

Project Narrative for an Application to the U.W. Department of Transportation for FY 2011  
National Infrastructure Investments  
(TIGER3 – FY 11)

Opportunity Number: DTOS59-11-RA-TIGER3  
TIGER ID rdevaul49132

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Project Name:

**North 5<sup>th</sup> Street Super Arterial Phase 1D  
Multimodal Connector**



Submitted by:

City of North Las Vegas  
2266 Civic Center Drive  
North Las Vegas, NV 89030



October 31, 2011

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## Introduction

The *North 5<sup>th</sup> Street Phase 1D Multimodal Connector* project is a multimodal transportation project that meets all of the criteria outlined for TIGER Discretionary Grants funding for the following reasons:

- The project is identified as a Nevada Statewide Transportation Priority as determined by Nevada Department of Transportation (NDOT), Regional Transportation Commission of Southern Nevada (RTC), Regional Transportation Commission of Washoe County (RTCWC), Carson City Metropolitan Planning Organization (Carson MPO) and Tahoe Metropolitan Planning Organization (Tahoe MPO)
- The project is proceeding with environmental clearance. It received a categorical exclusion for phase 1C in September 2010.
- It will create over 1,000 construction oriented, supporting industries and induced employment jobs, based on Federal Highway Administration (FHWA) expenditure total employment calculations. It is estimated that 200 engineers, laborers, ironworkers, cement masons, truck drivers, carpenters and support staff will be involved in the actual on site construction of the project.
- Broad southern Nevada support—from stakeholders, the public, and agencies—stand behind this project as a high-priority effort for the Las Vegas Valley.
- In addition to economic benefits, numerous mobility and safety benefits apply to primary and secondary selection criteria.
- Nevada's economy would greatly benefit from this program:
  - Nevada's personal income decreased more than any other state over the past year  
(Source: US Department of Commerce, Bureau of Economic Analysis)
  - Nevada's unemployment is the highest in the nation  
(Source: US Department of Labor)
  - Nevada's gross product dropped by the 6th most in the nation over the past year  
(Source: US Department of Commerce, Bureau of Economic Analysis)
  - 33 states have higher funding levels than Nevada  
(Source: 2007 FHWA Highway Statistics and the US Department of Commerce, Bureau of Economic Analysis)

## Project and Contact Information

**Project Name:** *North 5<sup>th</sup> Street Phase 1D Multimodal Connector*

**Project Type:** *Multimodal Bus Rapid Transit, highway and multi use bicycle/pedestrian trails*

**Project Location:** *The project is located in an urban area in the City of North Las Vegas, Clark County, Nevada, and Congressional District 1.*

**Amount of Grant Request:** \$35 million

**Primary contact person:**

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**DUNS and CAGE Information:** DUNS: 075288985. Active registration in CCR, Commercial and Governmental Entity (CAGE) Code: 1PZ62.



**Project Description:** (Should include a detailed description of the proposed project and geospatial data for the project, including a map of the project's location and its connection to existing transportation infrastructure. Also, a description of how the project addresses the needs of an urban and/or rural area.)

**A. Description of the Proposed Project**

The N. 5<sup>th</sup> Street Phase 1D Multimodal Connector will construct a grade separation to allow North 5<sup>th</sup> Street, a north-south arterial street, to cross over Losee Road within the City of North Las Vegas. The project will connect to the N. 5<sup>th</sup> Street Phase 1C Grade Separation over I-15 and the UPRR, currently under construction. The project is listed as Project #809, North 5<sup>th</sup> Street from Carey Avenue to Losee Road in the Regional Transportation Commission of Southern Nevada's Transportation Improvement Program 2007-2010. The project is multimodal and will include the following features:

- Four 11-foot wide automobile lanes
- A four foot raised median
- An eight foot wide southbound shoulder
- A 12 foot wide multiuse trail on the northbound side of the street

Final Design for the Phase 1C project is 85 percent complete. Figure 1 in Appendix A shows the project phasing. Figure 2 in Appendix A shows the project location relative to the Las Vegas Valley. Figures 3 and 4 in Appendix A depict the cross section in the elevated section over I-15 and a schematic view of the cross section.

**Categorical Exclusion**

On September 10, 2010, the City of North Las Vegas received approval of a Categorical Exclusion for the North 5<sup>th</sup> Street corridor between Carey Ave. and Cheyenne Ave. A copy of the approved categorical exclusion can be found on the project website, [www.north5thstreet.com](http://www.north5thstreet.com).

**Construction Schedule**

Construction schedule for Phase 1d is as follows:

**Table 1**  
**Project Schedule**

<b>Task</b>	<b>Start</b>	<b>Finish</b>
95% Design	1/1/2001	1/1/2012
Review and Complete Design	1/1/2012	6/1/2012
Categorical Exclusion	9/1/2010	9/1/2010
Right of Way	10/1/2011	12/1/2012
Bid Advertisement	3/1/2013	6/1/2013
Construction	6/1/2013	12/1/2014

**Related Projects**

The multimodal North 5<sup>th</sup> Street Super Arterial project in the City of North Las Vegas is comprised of four phases. Phase 1A and 1B extend along N. 5<sup>th</sup> Street from Owens Ave. to Carey Ave. (immediately south of I-15). These phases are complete. Phase 1C is a grade separation over I-15 and the UPRR and is currently under construction with a scheduled completion date of April 2013. *The proposed project, Phase 1D will provide a grade separation over Losee Road beginning at the UPRR right of way and extend to Cheyenne Ave.* Future phases will take the project to the Northern Beltway (CC-215).

Phases 1A and 1B of the project between Owens Ave. and Carey Ave. consist of six automobile lanes, 2 dedicated transit lanes, 10 foot wide multi use trails and 10 foot wide landscape buffers on each side of the street and a modified traffic circle at Las Vegas Blvd. and N. 5<sup>th</sup> Street. These phases were completed in December 2010.

Phase 1C is a grade separation over I-15 and the UPRR and consists of 4 automobile lanes, raised median and a 12 foot wide multiuse trail. The grade separation is being constructed to accommodate 6 travel lanes and 2 dedicated bus



lanes in the future.

Figures 5 and 6 in Appendix A depict the cross section for the at grade sections of the North 5<sup>th</sup> Street project and a schematic view of the cross section.

The purpose for the North 5<sup>th</sup> Street Multimodal Connector is to connect two existing sections of North 5<sup>th</sup> Street to provide a continuous north-south multimodal super arterial, accommodating automobiles, transit service, and pedestrians. The proposed crossing will connect two portions of the City of North Las Vegas located on opposite sides of the I-15 Freeway, allowing for the efficient movement of travelers.

The population of the City of North Las Vegas is predicted to increase from 215,000 in 2007 to an estimated 444,000 by the year 2030 according to the City of North Las Vegas Comprehensive Master Plan, November 2006. Maintaining connectivity and continuity between the older, downtown portion of North Las Vegas south of I-15 and the newer, developing sections of the City north of I-15 is an important objective in maintaining community cohesion as the City continues to grow.

