

## APPENDIX A

### Public Hearing Comment and Response Report SH 121 FEIS

Note: Due to the overlap and repetition of some comments, similar comments were consolidated and paraphrased to reduce duplication. As a result, the comments that appear in this report are often not the precise words found in the commenter's written comment, letter or verbal comment. This has been done to reduce duplication of similar comments that elicited a common response and in no way was intended to obscure the substance of a comment.

#### **Comments on Access**

##### **Comment #1-1 (1 Commenter)**

*The Alamo Heights neighborhood will not have access to this road (SH 121) but it will route more traffic through our neighborhood.*

##### **Response**

The homes in these neighborhoods are located north of West Vickery Boulevard behind commercial property. The proposed SH 121 would displace a number of commercial buildings on the south side of West Vickery Boulevard but those on the north would remain in place. The only access points to West Vickery Boulevard from the proposed SH 121 would be at Montgomery Street and south of the rail yards at Stonegate Boulevard and Hulen Street. Such indirect access would lessen the likelihood of secondary development along, or redevelopment of, West Vickery Boulevard. The neighborhoods would remain behind the row of commercial buildings between West Vickery Boulevard and IH 30, somewhat protected from the existing transportation corridor through which the proposed SH 121 would pass. Alamo Heights will have access to SH 121 via the Montgomery Street interchange or via Hulen Street to the Stonegate Boulevard interchange. The homes in this neighborhood are located north of West Vickery Boulevard behind commercial property. Vickery Boulevard currently serves as a transportation corridor on the south side of Alamo Heights, and would continue to do so with the SH 121 project in place. Access to SH 121 to and from the north would be via Hulen Street and Montgomery Street. Because these two arterials would continue to function as the arterial roadways as they are today, it is unlikely that additional traffic would be routed through the Alamo Heights neighborhood due to the proposed facility.

#### **Comments on Air Quality Impacts**

##### **Comment #2-1 (3 Commenters)**

*At least three models exist that would allow  $PM_{2.5}$  concentrations to be measured on a project-level basis.*

##### **Response**

According to the commenter there are at least three different models which can be used to measure project-level  $PM_{2.5}$  concentrations. The three models mentioned not only fail to accurately measure  $PM_{2.5}$  concentrations at the project-level as explained below, they also fail to

provide an accurate measurement for five of the six criteria pollutants that are subject to the National Ambient Air Quality Standards (NAAQS).

The NAAQS were established by the Environmental Protection Agency (EPA) for these six criteria pollutants because these pollutants were identified as having the potential to impact air quality in urban areas. The criteria pollutants are ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and lead. The NAAQS are set by determining the exposure levels where potential threats to human health and the environment occur. Nonattainment areas and any associated health risk from potential air pollutants are determined on a regional basis. The particulate matter NAAQS reflect values the EPA deems safe for both the general population and sensitive populations (young, old, pulmonary impaired). These standards also have a margin of safety built into them.

Particulate matter includes both “primary” PM, which is directly emitted into the air, and “secondary” PM, which forms indirectly from fuel combustion and other sources. Generally, coarse PM is made up of primary particles, while fine PM is dominated by secondary particles. Primary PM consists of carbon emitted from such sources as cars, trucks, heavy equipment, forest fires, and burning waste. Secondary PM forms in the atmosphere from gases. Some of these reactions require sunlight and/or water vapor.

Secondary PM includes: 1) sulfates formed from sulfur dioxide emissions from power plants and industrial facilities; 2) nitrates formed from nitrogen oxide emissions from cars, trucks, and power plants; and 3) carbon formed from reactive organic gas emissions from cars, trucks, industrial facilities, forest fires, and biogenic sources such as trees. For further reference see EPA’s “The Particle Pollution Report: Current Understanding of Air Quality and Emissions through 2003.”

EPA required states to conduct three years of extensive area-wide PM<sub>2.5</sub> monitoring before formal designations could occur. Texas completed this effort in 2002 and submitted the required information to EPA for its use in determining PM<sub>2.5</sub> nonattainment areas (February 13, 2004 letter from Governor Rick Perry to EPA Regional Administrator Richard Greene).

After a thorough review of this information EPA concurred that the entire State of Texas is in compliance with PM<sub>2.5</sub> standards (June 28, 2004 letter from Richard Greene to Governor Rick Perry). Final PM<sub>2.5</sub> designations were published in the January 5, 2005 issue of the Federal Register.

The models referenced by the commenter do not accurately measure project-level air toxics. One model referenced by the commenter as being able to measure PM<sub>2.5</sub> on a project-level basis is CALPUFF. But EPA has determined that: “...CALPUFF in its current configuration is suitable for regulatory use [only] for long range transport, and on a case-by-case basis for complex wind situations” (See Federal Register Vol. 68, No. 72 pp. 18441, April 15, 2003). It would not be appropriate to use CALPUFF for evaluating potential impact on nearby neighborhoods, when EPA recommends CALPUFF’s use for “...sulfur dioxide and particulate matter ambient air quality standards and PSD incremental impact analysis involving...transport greater than 50km from one or several closely spaced sources...” According to EPA, this model is useful for modeling emissions from distant point sources, but not for modeling linear transportation sources.

The second model mentioned is the Industrial Source Complex Dispersion model or ISC3. This model is designed to support EPA's regulatory modeling programs for industrial sources. As described by EPA ISC3 can be used to assess pollutant concentrations from a wide variety of sources associated with an industrial complex. This model is not useful for modeling linear transportation sources.

Finally, the third model mentioned is CALINE3. This model is a dispersion model designed to determine certain types of air pollution concentrations at receptor locations downwind of "at-grade," "fill," "bridge," and "cut section" highways located in relatively uncomplicated terrain. A recent study sponsored by FHWA used CALINE in analyzing the correlation between PM<sub>2.5</sub> and traffic activity on a project-level basis in several major U.S. cities - New York City, Baltimore, Pittsburgh, Atlanta, Detroit, and Los Angeles. The report, "Correlating Particulate Matter Mobile Source Emissions to Ambient Air Quality" concluded that CALINE is not useful for determining project level PM emissions in urban areas and that only a weak correlation between PM<sub>2.5</sub> concentrations and traffic activity could be found at some of the sites, while no correlation at all could be found at other sites.

It must be noted that designation as a nonattainment area for PM is neither contemplated nor imminent for the Dallas/Fort Worth (DFW) area according to the Texas Commission on Environmental Quality (TCEQ). As EPA has not determined a suitable model to measure PM<sub>2.5</sub> concentrations on a project-level basis, the Federal Highway Administration regulations do not require evaluation of the potential impacts of PM<sub>2.5</sub> for this project.

In conclusion it is also noted that the EPA has identified certain air pollutants or air toxics as mobile source air toxics or MSATs. While the Clean Air Act identified 188 air toxics, also known as hazardous air pollutants, the agency selected 21 that it considered primary MSATs. From that group the EPA then selected six as the priority group of MSATs. These include benzene, formaldehyde, acetaldehyde, 1,3-butadiene, acrolein and diesel particulate/diesel exhaust organic gases. The EPA issued its final rule on *Control of Emissions of Hazardous Air Pollutants from Mobile Sources* in March 2001(66 FR 17230, March 29, 2001). But while the EPA has identified the MSATs, the agency has still not proposed to establish ambient standards for any of these pollutants. Therefore, there is no baseline from which to judge any of these emissions from a linear transportation project.

**Comment #2-2 (2 Commenters)**

*The commenter noted that there is no discussion of the negative health effects of PM<sub>2.5</sub>.*

**Response**

EPA has set a health-based standard for both short-term and long-term exposure to PM<sub>2.5</sub>. Section 109 of the federal Clean Air Act (42 U.S.C. 7409) directs the EPA Administrator to propose and promulgate "primary" and "secondary" NAAQS for pollutants identified under section 108 of the Act. Section 109(b)(1) of the Act defines a primary standard as one "the attainment and maintenance of which in the judgment of the Administrator, based on [the] criteria and allowing an adequate margin of safety, are requisite to protect the public health." The margin of safety requirement was intended to address uncertainties associated with inconclusive scientific and technical information available at the time of standard setting, as well as to provide a reasonable degree of protection against hazards that research has not yet identified. Both kinds of uncertainties are components of the risk associated with pollution at

levels below those at which human health effects can be said to occur with reasonable scientific certainty. Thus, by selecting primary standards that provide an adequate margin of safety, the Administrator is seeking not only to prevent pollution levels that have been demonstrated to be harmful but also to prevent lower pollutant levels that may be found to pose an unacceptable risk of harm, even if the risk is not precisely identified as to nature or degree. The Act does not require the Administrator to establish a primary NAAQS at a zero-risk level, but rather at a level that reduces risk sufficiently so as to protect public health with an adequate margin of safety. The selection of any particular approach to providing an adequate margin of safety is a policy choice left specifically to the Administrator's judgment.

EPA determined that during a short-term period [Federal Register July 18<sup>th</sup>, 1997, (Vol. 62,no.138 pp. 38651-38760)] (24-hour average) PM concentrations should not exceed 65  $\mu\text{g}/\text{m}^3$ . The long-term standard is based on an annual average where PM concentrations should not exceed 15  $\mu\text{g}/\text{m}^3$ . The EPA has yet to develop any national peer reviewed and approved guidance on how to conduct scientifically valid and reliable mobile source air toxics health assessments that use these toxicity factors. The Federal Highway Administration must rely on EPA to provide validated and scientifically reliable methods to conduct any such analyses. Also see response to comment #2-1.

**Comment #2-3** (1 Commenter)

*The commenter states that there is no information provided in the EIS identifying current PM<sub>2.5</sub> levels, nor are there included any predicted increases to determine the impact on the national standard.*

**Response**

The TCEQ currently operates numerous PM<sub>2.5</sub> monitors throughout the DFW area, several of which are in Tarrant County. Current monitoring data from TCEQ indicates that all monitors in the DFW area, and across the state, continue to remain in compliance with the PM<sub>2.5</sub> standard. More detailed information about the location and data from the individual sites in the DFW area or across the state can be found on the TCEQ website at <http://www.tnrcc.state.tx.us/cgi-bin/monops/particulates>.

EPA's "The Particle Pollution Report: Current Understanding of Air Quality and Emissions through 2003" discusses the continuing downward trend of emissions of both PM<sub>10</sub> and PM<sub>2.5</sub>. PM<sub>2.5</sub> levels in 2003 were the lowest they have been since nationwide PM<sub>2.5</sub> monitoring began in 1999. Programs such as EPA's Acid Rain Program have contributed to these reductions. As Federal diesel fuel and engine standards continue to be implemented, this downward trend in PM emissions is expected to continue. PM<sub>2.5</sub> is addressed in Subsection 5.10.1, Mesoscale Analysis, of the FEIS.

See also Responses to Comments 2-1 and 2-2.

**Comment #2-4** (2 Commenters)

*The commenter includes a report by Dr. Michael Kleinman, which examines negative health effects associated with proximity to roadways. The commenter claims that this report was ignored and that the FEIS stated that there is no meaningful way to evaluate the negative health effects of air toxic emissions.*

## Response

Please see Response to Comment #2-2.

Dr. Kleinman's report was considered and all of the published studies cited therein as is summarized below. These studies were reviewed in the following three contexts.

When the State Highway 121 Project is completed, the technology of the vehicular mix utilizing the SH 121 facility would be substantially different than it was at the time of the studies cited by the commenters, and substantially different than the technology today. Therefore, it can be anticipated that emissions would be cleaner in the future.

Second, the vehicular fuels utilized at the time of the studies cited by the commenters are substantially different from those in use today, and substantially different from the mix that would be in use when the 121 Project is completed. The EPA has projected that the reductions in MSATs emissions via several existing and new control program and technology-oriented vehicle standards will be considerable. *Control of Emissions of Hazardous Air Pollutants from Mobile Sources* (66 FR 17230, March 29, 2001). The agency also stated that there will be a 67 to 76 percent drop in benzene, acetaldehyde and 1,3-butadiene between 1990 and 2020. For highway-related diesel particulate matter, the agency projects a 90 percent reduction by 2020.

Third, with regard to the studies from other countries, the emissions profile and gasoline/diesel mix of the vehicular fleet in the United States is today, and likely would continue to be in the future, substantially different differ from any other place in the world.

The following is a synopsis of a review of the studies cited by the commenter.

A. Excerpts from U.S. EPA Air Quality Criteria for Particulate Matter (Third external Review Draft, April 2002): Volume II: Epidemiology of Human Health Effects from Ambient Particulate Matter.

