

Texas Department of Transportation
TECHNICAL PROVISIONS

STATE HIGHWAY 360

Attachment 2-1
Project Management Plan Contents

Attachment 2-1 – Project Management Plan Contents

The Project Management Plan (PMP) Contents and Schedule for provision of the component parts.

Legend:

A = Submitted by DB Contractor within 30 days of NTP 1 and approved by TxDOT prior to Commencement of Design and issuance of NTP 2

B = Submitted by DB Contractor within 90 days of NTP 1 and approved by TxDOT prior to Commencement of Construction

Part	Ref	Section	Contents	Required by
1. Project Administration				
	1.1	Organization	Organization diagram	A
	1.2	Personnel	Names and contract details, titles, and job roles	A
	1.3	Contractors	Procedures to establish how the DB Contractor will manage Contractors	A
	1.4	Schedule	Project Baseline Schedule in accordance with <u>Section 2</u> of the Technical Provisions	A
	1.5	Quality Control	Procedures to establish and encourage continuous improvement	A
	1.6	Audit	Procedures to facilitate review and audit by TxDOT and/or the Independent Reviewers	A
			Auditing and management review of DB Contractor's own activities under the PMP	A
			Auditing and management review of Contractor's activities and management procedures	A
	1.7	PMP Update	Procedures for preparation of amendments and submission of amendments to any part of the PMP	A
	1.8	Document Management	The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems DB Contractor will use.	A
			Document management procedures in compliance with <u>Section 2</u> of the Technical Provisions.	A
			Procedures for documenting all required Plans not specifically stated in this attachment, including but not limited to: Aesthetics and Landscaping Plan, ITS Implementation Plan, Haul Route Plan, Maintenance Management Plan (MMP), Emergency Response Plan, Demolition and Abandonment Plan, etc	A
2. Quality Management Plan				
2A. Design Quality Management				
	2A.1	Organization	DB Contractor's main contractual arrangements	A
			Organizational structure covering the activities to be performed in accordance with the Contract Documents	A
	2A.2	Personnel	Resource Plan for the DB Contractor and its subcontractors	A

Part	Ref	Section	Contents	Required by
2A. Design Quality Management (continued)				
	2A.2	Personnel	Arrangements for coordinating and managing staff interaction with TxDOT and its consultants including collocation of Key Personnel and description of approach to coordinating work of off-site personnel	A
			Names and contact details, titles, job roles and specific experience required for the Key Personnel and for other principal personnel during the period of Design Work	A
			Names and contact details, titles, job roles and specific experience required for the principal personnel for Contractors and any third party with which DB Contractor will coordinate activities.	A
	2A.3	Offices and equipment	Description of the necessary offices and office equipment to be provided by DB Contractor during the period of Design Work	A
	2A.4	Contractors	Overall control procedures for Contractors, including consultants and Subconsultants	A
			Responsibility of Contractors and Affiliates	A
			Steps taken to ensure Contractors and Suppliers meet the obligations imposed by their respective Contracts	A
	2A.5	Interfaces	Interfacing between the DB Contractor, Contractors and the Independent certifiers during the period of Design Work	A
			Coordination with Utility Owners	A
	2A.6	Environmental	Integration of the interface between environmental requirements (including landscaping) and the design of the Project	A
	2A.7	Procedures	Procedures describing how the principal activities will be performed during the design stage: to include geotechnical site investigation, surveys and mapping, environmental management, safety audit, structural audit, and checking	A
	2A.8	Quality Control	Quality Management Plan (QMP), including control procedures including a resource table for monitoring and auditing all design services, design review and certification, and verification of plans	A
			Procedures for environmental compliance	A
			Procedures to establish DB Contractor's hold points in the design process at which checking and review will take place	A
			Procedures to ensure accuracy, completion, and quality in submittals to TxDOT, Governmental Entities and other third parties.	A
			Procedures to establish and encourage continuous improvement	A
	2A.9	Audit	Name of DB Contractor's representative(s) with defined authority for establishing, maintaining, auditing and reporting on the PMP	A
			Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority	A
	2A.10	Document Management	The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems DB Contractor will use	A
			Document management procedures in compliance with <u>Section 2</u> of the Technical Provisions	A
Identify environmental documentation and reporting requirements, including Environmental Permits, Issues and Commitments (EPIC) sheets			A	

Part	Ref	Section	Contents	Required by
2B. Construction Quality Management				
	2B.1	Organization	DB Contractor's main contractual arrangements	A
			Organizational structure covering the activities to be performed in accordance with the Contract Documents	A
	2B.2	Personnel	Resource Plan for the DB Contractor and its Contractors	B
			Arrangements for coordinating and managing staff interaction with TxDOT and its consultants including collocation of Key Personnel and description of approach to coordinating work of off-site personnel	B
			Names and contact details, titles, job roles and specific experience required for the Key Personnel as related to construction	A
			Names and contact details, titles, job roles of principal personnel for Contractors and any third party with which DB Contractor will coordinate his activities	B
			Procedures for implementation of the Environmental Protection Training Plan (EPTP) for all employees in accordance with <u>Section 4</u> of the Technical Provisions	B
	2B.3	Offices and equipment	Description of the necessary offices and office equipment to be provided by DB Contractor during construction	A
	2B.4	Contractors	Overall control procedures for Contractors, including consultants and subconsultants	B
			Responsibility of Contractors and affiliates	B
			Steps taken to ensure Contractors and Suppliers meet the obligations imposed by their respective Contracts	B
			Procedures for implementation of Environmental Protection Training Plan (EPTP) for employees of subcontractors in accordance with <u>Section 4</u> of the Technical Provisions	B
	2B.5	Interfaces	Interfacing between the DB Contractor, Contractors, including any testing contractor, and the Independent verifiers during construction	A
	2B.6	Procedures	List of Project specific construction procedures	B
			Construction detailed procedure for each major activity whether directly undertaken or subcontracted to include pavement, structures, drainage, communications	B
			Traffic Management Plan	B
	2B.7	Quality Control/ Quality Assurance	Construction Quality Management Plan (CQMP)	B
			Integration of component parts of the Comprehensive Environmental Protection Program (CEPP) into construction quality management	B
			Control, identification and traceability of materials, including any material or samples temporarily or otherwise removed from site for testing or other reasons.	B
			Examinations and audit of Construction Work, review of examination and audit, issue of certificates	B
			Observation and reporting of all tests in compliance with <u>Section 2</u> of the Technical Provisions	B
			Procedures for tests and inspections for the purpose of the Contractor certifying that prior to burying, each part of the Works is complete and conforms to the Contract Documents	B
		Quality control procedures including a resource table for monitoring and auditing during construction any work and testing undertaken by Contractors and Suppliers both on and off Site	B	

Part	Ref	Section	Contents	Required by
2B. Construction Quality Management (continued)				
	2B.7 (cont'd.)	Quality Control / Quality Assurance	Procedures to establish DB Contractor's hold points in construction	B
			Procedures to ensure accuracy, completion, and quality in submittals to TxDOT, Governmental Entities and other third parties	B
			Procedures to establish and encourage continuous improvement	A
	2B.8	Audit	Inspection and test plans that identify the proforma and/or databases to be used for recording the inspection and test results and a methodology for transmitting acceptance testing and inspection reports to TxDOT	B
			Name of DB Contractor's representative with defined authority for establishing, maintaining, auditing and reporting on the PMP	A
			Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority.	B
	2B.9	Document Management	The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems DB Contractor will use	B
			Document management procedures in compliance with <u>Section 2</u> of the Technical Provisions	A
3. Comprehensive Environmental Protection Program (CEPP)				
	3.1	Organization	DB Contractor's main contractual arrangements	A
			Organizational structure covering the activities to be performed in accordance with the Contract Documents	A
			Environmental Contact Tree	A
	3.2	Personnel	Resource Plan for the DB Contractor and its Contractors	B
			Arrangements for coordinating and managing staff interaction with TxDOT and its consultants, including collocation of Key Personnel and description of approach to coordinating work of off-site personnel	A
			Names and contact details, titles, job roles and specific experience required for Key Personnel and for other environmental personnel	A
			Implement Environmental Protection Training Plan (EPTP) for all employees in accordance with <u>Section 4</u> of the Technical Provisions	A
3. Comprehensive Environmental Protection Plan (continued)				
	3.3	Contractors	Overall control procedures for Contractors, including consultants and subconsultants	A
			Responsibility of Contractors and Affiliates	A
			Procedures for implementation of Environmental Protection Training Plan (EPTP) for employees of Contractors in accordance with <u>Section 4</u> of the Technical Provisions	A
	3.4	Environmental	Establishment of the component parts of the Environmental Compliance Mitigation Program (ECMP)	B
	3.5	Quality Control	Procedures to ensure accuracy, completion, and quality in submittals to TxDOT, Governmental Entities and other third parties	A
			Procedures to establish and encourage continuous improvement	A

Part	Ref	Section	Contents	Required by
			Procedures for environmental compliance	A
	3.6	Audit	Name, title, roles and responsibilities of supporting quality management staff reporting to the person with defined authority	B
	3.7	Document Management	The manner in which records will be maintained in compliance with the Technical Provisions, including any specific systems DB Contractor will use	A
			Identify environmental documentation and reporting requirements	A
4. Safety and Health Plan				
	4.1		Policies, plans, training programs, Work Site controls, and Incident response plans to ensure the health and safety of personnel involved in the Project and the general public affected by the Project	A
	4.2		Procedures for notifying TxDOT of Incidents arising out of or in connection with the performance of the Work	A
5. PICP				
	5.1		The manner in which the DB Contractor's organization will respond to unexpected requests for information, communicate changes or revisions to necessary DB Contractor personnel and support TxDOT in notifying the affected stakeholders before and after the changes are made.	A
	5.2		Processes and procedures for communication of Project information between the DB Contractor's organization and TxDOT	A
6. Risk Management Plan				
	6.1		Approach to identification, management, mitigation, and allocation of Project-specific risks.	A
	6.2		Development of a risk matrix including at a minimum identification and description of potential project risks, consequences of identified risks and appropriate risk mitigation strategies	A

**Texas Department of Transportation
Technical Provisions**

SH 360 Project

**Attachment 2-2
Work Breakdown Structure Requirements**

Table 1 represents the minimum levels of the WBS that all cost and schedule information shall rollup to once the Project Baseline Schedule is fully developed. The WBS incorporates various geographic segments, regions, areas or phases of Work to better facilitate management of construction sequencing.

Table 1: WBS Minimum Requirements

- 1. General**
 - 1.1. Project Administration**
 - 1.1.1. Project Summary & Milestones
 - 1.1.2. Mobilization
 - 1.1.2.1. DB Contractor
 - 1.1.3. Submittals and Permitting
 - 1.1.3.1. (By Governmental Agency)
 - 1.1.3.1.1. (By Specific Permit/Submittal Requirement)
 - 1.2. Summary & Milestones**
 - 1.3. Right-of-Way Acquisition**
 - 1.3.1. Acquisition By TxDOT
 - 1.3.1.1. (By Parcel No.)
 - 1.3.2. Acquisition by DB Contractor
 - 1.3.2.1. (By Parcel No.)
 - 1.4. Utility Adjustments**
 - 1.4.1. Utility Coordination
 - 1.4.1.1. Administration and Planning
 - 1.4.1.1.1. Site Utility Engineering
 - 1.4.1.1.2. Conceptual Design
 - 1.4.1.2. (By Owner)
 - 1.4.1.2.1. Master Agreements
 - 1.4.1.2.2. Utility Assemblies
 - 1.4.2. Utility Relocations
 - 1.4.2.1. (By Owner)
 - 1.4.2.1.1. (By Line)
 - 1.5. Design**
 - 1.5.1. General Activities and Field Work
 - 1.5.1.1. Design Mobilization
 - 1.5.1.2. Schematics
 - 1.5.1.3. Survey Work
 - 1.5.1.4. Geotechnical Investigations
 - 1.5.1.5. Additional Field Investigations
 - 1.5.2. Develop Specifications
 - 1.5.2.1. (By Discipline)
 - 1.5.3. Geotechnical Design
 - 1.5.3.1. General
 - 1.5.3.2. Earthwork Geotech
 - 1.5.3.3. Bridge Geotech
 - 1.5.3.4. Culvert Geotech
 - 1.5.3.5. Wall Geotech
 - 1.5.4. Pavement Design
 - 1.5.4.1. Data Analysis and Draft Report
 - 1.5.4.2. Final Design and Report
 - 1.5.5. Drainage Design
 - 1.5.5.1. Hydrologic and Hydraulic Design
 - 1.5.5.2. Preliminary System Design
 - 1.5.5.3. Detailed Drainage Design

- 1.5.6. Roadway Design
 - 1.5.6.1. Alignments
 - 1.5.6.2. Sections
 - 1.5.6.3. Detailed Design
- 1.5.7. Bridge Design
 - 1.5.7.1. Establish Criteria and Procedures
 - 1.5.7.2. Bridge layouts
 - 1.5.7.3. Substructure Design
 - 1.5.7.4. Superstructure Design
- 1.5.8. Retaining Wall Design
 - 1.5.8.1. Establish Criteria and Procedures
 - 1.5.8.2. Fill Wall Design
 - 1.5.8.3. Cut Wall Design
- 1.5.9. Traffic Management
 - 1.5.9.1. Traffic Control Development (By Phase)
- 1.5.10. Environmental Design
 - 1.5.10.1. Erosion Control / SWPPP
 - 1.5.10.2. Noise Wall Design
 - 1.5.10.3. Wetland and Habitat Mitigation
 - 1.5.10.4. TCEQ Best Management Practices
- 1.5.11. Aesthetic Design
 - 1.5.11.1. Aesthetic Design
- 1.5.12. Electrical Design
 - 1.5.12.1. Illumination
 - 1.5.12.2. Traffic Signals
- 1.5.13. ITS & ETCS Design
 - 1.5.13.1. Duct Bank System & Power Supply
 - 1.5.13.2. ITS/ETCS Equipment & Structures
- 1.5.14. Signage and Marking Design
 - 1.5.14.1. Overhead Signs
 - 1.5.14.2. Small and Large Signs
 - 1.5.14.3. Pavement markings
- 1.5.15. Design Packages
 - 1.5.15.1. Package Preparation
 - 1.5.15.2. QA/QC Review
 - 1.5.15.3. Submittal
 - 1.5.15.4. TxDOT Reviews
 - 1.5.15.5. Comment Resolution

1.6. Construction

- 1.6.1. General
 - 1.6.1.1. Mobilization
 - 1.6.1.2. Administration
 - 1.6.1.3. Quality Control
- 1.6.2. Traffic Control and Temporary Work
 - 1.6.2.1.1. Barricades, Signs & Traffic Handling
 - 1.6.2.1.2. Erosion Control
 - 1.6.2.1.3. Detour Construction/Removal
 - 1.6.2.1.4. Portable Traffic Barrier
 - 1.6.2.1.5. Workzone Pavement Marking
 - 1.6.2.1.6. Temporary Bridges
 - 1.6.2.1.7. Temporary Walls/Shoring
 - 1.6.2.1.8. Temporary Drainage
 - 1.6.2.1.9. Temporary Illumination
 - 1.6.2.2. Environmental Mitigation

- 1.6.2.2.1. Noise Walls
- 1.6.2.2.2. Wetland and Habitat Mitigation
- 1.6.2.3. Hazardous Materials
 - 1.6.2.3.1. Site Assessments
 - 1.6.2.3.2. Remediation
- 1.6.2.4. Removals
 - 1.6.2.4.1. Building Removals
 - 1.6.2.4.2. ROW Preparation
 - 1.6.2.4.3. Roadway Removals
 - 1.6.2.4.4. Bridge Removals
- 1.6.2.5. Earthwork
 - 1.6.2.5.1. Topsoil Stripping and Placing
 - 1.6.2.5.2. Excavation
 - 1.6.2.5.3. Embankment
 - 1.6.2.5.4. Special Geotechnical Measures
- 1.6.2.6. Subgrade Treatment and Base
 - 1.6.2.6.1. Lime Treatment
 - 1.6.2.6.2. Flexible Base
- 1.6.2.7. Pavement
 - 1.6.2.7.1. Asphalt Pavement
 - 1.6.2.7.2. Concrete Pavement
 - 1.6.2.7.3. Curb & Gutter
 - 1.6.2.7.4. Driveways
 - 1.6.2.7.5. Sidewalks and Median Paving
- 1.6.2.8. Retaining Walls
 - 1.6.2.8.1. (By Wall No.)
- 1.6.2.9. Bridges
 - 1.6.2.9.1. (By Bridge No.)
- 1.6.2.10. Permanent Barriers
 - 1.6.2.10.1. Permanent Concrete Barriers
 - 1.6.2.10.2. Metal Beam Guard Fence
 - 1.6.2.10.3. Crash Attenuators
- 1.6.2.11. Drainage
 - 1.6.2.11.1. Culverts
 - 1.6.2.11.2. Storm Sewer
 - 1.6.2.11.3. Riprap
- 1.6.2.12. Signals and Illumination
 - 1.6.2.12.1. Safety Illumination
 - 1.6.2.12.2. Electrical Services
 - 1.6.2.12.3. Traffic Signals
- 1.6.2.13. ITS/ETCS
 - 1.6.2.13.1. Duct Bank System
 - 1.6.2.13.2. Equipment Foundations
 - 1.6.2.13.3. Support Structures and Equipment
- 1.6.2.14. Permanent Signing and Marking
 - 1.6.2.14.1. Overhead Sign Structures
 - 1.6.2.14.2. Large and Small Signs
 - 1.6.2.14.3. Pavement Markings

Texas Department of Transportation
TECHNICAL PROVISIONS

STATE HIGHWAY 360

Attachment 2-3
I2MS Test Field Forms

I2MS Test Field Report

File: I2MSFieldReport.xls

File Type: Microsoft Excel (spreadsheet)

File Description: Describes what fields are required to be submitted per test, including pertinent header and footer information. All fields are required to be submitted if possible.