At the present time, only one north-south street in the City of North Las Vegas, Lamb Boulevard, crosses the I-15 Freeway. In addition, all major arterial streets which cross I-15 in the City of North Las Vegas serve as interchanges with the I-15 Freeway. The North 5<sup>th</sup> Street Multimodal Connector is therefore proposed as the first major arterial crossing of I-15 in the City of North Las Vegas without direct access to I-15.

North 5<sup>th</sup> Street, including the multimodal connector, is included in the *City of North Las Vegas' Comprehensive Master Plan*, November 2006. It is designated as a 150-foot wide street. The proposed project will be constructed by the City of North Las Vegas in furtherance of the Master Plan and as part of the infrastructure envisioned by the Master Plan.

The need for the North 5<sup>th</sup> Street Multimodal Connector was first identified in the *I-15 Northeast Corridor Study* (June 2002) by the Nevada Department of Transportation. The *I-15 Northeast Corridor Study* identified the extension of North 5<sup>th</sup> Street across I-15 as part of a comprehensive program to improve transportation in the Northeastern Las Vegas Valley which combines improvements to I-15, arterial street improvements and enhanced transit to accommodate growth in North Las Vegas.

The *North 5<sup>th</sup> Street Corridor Study* (November, 2004) by the Regional Transportation Commission of Southern Nevada (RTC), established the feasibility of extending North 5<sup>th</sup> Street across the I-15 Freeway as a multimodal transportation corridor serving automobiles, bus rapid transit, bicyclists and pedestrians. This study also provided a basis for funding eligibility.

The *Regional Fixed Guideway Feasibility Study* (August, 2004) by the Regional Transportation Commission of Southern Nevada, identified North 5<sup>th</sup> Street as the preferred route through North Las Vegas for the northern leg of the proposed Valley-Wide Fixed Guideway Transit System. This study established the need to provide dedicated transit lanes on North 5<sup>th</sup> Street as part of the Regional Fixed Guideway Transit System. The first phase of the Regional Fixed Guideway System, the Las Vegas Downtown Connector, is under construction. The proposed project, N. 5<sup>th</sup> Street Phase 1C Multimodal Connector, will provide the final connection to provide continuity of the Regional Fixed Guideway System as it is expanded to serve the metropolitan region.

The *North 5<sup>th</sup> Street Transit Supportive Concept Plan* (February, 2006) by the City of North Las Vegas developed a recommended land use plan for the North 5<sup>th</sup> Street Corridor to permit and encourage higher density development which will support bus rapid transit service along North 5<sup>th</sup> Street.

The N. 5<sup>th</sup> Street Multimodal Connector will be designed originally as four lanes with a future expansion to six automobile lanes to accommodate a projected 107,000 automobiles per day by the year 2030. Year 2030 peak hour volumes on North 5<sup>th</sup> Street from Carey Avenue to Brooks Avenue are projected to be 4,400 automobiles per hour in the AM and 5,000 automobiles per hour in the PM according to the *North 5<sup>th</sup> Street Project Development Report* (August, 2007) by the City of North Las Vegas.

After completion of Phase 1D of the North 5<sup>th</sup> Street Super Arterial Project, the RTC will initiate transit service on North 5<sup>th</sup> Street. The transit service will consist of buses using exclusive transit lanes constructed as part of the proposed project. The type and frequency of service is expected to evolve in accordance with the needs of development along the Corridor. However, the *North 5<sup>th</sup> Street Transit Supportive Concept Plan Final Report* (August, 2007) envisions that bus rapid transit service proposed along North 5<sup>th</sup> Street will carry between 8,000 and 20,000 riders per day by 2030.

All of the above mentioned studies are linked to the project website, [www.north5thstreet.com](http://www.north5thstreet.com).

Recognizing the residential nature along most of the North 5<sup>th</sup> Street corridor in North Las Vegas and the desire to



develop a transit-oriented corridor, the City has determined that creating a pedestrian-friendly environment is a purpose for the proposed project. Accordingly, 10-foot wide multi-use trails which can accommodate both pedestrians and bicycles are included in the proposed project.

**B: Project Parties:** *(Should include information about the grant recipient and other project parties.)*

Project Parties include the City of North Las Vegas, [www.cityofnorthlasvegas.com](http://www.cityofnorthlasvegas.com), as the grant recipient, the Regional Transportation Commission of Southern Nevada, [www.rtc-southernnevada.com](http://www.rtc-southernnevada.com), as a funding participant and MPO, and the Nevada Department of Transportation, [www.nevadadot.com](http://www.nevadadot.com).

**C: Funding Sources and Uses:** *(What other sources of funding do you have for this project and how much have they contributed and/or how much will they contribute? How much money are you requesting through this grant? Sources and uses of all project funds, total project costs, percentage of project costs that would be paid for with TIGER Discretionary Grant funds, and the identity and percentage shares of all parties providing funds for the project including Federal funds provided through other programs.)*

**(1) Total grant amount requested: \$35 million**

**(2) Sources and uses of all project funds:**

Table 2 shows the grant amount requested, sources and uses of all project funds, total project costs, percentage of project costs that would be paid for with TIGER grant, and identity and percentage shares of all parties providing funds, including federal funds provided under other programs.

**Table 2  
Funding Sources and Uses**

<b>Task</b>	<b>TIGER Funds (Requested)</b>	<b>Local Funds (Source)</b>	<b>Total Funds</b>
Project Approval/Environmental Document	\$0	\$40,000 (RTC Q-10)	\$40,000
Plans, Specifications and Cost Estimate	\$0	\$2,500,000 (RTC Q-10)	\$2,500,000
Right of Way	\$0	\$3,500,000 (RTC SB5)	\$3,500,000
Construction/ Construction Management	\$28,155,512	\$3,238,879 (RTC SB5, Q-10)	\$31,394,391
<b>Total</b>	<b>\$28,155,512</b>	<b>\$9,278,879</b>	<b>\$37,434,391</b>

**\$105 million in local funds provided by the Regional Transportation Commission (RTC) and City of North Las Vegas have already been committed to fund PE, ROW, Construction and Construction Management for Phases 1A, 1B and 1C of the project.**

**D: Primary Selection Criteria:**

**(a) Long-Term Outcomes:** *(Describe the project's impacts on the Nation, a metropolitan area, or region.)*

**(i) State of Good Repair:** *(How will this project improve the condition of the existing system and minimize life-cycle costs?)*

Historically, North 5<sup>th</sup> Street has been a relatively undeveloped corridor in the City of North Las Vegas. Improvements to North 5<sup>th</sup> Street, including the proposed crossing over I-15, are being timed to correspond to the period of growth along the corridor.

The proposed project will provide a new connecting section of roadway which will provide a new, shorter alternative route for both existing and future users. The proposed project will improve accessibility and shorten travel distances for motorists electing to use the new crossing of I-15. North 5<sup>th</sup> Street, with the proposed new crossing of I-15, will provide a route from the Northern Las Vegas Valley into Downtown Las Vegas which is 5 miles shorter than using the I-15 Freeway. The existing crossings of I-15 at Lake Mead Boulevard, Carey Avenue, and Cheyenne Avenue will continue to be available to motorists and will benefit from reduced traffic volumes as motorists elect to use North 5<sup>th</sup> Street as an



alternate route.

