of the study and future supplemental studies, subject to the agreement of the other stakeholders in the Tribe's participation. If added to the agreement, the Tribe shall provide funding of an equitable share that is proportionate with other participating non-tribal stakeholders, and that considers its fraction of the municipal groundwater demand in the Santa Rosa Plain Groundwater Basin (currently about 1.8%). In addition, the Tribe shall participate in the identification and implementation of reasonable measures or action plans developed through the study, in the same manner as participating non-tribal stakeholders, and in proportion to its contribution to any basin decline identified by the study.</p>	<p>NIGC</p>	<p>Tribe</p> <p>USGS</p> <p>SCWA</p>	<p>Planning</p> <p>Construction</p> <p>Operation</p>
<p>K. As part of the Tribe's MOU with the City of Rohnert Park, the Tribe will contribute to help establish or support ongoing water conservation measures city-wide in Rohnert Park.</p>	<p>City of Rohnert Park</p>	<p>Tribe</p> <p>Rohnert Park</p>	<p>Planning</p> <p>Construction</p> <p>Operation</p>
<p>L. Water conservation measures including use of reclaimed water for landscape watering, cooling tower makeup water, and toilets shall be implemented. In addition, the following water conservation measures shall be adopted (resulting in a water savings of approximately 12,800</p>	<p>NIGC</p>	<p>Tribe</p>	<p>Planning</p>

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
<p>gallons per day for the full size casino/hotel alternatives):</p> <ul style="list-style-type: none"> <li>a. Check steam traps and ensuring return of steam condensate to boiler for reuse.</li> <li>b. Limit boiler blowdown and adjusting for optimal water usage.</li> <li>c. Use low flow faucets and/or aerators in casino and hotel.</li> <li>d. Use low flow showerheads in hotel.</li> <li>e. Encourage voluntary towel re-use by hotel guests.</li> <li>f. Use pressure washers and water brooms instead of hoses for cleaning.</li> <li>g. Use garbage disposal on-demand in restaurant.</li> <li>h. Incorporate a re-circulating cooling loop for water cooled refrigeration and ice machines in restaurants.</li> <li>i. Serve water to customers only upon request at restaurants.</li> <li>j. Use air-cooled units in central plant.</li> <li>k. Use low volume spray rinse valve for pre-cleaning dishes.</li> <li>l. Use low volume dishwasher.</li> <li>m. Operate dishwashers with full loads only.</li> <li>n. Use high pressure/low flow spray rinsers with automatic shut off for pot washing.</li> <li>o. Reuse dishwasher wastewater for low-grade purposes such as pre-washing and garbage disposals.</li> <li>p. Use self-contained (connectionless) vegetable steamers.</li> <li>q. Reduce flow to minimum necessary in scrapper troughs, wash down, and frozen food thawing.</li> <li>r. Use air-cooled ice machines.</li> </ul>			<p>Construction</p> <p>Operation</p>
<p>M. The Tribe shall implement a groundwater monitoring program preceded by a pump test (see FEIS Appendix G for a detailed description of the recommended pump test and monitoring program) as soon as feasible after project approval and preferably at least one year before opening of the project facilities to the public (to allow for baseline monitoring). The pump test shall include at least one shallow monitoring well located in close proximity to the Laguna de Santa Rosa in order to verify that pumping associated with the Preferred Alternative will not affect the Laguna de Santa Rosa.</p>	<p>NIGC</p> <p>USEPA</p>	<p>Tribe</p>	<p>Planning</p> <p>Construction</p> <p>Operation</p>
<p>N. The Tribe shall implement a program to compensate neighboring well owners for impacts to well operation based on interference drawdown caused by project pumping. The actual amount of interference drawdown associated with the project shall be estimated from the proposed pumping test and groundwater level monitoring program (see above and FEIS Appendix G). At least one year of baseline data and one year of data after project pumping begins should be collected prior to implementation of the following well impact compensation program:</p> <ul style="list-style-type: none"> <li>a. Well Usability (Impacts 1 and 2) – The tribe shall reimburse the owners of wells that become unusable within three years of the onset of project pumping for a portion of the prevailing, customary cost for well replacement, rehabilitation or deepening. The mitigation method for which reimbursement is made shall be the lowest-cost customary and reasonable method to restore the lost well capacity. The percentage of the cost reimbursed by the tribe shall</li> </ul>	<p>NIGC</p>	<p>Tribe</p>	<p>Planning</p> <p>Construction</p> <p>Operation</p>

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
<p>depend upon the degree to which the impact is caused by project pumping vs. pumping by other wells. Reimbursement shall be for replacement in-kind; that is, for a well of similar construction, but deepened so as to restore the lost well capacity. A depreciation allowance shall be subtracted from the reimbursement amount for wells or pumps that have condition issues. In order to be eligible, the well owner must provide the Tribe with documentation of the well location and construction (diameter, depth, screened interval, pump type, etc.), and that the well was constructed and usable before project pumping was initiated.</p> <p>b. Diminished groundwater level near or below pump intake (Impact 3) – The Tribe shall reimburse the owners of wells with pumps that require lowering within three years of the onset of project pumping for a portion of the prevailing, customary cost for this service. The percentage of the cost reimbursed by the Tribe shall take into consideration the degree to which the impact is caused by project pumping vs. pumping by other wells, and the degree to which a well’s capacity may have been reduced in the absence of project pumping due to shallow placement of the pump intake. Replacement discharge piping shall not be reimbursed, and replacement of pumps shall not be reimbursed unless the pump was damaged due to project-related interference drawdown. In order to be eligible, the well owner must provide the Tribe with documentation of the well location and construction, including pump intake depth, and that the well was constructed and usable before project pumping was initiated. The Tribe must be made aware of the cost reimbursement claim prior to lowering of the pump intake, so that the need for possible well deepening, replacement or rehabilitation can be assessed. At the Tribe’s discretion, compensation may be paid toward well deepening, replacement, or rehabilitation in lieu of toward lowering the pump intake.</p> <p>c. Increased Electrical and Maintenance Cost (Impact 4) – The Tribe shall reimburse well owners pumping more than 100 acre-feet/year for their additional annual electrical costs at the prevailing electrical rate based on the following formula:</p> $\text{KWhr/year} = \frac{\text{gallons Pumped/year} \times (\text{feet of interference drawdown})}{1,621,629}$ <p>In order to qualify for reimbursement, the well owner must provide proof of the actual annual volume of water pumped and/or the electrical usage associated with the pumping. As an alternative to annual payments, a one-time lump sum payment of a mutually agreeable amount could be made.</p> <p>d. No reimbursement would be made available for wells installed after operation of the project wells commences.</p> <p>e. For any of the above impacts, the Tribe may choose at its discretion to provide the well owner with a connection to a local public or private water supply system in lieu of the above mitigation measures, at reduced cost in proportion to the extent the impact was caused by project pumping.</p> <p>f. The known owners of identified wells within two miles of the project pumping well(s) shall be</p>			

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
<p>notified of the well impact compensation program outlined above before project pumping begins.</p> <p>g. The Tribe shall contract with a third party, such as Sonoma County, to oversee this well impact compensation program.</p>			
<p>O. The proposed storm water detention basin shall retain a portion of the storm water runoff, where it will percolate into the ground, if possible without compromising primary stormwater flow control objectives.</p>	NIGC	Tribe	<p>Planning</p> <p>Construction</p> <p>Operation</p>
<b>Air Quality</b>			
<p>A. The generation of construction-related PM<sub>10</sub> and PM<sub>2.5</sub> emissions would cause a less-than-significant impact. However, Basic Control Measures and Enhanced Control Measures from Table 2 of the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines - Assessing the Air Quality Impacts of Projects and Plans are recommended as mitigation during construction.</p> <p>a. The Tribe shall designate an on-site Air Quality Construction Mitigation Manager (AQCMM) who shall be responsible for directing compliance with mitigation measures for the construction project.</p> <p>b. Basic Control Measures shall include the following:</p> <ul style="list-style-type: none"> <li>i. Water all active construction areas at least twice daily.</li> <li>ii. Cover all truckloads hauling soil, sand, and other loose materials or require all truckloads to maintain at least two feet of freeboard.</li> <li>iii. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers to all unpaved access roads, parking areas and staging areas at construction sites.</li> <li>iv. Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.</li> <li>v. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.</li> </ul> <p>c. Enhanced Control Measures shall include the following:</p> <ul style="list-style-type: none"> <li>i. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).</li> <li>ii. Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.)</li> </ul>	NIGC	Tribe	Construction