I2MS Test Form Fields

Purpose

The purpose of this document is to provide information on the tables and fields within I2MS.

Material Test Forms

Material Test Forms are forms used to run tests for a sample. A test form contains header and footer information which all forms have in common. Each test form also has a form body containing fields specific to the test method(s) being performed.

Header Fields

The header information is the metadata of the form. It is vital for searching for and analyzing records. All of the test forms have similar header information.

Table Name: HEADER_VALUE_OVT

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Course Lift	course_lift	nvarchar	250		TRUE
Direction	direction	nvarchar	250	CVL	TRUE
Distance From CL	dist_from_cl	nvarchar	250		TRUE
Feature	feature	nvarchar	250	CVL	TRUE
Grade	grade	nvarchar	100	CVL	TRUE
Material	material	nvarchar	100	CVL	TRUE
Misc	misc	nvarchar	250		TRUE
Report Type	report_type	nvarchar	250	CVL	TRUE
Roadway	roadway	nvarchar	250	CVL	TRUE
Sample ID	sample_id	nvarchar	13		TRUE
Sample Location	sample_location	nvarchar	250		TRUE
Sample Type	sample_type	nvarchar	100	CVL	TRUE
Sampled By	sampled_by	nvarchar	250	CVL	TRUE
Sampled Date	sampled_date	datetime		MM/dd/yyyy	TRUE
Section	section	nvarchar	100	CVL	TRUE
Spec Item	spec_item	nvarchar	100	CVL	TRUE
Spec Year	spec_year	nvarchar	250		TRUE
Special Provision	special_provision	nvarchar	250	CVL	TRUE
Split Sample ID	split_sample_id	nvarchar	250		TRUE
Station	station	nvarchar	250	Pattern: [0-9]+ [0-9](\.[0-9][0-9])?	TRUE
Structure Number	structure_number	nvarchar	250	CVL	TRUE
Supplier	supplier	nvarchar	100	CVL	TRUE

Footer Fields

The footer contains approval data and comments for each of the test forms.

Table Name: FOOTER_VALUE_OVT

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Authorized By	authorized_by	nvarchar	100	CVL	TRUE
Authorized Date	authorized_date	smalldatetime		MM/dd/yyyy	TRUE
Completed Date	completed_date	smalldatetime		MM/dd/yyyy	TRUE
Digital Signature ID 1	dig_sig_id1	int			FALSE
Digital Signature ID 2	dig_sig_id2	int			FALSE
Remarks	remarks	text			TRUE
Reviewed By	reviewed_by	nvarchar	100	CVL	TRUE

Body Fields

Moisture Content of Aggregates (DB-103-E)

Table Name: VALUE_DB103E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Dish No.	dish_no	nvarchar	100		FALSE
Mass of Dry Sample	dry_sample_tare	decimal	(19, 8)		FALSE
Moisture Content	moisture_content	decimal	(19, 8)		TRUE
Payable Weight of Class 2 Flex Base	payable_weight	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tare Mass	tare_mass	decimal	(19, 8)		FALSE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Mass of Wet Sample Tare	wet_sample_tare	decimal	(19, 8)		FALSE

Liquid Limit, Plastic Limit, Plastic Index (DB-104-6)

Table Name: VALUE_DB104E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Liquid Limit	liquid_limit_total	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB104E_SAMPLE

Maximum Rows: 6

Field Description	Field Name	Datatype	Length	Values	Required
Dish No.	dish_no	nvarchar	100		FALSE
Liquid Limit (%)	liquid_limit	decimal	(19, 8)		FALSE
Mass of Dry Sample + Tare (g)	mass_dry_sample	decimal	(19, 8)		FALSE
Mass of Wet Sample + Tare (g)	mass_wet_sample	decimal	(19, 8)		FALSE
Moisture Content, %	moisture_content	decimal	(19, 8)		FALSE
Number of Blows	number_blows	int			FALSE
Tare Mass (g)	tare_mass	decimal	(19, 8)		FALSE

Table Name: VALUE_DB105E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Plastic Limit	plastic_limit_total	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB105E_SAMPLE

Maximum Rows: 3

Field Description	Field Name	Datatype	Length	Values	Required
Dish No.	dish_no	nvarchar	100		FALSE
Mass of Dry Sample + Tare (g)	mass_dry_sample	decimal	(19, 8)		FALSE
Mass of Wet Sample + Tare (g)	mass_wet_sample	decimal	(19, 8)		FALSE
Plastic Limit (%)	plastic_limit	decimal	(19, 8)		FALSE
Tare Mass (g)	tare_mass	decimal	(19, 8)		FALSE
Mass of Water (g)	water_mass	decimal	(19, 8)		FALSE

Table Name: VALUE_DB106E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Plastic Index	plasticity_index	int			TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE
Use Bar Linear Shrinkage to Calculate Plasticity Index?	use_bar_linear	nvarchar	100	{Yes, No}	FALSE

Bar Linear Shrinkage (DB-107-E)

Table Name: VALUE_DB107E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Calculate Plasticity Index	calculate_plasticity_index	bit		{Yes, No}	FALSE
Final Length	final_length	decimal	(19, 8)		FALSE
Initial Length	initial_length	decimal	(19, 8)		FALSE
Linear Shrinkage	linear_shrinkage	decimal	(19, 8)		TRUE
Maximum By Specification	maximum_by_specification	decimal	(19, 8)		FALSE
Minimum By Specification	minimum_by_specification	decimal	(19, 8)		FALSE
Plasticity Index	plasticity_index	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Unit	unit	nvarchar	100		FALSE

Particle Size Analysis (DB-110-E)

Table Name: VALUE_DB110E_SIEVE

Maximum Rows: 6

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Percent Retained	cumulative_pct_retained	decimal	(19, 8)		TRUE
Cumulative Weight Retained	cumulative_weight_retained	decimal	(19, 8)		FALSE
Lower Spec Limit	lower_spec_limit	decimal	(19, 8)		FALSE
Master Grading	master_grading	nvarchar	100		TRUE
Sieve Size	sieve_size	nvarchar	100	CVL	TRUE
Upper Spec Limit	upper_spec_limit	decimal	(19, 8)		FALSE
Weight Retained	weight_retained	decimal	(19, 8)		FALSE

Table Name: VALUE_DB110E_TEST

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Method	individual_cumulative	nvarchar	100	{Cumulative, Individual}	FALSE
Negative No.40	negative_no_40	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE
Total	total	nvarchar	100		FALSE

Moisture-Density Work Sheet (DB-113-E)

Table Name: VALUE_DB113E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Dry Density Scale Max	dry_density_scale_max	decimal	(19, 8)		FALSE
Dry Density Scale Min	dry_density_scale_min	decimal	(19, 8)		FALSE
Dry Density Scale unit	dry_density_scale_unit	decimal	(19, 8)		FALSE
Hygroscopic Moisture	hygroscopic_moisture	decimal	(19, 8)		FALSE
Max Density(kg)	max_density_kg	decimal	(19, 8)		FALSE
Max Density (pcf)	max_density_pcf	decimal	(19, 8)		TRUE
Moisture scale max	moisture_scale_max	decimal	(19, 8)		FALSE
Moisture scale min	moisture_scale_min	decimal	(19, 8)		FALSE
Moisture scale unit	moisture_scale_unit	decimal	(19, 8)		FALSE
Optimum Moisture	optimum_moisture	decimal	(19, 8)		TRUE
Oven Dry Weight	oven_dry_weight	decimal	(19, 8)		FALSE
Soil Description	soil_desc	nvarchar	100		TRUE
Specific Gravity (Apparent)	specific_gravity	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Weight of Aggr., Pycn. & Water	weight_of_aggr	decimal	(19, 8)		FALSE
Weight of Pycnometer & Water	weight_of_pycnometer	decimal	(19, 8)		FALSE

Table Name: VALUE_DB113E_SPECIMEN

Maximum Rows: 4

Field Description	Field Name	Datatype	Length	Values	Required
Dry Density	dry_density	decimal	(19, 8)		FALSE
Dry Mass Material	dry_mass_material	decimal	(19, 8)		FALSE
Dry Mass Pan & Specimen	dry_mass_pan_specimen	decimal	(19, 8)		FALSE
Estimated Dry Density	est_dry_density	decimal	(19, 8)		FALSE
Height of Specimen	height_specimen	decimal	(19, 8)		FALSE
Mass Material	mass_material	decimal	(19, 8)		FALSE
Mass Water	mass_water	decimal	(19, 8)		FALSE
Mass Water Added	mass_water_added	decimal	(19, 8)		FALSE
Percent Water Content	pct_water_content	decimal	(19, 8)		FALSE
Percent Water On Total	pct_water_total	decimal	(19, 8)		FALSE
Tare Mass Mold	tare_mass_mold	decimal	(19, 8)		FALSE
Tare Mass Pan	tare_mass_pan	decimal	(19, 8)		FALSE
Volume Per Linear	volume_per_linear	decimal	(19, 8)		FALSE
Volume of Specimen	volume_specimen	decimal	(19, 8)		FALSE
Wet Density of Specimen	wet_density_specimen	decimal	(19, 8)		FALSE
Wet Mass Of Pan & Specimen	wet_mass_pan_specimen	decimal	(19, 8)		FALSE
Wet Mass Specimen	wet_mass_specimen	decimal	(19, 8)		FALSE
Wet Mass Specimen & Mold	wet_mass_specimen_mold	decimal	(19, 8)		FALSE

Moisture-Density Relationship of Subgrade and Embankment Soils (DB-114-E)

Table Name: VALUE_DB114E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Dry Density Scale Max	dry_density_scale_max	decimal	(19, 8)		FALSE
Dry Density Scale Min	dry_density_scale_min	decimal	(19, 8)		FALSE
Dry Density Scale unit	dry_density_scale_unit	decimal	(19, 8)		FALSE
Hygroscopic Moisture	hygroscopic_moisture	decimal	(19, 8)		FALSE
Max Density (kg)	max_density_kg	decimal	(19, 8)		FALSE
Max Density (pcf)	max_density_pcf	decimal	(19, 8)		TRUE
Moisture scale max	moisture_scale_max	decimal	(19, 8)		FALSE
Moisture scale min	moisture_scale_min	decimal	(19, 8)		FALSE
Moisture scale unit	moisture_scale_unit	decimal	(19, 8)		FALSE
Optimum Moisture	optimum_moisture	decimal	(19, 8)		TRUE
Oven Dry Weight	oven_dry_weight	decimal	(19, 8)		FALSE
Soil Descript	soil_description	nvarchar	100		TRUE
Specific Gravity	specific_gravity	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Weight of Aggr., Pycn. & Water	weight_of_aggr	decimal	(19, 8)		FALSE
Weight of Pycnometer & Water	weight_of_pycnometer	decimal	(19, 8)		FALSE

Table Name: VALUE_DB114E_SPECIMEN

Maximum Rows: 4

Field Description	Field Name	Datatype	Length	Values	Required
Dry Density	dry_density	decimal	(19, 8)		FALSE
Dry Mass Material	dry_mass_material	decimal	(19, 8)		FALSE
Dry Mass Pan & Specimen	dry_mass_pan_specimen	decimal	(19, 8)		FALSE
Estimated Dry Density	est_dry_density	decimal	(19, 8)		FALSE
Height of Specimen	height_specimen	decimal	(19, 8)		FALSE
Mass Material	mass_material	decimal	(19, 8)		FALSE
Mass Water	mass_water	decimal	(19, 8)		FALSE
Mass Water Added	mass_water_added	decimal	(19, 8)		FALSE
Percent Water Content	pct_water_content	decimal	(19, 8)		FALSE
Percent Water Total	pct_water_total	decimal	(19, 8)		FALSE
Tare Mass Mold	tare_mass_mold	decimal	(19, 8)		FALSE
Tare Mass Pan	tare_mass_pan	decimal	(19, 8)		FALSE
Volume Per Linear mm	volume_per_linear	decimal	(19, 8)		FALSE
Volume of Specimen	volume_specimen	decimal	(19, 8)		FALSE
Wet Density of Specimen	wet_density_specimen	decimal	(19, 8)		FALSE
Wet Mass of Pan & Specimen	wet_mass_pan_specimen	decimal	(19, 8)		FALSE
Wet Mass Specimen	wet_mass_specimen	decimal	(19, 8)		FALSE
Wet Mass Specimen & Mold	wet_mass_specimen_mold	decimal	(19, 8)		FALSE

Nuclear Density and Moisture Determination (DB-115-1)

Table Name: VALUE_DB115_1

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Density Count	density_count	int			FALSE
Density, %	density_pct	decimal	(19, 8)		TRUE
Pass/Fail	density_pct_pass_fail	nvarchar	100		FALSE
Max Density Specification Requirement	density_specification_req_max	decimal	(19, 8)		FALSE
Low Density Specification Req	density_specification_req_min	decimal	(19, 8)		FALSE
density_standard	density_standard	int			FALSE
Determined By Test Method	determined_by_test_method	nvarchar	100	{DB-113-E, DB-114-E}	FALSE
Dry Density, pcf	dry_density_pcf	decimal	(19, 8)		TRUE
Gauge No.	gauge_no	nvarchar	100		TRUE
Maximum Dry Density	max_dry_density_pcf	decimal	(19, 8)		TRUE
Moisture Content, %	moisture_content_pct	decimal	(19, 8)		TRUE
Moisture Content Pct Pass or Fail	moisture_content_pct_pass_fail	nvarchar	100	{Pass, Fail}	FALSE
Moisture Count	moisture_count	int			FALSE
Max Moisture Specification Requirement	moisture_specification_req_max	decimal	(19, 8)		FALSE
Low Moisture Specification Req	moisture_specification_req_min	decimal	(19, 8)		FALSE
Moisture Standard	moisture_standard	int			FALSE
Optimum Moisture Content	optimum_moisture_content_pct	decimal	(19, 8)		TRUE
Probe Depth	probe_depth	decimal	(19, 8)		TRUE
Soil Description	soil_desc	nvarchar	100		TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE
Wet Density , pcf	wet_density_pcf	decimal	(19, 8)		FALSE

Soil /Aggregate Field Unit Weight Tests (DB-115-2)

