



Texas Division Office  
300 E. 8<sup>th</sup> Street, Rm. 826  
Austin, Texas 78701

October 12, 2007

In Reply Refer To:  
HA-TX

SH121  
From FM 423 to US 75  
CSJ: 0364-03-067, 0364-03-066, etc.  
Denton and Collin Counties

Ms. Dianna F. Noble, P.E.  
Director, Environmental Affairs Division  
Texas Department of Transportation  
125 E. 11<sup>th</sup> Street  
Austin, Texas 78701

Dear Ms. Noble:

We have thoroughly reviewed our records on this project which include, but are not limited to, the EA/FONSI's for this corridor dated November 22, 1991, and April 20, 2006, re-evaluation documentation dated October 17, 2002, and April 7, 2006, (for the 1991 document) and all the public comments and responses to the re-evaluation. Based on this review, which is fully explained in the enclosed Reevaluation Decision Memorandum, we have determined that since no new significant impacts have been identified, no new or additional NEPA documents are required.

We approve the re-evaluation of October 2007.

Sincerely,

Salvador Deocampo  
District Engineer

Enclosure

AMERICAN  
ECONOMY

**Federal Highway Administration  
Re-evaluation Decision Memorandum  
State Highway 121  
From FM 423 to US 75  
Denton and Collin Counties**

**Introduction**

The purpose of this memorandum is to document and summarize the decision by the Federal Highway Administration (FHWA) regarding the Re-evaluation for tolling State Highway (SH) 121 in Denton and Collin Counties, Texas. This memorandum considers the conclusions found in the 1991 Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) covering SH 121 from Farm to Market (FM) 423 to United States Highway (US) 75, the 2006 Environmental Assessment and FONSI covering the construction of the interchange between SH 121 and US 75 and the subject October 2007 Re-evaluation for the tolling of SH 121 (covering both project limits) prepared by the Texas Department of Transportation (TxDOT) and submitted to FHWA for consideration.

Based on FHWA's independent review and consideration of the Re-evaluation for the proposed SH 121 toll facility dated October 2007, the SH 121 Environmental Assessment and FONSI dated April 20, 2006, the SH 121 Environmental Assessment and FONSI dated November 22, 1991, as well as the Public Hearing Summary and analysis (which includes responses to public comments) and various other environmental studies and technical reports and materials which make up the administrative record for the SH 121 project; FHWA concludes that, under the 23 Code of Federal Regulations (CFR) Section 771.129(c) and FHWA Texas Division Office Policy Memorandum "Policy for Planning, Environment and Project Development for Toll Roads" dated December 10, 2004, no further or additional environmental studies or documentation will be required for the SH 121 from FM 423 to US 75 project for the proposed Tolling Action. In sum, FHWA finds that:

1. All findings contained in the prior environmental approvals remain valid, as amended and updated to current guidance and regulations per this re-evaluation. Prior environmental approvals include the reconstruction of a two lane road to ultimately provide a six-lane access-controlled highway with six-lane frontage roads (three in each direction) and the reconstruction of the interchange between SH 121 and US 75. For these actions, FHWA determined that the projects will not have significant impacts on the natural and human environment.
2. The modifications needed to complete the proposed Toll Project and to operate it as a Toll would not cause significant direct or indirect impacts over and above those considered and disclosed in the previous environmental approvals and current re-evaluation (which include but are not limited to noise, traffic redistribution, environmental justice and air quality assessments); and
3. The modifications needed to complete the proposed Toll Project and to operate it as a Toll as disclosed in the current re-evaluation would not cause any significant cumulative impacts—when added to other past, present and reasonably foreseeable future actions—to any natural resources, land use concerns, community issues, or any other resources.

### Project Background

SH 121 is a proposed controlled-access transportation facility which has been in various stages of planning, design, and construction since the mid-1980s. This document is the re-evaluation of previous environmental documents to assess the potential effects of tolling the portion of SH 121 that extends from the Dallas North Tollway (DNT) to US 75, including the SH 121/US 75 interchange. The study limits of the proposed project which is the subject of this re-evaluation extend from FM 423 to the SH 121/US 75 interchange. The proposed project requires the reconstruction of an existing two-lane roadway to ultimately provide a six-lane access-controlled highway (three access-controlled lanes in each direction) with six lanes of frontage road (three lanes in each direction). The project will also include reconstruction of the SH 121/US 75 interchange.

