#### ENVIRONMENTAL ASSESSMENT

#### SH 205

#### FROM: Approximately 0.13 Mile North of SH 66 TO: SH 276 (Sids Road)

#### ROCKWALL COUNTY

CSJ: 0451-01-032

# U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

AND

TEXAS DEPARTMENT OF TRANSPORTATION



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# I. DESCRIPTION OF THE PROPOSED ACTION

## A. Description of Proposal

The study limits of this project are from approximately 0.13 mile north of SH 66 to SH 276 (Sids Road) on SH 205 (Goliad Street) in the City of Rockwall, Rockwall County, Texas. The study limits and the proposed project are depicted in *Figure 1*. The length of the project is approximately 4.3 miles.

The proposed project would involve the construction of a six-lane divided urban roadway between SH 276 and Denison Street, and a three-lane one-way couplet design from Denison Street to north of Olive Street. The couplet would utilize existing SH 205 (Goliad Street) and Alamo Road. Alamo Road is an existing city street one block west of SH 205. North of Olive Street, the couplet would transition back into the existing SH 205 two-lane roadway section. The project would also remove and replace the existing SH 205 bridge over the Union Pacific Railroad and replace a culvert with a single span bridge over Buffalo Creek. Along the entire project limits, travel lanes would be 11 feet wide, with additional 1-foot offsets next to curbs. Acquisition of additional right of way (ROW) would be necessary between SH 276 and Denison Street, with a proposed ROW width of 110 feet. In the couplet section between Denison Street and Olive Street, the Texas Department of Transportation (TxDOT) would acquire the existing Alamo Road ROW from the City of Rockwall. The couplet section would be constructed within the newly acquired ROW, with a ROW width of 61 feet along Goliad Street and 50 feet along Alamo Road. Additional ROW acquisition would be necessary north of Olive Street, where the couplet transitions back into the existing SH 205 two-lane roadway section. Additional ROW acquisition would be necessary south of Washington Street, where the couplet transitions back into the proposed SH 205 six-lane roadway section. Approximately 30 feet of additional ROW would be acquired from Denison Street to Bourn Avenue on the west side of SH 205. The proposed usual ROW width is approximately 110 feet along the project area. The speed limit along the new roadway would be 30 miles per hour. The existing and proposed typical sections are located in *Figures 2-1* through 2-3.

The design schematic encompassing the proposed improvements described above has been prepared by TxDOT and is available for inspection at the Dallas District Office, 4777 East Highway 80; Mesquite, Texas, 75150-6643.

## **B.** Purpose and Need

The purpose of the proposed project is to improve the operation and capacity of the existing roadway. The existing facility would not provide sufficient capacity for growth in the area. Therefore, by establishing the couplet through the Central Business District (CBD), adequate capacity would help to facilitate stable traffic flow through the corridor. The described improvements would bring the existing roadway and bridges up to present TxDOT design standards.

Traffic demand is expected to increase by approximately 4 percent by 2006 due to increased urbanization in the area. Implementation of the proposed project is expected to substantially improve the current and future level of service of SH 66 and SH 276, respectively, along SH 205. The proposed project would also improve mobility, local access and traffic circulation during peak hours by better accommodating turn movements, including a particularly heavy turn movement at SH 66 and SH 205, and the expected increase in volumes. The proposed project is needed to meet the increasing transportation demands caused by rapid development in the Rockwall area, as well as to create a safer driving environment for vehicles traveling on SH 205.

SH 205 is currently a two-lane facility, with a continuous turn lane north of FM 740. The roadway was initially constructed and placed on the state highway system in the mid-1930s. This section of SH 205 was primarily constructed to provide access between Rockwall and the towns of Terrell, Wylie, and Lavon, which were all small farming communities at the time. The populations of the City of Rockwall, Rockwall County, and surrounding areas have all grown dramatically in recent decades, due largely to suburban development of the Dallas metropolitan area. In addition, the impoundment of the Trinity River in the 1950s created Lake Ray Hubbard (just west of the City of Rockwall) and Lake Lavon (northwest of Rockwall). Both reservoirs are important recreational areas, and have attracted substantial residential development to the area. SH 205 functions as a major north-south link between Rockwall area developments and IH 30.

The City of Rockwall has grown from 5,939 residents in 1980 to 17,976 residents in 2000, which is a 203 percent increase in 20 years. This growth trend is expected to continue into the future. The North Central Texas Council of Governments (NCTCOG) projects that the City of Rockwall would have 48,795 residents in the year 2020, representing a 93 percent population increase from current levels. Similarly, Rockwall County had 43,080 residents in 2000, with 118,546 residents projected for 2020, which is a 175 percent increase. Continuing population growth and urbanization are expected to result in increasing traffic demands.

Increasing population and development in the Rockwall area have led to higher traffic volumes and worsening traffic congestion on SH 205. The concept of Level of Service uses qualitative measures to describe operational conditions within a traffic stream, and the perceptions of motorists and passengers. A Level of Service definition generally characterizes these conditions in terms of such factors as speed, safety, travel time, freedom to maneuver, comfort and convenience, and traffic interruptions. There are six levels of service categories and each facility is assigned a level of service based on its traffic conditions. Level of Service are given letter designations, from A to F, with Level of Service A representing the best operating conditions and Level of Service F representing the worst. The upper threshold for Level of Service E is considered the facility's maximum flow rate, or capacity. Traffic volumes above that threshold operate at a Level of Service F, with a breakdown in vehicular flow.

*Table 1* depicts the percentage increases in traffic counts on SH 205 between the years 1985 and 1999, as well as, the projected traffic for 2006:

SH 205	1985 Traffic Count (vpd)*	1995 Traffic Count (vpd)	1999 Traffic Count (vpd)	2006 Projected Traffic Count (vpd)	Percent change over 4 years (from 1995 to 1999)	Projected Percent change over 7 years (from 1999 to 2006)
IH 30 to SH 66	15,300	19,000	24,300	25,300	10.5	4.1

**Table 1.** SH 205 Traffic Volumes and Percent Increases

Source: (County Traffic Maps, Texas Department of Transportation - Dallas District) \*vpd – vehicles per day

SH 205 between IH 30 and SH 66 had a 1999 average traffic count of 24,300 vehicles per day (vpd), with 36,300 vpd projected for the year 2026, representing a 49 percent increase in traffic volume along the SH 205 corridor. SH 205 already operates substantially above the maximum LOS E threshold under current traffic conditions. Traffic projections for the year 2026 are well above the facility's maximum capacity, resulting in a LOS F classification. Rehabilitation and widening of the roadway are needed to better manage congestion and accommodate continued traffic growth. The current traffic congestion and the projected increases in future traffic volume make it necessary to bring the roadway up to current design standards.

Traffic counts also indicate a high percentage of turning movements at the SH 205/SH 66 intersection. In particular, there is a high percentage of traffic turns from northbound SH 205 onto westbound SH 66, especially during peak traffic hours. These left-turn movements contribute to the congested traffic flow along SH 205 through downtown Rockwall. The proposed project would improve adverse traffic conditions on SH 205 with additional travel lanes to accommodate increasing traffic volumes. The couplet design would improve the traffic flow through downtown Rockwall by splitting traffic volumes between two streets. In addition, the couplet design would improve turning movements from SH 205 to SH 66, by splitting turning movements from a single-point intersection to two intersections.

# C. Right of Way Requirements and Utility Adjustments

There is no control of access and none is proposed. The existing ROW width varies from approximately 80 feet wide to approximately 100 feet wide at stream crossings and roadway intersections, with the exception of approximately 197 feet of ROW at the IH 30 underpass. The proposed usual ROW width for a six-lane divided urban street within the

City of Rockwall is 110 feet. Approximately 6.10 acres of additional ROW would be required for the proposed improvements and this ROW area is currently zoned residential and commercial.

Utilities such as water lines, sanitary sewers, telephone cables, electrical lines and other underground and aerial utilities would require adjustment. The adjustment and relocation of any utilities would be handled so that no substantial interruptions in service would take place while these adjustments are being made. Utilities that would be in conflict with the proposed project at the time of construction would be adjusted by the affected utility.

# **D.** Project Cost Estimate

The estimated cost of this project is summarized in *Table 2*.

Item	Federal Participation	Federal State Participation Participation		Estimated Cost (Year 2004)	
Construction	80%	20%	0%	\$15,252,000.00	
Right of Way	0%	90%	10%	\$6,300,000.00	
Total Estimated Cost				\$21,552,000.00	

 Table 2. Estimated Project Costs

This project is funded under the National Highway System Mobility, Category 4 (Statewide Connectivity Corridor Projects).

# E. Local Government Support

A schematic encompassing the proposed improvements has been provided to the local government for their review and comments. The City of Rockwall has initiated support of the subject project through the receipt of various approvals from the city council. The project would be authorized by Minute Order #108310.

# II. DESCRIPTION OF THE EXISTING FACILITY

# A. Existing Facility

The existing facility is a two-lane undivided asphalt surface roadway with shoulders and open drainage ditches from proposed SH 276 to FM 740. There is one culvert crossing in the southern section of the roadway that crosses over a tributary to Buffalo Creek. The posted speed limit along SH 205 south of IH 30 is 55 miles per hour (mph). From FM 740 to the City of Rockwall's historic downtown, SH 205 is a two-lane divided (flush, striped, continuous left-turn lane) asphalt surface roadway with sidewalks (six feet wide), curbs and gutters. The speed limit north of IH 30 to the Rockwall city limits is 45 mph. Through the City of Rockwall the speed limit is 30 mph. The area within the project limits also includes the Union Pacific Railroad Bridge. The Union Pacific Railroad Bridge is a 173 feet steel beam structure.

This project is located within the City of Rockwall in Rockwall County. The principal transverse arteries of SH 205 within the project limits include SH 66 (Rusk Street), FM 740, IH 30 and SH 276. All of the intersections (excluding IH 30) are at grade. The intersection of IH 30 and SH 205 is a diamond interchange with IH 30 over-passing SH 205.

# **B.** Surrounding Terrain and Land Use

The surrounding terrain is level to gently rolling and contains both rural and urban areas. Lake Ray Hubbard is approximately two miles west of the project. This lake covers 22,745 acres and is used for recreation and is also a public drinking water source.

The surface layer of the major soils along the study limits are classified as Houston Black Clay, Ferris-Heiden Complex, Heiden Clay, Altoga Silty Clay, and Trinity Clay, frequently flooded. The Houston Black, Ferris-Heiden Complex, Heiden Clay, and Altoga Silty Clay are gently sloping soils with 3-5 percent slopes. Trinity Clay, frequently flooded, is a nearly level soil with slopes from 0-1 percent. Trinity clay – frequently flooded is classified as a hydric soil for Rockwall County by the NRCS.

The majority of the land along SH 205 is zoned for industrial, commercial or residential uses. The remainder of the land is undeveloped and is located in an established 100-year floodplain. It is anticipated that this project would not substantially change the land usage as it now exists or as planned for future development. This project is consistent with local planning efforts.

# C. Traffic Projections

Traffic forecasts for this project were received from TxDOT's Transportation Planning and Programming Division. The average daily traffic in the year 1999 was 24,300 vpd. In the design year, 2026, the average daily traffic is projected to be 36,300 vpd.

## III. ALTERNATIVES

Five alternatives, including the No Build alternative, were analyzed during the development of this environmental document. These alternatives are described below.