Table Name: VALUE_DB115_2

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Compaction, %	compaction_pct	decimal	(19, 8)		FALSE
Compaction Required	compaction_req_pct	decimal	(19, 8)		FALSE
Dry unit weight	dry_unit_weight	decimal	(19, 8)		FALSE
Dry Weight Total Moisture Sample	dry_weight_total_moisture	decimal	(19, 8)		FALSE
Final Weight Apparatus & Sand	final_weight_apparatus	decimal	(19, 8)		FALSE
Final Weight of Sand	final_weight_sand	decimal	(19, 8)		FALSE
Initial Weight Apparatus & Sand	initial_weight_apparatus	decimal	(19, 8)		FALSE
Initial Weight of Sand	initial_weight_sand	decimal	(19, 8)		FALSE
Maximum dry unit weight	max_dry_unit_weight	decimal	(19, 8)		FALSE
Moisture Required	moisture_req_pct	decimal	(19, 8)		FALSE
Optium Moisture (% if of dry unit weight)	optimum_moisture	decimal	(19, 8)		FALSE
Pass/Fail % Density	pass_fail_pct_density	nvarchar	100		FALSE
Pass/Fail % Moisture	pass_fail_pct_moisture	nvarchar	100		FALSE
% Moisture	pct_moisture	decimal	(19, 8)		FALSE
Sand bulk unit weight	sand_bulk_unit_weight	decimal	(19, 8)		FALSE
Soil Descript	soil_desc	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Total Volume-Sand Userd	total_volume	decimal	(19, 8)		FALSE
Volume of Hole	volume_hole	decimal	(19, 8)		FALSE
Volume of Surface	volume_surface	decimal	(19, 8)		FALSE
Weight of Material From Hole	weight_material_hole	decimal	(19, 8)		FALSE
Wet Unit Weight	wet_unit_weight	decimal	(19, 8)		FALSE
Wet Weight Total Moisture Sample	wet_weight_total_moisture	decimal	(19, 8)		FALSE

Test Resistance to Degradation By Wet Ball Mill Method (DB-116-E)

Table Name: VALUE_DB116E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Method	cumulative_method	nvarchar	50	{Cumulative, Individual}	FALSE
Total of 3000g weight retained	individual_weight_retained_3000g_total	decimal	(19, 8)		FALSE
Total of 3500g weight retained	individual_weight_retained_3500g_total	decimal	(19, 8)		FALSE
Percent Soil Binder	pct_soil_binder	decimal	(19, 8)		FALSE
Percent Soil Binder Increase	pct_soil_binder_increase	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Wet Ball Mill -No.40 Individual Percent Retained	wbm_individual_pct_retained_minusno40	decimal	(19, 8)		FALSE
Wet Ball Mill No.40 Individual Percent Retained	wbm_individual_pct_retained_no40	decimal	(19, 8)		FALSE
Wet Ball Mill Initial Weight	wbm_initial_weight	decimal	(19, 8)		FALSE
Wet Ball Mill Value	wbm_value	decimal	(19, 8)		TRUE
Wet Ball Mill -No.40 Weight Retained	wbm_weight_retained_minusno40	decimal	(19, 8)		FALSE
Wet Ball Mill No.40 Weight Retained	wbm_weight_retained_no40	decimal	(19, 8)		FALSE
Total of weight retained	weight_retained_total	decimal	(19, 8)		FALSE
Washed Sieve Analysis No.40 Individual Percent Retained	wsa_individual_pct_retained_no40	decimal	(19, 8)		FALSE
Washed Sieve Analysis -No.40 Individual Percent Retained	wsa_individual_pct_retained_minusno40	decimal	(19, 8)		FALSE
Washed Sieve Analysis Initial Weight	wsa_initial_weight	decimal	(19, 8)		FALSE
Washed Sieve Analysis -No.40 Weight Retained	wsa_weight_retained_minusno40	decimal	(19, 8)		FALSE
Washed Sieve Analysis No.40 Weight Retained	wsa_weight_retained_no40	decimal	(19, 8)		FALSE

Table Name: VALUE_DB116E_SIEVE

Maximum Rows: 7

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Percent Retained	cumulative_pct_retained	decimal	(19, 8)		FALSE
3000g Cumulative Weight Retained	cumulative_weight_retained_3000g	decimal	(19, 8)		FALSE
3500g Cumulative Weight Retained	cumulative_weight_retained_3500g	decimal	(19, 8)		FALSE
Individual Percent Retained	individual_pct_retained	decimal	(19, 8)		FALSE
3000g Individual Weight Retained	individual_weight_retained_3000g	decimal	(19, 8)		FALSE
3500g Individual Weight Retained	individual_weight_retained_3500g	decimal	(19, 8)		FALSE
Sieve Size	sieve_size	nvarchar	100		FALSE
Weight Retained	weight_retained	decimal	(19, 8)		FALSE

Triaxial Compression Tests (DB-117-E)

Table Name: VALUE_DB117E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Corrected Strength, 00 psi	average_corrected_strength_0psi	decimal	(19, 8)		TRUE
Average Corrected Strength, 15 psi	average_corrected_strength_15psi	decimal	(19, 8)		TRUE
Classification	classification	nvarchar	100		FALSE
Cohesion, psi	cohesion_psi	decimal	(19, 8)		FALSE
Correlation Factor	correlation_factor	decimal	(19, 8)		FALSE
Grade, 00 psi	grade_0psi	nvarchar	100		FALSE
Grade, 15 psi	grade_15psi	nvarchar	100		FALSE
Internal Angle of Friction	internal_angle_friction	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB117E_SPECIMEN

Maximum Rows: 8

Field Description	Field Name	Datatype	Length	Values	Required
Area, in.^2	area	decimal	(19, 8)		FALSE
Avg. Cross Sectional Area, in^2	avg_cross_sectional_area	decimal	(19, 8)		FALSE
Average Diameter, in.	avg_diameter	decimal	(19, 8)		FALSE
Corrected Stress, psi.	corrected_stress_psi	decimal	(19, 8)		FALSE
Dry Density of Specimen, pcf	dry_density_specimen_pcf	decimal	(19, 8)		FALSE
Final Weight of Stones	final_weight_stones	decimal	(19, 8)		FALSE
Height of Stone 1, in.	height_stone1	decimal	(19, 8)		FALSE
Height of Stone 2, in.	height_stone2	decimal	(19, 8)		FALSE
I-Strain, in./in.	i_strain	decimal	(19, 8)		FALSE
Initial Height of Specimen, in.	initial_height	decimal	(19, 8)		FALSE
Lateral Pressure, psi.	lateral_pressure_psi	decimal	(19, 8)		FALSE
New Height of Specimen, in.	new_height	decimal	(19, 8)		FALSE
Moisture of Specimen, %	pct_moisture_specimen	decimal	(19, 8)		FALSE
% Strain , in./in.	pct_strain	decimal	(19, 8)		FALSE
Uncorrected Stress, psi.	uncorrected_stress_psi	decimal	(19, 8)		FALSE
Weight of Specimen	weight_specimen	decimal	(19, 8)		FALSE
Weight of Stones and Specimen	weight_stones_specimen	decimal	(19, 8)		FALSE

Determining Soil pH (DB-128-E)

Table Name: VALUE_DB128E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Soil pH	soil_ph	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Measuring Resistivity of Soil Materials (DB-129-E)

Table Name: VALUE_DB129E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Resistance using resistivity meter	resistance_using_meter	decimal	(19, 8)		FALSE
Resistivity	resistivity_result	decimal	(19, 8)		TRUE
A= Area of one electrode	sbf_area	decimal	(19, 8)		FALSE
Distance between electrodes	sbf_distance	decimal	(19, 8)		FALSE
Soil Box Factor	sbf_factor	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Measuring Thickness of Pavement Layer (DB-140-E)

Table Name: VALUE_DB140E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Depth:	avg_depth	decimal	(19, 8)		TRUE
Depth 1:	depth_1	decimal	(19, 8)		FALSE
Depth 2:	depth_2	decimal	(19, 8)		FALSE
Depth 3:	depth_3	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

OVF HMAC Test Data: DB-200-F, DB-207-FPR, DB-227-F, DB-236-F, DB-207-F (DB-200/07/36)

Table Name: VALUE_DB207F

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Specific Gravity of Asphalt Binder	specific_gravity	decimal	(19, 3)		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	FALSE
Voids in Mineral Aggregate (VMA)	vma	decimal	(19, 1)		TRUE

Table Name: VALUE_DB207FPR

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Actual Specific Gravity (Ga):	GA	nvarchar	100		TRUE
Lab Molded Density, %:	LMD	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	nvarchar	100	CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB227F

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Rice Specific Gravity (Gr):	rice_specific_gravity	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	nvarchar	100	CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB229F

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Stamp Code	stamp_code	nvarchar	100	CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB229F_SIEVE

Maximum Rows: 10

Field Description	Field Name	Datatype	Length	Values	Required
Current JMF	Current_JMF	nvarchar	100		FALSE
Design JMF	Design_JMF	nvarchar	100		FALSE
Adjusted Individual % Retained	pct	decimal	(19, 8)		TRUE
Sieve Size	sieve_size	nvarchar	100	CVL	TRUE

Table Name: VALUE_DB236F

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Asphalt Content, %:	AC	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	nvarchar	100	CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Sieve Analysis of Non-Surface Treatment Aggregates (DB-200-F)

Table Name: VALUE_DB200F

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Weight Retained Minusno14	cumulative_weight_retained_minusno14	decimal	(19, 8)		FALSE
Dry Weight After Washing	dry_weight_after_washing	decimal	(19, 8)		FALSE
Limit As Percent	limit_as_percent	nvarchar	100	{Passing, Retained}	FALSE
Original Dry Weight	original_dry_weight	decimal	(19, 8)		FALSE
Sieve Analysis Result 1	sieve_analysis_result1	nvarchar	100		FALSE
Sieve Analysis Result 2	sieve_analysis_result2	decimal	(19, 8)		FALSE
Sieve Analysis Result 3	sieve_analysis_result3	decimal	(19, 8)		FALSE
Sieve Analysis Result 4	sieve_analysis_result4	decimal	(19, 8)		FALSE
Sieving Loss	sieving_loss	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Total Weight	total_weight	decimal	(19, 8)		FALSE
Washing Loss	washing_loss	decimal	(19, 8)		FALSE

Table Name: VALUE_DB200F_SIEVE

Maximum Rows: 12

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Percent Passing	cumulative_pct_passing	decimal	(19, 8)		TRUE
Cumulative Percent Retained	cumulative_pct_retained	decimal	(19, 8)		FALSE
Cumulative Weight Retained	cumulative_weight_retained	decimal	(19, 8)		FALSE
Individual Weight Retained	individual_weight_retained	decimal	(19, 8)		FALSE
Lower Limit Grading	lower_limit_grading	decimal	(19, 8)		FALSE
Sieve Size	sieve_size	nvarchar	100	{2", 1-3/4", 1-1/2", 1-1/4", 1", 7/8", 3/4", 5/8", 1/2", 7/16", 3/8", 5/16", 1/4", No. 4, No. 6, No. 8, No. 10, No. 14, No. 16, No. 20, No. 30, No. 40, No. 50, No. 80, No. 100, No. 200 }	TRUE
Upper Limit Grading	upper_limit_grading	decimal	(19, 8)		FALSE
Within Grading Limits	within_grading_limits	bit			TRUE

Sand Equivalent (DB-203-F)

Table Name: VALUE_DB203F

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Sand Equivalent	average_sand_equivalent	decimal	(19, 8)		TRUE
Clay No.1 Reading	clay1_reading	decimal	(19, 8)		FALSE
Clay No.2 Reading	clay2_reading	decimal	(19, 8)		FALSE
Sand No.1 Calculated	sand1_calculated	decimal	(19, 8)		FALSE
Sand No.1 Reading	sand1_reading	decimal	(19, 8)		FALSE
Sand No.1 Reported	sand1_reported	decimal	(19, 8)		FALSE
Sand No.2 Calculated	sand2_calculated	decimal	(19, 8)		FALSE
Sand No.2 Reading	sand2_reading	decimal	(19, 8)		FALSE
Sand No.2 Reported	sand2_reported	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

QC/QA Test Data (DB-207-FPL)

Table Name: VALUE_DB207FPL

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
In Place Air Void, %	air_void	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	nvarchar	100	CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Deleterious Material & Decantation For Coarse Aggr (DB-217-F)

Table Name: VALUE_DB217F

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Original Weight Retained	part1_orig_weight_retained	decimal	(19, 8)		FALSE
Percent Deterious Material	part1_pct_deleterious_material	decimal	(19, 8)		TRUE
Sieve Size	part1_sieve_size	nvarchar	100		FALSE
Weight Deleterious Material	part1_weight_deleterious_material	decimal	(19, 8)		FALSE
Dry Weight after Washing	part2_dry_weight_after_washing	decimal	(19, 8)		FALSE
Percent Loss By Decantation	part2_loss_by_decantation	decimal	(19, 8)		TRUE
Original Weight Retained	part2_orig_weight_retained	decimal	(19, 8)		FALSE
Sieve Size	part2_sieve_size	nvarchar	53		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Sieve Analysis for Fine & Coarse Aggregate (DB-401-A)

Table Name: VALUE_DB401A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Equivalent Exceed 85	equivalent_exceed_85	bit			FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Total	total	decimal	(19, 8)		FALSE

Table Name: VALUE_DB401A_SIEVE

Maximum Rows: 8

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Percent Passing	cumulative_pct_passing	decimal	(19, 8)		FALSE
Cumulative Percent Retained	cumulative_pct_retained	decimal	(19, 8)		TRUE
Cumulative Weight Retained	cumulative_weight_retained	decimal	(19, 8)		FALSE
Individual Weight Retained	individual_weight_retained	decimal	(19, 8)		FALSE
Lower Spec Limit	lower_retained_spec_limit	decimal	(19, 8)		FALSE
Sieve Size	sieve_size	nvarchar	100		TRUE
Upper Spec Limit	upper_retained_spec_limit	decimal	(19, 8)		FALSE
Within Master Grading	within_master_grading	varchar	20		TRUE

Table Name: VALUE_DB402A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Fineness Modulus	fineness_modulus	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	FALSE

Decantation Test For Concrete Aggregates (DB-406-A)

Table Name: VALUE_DB406A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Dry Mass After Washing	dry_mass_after_washing	decimal	(19, 8)		FALSE
Mass of Pycnometer Containing Sample and Water To Fill After Washing	mass_of_pycnometer_after_washing	decimal	(19, 8)		FALSE
Mass of Pycnometer Containing Sample and Water To Fill Before Washing	mass_of_pycnometer_before_washing	decimal	(19, 8)		FALSE
Mass of Pycnometer Filled With Water at Approx. Same Temperature as above	mass_of_pycnometer_with_water	decimal	(19, 8)		FALSE
Original Dry Mass of Sample	original_dry_mass	decimal	(19, 8)		FALSE
% Loss	percent_loss_part1	decimal	(19, 8)		TRUE
Percent Loss	percent_loss_part2	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Test By:	test_by	nvarchar	100	{Part I - Lab Method, Part II - Field Method}	FALSE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested By - Part II	tested_by_part2	nvarchar	100	CVL	FALSE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Tested Date - Part II	tested_date_part2	datetime		MM/dd/yyyy	FALSE

Organic Impurities in Fine Aggregate for Concrete (DB-408-A)

Table Name: VALUE_DB408A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Color of the Supernatant Liquid	color_of_supernatant_liquid	nvarchar	100	{LIGHTER THAN STANDARD, EQUAL TO STANDARD, DARKER THAN STANDARD}	TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Deleterious Material (DB-413-A)