These reports are extensive and conclude that PM emissions can be harmful to human health. The reports, however, do not indicate that PM emissions are steadily increasing in urban areas in the United States. In fact there are other published studies that report PM emissions decreasing. EPA's own "Air Quality Trends" reports on PM and the EPA's "The Particle Pollution Report" both indicate improvements in PM levels across the U.S.

B. Sonoma Technology, Inc. Assessment of Health Benefits of Improving Air Quality in Houston, Texas.

This study is based on data collected from the late 1990s. The report concludes that there are substantial health benefits of reducing PM emissions. One of the strategies the report recommends pursuing is the use of cleaner diesel fuel. The EPA, since the study, has promulgated rules (discussed in the Response to Comment 2-1) improving on- and off-road diesel fuel and applying equally stringent emission standards for on- and off-highway diesel-powered equipment. The EPA rules would be in effect for vehicles utilizing SH 121.

C. Expert Report of Dr. Michael Kleinman

Dr. Kleinman reports that there is an association between adverse health effects and living near roadways with heavy traffic. The studies cited by Dr. Kleinman, however, all look to historical trends that do not reflect current circumstances. These studies do not speculate on what effect

long-term downward trends in PM and air toxic emissions in the United States may have on future populations.

The EPA, in contrast, does attempt to quantify the level of decreased cancer risk and other acute and chronic impacts anticipated emissions decreases might have on a future U.S. population. The EPA finds almost universally positive benefits on future urban populations. See RIA for Tier II, HDDV standards, Off-road proposed standards; Regulatory Impact Analysis (Chapter II: Health and Welfare Concerns and Emissions Benefits from Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements EPA420-R-00-026 January 2001); and Regulatory Impact Analysis from Control of Air Pollution from New Motor Vehicles: Tier II/Gasoline Sulfur EPA 420-R-99-023, December 22, 1999, National Air Quality and Trends Report; and Texas Commission on Environmental Quality VMT offset SIP, 1997).

D. Summaries of health studies reporting on health effects associated with living near areas with heavy traffic.

1. Bruekreef, et al.

This study was conducted in the Netherlands during 1995. The differences between the fuel used for motor transport between the United States and Western Europe are substantial. The European fleet uses substantially more diesel fuel and the U.S. vehicle fleet includes substantially more gasoline-powered vehicles. The U.S. Department of Energy (DOE) statistics for the output of refined products by country provides a rough estimate of the differences. In 2000, the United States used diesel fuel for about 33 percent of its surface transportation needs. Western Europe, in contrast, used about 60 percent diesel fuel for its surface transportation needs or roughly twice as much. The Netherlands specifically used 57 percent diesel fuel for surface transportation. As another indicator of the relative popularity of diesel power in Europe, the Diesel Technology Forum estimated that just light-duty diesel sales in Europe were 14 percent of the light-duty market in 1990, those sales climbed to 22 percent in 1995, and today represents 33 percent. The U.S. market for light-duty diesels is less than one percent of total vehicle sales. See Demand for Diesels the European Experience, The Diesel Technology Forum 2001. Thus, the relevance of the study to SH 121 is problematic.

2. Buckeridge, et al.

This study looked at hospital admissions between 1990 and 1992 in Southeast Toronto, Canada. Although Canada has automotive technology similar to the United States, Canada does not completely match the stringency of U.S. standards. The usefulness of the study is limited, moreover, because of the time the data was collected, where it was collected, and the differences in technologies and fuel used in Canada in early 1990s versus what would be used in the United States after 2010.

3. Mukala, et al.

This study looked at traffic-related health impacts to schoolchildren in Helsinki, Finland during 1991. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

4. Steerenberg, et al.

The authors evaluated the impact of traffic-related pollutants (nitric oxide, nitrogen dioxide, carbon monoxide and black smoke) on respiratory symptoms in Germany based on data collected during the late 1990s. The study is not reflective of what emissions may be seen along a future roadway in the United States, with a heavily-regulated U.S. fleet of cars and trucks and the low sulfur U.S. gasoline and diesel fuel that would be in use by 2009.

5. Vliet, et al.

This study was also study conducted in Western Europe (the Netherlands) in the 1990s. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

6. Wjst, et al.

This study was conducted in Munich, Germany in the late 1980s and early 1990s. Germany's diesel fuel use is on average higher than that of other Western European countries, with roughly two-thirds of its surface transportation fleet fueled by diesel. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

7. Dejmek et al.

This study was conducted in Northern Bohemia based on data collected during the years 1994-1998. Emissions of particulates, and other pollutants were assumed to come from "chemical industry, surface mining, and large coal power plants." The study is not relevant to the proposed SH 121, because the species of PM emissions studied (coal plant emissions, industrial emissions, and crustal material from mining operations) are substantially different from potential emissions from mobile sources. The levels of PM emissions experienced by this population were considerably higher, and of much longer term, then would be anticipated for a population living near a modern highway in the United States in 2009.

8. Dejmek et al.

This was a follow-up to the previous study of the same population looking more closely at polycyclic aromatic hydrocarbons sometimes found in association with particulate matter. Again, this study suffers from the same deficiencies as the previous study with regard to its predictive power in determining the health effects on a 2009 U.S. vehicle and fuel mix.

9. Ritz, et al.

This study was conducted in California between 1987 and 1993. The study concludes that "...certain fetal heart phenotypes may be susceptible to the adverse effects of two ambient pollutants, carbon monoxide and ozone." The analysis regarding SH 121 specifically concluded there would be no violations of the carbon monoxide or ozone NAAQS. This study is not relevant because the proposed SH 121 project is not estimated to increase either of these pollutants.

10. Edwards, et al.

This study was conducted in Birmingham, England based on data collected between 1988 and 1991. The study looked at the relationship between proximity to major roadways and hospital

admissions for asthma in children younger than five years. As discussed above, the differences between the fuel used for motor transport between the United States and Western Europe were, and are likely to remain, substantially different. The United States uses substantially more gasoline-fueled vehicles than Europe, where they use substantially more diesel fuel. The DOE statistics for the output of refined products by country provide a rough estimate of the differences. In 2000, the United States used diesel fuel for about 33 percent of its surface transportation needs. Western Europe, in contrast, used about 60 percent diesel fuel for its surface transportation needs or roughly twice as much. The United Kingdom specifically used 50 percent diesel fuel for surface transportation. Regarding asthma, the American Lung Association reported in March of 2003 for the U.S., the "...mortality and hospital discharge estimates [for asthma] continue to decline. The number of deaths due to asthma in 2000 was approximately four percent lower than the number of deaths seen in 1999. The hospital discharge rate has declined 14 percent since it peaked...in 1995". This study is not relevant to the SH 121 project.

11. Guo, et al.

This study was conducted in Taiwan, China in the 1990s. Asia/Oceania is very similar to Western Europe in its vehicle/fuel mix. Sixty percent to two-thirds of surface transportation uses diesel fuel. In Taiwan specifically, about 50 percent of the fuel used for transportation is diesel fuel. The U.S. uses less, at about one-third of all surface transportation. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Asia/Oceania vehicle and fuel mix.

12. Studnicka, et al.

This four-year study was conducted in Lower Austria in the early 1990s regarding asthma and other respiratory symptoms. The study does not reflect a comparable traffic mix (gasoline versus diesel vehicles) or an appropriate vehicle mix (2009 U.S.-certified technologies), nor does the study mirror the fuels that would be used in the United States. All of these factors make this study of little utility in considering potential impacts associated with a future SH 121.

13. Wyler, et al.

This study was conducted in Basel, Switzerland in the late 1990s. The study concludes: "These results suggest that living on busy roads is associated with a higher risk for a sensitization to pollen and could possibly be interpreted as an indication for interactions between pollen and air pollutants". As a study primarily of the effects of pollen, it is of limited utility in assessing the health impacts of PM emissions. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

14. A la Tertre, et al.

This study looked at hospital admissions in Barcelona, Spain, Birmingham and London, England, Milan, Italy, Amsterdam, Netherlands, Paris, France, Rome, Italy, and Stockholm, Sweden in the 1990s. The study concludes that cardiac conditions may be associated with exposure to diesel exhaust. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

15. Hoek, et al.

This study was conducted in the Netherlands in 1986. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

16. Knox, et al.

This study looked at childhood cancers in Great Britain between 1953 and 1980. Great Britain used very large amounts of coal in the years after the Second World War. These coal-sourced PM emissions are somewhat different than those produced by a modern gasoline and diesel-powered vehicle fleet. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western Europe vehicle and fuel mix.

17. Pearson, et al.

This study was conducted in Denver in 1980 and looked at exposure to benzene. Since the 1990 Clean Air Act Amendments, benzene reduction from mobile sources has achieved remarkable success in the United States, especially in reformulated gasoline (RFG) areas like Houston. Houston has used RFG since 1995. The EPA in their Air Quality Trends Report on air toxics indicates that: "Measurements (of benzene) taken at these sites show, on average, a 47 percent drop in benzene levels from 1994 to 2000. During this period, EPA phased in new (so-called "Tier 1") car emission standards; required many cities to begin using cleaner burning gasoline; and set standards that required substantial reductions in benzene and other pollutants emitted from oil refineries and chemical processes. The EPA estimates that, nationwide, benzene emissions from all sources dropped 20 percent from 1990 to 1996." With Tier II standards and the EPA's new on-road HDDV standards, this reduction trend in ambient levels of benzene is expected to continue. Thus, the relevance of the study to SH 121 is problematic.

18. Raaschou-Nielsen, et al.

This study was conducted in Denmark based on data collected between 1968 and 1991. As in the studies considered above, it is inherently problematic to assess the potential impacts to a 2009 U.S. population on the basis of data regarding an early 1990s Western European vehicle and fuel mix.

19. U.S. Health Assessment Document for Diesel Exhaust.

This study suffers from a fundamental infirmity in that it was based on a review of outmoded technology: "The assessment's health hazard conclusions are based on exposure to exhaust from diesel engines built prior to the mid-1990s." The report elaborates: "As new diesel engines with cleaner exhaust emission replace existing engines, the applicability of the conclusions in this Health Assessment Document will need to be reevaluated." The study further articulates its own limitations: "A notable uncertainty of this assessment is whether the health hazards identified from studies using emissions from older engines can be applied to present-day environmental emissions...[or the future SH 121 vehicle and fuel mix]...as some physical and chemical characteristics of the emissions from certain sources have changed over time." As the study's authors suggest, the study might have very little relevance at the time the SH 121 is completed.

One of the conclusions of this study was: "The assessment concludes that long-term (i.e. chronic) inhalation exposure is likely to pose a lung cancer hazard to humans...." However, the

study does not consider whether levels of exposure in 2009, anticipated to be lower than today's levels, would produce the same effects.

The study, moreover, found toxic effects at levels higher and in some cases much higher than actual exposure levels near freeways: "...the national average diesel exhaust exposure from on-road engines.... 0.5 to 0.8 micrograms per cubic meter of inhaled air in many rural and urban areas...For localized urban areas...may range up to 4.0 micrograms per cubic meter..." One reference exposure level looked at for chronic effects in the study were 5.0 micrograms per cubic meter. These authors, however, had to employ higher exposure levels, in some cases 10 times higher, in order to find long-term health impacts, and caution that: "Other uncertainties include the assumptions that health effects observed at high doses may be applicable to low doses, and that toxicological findings in laboratory animals generally are predictive of human responses". The study was based upon outmoded technology and the relevance of the study to SH 121 is problematic.

Additional FHWA research regarding air quality is currently in the planning stages. However, it is impossible to determine and analyze the impacts of MSATs on individual projects at this time. FHWA will continue to study this issue and as soon as the EPA has approved a viable method to assess health impacts from MSATs, FHWA will adopt and employ that methodology on projects where project-level impacts are considered a potential public health risk.

**Comment #2-5** (1 Commenter)

*The commenter claims that based upon all of the studies provided there will be additional health risks to those living nearby.*

**Response**

FHWA has performed or is currently managing, several research projects many of which are based on an Air Toxics Research Workplan that provides a roadmap for agency research efforts. These efforts include:

**Air Toxics Supersite Study (Traffic and Ambient Concentration Study).** This study is designed to determine whether the contribution of vehicle-emitted air toxic compound concentrations to ambient air concentrations can be measured. The study is being conducted in conjunction with a particulate matter study to determine whether air toxic compounds (and PM) are local air quality impacts or regional concerns.

**Air Toxics Monitoring and Modeling Study.** This study is designed to determine the reliability of emission models in predicting ambient measured air toxic concentrations. This is an important component of air toxics research since models are typically used for developing emission inventories and the resulting mitigation programs designed to limit emissions. Accurate forecasting of future emissions is essential to programs implemented to reduce toxic emissions.