The purpose of the SH 121 project is to improve system linkage and mobility in the area. The need is to respond to on-going growth of commercial and residential development along and near the SH 121 corridor. SH 121 has been and will continue to be a major travel corridor in the area. Since the approval of the 1991 and 2006 EA/FONSIs, the Regional Transportation Council of the North Central Texas Council of Governments has determined that toll financing should be used to fund the SH 121 improvements.

There are multiple environmental approvals associated with the SH 121 project in both Denton and Collin Counties. Below is a description of each environmental approval for SH 121, beginning with the original environmental approvals and then turning to the environmental approvals conducted to assess impacts related to tolling portions of SH 121.

### Original Environmental Approvals

*Limits: FM 423 to US 75*

There are four environmental approvals related to these project limits. The limits of each of these approvals are represented by the turquoise line in Figure 1. The approvals are as follows:

- November 22, 1991: Environmental Assessment (EA)/Finding of No Significant Impact (FONSI)  
The proposed improvements evaluated in the above stated documents, other than SH 121 from West of Ohio Drive (Dr.) to East of Hillcrest Road (Rd.), included the construction of a total of 6 mainlanes (3 lanes in each direction) and 6 frontage road lanes (3 lanes in each direction) from FM 423 to US 75. TxDOT held a public hearing on October 23, 1990. This approval is represented by the turquoise line in Figure 1.
- June 3, 1999: Notice of Continuous Activity submitted to FHWA  
The purpose of the Notice of Continuous Activity is to document that continuous activity had taken place and there were no changes in design, land use or impacts. The Notice of Continuous Activity was received by FHWA on June 3, 1999.
- October 17, 2002: Re-evaluation of 1991 EA/FONSI  
The October 2002 FONSI Re-evaluation was to document changes in the design and affected environment since FHWA approval of the EA in 1991, assess impacts associated

because the section from IH 35E to Hebron Pkwy was previously built and opened to traffic, therefore it must remain non-toll. The limits are from east of IH 35E (where the frontage roads tie into the IH 35E frontage roads) to the Hebron Parkway exit (signed as "Last free exit"). The FONSI Re-evaluation received FHWA clearance on April 14, 2006.

### Current Toll-related Environmental Approval

Because the possible effects of tolls on that portion of SH 121 which runs from FM 423 to the DNT was previously analyzed in the toll-related re-evaluation mentioned above, this document analyzes the potential effects of tolls on the mainlanes of SH 121 that run from the DNT to the SH 121/US 75 Interchange in Collin County, Texas. However in order to effectively analyze environmental impacts, this document examines effects from FM 423 to the SH 121/US 75 Interchange, the limits that were analyzed in the previous EAs for which the 1991 and 2006 FONSI were issued. The toll limits of this document are represented by the yellow line in Figure 1.

### SH 121 Proposed Design & Construction Update

Acquisition of right of way (ROW) began after approval of the original EAs and is now 100 percent complete. Table below lists the current SH 121 construction status. The section of the roadway extending from DNT to east of Hillcrest Rd. is now under construction and expected to be open to traffic in 2007. The section from east of Hillcrest Rd. to US 75 and the interchange reconstruction (SH121 at US75) are pending construction and, if approved as a toll facility, would be expected to be open in 2011 and 2015 respectively.

Construction Limits	Approximate Percent Complete	Estimated Construction Completion Date
FM 2281 to DNT	74%	2007
DNT to East of Hillcrest Rd.	93%	2007
West of Ohio Dr. to East of Hillcrest Rd.	39%	2009
East of Hillcrest Rd. to US 75	Mainlanes - 0%	2011
	Frontage Roads - 100%	Complete
SH 121 at US 75 Interchange	0%	2015

The proposed Toll Project calls for the main lanes of SH 121 to be tolled, while the frontage roads would remain non-tolled. No additional ROW would be required to accommodate tolling nor would tolling result in changes to the location, design, or footprint of the roadway. Construction of "gantries" would be necessary to support the toll collection equipment. Tolls would be collected using an electronic tolling collection (ETC) system, in which transactions would be recorded through toll gantries positioned at certain main lane and ramp locations. Gantries are structures that resemble the sign-bridges typically found along Texas highways.

### Re-evaluation Process Description

A re-evaluation assesses significance and discloses impacts that are generated due to a change in the

with those changes, and reaffirm the validity of the FONSI as appropriate. Changes in design were due to a reduction of the roadway footprint in the area near Plano Parkway. The FONSI Re-evaluation received FHWA clearance on October 17, 2002.

