

JANUARY 26, 2007

TECHNICAL  
PROPOSAL  
FOR THE



TXDOT  
SH121  
TOLL  
PROJECT



D.4.11  
ENVIRONMENTAL  
MANAGEMENT PLAN  
(DESIGN &  
CONSTRUCTION)



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## ENVIRONMENTAL MANAGEMENT (PMP 3)

### 1 ORGANIZATION

#### 1.1 Design-Build Contractor's Main Contractual Arrangements

The Design-Build (D-B) Team is committed to meet the obligations regarding Governmental Approvals and regulatory compliance with Environmental Approvals as set forth in Comprehensive Development Agreement (CDA). The D-B Team shall cause Work to comply with Environmental Approvals throughout the Term of the contract and shall monitor Work at the Facility so that documents providing evidence of compliance are available at any time for inspection by TxDOT personnel and the Independent Engineer. Weekly environmental monitoring reports will be prepared by the Environmental Compliance Team (ECT).

In order to maintain a consistent approach and the integrity of Environmental and Governmental Approvals, the D-B Team acting through its Environmental Compliance Manager (ECM) shall designate an Environmental Compliance Team (ECT), to prevent, minimize, and/or correct any violations of or non-compliance with Environmental Approvals. The ECT specified personnel shall include the ECM, Environmental Compliance Inspectors (ECI), and the environmental training staff. Additionally, other ECT staff members shall include the Archeologist, Natural Resource Biologist, Water Quality Specialist, Hazardous Material Manager, and Health and Safety Manager. Roles, responsibilities, and procedures for carrying out and reporting on environmental construction monitoring activities are described in Table 3.1. The specifics of how these services will be procured are to be determined.

A Comprehensive Environmental Protection Program (CEPP) will be developed as required by the CDA to set forth an approach, procedures, and methods throughout the Term of the Contract. The CEPP satisfies applicable US Department of Transportation, Federal Highway Administration (FHWA), TxDOT, and resource agency requirements including those commitments described in the Environmental Approvals. The CEPP will contain the following topics:

- Staffing and availability of ECM and all ECT personnel
- Environmental Contact tree including primary and secondary contacts
- ECT staff response times

The D-B Team acknowledges that Environmental and Governmental Approvals in connection with the development of the Facility have been negotiated by TxDOT and accepted by Governmental Entities (US Environmental Protection Agency [USEPA], Texas Commission on Environmental Quality [TCEQ], Texas Historical Commission [THC], US Army Corps of Engineers [USACE], US Fish and Wildlife Services [USFWS], Texas Parks and Wildlife Department [TPWD], and the North Central Texas Council of Governments [NCTCOG]). The permits provided to the D-B Team by TxDOT are based on the Project schematic of the preferred alternative as presented in the environmental documents. Further Governmental Approvals will be required to enable the Work to proceed, for which the D-B Team will prepare documentation and TxDOT shall, where specified, make the necessary submittals to the Governmental Entity. Table 4.2-1 of the CDA, Book 2A – TxDOT Provided Approvals sets forth the status of existing Environmental Approvals and the D-B Team's obligations to prepare documentation and take other action(s) to support TxDOT regarding Environmental Approvals and the actions to be taken by TxDOT. The D-B Team shall be responsible for ensuring compliance with the conditions and schedules set forth in the amendment of any TxDOT-Provided Approvals. The level of support from TxDOT, if any, will be in the sole discretion of TxDOT.