The *North 5<sup>th</sup> Street Corridor Study*, 2004, estimated that 40,000 vehicles per day would use North 5<sup>th</sup> Street as an alternative to I-15. This will reduce the construction, operations and maintenance costs for the I-15 Freeway.

The proposed project will facilitate the implementation of a new bus rapid transit route along North 5<sup>th</sup> Street, which does not presently have transit service. The proposed project will also create a new multi-use pedestrian/bicycle sidewalk crossing I-15.

(ii) **Economic Competitiveness:** *(How does this project contribute or promote the economic competitiveness of the United States by contributing to long-term employment growth or other high value economic activity?)*

Unemployment rates in Clark County NV in June 2009 were 12.3% compared to the national average of 9.7% (Bureau of Labor Statistics). Unemployment in North Las Vegas is even higher at 14.8%. Retail sales in Clark County have declined 21.9% from the previous year compared to a 15% decline nationally (Economic Census (US Census Bureau); Nevada Department of Taxation). Clearly, the southern Nevada region can be considered as "most impacted by the recession".

The North 5<sup>th</sup> Street Super Arterial Project will not only spur additional employment growth along the corridor, but will serve as a major connector between two regional employment centers. The downtown areas of the cities of North Las Vegas and Las Vegas, located at the southern end of the corridor employ more than 25,000 persons in the government, entertainment, commercial and retail sectors. The new VA hospital currently under construction and the proposed University of Nevada Las Vegas Campus are located at the north end of the corridor at the CC 215 Beltway and Pecos Road in North Las Vegas. Both UNLV and the VA hospital based their site selection, in part, on their accessibility to efficient transportation networks. These two projects, in time, will act as a catalyst for the development of business and research parks well as other numerous private sector facilities. This employment center is projected to generate more than 15,000 jobs in the medical, education, research, office and support sectors at build out. The North 5<sup>th</sup> Street project will be an integral part of the multimodal transportation system serving these two employment centers.

Completion of the North 5<sup>th</sup> Street Super Arterial Project is critical for the redevelopment of downtown North Las Vegas. This arterial will provide a vital, new and convenient link to customers in the northern portion of the Valley, with businesses in downtown North Las Vegas. Already Jerry's Nugget Casino is planning a major expansion timed to coordinate with the completion of North 5<sup>th</sup> Street's downtown section. Las Flores, a 350,000 square foot shopping center is counting on North 5<sup>th</sup> Street to make it a regional, rather than a neighborhood destination. Similarly, one of the factors in deciding to have North Las Vegas' new City Hall (currently under construction) remain in downtown, and not relegated to suburban sites, was the ease of access North 5<sup>th</sup> Street will provide to the citizens in the growing areas to the north. Finally, plans for a large, multi-use redevelopment project to be constructed at Lake Mead Boulevard and North 5<sup>th</sup> Street (the Lake Mead Island project) anticipates a transit-oriented development at this location. This Lake Mead Island project is the keystone of the City's redevelopment efforts and its success relies on the increased traffic counts generated by the upgrading of North 5<sup>th</sup> Street to super arterial status.

Existing land uses north and west of I-15 within the proposed project area are predominantly industrial, warehouse, and non-retail business. The Union Pacific Railroad runs along the west side of I-15 within the proposed project area. The National Nuclear Security Administration (NNSA) has a facility on Losee Road located immediately west of the proposed project on the west side of North 5<sup>th</sup> Street. South and east of I-15, the land uses are predominantly residential, with single-family homes south of Carey Avenue and multi-family apartment complexes north of Carey Avenue. There are four schools and three parks/recreational areas within approximately one-quarter mile of the proposed project, but not within the proposed project area. The nearest community facilities are Martinez Elementary School located on Judson Avenue south of the proposed project and a City of North Las Vegas Golf Course located on Brooks Avenue north of the proposed project.

In November 2006, the City of North Las Vegas updated its *Comprehensive Master Plan*. Included in the Master Plan is the City's Land Use Plan, illustrated in Figure 7 in Appendix A. As the figure shows, the land uses north and west of I-15 are generally designated as "Industrial", with the portion near Brooks Avenue designated as "Mixed-Use Commercial". South and east of I-15 the planned land uses shown in the Master Plan (Figure 7) are designated as "Downtown Business District". Figure 7 also shows two "Future Transit Influence Areas", each centered on North 5<sup>th</sup> Street.

The City of North Las Vegas' *Comprehensive Master Plan* states that there are approximately 7,000 acres of land within the City of North Las Vegas slated for non-residential development over the next 25 years. Of this land, 1,800 acres are slated for industrial development and 2,868 acres for commercial development, land uses such as those



impacted by the proposed project. The North 5<sup>th</sup> Street Super Arterial Project will connect much of this land to the residential neighborhoods in the City.

The proposed project is a single component in the infrastructure required to accommodate the growth envisioned in the *City of North Las Vegas Comprehensive Master Plan* (November 2006). The proposed project is an integral part of the Comprehensive Master Plan by the City of North Las Vegas and the *Regional Transportation Plan 2006-2030* of the Regional Transportation Commission of Southern Nevada.

The City of North Las Vegas Comprehensive Master Plan can be found at the City's website, [www.cityofnorthlasvegas.com](http://www.cityofnorthlasvegas.com). The Regional Transportation Plan 2006-2030 can be found at [www.rtcsonthernnevada.com](http://www.rtcsonthernnevada.com).

These plans envision North 5<sup>th</sup> Street as a major arterial street serving automobiles, transit, and pedestrians. Failure to construct the project would adversely affect these plans and diminish the value of the infrastructure planned for North 5<sup>th</sup> Street north and south of the proposed project and the planned transportation infrastructure of the City as a whole.

(iii) **Livability:** (How does this project contribute to the quality of life or working environment?)

The proposed North 5th Street overcrossing of I-15 will provide access from the residential communities of North Las Vegas directly into the Las Vegas Cultural Corridor, providing unprecedented multimodal access for transit, bicycles and pedestrians to the Las Vegas Natural History Museum, the Old Mormon Fort State Historic Park, the Lied Children's Museum, The Lied Library, the Neon Museum, the Pioneer Trail, the Cashman Field Baseball Park, the Las Vegas Senior Center, the Municipal Pool and the Dula Gymnasium.

The Project is also consistent with the City's "Visioning 2025" Strategic Plan which can be viewed at the City's website, [www.cityofnorthlasvegas.com](http://www.cityofnorthlasvegas.com). This community driven plan was prepared after a collaboration of residents, local business men and city officials met and sponsored eight community forums to generate public input for the plan. City Council adopted the plan on March 2, 2005.