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
<ul style="list-style-type: none"> <li>iii. Limit traffic speeds on unpaved roads to 15 mph.</li> <li>iv. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.</li> <li>v. Replant vegetation in disturbed areas as quickly as possible.</li> <li>vi. Use of construction entrances to reduce soil/dust transport off-site.</li> <li>vii. Time-staged construction shall be used to avoid dust/open soils.</li> </ul>			
<p>B. The generation of ROG, NO<sub>x</sub>, PM<sub>10</sub>, and diesel particulate matter emissions from construction equipment would cause a less-than-significant impact. However, implementation of the following basic measures are recommended during construction in order to further reduce the effects from construction activities:</p> <ul style="list-style-type: none"> <li>a. To the extent that equipment and technology is available and cost effective, the contractor shall use catalyst and filtration technologies</li> <li>b. All diesel-fueled engines used in construction shall use ultra-low sulfur diesel fuel containing no more than 15-ppm sulfur, or a suitable alternative fuel.</li> <li>c. All construction diesel engines, which have a rating of 50 hp or more, shall meet the Tier II California Emission Standards for off-road compression-ignition engines, unless certified by the AQCMM that such an engine is not available for a particular use. In the event that a Tier II engine is not available, Tier I compliant or 1996 (or newer) engines will be used preferentially. Older engines will only be used if the AQCMM certifies that compliance is not feasible.</li> <li>d. All diesel fueled engines used in construction shall have clearly visible tags or other suitable means of identification showing that engine meets the above requirements</li> <li>e. Idle time shall be minimized to five minutes when the equipment is not in use, unless safety requirements or manufacturers specifications indicate that more time is required.</li> <li>f. Heavy duty diesel equipment shall be maintained in optimum running condition.</li> </ul>	NIGC	Tribe	Construction
<p>C. In coordination with the regional transportation agency, such as the Sonoma County Transit, the Golden Gate Transit, and the potential Sonoma Marin Area Rail Transit (SMART) rail, the Tribe shall provide the following to support regularly-scheduled community transit or shuttle service to and from the nearest mutually-acceptable major transit node:</p> <ul style="list-style-type: none"> <li>d. Transit shelter benches,</li> <li>e. Street lighting,</li> </ul>	NIGC	Tribe	<p>Planning</p> <p>Construction</p>

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
<ul style="list-style-type: none"> <li>f. Route signs and display, and</li> <li>g. Bus turnouts.</li> </ul>			
<p>D. The Tribe shall implement feasible travel demand management (TDM) measures for a project of this type. These measures shall include, but are not limited to:</p> <ul style="list-style-type: none"> <li>a. Designation of an on-site TDM coordinator.</li> <li>b. Provisions to encourage bicycle commuting. Bicycle lanes and parking areas will be provided wherever appropriate and feasible.</li> <li>c. Provision of transit use incentives, provision of information, printed schedules and commuter promotions.</li> <li>d. Carpool incentives, such as monetary or other rewards will be made available to employees.</li> <li>e. Installation of secure bicycle parking facilities at commercial areas.</li> </ul>	NIGC	Tribe	Planning  Construction  Operation
<p>E. Buses and other commercial diesel-fueled vehicles shall comply with the California Air Resource Board's (CARB) Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Section 2485), which requires that the driver of any diesel bus shall not idle for more than five minutes at any location, except in the case of passenger boarding where a ten minute limit is imposed, or when passengers are onboard. Furthermore, the Tribe shall provide a "Drivers Lounge" for bus and truck drivers to discourage idling.</p>	NIGC	Tribe	Planning  Construction  Operation
<p>F. Where feasible, the Tribe shall use alternative fuels for casino vehicles.</p>	NIGC	Tribe	Construction  Operation
<p>G. The Tribe shall encourage and facilitate the use of 'carpools' for construction workers and facility employees; tour buses for casino patrons to reduce vehicular use and air pollution.</p>	NIGC	Tribe	Construction  Operation
<p>H. The Tribe shall maintain all vehicles to manufacturer's specifications.</p>	NIGC	Tribe	Construction  Operation
<p>I. The Tribe shall ensure that buildings are oriented to take advantage of solar heating and natural cooling, and use passive solar designs.</p>	NIGC	Tribe	Planning

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
J. The Tribe shall ensure use of solar, low-emission, central, or tankless water heaters and install wall insulation that shall exceed Title 24 requirements.	NIGC	Tribe	Planning Construction
K. If mechanical ventilation is included in the parking structure design, the exhaust shall be vented in a direction away from inhabited areas. Directing the exhaust away from inhabited areas would reduce the impacts of parking structure-generated CO to a less-than-significant level.	NIGC	Tribe	Planning Construction Operation
L. The Tribe shall ensure that all shift changes occur during non-peak hours.	NIGC	Tribe	Operation
M. A minimum of 20 percent of landscape maintenance equipment used by the Tribe shall be electric and outlets shall be provided on the exterior of all buildings for this use.	NIGC	Tribe	Planning Construction Operation
N. A final Conformity Determination has been issued (see FEIS Appendix W) based upon evidence of conformance with the State Implementation Plan (SIP) for NO <sub>x</sub> and CO through the purchase of 149 tons of NO <sub>x</sub> Emission Reduction Credits (ERCs). The ERCs will be purchased in the BAAQMD pursuant to an enforceable contract to purchase the ERCs before the start of construction (see FEIS Appendix W, Addendum 1).	NIGC USEPA	Tribe	Planning
O. Regional air quality impacts would be reduced, but not to a level that is less than significant for ROG, NO <sub>x</sub> , or PM <sub>10</sub> with the addition of Mitigation Measures 6.3 A-M. However, with the implementation of Mitigation Measure 6.3N, NO <sub>x</sub> impacts are less than significant. With the implementation of Mitigation Measure 6.3P, ROG and PM <sub>10</sub> impact would be less than significant, assuming Mitigation Measure P is cost and technologically feasible and appropriate mitigation programs are available within the air basin (see Table 1). If Mitigation Measure P is not implemented; then a significant and unavoidable impact to air quality would remain.	NIGC	Tribe	Planning Construction Operation
P. One or more of the following measures will be implemented to reduce ROG and PM <sub>10</sub> emissions to less than 15 tons per year and PM <sub>2.5</sub> to less than 100 tons per year. a. Pave or resurface unpaved roadway(s) or roadway(s) in a deteriorated state within the San Francisco Bay Area Air Basin, which have a minimum daily vehicle count of 100 vehicles. b. Contribute to a program to retrofit residential fireplaces that do not meet USEPA certification	NIGC	Tribe	Planning Construction Operation



MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
<p>standards within the San Francisco Bay Area Air Basin.</p> <p>c. Purchase low emission buses to replace older municipal or school buses used within the San Francisco Bay Area Air Basin.</p> <p>d. Purchase hybrid vehicles to replace existing governmental fleet vehicles within the San Francisco Bay Area Air Basin.</p> <p>e. Purchase and install on-site or within the San Francisco Bay Area Air Basin; a photovoltaic array, wind powered energy, and/or other form(s) of renewable energy.</p> <p>f. Contribute a fair share percentage to the synchronization of traffic signals within the San Francisco Bay Area Air Basin.</p> <p>g. Purchase Emission Reduction Credits if available from sources within the San Francisco Bay Area Air Basin.</p>			
<p>Q. The WWTP shall be constructed with comprehensive odor control facilities, including the injection of odor control oxidants at the sewage lift station and construction of a covered headworks with odor scrubber at the WWTP.</p>	<p align="center">NIGC</p>	<p align="center">Tribe</p>	<p align="center">Planning</p> <p align="center">Construction</p>
<p>R. Spray drift from the WWTP or spray disposal field shall be monitored daily during operation by qualified personnel. Spray drift from these two sources shall not be allowed to migrate out of the plant's property boundaries. In the event that spray drift emanating from sprayfield does migrate outside of the property boundaries, operational measures shall be taken to eliminate offsite drift of spray.</p>	<p align="center">NIGC</p> <p align="center">USEPA</p>	<p align="center">Tribe</p>	<p align="center">Operation</p>
<p>S. Spray field irrigation will cease when winds exceed 30 mph.</p>	<p align="center">NIGC</p> <p align="center">USEPA</p>	<p align="center">Tribe</p>	<p align="center">Operation</p>
<p>T. Proposed commercial land uses (e.g., loading docks) that have the potential to emit toxic air emissions shall be located as far away as feasibly possible from existing and proposed sensitive receptors in accordance with CARB's Air Quality and Land Use Handbook. In addition, loading docks will provide refrigeration trucks with electrical outlets. Truck using the loading docks shall not idle for more than five minutes.</p>	<p align="center">NIGC</p>	<p align="center">Tribe</p>	<p align="center">Planning</p> <p align="center">Construction</p> <p align="center">Operation</p>
<p>U. Air intakes associated with the heating and cooling system for buildings shall not be located next to potential TAC-emitting locations (e.g., loading docks) in accordance with CARB's Air Quality and Land Use Handbook.</p>	<p align="center">NIGC</p>	<p align="center">Tribe</p>	<p align="center">Planning</p> <p align="center">Construction</p>

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V. The Tribe shall ensure that ventilation of outdoor air is consistent with American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE) Standard 62-1999 <sup>1</sup> under all operating conditions.	NIGC	Tribe	Planning Construction Operation
W. To limit public exposure to environmental tobacco smoke, the Tribe shall provide non-smoking areas, or “smoke-free zones” in the casino gaming area	NIGC	Tribe	Planning Construction Operation
X. The Tribe shall provide non-smoking rooms in the hotel.	NIGC	Tribe	Planning Construction Operation
Y. The Tribe shall ensure that comfort levels are acceptable to most occupants, and be consistent with ASHRAE Standard 55-1992 <sup>2</sup> , under all operating conditions.	NIGC	Tribe	Planning Construction Operation
Z. Signage shall be prominently displayed alerting patrons and employees of areas that permit smoking, noting that environmental tobacco smoke has been found to be deleterious to health, and noting the availability of a brochure(s) describing the health effects of exposure environmental tobacco smoke.	NIGC	Tribe	Operation
AA. A brochure(s) describing the health effects of exposure to environmental tobacco smoke shall be made available to casino patrons in common areas that permit smoking.	NIGC	Tribe	Operation

<sup>1</sup> ASHRAE Standard 62-1999, *Ventilation for Acceptable Indoor Air Quality*, is the generally accepted standard for commercial buildings in the United States.

<sup>2</sup> ASHRAE Standard 55-1992, *Thermal Environmental Conditions for Human Occupancy*, identifies many factors that influence thermal comfort and the perception of thermal conditions. Among them are temperature, radiation, humidity, air movement, vertical, and horizontal temperature differences, temperature drift, personal activity, and clothing.