#### 1.2 Organizational Structure of Activities to be Performed

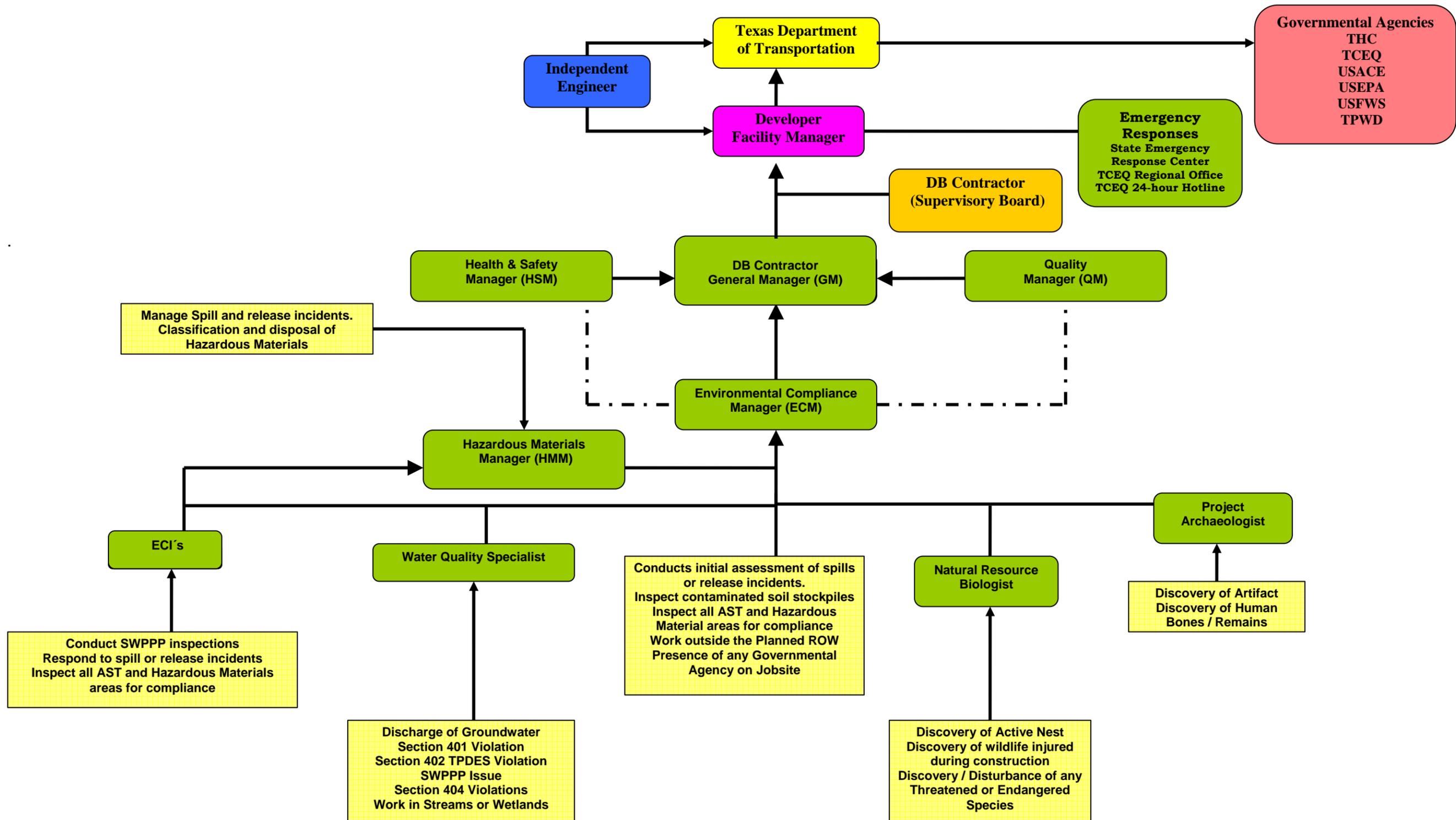
The description of the ECT is provided in Table 3.1 below. Multiple roles of the ECT personnel may be fulfilled by single ECT members if respective members fulfill the requirements of the ECT personnel as detailed under the terms of the CDA, Book 2A, Section 4 and as workload allows. An Environmental Organization Chart is provided in Table 3.2 below, which shows the organization structure, chain of command, and identifies examples of environmental issues that the ECT staff might encounter during the project.

Table 3.1 ENVIRONMENTAL COMPLIANCE TEAM

TITLE	DESIGNATED PERSONNEL	QUALIFICATIONS	RESPONSIBILITIES
Environmental Compliance Manager	TBD	<ul style="list-style-type: none"> <li>- The ECM shall be a qualified professional with a minimum of five years experience successfully managing environmental compliance of urban freeway construction;</li> <li>- Shall be 40-hour HAZWOPER certified.</li> <li>- The qualifying experience used to evaluate an ECM candidate must include the following experience:               <ul style="list-style-type: none"> <li>- Developing and managing a Stormwater Pollution Prevention Plan (SWPPP);</li> <li>- Developing and managing a hazardous substance and petroleum products management plan;</li> <li>- Implementing environmental monitoring plans;</li> <li>- Providing environmental and personal protection training; and</li> <li>- Monitoring compliance with Section 404 Permit conditions.</li> </ul> </li> <li>- The ECM's qualifying experience must include one of the following requirements for training staff meeting the requirements of TxDOT Work Categories 2.10.1 (Archeological Surveys, Documentation, Excavations, Testing Reports and Data Recovery Plans), 2.6.1 (Protected Species Determination\Habitat), 2.6.3 (Biological Surveys), 2.4.1 (Nationwide Permits) and 2.13.1 (Hazardous Materials Initial Site Assessment), and have two years experience with the following:               <ul style="list-style-type: none"> <li>- The scope and terminology of ASTM E 1527-05, "Standard Practice for Environmental site Assessments: Phase I Environmental Site Assessment process;" and</li> </ul> </li> <li>- Provisions of the TPDES Construction General Permit (TXR150000).</li> </ul>	<ul style="list-style-type: none"> <li>- Reviews the required environmental submittals for quality and accuracy</li> <li>- Shall direct the work of the ECT</li> <li>- Shall monitor, document, and report environmental compliance of the Work</li> <li>- Report immediately to TxDOT and the Developer any violations or non-compliance that represents an imminent danger to human health or the environment</li> <li>- Report to TxDOT and the Developer appropriate recommendations for corrective action, including stoppage of Work</li> <li>- Submit all necessary environmental documentation and monitoring reports to appropriate Governmental Entities and/or TxDOT</li> <li>- Prepare weekly monitoring reports</li> <li>- Review Site Investigation Reports</li> <li>- Review Site Investigation Work Plans</li> <li>- Review and approve activities conducted in response to a spill or release</li> <li>- Evaluate hazardous materials management practices for compliance with the Hazardous Materials Management Plan</li> <li>- Evaluate implementation of SPCC plans</li> <li>- Conduct initial assessment of spills or releases</li> <li>- Inspect contaminated soil stockpiles for appropriate placement and cover</li> <li>- Assist with environmental training</li> <li>- Assist with updates to HMMP</li> <li>- Maintain lists of MSDS</li> <li>- Inspect all AST and Hazardous Material areas for compliance.</li> </ul>
Environmental Compliance Inspectors	TBD	<ul style="list-style-type: none"> <li>- Shall have at least one year of operational control experience of Stormwater Pollution Prevention Plan (SWPPP) activities</li> <li>- Shall be 40-hour HAZWOPER certified.</li> </ul>	<ul style="list-style-type: none"> <li>- Shall conduct daily on-site environmental monitoring</li> <li>- Prepare documentation and report to ECM daily violations, compliance, and non-compliance with Environmental Approvals</li> <li>- Conduct SWPPP inspections</li> <li>- Assist with environmental training</li> <li>- Inspect all AST and Hazardous Material areas for compliance</li> <li>- Respond to spills or releases incidents</li> <li>- Conduct environmental monitoring within sensitive areas (i.e. wetland, streams, Threatened or Endangered Species habitat)</li> <li>- Immediately report to the ECM any violation or non-compliance that represents an imminent danger to human health</li> <li>- Report to ECM appropriate recommendations for corrective action, including stoppage of Work.</li> </ul>
Environmental Training Staff	TBD	<ul style="list-style-type: none"> <li>- Members shall have at least one year of experience providing environmental compliance inspection and compliance training for urban freeway construction</li> </ul>	<ul style="list-style-type: none"> <li>- Shall develop, schedule and conduct environmental awareness and environmental compliance training for the all employee's.</li> <li>- Maintains training documentation</li> </ul>