This project specifically meets the transportation goals of the plan as follows:

**Goal 1: Provide greater Mobility through the development of mass transit corridors.**

The North 5<sup>th</sup> Street corridor is designated as a Bus Rapid Transit Corridor by the Regional Transportation Commission. The project will include dedicated bus lanes and is projected to attract between 8,000 and 20,000 riders per day by 2030. The exclusive bus lanes included with the proposed project are a designated part of the Las Vegas Regional Fixed Guideway System, which is planned to extend north-south through the entire Las Vegas Valley, connecting suburban residential areas to Downtown Las Vegas and the Las Vegas Resort Corridor, the principle employment areas in the Valley. The transit element of the proposed project will provide all residents greater accessibility to businesses, employment centers, shopping, schools and community amenities.

**Goal 2: Create a safe pedestrian environment throughout the entire transportation system that promotes a connection between neighborhoods and commercial development.**

The multimodal design of the North 5<sup>th</sup> Street Super Arterial project incorporates not only dedicated bus and through vehicular lanes, but also a 10 foot wide multi use trail to encourage pedestrian and bicycle traffic. The North 5<sup>th</sup> Street Corridor will connect five distinct Planning Districts using the Transit Oriented Development strategy to promote a community vision of growing, creating "livable" mixed use and denser, walkable transit villages. The five distinct planning districts are as follows:

*University District* – The proposed new campus for University of Nevada Las Vegas will integrate transit and mixed use development that complements the corridor. As the universities and colleges are established and begin to grow, what was initially barren desert will become mixed-use residential and commercial neighborhoods for the students and faculty. It will be necessary to develop public-private partnerships that will create a vibrant university district. The neighborhoods will include retail shopping, housing, entertainment venues, and educational opportunities. The mixed-use developments may include grocery stores, eating and drinking establishments, theatres and video stores, bookstores, dormitories and apartments, and any markets that will meet the needs of the district's residents and visitors.

*Medical District* – The new Veteran's Administration medical and research campus will act as a magnet to attract additional private sector investment and employment opportunities in the health related fields which will rely heavily on mass transit and mixed use development. The North 5<sup>th</sup> Street project will be the connector which facilitates interaction



between the developing health services area and the existing core centered in the Las Vegas & North Las Vegas downtown areas.

*Deer Springs District* – With the most intense mixed use development in the corridor, the Deer Springs District would become a regional destination.

*North 5<sup>th</sup> Street District* – Extending approximately four miles between the Northern Beltway to the north and Alexander Road to the south, the North 5<sup>th</sup> Street District would feature high quality mixed use infill and other development designed to complement existing single family residential neighborhoods.

*Industrial District* – Adjacent to employment opportunities in the Cheyenne Technology Corridor, the Industrial District would provide land owners with continued access to existing industrial land uses while creating opportunities for future development of transit compatible mixed use projects which in turn will add value to the properties allowing for denser job creation.

*Gateway Redevelopment District* – Already designated a redevelopment area, the Gateway District is ripe with opportunities for urban redevelopment and infill that take advantage of future transit investments and provide residents with greater mobility. Transit investments to North 5<sup>th</sup> Street will serve as a catalyst to redevelopment projects as diverse as the expansion of North Vista Hospital, relocation of the Police Headquarters to the Justice Complex, construction of the Las Flores regional shopping center, expansion of Jerry's Nugget and the Silver Nugget Casinos, and the construction of the new City Hall which will consolidate employees currently scattered throughout the City, thereby dramatically reducing City rental payments.

**Goal 3: Ensure adequate roadways for future growth to mitigate congestion.**

At the present time, only one north-south street in the City of North Las Vegas, Lamb Boulevard, crosses the I-15 Freeway. In addition, all major arterial streets which cross I-15 in the City of North Las Vegas serve as interchanges with the I-15 Freeway. The North 5<sup>th</sup> Street over- crossing of I-15 is therefore proposed as the first major arterial crossing of I-15 in the City of North Las Vegas without direct access to I-15.

The need for the North 5<sup>th</sup> Street crossing over I-15 was first identified in the *I-15 Northeast Corridor Study* (June 2002) by the Nevada Department of Transportation. The *I-15 Northeast Corridor Study* identified the extension of North 5<sup>th</sup> Street across I-15 as part of a comprehensive program to improve transportation in the Northeastern Las Vegas Valley which combines improvements to I-15, arterial street improvements and enhanced transit to accommodate growth in North Las Vegas.

**Goal 4: Maintain and complete a "grid" of roads and major arterials.**

The purpose for the North 5<sup>th</sup> Street crossing over I-15 is to connect two existing sections of North 5<sup>th</sup> Street and provide a continuous north-south multi-purpose arterial, accommodating automobiles, transit service, and pedestrians. The proposed crossing will connect two portions of the City of North Las Vegas located on opposite sides of the I-15 Freeway, allowing for the efficient movement of travelers.

**Goal 5: Mitigate the impact of future traffic congestion**

The expected growth of the City of North Las Vegas over the next twenty years, and the accompanying impact on traffic and future congestion necessitates the development of alternative modes of transportation.

The multi modal aspects of the North 5<sup>th</sup> Street Project will encourage use of alternate forms of transportation to jobs, commercial districts and recreation areas.

In summary, the North 5<sup>th</sup> Street Project will promote "livability" and contribute to quality of life and working environment by providing a multi modal transportation system to permit residents and employees to move to and from work and play without the congestion that occurs in a rapidly developing area such as the City of North Las Vegas.

(iv) **Sustainability:** (How does this project improve energy efficiency, dependence on oil consumption, reduce greenhouse gas emissions and improve overall air quality?)

The North 5<sup>th</sup> Street Super Arterial Project is multi modal and limited access. Using a Transit Oriented Development strategy, the project will encourage use of other modes of transportation, such as mass transit, bicycles and walking. In general, people living and working in TOD's walk more, use transit more and own fewer cars. TOD households are twice as likely to not own a car and own roughly half as many cars as the "average" household. TOD can increase ridership of mass transit by 20 to 40 percent. People who live in a TOD are five times more likely to commute by transit



than other residents. This will reduce rates of vehicle miles traveled, and reduce associated greenhouse gas emissions, reduce oil consumption and improve overall air quality.

The proposed project is located in the Las Vegas Valley, which is classified by the United States Environmental Protection Agency (USEPA) as a non-attainment area for Carbon Monoxide (CO) and Particulate Matter (PM<sub>10</sub>), as well as a non-attainment area for the 8-hour Ozone (O<sub>3</sub>) standard.

The *North 5<sup>th</sup> Street Corridor Study, 2004*, estimated that with the proposed overcrossing of I-15, motorists would be able to reduce their regional travel distance by 50,000 miles per day as an alternative to using the I-15 Freeway. The 2004 Study determined that this would provide a daily reduction of PM<sub>10</sub> on the order of 150 kg and a daily reduction of CO on the order of 450 kg.

At the same time, local air quality impacts are avoided. To assess the potential effects of vehicular emissions associated with the proposed project, concentrations of CO and PM<sub>10</sub> were predicted based on Year 2030 traffic forecasts. Located adjacent to I-15, the North 5<sup>th</sup> Street and Carey Avenue intersection was selected to represent the worst-case condition for potential air quality impacts.