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MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
BB. Prospective employees shall be informed, prior to their hire, that indoor smoking is permitted in portions of the buildings where they may be employed.	NIGC	Tribe	Operation
CC. Prospective employees shall be given a brochure(s) describing the health effects of exposure to environmental tobacco smoke.	NIGC	Tribe	Operation
DD. The Tribe shall ensure that significant expected sources of pollutant emissions are isolated from occupants using physical barriers, exhausts, and pressure controls.	NIGC	Tribe	Planning Construction
EE. The Tribe shall ensure that outdoor air entering the building is protected from contamination from local outdoor sources and from building exhausts and sanitation vents.	NIGC	Tribe	Planning Construction
FF. The Tribe shall ensure that provisions are made for easy access to heating, ventilation, and air conditioning (HVAC) equipment requiring periodic maintenance.	NIGC	Tribe	Planning Construction
GG. The Tribe shall ensure that occupant exposure to construction contaminants is minimized using protocols for material selection, preventive installation procedures, and special ventilation and pressure control isolation techniques.	NIGC	Tribe	Planning Construction Operation
HH. The Tribe shall ensure the use of low-emitting building products pursuant to Integrated Waste Management Board's Section 01350 where feasible.	NIGC	Tribe	Planning Construction
II. The Tribe shall plant trees and vegetation on-site or fund such plantings off-site. The addition of photosynthesizing plants would reduce atmospheric CO <sub>2</sub> , because plants use CO <sub>2</sub> for elemental carbon and energy production. Trees planted near buildings would result in additional benefits by providing shade to the building; thus reducing heat absorption, reducing air conditioning needs and saving energy.	NIGC	Tribe	Planning Construction
JJ. The Tribe shall ensure use of solar, low-emission, central, or tankless water heaters and install wall insulation that shall exceed Title 24 requirements.	NIGC	Tribe	Planning Construction
KK. The Tribe shall use energy efficient appliances in the hotel and casino.	NIGC	Tribe	Planning

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MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
			Construction
LL. Environmentally preferable materials shall be used to the extent practical for construction of facilities.	NIGC	Tribe	Planning Construction
MM. The Tribe shall install a photovoltaic cell array(s) on the roof of the proposed parking garage and/or the roof(s) of other on-site structures, if feasible. The installation of photovoltaic (PV) on-site would reduce dependence on Pacific Gas and Electric (PG&E) electricity. PV cells convert energy from the sun into electrical energy with no emission of green house gases (GHGs); thus, the indirect GHG emissions would be reduced.	NIGC	Tribe	Planning Construction
NN. The Tribe shall enroll in the ClimateSmart program that is offered to PG&E customs to reduce their indirect GHG emissions form electrical generation to zero. PG&E provides electricity uses with the opportunity to become “carbon neutral” under the ClimateSmart program.	NIGC	Tribe	Planning Construction
OO. The Tribe shall purchase CO2e offsets to reduce or eliminate GHG impacts, where feasible.	NIGC	Tribe	Planning Construction
PP. The Tribe shall increase the recycling goal noted in Mitigation Measure 5.2.8d from 25 to 50 percent.	NIGC	Tribe	Operation
<b>Biological Resources</b>			
A. For impacts to wetlands or other waters of the U.S., authorization from the USACE is required. Replacement of directly affected wetlands will be at a ratio approved by the USACE. Clean Water Act Section 401 water quality certification will also be required from the USEPA.	USACE USEPA	Tribe	Planning Construction
B. Wetland mitigation shall be accomplished through creation/restoration of seasonal wetlands onsite and/or within an open space preserve. This creation/restoration will provide an increase in the inventory of seasonal wetlands for the area. The proposed 1.5:1 ratio of seasonal wetland restoration/creation to impacted acreage is expected to be sufficient to satisfy the ratio of replacement to impacted acreage required by regulatory agencies based on wetland functions and values present on the Wilfred Site. A detailed mitigation plan shall be designed that includes monitoring and reporting requirements, responsibilities, performance success criteria, reporting procedures and contingency requirements.	USACE USEPA	Tribe	Planning Construction

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<p>C. A plan shall be developed and implemented to conserve ecological resources in the southern portion of the Wilfred Site. The plan shall address management activities to ensure maintenance of breeding, refugial, and dispersal habitats for California tiger salamander (CTS); and should provide a grazing regimen that will conserve populations of Sonoma sunshine and Burke's goldfields. The current mitigation ratios for listed plants species on the Santa Rosa Plain as required in the Programmatic Biological Opinion are based on the presence of suitable versus occupied habitat, and the potential for presence of Burke's goldfields and Sonoma sunshine; or Sebastopol meadowfoam. The site is considered to be occupied if surveys conducted using the USFWS protocol determined presence of the plants, or if the site had listed plants in the past. Protocol botanical inventories for federal listed plants on the Santa Rosa Plain consist of a minimum of three site visits per year and a minimum of two years of negative survey data within three years of project proposal submission to substantiate a negative finding. Under the Programmatic Biological Opinion, seasonal wetlands such as those present on the Wilfred Site and that are within the range of the three listed plants species are considered suitable habitat for the listed plants even if intensive surveys fail to locate their presence. This provision is necessary because seed banks are often persistent; some plant species may not produce seedlings for many years until conditions are appropriate.</p>	<p>NIGC  USFWS</p>	<p>Tribe</p>	<p>Planning</p>
<p>D. Development impacts on CTS aestivation habitat on the Wilfred Site have been evaluated in a USFWS Biological Opinion, issued a on February 3, 2009. This approved BO requires mitigation for CTS aestivation habitat at a ratio of 1:1 within 1.3 miles of a known breeding site. And 3:1 for projects that are within 500 feet of an adult occurrence.</p> <p>With impacts to 81.13 acres of CTS habitat, Variant H-sub1 would require the purchase of 88.84 acres in a mitigation bank or of farmland purchase and placement under a conservation easement. Impacts to CTS aestivation habitat shall be mitigated off-site and shall consist of purchase of CTS credits from an approved mitigation bank or purchase of farmland providing suitable habitat for CTS (where CTS are known to occur) and placement of the land under conservation easement.</p> <p>At least a 50-foot buffer shall be maintained between wetlands and sprayfields. Mitigation plans shall also include relocation of CTS from development areas (including locations of created wetlands), the use of biological monitors on a daily basis during construction and or excavation activities, and fencing to exclude the CTS from entering the construction zone. Prior to construction work beginning each morning, the biological monitor will check equipment for animals and CTS under construction equipment and stored pipes. The biological monitor shall also check all steep-walled holes and trenches greater than one foot in depth for any CTS. The biological monitor shall remove CTS as needed from equipment and construction-related features (i.e., trenches, holes, etc.). Purchase of credits at an off-site mitigation bank may be implemented if determined to be appropriate by the USFWS during the Section 7 consultation process.</p>	<p>USFWS</p>	<p>Tribe</p>	<p>Planning  Construction  Operation</p>
<p>E. A pre-construction survey for burrowing owls shall be conducted to ensure impacts to burrowing</p>	<p>NIGC</p>	<p>Tribe</p>	<p>Planning</p>

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<p>owls, if present in the construction area, do not occur during the nesting season. The pre-construction survey shall be conducted within 30 days prior to initiation of construction activity. If active burrows are found prior to the nesting season, passive relocation measures shall be provided for each burrow in the area of the Wilfred, Stony Point site or Lakeville Site, as appropriate, that is rendered biologically unsuitable. Passive relocation measures shall include the creation of two natural or artificial burrows for each burrow rendered biologically unsuitable. Daily monitoring shall be implemented until the owls have been relocated to the new burrows. This measure will reduce potential impacts to burrowing owls. Other mitigation measures may be implemented in lieu of the proposed mitigation, including avoidance or passive relocation with one-way doors, as outlined in the "Staff Report on Burrowing Owl Mitigation" (CDFG, 1995).</p>			Construction
<p>F. Pre-construction surveys for nesting birds shall be conducted within 30 days prior to initiation of construction activity. If feasible, construction and tree removal (grubbing, vegetation removal) should be timed to take place during late summer months and through winter, ideally from September through February, to avoid impacting nesting birds and other sensitive wildlife species. The approximate nesting season extends from February to September, with a peak nesting period between March through June. If construction or grubbing activities are to take place between late February and late June, a pre-construction survey shall be performed by a qualified biologist to identify any active nests or other special-status species, at least two weeks prior to the start of construction. If bird nests are found, appropriate buffer zones shall be established around all active nests to protect nesting adults and their young from construction disturbance. Through direct consultation with wildlife agency staff, the size of buffer zones shall be determined based on site conditions and species involved. If impacts to nests are unavoidable, consultation shall continue with specific agency guidelines followed for relocation. If construction is delayed for more than two weeks, a second survey shall be performed.</p>	<p>NIGC USFWS</p>	Tribe	<p>Planning Construction</p>
<p>G. All grading and clearing shall be conducted after April 15 and before October 15 of any year, depending on rainfall and/or site conditions to minimize erosion. Access roads and routes will be limited, as well as the construction staging area, to the minimum size required to achieve the goals of the project. A speed limit of 15 mph on dirt roads shall be maintained. These practices will limit erosion and dust borne particles.</p>	<p>NIGC USEPA</p>	Tribe	<p>Planning Construction</p>
<p>H. During construction, vegetation shall only be cleared from the permitted construction footprint and necessary lay-down and assembly areas. Areas cleared of vegetation, pavement, or other substrates shall be stabilized as quickly as possible and BMPs applied (erosion fencing, straw and other material applied to soils) to prevent erosion and runoff that could affect steelhead fish in the Laguna de Santa Rosa.</p>	<p>NIGC USEPA</p>	Tribe	Construction
<p>I. Hazardous materials including fuels, oils, solvents, etc., shall be stored in sealed containers in a designated location at a minimum of 200 feet from aquatic environments. All fueling and</p>	NIGC	Tribe	Construction

