



U.S. Department
of Transportation

**Federal Highway
Administration**

Texas Division

September 18, 2012

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Finding of No Significant Impact
Dallas Horseshoe Project: IH 30 and
IH35E
Dallas County
CSJs: 0196-03-205, 0442-02-118,
0442-02-132, 1068-04-099, 1068-04-
116, 0009-11-226

Mr. Carlos Swonke
Director, Environmental Affairs
Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701

Dear Mr. Swonke:

We have thoroughly reviewed our records on the Dallas Horseshoe Project which include, but are not limited to, the Environmental Assessment (EA) dated September 2012, the revised Public Hearing Summary and Analysis (which includes responses to public comments) prepared by the Texas Department of Transportation (TxDOT) and provided by letter dated September 14, 2012, and all previous environmental studies and findings.

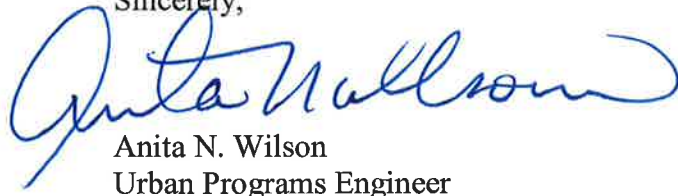
Based upon our own agency review and consideration of the analysis and evaluation contained in the September 2012 EA as documented in the enclosed Finding of No Significant Impact (FONSI) document and after further consideration of all social, economic and environmental factors, including input from the public involvement process, we hereby issue a FONSI for the Dallas Horseshoe Project.

We concur in the findings made in the September 2012 EA in that: (1) the Build Alternative is the selected alternative for the Dallas Horseshoe project, (2) the Build Alternative best meets the purpose and need of the project with the least amount of impacts to the resource areas, and (3) the proposed project with all the required mitigation and coordination as detailed above will have no significant impacts on the quality of the human or natural environment under NEPA. In addition, based on this review, we find that an Environmental Impact Statement (EIS) is not required for this project.

Mr. Carlos Swonke
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Should you have any questions please contact me at (512) 536-5951.

Sincerely,

A handwritten signature in blue ink that reads "Anita N. Wilson". The signature is fluid and cursive, with the first name being the most prominent.

Anita N. Wilson
Urban Programs Engineer

Enclosures

FEDERAL HIGHWAY ADMINISTRATION

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

For

DALLAS HORSESHOE PROJECT: IH 30 and IH 35E
DALLAS COUNTY, TEXAS
TxDOT CSJs: 0196-03-205, 0442-02-118, 0442-02-132,
1068-04-099, 1068-04-116, 0009-11-226

INTRODUCTION

The Federal Highway Administration (FHWA) has determined, in accordance with 23 Code of Federal Regulations (C.F.R.) §771.119 and §771.121, that the proposed project to replace Interstate Highway (IH) 30 and IH 35E bridge structures crossing the Dallas Floodway and improvements at the IH 30/IH 35E interchange (Mixmaster) and associated roadways, frontage roads, ramps, direct connectors, and collector distributor roads, also known as the Dallas Horseshoe Project, will not have a significant impact on the human or natural environment. This Finding of No Significant Impact (FONSI) for the Build Alternative is based on the September 2012 Environmental Assessment (EA). The draft EA was approved by FHWA for public involvement on June 28, 2012. The Public Hearing Summary Report (which includes responses to public comments) was prepared by the Texas Department of Transportation (TxDOT) in September of 2012 and is on file at the TxDOT – Dallas District office.

The September 2012 EA and the September 2012 Public Hearing Summary Report have been independently evaluated by FHWA, and determined to adequately and accurately discuss the need for, the purpose of, alternatives, environmental issues, and impacts of the proposed Dallas Horseshoe Project, as well as appropriate mitigation measures. These documents provide sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required. Finally, these documents are incorporated by reference into this decisional document.

PROJECT BACKGROUND

TxDOT proposes the replacement of the IH 30 and IH 35E bridges crossing the Dallas Floodway and improvements associated with the IH 30/IH35E locally known as the “Mixmaster,” approaches, direct connectors, ramps, reversible managed lanes, collector distributor roads, and frontage roads, a distance of approximately 5 miles.

The logical termini for the IH 30 section of the Dallas Horseshoe Project, consists of Sylvan Avenue and IH 45. The logical termini for the IH 35E section, consists of 8th Street and IH 30. The Dallas Horseshoe Project is located within the city of Dallas, in Dallas County. Overall, the proposed project will result in the following improvements:

- Replacement of the IH 30 bridges crossing the Dallas Floodway;
- Replacement of the IH 35E bridges crossing the Dallas Floodway;
- Reconstruction of the Mixmaster;
- Operational improvements between Hotel Street and IH 45 (the Canyon);

- Improvements to Beckley Avenue, Riverfront Boulevard and Colorado Avenue; and
- Improvements to Bicycle and Pedestrian facilities.

Before the Dallas Horseshoe Project was initiated, solutions for congestion along IH 30, IH 35E, and the Mixmaster near downtown Dallas were extensively studied. The Trinity Parkway Corridor Major Transportation Investment Study (MTIS) was conducted from 1996 to 1998 and studied the Canyon¹, the Mixmaster, and the portion of IH 35E from the Mixmaster to State Highway (SH) 183 known as the “Lower Stemmons” Freeway. The MTIS evaluated different travel modes, over 40 improvement alternatives, and included conceptual engineering, traffic analysis, preliminary environmental studies and an extensive public and agency involvement program. The MTIS recommended over \$1 billion in multi-modal transportation improvements, including the improvements to the IH 30 and IH 35E corridors under a separate project: Project Pegasus. Project Pegasus is an 11-mile long project which received a FONSI from FHWA in 2005. The Dallas Horseshoe Project is a breakout project of Project Pegasus, which focuses primarily on the replacement of the IH 30 and IH 35E bridge structures, which are in need of replacement because of their deteriorating condition. If constructed, the Dallas Horseshoe Project will be developed using the design-build delivery method of construction.

The Dallas Horseshoe Project traverses and requires alterations to the Dallas Floodway, and as such, these alterations require U.S. Army Corps of Engineers (USACE) approval under 33 United States Code (U.S.C.) Section 408 (Section 408). The USACE is a cooperating agency for the Dallas Horseshoe Project.

Existing Facility

Land use abutting IH 30 and IH 35E consists primarily of commercial, institutional, public/recreational facilities, and residential neighborhoods. The existing facility is composed of two major interstates, a major interchange, bridge structures, ramps, frontage roads, collector distributor roads, direct connectors, high occupancy vehicle (HOV) lanes, and cross streets that form a complex configuration. The IH 30 and IH 35E bridges were constructed over half a century ago and are therefore nearing the end of their service life. The following summarizes the existing facilities within project limits:

- IH 30 – Major east-west bound facility:
 - Discontinuous frontage roads;
 - Six to eight mainlanes; and
 - One lane westbound HOV/managed (HOV/M) lane beginning west of Beckley Avenue
- IH 35E – Major north-south bound facility:
 - Discontinuous frontage roads;
 - Five mainlanes along the IH 35E northbound which includes one reversible HOV lane; and
 - Four mainlanes along the IH 35E southbound.
- IH 30/IH 35E Interchange (Mixmaster):
 - Eight IH 30 mainlanes;
 - Four IH 35E mainlanes;
 - One lane reversible HOV lane; and

¹ The “Canyon” is defined as the depressed portion of IH 30 between Hotel Street and IH 45.

- One lane frontage road to access Reunion Boulevard.
- IH 30 and IH 35E Bridges crossing the Dallas Floodway (four structures in total).
- The following cross streets:
 - Beckley Avenue: a six lane facility that crosses IH 30 as an underpass;
 - Riverfront Boulevard: a six lane facility that crosses IH 30 and IH 35E as an underpass, and carries traffic traveling from eastbound IH 30 to southbound IH 35E and from northbound IH 35E to westbound IH 30;
 - Colorado Boulevard: a four lane facility connected to half cloverleaf interchange.

Traffic Projections

According to data obtained from the TxDOT's Transportation Planning and Programming Division, the average daily traffic for IH 30 and IH 35E ranges from 155,960 to 216,860 vehicles per day (vpd) in 2012 and is projected to range from 170,520 to 237,090 vpd in 2017 and from 223,900 to 310,200 vpd in 2035. Traffic within the project limits is projected to increase approximately 43 to 44 percent by the year 2035.