#### A. No Build

The existing facility currently operates well above its maximum capacity of traffic flow. The poor traffic conditions result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

#### **B.** Build Alternatives

#### 1. <u>Couplet using Alamo Road – Preferred Alternative</u>

This alternative would construct SH 205 as a six-lane divided roadway from SH 276 to a location just south of Denison Street. From Denison Street to north of Olive Street, the project would use existing roadways to form a paired one-way couplet, with existing SH 205 (Goliad Street) carrying three-lanes of northbound SH 205 traffic and Alamo Road carrying three-lanes of southbound SH 205 traffic. The couplet would connect back to SH 205 just north of Olive Street and transition to the existing two-lane SH 205 road section. Goliad Street and Alamo Road would be reconfigured to accommodate three lanes of southbound traffic. The existing ROW at Alamo Street would be donated by the City of Rockwall to TxDOT, as new ROW.

Construction of this proposed alternative would eliminate the need for ROW acquisition and displacement of Section 4(f) properties along existing SH 205 (Goliad Street) north of Denison Street through Rockwall's CBD. For construction purposes, ROW acquisition along existing SH 205 would be required south of Denison Street, as well as, where Alamo Road transitions to the existing two-lane SH 205 north of Olive Street and where Alamo Road transitions to the proposed SH 205 south of Washington Street. A total of ten businesses and two single-family residences would be displaced by this alternative.

This alternative is the preferred alternative since it would accommodate the traffic needs along the SH 205 corridor, with six travel lanes available for vehicular traffic. The couplet configuration would also allow for more efficient and safer turning movements from SH 205 onto westbound SH 66 by splitting the turning movements from a single-point intersection to two intersections.

#### 2. Widen Existing SH 205 (Goliad Street) to Six Lanes

This alternative would widen SH 205 from a two-lane roadway to a four-lane divided roadway between proposed SH 276 and IH 30, and to a six-lane divided roadway north of IH 30. However, under this alternative, SH 205 would continue as a six-lane roadway along the existing Goliad Street alignment north of Denison Street through the Rockwall CBD.

This alternative would not require the use of parallel city streets as part of a couplet configuration and would allow traffic to flow along the existing roadway corridor. However, several factors preclude the feasibility of this alternative. Widening existing SH 205 (Goliad Street) north of Denison Street would require substantial acquisition of land (3.30 acres) through the Rockwall CBD. A total of 21 buildings over 50 years of age front Goliad Street north of Denison Street, including five buildings determined to be eligible for the National Register of Historic Places. This alternative would require acquiring land from these potential Section 4(f) properties and would likely result in the displacement of two ca. 1900 National Register-eligible commercial buildings near the courthouse square. These commercial buildings are immediately adjacent to the existing SH 205 ROW. In addition, the ROW acquisition costs for a six-lane roadway through the CBD would be considerably more expensive than the preferred alternative.

## 3. Widen Existing SH 205 (Goliad Street) to Four Lanes

As a variant of the above alternative, SH 205 could be constructed as a four-lane roadway on the Goliad Street alignment along the entire project limits. This alternative would reduce ROW requirements from adjoining properties along the project limits and would result in reduced acquisition of land from Section 4(f) properties south of Denison Street. However, a four-lane roadway would still require ROW acquisition along Goliad Street north of Denison Street in Rockwall's CBD. Similar to the six-lane alternative, the four-lane alternative would likely result in the displacement of at least two National Register-eligible commercial buildings near the SH 205/SH 66 intersection. Additionally, with only four lanes of traffic capacity, this alternative would not accommodate the current and future traffic capacity needs along the SH 205 corridor, particularly through downtown Rockwall and at the intersection with SH 66.

# 4. Construct Couplet using Fannin Street and Sam Houston Street/Davey Crockett Street

As studied during the late 1980s and early 1990s initial planning process for the project, this alternative would widen existing SH 205 from two lanes to six lanes, between proposed SH 276 and a location near the Union Pacific railroad tracks. At this location, the roadway would split into a couplet. Northbound SH 205 traffic would shift to either Sam Houston Street or Davey Crockett Street and would continue north to Boydstun Avenue, where it would then shift to Fannin Street. Fannin Street would be widened to accommodate three lanes of northbound traffic, as would either Sam Houston Street or Davey Crockett Street. Existing SH 205 (Goliad Street) would have three lanes of

southbound traffic. Emma Jane Street would act as a connector, linking northbound FM 740 traffic to northbound SH 205.

The late 1980s and early 1990s public involvement process revealed strong community opposition to the use of Sam Houston Street, Davey Crockett Street, or Emma Jane Street for the SH 205 improvements. All three streets are located within Rockwall's Southside, a predominately African-American neighborhood. The Southside neighborhood is bounded by Sherman Street on the east, Throckmorton Street on the west, Boydstun Avenue on the north, and Dickey Street on the south. Widening of these local streets for northbound SH 205 traffic and FM 740 connector flow would bisect the neighborhood in both a north-south and east-west direction. This alternative would also result in the displacement of a church and several residences in the Southside community. Based on the considerable community opposition and potential adverse impacts to the Southside neighborhood, alternatives using Sam Houston Street or Davey Crockett Street were not studied in further detail.

The Fannin Street alternative would also require construction of a new connector north of SH 66 to link northbound traffic to the existing SH 205 alignment. Construction of a couplet connector between Fannin Street and existing SH 205 would cause potential adverse impacts and displacements for pre-1950 buildings if the connector were placed south of Heath Street. It would also result in the displacement of newly constructed residential structures in the Harris Heights subdivision if placed north of Heath Street.

This revised alternative would construct SH 205 as a six-lane divided roadway from SH 276 to south of Denison Street. At that point, northbound SH 205 traffic would divert two blocks east to Fannin Street via a new connector. Fannin Street would be widened to accommodate three lanes of northbound traffic. Northbound SH 205 traffic would rejoin the existing SH 205 alignment near Heath Street via a new connector. This revised alternative would avoid adverse impacts to the Southside neighborhood; however, the negative impacts and potential Section 4(f) implications for historic buildings along Fannin Street would remain. In addition, substantial ROW acquisition (3.5 acres) would still be required to widen the Fannin Street ROW from the existing 25 feet width to the necessary 51 feet width. The City of Rockwall has stated their opposition to a Fannin Street couplet alignment for SH 205 improvements.

# 5. <u>Alamo Road/Kaufman Street Connector - "West Connector"</u>

This alternative would construct SH 205 as a six-lane roadway along its current alignment from between SH 276 to south of Denison Street. At that point, SH 205 would move to a new alignment through the Rockwall CBD. At Denison Street, SH 205 traffic would shift one block to the west to transition to Alamo Road, a north-south city street. SH 205 traffic would extend along Alamo Road for approximately three blocks between Denison Street and Kaufman Street. SH 205 traffic would then use Kaufman Street to return to the existing SH 205 alignment. Alamo Road and Kaufman Street would be widened into two-way, four-lane streets. Goliad Street would remain a two-lane roadway through the Rockwall CBD.

This alternative would not require any ROW along Goliad Street through the CBD. However, approximately four feet of additional ROW would be required along Alamo Road and Kaufman Street, including taking of land from several potentially historic properties. South of Denison Street, this alternative would follow the proposed action's alignment along existing SH 205, and therefore, would also require taking of land from four Section 4(f) properties.

This alternative would provide better vehicular access to residences located along Alamo Road. However, TxDOT traffic studies found that this alternative would not draw sufficient traffic volumes away from the existing SH 205 alignment to relieve the current and future traffic congestion.

# IV. POTENTIAL SOCIAL, ECONOMIC AND ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION

## A. Regional and Community Growth

The proposed project is located in Rockwall County, within the City of Rockwall with an estimated population of 43,080 and 17,976 respectively (US Census Bureau) as shown in *Table 3*.

U	•		
AREA	YEAR	Year	PERCENT
	(1990)	(2000)	GROWTH (1990-2000)
Rockwall County	25,604	43,080	68.3%
City of Rockwall	10,486	17,976	71.4%

## Table 3. Regional and Community Growth

Source: US Census Bureau, 2000.

The 2000 estimated annual median household income for Rockwall County, was \$65,164 and approximately 7.2 percent of the population was below poverty level. The poverty thresholds are updated annually for inflation using the Consumer Price Index; these count money income before taxes and do not include capital gains and non-cash benefits. In 2000, the labor force in the proposed project area was 31,459 people, of which 21,995 were employed (NCTCOG). The proposed improvements would not negatively impact future development in areas within and adjacent to the project corridor. The "No Build" alternative would not adequately address these issues and could negatively impact future development.

## **B.** Socio-Economic Discussion

The proposed action would require the removal of some properties from the tax rolls. However, the improvement of this facility would provide a long-term benefit to the local tax base. The increased property value of land adjacent to the facility would increase the tax base and produce benefits that would accrue during the design life of the facility and beyond. A short-term benefit that may be derived from the proposed improvements would be employment for some area residents during construction. No divisions of farm operations would occur as a result of this project.

There are several business centers, gas stations, doctor's offices, churches, a nursing home and a cemetery located along SH 205. There is an additional cemetery located three blocks southwest of the proposed couplet. However, neither cemetery is within the proposed limits of the project. Several large residential subdivisions are currently under development in Rockwall County which when fully developed would increase the city's population. Additional development of this nature is anticipated in this region. Commercial and industrial developments are also expected to increase.

There are twelve displacements associated with this project, which include two single-family dwellings and ten businesses. They are listed in *Table 4*.

Property Type	Designation	Address
Business	Mirror & Mirror Studio	812 South Goliad Street
Business	Brakes USA	802 South Goliad Street
Business	Revelations Chic Boutique /	712 South Goliad Street
	Wee-Buy Children's Clothes	
Business	Galleries of Goliad Place	708 South Goliad Street
Business	Art Ventures	704 South Goliad Street
Business	Ridge Point Centre	109 Kenway Drive
Business	Kenway Plaza	110 Kenway Drive
Business	Arch's Car Care	306 South Goliad Street
Business	Eastlake Business Center	316 South Goliad Street
Business	Peoples Auto	302 South Goliad Street
Single Family Dwelling	N/A*	405 North Goliad Street
Single Family Dwelling	N/A*	501 North Goliad Street

Table 4. Displaced Properties Associated with Preferred Alternative

\*Not Applicable

Consistent with U.S. Department of Transportation policy as mandated by the Surface Transportation and Uniform Relocation Assistance Act of 1987, TxDOT provides relocation resources to all displaced persons without discrimination. All property owners, from whom property is needed, are entitled to receive just compensation for their land and property. Just compensation is based upon the fair market value of the property. TxDOT also provides, through its Relocation Assistance Program, payment and services to aid in movement to a new location.

TxDOT offers relocation assistance to all individuals, families, businesses, farmers, ranchers and nonprofit organizations displaced as a result of a State highway or other transportation project. In order to assist those who are required to move, TxDOT provides,

through its relocation assistance program, payments and services to aid in movement to a new location. This assistance applies to tenants as well as owners occupying the real property needed for an orderly, timely and efficient move. This applies not only to residential occupants, but also to all parties where an occupant has to move to a new location or move his property to a new location. A relocation counselor would contact the affected property owners and tenants.

There are a number of locations in the vicinity to which the displaced businesses can be relocated. Some of these relocation areas include SH 66, Kaufman Road, Washington Street, Ross Avenue, and the newly redesigned Ridge Road (FM 740). These are highly traveled corridors; therefore, the businesses should not be adversely affected by the relocation.

