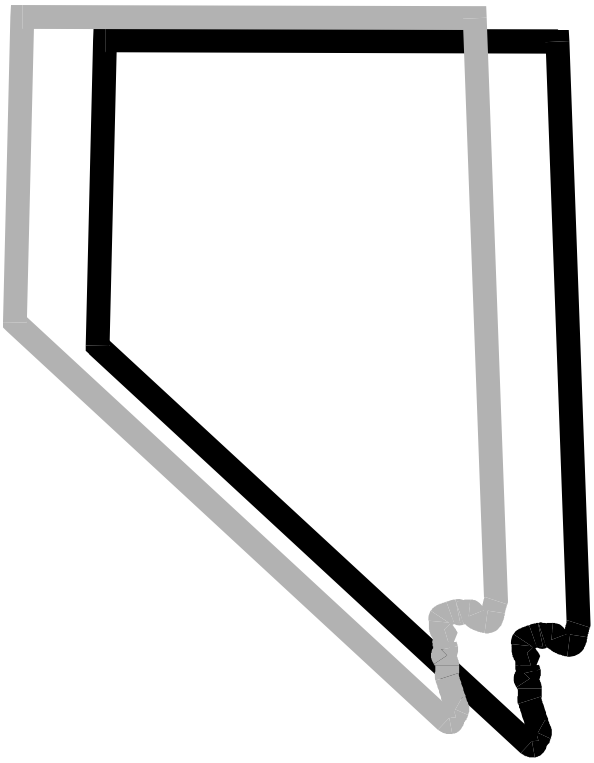
ENVIRONMENTAL ASSESSMENT

FHWA-NV-EA 07.02

EA: 73215

October 2008

Federal Highway Administration
and
Nevada Department of Transportation
in cooperation with the Bureau of Land Management



Interstate 15 South Corridor Improvement
Sloan Road to Tropicana Avenue
Clark County, Nevada

ENVIRONMENTAL ASSESSMENT

for

Interstate 15 South Corridor Improvement
Sloan Road to Tropicana Avenue

FHWA-NV-EA 07.02

NH-015-1(130)

EA: 73215

October 2008

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This Environmental Assessment has been prepared in accordance with the provisions and requirements of Chapter 1, Title 23, 23 CFR Part 771, relating to implementation of the National Environmental Policy Act of 1969. The Bureau of Land Management is a cooperating agency.

Abstract

The Nevada Department of Transportation (NDOT) and the Federal Highway Administration (FHWA), in cooperation with the Bureau of Land Management (BLM), have prepared this Environmental Assessment (EA), which examines the potential environmental impacts of the alternatives being considered for the proposed I-15 South Corridor Improvement Project located in Clark County, NV. The document describes why the project is being proposed, alternatives for the project (including the No Build

Alternative), the existing environment that could be affected by the project, the potential impacts from each of the alternatives, and the proposed mitigation measures.

NDOT, with FHWA, is proposing to improve 12 miles of the I-15 corridor from Sloan Road to Tropicana Avenue, including Las Vegas Boulevard South between Sloan Road and Sunset Road. Improvements proposed for I-15 consist of expanding the freeway to a ten-lane facility (five general purpose lanes in each direction) from Sloan Road to Blue Diamond Road, and a ten-lane facility (five general purpose lanes in each direction) with collector-distributor (C-D) lanes from Blue Diamond Road to Tropicana Avenue. The I-15 South corridor includes Las Vegas Boulevard South, which would be improved to a six-lane facility (three lanes in each direction) from Sloan Road to Sunset Road, and separated by an open median designated for future use by the Regional Transportation Commission of Southern Nevada's (RTC) Regional Fixed Guideway system. New service interchanges are proposed along I-15 at Bermuda Road, Starr Avenue, and Cactus Avenue; a reconstructed interchange at Sloan Road; a reconstructed overpass at Warm Springs Road;[1] and new overpasses at Pebble Road and Sunset Road. Improvements would be made to the Blue Diamond Road (SR 160) interchange and the I-15/I-215 Beltway system interchange. A park-and-ride lot is proposed in the southwest quadrant of Las Vegas Boulevard and St. Rose Parkway. Transportation System Management (TSM) measures, including dynamic message signs and ramp metering to improve traffic operations, would also be incorporated.

[1] Reconstruction of the Warm Springs Road overpass was previously studied and approved in the SR 160 EA and would be constructed as part of this project (FHWA and NDOT, 2004. *Environmental Assessment for SR 160 Widening & I-15 Interchange Improvements, I-15 to Rainbow Boulevard, Clark County, Nevada.* FHWA-NV-EA 04.03. April).

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TABLES

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ACRONYMS & ABBREVIATIONS

ADT	average daily traffic
APE	Area of Potential Effects
BLM	Bureau of Land Management
BMPs	Best Management Practices
CAAAs	1990 Clean Air Act Amendments
CCDAQEM	Clark County Department of Air Quality and Environmental Management
CCRFCD	Clark County Regional Flood Control District
C-D	collector-distributor
CEQ	Council on Environmental Quality
CFR	*Code of Federal Regulations*
cfs	cubic feet per second
CO	carbon monoxide
dBA	A-weighted decibel
DOT	United States Department of Transportation
DPM	diesel particulate matter
EA	Environmental Assessment
EB	eastbound
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
FAA	Federal Aviation Administration
FAST	Freeway and Arterial System of Transportation
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FY	fiscal year
HA	Hydrographic Area
HAPs	hazardous air pollutants
HOV	high-occupancy vehicle
I-15	Interstate Highway 15
I-215	Interstate Highway 215
ITS	Intelligent Transportation System
L_{eq}	equivalent noise level
LOS	level of service
MFR	multi-family residential
mg	milligrams
mg/m^3	milligrams per cubic meter
$\mu g/m^3$	micrograms per cubic meter
MH	mobile home

MPO	Metropolitan Planning Organization
MSATs	mobile source air toxics
NAAQS	national ambient air quality standards
NAC	noise abatement criteria
NB	northbound
NDEP	Nevada Division of Environmental Protection
NDOT	Nevada Department of Transportation
NOI	Notice of Intent
NEI	National Emissions Inventory
NEPA	National Environmental Policy Act
NOI	Notice of Intent
O_3	ozone
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than 2.5 micrometers
PM_{10}	particulate matter with an aerodynamic diameter less than 10 micrometers
POM	polycyclic organic matter
ppm	parts per million
RMP	Las Vegas Resource Management Plan
ROW	right-of-way
RTC	Regional Transportation Commission of Southern Nevada
RTP	Regional Transportation Plan
RV	recreational vehicle
SB	southbound
SFR	single-family residential
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SNPLMA	Southern Nevada Public Lands Management Act
SNWA	Southern Nevada Water Authority
SWPPP	Stormwater Pollution Prevention Plan
TAC	Technical Advisory Committee
TIP	Transportation Improvement Program
TSM	Transportation System Management
UPRR	Union Pacific Railroad
US 95	United States Highway 95
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
VMT	vehicle miles traveled
VOCs	volatile organic compounds
WB	westbound

LIST OF MITIGATION MEASURES

The following list describes measures that will be implemented as part of the project to avoid, reduce, or otherwise mitigate environmental impacts associated with the project.

Mitigation measures and compliance with federal, state, and local laws and regulations with regards to noise, air quality, water quality, hazardous materials, and cultural resources will be specified in the contract documents.

The following list of mitigation measures and commitments are not subject to change or modification without prior written approval of the Federal Highway Administration (FHWA).

Responsible Party	EA Page No. Reference	Mitigation Category	Description
Contractor	49	Hazardous Waste and Materials	Prior to demolition, structures will be assessed for asbestos, and required abatement measures will be enforced.
Contractor and NDOT	50	Biological Resources	Cacti and yucca species that are present will be salvaged prior to construction activities. All terms and conditions of the BLM Programmatic Biological Opinion will be adhered to and would be specified in the Special Provisions for the project. As specified in the programmatic biological opinion, remuneration fees for the desert tortoise will be paid into the Desert Tortoise Public Lands Conservation Fund prior to surface-disturbing activities. Fees will be paid for both Section 7 and Section 10, due to the presence of both land ownerships in the project area. There are approximately 17.3 acres of BLM land (Section 7) that will be acquired for the project; however, only 15 acres would be considered new disturbance. The 15 acres will be charged at $753 per acre for a total of $11,295 paid to the fund. The $753 remuneration fee is indexed for inflation and is increased each year on March 1. If fees are paid after March 1, 2009, the new mitigation fee will apply to the number of acres that are disturbed. Section 10 funds are for state or private lands and are charged $550 per acre of disturbance. There are 43.7 acres that will be disturbed, and a total of $24,035 will be paid to the fund.

Responsible Party	EA Page No. Reference	Mitigation Category	Description
Contractor	51	Noxious Weeds	Earth-moving and hauling equipment will be washed at the contractor's storage facility prior to arriving onsite to prevent the introduction of noxious weed seeds. Disturbed areas will be landscaped and/or seeded with certified weed-free mixes. A noxious weed management plan will be specified in the Contract Special Provisions, prepared according to BLM's Las Vegas Field Office Noxious Weed Plan, and implemented to prevent noxious weeds from becoming established in the project area during and following construction. Elements of the plan will include surveying the project area to confirm absence of noxious weeds, verifying that vehicles and equipment are free of caked mud prior to being used at the construction site, eradication measures if noxious weeds do become established, and the use of approved BLM seed mixes.
NDOT Right-of-Way (ROW) Division	55	Social	The NDOT ROW Division, under the guidance of the Relocation Assistance and Real Property Acquisition Policy Act of 1970 (Uniform Act), will negotiate with the property owners directly impacted, ensuring that they receive fair market value for the acquired ROW and appropriate relocation assistance. Legally permitted property access will be perpetuated in the after condition. A detailed traffic plan will be created to maintain traffic circulation and access during construction. NDOT will coordinate with the existing businesses and residents about the construction schedule.
NDOT Design Division	56	Visual	Aesthetic treatments to soundwalls and structures within the project area will be in accordance with NDOT's Landscape and Aesthetics Master Plan and I-15 Corridor Plan. New freeway and street lighting will employ shields on luminaries to minimize light and glare impacts on adjacent residences.
Contractor	62	Air Quality	NDOT contract documents will specify that the contractor must implement a dust control program to minimize impacts. In addition, the contractor will comply with all federal, state, and local laws, including Clark County Department of Air Quality and Environmental Management (CCDAQEM) regulations governing air pollution control.

Responsible Party	EA Page No. Reference	Mitigation Category	Description
Contractor	77	Noise	Soundwalls will be constructed early in the project, as feasible, to mitigate construction noise (see Figures 10a through 10i). Soundwall height, length, and location will be determined during final design in coordination with NDOT Environmental Services Division. Contract documents will require the contractor to submit a noise control plan for review and approval by NDOT. The plan will specify how noise mitigation measures will be implemented during construction that occurs near residences. Contract specifications will address hours of operation and noise-level limits. Construction specifications will require performance of proper maintenance on construction equipment and that stationary equipment be placed as far from homes as feasible.
NDOT Design Division	79	Drainage/Flood Control	Floodplain impacts will be minimized by improving the offsite drainage system of the highway, by designing drainage systems in consultation with Clark County Regional Flood Control District (CCRFCD), and by incorporating designs that perpetuate existing flow patterns without increasing upstream water levels. Drainage and flood control systems will be designed in consultation with CCRFCD and in accordance with the CCRFCD Flood Control Master Plan for the Las Vegas Valley.
Contractor	83	Water Resources	If previously unidentified wells are encountered during project construction, the contractor is responsible for notifying the Nevada Department of Water Resources and for retaining a Nevada-licensed driller to properly abandon the well, if necessary.

Responsible Party	EA Page No. Reference	Mitigation Category	Description
NDOT Design Division and Contractor	83	Water Resources	In addition to securing a Section 404 Permit for the discharge of fill material into a Waters of the United States, Section 401 Water Quality Certification issued by NDEP, Bureau of Water Quality Planning, will also be required for water quality assurances. If construction equipment is required to enter any of the ephemeral stream channels, then a Temporary Working in Waterways Permit issued by NDEP, Bureau of Water Pollution Control, will be obtained by the contractor for water quality assurances as well. As part of the freeway design, erosion control measures will be incorporated for site stabilization. The contractor will obtain a construction stormwater permit issued by NDEP, Bureau of Water Pollution Control. To secure coverage under this permit, the contractor will file a Notice of Intent (NOI) and develop a Stormwater Pollution Prevention Plan (SWPPP) identifying sources of onsite stormwater discharge into adjacent surface waters and describing the implementation of best management practices (BMPs) to prevent or reduce to the maximum extent possible said discharges.

INTRODUCTION

This Environmental Assessment (EA) has been prepared to comply with the National Environmental Policy Act (NEPA) of 1969 and the environmental regulations and policies of the Federal Highway Administration (FHWA) as the lead federal agency. The Bureau of Land Management (BLM) is a cooperating agency on the EA to include their action related to the transfer of right-of-way (ROW) as outlined in the Memorandum of Understanding between FHWA, BLM, and the Nevada Department of Transportation (NDOT).

The EA evaluates the potential social, economic, and environmental impacts of the proposed action for decision makers, while providing an opportunity for local, state, or other agencies and the general public to provide input or comment through scoping, pubic information meetings, and a design/location hearing. The magnitude of impacts is evaluated based on the context and intensity of proposed improvements, as defined in the Council on Environmental Quality's (CEQ) regulations.

Interstate Highway 15 (I-15) has been designated as a Corridor of the Future by FHWA from San Diego, California, to Salt Lake City, Utah. The I-15 corridor through the states of California, Nevada, Arizona, and Utah is more than 840 miles long with approximately 240 miles crossing through urban areas. The overarching goal of the Corridor of the Future program is to provide a managed corridor for safe travel, sustained traffic flow, and reliable travel times. The proposed Corridor of the Future projects include capacity and operational improvements on the highway and rail portions of the corridor, including an Intelligent Transportation System (ITS) truck parking initiative, interchange reconstruction and modification, and road and bridge preservation.

The proposed improvements to the I-15 South corridor that are evaluated in this EA were initially identified in the 2001 *I-15 Corridor Operational Analysis, I-15 Sloan Road to I-215*[2]. The proposed improvements are also included in the 2006-2030 Regional Transportation Plan (RTP). The proposed project is the latest in a series of improvements within the I-15 corridor. Past improvements include a new interchange on I-15 at Silverado Ranch Boulevard and reconstructing the St. Rose Parkway and Blue Diamond Road interchanges with I-15.

1. PROPOSED ACTION

1.1 Description

NDOT, with FHWA, is proposing to improve 12 miles of the I-15 corridor from Sloan Road to Tropicana Avenue, including Las Vegas Boulevard South between Sloan Road and Sunset Road (see Figure 1). Potential improvements include adding lanes to I-15 and Las Vegas Boulevard South; new service interchanges at Bermuda Road, Starr Avenue, and Cactus Avenue; reconstructing the Sloan Road interchange; modifications to the I-15/Interstate Highway 215 (I-215) system interchange; collector-distributor (C-D) roads (separating traffic entering and exiting the freeway from the mainline); and park-and-ride facilities. I-15 is a six-lane freeway from Sloan Road to Tropicana Avenue. Las Vegas Boulevard South is a two-lane roadway from Silverado Ranch Boulevard to Sloan Road and varies from two lanes to three lanes in each direction north of Silverado Ranch Boulevard.

Improvements proposed for I-15 consist of expanding the freeway to a ten-lane facility (five general purpose lanes in each direction) from Sloan Road to Blue Diamond Road, and a ten-lane facility (five general purpose lanes in each direction) with C-D lanes from Blue Diamond Road to Tropicana Avenue. The I-15 South corridor includes Las Vegas Boulevard South, which would be improved to a six-lane facility (three lanes in each direction) from Sloan Road to Sunset Road, and separated by an open median designated for future use by the Regional Transportation Commission of Southern Nevada's (RTC) Regional Fixed Guideway system. New service interchanges are proposed along I-15 at Bermuda Road, Starr Avenue, and Cactus Avenue; a reconstructed interchange at Sloan Road; a reconstructed overpass at

[2] JE Sverdrup. 2001. *I-15 Corridor Operational Analysis, I-15 Sloan Road to I-215.*

Warm Springs Road;[3] and new overpasses at Pebble Road and Sunset Road. Improvements would be made to the Blue Diamond Road (SR 160) interchange and the I-15/I-215 Beltway system interchange. A park-and-ride lot is proposed in the southwest quadrant of Las Vegas Boulevard and St. Rose Parkway. Transportation System Management (TSM) measures, including dynamic message signs and ramp metering to improve traffic operations, would also be incorporated.

1.2 Purpose and Need

The purpose of the project is to alleviate existing and projected congestion, serve proposed growth in the corridor by improving local circulation and access, and accommodate regional and local transportation demand to ensure that I-15 operates as an efficient interstate transportation facility. Fourteen (14) new hotel/casino projects are proposed within the study corridor, along with new high-density residential/retail projects. These hotel/casino projects will generate new employment (more than 300,000 jobs) and traffic concentrated at or near the proposed interchanges (see Figure 2a). In 2005, the City of Henderson housed 246,000 residents, and the Enterprise Planning Area housed 84,000 residents for a total of 330,000 residents. By 2030, the City of Henderson is expected to house 507,000 residents, and the Enterprise Planning Area is expected to house 334,000 residents, for a total of 841,000 residents.[4] Based on these growth estimates, the populations in areas served by the I-15 South corridor are predicted to increase by more than 1.5 times the current level by 2030. This growth is expected to cause increased traffic congestion on the I-15 South facility (see Figure 2b).

The residents and businesses along the southern portion of the corridor have three access points to I-15 over a 6-mile stretch of the freeway; these are located at St. Rose Parkway, Silverado Ranch Boulevard, and Blue Diamond Road. The proposed new service interchanges would provide additional local access to the freeway, thereby reducing congestion at the overloaded interchanges, most notably at Blue Diamond Road. The proposed interchanges are included in the RTC 2006-2030 RTP[5] (see Figure 3).

At the southern end of the corridor, just south of Sloan Road, two-way average daily traffic (ADT) volumes on I-15 are forecast to rise from 42,000 vehicles in 2002/2003 to 158,000 by 2030. The projected increased traffic volumes include vehicles traveling to and from the proposed Southern Nevada Supplemental Airport (formerly the Ivanpah Valley International Airport), which is under separate environmental review by the Federal Aviation Administration (FAA) and BLM. The Southern Nevada Supplemental Airport is proposed to be located 20 miles south of Las Vegas between Jean and Primm. While the proposed airport would increase traffic volumes if approved, that traffic is not anticipated to contribute to peak-hour congestion in the I-15 South corridor. At the north end of the corridor, just north of Tropicana Avenue, ADT volumes are forecast to rise from 223,000 in 2002/2003 to 535,000 in 2030.[6]

Traffic operating conditions are described and compared using Level of Service (LOS) values. LOS values are designated from A to F, with LOS A representing the best operating conditions and LOS F representing the worst (see Figure 4).

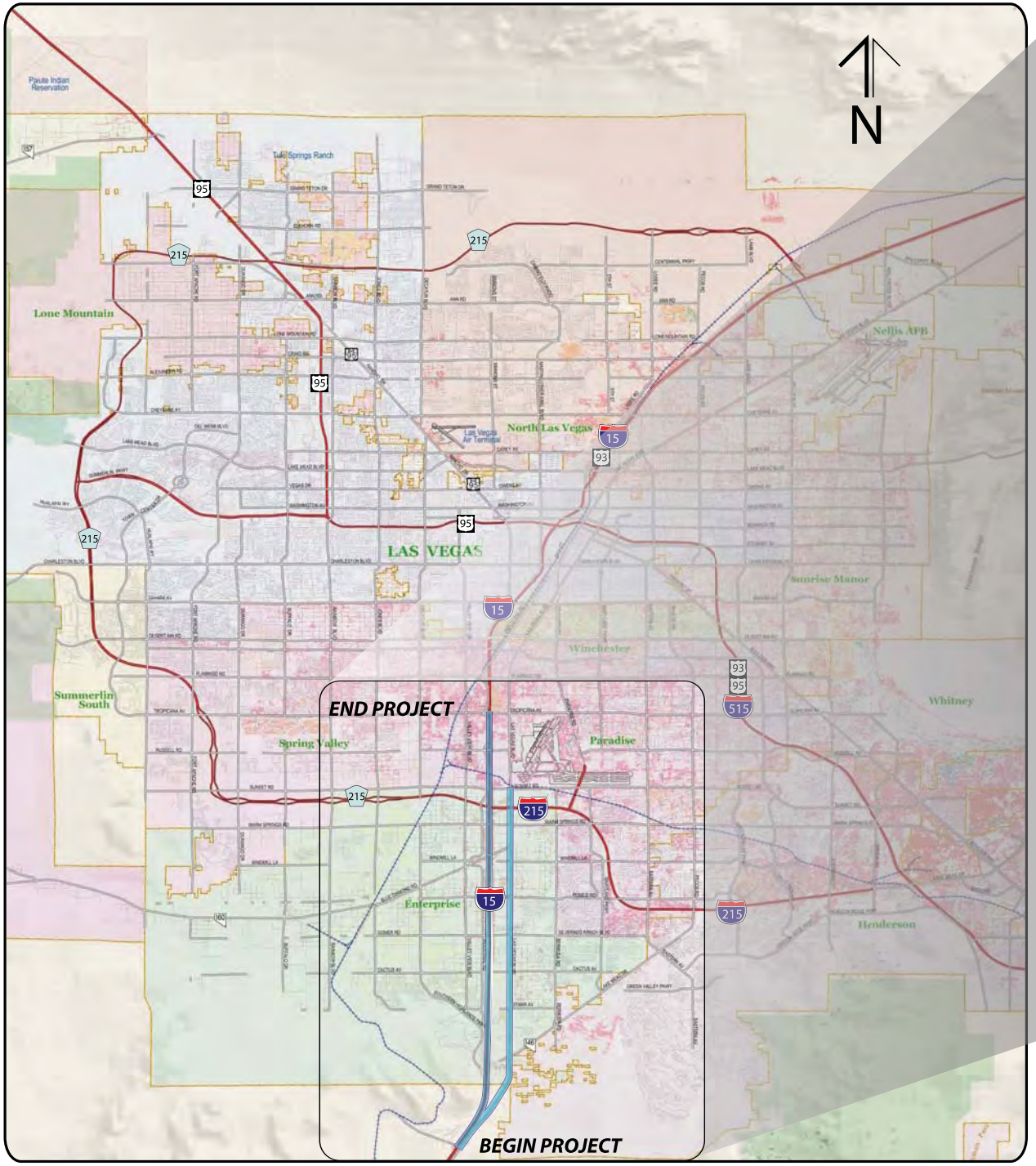
Table 1 shows peak-hour LOS for the I-15 mainline from Sloan Road to Tropicana Avenue. Depicted are the existing condition and the future No Build and Build Alternatives. The information in Table 1 indicates that future traffic conditions on the freeway will be worse if capacity and added access improvements are not made to I-15. During the AM peak period, the northbound (NB) direction of I-15, between I-215 and Tropicana Avenue, operates at a worse LOS than the southbound (SB) direction. The

[3] Reconstruction of the Warm Springs Road overpass was previously studied and approved in the SR 160 EA and would be constructed as part of this project (FHWA and NDOT, 2004. *Environmental Assessment for SR 160 Widening & I-15 Interchange Improvements, I-15 to Rainbow Boulevard, Clark County, Nevada.* FHWA-NV-EA 04.03. April).

[4] Parsons. 2007. *I-15 South Traffic Report*. January.

[5] RTC. 2006. *Final Draft, Regional Transportation Plan,* FY 2006-2030.

[6] Parsons. 2007. *I-15 South Traffic Report*. January.



NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT

PROJECT LOCATION
FIGURE 1

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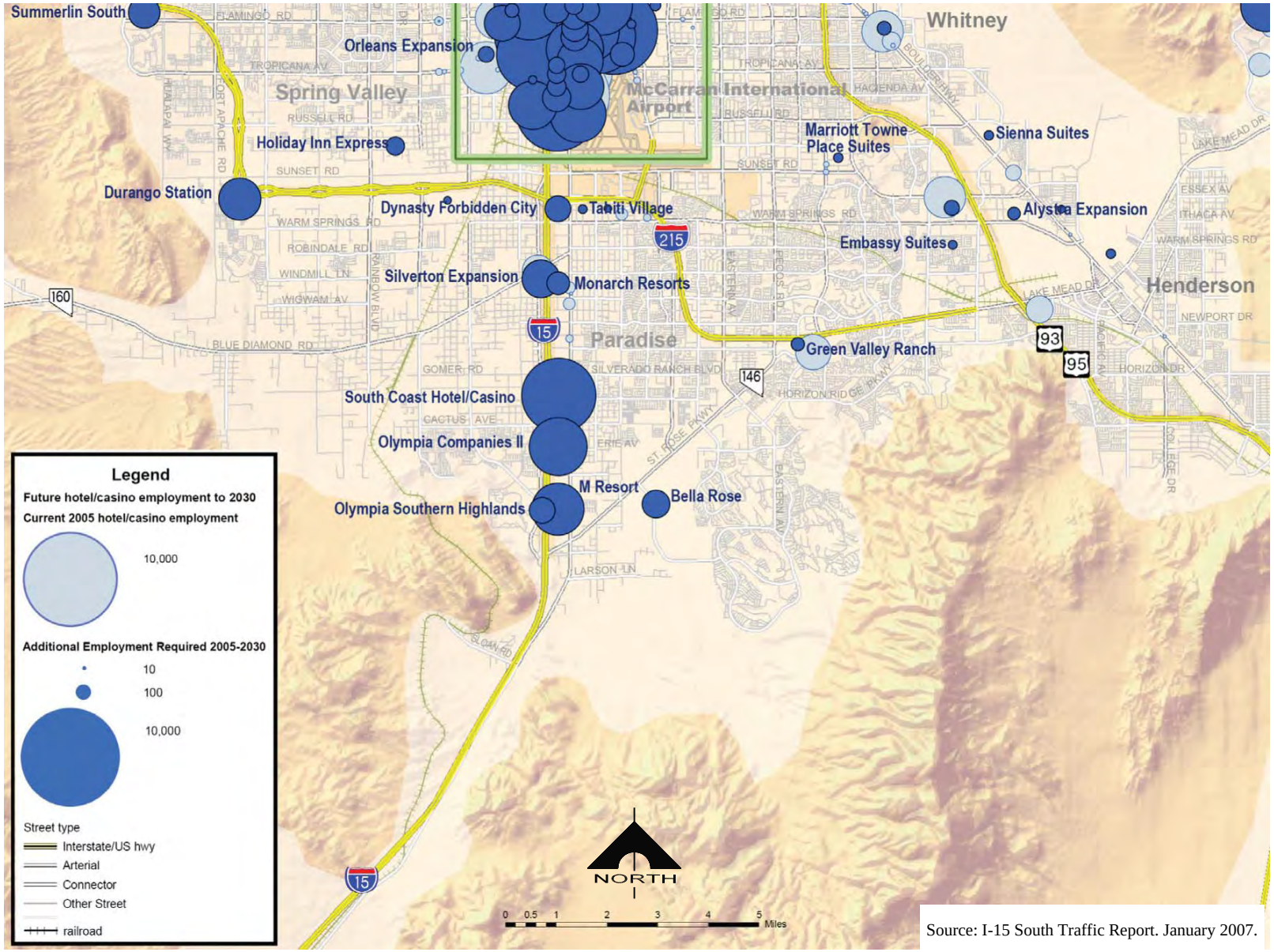

Source: I-15 South Traffic Report. January 2007.

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
CASINO/EMPLOYMENT GROWTH
FIGURE 2a

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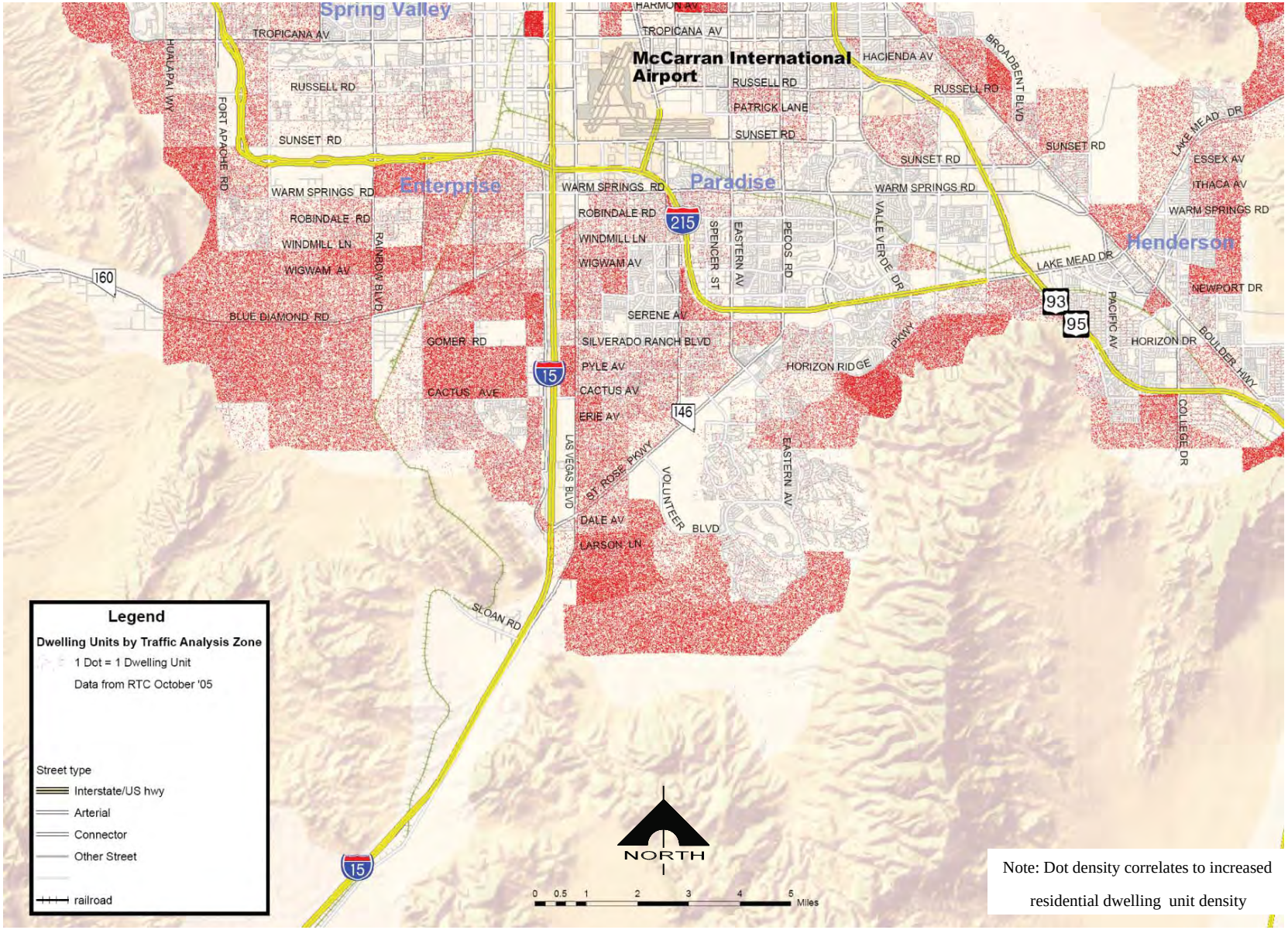

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I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
RESIDENTIAL GROWTH 2005 - 2030
FIGURE 2b

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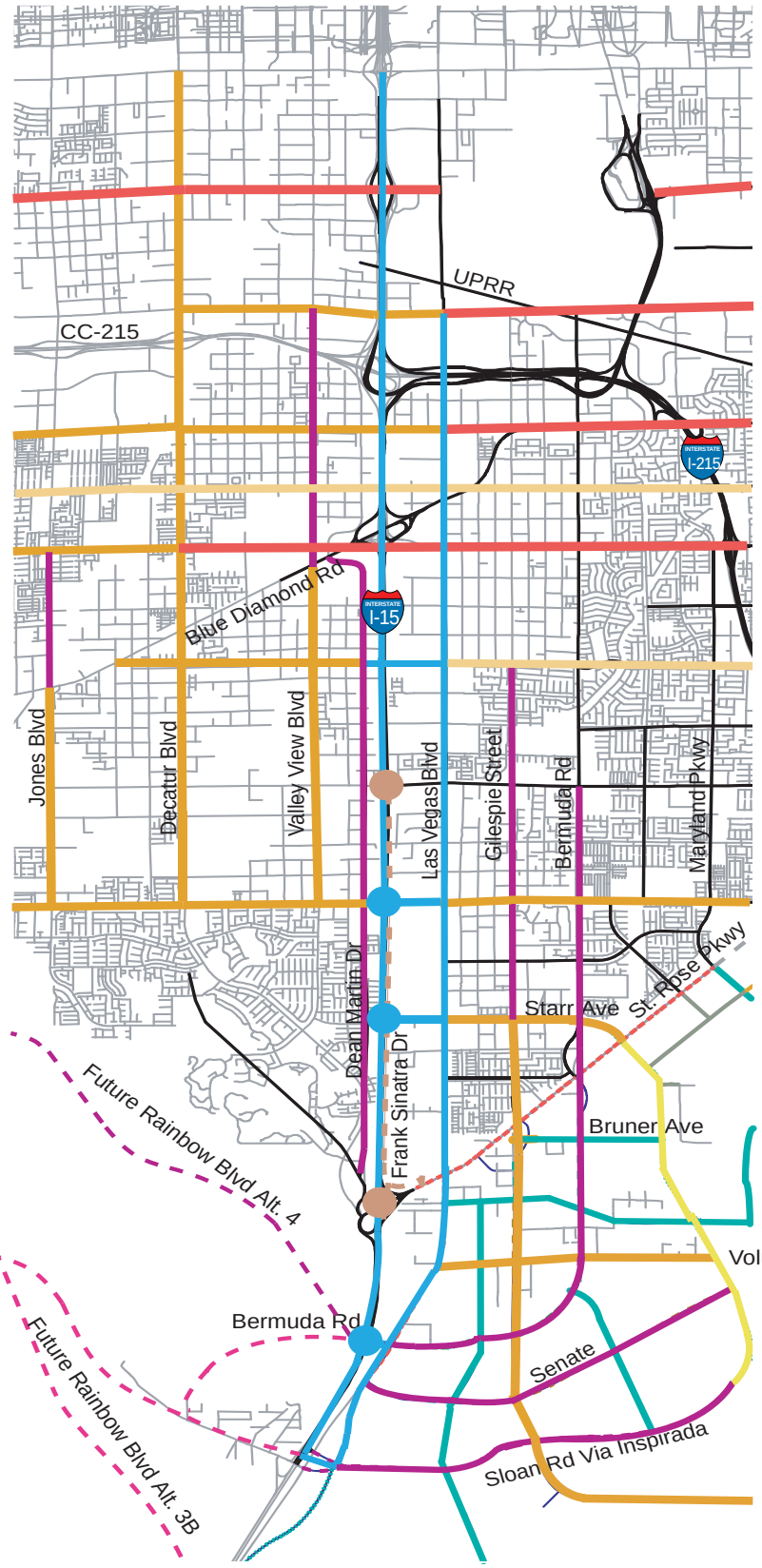

NORTH

Legend

- Future Interchange
- Frank Sinatra Dr Interchange Improvements
- Future 4 Lane Arterial
- Future 6 Lane Arterial
- Proposed Improvements as part of this Project
- Frank Sinatra Dr Improvements
- Future Rainbow Blvd Alt 3B
- Future Rainbow Blvd Alt 4
- 300' Street (State Highway)
- 120' Street (Controlled Access)
- 120' Street (w/ Bike Lane)
- 110' Street w/ Trail
- 166' Street
- 136' Street
- St. Rose Pkwy (196' State Hwy)
- Primary Arterial
- Secondary Arterial
- County Streets

Notes:

Primary Arterial - 100' Street
Secondary Arterial - 80' Street
Collectors - 50' Street

Source: *RTC 2006-2030 RTP and City of Henderson Master Street and Highways Plan*

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT

PLANNED LOCAL STREET NETWORK

FIGURE 3

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LOS A

LOS B

LOS C

LOS D

LOS E

LOS F

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I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT

Levels of Service

FIGURE 4

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NB I-15 PM peak-period operation is worse than the AM peak period, even though the mainline volumes in the AM are higher.[7] This difference is attributed to higher volumes of traffic entering the freeway from the Russell Road and Tropicana Avenue NB on-ramps. Under the Build Alternative, two more lanes of vehicle traffic are continuing north of Tropicana Avenue. This additional traffic, coupled with the complex weaving and merging from the Tropicana Avenue NB on-ramps, results in LOS F north of the project limits. However, this would be resolved by a future project to add capacity on I-15 from Tropicana Avenue to Sahara Avenue (widen from 6 to 14 lanes), as identified in the 2006-2030 RTP.

Table 1
I-15 South Corridor Mainline Peak-Hour Traffic Operations Analysis

Freeway Segment	2005		2030 No Build Alternative		2030 Build Alternative	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
I-15 Northbound Mainline						
I-15 NB south end of the network to Sloan Road off-ramp	A	A	C	D	B	B
Sloan Road off-ramp to Sloan Road on-ramp	A	A	C	D	B	B
St. Rose Parkway off-ramp to St. Rose Parkway on-ramp	A	A	C	C	B	C
Blue Diamond Road off-ramp to Blue Diamond Road on-ramp	A	A	F	D	F	C
Blue Diamond Road on-ramp to I-215 off-ramp	A	A	F	D	D	C
I-215 WB on-ramp to Russell Road off-ramp	D	C	E	E	D	C
Russell Road on-ramp to Tropicana Avenue off-ramp	C	F	D	C	D	C
Tropicana Avenue on-ramp to Flamingo Road off-ramp	C	F	C	C	F	D
I-15 Southbound Mainline						
Flamingo Road on-ramp to Tropicana Avenue off-ramp	D	D	F	F	E	F
Tropicana Avenue on-ramp to Russell Road off-ramp	C	D	F	F	D	E
Russell Road on-ramp to I-215 off-ramp	C	C	F	F	C	D
I-215 WB on-ramp to I-215 EB on-ramp	A	B	C	C	C	E
I-215 EB on-ramp to Blue Diamond Road off-ramp	A	A	D	D	C	D
Blue Diamond Road off-ramp to Blue Diamond Road on-ramp	A	A	C	C	C	D
St. Rose Parkway off-ramp to St. Rose Parkway on-ramp	A	A	B	B	B	B
Sloan Road off-ramp to Sloan Road on-ramp	A	A	B	B	A	A
Sloan Road on-ramp to I-15 SB south end of the network	A	A	B	B	A	B

EB – Eastbound; WB – Westbound

The No Build Alternative would result in LOS F operation in the NB direction during the AM peak hour from south of Blue Diamond Road (see Table 1). Southbound, LOS F conditions would be prevalent from north of Tropicana Avenue to I-215 (AM and PM).

As shown in Table 1, In the SB direction, the proposed improvements would allow mainline traffic to operate at LOS D or better during the AM peak period. During the PM peak period, the NB freeway mainline sections would operate at LOS D or better. In the SB direction, which is the peak direction of afternoon travel, freeway mainline segments from the Flamingo Road on-ramp to the Russell Road off-ramp would operate at LOS E. This condition results from a series of conflicts that include high traffic demand on the mainline, on-/off-ramps, and weaving. Although the peak-hour speeds in this section of

[7] Ibid.

the freeway are expected to be as low as 35 miles per hour, traffic analysis shows that the mainline improvements would carry traffic at acceptable levels of service to the downstream segments.[8]

Table 2 compares 2030 peak-hour Build and No Build LOS for interchanges along the I-15 corridor from Sloan Road to Tropicana Avenue. The proposed interchanges south of Blue Diamond Road provide alternate access points between I-15 and the southern Las Vegas Valley, relieving congestion on the existing interchanges in this section of the corridor. As the southern Valley continues to develop, particularly with construction of the master-planned communities of Mountain's Edge and Inspirada, travel demand on I-15 South will increase and require more connectivity between I-15 and major arterials. According to Table 2, the addition of interchanges at Bermuda Road, Starr Avenue, Cactus Avenue, and the Pebble Road overpass would more evenly distribute traffic, resulting in higher LOS at the existing interchanges. The interchanges at Sloan Road, St. Rose Parkway, Silverado Ranch Boulevard, and Blue Diamond Road would not be able to meet the demand in the area or provide acceptable peak-hour LOS; they would operate at or over capacity.

Table 2
I-15 South Corridor Intersection Level of Service

Location	2030 No Build Alternative		2030 Build Alternative	
	AM Peak	PM Peak	AM Peak	PM Peak
Sloan Road and I-15	C	F	C	B
Sloan Road and Las Vegas Boulevard South	C	F	C	C
Bermuda Road and I-15	--	--	C	B
Bermuda Road and Las Vegas Boulevard South	--	--	C	C
St. Rose Parkway and I-15	C	E	C	C
St. Rose Parkway and Las Vegas Boulevard South	F	F	C	C
Starr Avenue and I-15	--	--	C	C
Starr Avenue and Las Vegas Boulevard South	--	--	C	C
Cactus Avenue and I-15	--	--	D	D
Cactus Avenue and Las Vegas Boulevard South	--	--	C	D
Silverado Ranch Boulevard and I-15	C	C	B	B
Silverado Ranch Boulevard and Las Vegas Boulevard South	D	E	D	E
Pebble Road and Dean Martin Drive	--	--	C	D
Pebble Road and Las Vegas Boulevard South	--	--	C	D
Blue Diamond Road and I-15	F	E	B	D
Blue Diamond Road and Las Vegas Boulevard South	F	F	D	F
Russell Road and I-15	D	F	D	D
Russell Road and Frank Sinatra Drive	C	E	C	C
Tropicana Avenue and I-15	D	F	D	E
Tropicana Avenue and Las Vegas Boulevard South	C	F	E	F

[8] Ibid.

While the Build Alternative proposes interchanges south of Blue Diamond Road, no new interchanges are proposed north of Blue Diamond Road. Providing the southern interchanges is possible because there are few access points south of Blue Diamond Road with several miles of spacing between them, whereas space constraints north of Blue Diamond Road vary between 1.5 miles and 1-mile between the existing interchanges. Improvements to the I-15 mainline, including C-D ramps that separate weaving traffic between interchanges from the mainline, and the inclusion of directional ramps are proposed to improve operations north of Blue Diamond Road. These interchanges would operate at an improved LOS, most noticeably in the PM peak hour, where Russell Road at I-15 and Frank Sinatra Drive would improve from failing LOS with the No Build condition to acceptable LOS with the Build Alternative; Tropicana Avenue would improve from a failing LOS to meeting the capacity needs of the interchange.

According to data provided by the NDOT Safety Division, during the 3-year period from October 1, 2000, to October 1, 2003, 1,030 crashes were reported along I-15 from Sloan Road to Tropicana Avenue. Rear-end collisions accounted for 506 (49 percent) of these crashes, and 159 (15 percent) were sideswipe collisions. Additionally, 210 (20 percent) of the crashes on I-15 were vehicles that ran off the roadway.

Along Las Vegas Boulevard South from Sloan Road to Sunset Road, 443 crashes occurred during this same time period. Rear-end collisions accounted for 225 (51 percent) of these crashes, and 79 (18 percent) were angle collisions. Sideswipe collisions accounted for 51 (12 percent) of the crashes along Las Vegas Boulevard South, and 37 (8 percent) were associated with left-turn movements.

Rear-end collisions and sideswipe collisions are associated with congested roadways where heavy merging and diverging movements occur. The proposed improvements to the I-15 corridor would reduce collisions by redistributing merging and diverging operations to new interchanges and reducing congestion at overloaded interchanges.

1.3 Alternatives

As part of the I-15 South Corridor Improvements project development process, the Technical Advisory Committee (TAC) developed and evaluated a range of potential alternatives. The TAC was comprised of representatives from NDOT, FHWA, BLM, RTC, Clark County Public Works, Clark County Department of Aviation, and City of Henderson. While some of the improvement concepts were eliminated entirely, several of the concepts considered were eliminated as "stand-alone" solutions for the I-15 South Corridor, but they are incorporated into the Build Alternative (TSM and Alternate Routes) or accommodated by the Build Alternative (Transit) as described in the following section. Potential project alternatives being considered include the No Action (No Build Alternative) and the Preferred (Build) Alternative, which would provide physical improvements. High-occupancy vehicle (HOV) lanes and transit were not studied as alternatives because they are being considered as part of a system-wide plan, as described in Section 2.9.3, Local Transportation Development Projects. The Build Alternative would not preclude implementation of HOV lanes[9] and would accommodate transit improvements within the project corridor.