Hazardous Materials Manager	TBD	<ul style="list-style-type: none"> <li>- The HMM shall be a qualified professional with 40-hour HAZWOPER certification and at least five years experience in similar projects in the following areas:</li> <li>- Experienced in developing Site Investigation Work Plans and Site Investigation Reports, and remedial action plans or equivalent reports necessary and acceptable to the TCEQ in material discovery and remediation efforts of Hazardous Materials.</li> <li>- Experienced in TCEQ guidance for the investigation and remediation of Hazardous Materials under the TCEQ Voluntary Cleanup Program 930 TAC 333A) and Texas Risk Reduction Program Rules (30 TAC 350)</li> <li>- Shall have verifiable leaking petroleum storage tank investigation and remediation experience within the State of Texas</li> <li>- Shall meet the certification requirements of TxDOT work Category 2.13.1, "Hazardous Materials Initial Site Assessment."</li> </ul>	<ul style="list-style-type: none"> <li>- Provide expertise in the safe handling of Hazardous Materials required to perform the Work and those that may be discovered/impacted during the duration of the Work</li> <li>- Schedule and/or conduct training for all employee's</li> <li>- Verify all employee certifications prior to and required for handling of Hazardous Materials</li> <li>- Maintain records of all Incidents involving Hazardous Materials and notify ECM, TxDOT and appropriate authorities in writing of incidents</li> <li>- Preparation of Spill Prevention Control and Countermeasures (SPCC) Plan</li> <li>- Manage spill and release response actions as specified in the HMMP</li> <li>- Manage the following activities:</li> <li>- Preparation of Site Investigation Work Plans</li> <li>- Preparation of Site Investigation Reports</li> <li>- Activities related to the classification and disposal of hazardous materials</li> <li>- Oversee updates to HMMP</li> </ul>
Project Archeologist	TBD	<ul style="list-style-type: none"> <li>- Shall meet the certification requirements of TxDOT Work Category, 2.10.1, "Archeological Surveys, Documentation, Excavations, Testing Reports and Data Recovery Plans."</li> <li>- The Archeologist shall be a qualified professional with the following experience:</li> <li>- Duties of a 'Principal Investigator,' as set forth in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (36 CFR § 44738-9) and Chapter 26 (TAC) Rules of Practice and Procedure for the THC.</li> <li>- Graduate degree in archeology, anthropology, or a closely related field.</li> <li>- Completion at the Principal Investigator level of one (three preferred) data recovery project or a project involving substantial analysis and reporting of excavated data.</li> </ul>	<ul style="list-style-type: none"> <li>- Monitor construction activities within cultural resources high probability areas prior to THC clearance of the Facility</li> <li>- Respond to any potential cultural resources incidents on the Facility</li> </ul>
Natural Resource Biologist	TBD	<ul style="list-style-type: none"> <li>- The Natural Resources Biologist shall be a qualified and experienced professional with at least five years of professional experience on similar transportation projects and a Bachelor's degree in ecology or related biological field (i.e. wildlife biology, botany, ect) and shall meet the certification requirements of TxDOT Work Categories, 2.6.1, "Protected Species Determination (Habitat)" and 2.6.3, "Biological Surveys."</li> </ul>	<ul style="list-style-type: none"> <li>- Assess all wildlife impacts during construction activities</li> </ul>
Water Quality Specialist	TBD	<ul style="list-style-type: none"> <li>- The Water Quality Specialist shall be a qualified and experienced professional with at least five years of professional experience on similar transportation projects and shall meet the certification requirements of TxDOT Work Category 2.4.1, "Nationwide Permit."</li> <li>- Shall have verifiable experience implementing Stormwater Pollution Prevention Plans within the Counties of Denton and/or Collin</li> <li>- Working knowledge of the Nation Pollutant Discharge Elimination System Municipal Separate Storm Sewer system permit requirements</li> </ul>	<ul style="list-style-type: none"> <li>- Provide expertise in permitting delineation, Stormwater pollution prevention, and the protection of jurisdictional waters</li> </ul>
Health and Safety	TBD	<ul style="list-style-type: none"> <li>- Shall be 40-hour HAZWOPER certified.</li> </ul>	<ul style="list-style-type: none"> <li>- Maintain Health and Safety Manual</li> <li>- Conduct Safety Training</li> </ul>