No displaced residence (or business owners) shall be required to move permanently from his or her residence until at least one comparable replacement dwelling is made available to the person. A replacement means a dwelling which is decent, safe, and sanitary; functionally equivalent to the displacement dwelling with particular attention to the number of rooms and living space; adequate in size to accommodate the occupants; in an area that is not subject to unreasonable adverse environmental conditions, is not generally less desirable than the location of the displaced person's dwelling with respect to public utilities and commercial and public facilities, and is reasonably accessible to the development with normal site improvements, including customary landscaping currently available to the displaced person on the private market unless the person is receiving government housing assistance to occupy the displacement dwelling; and within the financial means of the of the displaced person. The replacement housing would meet minimum requirements established by the State of Texas and would conform to applicable housing and occupancy codes. The specific relocation sites of the displacees would not be known until TxDOT initiates the ROW acquisition process which cannot occur until Federal Highway Administration (FHWA) approval of the project's environmental document and completion of the public involvement process. There are currently 549 available homes listed on the Multiple Listing Service within the City of Rockwall. This would offer the displaced homeowners a wide variety of home sites from which to choose a new residence.

The "No Build" alternative would not require the removal of properties from the tax rolls or the relocation of ten businesses and two residents. It also would not promote future development both residential and commercial, would negatively impact property values, and would adversely impact the future socio-economic development of the area.

# C. Public Facilities and Services

The proposed improvements would provide increased accessibility for this portion of Rockwall County to the various religious, educational, medical and recreational facilities in the area. Emergency public services would have a more efficient facility to use in the performance of their various duties because of less congested roads. There are three churches and two cemeteries near the project area as listed in *Table 5* below. These

facilities would remain accessible during construction of the proposed facility and at least one lane in each direction would remain open for the duration of the construction phase. No detour route would be necessary.

Facility Type	Facility Name	Location	Distance from proposed ROW (feet)
Church	First United Methodist	302 N. Goliad Street	>330
Church	Our Lady of the Lake	1305 Damascus Road	>330
Church	First Baptist Church	610 S. Goliad Street	85
Cemetery	Rockwall Cemetery	SH 205 and Damascus Road	210
Cemetery	Rockwall Memorial Cemetery	Washington and 1 <sup>st</sup> Street	90

 Table 5. Public Facilities and Services

The "No Build" alternative would not provide increased accessibility and would not provide a more efficient facility. The existing conditions would continue to deteriorate with increased congestion as future development in and around the City of Rockwall continues.

# **D.** Community Cohesion

The implementation of this project conforms to the Master Thoroughfare Plans of the City of Rockwall and Rockwall County.

Though the one-way couplet would divert more traffic along Alamo Road, the proposed project would help facilitate traffic flow and alleviate congestion in the area. The proposed project would help facilitate traffic flow and alleviate congestion in the area. Expansion of the existing facility would improve the Level of Service, mobility, and access in the area. The couplet configuration would involve the acquisition of the existing Alamo Road ROW (51 feet wide) from the City of Rockwall (the existing ROW would be donated by the City of Rockwall to TxDOT) and would improve traffic through downtown Rockwall by distributing traffic volumes between two streets. In addition, the couplet design would improve turning movements from SH 205 to SH 66, by splitting turning movements from a single-point intersection to two intersections.

North of Kaufman Street the land use along Alamo Road is residential, and south of Kaufman Street the land use is primarily commercial. These facilities would remain accessible during construction of the proposed facility.

The public involvement conducted for this project includes the following:

- 1. A 1998 Bond election, which was passed by Rockwall voters to fund the landscaping and utility relocation specifically for this project.
- 2. Approximately six public meetings were held since 1989 in Rockwall.

In addition, a public hearing would be offered following approval of the environmental assessment by the FHWA.

The existing wheelchair ramps, sidewalks and pedestrian crosswalks along the proposed project area would be reconstructed. Also, the existing sidewalk system would be expanded to include pedestrian access from Interurban Street to Bourn Street (approximately 0.75 miles). The remainder of the project is not suitable for pedestrian access because one portion of the project lies in the floodplain and the other portion is not suitable for sidewalks because of safety considerations (i.e., high-speed traffic area, roadway geometrics).

The proposed project would not affect, separate, or isolate any distinct neighborhoods, ethnic groups, or other specific groups because pedestrian access would be maintained or improved and a reconstructed roadway surface should better serve the adjacent neighborhoods.

Everything possible would be done to minimize the inconvenience to the vehicles using the roadway during the construction phase.

The "No Build" alternative would not affect, separate, or isolate any distinct neighborhoods, ethnic groups, or other specific groups because it would not change the existing conditions. The existing roadway conditions would continue to deteriorate and increase congestion as residential and commercial development continues in and around the city of Rockwall.

# E. Environmental Justice

Executive Order 12898 entitled "Federal Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations" mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of the programs on minority and low-income populations. A minority population is defined as a group of people and/or a community experiencing common conditions of exposure or impact that consist of persons classified by the U.S. Bureau of the Census as African-American; Hispanic; Asian or Pacific Islander; American Indian, Eskimo, or Aleut; or other non-white persons. A low-income population is defined as one with a median annual income for a family of four equal to or below the 2004 national poverty level of \$18,850. An EJ evaluation consists of identifying minority and low-income populations, an analysis of environmental effects on minority and low-income communities (to include social, economic, and human health effects), and proposing measures to avoid, minimize, and/or mitigate disproportionately high and adverse environmental and public health effects and related social and economic effects, for communities, neighborhoods, and individuals affected by federal programs, policies, and activities (Department of Transportation Order to Address Environmental Justice in Minority Population and Low-income Populations, No. 5610.2, April 1997). Where possible, alternatives that would result in avoiding or minimizing disproportionately high and adverse human health or environmental impacts were considered throughout the project planning process.

In general, disproportionate environmental impact occurs when the risk or rate for a minority population or low-income population for exposure to an environmental hazard exceeds the risk or rate of the general population and, where available, to another appropriate comparison group. The appropriate comparison group may vary depending upon the resource; however, in evaluating impacts for most resources, the comparison group is the county within which the project area is located. The exceptions to this are for potential disproportionate adverse impacts related to noise levels, air quality, land use, transportation/traffic, and residential/business relocations where the project area is the comparison group.

*Table 6* shows the demographic profile for the project area, the City of Rockwall, and Rockwall County.

	Total Population	White (Percent)	African- American (Percent)	Asian/ Pacific Islander (Percent)	Some Other Race (Percent)	Hispanic and Latino (Percent)	Poverty Status (Percent)
Project Area*	108	71.8%	20.8%	0.4%	4.5%	14.1%	9.5%
City of Rockwall	18,320	90.8%	2.6%	1.6%	3.0%	6.0%	3.9%
Rockwall County	43,080	89%	3%	1%	4%	11%	4.7%

**Table 6.** Estimated Racial Distribution and Poverty Level

Source: Claritas report.

\* Percentages are averaged over abutting census tracts and may not total to 100 percent.

The information presented in **Table 6** indicates that the racial composition of the project area differs from that of the City of Rockwall and Rockwall County. There are higher African-American and Hispanic populations in the project area than within the surrounding community. However, there would be no minority owned residences or businesses displaced by the proposed project. The number of low-income individuals is two-three times higher in the project area than it is in the surrounding community. Additionally, the

project would not separate or isolate any minority group or low-income populations. There would be no disproportionate impacts on any minority and/or low-income populations associated with the project. Therefore, the requirements of Executive Order 12898 on Environmental Justice appear to be satisfied.

Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency (LEP)" requires federal agencies to examine the services they provide and identify any need for services to those with limited English proficiency. The Executive Order requires federal agencies to work to ensure that recipients of federal financial assistance provide meaningful access to their LEP applicants and beneficiaries. Failure to ensure that LEP persons can effectively participate in or benefit from federally assisted programs and activities may violate the prohibition under Title VI of the Civil Rights Restoration Act of 1987 and Title VI regulations against national origin discrimination.

**Table 6** shows that nineteen percent of the population in the project area is considered Hispanic, Latino, Asian/Pacific Islander, or other races. In addition, the presence of the *Mi Tienda* market indicates the potential of a LEP population within the project area. Zip code 75087 encompasses the project area. According to the 2000 Census, within zip code 75087, 2.9 percent of residents speak English "less than very well" (NCTCOG, 2000). LEP populations would not be discriminated against as a result of the proposed project. Reasonable steps would be taken to ensure that such persons have meaningful access to the programs, services, and information that TxDOT provides. Therefore, the requirements of Executive Order 13166 appear to be satisfied.

The "No Build" alternative would not affect, separate, or isolate any distinct neighborhoods, ethnic groups, or other specific groups because it would not change the existing conditions. The existing roadway conditions would continue to deteriorate and increase congestion as commercial and residential development continues in and around the city of Rockwall.

## F. Impact on 4(f) Properties

The proposed project would not require the use of, nor substantially impair the purposes of any publicly owned land from a public park, recreational area, wildlife and waterfowl refuge lands or historic sites of national, state, or local significance; therefore, a 4(f) statement is not required.

The "No Build" alternative would not require the use of publicly owned land from historic sites of national, state, or local significance. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

## G. Lakes, Rivers and Streams

The project crosses Buffalo Creek, which is a third order intermittent stream. This stream is a tributary to segment 0819 (East Fork of the Trinity River) of the Trinity River Basin. Water quality in the East Fork of the Trinity River is described as limited. Designated water uses include contact recreation and intermediate quality aquatic habitat. Two other minor intermittent creeks which flow into Lake Ray Hubbard are crossed by the project.

Rockwall County is a participant in the National Flood Insurance Program and the flood limits of Buffalo Creek are mapped on the flood insurance rate map prepared by Federal Emergency Management Agency (FEMA). The map panel is City of Rockwall #480543 0040B. The proposed project would cross floodplain Zone A. Zone A areas are within the 100-year floodplain but they do not have base flood elevation or flood hazard factors determined. The proposed project would not raise the flood elevations to a level that would violate any FEMA or local requirements. The proposed project would not increase the base flood elevation to a level, which would violate applicable floodplain regulations or ordinances. The hydraulic design practices for this project would be in accordance with current TxDOT design policy and standards. The highway facility would permit conveyance of the design year flood levels, inundation of the roadway being acceptable, without causing substantial damage to the highway, stream or other property. Informal coordination with the local Floodplain Administrator would be required during the design process.

Buffalo Creek is not a navigable waterway. A navigational clearance under Sections 9 and 10 of the Rivers and Harbors Act of 1899 is not applicable. Coordination with the U.S. Coast Guard and U.S. Army Corps of Engineers (USACE) would not be required.

The "No Build" alternative would not require coordination with the local Floodplain Administrator. It would also not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

# H. Waters of the U.S.

The project would cross three jurisdictional waters, which include Buffalo Creek and two unnamed tributaries that drain into Lake Ray Hubbard on the East Fork of the Trinity River.