- April 7, 2006: Re-evaluation of 1991 EA/FONSI (Hillcrest Interchange)  
The FONSI Re-evaluation for SH 121 from West of Ohio Drive to East of Hillcrest Rd. addressed the need for a design change (jug-handle overpass) at the intersection of SH 121 and Ohio Drive. Meetings with affected property owners were documented and submitted to TxDOT's Environmental Affairs Divisions (ENV) on January 26, 2006. The new overpass was evaluated and the FONSI Re-evaluation was approved by FHWA on April 7, 2006.

*Limits: SH 121/US 75 Interchange*

This portion of the SH 121 project has only one prior environmental approval:

- April 20, 2006: EA/FONSI  
The proposed improvement evaluated in this document was the construction of a fully directional interchange at SH 121 and US 75. TxDOT held a public meeting on April 8, 2003 and a public hearing on October 6, 2005. The project received a FONSI on April 20, 2006. This interchange approval is shown as the red line on Figure 1.

#### Previous Toll-related Environmental Approvals

One environmental assessment<sup>1</sup> and one re-evaluation were written to address the consideration of tolling of the mainlanes of SH 121. SH 121 was approved to be constructed as an electronic toll facility from 0.23 mile west of Business SH 121 to DNT. TxDOT held public meetings on June 14 and 16, 2005 and a public hearing was held on July 25, 2005. The projects received FHWA approval on April 14, 2006.

The documents for toll include the following:

*Limits: 0.23 mile west of Business SH 121 to east of MacArthur Blvd. (Lewisville)*

- April 14, 2006: EA/FONSI  
It is represented by the pink line in Denton County in Figure 1.

*Limits: east of MacArthur Blvd. to U.S. 75  
(Construction and tolling limits from east of MacArthur Blvd. to DNT)*

- April 14, 2006: Re-evaluation of 1991 EA/FONSI  
This document is represented by the navy blue line which runs from east of IH 35E near the Dallas/Denton County line to just east of the Collin County line in Figure 1. Note that a portion of SH 121, from IH 35E frontage roads to Hebron Parkway, is not tolled. This is

<sup>1</sup> This document is a federal Environmental Assessment. Previously, a State EA had been completed, but because federal funds were implicated in the proposed tolling, federal regulations required the preparation of a new, federal Environmental Assessment.

project as disclosed in the original environmental document and subsequent approvals. A re-evaluation, although its focus is on the change to the project, must assess whether or not that change alters the original decision in context and intensity (i.e. significance) of the impacts previously disclosed. When a change to a project that received previous environmental clearance occurs, "consultation" with FHWA is required under 23 CFR 771.129(c). For this specific project, FHWA determined that the preparation of a written re-evaluation (usually only required for EISs) was more appropriate since we would be able to examine the two previously approved actions and the proposed Toll Project action in total. The change under investigation and analysis in the subject re-evaluation for SH 121, is limited to tolling the mainlanes of SH 121 from DNT to SH 121 at the US 75 interchange. The tolling of SH 121 from FM 423 to US 75 would also accelerate the opening of the same section of the facility by 9 to 18 years.

This re-evaluation was done in accordance with FHWA Texas Division Toll Policy memorandum "Policy for Planning, Environment and Project Development for Toll Roads" dated December 10, 2004 that states: "... additional environmental studies would be necessary to determine whether or not the tolling results in significant impacts. Further, additional Public Involvement would be needed since the project was originally presented to the public as a non-toll facility." This policy memorandum serves as direction for FHWA and TxDOT regarding consideration of tolling after the completion of the original environmental action, in this case, the 1991 and 2006 FONSI's.

#### **Public Involvement (Meetings and Hearing)**

One public meeting and one public hearing (in compliance with FHWA Texas Division Toll Policy), were held to inform and solicit input from the public about the proposed tolling of SH 121 from FM 423 to US 75 (for the Collin county action). The public meeting was held on July 25, 2006 in Plano, Texas, at the Plano Centre. Drawings of the conceptual toll plan were available at the meeting, at which 99 citizens and four elected officials registered attendance. Previously approved documents (EAs and Re-evaluations) were also available for inspection at the public meeting and hearing. Four citizens made oral comments at the meeting, and 23 citizens made written comments. Issues of concern included the cost of the tolls, who would manage the toll facility, air and noise pollution, and alternative non-toll routes. A public meeting summary of this meeting was developed by TxDOT and is part of FHWA's administrative record.