			- Conduct spot inspections of offloading areas for proper PPE usage.
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### 1.3 Environmental Contact Tree

Environmental reporting contact information and emergency telephone numbers are provided below:

**Contacts:**

<p><b>Construction Quality Control Manager</b></p> <p>Company Name          Email address          Office number:          Mobile number:          Fax number:          Home number:          Street address          City, State, Zip Code</p>	<p><b>General Manager</b></p> <p>DB Team          Email address          Office number:          Mobile number:          Fax number:          Home number:          Street address          City, State, Zip Code</p>	<p><b>Natural Resource Biologist</b></p> <p>Company Name          Email address          Office number:          Mobile number:          Fax number:          Home number:          Street address          City, State, Zip Code</p>	<p><b><u>EMERGENCY PHONE NUMBERS</u></b></p> <p><b>State Emergency Response Center</b>          (800) 832-8224</p> <p><b>TCEQ Regional Office</b>          (512) 339-2929</p> <p><b>TCEQ 24-hour Hotline</b>          (512) 239-2507</p>
<p><b>Hazardous Materials Manager</b></p> <p>Company Name          Email address          Office number:          Mobile number:          Fax number:          Home number:          Street address          City, State, Zip Code</p>	<p><b>Project Archaeologist</b></p> <p>Company Name          Email address          Office number:          Mobile number:          Fax number:          Home number:          Street address          City, State, Zip Code</p>	<p><b>Environmental Compliance Inspectors</b></p> <p>Company Name          Email address          Office number:          Mobile number:          Fax number:          Home number:          Street address          City, State, Zip Code</p>	<p><b>Texas Historical Commission</b>          (512) 463-6906</p> <p><b>TCEQ</b>          (512) 239-1000</p> <p><b>USACE</b>          (817) 886-1731</p>
<p><b>Turnpike Environmental Coordinator</b></p> <p>TxDOT/Austin District          Email address          Office number:          Mobile number:          Fax number:          Home number:          Street address          City, State, Zip Code</p>	<p><b>Environmental Compliance Manager</b></p> <p>Company Name          Email address          Office number:          Mobile number:          Fax number:          Home number:          Street address          City, State, Zip Code</p>	<p><b>Water Quality Specialist</b></p> <p>Company Name          Email address          Office number:          Mobile number:          Fax number:          Home number:          Street address          City, State, Zip Code</p>	<p><b>EPA</b>          (512) XX (o)</p> <p><b>USFWS</b>          (512) XX (o)</p> <p><b>TPWD</b>          (512) 389-4800</p>

## 2 PERSONNEL

### 2.1 Resource Plan for Developer and its Contractors

Work Plans/Method Statements will define the proposed method of executing an element of work, taking into account the particular requirements of the project, including site conditions, safety hazards, the contract drawings, specifications, and industry practice. They define the proposed use of equipment, labor, and materials. Required permits are identified and may be supplemented by drawings, sketches, and product data as necessary.

The principle aim of a method statement is to ensure that:

- Environmental risks are assessed, safe working methods defined, and workers involved are made aware of the risks associated with the task;
- Tasks are thought out in advance of field performance;
- Resources are available prior to task commencement.

These work plans will:

- Cover key activities identified through the schedule and be task-specific;
- Identify responsible personnel;
- Identify the required control measures and preparations;
- Be prepared in accordance with the Environmental standards and safety standards outlined in the Comprehensive Environmental Protection Program, Health & Safety Plan and Risk Assessment.

The following is a non-exhaustive list of activities which may require work plans. Reference numbers will be allocated as the method statements are produced:

- Environmental management including treatment of habitat areas and all areas where there is any risk or potential risk of environmental damage;
- Traffic Management segregated into each traffic management operation, including traffic diversions, traffic re-routing and permanent and temporary diversions;
- Demolition and site clearance;
- Safety fences, safety barriers and pedestrian guard rails;
- Drainage and service ducts;
- Earthworks, including method statements for different materials;
- Road pavements including instructions for different materials;
- Curbs, Footpaths and Paved areas;
- Traffic signs;
- Road lighting;
- Electrical work;
- Structures, each being broken down into each main element;

- Landscape operations, including the monitoring, stripping, preservation and re use of topsoil;
- Accommodation works;
- Service diversions;
- Special activities.

All environmental and construction/environmental subcontractors, equipment, materials and systems will be handled following the Procurement (Subcontractor) Procedure and/or the Procurement (Materials and Supplies) Procedure set forth in the Process Procedure Manual.

## 2.2 Interaction with the Independent Engineer (IE) and/or TxDOT

The specific arrangements governing staff interaction with the IE and/or TxDOT and its consultants (Developer and the D-B Team) have yet to be established. In general, communication with the IE will pass from either the IE and/or TxDOT through the Developer, to the D-B Team's General Manager. The General Manager will direct the communication to the appropriate Department within the D-B Team's organization.