Buffalo Creek and the unnamed tributary at the Union Pacific Rail Road bridge would not be permanently impacted by the project construction. Each of these crossings would be completely spanned with bridges. A U.S. Army Corps of Engineers (USACE) Section 404 permit would not be required for these crossings. The crossing of a small ephemeral stream at Justin Road would be a culvert crossing resulting in minimal permanent impacts to the stream requiring a USACE Nationwide Permit 14 (Linear Transportation Crossings). This crossing would impact 0.04 of an acre and would not require coordination with the USACE. There are no jurisdictional wetlands associated with this project. Wetland

Determination Data Forms and a location map are located in *Figure 3*. The project engineer would ensure that appropriate steps are taken to control water pollution during The amount of disturbed earth would be limited so that potential for construction. excessive erosion is minimized and sedimentation outside of the ROW is avoided. General Condition 9 of the Nationwide Permit Program requires applicants using Nationwide Permit 14 to comply with Section 401 of the Clean Water Act. Compliance with Section 401 requires the use of best management practices (BMPs) to manage water quality on construction sites. The SW3P would include at least one BMP from the 401 Water Quality Certification Conditions for Nationwide Permits as published by the Texas Natural Resource Conservation Commission, April 12, 2002. These BMPs would address each of the following categories: Category I Erosion control, Category II Sedimentation Control and Category III Post construction total suspended solids control. Category I would be addressed by applying temporary reseeding (native vegetation) and mulch to disturbed areas. Category II would be addressed by installing silt fences combined with rock berms. Category III would be addressed by planting permanent native vegetation to create grasslined ditches. These ditches would accept roadway runoff as sheet flow and filter it along the front slopes of the ditches as well as the bottom of the ditch. Other approved methods may be substituted if necessary using one of the BMPs from the identical category.

The hydraulic design for this project would be in accordance with current TxDOT and FHWA design policies and procedures. The highway facility would permit the conveyance of the design year flood, inundation of the roadway being acceptable, without causing substantial damage to the highway, stream or other property. The proposed project would not increase the base flood elevation to a level that would violate applicable regulations or ordinances.

The "No Build" alternative would not require permitting under Section 404. The poor traffic conditions result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

# I. Water Quality

Erosion control measures would be coordinated with the permanent soil erosion control features, which are to be a part of the completed project to assure economical, effective, and continuous erosion control throughout the construction and post-construction periods. Because this project would disturb more than five acres of surface area, TxDOT would not be categorically exempt from requirements to comply with Texas Commission on Environmental Quality (TCEQ) Texas Pollutant Discharge Elimination System (TPDES) Phase II. In order to comply with TPDES Phase II General Permits for Construction Activities requirements, a Notice of Intent would be filed with TCEQ stating that TxDOT would have a Storm Water Pollution Prevention Plan (SW3P) in place during construction

of this project. This "SW3P" utilizes the temporary control measures as outlined in the TxDOT's manual "Standard Specifications for the Construction of Highways, Streets, and Bridges". Impacts would be minimized by avoiding work by construction equipment directly in the stream channels and/or adjacent areas. No permanent water quality impacts are expected as a result of the proposed project. Every effort would be made for proper soil conservation and preservation during the planning, development, and construction of this project.

The project engineer would ensure that appropriate steps are taken to control water pollution during construction. The amount of disturbed earth would be limited so that potential for excessive erosion is minimized and sedimentation outside of the ROW is avoided. Existing vegetation would be preserved wherever possible. Temporary erosion control measures such as silt fences, rock berms, sedimentation basins, and/or soil retention blankets would be implemented as needed prior to the initiation of construction.

At the proposed project location there is not a designated river or creek in the 2002 Clean Water Act Section 303(d) list of threatened or impaired waters and the project is not within five miles upstream of a threatened or impaired water segment.

The "No Build" alternative would not require erosion control nor would it impact a 303(d) listed water body because there would be no construction associated with this alternative. However, the existing facility currently operates well above its maximum capacity of traffic flow. The poor traffic conditions result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

# J. Threatened/Endangered Species

The project is found on the Rockwall, Texas U.S.G.S. quadrangle map (*Figure 4*). Wildlife within the project area is limited to those species tolerant to human activities and includes opossum, raccoons, numerous birds and reptiles. After reviewing habitat requirements and conducting a site visit, it was determined that there are no substantial natural plant communities or native prairie remnants that would be impacted by the proposed project. The threatened and endangered species of Rockwall County are listed in *Figure 5*.

After reviewing the habitat qualifications for each threatened and endangered species and conducting a field review of the project area, it was determined that the proposed project could potentially effect the Timber/Canebrake rattlesnake. However, the habitat to support this species is confined to the areas adjacent to Buffalo Creek, and no evidence of this species was found during the site investigation. In Texas, the Timber/Canebrake rattlesnake is most likely to be found in bottomland areas in the Pineywoods region of east

Texas. The project area is a floodplain surrounded by an undeveloped land in northwest Rockwall County and the rattlesnake is not likely to be in the project area.

The Migratory Bird Treaty Act decrees that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected. Rockwall County is located within the migratory route of the whooping crane, bald eagle, interior least tern, white-faced ibis, whooping crane, wood stork, and arctic peregrine falcon. Migrational patterns would not be affected by the proposed project.

The "No Build" alternative would not impact any threatened/endangered species because there would be no construction associated with this alternative. However, the existing facility currently operates well above its maximum capacity of traffic flow. The poor traffic conditions result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

# K. Wildlife Habitat

The proposed project lies within an urban area and vegetation along the project area is typical of an urban setting, consisting of maintained grasses and ornamental landscaping. Vegetation along the project area is not consistent with any vegetation type according to the Vegetation Types of Texas (TPWD, 1984). There are no unusual vegetation or special habitat features associated with this project. Up to 0.5 acre of urban vegetation would be disturbed during project construction. Due to the need for additional through lanes and increased lane widths, avoidance and minimization would not be possible. In accordance with Provision (4)(A)(ii) of the TxDOT - TPWD MOU, some habitats may be given consideration for non-regulatory mitigation during project planning (at the TxDOT District's discretion). These habitats include:

- Habitat for Federal candidate species if mitigation would assist in the prevention of the listing of the species;
- Rare vegetation series (S1, S2, or S3) that also locally provide habitat for a state-listed species;
- All vegetation communities listed as S1 or S2, regardless of whether or not the series in question provide habitat for state-listed species;
- Bottomland hardwoods, native prairies, and riparian sites; and,
- Any other habitat feature considered to be locally important.

Limited amounts of riparian habitat and mature urban trees are present within the proposed project ROW and would be affected by the project. Therefore, compensatory mitigation is proposed as per the Memorandum of Agreement/Memorandum of Understanding between TxDOT and TPWD.

Within the project ROW, the dominant tree species are hackberry, pecan, live oak, and American elm. The non-dominant tree species include American sycamore, black walnut, black willow, Bradford pear, cedar elm, eastern cottonwood, bois D' arc, mulberry, mimosa, red maple, red oak, Texas ash, and white oak. The species that would be removed, their diameter breast height (dbh), and number of mature trees are presented in *Table 7*.

Common	Scientific Nome	Number of	DBH	Number of Mature
Name	Scientific Name	Trees	Range	Trees
Hackberry	Celtis laevigata	25	6 - 25	1
Pecan	Carya illinoensis	20	6 - 25	7
Live Oak	Quercus virginiana	17	10 - 25	3
American Elm	Ulmus americana	9	6 - 40	2
Bradford Pear	Pyrus calleryana	5	6 - 10	0
Black Willow	Salix nigra	4	6 - 8	0
Eastern Cottonwood	Populus deltoides	3	12 - 14	0
American Sycamore	Platanus occidentalis	2	20 - 22	2
Black Walnut	Juglans major	2	10 - 25	1
Cedar Elm	Ulmus crassifolia	2	20 - 26	2
Bois D' Arc	Maclura pomifera	1	30	1
Mulberry	Morus alba	1	16	0
Mimosa	Mimosa borealis	1	10	0
Red Maple	Acer rubrum	1	16	0
Red Oak	Quercus falcata	1	30	1
Texas Ash	Fraxinus texensis	1	24	1
White Oak	Quercus alba	1	25	1

**Table 7:** Trees Removed During Construction

A majority of the trees that require removal occur within the urban/residential areas along the alignment and therefore do not occur in their natural habitat and are being used in an ornamental nature. Trees within the ROW, but not in the construction zone, would not be removed if possible. Due to the number of trees involved, TxDOT would make efforts to minimize the impact caused by the loss of vegetation by preserving as many trees as possible. A list of trees and shrubs which would be used as replacement for the vegetation lost during construction activities are included in *Figure 5-A*. Proper spacing and recommended proportioning of vegetation would provide a diverse habitat for wildlife. There would be three mitigation areas along the project alignment. The first area would be in front of the Rockwall Cemetery along SH 205 located within the southwest corner of intersection of the Union Pacific Railroad and SH 205. The second would be within the southwest corner of the intersection of SH 205 and Ridge Road (FM 740). The final location would

be outside the proposed sidewalk in front of the new Rockwall City Hall that is located at the southeast of the intersection of Denison Street and SH 205.

In accordance with Executive Order 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping, seeding and replanting with TxDOT approved seeding specifications that is in compliance with Executive Order 13112 would be done where possible. Moreover, abutting turf grasses within the ROW are expected to reestablish throughout the project length. Soil disturbance would be minimized to ensure that invasive species would not establish in the ROW.

The "No Build" alternative would not impact any wildlife habitat because there would be no construction associated with this alternative. However, the existing facility currently operates well above its maximum capacity of traffic flow. The poor traffic conditions result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

# L. Historic Preservation

In accordance with the Programmatic Agreement among the FHWA, TxDOT, the Advisory Council on Historic Preservation, and the Texas Historical Commission (THC), qualified cultural resource personnel conducted a historic resource survey of the project area on May 15-16, 2003. This survey updated previous historic resource surveys of the project area conducted between 1999 and 2003 by qualified cultural resource personnel. Qualified cultural resource personnel also reviewed the National Register of Historic Places (NRHP), the list of Recorded Texas Historical Landmarks (RTHL), and Texas Historic Sites Inventory to locate previously designated historic properties. In consultation with TxDOT Environmental Affairs Division (ENV), the project's Area of Potential Effect (APE) was determined to extend 150 feet beyond the proposed ROW boundaries. The purpose of the survey was to identify and evaluate all pre-1956 buildings, structures, objects, and potential districts within the APE.

The May 2003 field survey identified a total of 83 buildings, structures, and sites that date to 1955 or earlier within the project's APE. There are also three Texas Historical Subject Markers located within the APE. No NRHP-listed resources or RTHLs are located within the project APE. Through coordination between TxDOT and THC, 10 properties were determined eligible for listing in the NRHP.

The "No Build" alternative would not impact any historical resources because there would be no construction associated with this alternative. However, the existing facility currently operates well above its maximum capacity of traffic flow. The poor traffic conditions result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions. In accordance with the Programmatic Agreement between THC, TXDOT, FHWA, and the ACHP, TxDOT informed THC in a letter dated 3/29/05 that the previous takings at National Register eligible properties along the western ROW have been deleted due to the move of those properties by their owners. THC was further notified that the mitigation documentation for those historic properties was no longer required.

## M. Archeology

An archeological impact evaluation of the project area was attempted in August of 2003. In consultation with TxDOT ENV, the APE was determined to be the limits of the proposed ROW. The portion of the new alignment in the general proximity on the east side of Rockwall Memorial Cemetery, and the presence of marked historic burials in that portion of the cemetery, indicated the potential for unmarked human burials adjacent to the defined east side of the cemetery. Consequently, limited mechanical scraping of this area was recommended in the event that the construction ROW occurred within 16.5 ft of the cemetery. This mechanical scraping was conducted in early January 2004, the results of which are presented below.

Several utility lines had been marked within the archeological study area, some of which parallel nearly the entire eastern border of the cemetery. Additional obstacles included a steep drop along the embankment that constitutes the southern two thirds of the project area. Because of these impediments and safety concerns, and after consultation with TxDOT ENV staff, mechanical scraping was not conducted. However, additional observations were performed to further determine the boundaries of the cemetery in relation to the proposed ROW.