Need and Purpose

The design standards for freeway and interstates have changed since the facilities were built. The traffic capacity constraints of existing streets and alternate north/south facilities near downtown Dallas and limitations on the availability of right-of-way (ROW) for major capacity improvements have created and will continue to intensify congestion. The existing facility exhibits the following needs:

- Unsatisfactory bridge conditions;
- Lack of alternative routes for use after crashes;
- High crash rates when compared to statewide crashes; and
- Does not meet current design standards for ramp acceleration or deceleration lengths, spacing of interchanges and ramps, vertical clearances, horizontal clearances, and sight distances.

The purpose of the proposed project is to improve safety by replacing aging and deteriorating bridge structures and by providing a highway facility that will meet current design and safety standards. The proposed project will manage congestion by improving traffic operations along IH 30, IH 35E, and at the Mixmaster. The proposed project will improve mobility and access by allowing the extension of the morning operations of the existing IH 30 HOV/M lane, providing continuous frontage roads, widening and extending the IH 35E HOV lane, and reducing weaving through the construction of direct connectors and collector distributor roads. The proposed project improvements are consistent with local planning goals.

REVIEW OF THE EA

In the draft EA, two alternatives were analyzed: the No-Build Alternative and the Build Alternative. The No-Build Alternative represents the case in which the proposed project would not be constructed. The Build Alternative will allow replacement of the IH 30 and IH 35E bridge structures and improvements to sections of the Mixmaster and associated roadways, frontage roads, ramps, direct connectors, and collector distributor roads. The No-Build Alternative is the baseline for comparison to the Build Alternative.

Preferred Alternative

Only one Build Alternative was evaluated to meet the need and purpose previously identified. The Build Alternative is the preferred alternative because it will improve operations and safety compared to the No-Build Alternative primarily due to its addition of travel lanes, reduction of weaving on the mainlanes, and redesign of roadway elements to meet current design standards.

Bridge Replacements

Under the Build Alternative, the existing IH 30 bridge structures will be replaced with four new bridge structures each (two structures for the mainlanes and two structures for the frontage roads). Each IH 30 mainlane bridge will consist of five 12-foot wide travel lanes. Each frontage road bridge will include two 12-foot wide lanes and an 8-foot shoulder. The new frontage road bridges will accommodate bicyclists and pedestrians. The frontage roads outside the floodway will include a 12-foot wide lane and 14-foot wide lane for shared use of bicycles and vehicles. The IH 30 westbound mainlane bridge will include a non-barrier separated transition lane for the proposed Commerce Street to IH 30 westbound mainlane direct connector lane to allow adequate distance for traffic to merge to IH 30. The design speed of the main lanes will be 60 miles per hour (mph), while the frontage roads will have a design speed of 40 mph. The proposed project will also extend the morning operations of the existing IH 30 HOV/M lane by adding an exit ramp to the IH 30 eastbound mainlane west of Beckley Avenue.

The IH 35E bridge structures will also be replaced with four new bridge structures. The IH 35E northbound bridges will consist of three 12-foot wide mainlanes, two 12-foot wide reversible HOV lanes, separated from the mainlanes by a 10-foot wide outside shoulder and a concrete traffic barrier; five 12-foot collector distributor lanes, and a 6-foot wide sidewalk. The IH 35E southbound bridges will consist of four 12-foot wide mainlanes, four 12-foot wide collector distributor lanes, and a 6-foot wide sidewalk along the outside of the collector distributor road. The proposed design speed for the IH 35E facility is 60 mph. The design speed for the collector distributor roads is 35 to 40 mph.

Mixmaster/Cross Street Improvements

The Mixmaster will be reconstructed to include new direct connectors, collector distributor lanes, mainlanes, reversible HOV lanes, and extension of the IH 30 frontage road which will include one outside lane for shared-use for bikes and vehicles, and a sidewalk. The existing HOV lane within the Mixmaster will be widened from one to two lanes and extended approximately 1,900 feet north to Reunion Boulevard. The project will also involve the removal of existing access to the IH 35E HOV lane from/to the Houston Street and Jefferson Street Viaducts. This will result in the removal of the existing interim IH 35E HOV crossover structure located between the Houston Street and Jefferson Boulevard viaducts south of the Mixmaster, and removal of the existing staircase connected to the northern railing of the Houston Street Viaduct, located south of the Mixmaster. Operational improvements are also proposed along the depressed portion of IH 30 between Hotel Street and IH 45, also known as the Canyon. The proposed improvements at the Canyon consist of the addition of two slip ramps, reopening a ramp, an additional auxiliary lane, and closing an entrance ramp.

Cross street improvements proposed at Beckley Avenue include reconstruction of the existing U-turn lane, the addition of proposed 6-foot wide sidewalks on both sides of the street, and an outside 14-foot wide shared-use lane to accommodate bicycle traffic which will intersect with the Coombs Creek Trail Extension. The proposed improvements at Riverfront Boulevard consist of full reconstruction of the northbound and southbound lanes. The proposed improvements along

Riverfront Boulevard will include a 5.5-foot wide sidewalks and outside 14-foot wide shared-use lanes for bikes and vehicles.

The proposed improvements along Colorado Boulevard include the replacement of the half cloverleaf interchange and the realignment of Colorado Boulevard with full reconstruction. The proposed Colorado Boulevard will consist of four through lanes and two left turn lanes, one in each direction. The 14-foot wide outside lane will be for shared-use of bicycles and vehicles. Proposed 6-foot wide sidewalks along both sides of the street will provide for a direct connection to the proposed sidewalks along the IH 35E bridges across the Dallas Floodway. Along IH 35E from 8th Street to Colorado Boulevard, transitional elements are proposed to facilitate increased operations and provide for direct access.

Bicycle/Pedestrian Improvements

To accommodate pedestrian travel along Riverfront Boulevard, Beckley Avenue, Colorado Boulevard, and the proposed frontage roads, the Dallas Horseshoe Project will include sidewalks. The proposed sidewalks will meet Americans with Disabilities Act design criteria.

Along IH 30, between Beckley Avenue and Riverfront Boulevard, the proposed project will include a two-way, 14- to 18-foot wide bicycle facility along the eastbound frontage road bridge and a two-way, 8- to 18-foot wide pedestrian facility along the westbound frontage road bridge. These facilities will provide flexibility for the City of Dallas to accommodate for the future bicycles and/or pedestrian facilities planned for the area. Both facilities will provide direct connectivity to the future Coombs Creek Trail Extension, Planned Trinity Levee Trails/Connections, Planned Reunion Overlook, and Planned Riverfront Boulevard Cycle Tracks. In order to accommodate for the connectivity to the future Coombs Creek Trail Extension, the proposed project will include a 12-foot wide pedestrian/bicycle connector from IH 30 to Beckley Avenue.

Access Improvements

The proposed project will improve access resulting in the modification of the current travel patterns. The requirements to meet current design standards for ramp acceleration or deceleration lengths, spacing of interchanges and ramps, vertical clearances, horizontal clearances, and sight distances will require the relocation or elimination of some ramps.

Access improvements include extended limits of frontage roads along IH 30, a two-lane IH 35E HOV lane extending to Reunion Boulevard, construction of direct connectors and collector distributor roads, removal of direct access to the IH 35E HOV lane from/to the Houston Street and Jefferson Street viaducts, and extension of the morning operations of the existing IH 30 HOV/managed lane by adding an exit ramp to the IH 30 eastbound mainlane. Changes in access include those resulting from the closure of the Lamar Street entrance ramp and reopening of the IH 30 westbound slip ramp located between Akard Street and Ervay Street.

Aesthetics and Landscape

Urban Design Technical Guidelines being developed for the Dallas Horseshoe Project include urban design details for aesthetics and opportunities for structural form and architectural enhancements. The purpose of the guideline document is to guide the design-build contractor in the development of the overall structural form and aesthetic enhancements of the Dallas Horseshoe Project. These guidelines outline specific technical direction on project elements in terms of form, shape, dimension, color palette, and architectural character to guide final design by the design-build contractor. The guidelines define elements of the vehicular and pedestrian

bridges, columns, caps, ramps, direct connectors, walls, traffic barriers, sidewalks and approaches, directional signage, roadway lighting, under-bridge treatments, and aesthetic lighting.

In summary, the proposed improvements will result in the replacement of the IH 30 and IH 35E bridge structures crossing the Dallas Floodway and improvements at the Mixmaster and associated roadways, frontage roads, ramps, direct connectors, and collector distributor roads, along IH 30 and 35E within project limits.