To perform localized (hot spot) air quality analyses, air quality models were utilized, including the EPA-developed MOBILE6.2 Model for CO and PM<sub>10</sub> emissions analyses; and the CAL3QHC Model for mobile source dispersion and ambient impact analyses. Air quality impacts resulting from vehicular movements, traffic volumes, vehicle speeds, and other activities were evaluated based on Year 2030 traffic forecasts.

Based on a recommendation from the Clark County Department of Air Quality and Environmental Management (DAQEM) and a review of the monitored air quality data, the year 2030 ambient CO background concentrations utilized were 6.2 ppm (parts per million) and 4.3 ppm, respectively for 1-hour and 8-hour levels. The 2030 ambient 24-hour PM<sub>10</sub> background value was estimated by utilizing monitored values within the north Las Vegas Valley at various monitoring sites. To be conservative, an average of the maximum 24-hour PM<sub>10</sub> measurements (74 µg/m<sup>3</sup>) was used as the 2030 background concentration.

Tables 3 and 4 summarize the predicted concentrations of CO and PM<sub>10</sub> at the North 5<sup>th</sup> Street/Carey Avenue intersection in the Year 2030 after completion of the project. The Year 2030 CO concentrations are 8.9 ppm and 6.2 ppm for 1-hour and 8-hour levels, respectively. The National Ambient Air Quality Standards (NAAQS) for 1-hour and 8-hour CO concentrations are 35.0 and 9.0 ppm, respectively. The highest predicted 24-hour PM<sub>10</sub> concentration is 79.6 µg/m<sup>3</sup> for the Year 2030. The 24-hour NAAQS for PM<sub>10</sub> is 150.0 µg/m<sup>3</sup>.

**Table 3  
 Predicted Year 2030 CO Concentrations  
 at the North 5<sup>th</sup> Street and Carey Avenue Intersection**

1-Hour Total Concentration* (ppm)			8-Hour Total Concentration** (ppm)		
AM Peak	PM Peak	NAAQS	AM Peak	PM Peak	NAAQS
8.7	8.9	35.0	6.1	6.2	9.0

\*Concentration, including 1-hour background concentration 6.2 ppm

\*\*Concentration, including 8-hour background concentration 4.3 ppm

**Table 4  
 Predicted Year 2030 PM<sub>10</sub> Concentrations  
 At the North 5<sup>th</sup> Street and Carey Avenue Intersection**



24-Hour Concentration* ( $\mu\text{g}/\text{m}^3$ )	NAAQS
79.6	150.0

\*Concentration, including 24-hour background  $74.0 \mu\text{g}/\text{m}^3$

Predicted CO and PM<sub>10</sub> concentrations will not exceed the NAAQS with the Build Alternate.

(v) **Safety:** (How will this project improve safety of the overall system?)

By creating a North 5<sup>th</sup> Street Super Arterial corridor with limited access and urban interchanges, the City of North Las Vegas is preparing for the future by creating a safe, efficient transportation system to alleviate congestion in the I-15 corridor. The need for the North 5<sup>th</sup> Street crossing over I-15 was first identified in the *I-15 Northeast Corridor Study* (June 2002) by the Nevada Department of Transportation. The *I-15 Northeast Corridor Study* identified the extension of North 5<sup>th</sup> Street across I-15 as part of a comprehensive program to improve transportation in the Northeastern Las Vegas Valley, which combines improvements to I-15, arterial street improvements, and enhanced transit to accommodate growth in North Las Vegas.

The proposed project will provide a new connecting section of roadway providing a new, shorter alternative route for both existing and future users. The proposed project will improve accessibility and shorten travel distances for motorists electing to use the new crossing of I-15. The existing crossings of I-15 at Lake Mead Boulevard, Carey Avenue, and Cheyenne Avenue will continue to be available to motorists and will benefit from reduced traffic volumes as motorists elect to use North 5<sup>th</sup> Street as an alternate route.

The project will improve response times for police, fire and EMS by eliminating the I-15 barrier and the limited options of crossing I-15, which are already clogged with congestion.

The City has been an active participant in the statewide Strategic Highway Safety Plan (SHSP). The plan was created in accordance with guiding principles and key objectives from FHWA and the American Association of State Highway Transportation Officials, with the goal of reducing statewide traffic fatalities by 33%, equating to saving 100 lives per year. The City of North Las Vegas has had great success eliminating pedestrian fatalities through proactive planning of multimodal transportation infrastructure, taking into account bicycle/pedestrian environments.

(b) **Job Creation and Economic Stimulus:** (How will this project create and preserve jobs and stimulate increases in economic activity?)

The North 5<sup>th</sup> Street Super Arterial Project will connect two regional employment centers, the UNLV Campus/Veterans Administration Hospital area and downtown Las Vegas. It will also serve as a catalyst for further development in the five distinct planning districts created as part of the Transit Oriented Design strategy – University District, Deer Springs District, North 5<sup>th</sup> Street District, Industrial District and Gateway Redevelopment District. North 5<sup>th</sup> Street is designed to complement the adjacent land uses through which it passes.

In downtown North Las Vegas, job creation directly linked to North 5<sup>th</sup> Street improvements are the new City Hall project, expansion of Jerry's Nugget Casino, and the Las Flores Regional Shopping Center. Other jobs are likely to be created through expansions of the Silver Nugget Casino and North Vista, all of which are crucial employment anchors in the downtown.

As the VA Hospital and UNLV campus expand their activities and services, other medical providers and support businesses will want to locate near the hospital complex. For example, companies that provide services to the patients, such as ultrasound, magnetic resonance imaging, x-ray examinations, therapists, and diagnostic laboratory testing. These companies will employ technicians, radiologic technologists, and other healthcare professionals.

One of the objectives of the City of North Las Vegas is to create a research business park to which technology businesses will be attracted; this will create not only construction jobs as the facilities are built but permanent, high-wage jobs within the companies. Also, there will be a need for additional service-related companies, such as copy and supplies, mail and delivery, restaurants, banks, childcare, service stations, and department stores, all of which are desired by employees to be in close proximity to their work.

The project is expected to employ over 200 engineers, laborers, ironworkers, cement masons, truck drivers, carpenters and support staff in the actual on site construction of the project.



## **E: Secondary Selection Criteria**

*(a) Innovation: Priority will be given to projects that use innovative strategies to pursue the Long-Term Outcomes outlined above.*

Transit Oriented Development (TOD) is an innovative strategy used on this project to pursue long term outcomes. The *North 5<sup>th</sup> Street Transit Supportive Concept Plan, February 13, 2006*, used the Transit Oriented Development Strategy to meet the following objectives along the North 5<sup>th</sup> Street Corridor:

- Develop a community based vision for the future development of the North 5<sup>th</sup> Street Corridor.
- Develop concepts for land use and circulation patterns in support of this vision.
- Recommend strategies that can be used to implement the vision.