Further evaluation of the cemetery and project area indicated that the present eastern border is probably the original boundary. Although it appears to have been graded in one area, the embankment along the east side of the cemetery seems to be a natural landform, which likely served as a natural border for the eastern edge. Likewise, the stream flowing along the east and south sides of the cemetery probably naturally circumscribed the cemetery on these sides. A few cedar trees, particularly in the northeast corner, appear to be rather old and might have been planted to mark the boundary. Two wooden fence posts also stand within the eastern treeline and indicate that a fence marked this area as the border at one time. In addition, a style of ornamental wire fence dating to the turn of the century demarcates the northern edge of the cemetery in this area. The fence only extends as far east as the present treeline. A wooden post is directly south of this end of the fence and demarcates the northeast corner.

Lastly, the latest review of the project plans indicate that the new alignment falls well outside of the cemetery boundary and is not likely to impact historic graves.

A concurrence letter dated February 20, 2004 from the THC indicates that no archeological sites listed in or determined eligible for designation in the NRHP, would be affected by the proposed project and would require no further archeological investigations.

In the unlikely event that evidence of archeological deposits are encountered during construction, work in the immediate area would cease and TxDOT archeological staff would be contacted to initiate accidental discovery procedures under the provisions of the Programmatic Agreement between TxDOT, THC, FHWA, and the ACHP and the Memorandum of Understanding between TxDOT and the THC.

The "No Build" alternative would not impact any archaeological resources because there would be no construction associated with this alternative. However, the existing facility currently operates well above its maximum capacity of traffic flow. The poor traffic conditions result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

# N. Aesthetic Considerations

During clearing and construction activities, the presence of machinery, equipment, and work crews, as well as the production of some dust and debris, would result in some negative aesthetic impact. This should be restricted to the immediate vicinity of the roadway. Any scenic or aesthetic quality of the area would only be enhanced by the elimination of the open drainage ditches. With respect to aesthetics, the proposed project is expected to blend with the character of the area.

The "No Build" alternative would maintain any existing scenic or aesthetic quality because there would be no construction associated with this alternative. However, the existing facility currently operates well above its maximum capacity of traffic flow. The poor traffic conditions result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

# O. Prime, Unique and Special Farmland Impacts

The project area is presently developed. No prime, unique, or special farmland would be affected, and coordination with the Natural Resources Conservation Service is not required. The "No Build" alternative would not affect any prime or unique farmland.

#### P. Air Quality Assessment

The proposed project is in Rockwall County, which has been designated in attainment for all one-hour National Ambient Air Quality Standards (NAAQS) by EPA. However, Rockwall County was designated in nonattainment for the eight-hour ozone standard by EPA effective June 15, 2004. A demonstration of transportation conformity for added capacity projects to the eight-hour standard is not required until the end of the one-year grace period (June 15, 2005). The proposed project is consistent with the area's financially constrained Metropolitan Transportation Plan known as Mobility 2025 Plan – 2004 Update, and the 2004-2006 State TIP was found to conform to the Clean Air Act Amendments of 1990, by the U.S. DOT on April 8, 2004. The project is funded from Category 3A—National Highway System Mobility. The proposed action is included in the 2004 - 2006 State TIP.

The primary pollutants from motor vehicles are volatile organic compounds (VOCs), carbon monoxide (CO) and nitrogen oxides  $(NO_x)$ . Volatile organic compounds and nitrogen oxides can combine under the right conditions in a series of photochemical reactions to form ozone (O<sub>3</sub>). Because these reactions take place over a period of several hours, maximum concentrations of ozone are often found far downwind of the precursor sources. Thus, ozone is a regional problem and not a localized condition.

The modeling procedures of ozone require long-term meteorological data and detailed area wide emission rates for all potential sources (industry, business, and transportation) and are normally too complex to be performed within the scope of an environmental analysis for a highway project. Accordingly, concentrations of ozone for this purpose of comparing the results of the NAAQS are modeled by the regional air quality planning agency for the SIP. However, concentrations for carbon monoxide are readily modeled for highway projects and are required by federal regulations.

Topography and meteorology of the area in which the project is located would not seriously restrict dispersion of the air pollutants. The traffic data used in the analysis was obtained from the TxDOT Transportation Planning and Programming Division. Year 2006 traffic was 25,300 vehicles per day and the year 2026 traffic is estimated to be 36,300 vehicles per day.

Carbon monoxide concentrations for the proposed project were modeled using the worst case scenario (adverse meteorological conditions and sensitive receptors at the ROW line) in accordance with the TxDOT's Air Quality Guidelines. Local concentrations of carbon monoxide are not expected to exceed national standards at any time. *Table 8* summarizes the results of the analysis.

Year	1 HR CO Standard 35 PPM	1 HR % NAAQS	8 HR CO Standard 9 PPM	8 HR % NAAQS
2006	5.8	17%	3.5	39%
2026	6.5	19%	3.9	43%

**Table 8:** Project Carbon Monoxide Concentrations

\*The National Ambient Air Quality Standard (NAAQS) for CO is 35 ppm for one hour and 9 ppm for eighthours. The analysis includes a one-hour background concentration of 3.7 ppm and an 8-hour background concentration of 2.3 ppm.

#### 1. Congestion Management System

The Congestion Management System (CMS) is a systematic process for managing traffic congestion. The CMS provides information on transportation system performance and alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet state and local needs. The SH 205 project was developed from the NCTCOG operational CMS, which meets all requirements of CFR 500.109. Additionally, the project comes from an operational CMS that meets all requirements of 23 CFR Highways, Parts 450 and 500.

Operational improvements and travel demand reduction strategies are commitments made by the region at two levels: program level and project level implementation. Program level commitments are inventoried in the regional CMS; they are included in the financially constrained MTP, and future resources are reserved for their implementation.

The CMS element of the plan carries an inventory of all project commitments (including those resulting from major investment studies) detailing type of strategy, implementing responsibilities, schedules, and expected costs. At the project programming stage, travel demand reduction strategies and commitments would be added to the regional TIP or included in the construction plans. The regional TIP provides for programming of these projects at the appropriate time with respect to the single occupancy vehicle facility implementation and project specific elements.

Committed congestion reductions strategies and operational improvements within the SH 205 study boundary would consist of signalization and intersection improvements. None of these projects were identified within the SH 205 project study area.

To reduce congestion and the need for single-occupancy vehicle lanes in the region, TxDOT and the NCTCOG would continue to promote appropriate congestion reduction strategies through the Congestion Mitigation Air Quality program, the CMS and the Metropolitan Transportation Plan. According to the North Central Texas Council of Governments, the strategies considered for this project to reduce congestion would help alleviate congestion in the single-occupancy vehicle study boundary, but would not eliminate it.

The "No Build" alternative would not improve air quality because the existing facility currently operates well above its maximum capacity of traffic flow. The poor traffic conditions result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

## Q. Noise Assessment

The noise analysis for the proposed project was accomplished in accordance with TxDOT's (FHWA approved) Guidelines for Analysis and Abatement of Highway Traffic Noise.

Sound from highway traffic is generated primarily from a vehicle's tires, engine and exhaust. It is commonly measured in decibels and is expressed as "dB."

Sound occurs over a wide range of frequencies. However, not all frequencies are detectable by the human ear; therefore, an adjustment is made to the high and low frequencies to approximate the way an average person hears traffic sounds. This adjustment is called Aweighting and is expressed as "dBA."

Also, because traffic sound levels are never constant due to the changing number, type and speed of vehicles, a single value is used to represent the average or equivalent sound level and is expressed as "Leq."

The traffic noise analysis typically includes the following elements:

- Identification of land use activity areas that might be impacted by traffic noise.
- Determination of existing noise levels.
- Prediction of future noise levels.
- Identification of possible noise impacts.
- Consideration and evaluation of measures to reduce noise impacts.

The FHWA has established the following Noise Abatement Criteria (NAC) for various land use activity areas that are used as one of two means to determine when a traffic noise impact will occur.

A noise impact occurs when either the absolute or relative criterion is met as described below:

Absolute criterion: the predicted noise level at a receiver approaches, equals or exceeds the NAC. "Approach" is defined as one dBA below the NAC. For example: a noise impact would occur at a Category B residence if the noise level is predicted to be 66 dBA or above.

Relative criterion: the predicted noise level substantially exceeds the existing noise level at a receiver even though the predicted noise level does not approach, equal or exceed the NAC. "Substantially exceeds" is defined as more than 10 dBA. For example: a noise impact would occur at a Category B residence if the existing level is 54 dBA and the predicted level is 65 dBA (11 dBA increase).

Activity Category	dBA Leq	Description of Land Use Activity Areas
А	57 (exterior)	Lands on which serenity and quiet are of extra-ordinary 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.
В	67 (exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries and hospitals.
С	Developed lands, properties or activities not included in categories A or B above.	
D		Undeveloped lands.
Е	52 (interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums.

 Table 9: FHWA Noise Abatement Criteria

NOTE: Primary consideration is given to <u>exterior</u> areas (Category A, B or C) where frequent human activity occurs. However, <u>interior</u> areas (Category E) are used if exterior areas are physically shielded from the roadway, or if there is little or no human activity in exterior areas adjacent to the roadway.

When a traffic noise impact occurs, noise abatement measures must be considered. A noise abatement measure is any positive action taken to reduce the impact of traffic noise on an activity area.

The FHWA traffic noise modeling software was used to calculate existing and predicted traffic noise levels. The model primarily considers the number, type and speed of vehicles; highway alignment and grade; cuts, fills and natural berms; surrounding terrain features; and the locations of activity areas likely to be impacted by the associated traffic noise.

Existing and predicted traffic noise levels were modeled at receiver locations (*Table 10* and *Figure 6* and 7) that represent the land use activity areas adjacent to the proposed project that might be impacted by traffic noise and potentially benefit from feasible and reasonable noise abatement.

	NAC	NAC	Existing	Predicted	Change	Noise
Receiver	Category	Level	2006	2026	(+/-)	Impact
R1 – residence	В	67	57	59	2	Ν
R2 – commercial	С	72	62	65	3	Ν
R3 – commercial	С	72	60	63	3	Ν
R4 – commercial	С	72	57	59	2	Ν
R5 – commercial	С	72	62	65	3	Ν
R6 – commercial	С	72	56	57	1	Ν
R7 – apartment	Е	52	43	46	3	Ν
R8 – residence	В	67	62	64	2	Ν
R9 – commercial	С	72	63	65	2	Ν
R10 – commercial	С	72	64	66	2	Ν
R11 – residence	В	67	62	64	2	Ν
R12 – commercial	С	72	62	64	2	Ν
R13 – commercial	С	72	62	64	2	Ν
R14 – commercial	С	72	62	64	2	Ν
R15 – commercial	С	72	61	64	3	Ν
R16 – church	Е	52	43	46	3	Ν
R17 – residence	В	67	63	65	2	Ν
R18 – residence	В	67	64	65	1	Ν
R19 – commercial	С	72	64	65	1	Ν
R20 – residence	B	67	63	66	3	Y
R21 – commercial	С	72	63	64	1	Ν
R22 – residence	В	67	61	64	3	Ν
R23 – commercial	С	72	63	65	2	Ν
R24 – residence	В	67	63	64	1	Ν
R25 – residence	В	67	61	64	3	Ν
R26 – residence	В	67	62	65	3	Ν
R27 – residence	В	67	61	63	2	Ν
R28 – residence	В	67	62	65	3	Ν
R29 – residence	B	67	63	66	3	Y

 Table 10.
 Traffic Noise Levels (dBA Leq)

As indicated in *Table 10*, the proposed project would result in a traffic noise impact and the following noise abatement measures were considered: traffic management, alteration of horizontal and/or vertical alignments, acquisition of undeveloped property to act as a buffer zone and the construction of noise barriers.