1.3.1 Alternatives Considered but Eliminated

Freeway Improvement

The I-15 mainline freeway is three lanes in each direction from Sloan Road to Blue Diamond Road. There are no auxiliary lanes between the interchanges in this section. Auxiliary lanes facilitate movements of vehicles entering and exiting the freeway. The I-15 freeway is three lanes in each direction plus auxiliary lanes between Blue Diamond Road and I-215, and four lanes in each direction plus auxiliary lanes from I-215 to Tropicana Avenue. More vehicles enter the I-15 freeway at the interchanges from Blue Diamond Road to Tropicana Avenue compared to the interchanges south of Blue Diamond Road. Because of the higher traffic volumes entering the freeway north of Blue Diamond Road, different types of

[9] Parsons, 2007. *Southern Nevada High-Occupancy Vehicle Plan.*

improvements were considered from Sloan to Blue Diamond Road and from Blue Diamond Road to Tropicana Avenue. These alternatives are presented in separate sections below.

I-15 Alternatives – Sloan Road to Blue Diamond Road

Widening from Six to Eight Lanes. Widening I-15 from the existing six to eight lanes was considered but eliminated because it did not provide adequate capacity to meet the expected traffic demand. Projected traffic growth in the corridor would result in unacceptable operating conditions (LOS E to F) for I-15, even with the addition of auxiliary lanes between the interchanges, because there would not be sufficient through capacity to meet demand.

Collector-Distributor Roads. The *I-15 Corridor Operational Analysis, I-15 Sloan Road to I-215*[10] evaluated a widened I-15 with additional interchanges similar to the Build Alternative and a system of C-D roadways for this section of freeway. C-D roadways between the interchanges were not justified on this portion of I-15 because freeway and interchange operational needs were met with the proposed new interchanges and auxiliary lanes (the Build Alternative); therefore, the C-D alternative was eliminated because it had a higher cost and greater ROW impacts than the Build Alternative, and it did not provide additional operational benefits.

Frontage Roads. One-way frontage roads on each side of I-15, with access between the interchanges, were considered but eliminated because they would require additional roadways necessitating improvements to offsite drainage facilities, which would increase cost and require additional ROW. Frontage roads were eliminated because they did not increase capacity over the Build Alternative and were more costly.

Auxiliary Lanes. The need for auxiliary lanes between on- and off-ramps was analyzed for all of the freeway sections. Auxiliary lanes that were required to provide capacity to meet the projected demand were included in the Build Alternative. Auxiliary lanes were eliminated from further consideration in areas where they were not needed to accommodate traffic demand.

I-15 Alternatives – Blue Diamond Road to Tropicana Avenue

The section from Blue Diamond Road to Tropicana Avenue has high merging and weaving traffic volumes because four existing interchanges (i.e., Blue Diamond Road, Russell Road, Tropicana Avenue, and the system interchange with I-215) are located within a 5-mile stretch of I-15. Several alternatives were considered to address these conditions but were eliminated from further study for reasons described below.

Widen Freeway with No C-D Roads. A widened mainline freeway, up to six lanes in each direction with auxiliary lanes between interchanges, was analyzed and found to not provide adequate capacity, especially for the heavy weaving (merging/diverging) movements. The through volumes on I-15 could be accommodated, but the weaving movements between the interchanges could not be accommodated without C-D roads. This alternative was eliminated from further evaluation because it was not able to accommodate the expected traffic demand.

Collector-Distributor Roadways with Weaving on Collector-Distributors. C-D roadways that allowed weaving movements between interchanges to occur on the C-D roadway and not on the I-15 mainline were evaluated. C-D roadways of up to three lanes in one direction were studied, but the weaving volumes between the interchanges could not be accommodated, so this alternative was eliminated from further consideration.

[10] JE Sverdrup. 2001. *I-15 Corridor Operational Analysis, I-15 Sloan Road to I-215.*

Transportation System Management (TSM)

NDOT, FHWA, and RTC have developed a Southern Nevada ITS to be implemented by regional stakeholders. The result of this plan is the Freeway and Arterial System of Transportation (FAST) program, which implements and manages ramp meters, traffic cameras, and dynamic message signs. Due to the high traffic volumes in the I-15 corridor (535,000 ADT), existing congestion cannot be alleviated with ITS as a stand-alone alternative, which does not meet the purpose and need, but TSM/ITS components are included in the Build Alternative (e.g., ramp meters, traffic cameras, and dynamic message signs).

Interchange Locations

Pebble Road Interchange

A new I-15 interchange at Pebble Road was considered, but this alternative was eliminated because it did not meet the minimum requirements for spacing between interchanges on the Interstate System and the traffic demand could be met by adjacent interchanges.

Bermuda Road and Starr Avenue Interchanges

The regional roadway system was analyzed independently without the Bermuda Road and Starr Avenue interchanges. Without the Bermuda Road interchange, the adjacent interchanges (i.e., Sloan Road to the south and St. Rose Parkway to the north) would not be able to accommodate the projected traffic demand. Without the Starr Avenue interchange, the adjacent interchanges (i.e., St. Rose Parkway to the south and Cactus Avenue to the north) would not be able to accommodate the projected traffic demand. Since the system was not able to meet the demand without these interchanges, Bermuda Road and Starr Avenue interchanges are included in the Build Alternative.[11]

Alternate Routes

Improvements to other adjacent arterials were considered instead of improving I-15 and Las Vegas Boulevard. Clark County and the City of Henderson will continue to develop the local arterial street network in accordance with the 2006-2030 RTP and Master Plan of Streets and Highways.[12,13] As shown on Figure 3, development of the approved RTP includes many arterials. Traffic analysis indicates that freeway improvements are warranted with buildout of the local arterial street network. Because of the proximity and connectivity with I-15, improvements to Las Vegas Boulevard South from Sloan Road to Sunset Road are included as part of the Build Alternative.

Las Vegas Boulevard South

Las Vegas Boulevard South was analyzed as a four-lane arterial with dedicated bus lanes, as part of RTC's bus rapid transit system, but it did not meet the projected traffic demand.[14] Las Vegas Boulevard South was also evaluated as a typical six-lane arterial without dedicated bus lanes (mixed-flow bus service). Mixed-flow bus service was found to be inadequate in this long segment with shared lanes (mixed-flow traffic). This alternative was eliminated because Las Vegas Boulevard South has adequate ROW for a six-lane arterial with a wide median for future dedicated bus lanes south of Warm Springs Road. The Build Alternative includes an open median in Las Vegas Boulevard South designated for use as part of the RTC's Regional Fixed Guideway system.

North of Warm Springs Road, Las Vegas Boulevard South does not have adequate ROW for the full six-lane arterial with dedicated bus lanes. Widening and acquiring ROW for the six lanes plus dedicated bus

[11] Parsons. 2008. *I-15 South Change in Control of Access Report*. March.
[12] RTC. 2006. *Final Draft, Regional Transportation Plan*, FY 2006-2030.
[13] City of Henderson. 2007. *Master Streets and Highways Plan.* January
[14] Parsons. 2007. *I-15 South Traffic Report.* January.

lanes was not deemed cost effective, and future bus rapid transit service will run in shared lanes in this segment, as determined by RTC as part of their Regional Fixed Guideway system.

1.3.2 No Build Alternative

The No Build Alternative would maintain the I-15 project segment of three general purpose lanes in each direction between Sloan Road and Tropicana Avenue. Interchanges and overpasses at Sloan Road, St. Rose Parkway, Blue Diamond Road, Warm Springs Road, Las Vegas Beltway, Russell Road, and Tropicana Avenue would remain; new interchanges and overpasses would not be constructed. Las Vegas Boulevard South would remain as a two-lane roadway in each direction from Sloan Road to Silverado Ranch Boulevard, and it would vary from a two-lane to three-lane roadway in each direction from Silverado Ranch Boulevard to Sunset Road. The No Build Alternative would not preclude the installation of new noise attenuation structures (soundwalls) along the highway segment. Additionally, independent projects planned in the corridor would be constructed (i.e., Frank Sinatra Drive). Figures 5 and 6 display the No Build cross sections.

1.3.3 Build Alternative

The improvements proposed for I-15 consist of expanding the freeway to a ten-lane facility (five general purpose lanes in each direction) from Sloan Road to Blue Diamond Road, and a ten-lane facility (five general purpose lanes in each direction) with C-D lanes from Blue Diamond Road to Tropicana Avenue (see Figure 7). Las Vegas Boulevard South would be improved to a six-lane facility (three lanes in each direction) from Sloan Road to Sunset Road, and it would be separated by an open median designated for future use by RTC's Regional Fixed Guideway system (see Figure 8). New service interchanges are proposed along I-15 at, Bermuda Road, Starr Avenue, and Cactus Avenue; a reconstructed interchange at Sloan Road; a reconstructed overpass at Warm Springs Road; and new overpasses at Pebble Road and Sunset Road (see Figure 9). Improvements would be made to the Blue Diamond Road (SR-160) interchange and the I-15/I-215 Beltway system interchange. A park-and-ride lot is proposed in the southwest quadrant of Las Vegas Boulevard and St. Rose Parkway. TSM measures, including dynamic message signs and ramp metering to improve traffic operations, would also be incorporated. Figures 10a-10i display the general plan of the proposed improvements for the I-15 corridor.

I-15 Freeway

Between Sloan Road and Blue Diamond Road, the three-lane (in each direction) mainline freeway would be widened to provide five general purpose lanes in each direction plus auxiliary lanes from Sloan Road to Blue Diamond Road in the NB and SB directions (see Figures 10a through 10f). From Blue Diamond Road to Tropicana Avenue, I-15 would be widened to provide five general purpose lanes and two C-D ramp lanes in each direction, plus auxiliary lanes from Blue Diamond Road to Tropicana Avenue in the NB and SB directions (see Figures 10f through 10i). The existing Union Pacific Railroad (UPRR) crossing would be reconstructed within railroad ROW to accommodate the NB and SB C-D ramp lanes. A flyover ramp would be added to accommodate eastbound (EB) Blue Diamond Road traffic destined for NB I-15.

Las Vegas Boulevard South

The two-lane Las Vegas Boulevard South section between Sloan Road and Windmill Lane would be widened to three lanes in each direction separated by an open median. (see Figure 8). Between Windmill Lane and George Crockett Road, the SB and NB roadway would be widened to provide a three-lane roadway in each direction. Near I-215 and north to Sunset Road, Las Vegas Boulevard South would be widened on the outside to provide a third lane in each direction.

The Build Alternative would accommodate RTC's proposed Regional Fixed Guideway system. The system is being planned to utilize the open median in Las Vegas Boulevard South from St. Rose Parkway to Sunset Road. The 33-mile valley-wide system would link the cities of Henderson, Las Vegas, North

Las Vegas, and unincorporated Clark County with the Las Vegas Resort Corridor. (See Section 3.3 for discussion on RTC's ongoing involvement in planning the I-15 South corridor improvements through participation in the Technical Advisory Committee.)

Sloan Road Interchange

Prior to construction of the Sloan Road interchange, the City of Henderson would build a new arterial street – Via Inspirada Boulevard – east of I-15 with connections to Sloan Road and Las Vegas Boulevard South. Sloan Road and Via Inspirada Boulevard would be realigned and connected, crossing over I-15 250 to 300 feet north of the existing I-15/Sloan Road interchange (see Figure 10a). Las Vegas Boulevard South would be realigned to the east to provide room for the new interchange. Via Inspirada Boulevard would be grade separated over the realigned Las Vegas Boulevard South, and a two-way connecting ramp would be constructed to the east, linking Las Vegas Boulevard South and Via Inspirada Boulevard. The Sloan Road interchange is approximately 1-mile south of the Bermuda Road interchange.

Bermuda Road Interchange

Bermuda Road, east of the project limits, would be built by the City of Henderson to connect to Las Vegas Boulevard South. Under the I-15 South Build Alternative, Bermuda Road would be extended to the west and elevated to pass over I-15, with three lanes in each direction (see Figure 10b). To provide new freeway access, a new interchange would be constructed. The Las Vegas Boulevard South/Bermuda Road intersection and adjacent stretches of Las Vegas Boulevard South would be modified as needed. The Bermuda Road interchange would be located approximately 1-mile between the Sloan Road and St. Rose Parkway interchanges.

St. Rose Parkway Park-and-Ride Facility

A park-and-ride facility would be constructed as part of the Build Alternative within the existing ROW in the southwest quadrant of Las Vegas Boulevard South and St. Rose Parkway (see Figure 10c).

Starr Avenue and Cactus Avenue Interchanges

Starr Avenue and Cactus Avenue terminate at Las Vegas Boulevard South east of I-15 and Dean Martin Drive west of I-15. New interchanges would be constructed at each location. The arterial street improvements would be completed between Las Vegas Boulevard South and Dean Martin Drive with six-lane roadways (three lanes in each direction) on Starr Avenue and Cactus Avenue (see Figures 9 and 10d). The Starr Avenue interchange would be located approximately 1-mile between the St. Rose Parkway interchange to the south and the Cactus Avenue interchange to the north. The Cactus Avenue interchange would be located approximately 1-mile between the Starr Avenue interchange and the Silverado Ranch Boulevard interchange.

Overpasses

Pebble Road would be extended over I-15 and would be reconstructed with a six-lane arterial roadway (three lanes in each direction) without providing freeway access. East of I-15, one-lane one-way frontage roads would be provided along the through roadway to permit continued access to and from adjacent properties.

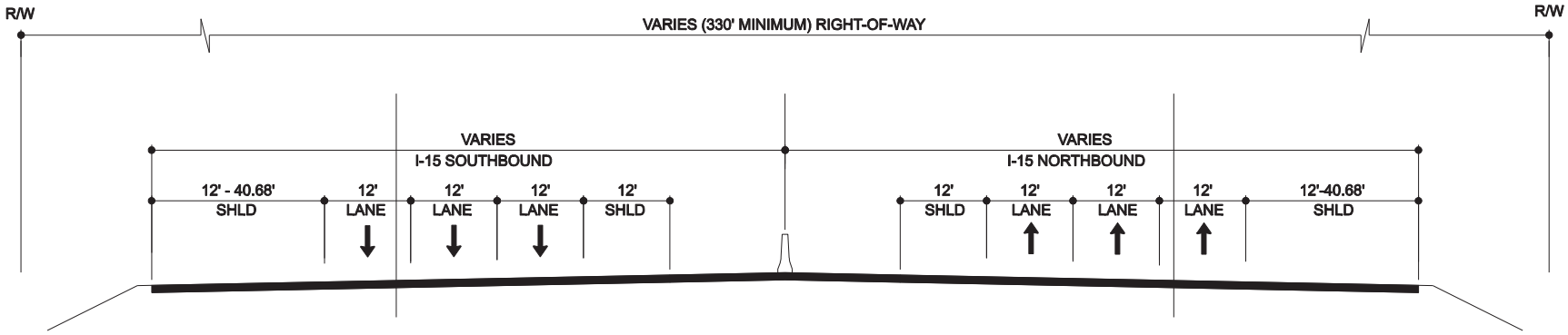
The existing two-lane overpass at Warm Springs Road would be reconstructed as a six-lane arterial roadway (three lanes in each direction) without providing freeway access. This overpass was previously cleared under the Environmental Assessment for SR 160 Widening and I-15 Interchange Improvements.[15]

[15] FHWA and NDOT, 2004. *Environmental Assessment for SR 160 Widening & I-15 Interchange Improvements, I-15 to Rainbow Boulevard, Clark County, Nevada*. FWHA-NV-EA 04.03. April.

Sunset Road would be extended over I-15 and would be constructed with a six-lane arterial roadway (three lanes in each direction) without providing freeway access from Las Vegas Boulevard South to Polaris Boulevard.

Project Phasing

It is anticipated that the project would be constructed in phases. NDOT is currently planning Phase 1 – Tropicana Avenue to Blue Diamond Road to be design-build construction, with an anticipated award date in spring 2009. Phase 1 elements are likely to include constructing the NB and SB C-D roads from Tropicana Avenue to Blue Diamond Road, the Sunset Road and Warm Springs Road overpasses, and reconstruction of the UPRR overcrossing. Phasing of the other project elements is unknown at this time; however, those elements would be constructed as outlined in the RTP.



AS CONSTRUCTED - SLOAN ROAD TO TROPICANA AVENUE

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT

I-15 NO BUILD ALTERNATIVE CROSS SECTION

FIGURE 5

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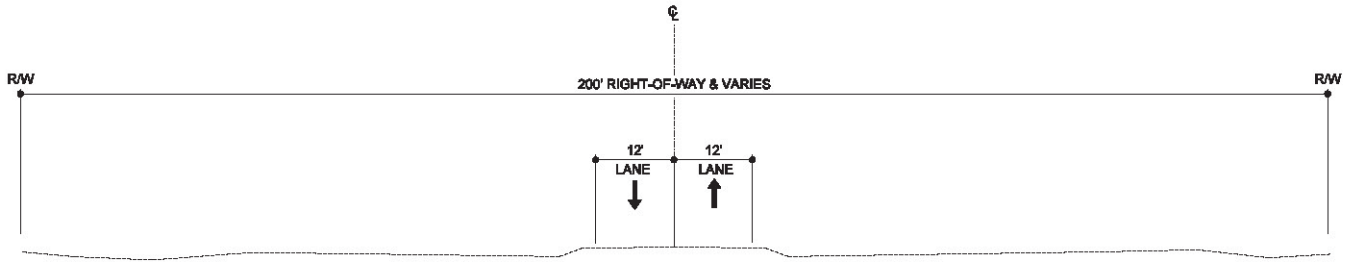
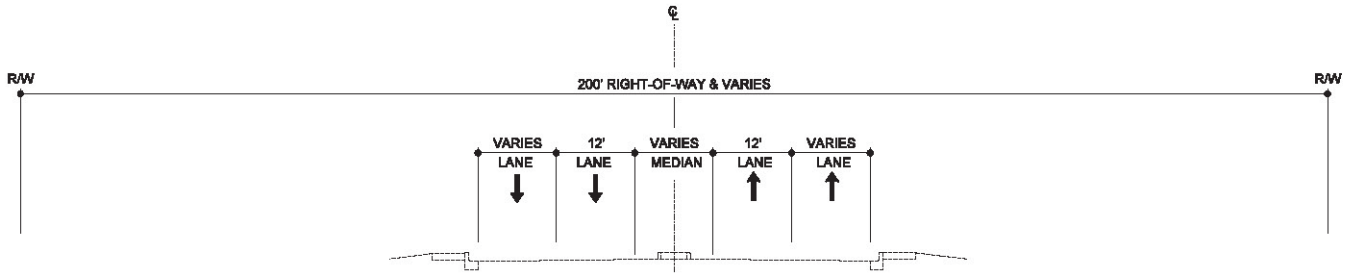
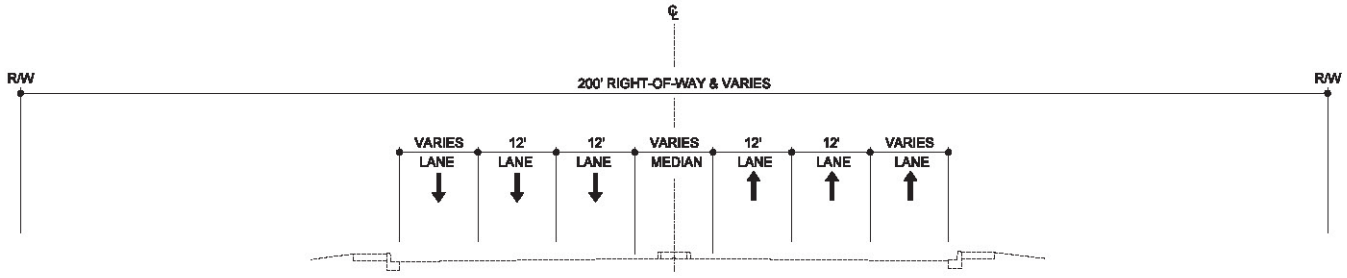


EXISTING SECTION SOUTH OF SLOAN ROAD TO SILVERADO RANCH BLVD



EXISTING SECTION - SILVERADO RANCH BLVD TO BLUE DIAMOND



EXISTING SECTION - BLUE DIAMOND TO SUNSET ROAD

EXISTING TYPICAL SECTIONS
LAS VEGAS BOULEVARD SOUTH

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
LAS VEGAS BOULEVARD SOUTH
NO BUILD ALTERNATIVE CROSS SECTION
FIGURE 6

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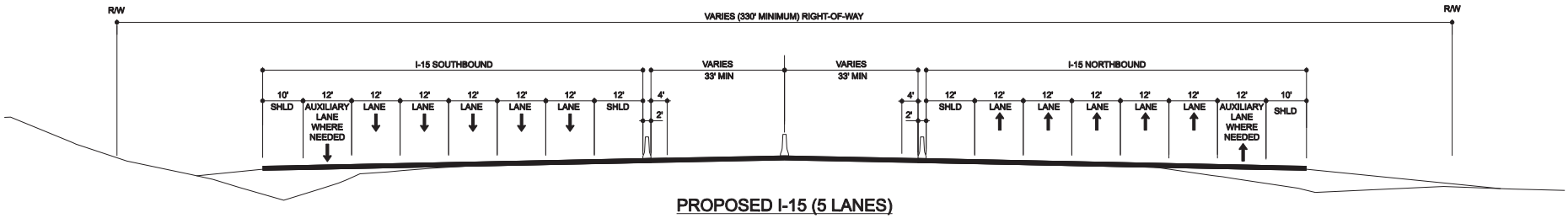
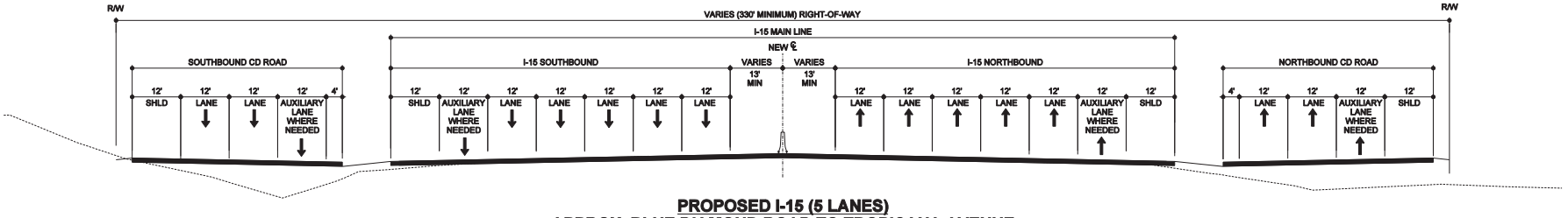


PROPOSED I-15 (5 LANES)
SLOAN ROAD TO BLUE DIAMOND ROAD



PROPOSED I-15 (5 LANES)
APPROX. BLUE DIAMOND ROAD TO TROPICANA AVENUE

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT

I-15 BUILD ALTERNATIVE CROSS SECTIONS

FIGURE 7

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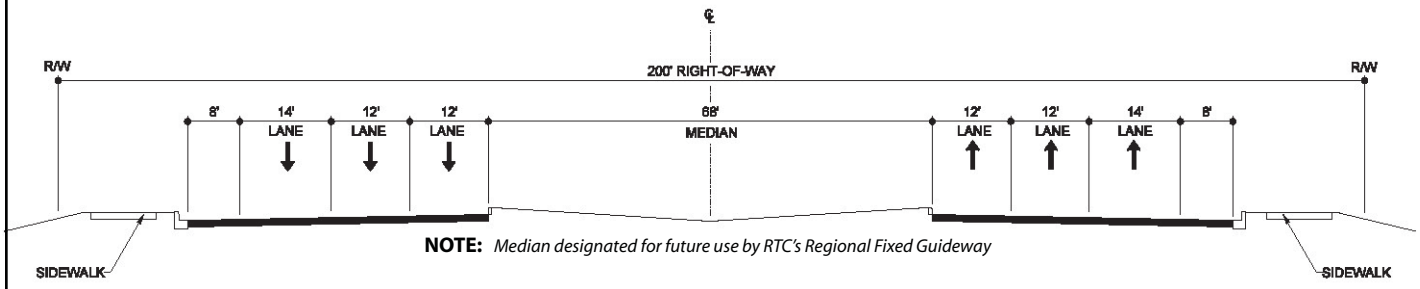
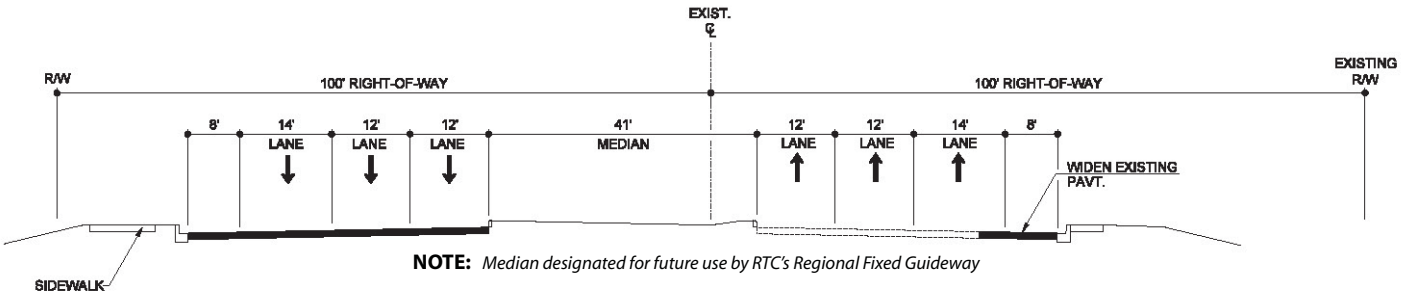


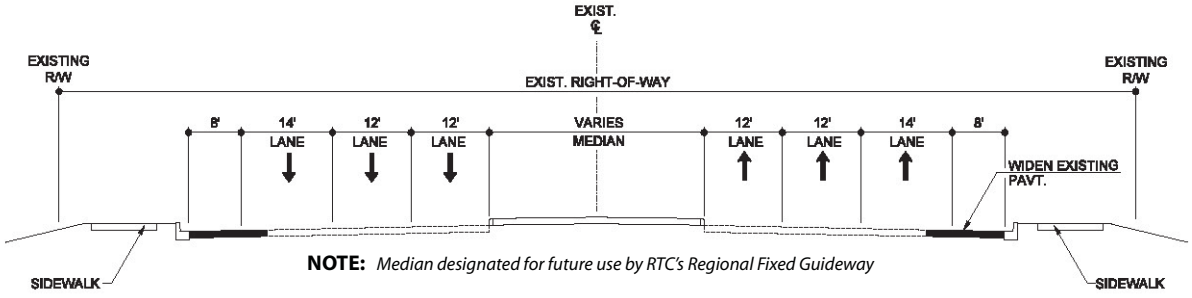
NOTE: *Median designated for future use by RTC's Regional Fixed Guideway*

PROPOSED LAS VEGAS BLVD SOUTH:
SLOAN ROAD TO WINDMILL LANE



NOTE: *Median designated for future use by RTC's Regional Fixed Guideway*

PROPOSED LAS VEGAS BLVD SOUTH:
WINDMILL LANE TO GEORGE CROCKETT ROAD



NOTE: *Median designated for future use by RTC's Regional Fixed Guideway*

PROPOSED LAS VEGAS BLVD SOUTH:
HIDDEN WELL ROAD TO SUNSET ROAD

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
LAS VEGAS BOULEVARD SOUTH
BUILD ALTERNATIVE CROSS SECTION
FIGURE 8

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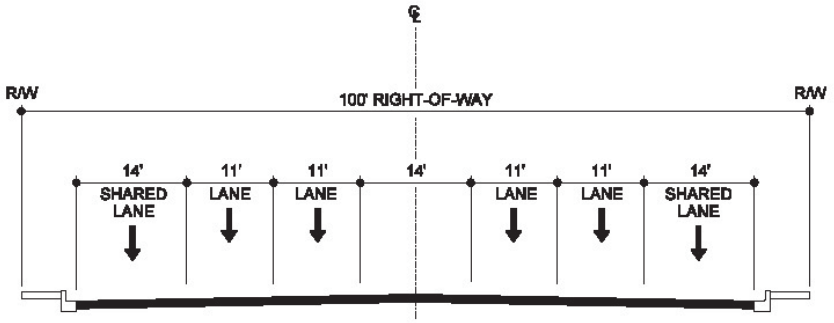
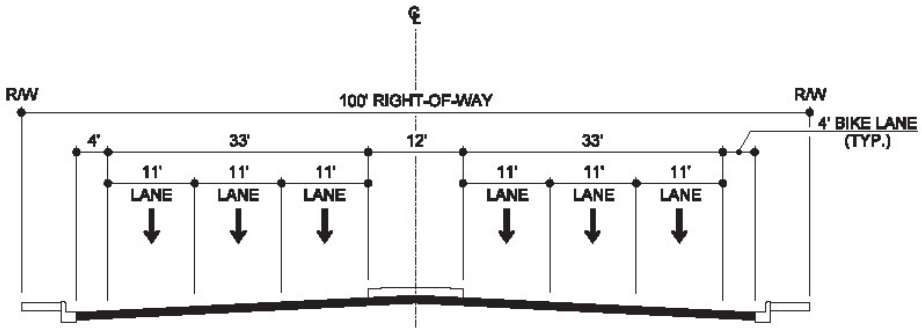


SLOAN ROAD
CACTUS AVENUE
PEBBLE ROAD



BERMUDA ROAD
STARR AVENUE

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
LOCAL STREETS
BUILD ALTERNATIVE CROSS SECTION
FIGURE 9

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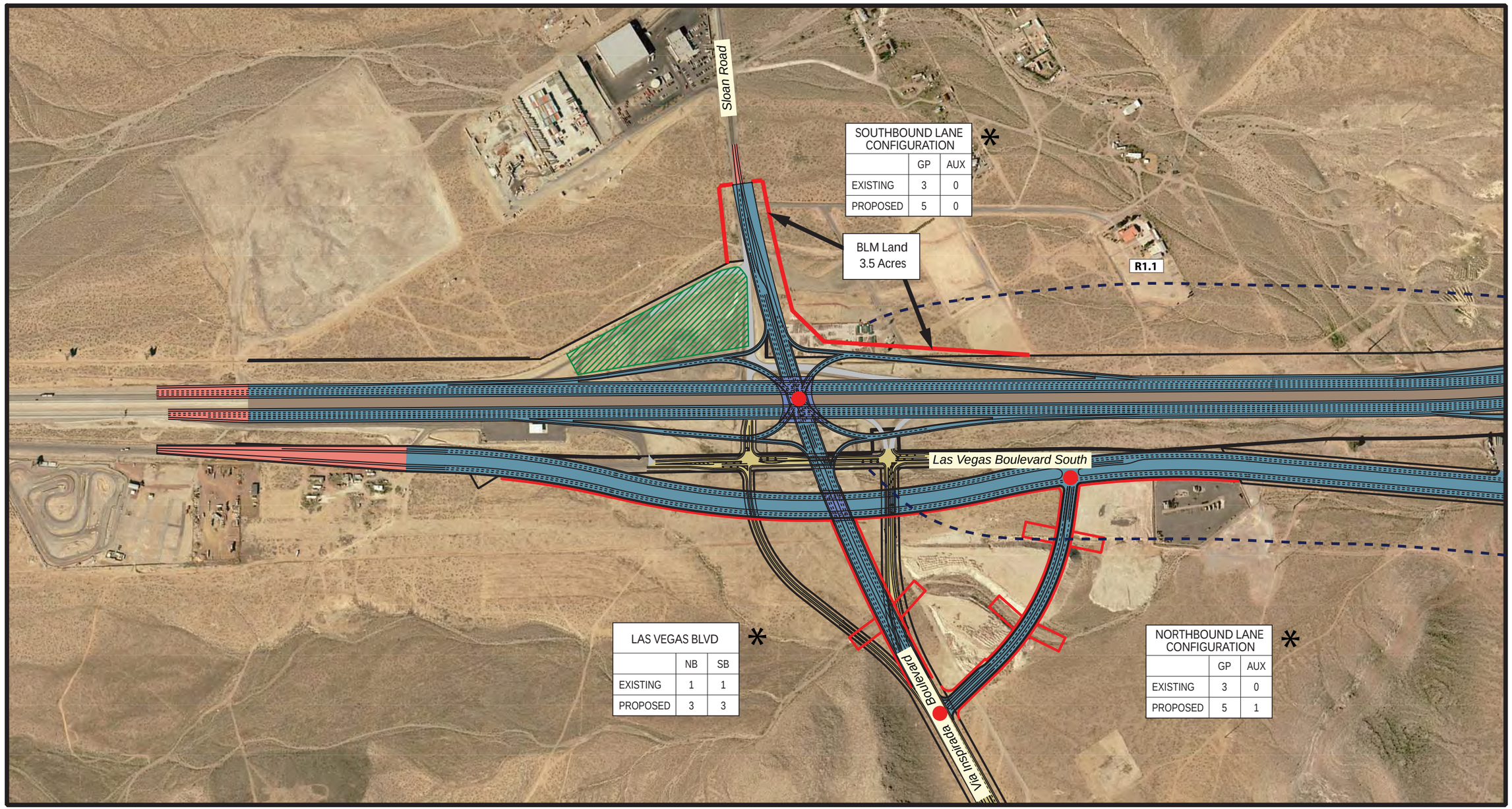

LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- ExistingTraffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

SCALE: 1" = 600'

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
BUILD ALTERNATIVE
FIGURE 10a

* Data as of 2008, March

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NORTHBOUND LANE CONFIGURATION *		
	GP	AUX
EXISTING	3	0
PROPOSED	5	1

SOUTHBOUND LANE CONFIGURATION *		
	GP	AUX
EXISTING	3	0
PROPOSED	5	1

BLM Land
3.5 Acres

R1.1

R2.1

R2.2

R2.3

Larson Lane

Las Vegas Boulevard South

Senate Road

Bermuda Road

LAS VEGAS BLVD *		
	NB	SB
EXISTING	1	1
PROPOSED	3	3

LAS VEGAS BLVD *		
	NB	SB
EXISTING	1	1
PROPOSED	3	3

LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- ExistingTraffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

SCALE: 1” = 600’

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
BUILD ALTERNATIVE
FIGURE 10b

* Data as of 2008, March

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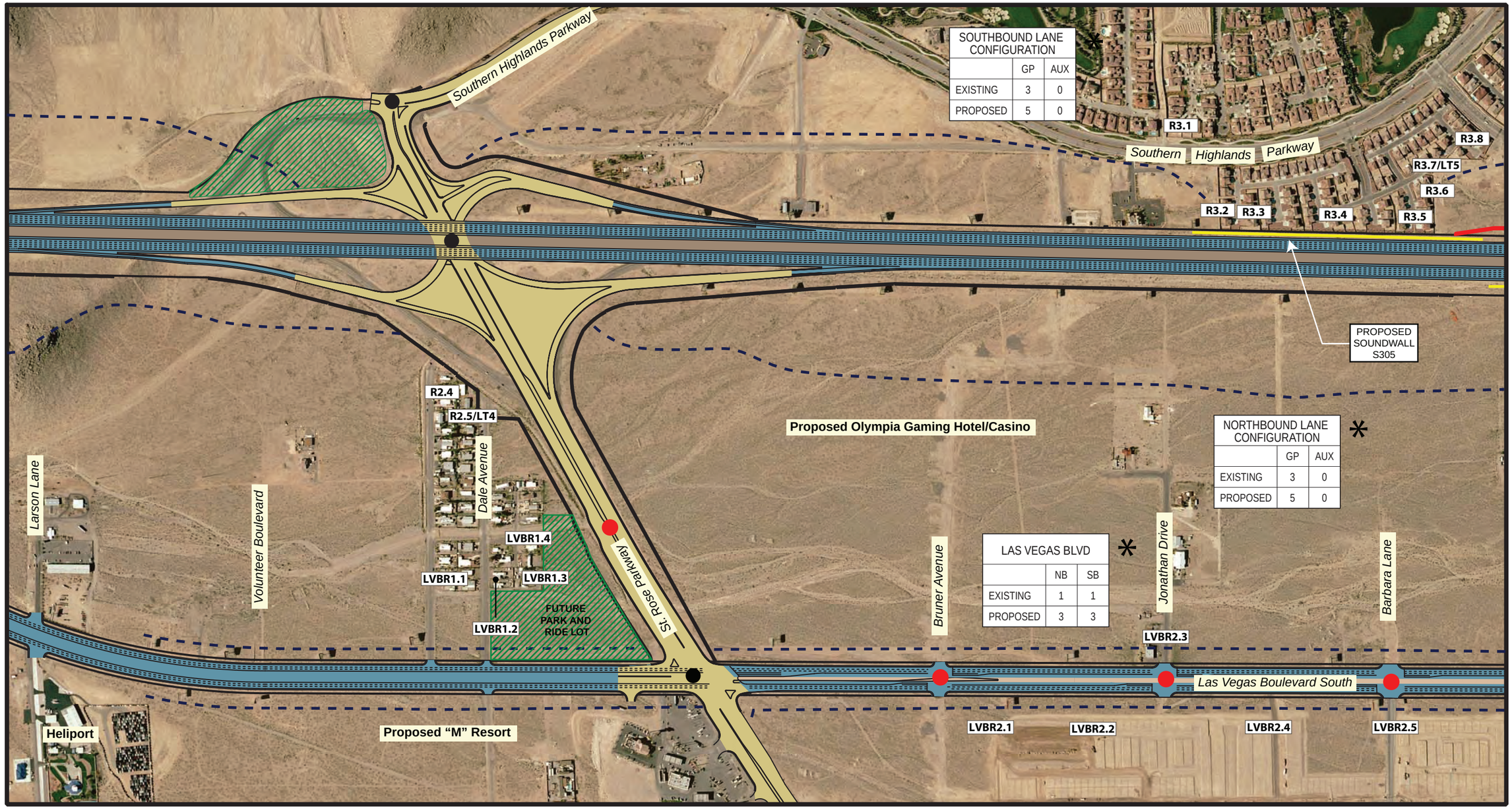

LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- ExistingTraffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

SCALE: 1" = 600'

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
AREA OF POTENTIAL EFFECTS
FIGURE 10c

* Data as of 2008, March

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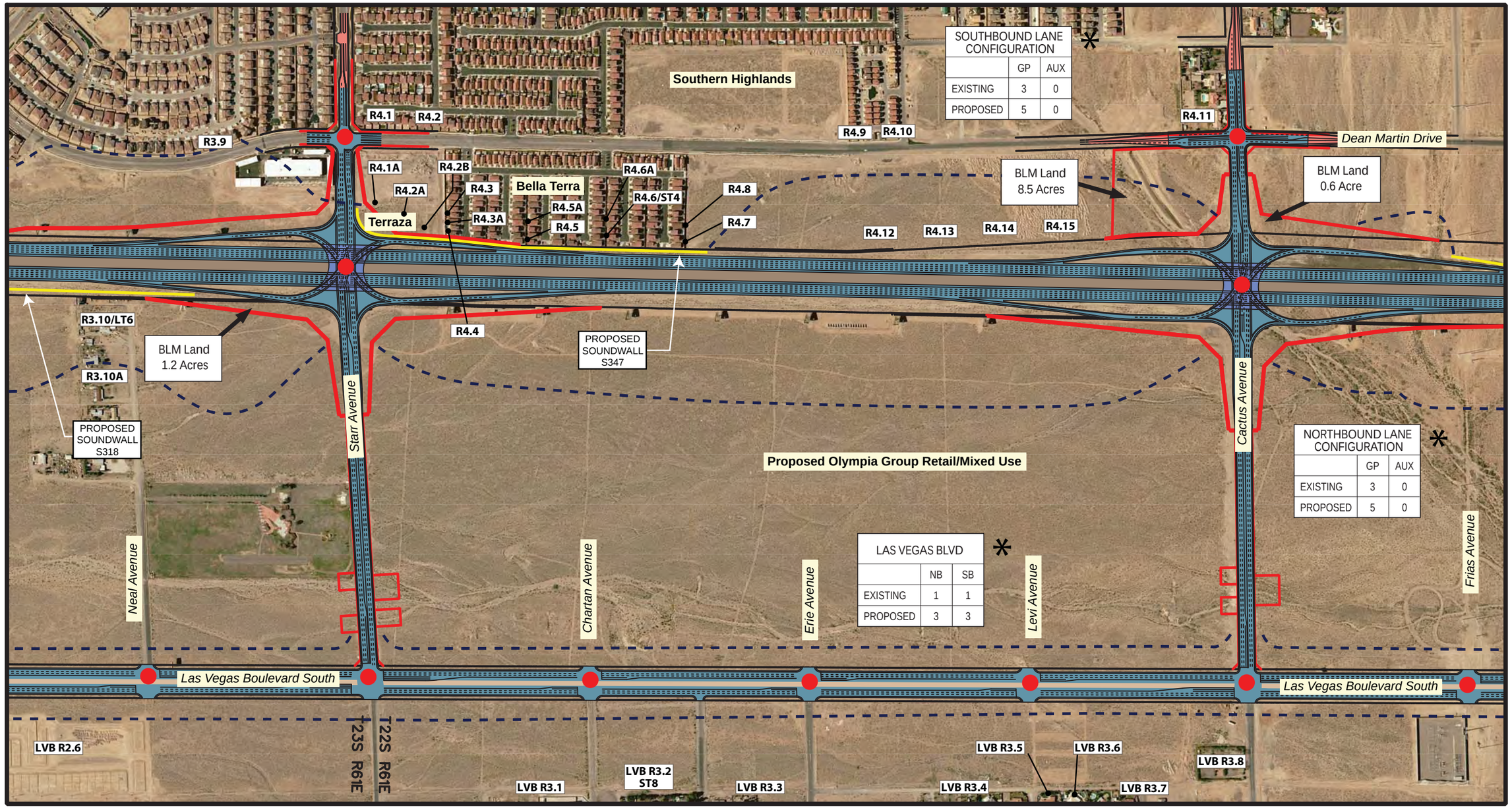

SOUTHBOUND LANE CONFIGURATION *

	GP	AUX
EXISTING	3	0
PROPOSED	5	0

NORTHBOUND LANE CONFIGURATION *

	GP	AUX
EXISTING	3	0
PROPOSED	5	0

LAS VEGAS BLVD *

	NB	SB
EXISTING	1	1
PROPOSED	3	3

LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- ExistingTraffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

SCALE: 1" = 600'

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
BUILD ALTERNATIVE
FIGURE 10d

* Data as of 2008, March

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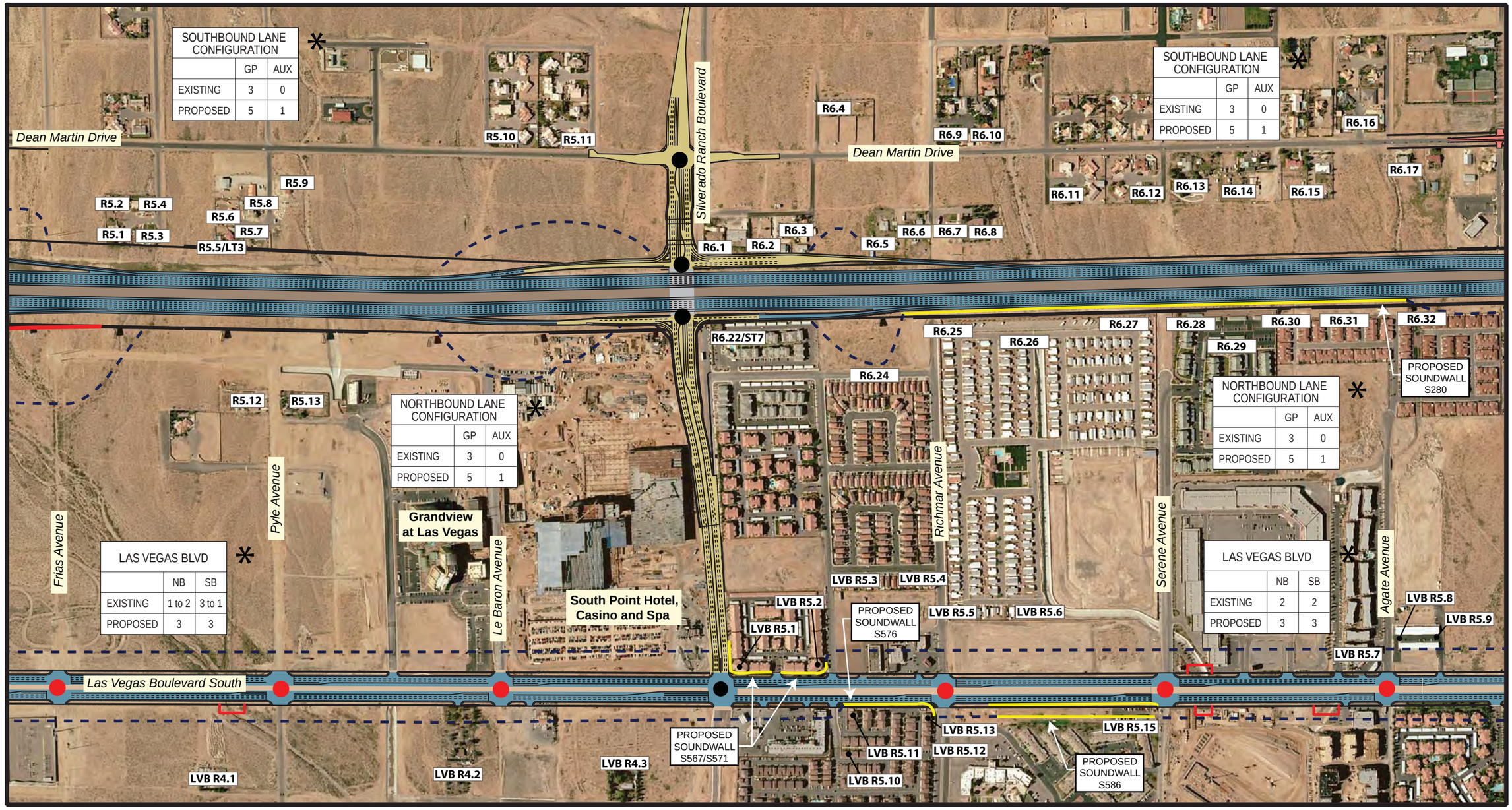

LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- ExistingTraffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

SCALE: 1” = 600’

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
BUILD ALTERNATIVE
FIGURE 10e

* Data as of 2008, March

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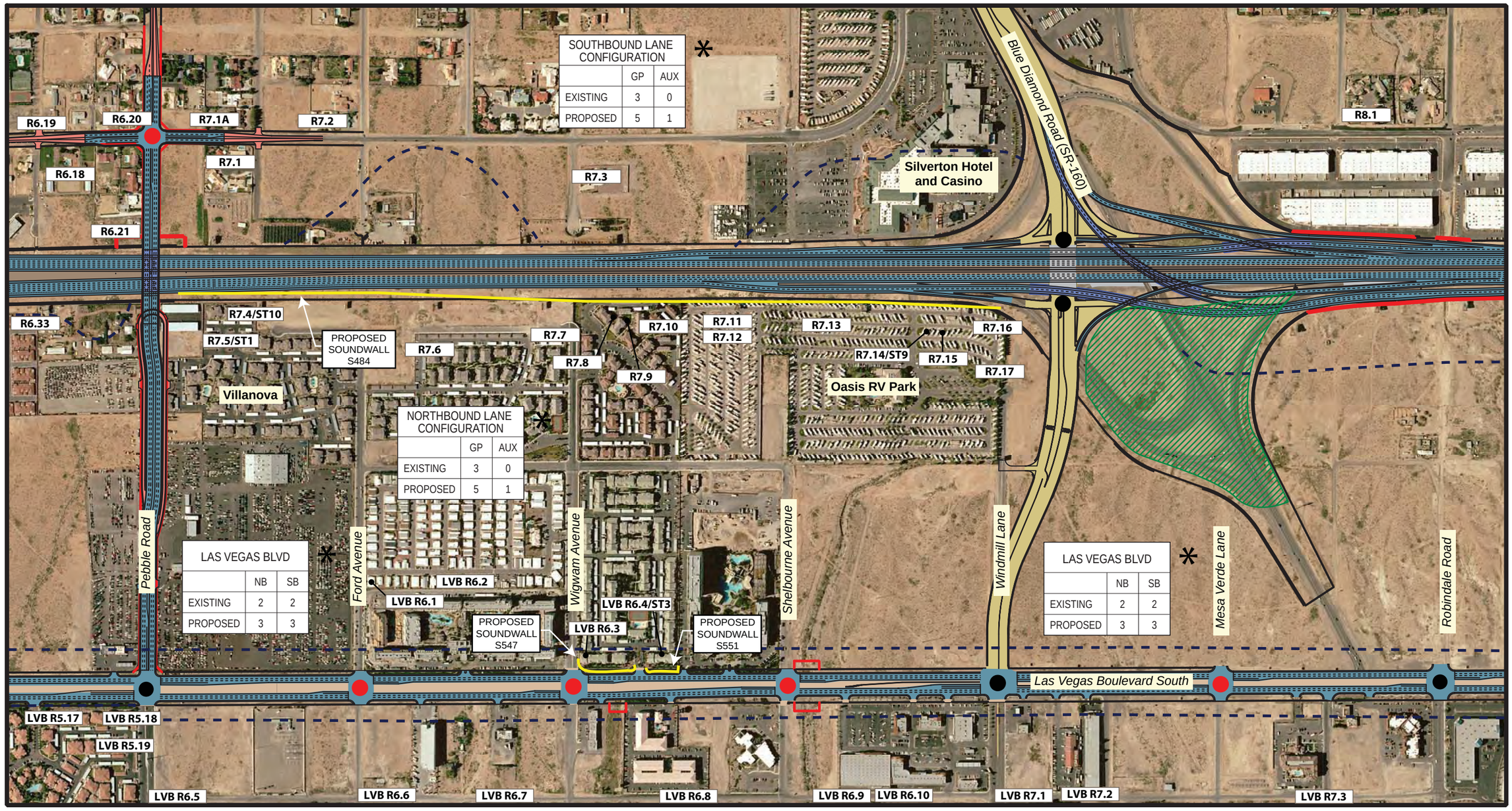

LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- ExistingTraffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

SCALE: 1” = 600’

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
BUILD ALTERNATIVE
FIGURE 10f

* Data as of 2008, March

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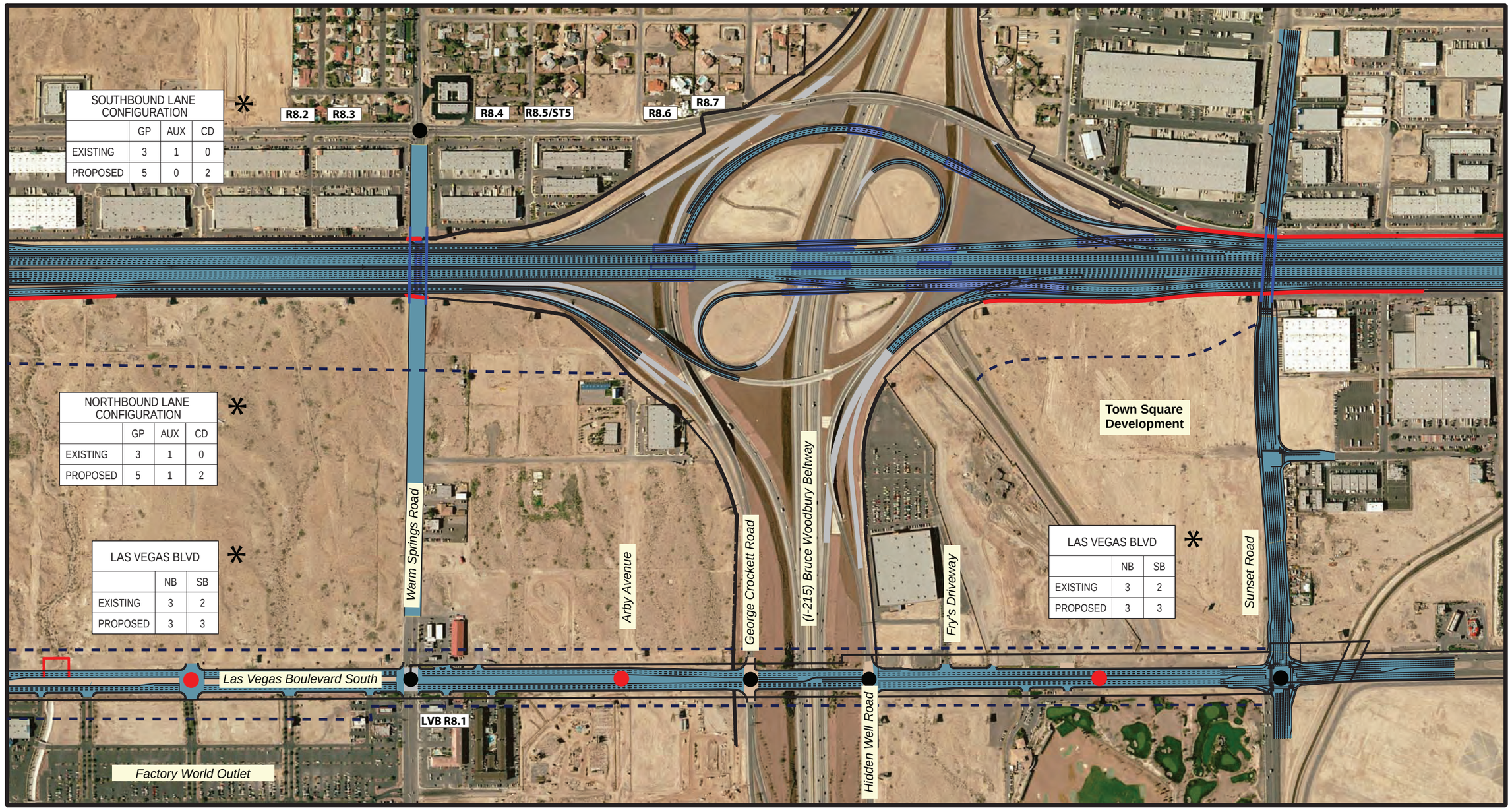

LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- Existing Traffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

SCALE: 1" = 600'

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
BUILD ALTERNATIVE
FIGURE 10g

* Data as of 2008, March

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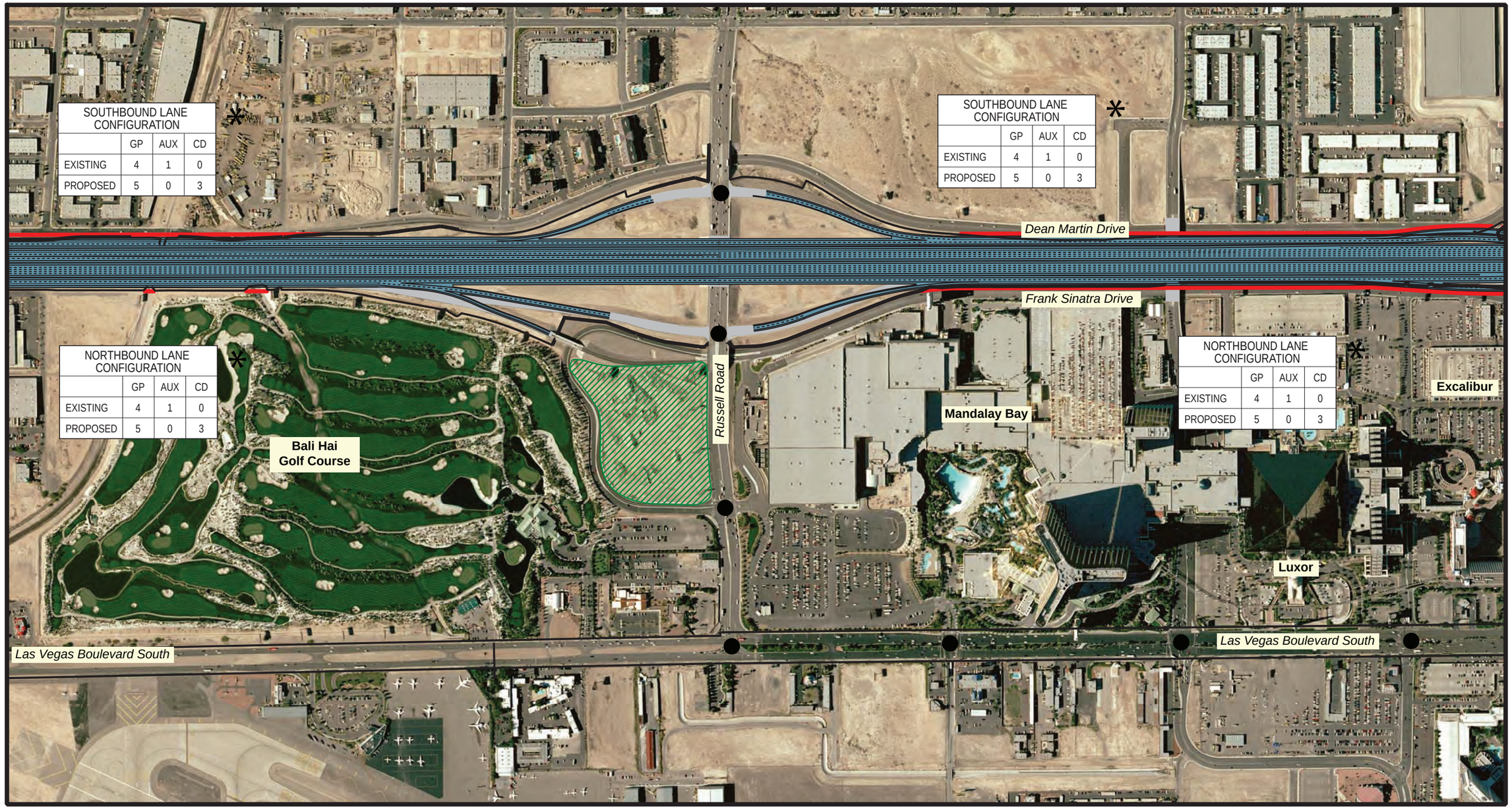

LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- ExistingTraffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

SCALE: 1" = 600'

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
BUILD ALTERNATIVE
FIGURE 10h

* Data as of 2008, March

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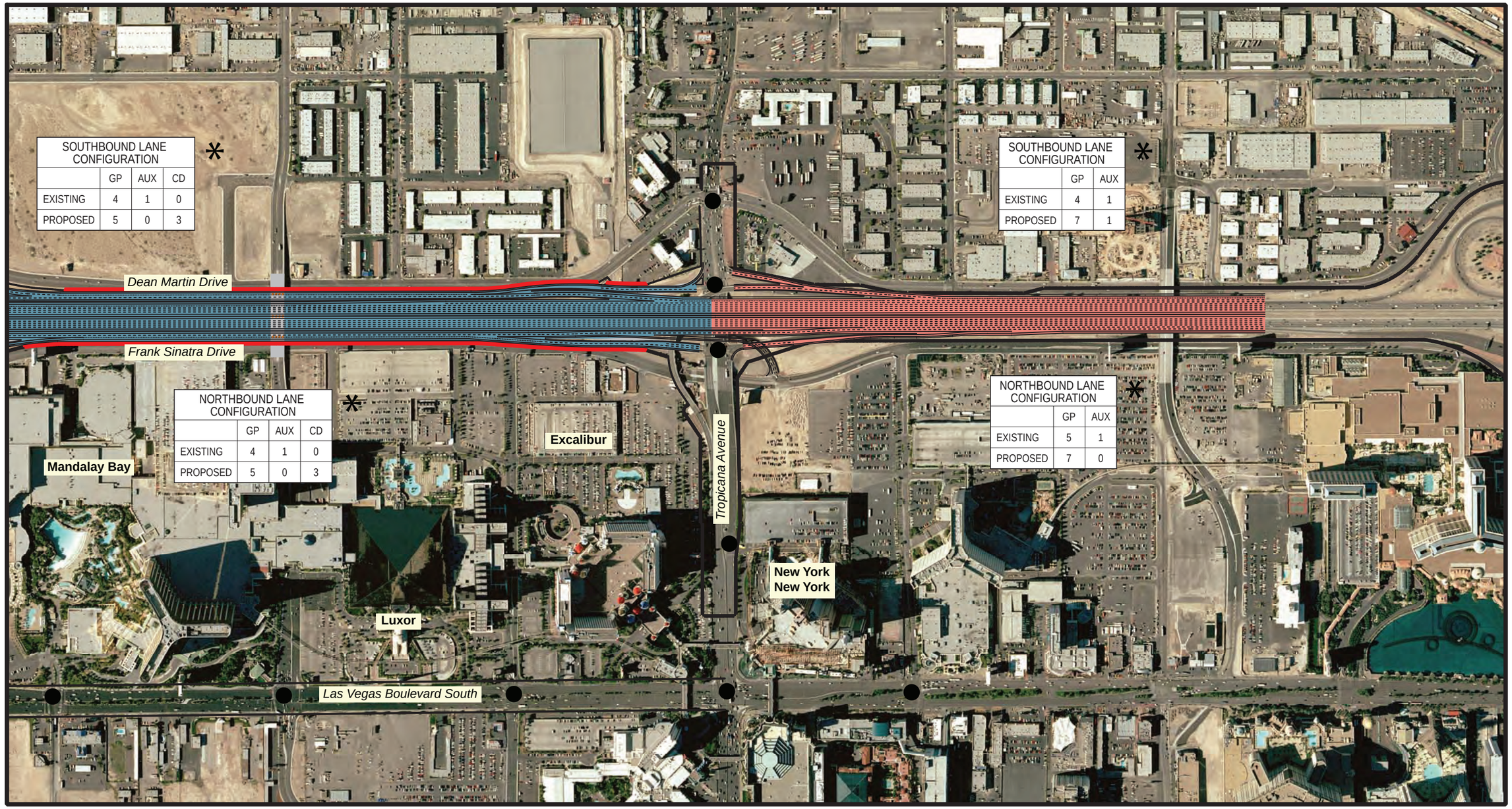

LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- ExistingTraffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

SCALE: 1” = 600’

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
BUILD ALTERNATIVE
FIGURE 10i

* Data as of 2008, March

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2. ENVIRONMENTAL IMPACTS AND MITIGATION

2.1 Areas of No Impact

Social and natural elements of the environment that have been evaluated that would not be adversely affected by the proposed project are summarized below:

- Cultural Resources – No archaeological resources were noted within the project's Area of Potential Effects (APE).[16,17] A total of 753 properties (including vacant parcels) are within the APE, 9 of which contained buildings, structures or objects that were documented because of their age. All 9 documented properties were found to be not eligible for the National Register of Historic Places. Three-hundred sixty-seven (367) properties containing buildings, structures or objects in the APE were not surveyed and remain unevaluated because they were not 40 years old. The State Historic Preservation Officer (SHPO) has concurred with a determination of "No Historic Properties Affected" (Appendix F). No Native American concerns were identified regarding the proposed project based on communication with the appropriate tribal representatives (Appendix F).

- Hazardous Waste/Materials – No known hazardous waste/materials sites exist within the project area.[18] Prior to demolition, structures would be assessed for asbestos, and required abatement measures would be enforced.

- Environmental Justice – Census data indicates that 84 percent of the population within the project area identifies as White/Caucasian.[19] The average income reported was $68,841, compared to the Clark County average of $44,616. Businesses that may be impacted by the proposed project are not minority owned or operated. Based on available demographic data, there are no environmental justice groups within the project area.

2.2 Biological Resources

2.2.1 Existing Conditions

Lands adjacent to the project corridor have been modified by urban development; consequently, native desert habitat has been eliminated throughout the area. Frontage roads, local roads, residential neighborhoods, and retail shopping centers abut the corridor along the 12-mile project area. Land between Las Vegas Boulevard South and Dean Martin Drive, and near the proposed Sloan Road and Bermuda Road interchanges where urban developments are not yet fully realized has been altered by paved roads leading to proposed residential tracts. Additional developments are expected within the adjacent areas.

Prior to conducting surveys, species lists were requested from Nevada Natural Heritage Program and the U.S. Fish and Wildlife Service. Both species lists identified the desert tortoise (*Gopherus agassizii*) as the only federally listed threatened species to exist throughout the project area (see Appendix B of the Biological Resources Report). There is no designated critical habitat for the desert tortoise within the project area.

The project area contains suitable habitat for desert tortoise near the Sloan Road and Cactus Avenue interchanges. One burrow was observed near the Sloan Road interchange. During surveys in July 2008, tortoise scat was observed in a reinforced concrete box culvert near the Sloan Road interchange. This may

[16] Pacific Legacy. 2006. *Cultural Resources Inventory – I-15 South Corridor Improvement Project – Sloan Road to Tropicana Avenue.* May.
[17] Parsons. 2007. *Historical Architecture Report – I-15 South Corridor Improvement Project – Sloan Road to Tropicana Avenue.* February.
[18] Parsons. 2005. *Hazardous Waste and Materials Site Assessment Technical Memorandum – I-15 South Corridor Improvement Project – Sloan Road to Tropicana Avenue.* November.
[19] US Census. 2000.

indicate that the tortoise has utilized the structure for movement between the east and west sides of the highway or simply an individual is using the culvert as temporary shelter.[20,21]

Surveys for native vegetation were conducted in 2006 and 2008. The surveys show native vegetation and sensitive plants present within the project limits, but the density of cacti and yucca throughout the project area is low.[22] During the surveys, no noxious weeds were observed onsite; however, the Sahara mustard is a noxious weed that is known to exist in the project area.

Because federal land would be transferred from BLM for the proposed project and BLM is a cooperating agency in the development of this environmental document, FHWA has requested that BLM be the lead agency for the Section 7 consultation requirements under the Endangered Species Act. BLM has agreed to take the lead in Section 7 consultation and allow the project to be covered under their existing programmatic biological opinion (1-5-96-F-23R.3). Correspondence between FHWA and BLM regarding lead agency designation for Section 7 consultation is provided in Appendix D.

2.2.2 Impacts

Proposed improvements on I-15 and Las Vegas Boulevard South would be carried out primarily within the existing ROW and within areas that have been disturbed by previous highway improvements. Areas of new ROW at the proposed interchanges are adjacent to the highway where biological resources have been disturbed and are limited due to urbanization. Due to the sparse distribution of plant species and the proximity to developed areas, impacts to biological resources, including special-status species and the desert tortoise, would be minimal.

Approximately 85 acres of land would be acquired for the proposed project. Of the 85 acres, 17.3 acres are BLM land and 67.7 acres are state or privately owned land. Of the 17.3 acres of BLM land, approximately 2.3 acres are disturbed and 15 acres would be new disturbance. Of the 67.7 acres of state or privately owned land, approximately 24 acres are disturbed and 43.7 acres would be new disturbance.

Natural resources in the immediate area would be directly affected by construction activities. The construction activities would clear undisturbed habitat for the desert tortoise and other resident species that have small home ranges.

Disturbance of native soils and vegetation allows opportunistic noxious weed species to invade the disturbed area. If these species are not controlled, they may out compete native species and prevent them from becoming re-established in the area of disturbance. The likelihood of a noxious weed invasion is dependent on many factors. For instance, if noxious weed species do not exist on the project site, then the probability of future establishments may be reduced. The proximity of the project area to an established seed source may dictate whether the site is likely to become infested.

2.2.3 Mitigation

All terms and conditions of the BLM Programmatic Biological Opinion would be adhered to and would be specified in the Special Provisions for the project. As specified in the programmatic biological opinion, remuneration fees for the desert tortoise would be paid into the Desert Tortoise Public Lands Conservation Fund prior to surface-disturbing activities. Fees would be paid for both Section 7 and Section 10, due to the presence of both land ownerships in the project area. There are approximately 17.3 acres of BLM land (Section 7) that would be acquired for the project; however, only 15 acres would be considered new disturbance. The 15 acres would be charged at $753 per acre for a total of $11,295 paid to the fund. The $753 remuneration fee is indexed for inflation and is increased each year on March 1. If

[20] Parsons. 2006. *Biological Resources Report – I-15 South Corridor Improvement Project – Sloan Road to Tropicana Avenue.* May

[21] Parsons. 2008. *Biological Resources Report Technical Memorandum Update – I-15 South Corridor Improvement Project – Sloan Road to Tropicana Avenue.* June.

[22] Ibid.

fees are paid after March 1, 2009, the new mitigation fee would apply to the number of acres that are disturbed. Section 10 funds are for state or private lands and are charged $550 per acre of disturbance. There are 43.7 acres that would be disturbed, and a total of $24,035 would be paid to the fund.

In compliance with Executive Order 13112 regarding noxious weeds, earth-moving and hauling equipment would be washed at the contractor's storage facility prior to arriving onsite to prevent the introduction of noxious weed seeds. Disturbed areas would be landscaped and/or seeded with certified weed-free mixes.

A noxious weed management plan would be specified in the Contract Special Provisions, prepared in accordance with BLM's Las Vegas Field Office Noxious Weed Plan, and implemented to prevent noxious weeds from becoming established in the project area during and following construction. Elements of the plan would include surveying the project area to confirm absence of noxious weeds, verifying that vehicles and equipment are free of caked mud prior to being used at the construction site, eradication measures if noxious weeds do become established, and the use of approved BLM seed mixes.

Cacti and yucca species that are present would be salvaged prior to construction activities.

2.3 Social Considerations

2.3.1 Conformance with Applicable Land Use Plan

The proposed action is in conformance with BLM's Las Vegas Resource Management Plan (RMP), which was approved October 5, 1998. The plan has been reviewed, and it has been determined that the proposed action conforms with land use decision RW-1, which states "Meet public demand and reduce impacts to sensitive resources by providing an orderly system for transportation, including legal access to private inholdings, communications, flood control, major utility transmission lines, and related facilities."

2.3.2 Relationship to Statutes

The proposed action does not conflict with any known local or state law, ordinance, planning, or zoning, and it is consistent with Title V of the Federal Land Policy & Management Act of October 21, 1976 (United States Code [U.S.C.] 1701 *et seq*), and the Act of Congress of August 27, 1958 (23 U.S.C. Section 317 and/or 107).

2.3.3 Existing Conditions

Population

Most of the project area is within the Enterprise Township of Clark County, with the northern portions located within the Winchester/Paradise Township.[23] The U.S. Census 2000 reports the population within the Enterprise Township is 14,676, while the Nevada 2005 Population Estimates[24] indicate the population increased to 96,404 in 2005. The residential areas are a mix of low-, medium-, and high-density single-family homes. Several master-planned communities are located west of I-15. Mixed-use and high-density multi-family development is concentrated east of I-15 along Las Vegas Boulevard South (see Figure 11, Land Use).

Land Use

The Enterprise Land Use Plan includes open space; rural neighborhood preservation; single- and multi-family residential; commercial, industrial, and business uses; and public facilities. Sixty-three (63) percent of Enterprise Township is allocated to residential and rural preservation.

[23] Clark County. 2005. *Winchester/Paradise Land Use Plan.* August.
[24] Clark County. 2005. *Comprehensive Plan.* May.

A "Gateway District" has been established along I-15 and Las Vegas Boulevard South from I-215 to St. Rose Parkway that is planned for higher density uses.[25] High-rise condominium developments and other high-density residential areas are in the planning stages or under construction. More than 5,000 multi-family residential units are part of this residential development. Single-family residential areas are also found along Las Vegas Boulevard South and I-15.

2.3.4 Impacts

The project corridor is an existing transportation facility and would have minimal direct impacts to land use or zoning within the corridor. Construction of the proposed project would result in some alteration of existing land use, with vacant, undeveloped land and residential areas converted to transportation uses.

Construction of the proposed project would result in the acquisition of 85 acres of land. Of the 85 acres, approximately 3.5 acres would be transferred from BLM for the Sloan Road interchange, 8 acres would be transferred for the Bermuda Road interchange, and 8 acres would be transferred for the Cactus Avenue interchange. Table 3 identifies the acreages of land that would be acquired as part of the proposed project and the number of residential and business relocations.

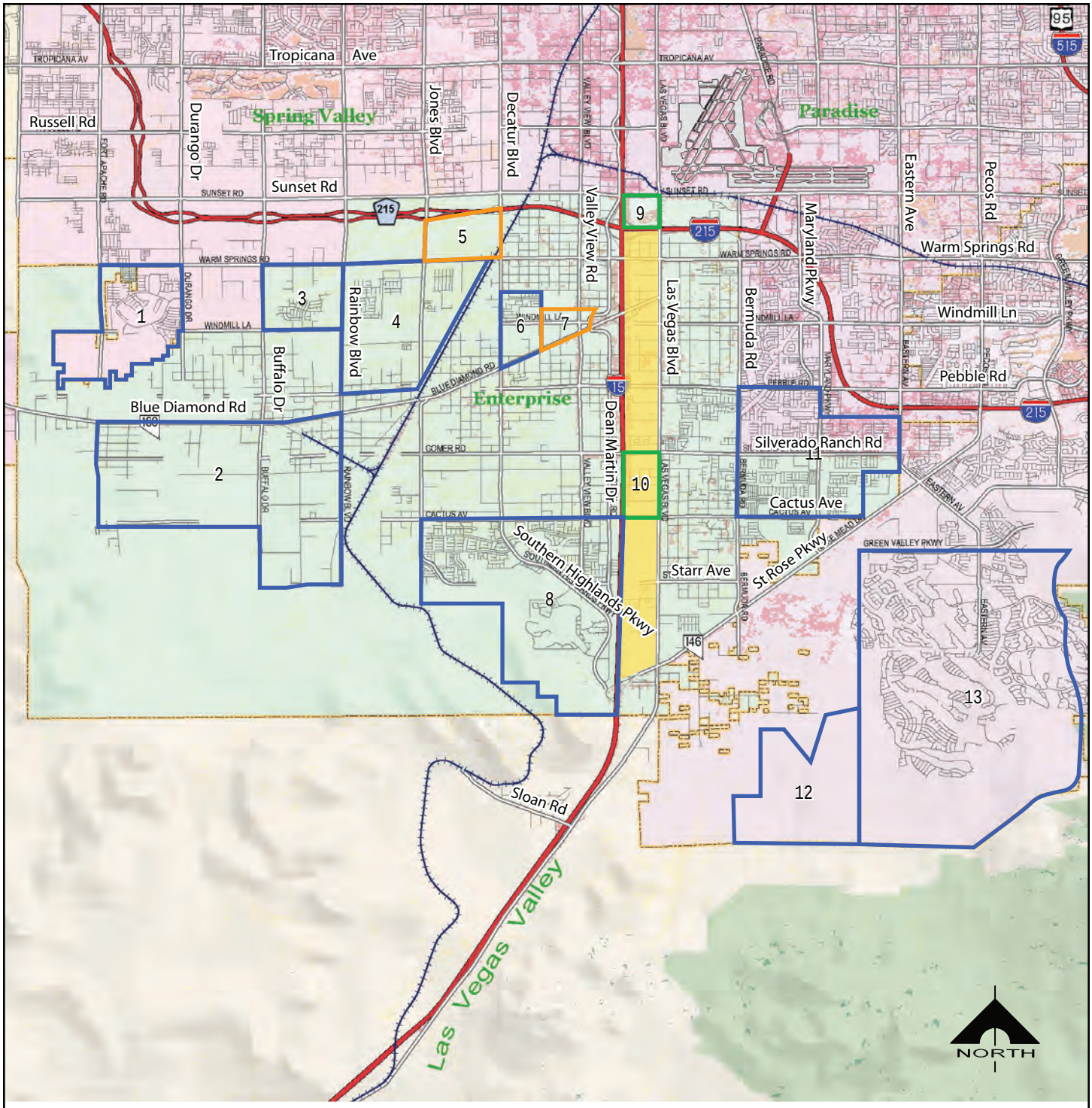
Table 3
Relocations and Areas of New Right-of-Way

Location of New Right-of-Way	Acres	Relocations
Sloan Road Interchange	25	1 business (Pottery World)
Bermuda Road Interchange	8	None
Starr Avenue Interchange	16	33 single-family residences
Cactus Avenue Interchange	14	None
Pebble Road Overpass	4	2 single-family residences 8 multi-family residences 1 business (PRE Storage)
Southeast of Blue Diamond Road Interchange	4	20 parking spaces (1 multi-family complex)
Northeast of Blue Diamond Road Interchange	7	None
Northeast of I-215 Interchange	7	Parking (unknown number under construction)

Development in the project area is managed through various land use and transportation plans, and it would occur whether or not the proposed I-15 improvements are built. Construction of the proposed project is not anticipated to result in additional unplanned development. The zoning restrictions that are part of Clark County's Comprehensive Plan and City of Henderson's Comprehensive Plan minimize the potential impacts of these planned developments.

Clark County's Comprehensive Plan (2005) and the City of Henderson's Comprehensive Plan (2006) each include standards for development within their respective jurisdictions. Zoning is the major implementation tool of each plan. The various zoning districts regulate the type of land use. It is anticipated that the residential and commercial development planned within the project area would have the greatest effect on land use. These developments would result in the conversion of previously undeveloped land to more intensive land uses. These projects are consistent with the desired future development of the area relative to housing density, intensity of commercial development, and development of the local transportation network, as described in the planning documents.

[25] Clark County. 2004. *Enterprise Land Use Plan.* December.



LEGEND

- MIXED USE
- MASTER PLAN
- BUSINESS PARK
- GATEWAY DISTRICT

1 RHODES RANCH MASTER PLAN
2 MOUNTAIN'S EDGE MASTER PLAN
3 NV TRAILS MASTER PLAN
4 CORONADO RANCH MASTER PLAN
5 BELTWAY BUSINESS PARK
6 BLUE DIAMOND RANCHES MASTER PLAN
7 BLUE DIAMOND CROSSINGS BUSINESS PARK
8 SOUTHERN HIGHLANDS MASTER PLAN
9 TOWN SQUARE - MIXED USE
10 SOUTH POINT - CASINO AND MIXED USE
11 SILVERADO RANCH MASTER PLAN
12 INSPIRADA MASTER PLAN
13 ANTHEM MASTER PLAN

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT

LAND USE

FIGURE 11

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Effectiveness of growth management is dependent upon adherence by the local entities to the land use, zoning, and development ordinances. Overall, the proposed project is consistent with the long-range transportation and development plans envisioned for the southern area of the Las Vegas Valley.

Relocation Impacts

Construction of the proposed Sloan Road interchange would result in the partial acquisition of the property located in the northwest quadrant of the interchange. The Pottery World business location would be impacted by construction of the proposed interchange; however, it appears that the business could be reconfigured to land remaining within the same parcel (see Figure 10a). There are no permanent structures at this site because of the nature of the business. At Starr Avenue, construction of the proposed interchange would result in the relocation of 4 single-family homes within the Bella Terra subdivision in the northwest quadrant of the interchange. Twenty-nine (29) single-family residences in the Terraza subdivision would also require relocation for construction of the proposed interchange (see Figure 10d). The proposed Pebble Road overpass would result in the relocation of approximately 2 single-family homes west of I-15 and 8 multi-family units in the Villanova apartment complex located east of I-15. Relocation of the 43 residences would have a minimal impact on the overall community of Southern Highlands which has more than 6,700 residences. The Pebble Road overpass would also result in the acquisition of the PRE Storage facility, which contains 28 spaces for large recreational vehicles (RVs) or boats (see Figure 10f). Improvements near the Blue Diamond Road interchange would result in a partial acquisition from the Amalfi apartment complex. Fifteen (15) garage spaces located immediately adjacent to I-15 and 5 covered parking spaces would be acquired (see Figure 10f). On the northeast quadrant of the I-215 interchange, construction of the ramps would require a partial acquisition of the Town Square development. According to recent site plans for the development, only parking spaces would be impacted (see Figure 10g).

2.3.5 Mitigation

The NDOT ROW Division, under guidance of the Relocation Assistance and Real Property Acquisition Policy Act of 1970 (Uniform Act), would negotiate with the property owners directly impacted, ensuring that they receive fair market value for the acquired ROW and appropriate relocation assistance. Legally permitted property access would be perpetuated in the after condition.

A detailed traffic plan would be created to maintain traffic circulation and access during construction. NDOT would coordinate with the existing businesses and residents about the construction schedule. (See also Section 2.6.3 – *Construction* for noise mitigation measures in residential areas.)

The proposed project is not expected to result in substantial long-term adverse social or economic impacts, due to the availability of comparable housing in the vicinity, and because it is consistent with current land use plans and policies.

2.4 Visual Resources

2.4.1 Existing Conditions

The project area is generally characterized by visual elements associated with commercial, residential, and transportation development, as well as undeveloped, native desert parcels. Major visual landmarks are the Spring Mountains and Mt. Charleston to the west of the corridor and the Las Vegas Strip to the north. I-15 corridor development limits views from the transportation corridor to foreground and middle-ground viewsheds. Adjacent properties only have views of their immediate surroundings and the mountains to the west. The views vary throughout the corridor from residential and commercial development to major transportation features (e.g., walls, structures, and signage) associated with I-15 and other surface transportation facilities. In the southern limits of the corridor, the background views consist of mountains with alluvial fans extending from the mountain base to form the valley floor, with a slight undulating terrain over several dry washes.

Viewers are categorized in two classes – viewers from the road and viewers of the road. Views from the highway consist of numerous billboards and overhead traffic signage within foreground views. Commercial structures, such as office buildings and various retail establishments, and residential areas east and west of the highway dominate middle-ground views. Manmade structures rise vertically and horizontally with diverse colors and shades. A concrete median divides the NB and SB lanes for most of the project area; the median widens in the far southern portion of the project area. Mountains and the Las Vegas Strip create background views.

Viewers traveling on I-15 are characterized as interstate truckers, tourists and commuters, with peak travel times occurring during morning and evening commutes and weekends; however, the number of viewers remains relatively high throughout the daytime hours. Viewer sensitivity would be characterized as low due to the high rate of speed and primarily peripheral views along the corridor.

The viewer population with views of the road and from bridge overpasses is characterized as residential and commercial viewers traveling to and from retail establishments and/or work places and their homes. In areas where soundwalls are proposed to be installed, residential views of the highway would be shielded. Viewer sensitivity for viewers of the road would be characterized as low.

The BLM uses a Visual Resources Management (VRM) system to identify and manage scenic values on public lands. The VRM system classifies visual resources on BLM lands in one of four categories: Class I, II, III, or IV—with Class I having the highest visual sensitivity and Class IV being the least sensitive. The proposed project is located along the existing I-15 corridor and is within both Class III and Class IV VRM areas. The management objective for VRM Class III areas is to partially retain the existing character of the landscape. For Class III areas, a moderate level of change is acceptable. The management objective for VRM Class IV areas is to provide for management activities that require major modification of the existing character of the landscape. For Class IV areas, a high level of change is acceptable.

2.4.2 Impacts

The proposed additional lanes on I-15 and Las Vegas Boulevard South would minimally alter the near and middle horizon viewshed from properties along the project corridor. The change in views would result from having a larger transportation facility (i.e., more lanes) located closer to existing and planned development. The proposed interchanges at Sloan Road, Bermuda Road, Starr Avenue, and Cactus Avenue and the overpasses at Pebble Road, Warm Springs Road, and Sunset Road would be approximately 25 to 35 feet above the existing I-15 lanes. Construction of these new interchanges would be visually consistent with existing overpasses within the project corridor; however, some existing views from residential areas along the freeway would be blocked by the new overpasses, soundwalls, and retaining walls.

High mast lighting would be installed along I-15 as part of the Build Alternative. Lights would be spaced approximately 330 to 400 feet apart and would be approximately 100 feet above the roadway surface. The distance from the nearest residential areas to the new high mast lights would be approximately 230 feet. Along Las Vegas Boulevard South and local cross streets, lighting would be placed on the outside of the roadway. Typical streetlight spacing would be 150 to 250 feet, and the lights would be 35 to 55 feet above the roadway surface. Installation of high mast and street lighting would not adversely affect adjacent residences because of the use of shielding technology for new high mast lighting.

The proposed project is consistent with the VRM management objectives given the ongoing development in this transportation corridor.

2.4.3 Mitigation

Aesthetic treatments to soundwalls and structures within the project area would be in accordance with NDOT's Landscape and Aesthetics Master Plan and I-15 Corridor Plan. New freeway and street lighting would employ shields and luminaries to minimize light and glare impacts on adjacent residences.

2.4.3 Mitigation

Aesthetic treatments to soundwalls and structures within the project area would be in accordance with NDOT's Landscape and Aesthetics Master Plan and I-15 Corridor Plan. New freeway and street lighting would employ shields and luminaries to minimize light and glare impacts on adjacent residences.

2.5 Air Quality

In accordance with the federal Clean Air Act, the United States Environmental Protection Agency (EPA) has established primary and secondary National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, as listed in Table 4. The Clark County Department of Air Quality and Environmental Management (CCDAQEM) is the regulatory and enforcement agency in Clark County, Nevada. In addition, all construction projects equal to or larger than 0.25 acre require a dust control permit obtained through the CCDAQEM.

Table 4
National Ambient Air Quality Standards

Pollutant	Averaging Period	Primary Standards	Secondary Standards
Particulate Matter (PM_{10})	24 hour	150 µg/m^3	150 µg/m^3
Carbon Monoxide (CO)	8 hour	9.0 ppm (10 mg/m^3)	--
	1 hour	35 ppm (40 mg/m^3)	--
Ozone (O_3)	8 hour	0.08 ppm	0.08 ppm

[1] The federal air quality standard for $PM_{2.5}$ was adopted in 1997. Presently, no methodologies for determining impacts relating to $PM_{2.5}$ have been developed or adopted by federal, state, or regional agencies. Additionally, no strategies or mitigation programs for $PM_{2.5}$ have been developed or adopted by federal, state, or regional agencies.

mg/m^3: milligrams per cubic meter
µg/m^3: micrograms per cubic meter
ppm: parts per million

Source: EPA, 2006. http://www.epa.gov/air/criteria.html.

2.5.1 Existing Conditions

The proposed project is located entirely within Hydrographic Area (HA) 212, which encompasses the Las Vegas Valley nonattainment area. The entire state of Nevada is in attainment/unclassifiable status for $PM_{2.5}$ (particulate matter with an aerodynamic diameter less than 2.5 micrometers). Within Clark County, the cities of Las Vegas, North Las Vegas, and Henderson are collectively designated as nonattainment for carbon monoxide (CO) and PM_{10} (particulate matter with an aerodynamic diameter less than 10 micrometers) by EPA.[27] EPA has also designated Clark County as an 8-hour ozone (O_3) nonattainment area. Ozone is considered an area-wide pollutant that is assessed in systems-level planning as part of the development of state implementation plans. In addition, ozone is evaluated as a regional pollutant, using emissions inventories for its precursors, nitrogen oxide (NOX) and volatile organic compounds (VOCs), as part of the conformity process by the RTC. Therefore, ozone is not a concern as a hot-spot, project-level air pollutant.

[27] Parsons. 2007. *Air Quality Assessment Technical Report – I-15 South Corridor Improvement Project – Sloan Road to Tropicana Avenue.* May.

Project Conformity

The current transportation plan is the Fiscal Year (FY) 2006-2030 RTP, and the transportation improvement program is the FY 2006-2008 Transportation Improvement Program (TIP). The TIP and RTP were adopted by RTC on July 13, 2006. The United States Department of Transportation (DOT) approved the Air Quality Conformity Finding in the RTP in December 2006.

The proposed project elements are included in RTC's RTP 2006-2030 and the Clark County TIP which has been approved by FHWA; therefore, pursuant to 40 *Code of Federal Regulations* (CFR) 93, this project conforms to the State Implementation Plan (SIP). The project would not violate the NAAQS for the build scenario.

2.5.2 Impacts

A CO micro-scale analysis was performed at five interchange locations using the CAL3QHC air quality dispersion model to calculate CO concentrations for the No Build Alternative and the Build Alternative. In accordance with EPA's *Guideline for Modeling Carbon Monoxide from Roadway Intersections*, the three intersections with the highest traffic volumes and the three intersections with the worst LOS under the Build Alternative were modeled. Since four of the six intersections are the intersections with the highest traffic volumes and the worst LOS, this reduced the number of intersections to be analyzed to three; however, to model areas with sensitive receptors along the entire project corridor, five intersections were analyzed. As shown in Table 5, the federal 1- and 8-hour standards of 35 parts per million (ppm) and 9 ppm would not be exceeded at any location.

Table 5
Year 2030 CO Concentrations

Intersection	Concentrations 10 Feet from Intersection			
	1-Hour Concentration (ppm)		8-Hour Concentration (ppm)	
	No Build	Build	No Build	Build
Las Vegas Boulevard South and Tropicana Avenue	9.3	9.6	5.4	5.6
Dean Martin Drive and Tropicana Avenue	8.4	9.2	5.7	5.3
Las Vegas Boulevard South and Blue Diamond Road	9.2	9.7	5.3	5.6
Dean Martin Drive and Blue Diamond Road	9.8	9.5	5.7	5.5
Las Vegas Boulevard South and Hidden Well Road	8.4	9.2	5.7	5.3
NAAQS	35		9	

Note: CO concentrations include 1-hour and 8-hour concentrations of 5.5 and 2.7 ppm based on 3-year average monitoring data at Las Vegas Boulevard South monitoring station.