Preferred Alternative Justification

Because the preferred alternative replaces the aging and deteriorating bridges over the Dallas Floodway, improves safety, manages traffic congestion, improves traffic operations along IH 30, IH 35E, and meets the regionally adopted transportation policy objectives consistent with the project need and purpose; in conjunction with the extensive consideration of local stakeholders' needs, goals, and concerns regarding the project's interface with their respective communities and interests, the construction of the preferred alternative will best meet the need and purpose stated in this document.

Since the Project Pegasus FONSI was obtained, sections of the depressed portion of IH 30, the Canyon, and Lower Stemmons, were deferred from the financially constrained metropolitan transportation plan (MTP), *Mobility 2035: The Metropolitan Transportation Plan for North Central Texas (Mobility 2035)*. In September 2011, Proposition 12 funding became available for the design and construction of a portion of Project Pegasus, the Dallas Horseshoe Project. Since approval of Project Pegasus schematic was obtained, design revisions were proposed to improve constructability and traffic operations during and after construction. The revisions involve the southern part of the IH 30 and IH 35E interchange; the terminus of the IH 30 HOV/M lane; and operational improvements along IH 30 in the Canyon. In May 2012, the North Central Texas Council of Governments (NCTCOG) prepared a technical memorandum to determine whether or not the changes affected the *Mobility 2035* air quality conformity determination. It was concluded that these design changes, will not conflict with any of the assumptions or policies included in *Mobility 2035*.

The proposed action is consistent with the area's financially-constrained MTP Mobility 2035 and with the 2011-2014 Statewide Transportation Program (STIP), as amended. The U.S. Department of Transportation (FHWA/Federal Transit Administration [FTA]) found the MTP and the 2011-2014 Transportation Improvement Program (TIP) to conform to the State Implementation Plan (SIP) on July 14, 2011. All projects in the NCTCOG TIP that are proposed for federal or state funds were initiated in a manner consistent with federal guidelines.

The proposed operational improvements along IH 30 in the Canyon are necessary to maintain a balance between mobility, access, operational, and safety needs. These improvements are consistent with MTP policy FT3-007.

Anticipated Impacts from the Preferred Alternative

A draft EA was prepared that examined the social, economic, and environmental impacts associated with the proposed project. The draft EA determined that socio-economic aspects; Section 4(f) and 6(f) properties; cultural resources; air quality; biological resources; and water resources; will not be impacted by the proposed project. The Dallas Horseshoe Project traverses various historic components of the Dallas Floodway, including levees, overbank, main diversion channel and several culverts and sumps. In accordance with the Supplemental Appropriations Act, 2010, Section 405(b), FHWA is exempt from the requirements of Section

4(f) of the US Department of Transportation Act of 1966 for any highway project to be constructed "in the vicinity of the Dallas Floodway". It is anticipated that the access to public facilities such as the Coombs Creek Trail and to the planned East Levee Trinity Trail will be improved with the proposed bicycle and pedestrian improvements. Access to public facilities or services will be enhanced after the completion of the proposed project. The following direct impacts as reflected in the September 2012 EA are anticipated as a result of the proposed improvements:

Right-of-Way/Easements/Construction License/Displacements

The proposed project will require the acquisition of ROW from 66 parcels totaling 17.3 acres, a permanent easement from the City of Dallas, and 15 displacements including: 2 single family residences, 7 commercial establishments (4 occupied and 3 vacant), and 6 billboards.

Threatened/Endangered Species and Habitat

The proposed project could have an impact on one state-listed (threatened) species: the Texas pigtoe (*Fusconaia askewi*), which was found in the Trinity River at IH 35E.

Vegetation and Wildlife Habitat

Approximately 0.86 acre of riparian woodland habitat and 16 large trees could be removed as a result of the construction of the proposed project.

Waters of the U.S., including Wetlands

The proposed project will permanently impact approximately 0.40 acre of waters of the U.S., including wetlands, and will temporarily impact approximately 14.40 acres during construction of the proposed project. These impacts will be authorized by Regional General Permit (RGP)-12, *Modifications and Alterations of Corps of Engineers Projects*.

Permanent impacts to the Old Trinity River Channel will occur as a result of modifications to Able Pump Station Sump Ponds 2 and 3. Other impacts will result from the reconstruction of the existing culvert discharging into Pond 2, the removal and replacement of the existing interconnecting culvert between Ponds 2 and 3, and the modification of the upstream headwalls for the two interconnecting culverts between Ponds 1 and 2. Permanent impacts will result from fill material, reconstruction/modification of three existing culverts and installation of the new interconnecting culvert between Ponds 2 and 3. The removal of existing culverts and construction of new bridge substructure will result in temporary impacts. Some segments of the Old Trinity River Channel will be re-aligned to allow the stream to flow through the new culverts and the modified limits of Ponds 2 and 3.

Floodplains

The flood zones within the limits of the proposed project are designated as special flood hazard areas inundated by the 100-year flood, Zones A, AE, X500, and other areas are designated as Zone X, areas determined to be outside the 500-year floodplain. The project is located within a Federal Emergency Management Agency (FEMA) designated 100-year floodplain within the City of Dallas in Dallas County, both participants of the National Flood Insurance Program (NFIP). The Trinity River EIS (TREIS) record of Decision (ROD) criteria apply because the Dallas Horseshoe Project will be constructed over and within the Trinity River floodplain.

Because the proposed project is within the Trinity River Corridor Development Regulatory Zone, a Corridor Development Certificate (CDC) process will apply.

Water Quality

The runoff from the proposed project construction will discharge directly to the Upper Trinity River (Segment 0805), which is listed as threatened/impaired for bacteria, dioxin in edible tissue, and polychlorinated biphenyls in edible tissue in the 2010 Clean Water Act Section 303(d) list. Therefore, coordination with Texas Commission on Environmental Quality (TCEQ) will be required.

Traffic Noise

Results of the traffic noise analysis indicate that the proposed project will result in a traffic noise impact along IH 35E under the 2011 TxDOT Noise Guidelines. However, no traffic noise abatement measure will be both feasible and reasonable; therefore, no abatement measures are proposed for the proposed project.

Hazardous Materials

A review of hazardous materials regulatory databases was conducted to determine if any known sites might affect the proposed project. Based on this review 7 sites are categorized as high risk and 12 sites are characterized as low risk. In addition to the regulatory databases, previous environmental reports containing soil analytical data for Dallas Floodway projects were reviewed. The constituents of concern are primarily arsenic, chromium, lead, manganese, mercury; nickel, selenium, and zinc; and, in one case, barium. The plans and specifications for the project will include a notice to the design build contractor informing them of the heavy metals known at this time. Additional investigation and assessment of the high risk sites are recommended to identify if construction activities at those locations may encounter contaminants.

The proposed project includes the demolition and removal of bridge and building structures. Asbestos containing materials (ACM) and lead based paint (LBP) testing will be performed on the existing bridge structures. It is recommended that ACM and LBP testing be performed on the building structures to be removed dependent upon the age of the individual structure.

Construction Impacts

Temporary impacts associated with construction activities will occur, which include the possibility that noise levels will be temporarily above normal in the areas adjacent to the ROW. Other construction impacts include temporary lane, local ramp, and cross street closures, including the closure of a portion of the IH 35E HOV lane.

Because the construction equipment for the proposed project will be accessing the construction area within the Dallas Floodway through existing levee maintenance roads, there is potential to impact the roads.

Construction may temporarily degrade air quality through dust and exhaust gases associated with construction equipment.

PUBLIC INVOLVEMENT

Public involvement is an integral and critical component of the National Environmental Policy Act project development process. Past public involvement activities related to the proposed project include the public involvement process for the Trinity Parkway Corridor Major MTIS. For the MTIS, an extensive public and agency involvement outreach program was developed and over 100 presentations were made and 8 public meetings were conducted. A total of 32

presentations, 6 public meetings and 1 public hearing were held for Project Pegasus. The public involvement followed TxDOT's and FHWA's policies and procedures. Specific public involvement efforts for the Dallas Horseshoe Project include weekly stakeholder meetings, technical workgroup meetings, neighborhood meetings, and a public hearing as detailed below.