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maintenance of equipment shall be conducted at a minimum of 200 feet from aquatic environments.	USEPA		Operation
J. All food items and food-related trash shall be sealed in containers prior to leaving the construction site at the end of the workday; these items shall be removed from the site once every three days. This measure will limit attraction of wildlife and eliminate trash pollution in the Laguna de Santa Rosa.	NIGC	Tribe	Construction
K. Where appropriate, vegetation removed as a result of project activities shall be replaced with native species that are of value to local wildlife. Native plants have a significant cultural value, are generally more valuable as wildlife food sources, and require less irrigation, fertilizers, and pesticides than exotic species.	NIGC	Tribe	Planning Construction Operation
L. Turn off as many exterior and interior lights as possible during the peak bird migration hours of midnight to dawn to reduce potential building collisions with migration birds.	NIGC	Tribe	Operation
M. Install downcast lights with top and side shields to reduce upward and sideways illumination. This will reduce potential disorientation affects from non-directed shine to birds and wildlife species.	NIGC	Tribe	Planning Construction Operation
N. The Tribe shall make feasible changes to the parking lot design, in consultation with the USACE, to reduce wetland fill.	USACE	Tribe	Planning Construction
<b>Cultural Resources</b>			
A. The Tribe will implement all mitigation measures concurred upon by the State Historic Preservation Officer (SHPO) during the Section 106 consultation process, including, but not limited to, the following: a. Site RPC-5 shall be avoided by all ground disturbing activity.	SHPO	Tribe	Planning
B. To avoid potential impacts to previously unknown cultural resources, including subsurface resources, the Tribe shall include the following requirements in construction contract specifications for the project: a. In the event of any inadvertent discovery of archaeological resources during construction-	NIGC BIA	Tribe	Planning Construction

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<p>related earth-moving activities, all such finds shall be subject to Section 106 of the National Historic Preservation Act (NHPA) as amended (36 CFR 800). Once the land has been taken into trust for the Tribe, the inadvertent discovery of archaeological resources is also subject to the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC 3001 et seq.) and the Archaeological Resources Protection Act (ARPA) of 1979 (16 U.S.C. 470 aa-mm). Specifically, procedures for post review discoveries without prior planning pursuant to 36 CFR 800.13 shall be followed. The following shall apply to the inadvertent discovery of both archaeological or paleontological resources: All work within 50 feet of the find shall be halted until a professional archaeologist, or paleontologist as appropriate, can assess the significance of the find. If any find is determined to be significant by the archaeologist, or the paleontologist, then representatives of the Tribe and BIA shall meet with the archaeologist, or paleontologist, to determine the appropriate course of action.</p> <p>b. If human remains are discovered during ground-disturbing activities on Tribal lands, pursuant to NAGPRA, Section 10.4 Inadvertent Discoveries, the County coroner, the Tribal Official, and representatives from the BIA and NIGC shall be contacted immediately. No further disturbance shall occur until the County coroner, the Tribal Official, and the BIA and NIGC representatives have made the necessary findings as to the origin and disposition.</p>	SHPO		
<b><i>Socioeconomic Conditions and Environmental Justice</i></b>			
A. The Tribe shall provide annual payments of at least \$157,500 to Sonoma County to mitigate for fiscal impacts to Sonoma County. The County and the Tribe are free to negotiate payments greater than this amount; however, a MOU must at least provide for annual payments of \$157,500 in order to mitigate fiscal impacts to a less-than-significant level.	NIGC	Tribe	Operation
B. Given that Variant H-sub1 has a gaming component that is smaller than FEIS Alternatives A-C, but still larger than most in California, the same crime mitigation payments cited in FEIS Table 5-5 (Table 4 in Section 6.6 of the ROD) and the City of Rohnert Park MOU would apply. Thus, the Tribe shall provide annual payments of at least \$500,000 to the City of Rohnert Park and \$700,000 to Sonoma County and the additional neighboring cities (distributed per Table 4).	NIGC	Tribe	Operation
C. The Tribe shall provide at least \$250,000 per year to a problem gambling treatment and prevention program(s). In order to maximize the effectiveness of MOU payments to treatment and prevention programs, the organization that receives the payments for problem gambling treatment must serve the Sonoma County region, and be accessible to County residents.	NIGC	Tribe	Operation
D. The Tribe shall prominently display (including on any automatic teller machines (ATMs) located on-site) materials describing the risk and signs of problem and pathological gambling behaviors. Materials shall also be prominently displayed (including on any ATMs located on-site) that provide available programs for those seeking treatment for problem and pathological gambling disorders, including, but not limited to a toll-free hotline telephone number.	NIGC	Tribe	Planning Construction
E. The Tribe shall train employees to recognize domestic violence and sexual assault situations, display domestic violence hotline numbers, and work with local agencies in domestic violence and sexual assault prevention.	NIGC	Tribe	Planning Construction



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			Operation
F. The Tribe shall conduct annual customer surveys in an attempt to determine the number of problem and pathological gamblers and make this information available to City of Rohnert Park, Sonoma County, state or federal gaming regulators upon request.	NIGC	Tribe	Operation
G. The Tribe shall undertake responsible gaming practices that at a minimum require that employees be educated to recognize signs of problem gamblers, that employees be trained to provide information to those seeking help, and that a system for voluntary exclusion be made available.	NIGC	Tribe	Operation
H. ATMs shall be not be visible from gaming machines and gaming tables.	NIGC	Tribe	Planning Construction Operation
<b>Transportation/Circulation</b>			
A. Since Caltrans' funding is limited, the Tribe shall pay for a proportionate share of the remaining costs (if any) to implement the Caltrans high-occupancy vehicle (HOV) projects along US-101 between Wilfred Avenue and Old Redwood Highway, thereby assisting in a more expedited and timely construction schedule (near term).	NIGC	Tribe	Planning
B. The Tribe shall contribute a proportionate share of the costs to widen Wilfred Avenue from Redwood Drive to Langner Avenue to three lanes in the near term and five lanes in the long term (2020).	NIGC	Tribe	Planning Construction Operation
C. The Tribe shall support efforts to complete the US-101 HOV lane project so that it can become operational prior to the scheduled completion as estimated by Caltrans (near term).	NIGC	Tribe	Planning
D. The Tribe shall contribute a proportionate share of the remaining costs (if any) of the construction of the Wilfred Avenue interchange project, including HOV lanes, ramp metering, and auxiliary lanes and support efforts related to the completion of the project in a timely fashion (near term).	NIGC	Tribe	Planning
E. The ramp metering shall be adjusted to account for the additional project traffic at the Wilfred Avenue interchange in the long term (2020).	NIGC	Tribe	Planning Construction Operation
F. The Tribe shall contribute a proportionate share to the construction of an additional traffic lane in the southbound direction from Santa Rosa Avenue to Rohnert Park Expressway and from SR-116	NIGC	Tribe	Planning

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to West Sierra Avenue (2020). The Tribe shall contribute a proportionate share to the construction of auxiliary lanes between Rohnert Park Expressway and SR-116 (2020).			Construction Operation
G. Should the above additional traffic lane mitigation on US-101 be infeasible or unavailable as mitigation in the near-term or long-term, the Tribe shall investigate other options to reduce traffic congestion on US-101, such as partial funding of the planned SMART commuter transit system and other regional transit programs.	NIGC	Tribe	Planning Construction Operation
H. A Traffic Management Plan (TMP) shall be prepared in accordance with standards set forth in the United State Department of Transportation (USDOT) Manual on Uniform Traffic Control Devices for Streets and Highways. The traffic management plan shall be submitted to each affected local jurisdiction and/or agency. Also, prior to construction, the Tribe shall work with emergency service providers to avoid obstructing emergency response service. Police, fire, ambulance, and other emergency response providers shall be notified in advance of the details of the construction schedule, location of construction activities, duration of the construction period, and any access restrictions that could impact emergency response services. The TMP shall include details regarding emergency service coordination. Copies of the TMP shall be provided to all affected emergency service providers.	NIGC	Tribe	Planning Construction
I. Flagging done in consultation with the California Highway Patrol (CHP), Caltrans, and the County's Sheriff's Department, shall be provided when necessary to assist with traffic control.	NIGC	Tribe	Construction
J. Importation of construction material shall be scheduled outside of the area wide commute peak hours.	NIGC	Tribe	Construction
K. Preferential carpool or vanpool spaces shall be provided at the site to encourage ridesharing by employees and patrons.	NIGC	Tribe	Planning Construction Operation
L. The Tribe shall sponsor charter buses from destinations such as Marin County and the North Bay.	NIGC	Tribe	Operation
M. The Tribe shall provide a shuttle between the casino and Rohnert Park transit hubs that would operate on a half hour rotational basis during busy hours and on a on call basis in the times when the frequency of employees and patrons arriving or leaving busy is low.	NIGC	Tribe	Operation
N. Where feasible, lane closures or obstructions associated with construction shall be limited to off-peak hours to reduce traffic congestion and delays.	NIGC	Tribe	Construction
O. Prior to construction, the Tribe shall work to notify all potentially affected parties in the immediate	NIGC	Tribe	Planning