Major benefits of using TOD are:

- Providing mobility choices.
- Increasing public safety.
- Increasing transit ridership.
- Reducing rates of vehicle miles traveled.
- Increasing disposable household income.
- Reducing air pollution and energy consumption rates.
- Helping protect existing single family neighborhoods by directing higher density development to appropriate areas near transit.
- Playing a role in economic development.
- Contributing more affordable housing by providing lower cost , accessible housing and reducing household transportation expenditures.

Through TOD, the North 5<sup>th</sup> Street Corridor was envisioned as five distinct planning districts. Each district has its own characteristics that required innovative street and transit designs. The preferred transit route and station locations were developed using TOD strategies.

*(b) Partnership: Priority will be given to projects demonstrating strong collaboration among a broad range of participants and/or integration of transportation with other public service efforts.*

The City of North Las Vegas has collaborated with NDOT and the Regional Transportation Commission on the entire North 5<sup>th</sup> Street Corridor. The City also collaborated with the North Las Vegas Chamber of Commerce, which held a series of “roundtable” meetings in the chamber of commerce boardroom for businesses and owners who would be directly affected by the North 5<sup>th</sup> Street Arterial Project.

Moreover, the UNLV Interlocal Agreement outlines the manner in which the University, City of NLV, and Nellis Air Force Base will collaborate to develop the new UNLV campus in a manner which fosters interaction between the school and the surrounding neighborhood and land uses at large. This interaction includes pedestrian and bikeways, mass transit and TOD, as well as restricted roadways which will facilitate access between the University and VA campus while removing the traffic from the public roadways.

The *I-15 Northeast Corridor Study*, prepared by the Nevada Department of Transportation in 2002, recommended that North 5<sup>th</sup> Street be extended across the I-15 Freeway Corridor to provide a continuous north-south arterial street extending from the urban core of the cities of North Las Vegas and Las Vegas to the Northern Beltway.

The *I-15 Northeast Corridor Study* identified several shortcomings of the existing transportation system in providing for the long term travel demand in the City of North Las Vegas. These included:

- the need to increase the capacity of the north-south arterial street system;
- the need to provide additional crossings of I-15; and,
- the need to provide an enhanced transit system.

Accordingly, the NDOT Study recommended that North 5<sup>th</sup> Street become one of three arterial streets, the other two being Martin L. King Boulevard/Camino Al Norte and Lamb Boulevard, which would extend continuously across the Northern Valley, providing an alternate to I-15 and serving the future transportation needs of the City of North Las Vegas.

According to the NDOT Study, by extending the road across I-15, North 5<sup>th</sup> Street would provide the only north-south



crossing of I-15 directly linking the growing areas northwest of I-15 to the City of North Las Vegas urbanized area southeast of I-15. It would substantially increase the north-south arterial street capacity needed to accommodate growth within the City of North Las Vegas. It would also provide a needed route for enhanced transit providing increased mobility and travel options for the growing areas north and west of I-15.

Information on the *I-15 Northeast Corridor Study* can be found on the project website, [www.north5thstreet.com](http://www.north5thstreet.com).

The Regional Transportation Commission (RTC) of Southern Nevada completed the *Regional Fixed Guideway Feasibility Study* in 2004. The Study identified North 5th Street as the preferred route through North Las Vegas for the northern leg of the proposed valley-wide Fixed Guideway Transit System. The Study cited the relatively early stage of development along North 5th Street north of Losee Road as providing the flexibility to accommodate a transit system which could serve future relatively large, transit oriented populations.

In November 2004, the RTC completed the *North 5<sup>th</sup> Street Corridor Study*, which built upon these previous studies and evaluated alternative improvements for the North 5th Street Corridor. The study provided a basis for selecting the program of improvements which will best serve the transportation needs of the residents and businesses of the City of North Las Vegas. In particular, the Study examined the costs and benefits of constructing North 5th Street as a 150-foot wide multi-purpose roadway:

- to accommodate regional transit service in exclusive transit lanes;
- to provide for enhancements such as multi-use trails and landscaping buffers; and,
- to provide opportunities for the development of limited access facilities.

The *North 5th Street Corridor Study, 2004*, recommended that North 5th Street be constructed as a 150-foot wide roadway between Las Vegas Boulevard and the Northern Beltway. Construction of a 150-foot wide roadway would provide:

- Six travel lanes for automobiles;
- Landscaping buffers with offset meandering sidewalk; and,
- Dedicated transit lanes in each direction.

The City of North Las Vegas also developed public involvement and community outreach programs to actively involve residents, business operators, stakeholders, involved government agencies, and interested parties. Various communication mechanisms were utilized to enhance public awareness and to encourage participation in the project development process. This outreach program included: Public Workshops; a Public Information Meeting; a project website; a project telephone hotline; meetings with involved government agencies, including NDOT and the RTC; and individual meetings with stakeholders. Public Workshops were advertised through individual invitation letters and the project website. The Public Information Meeting was advertised via press releases, newspaper notices, a comprehensive postcard mailing, and the project website. The project website, [www.north5thstreet.com](http://www.north5thstreet.com), includes current project information, background information, a timeline, a photo gallery of the corridor, and events information.

**F: Evaluation of Expected Project Costs and Benefits:** Any applicant seeking TIGER Discretionary Grant funding of more than \$20 million but less than \$100 million must include in its application estimates of the projects expected benefits in the first five long-term outcomes identified above. Any applicant seeking TIGER Discretionary Grant funding in excess of \$100 million must provide a well-developed analysis of the expected benefits and costs, including a calculation of net benefits and a description of input data and methodological standards used for the analysis. Applicants should discount future benefits and costs to present values using a discount rate of 7 percent.

### **Expected Benefits of Long Term Outcomes**

The following items summarize the project's anticipated benefits, directly tied to the five us dot-stipulated long-term outcome criteria: state of good repair, economic competitiveness, livability, sustainability, and safety:

#### **(i) State of Good Repair**

- Reduce traffic volumes on I-15 by an estimated 40,000 vehicles per day.
  - The need for the N. 5<sup>th</sup> Street Corridor and I-15 crossing was first identified in the *I-15 Northeast Corridor Study* conducted by NDOT.
- Increase transit ridership; reduce vehicle trips up to 20,000 trips per day.
- Improve accessibility and shorten travel distances
- Reduced traffic volumes on Lake Mead Boulevard, Carey Avenue and Cheyenne Avenue

- Reduced maintenance on other local streets and arterials

**(ii) Economic Competitiveness**

- Connection to two regional employment centers
  - The North 5<sup>th</sup> Street Corridor was one of the catalysts that spurred the University of Nevada Las Vegas and the Veteran's Hospital to locate at the north end of the corridor.
- Provide efficient access to vacant land available for development
- Promote Transit Oriented Development along corridor
- According to the North 5<sup>th</sup> Street Corridor Study, 2004, the proposed overcrossing of I-15 is expected to reduce the travel distance by 5 miles for an estimated 10,000 motorists daily. Implementation of the new CAT N. 5<sup>th</sup> Street Bus Route will eliminate between 8,000 and 20,000 vehicle trips per day by 2030. At an average 10 miles per trip, there will be a net reduction of 80,000 to 200,000 vehicle miles per day. Based on an average vehicle operating and maintenance cost of \$0.70 per mile, the proposed project will provide a savings of between \$91,000 and \$175,000 per day or \$33,215,000 to \$63,875,000 per year. **The net present value of \$33.2 - \$63.9 million annual savings over the 50-year life of the project is \$458 - \$881 million, using a 7% discount rate.**
- Estimated project economic benefits of \$458 - \$881 million can be compared to the \$35.2 million estimated construction cost to complete the project, for a benefit / cost ratio of 13 to 25. The City has expended or obligated over \$100 million in local funds to construct previous phases (Phases 1A, 1B, 1C), and will not achieve any economic benefit without Phase 1D. The remaining \$35.2 million is required to provide the connectivity necessary to realize the economic benefits for this project.