Table Name: VALUE_DB413A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Clay	clay_value1	decimal	(19, 8)		FALSE
Clay Percentage	clay_value2	decimal	(19, 8)		TRUE
Friable	friable_value1	decimal	(19, 8)		FALSE
Friable Percentage	friable_value2	decimal	(19, 8)		TRUE
Laminated	laminated_value1	decimal	(19, 8)		FALSE
Laminated Percentage	laminated_value2	decimal	(19, 8)		TRUE
Other	other_value1	decimal	(19, 8)		FALSE
Othesr Percentage	other_value2	decimal	(19, 8)		FALSE
Deleterious Material Retained	percent_deleterious_material_retained	decimal	(19, 8)		TRUE
Shale	shale_value1	decimal	(19, 8)		FALSE
Shale Percentage	shale_value2	decimal	(19, 8)		TRUE
Sieve Size	sieve_size	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE
Total	total	decimal	(19, 8)		FALSE
Total Weight Sample	total_weight_sample	decimal	(19, 8)		FALSE

Field Form Concrete Sample - Cylinders (DB-418-A)

Table Name: VALUE_DB418A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Actual Water	actual_water	nvarchar	100		TRUE
Agg. Correction Factor	agg_correction_factor	nvarchar	100	CVL	TRUE
Agg. Size	agg_size	nvarchar	100	CVL	TRUE
Air Temperature	air_temperature	nvarchar	100		TRUE
Batch Size	batch_size	nvarchar	100		TRUE
Batch Time	batch_time	nvarchar	100		TRUE
Class of Concrete	class_of_concrete	nvarchar	100	CVL	TRUE
Concrete Temperature	concrete_temperature	nvarchar	100		TRUE
Corrected Air Content	corrected_air_content	decimal	(19, 8)		TRUE
Design Water	design_water	nvarchar	100		TRUE
Mix ID	mix_id	nvarchar	100		TRUE
Placement Air	placement_air	decimal	(19, 8)		TRUE
Placement Slump	placement_slump	decimal	(19, 8)	CVL	TRUE
Pump Air Loss	pump_air_loss	decimal	(19, 8)		TRUE
Pump Slump Loss	pump_slump_loss	decimal	(19, 8)		TRUE
Req. Strength	req_strength	nvarchar	100		TRUE
Sample Time	sample_time	nvarchar	100		TRUE
Average 7 Day Compressive Strength	seven_day_average	decimal	(19, 8)		FALSE
Slump	slump	decimal	(19, 8)		TRUE
Specimen Size	specimen_size	nvarchar	100	{4x8, 6x12}	TRUE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Ticket #	ticket_number	nvarchar	100		TRUE
Total Water	total_water	nvarchar	100		TRUE
Truck #	truck_number	nvarchar	100		TRUE
Average 28 Day Compressive Strength	twenty_eight_day_average	decimal	(19, 8)		FALSE
Unit Wt.	unit_weight	nvarchar	100		TRUE
Water Added	water_added	nvarchar	100		TRUE

Table Name: VALUE_DB418A_AVERAGE

Maximum Rows: 3

Field Description	Field Name	Datatype	Length	Values	Required
Average Age	average_age	nvarchar	100		TRUE
Average Strength	average_strength	decimal	(19, 8)		TRUE

Table Name: VALUE_DB418A_SPECIMEN

Maximum Rows: 7

Field Description	Field Name	Datatype	Length	Values	Required
Age(days)	age	nvarchar	100	CVL	TRUE
Area	area	decimal	(19, 8)		TRUE
Load(lbs)	load_lbs	decimal	(19, 8)		TRUE
Pass/Fail	pass_fail	nvarchar	5		FALSE
Specimen	specimen	nvarchar	100		FALSE
Strength	strength	decimal	(19, 8)		TRUE
Test Date	test_date	smalldatetime		MM/dd/yyyy	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Type Fracture	type_fracture	varchar	50	{A, B, C, D, E}	TRUE

Determining Pavement Thickness By Direct Measurement (DB-423-A)

Table Name: VALUE_DB423A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Measure Unit	measure_unit	nvarchar	100	{Inches, Millimeters}	FALSE
Pavement Depth	pavement_depth	decimal	(19, 8)		TRUE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB423A_LOCATION

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average	average	decimal	(19, 8)		TRUE
Measurement 1	measurement_1	decimal	(19, 8)		FALSE
Measurement 2	measurement_2	decimal	(19, 8)		FALSE
Measurement 3	measurement_3	decimal	(19, 8)		FALSE
Measurement Identification / Location	measurement_id_location	nvarchar	100		FALSE

Soil-Cement, Soil-Lime Testing (DB-120-E) ** INACTIVE **

Table Name: VALUE_DB120E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Avg. Corrected Stress, psi:	avg_corrected_stress_psi	decimal	(19, 8)		FALSE
Percent Cement, (%)	percent_cement	decimal	(19, 8)		TRUE
Performed By DB-120-E:	performed_by	nvarchar	200		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Target Percent Cement, %:	target_percent_cement	decimal	(19, 8)		FALSE
Target Stress, psi:	target_stress_psi	decimal	(19, 8)		FALSE
Tested By	tested_by	nvarchar	200	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB120E_SPECIMEN

Maximum Rows: 3

Field Description	Field Name	Datatype	Length	Values	Required
Area, in.^2:	area	decimal	(19, 8)		FALSE
Avg. Corrected Stress, psi:	avg_corrected_stress	decimal	(19, 8)		FALSE
Avg. Cross Sectional Area, in^2:	avg_cross_section_area	decimal	(19, 8)		FALSE
Average Diameter, in.:	avg_diameter	decimal	(19, 8)		FALSE
Circumference, in.:	circumference	decimal	(19, 8)		FALSE
Corrected Stress, psi.:	corrected_stress	decimal	(19, 8)		FALSE
Dead Load, lbs.:	dead_load	decimal	(19, 8)		FALSE
Deformation at Max Load, in.	deformation_at_max_load	decimal	(19, 8)		FALSE
Height of Stone 1, in.	height_stone1	decimal	(19, 8)		FALSE
Height of Stone 2, in.	height_stone2	decimal	(19, 8)		FALSE
I-Strain, in./in.:	i_strain	decimal	(19, 8)		FALSE
Initial Height of Specimen, in.:	initial_height_specimen	decimal	(19, 8)		FALSE
Lateral Pressure, psi.:	lateral_pressure	decimal	(19, 8)		FALSE
Max. Load Reading, div.	max_load_reading	decimal	(19, 8)		FALSE
New Height of Specimen, in.:	new_height_specimen	decimal	(19, 8)		FALSE
% Strain , in./in.:	pct_strain	decimal	(19, 8)		FALSE
Percent Cement, (%)	percent_cement	decimal	(19, 8)		FALSE
Ring Factor, lbs./div	ring_factor	decimal	(19, 8)		FALSE
Specimen Number:	specimen_no	int			FALSE
Uncorr'd Stress, psi.:	uncorrected_stress	decimal	(19, 8)		FALSE

Soil-Lime Testing: DB-121-E (DB-121-E) ** INACTIVE **

Table Name: VALUE_DB121E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Corrected Strength, 00 psi	average_corrected_strength_0psi	decimal	(19, 8)		TRUE
Average Corrected Strength, 15 psi	average_corrected_strength_15psi	decimal	(19, 8)		FALSE
Classification	classification	nvarchar	100		FALSE
Cohesion, psi	cohesion_psi	decimal	(19, 8)		FALSE
Correlation Factor	correlation_factor	decimal	(19, 8)		FALSE
Grade, 00 psi	grade_0psi	nvarchar	100		FALSE
Grade, 15 psi	grade_15psi	nvarchar	100		FALSE
Internal Angle of Friction	internal_angle_friction	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE

Table Name: VALUE_DB121E_SPECIMEN

Maximum Rows: 8

Field Description	Field Name	Datatype	Length	Values	Required
Area, in.^2	area	decimal	(19, 8)		FALSE
Avg. Cross Sectional Area, in^2	avg_cross_sectional_area	decimal	(19, 8)		FALSE
Average Diameter, in.	avg_diameter	decimal	(19, 8)		FALSE
Corrected Stress, psi.	corrected_stress_psi	decimal	(19, 8)		FALSE
Dry Density of Specimen, pcf	dry_density_specimen_pcf	decimal	(19, 8)		FALSE
Final Weight of Stones	final_weight_stones	decimal	(19, 8)		FALSE
Height of Stone 1, in.	height_stone1	decimal	(19, 8)		FALSE
Height of Stone 2, in.	height_stone2	decimal	(19, 8)		FALSE
I-Strain, in./in.	i_strain	decimal	(19, 8)		FALSE
Initial Height of Specimen, in.	initial_height	decimal	(19, 8)		FALSE
Lateral Pressure, psi.	lateral_pressure_psi	decimal	(19, 8)		FALSE
New Height of Specimen, in.	new_height	decimal	(19, 8)		FALSE
Moisture of Specimen, %	pct_moisture_specimen	decimal	(19, 8)		FALSE
% Strain, in./in.	pct_strain	decimal	(19, 8)		FALSE
Uncorrected Stress, psi.	uncorrected_stress_psi	decimal	(19, 8)		FALSE
Weight of Specimen	weight_specimen	decimal	(19, 8)		FALSE
Weight of Stones and Specimen	weight_stones_specimen	decimal	(19, 8)		FALSE

Density of Asphalt Stabilized Base (DB-126-E) ** INACTIVE **

Table Name: VALUE_DB126E

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Percent Asphalt in Mix(max)	asphalt_pct_max	decimal	(19, 8)		FALSE
Percent Asphalt in Mix(min)	asphalt_pct_min	decimal	(19, 8)		FALSE
Broken Method	broken_method	nvarchar	20	{Fast Break, Slow Break}	FALSE
Date Broken(max)(max)	date_broken_max	smalldatetime		MM/dd/yyyy	FALSE
Date Broken(min)	date_broken_min	smalldatetime		MM/dd/yyyy	FALSE
Density of Specimen(max)	density_of_specimen_max	decimal	(19, 8)		FALSE
Density of Specimen(min)	density_of_specimen_min	decimal	(19, 8)		FALSE
Gauge Reading(max)	gague_reading_psi_max	decimal	(19, 8)		FALSE
Gauge Reading (min)	gague_reading_psi_min	decimal	(19, 8)		FALSE
Height of Specimen(max)	height_max	decimal	(19, 8)		FALSE
Height of Specimen(min)	height_min	decimal	(19, 8)		FALSE
Measured Weight(max)	measured_weight_max	decimal	(19, 8)		FALSE
Measured Weight(min)	measured_weight_min	decimal	(19, 8)		FALSE
Minimum Allowable Density	min_allowable_density	decimal	(19, 8)		FALSE
Minimum Percent Density	min_pct_density	decimal	(19, 8)		FALSE
Minimum Specimen Unconfined Compressive Strength	min_specimen_UCS	decimal	(19, 8)		FALSE
Mold Number(max)	mold_number_max	nvarchar	100		FALSE
Mold Number(min)	mold_number_min	nvarchar	100		FALSE
Date Molded(max)	molded_date_max	smalldatetime		MM/dd/yyyy	FALSE
Date Molded(min)	molded_date_min	smalldatetime		MM/dd/yyyy	FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Unconfined Compressive Strength (max)	UCS_max	nvarchar	100		FALSE
Unconfined Compressive Strength (min)	UCS_min	nvarchar	100		FALSE
Volume of Mold(max)	volume_of_mold_max	decimal	(19, 8)		FALSE
Volume of Mold(min)	volume_of_mold_min	decimal	(19, 8)		FALSE
Volume of Specimen(max)	volume_of_specimen_max	decimal	(19, 8)		FALSE
Volume of Specimen(min)	volume_of_specimen_min	decimal	(19, 8)		FALSE
Weight of Filters(max)	weight_of_filters_max	decimal	(19, 8)		FALSE
Weight of Filters(min)	weight_of_filters_min	decimal	(19, 8)		FALSE
Weight of Material(max)	weight_of_mat_max	decimal	(19, 8)		FALSE
Weight of Material(min)	weight_of_mat_min	decimal	(19, 8)		FALSE
Weight of Plates(max)	weight_of_plates_max	decimal	(19, 8)		FALSE
Weight of Plates(min)	weight_of_plates_min	decimal	(19, 8)		FALSE
Weight of Specimen(max)	weight_of_specimen_max	decimal	(19, 8)		FALSE
Weight of Specimen(min)	weight_of_specimen_min	decimal	(19, 8)		FALSE

Sieve Analysis of Surface Treatment Aggregate (DB-200-ST) ** INACTIVE **

Table Name: VALUE_DB200ST

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Sphalt	asphalt_pct	decimal	(19, 8)		FALSE
Dry Weight After Washing	dry_weight_after_washing	decimal	(19, 8)		FALSE
Moisture	moisture_pct	decimal	(19, 8)		FALSE
Original Dry Weight	orig_dry_weight	decimal	(19, 8)		FALSE
Total	pan_weight	decimal	(19, 8)		FALSE
Percent Difference	percent_difference	decimal	(19, 8)		FALSE
Sieving Loss	sieving_loss	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Total Weight	total_weight	decimal	(19, 8)		FALSE
Type	type	nvarchar	100	{A, B, C, D, E, L, PA, PB, PC, PD, PE, PL}	FALSE
Washing Loss	washing_loss	decimal	(19, 8)		FALSE
Weight Difference	weight_difference	decimal	(19, 8)		FALSE
PrePan	weight_retained	decimal	(19, 8)		FALSE

Table Name: VALUE_DB200ST_SIEVE

Maximum Rows: 8

Field Description	Field Name	Datatype	Length	Values	Required
Cumulative Percent Passing	cumulative_percent_passing	decimal	(19, 8)		FALSE
Lower Retained Limit	lower_retained_limit	decimal	(19, 8)		FALSE
Cumulative Percent Retained	percent_retained_cumulative	decimal	(19, 8)		FALSE
Individual Percent Retained	percent_retained_individual	decimal	(19, 8)		FALSE
Sieve Size	sieve_size	nvarchar	100		FALSE
Upper Retained Limit	upper_retained_limit	decimal	(19, 8)		FALSE
Cumulative Weight Retained	weight_retained_cumulative	decimal	(19, 8)		FALSE
Individual weight Retained	weight_retained_individual	decimal	(19, 8)		FALSE
Within Master Grading	within_master_grading	nvarchar	100		FALSE

Determining Flakiness Index (DB-224-F) ** INACTIVE **

Table Name: VALUE_DB224F

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Flakiness Index	flakiness_index	decimal	(19, 8)		TRUE
Number of Particles	num_particles_1	decimal	(19, 8)		FALSE
Number of Particles	num_particles_2	decimal	(19, 8)		FALSE
Number of Particles	num_particles_3	decimal	(19, 8)		FALSE
Number of Particles Passing for 1/4" slot	slot_1_4	decimal	(19, 8)		FALSE
Number of Particles Passing for 3/8" slot	slot_3_8	decimal	(19, 8)		FALSE
Number of Particles Passing for 5/32" slot	slot_5_32	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE
Total Particles	total_particles	decimal	(19, 8)		FALSE
Total Passing Particles	total_passing_particles	decimal	(19, 8)		FALSE

Determining Draindown Characteristics in Bituminous Materials (DB-235-F) ** INACTIVE **

Table Name: VALUE_DB235F

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Percent of Draindown for Two Samples	avg_pct_draindown	decimal	(19, 8)		FALSE
Final Weight Plate	final_weight_plate_1	decimal	(19, 8)		FALSE
Final Weight Plate	final_weight_plate_2	decimal	(19, 8)		FALSE
Initial Sample Weight	init_sample_weight_1	decimal	(19, 8)		FALSE
Initial Sample Weight	init_sample_weight_2	decimal	(19, 8)		FALSE
Initial Weight Plate	init_weight_plate_1	decimal	(19, 8)		FALSE
Initial Weight Plate	init_weight_plate_2	decimal	(19, 8)		FALSE
Percent Of Draindown	pct_draindown_1	decimal	(19, 8)		FALSE
Percent Of Draindown	pct_draindown_2	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	datetime		MM/dd/yyyy	TRUE

Resistance To Degradation By Abrasion & Impact in Los Angeles Machine (DB-410-A) ** INACTIVE **