## 2.3 Key Personnel

The Environmental Organization Chart provided in Table 3.2 depicts the overall organization's structure, chain of command, and Environmental Compliance Team (ECT) members. Table 3.1 identifies the job titles, roles, qualifications, and areas of responsibility for ECT members. Specific experience requirements will mirror, at a minimum those identified in the CDA. Key and specified personnel will meet the qualification requirements defined in the CDA. The roles to be filled by specific subcontractors and affiliates have not yet been established. It is anticipated that contractual arrangements will be made with an experienced and qualified environmental consulting firm "subcontractor" to obtain the necessary environmental permits and implement the environmental monitoring and training programs for the Facility. Selection of a subcontractor will be made on the basis of the scope of work, competency to perform the work, health and safety, quality control and assurance, and overall best value to the Project. Special attention will be given to qualified firms with current TxDOT DBE, WBE, or HUB status. At a minimum, the subcontractor will provide all key environmental training staff who meets the specified qualifications to fulfill the primary responsibility for environmental protection as part of the designated Environmental Compliance Team, as well as any other personnel or resources to perform the required services. The subcontractor shall carry out all activities and tasks necessary to properly train personnel engaged in field activities and environmental compliance monitoring activities.

## 2.4 Environmental Protection Training Program

The Environmental Protection Training Program (EPTP) will educate all employees to recognize the overall importance of environmental issues throughout construction, operation, and maintenance of the Facility as well as recognize the various environmental sensitivities associated with the Facility. All employees will be trained to recognize environmentally sensitive resources that may be encountered during work, how to avoid or take appropriate action to minimize environmental impacts from the Work, and understand the required actions, practices, and procedures regarding related resources.

The following proposed Table of Contents outlines the information topics to be provided in the EPTP:

### **Table of Contents**

- 1.0 Environmental Protection Training Plan**
- 2.0 Environmental Protection Training Plan Scope and Content**
- 3.0 Environmental Discipline Segments**
- 4.0 EPTP Participation**
- 5.0 Ongoing Training**

The following environmental discipline segments will be developed to provide more detailed training in the regulations and procedures that apply to each environmental discipline. These segments are:

- Environmental Background;
- Overview of specific environmental commitments at the project level;
- Overall importance of environmental protection to the Facility;
- The D-B Team's Environmental Compliance Team's commitments and responsibilities;
- Worker responsibilities;
- Regulatory permit conditions;
- Penalties and/or fines for violations of and noncompliance with environmental requirements and Laws, including termination of employment;
- Wetlands identification;
- Overview of the provisions of the Endangered Species Act, Migratory Bird Treaty Act, Stormwater Pollution Prevention Program (SWPPP), and Project mitigation commitments;
- Best Management Practices (BMPs) for environmental compliance, including but not limited to pollution prevention, erosion, sedimentation, and dust control measures to maintain water and air quality;
- Required mitigation measures;
- Groundwater protection requirements;

- Clean Water Act (CWA) regulations and surface water protection requirements;
- Overview of noise and residential impact reduction procedures;
- Air quality and dust control requirements;
- Compliance responsibility and Governmental Entity Authority;
- Procedures and precautions in the event skeletal remains or other archeological or paleontological resources are discovered;
- Procedures and precautions in the event of spills of or discovery of hazardous materials or unknown chemicals or contamination; and,
- Threatened or Endangered Species or sensitive habitat protection measures.

Training sessions will include the viewing of the EPTP video and questions and answer sessions. Both English and Spanish versions of the EPTP video will be available. Training documentation will be achieved through the use of a sign-in sheet. This sign-in sheet will be entered into the training database. Recognition for completion of training will be signified by use of environmental training stickers for hardhats and certificates. The D-B Team's selected environmental subcontractor will provide any resources necessary to perform the required services to achieve environmental training of all employees of the Facility.

The ECT will schedule the EPTP in coordination with the Facility Work schedule. The ECT will provide introductory environmental protection training to all personnel who will be performing field activities. Personnel engaged in field activities will be required to complete the introductory training prior to working at the site. In-office training session(s) will be conducted for all D-B Team's staff, including all subcontractor personnel. The introductory training will provide an understanding of the applicable environmental laws, regulations, policies, and procedures for the Facility. The introductory environmental training will be coordinated with D-B Team's Health and Safety Program. In addition to the introductory training, periodic training sessions at appropriate times (e.g., prior to construction in sensitive areas) may be used to update workers on specific restrictions, conditions, concerns, or requirements.

## 3 CONTRACTORS

### 3.1 Control Procedures

The roles to be filled by specific contractors and affiliates have not yet been established. However, control of work will follow the CEPP, which describes project administration and control elements in subsidiary plans such as Environmental Management System (EMS), Environmental Protection Training Plan (EPTP), Hazardous Materials Management Plan (HMMP), Environmental Compliance and Mitigation Plan (ECMP), Construction Monitoring Plan (CMP) and the Recycling Plan.

### 3.2 Responsibility of Contractors and Affiliates

Under the contractual agreement between the D-B Team and the Developer, the D-B Team is subject to the same environmental requirements as set forth in the CDA. Subcontractors and Affiliates to the D-B Team will be contractually obligated to comply with the environmental requirements as indicated in the CDA, as part of the provision of their services.