Sources of PM_{10} during operation of the proposed project include vehicle exhaust and re-entrained road dust. Typically, PM_{10} emissions from vehicle exhaust are highest when vehicles are idling. The Build Alternative would increase capacity along I-15, which would reduce vehicle idling time, thereby reducing emissions of PM_{10}. The proposed project is included in the RTP; thus, it is included in Clark County's air quality modeling efforts for the region, as provided in the CCDAQEM PM_{10} Plan.

Given that I-15 is not sanded or salted during the year, the roadway would have very low surface silt loading. In addition, NDOT complies with Clark County's enforceable PM_{10} SIP requirements to control emissions from paved roads, which include frequent sweeping of all freeways in Clark County using PM_{10}-compliant equipment and stabilization of soil and road shoulders and medians.

These measures would reduce the PM_{10} increment associated with operation of the proposed project; therefore, NDOT qualitatively concludes that there would be no PM_{10} hot spot violations resulting from operation of the new freeway lanes and ramps.

Construction

Periodic and localized increases in CO and PM_{10} levels would occur during construction due to traffic congestion and equipment operations; however, such increases would be temporary and short term.

2.5.3 Mobile Source Air Toxics

Introduction

The I-15 South Corridor Improvement Project is designed to mitigate expected future traffic demand in the southern Las Vegas Valley. The future traffic demand will be fueled by planned residential and commercial development along the corridor[28] and by regionwide population growth. Improvements to I-15 would include the addition of general purpose and auxiliary lanes from Sloan Road in the south to Tropicana Avenue in the north (see Figure 1). The project would also include construction of new interchanges and widening of South Las Vegas Boulevard.

The 1990 Clean Air Act Amendments (CAAAs) identified 188 hazardous air pollutants (HAPs). Of the identified HAPs, EPA identified a group of 21 mobile source air toxics (MSATs). The MSATs are considered by EPA to have the potential to cause serious health and environmental impacts, and they are emitted from a variety of sources, including highway vehicles (i.e., cars, trucks, buses) and non-road sources such as aircraft, marine vessels, locomotives, and construction equipment.

In February 2006, FHWA released Interim Guidance to its state division offices on when and how MSAT emissions should be addressed in environmental documents for federally funded highway projects.[29]

Traffic volume forecasts, which were modeled using the most recent population growth and land-use assumptions for the Las Vegas Valley,[30] indicate that the 2030 ADT along most segments of the I-15 South corridor will exceed 200,000 vehicles per day, with a high of 546,000 vehicles per day adjacent to the Las Vegas Strip.

The FHWA Interim Guidance set forth a tiered approach for evaluating potential impacts of MSAT emissions for transportation projects. Because there are capacity improvements planned for the project corridor, and because the 2030 ADT will exceed 150,000 vehicles per day, FHWA recommends that MSAT emissions be quantitatively assessed as part of the NEPA process; therefore, in accordance with the FHWA Interim Guidance, NDOT performed a quantitative analysis of MSAT emissions for the I-15 South Corridor Improvement Project.

MSAT Analysis Methodology

Air toxics analysis is an ongoing area of research by EPA and FHWA, and they are developing strategies and procedures for modeling ambient concentrations of MSATs at the project level.[31] Acceptable methods to predict the ambient concentrations of MSATs for specific transportation projects or near specific roadside locations are not currently available. Acceptable methods to predict how MSATs disperse are also currently unavailable. The current modeling tools were developed and validated for predicting episodic concentrations of CO and compliance with the NAAQS. In addition, project-specific MSAT background concentrations do not exist.

[28] Parsons. 2007. *I-15 South Traffic Report.* January.
[29] FHWA. 2006. *Interim Guidance on Air Toxic Analysis in NEPA Documents.*
[30] Parsons. 2007. *I-15 South Traffic Report.* January.
[31] FHWA. 2006. *Interim Guidance on Air Toxic Analysis in NEPA Documents.*

These shortcomings prevent predicting meaningful exposure patterns to assess potential health risk. Deriving useful conclusions regarding project-specific health effects are hindered by current techniques in exposure assessment and risk analysis. Considering the need of using unsupported assumptions in exposure patterns, uncertainties associated with estimating MSAT toxicity, and lacking methods to predict concentrations and dispersion, the calculated health effects between alternatives is likely to be smaller than the uncertainties involved.

It is possible to evaluate MSAT emission trends over time for larger projects and whether differences in MSAT emission levels occur over time between the No Build and Build Alternatives.

EPA has established eight priority MSATs, which are defined as those most likely to present the highest risks to human health. The priority MSATs include the following volatile organic compounds (VOCs): benzene, formaldehyde, acetaldehyde, acrolein, 1,3 butadiene, naphthalene, and polycyclic organic matter (POM). Diesel particulate matter (DPM), the eighth priority MSAT, is a fine aerosol composed of solid and liquid particles.

A. Nature of Emissions Analysis

Claggett and Miller[32] formulated a methodology for use by state DOTs and Metropolitan Planning Organizations (MPOs) to evaluate the relative MSAT emissions for transportation project alternatives.

To conduct an emissions analysis, one calculates emission factors for each of the various pollutants, grams (or milligrams [mg])/vehicle miles traveled (VMT), which are then multiplied by the daily VMT for each affected roadway link or segment. This calculation gives the daily mass emission rate (in grams or mg) for each of the pollutants, which are then summed to get the total daily MSAT emissions for that link or segment.

EPA's MOBILE6.2 Emission Factor Model has functionality to calculate emission factors for the eight priority MSATs, and its use is recommended by FHWA for doing quantitative MSAT assessments. Emission factors for most MSATs vary as a function of speed, vehicle mix, fuel composition (i.e., aromatic and sulfur content), and diurnal fluctuations in temperature.

Input parameters specific to Clark County were used to run MOBILE6.2. For the I-15 South corridor improvements, and other planned projects in Las Vegas, NDOT consulted modeling experts from CCDAQEM for their guidance as to what local inputs should be used in MOBILE6.2.[33,34]

The emissions analysis for this project includes those freeway (including ramps) and arterial segments slated for improvement as part of the I-15 South Corridor Improvement Project, plus other segments within and beyond the project corridor that are not slated for improvement. Road segments beyond the project corridor are included because MOBILE6.2 is a regional-scale model.

NDOT utilized a comprehensive, detailed traffic demand analysis for the I-15 South Corridor Improvement Project to calculate MOBILE6.2 emission factors.[35] Pertinent local transportation network attributes were also used.[36] Detailed traffic demand forecast information correlated to the specific elements of the I-15 South Corridor Improvement Project is not available outside the improvement corridor, and current traffic count information was used to fill in the gaps,[37] therefore,

[32] Claggett, M. and T.L. Miller. 2005. *A Methodology for Evaluating Mobile Source Air Toxic Emissions among Transportation Project Alternatives.* www.fhwa.gov/environment/airtoxic/.
[33] CCDAQEM. 2005. *Carbon Monoxide State Implementation Plan Revision: Las Vegas Valley Nonattainment Area, Clark County, Nevada, Appendix A – Technical Support Document.*
[34] CCDAQEM. 2006. Personal communication with Mr. Zheng Li, CCDAQEM Planning.
[35] Parsons. 2007. *I-15 South Traffic Report.* January.
[36] RTC. 2006. *Final Draft, Regional Transportation Plan,* FY 2006-2030.
[37] NDOT. 2005. *2005 Annual Traffic Report.*

the affected network for this project encompasses the project corridor itself, plus a 0.5-mile buffer on each side.

Project-Level MSAT Analysis Burden

This section discusses the results of the MSAT burden analysis for those facilities affected by the proposed I-15 South Corridor Improvement Project. The "emissions burden" is defined as the total mass emissions of an air contaminant, or group of air contaminants, for a specified period of time. In this case, the pollutants of interest are the priority MSATs emitted by the assemblage of motor vehicles that will be using the transportation facilities in question.

MSAT impacts from the proposed project are assessed by comparing the emission rates for the no build and build conditions for various horizon years. NDOT followed the methodology of Claggett and Miller[38] to do the burden analysis.

A. Freeway Mainline MSAT Emissions

Charts showing the relative daily MSAT emissions for the no build and build scenarios are presented in Figures 12 and 13. The years covered are 2003, 2020 (estimated completion), and 2030 (design year).

Emissions of MSATs are quite variable along individual segments of I-15 (see Figures 12 and 13). Segmental MSAT emissions are controlled by congested speeds and VMT, both of which can vary considerably. Most segments exhibit a decrease of total MSATs from 2003 to 2030 for the build condition (i.e., 17 to 64 percent decreases).

For both 2020 and 2030, differences between no build and build emissions along each segment are insignificant (less than 1 pound). However, for the 2030 design year, 10 out of 13 freeway mainline segments showed either no change or decreases in build emissions relative to the no build condition.

Relative to the 2003 base year, Segments 1 through 7 and 12 through 13 show a decrease in MSAT emissions for the design year build alternative, while Segments 8, 10, and 11 show no change in emission levels. Segment 9 exhibited an increase, with both the no build and build design year emissions increasing by similar proportions.

For the collection of I-15 mainline segments, total MSAT emissions decrease by 32 percent for the build condition relative to the 2003 base year (see Figure 14), and MSAT emissions show an overall decrease from 2003 to 2030 for both the no build and build scenarios.

B. MSAT Emissions for Arterials

NDOT also evaluated total MSAT emissions for major arterials both within and outside the project corridor. Figure 15 shows the total MSAT emissions for Las Vegas Boulevard and the collection of crossing arterials. MSAT emissions decrease by 83 percent for the build condition, with build emissions significantly less than no build emissions for the 2020 and 2030 analysis years. Capacity improvements slated for Las Vegas Boulevard contribute significantly to these corridor-scale MSAT reductions.

Discussion and Conclusions

MSAT emission trends for the I-15 South Corridor Improvement Project show that total emissions are projected to decrease over time for both the no build and build scenarios. Total MSATs decrease by 32 percent from 2003 to 2030 along the freeway mainline, and by 83 percent for crossing arterials, including Las Vegas Boulevard. Differences between no build and build emissions are insignificant for the 2020 and 2030 analysis years. Comparisons of MSAT emissions between roadway segments exhibit a high degree of variability, but MSATs generally decrease for those segments with the highest ADT and VMT.

[38] Claggett, M. and T.L. Miller. 2005. *A Methodology for Evaluating Mobile Source Air Toxic Emissions among Transportation Project Alternatives.* www.fhwa.gov/environment/airtoxic/.

Segments 7, 9, and 10 show greater increases in traffic demand than other segments for the design year. Corridor-wide, there is only a 2 percent difference in overall traffic demand between the no build and build alternatives. Segments 9 and 10 are those that have sensitive receptors (i.e., residential development) within 600 feet of the mainline. Differences between the build and no build emissions are less than one pound per day for these segments in the design year and despite the increases in traffic demand, these differences are insignificant. Local municipalities could also maintain a separation between sensitive receptors and the ROW by controlling planning, zoning, and type of development along the mainline and throughout the corridor.

The I-15 South Corridor Improvement Project would relieve traffic congestion along the I-15 corridor, which would lower emissions of MSATs and other air pollutants. Since the ambient concentrations of MSATs, or any air contaminant, are related to their mass emission rates, these results suggest that the ambient concentrations of MSATs attributable to operation of the freeway would be lower in the future.

Total MSAT emissions from motor vehicles operating on I-15 are very low. To put this in perspective, the 2001 average daily emissions of VOCs from gasoline service stations in Clark County are approximately 5.6 tons per day,[39] which is expected to be higher in 2003 and subsequent years. By contrast, combined emissions for MSATs for the freeway mainline and arterials are only 0.10 ton per day (200 pounds). Given that most MSATs are VOCs, this example shows that MSAT emissions from vehicles operating on I-15 are negligible when compared to nonvehicle sources.

Major mitigating factors for reducing future MSAT emissions is implementation of EPA's diesel emission control and fuel sulfur standards. Additional MSAT reductions on a regional scale will come from restrictions on the aromatic content of gasoline, plus reductions in exhaust and evaporative emissions from gasoline-powered passenger vehicles. These federal standards will provide tangible air quality benefits for the Las Vegas Valley.

Furthermore, NDOT has provided funding to the Clark County School District to retrofit a portion of their diesel bus fleet with emissions-reduction technology. NDOT is also implementing a comprehensive idling reduction outreach program in Clark County during 2007. These NDOT initiatives will achieve additional MSAT reductions, particularly for DPM, throughout the Las Vegas urbanized area.

For the United States as a whole, MSATs will be reduced by 68 percent between 2000 and 2020 (see Figure 16). These projected reductions are a result of newly enacted control programs for MSATs that include more stringent heavy-duty diesel engine emission standards and on-highway diesel fuel sulfur requirements.[40] These reductions in MSATs will be realized despite the nationwide 64 percent growth in VMT. Moreover, there will be additional reductions in MSATs, particularly for benzene, resulting from EPA-mandated restrictions in the aromatic content of gasoline and from standards for portable fuel containers.[41]

2.5.4 Mitigation

NDOT contract documents would specify that the contractor must implement a dust control program to minimize impacts. In addition, the contractor must comply with all federal, state, and local laws, including CCDAQEM regulations governing air pollution control. These regulations require that the contractor use acceptable methods to prevent fugitive dust emissions. All dust control permit conditions and stipulations must be in compliance for the duration of the project. With implementation of an effective dust control program, the increase in PM_{10} levels would not create adverse effects.

[39] EPA. 2001. *National Emissions Inventory (NEI): 2001 VOC Data for Clark County, Nevada.*

[40] Claggett, M. and T.L. Miller. 2005. *A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives.* www.fhwa.gov/environment/airtoxic/.

[41] EPA. 2007 *Control of Hazardous Air Pollutants from Mobile Sources: Final Rule to Reduce Mobile Source Air Toxics.* EOA420-F-07-017. February.

Figure 12
Total Mobile Source Air Toxics (MSATs)
I-15 Mainline Segments 1 to 6

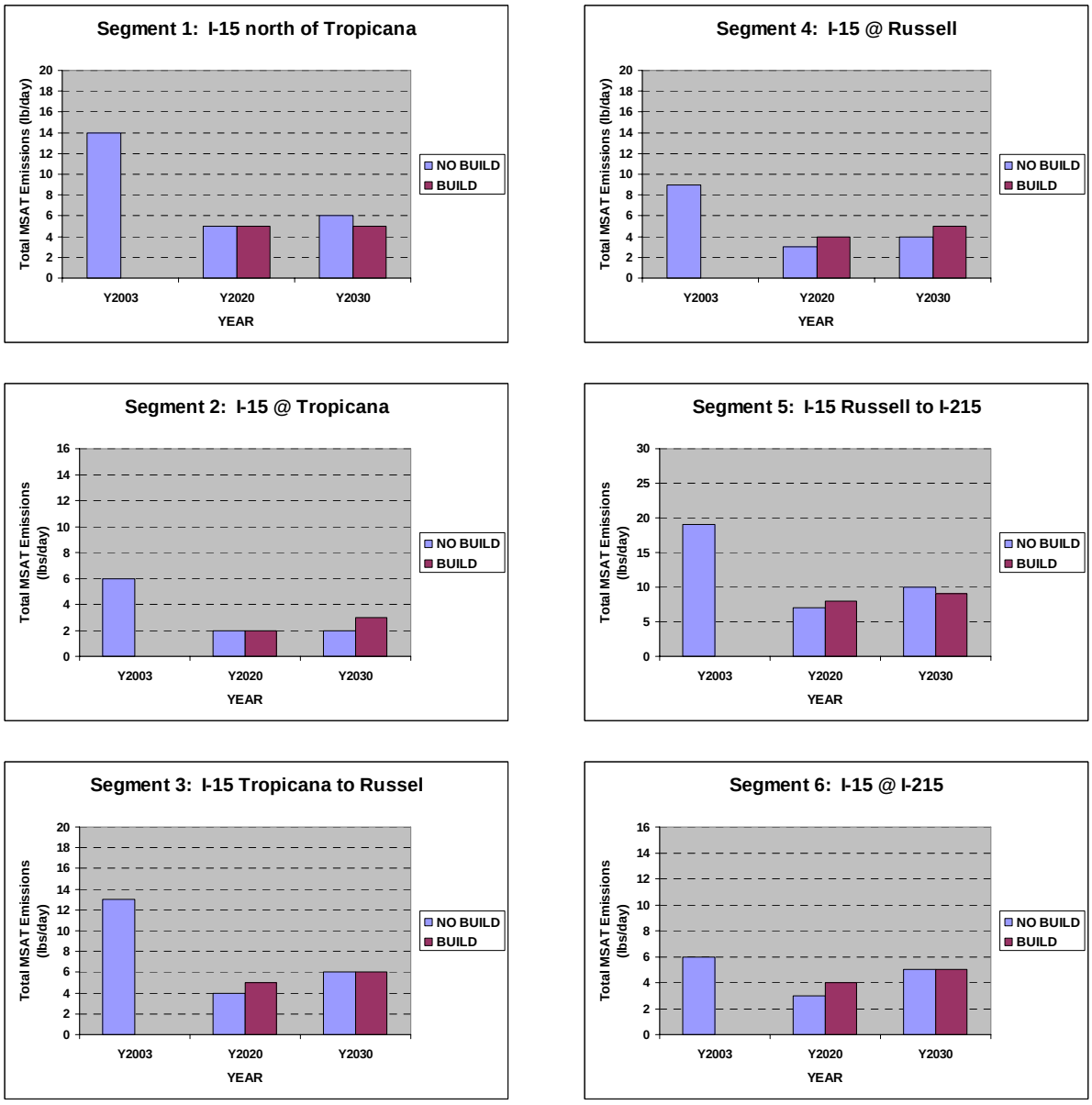

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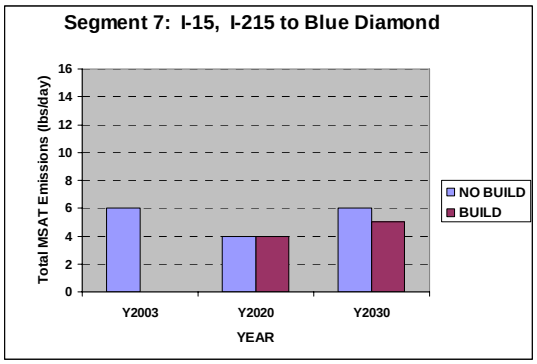
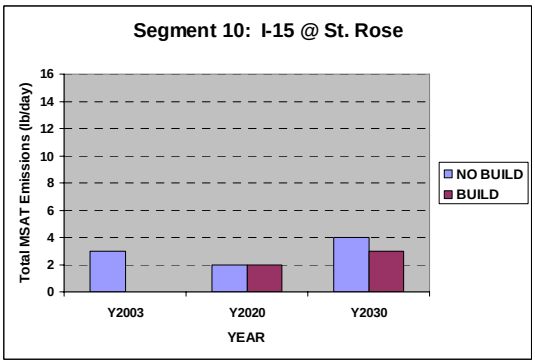
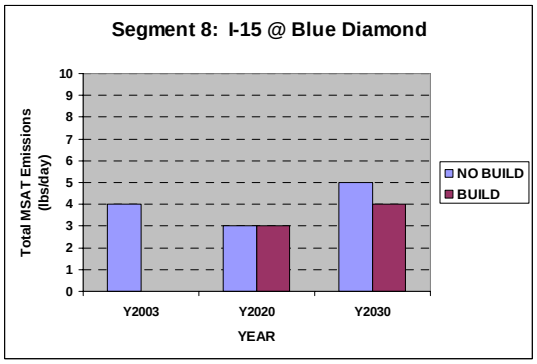
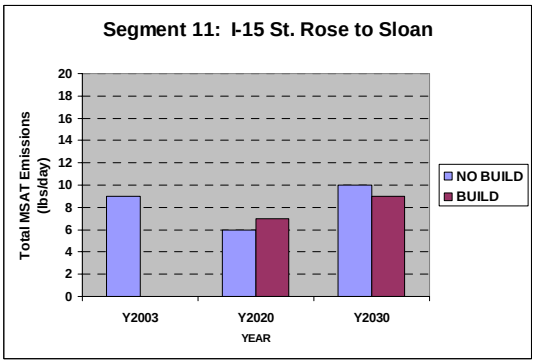
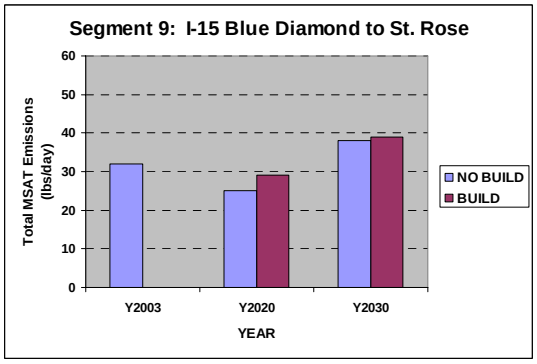
Figure 13
Total Mobile Source Air Toxics (MSATs)
I-15 Mainline Segments 7 to 13

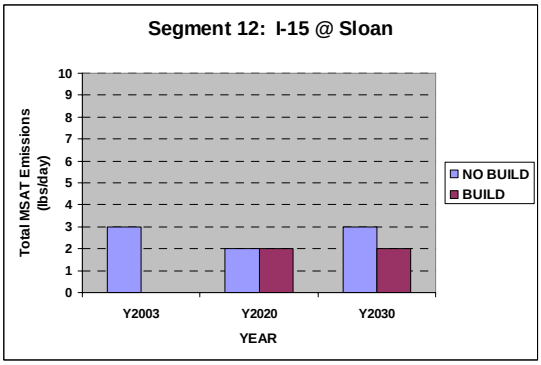












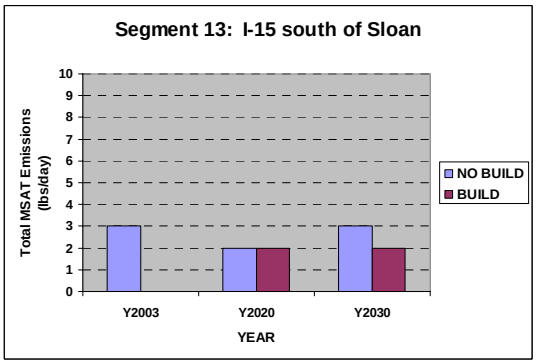


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Figure 14

I-15 South Corridor - All Freeway Mainline Segments
Mobile Source Air Toxics (MSATs)

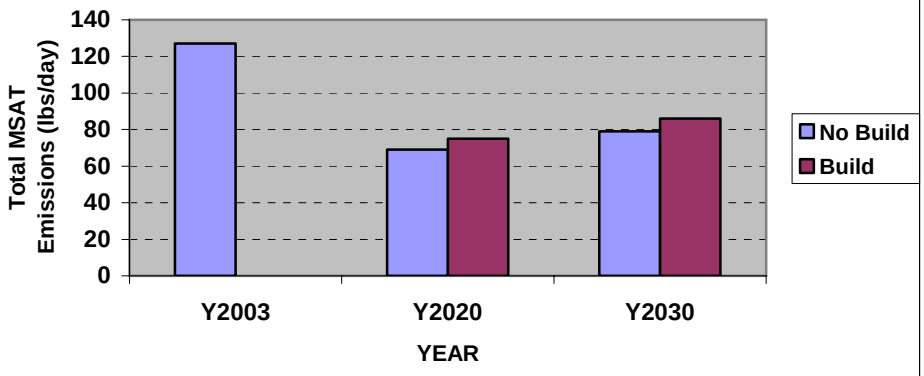


Figure 15

I-15 South Project - Arterials in Affected Network
Mobile Source Air Toxics (MSATs)

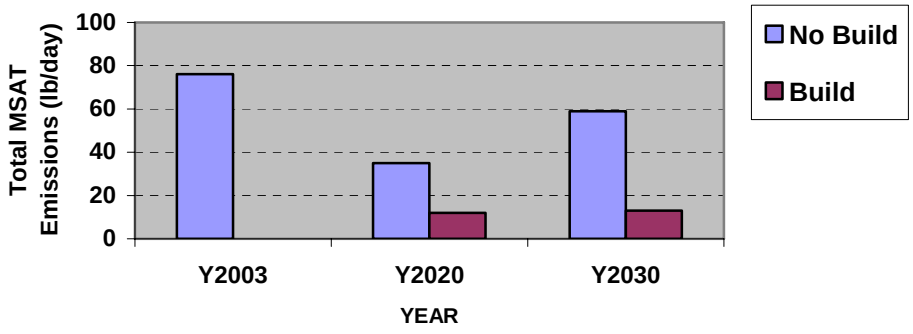
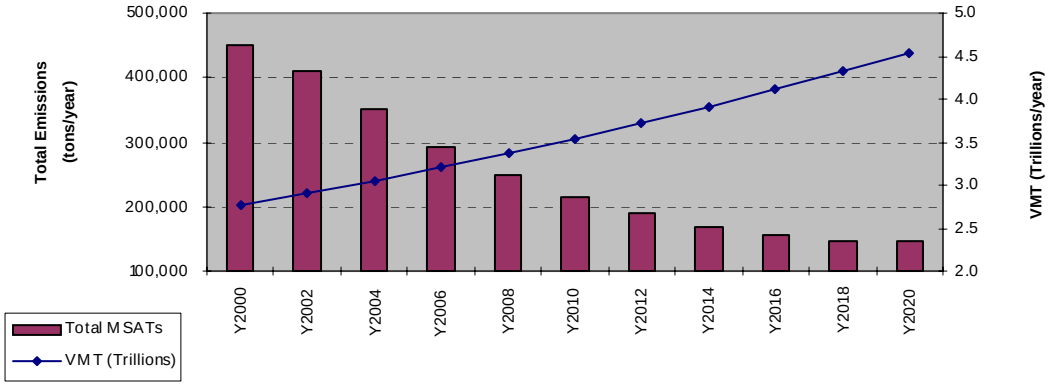


Figure 16

U.S. Annual Vehicle Miles Traveled (VMT) vs.
Mobile Source Air Toxics Emissions, 2000-2020
Source: Federal Highway Administration



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2.6 Noise

A noise study was prepared for the proposed project in accordance with *FHWA Procedures for Abatement of Highway Traffic Noise and Construction Noise* (23 CFR Part 772, 2001) and *NDOT Traffic and Construction Noise Abatement Policy* (2003). Table 6 shows the FHWA noise abatement criteria (NAC). Table 7 shows the corresponding common indoor and outdoor activity sounds.

Table 6
Noise Abatement Criteria

Activity Category	Noise Abatement Criteria (L_{eq}, dBA)	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Categories A or B, above.
D	---	Undeveloped lands.
E	52 (Interior)	Residences, motels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: 23 CFR Part 772, 2005.

2.6.1 Existing Conditions

Noise-sensitive land uses, called sensitive receptors, in the proposed project area consist of existing and permitted single-family residences and multi-family housing developments that fall into Category B of the NAC. Noise was monitored and modeled at various locations along the I-15 South corridor. Table 8 identifies the noise measurement locations and their respective measured noise levels. Short-term (20-minute) noise measurements were conducted at 10 residential locations that are representative sites for the sensitive receptors within the project corridor. Long-term (21- to 43-hour) measurements were also conducted at 6 receptors.

TABLE 7
TYPICAL SOUNDS AND THEIR CORRESPONDING NOISE LEVELS

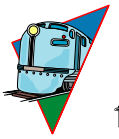
OUTDOOR NOISE LEVELS	NOISE LEVEL DECIBELS	INDOOR NOISE LEVELS
JET FLYOVER @ 1000 ft (304.80m) 	110	ROCK BAND 
GAS LAWN MOWER @ 3ft (.91m) 	100	INSIDE SUBWAY TRAIN (NEW YORK CITY) 
DIESEL TRUCK @ 50ft (15.24m) 	90	FOOD BLENDER @ 3 ft (.91m) 
NOISY URBAN DAYTIME 	80	GARBAGE DISPOSAL @ 3 ft (.91m)  SHOUTING @ 3 ft (.91m) 
GAS LAWN MOWER @100ft (30.48m) 	70	VACUUM CLEANER @ 3 ft (.91m) 
FHWA NOISE IMPACT CRITERIA	**66**	*NDOT TRAFFIC NOISE POLICY (2/14/03)*
HEAVY TRAFFIC @ 300ft (91.44m) 	60	NORMAL SPEECH @ 3 ft (.91m)  LARGE BUSINESS OFFICE 
QUIET URBAN DAYTIME 	50	DISHWASHER IN THE NEXT ROOM 
QUIET URBAN NIGHTTIME 		LARGE CONFERENCE ROOM (BACKGROUND) 
QUIET SUBURBAN NIGHTTIME 	40	LIBRARY 
QUIET RURAL NIGHTTIME 	30	BEDROOM AT NIGHT 
RUSTLING LEAVES 	20	CONCERT HALL (BACKGROUND) 
MOSQUITO @ 3 ft (.91M) 	10	BROADCAST / RECORDING STUDIO (BACKGROUND) 
THRESHOLD OF HEARING	0	THRESHOLD OF HEARING

Table 8
Noise Measurements

Site Number	Address	Noise Levels, dBA Leq
ST1	2815 Villanova Court, Building 35, Unit 1015	63.0[1]
ST2[2]	8080 Giles Street	64.0[1]
ST3[2]	8445 Las Vegas Boulevard South, Building 24, Unit 1002/1003	70.0[1]
ST4	Scalise Court cul-de-sac	60.0 / 61.0[1]
ST5	7181 Dean Martin Drive	75.0[1]
ST6	9604 Gary Avenue	68.0[1]
ST7	2850 Silverado Ranch Boulevard	66.0[1]
ST8[2]	52 Saddle Avenue	57.0[1]
ST9	2711 W. Windmill Lane	68.0[1]
ST10	2815 Villanova Court	64.0[1]
LT1[2]	9000 Las Vegas Boulevard South, Building 38, Unit 1035	66.3
LT2[2]	13 Bellcrest Court	64.9
LT3	6055 Pyle Avenue	60.8
LT4	1197 Dale Avenue	61.5
LT5	3239 Rapale Lane	54.3
LT6	1671 W. Neal	60.7

[1] Noise levels adjusted to reflect peak traffic noise hours.
[2] Measurement sites along Las Vegas Boulevard South.
dBA – A-weighted decibel
L_{eq} – equivalent sound level

Source: Parsons, 2006. Noise Study and Barrier Analysis Report – I-15 South Corridor Improvement Project – Sloan Road to Tropicana Avenue. May.

2.6.2 Impacts

A traffic noise analysis was completed to identify impacts and evaluate mitigation measures. A traffic noise impact occurs when predicted traffic noise levels "approach or exceed" the NAC or when the predicted noise levels "substantially exceed" the existing noise levels (23 CFR 722.5, g). NDOT defines "approach" as 1 A-weighted decibel (dBA) less than the FHWA impact criteria listed in Table 6 and "substantially greater" as a predicted noise increase equal to or greater than 15 dBA. Table 9 summarizes the results of the modeling. Figures 10a through 10i show the location of the noise receivers and monitoring locations listed in Table 9.

Table 9
Predicted Noise Levels and Soundwall Recommendations

Receiver Number	Land Use	Existing Noise Levels, dBA, $L_{eq}(h)$	Predicted Noise Levels, dBA, $L_{eq}(h)$	Mitigated Noise Levels, dBA, $L_{eq}(h)$	Wall Type/ Location/Number or Reason Wall Not Recommended	Wall Dimensions[1]	
						Height (feet)	Length (feet)
Las Vegas Boulevard							
LVB R1.1	SFR	51	55		No impact		
LVB R1.2	SFR	53	57		No impact		
LVB R1.3	SFR	53	57		No impact		
LVB R1.4	SFR	50	53		No impact		
LVB R2.1	SFR	55	59		No impact		
LVB R2.2	SFR	56	60		No impact		
LVB R2.3	SFR	59	63		No impact		
LVB R2.4	SFR	58	62		No impact		
LVB R2.5	SFR	57	60		No impact		
LVB R2.6	SFR	56	60		No impact		
LVB R3.1	SFR	46	50		No impact		
LVB R3.2	SFR	57	54		No impact		
LVB R3.3	SFR	47	51		No impact		
LVB R3.4	SFR	46	50		No impact		
LVB R3.5	SFR	47	51		No impact		
LVB R3.6	SFR	47	51		No impact		
LVB R3.7	SFR	50	55		No impact		
LVB R3.8	SFR	56	63		No impact		
LVB R4.1	SFR	54	57		No impact		
LVB R4.2	SFR	55	58		No impact		
LVB R4.3	SFR	55	59		No impact		
LVB R5.1	MFR	68	72	63	New/Property Line/S567[2]	8	392
LVB R5.2	MFR	67	71	60	New/Property Line/S571[2]	10	299
LVB R5.3	SFR	47	51		No impact		
LVB R5.4	SFR	46	49		No impact		
LVB R5.5	SFR	50	53		No impact		
LVB R5.6	SFR	51	55		No impact		
LVB R5.7	HOT	65	63		No impact		
LVB R5.8	MFR	67	65		No impact		
LVB R5.9	SFR	66	65		No impact		

[1]For the range of soundwall heights that were modeled, see the *Noise Study and Barrier Analysis Report* (Parsons, May 2006).
[2]When not an NDOT facility, listed soundwalls are only for illustration. NDOT does not propose to construct these soundwalls.

HOT – Hotel
MFR – Multi-family residential
SFR – Single-family residential

Table 9
Predicted Noise Levels and Soundwall Recommendations

Receiver Number	Land Use	Existing Noise Levels, dBA, $L_{eq}(h)$	Predicted Noise Levels, dBA, $L_{eq}(h)$	Mitigated Noise Levels, dBA, $L_{eq}(h)$	Wall Type/ Location/Number or Reason Wall Not Recommended	Wall Dimensions[1]	
						Height (feet)	Length (feet)
LVB R5.10	SFR	61	64		No impact		
LVB R5.11	SFR	65	68	63	New/Property Line/S576[2]	12 10	267 319
LVB R5.12	SFR	64	67	60			
LVB R5.13	SFR	63	67	61			
LVB R5.14	MFR	62	66	58 or 59	New/Right-of-Way/ S586[2]	10 14	613 360
LVB R5.15	MFR	63	66	58 or 59			
LVB R5.16	MFR	66	64		No impact		
LVB R5.17	MFR	65	63		No impact		
LVB R5.18	MFR	68	67		Soundwall not feasible[3]		
LVB R5.19	MFR	60	61		No impact		
LVB R6.1	SFR	52	53		No impact		
LVB R6.2	SFR	43	43		No impact		
LVB R6.3	MFR	70	70	60	New/Property Line/S547[2]	10	423
LVB R6.4	MFR	70	70	60	New/Property Line/S551[2]	10	294
LVB R6.5	SFR	54	59		No impact		
LVB R6.6	SFR	53	53		No impact		
LVB R6.7	SFR	52	53		No impact		
LVB R6.8	SFR	51	51		No impact		
LVB R6.9	SFR	50	50		No impact		
LVB R6.10	SFR	46	46		No impact		
LVB R7.1	SFR	64	55		No impact		
LVB R7.2	SFR	51	51		No impact		
LVB R7.3	SFR	53	53		No impact		
LVB R8.1	HOT	61	61		No impact		
I-15							
R1.1	SFR	57	65		No impact		
R2.1	MH	53	63		No impact		
R2.2	MH	53	63		No impact		
R2.3	MH	51	60		No impact		
R2.4	SFR	63	56		No impact		

[1]For the range of soundwall heights that were modeled, see the *Noise Study and Barrier Analysis Report* (Parsons, May 2006).

[2]When not an NDOT facility, listed soundwalls are only for illustration. NDOT does not propose to construct these soundwalls.

[3]Not feasible means a minimum 5-dBA noise reduction cannot be achieved with a practical height soundwall, determined to be a soundwall higher than 22 feet.

HOT – Hotel
MFR – Multi-family residential
MH – Mobile home
SFR – Single-family residential

Table 9
Predicted Noise Levels and Soundwall Recommendations

Receiver Number	Land Use	Existing Noise Levels, dBA, $L_{eq}(h)$	Predicted Noise Levels, dBA, $L_{eq}(h)$	Mitigated Noise Levels, dBA, $L_{eq}(h)$	Wall Type/ Location/Number or Reason Wall Not Recommended	Wall Dimensions[1]	
						Height (feet)	Length (feet)
R2.5	SFR	62	55		No impact		
R3.1	SFR	54	60		No impact		
R3.2	SFR	64	71	64	New/Shoulder/S305	18 14	1,400 633
R3.3	SFR	64	72	66			
R3.4	SFR	64	73	66			
R3.5	SFR	63	71	63			
R3.6	SFR	64	72	65			
R3.7	SFR	54	61				
R3.8	SFR	59	65				
R3.9	SFR	56	63		No impact		
R3.10	SFR	61	72		Not cost effective		
R3.10A	SFR	61	71		Not cost effective		
R4.1	SFR	55	60		No impact		
R4.1A	SFR	67	62	60	New/Shoulder/S347	12 16 20 18 16	246 139 358 422 3,144
R4.2	SFR	54	59				
R4.2A	SFR	68	65	61			
R4.2B	SFR	68	66	61			
R4.3	SFR	61	68	60			
R4.3A	SFR	62	70	62			
R4.4	SFR	61	71	63			
R4.5	SFR	63	72	66			
R4.5A	SFR	63	72	65			
R4.6	SFR	61	69	60			
R4.6A	SFR	63	71	65			
R4.7	SFR	62	70	61			
R4.8	SFR	62	69	62			
R4.9	SFR	52	59	55			
R4.10	SFR	52	59	55			
R4.11	SFR	55	60	60			
R4.12	SFR	68	71	65			
R4.13	SFR	71	73	66			
R4.14	SFR	70	73	66			
R4.15	SFR	66	69	63			
R5.1	SFR	65	73		Not cost effective		
R5.2	SFR	57	66		Not cost effective		
R5.3	SFR	61	69		Not cost effective		
R5.4	SFR	58	67		Not cost effective		

[1]For the range of soundwall heights that were modeled, see the *Noise Study and Barrier Analysis Report* (Parsons, May 2006).
SFR – Single-family residential

Table 9
Predicted Noise Levels and Soundwall Recommendations

Receiver Number	Land Use	Existing Noise Levels, dBA, $L_{eq}(h)$	Predicted Noise Levels, dBA, $L_{eq}(h)$	Mitigated Noise Levels, dBA, $L_{eq}(h)$	Wall Type/ Location/Number or Reason Wall Not Recommended	Wall Dimensions[1]	
						Height (feet)	Length (feet)
R5.5	SFR	61	69		Not cost effective		
R5.6	SFR	58	66		Not cost effective		
R5.7	SFR	65	73		Not cost effective		
R5.8	SFR	58	66		Not cost effective		
R5.9	SFR	61	68		Not cost effective		
R5.10	SFR	51	59		No impact		
R5.11	SFR	51	59		No impact		
R5.12	SFR	58	66		No impact – structure demolished		
R5.13	SFR	58	66		Not cost effective		
R6.1	SFR	70	62		No impact – structure demolished		
R6.2	SFR	68	64		No impact – structure demolished		
R6.3	SFR	67	65		No impact – structure demolished		
R6.4	SFR	54	60		No impact		
R6.5	SFR	70	70		No impact – structure demolished		
R6.6	SFR	67	71		No impact – structure demolished		
R6.7	SFR	67	72		Not cost effective		
R6.8	SFR	68	73		Not cost effective		
R6.9	SFR	55	60		No impact		
R6.10	SFR	55	60		No impact		
R6.11	SFR	64	69		Not cost effective		
R6.12	SFR	64	69		Not cost effective		
R6.13	SFR	59	64		No impact		
R6.14	SFR	61	69		Not cost effective		
R6.15	SFR	59	64		No impact		
R6.16	SFR	58	63		No impact		
R6.17	SFR	58	65		Not cost effective		
R6.18	SFR	59	66		Not cost effective		
R6.19	SFR	58	62		No impact		
R6.20	SFR	55	59		No impact		
R6.21	SFR	67	78		Not cost effective		
R6.22	MFR	66	61		No impact		
R6.23	MFR	65	64		No impact		
R6.24	SFR	62	65		No impact		

[1]For the range of soundwall heights that were modeled, see the *Noise Study and Barrier Analysis Report* (Parsons, May 2006).
MFR – Multi-family residential
SFR – Single-family residential

Table 9
Predicted Noise Levels and Soundwall Recommendations

Receiver Number	Land Use	Existing Noise Levels, dBA, $L_{eq}(h)$	Predicted Noise Levels, dBA, $L_{eq}(h)$	Mitigated Noise Levels, dBA, $L_{eq}(h)$	Wall Type/ Location/Number or Reason Wall Not Recommended	Wall Dimensions[1]	
						Height (feet)	Length (feet)
R6.25	SFR	62	66	59	New/Shoulder/S280	18 16 14 12 14	1382 200 200 600 498
R6.26	SFR	62	67	62			
R6.27	SFR	62	67	60			
R6.28	MFR	65	70	65			
R6.29	MFR	66	71	64			
R6.30	MFR	66	69	63			
R6.31	MFR	68	66	61			
R6.32	MFR	60	65		No impact		
R6.33	MFR	61	65		No impact		
R7.1	SFR	63	69		Not cost effective		
R7.1A	SFR	55	60		No impact		
R7.2	SFR	54	58		No impact		
R7.3	SFR	65	70		Not cost effective		
R7.4A	MFR	64	69	64	New/Shoulder/S484	12 10 12	2,653 700 400
R7.4	MFR	64	69	63			
R7.5	MFR	63	69	64			
R7.6	MFR	62	70	63			
R7.7	MFR	62	70	64			
R7.8	MFR	66	72	66			
R7.9	MFR	70	75	66			
R7.10	MFR	66	73	66			
R7.11	MH	66	71	65			
R7.12	MH	68	73	65			
R7.13	MH	69	65		New/Shoulder/S484[3]	10 8	322 878
R7.14	MH	68	61				
R7.15	MH	63	58				
R7.16	MH	59	58				
R7.17	MH	60	59				
R8.1	SFR	50	52		No impact		
R8.2	SFR	50	53		No impact		
R8.3	SFR	50	53		No impact		
R8.4	SFR	52	55		No impact		
R8.5	SFR	75	60		No impact		
R8.6	SFR	61	63		No impact		
R8.7	SFR	61	64		No impact		

[1]For the range of soundwall heights that were modeled, see the *Noise Study and Barrier Analysis Report* (Parsons, May 2006).

[2]Not feasible means a minimum 5-dBA noise reduction cannot be achieved with a practical height soundwall, determined to be a soundwall higher than 22 feet.

[3]Soundwall not required for noise abatement but replaces existing wall that would be removed by the project.

MFR – Multi-family residential
MH – Mobile home
SFR – Single-family residential

Construction

Noise during construction would be intermittent and intensity would vary. The degree of construction noise impacts would vary for different areas of the project and depending on the construction activities.

2.6.3 Mitigation

Noise abatement measures were evaluated by modeling a soundwall shielding the sensitive receivers. Soundwalls were determined to be the most reasonable and feasible mitigation option to reduce the long-term traffic noise impacts. Soundwalls would be constructed early in the project, as feasible, to mitigate construction noise.

For a barrier to be considered effective, it must be physically "feasible" and economically "reasonable." A barrier is considered "feasible" when it provides a minimum 5-dBA reduction for the first row of residents. In agreement with NDOT Environmental Services, $15,000 per resident was used to reflect the increase in construction costs as a guideline for determining if a barrier is considered economically "reasonable" and uses the Nevada demographics average of 2.6 residents per dwelling. The estimated cost of soundwalls was based on the current Clark County unit cost for a standard soundwall of $24 per square foot. The following summarizes the soundwalls that would provide adequate mitigation but are not cost effective, and therefore, are not recommended.

- Receivers 3.10 and 3.10A (Soundwall S318) – A soundwall along the NB I-15 ROW line would benefit 2 single-family residential units and would be 18 feet high. The cost effectiveness allowance for this soundwall is $78,000, and the estimated cost is $597,924.

- Receivers 5.1 through 5.9 (Soundwall S411) – A soundwall along the SB I-15 shoulder would benefit 8 single-family residential units and would range in height from 16 feet to 20 feet. The cost effectiveness allowance for this soundwall is $312,000, and the estimated cost is $1,232,092.

- Receiver 5.13 (Soundwall S414) – A soundwall along the NB I-15 shoulder would benefit 1 single-family residential unit and would range in height from 14 feet to 16 feet. The cost effectiveness allowance for this soundwall is $39,000, and the estimated cost is $870,400.