A public hearing was held on February 26, 2007 at Legacy Church in Plano, Texas. Plans, maps, and exhibits illustrating the proposed tolling implementation in addition to the re-evaluation document were available for public review and comment during the open house period which was followed by a formal presentation. Seventy-seven citizens attended the hearing at which five citizens made oral comments and three written comments were received. A 10-day comment period followed the hearing; in total, 294 comments were received on the project. Nine written comments were submitted by elected/local officials from the McKinney Chamber of Commerce, City of Frisco, City of Plano, City of Allen, and Collin County;

Comments were identified, classified, summarized and addressed into twelve broad categories of substantive comments in the Public Hearing Comment and Response Report: Project Comments, Selling of SH 121, Funding, Tolling Concerns, Public Involvement, Tolling Process, Design, General (Other) Comments, Environmental Re-evaluation, Traffic, Air Quality/Pollution, and Environmental Justice. No specific project design or policy changes were made by TxDOT due to public comment.

The following substantive questions/topics were identified from the categories and sub categories

listed above. The topics included Environmental Justice, Air Quality, Traffic Level of Service (LOS)/Traffic Redistribution, and Electronic Toll Collection (ETC) subjects/issues. A brief summary of the response and the analysis performed in response to these topics are detailed in the Public Hearing Comment and response document. The re-evaluation document was revised to reflect the results of the additional analysis performed and is referred to as the in the report. Specifically an Origin and Destination analysis, regional plus or minus 5 percent affected transportation network link-by-link quantitative Mobile Source Air Toxics (MSAT), and Traffic Redistribution/LOS analysis were performed. Overall, the results of these analyses resulted in confirmation of all previous conclusions reported in the 2007 Re-evaluation.

Additionally, TxDOT either hosted or attended 49 meetings from October 2005 to June 2007 regarding SH 121, with local officials and entities, including Collin County, the cities of Plano, Frisco, Allen, and McKinney, the Town of Fairview, the North Texas Tollway Authority (NTTA), and the Regional Transportation Council (RTC). Topics discussed in these meetings included: Toll Feasibility, Study of Funding Options, Discussions on Local Government Corporation, Review of Delivery Options, Review of Finance and Delivery Options, Reviews and Discussions on NTTA to Finance and Deliver, Comprehensive Development Agreement (CDA) Task force meetings (CDA Procurement, Schedules, Contract Overview, and Near Neighbor/ Near Timeframe projects), CDA Overview, CDA Value and Contract Requirements, and Presentation of Tolling Procedure Status. Although most of these topics were outside the scope of this pending decision on tolling, information and responses were provided to inform the public. FHWA's decision on tolling is not altered as a result of this other information that is not relevant to the decision at hand. In an effort to maintain full disclosure about the proposed tolling action of SH 121 from FM 423 to US 75, information presented at the July 2006 public meeting and the February 2007 public hearing were also available to the public at <http://keepitmovingdallas.com> and at the TxDOT Dallas District Office.

### **Results of the Re-evaluation**

The October 2007 Re-evaluation documents how FHWA considered and analyzed the potential social, economic, and environmental impacts related to tolling portions of SH 121 from FM 423 to US 75. Electronic Toll Collection (ETC) was evaluated because of the smaller footprint it requires, since no toll booths are proposed which also lessens the potential impacts from lighting toll plazas, reduces potential noise impacts from vehicles decelerating and accelerating, reduces potential air pollution (CO) from the same action and improves the LOS on the facility due to the ability to toll while operating at highway speeds. As previously stated, no additional ROW would be required to accommodate tolling nor would tolling result in major changes to the location, design, or footprint of the roadway. The ETC system would require the construction of "gantries", structures which will support the equipment needed to operate the ETC (similar to those used to place overhead signs). The October 2007 Re-evaluation specifically examined the impacts of tolling the mainlanes of SH 121 from FM 423 to US 75 including gantry installation, which were not originally considered in the 1991 and 2006 FONSI's. The October 2007 Re-evaluation focused especially on traffic diversions; air quality impacts; traffic noise; environmental justice; and the indirect and cumulative impacts of tolling.

### **Direct Impacts**

The proposed Toll Project direct impacts are related to air quality, traffic noise, socio-economic impacts, and traffic operations. Summaries of each resource are provided below:

### *Air Quality*

#### Traffic Air Quality Analysis (TAQA) – Carbon Monoxide (CO)

The CO concentrations for the Build-toll and Build-non-toll scenarios were modeled using CALINE3 and MOBILE6.2 and factoring in adverse meteorological conditions for receptors at the ROW line in accordance with the *TxDOT 2006 Air Quality Guidelines*. Local concentrations of CO are not expected to exceed National Ambient Air Quality Standards (NAAQS) at any time.