## 4 ENVIRONMENTAL

### 4.1 Environmental Mitigation Plan

The Environmental Compliance and Mitigation Plan (ECMP) will detail procedures by which the D-B Team will comply with requirements of the CDA and Environmental Approvals in one comprehensive document. The ECMP will include details of all mitigation requirements by Environmental Approvals and the D-B Team's approach to satisfying mitigation requirements. The ECMP is an integral part of the CEPP and is prepared in compliance with the CDA requirements, which states that the ECMP will fully detail the mitigation requirements contained in the Governmental Approvals. The ECMP shall provide a method for monitoring, documenting, evaluating, and reporting environmental compliance during construction activities of the Facility. The ECMP will include details of all mitigation requirements by Environmental Approvals and the D-B Team's approach to satisfying mitigation requirements. Additionally, schedules, protocols, and methodologies to be used for the Work, including requirements for monitoring, reporting, corrective actions and adaptive management will be detailed to ensure compliance with applicable requirements. The ECMP outlines each of the environmental resource categories related to the Facility. The resource categories listed in this section include:

- Jurisdictional Waters / Wetlands,
- Water Quality,
- Floodplains,
- Wildlife,
- Threatened and Endangered Species,
- Archeology,
- Hazardous Materials,
- Noise,
- Air quality,
- Farmland, and
- NEPA Documentation.

For each resource, the compliance requirements are presented in the following four subsections:

- 1) the federal and State statutes and regulations that establish the legal authority for project environmental mandates;
- 2) permits, memoranda of understanding, protocols, and other regulatory documents, which have legal effects as extensions of applicable statutes and regulations;
- 3) CDA commitments and other mitigation measures; and,
- 4) NEPA documentation and approvals

Each resource specific section is concluded with a fifth subsection, "resource mitigation requirements," which compiles all subsection commitments into the actions being taken by the D-B Team's ECT to adhere to resource requirements and mitigation.

The following proposed Table of Contents outlines the information topics to be provided in the ECMP:

## **Table of Contents**

### **1.0 Introduction**

- 1.1 Comprehensive Environmental Protection Program Overview
- 1.2 Guidance Plans
  - 1.2.1 Environmental Management System
  - 1.2.2 Environmental Protection Training Plan
  - 1.2.3 Hazardous Materials Management Plan
  - 1.2.4 Environmental Construction Monitoring Plan
  - 1.2.5 Recycling Plan
- 1.3 Goals of the Comprehensive Environmental Protection Program
  - 1.3.1 Commitment to Goals
- 1.4 Environmental Personnel

### **2.0 Implementation and Monitoring**

- 2.1 Environmental Permits, Issues and Commitments Coversheet
- 2.2 Training
- 2.3 Environmental Construction Monitoring Plan
- 2.4 Meetings and Coordination

### **3.0 Environmental Resources and Concerns**

- 3.1 Section 404 Jurisdictional Wetlands and/or other “Waters of the US”
  - 3.1.1 Federal and State Statutes and Regulations
  - 3.1.2 Permits, Protocols, Other Regulatory Documents
  - 3.1.3 Commitments and Other Mitigation Measures
  - 3.1.4 NEPA documentation and approvals
  - 3.1.5 Jurisdictional Wetlands and/or other “Waters of the US” Mitigation Requirements
- 3.2 Water Quality
  - 3.2.1 Federal and State Statutes and Regulations
  - 3.2.2 Permits, Protocols, Other Regulatory Documents
  - 3.2.3 Commitments and Other Mitigation Measures
  - 3.2.4 NEPA documentation and approvals
  - 3.2.5 Water Quality Mitigation Requirements
- 3.3 Floodplains

- 3.3.1 Federal and State Statutes and Regulations
- 3.3.2 Permits, Protocols, Other Regulatory Documents
- 3.3.3 CDA Commitments and Other Mitigation Measures
- 3.3.4 NEPA documentation and approvals
- 3.3.5 Floodplain Mitigation Requirements
- 3.4 Wildlife and Threatened and Endangered Species
  - 3.4.1 Federal and State Statutes and Regulations
  - 3.4.2 Permits, Protocols, Other Regulatory Documents
  - 3.4.3 Commitments and Other Mitigation Measures
  - 3.4.4 NEPA documentation and approvals
  - 3.4.5 Wildlife and Threatened and Endangered Species Mitigation Requirements
- 3.5 Archeology
  - 3.5.1 Federal and State Statutes and Regulations
  - 3.5.2 Permits, Protocols, Other Regulatory Documents
  - 3.5.3 Commitments and Other Mitigation Measures
  - 3.5.4 NEPA documentation and approvals
  - 3.5.5 Archeology Mitigation Requirements
- 3.6 Historical
  - 3.6.1 Federal and State Statutes and Regulations
  - 3.6.2 Permits, Protocols, Other Regulatory Documents
  - 3.6.3 Commitments and Other Mitigation Measures
  - 3.6.4 NEPA documentation and approvals
  - 3.6.5 Historical Mitigation Requirements
- 3.7 Hazardous Materials and Waste
  - 3.7.1 Federal and State Statutes and Regulations
  - 3.7.2 Permits, Protocols, Other Regulatory Documents
  - 3.7.3 Commitments and Other Mitigation Measures
  - 3.7.4 NEPA documentation and approvals
  - 3.7.5 Hazardous Materials and Waste Mitigation Requirements
- 3.8 Noise
  - 3.8.1 Federal and State Statutes and Regulations
  - 3.8.2 Permits, Protocols, Other Regulatory Documents
  - 3.8.3 Commitments and Other Mitigation Measures
  - 3.8.4 NEPA documentation and approvals
  - 3.8.5 Noise Mitigation Requirements