- Receivers 6.7, 6.8, 6.11, 6.12, 6.14, 6.17, 6.18, and 6.21 (Soundwall S285) – A soundwall along the SB I-15 ROW line would benefit 8 single-family residential units and would be 16 feet high. The cost effectiveness allowance for this soundwall is $312,000, and the estimated cost is $2,418,624.

- Receiver 7.1 (Soundwall S313) – A soundwall along the SB I-15 ROW would benefit 1 single-family residential unit and would be 16 feet high. The cost effectiveness allowance for this soundwall is $39,000, and the estimated cost is $399,840.

- Receiver 7.3 (Soundwall S337) – A soundwall along the SB I-15 ROW would benefit 1 single-family residential unit and would be 16 feet high. The cost effective allowance for this soundwall is $39,000, and the estimated cost is $651,712.

The recommended soundwalls are designed to reduce traffic noise levels by a minimum of 5 dBA, intercept the line-of-sight to truck exhaust stacks, and achieve an abatement level of 66 dBA. For the range of soundwall heights that were modeled, see the *Noise Study and Barrier Analysis Report* (Parsons, May 2006). See Figure 10a through 10i for locations of the recommended soundwalls. The following summarizes the recommended soundwalls as identified in Table 9. Soundwall height, length, and location would be determined during final design in coordination with NDOT Environmental Services Division.

- Soundwall S305 – This soundwall on the shoulder of I-15 would benefit 14 single-family residential units and would range in height from 14 feet to 18 feet (see Figure 10c).

- Soundwall S347 – This soundwall along the Starr Avenue SB off-ramp would benefit 50 single-family residential units and would range in height from 12 feet to 20 feet (see Figure 10d).

- Soundwall S280 – This soundwall along the NB I-15 shoulder would benefit 39 single- and multi-family residential units and would range in height from 12 feet to 18 feet (see Figure 10e)

- Soundwall S484 – This soundwall along the NB I-15 shoulder would benefit 80 single- and multi-family residential units and would range in height from 10 feet to 12 feet. In addition, receivers represented by R7.13 through R7.17 would not be impacted, but the soundwall is proposed to be extended in this area to replace the existing property wall (see Figure 10f).

When soundwalls are not for an NDOT facility, they are described for illustrative purposes only. NDOT does not propose to construct the following soundwalls.

- Soundwalls S567 and S571 – These soundwalls are at the property line along SB Las Vegas Boulevard South and are separated to allow access into the apartment complex. These soundwalls would benefit 12 multi-family residential units and would be 8 feet and 10 feet high, respectively (see Figure 10e).

- Soundwall S 576 – This soundwall at the property line along NB Las Vegas Boulevard South would replace the existing private property wall with a higher wall adjacent to the roadway. The soundwall would benefit 13 single-family residential units and would range in height from 10 feet to 12 feet (see Figure 10e).

- Soundwall S586 – This soundwall along the ROW line along NB Las Vegas Boulevard would benefit 23 multi-family residential units and range in height from 10 feet to 14 feet (see Figure 10e).

- Soundwalls S547 and S551 – These soundwalls at the property line along SB Las Vegas Boulevard South are separated to allow access into the apartment complex. These soundwalls would benefit 10 multi-family residential units and would be 10 feet high (see Figure 10f).

Construction

Mitigation measures for construction noise would be addressed in the contract documents, which would require the contractor to submit a noise control plan for review and approval by NDOT. The plan would specify how noise mitigation measures would be implemented during construction that occurs near residences. Contract specifications would address hours of operation and noise-level limits. Construction specifications would require performance of proper maintenance on construction equipment and that stationary equipment be placed as far away from homes as feasible.

2.7 Floodplain and Hydrologic Assessment[41]

2.7.1 Existing Conditions

The Clark County Regional Flood Control District (CCRFCD) has developed a drainage master plan that includes a series of storm drainage systems west of I-15. The agency has constructed several storm drainage systems, including channels, box culverts, storm drains, and retention basins, that are designed to hold and control the flow of surface waters, thus reducing the potential for flooding.

The watersheds in the area are Tropicana Wash, Blue Diamond Wash, and Duck Creek Wash. Offsite runoff flows easterly toward I-15 along the entire length of the project area.

[41] VTN. 2006. *Conceptual Offsite Hydrology and Conceptual Drainage Design Report.* June.

Runoff crosses I-15 and Las Vegas Boulevard through a series of cross-culverts, entering pipelines and box culverts that convey flows to the east (see Figure 17). Federal Emergency Management Administration (FEMA) mapping indicates that several areas are designated as Zone A (i.e., within a 100-year floodplain). These include areas around Tropicana Avenue (near the northerly limit) and Cactus Avenue (near the southerly limit), which are designated as Zone A because of the ponding of offsite flows against the I-15 roadway embankment. In addition, Zone A delineations follow natural washes (i.e., crossing both the I-15 and Las Vegas Boulevard alignments) where planned flood control facilities have not been completed.

Four regulatory floodways where development and/or improvement must not raise the base flood elevations by more than 1-foot occur in the project area at Blue Diamond Wash (between Windmill Lane and Shelbourne), Duck Creek/Blue Diamond Wash (between Windmill Lane and Wigwam), Duck Creek Wash – Tributary 4 (between LeBaron and Pyle), and Duck Creek Wash – Main Branch (between LeBaron and Cactus Avenue).

2.7.2 Impacts

Overall Flow Increases: Construction of additional lanes on I-15, widening Las Vegas Boulevard, and interchange construction/modification would not increase peak runoff to adjacent and downstream properties. A small increase in runoff may occur because of the additional paving and the resulting increase in impermeable area along the corridor. Given the large basin areas tributary to the drainage crossings and the large time-to-peak differences between onsite and offsite drainage areas, this increase in runoff would not affect peak offsite runoff.

I-15: Overtopping of the I-15 roadway occurs during high-intensity rainfall events near Cactus Avenue, Pyle Avenue, and Blue Diamond Road. Proposed interchange ramps at Cactus Avenue, along with overpass approaches at Cactus Avenue and Pebble Road, would impact the existing northerly conveyance of these overtopping flows.

Las Vegas Boulevard Widening: South of Sunset Road, the Las Vegas Boulevard South widening would overlay some minor offsite washes paralleling the roadway.

2.7.3 Mitigation

I-15: New offsite conveyance systems would be required in these locations to keep ponding limits from exceeding those under existing conditions under the Build Alternative. The I-15/Cactus Avenue interchange (centered on Duck Creek Wash) would require offsite drainage improvements. The CCRFCD Master Plan shows that approximately 2,900 cubic feet per second (cfs) (100-year storm flow) are directed to this location. To perpetuate drainage patterns, a portion of this flow (1,600 cfs) would be directed north, along the west edge of I-15 (crossing the Cactus Avenue roadway embankment). The remaining flow would be directed across I-15 back to Duck Creek Wash. Grading would be required east of I-15 to maintain drainage patterns and return flows to their natural water courses without adversely impacting upstream watercourse hydraulics.

Las Vegas Boulevard Widening: To accommodate anticipated development, these flows would be conveyed along realigned ditches or via storm drain systems below the roadway prism to the largest extent possible.

Floodplain impacts would be minimized by improving the offsite drainage system of the highway, by designing drainage systems in consultation with CCRFCD, and by incorporating designs that perpetuate existing flow patterns without increasing upstream water levels.

Drainage and flood control systems would be designed in consultation with CCRFCD and in accordance with the CCRFCD Flood Control Master Plan for the Las Vegas Valley.

2.8 Water Resources

2.8.1 Existing Conditions

Surface Water: The project area is located within the sub-watersheds for the Tropicana, Blue Diamond, and Duck Creek Washes within the Las Vegas Wash Watershed (Hydrologic Unit Code 15010015). The sub-watersheds are characterized by steep mountain washes in the upper reaches (west of I-15), discharging to broad alluvial valleys (east of I-15) in a general southwest to northeast direction.

Perennial waterways are not present within the project limits; however, several potential jurisdictional ephemeral drainages, which convey water only during storm events, cross I-15 and Las Vegas Boulevard South within the project limits and potentially discharge into the Las Vegas Wash. Many of the culverts perpetuate urban stormwater runoff with flows dissipating across downstream landscapes. The overall lack of annual streamflow is evidenced by the establishment of mature, upland vegetation within many of the stream channels.

The historical flow paths of the ephemeral drainages have been altered by urbanization and regional flood control projects. Wetlands or other special aquatic sites are not present within the project limits. Aquatic life is not supported within any of the impacted waterways.

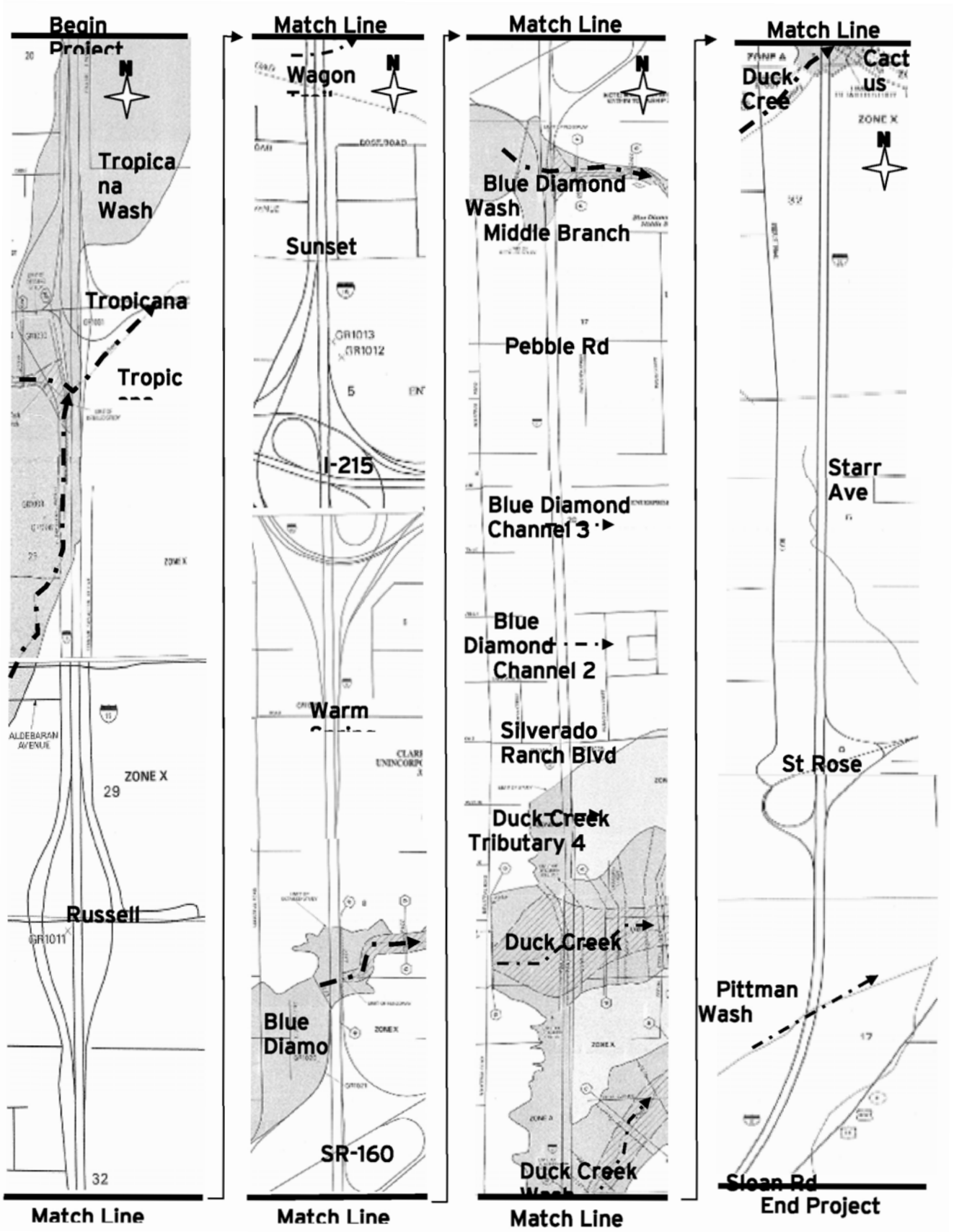
Groundwater: Static water levels obtained from the Nevada Division of Water Resources indicate initial groundwater depths in the project vicinity of 85 to 100 feet below the ground surface. The groundwater regime is identified as the "Principal Aquifer," which is used for a portion of the drinking water supply in the Las Vegas area. The surficial soils vary throughout the project area, but they are dominated by fine sandy loams in hydrologic soil group D with more gravelly loams in the streambed areas, which are characterized as hydrologic soil group A. The Type D soils, which dominate the area, exhibit low infiltration rates.

Water Quality: Due to the ephemeral nature of the drainages within the project limits, precipitation events more than likely result in pulses (load and/or concentration) of sediment, in addition to typical urban highway pollutant constituents (e.g., heavy metals, hydrocarbons, pesticides, debris) conveyed downstream. The final discharge point of the larger ephemeral drainages is the Las Vegas Wash, which is located 12 miles northeast of the project area. The Las Vegas Wash is currently listed on Nevada's 303(d) Impaired Waters list. Total maximum daily loads for total ammonia and total phosphorus are established for each reach of the Las Vegas Wash between Telephone Line Road and Lake Mead with iron and total dissolved solids listed as pollutants of concern. The Nevada Division of Environmental Protection (NDEP), who retains statutory authority for water quality, does not classify specific water quality standards for ephemeral washes due to streamflow conveyance times of one day or less in direct response to precipitation events.

2.8.2 Impacts

Surface Water: Several drainage structures (e.g., culverts and reinforced concrete boxes) would be extended as part of the I-15 widening. The extension of these drainage structures would result in a discharge of fill material within 0.24-acre of ephemeral stream channel. A jurisdictional determination would be required to determine if the ephemeral drainages fall under the jurisdiction of the United States Army Corps of Engineers (USACE). If any drainage is deemed a jurisdictional Waters of the United States, impacts would qualify for the Section 404 Nationwide Permit issued by USACE. The extension of the drainage structures would not alter flow capacity.

During precipitation events, it is expected that a lag time would occur for peak runoff between offsite flows and runoff associated with I-15. The increase in impervious surface, in conjunction with the peak runoff lag time, should result in only minor increases in peak flows downstream of the project area; therefore, impacts at the watershed level should be low.



I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
FEMA Map with Streams Along Project Alignment
FIGURE 17

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Groundwater: Excavation for the proposed project would not exceed 2 to 3 feet, with the exception that spot excavations of 25 to 30 feet may be required for the installation of drainage facilities, structural foundations, and signs. Due to limited excavation depths, impacts to groundwater are not expected. The potential impact to groundwater is minimal due to the low infiltration rates of area soils, coupled with the large depth to groundwater in the project area.

Water Quality: Nonstabilized fill material and the inadvertent discharge of equipment fluids could enter the ephemeral drainage channels during construction. The increases in stormwater flows resulting from the increased impervious surface area could lead to increases in highway pollutant loading into the ephemeral drainages during the precipitation events (e.g., sediment, nutrients, heavy metals). Several regional flood control structures are present downstream of the project limits to capture stream flow conveyed within the larger ephemeral drainages, allowing for sediment deposition and nutrient attenuation prior to discharge into Las Vegas Wash.

2.8.3 Mitigation

Surface Water

Surface Water: Because the increase of impervious surface in the area would be minimal, mitigation measures for flow reduction are unnecessary. If any of the ephemeral drainages potentially impacted by the proposed project are determined to be jurisdictional waters of the U.S., the project would comply with all of the conditions and stipulations stated in the Section 404 Nationwide Permit.

Groundwater: No impacts to groundwater are expected; therefore, mitigation measures would not be necessary. If previously unidentified wells are encountered during project construction, the contractor is responsible for notifying the Nevada Department of Water Resources and for retaining a Nevada-licensed driller to properly abandon the well, if necessary.

Water Quality: In addition to securing a Section 404 Permit for the discharge of fill material into a Waters of the United States, Section 401 Water Quality Certification issued by NDEP, Bureau of Water Quality Planning, would also be required for water quality assurances. If construction equipment is required to enter any of the ephemeral stream channels, then a Temporary Working in Waterways Permit issued by NDEP, Bureau of Water Pollution Control, would be obtained by the contractor for water quality assurances as well.

As part of the freeway design, erosion control measures would be incorporated for site stabilization. The contractor would obtain a construction stormwater permit issued by NDEP, Bureau of Water Pollution Control. To secure coverage under this permit, the contractor would file a Notice of Intent (NOI) and develop a Stormwater Pollution Prevention Plan (SWPPP) identifying sources of onsite stormwater discharge into adjacent surface waters and describing the implementation of best management practices (BMPs) to prevent or reduce to the maximum extent possible said discharges.

2.9 Cumulative Impact Analysis

2.9.1 Introduction

Purpose and Regulatory Basis

This proposed project is in response to the growth planned in the southern Las Vegas Valley, which will require I-15 to be a major transportation corridor to serve a predicted increase in average annual daily traffic as planned developments build out to capacity in the next 20 years.

NEPA requires that the potential direct, indirect, and cumulative impacts of a federal-funded or approved project be identified and evaluated. Within the context of NEPA, indirect effects are defined by the CEQ

as impacts that are "caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable" (40 CFR 1508.8). Cumulative impacts are defined as "the impact on the environment which results from the incremental impacts of the action when added to other past, present, and reasonable foreseeable future actions…" (40 CFR 1508.7). Logically, if a given project does not *directly* or *indirectly* impact a particular environmental resource, that project would not contribute to a *cumulative* impact on the resource.

FHWA and CEQ Guidance

This analysis is conducted in accordance with FHWA and CEQ regulations and guidance documents, including the January 1997 CEQ handbook entitled *Considering Cumulative Effects under the National Environmental Policy Act* (1997) and the April 1992 FHWA position paper entitled *Secondary and Cumulative Impact Assessment in the Highway Project Development Process.*

Methodology

Cumulative impacts associated with the proposed project are limited to unincorporated areas of Clark County and the City of Henderson. The 2030 design year was used as a future projection, consistent with the 2030 RTP, as described in Section 1, with a past time limit of 1990. Although growth in Clark County has been substantial in every decade since 1940, 1990 benchmarks the beginning of unprecedented population and job growth in the region, with the population increasing from 764,464 in 1990 to 1,752,240 in 2005.[44]

2.9.2 Overview of Past and Present Conditions

Land Use

The Las Vegas Valley environment has been impacted by a variety of development activities, including construction of highways, secondary roads, residential, and commercial development. The extent of past development activities has resulted in the loss of natural resources and an increase in urbanization. Residential and commercial development within the I-15 corridor has been ongoing since the late 1970s, with the rate of development increasing since that time.

Under the Southern Nevada Public Lands Management Act (SNPLMA), BLM has the authority to dispose of lands within Clark County that are under their jurisdiction. As such, beginning in the 1990s, land has been sold and became available for development. The Southern Highlands master-planned community, which is located in the southern portion of the corridor west of I-15, is a major development that resulted from the sale of land. See Figure 10 for the location of master-planned communities within the project study area.

Local Transportation Development Projects

Over the past 5 years, NDOT and Clark County have made improvements to the I-15 South corridor. Both the St. Rose Parkway and Blue Diamond Road interchanges with I-15 are under construction to improve the operational characteristics of each interchange in response to the rapid growth within the Las Vegas Valley. Construction began on the Silverado Ranch Boulevard interchange with I-15 in summer 2006 and will be completed in fall 2007. NDOT is also making improvements to NB I-15 from Primm, at the Nevada-California border, to Sloan Road.

NDOT, Clark County, and the City of Henderson have made improvements to several arterial streets within the I-15 South corridor, including St. Rose Parkway, Silverado Ranch Boulevard, and Blue Diamond Road. In the northern portion of the project area, Clark County constructed Frank Sinatra Drive, which serves as an alternative travel route to the Resort Corridor, in the early 2000s.

[44] Clark County. 2005. *Comprehensive Plan* May.

Clark County Public Works completed construction on the initial facilities of the Bruce Woodbury Beltway, which forms a C-shaped loop around most of the Las Vegas Valley, in 2003. Within the I-15 corridor, construction of the ultimate facility was completed in 2000.

2.9.3 Other Reasonably Foreseeable Future Actions

Land Development

Due to the availability of land and the high in-migration rate that is creating demand for housing, businesses, and public services, developments are being planned and approved that will convert undeveloped land to residential, commercial, recreational, and urban open-space uses.

BLM recently sold approximately 2,300 acres, which were nominated by the City of Henderson as part of the Inspirada master-planned community. Growth in these outlying communities will increase demand on the I-15 South corridor.

Hotel, casino, and retail developments are in the planning phases along Las Vegas Boulevard South. These developments include the proposed M Resort in the southeast quadrant of Las Vegas Boulevard South and St. Rose Parkway, the Southern Highlands Resort and Casino in the northwest quadrant of Las Vegas Boulevard South and St. Rose Parkway, and a mixed-use retail development in the southwest quadrant of Las Vegas Boulevard South and Cactus Avenue.

Local Transportation Development Projects

Improvements to I-15 from Tropicana Avenue to Spring Mountain Road began in summer 2006. These improvements will add additional capacity to the freeway without major reconstruction. Additionally, the I-15 Express Lanes project will reconfigure the width of I-15 to include two express lanes in the median area in addition to the three and four through lanes in each direction from just north of I-215 to south of Sahara Avenue. Clark County and the City of Henderson will continue to improve local streets in accordance with their Master Plan of Streets and Highways. Clark County is proposing to extend Frank Sinatra Drive from St. Rose Parkway to Silverado Ranch Boulevard, adjacent to the I-15 ROW, as development occurs. A direct connection is planned between the I-15 NB off-ramp and Frank Sinatra Drive at St. Rose Parkway in the future.

NDOT has prepared a valleywide HOV system plan. This plan will result in additional HOV facilities throughout the I-15 corridor that would complement the HOV lanes recently constructed along United States Highway 95 (US 95) north of the I-15/US 95 interchange. The HOV plan identifies two HOV lanes in each direction from the I-15/US 95 interchange south to the I-15/I-215 interchange, and one HOV lane in each direction from the I-15/I-215 interchange south to the I-15/Sloan Road interchange. The Build Alternative would not preclude implementation of the HOV plan.[44]

RTC is proposing a 33-mile Regional Fixed Guideway system that would link the cities of Henderson, Las Vegas, North Las Vegas, and unincorporated Clark County with the Las Vegas Resort Corridor. One of the corridors under study is Las Vegas Boulevard South from Sloan to downtown Las Vegas. Additionally, RTC anticipates express bus routes to utilize HOV lanes after the HOV system has been developed throughout the corridor.

FAA is in the process of preparing an Environmental Impact Statement (EIS) to evaluate the proposed Southern Nevada Supplemental Airport. The airport is anticipated to be located 20 miles south of Las Vegas between Jean and Primm on 6,500 acres of land that was recently acquired from BLM. The Southern Nevada Supplemental Airport project could include dedicated lanes in the median of I-15 for direct access to the airport.

[44] Parsons. 2007. *I-15 South Traffic Re-evaluation of Design Modifications to Implement the Southern Nevada HOV Plan.* May.

The Federal Railroad Administration is analyzing a potential high-speed magnetic levitation train system linking Las Vegas to southern California along 270 miles of the I-15 corridor. The project is in the early phases of preparing a programmatic EIS. The Desert Xpress, which is a privately funded passenger railroad, is proposing to provide passenger rail service from Victorville, California, to Las Vegas utilizing I-15 ROW.

2.9.4 Analysis of Potential Cumulative Impacts

Based on the analysis of potential direct and indirect impacts that may result from the proposed I-15 South Corridor Improvement Project (Section 1.3) the Build Alternative is not anticipated to pose any cumulative impacts to the following resources:

- Cultural Resources
- Hazardous Waste/Materials
- Environmental Justice
- Air Quality
- Noise
- Floodplains

The proposed I-15 South Corridor Improvement Project may contribute to cumulative impacts to the following resources:

- Biological Resources
- Water Quality

As described in Section 2.9.2, the extent of past development activities has resulted in the loss of natural resources and an increase in urbanization. Residential and commercial development within the I-15 corridor has been ongoing since the 1970s, with the rate of development increasing since that time. Relative to the development that is ongoing and planned within the project area and in adjacent Clark County planning areas, the incremental cumulative impact of the proposed project on biological resources (tortoise habitat) is negligible. Mitigation measures identified in the Programmatic Biological Opinion between U.S. Fish and Wildlife Service and BLM and as part of the Clark County Desert Conservation Program and Multiple Species Habitat Conservation Plan address the valley-wide habitat impacts to the desert tortoise.

3. AGENCY COORDINATION AND PUBLIC INVOLVEMENT

3.1 Intent-to-Study Letter

An Intent-to-Study letter and list of agencies and individuals it was sent to can be found in Appendix A. This correspondence notified the recipients of NDOT's intention to study the proposed project, invited comments, and advised interested parties of the scheduled Public Information Meeting. Responses were received from various government agencies and members of the general public. Copies of comments are in Appendix B, followed by responses.

3.2 Information Meeting

An Information Meeting was held on May 5, 2005, from 4:00 p.m. to 7:00 p.m. at the Enterprise Library, 25 E. Shelbourne Avenue, Las Vegas, Nevada. Representatives from FHWA and NDOT and the consultant team explained the proposed project and were available to receive comments and answer questions. A court reporter was present to transcribe comments from attendees who preferred to make a verbal statement, which became part of the administrative record. Thirty-three (33) people attended the meeting, and four people provided statements to the court reporter.

Written and verbal comments and responses are presented in Appendix B.

3.3 Technical Advisory Committee

As part of the project development process, a TAC was formed. The TAC was comprised of representatives from NDOT, FHWA, BLM, RTC, Clark County Public Works, Clark County Department of Aviation, and City of Henderson. The TAC met monthly from February 2005 through November 2006 to develop and evaluate alternatives, and serve as technical advisors to the project team.

3.4 BLM Coordination

BLM was invited to participate in the project development process as a Cooperating Agency via letter dated March 9, 2005, and accepted Cooperating Agency status via letter dated January 31, 2006. A coordination meeting was held on June 21, 2006. NDOT and FHWA briefed BLM staff on the project description and status. BLM was an active participant in the project TAC throughout the project development process.

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APPENDIX A

INTENT-TO-STUDY LETTER

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
1263 S. Stewart Street
Carson City, Nevada 89712

KENNY C. GUINN
Governor

JEFFREY FONTAINE, P.E., *Director*

In Reply Refer to:

Intent-to-Study
Interstate 15 South
Las Vegas, NV
EA 73215

April 6, 2005

To Whom It May Concern:

The Nevada Department of Transportation (NDOT), in cooperation with the Federal Highway Administration (FHWA), is studying potential transportation improvements to the Interstate 15 corridor from Tropicana Avenue to the Sloan interchange.

The proposed improvements include but are not limited to:

- I-15 freeway improvements, including widening and reconstruction
- Las Vegas Boulevard improvements
- New interchanges at Sloan Road, Bermuda Road, Starr Avenue, Cactus Avenue, and Pebble Road
- Frontage Roads
- I-15/I-215 System Interchange Improvements

In compliance with the National Environmental Policy Act of 1969 (NEPA), NDOT is conducting an assessment of the proposed project's impacts. This letter is to inform you of the current study and solicit your comments concerning the project. Areas of potential impact could include, but are not limited to, the following:

1. Access
2. Aesthetics
3. Air Quality
4. Archaeological
5. Geology
6. Historic Buildings
7. Land Use
8. Noise Levels
9. Public Parks & Recreation Areas
10. Safety
11. Social Considerations
12. Vegetation
13. Water Quality and Hydrology
14. Wildlife and Wildlife Refuges
15. Hazardous Waste

We would appreciate receiving any response you may have by **5 p.m., Friday, May 20, 2005**. If no response is received, the Department will assume you foresee no potential impacts in your particular area of responsibility or interest.

An Informational Meeting to brief interested individuals, groups and agencies on the project and to receive comments and suggestions from them will be held on **Thursday, May 5, 2005** from 4:00 p.m. to 7:00 p.m. at the Enterprise Library, 25 E. Shelbourne Avenue, Las Vegas, Nevada. A copy of the meeting notice is attached.

Comments or questions regarding the proposed project may be addressed to Daryl N. James, P.E., Chief, Environmental Services Division, Nevada Department of Transportation, 1263 South Stewart Street, Carson City, Nevada 89712, phone (775) 888-7013.

Sincerely,

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APPENDIX B

COMMENTS AND RESPONSES

COMMENTS AND RESPONSES

A public information meeting was held on May 5, 2005. Comments and responses are summarized for this meeting, followed by verbatim copies of the comments and letters received.

Public Comments

A-1 William Bagley
A-2 Sallie Clinard
A-3 Judith Gray
A-4 Bonnie Kopf
A-5 Ed Kopf
A-6 Randy Kopf
A-7 George A. Olcott
A-8 Theresa Poirier
A-9 Shirley Ryan
A-10 David S. Sharpe
A-11 Lillian Silverstein
A-12 Steve Small
A-13 Charles D. Troiano

Agency Comments

B-1 U.S. Department of Transportation, Federal Aviation Administration
B-2 U.S. Department of Homeland Security, (FEMA)
B-3 Southern Nevada Water Authority

Table B-1
Response to Comments

Comment Number	Comment	Response
A-1	Mr. Bagley represents the property owner at Dean Martin Drive (formerly Industrial Road) and Russell Road. The property owner is concerned about potential right-of-way (ROW) impacts.	As described in Section 2.3.4, ROW would not be needed at this location.
A-2	Ms. Clinard expressed concerns regarding Blue Diamond Road and Dean Martin Drive, extending Decatur Boulevard over the Union Pacific Railroad (UPRR) tracks, and adding a left-turn signal at Warm Springs Road and Dean Martin Drive.	The Nevada Department of Transportation (NDOT) is constructing a new interchange at Blue Diamond Road and Interstate Highway 15 (I-15). As part of this project, improvements would be made to the Blue Diamond Road/Dean Martin Drive intersection, and the Warm Springs Road/Dean Martin Drive intersection. Clark County is planning improvements to Decatur Boulevard at the UPRR crossing.
A-3	Ms. Gray expressed support for the proposed interchanges as part of the project.	Thank you for your support.
A-4 – A-6	The Kopf family expressed concern about the Pebble Road interchange. The area is a rural residential area, and an interchange would harm their neighborhood.	Pebble Road is proposed as an overpass instead of an interchange (see Section 1.3.1).
A-7	Mr. Olcott expressed concerns regarding construction delays for the Blue Diamond Road and Silverado Ranch Boulevard projects. Mr. Olcott also expressed his opinion that an interchange is not needed at Pebble Road, construction would be limited to daytime hours, impacts to air quality and noise, Southern Nevada Supplemental Airport, improvements to Las Vegas Boulevard, and crime.	Construction is underway for the I-15/Blue Diamond Road interchange and related improvements. Construction of the Silverado Ranch Boulevard interchange began in summer 2006. Previous planning documents identified the need for a potential interchange at Pebble Road; however, after further analysis, an overpass is now proposed (see Section 1.3.1). If this project is approved, mitigation measures for construction noise will be addressed in the contract documents, which will require the contractor to submit a noise control plan (see Section 2.5.3). Air quality hot spot and mobile source analyses were prepared indicating no exceedances of air quality standards (see Sections 2.4.2 and 2.4.3). The Southern Nevada Supplemental Airport is under separate environmental review by Federal Aviation Administration (FAA) and will address surface transportation needs of the facility.
A-8	Ms. Poirier requested that a traffic signal be installed at Wigwam Avenue and Las Vegas Boulevard South due to safety concerns.	A traffic signal would be installed at Las Vegas Boulevard South and Wigwam Avenue as part of the proposed project.

Table B-1
Response to Comments

Comment Number	Comment	Response
A-9	Ms. Ryan requested that a traffic signal be installed at Wigwam Avenue and Las Vegas Boulevard South due to safety concerns.	A traffic signal would be installed at Las Vegas Boulevard South and Wigwam Avenue as part of the proposed project.
A-10	Mr. Sharpe stated that Silverado Ranch Boulevard, Pebble Road, Spencer Street, and Maryland Parkway should be completed before new projects are started.	Construction on the Silverado Ranch Boulevard interchange began in summer 2006. Clark County will continue to improve local streets in accordance with their master plan.
A-11	Ms. Silverstein requested that a traffic signal be installed at Wigwam Avenue and Las Vegas Boulevard South due to safety concerns.	A traffic signal would be installed at Las Vegas Boulevard South and Wigwam Avenue as part of the proposed project.
A-12	Mr. Small commented on McCarran and the proposed Ivanpah airports in regards to air quality attainment standards.	See Section 2.9.3 for information regarding the proposed Southern Nevada Supplemental Airport.
A-13	Mr. Troiano stated his preference for a mass transit system instead of roadway improvements to I-15 and concerns about interchange spacing.	The Regional Transportation Commission of Southern Nevada (RTC) is analyzing a proposed mass transit system within the Las Vegas Valley (see Section 2.9.3). The proposed interchanges meet FHWA's interchange spacing criteria for urban freeways. The reason a potential Pebble Road interchange was eliminated from further consideration was because of inadequate interchange spacing (see Section 1.3.1).
B-1	U.S. Federal Aviation Administration (FAA) stated no comments regarding impacts to Las Vegas McCarran International Airport and would like to continue correspondence regarding proposed surface transportation improvements.	NDOT will notify FAA of future surface transportation projects potentially affecting their facilities.
B-2	The Federal Emergency Management Agency (FEMA) stated that any development must comply with the requirements of their respective Flood Damage Prevention Ordinances.	NDOT will comply with all federal requirements regarding protection of designated floodway and floodplain areas.
B-4	Southern Nevada Water Authority (SNWA) requested that plans be submitted to SNWA Development Plan Review office for review to determine any relocation requirements needed for SNWA facilities.	NDOT will comply with all local requirements regarding water utilities. Plans will be submitted to SNWA as requested.

William H. Bagley
Redneck Enterprises, LLC
7361 Prairie Falcon Road
Suite 110
Las Vegas, NV 89128

MR. BAGLEY: I'm William Bagley, representing Redneck Enterprises, LLC, who is representing Tharaldson Development Company out of Fargo, North Dakota. They have a project at I-15/Russell Road interchange and their concern is that when NDOT is working with their environmental study and future development for obtaining 14 lanes of travel on I-15, that it will not impact their property, which is west of Industrial Road and south of Russell Road centerline.

They want to make sure that they will not lose any of their property to either the state or the county. Their concern represents the fact that they have major development south of Russell Road centerline, being the Holiday Inn, the Express, the other hotels that are presently there. They're in the process of a timeshare project and they want to make sure there are no major impacts.

My telephone number is local,

(702) 228-0037, and I can certainly give Tharaldson's telephone number in Fargo if necessary to make contact with me. I am representing them.

///

Comment Form

Potential Transportation Improvements
I-15 Corridor from Tropicana Avenue to Sloan Road

Name: Sallie Clinard

Address: 4455 W. Ford
Las Vegas NV 89139

Phone: 702-270-3750

1. **Please identify any construction or corridor improvement issues you feel have not been adequately addressed.**

Please, for God's sake, make Blue Diamond and Industrial your highest priority. It is grid lock now. Move up the schedule if possible! Can Decatur be extended over the tracks north to carry some traffic

2. **Please provide us additional comments regarding construction and corridor improvements.**

A left turn signal is needed at Warm Springs and ~~First~~ Industrial. The new signal at Decatur and Blue Diamond has changed the traffic flow and much more traffic goes east/west on Warm Springs thru the Industrial intersection

Judith Gray
Enterprise Library
25 East Shelbourne Avenue
Las Vegas, Nevada

MS. GRAY: You can either give the library as my address, because I'm the branch manager. And I've heard of the overpass down, you know, giving access back and forth from Southern Highlands and I had heard Silverado Ranch, but I'm gratified to see that there's going to be even more overpasses and access to give people access to both sides of I-15.

And looking forward to Blue Diamond Road getting re-routed and widened. I've been stuck in traffic going across the bridge before, and it will be wonderful not to be -- well, I guess there always would be a chance you'll be stuck in traffic, but it's really good.

Windmill. The intersection at Windmill and Las Vegas Boulevard, I love the way the turn lanes are set so that you can see traffic oncoming, you know, regardless of which lane you're in. And the only thing is, is if a car goes too far or doesn't go far enough, you don't get the left turn

signal, and then you have to sit and wait and wait and wait maybe through a couple of lights if there's a lot of people waiting to turn. Can something about that be done so that regardless of whether the car comes -- stops in exactly the right place or has gone beyond the right place, you'll still get the left turn signal?

///

Bonnie Kopf
8979 South Industrial Road
Las Vegas, Nevada

MS. KOPF: I'm Bonnie Kopf, their daughter-in-law. And I just don't think it's a really great location for an interchange because it would harm our neighborhood, I think. And I just don't think the traffic is going to that location. There are only a few houses there. The traffic is really going to Southern Highlands. And if we could get those people who are going to Southern Highlands to exit further down, it would definitely help our rural neighborhood in that area. And that's a more direct route for the Southern Highlands people anyway.

///

Ed Kopf
8945 South Industrial
Las Vegas, Nevada

MR. KOPF: Our family owns eight houses in the area. There's no way my mom and dad can come because they are both elderly and sick. And none of the family really thinks that an off-ramp there is a good idea because of the rural setting. There's houses right there. It would cost the county a lot of money to buy up the houses. There's already speculators there trying to get the houses, thinking they're going to make a lot of money selling them to the county. And it's just a big expense to the taxpayers to put that there for the amount of traffic that would be in the area, especially after other off-ramps are put in down south further to alleviate a lot of the traffic. So we just don't think it's a good idea.

I think that's all. Thank you.

///

Randy Kopf
8945 South Industrial
Las Vegas, Nevada

MS. KOPF: I would like to say that the potential Pebble Road off-ramp, I would be against it. The area is very rural and I don't think the traffic would demand it, an off-ramp at Pebble Road. I'm all for the off-ramp at Silverado Ranch, but I really feel that the Pebble Road and Industrial area, I don't think it -- or I-15 area, doesn't qualify for an off-ramp at that area. It's too rural. That's my comment.

///

9/5/20

To: Daryl N. James, P.E.
Chief Environmental Services Division
Nevada Dept. of Transportation
1263 S., Stewart St.
Carson City, NV
89712

Reference: Intent to study
Interstate 15 South
Las Vegas, NV

EA 73215

Dear Sir and interested parties:

It is unfortunate that I was unable to attend the public presentation at the Enterprise Library on 5 May, 2005 regarding this issue. I'm sure many of my questions would have been answered. This on-going study is obviously complex, and some outside observations may be in order. My residence is about 400 ft. West from the center of I-15, 1.5 mi. South of Blue Diamond Rd. (Hwy 160) so knowledge of the I-15 South corridor is by personal observation over an 11 year period, 1994 to present. There are weekly newspaper and TV news articles Alluding to this or that road or elevated guide rail projects that might be built with suggestions of routes, etc.

In a radius of 2 miles, the most important short time impact issues affect my immediate neighborhood. Current construction and follow-thru for various on-going related projects seem well behind schedule.

The I-15/Windmill interchange upgrade seems stalled and the I-15/SilveradoRanch (Gomer Ave.) interchange is still barely started. Earlier suggestions were that the Silverado Ranch interchange construction was to be completed in March-April 2005 ahead of the Windmill interchange. Various sources suggest NDOT delayed making necessary decisions regarding the state highway 160 Blue Diamond Road improvements. These decisions supposedly must be in place before any interchange is to be constructed. Some parties claim it is the result of funding shortages, with the Feds delaying the release of funds. Others cite technical and right of way problems.

One interesting injection into this process is the repeated need in various land use plans and Clark County RTC documents is the near time need for a Pebble Ave. freeway interchange at I-15. It is a possible that a future 100 ft. right-of-way section line thoroughfare, passing thru quiet neighborhoods with low density housing, and ending at Blue Diamond Rd. to the west maybe very premature. Maybe later in the overall development plan, it may be appropriate. The priority at the present need seems to be low. The Pebble interchange, if built will be located very close to the on/off ramps of the Windmill Rd. I-15 interchange. Sofar, the 30 year life of dwellings in a low density housing area seems to be holding, with newer properties, mostly up-scale being built in the area. into low density zoned housing in a

Rural Neighborhood Preservation (RNP) area. Zoning seems to be changing at every 5 year land plan update in the local township. The push to develop property in the vicinity of Valley View Blvd. is obviously in these plans to assure that land will be developed for highest density commercial use and tax exploitation. The Pebble Rd.-I-15 interchange would fit into that scenario.

The short range implications of more construction on I-15 will be unsettling for homeowners here on both sides . The noise of construction vehicles all night again will be anticipated. **I hope that widening or re-construction be done only in daylight hours, between 7:00 AM and 3:30PM.**

The increase of traffic noise on I-15 in our area may have to be mitigated with sound walls. We are in an area where Clark County is very concerned with aircraft landing/take-off zones and accompanying noise levels. Even the zoning is skewed towards enforcing homeowners to conform to a 65 decibel limit on audible aircraft noise, and that's inside a dwelling. I-15 traffic is increasing by the month here. **I would suggest an immediate audio level survey of adjacent areas within the expected corridor protective area be instituted.**

In my 5 mile radius area, which contains Industrial Rd.(shortly to be known as Dean Martin Dr.) a 'frontage road,' is an over utilized patch of asphalt 24 ft. wide serving thousands of daily commuters (mostly to/from the Southern Highlands Master Planned Community) that will have 18,000 residents at full build-out. Heavy North-South traffic parallel to I-15 on Industrial Rd. connects to I-15 via Blue Diamond Rd(State route 160) The Clark County Commission would like this present "frontage road" to be widened to 100 ft. There will be chaos immediately on this route if 100 ft. widening occurs. **The actual right-of-way width is barely 70 ft. wide in some places.** A number of custom homes, with at least a 30 year life left will have to be razed or moved.. An alternative to this situation, is to pave Valley View Blvd. and connect it to Blue Diamond Rd. at the North end for the time being, and Cactus Ave.at the South end. In the 30 year future, where Industrial Rd./Dean Martin Dr. would eventually become a full service frontage road as Dean Martin Dr. then the legitimate expansion for *Tourist Commercial* zoning, serving hotel properties on the South strip will be more of a reality.

The present apparent intention of up-grading the Industrial Rd. intersection with Blue Diamond Rd. and the I-15/Windmill Rd. freeway interchange seems to be a band-aid. The intersection up-grade will be very close to the Valley View Blvd. intersection there which will be needed to connect North-South traffic that will be coming in large numbers over the I-215 viaduct when the up-grade on Valley View Blvd. will require an open right-of-way as straight as possible, North-South.

As far as I-15 is concerned, it seems that widening projects have been on-going for years. As of five years ago, I-15 was at times already incapable of handling peak tourist traffic going southbound from the I-215 interchange south to the present Sloan Interchange. This is because of several reasons. The first is that peak traffic occurs mainly on holiday weekends, especially on Sundays. On ordinary weekends, southbound lanes are very busy, but seem adequate for typical heavy flow as of now. As new mega-hotel casino properties come on

line in the "*commercial tourist*" development corridor, then it will be holiday weekend like traffic every day, at least during normal commuting hours. Another significant problem is that when a vehicle accident occurs, especially a major one, emergency vehicles are impeded, causing probable time delays and loss of life. Air evac Medical ambulances can't always fly, and many places have no landing sites.

Right now, there seems to be very little local traffic between the I-15/Blue Diamond Rd. interchange and the I-15 / state route 146 (St. Rose Parkway)interchange. There are no exits or entrances on I-15 for a 5 mile stretch along Industrial Rd.. Locals mostly use Las Vegas Blvd and Industrial Rd./Dean Martin Dr. as alternates. I-15 South has inadequate safety situation capability to the California state line on certain days, but mainly weekends. I-15 inside the "Titus ring" presently has only one new lane space available in each direction for expansion in the present right-of-way. Providing those 2 new lanes will help, but it is not a long term solution.

Limiting private vehicles to certain lanes because of preferential occupancy doesn't seem anything but convenience for those willing to pay extra for toll lanes. If lane space was unlimited, good idea, but having a toll lane where there should be free flow traffic doesn't solve the density problem satisfactorily. I've seen them in L.A. (one of 5 areas that have them in the U.S.) They are mostly empty even during peak traffic density times.--As far as trucks go, there are so many now, that there is insufficient total capacity on I-15 to provide a "trucks only" lane.