#### Transportation Conformity – Ozone (O<sub>3</sub>)

The proposed toll project is located in Collin County which has been designated non-attainment for ozone by the U.S. Environmental Protection Agency (EPA) in accordance with the 8-hour ozone standard. As such the transportation conformity rule applies. The proposed toll project is consistent with the Dallas-Fort Worth area's Mobility 2030 – Metropolitan Transportation Plan (MTP) and the amended FY 2006-2008 Transportation Improvement Program (TIP) that were found to conform to the State Implementation Plan (SIP) by FHWA and Federal Transit Administration (FTA) on June 12, 2007.

#### Mobile Source Air Toxics (MSATs)

An MSAT analysis was conducted for the proposed toll project in accordance with the *TxDOT 2006 Air Quality Guidelines*. The analysis indicates that MSAT emissions for the 2007 base year affected network are .286 tons/day; and MSAT emissions for the 2030 design year build-non-toll and build-toll affected network are .140 and .139 tons/day respectively. This represents a 51 percent decrease in MSAT emissions for the build-non-toll and build-toll scenarios. Vehicle Miles of Travel (VMT) on the affected network are expected to increase from 7,967,693 in the base year to 15,375,084 in the 2030 build-non-toll scenario and 15,268,964 in the 2030 build-toll scenario, representing a 93 and 91 percent increase VMT respectively.

The MSAT discussion also identified sensitive receptors (e.g., hospitals, schools, licensed day-care facilities, adult care facilities) within 100 m and 500 m of the proposed toll project. This review identified three sensitive receptors located within 100 m and six sensitive receptors located within 500 m. A listing of these sensitive receptors is presented in Table 5.6 of the re-evaluation document.

The results of the MSAT emissions analysis are consistent with expectations that EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions in MSAT emissions that, in almost all cases, will cause MSAT levels to be significantly lower than today.

### *Traffic Noise*

This re-evaluation included an analysis of the potential effects of the redistribution of traffic on SH 121 from tolled mainlanes to non-tolled frontage roads. These effects were determined by the associated change (increase or decrease) in sound pressure [noise] levels expressed in decibels (dB). Although the toll facility would result in an increase in the average daily traffic (ADT) on the non-tolled frontage roads, any increase in noise levels associated solely with an increase in traffic on the frontage roads would be offset by the greater decrease (ADT) in faster (louder) traffic on the tolled mainlanes. The result would be an overall decrease in noise levels for areas along/adjacent to SH 121.

### *Socio-Economic Impacts*



### Access

Access to the mainlanes of SH 121 would be limited to those who can only on occasional basis afford to pay and those who elect to pay the toll. The SH 121 frontage roads would include a total of six travel lanes (three in each direction) and would provide a non-toll alternative. Under normal operating conditions, motorists (including emergency vehicles) using the frontage roads would experience longer travel times than motorists using the tolled mainlanes due to a lower posted speed limit and traffic signals along the frontage roads.

### Methods of Toll Charge Collection

TxDOT TxTag® stickers, the NTTA TollTag® (Dallas area), and the Harris County Toll Road Authority (HCTRA) EZ TAG® (Houston area) would be accepted on the SH 121 ETC facility. Toll charges could be automatically deducted from a prepaid credit account or would be mailed as a monthly statement to the driver if the video billing method is utilized. If the driver has a TxTag® or other toll transponder account, the tolls would automatically be deducted from the account when the facility is used. The account would be a prepay account which means the driver must maintain sufficient funds in his/her account to cover incurred toll charges, such as for accounts currently in use for existing toll roads.

Not maintaining a prepaid account would impact any user, including low-income users, because the cost of paying the accumulated toll charges without an account would represent a higher toll rate than toll charges affiliated with a prepaid account. Through a system known as video billing, it would still be possible to drive the mainlanes of SH 121 without an electronic toll transponder or prepaid user account. The user's license plate would be recorded and matched to the State's vehicle registration file, and a monthly bill would be mailed to the registered owner of the vehicle for the accumulated toll charges. The toll rates for drivers without a toll transponder would include an additional percentage toll rate premium plus an incidental administrative fee commensurate with the costs related to processing the vehicle registration information.