Table Name: VALUE_DB410A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Final Weight	final_weight	decimal	(19, 8)		FALSE
Initial Weight	initial_weight	decimal	(19, 8)		FALSE
La Abrasion Type	la_abrasion_type	nvarchar	100	CVL	FALSE
La Abrasion Value	la_abrasion_value	decimal	(19, 8)		FALSE
Loss of Weight	loss_of_weight	decimal	(19, 8)		FALSE
Number of Spheres	number_of_spheres	int			FALSE
Percent Loss	percent_loss	decimal	(19, 8)		FALSE
Sieve	sieve	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Weight of Charge	weight_of_charge	nvarchar	100		FALSE

Table Name: VALUE_DB410A_SAMPLE

Maximum Rows: 4

Field Description	Field Name	Datatype	Length	Values	Required
Actual Weight	actual_weight	decimal	(19, 8)		FALSE
Passing Sieve	passing_sieve	nvarchar	100		FALSE
Projected Weight	projected_weight	nvarchar	100		FALSE
Retained Sieve	retained_sieve	nvarchar	100		FALSE
Within Range	within_range	bit			FALSE

Magnesium Sulfate Soundness (DB-411-M) ** INACTIVE **

Table Name: VALUE_DB411M

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Normalized Individual Percent Retained Total	ni_pct_retained_total	decimal	(19, 8)		FALSE
% Loss Total	pct_loss_total	decimal	(19, 8)		FALSE
Soundness Loss	soundness_loss	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Weighted Average % Loss Total	weighted_avg_pct_loss_total	decimal	(19, 8)		FALSE

Table Name: VALUE_DB411M_CYCLE

Maximum Rows: 5

Field Description	Field Name	Datatype	Length	Values	Required
Cycle	cycle	nvarchar	5		FALSE
In Oven Date	in_oven_date	smalldatetime		MM/dd/yyyy	FALSE
In Oven Time In	in_oven_time_in	smalldatetime		MM/dd/yyyy	FALSE
In Oven Time Out	in_oven_time_out	smalldatetime		MM/dd/yyyy	FALSE
In Solution Date	in_solution_date	smalldatetime		MM/dd/yyyy	FALSE
In Solution Time In	in_solution_time_in	smalldatetime		MM/dd/yyyy	FALSE
In Solution Time Out	in_solution_time_out	smalldatetime		MM/dd/yyyy	FALSE
Out Oven Date	out_oven_date	smalldatetime		MM/dd/yyyy	FALSE
Out Oven Time In	out_oven_time_in	smalldatetime		MM/dd/yyyy	FALSE
Out Oven Time Out	out_oven_time_out	smalldatetime		MM/dd/yyyy	FALSE
Out Solution Date	out_solution_date	smalldatetime		MM/dd/yyyy	FALSE
Out Solution Time In	out_solution_time_in	smalldatetime		MM/dd/yyyy	FALSE
Out Solution Time Out	out_solution_time_out	smalldatetime		MM/dd/yyyy	FALSE
Remarks	remarks	nvarchar	250		FALSE

Table Name: VALUE_DB411M_PARTICLE

Maximum Rows: 8

Field Description	Field Name	Datatype	Length	Values	Required
Final Weight (g)	final_weight	decimal	(19, 8)		FALSE
Initial Weight (g)	initial_weight	decimal	(19, 8)		FALSE
Loss of Weight (g)	loss_of_weight	decimal	(19, 8)		FALSE
Normalized Individual Percent Retained	ni_pct_retained	decimal	(19, 8)		FALSE
% Loss	pct_loss	decimal	(19, 8)		FALSE
Particle Size Range Passing	size_range_passing	nvarchar	100		FALSE
Particle Size Range Retained	size_range_retained	nvarchar	100		FALSE
Weighted Average % Loss	weighted_avg_pct_loss	decimal	(19, 8)		FALSE

Testing Of Drilled Cores Of Portland Cement Concrete (DB-424-A, Part III) ** INACTIVE **

Table Name: VALUE_DB424A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested By - Part II	tested_by_part2	nvarchar	100	CVL	FALSE
Tested By - Part III	tested_by_part3	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Tested Date - Part II	tested_date_part2	datetime		MM/dd/yyyy	FALSE
Tested Date - Part III	tested_date_part3	datetime		MM/dd/yyyy	FALSE

Table Name: VALUE_DB424A_CORE

Maximum Rows: 4

Field Description	Field Name	Datatype	Length	Values	Required
Age (Days)	age	int			FALSE
Compressive Strength	compressive_strength1	decimal	(19, 8)		FALSE
Compressive Strength	compressive_strength2	decimal	(19, 8)		FALSE
Diameter of Core (inches)	core_diameter1	decimal	(19, 8)		FALSE
Diameter of Core (inches)	core_diameter2	decimal	(19, 8)		FALSE
Length of Core (inches)	core_length1	decimal	(19, 8)		FALSE
Length of Core (inches)	core_length2	decimal	(19, 8)		FALSE
Core Number	core_number1	nvarchar	100		FALSE
Core Number	core_number2	nvarchar	100		FALSE
Failure Type	failure_type1	nvarchar	100		FALSE
Failure Type	failure_type2	nvarchar	100		FALSE
Max Load (Lbs)	max_load1	decimal	(19, 8)		FALSE
Max Load (Lbs)	max_load2	decimal	(19, 8)		FALSE

Texture Depth By Sand Patch Method (DB-436-A) ** INACTIVE **

Table Name: VALUE_DB436A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Average Diameter	avg_diameter	decimal	(19, 8)		FALSE
Diameter 1	measurement_1	decimal	(19, 8)		FALSE
Diameter 2	measurement_2	decimal	(19, 8)		FALSE
Diameter 3	measurement_3	decimal	(19, 8)		FALSE
Diameter 4	measurement_4	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	varchar	200	CVL	FALSE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	FALSE
Thickness	thickness	decimal	(19, 8)		FALSE
Volume of Cylinder	vol_cylinder	decimal	(19, 8)		FALSE

Concrete Sample - Beams (DB-448-A) ** INACTIVE **

Table Name: VALUE_DB448A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Actual Water	act_water	decimal	(19, 8)		FALSE
Added Gal	added_gal	decimal	(19, 8)		FALSE
Agg. Correction Factor	agg_corr_factor	decimal	(19, 8)	CVL	FALSE
Agg Size	agg_size	nvarchar	100	CVL	FALSE
Air Temperature	air_temp	decimal	(19, 8)		FALSE
Batch Size	batch_size	decimal	(19, 8)		FALSE
Batch Time	batch_time	smalldatetime		MM/dd/yyyy	FALSE
Class of Concrete	class_concrete	nvarchar	100	CVL	FALSE
Concrete Temperature	concrete_temp	decimal	(19, 8)		FALSE
Corrected Air Content	corrected_air_content	decimal	(19, 8)	CVL	FALSE
Design Water	des_water	decimal	(19, 8)		FALSE
Mix ID	mix_id	nvarchar	100	CVL	FALSE
Qty Load	qty_load	decimal	(19, 8)		FALSE
Req. Strength, psi	req_strength	decimal	(19, 8)		FALSE
Sample Time	sample_time	smalldatetime		MM/dd/yyyy	FALSE
Slump	slump	decimal	(19, 8)	CVL	FALSE
Specimen Dimensions	spec_dimensions	nvarchar	100	CVL	FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE
Ticket Number	ticket_num	decimal	(19, 8)		FALSE
Total Water	total_water	decimal	(19, 8)		FALSE
Truck Number	truck_num	decimal	(19, 8)		FALSE
Unit Weight	unit_weight	decimal	(19, 8)		FALSE

Table Name: VALUE_DB448A_SPECIMEN

Maximum Rows: 6

Field Description	Field Name	Datatype	Length	Values	Required
Age	age	nvarchar	100	CVL	FALSE
Avg Depth	avg_depth	decimal	(19, 8)		FALSE
Avg. Width	avg_width	decimal	(19, 8)		FALSE
Correction Factor	corr_factor	decimal	(19, 8)		FALSE
Max Load, lbs	max_load_psi	decimal	(19, 8)		FALSE
Mod Rupture	mod_rupture	decimal	(19, 8)		FALSE
Pass Fail	pass_fail	nvarchar	100		FALSE
Specimen	specimen	nvarchar	100		FALSE
Test Date	test_date	smalldatetime		MM/dd/yyyy	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE

Coarse Aggregate Angularity By Fractured Faces Count (DB-460-A) ** INACTIVE **

Table Name: VALUE_DB460A

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Number of Particles w/ one or no FF	number_of_particles_with_one	int			FALSE
Number of Particles w/ 2 or more FF	number_of_particles_with_two	int			FALSE
Number of Questionable Particles	number_of_questionable_particles	int			FALSE
Percent Crushed Particles	percent_crushed_particles	decimal	(19, 8)		FALSE
Percent Crushed Particles	percent_crushed_particles_result	decimal	(19, 8)		TRUE
Sieve Size	sieve_size	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	TRUE
Tested By	tested_by	nvarchar	100	CVL	TRUE
Tested Date	tested_date	smalldatetime		MM/dd/yyyy	TRUE
Total Number of Particles	total_number_of_particles	int			FALSE

Effect of Water On Bituminous Paving Mixtures (DB-530-C) ** INACTIVE **

Table Name: VALUE_DB530C

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Estimated Percent of Stripping	est_pct_stripping	nvarchar	100		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	datetime		MM/dd/yyyy	FALSE

Determining Chloride and Sulfate Content in Soils (DB-620-J) ** INACTIVE **

Table Name: VALUE_DB620J

Maximum Rows: 1

Field Description	Field Name	Datatype	Length	Values	Required
Chloride (CL) (PPM)	chloride_ppm	decimal	(19, 8)		FALSE
Crucible + Residue Weight	crucible_residue_weight	decimal	(19, 8)		FALSE
Crucible Weight	crucible_weight	decimal	(19, 8)		FALSE
Ending	ending	decimal	(19, 8)		FALSE
Normality of AgNO3	normality_of_agno3	decimal	(19, 8)		FALSE
Residue Weight	residue_weight	decimal	(19, 8)		FALSE
Sample Weight	sample_weight_chloride	decimal	(19, 8)		FALSE
Sample Weight	sample_weight_sulfate	decimal	(19, 8)		FALSE
Stamp Code	stamp_code	int		CVL	FALSE
Starting	starting	decimal	(19, 8)		FALSE
Sulfate (SO4) (PPM)	sulfate_ppm	decimal	(19, 8)		FALSE
Tested By	tested_by	nvarchar	100	CVL	FALSE
Tested Date	tested_date	nvarchar	100		FALSE
Total	total	decimal	(19, 8)		FALSE

CQAF Sample

File: CQAFSample.xml

File Type: XML (Extensible Markup Language). The de facto standard for transferring data.

File Description: An example of an electronic submission that can be read into I2MS. The example provided was used for a previous project and passed the verification process for that particular project's inputs. This file can be submitted to I2MS via a web service run on I2MS using SOAP (Simple Object Access Protocol), which is a standard programming protocol by which software developers send data between systems.

CQAF Sample

```
<?xml version='1.0' encoding='UTF-8'?>
<form name="DB-115-1" version_no="1.0" key="0020905270501151" date="2009-05-27T00:00:00"
display_key="00209052705">
  <owner_name value="CQAF" />
  <security username="CQAFDataXfer" password="as9-3958$h@" />
  <header>
    <column name="sample_id" value="00209052705" />
    <column name="sampled_date" value="5/27/2009 12:00:00 AM" />
    <column name="sample_type" value="Random-Independent" />
    <column name="split_sample_id" />
    <column name="report_type" value="Original" />
    <column name="section" value="5.1" />
    <column name="sampled_by" value="Al Jones" />
    <column name="spec_year" value="2004" />
    <column name="material" value="14" />
    <column name="spec_item" value="247" />
    <column name="supplier" value="Pit" />
    <column name="special_provision" />
    <column name="structure_number" />
    <column name="grade" value="1" />
    <column name="sample_location" />
    <column name="feature" value="Mainlane" />
    <column name="course_lift" value="2" />
    <column name="station" value="342+49" />
    <column name="dist_from_cl" value="5' LT" />
    <column name="misc" />
    <column name="roadway" value="Loop 375" />
    <column name="direction" value="NB" />
  </header>
  <test name="DB-115-1"> <!-- This can be the same value as the form name. -->
    <table name="VALUE_DB115_1">
      <row>
        <column name="determined_by_test_method" value="DB-113-E" />
        <column name="max_dry_density_pcf" value="132.5" />
        <column name="optimum_moisture_content_pct" value="7.7" />
        <column name="density_standard" value="4200" />
        <column name="moisture_standard" value="420" />
        <column name="density_count" value="1045" />
        <column name="moisture_count" value="231" />
        <column name="probe_depth" value="10" />
        <column name="wet_density_pcf" value="140.5" />
        <column name="dry_density_pcf" value="133.5" />
        <column name="moisture_content_pct" value="5.2" />
        <column name="gauge_no" value="3242" />
        <column name="moisture_content_pct_pass_fail" />
        <column name="density_pct" value="100.7" />
        <column name="density_pct_pass_fail" />
      </row>
    </table>
  </test>
</form>
```

CQAF Sample

```
<column name="density_specification_req_max" />
<column name="moisture_specification_req_max" />
<column name="soil_desc" />
<column name="density_specification_req_min" value="100" />
<column name="moisture_specification_req_min" value="5.2" />
<column name="tested_by" value="Al Jones" />
<column name="tested_date" value="5/27/2009 12:00:00 AM" />
<column name="stamp_code" value="1" />
  </row>
</table>
</test>
<footer>
  <column name="remarks" />
  <column name="reviewed_by" />
  <column name="completed_date" />
  <column name="authorized_by" />
  <column name="authorized_date" />
</footer>
</form>
```

Web Form Validation

File: WebFormValidation.xsd

File Type: XSD (XML Schema Document). Describes a schema used for an XML document.

File Description: Describes elements, annotations, and documentation used in the aforementioned XML. XSD files are the standard used to describe XML file formats and are often used to assist in developing XML files with added features such as intellisense (which is an added type ahead feature used by developers).

Web Form Validation

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema id="FormValidation" xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="form">
    <xs:complexType>
      <xs:sequence>
        <xs:choice minOccurs="1" maxOccurs="1" id="owner">
          <xs:annotation>
            <xs:documentation>
              The owner of the record must be supplied to upload successfully. The user login
              provided in the security element
              must have permission to add a record for the owner as part of the validation process.

              The record owner can be identified by a variety of properties. In general, when
              submitting XML from an external source,
              the owner_name attribute is the preferred method.
            </xs:documentation>
          </xs:annotation>
          <xs:element name="owner_name" minOccurs="1" maxOccurs="1">
            <xs:annotation>
              <xs:documentation>
                The name of the owner of this record. For example, "OVF" or "CQAF".
              </xs:documentation>
            </xs:annotation>
            <xs:complexType>
              <xs:attribute name="value" type="xs:string" use="required" />
            </xs:complexType>
          </xs:element>
          <xs:element name="owner_guid" minOccurs="1" maxOccurs="1">
            <xs:complexType>
              <xs:attribute name="value" type="xs:string" use="required" />
            </xs:complexType>
          </xs:element>
          <xs:element name="owner_id" minOccurs="1" maxOccurs="1">
            <xs:complexType>
              <xs:attribute name="value" type="xs:int" use="required" />
            </xs:complexType>
          </xs:element>
        </xs:choice>
        <xs:element name="security" minOccurs="1" maxOccurs="1">
          <xs:annotation>
            <xs:documentation>
              User login credentials must be provided to upload a record. Supply a username and
              password.
            </xs:documentation>
          </xs:annotation>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

Web Form Validation

```
<xs:attribute name="user_guid" type="xs:string" />
<xs:attribute name="username" type="xs:string" />
<xs:attribute name="password" type="xs:string" />
</xs:complexType>
</xs:element>
<xs:element name="header" minOccurs="0" maxOccurs="1">
  <xs:annotation>
    <xs:documentation>
      The collection of header column values common to multiple forms.
    </xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="column" type="ColumnType" maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
<xs:element name="test" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>
```

type being uploaded.

This element can be used to logically group the body tables by the test method they represent, but it is not required to do so.