**(iii) Livability**

- Provide greater mobility through the development of a multimodal corridor.
- Through Transit Oriented Development, creates a safe pedestrian environment throughout the corridor that promotes a connection between neighborhoods and commercial development.
- Mitigates congestion.
- Promotes alternative transportation methods.
- Reduces travel time to and from work, enabling more time spent with family and friends.

**(iv) Sustainability**

- Reduce dependence on oil consumption
  - Projected 8,000 to 20,000 new riders per day using mass transit by 2030 will eliminate 8,000 to 20,000 automobile trips per day
  - Based on average round trip of 10 miles, this is a reduction of 20 million to 50 million vehicle miles per year.
  - A projected 10,000 vehicles per day will save 5 miles of travel using North 5<sup>th</sup> Street and the overcrossing of I-15 instead of the I-15 Freeway. This will result in an additional reduction of 50,000 vehicle miles per day or 13 million vehicle miles per year.
  - Total savings are expected to be 33 million to 63 million miles per year.
  - **At 20 miles per gallon, this is a savings of 1.65 million to 3.15 million gallons of gasoline annually.**
- Reduce greenhouse gas emissions
  - Reduction of 289 to 551 tons of carbon dioxide annually using USEPA Greenhouse Gas Equivalency Calculator
- Improve overall air quality

**(v) Safety**

- Reduce Accidents
  - Limited Access
  - More urban interchanges
  - Less at grade interchanges
- Reduce police, fire and ems response times

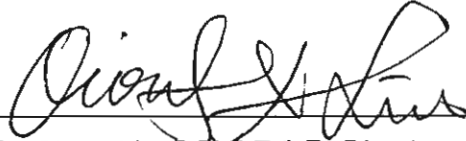
**G. Evaluation of Project Performance**

In accordance with Recovery Act, Section 1201 (c) requirements and Office of Management and Budget (OMB) guidelines, the City of North Las Vegas will work with the Nevada Department of Transportation to measure and report on respective short and long term performance of projects that receive TIGER Discretionary Grants funding—focusing



on economic recovery measures and long-term outcomes. As stipulated in the Federal Register notice, further information for TIGER Discretionary Grants recipients' reporting requirements will be provided in individual grant agreements. For additional information on NDOT's Recovery Act reporting and certifications, click here: <http://www.nevadadot.com/projects/Stimulus/default.asp>.

**H: Federal Wage Requirement:** *(The undersigned certifies that this application complies with the requirements of subchapter IV of chapter 31 or title 40, United States Code (USC) Federal Wage requirements as required by the Recovery Act.)*

  
\_\_\_\_\_  
Dr. Qiong Liu, P.E. P.T.O.E., Director

**I: National Environmental Policy Act (NEPA):**

- (a) Is the NEPA process done for this project? **Yes for Phase 2A**
- (b) If the answer above was yes, what was the date of approval? **January 27, 2009**
- (c) The approved NEPA finding was (Check One):  
Categorical Exclusion (CE) **X**  
Finding of No Significant Impact (FONSI) \_\_\_\_\_  
Record of Decision (ROD) \_\_\_\_\_
- (d) What is the website address where the approved NEPA document for this project can be found?  
[www.north5thstreet.com](http://www.north5thstreet.com)
- (e) If the answer to (a) above was "no" when will the NEPA process for this project be complete?
- (f) What is the website address where a Draft NEPA document for this project can be found?  
[www.north5thstreet.com](http://www.north5thstreet.com)

**J: Environmentally Related Federal State and Local Actions:** *(Does the proposed project require actions by other agencies (e.g. permits). Please indicate the status of such actions and provide a Web site link or other reference materials submitted to other agencies, and/or demonstrate compliance with other Federal, State and local laws and regulations.)*

- The proposed project has been granted a Categorical Exclusion by the Federal Highway Administration. A copy can be reviewed on the project website, [www.north5thstreet.com](http://www.north5thstreet.com).
- Construction of the project requires an encroachment permit by the NDOT for work in the I-15 right-of-way. **Will apply for the permit in February 2010.**
- A list of regulatory reviews permits and approvals required for this project can be found at the N. 5<sup>th</sup> Street Corridor Web Site [www.north5thstreet.com](http://www.north5thstreet.com).

**K. Project Website**

All of the reports referenced in this application as well as categorical exclusion documents and public information records can be found at the N. 5<sup>th</sup> Street Corridor Website, [www.north5thstreet.com](http://www.north5thstreet.com).