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vicinity of the Wilfred Site, as appropriate. Notification shall include a construction schedule, location of construction activities, the duration of construction period, and alternative access provisions.			
P. Emergency service providers shall be notified of the areas that have the greatest potential for unusual traffic delays as a result of construction activities. Specific detours shall be recommended to circumvent any area that might suffer traffic delays.	NIGC	Tribe	Planning Construction
Q. The Tribe shall coordinate with the Green Music Center during events that will generate high traffic levels. During that period, traffic control services at the Rohnert Park Expressway interchange may be necessary. Thus, the Tribe shall provide funding for special event traffic monitoring at the Rohnert Park Expressway interchange to identify conflicts during outdoor events generating high traffic levels. Should conflicts occur, the Tribe shall provide traffic management coordination between the project and the Green Music Center, in consultation with the CHP and Caltrans.	NIGC CHP Caltrans	Tribe CHP Caltrans	Operation
R. Debris along construction vehicle routes shall be monitored daily during construction and the roadways cleaned as necessary.	NIGC	Tribe	Construction
S. The Tribe shall contribute their fair share to bicycle and pedestrian facilities that will increase casino patronage. The Tribe shall consider bicycle and pedestrian circulation in the design of intersections and turning movements, and that adequate sidewalk facilities, striped crosswalks, and pedestrian countdown signals for elderly and disabled citizens be provided.	NIGC	Tribe	Planning Construction
T. The Tribe shall minimize the amount of construction fill transported on the surrounding street network by eliminating the off-site travel route except where necessary to obtain materials that cannot be obtained on-site. Potential options for eliminating off-site transport include moving fill material via conveyors across barriers such as creeks and ditches or installing temporary bridges for haul vehicles across the barriers.	NIGC	Tribe	Planning Construction
U. Construction material importation shall be scheduled outside of the area wide commute peak hours. Debris along the truck route caused by trucks should be monitored daily and the roadways shall be cleaned as necessary.	NIGC	Tribe	Construction
V. Roadways subject to fill truck traffic shall be assessed by an independent third party consultant prior to the start of construction and following the completion of construction. If the third party determines that roadway deterioration has occurred as a result of casino construction, the Tribe shall pay to have surrounding roadways resurfaced to restore the pavement to at least pre-construction condition, unless the resurfacing is already expected to occur within a year or sooner in conjunction with other planned or proposed roadway improvements. In any event, the Tribe shall fully fund the restructuring of Labath Avenue and Langner Avenue between Wilfred Avenue and Business Park Drive following construction to facilitate site access.	NIGC	Tribe	Planning Construction Operation

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W. Even if Wilfred Avenue is not widened to increase capacity, due to the increased use of the roadway in combination with future cumulative traffic, the Tribe shall make a proportionate share contribution to roadway improvements along Wilfred Avenue from Redwood Drive to Stony Point Road, including widened shoulders and Class II bike lanes consistent with applicable standards.	NIGC	Tribe	Planning Construction
<b>Public Services</b>			
A. Construction waste shall be recycled to the fullest extent practicable by diverting green waste and recyclable building materials from the solid waste stream	NIGC	Tribe	Construction
B. Environmentally preferable materials shall be selected, to the extent practicable, for construction of facilities.	NIGC	Tribe	Planning Construction
C. A solid waste management plan shall be adopted by the Tribe that addresses recycling and solid waste reduction on-site. The plan shall have a goal of at least 25% diversion of materials from disposal, which includes reduction, recycling, and reuse measures.	NIGC	Tribe	Planning Construction Operation
D. The Tribe shall install a trash compactor for cardboard and paper products.	NIGC	Tribe	Planning Construction Operation
E. The Tribe shall install recycling bins throughout the facilities for glass, cans, and paper products.	NIGC	Tribe	Planning Construction Operation
F. Decorative trash and recycling receptacles shall be placed strategically throughout the area of the Wilfred Site, Stony Point site, or the Lakeville site, as appropriate, to encourage people not to litter at the facilities.	NIGC	Tribe	Planning Construction Operation
G. Security guards shall be trained to discourage on-site littering.	NIGC	Tribe	Operation
H. The Tribe shall pay all standard fees for trash collection and disposal.	NIGC	Tribe	Operation
I. Air conditioning and refrigeration systems shall utilize environmentally friendly refrigerants. Energy efficient chillers shall also be utilized.	NIGC	Tribe	Planning

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			Construction Operation
J. The air handling systems shall utilize outside air economizer cycles to take advantage of ambient cooling when the outside air temperature is below 55 degrees F. Economizer cycles may be able to reduce cooling requirements by 20 to 30 percent.	NIGC	Tribe	Planning Construction Operation
K. For applicable alternatives, hotel and casino buildings shall be equipped with a direct digital energy management and control system to perform energy conservation measures, such as optimum start/stop, duty cycling, and demand limiting. This management system will ensure that the project will not consume any more energy than is necessary.	NIGC	Tribe	Planning Construction
L. The Tribe shall use energy efficient appliances where feasible.	NIGC	Tribe	Planning Construction
M. The Tribe shall make an agreement with the applicable City or County department to address inspection, maintenance, and operation of any swimming pools, spas, or hot tubs available to patrons. The terms of the agreement shall include design review of the swimming facilities, inspection of the swimming facilities prior to operation, and at least one annual inspection for seasonal swimming facilities or bi-annual inspections for year-round swimming facilities thereafter. The agreement shall include a commitment to comply with standards for design, maintenance, and operation similar to those followed by non-tribally owned businesses in the City or County, as applicable.	NIGC	Tribe City of Rohnert Park Sonoma County	Planning Construction Operation
N. The Tribe shall provide on-site security to reduce and prevent criminal and civil incidents.	NIGC	Tribe	Operation
O. The Tribe shall adopt employee training programs and policies relating to responsible beverage services with annual training, which would include, but not be limited to, checking patron identification and refusing service to those who have imbibed beyond their ability to function safely. The Tribe shall collaborate with law enforcement by warning intoxicated patrons not to drive and by reporting drunk drivers to the authorities	NIGC	Tribe	Operation
P. The Tribe shall support local law enforcement efforts in conducting DUI checkpoints and other programs known to reduce the impacts of alcohol on the community (support shall include fully funding at least one DUI checkpoint in the vicinity of the development monthly or less frequently at the discretion of local law enforcement providers).	NIGC	Tribe Sonoma County	Operation

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
Q. All parking areas shall be well lit and monitored by parking staff and/or security guards. This will aid in the prevention of auto theft and other related criminal activity.	NIGC	CHP Tribe	Planning  Construction  Operation
R. The Tribe shall provide traffic control with appropriate signage and the presence of peak-hour traffic control staff. This will aid in the prevention of off-site parking, which could create possible security and safety issues.	NIGC	Tribe	Operation
S. The Tribe shall pass an ordinance creating a standard policy that encourages responsible drinking and designated driver programs. As part of this policy, the employees serving alcohol shall undergo annual Responsible Beverage Service Training (RBST), also known as “server training.” RBST educates managers, servers and sellers at alcohol establishments about strategies to avoid illegally selling alcohol to underage youth or intoxicated patrons. The goal of RBST is to decrease the number of illegal alcohol sales to underage youth and intoxicated patrons through education programs. Information provided in server training must at a minimum include: <ul style="list-style-type: none"> <li>▪ The importance of checking age identification of customers who appear to be under the age of 30.</li> <li>▪ How to identify fake IDs and what to do once a fake ID is confiscated.</li> <li>▪ How to recognize situations in which adults are buying alcohol for underage youth.</li> <li>▪ How to refuse sales to individuals who may supply alcohol to underage youth.</li> <li>▪ How to identify intoxicated customers.</li> <li>▪ How to refuse service to underage youth and intoxicated customers.</li> </ul>	NIGC	Tribe	Planning  Construction
T. To mitigate potential impacts to law enforcement resources, the Tribe shall adopt rules prohibiting anyone under 21 years of age from gambling, adopt employee training programs and policies relating to responsible beverage services with annual training, conduct background checks of all gaming employees, provide a full complement of security personnel at the site at all times, and adopt programs and policies which discourage gang members from visiting the gaming facilities.	NIGC	Tribe	Planning  Construction  Operation
U. Hotel management shall work collaboratively with school and law enforcement personnel to prevent the use of hotel rooms for parties involving minors and the hotel shall have an internal monitoring program to reduce the incidence of such parties	NIGC	Tribe	Operation
V. Areas surrounding the gaming facilities shall have “No Loitering” signs in place, shall be well lit and shall be patrolled regularly. This will aid in the prevention of illegal loitering and loitering behavior that could potentially lead to other criminal acts.	NIGC	Tribe	Planning  Construction