Before any abatement measure can be proposed for incorporation into the project, it must be both feasible and reasonable. In order to be "feasible," the abatement measure must be able to reduce the noise level at an impacted receiver by at least five dBA; and to be "reasonable," it must not exceed the cost-effectiveness criterion of \$25,000 for each receiver that would benefit by a reduction of at least five dBA.

Traffic management: control devices could be used to reduce the speed of the traffic; however, the minor benefit of one dBA per five mph reduction in speed does not outweigh the associated increase in congestion and air pollution. Other measures such as time or use restrictions for certain vehicles are prohibited on state highways.

Alteration of horizontal and/or vertical alignments: any alteration of the existing alignment would displace existing businesses and residences, require additional right of way and not be cost effective/reasonable.

Buffer zone: the acquisition of undeveloped property to act as a buffer zone is designed to avoid rather than abate traffic noise impacts and, therefore, is not feasible.

Noise walls: this is the most commonly used noise abatement measure. Noise barriers were evaluated for each of the impacted receiver locations with the following results:

**R20 & R29**: these receivers represent 2 individual residences with driveways facing the roadway. A continuous noise barrier would restrict access to these residences. Gaps in a noise barrier would satisfy access requirements but the resulting non-continuous barrier segments would not be sufficient to achieve the minimum, feasible reduction of 5 dBA. Noise walls that would achieve the minimum feasible reduction of 5 dBA at each of these receivers would exceed the reasonable, cost-effectiveness criterion of \$25,000.

None of the above noise abatement measures would be both feasible and reasonable; therefore, no abatement measures are proposed for this project.

To avoid noise impacts that may result from future development of properties adjacent to the project, local officials responsible for land use control programs should ensure, to the maximum extent possible, no new activities are planned or constructed along or within the following predicted (2026) noise impact contours, as indicated in *Table 11*.

Land Use	Impact Contour	Distance from ROW
Residential	67 dBA	70 feet

 Table 11. SH 205 Traffic Noise Contours

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. None of the receivers is expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected. Provisions will be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

A copy of this traffic noise analysis will be available to local officials. On the date of approval of this document (Date of Public Knowledge), FHWA and TxDOT are no longer responsible for providing noise abatement for new development adjacent to the project.

The "No Build" alternative would not improve noise levels because the existing facility currently operates well above its maximum capacity of traffic flow. The poor traffic conditions result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would not address any potential noise level impacts.

# R. Hazardous Waste/Substance

A review of selected federal and state regulatory databases was conducted to determine the potential for encountering hazardous materials and substances within the project area. In addition, a field survey of the project limits was conducted to confirm the location of selected listed facilities, and to observe the general environmental conditions at these sites and within the project limits. The regulatory listings are limited and include only those sites that were known to the regulatory agencies at the time of publication to be contaminated or in the process of evaluation for potential contamination. The databases were searched within the corridor of the proposed project ROW per the American Society for Testing and Materials (ASTM) standards.

The following is a list of the federal and state standard ASTM databases that were reviewed: Environmental Protection Agency (EPA) National Priorities List, EPA Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List, CERCLIS No Further Remedial Action Planned, EPA Resource Conservation and Recovery Information System (RCRIS) or RCRA Notifiers List, RCRA Corrective Action Sites List, RCRIS Treatment, Storage and Disposal list, EPA Emergency Response Notification System, TCEQ State Superfund Registry, TCEQ Registered Underground Petroleum Storage Tank List, TCEQ Leaking Underground Storage Tank List, TCEQ Solid Waste Municipal Landfill Facility List, TCEQ Closed Landfill Inventory, and TCEQ Voluntary Cleanup Program. Other supplemental ASTM databases reviewed that had sites within the project area included EPA Facility Index System, TCEQ

Registered Aboveground Storage Tank list and TCEQ Industrial and Hazardous Waste Site list.

Regulatory agency listings were researched to identify potential problem sites near the project area. A field investigation was conducted during May 2003 to help determine the potential presence of recorded or suspected environmental contamination within the project area. *Table 12* lists the sites, which are potential concern for contamination of soil and/or water. A map indicating the approximate location of these sites is shown in *Figure 8* (Map ID numbers are used multiple times due to the close proximity of sites). Unmappable or orphan sites are not included in the database search due to poor or inadequate address information. A copy of the regulatory data obtained and reviewed for this project and a plotted site map of the regulated facilities is maintained by the TxDOT Dallas District office.

Site No.	PROPERTY NAME	PERTY NAME TYPE OF		OTHER CONCERNS	MAP ID
	AND LOCATION	CONTROLATION		CONCERNS	NUMBER
1	Total 2874- located at NE corner SH 205 @ SH 276 (2255 S. Goliad)	GW impact, PUB/DOM water supply well within 0.25 – 0.5 mi	Case Closed. PST# 46452 LPST# 111404	N/A	12
2	Union 76 Truck Stop- located at SW intersection of SH 205 @ IH 30	No GW impact, no apparent threats or impacts to receptors	Final concurrence case closed LPST# 111951	Five monitoring wells plugged and abandoned in place.	11
3	One Stop 85-located at NW intersection of IH 30 @ SH 205, 2010 S. Goliad (north of Dairy Queen)	GW impacted, no apparent threats or impacts to receptors	Final concurrence issued, case closed LPST# 111798 PST# 54617	Tanks removed from the ground 5/19/99	10
4	Shell Oil Co. Retail Facility-located NE intersection of SH 205 @ IH 30 – 1110 IH 30 & HWY 205	GW impacted, no apparent threats or impacts to receptors	Final concurrence issued, case closed PST# 33198 LPST# 103011	N/A	11
5	Hobby Lobby Previously Wal-Mart Store # 259- 2004 S. Goliad (Bldg 600' W. of SH 205)	No contamination	PST# 58440	Tanks were removed on 3/21/94	10
6	Seven-Eleven – 1100 FM 740	No contamination	Operating fuel station PST# 7456	N/A	7
7	Brakes Plus (Now Brakes USA) - SW corner at SH 205 @ Ross – 802 S Goliad	No violations	Old gas station	N/A	5

Table 12. Hazardous Waste/Substance Sites

Site No.	PROPERTY NAME AND LOCATION	TYPE OF CONTAMINATION	STATUS	OTHER CONCERNS	MAP ID NUMBER
8	Homeboys Grocery - SW corner at SH 205 @ 101 Kenway	No contamination	Removed from the ground 6/15/99	N/A	4
9	Archers Texaco (Now Arch's Car Care) - 306 S. Goliad	Assessment incomplete, no apparent receptors impacted	Preassessment /Release Determination LPST# 114914 PST# 14506	N/A	2
10	Steves Mobil - SE corner at Alamo @ Rusk (112 W. Rusk)	GW Impacted, no apparent threats or impacts to receptors	Final Concurrence Pending documentation of well plugging PST# 12858 LPST# 93464	Tanks were removed on 4/30/92	2
11	Seven-Eleven – 104 W. Kaufman	No contamination	Operating fuel station PST# 44564	N/A	2
12	Rockwall County Tax Office – 101 S. Fannin	No GW impact, no apparent threats or impacts to receptors	Final Concurrence pending documentation of well plugging LPST# 114913	N/A	2
13	Cains Service Station – 101 Fannin	No GW impact, no apparent threats or impacts to receptors	Final Concurrence case closed, PST# 59465 LPST# 114672	N/A	2
14	NAPA Auto Part Store - NE corner at SH 205 @ Storrs (407-A Goliad)	GW impacted, no apparent threats or impacts to receptors	Monitoring PST# 68096 LPST# 109155	N/A	1
15	722 CO New Ess BLDG – 406 E Kaufman St.	No contamination	PST# 19485	Tanks were removed on 12/13/99	2
16	Jons Lube & Tube – 202 N. Fannin	No contamination	PST# 10693	Tanks temporarily out of use 8/31/93	2
17	One Stop 46 – 715 W. Rusk	Impacted GW within 500 ft – 0.25 mi to SW used by humans and endangered species	Final concurrence pending documentation of well plugging, PST# 46667 LPST# 111721	N/A	3
18	Stop N Save – 407 S. Goliad St.	No contamination	PST# 68096	N/A	4

 Table 12. Hazardous Waste/Substance Sites (Cont'd)

Site No.	PROPERTY NAME AND LOCATION	TYPE OF CONTAMINATION	TYPE OF CONTAMINATION STATUS		MAP ID NUMBER
19	Lakeview Dry Cleaners – 811 S. Goliad	Small quantity generator, no impacts	Industrial Hazardous Waste	N/A	5
20	Double SS Farms – 840 HWY 205	No contamination	PST# 3234	Tanks were removed on 10/08/95	6
21	CPC Vending – 1411 S. Goliad	Small quantity generator, no impacts	Industrial Hazardous Waste	N/A	8
22	Rockwall SBC – 201 Industrial Dr	Soil Contamination Only, required full site assessment & RAP	Final concurrence issued, case closed PST# 19129 LPST# 96950	Tanks were removed on 6/11/96	9
23	Racetrac 438 – 2003 S Goliad	Soil contamination only, required full site assessment & RAP	Final concurrence issued, case closed PST# 37840 LPST# 96806	Tanks were removed	10
24	BF Jordan Trucks Inc – 2260 E. I-30	Small quantity generator, no impacts	No Violations found	N/A	11
25	Rockwall Texas Success – 114 North San Jacinto	No contaminate information	Voluntary Cleanup Program Site	Newspaper publishing facility; clean-up completed	2
26	Rockwall Travel Center I30 & SH 205	No GW impact, no apparent threats or impacts to receptors	Final concurrence issued, case closed PST# 41892 LPST# 111951	Tanks removed from ground on 10/05/98	11
27	Speights Chemical Co. 1101 HWY 276	Small quantity generator, no impacts	No violations found	N/A	12
28	2300 S. Goliad	Less than 100 gallons of diesel fuel spilled	The SPILLS Database	No water contamination, clean up complete	12
29	One Stop 148 HWY 276	No contamination	Temporarily out of use PST# 42358	N/A	13

 Table 12.
 Hazardous Waste/Substance Sites (Cont'd)

LPST = Leaking Petroleum Storage Tank; PST = Petroleum Storage Tank; GW = groundwater; SW = surface water; PUB = public; DOM = domestic; RAP = Remediation Action Plan Proposal; N/A = not applicable Source: EDR Report

Fourteen of the 29 sites identified have caused soil contamination. Six of these 14 sites, which caused soil contamination, have also caused groundwater contamination. Three of the groundwater contamination sites are currently still open and corrective actions are underway. The Total Station #4527 is an operating fuel station, located adjacent to the proposed ROW, with a corrective action plan in place since July 25, 1996. The next active site is NAPA Auto Part Store which is located adjacent to the proposed ROW, it has caused groundwater impacts. There are monitors in place to assess the extent of the groundwater

impacts. The final active site is the One Stop # 46 which is not located adjacent to the proposed ROW and would not be affected by ROW acquisition. This site has caused groundwater impacts within 500 feet of a surface water body that is used as a public water source. The site has had a corrective action plan in place since October 3, 1996. The property at 1306 South Goliad Street called Arch's Car Care has had an incomplete an incomplete assessment performed that indicated no apparent receptors had being impacted. All other contamination sites have received final concurrence and are closed cases.