All body table elements can be placed under one test element, and the test name attribute is inconsequential.

```
</xs:documentation>
  </xs:annotation>
</xs:complexType>
<xs:sequence>
  <xs:element name="table" minOccurs="1" maxOccurs="unbounded">
    <xs:annotation>
      <xs:documentation>
```

A collection of rows of form data for a specific table.

The number of rows permitted for each table depends on the form and table name. For testing forms, the number of rows allowed for each table can be found in the I2MS Test Form Fields report.

```
</xs:documentation>
  </xs:annotation>
</xs:complexType>
<xs:sequence>
  <xs:element name="row" minOccurs="0" maxOccurs="unbounded">
    <xs:annotation>
      <xs:documentation>
        A collection of body column values.
      </xs:documentation>
    </xs:annotation>
```

Web Form Validation

```

        <xs:complexType>
          <xs:sequence>
            <xs:element name="column" type="ColumnType" minOccurs="0"
maxOccurs="unbounded" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
    <xs:attribute name="name" type="xs:string" use="required">
      <xs:annotation>
        <xs:documentation>
          The name of the body table.

```

For testing forms, the list of supported table names can be found in the I2MS

Test Form Fields report.

```

      </xs:documentation>
    </xs:annotation>
  </xs:attribute>
</xs:complexType>
</xs:element>
</xs:sequence>
<xs:attribute name="name" type="xs:string" use="required" />
</xs:complexType>
</xs:element>
<xs:element name="footer" minOccurs="0" maxOccurs="1">
  <xs:annotation>
    <xs:documentation>
      The collection of footer column values common to multiple forms.
    </xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="column" type="ColumnType" minOccurs="0" maxOccurs="unbounded" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
</xs:sequence>
<xs:attribute name="name" form="unqualified" type="xs:string" use="required" >
  <xs:annotation>
    <xs:documentation>
      The short name of the I2MS form for which data is being submitted. This value determines the
data columns that are supported and required
      for the header, body, and footer elements.

```

For testing forms, the list of supported form names can be found in the I2MS Test Form Fields report.

Web Form Validation

The form name is the value in parentheses for each subheading under the Body Fields section.

```
</xs:documentation>
```

```
</xs:annotation>
```

```
</xs:attribute>
```

```
<xs:attribute name="key" form="unqualified" use="required">
```

```
<xs:annotation>
```

```
<xs:documentation>
```

(OVF/CQAF). A value representing the test record in I2MS. This value is required to be unique for each owner

The same key is used for all revisions of the record. To add a new revision, supply the same key with the new form data and a

new value for the version_no attribute.

```
</xs:documentation>
```

```
</xs:annotation>
```

```
<xs:simpleType>
```

```
<xs:restriction base="xs:string">
```

```
<xs:maxLength value="100"></xs:maxLength>
```

```
</xs:restriction>
```

```
</xs:simpleType>
```

```
</xs:attribute>
```

```
<xs:attribute name="version_no" use="required">
```

```
<xs:annotation>
```

```
<xs:documentation>
```

The version number of this revision within the series of revisions identified by the key attribute.

The revision in the series with the greatest version number will be considered the latest revision regardless of the order in which revisions were submitted to I2MS.

Submitting a record with the same key and version number as another record in the system is an error.

```
</xs:documentation>
```

```
</xs:annotation>
```

```
<xs:simpleType>
```

```
<xs:restriction base="xs:decimal">
```

```
<xs:totalDigits value="19" />
```

```
<xs:fractionDigits value="9" />
```

```
</xs:restriction>
```

```
</xs:simpleType>
```

```
</xs:attribute>
```

```
<xs:attribute name="display_key">
```

```
<xs:annotation>
```

```
<xs:documentation>
```

The value displayed to users as the ID value of the record (for example, Sample ID for testing forms).

This value is not required to be unique.

```
</xs:documentation>
```

```
</xs:annotation>
```

```
<xs:simpleType>
```

```
<xs:restriction base="xs:string">
```

Web Form Validation

```
<xs:maxLength value="100"></xs:maxLength>
```

```
</xs:restriction>
```

```
</xs:simpleType>
```

```
</xs:attribute>
```

```
<xs:attribute name="version_key">
```

```
<xs:annotation>
```

```
<xs:documentation>
```

external source, An optional identifier for this revision. For example, when submitting XML to I2MS from an

this could be the Version ID of the record in the external system.

```
</xs:documentation>
```

```
</xs:annotation>
```

```
<xs:simpleType>
```

```
<xs:restriction base="xs:string">
```

```
<xs:maxLength value="100"></xs:maxLength>
```

```
</xs:restriction>
```

```
</xs:simpleType>
```

```
</xs:attribute>
```

```
<xs:attribute name="action_name" type="xs:string">
```

```
<xs:annotation>
```

```
<xs:documentation>
```

submitting the form The name of a custom workflow action to execute when submitting the form. The user login must have permissions in I2MS for the action and validation rules must pass before allowing the action.

omitted unless other When submitting XML to I2MS from an external source, this attribute should generally be instructions have been provided.

```
</xs:documentation>
```

```
</xs:annotation>
```

```
</xs:attribute>
```

```
<xs:attribute name="date" type="xs:dateTime">
```

```
<xs:annotation>
```

```
<xs:documentation>
```

forms). The value displayed to users as the date of the record (for example, Sampled Date for testing

```
</xs:documentation>
```

```
</xs:annotation>
```

```
</xs:attribute>
```

```
</xs:complexType>
```

```
</xs:element>
```

```
<xs:complexType name="ColumnType">
```

```
<xs:attribute name="name" type="xs:string" use="required">
```

```
<xs:annotation>
```

```
<xs:documentation>
```

The name of the column for which a value is being provided.

Web Form Validation

For testing forms, the list of supported data columns can be found in the I2MS Test Form

Fields report.

```

    </xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="value" type="xs:string" use="optional">
  <xs:annotation>
    <xs:documentation>
      The value of the column.
    </xs:documentation>
  </xs:annotation>
</xs:attribute>
</xs:complexType>
</xs:schema>
```

Form Submission Service

File: FormSubmissionService.wsdl

File Type: WSDL (Web Services Description Language). Describes a web service and its respective protocols in XML format.

File Description: Describes the web service used by I2MS for submitting data electronically for the purposes of Validation (i.e. Verification) and Submission. The I2MS system takes in data electronically via a web service (often via the SOAP protocol), for the purposes of verifying or submitting a test (submitted in XML format).

Form Submission Service

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions
  xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
  xmlns:tns="http://tempuri.org/"
  xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
  xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
  xmlns:wSDL="http://schemas.xmlsoap.org/wsdl/"
  xmlns:s="http://www.w3.org/2001/XMLSchema"
  xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
  targetNamespace="http://tempuri.org">
  <wsdl:types>
    <s:schema elementFormDefault="qualified" targetNamespace="http://tempuri.org/">
      <s:element name="SubmitForm">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="xmlForm" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="SubmitFormResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="1" maxOccurs="1" name="SubmitFormResult" type="s:int" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="ValidateForm">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="xmlForm" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name="ValidateFormResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs="0" maxOccurs="1" name="ValidateFormResult" type="s:string" />
          </s:sequence>
        </s:complexType>
      </s:element>
    </s:schema>
  </wsdl:types>
  <wsdl:message name="SubmitFormSoapIn">
    <wsdl:part name="parameters" element="tns:SubmitForm" />
  </wsdl:message>
  <wsdl:message name="SubmitFormSoapOut">
    <wsdl:part name="parameters" element="tns:SubmitFormResponse" />
  </wsdl:message>
```

Form Submission Service

```
<wsdl:message name="ValidateFormSoapIn">
  <wsdl:part name="parameters" element="tns:ValidateForm" />
</wsdl:message>
<wsdl:message name="ValidateFormSoapOut">
  <wsdl:part name="parameters" element="tns:ValidateFormResponse" />
</wsdl:message>
<wsdl:portType name="FormSubmissionServiceSoap">
  <wsdl:operation name="SubmitForm">
    <wsdl:input message="tns:SubmitFormSoapIn" />
    <wsdl:output message="tns:SubmitFormSoapOut" />
  </wsdl:operation>
  <wsdl:operation name="ValidateForm">
    <wsdl:input message="tns:ValidateFormSoapIn" />
    <wsdl:output message="tns:ValidateFormSoapOut" />
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="FormSubmissionServiceSoap" type="tns:FormSubmissionServiceSoap">
  <soap:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="SubmitForm">
    <soap:operation soapAction="http://tempuri.org/SubmitForm" style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
  <wsdl:operation name="ValidateForm">
    <soap:operation soapAction="http://tempuri.org/ValidateForm" style="document" />
    <wsdl:input>
      <soap:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:binding name="FormSubmissionServiceSoap12" type="tns:FormSubmissionServiceSoap">
  <soap12:binding transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="SubmitForm">
    <soap12:operation soapAction="http://tempuri.org/SubmitForm" style="document" />
    <wsdl:input>
      <soap12:body use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soap12:body use="literal" />
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
```

Form Submission Service