Cash payment options are available for each payment method; however, only those users who maintain automatic and manual pay prepaid accounts would benefit from reduced toll rates compared to the video billing policy. In summary, toll rates are generally one-third more for drivers who do not have an electronic toll transponder to offset the costs related to processing the license plate information associated with video billing. Although certain toll transponder account holders are required to pay up-front fees or deposits for toll transponders (\$9.65 fee per transponder for TxTag® accounts and \$25 deposit for TollTag® "cash users" accounts), the toll transponder account holders would benefit from lower toll rates compared to the total toll rates associated with video billing. In other words, the up-front fees associated with toll transponders may be offset through time when considering the premium and processing fees affiliated with the video billing method of payment.

### Environmental Justice

The E.O. 12898 term "disproportionately high and adverse effect" considers the totality of significant individual or cumulative human health or environmental impacts on low-income populations. In general, the economic impact of tolling has the potential to be higher for low-income users because the cost of paying tolls will represent a substantially higher percentage of household income than for

non-low-income users. In addition, toll collection methods, as discussed in the previous section, can also serve to restrict access to the facility or disproportionately burden low-income populations because of a lack of credit or the inability to maintain a prepaid account.

The scope and intensity of these impacts depend on a variety of factors including the availability and use of transit and other modes in the area, the availability of non-toll facilities, how the toll revenues will be used, the access provided by the facility to critical destinations (e.g. employment, schools, hospitals, etc.), the cost of the tolls, etc. For this project there are several factors which will mitigate potential adverse effects. First, an origin & destination (O&D) analysis performed by the region's travel demand model indicates that a substantial majority of users projected to utilize the toll facility would not originate from traffic analysis areas (TSZ) identified as having majorities of environmental justice populations. Specifically, only 5.4% of all trips are estimated to originate or terminate in a travel analysis zones having a majority EJ population. This is due, in part, to the low concentrations of minority and low-income populations in the project's corridor. In addition, while they offer slower travel times, the project will also include 6 non-toll frontage roads.

There are also potential benefits associated with the proposed Toll Project that must be considered when assessing the overall impact. Benefits include improved system linkage and mobility in the corridor, the acceleration of other infrastructure improvements in the region, and the potential use of toll revenues for other transportation projects including transit.

Based on the overall assessment of the potential effects on EJ populations, there does not appear to be a disproportionately high and adverse impact associated with the proposed Toll Project.

#### *Traffic Redistribution*

A comparison of non-toll and toll traffic volumes was done to determine the extent of traffic redistribution due to the proposed Toll Project. The proposed Toll Project Limits were divided into three sections according to current development and usage: 1) DNT to Coit Rd., 2) Coit Rd. to Alma Dr., and 3) Alma Dr. to the SH 121 at US 75 interchange. Analysis of the average daily traffic revealed that approximately 7 percent of the mainlane volume (10,000 vehicles per day) between DNT and Coit Rd. would be redistributed to the frontage road/local arterial system due to the proposed Toll Project. Between Coit Rd. and Alma Dr. approximately 29 percent of the mainlane vehicles (41,200 vehicles per day) redistributed to the frontage roads and local transportation network. Finally, the section between Alma Dr. and US 75, approximately 28 percent of the mainlane traffic (39,400 vehicles per day) would be redistributed to the frontage roads and local transportation network.

Sixteen local arterials were analyzed for changes in volume between toll and non-toll scenarios. The average increase in traffic volume per link was 3.61 vehicles during the AM peak period. The largest increase in volume (386 vehicles) occurred on Ridgeview Dr. between Custer Rd. and Exchange Pkwy. and the largest decrease (251 vehicles) occurred on Preston Rd. at SH 121. Similarly, the PM Peak Hour revealed an average increase of 16.34 vehicles per link. The largest increase in traffic volume (373 vehicles) occurred on Ridgeview Dr. between Alma Rd. and Stacy Rd. and the largest decrease in traffic (151 vehicles) occurred on Exchange Pkwy. between Ridgeview Dr. and Alma Rd.

Overall, the redistribution of traffic is evenly dispersed along the local transportation network and no single roadway encounters substantial increases in vehicular traffic.

### **Indirect Impacts**

TxDOT followed the NCHRP Report 466 "Desk Reference for Assessing the Indirect Effects of Proposed Transportation Projects" to evaluate the indirect impacts associated with the subject project. The potential Toll Project indirect impacts are related to community issues, including environmental justice populations. Community related impacts studied included effects to air quality, public facilities and services, traffic operations, traffic noise, and environmental justice populations. Summaries of each resource are provided below:

#### *Air Quality*

The proposed Toll Project would result in some redistribution of traffic within the indirect impacts study area as drivers who choose not to pay the toll, those who can only on occasional basis afford to pay and those who seek non-tolled alternatives via other area roadways would use other routes. Traffic would redistribute to the arterials in the adjacent municipalities. To the degree that this redistribution would result in increased congestion, slower speeds or increase idling conditions, the proposed Toll Project would result in indirect air quality impacts. However, as vehicles become more efficient and emissions are reduced, any adverse impacts of the proposed Toll Project and redistribution of traffic would be expected to decrease over time.