As the plans, specifications and estimate are developed, TxDOT would continue to evaluate the potential for these facilities to affect the proposed project construction. This may require the performance of subsurface investigations, as determined necessary. If impacted soils and groundwater are encountered, then TxDOT would develop appropriate soils and/or groundwater management plans for activities within the project area. The management plans would be initiated in accordance with all applicable federal, state and local regulations.

The "No Build" alternative would not impact hazardous materials because not construction would take place. However, the poor traffic conditions that result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

# S. Items of Special Nature

Federal Aviation Regulation (FAR) Part 77 and Chapter 23 CFR 620.104 describe basic criteria to be applied at public-use and military airports. These standards prescribe required vertical clearances. Specifically, any construction whose height is greater than 100 to 1 slope for a horizontal distance of 20,000 feet from the nearest landing and takeoff area of an airport requires formal notification and coordination between the FHWA and the Federal Aviation Administration (FAA). Rockwall Airport is located on Airport Road, approximately 7,900 feet east from the project area. The proposed improvements to SH 205, within 20,000 feet of the Rockwall Airport, would not physically impact air approach requirements as stated in the FAR and CFR. The proposed project would not exceed FAA standards for airway-highway clearance during construction, and use of the facility. Special airway-highway clearances are not anticipated. Therefore, coordination between the FHWA and the FHWA and the FAA is not required for this project.

There are no other items of special nature or interest such as navigation or airway-highway clearances, special permits, or agreements involved with this project. The project would not affect land or water uses within an area covered by a State Coastal Zone Management Program, nor would it impact coastal barrier resources. Coordination with the U.S. Coast Guard would not be required. The project would not impact any present, proposed, or potential unit of the National Wild and Scenic Rivers System.

The "No Build" alternative would not impact any items of special nature or interest such as navigation or airway-highway clearances, special permits, or agreements involved with this project. However, the poor traffic conditions that result from the heavy traffic volume on SH 205, as well as the high percentage of turning movements from SH 205 onto westbound SH 66 in downtown Rockwall. These conditions are expected to worsen with time, as Rockwall County experiences continued residential and commercial growth. The no build alternative would not remedy the existing traffic problems, and would allow for continued deterioration of traffic flow conditions.

## V. DETERMINATION OF ASSESSMENT

Alternative B-1, Build Alternative, would alleviate current congestion problems and would facilitate a stable traffic flow along the project corridor. The engineering, social, economic and environmental investigations conducted thus far on the proposed project indicate that it would result in no significant impacts on the quality of the human environment; therefore a Finding of No Significant Impact (FONSI) is anticipated.











Source: From U.S.G.S. 7.5 Minute Quadrangle Topographic Map, Rockwall, TX, 1973.

					N				
2000	0	2000	4000	Feet	st SH205: North of SH 66 to SH 276				
					Ŷ	Wetland Determ	ination Observation Point	s	
					Λ	Location Map			
					Ц	FIGURE 3	CSJ NO.: 0451-01-032	DATE: 02/05	

## TXDOT WETLAND DETERMINATION DATA FORM

#### GENERAL

ODITER			KOT AND A SUBMIT AND A SUB A SUBMIT AND A SUB A SUB AND A SU		Same and Arrithman and Asta	
Project	SH 205 EA		Site <sup>*</sup> #	01	Date .	6/24/03
CSI	0451-01-032	Investigator	J. Stewart	County	R	lockwall
Scope	Widen existing	g 2-lane roadway	to 6-lane roadwa	y at this	location.	
	Describ	be Topography of	the Investigation	1 Site		
Gently rolling.						
<i>compb</i>						
Is this site signifi	cantly disturbed	l? How so?	No.			
Is this site a prob	lem area? Why	or Why not?	No; see criteria	results.		
NWI man name	Rockwall	File	name/path	We	etlandDat	ta#.doc

\*See attached NWI map for investigation site locations within the project limits

#### VEGETATION: (list plants by order of dominance)

Dominant Plant Species	Taxonomic Name	Stratum	Indicator	
Cattails	Typha spp.	Н	OBL	
Spike rush	Eleocharis spp.	Н	OBL	
Black Willow	Salix nigra	Sapling	FACW	
Percent Dominant Species Tha	t Are OBL, FACW, FAC		100 %	
Remarks Vegetation of	priteria is met.			

Sketch below depicts an <u>approximate</u> (not to scale) cross-section of the investigation site on the proposed improvements of SH 205 at a depression area east of Lake Ray Hubbard, taken perpendicular to the proposed roadway centerline facing west. Location of soil sample is shown, along with dominant vegetation and other significant topographic features.



# Site # 01 Date 6/24/03

#### HYDROLOGY

Is this s	site inundated? No Dep	oth of wa	ter surface (if applicable) NA
No	Soil Saturated	No	Oxidized Root Channels
No	High Water Marks	No	Water Stained Leaves
No	Debris Lodged Above Ground	No	Sediment Deposits On Plants
No	Drift Lines		Other
Remarl	ts Hydrology criteria is n	ot met.	

#### SOIL

		C.F.M.	. Map	ped Soil (	Condition	1S	States and the second
Soil Name	• A Caretta M	11. A 11.	Typical	Color	Draina	ge Class	Hydric List?
Altoga sil	ty clay, 3 to 1	2	10 YR '	7/3	Soils an	re well drained	No
percent sl	opes, eroded.						
•	•						·
	-						
	te service de trè		🔆 Fie	ld Soil Co	onditions		
Depth	Horizon	Matrix	Color	Mottle	Color	Mottle Abundance	Texture
		10 YR 7	7/3				Gravelly clay
No	Oxidized R	oot Chan	iels	i statistica i	No	Low Chroma Color	S
No	Mineral Concretions		18 18 A	No	High Organic Content		
No	Sulfidic Odor				No	Bright Mottling	
No	Gleying					Other	
Remarks	Soil criteria	is not me	et.				

#### DETERMINATION

DETERMINATION					
Hydrophytic Vegetation present at the investigation site?	Yes	Fluctuating Hydrology?	No	Hydric Soils Present?	No
Is this site a jurisdictional wetland? If not,	explain	n why it is not: 🐳			
No, hydrology and soil criteria are not met	•				
What is the approximate size of the wetlan	d? (if a	pplicable)	5 - 1 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -		1.2.80
NA					
Are there jurisdictional waters associated v	with site	? Identify stream	n nam	e or other descrip	tion.
No, no real drainage area present, just a de	pressio	n.			
Ordinary High Water Mark Elevation		NA			
	Rema	rks	e 162	the surger of the	
	and a second second second		<u>.</u>	<u></u>	

(REVISED JUNE 2000)

# TXDOT WETLAND DETERMINATION DATA FORM

#### GENERAL

ODI (DI (DI (DI (DI (DI (DI (DI (DI (DI (		Charles and Anna and					
Project	SH 205 EA	Site #	02	Date 6/24/03			
CSI	0451-01-032 Investigator	J. Stewart	County	Rockwall			
Scope	Widen existing 2-lane roadwa	y to 6-lane roadw	ay at this	location.			
Deope	Describe Topography	of the Investigatio	n Site 🧹				
Flat area between embankment of overpass and shallow ditch close to railroad.							
Is this site signifi	cantly disturbed? How so?	No.					
Is this site a prob	lem area? Why or Why not?	No; see criteria	a results.				
NWI map name	Rockwall	le name/path	W	etlandData#.doc			
A REAL PROPERTY AND				•			

\*See attached NWI map for investigation site locations within the project limits

# VEGETATION: (list plants by order of dominance)

Dominant Plant Species	Taxonomic Name	Stratum	Indicator		
Hackberry	Celtis laevigata	Τ	FAC		
Switch Grass	Panicum virgatum	Н	FACW		
Giant Ragweed	Ambrosia trifida	Н	FAC		
Poison Ivy	Toxicodendron radicans	V	FAC		
Percent Dominant Species That Are OBL, FACW, FAC					
Remarks Vegetation	criteria is met.				

\_\_\_\_\_

Sketch below depicts an <u>approximate</u> (not to scale) cross-section of the investigation site on the proposed improvements of SH 205 at a depression area east of Lake Ray Hubbard, taken perpendicular to the proposed roadway centerline facing south. Location of soil sample is shown, along with dominant vegetation and other significant topographic features.



#### 6/24/03

# HYDROLOGY

Is this site	mundated? No Dept.	h of wa	ter surface (if applicable) NA
No	Soil Saturated	No	Oxidized Root Channels
No	High Water Marks	No	Water Stained Leaves
No	Debris Lodged Above Ground	No	Sediment Deposits On Plants
No	Drift Lines		Other
Remarks	Hydrology criteria is no	t met.	

#### SOIL

The Carton	1	· 注义了	Map	oed Soil	Condition	1S	S. A. I. P. CR
Soil Name			Typical	Color	Drainag	ge Class	Hydric List?
Ferris-Heiden complex, 2 to 5 percent slopes		10 YR 7	7/3	Soils ar	e well drained	No	
	······ ·······························						
			Fiel	d Soil C	onditions		
Depth	Horizon	Matrix (	Color 👘	Mottle	Color	Mottle Abundance	Texture
		10 YR 7	//3				Gravelly clay
No	Oxidized R	oot Chann	iels	No		Low Chroma Colors	
No	Mineral Concretions		No		High Organic Content		
No	Sulfidic Odor - A + State		2009 l	No Bright Mottling		王 王 王 王 王 王	
No	Gleying					Other	a the second second
Remarks	Soil criteria	is not me	t.				

#### DETERMINATION

Yes	Fluctuating Hydrology?	No	Hydric Soils Present?	No
	the state of the second	MS IF	的学家研究	の時代
, explaii	n why it is not:			1. A. 1967
t.				
nd? (if a	pplicable)			· 建筑在之
with site	? Identify stream	n nam	e or other descrip	otion.
oad trac	ks.			
	NA			
Rema	rks	29.9	初時に対した。	4613
	Yes , explain t. nd? (if a with site oad trac Rema	Yes Fluctuating Hydrology? , explain why it is not: t. nd? (if applicable) with site? Identify stream road tracks. NA Remarks	Yes Fluctuating No Hydrology? No , explain why it is not: t. nd? (if applicable) with site? Identify stream name road tracks. NA Remarks	Yes       Fluctuating Hydrology?       No       Hydric Soils Present?         , explain why it is not:

(REVISED JUNE 2000)

## **TXDOT WETLAND DETERMINATION DATA FORM**

GENERAL						
Project	SH 205 EA		Site #	03	Date	6/24/03
CSL	0451-01-032	Investigator	J. Stewart	County		Rockwall
Scope	Widen existin	g 2-lane roadway	to 6-lane roadwa	y at this	location	l
Deope	Descri	be Topography of	the Investigation	i Site		
Gently rolling ter	rain.					
	A CONTRACT OF A CONTRACTACT OF A CONTRACTACT OF A CONTRACTACT OF A CONTRACT OF A CONTRACT OF A CONTR					

Is this site significantly disturbed? How so? No. Is this site a problem area? Why or Why not? No; see criteria results. File name/path WetlandData#.doc NWI map name Rockwall

\*See attached NWI map for investigation site locations within the project limits

#### VEGETATION: (list plants by order of dominance)

Taxonomic Name	Stratum	Indicator
Cynodon dactylon	Н	FACU
Eleocharis sp.	Н	OBL OBL
Typha sp.	Н	
Rumex crispus	Н	FACW
t Are OBL, FACW, FAC		75 %
riteria is met.		
	Taxonomic Name         Cynodon dactylon         Eleocharis sp.         Typha sp.         Rumex crispus         t Are OBL, FACW, FAC         criteria is met.	Taxonomic NameStratumCynodon dactylonHEleocharis sp.HTypha sp.HRumex crispusHt Are OBL, FACW, FACcriteria is met.