```
</wsdl:output>
</wsdl:operation>
<wsdl:operation name="ValidateForm">
  <soap12:operation soapAction="http://tempuri.org/ValidateForm" style="document" />
  <wsdl:input>
    <soap12:body use="literal" />
  </wsdl:input>
  <wsdl:output>
    <soap12:body use="literal" />
  </wsdl:output>
</wsdl:operation>
</wsdl:binding>
<wsdl:service name="FormSubmissionService">
  <wsdl:port name="FormSubmissionServiceSoap" binding="tns:FormSubmissionServiceSoap">
    <soap:address location="https://i2ms-sh130.txdot.gov/i2ms/i2ms/formsubmissionservice.asmx" />
  </wsdl:port>
  <wsdl:port name="FormSubmissionServiceSoap12" binding="tns:FormSubmissionServiceSoap12">
    <soap12:address location="https://i2ms-sh130.txdot.gov/i2ms/i2ms/formsubmissionservice.asmx" />
  </wsdl:port>
</wsdl:service>
</wsdl:definitions>
```

Texas Department of Transportation

TECHNICAL PROVISIONS

STATE HIGHWAY 360

Attachment 4-1

EA Commitments

ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS

ENDANGERED AND/OR THREATENED SPECIES/WILDLIFE/MIGRATORY BIRDS

SPECIES IN PROJECT AREA

DB CONTRACTOR SHALL COMPLY WITH ALL FEDERAL AND STATE LAWS AND REGULATIONS AS RELATED TO LISTED THREATENED AND ENDANGERED SPECIES. NEPA APPROVAL IDENTIFIED POTENTIAL HABITAT WITHIN THE PROJECT LIMITS FOR THE PLAINS SPOTTED SKUNK, WESTERN BURROWING OWL, FAWNSFOOT, LITTLE SPECTACLECASE, LOUISIANA PIGTOE, TEXAS FAWNSFOOT, TEXAS HEELSPLITTER, TEXAS PIGTOE, WABASH PIGTOE, ALLIGATOR SNAPPING TURTLE, TEXAS GARTER SNAKE, TIMBER/CANEBRAKE RATTLESNAKE, AND GLEN ROSE YUCCA. PRIOR TO CONSTRUCTION, DB CONTRACTOR SHALL REVIEW THE APPLICABLE AND MOST CURRENT FEDERAL AND STATE THREATENED AND ENDANGERED SPECIES LISTS TO DETERMINE IF CHANGES TO THE LISTS HAVE OCCURRED SINCE AUTHORIZATION OF THE NEPA APPROVAL. DB CONTRACTOR SHALL IDENTIFY ALL FEDERAL AND STATE LISTED SPECIES WITH POTENTIAL TO EXIST WITHIN THE PROJECT LIMITS AND DETERMINE THE EXTENT OF PROJECT IMPACTS TO THE LISTED SPECIES DURING FINAL DESIGN. DB CONTRACTOR SHALL PERFORM FIELD SURVEYS TO DETERMINE THE PRESENCE OF ALL FEDERAL AND STATE LISTED SPECIES CONSIDERED TO INCUR IMPACTS BY THE PROJECT. IF IT IS DETERMINED THAT FEDERAL AND STATE LISTED SPECIES ARE PRESENT WITHIN THE PROJECT LIMITS, AND ADVERSE IMPACTS WILL OCCUR, DB CONTRACTOR SHALL WORK WITH TXDOT TO DEVELOP MITIGATION APPROACHES. DB CONTRACTOR SHALL PREPARE ANY MATERIALS NEEDED FOR COORDINATION/CONSULTATION WITH APPLICABLE REGULATORY AGENCIES, AT TXDOT'S DIRECTION. TXDOT WILL CONDUCT COORDINATION/CONSULTATION WITH APPLICABLE AGENCIES. DB CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MITIGATION REQUIREMENTS IDENTIFIED DURING AGENCY COORDINATION/CONSULTATION. BASED ON THE CURRENT SCOPE OF WORK FOR THE PROJECT, IT IS LIKELY THAT MUSSEL SURVEYS WILL BE REQUIRED. DB CONTRACTOR SHALL FOLLOW THE STEPS ABOVE TO DETERMINE MUSSEL PRESENCE WITHIN THE PROJECT LIMITS, AND THE EXTENT OF PROJECT IMPACTS TO THE SPECIES. DB CONTRACTOR SHALL REPORT ALL FINDINGS TO TXDOT, AND IF NECESSARY, SHALL DEVELOP MUSSEL RELOCATION PLANS AND/OR OTHER BEST MANAGEMENT PRACTICES TO ENSURE THE PRESERVATION OF PRESENT MUSSEL SPECIES, AT TXDOT'S DIRECTION. DB CONTRACTOR SHALL ENSURE THAT APPROVED BEST MANGEMENT PRACTICES ARE MAINTAINED THROUGHOUT CONSTRUCTION. DB CONTRACTOR SHALL COMPLY WITH THE MBTA. BETWEEN OCTOBER 1 AND FEBRUARY 15, DB CONTRACTOR SHALL REMOVE ALL OLD NESTS FROM STRUCTURES THAT WOULD BE IMPACTED BY THE PROJECT, AND COMPLETE ANY BRIDGE WORK AND/OR VEGETATION CLEARING. IN ADDITION, DB CONTRACTOR SHALL PREVENT MIGRATORY BIRDS FROM BUILDING NESTS BETWEEN FEBRUARY 15 AND OCTOBER 1. IF MIGRATORY BIRDS ARE ENCOUNTERED DURING CONSTRUCTION, ADVERSE IMPACTS ON PROTECTED BIRDS, ACTIVE NESTS, EGGS, AND/OR YOUNG SHALL BE AVOIDED. PROPOSED PREVENTION METHODS SHALL BE APPROVED BY A TXDOT FT WORTH BIOLOGIST PRIOR TO USE.

HISTORICAL/ARCHEOLOGICAL:

CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF ARTICLE 7.19 OF TXDOT'S STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES, AND SPECIAL PROVISIONS.

KNOWN ITEMS OF HISTORICAL INTEREST IN PROJECT AREA :

- _____ BUILDINGS _____
- _____ BRIDGES _____
- _____ CEMETERIES _____
- _____ HISTORIC MARKERS/PLAQUES _____
- _____ OTHER _____

IF HISTORICAL OR ARCHEOLOGICAL SITES ARE DISCOVERED DURING CONSTRUCTION, CONTRACTOR SHALL IMMEDIATELY NOTIFY AREA ENGINEER AND THE TXDOT ENVIRONMENTAL MANAGER.

DO NOT ENDANGER HISTORICAL BUILDINGS OR STRUCTURES (MORE THAN 50 YEARS OF AGE) OR ARCHEOLOGICAL SITES.

COMMENTS

IF UNANTICIPATED ARCHEOLOGICAL DEPOSITS ARE ENCOUNTERED DURING CONSTRUCTION, WORK IN THE IMMEDIATE AREA WILL STOP, AND TXDOT ARCHEOLOGICAL STAFF WILL BE CONTACTED TO INITIATE POST-REVIEW DISCOVERY PROCEDURES.

NOISE:

THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF ARTICLE 7.18 OF TXDOT'S STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES, AND SPECIAL PROVISIONS.

NOISE LEVELS IN RESIDENTIAL AREAS AND OTHER SENSITIVE AREAS SHOULD BE KEPT TO A MINIMUM BETWEEN THE HOURS OF 7PM AND 7AM OR AS DIRECTED BY THE ENGINEER. AVOID ROUTING OF CONSTRUCTION EQUIPMENT THROUGH RESIDENTIAL OR SENSITIVE AREAS IF LISTED BELOW.

COMMENTS

DB CONTRACTOR SHALL PROVIDE ALL NOISE MITIGATION REQUIREMENTS AS IDENTIFIED IN THE NEPA APPROVAL. DB CONTRACTOR SHALL PROVIDE ALL PUBLIC INVOLVEMENT REQUIREMENTS ASSOCIATED WITH THE NOISE MITIGATION.

NOISE WALLS:

DO NOT LEAVE GAPS BETWEEN PANELS OR POSTS IN NOISE WALLS. IF NEOPRENE PADS ARE REQUIRED, ENSURE THAT THEY ARE PLACED BETWEEN PANELS. DO NOT DAMAGE OR CAUSE EROSION TO ADJACENT PROPERTIES. ENSURE COLOR CONTINUITY FOR CONCRETE MIX THROUGHOUT CONSTRUCTION.

COMMENTS

NA

WATER QUALITY:

- DEVELOP STORMWATER POLLUTION PREVENTION PLANS
- AVOID SEDIMENT RUNOFF
- AVOID POLLUTION
- CONTAIN & PROPERLY DISPOSE OF POTENTIALLY HAZARDOUS SUBSTANCES.
- ALL WORK SHOULD BE PERFORMED ACCORDING TO ALL APPLICABLE STATUTES.

COMMENTS

THE PROPOSED PROJECT WOULD DISTURB MORE THAN 5 ACRES OF SURFACE AREA; THEREFORE, A NOI MUST BE SIGNED AND SUBMITTED TO THE TCEO, AND A COPY MUST BE POSTED AT THE CONSTRUCTION SITE. THE PROPOSED PROJECT MUST COMPLY WITH THE TPDES CONSTRUCTION GENERAL PERMIT. DB CONTRACTOR MUST IMPLEMENT AND MAINTAIN A SW3P ON SITE. DB CONTRACTOR MUST COMPLY WITH APPLICABLE MS4 REQUIREMENTS.

WATERS OF U.S. AND/OR WETLANDS:

THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF ARTICLES 7.19 OF TXDOT'S STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES, AND SPECIAL PROVISIONS.

NO FILLING, DREDGING OR EXCAVATING IN ANY WATER BODIES, RIVERS, CREEKS, STREAMS OR WETLAND AREAS UNLESS SPECIFICALLY AUTHORIZED BY UNITED STATES ARMY CORPS OF ENGINEERS PERMIT AND APPROVED BY THE ENGINEER. CONTRACTOR MUST OBTAIN ANY REQUIRED PERMIT FOR IMPACTS TO WATERS OF THE U.S. DUE TO CONSTRUCTION METHODS. CONTRACTOR MUST COORDINATE SUCH PERMITS WITH THE TXDOT ENVIRONMENTAL MANAGER. DO NOT PLACE EXCAVATED MATERIAL, CONSTRUCTION DEBRIS, ETC., OFF-SITE WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.

- U.S. ARMY CORPS OF ENGINEERS PERMIT (See Below)
- STREAM/WATERWAY CROSSING
- WETLAND CROSSING

_____ U.S. COAST GUARD PERMIT

THE CONTRACTOR SHALL CONTACT THE TXDOT ENVIRONMENTAL MANAGER IF WORK WILL RESULT IN IMPACTS TO JURISDICTIONAL WATERS OF U.S. BEYOND THOSE IDENTIFIED IN THE PLANS.

THE FOLLOWING CORPS OF ENGINEERS PERMITS HAVE BEEN IDENTIFIED AS APPLICABLE TO THIS PROJECT:

- _____ NWP 3-MAINTENANCE (3)
- _____ NWP 13-BANK STABILIZATION (3)
- NWP 14-LINEAR TRANSPORTATION (3,9) INDIVIDUAL PERMIT MAY BE REQUIRED ONCE FACILITY DESIGN IS FINALIZED.**
- _____ NWP 18-MINOR DISCHARGES (3,9)
- _____ NWP 19-MINOR DREDGING (3)
- _____ NWP 23-CATEGORICAL EXCLUSION (3)
- _____ NWP 25-STRUCTURAL DISCHARGES (3)
- _____ NWP 27-STREAM/WETLAND RESTORATION (3)
- _____ NWP 33-TEMP. CONST., ACCESS, DEWATERING (3)
- (*,**) APPLICABLE SECTION 401 GENERAL CONDITIONS:
Gen.Cond.3 - CATEGORY I AND CATEGORY II BMP'S REQUIRED
Gen.Cond.9 - CATEGORY III BMP'S REQUIRED.

COMMENTS: (Specific location where each permit identified above is applicable)
DB CONTRACTOR SHALL DETERMINE SECTION 404 IMPACTS DURING FINAL DESIGN. DB CONTRACTOR SHALL PROCURE ALL NECESSARY SECTION 404 PERMITS AND SECTION 401 TIER II CERTIFICATIONS. DB CONTRACTOR SHALL IDENTIFY MITIGATION REQUIREMENTS, PREPARE ALL COORDINATION MATERIALS ASSOCIATED WITH MITIGATION, AND DELIVER ALL REQUIRED MITIGATION.

BEST MANAGEMENT PRACTICES:

- CATEGORY I BMP'S: (EROSION CONTROL)
 - _____ TEMPORARY VEGETATION _____
 - _____ MULCH _____
 - _____ INTERCEPTOR SWALE _____
 - _____ EROSION CONTROL COMPOST _____
 - _____ COMPOST FILTER BERMS AND SOCKS _____
 - _____ BLANKETS, MATTING _____
 - _____ SOD _____
 - _____ DIVERSION DIKE _____
 - _____ MULCH FILTER BERMS AND SOCKS _____
 - _____ OTHER (SPECIFY) _____
- CATEGORY II BMP'S: (SEDIMENTATION CONTROL)
 - _____ SILT FENCE _____
 - _____ TRIANGULAR FILTER DIKE _____
 - _____ STONE OUTLET SEDIMENT TRAPS _____
 - _____ EROSION CONTROL COMPOST _____
 - _____ COMPOST FILTER BERMS AND SOCKS _____
 - _____ STRAW BALE DIKE _____
 - _____ BRUSH BERMS _____
 - _____ SEDIMENT BASINS _____
 - _____ MULCH FILTER BERMS AND SOCKS _____
 - _____ SAND BAG AND/OR ROCK BERM _____
- CATEGORY III BMP'S: (POST-CONSTRUCTION TSS CONTROL)
 - _____ RETENTION/IRRIGATION _____
 - _____ EXTENDED DETENTION BASIN _____
 - _____ VEGETATED FILTER STRIPS _____
 - _____ GRASSY SWALES _____
 - _____ EROSION CONTROL COMPOST _____
 - _____ COMPOST FILTER BERMS AND SOCKS _____
 - _____ CONSTRUCTED WETLANDS _____
 - _____ WET BASINS _____
 - _____ VEGETATION-LINED DITCHES _____
 - _____ SAND FILTER SYSTEMS _____
 - _____ MULCH FILTER BERMS AND SOCKS _____
 - _____ OTHER (SPECIFY) _____

COMMENTS

TBD WITH DESIGN FINALIZATION; COORDINATION REQUIRED FOR SECTION 404 AND SECTION 401 (SW3P) ACTIVITIES.

VEGETATION:

A MIX OF GRASSES AND FORBS AS SPECIFIED IN ITEM 164 SHALL BE USED TO REVEGETATE THE R.O.W.

AVOID REMOVAL OF NATIVE VEGETATION WHEN POSSIBLE. NOTIFY TXDOT DISTRICT ENVIRONMENTAL QUALITY COORDINATOR 72 HOURS BEFORE REMOVAL OF TREES GREATER THAN 6" DIAMETER, NOT DESIGNATED FOR REMOVAL ON PLANS. DO NOT REMOVE TREES NEXT TO RIVERS, CREEKS, OR STREAMS UNLESS APPROVED BY THE TXDOT ENVIRONMENTAL MANAGER.

FLAGGING SHALL BE USED BY CONTRACTOR TO DESIGNATE TREES TO BE REMOVED. APPROVAL FOR REMOVAL OF TREES SHALL BE OBTAINED FROM THE TXDOT ENVIRONMENTAL MANAGER.

DISTURBED AREAS SHALL BE RESTORED AND RESEEDED IN ACCORDANCE WITH APPLICABLE SPECIFICATION ITEMS, AND IN ACCORDANCE WITH EXECUTIVE ORDER 13112 ON INVASIVE SPECIES AND THE EXECUTIVE MEMORANDUM ON BENEFICIAL LANDSCAPING. LANDSCAPING SHALL BE LIMITED TO SEEDING AND REPLANTING THE ROW WITH NATIVE SPECIES OF PLANTS UNLESS OTHERWISE SPECIFIED.

COMMENTS

DB CONTRACTOR SHALL USE MINIMIZATION AND AVOIDANCE MITIGATION PRACTICES TO PRESERVE VEGETATION COMMUNITIES TO THE GREATEST EXTENT POSSIBLE. DB CONTRACTOR SHALL PERFORM A TIER I SITE ASSESSMENT AS DESCRIBED IN SECTION 2.205 OF THE SEPTEMBER 1, 2013 TXDOT/TPWD MOU TO REASSESS UNAVOIDABLE VEGETATION IMPACTS ASSOCIATED WITH THE PROJECT. DB CONTRACTOR SHALL DOCUMENT AND COORDINATE RESULTS WITH TXDOT. TXDOT SHALL DETERMINE NEED FOR FURTHER COORDINATION. DB CONTRACTOR SHALL PREPARE ALL MATERIALS TO PERFORM COORDINATION. TXDOT AND TPWD WILL DETERMINE NEED FOR FURTHER VEGETATION IMPACT ASSESSMENTS. DB CONTRACTOR SHALL PREPARE ANY ADDITIONAL ASSESSMENTS. DB CONTRACTOR SHALL IMPLEMENT ALL BEST MANAGEMENT PRACTICES AND MITIGATION IDENTIFIED DURING COORDINATION.

VEGETATION MANAGEMENT PRACTICES:

COMMENTS

DB CONTRACTOR SHALL USE MINIMIZATION AND AVOIDANCE MITIGATION PRACTICES.

HAZARDOUS MATERIAL:

- CONDUCT AND DOCUMENT ALL OF THE FOLLOWING:
 - CONDUCT SAFETY MEETING PRIOR TO CONSTRUCTION (MAKING WORKERS AWARE OF THE POTENTIAL HAZARDS THEY MAY ENCOUNTER);
 - READ AND FOLLOW THE HEALTH AND SAFETY PLAN PRIOR TO CONSTRUCTION; AND
 - CONTACT/COORDINATE WITH THE APPROPRIATE AGENCY 7 TO 10 DAYS PRIOR TO CONSTRUCTION.
- CONTACT AREA 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

COMMENTS

DB CONTRACTOR SHALL TAKE MEASURES TO PREVENT, MINIMIZE, AND CONTROL THE SPILL OF HAZARDOUS MATERIALS. IF HAZARDOUS MATERIALS ARE ENCOUNTERED, DB CONTRACTOR SHALL NOTIFY THE TXDOT ENVIRONMENTAL MANAGER AND TAKE STEPS TO PROTECT PERSONNEL AND THE ENVIRONMENT. DB CONTRACTOR SHALL HANDLE ALL HAZARDOUS MATERIALS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. THE USE OF CONSTRUCTION EQUIPMENT WITHIN SENSITIVE AREAS SHALL BE MINIMIZED OR ELIMINATED ENTIRELY. TWO "HIGH" RISK SITES IDENTIFIED. CONSTRUCTION MATERIALS SHALL BE REMOVED AS SOON AS WORK SCHEDULES PERMIT. DB CONTRACTOR SHALL PERFORM ASBESTOS AND LEAD BASED PAINT ASSESSMENTS OF BRIDGES AND STRUCTURES PRIOR TO REHAB OR DEMOLITION.

AIR QUALITY:

DB CONTRACTOR SHALL EMPLOY DUST CONTROL MEASURES.



ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS
EPIC (FW)

SHEET 1 OF 1 SHEETS

NOV. 2013	DIST.	FED. NO.	PROJECT NO.	HIGHWAY
REVISIONS:	FTW	-	02282-SH-360 PS-PO	SH 360
	COUNTY	CONT.	SECT.	JOB
	ELLIS, JOHNSON, TARRANT	2266	02	136
				SHEET
				1

Texas Department of Transportation
TECHNICAL PROVISIONS

STATE HIGHWAY 360

Attachment 5-1

Municipal Maintenance Agreement
Operation and Maintenance of Traffic Signals

*Fully Executed
Grand Prairie Agreement*

MEMORANDUM

TO: Mr. Wallace Ewell
Fort Worth District Office

DATE: November 17, 1993

FROM: Gary K. Trietsch, P.E.

Originating Office
Traffic Operations-TE

SUBJECT: Traffic Signal Agreement - Type R

Attached for your file and distribution is one signed copy of the subject agreement executed between the State and the City of Grand Prairie.

An original agreement is being retained for the files of the Traffic Engineering Section of the Traffic Operations Division.

LW:cn
Attachment

*Devidas B. Thilani P.E.
for GKT*

NOV 19 1993

DISTRICT 2 TRAFFIC OPERATIONS GROUP	
DTO <u>W</u>	DTE <u>W</u>
ADMIN _____	TRAF SAFE _____
SIGNALS _____	SIG SHOP _____
SIGNS _____	COUR PATR _____
TRAF MGT _____	BICYCLES _____
TRAF OPS _____	AUTOMATION _____
RR _____	
COMMENTS: _____	

S DEPT. OF TRANS. FORT WORTH, TEXAS		
Distribution	_____	
Remarks	_____	
NOV 19 1993		
DE <input type="checkbox"/>	DM <input type="checkbox"/>	WHSE <input type="checkbox"/>
DDE <input type="checkbox"/>	DC <input type="checkbox"/>	LAB <input type="checkbox"/>
DA <input type="checkbox"/>	DTO <input checked="" type="checkbox"/>	<input type="checkbox"/>
TPD <input type="checkbox"/>	ROW <input type="checkbox"/>	<input type="checkbox"/>

TERRY M. GIBBS

Contract No. 3051

AGREEMENT FOR THE
INSTALLATION AND REIMBURSEMENT FOR THE
OPERATION AND MAINTENANCE OF
TRAFFIC SIGNALS WITHIN A MUNICIPALITY

STATE OF TEXAS §
COUNTY OF TRAVIS §

This AGREEMENT made by and through the State of Texas acting by and through the Texas Department of Transportation, hereinafter called the "State" and the City of Grand Prairie, hereinafter called the "City," acting by and through its duly authorized officers, as evidenced by Resolution/Ordinance No. 3051, executed on 9-7-93, hereinafter acknowledged by reference.

W I T N E S S E T H

WHEREAS, by virtue of a Municipal Maintenance Agreement entered into by the City and the State on the 13th day of May, 1969, the State has been authorized to maintain certain highway routes within the City; and

WHEREAS, from time to time the City requests the State to install traffic signals on certain highways within the City; and

WHEREAS, in accordance with Texas Administrative Code: Title 43 Texas Administrative Code Section 25.5, on the 27th day of May, 1987, the State Highway and Public Transportation Commission now the Texas Transportation Commission passed Commission Minute Order No. 85777, authorizing the State to install, operate and maintain traffic signals on: (a) highway routes not designated as full control of access inside the corporate limits of cities, having a population less than 50,000

(latest Federal Census); and (b) highways designated as full control of access in all cities; and

WHEREAS, the City has a population of ^{more} ~~(over/less)~~ than 50,000 population according to the latest Federal Census; and

WHEREAS, the City requests the State to assume the installation, operation and maintenance responsibilities of the signalized intersections as shown in EXHIBIT 1, attached hereto and made a part of this Agreement; and

WHEREAS, the City agrees to maintain and operate the signalized intersections with the State reimbursing the City for all maintenance and operations costs at a flat rate per location as shown on EXHIBIT 3.

NOW, therefore, in consideration of the premises and of the mutual covenants and agreements of the parties hereto to be by them respectively kept and performed, as hereinafter set forth, it is agreed as follows:

A G R E E M E N T

Article 1. Contract Period

This Agreement becomes effective when fully executed by the City and the State and shall remain in force for a period of one year from the date of final execution by the State and shall be automatically renewed annually for a one year period, unless modified by mutual agreement of both parties, or terminated as hereinafter provided.

Article 2. Construction Responsibilities