**Kansas City Study.** This study is designed to determine the distribution of PM emissions in a randomly selected fleet as well as identify the percent of high emitters in the fleet. The Kansas City Study was initiated to conduct exhaust emissions testing on 480 light-duty, gasoline vehicles in the Kansas City Metropolitan Area (KCMA). This project will also characterize gaseous and PM toxics exhaust emissions from a portion of these light-duty vehicles. Data obtained from this program will be used to evaluate and update emission models, evaluate existing emission inventories, and assess the relevance of previous emissions studies.

**Detroit Exposure Aerosol Research Study (DEARS).** This study is designed to improve the ambient air-monitoring network to elucidate the extent to which air toxics are a potential human health concern. Detroit was selected based on the presence of major industrial and mobile sources. Homes within the study will be selected to evaluate the impact of these sources on exposures and to determine high-end exposure. These data will be used to further evaluate and refine human exposure models that characterize the magnitude of exposure along with its uncertainty and variability. In addition, the methods developed and applied in this study can be used as a prototype for other community-based air toxic programs.

**Multiple Air Toxics Exposure Study Science and Uncertainty Review (MATES-II).** This study is designed to evaluate the scientific techniques of a Southern California study to determine whether these techniques would be appropriate for use today, and the scientific uncertainties associated with the 1998 study. There are two phases to the study. The first examines the transportation side (activity, emissions and concentrations), while the second looks at the toxicity and exposure assessments conducted as part of MATES-II. FHWA wants to better understand how the results were obtained and how relevant they are to transportation planning.

**Knowledge Gaps and Research Needs in Linking Mobile Source Air Toxics (MSAT) To Potential Public Health Risks.** This study, to be conducted by the independent Health Effects Institute (HEI), is designed to better understand the fundamental science and relationships between transportation vehicle emissions, potential and actual human health impacts, determine the technical strength of published studies, and identify data quality gaps and data gaps. The final study report will summarize concentration and dose-response relationships, toxic effects, and their relation to actual human health impacts that could result from real-world exposures to the extent possible. Researchers will be asked to evaluate the quality of study findings for use in risk assessments and the quality of such data on risk assessment numerical findings. Research cooperators can then synthesize their technical findings to identify knowledge gaps and research needed to determine the strength of linkages between mobile source air toxics, potential public health risks as expressed in epidemiology or risk assessment studies, and frank health effects with clearly definable cause and effect relationships. Researchers will be asked to identify the chemical and physical composition of MSAT, identify variability in MSAT, and identify the strength of relationships between MSAT related pollutants and their potential health effects.

Additional FHWA research regarding air quality is currently in the planning stages. However, it is impossible to determine and analyze the impacts of mobile source air toxins (MSATs) on individual projects at this time. FHWA will continue to study this issue and as soon as the EPA has approved a viable method to assess health impacts from MSATs, FHWA will adopt and employ that methodology on projects where project-level impacts are considered a potential public health risk.

Please see response to Comments #2-1 through #2-4.

**Comment #2-6 (2 Commenters)**

*The Environmental Impact Statement predicts explosive growth due to the project, yet it also predicts that air quality will improve. This prediction is incorrect. Residents along proposed SH 121 are not going to be commuting short distances right in their own area, and as a result net nitrous oxide emissions will increase.*

## **Response**

The term “explosive growth” is not used in the FEIS. In Section 2.1 (Purpose and Need) of the FEIS, population growth is discussed in the context of NCTCOG’s *2030 Demographic Forecast* (April 2003). Likewise, growth and traffic demand is discussed in Section 2.2, and Section 5.10 of the FEIS within the framework of NCTCOG’s *2025 Mobility Update* report. The FEIS does not predict that air quality will improve as a result of the proposed SH 121.

Emissions, including nitrous oxides, from area residents who do not commute short distances in their own area could not be evaluated for this project. Also, see response to Comment #2-1.

### **Comment #2-7** (3 Commenters)

*NAAQS will accelerate dramatically in the Alamo Heights neighborhood. Will there be consistent (air quality) testing in this area?*

## **Response**

TCEQ is the responsible agency for installing and monitoring the air quality. In addition, EPA and TCEQ are the responsible agencies for regulating and determining locations for monitoring stations. The City maintains an air quality monitoring station for the TCEQ located north of the project area at the Haws Athletic Center, 600 Congress Street. The station has been operational since April of 2001 under EPA site number 48-439-1006.

Also, please see response to Comment #2-1 and 2-6. The TCEQ website ([http://www.tnrc.state.tx.us/gis/metadata/airmon\\_met.html](http://www.tnrc.state.tx.us/gis/metadata/airmon_met.html)) contains the locations of the various air monitoring stations throughout the state.

### **Comment #2-8** (3 Commenters)

*Concerning the proposed 12-lane tollway and toll plaza at Vickery Boulevard, a 25 ft “green space” is not enough to protect residents from pollution. The area needs a protective and attractive barrier to deflect fumes. Pollution would be intolerable with no physical barrier.*

## **Response**

Exhaust fumes are manifested in a gaseous state. As such, any barriers proposed for the project would not deflect exhaust fumes away from residential areas. The primary purpose of any proposed barriers for the project would be as abatement for noise impacts.

## **Comments on Alignment**

### **Comment #3-1** (4 Commenters)

*The northern terminus of the facility is inconsistently described in the FEIS. Occasionally it's referred to as beginning at I 30, sometimes at Forest Park, sometimes at Summit Avenue.*

## **Response**

The SH 121 northern terminus is on IH 30 near Summit Avenue as depicted on Exhibit 3.3 in the FEIS.

### **Comments on Project History**

#### **Comment #4-1** (1 Commenter)

*Commenting on the history of the project, commenter suggests an inordinate amount of time has passed due to periods of inactivity on the part of city government and TxDOT and due to groups of people complaining about the project. Suggests that the project would impact everyone along proposed SH 121 but needs to be built.*

#### **Response**

Comment noted and considered.

### **Comments on Arborlawn**

#### **Comment #5-1** (1 Commenter)

*The agreement Overton Woods reached with City on configuration of Arborlawn/Bellaire is not included in the FEIS.*

#### **Response**

We understand the commenter to be referring to the Arborlawn interchange rather than a Bellaire interchange to the proposed project. The configuration of the recommended alternative at the Arborlawn Interchange with SH 121 is in accordance with the City's February 25, 2003 resolution (#2923). In addition, the location of the Arborlawn/Bellaire intersection is in accordance with the City's plan.

As stated in the FEIS, access to Bellaire will be provided through the Arborlawn interchange.

### **Comments on Cumulative and Secondary Impacts**

#### **Comment #6-1** (1 Commenter)

*Secondary and cumulative effects of the induced land use changes at Overton Woods are ignored because the project area is undeveloped. In order to pay its share of the roadway, the City of Fort Worth agreed to a special tax area to produce a growth of some \$800 million in valuation in areas currently vacant in order to pay for SH 121. This contradicts FEIS theory of no induced land use.*

#### **Response**

Development of areas is controlled by zoning laws enacted by local governmental authorities – here the City of Fort Worth. The vacant land that now provides the Overton Woods neighborhood's western border (adjacent to SH 121 proposed ROW) is already zoned for future residential development. Fort Worth city-planned roadways in the area include Arborlawn Boulevard and Bellaire Drive extension. These roadways are proposed for construction with or without the proposed SH 121, to allow development of the now-vacant area. In addition, a buffer of approximately 80 feet is proposed for either side of the proposed facility in this area. Therefore, secondary effects to the neighborhood would not be attributable to the proposed SH 121 tollroad. Cumulative effects would consist of additional residential housing construction adjacent to the existing housing, which is consistent with past actions. Again, the future zoning of the now-vacant land is the prerogative of the local government and was agreed upon by the

City and neighborhood representatives on February 11, 2004 with independent utility. This was in the Fort Worth *Comprehensive Plan* and its thoroughfare plan and is reflected in the FEIS within Section 5.27.

The FEIS accounted for the development in the current undeveloped areas between Bryant-Irvin and Hulen as shown in Exhibit 5.9. The development of this area was included in the traffic (Table 3-5), economic (Section 5.7), and secondary and cumulative effect (Section 5.27) analyses for the project.

Future traffic projections were based on the North Central Texas Council of Government (NCTCOG) regional travel demand model, which includes future developments and roadways. Along with SH 121, developmental roadways have been proposed that would provide east west connection across the now vacant land between Bryant-Irvin and Hulen. The general locations and description of the proposed roadways were shown in the FEIS in Table 5-30 and Exhibits 3.2 through 3.6. These improvements are not dependent on the proposed SH 121 and would be constructed with or without SH 121 to provide additional transportation options for expected growth within the southwest region of Tarrant County.

Continued urbanization of the area is anticipated and would be guided by the Fort Worth *Comprehensive Plan*. The secondary and cumulative effects from development within the corridor could be both beneficial and adverse. Beneficial effects include new economic opportunities, housing alternatives, employment, services, and recreational resources. As development occurs, the need for additional infrastructure and services (transportation, utilities, fire, police, and emergency medical services) would increase. Potentially adverse cumulative effects include the loss of habitat, the potential for water quality effects, and the conversion of agricultural land associated with the continued suburbanization within the proposed project area. Efforts to minimize adverse effects are subject to the existing land use and development controls of the local jurisdictions, as well as State and Federal regulation, throughout the study area. The City of Fort Worth has included the proposed SH 121 roadway in their *Comprehensive Plan* to help plan for future growth and minimize its effects.

**Comment #6-2** (1 Commenter)

*Secondary and cumulative impacts should be mitigated by the use of noise barriers, buffers and low-mast lighting along the eastern side of SH 121 between the Trinity River and IH 20. Traffic control devices should be used to mitigate the cumulative and secondary effects of increased traffic.*

**Response**

Amenities are defined as constructed or ecological features, traits, or characteristics that enhance and add to the value or desirability of the location, the feature of which is not entirely essential to the function of the project. Amenities can conserve and enhance areas, sites, and structures of special architectural or historic value; protect and enhance visual character and design quality along the city corridors and entranceways; protect and preserve natural amenities including trees and green space as well as preserve substantial vegetation and scenic views, and incorporates native trees and shrubbery into landscape plans.

Mitigation includes: Avoiding the impact altogether; Minimizing impact by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; reducing or eliminating the impact over

time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments.

On December 30 2004, the City of Fort Worth, the NTTA, and TxDOT entered into an agreement that identified the NTTA's System-Wide design guidelines, and the City of Fort Worth's Nature and Character Plan as accurate reflections of the desired nature and character elements of the project. The detailed design and development of these elements would be achieved through the Corridor Master Plan (CMP) process scheduled to begin in March of 2005. The parties have agreed that NTTA will prepare the CMP prior to the preparation of the plans, specifications, and estimates for the project. The parties will conduct a Master Plan development process to further define the appropriate nature and character elements, and the locations of those elements, including a master landscape plan.

The Master Plan process will include a workshop to consider the "Trinity River Vision Master Plan" with respect to the design of the Trinity River bridges. The City may invite the Tarrant Regional Water District to attend and participate in the workshop. The Master Plan process shall build upon, and add the necessary detail to the substantial progress previously achieved by the Parties toward finalizing the project design elements.

Design amenity components of the CMP may include:

- Smooth-Bottom effect at various proposed bridges in association with the project that would entail concrete box beams or other such structure to achieve a "smooth-bottom effect" as opposed to standard bridge beams.
- Ornamental steel picket railing, planter walls, and adapted concrete railing at various interchanges and crossing elements.
- Separated bridge spans and pedestrian access will be provided at certain locations.
- A screen wall along the boundary of the Sunset Terrace neighborhood provided that consensus can be achieved among the affected parties and residents.
- Details regarding a master landscape plan to include the provision of up to 4,700 trees within the roadway interchange areas of the project will be established during the Master Plan process.
- A landscaped buffer along an area between the Alamo Heights neighborhood and the proposed toll plaza.

Retaining walls are proposed in various locations along the project in an effort to reduce the footprint and preserve certain existing trees.

While the CMP is outside the NEPA process, it is considered a crucial element in the construction planning by the signatories to the agreement.

Also please see response to Comment #16-1.