Sketch below depicts an approximate (not to scale) cross-section of the investigation site on the proposed improvements of SH 205 at a depression area east of Lake Ray Hubbard, taken perpendicular to the proposed roadway centerline facing east. Location of soil sample is shown, along with dominant vegetation and other significant topographic features.



## HYDROLOGY

Is this site	inundated? No	Depth	of water	surface (if applicable) NA
No	Soil Saturated		No	Oxidized Root Channels
No	High Water Marks	1 . A	No	Water Stained Leaves
No	Debris Lodged Above Grou	ind N	No	Sediment Deposits On Plants
No	Drift Lines			Other
Remarks	Hydrology cr	iteria is not r	net.	

#### SOIL

	State of the second		Mapp	bed Soil	Condition	S S	
Soil Name	sta i di Aripe	1993 St. 1	Typical	Color	Drainag	e Class	Hydric List?
Ferris-Heiden complex, 2 to 5 percent slopes		10 YR 4	1/1	Soils are	e well drained	No	
ing a state of the state and the state of the			Fie -	ld Soil C	onditions		in <u>i</u> in in
Depth	Horizon	Matrix	Color	Mottle	Color	Mottle Abundance	lexture
		10 YR 4	4/1				Clay
No	Oxidized Ro	oot Chani	nels		Yes	Low Chroma Color	S S
No	Mineral Co	ncretions		C. 1995	No	High Organic Conte	ent de la servicie
No	Sulfidic Od	or 🐳			No	Bright Mottling	是这时的情况上,
No	Gleying		$z + z_{2}$			Other	(学) 基本 A
Remarks	Soil criteria	is not me	et.				

#### DETERMINATION

Hydrophytic Vegetation present at the investigation site?	Yes	Fluctuating Hydrology?	No	Hydric Soils Present?	No
	45 (C)		<u> </u>		
Is this site a jurisdictional wetland? If not No hydrology and soil criteria are not met	<u>, explai</u> t.				
What is the approximate size of the wetlan	ıd? (if a	pplicable)	2. S. R		
NA	with sit	e? Identify stream	n nam	e or other descri	ption.
Drainage area that parallels SH 205. Natu	ıral drai	nage built over.			
Ordinary High Water Mark Elevation		NA			1
	. Rema	ITKS			

(REVISED JUNE 2000)

# TXDOT WETLAND DETERMINATION DATA FORM

#### GENERAL

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Project	SH 205 EA		Site #	04	Date	6/24/03			
CSL	0451-01-032	Investigator	J. Stewart	County		Rockwall			
Scome Widen existing 2-lane roadway to 6-lane roadway at this location.									
Deepe	Descri	he Topography of	the Investigation	n Site					
Flat area adjacen	t to the creek.								
Is this site signifi	cantly disturbe	d? How so?	No.						
Is this site a prob	lem area? Why	or Why not?	No; see criteri	a results.					
NWI map name	Rockwall	File	name/path	. • W	etlandD	ata#.doc			

\*See attached NWI map for investigation site locations within the project limits

# VEGETATION: (list plants by order of dominance)

Döminant Plant Species	Taxonomic Name	Stratum	Indicator
Giant Ragweed	Ambrosia trifida	Н	FAC
Switch Grass	Panicum virgatum	Н	FACW
Hackberry	Celtis laevigata	Shrub	FAC
Curly Dock	Rumex crispus	Н -	FACW
Percent Dominant Species Th	at Are OBL, FACW, FAC		100 %
Remarks Vegetation	criteria is met.		

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Sketch below depicts an <u>approximate</u> (not to scale) cross-section of the investigation site on the proposed improvements of SH 205 at a depression area east of Lake Ray Hubbard, taken perpendicular to the proposed roadway centerline facing south. Location of soil sample is shown, along with dominant vegetation and other significant topographic features.



#### HYDROLOGY<sup>,</sup>

Is this site	mundated? No	Depth of water	r surface (if applicable) NA
No	Soil Saturated	No	Oxidized Root Channels
No	High Water Marks	No	Water Stained Leaves
No	Debris Lodged Above Ground	No	Sediment Deposits On Plants
No	Drift Lines		Other
Remarks	Hydrology criteria	a is not met.	

#### SOIL

	1 A E 1	1. 1. 1. 1.	Map	bed Soil (	Condition	S	
Soil Name		Typical	al Color Drainage Cl		e Class	Hydric List?	
Trinity cla	y, frequently		10 YR 3	3/1	Soils ar	e poorly drained	Yes
flooded	57 1 0						
					ļ	ı	
					ļ		
			<u> </u>				
			Fie	ld Soil C	onditions		
Depth	Horizon	Matrix	Color.	Mottle	Color	Mottle Abundance	Texture
		10 YR :	3/1				Clay loam
No	Oxidized R	oot Chan	nels		Yes	Low Chroma Color	s :
No	Mineral Concretions			No	High Organic Content		
No	Sulfidic Odor			No	Bright Mottling		
No	Gleying	er tra				Other .	的生活。如此是
Remarks	Soil criteria	ı is met.					<u></u>

#### DETERMINATION

Hydrophytic Vegetation present at the investigation site?	Yes	Fluctuating Hydrology?	No	Hydric Soils Present?	Yes		
	1.1				1.1.1		
Is this site a jurisdictional wetland? If not,	, explair	h why it is not:					
No, hydrology criteria is not met.					8		
What is the approximate size of the wetlan	id? (if a	pplicable)			1993 - St		
NA		0.71		and the descent			
Are there jurisdictional waters associated with site? Identity stream name or other description.							
Drainage area that parallels SH 205. Natu	ral drair	nage built over.					
Ordinary High Water Mark Elevation		Approximately 1 OHWM.	2 feet	from OHWM to	)		
Remarks							

(REVISED JUNE 2000)



Source: From U.S.G.S. 7.5 Minute Quadrangle Topographic Map, Rockwall, TX, 1973.

				N				
2000	0	2000	4000	Feet	SH205: North of SH 66 to SH 2		orth of SH 66 to SH 276	
				Ĩ		U.S. Geological Survey Quadrangle Map		
				Ц		FIGURE 4	CSJ NO.: 0451-01-032	DATE: 02/05

	Figure 5.	Federal and St	tate Listed Threat	ened/Endangered S	becies in <b>R</b>	<b>Rockwall County</b> *
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	Species	Federal	Federal         State         Description of Suitable Habitat         Ha			Habitat Species Pertinent Project				
		Status	Status	Present Effect Info			Information			
	Arctic Peregrine Falcon Falco peregrinus tundrius	DL	Т	Nests in tundra regions; migrates through Texas; winter inhabitant of coastlines and mountains from Florida to South America. Open areas, usually near water.	N	Ν	Suitable habitat is not present.			
	Bald Eagle Haliaeetus leucocephalus	LT- PDL	Т	Nests and winters near rivers, lakes and along coasts; nests in tall trees or on cliffs near large bodies of water.	N	N	Suitable habitat is not present.			
	Interior Least Tern Sterna anitllarum athalassos	LE	E	Nests along sand and gravel bars within braided streams and rivers; also known to nest on man-made structures.	N	N	No sandy or gravel-type areas exist. Suitable habitat not present.			
sb.	White-faced Ibis <i>Plegadis chihi</i>	—	Т	Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.	N	Ν	Species not observed during site visit; habitat not suitable.			
Bire	Whooping Crane Grus americana	LE	Е	Estuaries, prairie marshes savannah, grasslands, croplands pastures- winter resident at Aransas NWR, Aransas and Matagorda.	Possible migrant to the area.					
	Wood Stork <i>Mycteria americana</i>	_	Т	Forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds; breeds in Mexico and birds move into the Gulf states in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960.	N	Ν	Possible migrant to the area.			
Reptiles	Texas Horned Lizard Phrynosoma cornutum	_	Т	Open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; sandy to rocky soil.	N	N	Suitable habitat is not present.			
	Timber/Canebrake Rattlesnake Crotalus horridus		Т	Swamps, floodplains, upland woodlands, riparian zones, abandoned farmland; prefers dense ground cover, i.e. grapevines or palmetto.	Y	Ν	Project area within 100-year floodplain, however species not detected during site visit.			
E, I PT, DL,	E, LT - Federally Listed Endangered/Threatened       E, T - State Endangered/Threatened         PT, C - Federally Proposed Threatened, or Candidate Species       "—" - Species of Concern, but with no regulatory listing status         DL, PDL - Federally Delisted/Proposed Delisted       "Data Sources: U.S. Fish and Wildlife Service, Texas Parks and Wildlife									

#### Figure 5-A – TEXAS DEPARTMENT OF TRANSPORTATION DALLAS DISTRICT STANDARDS FOR WOODLANDS MITIGATION

In accordance with the Memorandum of Understanding between TxDOT and the Texas Parks and Wildlife Department (TPWD), mitigation should be provided when TxDOT construction activities remove significant amounts of riparian woodlands or other natural plant communities. The following information shall be used to develop mitigation plans for loss of woody vegetation. Ordinarily, mitigation plans shall replace lost vegetation on an acre-per-acre basis (i.e., one acre replanted for each acre removed), not on a plant-per-plant basis. The exact species composition given in the table below may be adjusted due to commercial availability or site specifics; however, the total number of plants shall remain at 30 large trees and 60 small trees/shrubs per acre (90 plants per acre). Only those plants listed below shall be used, unless approved by Dallas Advance Project Development (and TPWD).

Species	Spacing	Quantity	Remarks
Large Trees			
Bur Oak (Quercus macrocarpa)	30-35 ft. o.c.	10 per acre	
Chinkapin Oak (Quercus muehlenbergii)	30-35 ft. o.c.	5 per acre	
Shumard Red Oak (Quercus shumardii)	30-35 ft. o.c.	5 per acre	Check branching structure to avoid Pin Oak hybrids.
Pecan (Carya illinoensis)	30-35 ft. o.c.	10 per acre	Use native variety if available. Plant B&B trees from Jan. 15 to Mar. 15, containerized from Sep. 15 to Apr. 15.
Small Trees/Shrubs			
Possumhaw Holly (Illex deciduas)	15-20 ft. o.c.	12 per acre	Specify female plants (3:1)
Mexican Plum (Prunus mexicana)	15-20 ft. o.c.	12 per acre	
Common Persimmon ( <i>Diopyros</i> virginiana)	15-20 ft. o.c.	12 per acre	Specify female plants (3:1)
Carolina Buckhorn (Rhamnus caroliniana)	15-20 ft. o.c.	12 per acre	
Flameleaf Sumac (Rhus lanceolata or Rhus copallina)	15-20 ft. o.c.	12 per acre	Specify female plants (3:1)

Large trees shall be 3.81 cm to 5.1 cm (1.5 in to 2 in) caliper at planting; small trees and shrubs shall be 1.8 m to 2.4 m (6 ft to 8 ft) in height at planting. Standard TxDOT planting details shall be used. A maintenance period lasting at least one full growing season shall be specified for all mitigation plantings. Maintenance shall include: supplemental watering of all plants; maintaining an 20 cm (8 in) layer of mulch on all plantings; replacement of all dead plants at the end of the maintenance period. Whenever possible, planting should be scheduled during the fall of the year to improve the survival rate. Additional information is available through Dallas District landscape architect.