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
			Operation
W. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws. During construction, staging areas, building areas, and/or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fuel for combustion. To the extent feasible, the contractor shall keep these areas clear of combustible materials to maintain a firebreak.	NIGC	Tribe	Construction
X. The Tribe shall make reasonable provisions for adequate emergency, fire, medical, and related relief and disaster services for patrons and employees including the development of a disaster management plan.	NIGC	Tribe	Planning Construction Operation
Y. The Tribe shall use fire resistant construction materials and equip all enclosed buildings with automatic sprinkler systems. The automatic sprinkler systems shall be designed to meet or exceed the NFPA standards governing the different occupancies associated with the project structures.	NIGC	Tribe	Planning Construction
Z. The Tribe shall employ the most modern construction and fire-engineering techniques in their automatic fire containment system designs so that any fire encountered is contained to the room of origin.	NIGC	Tribe	Planning Construction
AA. Through the use of modern fire engineering technology, the Tribe shall create and maintain a facility equipped with early detection systems that assure an initial response time to any fire alarm (automatic, local, or report) within three minutes. These systems shall include automatic sprinkler systems in the occupied areas and smoke detection, along with automatic sprinkler systems, in the areas of the facility that are normally unoccupied, such as storerooms and mechanical areas.	NIGC	Tribe	Planning Construction
BB. If only one fire pump is provided, it will be either diesel, or provided with emergency power; thereby, meeting the requirements of the CFC, and the California Building Code (CBC).	NIGC	Tribe	Planning Construction
CC. Prior to operation, the Tribe shall enter into an agreement with a fire service provider to provide primary fire protection services.	NIGC	Tribe	Planning Construction
DD. Prior to operation, the Tribe shall enter into a contract with AMR or another entity for ambulance service.	NIGC	Tribe	Planning

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
			Construction
<b>Noise</b>			
A. On-site HVAC equipment shall be shielded to reduce noise.	NIGC	Tribe	Planning Construction Operation
B. To the extent feasible, HVAC equipment shall be located a significant distance from neighboring houses along Whistler Avenue, Wilfred Avenue, and Labath Avenue. Whenever an HVAC unit is to be placed within 125 feet of an existing residence, an acoustical analysis shall be required to demonstrate that the HVAC noise level does not exceed 45 dBA at the nearest residence.	NIGC	Tribe	Planning Construction
C. The Tribe shall fully fund the cost of installation of acoustically-rated, dual pane windows (with a minimum Sound Transmission Class (STC) rating of 30) and acoustically rated doors on the facades facing the noise source(s) to minimize noise effects for residences adjacent to Wilfred Avenue between Redwood Drive and Stony Point Road.	NIGC	Tribe	Planning Construction
D. The Tribe shall fully fund the cost for the construction of raised, landscaped berms or solid walls at least 8 feet in height in order to separate sources of unwanted noise (including on-site traffic circulation noise) from potential noise receptors along Wilfred Avenue. Should a wall be installed, it shall be attractively designed. Adjacent landowners and adjacent governmental jurisdictions shall be consulted with prior to finalizing the design of the berm or wall.	NIGC	Tribe	Planning Construction
E. Unnecessary vehicle idling shall be prevented during loading dock operations occurring between the hours of 10:00 PM and 7:00 AM.	NIGC	Tribe	Operation
F. Buses shall not be allowed to idle unnecessarily in areas adjacent to sensitive receptors. Bus parking areas shall also be located as far as feasible from sensitive receptors.	NIGC	Tribe	Operation
G. To the extent feasible, project construction shall not occur prior to 7:00 AM or after 10:00 PM.	NIGC	Tribe	Construction
H. Pile driving, should it take place, shall not occur prior to 9:00 AM or after 5:00 PM.	NIGC	Tribe	Construction
I. On-site wastewater treatment plant equipment shall be shielded or enclosed.	NIGC	Tribe	Planning Construction



MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
			Operation
<p>J. Stationary noise-producing equipment such as compressors and generators shall be placed as far as practical from homes, and shielding shall be provided between any such equipment and homes when it is necessary to operate the equipment closer than 200 feet from a home.</p>	NIGC	Tribe	Planning Construction Operation
<b><i>Hazardous Materials</i></b>			
<p>A. In the event that contaminated soil and/or groundwater or other hazardous materials are encountered during construction-related earth-moving activities, all work shall be halted until a qualified individual can assess the extent of contamination. If contamination is determined to be significant, representatives of the Tribe shall consult with the USEPA to determine the appropriate course of action, including the development of a sampling plan and remediation plan if necessary.</p>	NIGC USEPA	Tribe	Construction
<p>B. To reduce the potential for accidental releases, fuel, oil, and hydraulic fluids shall be transferred directly from a service truck to construction equipment and shall not otherwise be stored onsite. Paint, paint thinner, solvents, cleaners, sealants, and lubricants used during construction shall be stored in a locked utility building, handled per the manufacturers' directions, and replenished as needed.</p>	NIGC USEPA	Tribe	Planning Construction Operation
<p>C. Personnel shall follow written standard operating procedures (SOPs) for filling and servicing construction equipment and vehicles. The SOPs, which are designed to reduce the potential for incidents involving the hazardous materials, shall include the following:</p> <ul style="list-style-type: none"> <li>a. Refueling shall be conducted only with approved pumps, hoses, and nozzles.</li> <li>b. Catch-pans shall be placed under equipment to catch potential spills during servicing.</li> <li>c. All disconnected hoses shall be placed in containers to collect residual fuel from the hose.</li> <li>d. Vehicle engines shall be shut down during refueling.</li> <li>e. No smoking, open flames, or welding shall be allowed in refueling or service areas.</li> <li>f. Refueling shall be performed away from bodies of water to prevent contamination of water in the event of a leak or spill.</li> <li>g. Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents.</li> <li>h. Should a spill contaminate any soil, the soil shall be put into containers and disposed of in accordance with local, state, and federal regulations.</li> <li>i. All containers used to store hazardous materials shall be inspected at least once per week for signs of leaking or failure. All maintenance and refueling areas shall be inspected monthly.</li> </ul>	NIGC USEPA	Tribe	Construction

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
<p>Results of inspections shall be recorded in a logbook that shall be maintained on-site.</p> <p>j. Staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fuel for combustion. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak.</p> <p>k. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order.</p>			
<p>D. The amount of hazardous materials used in project construction and operation shall be kept at the lowest required volumes.</p>	<p>NIGC</p> <p>USEPA</p>	<p>Tribe</p>	<p>Construction</p> <p>Operation</p>
<p>E. The least toxic material capable of achieving the intended result shall be used to the extent practicable. Non-toxic alternatives shall include garden care products and organic non-toxic cleaners when feasible.</p>	<p>NIGC</p> <p>USEPA</p>	<p>Tribe</p>	<p>Construction</p> <p>Operation</p>
<p>F. A hazardous materials and hazardous waste minimization program shall be developed, implemented, and reviewed annually by the Tribe to determine if additional opportunities for hazardous materials and hazardous waste minimization are feasible, for both project construction and operation.</p>	<p>NIGC</p> <p>USEPA</p>	<p>Tribe</p>	<p>Planning</p> <p>Construction</p> <p>Operation</p>
<p>G. Use of pesticides and toxic chemicals shall be minimized to the greatest extent feasible in landscaping; or less toxic alternatives shall be used.</p>	<p>NIGC</p> <p>USEPA</p>	<p>Tribe</p>	<p>Operation</p>
<p>H. In addition to mitigation described under FEIS Section 5.2.2, the following mitigation shall be implemented: During the groundwater monitoring and pump tests, the potential for the vertical and lateral migration of contaminants from nearby leaking underground storage tank (LUST) sites shall be evaluated (see Appendix Z of the FEIS for detailed recommendations). The pumping test conducted shall include taking water level measurements in wells that are screened in the Lower Intermediate Zone, Upper Intermediate Zone, and uppermost portion of the saturated zone to verify the conclusions based on historical well hydrographs, refine the drawdown model for the Site, and evaluate the potential for contaminant migration using a typical wellhead protection approach. Implementation of the above measures will reduce any potential impacts to less than significant.</p>	<p>NIGC</p> <p>USEPA</p>	<p>Tribe</p>	<p>Construction</p>

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
I. Material Safety Data Sheets (MSDS) will be available to casino and emergency personnel and to janitors that identify emergency procedures, safe handling and storage practices. A Hazardous Materials Business Plan for the WWTP will be prepared to addresses emergency response and employee training in first aide in the event a spill of citric acid and sodium hypochloride occurs that compromises the chemical storage containment vessels.	NIGC  USEPA	Tribe	Planning  Construction  Operation
J. A Waste Water Contingency Plan shall be prepared for the WWTP prior to construction that shall identify potential system failures and containment measures. These containment measures shall be made part of the WWTP design to ensure no untreated wastewater will be released from the WWTP in the event of a system failure.	NIGC  USEPA	Tribe	Planning  Construction  Operation
K. Prior to demolition of any residential structures on the Wilfred site, an asbestos consultant will be hired by the Tribe to determine if Asbestos Containing Materials (ACMs) and lead based paints are present within the residential structures. If ACMs are present within the residential structures, the Tribe shall comply with any federal NESHAP laws requiring BMPs to be employed during demolition as well as recommendations from the asbestos consultant for the removal and disposal of demolition debris that contain lead based paints and ACMs. Recommendations shall at a minimum include BMPs such as applying water to the structures before, during, and after demolition.	NIGC  USEPA	Tribe	Planning
<b>Aesthetics</b>			
A. Design elements shall be incorporated into the project to minimize the impact of buildings and parking lots on the viewshed. These elements include: a. Incorporation of landscape amenities to complement buildings and parking areas, including setbacks, raised landscaped berms and plantings of trees and shrubs (see Noise Mitigation Measures)  b. Use of earth tones in paints and coatings, and native building materials such as stone.	NIGC	Tribe	Planning  Construction
B. To minimize the impacts of light and glare:  a. Placement of floodlights on buildings shall be set so as not to cast trespassing light off-site.  b. Uplighting of structures has a high potential for off-site light spillage and shall be minimized by limiting uplighting to the main casino and hotel facades and prohibiting uplighting of the parking structure and ancillary structures. Any uplighting of the main casino and hotel facades shall be directly focused on the structures.  c. Shielding, such as with a horizontal shroud, shall be used for all outdoor parking lot lighting so as to ensure it is downcast.	NIGC	Tribe	Planning  Construction  Operation

MITIGATION MONITORING AND ENFORCEMENT PROGRAM

MITIGATION MEASURE*	RESPONSIBLE AGENCY	IMPLEMENTING ENTITY	TIMING
d. Timers shall be utilized so as to minimize lighting after a certain hour.  e. Signs and facades shall be tastefully designed, without the use of obtrusive light emitting devices such as neon lights or flashing lights. f. All exterior glass shall be non-reflective low-glare glass.			
<b>LEED Certification</b>			
A. The Tribe shall pursue LEED Certification for the hotel component of the project.	NIGC	Tribe	Planning  Construction

\* Mitigation measures are included in this table in summary form for the NIGC's current Preferred Alternative (Alternative H-sub1). Thus, the lettering and organization of individual mitigation measures may not conform with the lettering and organization of mitigation measures in the FEIS or the ROD.