**Comment #6-3** (9 Commenters)

*The Environmental Impact Statement has failed to adequately recognize the cumulative impacts of both the maintenance facility and the toll plaza in terms of the noise, the vehicle exhaust, and the light pollution that will occur in the Alamo Heights neighborhood. Mitigation through a decorative masonry wall is needed. Landscaping enhancements to separate the neighborhood from the toll road is not adequate to resolve the cumulative impacts.*

*The cumulative impacts to the historic neighborhoods of Sunset Terrace and Mistletoe Heights and all of those road systems should be recognized and mitigation should be provided in the Final Environmental Impact Statement. Final Environmental Impact Statement has not adequately measured the cumulative impacts of noise, light and vehicle exhaust pollution to those neighborhoods.*

**Response**

Noise, light, and vehicle exhaust pollution referred to by the commenters would be classified as direct impacts and are addressed in various sections of the FEIS. Discussion of Secondary and Cumulative Effects begins in Section 5.27 of the FEIS.

The project will support the Streams & Valleys program by committing to painting and lighting under IH 30, split bridge spans, a trailhead in the vicinity of Rosedale and allowing pedestrian access on Old Vickery Bridge.

Also please see response to Comment #6-2.

**Comment #6-4** (3 Commenters)

*There's no consideration for constructive use or for cumulative impacts.*

**Response**

Section 4(f) refers to the original section within the Department of Transportation (DOT) Act of 1966 which set the requirement for consideration of park and recreational lands, wildlife and waterfowl refuges, and historic sites in transportation project development. The law, now codified in two places (49 U.S.C. 303 and 23 U.S.C. 138), is implemented by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) through regulations found at 23 CFR 771.135. In discussing 4(f), “use” may mean either a direct use or constructive use. A direct use occurs when land is permanently incorporated into a transportation facility or when there is a temporary occupancy of land that is adverse to a 4(f) resource. Constructive use occurs when a project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are “substantially impaired.”

The proposed SH 121 project does not constitute a constructive use of the potential historic district as the project's proximity impacts are not so severe that the protected activities, features, or attributes that qualify as a resource for protection under section 4(f) are substantially impaired. The NEPA process demonstrated that existing conditions would not significantly change for the historic properties. Protected activities, features or attributes would not be substantially diminished by the proposed project.

Issues of traffic, noise, and light pollution were evaluated and the THC concurred that no adverse effect to historic properties would occur as a result of the project. Therefore, project activities do not constitute a constructive use of any 4(f) properties. (See coordination letter to THC dated September 9, 2002 located in Appendix F of the FEIS.)

TxDOT reaffirmed that the subject project poses no adverse effect to historic properties in a letter to the THC dated October 6, 2004. The THC concurred with a no adverse effect to historic properties determination on October 20, 2004. Please see coordination letter to THC dated October 6, 2004 located in Appendix F of the FEIS. The FEIS includes a discussion of Secondary and Cumulative Effects in Section 5.27.

**Comment #6-5** (1 Commenter)

*There is no data contained in the FEIS to indicate that an adequate study of cumulative effects on historic neighborhoods at the northern terminus was accomplished.*

**Response**

The cumulative effects on neighborhoods and historic properties were included in Section 5.27 of the FEIS. Coordination with THC resulted in a determination of no effect on historic neighborhoods and properties. THC reaffirmed the project posed no adverse effect to historic properties specific to the C/A alternative (see October 6, 2004, letter signed by THC on October 20, 2004, in Appendix F of the FEIS).

**Comment #6-6** (1 Commenter)

*Negative secondary and cumulative effects of the road on Overton Woods will be reduced with the configuration of a single interchange at Stonegate.*

**Response**

Through the public involvement process, the City of Fort Worth recommended and adopted the Locally Preferred Alternative (City Council Resolution #2923). This resolution included the extension of Arborlawn from its current location west to Bryant-Irvin Road with a diamond interchange at SH 121. The Stonegate interchange was also included in the City's Resolution and was recommended initially in the Citizen's Advisory Committee recommendations.

Elimination of the Arborlawn interchange may or may not reduce secondary and cumulative effects; this was not an alternative presented in the FEIS and therefore was not studied. The elimination of the interchange could change traffic patterns, which can only be ascertained through computer travel demand modeling. These changes in travel patterns could benefit some communities but cause more noise and traffic impacts to others.

**Comment #6-7** (1 Commenter)

*A full analysis of secondary impacts was not included in the FEIS.*

**Response**

Please see section 5.27 of the FEIS. The FEIS includes a discussion of Secondary and Cumulative Effects in Section 5.27. In addition, please see response to comment #6-1.

**Comment #6-8** (1 Commenter)

*Land development will increase development which will increase storm water [run-off]. These impacts must be disclosed in the FEIS.*

**Response**

The proposed SH 121 roadway could potentially have a secondary affect on surface waters and water quality as the new roadway would improve access to now undeveloped land. Continued urbanization of the proposed SH 121 area south of West Vickery Boulevard is anticipated, guided by the Fort Worth *Comprehensive Plan*. Potential effects could include the loss of habitat and wetlands and decrease in water quality effects associated with the continued suburbanization within the proposed project area. Efforts to minimize adverse effects of suburbanization, which are already well underway, are subject to the existing land use and development controls of the local jurisdictions, as well as State and Federal regulation including Section 401 and Section 404

of the Clean Water Act. The City of Fort Worth has included the proposed SH 121 roadway in their *Comprehensive Plan* to help plan for future growth and minimize its effects. Please see section 5.27 of the FEIS.

### **Comments on Drainage issues**

#### **Comment #7-1 (2 Commenters)**

*The FEIS fails to analyze the ability of the storm sewer system to handle an additional volume of runoff as a result of the new road system. Are there detention ponds associated with the project?*

#### **Response**

As the FEIS states on page 5-74, several locations have been identified where the project study corridor crosses Federal Emergency Management Agency (FEMA) floodplains and floodways. Three of these crossings involve bridge structures that would be constructed over the Clear Fork Trinity River. In each case, SH 121 east of University Drive, Hulen Street, and SH 121 west of Hulen Street, the operating assumption was that the bridge piers would be placed outside the 100-year floodplain and therefore no impact to the 100-year water surface elevations are expected. Further, although the main span of the bridges would only span the 100-year floodplain, bridge piers would be within the 500-year conveyance area. Additional flow area would be available due to additional bridge spans on either side of the main span at both crossings of the river.

FEMA & Corridor Development Certificate (CDC) requirements state that flood elevations cannot be raised by more than one foot. Because of the additional spans on the three Clear Fork Trinity River bridges and the potential for earthwork to increase the conveyance area of the bridge, it is not anticipated that flood elevations would be raised by more than one foot due to the SH 121 project.

Preliminary analysis was performed on the existing storm drain system's ability to convey the anticipated runoff in the Vickery corridor from Montgomery Street to Hulen Street. Currently, storm water is conveyed in an existing underground storm drain system beneath the UP rail yard. The assumption made during the preliminary drainage analysis in this area was that the proposed peak discharge from the project ROW would be no greater than the current peak discharge. Increases in peak discharge that could be produced due to an increase in impervious area of the new project paving could be managed by storage in box culverts, detention basins, and other techniques. Final design and sizing of these features will be performed during the detailed design phase.

In the area of the Arborlawn Drive interchange, preliminary drainage analyses determined cross-drainage structures were needed. It was verified that a combination of box culverts and ditch flow could be used to convey storm water north to the Trinity River. Based on public involvement and City staff requests to lower the roadway as much as possible, a subsurface storm drain system would be used to convey storm water to the Clear Fork Trinity River.

In areas south of IH 20, there are several locations where cross-drainage would be affected by the project. Culverts would be used with additional strategies to control the time release of runoff in addition to controlling flow velocities. If appurtenances such as storage or baffling are required, those elements would be incorporated in the detailed design phase.

An engineering analysis of the design constraints and potential drainage effects of the project has been completed. Given the stage of engineering development of the project at this time, it has been determined that the project schematic design is adequate to account for the increased runoff that would be produced by the project. In all cases, applicable regulations and policies will be adhered to, such as those required by NTTA, TxDOT, and the City of Fort Worth. Additionally, all applicable FEMA, CDC and USACE requirements will be met as the detailed project design is developed.

The need for detention ponds will be determined in the final design of the project and will be in accordance with TxDOT standard design specifications that consider drainage issues and adhere to FEMA and City regulations.

### **Comments on Geometric Concerns**

#### **Comment #8-1** (5 Commenters)

*Concerned that there will be a 30 ft bridge adjacent to Park Palisades and that the ROW line is zero ft from the Park Palisades boundary. There would be no room for a berm to reduce noise and visual impacts to park Palisades. Also concerned about the size of the median adjacent to Park Palisades. Request that the highway be moved as far to the west in the right of way as possible, lower Dutch Branch Road and move the intersection of Dirks and Altamesa and State Highway 121 to the south.*

#### **Response**

The roadway ROW boundary is immediately adjacent to Park Palisades at Dutch Branch and would be a maximum of 17 feet higher than the natural ground at the east roadway ROW line. The widened median is in response to the City's Resolution #2923. It is feasible to move the roadway west approximately 52 feet with the City's approval. The FEIS addresses noise mitigation for this location, with a proposed wall ranging from 8 and 12 feet. This wall could potentially provide the additional benefit as a visual screen. The City's resolution did not include lowering Dutch Branch Road. A plan would be presented for consideration by the City to move Dirks/Altamesa to the south. These concerns will be addressed in the CMP. A discussion about the CMP is located in response to Comment #6-2.

#### **Comment #8-2** (2 Commenters)

*Limit the speed limit to 50 miles an hour, which would reduce air and noise pollution. Prohibiting truck traffic along SH 121 could also reduce air and noise pollution. Installation of additional landscaping along the road and at intersections, design bridges, walls and railings to be context sensitive, use the lowest profile possible, clear a right of way to accommodate no more than two lanes each way and install low mass cutoff lighting in order to mitigate for the effects of noise, light, and visual pollution.*

#### **Response**

Comment noted and considered. These issues will be addressed in the CMP process. A discussion concerning the CMP is located in the Response to Comment #6-2.

#### **Comment #8-3** (1 Commenter)

*Will be virtually impossible for people who live west of Bryant-Irvin to get across to Hulen on Oakmont or on Overton Ridge.*

**Response**

Access from either side of SH 121 via Oakmont or Overton Ridge would not change except for an additional intersection on each roadway.

**Comment #8-4** (1 Commenter)

*FEIS does not include any study on the impact of the facility to the Summit Avenue intersection.*

**Response**

Access to and from Summit is not changing. Access to Forest Park Boulevard from westbound IH30 would require passing through the Summit intersection, per the City's resolution #2923. Summit Avenue is within the project study corridor and was included in the environmental analysis of the FEIS.

**Comment #8-5** (1 Commenter)

*Drop 121 below ground level between Dirks Road and Oakmont Boulevard. Use excavated earth to form sound barriers. Plant trees on top of barriers to help reduce noise level. Project would save \$25,000 per house with free dirt.*

**Response**

As the City's PDT discovered, it is not feasible due to drainage reasons to lower SH 121 below grade in the Dutch Branch area enough to allow Dutch Branch to go over SH 121. SH 121 is below grade for approximately half the distance from Oakmont to Dirks.

**Comment #8-6** (1 Commenter)

*Concerned that a vast amount of money will be spent on a road I have to pay for but which will shorten my drive time from Summit to Bryant Irving/SH 183 by only 3 minutes.*

**Response**

Comment noted and considered.

**Comment #8-7** (1 Commenter)

*Dutch Branch overpass should incorporate step walls to mitigate the impact of the roadway.*

**Response**

Comment noted and considered.

Step walls are considered an aesthetic element. Aesthetic elements will be detailed in the CMP to be developed in the spring of 2005.

Also, please see response to Comment #6-2.

### **Comments on Hike and Bike Trail**

#### **Comment #9-1** (2 Commenters)

*Include parking areas under the bridges near University Drive and Stonegate Boulevard to enhance the use of the trail heads.*

#### **Response**

Parking areas for trail heads will be addressed in the CMP to be developed in the spring of 2005.

#### **Comment #9-2** (2 Commenters)

*Ensure that all the people using the trail have safe detours to continue the greenbelt so that the greenbelt trail system stays in use all the time during construction.*

#### **Response**

In order to ensure the safety of the public, trail users would be detoured during construction activities, i.e., moving support beams above the trail, at these locations. Detour of the trail at these locations would be temporary and of short duration. Users of the trail would be detoured only when the area is operating as a construction zone. When construction activities at each location pose no potential harm to trail users the trail would be re-opened for use at that location. No property ownership transfers for any portion of the bike trail or for any property controlled by Tarrant Regional Water District (TRWD) would occur. No portion of the bike trail or property controlled by TRWD would be retained for long-term use by NTTA or TxDOT. Exhibit 4.6 of the FEIS illustrates these detours.