Agency/Stakeholder Involvement

Weekly meetings have been held throughout the project development process to discuss and identify potential issues and the status of the Dallas Horseshoe Project design, environmental document, utilities, and agency coordination. Participants in the weekly meetings have included TxDOT, City of Dallas, NCTCOG, Dallas Area Rapid Transit (DART), and local utility companies. Additionally, monthly agency coordination meetings are held to discuss progress, schedule, and technical requirements and content of the EA, schematic, Project Management Plan, Financial Plan and Section 408. Participants in the monthly agency coordination meetings include TxDOT, FHWA, USACE, City of Dallas, and NCTCOG.

An Engineering Study was held on February 8-9, 2012 for the Dallas Horseshoe Project to supplement the previously completed value engineering study for Project Pegasus. Detailed discussions for the proposed project consisted of project constraints, design concepts, progress reports on traffic volumes and level of service analysis, design exceptions list, review of sidewalk and bike trail logical termini, the identification of risk items, an update on the status of the Section 408 analysis, traffic control constraints, the review of the connection of Commerce Street to IH 30 westbound, and a review of potential Alternative Technical Concepts. Attendees included representatives from TxDOT, FHWA, City of Dallas, NCTCOG, and USACE.

A Traffic Control Concept Workshop was held on February 29, 2012 to review and discuss the preliminary traffic control plan. The attendees of the workshop reviewed the current Traffic Control Plan and design criteria, and discussed the varying constraints on access anticipated during construction. Discussions also included potential impacts to public facilities such as the Methodist Dallas Medical Center and the Dallas Convention Center. Potential detour routes for the local neighborhoods and downtown traffic were identified. Other discussions included potential Impacts to traffic during the Dallas Horseshoe Project construction in conjunction with planned City of Dallas reconstruction projects such as Riverfront Boulevard, Cadiz Street, and Beckley Avenue. Attendees to the Traffic Control Concept Workshop included representatives from TxDOT, City of Dallas, and NCTCOG.

Throughout the planning process, meetings with adjacent property owners have been conducted. Communications with affected property owners began with Project Pegasus and have continued throughout the development of the Dallas Horseshoe Project and comments and concerns from interested parties have been addressed. Documentation of meetings with affected property owners are on file at the TxDOT Dallas District.

Kessler Park Neighborhood Meetings

Residents of the East Kessler Park neighborhood, located south of IH 30, expressed concern for existing and potential increase in traffic noise impacts during the early stages of the Dallas Horseshoe Project planning phase. In order to address their concerns, TxDOT met with the neighborhood in April and August of 2012. Both meetings were held in advance of the public hearing. During the analysis phase of the draft EA, it was determined that no noise impact occurred currently or is modeled to occur in the future from the proposed project as disclosed in the September 2012 EA and response to comments from the public hearing.

Kidd Springs Neighborhood Home Owner Association (HOA)

On August 20, 2012, TxDOT participated in the Kidd Springs Neighborhood HOA monthly neighborhood meeting to address concerns about construction impacts and possible detour routes. The neighborhood's main concern was related to traffic detours through their neighborhood. During the meeting, TxDOT provided a 15 minute power point presentation on the proposed project and answered specific questions regarding design, construction phasing/sequencing, lane closures, detours, and project schedule. The HOA expressed gratitude and satisfaction for the presentation and responses provided by TxDOT.

Public Hearing

An open house/public hearing was held on August 2, 2012, Hyatt Regency, Room Landmark AB at 300 Reunion Boulevard in Dallas, TX. The total registered attendance was 118, which included 1 elected official, 2 public officials, 70 members of the public, 40 team members, and 5 representatives of the media. A Summary and Analysis document detailing the Public Hearing and the associated comments received was submitted to TxDOT-Environmental Affairs Division in August 2012.

In order to inform those who attended the 2012 Public Hearing and adjacent property owners on the status of the proposed project, TxDOT published a legal notice in the following papers:

- *The Dallas Morning News* on July 2, 2012 and July 23, 2012, and
- *Al Dia* on June 30, 2012 and July 21, 2012.

Copies of the Public Hearing legal notice were mailed to State and Federal resource agencies, including the USACE; to elected/public officials from the City of Dallas, Dallas County, and the State of Texas on June 28, 2012; to property owners whose parcels are adjacent to the proposed project; and to other interested parties (i.e., homeowner associations, etc.) on June 29, July 19, and July 25, 2012. The notice was released by the TxDOT Dallas District's Public Information Office to local media on July 26, 2012. The notice requested that any comments or questions regarding the proposed project be made to the TxDOT Dallas District by August 13, 2012.

In summary, nine comments were received during the public comment period, which ended on Monday, August 13, 2012. A written comment of support was submitted by the City of Dallas Council Member Linda Koop (District 11) before the public hearing. FEMA submitted a comment regarding compliance with Executive Order (EO) 11988 and 11990. The rest of the comments received were primarily concerned with traffic noise impacts and compatibility with other projects. Other comments were related to stormwater management, project cost, and prioritization of project elements. Overall, the comments received were in support of the project. No comments opposing the project were submitted.

FHWA has completed a review of the required public involvement procedures and documentation and has determined that TxDOT has adequately responded to all comments appropriately.

Changes Made to the Dallas Horseshoe Project Design as a Result of Public Input

As a result of close coordination with stakeholders, resource agencies and the community, TxDOT was able to identify and address community needs and concerns throughout the project development process. No design changes were made as a result of comments received from the August 2012 public hearing. However, minor revisions were made to the draft EA to update

changes in ROW, relocations, and project schedule. None of these revisions altered the determination of the assessment as stated in the September 2012 EA.

MITIGATION AND MONITORING COMMITMENTS

Section 408

The proposed project will cross the Dallas Floodway, a USACE Public Works project; therefore, the proposed project will require approval under Section 408. Final USACE review and approval of the 100 percent complete Plans, Specifications and Estimates (PS&E) (for foundations and other proposed construction on areas adjacent to the Dallas Floodway levees) and issuance of all necessary permits is required before construction commences.

Environmental Justice

The TxDOT Relocation Office will provide assistance to all individuals, families, businesses, and non-profit organizations displaced as a result of the proposed improvements. Assistance will be provided should the local existing housing market be insufficient for relocation.

ROW Acquisition, Easements, Displacements and Relocations

TxDOT will be responsible for the ROW acquisitions. Acquisition and relocation assistance will be in accordance with the TxDOT Right-of-Way Acquisition and Relocation Assistance Program. Consistent with the U.S. Department of Transportation policy, as mandated by the Uniform Relocation Assistance and Real Properties Acquisitions Act, as amended in 1987, TxDOT will provide relocation resources (including any applicable special provisions or programs) to all displaced persons without discrimination.

A permanent easement from the City of Dallas will be required because construction is proposed to occur within the Dallas Floodway.

Aesthetic Considerations

Urban Design Technical Guidelines to guide the design-build contractor in the development of the overall structural form and aesthetic enhancements of the Dallas Horseshoe Project will be developed. The guidelines will outline specific technical direction on project elements in terms of form, shape, dimension, color palette, and architectural character.

Historical and Archeological Sites

The removal of the existing interim IH 35E HOV crossover structure located between the Houston Street and Jefferson Boulevard viaducts south of the Mixmaster will allow for the restoration of the Houston Street Viaduct southern railing to be restored to its previous appearance by "in-kind replica." The replacement of the railing will comply with a mitigation plan set forth in a THC coordination letter dated September 24, 1996. In addition, the removal of a staircase located along the northern railing of the Houston Street Viaduct south of the Mixmaster will also result of the replacement of railing with "in-kind replica."

If archeological or historic sites are discovered prior to or during construction, work will cease immediately. A TxDOT staff archeologist will then assess the site pursuant to the Texas Antiquities code and the site will be avoided or mitigated according to Section 106 of the National Historic Preservation Act.

Threatened/Endangered Species and Wildlife Habitat

Prior to any construction activities a qualified biologist shall survey the proposed study area for

any listed species, due to the time period that will elapse between the EA and the start of construction activities.

Between October 1 and February 15, the contractor will remove all old migratory bird nests from any structures that will be affected by the proposed project, and complete any bridge work and/or vegetation clearing. Between February 15 and October 1, the contractor will be prepared to prevent migratory birds from building nests per the Environmental, Permits, Issues, and Commitments (EPIC) sheet. In the event that migratory birds are encountered on-site during project construction, adverse impacts on protected birds, active nests, eggs, and/or young will be avoided. If species are present, work should cease at that location and TxDOT personnel should be contacted. If any active nests are found, the local U.S. Fish and Wildlife Service biologist should be contacted by TxDOT to determine an appropriate plan of action.