# ***ATTACHMENT 7***

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*PM<sub>2.5</sub> Technical Memorandum*



**TECHNICAL MEMORANDUM**

**DATE: JANUARY 22, 2010**

**SUBJECT: COMPARISON OF SURROGATED PM<sub>2.5</sub> EMISSION ESTIMATES TO URBEMIS MODELING RESULTS FOR THE GRATON CASINO AND HOTEL PROJECT.**

An air quality analysis was performed for the Proposed Project and Alternatives in the Draft and Final Environmental Impact Statement (EIS) for the Graton Rancheria Casino and Hotel Project using the Urban Emissions (URBEMIS) model that was current at the time of the analysis. This model did not provide emission estimates for particulate matter 2.5 microns in size (PM<sub>2.5</sub>). Therefore, particulate matter 10 microns in size (PM<sub>10</sub>) was used as a surrogate to estimate PM<sub>2.5</sub> emissions. Specifically, 99.2 percent of PM<sub>10</sub> emissions were used to estimate PM<sub>2.5</sub> emissions, which was consistent with the California Air Resource Board’s speciation profile of gasoline powered engine emissions.

The most recent version of URBEMIS now includes PM<sub>2.5</sub> emission estimates for construction and operation for various land uses. Therefore, to confirm that surrogated PM<sub>2.5</sub> emissions are not underestimating actual impacts, the most recent URBEMIS air quality model was used to estimate PM<sub>2.5</sub> emissions for the Proposed Project (Alternative A) and the Preferred Alternative (Variant H-sub1). These PM<sub>2.5</sub> emission estimates were then compared to the surrogated PM<sub>2.5</sub> emissions (**Table 1**). URBEMIS output files are included as **Attachment A**.

**TABLE 1**  
REPRESENTATIVE PM<sub>2.5</sub> SURROGATED AND MODELED EMISSIONS

Alternative/ Phase	Surrogated PM <sub>2.5</sub>	Modeled PM <sub>2.5</sub>	Percent Over-Estimated by Surrogated Calculation
	tons per year		%
<b>Alternative A</b>			
<b>Construction<sup>1</sup></b>	4.2	1.28	69.5
<b>Operation</b>	141	30.29	79.5
<b>Variant H-sub1</b>			
<b>Construction<sup>1</sup></b>	0.89	0.28	68.5
<b>Operation</b>	138.49	26.33	80.9

<sup>1</sup> Based on the highest construction year emissions.  
Source: URBEMIS, 2007; AES, 2009.

**Table 1** compares the surrogated  $PM_{2.5}$  emissions and the URBEMIS modeled  $PM_{2.5}$  emissions. The Proposed Project and the Preferred Alternative were used as a representative sample of the other alternatives analyzed in the EIS. This is appropriate given that the other alternatives use the same equations within the URBEMIS model to determine  $PM_{10}$  and  $PM_{2.5}$  and the same 99.2 percent of  $PM_{10}$  emissions was used to determine surrogated  $PM_{2.5}$  emissions. Therefore, the modeled results as a percentage of surrogated emissions estimates will be proportionally similar for all alternatives. This is demonstrated by the similar results for the Proposed Project and Preferred Alternative, as shown in **Table 1**. The surrogated  $PM_{2.5}$  emissions were found to be at minimum 69.5 percent greater than the modeled  $PM_{2.5}$ . This demonstrates that the surrogated  $PM_{2.5}$  emission estimates are conservative in that they overestimate the amount of  $PM_{2.5}$  emissions emitted for each alternative.

# **ATTACHMENT A**

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**URBEMIS OUTPUT FILES**



Urbemis 2007 Version 9.2.4

Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Graton Alts. A, B, C,and F GHG.urb924

Project Name: Graton GHG - Alternatives A, B, C, and F

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>
2007 TOTALS (tons/year unmitigated)	0.90	0.38	1.28
2007 TOTALS (tons/year mitigated)	0.90	0.38	1.28
Percent Reduction	0.00	0.00	0.00
2008 TOTALS (tons/year unmitigated)	0.02	0.51	0.53
2008 TOTALS (tons/year mitigated)	0.02	0.51	0.53
Percent Reduction	0.00	0.00	0.00
2009 TOTALS (tons/year unmitigated)	0.01	0.48	0.49
2009 TOTALS (tons/year mitigated)	0.01	0.48	0.49
Percent Reduction	0.00	0.00	0.00

AREA SOURCE EMISSION ESTIMATES

	<u>PM2.5</u>
TOTALS (tons/year, unmitigated)	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>PM2.5</u>
TOTALS (tons/year, unmitigated)	30.29

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>PM2.5</u>
TOTALS (tons/year, unmitigated)	30.29

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Graton Alts. A, B, C,and F GHG.urb924

Project Name: Graton GHG - Alternatives A, B, C, and F

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>
2007 TOTALS (lbs/day unmitigated)	26.86	10.47	37.33
2007 TOTALS (lbs/day mitigated)	26.86	10.47	37.33
2008 TOTALS (lbs/day unmitigated)	0.13	3.91	4.04
2008 TOTALS (lbs/day mitigated)	0.13	3.91	4.04
2009 TOTALS (lbs/day unmitigated)	0.13	5.88	6.02
2009 TOTALS (lbs/day mitigated)	0.13	5.88	6.02

AREA SOURCE EMISSION ESTIMATES

	<u>PM2.5</u>
TOTALS (lbs/day, unmitigated)	0.02

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>PM2.5</u>
TOTALS (lbs/day, unmitigated)	165.98

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>PM2.5</u>
TOTALS (lbs/day, unmitigated)	166.00

Construction Unmitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>
Time Slice 6/1/2007-6/29/2007	1.50	3.14	4.64
Active Days: 21			
Demolition 06/01/2007-07/01/2007	1.50	3.14	4.64
Fugitive Dust	1.46	0.00	1.46
Demo Off Road Diesel	0.00	1.94	1.94
Demo On Road Diesel	0.04	1.19	1.24
Demo Worker Trips	0.00	0.00	0.00
Time Slice 7/2/2007-8/31/2007	26.74	6.31	33.04
Active Days: 45			
Mass Grading 07/01/2007-08/31/2007	26.74	6.31	33.04
Mass Grading Dust	26.73	0.00	26.73
Mass Grading Off Road Diesel	0.00	6.30	6.30
Mass Grading On Road Diesel	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.01	0.02
Time Slice 9/3/2007-9/28/2007	26.74	6.31	33.04
Active Days: 20			
Fine Grading 09/01/2007-10/01/2007	26.74	6.31	33.04
Fine Grading Dust	26.73	0.00	26.73
Fine Grading Off Road Diesel	0.00	6.30	6.30
Fine Grading On Road Diesel	0.00	0.00	0.00
Fine Grading Worker Trips	0.01	0.01	0.02

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Time Slice 10/1/2007-10/1/2007	<u>26.86</u>	<u>10.47</u>	<u>37.33</u>
Active Days: 1			
Building 10/01/2007-09/30/2009	0.13	4.16	4.29
Building Off Road Diesel	0.00	3.10	3.10
Building Vendor Trips	0.05	0.98	1.04
Building Worker Trips	0.07	0.08	0.15
Fine Grading 09/01/2007-10/01/2007	26.74	6.31	33.04
Fine Grading Dust	26.73	0.00	26.73
Fine Grading Off Road Diesel	0.00	6.30	6.30
Fine Grading On Road Diesel	0.00	0.00	0.00
Fine Grading Worker Trips	0.01	0.01	0.02
Time Slice 10/2/2007-12/31/2007	0.13	4.16	4.29
Active Days: 65			
Building 10/01/2007-09/30/2009	0.13	4.16	4.29
Building Off Road Diesel	0.00	3.10	3.10
Building Vendor Trips	0.05	0.98	1.04
Building Worker Trips	0.07	0.08	0.15
Time Slice 1/1/2008-12/30/2008	0.13	3.91	4.04
Active Days: 261			
Building 10/01/2007-09/30/2009	0.13	3.91	4.04
Building Off Road Diesel	0.00	2.92	2.92
Building Vendor Trips	0.05	0.91	0.96
Building Worker Trips	0.07	0.08	0.15

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Time Slice 12/31/2008-12/31/2008	<u>0.13</u>	<u>3.91</u>	<u>4.04</u>
Active Days: 1			
Building 10/01/2007-09/30/2009	0.13	3.91	4.04
Building Off Road Diesel	0.00	2.92	2.92
Building Vendor Trips	0.05	0.91	0.96
Building Worker Trips	0.07	0.08	0.15
Coating 12/31/2008-12/31/2009	0.00	0.00	0.00
Architectural Coating	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00
Time Slice 1/1/2009-7/31/2009	0.13	3.68	3.80
Active Days: 152			
Building 10/01/2007-09/30/2009	0.13	3.67	3.80
Building Off Road Diesel	0.00	2.77	2.77
Building Vendor Trips	0.05	0.82	0.88
Building Worker Trips	0.07	0.08	0.15
Coating 12/31/2008-12/31/2009	0.00	0.00	0.00
Architectural Coating	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00