NTTA and TxDOT proposes to provide a reasonable and safe detour route for the trail users during the construction at the previous described locations, pursuant to 23 U.S.C. 109 (m). The temporary trail detour would not result in temporary or permanent adverse changes to the activities, features, or attributes, which are essential to the purpose or functions of the trail. NTTA and TxDOT would coordinate the route and operation of the temporary detour with the TRWD. Prior to construction, NTTA and TxDOT would secure an agreement with the City and the TRWD concerning the temporary detour at the previous-described locations.

#### **Comment #9-3** (1 Commenter)

*FEIS fails to recognize hike and bike trails that run along river.*

#### **Response**

The Hike and Bike trail portion that exists along the river under the existing roads is not parkland, and the bike trails are depicted on Exhibit 4.6. TxDOT has permanent easement for the bridges at the Trinity River as discussed in the FEIS in Section 4.1.

### **Concerns about Impacts to River, Trees and Wildlife**

#### **Comment #10-1** (4 Commenters)

*Concerned that the FEIS statement that wetlands, wildlife and jurisdictional water issues are premature and will be dealt with at a subsequent stage of project design is out of sync with the planning stage of development at the Rall Ranch property. States that it is extremely difficult for Rall Ranch to go forward with its design and construction of facilities when FHWA, TxDOT and NTTA have not rendered a final environmental plan that applies to Rall Ranch property and*

*must be considered in property development. Suggests that fundamental fairness to the landowner dictates that the environmental impacts on the subject property as well as the effects on the habitat downstream should be analyzed sooner rather than later. Rall Ranch Properties requests that the specific environmental concerns related to this act be addressed specifically at this time.*

## **Response**

Wetlands are addressed in Chapter 4 Affected Environment, Section 5.14 Jurisdictional Waters of the US and Wetland Impacts and in Section 5.27 Secondary and Cumulative Effects Analysis of the FEIS. An additional and further detailed assessment (wetland delineations) and ordinary high water mark determinations would be performed for the recommended alternative at the appropriate phase of the project design and development process. Coordination with the USACE has resulted in correspondence indicating that the project would proceed with the delineation and permitting process during the design phase of the proposed project.

Estimated impacts of the proposed project to Section 404 of the Clean Water Act (CWA) jurisdictional waters of the United States, including wetlands, were estimated for all four Build alternatives. These estimations were based on preliminary engineering and using a worst-case scenario of impacts to jurisdictional areas. The method for determining the boundary of jurisdictional areas included the use of off-site data sources such as 1992 National Wetlands Inventory (NWI) maps, aerial photography as well as limited visual on-the-ground inspection. The use of off-site data sources for making this determination is an accepted industry-wide practice as described in the 1987 Corps of Engineers (USACE) Wetland Delineation Manual.

During the design phase of the proposed project, a detailed on-the-ground jurisdictional water of the United States delineation and project impacts assessment would be completed along the selected alternative. This jurisdictional waters of the United States delineation would be in accordance with the procedure described in the 1987 USACE Wetland Delineation Manual.

In accordance with CWA 404 (b)(1) guidelines, design of the proposed project would include measures to avoid and minimize impacts to jurisdictional areas. Unavoidable impacts to jurisdictional areas would be compensated for during the Section 404 permitting process by providing compensatory mitigation for unavoidable losses of waters (functions and values) of the United States as required by any pertinent Section 404 permit administered by the USACE. Mitigation would be proposed at no less than a one-to-one ratio.

As a result of impacts to jurisdictional waters associated with the construction of this project, Tier I Erosion Control, Post-Construction Total Suspended Solids (TSS) Control and Sedimentation Control devices would be required under the TCEQ Section 401 Water Quality Certification process.

An on-the-ground routine delineation of jurisdictional waters was conducted by a consultant on behalf of the Rall Ranch for 88 acres of Rall Ranch property. Approximately half of these acres are within the proposed SH 121 ROW. The Rall Ranch property delineation of jurisdictional waters was conducted in accordance to the accepted 1987 U.S. Army Corps of Engineers Delineation Manual.

For the purposes of the environmental studies of the proposed SH 121 project, secondary and off-site sources were used to identify jurisdictional waters within the proposed ROW. Secondary and off-site sources utilized include National Wetland Inventory maps, current aerial

photographs and visual observations. The use of secondary sources and off-site sources is an accepted industry-wide practice at this stage of planning for the proposed project. TxDOT utilized these sources to estimate jurisdictional areas within the proposed ROW along the entire proposed project. Only a small component of the entire project area is currently part of the Rall Ranch property.

The potential jurisdictional impacts would have similar impacts for each alternative (see tables 5.20 to 5.23 of the FEIS). The decision makers had sufficient information to understand and evaluate the jurisdictional impacts for each of the alternatives.

Discussions of direct water resources impacts are found in Section 8.11, of the FEIS.

**Comment #10-2** (2 Commenter)

*SH 121 Project would cross the largest contiguous area of prairie in the entire Fort Worth Prairie area. Prairie traversed by SH 121 is botanically and ecologically significant. In order to minimize loss of prairie, the following is requested:*

- perform a survey to determine if virgin prairie exists in the project area*
- adjust ROW accordingly to avoid any virgin prairie*
- eliminate all roads and intersections between the AT&SF RR and Floyd Road*
- compensate for any impacts by planting three acres of native forbs and grasses*
- reseed with native forbs and grasses after any soil disturbance*

**Response**

In accordance with Executive Order (EO) 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping, landscaping would be limited to seeding and replanting the ROW with native species of plants where possible. A mix of native grasses and native forbs would be used to re-vegetate the ROW

We understand the commenter to mean native prairie remnants when he uses the term virgin prairie. Members of the TxDOT Fort Worth District Environmental staff accompanied by two board members of the Native Prairies Association of Texas (NPAT) conducted a field survey of the proposed project area specific to the areas mapped by Commenter 53 as prairie on February 10, 2005. The purpose of the field survey was to determine the presence or absence of native prairie remnants along the proposed project alignment. The two board members of NPAT determined that no native prairie remnants are present within the proposed right-of-way or near the proposed project alignment.

Minimization of impact to vegetation and restoration of disturbed areas will be detailed in the CMP to be developed in the spring of 2005.

**Comment #10-3** (2 Commenters)

*Would like to protect the wildlife and their habitats, including any waterfowl refuge, during construction, and relocate them, if necessary, outside the right of way. Protect trees located outside the right of way and, when possible, where the median is wide enough, inside the median and replace all trees removed within the right of way and those damaged outside the right of way with large hardwood specimens along the project.*

## **Response**

Each of the Build alternatives would affect each of the four tree zones identified in the FEIS to a varying degree; however, the species dominance and characteristics would remain consistent for each alternative. During construction, the contractor would minimize the amount of native vegetation disturbed. During final project design mature woody vegetation and/or unusually large specimens might not require clearing if they are beyond the safety clear zone or in areas where guard fencing is proposed. No habitat types requiring mitigation per the provision (4)(A)(ii) of the TxDOT – TPWD Memorandum of Understanding (MOU) would be impacted by the recommended project. The project has been coordinated with the U.S. Fish and Wildlife Service (USFWS) and the Texas Parks and Wildlife Department (TPWD).

In the Interlocal Agreement, NTTA and TxDOT, with concurrence from the City, have agreed to plant 4,700 trees within the project area and preserve as many trees as possible within the project limits in the Overton Woods neighborhood and around the Trinity River. Impacts to trees, vegetation and wildlife habitat are also discussed in Section 5.15 and Section 5.20 of the FEIS. Potential cumulative impacts to wildlife are discussed in Section 8.16 of the FEIS.

### **Comment #10-4** (3 Commenters)

*Would like to maintain a clear span of the river so we don't have columns going down into the water or into the slopes of the river.*

## **Response**

The bridges would be designed to align with the approved typical sections and, where medians exist, the bridges would generally be separated. Further discussion is ongoing to determine the extent and limits of the bridges over the Trinity River. Bridges will at least span the floodway. TRWD will be included in the CMP process.

### **Comment #10-5** (1 Commenter)

*The statement on 8.15 that, “no impact on endangered/threatened species is likely to occur” is based on insufficient data. The threatened/endangered migrating bird, skunk and snakes were not detected because no one actually was able to look for them where they live.*

## **Response**

TxDOT and NTTA are required to consider impacts to Federal and State protected species in Tarrant County (Rev. 8/26/99). All listed threatened and endangered species were addressed in the FEIS. Pursuant to Section 7(c) of the Endangered Species Act, a Biological Assessment (BA) is required for Federal actions considered to be “major construction activities”. On letter dated June 5, 2002, TxDOT provided a BA to the USFWS pursuant to 50 CFR 402.01 and requested review and concurrence that the project is not likely to affect any Federally listed species. The FWS, based on the BA and review of their files, on letter dated June 12, 2002, concurred with the determination that the project is not likely to adversely affect these (Federal and State protected species in Tarrant County) listed species. In addition, the existing vegetation and trees within the PSC do not provide special habitat value for endangered or threaten species.

### **Comments on Water District Coordination**

#### **Comment #11-1 (2 Commenters)**

*Would like a design professional designated by the Water District to work with the project design team on the design of bridge structures so that the Water District can be assured that the SH 121 project adheres to each design request.*

#### **Response**

This will be reviewed in the upcoming CMP process. The TRWD will be invited to participate in the CMP process.

### **Comments on Landscaping Issues**

#### **Comment #12-1 (2 Commenter)**

*Include special landscaping near bridge areas and select plants that are suitable for the light.*

#### **Response**

Please see response to Comment #6-2.

### **Comments on Light Impacts**

#### **Comment #13-1 (6 Commenters)**

*Suggest that high-mast lighting including five high mass lights, three west of Summit Avenue Bridge and two east, be removed. Lighting should be lowered or directed away from residential neighborhoods.*

#### **Response**

With regard to the proposed SH 121 construction connection near Summit Avenue, the existing high-mast lighting would be removed to construct the proposed project and is proposed to be replaced with low-mast lighting as a result of coordination with the City and public groups. More information is provided in Subsection 8.28 of the FEIS.

### **Comments on Mass Transit (alternative modes of transportation)**

#### **Comment #14-1 (1 Commenter)**

*Mass transit is a better alternative to freeways. Allotted funds should be diverted to the war effort.*

#### **Response**

Comment noted and considered. The suggested transfer of funds is not within the authority of TxDOT or NTTA.

Rail alternatives, as well as other forms of mass transit within the proposed corridor were fully considered. Adequate adjacent rail components currently exist and are included in the NCTCOG's *Mobility 2025-2004 Update*. This plan identifies the Fort Worth and Western Railroad. The route of the railroad generally follows the proposed route of SH 121 from the

Forest Park IH 30 area to just west of FM 1187. Please see Section 3.6.1 *Rail/Transit-Oriented Strategies* in the FEIS.

### **Comments on Mitigation**

#### **Comment #15-1** (2 Commenter)

*Would like to incorporate color, public art or other elements to mitigate a dark, enclosed feeling for all the people using the trail under the bridges at University Drive, I-30 and under the Rosedale/Vickery bridge.*

#### **Response**

Please see response to Comment #6-2.

#### **Comment #15-2** (2 Commenters)

*FEIS does not sufficiently address the highway's impacts on the Alamo Heights neighborhood. As mitigation for these impacts, the Record of Decision should include commitments to provide a decorative screen wall complete with extensive landscaping for the entire toll plaza complex from Montgomery to Hulen Street.*

#### **Response**

Please see response to Comment #6-2.

The ROD for the project will make reference to the CMP. The issues mentioned above will be addressed in the CMP process.

#### **Comment #15-3** (4 Commenters)

*The FEIS lacks adequate design specifics to address its impact. The Record of Decision for this project should include commitment on mitigation measures such as noise, walls, lighting and landscape for the Mistletoe Heights neighborhood.*

#### **Response**

A summary of mitigation measures are discussed in Chapter 8 of the FEIS. Mitigation measures are discussed in a Record of Decision. Also, please see response to Comment #6-2.

#### **Comment #15-4** (2 Commenters)

*Mitigation needed in Alamo Heights for noise lighting. Recommend a screening wall with a landscaped buffer with public art and trees.*

#### **Response**

Please see response to Comment #6-2.

#### **Comment #15-5** (5 Commenters)

*Recommends placing toll plaza below grade, building a landscaped wall from Hulen to Montgomery, and placing a maintenance building somewhere else as mitigation for Alamo Heights.*

#### **Response**

Please see response to Comment #6-2.

The mainlane toll plaza along Vickery Boulevard is designed to be as low as practicable. Allowing for adequate drainage limits the amount the toll plaza area can be lowered below existing grade.