Appropriate measures will be taken to prevent demolition and construction materials from falling into the Trinity River to avoid impacts to the Texas pigtoe. Any temporary or permanent fill, or work occurring directly in this water, will require prior coordination with TxDOT. Mitigation for the construction impacts will require the relocation of the mussels to an approved location outside of the project area and monitoring of the relocated mussels. A monitoring plan will be prepared and submitted to TxDOT for approval to document the survival rate of relocated mussels throughout the approved monitoring period.

Vegetation and Wildlife Habitat

Efforts to protect the trees during construction will occur as it may be possible to preserve trees located near the edge of the construction areas. Compensatory mitigation for impacts to the large trees is not proposed.

In accordance with EO 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping, seeding and replanting with TxDOT approved seeding specifications that is in compliance with EO 13112 will be done where possible.

Waters of the U.S., including Wetlands

The placement of temporary or permanent dredge or fill material into waters of the U.S., including wetlands, that are determined to be jurisdictional will be authorized by USACE permit RGP-12. A total of 0.40 acre of waters of the U.S., including wetlands, will be permanently impacted by the proposed project. Of this amount, 0.20 acre of impacts will occur within the Dallas Levees to two streams and five wetlands. For these Section 404/10 permanent impacts, a 0.20 acre wetland will be created at the southern section of the hydraulic swale at IH 30. A berm will separate the wetland mitigation area from the remaining portion of the hydraulic swale and will be contoured using multiple elevation gradients to a maximum depth of 2 feet. The wetland will be vegetated with appropriate wetland herbaceous species. The remaining permanent impacts will result from re-aligning the Old Trinity River Channel which serves as a drainage feature delivering water to the Able Pump Station. Because the re-aligned channel will continue to function as a drainage feature and will not result in the loss of aquatic function, additional mitigation for the impacts to this Waters of the U.S. will not be required. State of Texas water quality certification, issued on January 21, 2010, is provided through the conditions of RGP-12 for projects that result in a loss of less than 0.5 acre of waters of the U.S.

Floodplains

The proposed project is located within a FEMA designated 100-year floodplain within the City of Dallas in Dallas County, both participants of the NFIP. Therefore, coordination with the local

floodplain administrator will be required. The design-build contractor will coordinate with the local floodplain administrator, county floodplain administrator, and state NFIP coordinator as specified in the Technical Provisions and in the EPIC plans. The design-build contractor will provide all information and technical data needed to file a Letter of Map Revision with FEMA. This coordination will take place before construction begins.

A hydraulic and hydrology analysis for the project determined that due to the total number of bridge columns to be placed within the Dallas Floodway, a hydraulic swale will be constructed to offset potential impacts to a rise in the water surface elevation. The hydraulic swale will be located at IH 30 between the East Levee and the Trinity River. The swale will be approximately 600 feet long, 100 feet wide and 2 feet deep. The southern portion of the hydraulic swale will be utilized for wetland mitigation.

The proposed project will be in compliance with 23 C.F.R. 650 regarding location and hydraulic design of highway encroachments within the floodplains. It will demonstrate that it satisfies the TREIS ROD criteria for no increase in water surface elevations or valley storage for the 100-year and less than 5 percent valley storage loss for the SPF events. Because of the number of bridge columns proposed to be placed within the Dallas Floodway, a hydraulic swale will be constructed to offset potential impacts to a rise in the water surface elevation. The hydraulic swale will be located at IH 30 between the East Levee and the Trinity River and will be approximately 600 feet long, 100 feet wide and 2 feet deep.

Per coordination with the City of Dallas in January 2012, it is anticipated that a CDC application will not be needed because a CDC hydraulic review for the proposed project will be performed by USACE under the Section 408 approval process. Final determination of applicability is contingent upon USACE approval of hydraulic analysis performed as part of the Section 408 approval process.

Water Quality

The proposed project will disturb more than 5 acres; therefore, a Notice of Intent will be filed to comply with TCEQ stating that TxDOT will have a Storm Water Pollution Prevention Plan in place during construction of proposed project. A Notice of Termination will also be required for the proposed project.

The proposed project is located within the boundaries of the City of Dallas and TxDOT's Municipal Separate Storm Sewer System (MS4) Phase I permits, and TxDOT will need to comply with the applicable MS4 requirements.

Construction equipment, spoil material, supplies, forms, and building shall not be placed or stored in the floodway during construction activities. Any item that may be transported by flood flows shall not be stored within the floodway. Locations of construction trailers and stockpile areas shall be included on project plans and approved by USACE and the City of Dallas.

Hazardous Materials

TxDOT prepared a Soil and Groundwater Management Plan (SGMP) for the proposed project. The Contractor is responsible for preparing a comprehensive Hazardous Materials Management Plan (HMMP) outlining field screening procedures and management of affected soils to be followed during construction. The HMMP may utilize recommendations, procedures, or guidance from the SGMP. If the proposed construction activities will disturb soil borings AP-2 and SB016, they will have to be addressed within the plans and specifications. The plans and specifications for the proposed project will include a notice to contractors informing them of the heavy metals, aldrin, and benzo(a)pyrene known at this time.

Additional investigation and assessment of the high risk sites are recommended to identify if construction activities at those locations may encounter contaminants.

It is recommended that ACM and LBP testing be performed on the building structures to be removed dependent upon the age of the individual structure. TxDOT will notify the Department of State Health and Human Services of the bridge demolition 15-working days prior to the scheduled demolition.

Should unanticipated hazardous materials/substances be encountered, the TxDOT Dallas District Hazardous Materials Section will be notified and steps will be taken to protect personnel and the environment. Any unanticipated hazardous materials encountered during construction will be handled according to applicable federal, state, and local regulations per TxDOT Standard Specifications. The contractor will take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. All construction materials used for this project will be removed as soon as the work schedules permit.

Construction Impacts

Provisions will be included in the design build contract that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems in order to minimize construction noise impacts.

In order to minimize construction impacts due to HOV lane closure, the closure to the IH 35E HOV will be limited to the section between the Houston Street Viaduct and Marsalis Avenue, a distance of approximately 3 miles. This approach will allow continued operation of the HOV lane from US 67 to Marsalis Avenue during the construction phase of the proposed project, estimated to last 4 years. Per DART's request, a minimum of 30-days advance notice will be given to DART before implementing specific construction phases with potential to impact existing DART bus stops. DART will need this time to develop bus detour routes and inform the public.

Detours will be provided within and around the Mixmaster in order to minimize impacts resulting from road closures. City and local public safety officials will be notified of proposed road closures or detours. Detour timing and necessary rerouting of emergency vehicles will be coordinated with the proper local agencies. Lane closures and detours will comply with the Manual of Uniform Traffic Control Devices standards. Access to businesses and residences will be maintained at all times.

The construction equipment for the proposed project will be accessing the construction area within the Dallas Floodway through levee maintenance roads. Any impacted maintenance road will be restored to their pre-construction condition and location following construction

completion.

Measures to control fugitive dust will be considered and incorporated into the final design and construction specifications and included on the Environmental Permits, Issues and Commitments sheet that will be included with the final design plan set.

Airway-Highway Clearance

The nearest airport to the proposed project is the Dallas Love Field, located in the City of Dallas. Dallas Love Field airport is approximately 27,000 feet (5 miles) from the proposed project. Because the project will involve the construction of high mast illumination, signing, and bridges that could be an obstruction to air navigation; a Notice of Proposed Construction or Alteration (Form 7460-1) will be filed with the Federal Aviation Administration to obtain airway-highway clearance.

MONITORING OR ENFORCEMENT

All commitments and conditions of approval stated in the EA and shown on the EPIC sheet (attached) will be monitored by TxDOT and other appropriate state, federal, and local agencies to ensure compliance.

FHWA DECISION

FHWA has reviewed all of the relevant documents and materials and all of the environmental studies and findings. Based upon our own independent review and analysis we find that the September 2012 final EA for the Dallas Horseshoe Project analyzed and considered all of the relevant potential environmental impacts and issues. FHWA concurs with the findings made in the EA in that: (1) the Build Alternative is the selected alternative for the Dallas Horseshoe project, (2) the Build Alternative best meets the purpose and need of the project with the least amount of impacts to the resource areas, and (3) the proposed project with all the required mitigation and coordination as detailed above will have no significant impacts on the quality of the human or natural environment under NEPA.