- 3.9 Air Quality
  - 3.9.1 Federal and State Statutes and Regulations
  - 3.9.2 Permits, Protocols, Other Regulatory Documents
  - 3.9.3 Commitments and Other Mitigation Measures
  - 3.9.4 NEPA documentation and approvals
  - 3.9.5 Air Quality Mitigation Requirements
- 3.10 Farmland
  - 3.10.1 Federal and State Statutes and Regulations
  - 3.10.2 Permits, Protocols, Other Regulatory Documents
  - 3.10.3 Commitments and Other Mitigation Measures
  - 3.10.4 NEPA documentation and approvals
  - 3.10.5 Farmland Mitigation Requirements
- 3.11 NEPA Documentation
  - 3.11.1 Federal and State Statutes and Regulations
  - 3.11.2 Permits, Protocols, Other Regulatory Documents
  - 3.11.3 Commitments and Other Mitigation Measures
  - 3.11.4 NEPA documentation and approvals
  - 3.11.5 NEPA Documentation Mitigation Requirements

#### **4.0 Additional Properties Clearances**

- 4.1 Cultural Resources
- 4.2 Wildlife and Vegetation
- 4.3 Threatened or Endangered Species
- 4.4 Jurisdictional Wetlands and/or other “Waters of the US”
- 4.5 Hazardous Materials

#### **5.0 Updating The Plan**

##### **Lists of Appendix**

- Appendix A – List of Acronyms
- Appendix B – USACE Pre-Construction Notification
- Appendix C – Phase I Environmental Site Assessment Summary
- Appendix D – Plan Update Format and Index

The ECMP includes standard operating procedures for a minimum of the following components:

- Permanent water pollution control measures;
- Temporary water pollution control measures;
- Compliance with environmental permit requirements;
- Complying with mitigation measures for wetland/habitat replacement;
- Complying with jurisdictional waters and wetlands permits;
- Noise and vibration mitigation measures;
- Air quality mitigation measures;
- Mitigation measures for light intrusion on adjacent properties;
- Maintaining current traffic flows within the existing footprint, no detours will be required

## 5 QUALITY CONTROL

### 5.1. Accuracy, Completion, and Quality

The D-B Team Team is committed to the application of responsible and professional quality control for all project deliverables, including subconsultant deliverables, to ensure accuracy, completeness and adequacy for the intended purpose. The environmental activities will be assigned to professionally qualified individuals who will be required to comply with the D-B Team's Project Management Plan. Quality control management and monitoring of environmental inputs and outputs will be performed by the Environmental Compliance Manger.

### 5.2 Continuous Improvement

The Quality Management Plan establishes an internal audit process for the continual improvement to design, construction, and environmental compliance of the Facility. Internal quality audits will be performed by qualified personnel who are independent of those having direct responsibility for the activity being audited. Managers responsible for the activity being audited will ensure that prudent and timely corrective action is taken to resolve all identified deficiencies. Follow up audits will be used to verify the corrective action taken and its effectiveness. If any recurring problems exist, they will be brought to the attention of the General Manager. Quality audit results will also be used as a tool to review and implement continuous improvement to the Environmental Compliance. The D-B Team complaint process will address all reported complaints, regardless of reporting individual as outlined in the procedure for Developer Complaints. Procedures for evaluating continuous improvement contemplated as part of this project are:

- Management Review Procedure: A formal regular evaluation by the General Manager and the Construction Manger of the status and adequacy of the quality system (procedures, stated business objectives, working methods) in relation to Quality Policy. The evaluation will take into account any changes incepted by new technologies, quality concepts, market strategies, and social or environmental conditions, and laws.
- Developer Complaints Procedure: Sets forth guidelines to ensure that complaints received from the Developer on aspects other than quality will be investigated appropriately. The Scope covers complaints received from the Developer on completed work, and from members of the public related to the D-B Team's activities (e.g. noise, dust or other hazards).

### 5.3 Environmental Compliance Procedures

The Facility Environmental Compliance Procedures will be developed in the CEPP guidance documents including the Environmental Management System (EMS), Environmental Compliance and Mitigation Plan (ECMP), Environmental Protection Training Plan (EPTP), Hazardous Materials Management Plan (HMMP), Construction Monitoring Plan (CMP), and the Recycling Plan. The following procedures will be developed under the CEPP guidance documents:

- Permanent water pollution control measures;
- Temporary water pollution control measures;
- Compliance with environmental permit requirements;
- Complying with mitigation measures for wetland/habitat replacement;
- Complying with jurisdictional waters and wetlands permits;
- Noise and vibration mitigation measures;
- Air quality mitigation measures;
- Mitigation measures for light intrusion on adjacent properties;
- Maintaining current traffic flows
- Wetlands identification;
- Best Management Practices (BMPs) for environmental compliance, including but not limited to pollution prevention, erosion, sedimentation, and dust control measures to maintain water and air quality;
- Groundwater protection requirements;
- Clean Water Act (CWA) regulations and surface water protection requirements;
- Noise and residential impact reduction procedures;
- Air quality and dust control requirements;
- Procedures and precautions in the event skeletal remains or other archeological or paleontological resources are discovered;
- Procedures and precautions in the event of spills of or discovery of hazardous materials or unknown chemicals or contamination;
- Threatened or Endangered Species or sensitive habitat protection measures;
- Hazardous Materials brought on site;
- Hazardous Materials encountered on site;
- Hazardous Materials Storage and Disposal Provisions;
- Preparation of Investigative Work Plans (IWP), and Site Investigative reports (SIR) to adequately characterize the extent of the contaminated media;
- Remedial Action Plans;
- Emergency Spill Procedures;

- Certification Requirements;
- Medical Surveillance Program; and
- Exposure Protection.