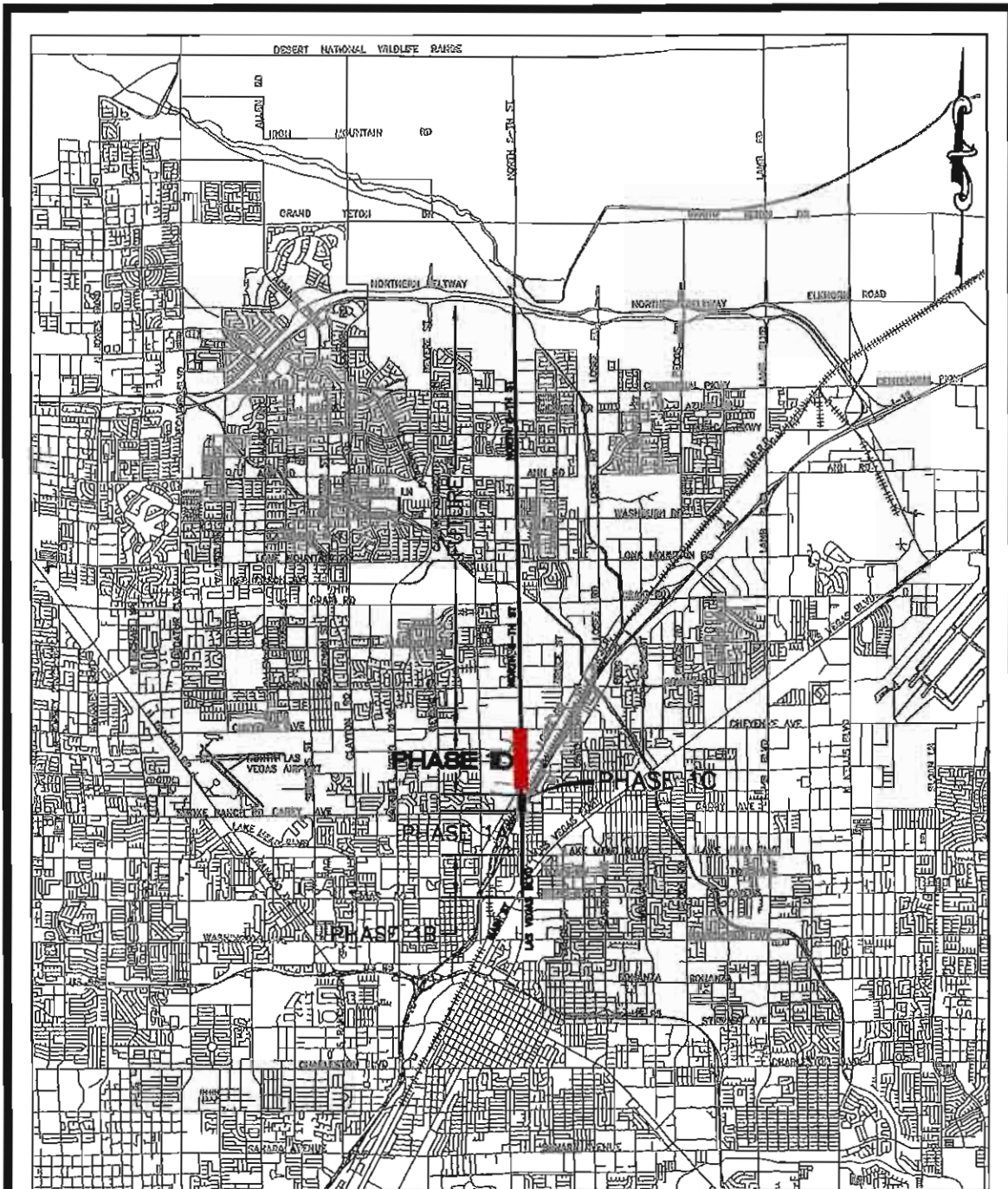


## Appendix A

### List of Figures

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Figure 2	N 5 <sup>th</sup> Street Phase 1D Vicinity Map
Figure 3	N. 5 <sup>th</sup> Street Elevated Cross-Section for Phase 1D
Figure 4	Conceptual View of N. 5 <sup>th</sup> Street I-15 and UPRR Overpass
Figure 5	N. 5 <sup>th</sup> Street At-Grade Cross Section
Figure 6	Conceptual View of N. 5 <sup>th</sup> Street with dedicate BRT CatRail Lane
Figure 7	City of North Las Vegas Land Use Plan





## VICINITY MAP

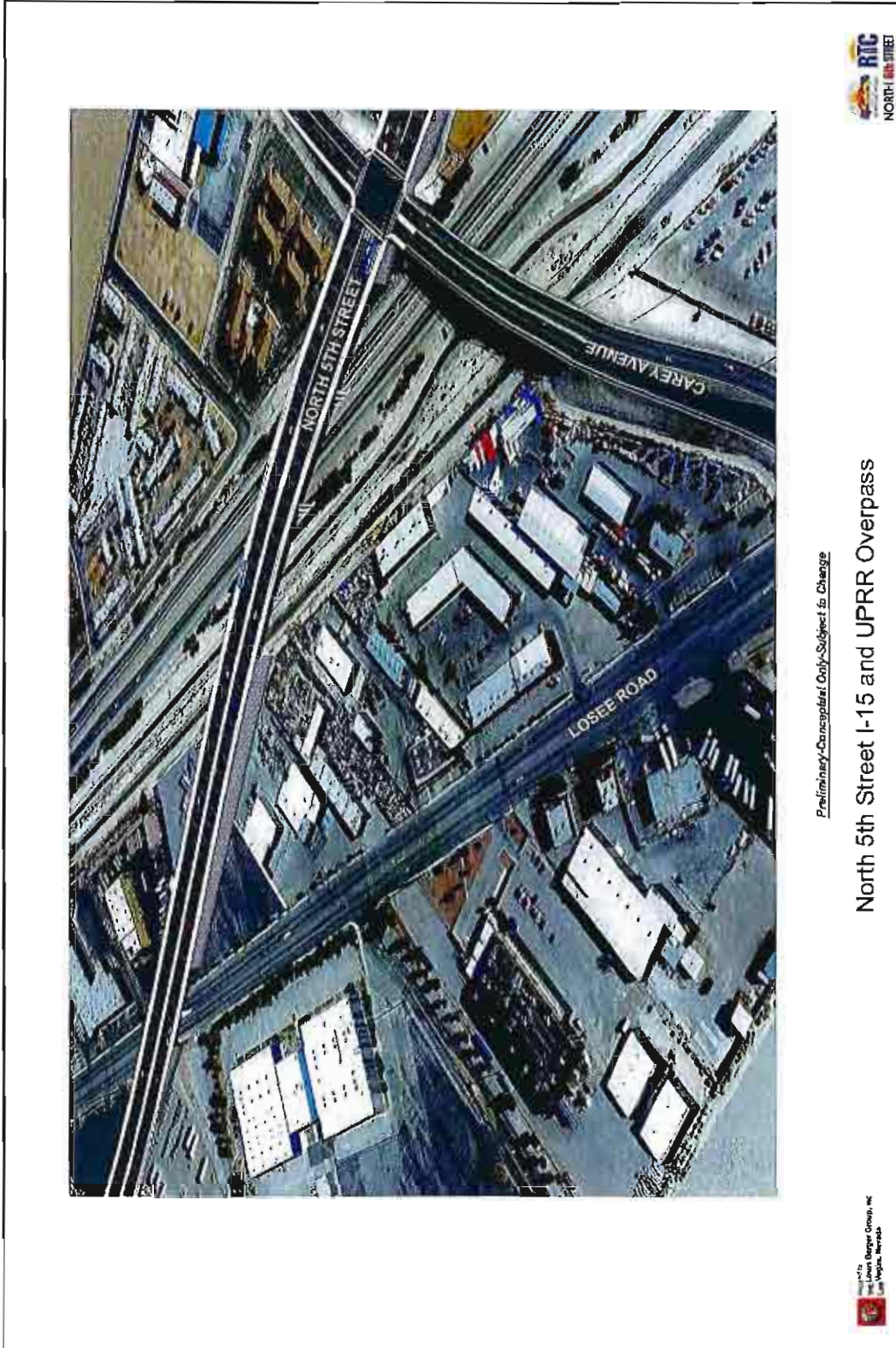


DEPARTMENT OF PUBLIC WORKS  
 ENGINEERING SERVICES DIVISION

**NORTH 5<sup>th</sup> STREET - PHASE 1D  
 FIGURE 2**

SCALE:	NONE
DRAWING NAME:	10178-VIC-TIGER-GRANT-1.dwg
DRAWN BY:	B. PARRAS
DATE:	10-24-11
PAGE	1 OF 1









**FIGURE 6**