Based upon our own agency review and consideration of the analysis and evaluation contained in the EA and Administrative Record for this proposed project, and after further careful consideration of all social, economic, and environmental factors, including input from the public involvement process, FHWA further approves the Build Alternative as the selected alternative for the proposed action. The selected alternative will best fulfill the need and purpose for the project and meet the goals identified for the Dallas Horseshoe Project.

As to project mitigation, TxDOT is hereby required to ensure completion of all mitigation outlined above and set out specifically in the September 2012 final EA for the Dallas Horseshoe Project and EPIC sheet. TxDOT is also required to ensure that any and all local, state, or federal permit requirements and conditions are met and otherwise complied with.


For Federal Highway Administration

09/18/2012
Date

1. Do not alter Sheet Design or Font style, size or weight - match text attributes.
 2. If additional space is needed for a numbered section, fence and add just sections up or down as needed for proportioning and readability but do not relocate from its relative position.
 3. All areas should be addressed thoroughly and verify the necessary pay items are set up to support actions needed.
 Revised: May 2012
 Prepared by: Lups Pettit, of HNTB Corp. on 09/07/12

DISCLAIMER:
 The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damage resulting from its use.

I. STORMWATER POLLUTION PREVENTION PLAN-CLEAN WATER ACT SECTION 402

TPDES TXR 150000: Stormwater Discharge Permit or Construction General Permit required for projects with 1 or more acres disturbed soil. Projects with any disturbed soil must protect for erosion and sedimentation in accordance with Item 1122.

- No Action Required
 Required Action
 Action No. Commitment

- Notes
1. Prevent stormwater pollution by controlling erosion and sedimentation in accordance with TPDES Permit TXR 150000
 2. Comply with the SW3P and revise when necessary to control pollution or required by the Engineer.
 3. Post Construction Site Notice (CSN) with SW3P information on or near the site, accessible to the public and TCEQ, EPA or other inspectors.
 4. When Contractor project specific locations (PSL's) increase disturbed soil area to 5 acres or more, submit NOI to TCEQ and the Engineer.

II. WORK IN OR NEAR STREAMS, WATERBODIES AND WETLANDS CLEAN WATER ACT SECTIONS 401 AND 404

USACE Permit required for filling, dredging, excavating or other work in any water bodies, rivers, creeks, streams, wetlands or wet areas. No equipment is allowed in any stream channel below the ordinary High Water Mark except on approved temporary stream crossings or drillpads. The Contractor must adhere to all of the terms and conditions associated with the following permit(s):

- No Permit Required
 Nationwide Permit 14 - PCN not Required (less than 1/10th acre waters or wetlands affected)
 Nationwide Permit 14 - PCN Required (1/10 to <1/2 acre, 1/3 in tidal waters)
 Individual 404 Permit Required
 Other Nationwide Permit Required: NWP*
 Other: Addressed by Section 408 process resulting in Regional General Permit (RGP-12)

TxDOT will obtain Initial Section 408 Approval from the USACE based on the preliminary plans and technical reports provided in the initial Section 408 submittal. Contractor shall be responsible for adhering to the preliminary plans and technical reports, along with any revised data resulting from USACE technical reviews of the Initial Section 408 Submittal, or shall be responsible for securing a New or Amended Section 408 Approval from the USACE in the event the Contractor's proposed Project components within or adjacent to the Dallas Floodway warrant additional analyses and review as determined by the USACE. The Contractor shall be responsible for obtaining USACE Construction Approval of those Project components subject to USACE review and approval within or directly adjacent to the Dallas Floodway.

Required Actions: List Waters of the US Permit applies to, location in project and check Best Management Practices planned to control erosion, sedimentation and post-project TSS.

REFER TO EPIC SHEET 2 OF 2 - LEFT COLUMN
 FOR SECTION II - CONTINUATION
 FOR WATERS OF THE U.S DESCRIPTIONS AND APPROXIMATE LOCATION
 AND ACTIONS

The elevation of the ordinary high water marks of any areas requiring work to be performed in the waters of the US requiring the use of a nationwide permit can be found on the Bridge Layouts.

Best Management Practices for applicable 401 General Conditions:

Erosion	Sedimentation	Post-Construction TSS
<input checked="" type="checkbox"/> Temporary Vegetation	<input checked="" type="checkbox"/> Silt Fence	<input type="checkbox"/> Vegetative Filter Strips
<input type="checkbox"/> Blankets/Matting	<input checked="" type="checkbox"/> Rock Berm	<input type="checkbox"/> Retention/Irrigation Systems
<input checked="" type="checkbox"/> Mulch	<input type="checkbox"/> Triangular Filter Dike	<input type="checkbox"/> Extended Detention Basin
<input checked="" type="checkbox"/> Sodding	<input type="checkbox"/> Sand Bag Berm	<input type="checkbox"/> Constructed Wetlands
<input type="checkbox"/> Interceptor Swale	<input type="checkbox"/> Straw Bale Dike	<input type="checkbox"/> Wet Basin
<input type="checkbox"/> Diversion Dike	<input type="checkbox"/> Brush Berms	<input type="checkbox"/> Erosion Control Compost
<input type="checkbox"/> Erosion Control Compost	<input type="checkbox"/> Erosion Control Compost	<input type="checkbox"/> Mulch Filter Berm and Socks
<input type="checkbox"/> Mulch Filter Berm and Socks	<input type="checkbox"/> Mulch Filter Berm and Socks	<input type="checkbox"/> Compost Filter Berm and Socks
<input type="checkbox"/> Compost Filter Berm and Socks	<input type="checkbox"/> Compost Filter Berm and Socks	<input checked="" type="checkbox"/> Vegetation Lined Ditches
	<input type="checkbox"/> Stone Outlet Sediment Traps	<input type="checkbox"/> Sand Filter Systems
	<input type="checkbox"/> Sediment Basins	

III. CULTURAL RESOURCES

Refer to TxDOT Standard Specifications in the event historical issues or archeological artifacts are found during construction. Upon discovery of archeological artifacts (bones, burnt rock, flint, pottery, etc.) cease work in the immediate area and contact the Engineer immediately.

- No Action Required
 Required Action

Action No.	Location	Commitment
1. Historic Resource	Houston St Viaduct (limits shown on plans)	Restoration of Houston Street Viaduct railings where existing HOV bridge (1 location) and stair structure (1 location) to be removed. Railings shall be restored using "in-kind" replica details developed by the TxDOT Bridge Division to comply with THC mitigation plan (9/24/96).

IV. VEGETATION RESOURCES

Preserve native vegetation to the extent practical.

- No Action Required
 Required Action

Action No.	Location	Commitment
1.	Entire Project	Construct permanent erosion features as soon as feasible during the early stages of construction through proper sodding and/or seeding techniques.
2.	Entire Project	Restore and stabilize disturbed areas as soon as the construction schedule permits. Consider temporary sodding where large areas of disturbed ground would be left bare for a considerable length of time. Seeding and replanting with TxDOT approved seeding specifications that is in compliance with Executive Order 13112 shall be done where possible.
3.	Mitigation Site	Mitigation for the permanent Section 404/10 impacts would consist of the construction of a wetland within the southern portion of the hydraulic swale south of IH 30.

V. FEDERAL LISTED, PROPOSED THREATENED, ENDANGERED SPECIES, CRITICAL HABITAT, STATE LISTED SPECIES, CANDIDATE SPECIES AND MIGRATORY BIRDS TREATY ACT.

- No Action Required
 Required Action

- Action No.
1. Prior to any construction activities a qualified biologist shall survey the proposed study area for any listed species, due to the time period that would elapse between this evaluation and the start of construction activities.
 2. Ground disturbance related to construction may incidentally create areas that are attractive to interior least terns for use as potential nesting sites. The species breeding season extends from May through August. Large areas (greater than 1 acre) cleared to bare soil and left idle for more than one week shall be surveyed prior to resuming construction activities. Should interior least terns happen to utilize any of the project areas during construction, notify the Engineer who will coordinate with USFWS.
 3. Appropriate measures must be taken to prevent demolition and construction materials from falling into the Trinity River, causing direct impacts to the state listed mussel species. Increased turbidity and sedimentation during bridge construction could pose a threat to survival of the mussel species in the Trinity River. Any temporary or permanent fill, or work occurring directly in this water body, requires prior coordination with TxDOT. Mitigation for the construction impacts shall require the relocation of mussels to an approved location outside of the project area and monitoring of the relocated mussels. A monitoring plan shall be prepared and submitted to TxDOT for approval to document the survival rate of relocated mussels throughout the approved monitoring period. Approved BMP's shall be installed, inspected, and maintained as detailed in the construction documents.