NTTA has committed to constructing a visual screen along the toll plaza area through the interlocal agreement amendment #2.

**Comment #15-6** (1 Commenter)

*Would like to see a justification in the next report for the toll booths at Arborlawn that are required and to design this with the lowest profile possible with no additional height added as an architectural feature.*

**Response**

Please see response to Comment #6-2. The mainlane toll plaza would be designed to be as low as practicable. Allowing for adequate drainage limits the amount the toll plaza area can be lowered below existing grade.

NTTA has committed to constructing a visual screen along the toll plaza area through the interlocal agreement amendment #2.

**Comments on Noise Impacts**

**Comment #16-1** (1 Commenter)

*Fort Worth Country Day School feels that the noise attenuation factors that are applicable to its facilities have not been adequately addressed. Traffic noise levels are provided for only two of four receivers. Noise abatement measures are not addressed or delineated. Both inside and outdoor noise levels need to be considered. The report shows a sound wall barrier of 12 to 16 feet height from ground level, but there is no present calculation provided as to the main lane elevation of the new road of the height from the pavement to the top of the wall. There is no explanation as to why the wall is 1,000 feet long*

**Response**

A preliminary noise analysis was conducted and included in the DEIS. An updated analysis compliant with FHWA Regulation 23 CFR 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise* and TxDOT's *1996 Guidelines for Analysis and Abatement of Highway Traffic Noise* is included in the FEIS.

Following the Public Hearing on the DEIS in 2002, additional modeling has been conducted along the project corridor at 30 receiver sites. Primary consideration was given to exterior areas (Category A, B or C) where frequent human activity occurs. However, interior 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.

A noise analysis has been conducted at this school. A total of six (6) receivers have been modeled at the school. Three receivers were modeled as exterior receivers (Category B) and three receivers were modeled as interior receivers (Category E). The results of the analysis indicate that a noise impact would occur in three of the receiver locations. Noise abatement

measures at these three locations appear to be both feasible and reasonable at this time. A more detailed analysis for the recommended alternative C/A is included in the FEIS.

As for the Fort Worth Country Day School, a 12,14, and 16ft combination wall is proposed along the ROW to benefit 11 receivers. The cost per benefited receiver is estimated as \$21,281. The wall is determined to be reasonable and feasible, since it provides at least 5 dBA reduction and it costs no more than \$25,000 per benefited receiver.

The traffic noise analysis for the FEIS actually included four receivers at Country Day School. However, two receivers at the Kindergarten were inadvertently omitted from the Noise Level Table (Table 5-7) due to a typographical error. Noise levels for these two missing receivers are identical to the noise levels for the two receivers included in the table; therefore, all four receivers would be impacted. Although two receivers are missing from the table, all four receivers were considered in the overall assessment of noise impacts and noise abatement at Country Day School -- the proposed noise barrier was designed (height and length) to benefit all four receivers.

Noise levels for inside (interior) receiver locations at Country Day School were evaluated for the DEIS and the results indicated these receivers would not be impacted. Comments resulting from the DEIS included concerns that exterior noise levels were not determined at Country Day School. In response to these concerns, and based on a follow-up visit to Country Day School by the consultant (noise analyst), members of the TxDOT Fort Worth District staff and the Noise Specialist from TxDOT's Environmental Affairs Division, four representative worst case exterior receiver locations at Country Day School were added to the traffic noise analysis for the FEIS -- the results indicated all four receivers would be impacted. These impacts all resulted from the increase in predicted noise levels rather than the predicted noise levels themselves that were all below the Noise Abatement Criteria (impact) level. The interior receivers at Country Day School were not included in the FEIS because they were not impacted and, therefore, did not represent worst case locations.

As reflected in the FEIS, before a noise abatement measure such as a noise barrier can be incorporated into the project, it must be both feasible and reasonable. In order to be feasible, the noise barrier should reduce noise levels by at least five decibels and to be reasonable the cost should not exceed \$25,000 for each benefited receiver. The FHWA approved Traffic Noise Model (TNM) software was used to design a noise barrier (height, length and location) at Country Day School that would be both feasible and reasonable. The height of the proposed noise barrier varies from 12 to 16 feet because the proposed roadway and adjacent terrain are not straight and flat -- variations in the roadway/adjacent terrain resulted in associated variations in the height of the proposed noise barrier. The length of the proposed noise barrier was based primarily on the location of impacted receivers -- the purpose of any noise barrier is to reduce noise levels at impacted receivers. The height and length of the proposed noise barrier were also designed to ensure the total cost would remain at or below \$25,000 for each receiver that benefited from a noise level reduction of at least five decibels.

**Comment #16-2** (3 Commenters)

*There is no supporting data in the DEIS or the FEIS to indicate at what times of day air and noise modeling tests were done, when the models were done, if they actually followed the regulations to take those tests at a time at the highest and loudest use. Also a barrier wall for*

*Sunset Terrace was not addressed at all in the FEIS. The sound study, in fact, said that there were no receptors -- eligible receptors in the neighborhood.*

**Response**

As for the Sunset Terrace area, various walls were considered along the ROW to benefit receivers. It was determined that no receivers were benefited since the various walls evaluated would not provide at least 5 dBA reduction.

As with all TxDOT highway projects and in accordance with TxDOT's FHWA approved Noise Guidelines, noise impacts for this project were based on predicted (future) noise levels. Future noise levels can only be determined by computer modeling. The FHWA Traffic Noise Model (TNM) software was used for this project and, as stated in the FEIS, "The model [TNM] considers the number, type and speed of vehicles; highway alignment and grade; cuts, fills and natural berms; surrounding terrain features; and the location of activity areas likely to be impacted by the associated traffic noise." Also, to reflect worse case (highest and loudest) noise levels, traffic volumes for the year 2025 were used in the analysis.

The FEIS addresses noise levels for all five receivers in Sunset Terrace and indicates that one of the receivers would be impacted; therefore, noise abatement (including a noise barrier) was evaluated for all of the receivers in Sunset Terrace -- even for those that were not impacted. The FEIS also indicates that a noise barrier would not be feasible and reasonable for the receivers in Sunset Terrace.

For discussion on air, please see response to Comment #2-5, Comment #16-1 and section 5.10 of the FEIS.

**Comment #16-3** (2 Commenters)

*The FEIS does not make adequate use of the extensive citizen contributions that were made through the entire public design team process, the PDT process and the current CAC. Report fails to acknowledge and make use of the PDT conclusion regarding noise. The PDT solved the noise barrier issue by suggesting that providing access was less of an issue than building noise barriers. Also, any sort of barrier that's used or any sort of mitigation that's used to minimize the noise impact should be on the roadway [i.e. the responsibility of the project], not on the surrounding neighborhood that has to come along and solve the problem created by [the roadway]. Regarding the history of the project, it was suggested it would be appropriate to acknowledge the extensive citizens' groups contribution to the project in the ROD.*

**Response**

In order to avoid noise impacts that might 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, that no new activities are planned or constructed along or within the predicted 2025 noise impact contours. FHWA, TxDOT and NTTA are not responsible for providing noise abatement for new development adjacent to the project after approval of the project. Please see Section 5.11 of Volume 1 of the FEIS.

The history of the project was provided as background information and was not intended to be an exhaustive description of project contributors. The ROD is a decision-making document and should not include an exhaustive history of the project; documentation of citizen involvement has been included in various sections of the FEIS.

Also, please see response to Comment #6-2 and Comment #16-1.

**Comment #16-4** (2 Commenters)

*Questions the locations of noise receivers. Noise research is supposed to be done in the noisiest, highest impact area, during rush hour traffic.*

**Response**

Based on an actual visit to Sunset Terrace by the consultant (noise analyst), members of the TxDOT Fort Worth District staff and the Noise Specialist from TxDOT's Environmental Affairs Division in Austin, the receivers were located (as with all TxDOT highway projects and in accordance with TxDOT's FHWA approved Noise Guidelines) at individual residences where frequent human activity (outdoor/indoor) would occur, including first-row residences closest to the proposed project.

Also please see Response to Comment #16-1.

**Comment #16-5** (3 Commenters)

*Noise mitigation walls appropriate for a designated historic district must be constructed to avoid increase in auditory pollution.*

**Response**

The proposed SH 121 project does not constitute a constructive use of the potential historic district as the project's proximity impacts are not so severe that the protected activities, features, or attributes that qualify as a resource for protection under section 4(f) are substantially impaired. The NEPA process demonstrated that existing conditions would not significantly change for the historic properties. Protected activities, features or attributes would not be substantially diminished by the proposed project.

Please see response to Comment #6-2, Comment #16-1, and #17-1.

**Comment #16-6** (1 Commenter)

*Even though the FEIS states that the predicted noise increases would be more than 10 decibels and that abatement issues would be considered, yet those measures are not addressed, even in a cursory manner, not specifically -- not specifically delineated. It [attenuation] doesn't meet the standards of the acoustical performance criteria design requirements and guidelines for schools as it is required to do. The school [Fort Worth Country Day School] appreciates the fact that it's been categorically removed from E [interior] to B [exterior], however, it feels it should be involved in the determination of noise attenuation to its property with the State.*

**Response**

The FEIS includes a discussion on abatement measures for all impacted receivers, including the Country Day School. Also, as documented in Section 5.11 of the FEIS, a noise barrier for the Country Day School was determined to be feasible and reasonable and is proposed for incorporation into the project.

The analysis of noise abatement, and the associated proposal that includes a noise barrier at Country Day School, was accomplished in accordance with TxDOT's FHWA approved Noise

Guidelines. Specifically, the proposed noise barrier at Country Day School was designed to meet the minimum required noise reduction [standard] of five decibels.

As indicated in the FEIS, the final decision to construct the proposed noise barrier would be made following consultation with the affected property owners. TxDOT will conduct a Noise Workshop with the owner(s) of Country Day School that will involve a detailed discussion of all aspects of the proposed noise barrier, including: location, dimensions, type/method of construction, materials and appearance.

### **Comments on NRHP eligibility and Section 4(f) eligibility for Historic Sites**

#### **Comment #17-1 (8 Commenters)**

*Document fails to take into consideration neighborhoods eligible for historic significance 4(f) implications in terms of potential constructive use based the impact of the noise and lighting. A more complete analysis and discussion of Section 4(f) is needed.*

#### **Response**

During the environmental studies and investigation, neighborhoods such as Mistletoe Heights and Sunset Terrace were studied to determine their eligibility under NRHP rules and regulations. In accordance to coordination procedures with THC and FHWA, it was determined that there is no Section 4(f) takings and no adverse affects to these areas. No direct takings from these properties are required for the proposed project; therefore, a 4(f) statement is not required. The NEPA process demonstrated that existing conditions would not significantly change for the historic properties, with their protected activities, features or attributes not substantially diminished by the proposed project.

In correspondence dated August 9, 2002, the THC specifically expressed concern for traffic, noise and light impacts on historic neighborhoods, requesting that TxDOT, “consider minimizing or avoiding increases in traffic, noise and light pollution in these historic areas” and that TxDOT, “consider public input as part of the ongoing testimony process.” The no adverse effect determination was conditional on the provision that “public testimony and design alternatives are given consideration.” In correspondence dated September 9, 2002, TxDOT reassured the THC that public concern for traffic, noise and light pollution have been accommodated through the design process, citing abated traffic projections for neighborhood thoroughfares, FHWA noise abatement criteria (NAC) and lighting design alternatives. The THC acknowledged this correspondence on September 18, 2002.

The proposed SH 121 project does not constitute a constructive use of the potential historic district as the project's proximity impacts are not so severe that the protected activities, features, or attributes that qualify as a resource for protection under section 4(f) are substantially impaired. The NEPA process demonstrated that existing conditions would not significantly change for the historic properties. Protected activities, features or attributes would not be substantially diminished by the proposed project.

Section 4(f) is codified in two places (49 U.S.C. 303 and 23 U.S.C. 138), and is implemented by the FHWA and the FTA through regulations found at 23 CFR 771.135.

On February 14, 2005 FHWA provided a response to a letter from the Department of Interior (DOI) dated January 28, 2005. FHWA summarized their position as the agency responsible to

make Section 4(f) determinations. FHWA provided background on how Section 4(f) decisions are determined and further information on the coordination accomplished between TxDOT and the THC regarding the SH 121 project.

Please see response to #6-2 and #6-4.