This I-15 South study has to address another issue. In 10 years, there will be an airport in Ivanpah Valley. I recommend consideration of up-grading Las Vegas Blvd. South, state route 604, to provide alternate long term traffic access to/from Las Vegas to the new airport. Also, the new airport should serve as an important south terminus for a guided rail system with Las Vegas Blvd. being part of the right-of-way for that project. The guided rail system could be located in the middle of the right-of-way on Las Vegas Blvd. A connect to Primm on the state line could be connected using an extension of its guided rail system. Inside the "Titus ring" in the Las Vegas valley--the Ivanpah airport access would have to eventually connect to whatever guided rail system is needed to interconnect with the Strip properties and perhaps McCarran Airport. Looking further ahead, a right of way and inter-connect should be planned at the Nevada-California state line to accommodate the future guided rail system to serve yet unknown locations in Southern California.

There is potential bottleneck problem incoming and exiting ground traffic to/from the Las Vegas Valley within the Titus ring. If Las Vegas Blvd. route 604 is used as a corridor to the new airport at Ivanpah Valley, then a split of traffic would be required at the entrance to Las Vegas Valley at the "Gateway." Presently there is lots of room at both ends of the route, but private developers have gobbled up property for speculation near and around the new proposed St. Rose Parkway/ Starr Ave. interchanges. To avoid this may require up-grading the Sloan interchange to help divert/accept the new airport traffic so that tourist traffic may bypass directly to the present Las Vegas Strip area North of Russell Rd.. Right now, the surrounding properties at the Sloan interchange seem to be in a holding pattern, with no visible up-scale development underway.

A guided railway as it enters the Las Vegas valley near/on route 604 should be planned ahead to serve as many persons as possible. The current projection shows as many as 13 hotel casinos with 3000 rooms each could be constructed in the resort corridor South of I-215 to the Enterprise township border at the Titus ring. This new anticipated traffic is estimated roughly at 17,000 cars at build-out. This doesn't include potential construction and traffic resulting of high-rise condominium projects that may be built also.

The population of my township of Enterprise had 6600 residents when we moved here in 1994. We're now approaching 80,000. This indicates the magnitude of growth and traffic here. Whatever growth is ahead will be affected by freeway and major interconnecting Highways and streets

More consideration of resort property development and access on Las Vegas Blvd South as it rapidly develops needs to be addressed. Turn-outs and adequate driveways to large properties needs to be enforced. So many exceptions have been allowed because they have been overlooked, or deliberately avoided in design reviews that soon, Las Vegas Blvd. South will be bogged down with cross traffic tie-ups, much like it is on the present Las Vegas strip. The integration of ground vehicle traffic and a guided railway system should be planned now. Each hotel-casino property should be given the responsibility of accommodating guided rail loading stations for the future. Taxi-cabs won't be able to handle our tourist movement problem, nor will our air standards be in compliance.

The I-15/I-215 South interchange vacinity has no provisions for guided rail ingress-egress. That is, to accommodate guided rail traffic, it would have to go over existing interchange and cross I-215 with a specialized bridge.

The need for an on/off ramp at Bermuda Rd. on I-215 could be a problem if one wants to provide an Eastbound on ramp on I-215 that goes beyond the airport tunnel access. This need sounds like it's developer driven.

As regards a 2nd beltway in addition to I-215, I can only address the problem at the South end of the Las Vegas Valley. The Starr Ave.interchange might be part of this project. A study of open land in the Southern Highlands development will reveal a build able corridor thru that area. As to the Western access, merging with I-215 on/near Durango Rd. may be the most useful route. An Eastern inter-connect will be a major problem. Land acquisitions on this project East of Starr Ave. and the highway 146 interchange would have to be negotiated with the City of Henderson as to possible routes, if any exist.

As for human environmental considerations, the major environmental hazards in our area seem to be dust, but the auto emissions situation is potentially serious. Those of us living near the I-15 freeway certainly have increased risks for various carcinomas and airborne lung diseases. As traffic increases, these risks increase, even with increased reductions of air pollution abatement measures.--Other facets as high injurious noise levels, suggested earlier at 65 decibels or greater, may be more harmful than revealed now, depending on what medical authority is consulted..

Almost immediately, I predict a large increase in home break-ins in the 2 and 5 miles radius areas adjacent. Bars on our doors and windows will appear soon after the deployment of the Silverado/I-15 interchange. The incursion of convenience stores and other low end businesses will creep across the freeway, with the problems of non-resident persons and their unpredictable behavior. Our theft and property damage increases will be un-preventable and reflected in higher insurance rates. Our whole zip code area will be downgraded as a desirable place to live. A talk with any reliable mortgage company will confirm this. A new high profile police patrol routine and perhaps a substation will be need to cope with this problem. It is also likely that there will be crimes against persons with injuries and worse, requiring additional emergency vehicle traffic and possibly a need for a local medical facility to handle the additional human misery. There will also be a likely degradation of the quality of life and the gradual loss of property values as a semi-rural living area becomes an un-regulated property use neighborhood. Violations of zoning laws, such as high density rental of single family homes without supervision are the first steps of decay to an ultimate blighted area.

These are some thoughts pertinent to the I-15 South up-grades and possible action. It seems we citizens don't really have a single planning agency available for such projects that has representative ombudsmen. Sometimes, it seems that just laying the roads down and building the connecting bridges looks easy, but integrating that with all the other inter-related needs is more than engineering science, it is a masterful art.

Thank you...

George a. Olcott

George A. Olcott
3145 W. Serene Ave.
Las Vegas, NV
89139-8122

Improvement @ WW & LV Bl

Nevada Department of Transportation:

Regarding your notice of April 6th and the improvements and interchanges being considered for the area along Las Vegas Blvd. South between Sloan

Road and Frontage Road I have some reservations as the new interchanges planned will cause a serious impact to the traffic on Las Vegas Blvd. South. I am a resident at Paradise Trails on W. Wigwam Ave and we already have a serious traffic problem getting on to Las Vegas Blvd, especially if we

are making a left turn to go North on L.V. Blvd. There have been numerous accidents at the intersection of W, Wigwam & L.V. Blvd, one as recent as

last night. We desperately need a light signal at this intersection. There

are several apartment buildings on this Street (W. Wigwam). There are

many school children getting on school buses and trying to cross over to

the east side of the boulevard. I, myself have had several near misses as

cars going south on LV Blvd do NOT EVEN SLOW DOWN even though

there is a large flashing yellow light in front of one apartment building.

That light does not cause people to slow down in fact, many of them speed

up. It's a horendous place to try to go across. I have a friend in the MOBIL HOME [redacted] Park that was a victim of a careless driver trying to pass her on

the right. She was in a coma for 5 days at UMC and no one even knew she

was injured. The hospital called her home & left messages on her answering

machine to no avail as she lives alone. It was only when she came out of the

coma and called that anyone was even aware of the situation. There are numerous children in this area with 3 Apartment buildings and 2 Resort

Builings and someone needs to take notice of how dangerous it is at this

interection and if you add more interchanges, things will get worse unless a

working signal light is put in at this corner. PLEASE, someone take notice BEFORE A CHILD IS KILLED.

Theresa Poirier
2485 W. Wigwam Ave.
Unit # 73
Las Vegas, NV, 89123

5-5-05

Shirley Ryan
2485 West Wigwam, Unit 91
Las Vegas, Nevada 89123
and
Theresa Poirier
2485 West Wigwam, Unit 73
Las Vegas, Nevada 89123

MS. RYAN: Okay. I'm very concerned about the traffic on Las Vegas Boulevard at Wigwam. We cannot get off of our street at times. I travel 15 miles to go to work, and it takes me longer to get off my street than it does to travel the 15 miles going to work.

And what can we do about a light? In 1995, when the flashing yellow light was up, I was T-boned by a car that was supposedly making a right turn and ended up in intensive care for five days -- for ten days and in a coma for five of those ten days. Now, I just -- I'm getting tired of it.

MS. POIRIER: And my concern is basically the same thing, okay, that we get a traffic light installed at West Wigwam and Las Vegas Boulevard due to the fact that there are at least one accident a week, if not more, on that corner.

There was one last night, and a pretty bad one, about 10:30.

MS. RYAN: And one three days before that.

MS. POIRIER: And, I mean, they have sand all over the right side of the road. The accident was pretty bad, from what I heard. My son came by. He said, "I never saw so many cars. I didn't think there were that many in Vegas." But anyway, that was just last night. But there are numerous accidents there.

And we have a lot of school children between the three apartment complexes that are there. Our mobile home park, there are a lot of elderly that have to get out and go across. Well, without the help of a light, okay, it's practically impossible to get out of there, and in a reasonable length of time. At least with a red light, you know, two minutes, tops, you know, that you are going to sit there. I mean, we sit there five, ten, fifteen minutes because the traffic just doesn't slow.

So I'm more concerned about the impact that all these extra things coming onto Las Vegas Boulevard is going to create.

MS. RYAN: Extra off-ramps.

MS. POIRIER: Right. And it's going to make the traffic even that much heavier. And they're trying to claim that the light at Warm Springs and the light at Pebble is enough, that we should be able to get a clearance when those lights are in. Well, you know what? It doesn't happen, because you got cars pulling out here, you got cars pulling out one, two, three different spots, and they're still headed for you.

The normal flow of traffic that comes down Las Vegas Boulevard right at that big flashing yellow -- it's a four-thing that turns yellow, flashes constantly -- they don't even slow down. So the yellow light is useless. You know, if they put a cop out there, trust me, that wants to write tickets --

MS. RYAN: They say Metro or Las Vegas -- Las Vegas police can't do anything about it because it's a state highway, Las Vegas Boulevard.

MS. POIRIER: It belongs to the state.

MS. RYAN: Put some Nevada, NHP, a couple of them, they could be -- this state would be the richest state in the union with the tickets

they'd give out just at that light. Nobody ever slows down there. Nobody. I mean, 15 miles an hour, if you're lucky.

MS. POIRIER: And when I slow -- because when I come down that way and I slow down, cars behind me are beeping at me because I've slowed down. The drivers are horrendous.

MS. RYAN: Yeah, this is a city that you can't drive the speed limit in because so many obnoxious drivers would just as soon point a gun at you and shoot you with all these -- with this road rage because you're holding them up.

MS. POIRIER: It's a bad situation, and I don't want to see it get worse. That's my only thing. I have no objection to what they want to do, but in the process, we definitely, in our spot, should get a light. And I don't know about other areas. I'm sure there's other areas that suffer the same thing that we do. But with the number of people that are coming out of there -- between three apartment buildings, our mobile home park, and two resort complexes on either side -- there are a lot of people that use that street and there should be a light there.

MS. RYAN: Yeah. We're not being

unreasonable asking for either that or a -- see, when I complained, when I called Carson City and told them about the -- to give us a four-way stop, they said it's not going to stop them, it's not going to help them. The only thing that would help them would be a light. And you know what he told me? "Unfortunately, I hate to say this, but it probably would take a young child to get killed before they hopped on it."

MS. POIRIER: That's sickening, isn't it?

///

David S. Sharpe
2700 W Richmar #120
Las Vegas NV 89123

Comments or questions regarding the proposed project may be addressed to Daryl N. James, P.E., Chief, Environmental Services Division, Nevada Department of Transportation, 1263 South Stewart Street, Carson City, Nevada 89712, phone (775) 888-7013.

Sincerely,

Daryl N. James, P.E., Chief
Environmental Services Division

Traffic is already ridiculous on Las Vegas Blvd, People on West side of LV Blvd have no other streets to get out on. I-15 already runs right passed my door, if you widen you'll be in my living room. Why don't you finish Silverado Ranch, Rebbe, Spencer & Maryland Pkwy before you rip anything else up

Lyllian Silverstein
2485 West Wigwam Avenue, No. 92
Las Vegas, Nevada 89123

MS. SILVERSTEIN: My biggest concern is the safety of the intersection of Wigwam and Las Vegas Boulevard. It is a horrendous situation -- traffic situation there, causing many accidents. It is a school crossing corner. There's an amber flashing light there which no driver pays any attention to. If a cop sat there, they could make a fortune with the speeders. I'm going to tell you something. The school buses speed. Everybody speeds there.

Now, in front of the Desert Sands apartment house, the road veers off a little bit and says "Right Turn Only," which gives us access into Wigwam, a right turn, but it also gives access into Desert Sands apartment complex. However, most people don't realize what it says, so they take that lane where I would be turning right and they go straight. So if I'm coming out at Wigwam, they're coming right into my car. I mean, thank God, touch wood, it hasn't happened. But because the street going south says "Right Turn Only," so they don't

make that right turn, they go straight.

So coming out of Wigwam, there have been terrible accidents. Now, I just heard there was a terrible accident last night or the night before. I don't remember now. So that's my biggest complaint.

When Paradise Road was first built, there was nothing out here: No Cancun, no Trend West, no Desert Sands. Desert Sands was a ballpark, a baseball park, and we were sitting there by ourselves and it was fine. But at the intersection they did put in -- what do you call them? -- the posts or the bases for streetlights, but they never installed the streetlights. They said that it wasn't warranted. Well, maybe it wasn't warranted then -- I'm giving you a page and a half -- but it's over-warranted now. That's my biggest complaint.

I mean, I can't -- I can hardly make a left-hand turn on Las Vegas Boulevard. Now, to protect my safety, I make a right-hand turn on Las Vegas Boulevard, and right down about a block or two there's a lane that says "Left Turn Only." So I make that U-turn/left-turn-only and then I go north on Las Vegas Boulevard. I don't go across anymore, and I don't advise anybody to.

///

Steve Small
8565 South Warbonnet Way
Las Vegas, Nevada 89113

MR. SMALL: Comment: Seeing as how the airport, McCarran, is designed to hit the 51 million passenger miles maximum build-out and that the new Ivanpah airport starts with a minimum design of 51 million passenger miles and goes up to over 100 before they need to split regional airport planning, that when -- if it starts at 51 and goes up instead of from zero as an adjunct to McCarran, it must be the planning that they are going to can McCarran because of the cost of the properties and in a nonattainment area of the Las Vegas valley -- nonattainment area, or EPA, or dust, NOS, and ozone, nitrous oxides and dust, PM10, 2.5, PM10 of particulate matter at 10 micron and particulate matter at 2.5, the new standard.

When they move that and they start with the new Ivanpah airport, that throws a big hand grenade in all of this planning because McCarran, with 30 million passenger miles, will be cancelled. The only airport, based on a nonattainment area, to meet attainment is going to be the Ivanpah, and,

therefore, all of the transportation planning pertaining to the maximum loading of the existing McCarran when Ivanpah opens ruins all this master plan.

Thank you.

///

9/19.

P 6/3/05

Copy to Jeff Hale

Image Design Group, LLC.

5575 San Palazzo court
Las Vegas, Nevada 89141

April 30, 2005

1263 South Stewart Street
Carson City, Nevada 89712

Dear Mr. James:

I am writing with regard to the "Potential Transportation Improvements to the I – 15 Corridor from Tropicana to Sloan Road".

I am a new resident to Las Vegas, purchasing a home 3 years ago in the Southern Highlands Master Plan Community. I had been a life long resident (56 years) of New York City and believe I can provide objective feedback on the proposed transportation improvements. I lived along the route of the infamous Long Island Expressway, often referred to, justifiably so, as the worlds longest parking lot. I endured 30 years of constant construction consisting of but not limited to , widening, HOV, longer on merge entrances, new overpasses, etc. The net result of these "improvements", which continue to this day, have been nothing, nada, bubkus. Regardless of how many lanes are added , traffic crawls along for hours each morning and evening. The conditions are even worse during inclement weather or traffic accidents and breakdowns. Billions of dollars have been spent to speed traffic to no avail. This is the result of monies spent in an area that has essentially lost population over the last 20 years.

I have always considered Las Vegas and extraordinary place and after being a visitor for over 30 years decided to make it my home after retirement. I am concerned that I am seeing the same ineffective answers to transportation needs that in my view added detrimentally to the quality of life in New York. New York has spent way too much money on roads and not enough on public transportation. I was a life long user of public transportation and it works. With the annual growth rate being experienced in Las Vegas there is not enough concrete in the world to build the roads to accommodate traffic. You need to develop effective mass transit to move people from the suburbs to their jobs. You need to move the airport out of the city to an outlying location and use light rail to transport tourists and visitors in a safe and efficient manner. You need to complete the beltway system before building new interchanges.

I will make one observation regarding the proposed interchanges at Sloan, Bermuda, Starr, Cactus and Pebble. In New York highway entrances and exits have been expanded so that in some cases not even a mile separates them. More interchanges slow traffic because of the constant jockeying for position to get on and off a highway. Certainly, the quality of life due to added traffic, noise, pollution, and safety will be adversely impacted.

I will give you an unbiased opinion of traffic from a person who uses Las Vegas roads throughout the day. After you eliminate traffic accidents, breakdowns, construction, and general driver stupidity, traffic is not all that bad. If you consider all of the high-rise communities planned on and off the strip, I would say you future problem is to move people around in a high density population area similar to

Manhattan. The subways although the topic of horror stories about crime (overstated) and cleanliness (correct, it can be filthy at times) is an efficient way to get around town.

I am sure there are intelligent and thoughtful opinions that shoot my position full of holes but take it from a person who lived in a city where all the money spent on new roads and interchanges would have been more wisely spent on maintenance and mass transit. Most important, do not be lulled to sleep by all manner of experts on transportation, their solutions are developed in a vacuum. I always wondered, while wasting away in what seem to be a never ending traffic jam, that the genius who had developed the traffic solution probably was never going to use the roadway in question and in fact probably did not own a car.

Thank you,

Sincerely,

Charles D. Troiano

DJ 5/16

U.S Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Airports Division
San Francisco Airports District Office

831 Mitten Road, Suite 210
Burlingame, CA 94010-1300

P
5/19/05

May 12, 2005

Mr. Daryl N. James, P.E.
Chief, Environmental Services Division
Nevada Department of Transportation
1263 South Stewart Street
Carson City, NV 89712

Dear Mr. James:

RE: Proposed I-15 Interchange Improvements, Public Information Meeting Notice dated April 6, 2005

Thank you for notifying our office of the proposed improvements for I-15 widening and interchange improvement projects. We have reviewed the project location for impacts to Federal Aviation Administration (FAA) programs related to aviation safety and efficiency for the Clark County Department of Aviation system of airports. We have no comments regarding impacts to the Las Vegas McCarran International Airport, Henderson Executive Airport, North Las Vegas Airport, or the Jean Airport at this time.

The FAA will continue to provide funding under the Airport Improvement Program (AIP) during the planning period covering calendar years 2005 through 2010. We ask that your office keep us on a mailing list to provide us with information for any proposed surface transportation improvements.

If you have any questions you may contact me at (650) 876-2778, extension 610.

Sincerely,

Joseph R. Rodriguez
Supervisor, Environmental Planning and Compliance Section

0364

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

P 6/13/05

June 7, 2005

Daryl N. James, P.E., Chief
Environmental Services Division
Nevada Department of Transportation
1263 South Stewart Street
Carson City, NV 89712

Dear Mr. James:

Re: Intent-to-Study, Interstate 15 South, Las Vegas, Nevada. EA 73215

This letter responds to your notice of Intent-to-Study the Interstate 15 corridor, in and around Las Vegas and Clark County, Nevada. Las Vegas and Clark County participate in the National Flood Insurance Program (NFIP). Any development within these two jurisdictions must comply with the requirements of their respective Flood Damage Prevention Ordinances. These ordinances regulate development within the high risk Special Flood Hazard Area (SFHA) and meet the minimum Federal requirements established in Volume 44, Code of Federal Regulations (44CFR).

Development is defined as, "any man-made change to improved or unimproved real estate, including but not limited to dredging, filling, grading, paving, excavation, or drilling operations or storage of equipment or materials." (44CFR, § 59)

The SFHA is shown on the Flood Insurance Rate Maps (FIRM) and are available at:

The City of Las Vegas:
Land Development, Flood Control
731 S. Fourth Street
Las Vegas, NV 89101
(702) 229-5266

Clark County:
Community Development
500 S. Grand Central Parkway
Las Vegas, NV 89155
(702) 455-4600

The proposed project must be reviewed determine:

1. If any part of the proposed project's elements are in an SFHA, as shown on the current FIRM. If so, then it must comply with the requirements of 44 CFR 60.3, and the applicable local floodplain ordinance.
2. If any part of the proposed project's elements are located within a delineated regulatory floodway. A hydraulic analysis must show that the project will not produce any rise to the existing Base Flood Elevation (BFE).

3. If the project results in any rise to the BFE or changes the boundaries of the floodplain, then the FIRM must be revised. Requirements for revising the FIRM are found at 44CFR § 65.12. These regulations include
    a. Obtaining a Conditional Letter of Map Revision (CLOMR) from FEMA prior to the start of any development that will cause any change to the floodplain boundaries, or any increase to the BFE within a floodway, or any alteration or relocation of a watercourse.
    b. A request for a final Letter of Map Revision (LOMR) must be submitted to FEMA as soon as practicable, but no later than six months after the project's completion.

To obtain copies of FEMA's Flood Map Revision Application Packages, please refer to the FEMA website at http://www.fema.gov/mit/tsd/dl_mt-2.htm

The full text of 44 CFR may be found on the Internet at: http://www.fema.gov/library/lib10.htm.

If you have any questions or if I can be of further assistance you may reach me by telephone at (510) 627-7284, or you may contact the Region IX flood planner for Nevada, Ms. Sarah Owen at (510) 627-7050 or by e-mail at sarah.owen@dhs.gov.

Sincerely,

Alessandro Amaglio
Environmental Officer

AA/gpb

Cc: Robert Thompson
Development Services
500 S. Grand Central Parkway
Las Vegas, NV 89155

Peter Jackson
Senior Engineering Associate
731 S. Fourth Street
Las Vegas, NV 89101

Kim Groenewold,
Nevada Dept. of Water Resources
123 Nye Lane
Carson City, NV 89704

Southern Nevada
Water Authority

ENGINEERING DEPARTMENT
RESOURCES DEPARTMENT
1900 E. Flamingo Road
Las Vegas, NV 89119

Main 702/862-3400
Fax 702/862-3470

May 2, 2005

P v 5/19/05

Project Mgr ___

Nevada Department of Transportation
1263 S. Stewart St.
Carson City, NV 89712

Development Plan Review
Southern Nevada Water Authority
1900 E. Flamingo Rd.
Las Vegas, NV 89119

Re: Intent-to-Study Interstate 15 South, EA 73215

To Whom It May Concern:

In response to the letter dated April 6, 2005, the Southern Nevada Water Authority (SNWA) foresees potential impacts on our facilities. SNWA would prefer to have the following concerns addressed:

- At each impact location, show and label the SNWA pipeline and each appurtenance.
- Should any appurtenance require relocation as a result of your work, provide details of where the item will be relocated and the method by which it will be relocated.
- On each sheet that SNWA facilities are located, include enclosed SNWA construction note and signature block.

Dependent upon the type of work taking place in the vicinity of SNWA's facilities, further action may be required. Please submit the plans to the SNWA Development Plan Review office for review. Upon receiving the plans for this project it will be determined the extent of protection needed for SNWA facilities.

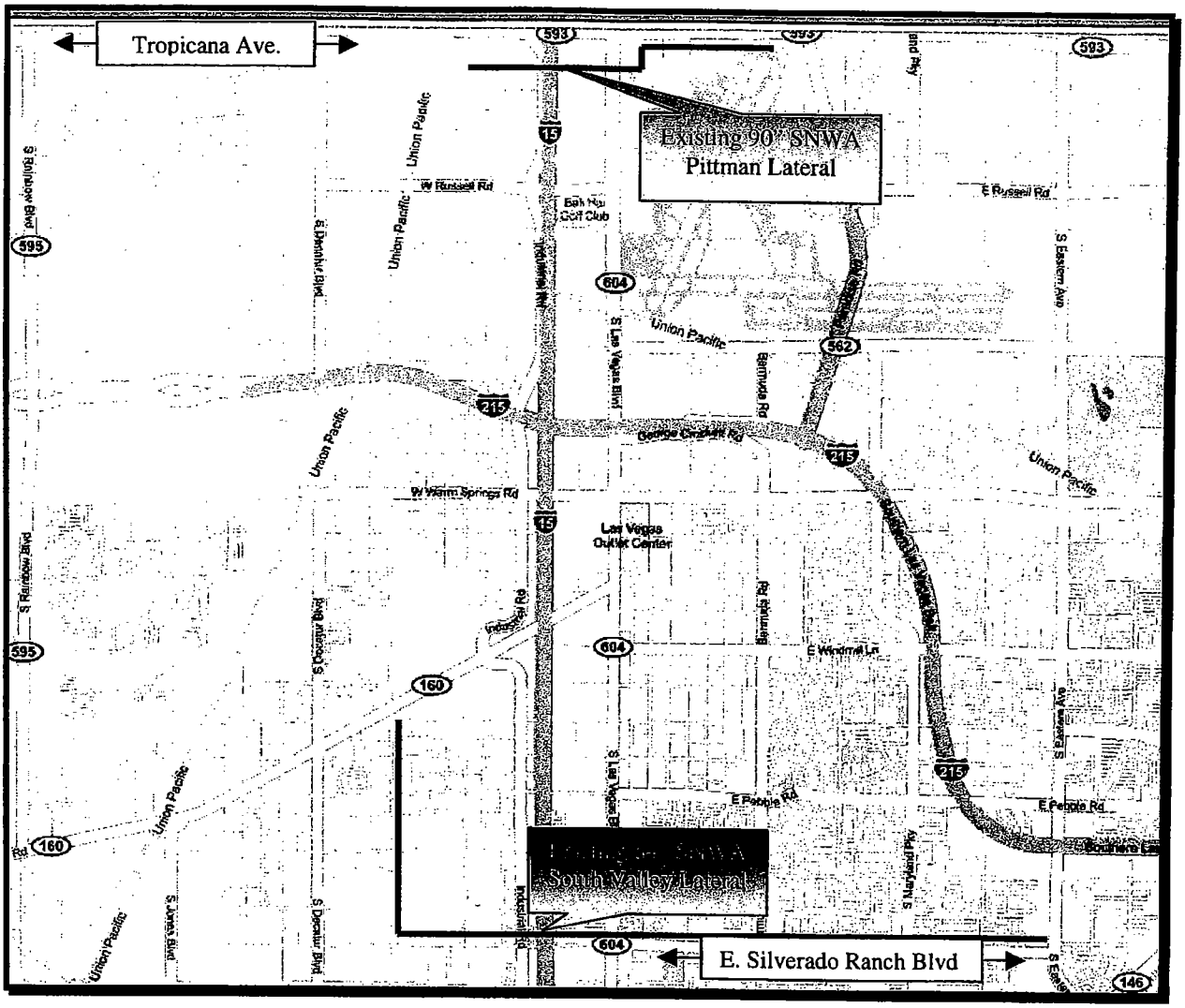
Enclosed are record drawings and a vicinity map of the potential impact areas for your use and information. Should you have any questions or concerns, please feel free to contact our Development Plan Review office at 862-3400.

Sincerely,

M. Dishari

Michael Dishari
Acting Sr. Civil Engineer

cc: Dianja White



Existing SNWA Facilities Located Along South I-15 Corridor

SOUTHERN NEVADA WATER AUTHORITY
Development Plan Review

PLEASE ADD THE FOLLOWING INFORMATION TO YOUR DRAWINGS IF CHECKED:

SNWA CONSTRUCTION NOTES:

☒ Contractor shall field locate and protect all SNWA/SNWS appurtenances including, but not limited to AV/AR, access manways and cathodic protection systems. All above ground structures and at grade structures must be adjusted to new grade at contractor's expense. Cathodic protection test stations, rectifiers, and AV/AR's must be relocated to the sidewalk per SNWA standards and at the contractor's expense. Contractor to **notify Southern Nevada Water Authority, Development Plan Review**, at (702) 862-3444 at least 48 hours **PRIOR** to construction activity

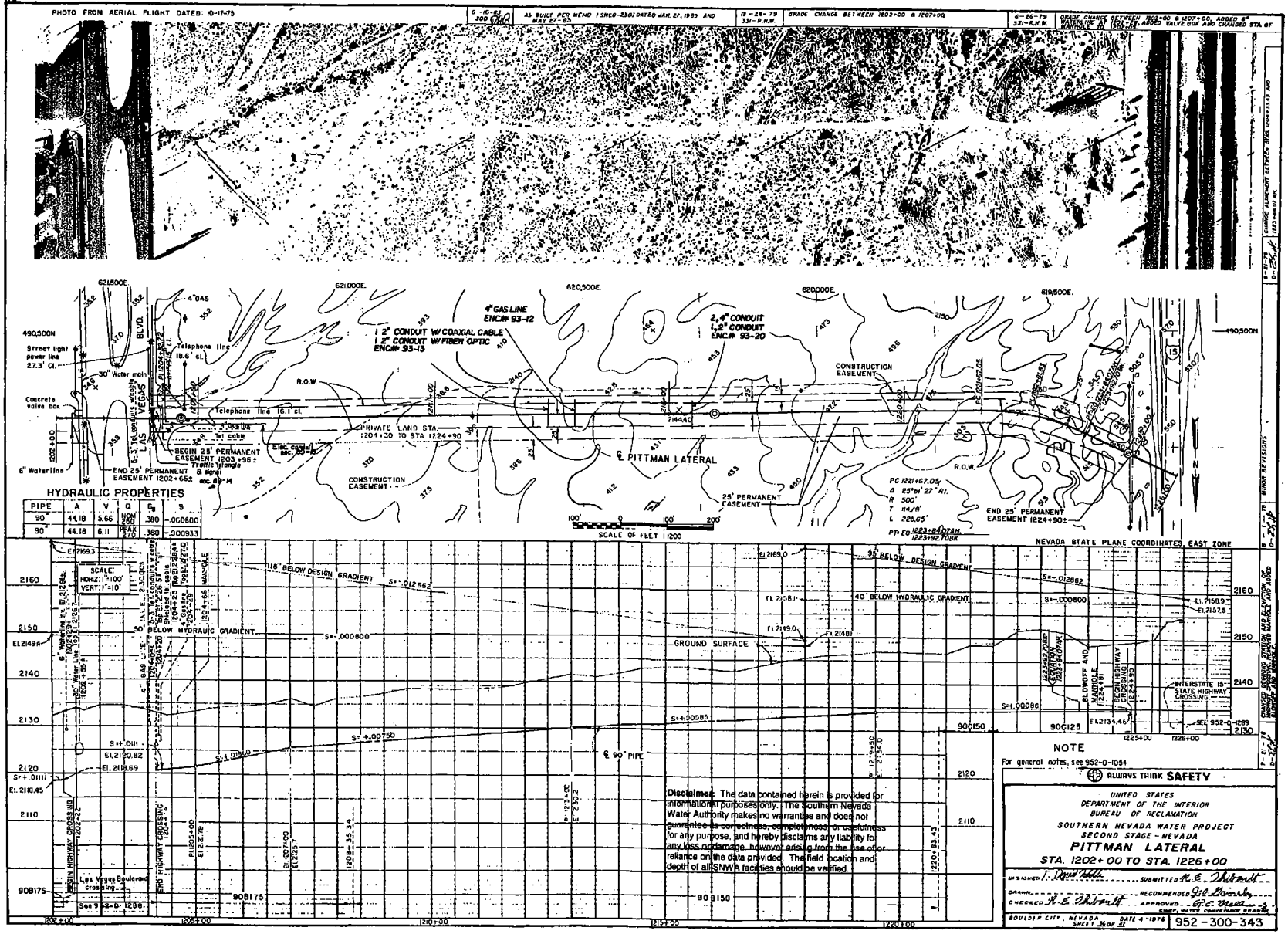
☐ No buildings, structures, fences or trees shall be placed upon, over or under the SNWA easement except that said parcel may be improved and used for street, road or driveway purposes and for other utilities, insofar as such use does not interfere with its use by SNWA for the purposes for which it is granted.

☒ _____ _____

Southern Nevada Water Authority Date

SNWA approval is valid for one (1) year from the signature date. If construction within the easement or restricted pipe safety zone is not complete, plans must be resubmitted to SNWA for approval.

Project Name:
SNWA DPR NO.:



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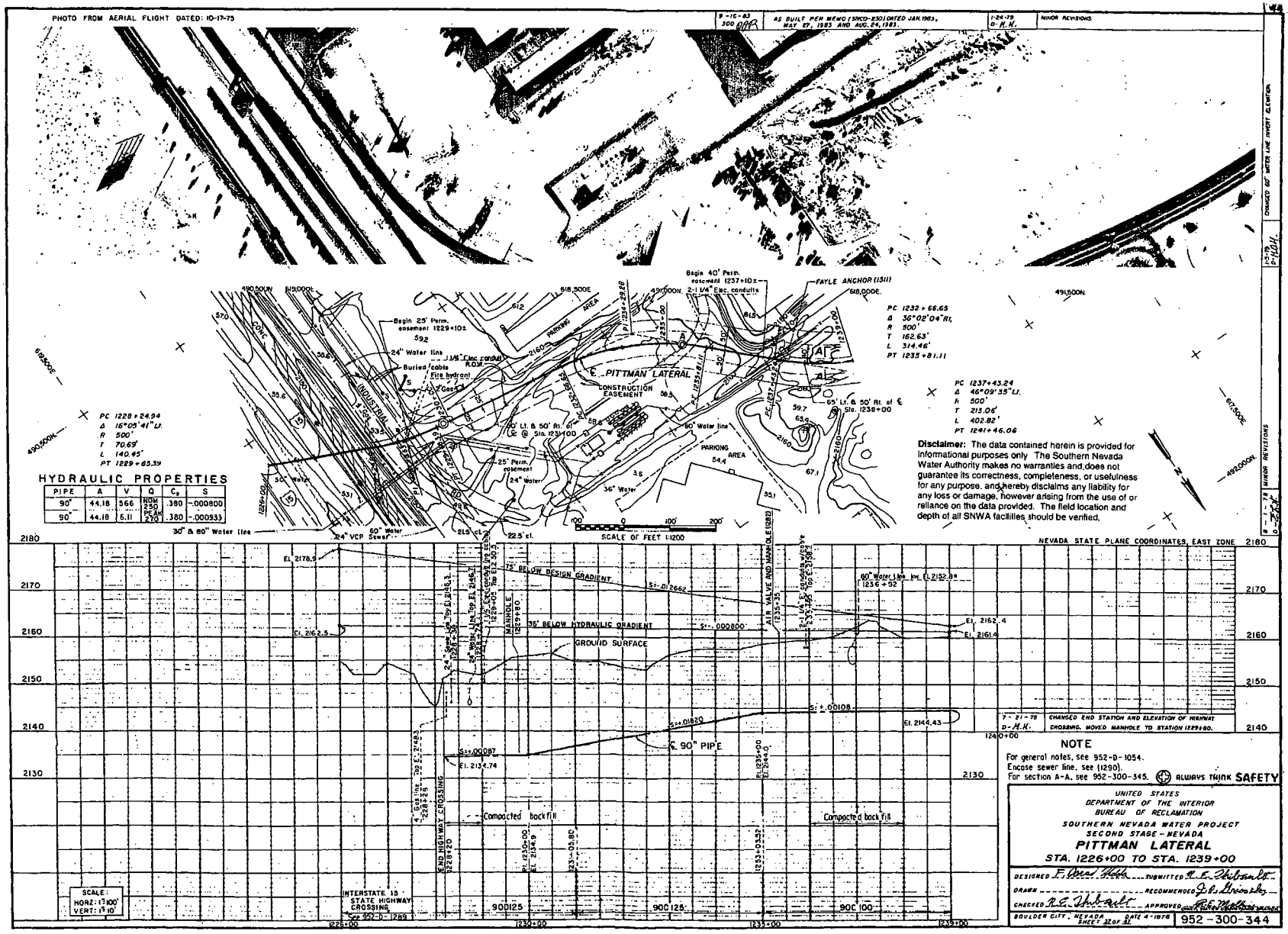
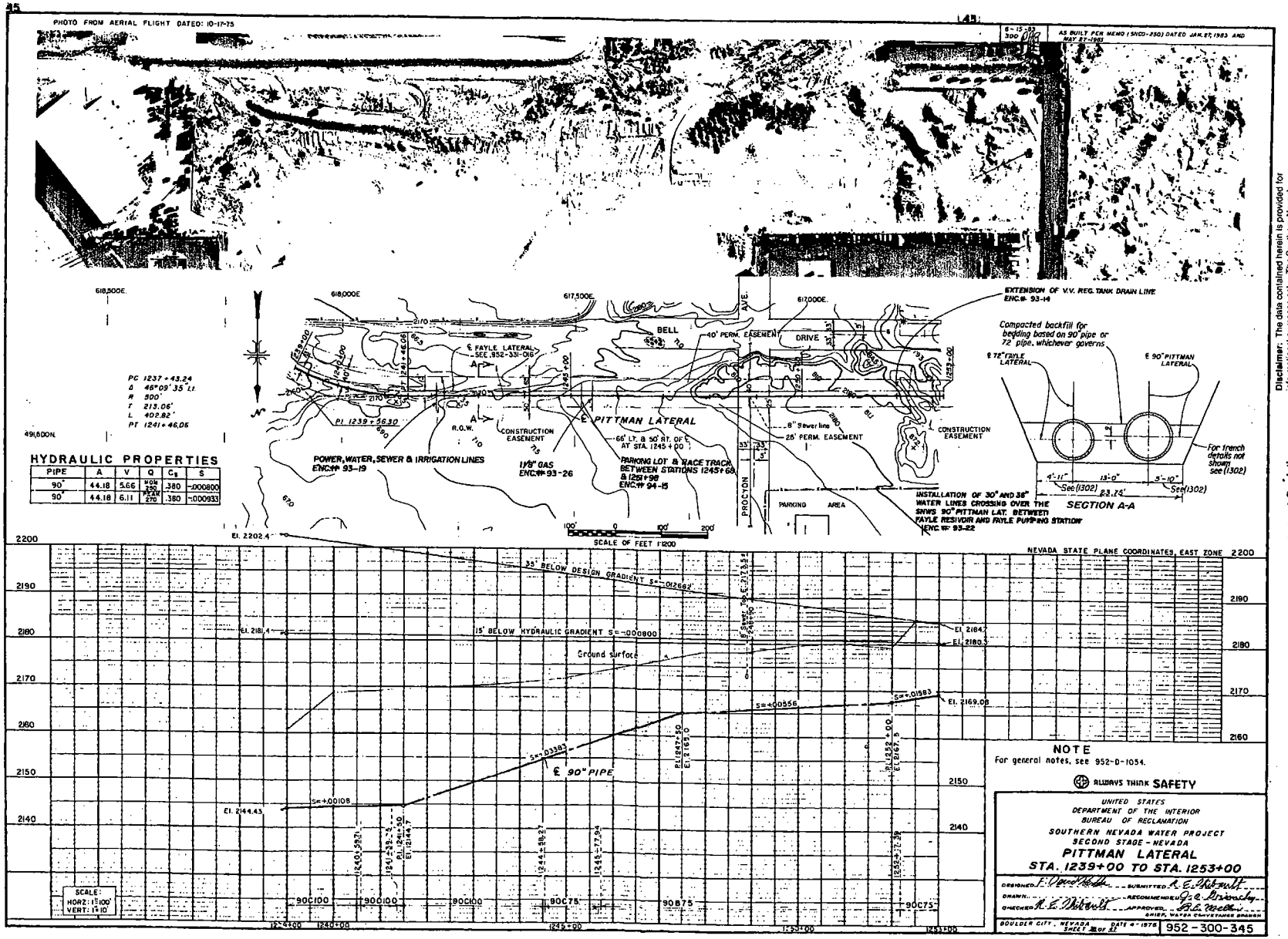
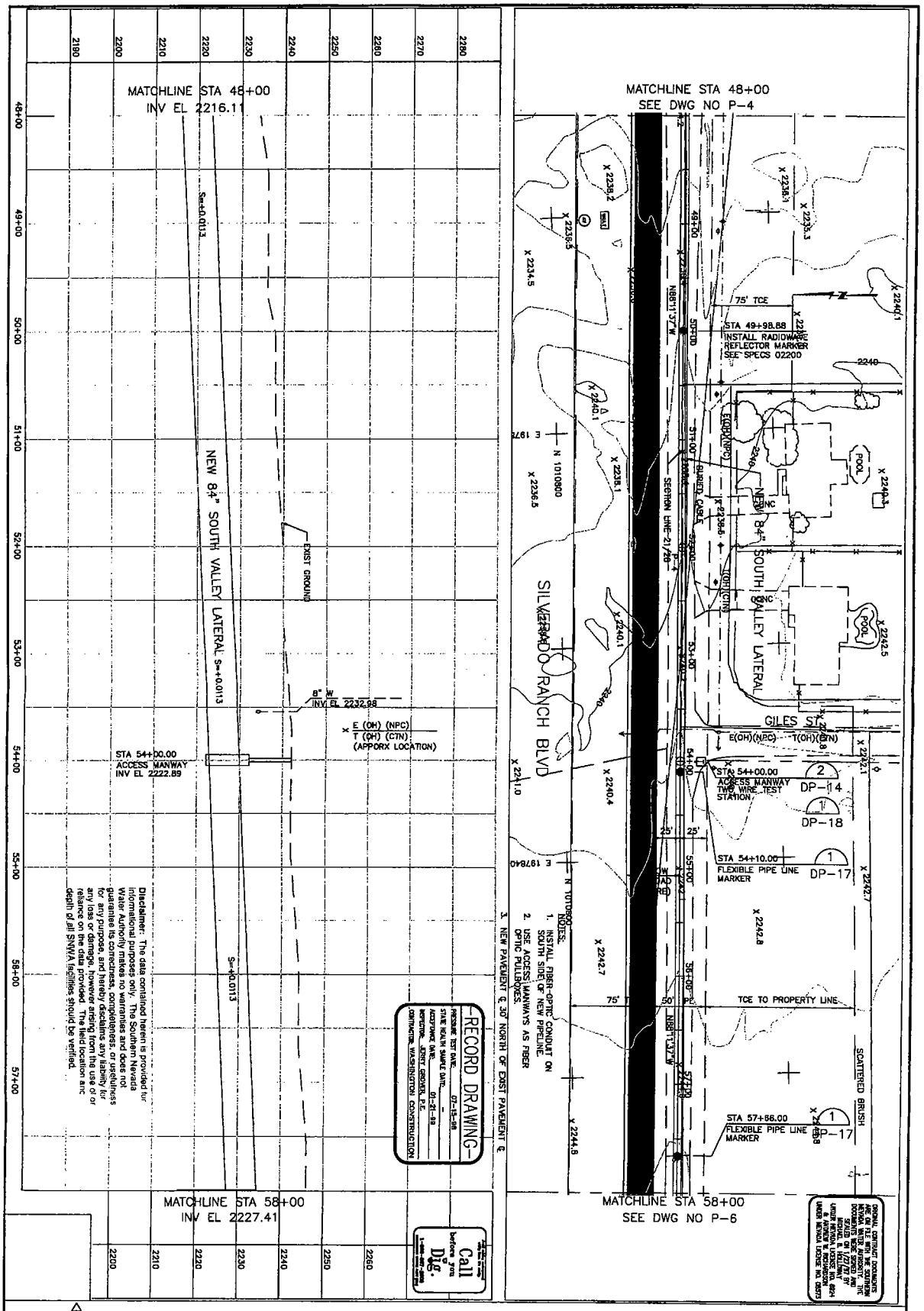


The data is based on the National Geodetic Vertical Datum of 1929. It is the engineer's responsibility to ensure that this data is converted to the appropriate datum before using said data.