## 6 AUDIT

### 6.1 Supporting Quality Management Staff

The Quality Manager is responsible for establishing and maintaining a system of internal audits and will be responsible for training and supervision of all internal auditors. Internal quality audits will be performed by the Quality Management Staff comprised of qualified personnel who are independent of those having direct responsibility for the activity being audited. The Quality Manager will ensure that audit results are recorded and brought to the attention of appropriate personnel (e.g. General Manager). Managers responsible for the activity being audited will ensure that prudent and timely corrective action is taken to resolve all identified deficiencies. Follow up audits will be used to verify the corrective action taken and its effectiveness. If any recurring problems exist, they will be brought to the attention of the General Manager. Quality audit results will also be used as a tool to review and implement continuous improvement to the Environmental Compliance. The Quality Management Team Key Personnel are:

- Design/Construction Quality Manager – Esteban Trigueros
- Quality Control Leads - TBD
- Quality Control Technicians.- TBD
- Quality Control Laboratory Technicians - TBD

## 7 DOCUMENT MANAGEMENT

### 7.1 Maintenance of Records

Quality Records are objective evidence that specified quality control procedures and quality assurance processes were performed. These records are to be submitted in accordance with Environmental requirements. To ensure accuracy, completion and quality in necessary submittals, all environmental record, must serve as evidence (together with all applicable checklists) that environmental control was performed and must be handled following any of these procedures:

- Document and Data Control Procedure: Sets forth guidelines to ensure that the relevant documents are available at the locations at which they are needed and that obsolete documents are removed for the system and replaced with the new versions to avoid inadvertent use. The Quality Manager will maintain a list of all Quality Documentation, with current issue status. The Environmental Compliance Manager will also keep a list of all environmental documentation. Documents will reside in the Document Control.
- Construction Management Procedure: Sets forth guidelines to ensure the execution and supervision of the constructed works, including that of all subcontractors, self-performed work, vendors and suppliers, are in accordance with the provisions of the Design and Build Agreement. Procedure covers all construction activities undertaken on contracts. This will include procurement of material and supplies, directly performed work, and subcontracted work.

- Control of Quality and Environmental Records Procedure: Sets forth guidelines to ensure that Quality and Environmental Records are identified, generated, distributed and stored for the specified period. Identifies the primary responsibilities and principles used by the D-B Team for indexing, filing and retrieving Quality and Environmental Records generated during design, procurement, and construction phases of the Design and Build Agreement.

## 7.2 Environmental Documentation

The D-B Team will make the following submittals, to TxDOT and to Governmental Entities as directed by TxDOT and required by Contract documents, and Environmental Approvals:

- CEPP component parts
  - Environmental Management System
  - Environmental Compliance and Mitigation Plan
  - Environmental Protection Training Plan
  - Hazardous Materials Management Plan
  - Construction Monitoring Plan
  - Recycling Plan
- Weekly Environmental Monitoring Reports;
- Pre-Construction Inspection Report (Construction, Operations, and Maintenance Monitoring Plan);
- Investigative Work Plans, Site Investigative Reports, and Remedial Action Plans as necessary for Hazardous Material discovery/remediation;
- Submittals to re-new or modify existing Section 404 Permits for Segments 3, 4, and 5
  - Re-new or modify existing Section 404 Permit 200200470 (Segments 3 and 4: FM 2478 to US 75) for impacts to three bridge crossings: Rowlett Creek, Cottonwood Creek, and Sloan Creek;
  - Re-new or modify existing Section 404 Permit 200200297 (Segments 2 and 3: Hillcrest Road to FM 2478) for impacts four bridge crossings: Unnamed Tributary of White Rock Creek, White Rock Creek, and 2 unnamed tributaries of west Rowlett Creek;
  - Re-new or modify existing Section 404 Permit 200200254 (Segments 5: DNT interchange) for impacts to on-channel stock pond to Stewart Creek located at southwest corner of the DNT and SH 121;
- Section 401 Certification submittals to support TxDOT Section 404 Permit Applications;
- Water Well Impacts and Requirements
  - If well is encountered prepare SOP for plugging and abandonment of wells
  - If water well has become contaminated, prepare a corrective action plan for TxDOT approval
  - Submit a "Plugging Report"
  - Submit alternate plugging procedures if the method prescribed in the CDA is not used;

- Designs for wetland and floodplain mitigation measures;
- Mitigation or resource monitoring reports, as required by resource-specific mitigation plans;
- TPDES Construction General Permit (TXR150000), Notice of Intent (Segments 3, 4, and 5);
- TPDES Construction General Permit (TXR150000), Notice of Termination (Segments 3, 4, and 5);
- Stormwater Pollution Prevention Plan (SWPPP) and amendments, as required, to reflect Project development and staging;
- Completed Permit applications and permits as issued; and
- Training Documentation.

The schedule for submittals will be in accordance with the requirements set forth previously in the CDA or as necessary to maintain compliance with all applicable Laws, Rules, and Environmental Approvals granted for the Work.