**Comment #17-2** (2 Commenters)

*Suggests that the evaluation of historic resources within the area of potential effect was based on data that is nearly 20 years old. May be other properties that could be listed on the national register. Would like all properties eligible for listing on the national register to be included in the Final Environmental Impact Statement. Also concerned that the amount of consideration given to the proper mitigation to avoid adverse effect on the Sunset Terrace neighborhood. Historic Fort Worth requests to be included in the mitigation process for any Section 4-F evaluation.*

**Response**

Archival research and a reconnaissance survey were conducted to identify historic-age sites (pre-1952) within the project's APE in 2002. An APE of 150 ft and the year of 1952 are established during preliminary coordination with the THC. A total of 257 residential, commercial and industrial properties, bridges, railroad structures and a botanic garden were identified and evaluated for National Register eligibility. Specific information pertaining to historic buildings including mapped location, photo documentation and the potential impact of each alternative is included in a Historic Buildings Report on file at the TxDOT Fort Worth District Headquarters.

Also please refer to Subsections 4.4.3, 4.4.4 and 5.21.3 of the FEIS.

**Comment #17-3** (2 Commenters)

*FEIS completely avoids specific comments made during the comments on the Draft EIS concerning the constructive use of potentially eligible listings for the national registered neighborhoods.*

**Response**

Please see response to Comment #6-2 and response to Comment #17-1.

**Comment #17-4** (4 Commenters)

*Only 5098 Sunset Terrace is listed as NRHP eligible. Entire neighborhood [Sunset Terrace] is eligible and it does not show up anywhere in the FEIS. Sunset Terrace has several historic sites that are national register eligible.*

**Response**

The elements of the Sunset Terrace neighborhood coordinated by TxDOT as individual properties were determined NRHP-eligible collectively as a potential historic district, so impacts evaluated for individual components were applicable to the neighborhood as a whole. Please also see response to #6-2 and #17-1.

**Comment #17-5** (3 Commenters)

*Indian campground in project area requires historical preservation and protection. Suggest campground be made a state or federal national park with a museum to house any artifacts recovered from the site. Coordination regarding the investigation of this site was requested.*

## **Response**

The prehistoric site in question (41TR170) was discovered during a March 1999 TxDOT survey of the project area. Based on TxDOT findings, the site is recommended as potentially eligible for listing in the NRHP and as a State Archeological Landmark (SAL). TxDOT has committed to further testing of the site in coordination with the THC to determine the site's formal NRHP and SAL eligibility status. The testing would be the responsibility of TxDOT and would be completed after the ROD but prior to any construction in the area. All Section 106 requirements would be fulfilled prior to the beginning of construction for this project.

A Texas Antiquities Permit would be acquired for any test excavations performed at site 41TR170. The site may contain up to five separate components with the most significant component buried at 1.3 m below ground surface. The goal of testing site 41TR170 is to determine its eligibility for inclusion in the National Register of Historic Places or for designation as a SAL. On the basis of data from survey, there is no reason to believe that human burials are present at the site. However, in the unlikely event that human burials are encountered TxDOT would implement an approved treatment plan for the discovery of human remains.

In the event a potential archeological resource is encountered during construction, construction activities would cease and the resource would be evaluated per the TxDOT / THC MOU. The entity responsible for complying with the MOU would be the one within whose physical jurisdiction (as defined by the Interlocal Agreement among the City, NTTA and TxDOT) the impact to the potential resource would occur. All Section 106 requirements would be fulfilled prior to the beginning of construction for this project.

TxDOT sent a letter dated May 10, 2000 to known tribal entities that may have an interest in the project. Additional coordination with the tribes was initiated on January 31, 2005. One response was received from the Tonkawa Tribal Council dated May 22, 2000 indicating they did not possess any specific information regarding burial or sacred sites in the project area. Coordination letters are located in Appendix F of the FEIS.

Coordination with the City will be an on-going process throughout the investigation of this site.

### **Comment #17-6** (1 Commenter)

*Significant archeological findings of a Native American camping site in the path of the project was omitted from the DEIS to the public's detriment.*

## **Response**

Archeological site 41TR170 was specifically addressed on pages IV-27, V-136, V-137, and V-149 of the DEIS as well Section 5.21 of the FEIS. Please see the response to #17-6 for more information.

## **Comments on Request to Document and Continue Public Process with Citizens Groups**

### **Comment #18-1** (8 Commenters)

*Representing the Fort Worth League of Neighborhood Associations supports alleviation of adverse impacts on neighborhoods. Requests that the FEIS capture the long involved public participation process. Urges continued citizen input through the Citizens Advisory Group for*

*both the design and the construction phases. Requests to know why numerous impacts were not considered in this report (EIS)?*

**Response**

The alternatives section addresses the analysis of the key project issues as identified in the public involvement process. The FEIS considered all public involvement to date of publication and incorporated public involvement into the project development process. TxDOT utilized a systematic and interdisciplinary approach to evaluating the various alternatives considered for the proposed SH 121. The study constitutes a culmination of the most desirable attributes of the other alternatives and fulfills the purpose and need of the proposed action. The alternatives section of the FEIS addresses the analysis of the key project issues as identified in the public involvement process. In addition, the Citizen's Advisory Committee (CAC) and PDT design concepts will be addressed in the final design via the CMP.

The Project History in the FEIS was provided as background information in this decision-making document. This section of the FEIS was not intended to be a detailed history of the project. The FEIS process was conducted in accordance with relevant transportation regulations and document potential environmental, social, and economic effects as well as potential mitigation for the project.

Also, please see response to Comment #6-2.

**Comment #18-2** (2 Commenters)

*NTTA plans to build a maintenance facility and possibly a public storefront to sell their toll tags in the Alamo Heights area. Feel that not enough information has been shared about this facility to allow Alamo Heights Neighborhood Association to evaluate it. The ROD should commit TxDOT and the NTTA to work with the City and citizens groups in developing the final design for the project.*

**Response**

Suggestions from citizen's groups and the City of Fort Worth have been and would continue to be analyzed and considered for incorporation into the final design. NTTA and TxDOT will include as much of the PDT recommendations as is feasible and practicable. The PDT and all other recommendations are included as part of the FEIS and project administrative record. Also, please see response to Comment 18-1 and response to Comment #6-2.

**Comments on Planning, Purpose and Need**

**Comment #19-1** (1 Commenter)

*Regional planning fails to address current developments downtown and in southwest Fort Worth. A great majority of the studies presented in the FEIS date from 40 years ago or more.*

**Response**

As stated on page 2-7 of the FEIS, NCTCOG, together with the RTC serves as the MPO for the DFW region. The local transportation planning process is quite extensive and all of the studies and their materials were considered in this environmental process. Since the early 1970s, there have been seven transportation plans published by NCTCOG. *Mobility 2025 – 2004 Update*, published in 2004 is based on regional transportation needs identified through the process of

forecasting future travel demand, evaluating system alternatives and selecting those options which best meet the mobility needs of the region. Each of the subsequent plans contain updated traffic data. A series of travel forecasts were performed including commuter and light rail alternatives, High Occupancy Vehicle (HOV) and express lanes, freeways, tollroads and arterial street improvements. In addition, a system of bicycle and pedestrian facilities was developed. Throughout the planning process, close coordination among local governments, NTTA, TxDOT and transit authorities was maintained.

### **Comments on ROW Acquisition Procedures**

#### **Comment #20-1 (1 Commenter)**

*Concerned that commercial service properties on south side of Vickery and other areas along the project that have long provided service to the community and livelihood to owners and employees will be wiped out. The length of time this project has been in the planning stage has kept business owners in limbo in regards to their property.*

#### **Response**

ROW acquisition would begin after environmental clearance of this FEIS is obtained from FHWA.

Property rights needed for the expansion of the Texas highway system are acquired under the guidelines of the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970. The State's authority to acquire property for the transportation system is found in the Fifth Amendment to the Constitution of the United States. This authority can be used only when there is a demonstrated public need for the property and the property owners are compensated with just compensation. Just compensation is defined as the fair market value of the property needed plus an amount for damages that might accrue to the remaining property as a result of severing the acquired right of way from the whole property.

### **Comment on the Segmentation of SH 121**

#### **Comment #21-1 (2 Commenters)**

*Final EIS does not address the total project. It continues segmentation.*

#### **Response**

SH 121, from FM 1187 in Tarrant County to US 67 in Johnson County is a separate project and has logical termini and section(s) of independent utility as required. For this project the termini selected are FM 1187, which is a roadway included on the NHS. To be included on the National Highway System a roadway must be considered important to the nation's economy, defense and mobility. The appropriate NEPA document, an Environmental Assessment (EA), was accomplished by TxDOT for SH 121 from FM 1187 in Tarrant County to US 67 in Johnson County. A Public Hearing for the south portion of SH 121 was held in Cleburne on February 13, 2003 and a Finding of No Significant Impact (FONSI) was signed by FHWA on March 20, 2004. The relationship of the SH 121 project in Johnson County is discussed in the secondary and cumulative impacts section of the FEIS.

The FEIS addressed the proposed project from IH 30 to FM 1187 in Tarrant County. These termini roads are on the NHS and, therefore, the FEIS is based on logical termini and meets the requirement of independent utility as required for an independently utilized facility.

### **Comments in Support of the PDT and other Alternatives**

#### **Comment #22-1** (1 Commenter)

*Request that TxDOT, NTTA, and the City continue to work with citizens groups through the construction stage of the SH 121 project.*

#### **Response**

Please see response to Comment 18-1 and response to Comment #6-2.

### **Comments on Tollroad vs. Parkway Concept**

#### **Comment #23-1** (1 Commenter)

*Representing the Overton Woods Homeowners Association would still like to see the road slower, lower and greener.*

#### **Response**

The purpose of the project is to improve regional mobility, increase people and goods carrying capacity and alleviate further overburdening of the local transportation system. Consideration has been given to CAC/PDT suggestions and recommendations.

Also, please see response to Comment #6-2 and Comment #8-5.

#### **Comment #23-2** (1 Commenter)

*FEIS fails to differentiate between parkway impacts and freeway impacts.*

#### **Response**

The purpose of the proposed project is to improve regional mobility, increase people and goods carrying capacity and alleviate further overburdening of the local transportation system between the Central Business District (CBD) of Fort Worth, including the existing regional transportation network and newly developed and developing areas in southwest Tarrant County. Each of the build alternatives evaluated were those that meet the Purpose and Need of the project.

The FEIS does not differentiate between a parkway and a freeway because the environmental impact analysis would consider the same traffic projection numbers, roadway typical sections, and environmental constraints along the proposed project regardless of whether the roadway is referred to as a parkway or freeway. Therefore, the environmental impacts would not be different between a parkway and a freeway.

Based on the commenter's previous discussion regarding alternative analysis, we understand the commenter's concerns to be project design context sensitivity. Context sensitivity will be addressed in the CMP process. For a discussion of the CMP see response to Comment 6-2.

### **Comments on Traffic Studies**

#### **Comment #24-1 (2 Commenters)**

*Public was not given the right to examine and comment on the traffic projections because traffic data presented in the Final EIS was collected and analyzed years before the draft was written. Traffic analysis indicates this highway will encourage speed people straight into a traffic jam, but they will just get to it more quickly.*

#### **Response**

The traffic for this study has been provided by the NCTCOG and the latest traffic available is being utilized for the project. The level of service (LOS) on SH 121 throughout the project and specifically at the north end is at an acceptable level.

Part of the purpose of the project is to improve regional mobility and alleviate local traffic congestion by providing a direct route between southwest Tarrant County and the Fort Worth CBD. As stated on page II-27 of the DEIS, studies have shown that the project would provide the typical user an average travel distance saving of 1 to 3 miles and an average travel time saving of five to ten minutes between the CBD and various points within the project study corridor (PSC). Traffic demand is also discussed in subsection 2.2.3 of the FEIS.

Percent Vehicle Hours of Delay, represents the average delay of all motorists, expressed as a percentage of the total travel time on a given section of highway. The Southwest Fort Worth Subarea study compared the Percent Vehicle Hours of Delay for the project Subarea between the No Build and the Build scenarios, the following was found:

Traffic impact studies are discussed in Section 2.2 Supporting Documentation – Purpose and Need, of the FEIS. A summary of Build Alternatives can be found in subsection 3.3.6 of the FEIS. Traffic data compiled by NCTCOG is available for public inspection upon request.

#### **Comment #24-2 (1 Commenter)**

*Traffic impact studies comparing proposed locations of different interchanges between the West Fork and I-20 are not included.*

#### **Response**

Traffic impact studies are discussed in Section 2.2 Supporting Documentation – Purpose and Need, of the FEIS and cover the entire limits of the project. A summary of Build Alternatives can be found in subsection 3.3.6 of the FEIS.

Decision to compare traffic studies was made based upon the City's Locally preferred alternative, the comprehensive plan, and the local thoroughfare plan. Both the City's comprehensive plan and the City of Fort Worth Local thoroughfare plan are developed with extensive public involvement.