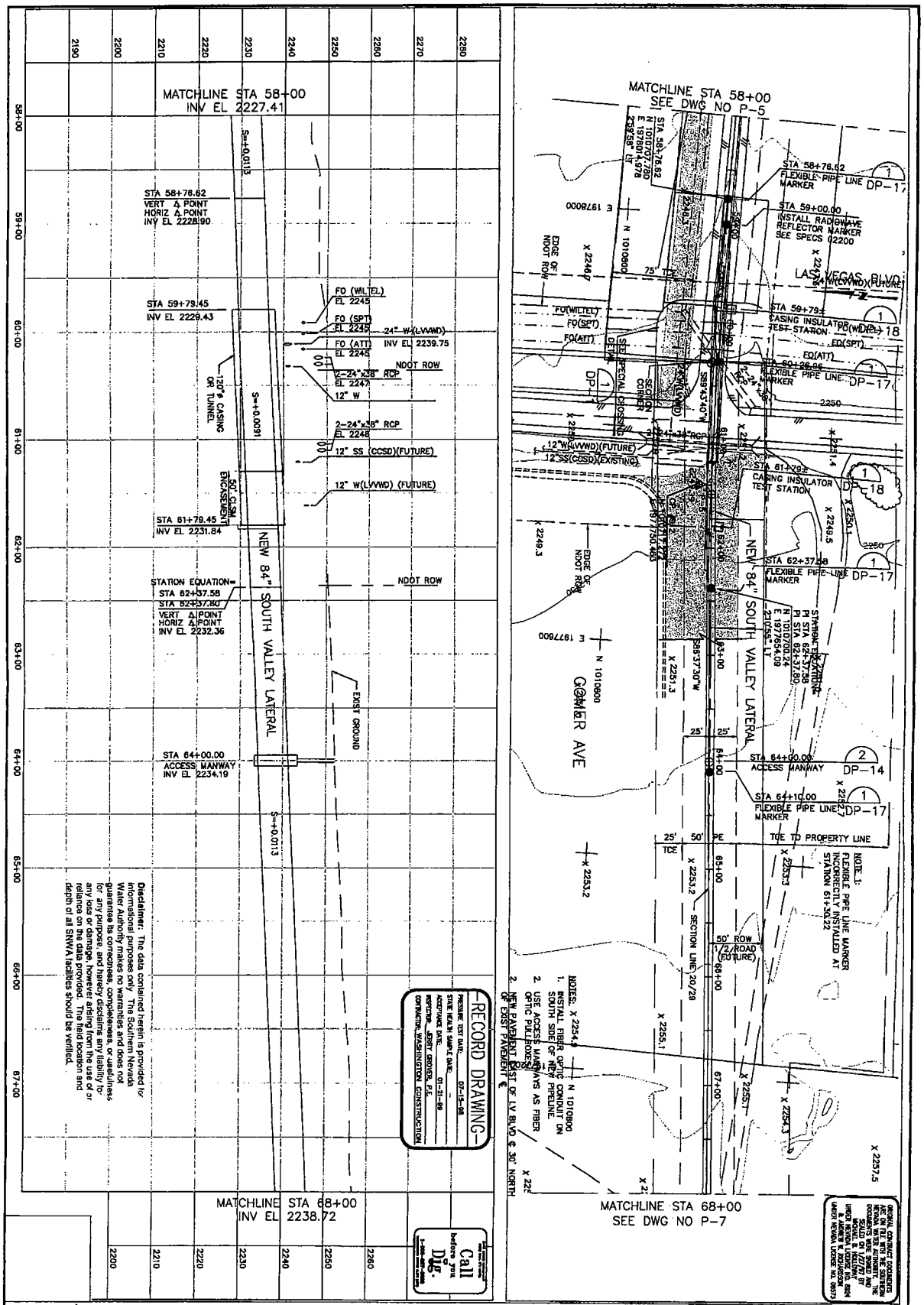


Disclaimer: The data contained herein is provided for informational purposes only. The Southern Nevada Water Authority makes no warranties and does not guarantee its correctness, completeness, or usefulness for any purpose, and hereby disclaims any liability for any loss or damage, however arising from the use of or reliance on the data provided. The field location and depth of all SNWA facilities should be verified.

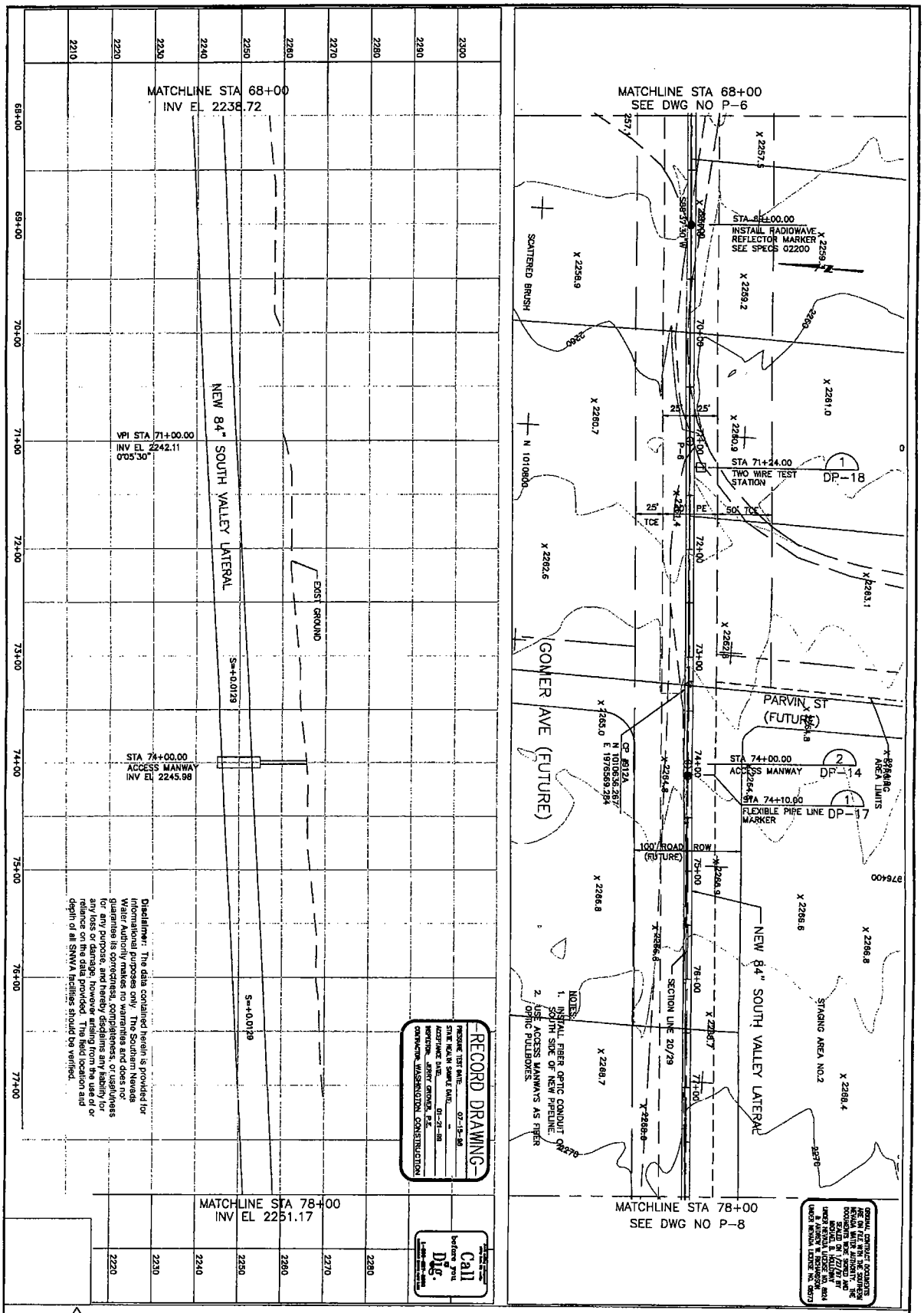
The data is based on the **National Geodetic Vertical Datum of 1929.** It is the engineer's responsibility to ensure that this data is converted to the appropriate datum before using said data.



DSGN: MBR/CMB/MSR DR: RAP/JT/CRW CHK: MBR/AWR/PAK/KLH/WMR APVD:	SNWA IN-VALLEY TRANSMISSION FACILITIES – PHASE I SOUTH VALLEY LATERAL PLAN & PROFILE – STA 48+00 TO STA 58+00 RECORD DRAWING PPS (PS) Plot @ 05/04/99	VERIFY SCALE 1/2 0 1/2 1 BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL	SOUTHERN NEVADA WATER AUTHORITY 1900 E. FLAMINGO ROAD SUITE 170 LAS VEGAS, NEVADA 89119 (702) 862-3400	CONTRACT NO. 110-K DRAWING NO. P-5 SHEET 11 OF 88



DSGN: MBH/DMG/MSR	SNWA IN-VALLEY TRANSMISSION FACILITIES – PHASE I	VERIFY SCALE	SOUTHERN NEVADA WATER AUTHORITY	
DR: RAP/JY/DRW	SOUTH VALLEY LATERAL	1/2 0 1/2	1900 E. FLAMINGO ROAD SUITE 170	
CHK: MBH/AWR/PAK/MJN/WHR	PLAN & PROFILE – STA 58+00 TO STA 68+00	BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL	LAS VEGAS, NEVADA 89119	
APVD:	RECORD DRAWING	SCALE: HORIZ 1" = 40' VERT 1" = 10'	(702) 862-3400	
CONTRACT NO. 110-K	PP6 (PS) Plot @ 02/11/00			
DRAWING NO. P-6				
SHEET 12 OF 66				



DSGN: MBH/CMG/MSR	SNWA IN-VALLEY TRANSMISSION FACILITIES – PHASE I	VERIFY SCALE	SOUTHERN NEVADA WATER AUTHORITY
DR: RAF/JY/CBW	SOUTH VALLEY LATERAL	BAR REPRESENTS ONE AND ONE-HALF INCHES ON ORIGINAL	1900 E. FLAMINGO ROAD SUITE 170 LAS VEGAS, NEVADA 89119 (702) 862-3400
CHK: MBH/AWR/PAK/MJK/WMR	PLAN & PROFILE – STA 68+00 TO STA 78+00		
APVD:	RECORD DRAWING	SCALE: HORZ 1" = 40' VERT 1" = 10'	
	PP7 (PS) Plot @ 05/04/99		

CONTRACT NO. 110-K
DRAWING NO. P-7
SHEET 13 OF 68

APPENDIX C

COOPERATING AGENCY

U.S. Department
of Transportation
Federal Highway Administration

Nevada Division

705 North Plaza St. Suite 220
Carson City, NV 89701

March 9, 2005

In Reply Refer To:

HDA-NV
NH-015-1(130)

Subject: Interstate 15 South Environmental Document
Request for Cooperating Agency Participation

RECEIVED BY
PARSONS
MAR 11 2005
LAS VEGAS, NV

Juan Palma
Field Director, Las Vegas Field Office
Bureau of Land Management
4701 N. Torrey Pines Drive
Las Vegas, NV 89130

Dear Mr. Palma:

The Federal Highway Administration (FHWA) in cooperation with the Nevada Department of Transportation (NDOT) is initiating an environmental document for a portion of the Interstate 15 (I-15) Corridor from Tropicana Avenue to the Sloan Road interchange in the City of Henderson and Clark County, Nevada.

The project is proposed to enhance the I-15 Corridor for interstate travel through southern Las Vegas and for improved local circulation and access. Both existing congestion and projected increases in traffic necessitate consideration of the proposed improvements. The envisioned project includes several major components, including I-15 freeway improvements; Las Vegas Boulevard South improvements; potential interchanges at Sloan Road, Bermuda Road, Starr Avenue, Cactus Avenue, and Pebble Road; collector-distributor roads; frontage roads; and I-15/I-215 system interchange improvements. The No Action alternative will also be considered.

Your agency's involvement should entail those areas under its jurisdiction or expertise and no direct writing or analysis will be necessary for preparation of the document. Enclosed is a copy of the FHWA "Guidance on Cooperating Agencies," which outlines the responsibilities of FHWA (as lead agency) and of Cooperating Agencies. The following are activities we will take to maximize interagency cooperation:

- Invite you to coordination meetings
- Consult with you on any relevant technical studies that will be required for the project
- Organize joint field reviews
- Provide you with project information, including study results
- Encourage your agency to use the process to express your views on subjects within your jurisdiction or expertise

- Include information in the project environmental document that Cooperating Agencies may need to discharge their National Environmental Policy Act (NEPA) responsibilities and any other requirements regarding jurisdictional approvals, permits, licenses, and/or clearances.

You have the right to expect that the environmental document will enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your needs are not being met. We expect that at the end of the process, the environmental document will satisfy your NEPA requirements including those related to project alternatives, environmental consequences and mitigation.

An interagency Technical Advisory Committee (TAC) was formed to guide our project development process. Agencies represented on the TAC may want to designate their members as our point of contact.

We look forward to your response for participating as a Cooperating Agency. We ask that you please respond in writing with your agency's commitment as a Cooperating Agency, specific issues, relevant information, and review requirements by **April 1, 2005**. If you have any questions or need additional information, you may contact Mr. Ted P. Bendure, Environmental Program Manager, 705 N. Plaza, Suite 220, Carson City, Nevada 89701, telephone: (775) 687-5322, email: ted.bendure@fhwa.dot.gov.

Sincerely yours,

Susan Klekar
Division Administrator
Nevada Division

Enclosure

cc: Agency Distribution (attached)
Ted Bendure, FHWA
Jeff Hale, NDOT
Daniel Nollsch, NDOT
Jeff Steinmetz, BLM
Chad Anson, Parsons
Andrea Sloter, Parsons
Jeff Bingham, Parsons

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Las Vegas Field Office
4701 N. Torrey Pines Drive
Las Vegas, Nevada 89130-2301

Ted (B)
Greg

TAKE PRIDE IN AMERICA

FEB - 6 2006

In Reply Refer to:
1792 (NV-050)

NH-015-1(130)

January 31, 2006

Ms. Susan Klekar
Division Administrator
Nevada Division
705 N. Plaza, Suite 220
Carson City, NV 89701

Dear Ms. Klekar:

The BLM is pleased to accept cooperating agency status for the HI-15 Corridor from Tropicana Avenue to the Sloan Road Interchange in the City of Henderson and Clark County, Nevada, primarily for our jurisdiction over issuance of rights-of-way. Staff has numerous other commitments and although it will be difficult to fully participate I can provide the following:

- One staff member to attend meetings as the BLM representative
- Other staff specialists to participate in meetings based on need identified in previous meetings
- Review of preliminary draft and final documents by BLM staff

We look forward to working with you this project. Please contact Frederick Marcell, Acting Supervisory Reality Specialist, 702-515-5164, or Jeffrey G. Steinmetz, Las Vegas Field Office, Planning and Environmental Coordinator, at 702-515-5097, regarding this project.

Sincerely,

Juan Palma

Juan Palma
Field Manager

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL # of pages ▶ 1

To Andrea	From TED
Dept./Agency	Phone # (775) 687-5322
Fax # (702) 435-8412	Fax #

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

APPENDIX D

SECTION 7 CONSULTATION CORRESPONDENCE

U.S. Department
of Transportation
Federal Highway Administration

705 North Plaza St. Suite 220
Carson City, NV 89701

July 28, 2008

In Reply Refer To:
HENV-NV

Nevada Division

Subject: I-15 South Corridor Improvement from Sloan Road to Tropicana Avenue, Clark County, Nevada-Transfer of Section 7 Consultation Lead from FHWA to BLM

Ms. Mary Jo Rugwell
District Manager
Las Vegas Field Office
Bureau of Land Management
4701 N. Torrey Pines Drive
Las Vegas, NV 89130

Dear Ms. Rugwell:

The Federal Highway Administration (FHWA) in cooperation with the Nevada Department of Transportation (NDOT) is proposing to improve 12 miles of the I-15 South Corridor from Sloan Road to Tropicana Avenue including Las Vegas Boulevard South between Sloan Road and Sunset Road in Clark County, Nevada. In a letter dated January 31, 2006, the Bureau of Land Management (BLM) has agreed to be a cooperating agency with FHWA and NDOT for this project. The project will need to acquire 17.3 acres of BLM land as illustrated in the enclosed figures. As part of the project planning phase, an environmental assessment is being developed for the project and a preliminary draft of the document will be shared with you when it is completed. One of the issues to be addressed is Section 7 consultation of the Endangered Species Act. As you are aware, the Bureau of Land Management (BLM) currently has a United States Fish and Wildlife Service (USFWS) Biological Opinion (BO) dated December 20, 2004 covering the project area.

The Federal Highway Administration is hereby requesting that BLM assume the Federal lead for Section 7 consultation for the project under the stipulations of the Biological Opinion issued by USFWS on December 20, 2004 (File No. 1-5-96-F-23R.3). Use of the existing BO will streamline the Section 7 consultation process and will satisfy the Section 7 consultation requirement for the project.

If you are in concurrence with this process, please let me know via written response. If you have any questions, please contact Julia Ervin-Holoubek of NDOT at (775) 888-7689 or me at (775) 687-1231. I appreciate your assistance with this matter and look forward to hearing from you.

Sincerely yours,

a. a. abdalla

Abdelmoez A. Abdalla
Environmental Program Manager

Enclosures

cc: Steve Cooke, NDOT
Julia Ervin-Holoubek, NDOT
Mark Slaughter, BLM Las Vegas Office

ecc: Becky Bennett, FHWA
Hannah Visser, FHWA
Iyad Alattar, FHWA
Terry Philipin, FHWA

LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- ExistingTraffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

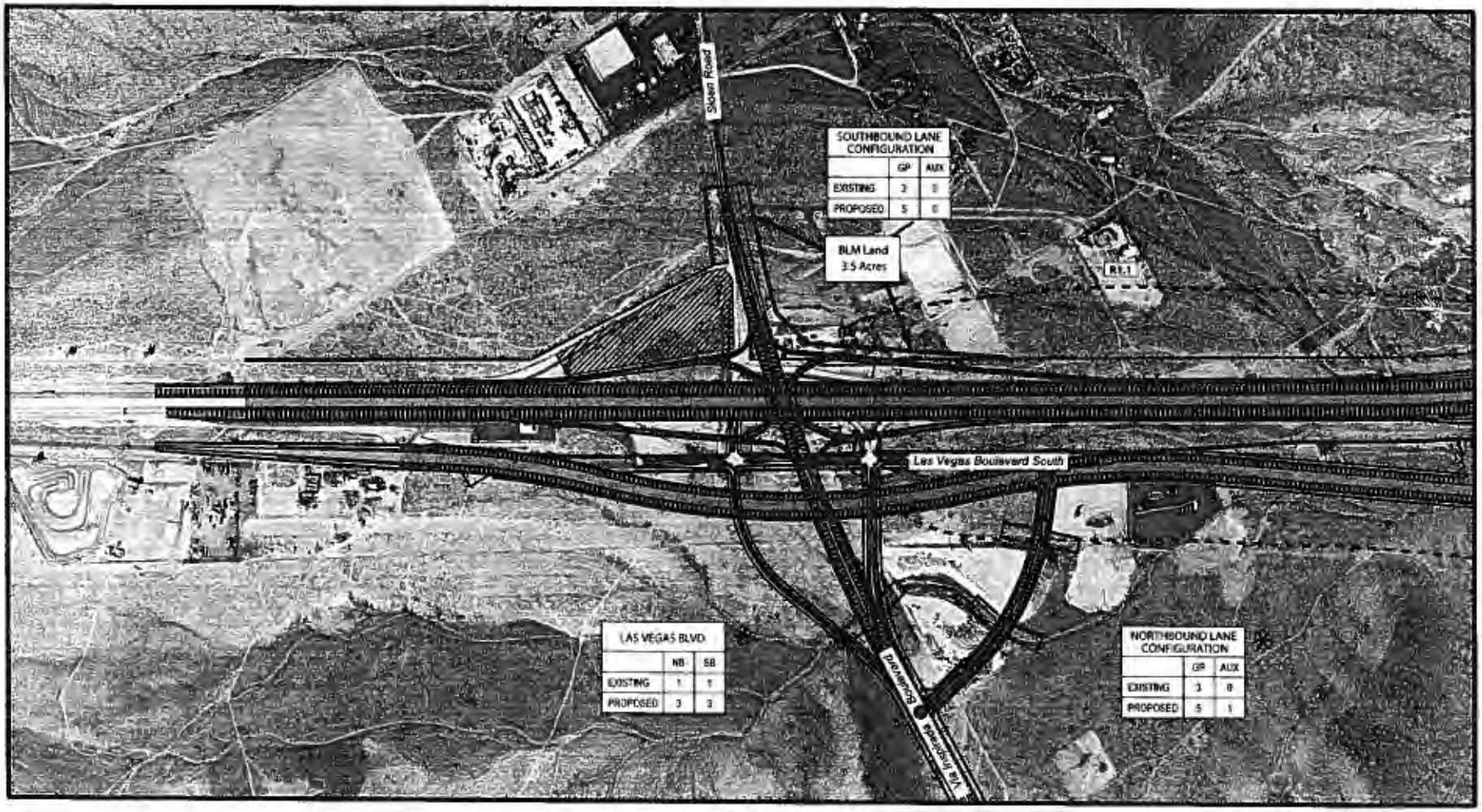
SCALE: 1" = 600'

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
BUILD ALTERNATIVE
FIGURE 10d

* Data as of 2008, March



LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- Existing Traffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

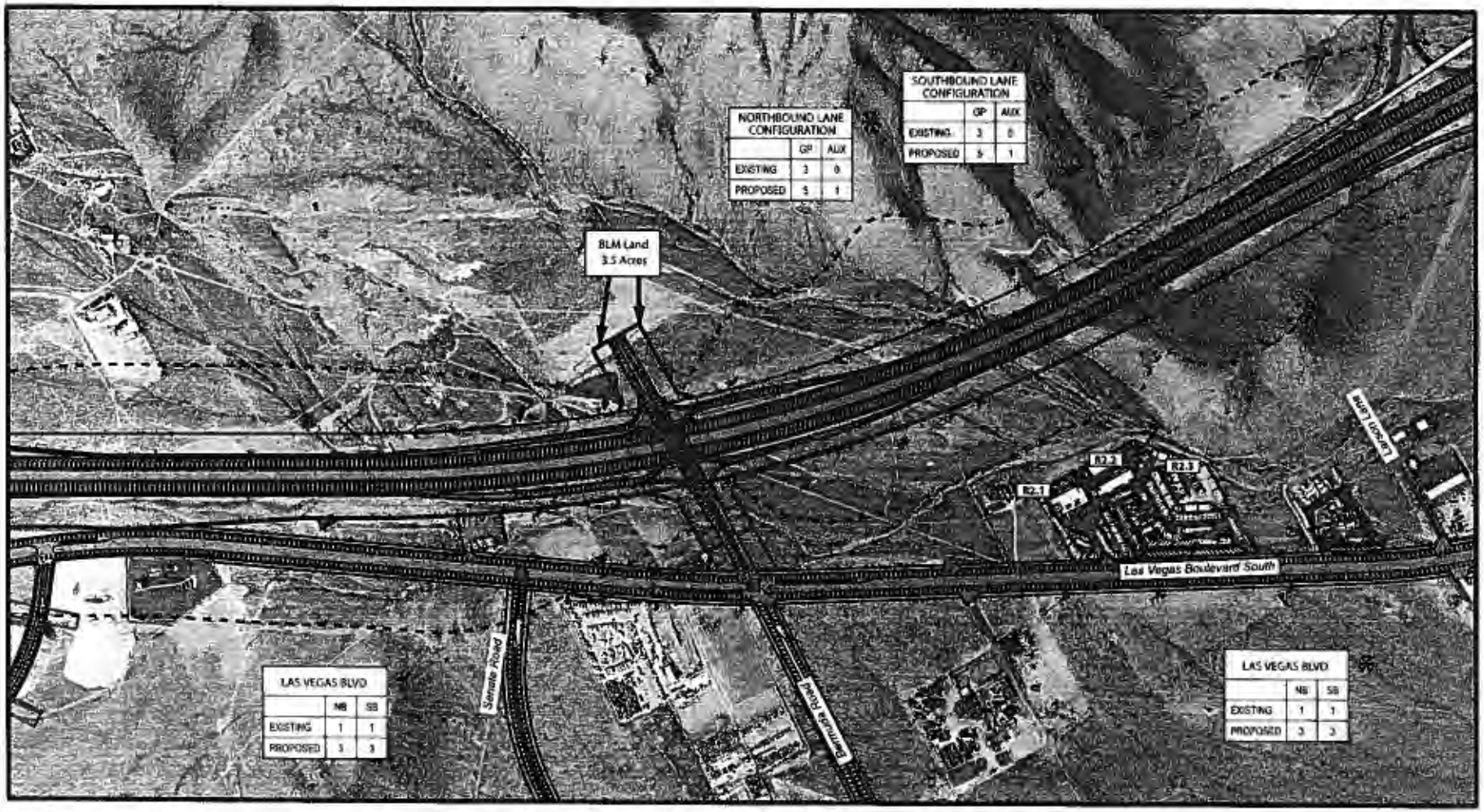
SCALE: 1" = 600'

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
BUILD ALTERNATIVE
FIGURE 10a

Datum of 2008, March



LEGEND

- Existing Right-of-Way
- Proposed Right-of-Way
- Construction Staging Area
- 66 dBA Noise Contour
- Pavement
- Transition to Existing
- Ongoing Projects by Others
- R1.1 Noise Sensitive Receptor
- Proposed Sound Wall
- Existing Traffic Signal
- Proposed Traffic Signal

0 300 600 900 1,200

SCALE: 1" = 600'

NORTH

NEVADA DOT

I-15 SOUTH CORRIDOR IMPROVEMENTS
ENVIRONMENTAL ASSESSMENT
BUILD ALTERNATIVE
FIGURE 10b

* Data as of 2009, March

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Las Vegas Field Office
4701 North Torrey Pines Dr
Las Vegas NV 89130
www.nv.blm.gov

TAKE PRIDE IN AMERICA

In Reply Refer to:

AUG 07 2008

Abdelmoez A. Abdalla
Environmental Program Manager
U.S. Department of Transportation
Federal Highway Administration
Nevada Division
705 North Plaza Street, Suite 220
Carson City, Nevada 89170

Mr. Abdalla,

I agree that our office should take the lead in the section 7 consultation requirements per the Endangered Species Act of 1973, as amended, on the I-15 South Corridor Improvement from Sloan Road to Tropicana Avenue. It makes sense to cover the project under our programmatic biological opinion (1-5-96-F-23R.3) in order to streamline the consultation process. Mr. Michael Burroughs of the Las Vegas Field Office of the U.S. Fish and Wildlife Service has also concurred with this.

A determination on the terms and conditions necessary for the project will be made and provided to Julia Ervin-Holoubek of the Nevada Department of Transportation to include in the Environmental Assessment. Due to the federal nexus, this will include the collection of remuneration fees for all surface disturbances associated with the project on all lands. The fee is currently $753.00 per acre if paid before March 1, 2009. If you have any questions concerning this process, please contact Mark Slaughter at 702-515-5195

I look forward to our continued cooperation.

Sincerely,

Mary Jo Rugwell
Field Manager

APPENDIX E

PROCEDURES FOR ABATEMENT OF HIGHWAY TRAFFIC NOISE AND CONSTRUCTION NOISE

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
Environmental Services Division

TRAFFIC and CONSTRUCTION NOISE ABATEMENT POLICY

The Federal Highway Administration's noise standard is outlined in the Code of Federal Regulations 23 CFR 772 "Procedures for Abatement of Highway Traffic and Construction Noise" as adopted on July 8, 1982. Highway projects developed in conformance with this regulation shall be deemed to be in conformance with the Federal Highway Administration's (FHWA) noise standard. The definitions used in this Noise Abatement Policy are the same as those found in the noise standard 23 CFR 772 at www.fhwa.dot.gov/environment/23cfr772.htm.

NDOT has adhered to the noise standard since February 1973 and the following reflects revisions to the policy which have been observed by the Department since April 1, 1996.

1. Under the guidelines of the noise standard, a traffic noise analysis is performed for Type I highway projects on a new alignment, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through traffic lanes. The analysis is performed for developed lands and undeveloped lands when development is planned, designed, and programmed. Development will be deemed to be planned, designed, and programmed if a noise sensitive land, such as a residence, school, church, hospital, library, etc., has received a building permit from the local agency with jurisdiction at the time of the noise analysis.

   A traffic noise analysis may be required by the National Environmental Policy Act of 1969 (NEPA). This can occur when a project is not a Type I project but does, in itself, create a traffic noise impact. Such projects must be dealt with on a case-by-case basis in accordance with NEPA.

2. Local officials will be informed of potential traffic noise impacts to land adjacent to a proposed highway project early in the planning process to protect future noise sensitive land development from becoming incompatible with traffic noise levels. This will be accomplished through environmental documents, noise study reports, correspondence including traffic noise contours, and public meetings.
   The "date of public knowledge" is when the public is officially notified of the adoption of the location of a proposed highway project. The date of public knowledge shall be the date a project's environmental analysis and documentation is approved, i.e., the date of approval of Categorical Exclusions (CEs), Finding Of No Significant Impacts (FONSIs), or Record Of Decisions (RODs). After this date, NDOT is responsible for analyzing changes in traffic noise impacts, when appropriate, but NDOT is no longer responsible for providing noise abatement for new development which occurs adjacent to the highway. Provision for such noise abatement becomes the responsibility of local communities and private developers.

3. Traffic noise abatement measures are considered when the predicted traffic noise levels for the Design Year approach or exceed the Noise Abatement Criteria (NAC) as identified in the noise standard, 23 CFR Part 772. NDOT defines the term "approach" as 1 dBA less than the NAC.

   Mitigation measures to reduce traffic noise impacts will also be considered when the predicted traffic noise levels substantially exceed the existing noise levels. NDOT has defined the term "substantially exceed" as 15 dBA. The absolute noise level and predicted change will be considered in the reasonableness evaluation, as discussed below.

4. A wide range of criteria is used to determine the overall reasonableness of mitigation being considered, such as: (1) the noise reduction provided, (2) the number of people benefitted, (3) the cost of the abatement, (4) the opinions of the impacted residents, (5) the absolute noise levels, (6) the change in noise levels, (7) other noise sources, and (8) the timing and consideration of development along the highway; and the feasibility (engineering factors). FHWA directs that noise abatement measures must achieve a substantial noise reduction. NDOT considers a barrier that mitigates at least 5 dBA for the first row of residents, and 3 dBA for the second row of residents as a substantial noise reduction.

   A cost analysis will be prepared to evaluate the cost/benefit ratio of different abatement measures. NDOT uses the 2000 national acceptable amount of $12,000 per resident and the current Nevada demographics average of residents per residence or a minimum of 2.6 residents per dwelling, to assess barrier economics.

   In determining the reasonableness and feasibility of noise abatement; NDOT will meet with the impacted residents and present a brief program on highway traffic noise to explain and demonstrate the characteristics of highway traffic noise, the effects of noise barriers in attenuating traffic noise, and the types of noise barriers that may be considered. Specific details, location, length, height, aesthetic treatment, landscaping, maintenance, drainage, safety, etc. of noise barriers being studied will also be provided as available in addition to a discussion of alternatives to barrier construction. NDOT will then solicit the opinions of the impacted residents and make a preliminary determination on the reasonableness and feasibility of noise abatement. After completion of final design, NDOT will meet again with the impacted residents to present final barrier design details and solicit the residents' final views and opinions on barrier construction. NDOT will then make a final determination on the reasonableness and feasibility of noise abatement.

5. Procedures to minimize construction noise impacts, while considering traffic impacts, will continue to be addressed on a project-by-project basis.

6. There may be extenuating circumstances where unique or unusual conditions warrant special consideration of highway traffic noise impacts and/or implementation of noise abatement measures. These circumstances could involve areas, such as: (1) those that are extremely noise-sensitive, (2) those where severe traffic noise impacts are anticipated, or (3) those containing Section 4(f) resources. Extenuating circumstances will be considered on an individual project basis.

7. The Department has established a matching program to retrofit existing impacted locations with noise mitigation. Prioritization of impacts includes: (1) the number of people affected, (2) severity of impact, (3) duration of impact, (4) whether residences were built before or after the roadway was planned, (5) cost benefit derived from mitigation, (6) and availability of any local matching funds. The funding for this program will be limited to an annual appropriation of state highway funds as approved by the State Transportation Board.

This policy is consistent with all current federal regulations.

DEPUTY DIRECTOR Jeff Fontaine *Jeff Fontaine, P.E.* 2-14-03 *date*

23 CFR PART 772--PROCEDURES FOR ABATEMENT OF HIGHWAY TRAFFIC NOISE AND CONSTRUCTION NOISE

AUTHORITY: 23 U.S.C. 109(h), 109(i); 42 U.S.C. 4331, 4332; sec. 339(b), Pub. L. 104-59, 109 Stat. 568, 605; 49 CFR 1.48(b).

(Source: 47 FR 29654, July 8, 1982; 47 FR 33956, Aug. 5, 1982, and 62 FR 42903, August 11, 1997)

Sec. 772.1 Purpose.

To provide procedures for noise studies and noise abatement measures to help protect the public health and welfare, to supply noise abatement criteria, and to establish requirements for information to be given to local officials for use in the planning and design of highways approved pursuant to Title 23, United States Code (U.S.C.).

Sec. 772.3 Noise standards.

The highway traffic noise prediction requirements, noise analyses, noise abatement criteria, and requirements for informing local officials in this regulation constitute the noise standards mandated by 23 U.S.C. 109(i). All highway projects which are developed in conformance with this regulation shall be deemed to be in conformance with the Federal Highway Administration (FHWA) noise standards.

Sec. 772.5 Definitions.

(a) Design year. The future year used to estimate the probable traffic volume for which a highway is designed. A time, 10 to 20 years, from the start of construction is usually used.

(b) Existing noise levels. The noise, resulting from the natural and mechanical sources and human activity, considered to be usually present in a particular area.

(c) L10. The sound level that is exceeded 10 percent of the time (the 90th percentile) for the period under consideration.

(d) L10(h). The hourly value of L10.

(e) Leq. The equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same time period.

(f) Leq(h). The hourly value of Leq.

(g) Traffic noise impacts. Impacts which occur when the predicted traffic noise levels approach or exceed the noise abatement criteria (Table 1), or when the predicted traffic noise levels substantially exceed the existing noise levels.

(h) Type I projects. A proposed Federal or Federal-aid highway project for the construction of a highway on new location or the physical alteration of an existing highway which significantly changes either the horizonal or vertical alignment or increases the number of through-traffic lanes.

(i) Type II projects. A proposed Federal or Federal-aid highway project for noise abatement on an existing highway.

Sec. 772.7 Applicability.

(a) Type I projects. This regulation applies to all Type I projects unless it is specifically indicated that a section applies only to Type II projects.

(b) Type II projects. The development and implementation of Type II projects are not mandatory requirements of 23 U.S.C. 109(i) and are, therefore, not required by this regulation. When Type II projects are proposed for Federal-aid highway participation at the option of the highway agency, the provisions of Subsec. 772.9(c), 772.13, and 772.19 of this regulation shall apply.

Sec. 772.9 Analysis of traffic noise impacts and abatement measures.

(a) The highway agency shall determine and analyze expected traffic noise impacts and alternative noise abatement measures to mitigate these impacts, giving weight to the benefits and cost of abatement, and to the overall social, economic and environmental effects.

(b) The traffic noise analysis shall include the following for each alternative under detailed study:

1. Identification of existing activities, developed lands, and undeveloped lands for which development is planned, designed and programmed, which may be affected by noise from the highway;
2. Prediction of traffic noise levels;
3. Determination of existing noise levels;
4. Determination of traffic noise impacts; and
5. Examination and evaluation of alternative noise abatement measures for reducing or eliminating the noise impacts.

(c) Highway agencies proposing to use Federal-aid highway funds for Type II projects shall perform a noise analysis of sufficient scope to provide information needed to make the determination required by

Sec. 772.13(a) of this chapter.

Sec. 772.11 Noise abatement.

(a) In determining and abating traffic noise impacts, primary consideration is to be given to exterior areas. Abatement will usually be necessary only where frequent human use occurs and a lowered noise level would be of benefit.

(b) In those situations where there are no exterior activities to be affected by the traffic noise, or where the exterior activities are far from or physically shielded from the roadway in a manner that prevents an impact on exterior activities, the interior criterion shall be used as the basis of determining noise impacts.

(c) If a noise impact is identified, the abatement measures listed in Sec. 772.13(c) of this chapter must be considered.

(d) When noise abatement measures are being considered, every reasonable effort shall be made to obtain substantial noise reductions.

(e) Before adoption of a final environmental impact statement or finding of no significant impact, the highway agency shall identify:

1. Noise abatement measures which are reasonable and feasible and which are likely to be incorporated in the project, and

2. Noise impacts for which no apparent solution is available.

(f) The views of the impacted residents will be a major consideration in reaching a decision on the reasonableness of abatement measures to be provided.

(g) The plans and specifications will not be approved by FHWA unless those noise abatement measures which are reasonable and feasible are incorporated into the plans and specifications to reduce or eliminate the noise impact on existing activities, developed lands, or undeveloped lands for which development is planned, designed, and programmed.

Sec. 772.13 Federal participation.

(a) Federal funds may be used for noise abatement measures where:

1. A traffic noise impact has been identified,

2. The noise abatement measures will reduce the traffic noise impact, and

3. The overall noise abatement benefits are determined to outweigh the overall adverse social, economic, and environmental effects and the costs of the noise abatement measures.

(b) For Type II projects, noise abatement measures will only be approved for projects that were approved before November 28, 1995, or are proposed along lands where land development or substantial construction predated the existence of any highway. The granting of a building permit, filing of a plat plan, or a similar action must have occurred prior to right-of-way acquisition or

construction approval for the original highway. Noise abatement measures will not be approved at locations where such measures were previously determined not to be reasonable and feasible for a Type I project.

(c) The noise abatement measures listed below may be incorporated in Type I and Type II projects to reduce traffic noise impacts. The costs of such measures may be included in Federal-aid participating project costs with the Federal share being the same as that for the system on which the project is located, except that Interstate construction funds may only participate in Type I projects.

1. Traffic management measures (e.g., traffic control devices and signing for prohibition of certain vehicle types, time-use restrictions for certain vehicle types, modified speed limits, and exclusive land designations).

2. Alteration of horizontal and vertical alignments.

3. Acquisition of property rights (either in fee or lesser interest) for construction of noise barriers.

4. Construction of noise barriers (including landscaping for aesthetic purposes) whether within or outside the highway right-of-way. Interstate construction funds may not participate in landscaping.

5. Acquisition of real property or interests therein (predominantly unimproved property) to serve as a buffer zone to preempt development which would be adversely impacted by traffic noise. This measure may be included in Type I projects only.

6. Noise insulation of public use or nonprofit institutional structures.

(d) There may be situations where (1) severe traffic noise impacts exist or are expected, and (2) the abatement measures listed above are physically infeasible or economically unreasonable. In these instances, noise abatement measures other than those listed in Sec. 772.13(c) of this chapter may be proposed for Types I and II projects by the highway agency and approved by the Regional Federal Highway Administrator on a case-by-case basis when the conditions of Sec. 772.13(a) of this chapter have been met.

Sec. 772.15 Information for local officials.

In an effort to prevent future traffic noise impacts on currently undeveloped lands, highway agencies shall inform local officials within whose jurisdiction the highway project is located of the following:

(a) The best estimation of future noise levels (for various distances from the highway improvement) for both developed and undeveloped lands or properties in the immediate vicinity of the project,

(b) Information that may be useful to local communities to protect future land development from becoming incompatible with anticipated highway noise levels, and

(c) Eligibility for Federal-aid participation for Type II projects as described in Sec. 772.13(b) of this chapter.

Sec. 772.17 Traffic noise prediction.

(a) Any traffic noise prediction method is approved for use in any noise analysis required by this regulation if it generally meets the following two conditions:

1. The methodology is consistent with the methodology in the FHWA Highway Traffic Noise Prediction Model (Report No.FHWA-RD-77-108)*

   * These documents are available for inspection and copying as prescribed in 49 CFR Part 7, Appendix D.
2. The prediction method uses noise emission levels obtained from one of the following:

   (i) National Reference Energy Mean Emission Levels as a Function of Speed (Appendix A).
   (ii) Determination of reference energy mean emission levels in Sound Procedures for Measuring Highway Noise: Final Report, DP-45-1R.*

(b) In predicting noise levels and assessing noise impacts, traffic characteristics which will yield the worst hourly traffic noise impact on a regular basis for the design year shall be used.

Sec. 772.19 Construction noise.

The following general steps are to be performed for all Types I and II projects:

(a) Identify land uses or activities which may be affected by noise from construction of the project. The identification is to be performed during the project development studies.

(b) Determine the measures which are needed in the plans and specifications to minimize or eliminate adverse construction noise impacts to the community. This determination shall include a weighing of the benefits achieved and the overall adverse social, economic and environmental effects and the costs of the abatement measures.

(c) Incorporate the needed abatement measures in the plans and specifications.

Table 1: Noise Abatement Criteria (NAC) Hourly A-Weighted Sound Level - decibels (dBA)*

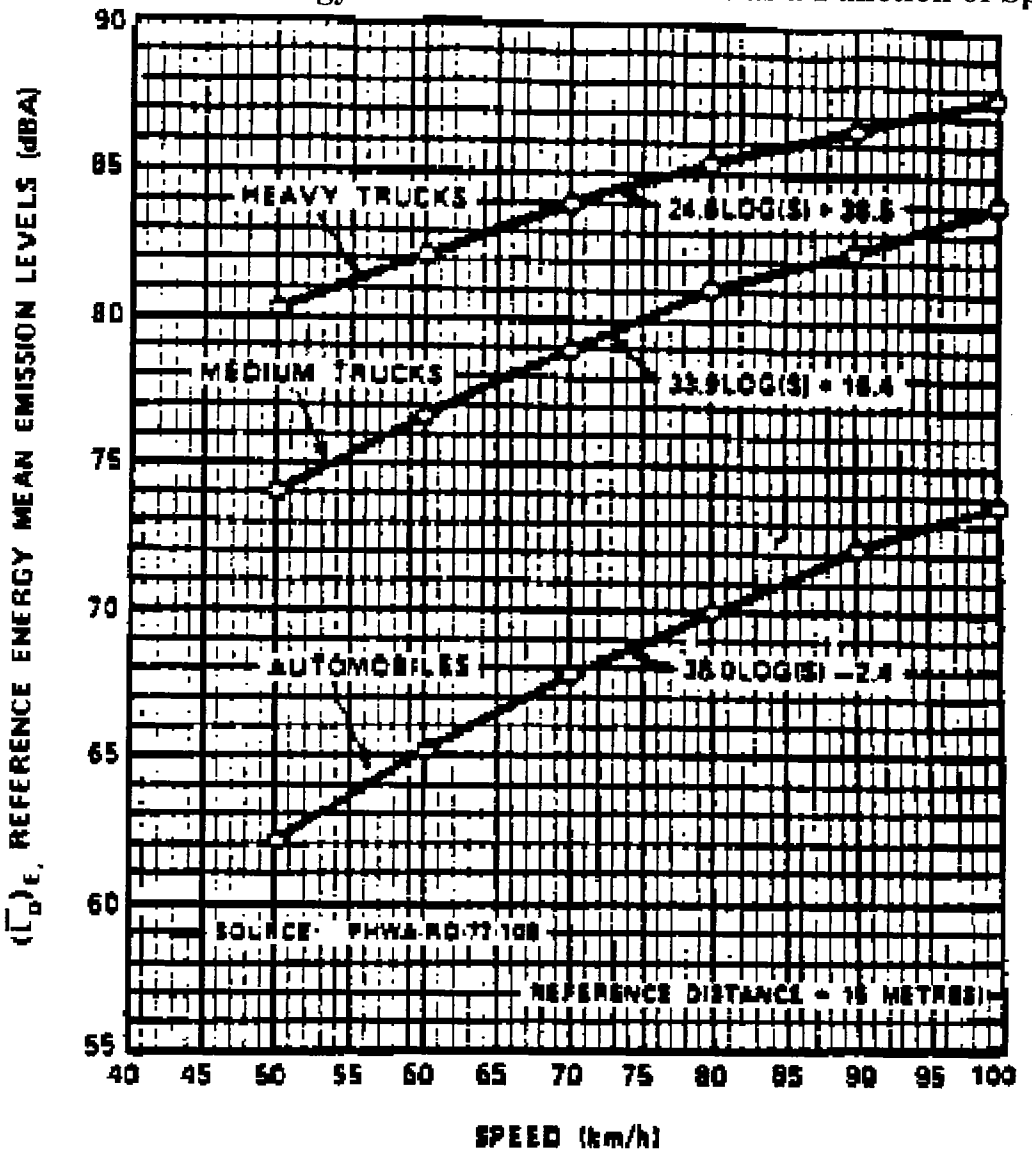
Activity Category	Leq(h)	L10(h)	Description of Activity Category
A	57 (Exterior)	60 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	70 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries,

			and hospitals.
C	72 (Exterior)	75 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	--	Undeveloped lands.
E	52 (Interior)	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

* Either L10(h) or Leq(h) (but not both) may be used on a project.

Appendix A

National Reference Energy Mean Emmission Levels as a Function of Speed



Legend:

1. Automobiles: all vehicles with two axles and four wheels.
2. Medium Trucks: all vehicles with two axles and six wheels.
3. Heavy Trucks: all vehicles with three or more axles.

APPENDIX F

SHPO CONCURRENCE LETTER

AND

NATIVE AMERICAN CONSULTATION LETTERS

STATE OF NEVADA
DEPARTMENT OF CULTURAL AFFAIRS
State Historic Preservation Office
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JIM GIBBONS
Governor

MICHAEL E. FISCHER
Department Director

RONALD M. JAMES
State Historic Preservation Officer

May 31, 2007

Abdelmoez Abdalla
Environmental Program Manager
Federal Highway Administration (FHWA) - Nevada Division
705 North Plaza Street, Suite 220
Carson City, NV 89701

Re: I-15 South Corridor (Sloan Rd. to Tropicana Ave.) and Report Titled 'Historic Architectural Survey Report I-15 South Corridor Improvements Las Vegas (February 2007) (EA: 7321)

Dear Mr. Abdalla:

The Nevada State Historic Preservation Office (SHPO) has reviewed the subject undertaking for compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. The SHPO offers the following comments:

Area of Potential Effect (APE)
Previously concurred with APE on December 15, 2006.