#### *Public Facilities and Services*

The potential for adverse indirect impacts to the 15 public facilities located within the indirect effects study area (six fire facilities, one government building, four hospitals, two police facilities, and two post offices) is not anticipated as transportation improvements are typically intended to improve congestion, mobility and access.

#### *Traffic Operations*

The LOS comparison derived from the NCTCOG 2030 traffic volumes and Complete Performance Report reflecting the SH 121 non-toll and toll scenarios reveals minimal decrease in the frontage road LOS due to changes in traffic patterns and minimal decrease in the LOS in the adjacent transportation network. Additionally, the analysis reveals slight improvements in the congestion delay experienced and average free speeds along the local transportation network.

#### *Traffic Noise*

An analysis was conducted to determine the potential impacts the proposed Toll Project would have on noise levels within the municipalities adjacent to SH 121. These effects were based on the amount of change (increase) in noise levels that would result from the redistribution of traffic onto collectors and minor arterials within these municipalities. According to TxDOT's Guidelines for Analysis and Abatement of Highway Traffic Noise which FHWA approved June 1996, a noise level change of 3 dB is barely perceptible to the human ear. The average traffic noise level change (increase) in each municipality would be well below 1 dB and; therefore, there would be no associated, perceptible indirect effects and no mitigation would be warranted.

### **Cumulative Impacts**

TxDOT followed their guidance titled "Interim Guidance for Assessing Indirect and Cumulative Impacts dated 12/2006. The potential Toll Project cumulative impacts are related to community resources. Community related impacts studied included effects to traffic operations, traffic noise, air quality (resource), lighting and visual impacts, socio-economic impacts, economic impacts of tolling,

and environmental justice (resource). Summaries of each resource are provided below:

#### *Air Quality*

Improvement in the regional transportation system and facilities should serve to reduce congestion on a regional scale.

The proposed project and the other reasonably foreseeable transportation projects included in the MTP and the TIP and have been determined to conform to the SIP. The Dallas Fort Worth (DFW) region is expected to continue to experience substantial population growth, urbanization, and economic development. The cumulative impact of reasonably foreseeable future growth and urbanization on air quality would be minimized by enforcement of federal and state regulations, by the EPA and TCEQ, which are mandated to ensure that such growth and urbanization would not prevent compliance with the ozone standard or threaten the maintenance of the other air quality standards.

It is expected that EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time result in substantial reductions of on-road emissions of CO, MSATs and ozone precursors (volatile organic compounds and nitrogen oxides).

#### *Community*

Cumulative effects of the following community resources were analyzed: air quality, lighting and visual effects, socio-economic effects, economic impact of tolling, environmental justice, traffic operations, and traffic noise. No significant impacts to community resources in terms of air quality, lighting and visual effects, socio-economic effects, economic impacts of tolling, environmental justice, traffic redistribution, noise levels, or traffic operations are anticipated.

#### *Environmental Justice*

The anticipated 2030 transportation network for North Central Texas (also calculated in mainlane lane-miles) would consist of approximately 8,569 mainlane lane-miles, of which 30 percent (approximately 2,542 lane-miles), are proposed to be tolled. The 8,569 mainlane lane-miles is comprised of 5,034 free lane-miles, 2,542 tolled lane-miles, and 993 managed lane-miles. It should be noted that some of these 993 managed lane-miles may be tolled or non-toll. The anticipated increase of tolled mainlanes from 11 to 30 percent is indicative of an emerging regional tolling network.

The economic impact of tolling would be higher for low-income residents since the cost of paying tolls would represent a higher percentage of household income than for non-low-income households. Non-toll alternatives would be available to all travelers, including low-income populations, via frontage roads (when available) and local arterials. The use of these alternative non-toll routes may result in a difference in time travel due to a lower speed limit and signalization.

Beneficial cumulative impacts may include the addition of infrastructure improvements constructed to support the increased development and commerce associated with SH 121 near neighbor/near timeframe project and economic growth in the immediate area. The future added capacity associated with the near neighbor/near timeframe projects would provide mobility and relieve traffic congestion for all motorists using the systems funded by the proposed tolling of SH 121.