### **Comments on Urban Sprawl**

#### **Comment #25-1** (1 Commenter)

*TxDOT's main purpose appears to be to get outlying residents into and out of a city they do not support.*

#### **Response**

The purpose of the proposed project is to improve regional mobility, increase people and goods carrying capacity and alleviate further overburdening of the local transportation system between the Central Business District (CBD) of Fort Worth, including the existing regional transportation network and newly developed and developing areas in southwest Tarrant County.

### **Comments on Census Data**

#### **Comment #26-1** (3 Commenters)

*Suggests that NTTA/TxDOT's decision to not add a wall barrier to the Alamo Heights area is based on census data such as income and percent minority.*

#### **Response**

The decision to recommend or not recommend abatement procedures such as noise walls is not based on data, US Census or otherwise, pertaining to race, income, ethnic origin, sex or age.

Please see response to Comment #15-1, Comment #16-1 and Comment #16-2.

The traffic noise analysis for the proposed action determined where noise impacts would occur and where noise abatement would likely be feasible and reasonable. The analysis included a prediction of future noise levels that were derived, in part, from future increases in highway traffic due to both existing land uses and future development likely to occur in the study area.

In accordance to agreements made by TxDOT, NTTA, and the City of Fort Worth, NTTA would provide a twenty-five foot-wide landscaped buffer between its toll plaza and the Alamo Heights neighborhood extending from Concrete Street to Hopkins Street.

### **Comments on Visual Considerations**

#### **Comment #27-1** (2 Commenters)

*States that it's very important that all bridge structures over the river preserve the view of the river by having some open bridge railing design that would not obstruct the view of the greenbelt from the new highway. Suggests splitting the bridge structures between directional lanes to provide maximum air and light from the median area.*

#### **Response**

The bridges would be designed to align with the approved typical sections and, where medians exist, the bridges would generally be separated. Bridge railings would be designed in accordance with the required standards, with special railings considered as part of the amenities package for the project.

Bridge rail will be discussed as part of the upcoming corridor master planning process. Any bridge rail used on the SH 121 mainlanes, including over the river, will need to be FHWA crash-tested and approved for high-speed (over 45 mph) traffic.

Mainlane bridges over the river will be separate structures to allow air and light to penetrate the median section. Additionally, SH 121 over the river west of Hulen Street has a widened median per the City's resolution 2923, so the separation will be approximately 100'.

Also, please see response to Comment #6-2.

### **Comments on Water Quality and Safety**

#### **Comment #28-1** (2 Commenters)

*Stabilize the bank areas underneath the crossings to prevent erosion and select materials that are compatible with the aesthetics and natural conditions of the river.*

#### **Response**

Coordination with the USACE concerning permits for this project would be conducted during the detailed design of the project. In addition, Texas Commission on Environmental Quality (TCEQ) Section 401 of the CWA Best Management Practices (BMP) for erosion control would be implemented in association with any Section 404 permits.

Specific design efforts to stabilize the bank would be developed in the latter stages of the design process.

Also, please see response to Comment #6-2.

#### **Comment #28-2** (1 Commenter)

*FEIS is unclear whether seed mixture for reseeding erosion control will be 100 percent native seeds.*

#### **Response**

Comment noted and considered. This project will use NTTA specifications that comply with Executive Order (EO) 13112. In accordance with EO 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping, landscaping would be limited to seeding and replanting the ROW with native species of plants where possible. A mix of native grasses and native forbs would be used to re-vegetate the ROW. Seeding specification would be in compliance with EO 13112.

#### **Comment #28-3** (1 Commenter)

*Referencing Table 5-24 of the FEIS, further studies need to be made in regard to flooding which can negatively affect property values.*

#### **Response**

An engineering analysis of the design constraints and potential drainage effects of the project has been completed. More detailed hydraulic studies would be performed during the Plans, Specifications and Estimates (PS&E) stages and would follow current NTTA, TxDOT, FHWA and City design criteria and standards. The facility would allow proper conveyance of the 100-

year frequency flood (inundation of the roadway being acceptable) without causing substantial damage to the roadway, streams or other property.

Preliminary studies indicate that stream crossings and storm water runoff from the facility would not result in exceeding the 100-year floodplain elevation. No major changes to streams and floodplains elevations are anticipated. The USACE and FEMA would be notified of any substantial change, when and if appropriate base hydraulic studies indicate a substantial change to the floodplain elevation.

Comment noted and considered. Further studies will be performed. More explanation is provided on page 5-85 of the FEIS.

### **Comments on Wetlands and Validity of FEIS Wetland Section**

#### **Comment #29-1 (6 Commenters)**

*Document fails to take into consideration wetlands issues. None of the wetland areas have been documented or analyzed in the EIS. The public has had no opportunity during this comment period to look at anything in the EIS that described wetlands.*

#### **Response**

Wetlands are addressed in Chapter 4 Affected Environment, Section 5.14 Jurisdictional Waters of the US and Wetland Impacts and in Section 5.27 Secondary and Cumulative Effects Analysis of the FEIS. More detailed assessment (wetland delineations) and ordinary high water mark determinations would be performed for the recommended alternative at the appropriate phase of the project development and design process. Coordination with the USACE has resulted in correspondence that the project would proceed with the delineation and permitting process during the design phase of the proposed project.

According to the City of Fort Worth Floodplain Administrator and investigation of USGS topographic maps, Summer Creek is not present within the proposed project area. We assume that the commenter is referring to one of the unnamed intermittent tributaries to the Clear Fort of the Trinity River.

Estimated impacts of the proposed project to Section 404 of the Clean Water Act (CWA) jurisdictional waters of the United States, including wetlands, were estimated for all four Build alternatives. These estimations were based on preliminary engineering and using a worst-case scenario of impacts to jurisdictional areas. The method for determining the boundary of jurisdictional areas included the use of off-site data sources such as 1992 National Wetlands Inventory (NWI) maps, aerial photography as well as limited visual on-the-ground inspection. The use of off-site data sources for making this determination is an accepted industry-wide practice as described in the 1987 Corps of Engineers (USACE) Wetland Delineation Manual.

During the design phase of the proposed project, a detailed on-the-ground jurisdictional water of the United States delineation and project impacts assessment would be completed along the entire proposed project's Recommended alternative. This jurisdictional waters of the United States delineation would be in accordance with the procedure described in the 1987 USACE Wetland Delineation Manual.

In accordance with CWA 404 (b)(1) guidelines, design of the proposed project would include measures to avoid and minimize impacts to jurisdictional areas. Unavoidable impacts to

jurisdictional areas would be compensated for during the Section 404 permitting process by providing compensatory mitigation for unavoidable losses of waters (functions and values) of the United States as required by any pertinent Section 404 permit administered by the USACE. Mitigation would be proposed at no less than a one-to-one ratio.

Coordination with the USACE concerning permits for this project would continue during the detailed design of the project. In addition, Texas Commission on Environmental Quality Section 401 of the CWA Best Management Practices (BMP) for erosion control would be implemented in association with any Section 404 permits.

As a result of impacts to jurisdictional waters associated with the construction of this project, Tier I Erosion Control, Post-Construction Total Suspended Solids (TSS) Control and Sedimentation Control devices would be required under the TCEQ Section 401 Quality Certification process.

Discussions of direct water resources impacts are found in Section 8.11, of the FEIS. The public has had an opportunity during the comment period that ended December 31, 2004 to examine the information concerning wetlands presented in Chapter 4, Section 5.14, and Section 5.27 of the FEIS and to comment on this information.

See also Response to Comment #10-1

**Comment #29-2** (1 Commenter)

*Recommend that a professional wetland scientist be employed as a construction monitor for the project.*

**Response**

Comment noted and considered. During construction of the project, an Environmental Quality Coordinator would inspect the project to ensure compliance with all USACE and TCEQ regulations and best management practices would be employed.

**Other Comments and Issues**

**Comment #30-1** (5 Commenter)

*Questions concerning impact of noise, light, air pollution and aesthetic damage to our neighborhood have not been sufficiently addressed. A separate detailed and binding agreement between the City of Fort Worth, TxDOT and NTTA should be created to guarantee that important mitigation measures concerning landscaping, appropriate lighting and sensitively designed noise barriers, become reality.*

**Response**

Please see response to Comment #6-2.

**Comment #30-2** (1 Commenter)

*It is our (Streams and Valleys) understanding that 1) TRWD will be included in the bridge design process, 2) TxDOT has agreed to provide lighting and paint under all bridges on the project, 3) TxDOT will provide and construct parking under the Rosedale Bridge, 4) bridges should span the river, and 5) bridge should use separated bridge spans."*

**Response**

Please see response to Comment #6-2, Comment #9-1, and Comment #27-1.

**Comment #30-3** (1 Commenter)

*Streams and Valleys with the Trinity River Vision is concerned not only with function, but also with quality of life. Please look carefully at any project that may have a negative impact on quality of life.*

**Response**

Comment noted and considered. This will be addressed by the CMP process.

**Comment #30-4** (1 Commenter)

*Vol II of the FEIS indicates Ron Hays made comment #16-6. (Mr. Hays) did not make that comment. Please respond to the comment (Mr. Hays) actually made.*

**Response**

Two other commenters contributed to Comment #16-6 not Mr. Hays. However all four of Mr. Hay's comments concerning potential impacts to the Park Palisades neighborhood were addressed in Volume 2 of the FEIS (please see the responses to 8-1, 8-2, 8-3, and 20-1 in the FEIS)

**Comment #30-5** (1 Commenter)

*Request that a Supplemental EIS be created for the project.*

**Response**

According to 23CFR 771.130, an FEIS shall be supplemented whenever the FHWA determines that changes to the proposed action would result in significant environmental impacts that were not evaluated in the FEIS; or new information or circumstances relevant to environmental concerns and bearings on proposed action or its impacts would result in significant environmental impacts not evaluated in the FEIS.

It has been determined that there are no changes to the project that would result in significant environmental impacts not previously considered in the DEIS nor is there new information relevant to environmental concerns that would result in significant impacts not evaluated in the DEIS. As a result of this "hard look" NTTA and TxDOT recommended proceeding to this Final Environmental Impact Statement (FEIS). The FHWA has concurred with this approach.

**Comment #30-6** (1 Commenter)

*The cost effectiveness of the project relative to Congestion Mitigation and air quality improvement is not addressed in the no-build analysis. The effects of construction equipment operations on air quality have not been evaluated.*

**Response**

The No Build does not evaluate cost effectiveness relative to congestion mitigation and air quality improvement.

The control of particulate matter emanating from various construction activities will be in accordance with TCEQ regulations. To minimize exhaust emissions, contractors will be required

to use emission control devices and limit unnecessary idling of construction vehicles. Included in this project's contract would be the TxDOT standard specification for construction that requires the contractor to be familiar and comply with all Federal, State, and local laws, ordinances, and regulations that affect the conduct of work.

**Comment #30-7** (2 Commenters)

*Exhibit 4.1 in the FEIS shows the area along University Drive between the river and I-30 as Industrial and it is actually commercial. Exhibit 4.2 in the FEIS shows the area in blue as high-density residential when it is low-density residential.*

**Response**

Comment noted. The map was developed from information provided by the City of Fort Worth's 2004 Comprehensive Plan.

**Comments on Section 4(f) Issues (Public Recreation Areas)**

**Comment #31-1** (2 Commenters)

*Harrold Park is a public park and should be eligible for Section 4(f).*

**Response**

There is no physical taking of Harrold Park.

No direct takings from these properties are required for the proposed project; therefore, a 4(f) statement is not required. The NEPA process demonstrated that existing conditions would not significantly change for the historic properties, because their protected activities, features or attributes are not substantially diminished by the proposed project. Moreover, the proposed SH 121 project does not constitute a constructive use of any eligible Sec 4(f) property as the project's proximity impacts do not substantially impair the activities, features, or attributes that may qualify as protected resources for under section 4(f).

As stated in Section 5.9 of the FEIS, Section 4(f) states that land from a publicly owned park, recreation area, wildlife/waterfowl refuge or historic site can be used for a transportation project only if there is no feasible and prudent alternative to the use of the resource and all possible planning has been taken to minimize harm to the resource. ROW for SH 121 would not be required from publicly owned parks, recreation areas, wildlife and waterfowl refuge of National, State, or local significance. The recommended alternative therefore would not require takings from publicly owned parks, recreation lands, wildlife and waterfowl refuge lands, or historic properties.

**General Comments in Support for the Project**

**Comment #32-1** (6 Commenters)

Comments expressing support for the project.

**Response**

Comments noted.