Archeological Resources
None appear to have been noted within the APE.

Architectural Resources
The SHPO reviewed the subject report and concluded that there were a total of seven-hundred-and fifty–three (753) properties within the APE. Of that number, nine (9) were documented using the Nevada Historic Resources Inventory Form (HIRF).

At this time, the SHPO concurs with FHWA that the following nine (9) properties are 'not eligible' to the National Register of Historic Places:

#	Property Address	APN	Built
1	8982 Dean Martin Dr.	177-20-104-006	1966
2	8700 Las Vegas Blvd., South	177-16-301-029	1958
3	9457 Las Vegas Blvd., South	177-21-301-001	1966
4	*9457 Las Vegas Blvd., South	177-21-310-000 thru 177-21-311-084	1966
5	1671 Neal Ave., West	191-05-601-002	1954
6	2885 Pebble Rd., West	177-20-501-001	1956
7	2625 Robindale Rd., West	177-08-601-006	1957
8	2626 Robindale Rd., West	177-08-701-004	1956
9	2776 Warm Springs Rd., West	177-05-801-029	1956

(*) This address is for a condominium complex and accounts for the increase in number (377) of properties within the APE.

Additionally, the SHPO acknowledges that the following three-hundred-and-sixty-seven (367) properties were not surveyed using the Historic Resource Inventory Form (HRIF) and remain unevaluated. They were either vacant or not yet forty (40) years of age when surveyed in 2007.

#	Address	APN	Built
1	2884 Agate Ave., West	177-20-511-087	2001
2	2891 Agate Ave., West	177-20-610-001	1999
3	3276 Alcudia Bay Ave.	191-05-114-079	2004
4	3012 Amari Ave.	177-32-417-014	2004
5	3013 Amari Ave.	177-32-417-013	2004
6	11280 Andreola Ct.	177-32-418-039	2003
7	11281 Andreola Ct.	177-32-418-038	2003
8	11282 Andreola Ct.	177-32-418-030	2003
9	11283 Andreola Ct.	177-32-418-029	2003
10	3220 Arby Ave., West	177-05-307-016	1988
11	3240 Arby Ave., West	177-05-307-021	1989
12	3275 Arcata Point Ave.	191-05-114-062	2004
13	3290 Arcata Point Ave.	191-05-114-061	2004
14	3306 Arcata Point Ave.	191-05-114-060	2004
15	3322 Arcata Point Ave.	191-05-114-059	2004
16	3338 Arcata Point Ave.	191-05-114-058	2004
17	3354 Arcata Point Ave.	191-05-114-057	2004
18	3370 Arcata Point Ave.	191-05-114-056	2004
19	3386 Arcata Point Ave.	191-05-114-055	2004
20	3402 Arcata Point Ave.	191-05-114-054	2004
21	3436 Arcata Point Ave.	191-05-114-053	2004
22	3452 Arcata Point Ave.	191-05-114-052	2004
23	3468 Arcata Point Ave.	191-05-114-051	2004
24	14425 Arville St.	191-19-301-010	Vacant
25	3245 Badura Ave., West	177-05-307-003	1989
26	3047 Bella Verona Ave.	177-32-419-004	Vacant
27	3061 Bella Verona Ave.	177-32-419-005	Vacant
28	3075 Bella Verona Ave.	177-32-419-006	Vacant
29	3089 Bella Verona Ave.	177-32-419-007	Vacant
30	3103 Bella Verona Ave.	177-32-419-008	Vacant
31	3117 Bella Verona Ave.	177-32-419-009	Vacant

#	Address	APN	Built
32	3131 Bella Verona Ave.	177-32-419-010	Vacant
33	3145 Bella Verona Ave.	177-32-419-011	Vacant
34	3159 Bella Verona Ave.	177-32-419-012	Vacant
35	12 Belle Crest Ct.	177-21-415-027	2000
36	13 Belle Crest Ct.	177-21-412-036	2000
37	13 Belle Crest Ct.	177-21-412-036	2000
38	13 Belle Essence Ave.	177-21-415-020	2000
39	14 Belle Essence Ave.	177-21-415-010	2000
40	14 Belle La Blanc Ave.	177-21-412-008	2000
41	15 Belle La Blanc Ave.	177-21-415-011	2000
42	3004 Binaggio Ct.	177-32-317-010	2004
43	3005 Binaggio Ct.	177-32-317-009	2004
44	3333 Blue Diamond Rd.	177-17-105-001	1994
45	3225 Cactus Ave., West	177-32-101-005	1994
46	3255 Cactus Ave., West	177-32-101-004	1995
47	3353 Cactus Ave., West	177-32-101-020	1998
48	3373 Cactus Ave., West	177-32-101-021	1983
49	3010 Cantabria Ct.	177-32-417-036	2004
50	3011 Cantabria Ct.	177-32-417-035	2004
51	3008 Cerone Ct.	177-32-417-058	2004
52	3009 Cerone Ct.	177-32-417-057	2004
53	3065 Cori Rosso Ln.	191-05-317-039	2005
54	3012 Costa Miole Dr.	191-05-216-007	2005
55	3015 Costa Miole Dr.	191-05-216-006	2005
56	2863 Cougar Ave., West	177-17-701-010	Vacant
57	7140 Dean Martin Dr.	177-05-404-020	2000
58	7350 Dean Martin Dr.	177-08-102-002	1999
59	7440 Dean Martin Dr.	177-08-102-003	1998
60	8835 Dean Martin Dr.	177-17-407-006	1984
61	8938 Dean Martin Dr.	177-20-104-003	1996
62	8979 Dean Martin Dr.	177-20-103-013	1987
63	9010 Dean Martin Dr.	177-20-104-008	1990
64	9020 Dean Martin Dr.	177-20-104-009	1998
65	9060 Dean Martin Dr.	177-20-104-012	1985
66	9080 Dean Martin Dr.	177-20-104-013	1994

#	Address	APN	Built
67	9160 Dean Martin Dr.	177-20-204-004	1979
68	9180 Dean Martin Dr.	177-20-204-005	1979
69	11330 Dean Martin Dr.	191-05-101-015	2005
70	2825 Eldorado Ln., West	177-08-601-001	2002
71	6333 Ensworth St.	162-32-810-007	1996
72	6334 Ensworth St.	162-32-810-006	1996
73	6405 Ensworth St.	162-32-810-005	1983
74	9506 Ensworth St.	177-20-811-017	1999
75	9510 Ensworth St.	177-20-811-016	1999
76	9516 Ensworth St.	177-20-811-015	1999
77	9522 Ensworth St.	177-20-811-014	1999
78	9528 Ensworth St.	177-20-811-013	1999
79	9534 Ensworth St.	177-20-811-012	1999
80	10053 Ensworth St.	177-29-601-004	Vacant
81	12085 Ensworth St.	191-05-801-014	Vacant
82	2815 Ford Ave., West	177-17-801-013	2003
83	2875 Ford Ave., West	177-17-801-001	Vacant
84	3032 Ford Ave., West	177-17-308-003	2000
85	3033 Ford Ave., West	177-17-404-014	1991
86	3070 Ford Ave., West	177-17-308-002	1994
87	13375 Gabriel St.	191-17-701-004	1989
88	13395 Gabriel St.	191-17-701-006	1989
89	8461 Giles St.	177-16-201-009	2002
90	10700 Giles St.	177-33-201-001	2002
91	3065 Haleh Ave., West	177-29-301-015	1992
92	3075 Haleh Ave., West	177-29-301-017	1994
93	3085 Haleh Ave., West	177-29-301-016	1993
94	3095 Haleh Ave., West	177-29-301-014	1994
95	2886 Hedge Creek Ave.	177-20-610-024	2000
96	2887 Hedge Creek Ave.	177-20-610-025	2000
97	14044 Hinson St.	191-19-401-002	1988
98	5726 Las Vegas Blvd., South	162-32-501-006	Vacant
99	6601 Las Vegas Blvd., South	177-05-501-003	Vacant
100	7303 Las Vegas Blvd., South	177-08-501-001	Vacant

#	Address	APN	Built
101	8440 Las Vegas Blvd., South	177-16-201-004	2001
102	8445 Las Vegas Blvd., South	177-17-602-009	1995
103	8801 Las Vegas Blvd., South	177-17-802-002	1986
104	8925 Las Vegas Blvd., South	177-20-501-025	1997
105	8945 Las Vegas Blvd., South	177-20-501-026	1998
106	9110 Las Vegas Blvd., South	177-21-201-009	1998
107	9175 Las Vegas Blvd., South	177-20-602-009	1992
108	9440 Las Vegas Blvd., South	177-29-605-012	2004
109	9655 Las Vegas Blvd., South	177-20-803-003	1997
110	10160 Las Vegas Blvd., South	177-28-301-007	1984
111	10471 Las Vegas Blvd., South	177-29-801-019	Vacant
112	10803 Las Vegas Blvd., South	177-32-601-005	Vacant
113	13050 Las Vegas Blvd., South	191-17-801-005	Vacant
114	13962 Las Vegas Blvd., South	191-20-201-002	Vacant
115	15000 Las Vegas Blvd., South	191-30-601-001	1994
116	3002 Leonetti Ct.	177-32-317-016	2002
117	3003 Leonetti Ct.	177-32-317-015	2002
118	3176 Martin Ave., West	177-05-103-040	1998
119	3301 Martin Ave., West	177-05-202-017	2006
120	3120 Meranto Ave., West	177-20-302-009	1994
121	3140 Meranto Ave., West	177-20-302-007	1994
122	2600 Moberly Ave., West	177-08-701-007	Vacant
123	2826 Moberly Ave., West	177-08-701-001	Vacant
124	750 Neal Ave., West	191-05-502-001	1984
125	1101 Neal Ave., West	191-05-601-003	1968
126	1375 Neal Ave., West	191-05-601-004	1985
127	No # listed No name listed	162-32-701-002	Vacant
128	No # listed No name listed	177-08-601-003	Vacant
129	No # listed No name listed	177-08-601-004	Vacant
130	No # listed No name listed	177-08-601-005	Vacant
131	No # listed No name listed	177-08-601-008	Vacant
132	No # listed No name listed	177-08-701-002	Vacant
133	No # listed No name listed	177-08-701-006	Vacant
134	No # listed No name listed	177-08-701-008	Vacant
135	No # listed No name listed	177-08-701-009	Vacant

#	Address	APN	Built
136	No # listed No name listed	177-08-701-010	Vacant
137	No # listed No name listed	177-08-701-012	2002
138	No # listed No name listed	177-08-803-011	Vacant
139	No # listed No name listed	177-16-10-1021	Vacant
140	No # listed No name listed	177-16-301-028	Vacant
141	No # listed No name listed	177-17-206-003	Vacant
142	No # listed No name listed	177-17-206-005	Vacant
143	No # listed No name listed	177-17-304-002	Vacant
144	No # listed No name listed	177-17-304-003	Vacant
145	No # listed No name listed	177-17-404-007	Vacant
146	No # listed No name listed	177-17-404-016	Vacant
147	No # listed No name listed	177-17-407-011	Vacant
148	No # listed No name listed	177-17-407-012	Vacant
149	No # listed No name listed	177-17-601-002	Vacant
150	No # listed No name listed	177-17-601-008	Vacant
151	No # listed No name listed	177-17-701-001	Vacant
152	No # listed No name listed	177-17-701-006	Vacant
153	No # listed No name listed	177-17-701-011	Vacant
154	No # listed No name listed	177-17-701-012	Vacant
155	No # listed No name listed	177-17-701-013	Vacant
156	No # listed No name listed	177-17-801-009	Vacant
157	No # listed No name listed	177-17-801-010	Vacant
158	No # listed No name listed	177-20-104-007	Vacant
159	No # listed No name listed	177-20-104-010	Vacant
160	No # listed No name listed	177-20-104-015	Vacant
161	No # listed No name listed	177-20-204-003	Vacant
162	No # listed No name listed	177-20-204-010	Vacant
163	No # listed No name listed	177-20-302-003	Vacant
164	No # listed No name listed	177-20-302-014	Vacant
165	No # listed No name listed	177-20-396-002	Vacant
166	No # listed No name listed	177-20-501-004	Vacant
167	No # listed No name listed	177-20-501-024	1997
168	No # listed No name listed	177-20-801-001	Vacant
169	No # listed No name listed	177-21-201-010	Vacant
170	No # listed No name listed	177-28-301-002	Vacant

#	Address	APN	Built
171	No # listed No name listed	177-29-301-030	Vacant
172	No # listed No name listed	177-29-402-001	Vacant
173	No # listed No name listed	177-29-402-002	Vacant
174	No # listed No name listed	177-29-402-003	Vacant
175	No # listed No name listed	177-29-402-004	Vacant
176	No # listed No name listed	177-29-402-006	Vacant
177	No # listed No name listed	177-29-601-003	Vacant
178	No # listed No name listed	177-29-701-001	Vacant
179	No # listed No name listed	177-29-701-009	Vacant
180	No # listed No name listed	177-29-701-021	Vacant
181	No # listed No name listed	177-29-801-005	Vacant
182	No # listed No name listed	177-29-801-014	Vacant
183	No # listed No name listed	177-29-801-015	Vacant
184	No # listed No name listed	177-29-801-016	Vacant
185	No # listed No name listed	177-29-801-017	Vacant
186	No # listed No name listed	177-29-801-018	Vacant
187	No # listed No name listed	177-29-801-020	Vacant
188	No # listed No name listed	177-29-801-022	Vacant
189	No # listed No name listed	177-29-801-024	Vacant
190	No # listed No name listed	177-29-801-026	2005
191	No # listed No name listed	177-32-101-001	Vacant
192	No # listed No name listed	177-32-101-011	Vacant
193	No # listed No name listed	177-32-501-001	Vacant
194	No # listed No name listed	177-32-501-002	Vacant
195	No # listed No name listed	177-32-502-001	Vacant
196	No # listed No name listed	177-32-502-002	Vacant
197	No # listed No name listed	177-32-502-003	Vacant
198	No # listed No name listed	177-32-601-002	Vacant
199	No # listed No name listed	177-32-601-003	Vacant
200	No # listed No name listed	177-32-601-004	Vacant
201	No # listed No name listed	177-32-701-002	Vacant
202	No # listed No name listed	177-32-701-003	Vacant
203	No # listed No name listed	177-32-701-004	Vacant
204	No # listed No name listed	177-32-801-001	Vacant

#	Address	APN	Built
205	No # listed No name listed	177-33-101-013	Vacant
206	No # listed No name listed	191-05-101-008	Vacant
207	No # listed No name listed	191-05-101-017	Vacant
208	No # listed No name listed	191-05-201-002	Vacant
209	No # listed No name listed	191-05-201-012	Vacant
210	No # listed No name listed	191-05-501-001	Vacant
211	No # listed No name listed	191-05-501-006	Vacant
212	No # listed No name listed	191-05-501-007	Vacant
213	No # listed No name listed	191-08-501-012	Vacant
214	No # listed No name listed	191-17-101-001	Vacant
215	No # listed No name listed	191-17-301-001	Vacant
216	No # listed No name listed	191-17-301-002	Vacant
217	No # listed No name listed	191-17-302-001	Vacant
218	No # listed No name listed	191-17-401-001	Vacant
219	No # listed No name listed	191-17-401-002	Vacant
220	No # listed No name listed	191-17-402-001	Vacant
221	No # listed No name listed	191-17-402-002	Vacant
222	No # listed No name listed	191-17-402-003	Vacant
223	No # listed No name listed	191-17-402-005	Vacant
224	No # listed No name listed	191-17-402-006	Vacant
225	No # listed No name listed	191-17-601-007	Vacant
226	No # listed No name listed	191-17-601-010	Vacant
227	No # listed No name listed	191-17-701-003	Vacant
228	No # listed No name listed	191-17-801-001	Vacant
229	No # listed No name listed	191-17-801-009	Vacant
230	No # listed No name listed	191-19-601-008	Vacant
231	No # listed No name listed	191-19-601-009	Vacant
232	No # listed No name listed	191-19-701-004	Vacant
233	No # listed No name listed	191-19-701-005	Vacant
234	No # listed No name listed	191-19-801-003	Vacant
235	No # listed No name listed	191-20-101-008	Vacant
236	No # listed No name listed	191-20-201-001	Vacant
237	No # listed No name listed	191-20-201-003	Vacant
238	No # listed No name listed	191-20-201-004	Vacant
239	No # listed No name listed	191-20-301-002	Vacant
240	No # listed No name listed	191-20-301-005	Vacant

#	Address	APN	Built
241	No # listed No name listed	191-20-301-006	Vacant
242	No # listed No name listed	191-20-301-008	Vacant
243	No # listed No name listed	191-30-501-002	Vacant
244	4015 Paplinski Parkway	191-19-701-002	2003
245	8347 Parvin St.	177-17-601-003	Vacant
246	3073 Pawtucket Ln.	191-05-317-024	2005
247	3074 Pawtucket Ln.	191-05-317-025	2005
248	2870 Pebble Rd., West	177-17-801-008	2004
249	3085 Pebble Rd., West	177-20-104-004	1978
250	3131 Pebble Rd., West	177-20-104-002	1995
251	3175 Pebble Rd., West	177-20-104-001	1987
252	3200 Pebble Rd., West	177-20-104-005	1956
253	3255 Pebble Rd., West	177-20-103-004	1987
254	3270 Pebble Rd., West	177-17-407-009	1988
255	3284 Pebble Rd., West	177-17-407-008	1997
256	3285 Pebble Rd., West	177-20-103-003	1986
257	3325 Pebble Rd., West	177-20-103-002	1986
258	3378 Pebble Rd., West	177-17-407-007	1975
259	3385 Pebble Rd., West	177-20-103-001	2002
260	8945 Pebble Rd., West	177-20-103-007	1978
261	No # listed Pebble Rd., West	177-20-512-000	2006
262	11208 Pierre Milano St.	177-32-419-034	Vacant
263	11214 Pierre Milano St.	177-32-419-035	Vacant
264	11220 Pierre Milano St.	177-32-419-036	Vacant
265	11226 Pierre Milano St.	177-32-419-037	Vacant
266	11232 Pierre Milano St.	177-32-419-038	Vacant
267	11238 Pierre Milano St.	177-32-419-039	Vacant
268	11244 Pierre Milano St.	177-32-419-040	Vacant
269	11250 Pierre Milano St.	177-32-419-041	Vacant
270	11256 Pierre Milano St.	177-32-419-042	Vacant
271	11262 Pierre Milano St.	177-32-419-043	Vacant
272	11268 Pierre Milano St.	177-32-419-044	Vacant
273	11274 Pierre Milano St.	177-32-419-045	Vacant
274	11280 Pierre Milano St.	177-32-419-001	Vacant
275	11286 Pierre Milano St.	177-32-419-002	Vacant

#	Address	APN	Built
276	11292 Pierre Milano St.	177-32-419-003	Vacant
277	6940 Polaris Ave.	177-05-303-003	2002
278	6960 Polaris Ave.	177-05-303-011	1976
279	6976 Polaris Ave.	177-05-303-007	1976
280	6990 Polaris Ave.	177-05-303-008	1976
281	9001 Purple Leaf St.	177-20-511-001	2002
282	9007 Purple Leaf St.	177-20-511-002	2002
283	9013 Purple Leaf St.	177-20-511-003	2002
284	9019 Purple Leaf St.	177-20-511-004	2003
285	9025 Purple Leaf St.	177-20-511-005	2003
286	9031 Purple Leaf St.	177-20-511-006	2003
287	9037 Purple Leaf St.	177-20-511-007	2003
288	9043 Purple Leaf St.	177-20-511-008	2003
289	9049 Purple Leaf St.	177-20-511-009	2003
290	9055 Purple Leaf St.	177-20-511-010	2003
291	9061 Purple Leaf St.	177-20-511-011	2003
292	9067 Purple Leaf St.	177-20-511-012	2003
293	9073 Purple Leaf St.	177-20-511-013	2004
294	9079 Purple Leaf St.	177-20-511-014	2004
295	3045 Pyle Ave., West	177-29-301-007	1994
296	3055 Pyle Ave., West	177-29-301-009	1993
297	3065 Pyle Ave., West	177-29-301-008	1994
298	3075 Pyle Ave., West	177-29-301-006	1998
299	3170 Pyle Ave., West	177-29-207-004	1990
300	3068 Rabitto Ct.	191-05-317-032	2005
301	3069 Rabitto Ct.	191-05-317-031	2005
302	3085 Raven Ave.	177-20-104-014	2001
303	3210 Raven Ave.	177-20-103-012	1982
304	11738 Raveno Bianco Pl.	191-05-317-041	2005
305	11748 Raveno Bianco Pl.	191-05-317-040	2005
306	2887 Red Ct.	177-20-610-017	2000
307	2888 Red Ct.	177-20-610-016	2000
308	2889 Red Rooster Ct.	177-20-610-009	2000
309	2890 Red Rooster Ct.	177-20-610-008	1999
310	2700 Richmar Ave., West	177-20-701-005	1998

#	Address	APN	Built
311	3040 Richmar Ave., West	177-20-302-013	1984
312	3045 Richmar Ave., West	177-20-403-002	1985
313	3080 Richmar Ave., West	177-20-302-012	1984
314	3197 Richmar Ave., West	177-20-403-003	Vacant
315	2700 Richmar Ave., West #87	177-20-701-008	Vacant
316	800 Roban Ave., West	191-17-601-011	1999
317	825 Roban Ave., West	191-17-701-001	2002
318	845 Roban Ave., West	191-17-701-002	1976
319	2695 Robindale Rd., West	177-08-701-003	1970
320	2828 Robindale Rd., West	177-08-601-004	Vacant
321	3014 Saffredi Ln.	191-05-216-001	2005
322	3043 Saffredi Ln.	191-05-317-043	2005
323	3006 Scalise Ct.	177-32-317-004	2004
324	3007 Scalise Ct.	177-32-317-003	2003
325	13940 Schuster St.	191-19-501-005	2003
326	14126 Schuster St.	191-19-601-007	Vacant
327	14165 Schuster St.	191-19-601-006	Vacant
328	32 Serene Ave., East	177-21-221-000	Vacant
329	68 Serene Ave., East	177-21-220-000	2006
330	2720 Serene Ave., West	177-20-601-009	1998
331	3125 Serene Ave., West	177-20-302-002	1994
332	3130 Serene Ave., West	177-20-204-012	1982
333	3145 Serene Ave., West	177-20-302-005	1994
334	2770 Silverado Ranch Blvd., West	177-20-801-012	1998
335	4455 Sloan Rd.	191-19-301-013	2001
336	11920 Southern Highlands Pkwy.	191-05-415-004	2006
337	11930 Southern Highlands Pkwy.	191-05-415-005	2003
338	9634 Sultana St.	177-20-403-009	1994
339	3165 Sunset Rd., West	177-05-101-027	2001
340	2874 Torino Ave., West	177-17-801-003	Vacant
341	3055 Torino Ave., West	177-17-404-008	Vacant
342	3155 Torino Ave., West	177-17-404-010	1992
343	3165 Torino Ave., West	177-17-404-009	1990
344	3175 Torino Ave., West	177-17-404-005	1995
345	3233 Torino Ave., West	177-17-407-005	1981

#	Address	APN	Built
346	11218 Tuscolana St.	177-32-418-065	2003
347	11224 Tuscolana St.	177-32-418-064	2003
348	11230 Tuscolana St.	177-32-418-063	2003
349	11236 Tuscolana St.	177-32-418-062	2003
350	11242 Tuscolana St.	177-32-418-061	2003
351	11248 Tuscolana St.	177-32-418-060	2004
352	11254 Tuscolana St.	177-32-418-059	2003
353	11260 Tuscolana St.	177-32-418-058	2003
354	11266 Tuscolana St.	177-32-418-057	2003
355	11272 Tuscolana St.	177-32-418-056	2003
356	11278 Tuscolana St.	177-32-418-055	2003
357	11279 Tuscolana St.	177-32-418-054	2003
358	13664 US Hwy 91, South	191-17-402-007	2002
359	13750 Valley View Blvd.	191-20-101-013	Vacant
360	3025 Vicki Ave.	177-20-204-007	1992
361	11289 Victoria Medici St.	177-32-419-013	2007
362	2850 Warm Springs Rd., West	177-05-801-028	Vacant
363	2725 Wigwam Ave., West	177-17-701-017	1998
364	2750 Wigwam Ave., West	177-17-601-004	2002
365	3020 Wigwam Ave., West	177-17-206-004	1999
366	3150 Wigwam Ave., West	177-17-206-002	1998
367	2711 Windmill Ln., West	177-17-501-001	1996

The SHPO concurs with FHWA's determination of 'No Historic Properties Affected' for the subject undertaking. *Please note that the SHPO awaits the black and white negatives, contact sheets, and photo logs for the nine resources surveyed using the HRIF.*

If you have any questions, please contact Rebecca R. Ossa, Architectural Historian at 775-684-3441 or via email at: rrossa@clan.lib.nv.us.

Sincerely,

Ronald M. James
State Historic Preservation Officer

Cc: C. Creiger, NDOT

Federal Highway Administration
Nevada Division

June 6, 2006

Native American Consultation Report
FHWA Project: NH-015-1(130)
NDOT EA: 73215

Project Description: The Nevada Department of Transportation (NDOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to enhance the I-15 corridor for interstate travel through southern Las Vegas and for improved local circulation and access. Both existing congestion and projected increases in traffic necessitate consideration of the proposed improvements. The envisioned project includes several major components, including I-15 freeway improvements; Las Vegas Boulevard South improvements; potential interchanges at Sloan Road, Bermuda Road, Starr Avenue, Cactus Avenue, and Pebble Road; collector-distributor roads; frontage roads; and I-15/I-215 system interchange improvements.

Scope of Consultation: After reviewing the scope of the project's preliminary design, and the nature and extent of potential effects on historic properties (36 CFR §800.4(a) & (b)(1)). The FHWA has made a reasonable and good faith effort to identify Indian Tribes that may have an interest in the Sec. 106 process (36 CFR §800.3(f)(2)). Based on that identification effort, the FHWA determined that formal consultation with the following Native American tribes and groups was appropriate:

Las Vegas Paiute Tribe, Las Vegas, Nevada
Las Vegas Indian Center, Las Vegas, Nevada
Moapa Paiute Tribe, Moapa, Nevada
Pahrump Paiute Tribe, Pahrump, Nevada

Formal government-to-government consultation pursuant to the National Historic Preservation Act (NHPA) was initiated through letters dated September 14, 2005.

Results of Consultation:

Las Vegas Paiute Tribe, Las Vegas, Nevada
Represented by Ms. Alfreda Mitre, Tribal Chairperson
Represented by Mr. Kenny Anderson, Cultural Resource Director

On October 3, 2005, Ms. Alfreda Mitre (Tribal Chairperson) signed and returned the Native American Response Form with "no objection to the proposed project based on the information provided". The Las Vegas Paiute do wish to remain informed of any changes to the project and any historic properties discovered during implementation of the project. In addition a meeting with Mr. Anderson on December 13, 2005, Elizabeth Dubreuil (NDOT Native American Consultation Coordinator) explained the project to Mr. Anderson. Mr. Anderson expressed no concerns regarding the project as planned. However, Mr. Anderson would like the Tribe to be contacted if any inadvertent finds are

made. There has been no further communication with the Tribe concerning this matter.

Moapa Paiute Tribe, Moapa, Nevada
Represented by Mr. Delton Tom, Chairman

Several attempts to contact Mr. Swain (Tribal Chairman at the time) during the months of October, November and December 2005 were made. During the first part of January 2006 Ms. Dubreuil was informed that a new Chairman was being elected to office. Ms. Dubreuil was directed to contact the Moapa again in February. A fax with project description and map was also forwarded to Acting Chairman, Delton Tom. On March 7th, Ms. Dubreuil contacted Mr. Tom, now the Chairman for the Moapa. Mr. Tom deferred to the Las Vegas Paiute Tribe and said the Moapa had no concerns with the project. If any inadvertent finds are made during construction, Mr. Tom will be contacted by FHWA. There has been no further communication with the Tribe concerning this matter.

Pahrump Paiute Tribe, Pahrump, Nevada and Las Vegas Indian Center, Las Vegas, Nevada
Represented by Mr. Richard Arnold, Chairman

Several attempts to contact Mr. Arnold (Tribal Chairman) during the months of October, November, December 2005, January and February 2006 were made by Elizabeth Dubreuil (NDOT Native American Consultation Coordinator). Attempts to make arrangements for meeting Mr. Arnold were also made. Unfortunately, Mr. Arnold could not be reached for comment. FHWA will insure that Mr. Arnold is contacted if any inadvertent finds are made. There has been no further communication with the Tribe concerning this matter.

Based on these responses, the FHWA has determined that the consulted tribes have had a reasonable opportunity to identify their concerns about historic properties (36 CFR §800.2(c)(2)(ii)(A)).

Based on this consultation, the FHWA has determined that there are presently no outstanding Native American concerns regarding NHPA issues surrounding this project as proposed.

If during the course of this project, the project design significantly changes with respect to factors involving NHPA, or if objects known to be of concern to Native Americans are located, or if recognized Native American tribes or groups wish additional consultation, the FHWA will address these situations as appropriate. If additional consultation occurs, the FHWA will contact the Nevada SHPO and other interested parties as appropriate.

Report Author:

Elizabeth A. Dubreuil, NDOT
Native American Consultation Coordinator

Reviewed and Concur with Recommendations:

T.H.Turner, NDOT,
Cultural Resource Manager

U.S. Department of Transportation
Federal Highway Administration

705 North Plaza St. Suite 220
Carson City, NV 89701

September 14, 2005

Nevada Division

In Reply Refer To:
HDA-NV

Subject: I-15 South (Sloan to Tropicana) Project
Project #: NH-01501(130) EA: 73215

Alfreda Mitre, Chairwoman
Las Vegas Paiute Tribe
One Paiute Drive
Las Vegas, NV 89106

Dear Ms. Mitre:

In recognition of your Tribe's status as a sovereign Tribal Government, and the Federal Highway Administration's (FHWA) responsibilities under the National Historic Preservation Act (NHPA), other federal regulations and executive orders, the FHWA is requesting your government-to-government consultation on a proposed Federal-aid highway project. The Nevada Department of Transportation (NDOT), in cooperation with the Federal Highway Administration (FHWA), is studying potential transportation improvements to the Interstate 15 corridor from Tropicana Avenue to the Sloan Road Interchange in the City of Henderson and Clark County, Nevada.

The project is proposed to enhance the I-15 corridor for interstate travel through southern Las Vegas and for improved local circulation and access. Both existing congestion and projected increases in traffic necessitate consideration of the proposed improvements. The envisioned project includes several major components, including I-15 freeway improvements; Las Vegas Boulevard South improvements; potential interchanges at Sloan Road, Bermuda Road, Starr Avenue, Cactus Avenue, and Pebble Road; collector-distributor roads; frontage roads; and I-15/I-215 systems interchange improvements (see attached map).

In compliance with the National Environmental Policy Act of 1969 (NEPA), FHWA and NDOT are preparing a NEPA document to evaluate the potential impacts of the proposed project. This letter is intended to inform you of the current study and solicit your comments concerning the project.

The cultural resource inventories completed during the original I-15 corridor study will be used for this portion of the project.

If you would like additional information or have concerns regarding this proposed project, or the overall FHWA program, please contact me. If you would like a meeting regarding this project,

or the overall program, I would be happy to meet with you as soon as possible. I can be contacted by telephone at 775-687-3803. You may also mail or fax (775-687-3803) the attached consultation response form to me. Thank you for your time and consideration.

Sincerely Yours,

Ted P. Bendure
Environmental Program Manager

Enclosures
Response Form
Project Location Map

cc: Hal Turner, NDOT
Kenny Anderson, Las Vegas PT

Nevada Division Office
Federal Highway Administration
Native American Consultation
Response Form

Subject: I-15 South (Sloan to Tropicana) Project

Return to: Ted P. Bendure
Federal Highway Administration
705 North Plaza Street, Suite 220
Carson City, Nevada 89701

From: Alfreda Mitre, Chairwoman
Las Vegas Paiute Tribe
One Paiute Drive
Las Vegas, NV 89106

Reply: Please check one of the options below, or provide other comments, as appropriate.

[ ] The Las Vegas Paiute Tribe has no objection to the proposed project as planned based on the information provided. However, we wish to remain informed of any changes to the project or discoveries of historic materials during construction.

[ ] The Las Vegas Paiute Tribe has no objection to the proposed project as planned based on the information provided. However, we wish to remain informed of any changes to the project or discoveries of historic materials during construction. In addition, the Tribe requests that copies of official environmental and cultural resource documents prepared for this project be forwarded to the following person:

Contact Person: _____
Telephone Number: _____

[ ] The Las Vegas Paiute Tribe requests further consultation to address our concerns. Please contact the following person to discuss this matter further.

Contact Person: _____
Telephone Number: _____

Signature: Name _____
Title _____
Date _____

U.S. Department of Transportation
Federal Highway Administration

705 North Plaza St. Suite 220
Carson City, NV 89701

September 14, 2005

Nevada Division

In Reply Refer To:
HDA-NV

Subject: I-15 South (Sloan to Tropicana) Project
Project #: NH-01501(130)
EA: 73215

Richard Arnold, Director
Las Vegas Indian Center
2300 W. Bonanza
Las Vegas, NV 89106

Dear Mr. Arnold:

In recognition of your Tribe's status as a sovereign Tribal Government, and the Federal Highway Administration's (FHWA) responsibilities under the National Historic Preservation Act (NHPA), other federal regulations and executive orders, the FHWA is requesting your government-to-government consultation on a proposed Federal-aid highway project. The Nevada Department of Transportation (NDOT), in cooperation with the Federal Highway Administration (FHWA), is studying potential transportation improvements to the Interstate 15 corridor from Tropicana Avenue to the Sloan Road Interchange in the City of Henderson and Clark County, Nevada.

The project is proposed to enhance the I-15 corridor for interstate travel through southern Las Vegas and for improved local circulation and access. Both existing congestion and projected increases in traffic necessitate consideration of the proposed improvements. The envisioned project includes several major components, including I-15 freeway improvements; Las Vegas Boulevard South improvements; potential interchanges at Sloan Road, Bermuda Road, Starr Avenue, Cactus Avenue, and Pebble Road; collector-distributor roads; frontage roads; and I-15/I-215 systems interchange improvements (see attached map).

In compliance with the National Environmental Policy Act of 1969 (NEPA), FHWA and NDOT are preparing a NEPA document to evaluate the potential impacts of the proposed project. This letter is intended to inform you of the current study and solicit your comments concerning the project.

The cultural resource inventories completed during the original I-15 corridor study will be used for this portion of the project.

If you would like additional information or have concerns regarding this proposed project, or the overall FHWA program, please contact me. If you would like a meeting regarding this project, or the overall program, I would be happy to meet with you as soon as possible. I can be contacted by telephone at 775-687-3803. You may also mail or fax (775-687-3803) the attached consultation response form to me. Thank you for your time and consideration.

Sincerely Yours,

Ted P. Bendure
Environmental Program Manager

Enclosures
Response Form
Project Location Map

cc: Hal Turner, NDOT

Nevada Division Office
Federal Highway Administration
Native American Consultation
Response Form

Subject: I-15 South (Sloan to Tropicana) Project

Return to: Ted P. Bendure
Federal Highway Administration
705 North Plaza Street, Suite 220
Carson City, Nevada 89701

From: Richard Arnold, Director
Las Vegas Indian Center
2300 W. Bonanza
Las Vegas, NV 89106

Reply: Please check one of the options below, or provide other comments, as appropriate.

[ ] The Las Vegas Indian Center has no objection to the proposed project as planned based on the information provided. However, we wish to remain informed of any changes to the project or discoveries of historic materials during construction.

[ ] The Las Vegas Indian Center has no objection to the proposed project as planned based on the information provided. However, we wish to remain informed of any changes to the project or discoveries of historic materials during construction. In addition, the Tribe requests that copies of official environmental and cultural resource documents prepared for this project be forwarded to the following person:

Contact Person: _____
Telephone Number: _____

[ ] The Las Vegas Indian Center requests further consultation to address our concerns. Please contact the following person to discuss this matter further.

Contact Person: _____
Telephone Number: _____

Signature: Name _____
Title _____
Date _____

U.S. Department of Transportation
Federal Highway Administration

705 North Plaza St. Suite 220
Carson City, NV 89701

September 14, 2005

Nevada Division

In Reply Refer To:
HDA-NV

Subject: I-15 South (Sloan to Tropicana) Project
Project #: NH-01501(130) EA: 73215

Richard Arnold, Chairman
Las Vegas Indian Center
2300 W. Bonanza
Las Vegas, NV 89106

Dear Mr. Arnold:

In recognition of your Tribe's status as a sovereign Tribal Government, and the Federal Highway Administration's (FHWA) responsibilities under the National Historic Preservation Act (NHPA), other federal regulations and executive orders, the FHWA is requesting your government-to-government consultation on a proposed Federal-aid highway project. The Nevada Department of Transportation (NDOT), in cooperation with the Federal Highway Administration (FHWA), is studying potential transportation improvements to the Interstate 15 corridor from Tropicana Avenue to the Sloan Road Interchange in the City of Henderson and Clark County, Nevada.

The project is proposed to enhance the I-15 corridor for interstate travel through southern Las Vegas and for improved local circulation and access. Both existing congestion and projected increases in traffic necessitate consideration of the proposed improvements. The envisioned project includes several major components, including I-15 freeway improvements; Las Vegas Boulevard South improvements; potential interchanges at Sloan Road, Bermuda Road, Starr Avenue, Cactus Avenue, and Pebble Road; collector-distributor roads; frontage roads; and I-15/I-215 systems interchange improvements (see attached map).

In compliance with the National Environmental Policy Act of 1969 (NEPA), FHWA and NDOT are preparing a NEPA document to evaluate the potential impacts of the proposed project. This letter is intended to inform you of the current study and solicit your comments concerning the project.

The cultural resource inventories completed during the original I-15 corridor study will be used for this portion of the project.

If you would like additional information or have concerns regarding this proposed project, or the overall FHWA program, please contact me. If you would like a meeting regarding this project,

or the overall program, I would be happy to meet with you as soon as possible. I can be contacted by telephone at 775-687-3803. You may also mail or fax (775-687-3803) the attached consultation response form to me. Thank you for your time and consideration.

Sincerely Yours,

Ted P. Bendure
Environmental Program Manager

Enclosures
Response Form
Project Location Map

cc: Hal Turner, NDOT

Nevada Division Office
Federal Highway Administration
Native American Consultation
Response Form

Subject: I-15 South (Sloan to Tropicana) Project

Return to: Ted P. Bendure
Federal Highway Administration
705 North Plaza Street, Suite 220
Carson City, Nevada 89701

From: Richard Arnold, Chairman
Pahrump Paiute Tribe
2300 W. Bonanza
Las Vegas, NV 89106

Reply: Please check one of the options below, or provide other comments, as appropriate.

[ ] The Pahrump Paiute Tribe has no objection to the proposed project as planned based on the information provided. However, we wish to remain informed of any changes to the project or discoveries of historic materials during construction.

[ ] The Pahrump Paiute Tribe has no objection to the proposed project as planned based on the information provided. However, we wish to remain informed of any changes to the project or discoveries of historic materials during construction. In addition, the Tribe requests that copies of official environmental and cultural resource documents prepared for this project be forwarded to the following person:

Contact Person: _____
Telephone Number: _____

[ ] The Pahrump Paiute Tribe requests further consultation to address our concerns. Please contact the following person to discuss this matter further.

Contact Person: _____
Telephone Number: _____

Signature: Name _____
Title _____
Date _____

U.S. Department of Transportation
Federal Highway Administration

705 North Plaza St. Suite 220
Carson City, NV 89701

September 14, 2005

Nevada Division

In Reply Refer To:
HDA-NV

Subject: I-15 South (Sloan to Tropicana) Project
Project #: NH-01501(130) EA: 73215

Philbert Swain, Chairman
Moapa Band of Paiutes
PO Box 340
Moapa, NV 89025

Dear Mr. Swain:

In recognition of your Tribe's status as a sovereign Tribal Government, and the Federal Highway Administration's (FHWA) responsibilities under the National Historic Preservation Act (NHPA), other federal regulations and executive orders, the FHWA is requesting your government-to-government consultation on a proposed Federal-aid highway project. The Nevada Department of Transportation (NDOT), in cooperation with the Federal Highway Administration (FHWA), is studying potential transportation improvements to the Interstate 15 corridor from Tropicana Avenue to the Sloan Road Interchange in the City of Henderson and Clark County, Nevada.

The project is proposed to enhance the I-15 corridor for interstate travel through southern Las Vegas and for improved local circulation and access. Both existing congestion and projected increases in traffic necessitate consideration of the proposed improvements. The envisioned project includes several major components, including I-15 freeway improvements; Las Vegas Boulevard South improvements; potential interchanges at Sloan Road, Bermuda Road, Starr Avenue, Cactus Avenue, and Pebble Road; collector-distributor roads; frontage roads; and I-15/I-215 systems interchange improvements (see attached map).

In compliance with the National Environmental Policy Act of 1969 (NEPA), FHWA and NDOT are preparing a NEPA document to evaluate the potential impacts of the proposed project. This letter is intended to inform you of the current study and solicit your comments concerning the project.

The cultural resource inventories completed during the original I-15 corridor study will be used for this portion of the project.

If you would like additional information or have concerns regarding this proposed project, or the overall FHWA program, please contact me. If you would like a meeting regarding this project,

or the overall program, I would be happy to meet with you as soon as possible. I can be contacted by telephone at 775-687-3803. You may also mail or fax (775-687-3803) the attached consultation response form to me. Thank you for your time and consideration.

Sincerely Yours,

Ted P. Bendure
Environmental Program Manager

Enclosures
Response Form
Project Location Map

cc: Hal Turner, NDOT

Nevada Division Office
Federal Highway Administration
Native American Consultation
Response Form

Subject: I-15 South (Sloan to Tropicana) Project

Return to: Ted P. Bendure
Federal Highway Administration
705 North Plaza Street, Suite 220
Carson City, Nevada 89701

From: Philbert Swain, Chairman
Moapa Band of Paiutes
PO Box 340
Moapa, NV 89025

Reply: Please check one of the options below, or provide other comments, as appropriate.

[ ] The Moapa Band of Paiutes has no objection to the proposed project as planned based on the information provided. However, we wish to remain informed of any changes to the project or discoveries of historic materials during construction.

[ ] The Moapa Band of Paiutes has no objection to the proposed project as planned based on the information provided. However, we wish to remain informed of any changes to the project or discoveries of historic materials during construction. In addition, the Tribe requests that copies of official environmental and cultural resource documents prepared for this project be forwarded to the following person:

Contact Person: _____
Telephone Number: _____

[ ] The Moapa Band of Paiutes requests further consultation to address our concerns. Please contact the following person to discuss this matter further.

Contact Person: _____
Telephone Number: _____

Signature: Name _____
Title _____
Date _____

Nevada Division Office
Federal Highway Administration
Native American Consultation
Response Form

Subject: I-15 South (Sloan to Tropicana) Project

Return to: Ted P. Bendure
Federal Highway Administration
705 North Plaza Street, Suite 220
Carson City, Nevada 89701

From: Alfreda Mitre, Chairwoman
Las Vegas Paiute Tribe
One Paiute Drive
Las Vegas, NV 89106

Reply: Please check one of the options below, or provide other comments, as appropriate.

[ ] The Las Vegas Paiute Tribe has no objection to the proposed project as planned based on the information provided. However, we wish to remain informed of any changes to the project or discoveries of historic materials during construction.

[X] The Las Vegas Paiute Tribe has no objection to the proposed project as planned based on the information provided. However, we wish to remain informed of any changes to the project or discoveries of historic materials during construction. In addition, the Tribe requests that copies of official environmental and cultural resource documents prepared for this project be forwarded to the following person:

Contact Person: Alfreda L. Mitre
Telephone Number: 702-386-3926

[ ] The Las Vegas Paiute Tribe requests further consultation to address our concerns. Please contact the following person to discuss this matter further.

Contact Person: _____
Telephone Number: _____

Signature: Name Alfreda L. Mitre
Title Tribal Chairperson
Date 10-03-05