REFER TO EPIC SHEET 2 OF 2 - MIDDLE COLUMN
 FOR SECTION V - CONTINUATION
 FOR LIST OF SPECIES POTENTIALLY WITHIN PROJECT AREA WITH HABITAT
 DESCRIPTION AND ADDITIONAL ACTIONS

LIST OF ABBREVIATIONS

BMP: Best Management Practice	NOT: Notice of Termination
CGP: Construction General Permit	PCB: Polychlorinated biphenyl
CWA: Clean Water Act	PSL: Project Specific Location
DART: Dallas Area Rapid Transit	RGP: Regional General Permit
DSHS: Department of State Health Services	ROD: Record of Decision
EIS: Environmental Impact Statement	SGMP: Soil and Groundwater Management Plan
FAA: Federal Aviation Administration	SPCC: Spill Prevention Control and Countermeasure
FEMA: Federal Emergency Management Agency	SPF: Standard Project Flood
HOV: High Occupancy Vehicle	SW3P: Storm Water Pollution Prevention Plan
HMP: Hazardous Materials Management Plan	TCEQ: Texas Commission on Environmental Quality
LOMP: Letter of Map Revision	THC: Texas Historical Commission
MBA: Migratory Bird Treaty Act	TPDES: Texas Pollutant Discharge Elimination System
MS4: Municipal Separate Stormwater Sewer System	TxDOT: Texas Department of Transportation
MSDS: Material Safety Data Sheet	USACE: U.S. Army Corps of Engineers
NFIP: National Flood Insurance Program	USFWS: U.S. Fish and Wildlife Service
NOI: Notice of Intent	WSE: Water Surface Elevation

VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES

General (applies to all projects):

Comply with the Hazard Communication Act (the Act) for personnel who will be working with hazardous materials by conducting safety meetings prior to beginning construction and making workers aware of potential hazards in the workplace. Ensure that all workers are provided with personal protective equipment appropriate for any hazardous materials used.

Obtain and keep on-site Material Safety Data Sheets (MSDS) for all hazardous products used on the project, which may include, but are not limited to the following categories. Points, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labelling as required by the Act. Maintain an adequate supply of on-site spill response materials, as indicated in the MSDS. In the event of a spill, take actions to mitigate the spill as indicated in the MSDS, in accordance with safe work practices, and contact the District Spill Coordinator immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

Contact the Engineer if any of the following are detected:

- * Dead or distressed vegetation (not identified as normal)
- * Trash piles, drums, canisters, barrels, etc.
- * Undesirable smells or odors
- * Evidence of leaching or seepage of substances

Does the project involve any bridge class structure rehabilitation(s) or replacement(s) (bridge class structures not including box culverts)?

- Yes
 No

If "No", then no further action is required.

If "Yes", then TxDOT is responsible for completing asbestos assessment/inspection.

Are the results of the asbestos inspection positive (is asbestos present)?

- Yes
 No

If "Yes", then TxDOT must retain a DSHS licensed asbestos consultant to assist with the notification, develop abatement/mitigation procedures, and perform management activities as necessary. The notification form to DSHS must be postmarked at least 15 working days prior to scheduled demolition.

If "No", then TxDOT is still required to notify DSHS 15 working days prior to any scheduled demolition.

In either case, the Contractor is responsible for providing the date(s) for abatement activities and/or demolition with careful coordination between the Engineer and asbestos consultant in order to minimize construction delays and subsequent claims.

Any other evidence indicating possible hazardous materials or contamination discovered on site. Hazardous Materials or Contamination Issues Specific to this Project:

- No Action Required
 Required Action

Action No.

1. A review of hazardous materials regulatory databases was conducted to determine if any known sites might affect the project. Based on this review 7 sites are categorized as high risk and 12 sites are characterized as low risk. In addition to the regulatory databases, previous environmental reports containing soil analytical data for Dallas Floodway projects were reviewed. The constituents of concern are primarily arsenic, chromium, lead, manganese, mercury, nickel, selenium, and zinc; and, in one case, barium. Contractor shall prepare Hazardous Materials Management Plan (HMMP) which will be followed during construction.

2. During final design, additional investigation is recommended to confirm if contamination from the high-risk sites in the latest environmental document of the project would be encountered during construction. If contamination would be encountered, appropriate management plan(s) would be developed. The management plan(s) would be in accordance with all applicable federal, state, and local regulations.

3. The plans and specifications for the proposed project shall include a notice to contractors informing them of the heavy metals, aldrin, and benzo(a)pyrene known at this time.

4. Perform lead based paint testing on all bridge structures. Perform lead based paint testing on building structures to be removed dependent upon building age.

VII. OTHER ENVIRONMENTAL ISSUES

(includes regional issues such as Edwards Aquifer District, etc.)


REFER TO EPIC SHEET 2 OF 2 - RIGHT COLUMN
 SECTION VII - CONTINUATION
 FOR OTHER ENVIRONMENTAL ISSUES

GENERAL NOTE:

Any change orders and/or deviations from the final design must be reported to the Engineer prior to commencement of construction activities, as additional environmental clearance may be required.

---DRAFT---
 This document is released for informational purposes and is subject to change based on comments from approving agencies and public input. It is not to be used for construction purposes.

LAST REVISION: MAY 2012

CONTROL-SECTION-JOB NUMBERS (CSJ's)				
0196-03-205, 0442-02-118, 0442-02-132, 1068-04-099, 1068-04-116, 0009-11-226				
 Texas Department of Transportation Dallas District Standard				
ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS (EPIC)				
SHEET 1 OF 2				
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.			HIGHWAY NO.
6	SEE TITLE SHEET			IH 30
STATE	DISTRICT	COUNTY		IH 35E
TEXAS	DALLAS	DALLAS		
CONTROL	SECTION	JOB		SHEET NO.
0196	03	205, etc.		186

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 3. All areas should be addressed thoroughly and verify the necessary pay items are set up to support actions needed.
 Revised: May 2012
 Prepared by: Lupe Pettit, of HNTB Corp on 09/07/12

II. WORK IN OR NEAR STREAMS, WATERBODIES AND WETLANDS CLEAN WATER ACT SECTIONS 401 AND 404 -- (CONTINUATION FROM EPIC SHEET 1 OF 2)

Required Actions: List Waters of the US Permit applies to, location in project and check Best Management Practices planned to control erosion, sedimentation and post-project TSS.

Permit	Required Action	Waters of the US	Approximate Location (Mainline Centerline)
RGP-12	Comply with Conditions of the Permit (USACE coordination required before construction)	--- IH30 --- Feature 24 - Trinity River	STA 1073+00 to 1075+00 (ML, EBFR & WBFR)
		Feature 53 - Emergent Wetland	STA 1069+00 to 1071+00 (WBFR)
		Feature 54 - Emergent Wetland	STA 1078+00 to 1082+50 (ML, EBFR & WBFR)
		Feature 55 - Historic Trinity River Channel	STA 1086+30 to 1086+70 (ML, EBFR & WBFR)
		Feature 56 - Emergent Wetland	STA 1067+00 to 1070+00 (EBFR)
		Feature 85 - Emergent Wetland	STA 1069+00 to 1071+00 (ML, EBFR & WBFR)
		Feature S-1 - Coombs Creek	Parallels EBFR from ML STA 1018+00 to 1035+00 A small section south of ML STA 1019+00 is w/in ROW.
		--- IH35E --- Feature 24 - Trinity River	STA 5044+00 to 5046+50 (ML, SBFR & NBFR)
		Feature 65 - Emergent Wetland	STA 5035+00 to 5038+00 (ML, SBFR & NBFR)
		Feature 66 - Emergent Wetland	STA 5048+00 to 5051+00 (ML, SBFR & NBFR)
Feature 67 - Emergent Wetland	STA 5038+50 to 5039+50 (ML & NBFR)		
Feature 79 - Historic Trinity River Channel	STA 5063+60 to 5063+90 (ML & Ramps)		

- Action No.
- Areas of temporary impacts due to placement of fill within the waters of the U.S. will be restored to preconstruction elevations and revegetated with native vegetation after construction is complete. Mitigation for permanent impacts to waters of the U.S., including wetlands, will be construction of a 0.20 acre wetland within the Dallas Floodway in the hydraulic swale at IH 30. The mitigation site shall be contoured using multiple elevation gradients to a maximum depth of 2 ft and would be vegetated with appropriate wetland herbaceous species.
 - Satisfy Trinity River EIS ROD criteria for water surface elevation, valley storage and erosive water velocities for both the 100-year and Standard Project Flood (SPF) events.
 - If additional jurisdictional impacts beyond those covered in the 408 submittal package result from the construction contractor's elected methodologies/activities, the contractor is responsible for obtaining the appropriate Section 404 permit from the USACE. Any temporary crossings shall be coordinated with USACE and meet the General Conditions of RGP-12.
 - Construction staging areas, stockpiling areas, etc. shall be located by the contractor outside of the Dallas Floodway and outside of the proposed project limits in upland areas. These areas would be selected by the design-build contractor who would be responsible for any impacts.