The North Central Texas Council of Governments (NCTCOG) is the metropolitan planning organization responsible for transportation planning in the region including the proposed project. NCTCOG's long range metropolitan plan (Mobility 2030) includes an environmental justice analysis. Specifically, NCTCOG did an accessibility analysis (travel time) comparing the no-build and build 2030 roadway and transit networks for various EJ and non-EJ groups. The analysis concludes that the 2030 plan does not adversely impact protected populations disproportionately when compared to unprotected class populations. However, this analysis did not consider the impacts of tolls.

#### Mitigation

The October 2007 Re-evaluation includes mitigation strategies to address potential environmental impacts caused by the entire SH 121 project within the stated limits. The October 2007. Re-evaluation includes a section outlining planned mitigation monitoring commitments. Some key commitments to note include:

Although the construction of SH 121 from DNT to SH 121 At US 75 interchange would be financed and managed by the NTTA (Public Sector Comparator), and the NTTA would likely initiate and complete all natural resources commitments and requirements, it would be NTTA's responsibility to complete, if necessary, and adhere to all previously approved Section 404 permit commitments. Monitoring will be provided by TxDOT to ensure that all above described permits, commitments, and mitigation in compliance with USACE regulations occur during and after construction of the facility.

#### *Section 404*

The proposed Toll Project would not result in additional Section 404 impacts; however Section 404 permits have not been obtained for the construction of the SH 121 mainlanes or SH121 at US 75 interchange. A Section 404 permit, including appropriate compensatory mitigation would need to be obtained for the mainlanes of SH 121 and for the SH 121 at US 75 interchange.

It is anticipated that a NWP 14 with a PCN would be needed for the proposed improvements; however, formal coordination with the USACE has not been initiated. Formal coordination with the USACE would be initiated by the NTTA (Public Sector Comparator); however, ultimate responsibility for mitigation compliance and meeting all conditions of the Section 404 permit would remain with TxDOT.

#### *Section 401*

Impacts from the construction of the SH 121 mainlanes and interchange at US 75 would require additional Section 401 Water Quality Certification requirements. It would be the responsibility of the NTTA (Public Sector Comparator) to initiate coordination and secure the necessary permits to comply with Section 401; however, ultimate responsibility for mitigation compliance to ensure that Section 401 Water Quality Certification requirements are met would remain with TxDOT.

#### *Vegetation*

Impacts to the riparian areas associated with the stream crossings associated with the 2002 FONSI Re-evaluation for SH 121 from FM 423 to US 75 require continued coordination with the USACE. The proposed mitigation consisted of planting approximately 11.7 acres of trees at Lake Lavon. The NTTA (Public Sector Comparator) would ensure that the 11.7 acres of plantings previously committed to on behalf of TxDOT are met. TxDOT would remain ultimately responsible for the proposed mitigation.

### Water Quality

The proposed Toll Project would not require additional coordination with the TCEQ; however because the future construction of the SH 121 mainlanes and SH 121 at US 75 interchange would disturb more than one acre, the NTTA (Public Sector Comparator) would be required to comply with the TCEQ - TPDES General Permit for Construction Activity. Also, the construction would disturb more than five acres; therefore, a NOI would be filed to comply with TCEQ requirements and a SW3P would be in place during construction. The SW3P would utilize the temporary control measures as outlined in the Department'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. TxDOT is ultimately responsible for ensuring these commitments are met.

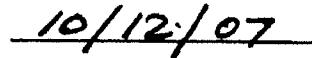
### Conclusions

The October 2007 SH 121 Re-evaluation documented how FHWA analyzed and considered all the relevant potential environmental impacts and issues. FHWA finds that: (1) The project modifications needed to toll the proposed facility will not result in impacts significantly different than those considered in the previously approved studies, (2) implementation of the changes to toll the facility will not appreciably increase the potential for impacts beyond those considered in the previously approved assessments, and (3) no further environmental documentation will be required for the tolling action.

As to project mitigation, TxDOT is hereby required by FHWA to ensure completion of all mitigation outlined above. Furthermore, all commitments and conditions of approval by FHWA as summarized above and further detailed in the project administrative record are hereby readopted and required to be inserted into the plans, specifications and estimates, in addition to being monitored by TxDOT to ensure compliance. TxDOT is also required to ensure that any and all local, state, or federal permit requirements and conditions are met and otherwise complied with.



Salvador Deocampo  
District Engineer  
Federal Highway Administration



Date