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Time Slice 8/3/2009-9/30/2009	<u>0.13</u>	<u>5.88</u>	<u>6.02</u>
Active Days: 43			
Asphalt 08/01/2009-12/31/2009	0.01	2.21	2.22
Paving Off-Gas	0.00	0.00	0.00
Paving Off Road Diesel	0.00	2.12	2.12
Paving On Road Diesel	0.00	0.09	0.09
Paving Worker Trips	0.00	0.00	0.01
Building 10/01/2007-09/30/2009	0.13	3.67	3.80
Building Off Road Diesel	0.00	2.77	2.77
Building Vendor Trips	0.05	0.82	0.88
Building Worker Trips	0.07	0.08	0.15
Coating 12/31/2008-12/31/2009	0.00	0.00	0.00
Architectural Coating	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00
Time Slice 10/1/2009-12/31/2009	0.01	2.21	2.22
Active Days: 66			
Asphalt 08/01/2009-12/31/2009	0.01	2.21	2.22
Paving Off-Gas	0.00	0.00	0.00
Paving Off Road Diesel	0.00	2.12	2.12
Paving On Road Diesel	0.00	0.09	0.09
Paving Worker Trips	0.00	0.00	0.01
Coating 12/31/2008-12/31/2009	0.00	0.00	0.00
Architectural Coating	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00



Phase Assumptions

Phase: Demolition 6/1/2007 - 7/1/2007 - Type Your Description Here

Building Volume Total (cubic feet): 85162

Building Volume Daily (cubic feet): 16698

On Road Truck Travel (VMT): 927.67

Off-Road Equipment:

- 1 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Fine Grading 9/1/2007 - 10/1/2007 - Default Fine Site Grading Description

Total Acres Disturbed: 25.62

Maximum Daily Acreage Disturbed: 6.4

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 2 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day
- 3 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day
- 2 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day
- 2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Mass Grading 7/1/2007 - 8/31/2007 - Type Your Description Here

Total Acres Disturbed: 25.62

Maximum Daily Acreage Disturbed: 6.4

Fugitive Dust Level of Detail: Default

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20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 2 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day
- 3 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day
- 2 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day
- 2 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Paving 8/1/2009 - 12/31/2009 - Default Paving Description

Acres to be Paved: 6.4

Off-Road Equipment:

- 2 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day
- 3 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 10/1/2007 - 9/30/2009 - Default Building Construction Description

Off-Road Equipment:

- 3 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day
- 2 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 3 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day
- 3 Rough Terrain Forklifts (93 hp) operating at a 0.6 load factor for 8 hours per day
- 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 12/31/2008 - 12/31/2009 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>
Time Slice 6/1/2007-6/29/2007 Active Days: 21	1.50	3.14	4.64
Demolition 06/01/2007- 07/01/2007	1.50	3.14	4.64
Fugitive Dust	1.46	0.00	1.46
Demo Off Road Diesel	0.00	1.94	1.94
Demo On Road Diesel	0.04	1.19	1.24
Demo Worker Trips	0.00	0.00	0.00
Time Slice 7/2/2007-8/31/2007 Active Days: 45	26.74	6.31	33.04
Mass Grading 07/01/2007- 08/31/2007	26.74	6.31	33.04
Mass Grading Dust	26.73	0.00	26.73
Mass Grading Off Road Diesel	0.00	6.30	6.30
Mass Grading On Road Diesel	0.00	0.00	0.00
Mass Grading Worker Trips	0.01	0.01	0.02

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Time Slice 9/3/2007-9/28/2007	26.74	6.31	33.04
Active Days: 20			
Fine Grading 09/01/2007-10/01/2007	26.74	6.31	33.04
Fine Grading Dust	26.73	0.00	26.73
Fine Grading Off Road Diesel	0.00	6.30	6.30
Fine Grading On Road Diesel	0.00	0.00	0.00
Fine Grading Worker Trips	0.01	0.01	0.02
Time Slice 10/1/2007-10/1/2007	<b>26.86</b>	<b>10.47</b>	<b>37.33</b>
Active Days: 1			
Building 10/01/2007-09/30/2009	0.13	4.16	4.29
Building Off Road Diesel	0.00	3.10	3.10
Building Vendor Trips	0.05	0.98	1.04
Building Worker Trips	0.07	0.08	0.15
Fine Grading 09/01/2007-10/01/2007	26.74	6.31	33.04
Fine Grading Dust	26.73	0.00	26.73
Fine Grading Off Road Diesel	0.00	6.30	6.30
Fine Grading On Road Diesel	0.00	0.00	0.00
Fine Grading Worker Trips	0.01	0.01	0.02
Time Slice 10/2/2007-12/31/2007	0.13	4.16	4.29
Active Days: 65			
Building 10/01/2007-09/30/2009	0.13	4.16	4.29
Building Off Road Diesel	0.00	3.10	3.10
Building Vendor Trips	0.05	0.98	1.04
Building Worker Trips	0.07	0.08	0.15

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Time Slice 1/1/2008-12/30/2008	0.13	3.91	4.04
Active Days: 261			
Building 10/01/2007-09/30/2009	0.13	3.91	4.04
Building Off Road Diesel	0.00	2.92	2.92
Building Vendor Trips	0.05	0.91	0.96
Building Worker Trips	0.07	0.08	0.15
Time Slice 12/31/2008-12/31/2008	<u>0.13</u>	<u>3.91</u>	<u>4.04</u>
Active Days: 1			
Building 10/01/2007-09/30/2009	0.13	3.91	4.04
Building Off Road Diesel	0.00	2.92	2.92
Building Vendor Trips	0.05	0.91	0.96
Building Worker Trips	0.07	0.08	0.15
Coating 12/31/2008-12/31/2009	0.00	0.00	0.00
Architectural Coating	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00
Time Slice 1/1/2009-7/31/2009	0.13	3.68	3.80
Active Days: 152			
Building 10/01/2007-09/30/2009	0.13	3.67	3.80
Building Off Road Diesel	0.00	2.77	2.77
Building Vendor Trips	0.05	0.82	0.88
Building Worker Trips	0.07	0.08	0.15
Coating 12/31/2008-12/31/2009	0.00	0.00	0.00
Architectural Coating	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00

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Time Slice 8/3/2009-9/30/2009	<u>0.13</u>	<u>5.88</u>	<u>6.02</u>
Active Days: 43			
Asphalt 08/01/2009-12/31/2009	0.01	2.21	2.22
Paving Off-Gas	0.00	0.00	0.00
Paving Off Road Diesel	0.00	2.12	2.12
Paving On Road Diesel	0.00	0.09	0.09
Paving Worker Trips	0.00	0.00	0.01
Building 10/01/2007-09/30/2009	0.13	3.67	3.80
Building Off Road Diesel	0.00	2.77	2.77
Building Vendor Trips	0.05	0.82	0.88
Building Worker Trips	0.07	0.08	0.15
Coating 12/31/2008-12/31/2009	0.00	0.00	0.00
Architectural Coating	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00
Time Slice 10/1/2009-12/31/2009	0.01	2.21	2.22
Active Days: 66			
Asphalt 08/01/2009-12/31/2009	0.01	2.21	2.22
Paving Off-Gas	0.00	0.00	0.00
Paving Off Road Diesel	0.00	2.12	2.12
Paving On Road Diesel	0.00	0.09	0.09
Paving Worker Trips	0.00	0.00	0.01
Coating 12/31/2008-12/31/2009	0.00	0.00	0.00
Architectural Coating	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Architectural Coating 12/31/2008 - 12/31/2009 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>PM2.5</u>
Natural Gas	0.01
Hearth - No Summer Emissions	
Landscape	0.01
Consumer Products	
Architectural Coatings	
<b>TOTALS (lbs/day, unmitigated)</b>	<b>0.02</b>

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>PM25</u>
Hotel	8.01
Casino	157.97
<b>TOTALS (lbs/day, unmitigated)</b>	<b>165.98</b>

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2020 Temperature (F): 85 Season: Summer

Erfac: Version : Erfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Hotel		2.72	rooms	300.00	816.00	24,850.92
Casino		39.43	1000 sq ft	408.00	16,087.44	489,935.95
					16,903.44	514,786.87

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	54.0	0.0	100.0	0.0
Light Truck < 3750 lbs	12.6	0.0	98.4	1.6
Light Truck 3751-5750 lbs	19.9	0.0	100.0	0.0
Med Truck 5751-8500 lbs	6.6	0.0	100.0	0.0



Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Lite-Heavy Truck 8501-10,000 lbs	0.9	0.0	77.8	22.2
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.2	40.6	59.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.6	0.0	83.3	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	35.5	35.5	11.8	35.5	35.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Casino				5.0	2.5	92.5

Operational Changes to Defaults

Home-based work urban trip length changed from 10.8 miles to 11.8 miles

Home-based shop urban trip length changed from 7.3 miles to 35.5 miles

Home-based other urban trip length changed from 7.5 miles to 35.5 miles

Commercial-based commute urban trip length changed from 9.5 miles to 11.8 miles

Commercial-based non-work urban trip length changed from 7.35 miles to 35.5 miles

Commercial-based customer urban trip length changed from 7.35 miles to 35.5 miles