V. FEDERAL LISTED, PROPOSED THREATENED, ENDANGERED SPECIES, CRITICAL HABITAT, STATE LISTED SPECIES, CANDIDATE SPECIES AND MIGRATORY BIRDS TREATY ACT. - (CONTINUATION FROM EPIC SHEET 1 OF 2)

Species Potentially within Project Area w/ Description	Habitat Description
1. Peregrine Falcon (including American and Arctic): Measure 16-19 inches long with 39-42 inch wingspan. Slate gray to bluish-gray above with a black crown and nape and a black wedge below the eye. Throat and underparts are white to buff with fine black barring. Tail feathers tipped in light yellow, beak is slate blue, legs and feet yellow, and the talons are blue-black.	Migrant across state from more northern breeding range; occupies wide range of habitats during migration, including urban. Low-altitude migrant, stopovers at leading edges such as lake shores.
2. Bald Eagle: Adults have a white head, neck and tail and a large yellow bill. Males measure 3 feet from head to tail and have a wingspan of 6 to 7 feet. Females can be larger.	Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges and pirates food from other birds.
3. White-faced Ibis: A dark, chestnut colored bird with green or purple on its head and upper parts, and a long, down curved bill. It has a reddish legs and feet and red bare skin on the face around the eyes.	Prefers freshwater marshes and sloughs. Nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.
4. Whooping Crane: Measure 5 ft tall with wingspan of 7.5 feet. White with rust-colored patches on top and back of head, lack feathers on both sides of the head, yellow eyes, and long, black legs and bills. Primary wing feathers are black but are visible only in flight.	Potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties.
5. Wood Stork: A large bird which appears mostly white on the ground, with blackish-gray legs and pink feet. In flight, the trailing edge of the wings is black. The head is dark brown with a bald, black face, and the downcurved bill is dusky yellow.	Forages in flooded fields, ditches and other shallow standing water, including salt water; usually roosts communally in tall snags; breeds in Mexico and moves into Gulf States in search of mud flats and wetlands, formerly nested in Texas, but no breeding records since 1960.
6. Cave Myotis bat: Relatively larger than typical Myotis. It can be distinguished from other large Myotis by the presence of a conspicuous bare patch on its back. Its color is brown and it has short ears.	Cave-dwelling, also roosts in old buildings and under bridges; roosts in clusters of up to thousands of individuals; hibernates during winter, opportunistic insectivore.
7. Mussels (Fawnsfoot, Little spectaclecase, Louisiana pigtoe, Texas heelsplitter, Wabash pigtoe): Adult can range from approximately 1-inch to 12-inches in length. Some species have thin shells and shells vary both on the inside and outside of mussels, depending upon the mussel species. Color, texture, and shape variations in shells are used to help identify types of mussels.	Small and large rivers especially on sand, mud, rocky mud, and sand and gravel, also silt and cobble bottoms in still to swiftly flowing waters.
8. Alligator snapping turtle: Characterized by a large, heavy head, and a long, thick shell with three dorsal ridges of large scales; are solid gray, brown, black or olive-green in color, and often covered with algae; radiating yellow patterns around the eyes.	Perennial water bodies; deep water of rivers, lakes, and oxbows; also swamps and ponds; usually in water with mud bottom and aquatic vegetation; may migrate several miles along rivers; active March-October, breeds April-October.
9. Texas garter snake: A small to medium sized terrestrial snake that can grow to about 39-48 inches long. Their backs are green to black, with a distinctive stripe or red or orange and either side features yellowish stripes.	Wet or moist microhabitats are conducive to the species occurrence, but the snake is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August.
10. Timber/Conebrake rattlesnake: Black and brown crossbands down the back, broad dark shape present behind the eye, black tail above the rattle up to 25% of the body length.	Swamps, floodplains, deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover.

If any of the listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the Engineer immediately. The work may not remove active nests from bridges and other structures during nesting season of the birds associated with the nests. If caves or sinkholes are discovered, cease work in the immediate area, and contact the Engineer immediately.

Special Note: The Migratory Bird Act of 1918 states that it is unlawful to kill, capture, collect, possess, buy, sell, trade or transport any migratory bird, nest, young, feather or egg in part or in whole, without a federal permit issued in accordance within the Act's policies and regulations. The contractor would remove all old migratory bird nests from any structure where work would be done from October 1 to February 15. In addition, the contractor would be prepared to prevent migratory birds from building nest(s) between February 15 to October 1. In the event that migratory birds are encountered on-site during project construction, efforts to avoid adverse impacts on protected birds, active nests, eggs and/or young would be observed.

VII. OTHER ENVIRONMENTAL ISSUES - (CONTINUATION FROM EPIC SHEET 1 OF 2)

No Action Required Required Action

Action No.	Location	Commitment
1. Section 408	Dallas Floodway	A permanent easement from the City of Dallas is required because construction is proposed within the Dallas Floodway.
2. Construction Impacts	Dallas Floodway	Contractor shall restore impacted levee maintenance roads to their pre-construction condition and location following construction completion.
3. Water Quality	Dallas Floodway	Contractor shall comply with applicable Phase I City of Dallas MS4 permit requirements.
4. Construction Impacts	Entire Project	Contractor must minimize duration of closure of the IH 35E HOV. Per DART's request, a minimum of 30-days advance notice shall be given to DART before implementing specific construction phases with potential to impact existing DART bus stops. DART would need this time to develop bus detour routes and inform the public.
5. Airway-Highway Clearance	Entire Project	Because several airports are nearby, Contractor shall prepare Notice of Proposed Construction or Alteration (Form 7460-1) to be filed with the FAA by TxDOT to obtain airway-highway clearance.
6. Aesthetic Considerations	Entire Project	Contractor shall adhere to the overall structural form and aesthetic enhancements to the Urban Design Technical Guidelines prepared for the Dallas Horseshoe Project.
7. Noise	Entire Project	Contractor shall minimize construction noise through abatement measures such as work-hour controls (especially near residential areas) and proper maintenance of muffler systems.
8. Water Quality	Trinity River	The construction runoff would discharge directly into the Upper Trinity River (Segment 0805), which is listed as threatened/impaired for bacteria, dioxin in edible tissue, and PCBs in edible tissue in the 2010 CWA Section 303(d) list. Therefore, coordination with TCEQ is required for total maximum daily loads (TMDLs).
9. Floodplains	Entire Project	The proposed project is located within a FEMA designated 100-year floodplain within the City of Dallas in Dallas County, both participants of the NFIP. Therefore, the Contractor will coordinate with the local floodplain administrator, county floodplain administrator, and state NFIP coordinator. As specified in the technical provisions, the Contractor will provide all information and technical data needed to file LOMR with FEMA. This coordination would take place before construction begins.
10. Construction Impacts	Entire Project	Detours shall be provided within and around the Mixmaster. Contractor shall maintain access to businesses and residences at all times. City and local public safety officials shall be notified of proposed road closures or detours. Detour timing and necessary rerouting of emergency vehicles shall be coordinated with the proper local agencies.

GENERAL NOTE:

Any change orders and/or deviations from the final design must be reported to the Engineer prior to commencement of construction activities, as additional environmental clearance may be required.

---D R A F T---

This document is released for informational purposes and is subject to change based on comments from approving agencies and public input. It is not to be used for construction purposes.

CONTROL-SECTION-JOB NUMBERS (CSJ's)		
0196-03-205, 0442-02-118, 0442-02-132, 1068-04-099, 1068-04-116, 0009-11-226		



ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS (EPIC)

SHEET 2 OF 2			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
6	SEE TITLE SHEET		IH 30
STATE	DISTRICT	COUNTY	IH 35E
TEXAS	DALLAS	DALLAS	SHEET NO.
CONTROL	SECTION	JOB	186-A
LAST REVISION: MAY 2012			
0196	03	205, etc.	