A. The State shall prepare or cause to be prepared the plans and specifications, advertise for bids, let the construction contract, or otherwise provide for the construction of new traffic signals and/or reconstruction of existing traffic signals (including, at the State's

option, any special auxiliary equipment, interconnect and/or communication material and equipment), and will supervise construction, reconstruction or betterment work as required by said plans and specifications. As a project is developed to construction stage, either as a unit or in increments, the State will submit plans and specifications of the proposed work to the City and will secure the City's consent to construct the traffic signal prior to awarding the contract; said City consent to be signified by the signatures of duly authorized City officers in the spaces provided on the title sheet of plans containing the following notation:

"Attachment No. _____ to special Agreement for construction, maintenance and operation of traffic signals within municipality, dated 11-17-93."

The City-State construction, maintenance and operation responsibilities shall be as heretofore agreed to, accepted, and specified in the Agreement to which these plans are made a part."

B. All costs of construction and/or reconstruction of new and existing traffic signals will be borne by the State, and the traffic signal system will remain the property of the State.

Article 3. Maintenance, Operation, and Power Responsibilities

A. The State shall be responsible for all electrical power costs for the operation of the traffic signals covered by this Agreement and shown on EXHIBIT 1. Power costs shall be billed as specified in EXHIBIT 2, "Traffic Signal Maintenance and Operations Provisions," attached hereto and made a part of this Agreement.

B. The City will provide a trained staff to maintain and operate the traffic signals shown on EXHIBIT 1, and the State will reimburse the

City at the flat rate shown in EXHIBIT 3 for parts and labor. All repairs shall be prioritized based on public safety and made as soon as possible.

C. The City shall maintain and operate the traffic signals in accordance with the minimum requirements specified in EXHIBIT 2.

D. The City shall maintain at least one log of all emergency calls and all routine maintenance.

E. Routine maintenance will be performed by the city as specified in EXHIBIT 2.

Article 4. Compensation

A. The maximum amount payable under this Agreement is \$12,171.96 per year.

B. Calculations for the above lump sum amount shall be shown in EXHIBIT 3, attached hereto and made a part of this Agreement for maintaining and operating the traffic signal installations covered under this Agreement.

C. The addition or deletion of traffic signals shall be made by supplemental agreement.

Article 5. Payment

A. The State agrees to reimburse the City at the flat rate shown in EXHIBIT 3 for maintenance and operation costs for the traffic signals described in EXHIBIT 1. The City shall submit to the State Form 132, "Billing Statement," or an invoice statement acceptable to the State on a (~~monthly~~/quarterly/~~annual~~ basis). An original Form 132 or acceptable invoice and four copies shall be submitted to the following address:

Texas Department of Transportation
P.O. Box 6868
Fort Worth, TX 76115

B. The City shall maintain a system of records necessary to support and establish the eligibility of all claims for payment under the terms of this Agreement. These records may be reviewed at any time to substantiate the payment by the State and/or determine the need for an adjustment in the amount paid by the State.

C. The State shall make payment to the City within 30 days from receipt of the City's request for payment, provided that the request is properly prepared.

D. Knockdowns or damage resulting from accident or act of God and requiring emergency replacement of major equipment shall not be included in the (~~monthly~~/ quarterly/~~XXXXXX~~) payments. For eligibility of payment for emergency replacement of major equipment, actual cost shall be submitted to the State for review and determination of reimbursement eligibility.

E. Payment for the addition or deletion of a traffic signal installation shall be made by supplemental agreement.

Article 6. Indemnification

To the extent permitted by law, the City shall indemnify and save harmless the State, its agents or employees, from all suits, actions or claims and from all liability and damages for any and all injuries or damages sustained by any person or property in consequence of any neglect in the performance, or failure of performance by the City, its agents, officers and employees, under this Agreement.

Article 7. Termination

A. This Agreement may be terminated by any of the following conditions:

- (1) By mutual agreement and consent of both parties.

- (2) By the State upon thirty (30) days written notice to the City for failure of the City to provide adequate maintenance and operation services for those traffic signal installations which the City has agreed to maintain and operate.
- (3) By the State upon sixty (60) days written notice to the City that the State will assume operation and maintenance at the end of the one (1) year period of this contract.
- (4) By the City upon one hundred twenty (120) days written notice to the State.

B. In the event this Agreement is terminated by any of the above conditions, the maintenance and operation of the traffic signal systems shall become the responsibility of the State. Any State owned equipment being held by the City shall be promptly returned within 30 calendar days to the State upon termination of this Agreement.

Article 8. Subletting

The City shall not sublet or transfer any portion of the work under this Agreement unless specifically approved in writing by the State. All subcontracts shall include the provisions required in this contract and shall be approved in writing by the State.

Article 9. Amendments

Changes in the character, costs, provisions in the attached exhibits, responsibilities or obligations authorized herein shall be enacted by written amendment. Any amendment to this Agreement must be executed by both parties.

Article 10. Successors and Assigns

The State and the City bind themselves, successors, assigns and legal representatives to the other party to this Agreement and the successors,

assigns and legal representatives of such other party to all covenants and provisions provided herein. Furthermore, the City shall not assign, sublet or transfer any interests in this Agreement without the written consent of the State.

Article 11. Legal Construction

In case any one or more of the provisions contained in this Agreement shall for any reason, be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision thereof and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

Article 12. Prior Agreements Superseded

This Agreement constitutes the sole and only agreement of the parties hereto and supersedes any prior understandings or written or oral agreements between the parties respecting the within subject matter.

Article 13. Gratuities

Texas Transportation Commission policy mandates that employees of the Department shall not accept any benefits, gifts or favors from any person doing business or who reasonably speaking may do business with the State under this contract. The only exceptions allowed are ordinary business lunches and items that have received the advanced written approval of the Texas Department of Transportation Executive Director. Any person doing business with or who reasonably speaking do business with the State under this contract may not make any offer of benefits, gifts or favors to Departmental employees, except as mentioned hereabove. Failure on the part of the City to adhere to this policy may result in the termination of this contract.

IN WITNESS WHEREOF, the parties have executed duplicate counterparts to effectuate this Agreement.

The City of: Grand Prairie

By: *Tony Sawyer*
(Name)

City Manager
(Title)

9-13-93
(Date)

ATTEST:

Sue Shawver
City Secretary

THE STATE OF TEXAS

Certified as being executed for the purpose and affect of activating and/or carrying out the orders, established policies, or work programs heretofore approved and authorized by the Texas Transportation Commission under the authority of Minute Order 100002.

By: *Devadas B. Thilani*, P.E.
for Director, Traffic Operations Division

Date: 11-17-93

"Reviewed by City Attorney,
TLW"

EXHIBIT I

SIGNALIZED INTERSECTIONS ON STATE HIGHWAYS LOCATED WITHIN THE CITY
OF GRAND PRAIRIE

LOCATION	TYPE OF SIGNAL
I.	<u>DIAMOND WITH ONE CONTROLLER</u>
1. SH360 & Carrier Pkwy.	
2. SH360 with Post & Paddock	
II.	<u>DIAMOND WITH TWO CONTROLLERS</u>
1. IH20 & Great S. W. Pkwy.	

EXHIBIT 2

TRAFFIC SIGNAL MAINTENANCE AND OPERATION PROVISIONS

The maintaining and operating agency agrees to:

1. Lamps shall be replaced as outages are reported or detected in routine maintenance of signal system. All replacement lamps shall equal the wattage and type of the existing lamp.
2. Keep signal posts and controller pedestals and foundations in alignment.
3. Keep signal posts and controller pedestals tight on foundations.
4. Keep signal heads aligned and controller cabinets tight on their pedestals and properly adjusted.
5. Check the controllers, conflict monitors, loop amplifiers, relays, and detectors a minimum of once every six months to ascertain that they are functioning properly and make all necessary repairs and replacements.
6. Keep interior of controller cabinets in a neat and clean condition at all times.
7. Clean cabinet, reflectors, lenses, and replace lamps a minimum of once every thirty months.
8. Repaint all highway traffic signal components exposed to weather with a non-lead based paint a minimum of once every five years. Plastic signal heads and galvanized and aluminum components are excluded.
9. Repair and/or replace any and all equipment that malfunctions or is damaged. Excluded from this is the replacement of obsolete equipment, equipment that is damaged beyond repair, and equipment that has been damaged by sources not under the City's control. The City will be reimbursed for any damages as a result of an accident, damage by contractors, or for the relocation of any equipment requested by the State.

10. Provide alternate traffic control equipment during a period when the equipment must be repaired. This may be accomplished through installation of spare equipment, placing the intersection on flash, manually operating the controller, setting the timing until repairs can be made, or manually directing traffic through the use of proper authorities and in accordance with the Texas manual on Uniform Traffic Control Devices.
11. Provide maintenance personnel trained in the maintenance of traffic signal equipment who will be available to respond to emergency calls from authorized parties 24 hours a day, including Saturdays, Sundays and holidays.
12. Provide the State and local law enforcement agencies the location and telephone number for emergency maintenance.
13. Document observations by trained City personnel of traffic signal operation at each traffic signal to assure fair distribution of time for all traffic movements (phases) during varying traffic conditions.
14. Check cabinet filter a minimum of one every six months and clean if necessary. Cabinet filter shall be replaced every two (2) years.
15. Document all observations, maintenance performed and corrective actions.
16. Repair or replace any vehicle loop detectors that have failed within ten (10) working days of notification. This is contingent that the road surface is suitable for the detector to be replaced. It will not be the responsibility of the City to repair the road surface before replacing the detector.

NOTE: Power cost shall be billed directly to the State.

EXHIBIT 3

Diamond Interchange Signals with one controller shall be reimbursed at \$3,582.00 per intersection per year.

Calculations: $\$298.50/\text{mo.} \times 12 \text{ months} = \$3,582.00/\text{yr.}$

Diamond Interchange signals with two or more controllers shall be reimbursed at \$5,007.96 per intersection per year.

Calculations: $\$417.33/\text{mo.} \times 12 \text{ months} = \$5,007.96/\text{yr.}$

GRAND PRAIRIE

EXHIBIT 3

Cost Summary of signalized intersections on State Highways located within the City of Grand Prairie

ITEM	TYPE OF SIGNAL	MONTHLY COST	QTY.	TOTAL MONTHLY COST	TOTAL ANNUAL COST
I.	Diamond w/one Controller	\$298.50	2	\$597.00	\$7,164.00
II.	Diamond w/two Controllers	417.33	1	417.33	5,007.96
			<u>3</u>	<u>\$1,014.33</u>	<u>\$12,171.96</u>
					15,753.96

A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE AN AGREEMENT WITH TEXAS DEPARTMENT OF TRANSPORTATION FOR THE INSTALLATION AND REIMBURSEMENT FOR THE OPERATION MAINTENANCE OF TRAFFIC SIGNALS ON CONTROLLED ACCESS FACILITIES

WHEREAS, the Texas Department of Transportation (TxDOT) has requested that the City enter into an agreement for the installation and reimbursement for the operation and maintenance of traffic signals on controlled access facilities within a municipality;

WHEREAS, the City agrees to maintain and operate the signalized intersections with the State reimbursing the City for all maintenance and operations costs at a flat rate per signal located along control access highways within the City's corporate limits.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GRAND PRAIRIE, TEXAS;

Section 1: THAT the City Manager is hereby authorized to execute an agreement with and between the City and the State of Texas acting by and through the Texas Department of Transportation;

Section 2: THAT a copy of the agreement is attached hereto and made a part hereof as if fully set out herein;

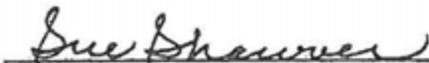
Section 3: THAT this resolution shall be in full force and effect from and after its passage and approval.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF GRAND PRAIRIE, TEXAS THIS 7th DAY OF September, 1993.



MAYOR, CITY OF GRAND PRAIRIE, TEXAS

ATTEST:


City Secretary

APPROVED AS TO FORM:


City Attorney - TLA

10-5-93

Post-It™ brand fax transmittal memo 7571 # of pages > |

To	Gerry Ribbo	From	Richard Rino
Co.	TxDOT	Co.	
Dept.		Phone #	660-8133
Fax #	(817) 370-6707	Fax #	264-9086

A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE AN AGREEMENT WITH TEXAS DEPARTMENT OF TRANSPORTATION FOR THE INSTALLATION AND REIMBURSEMENT FOR THE OPERATION MAINTENANCE OF TRAFFIC SIGNALS ON CONTROLLED ACCESS FACILITIES

WHEREAS, the Texas Department of Transportation (TxDOT) has requested that the City enter into an agreement for the installation and reimbursement for the operation and maintenance of traffic signals on controlled access facilities within a municipality;

WHEREAS, the City agrees to maintain and operate the signalized intersections with the State reimbursing the City for all maintenance and operations costs at a flat rate per signal located along control access highways within the City's corporate limits.

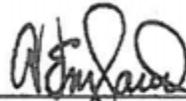
NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GRAND PRAIRIE, TEXAS;

Section 1: THAT the City Manager is hereby authorized to execute an agreement with and between the City and the State of Texas acting by and through the Texas Department of Transportation;

Section 2: THAT a copy of the agreement is attached hereto and made a part hereof as if fully set out herein;

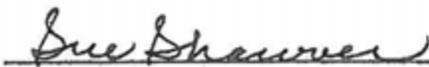
Section 3: THAT this resolution shall be in full force and effect from and after its passage and approval.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF GRAND PRAIRIE, TEXAS THIS 7th DAY OF September, 1993.



MAYOR, CITY OF GRAND PRAIRIE, TEXAS

ATTEST:



City Secretary

APPROVED AS TO FORM:



City Attorney

10-5-93

Post-It™ brand fax transmittal memo 7671 # of pages > |

To <u>Gerry Sizoo</u>	From <u>Richard Rino</u>
Co. <u>TxDOT</u>	Co.
Dept.	Phone # <u>660-8133</u>
Fax # <u>(817) 370-6707</u>	Fax # <u>264-9086</u>

STATE OF TEXAS §
COUNTY OF TRAVIS §

**SUPPLEMENTAL AGREEMENT NO. 5 TO
AGREEMENT FOR THE INSTALLATION AND REIMBURSEMENT
FOR THE OPERATION AND MAINTENANCE OF TRAFFIC SIGNALS
WITHIN A MUNICIPALITY**

WHEREAS, on the 17th day of November, 1993, an Agreement for the Installation and Reimbursement for the Operation and Maintenance of Traffic Signals within a Municipality was entered into by and between the Texas Department of Transportation hereinafter called the "State," and the City of Grand Prairie, hereinafter called the "City," and subsequently identified the agreement as Contract Number 3051; and

WHEREAS, the parties to this agreement have mutually determined that it is necessary to amend the original agreement due to the following reasons: Add two (2) Signalized Intersections

NOW, THEREFORE, Contract No. 3051 is amended as follows:

EXHIBIT 1

EXHIBIT 1 is amended to add the traffic signals installations at the following intersections:

- SH 360 at Webb Lynn
- SH 260 at New York Avenue.

A copy of the revised EXHIBIT 1 is attached hereto and made a part of this agreement.

Article 4. Compensation

The maximum amount payable under this agreement is increased from \$29,351.88 to \$36,515.88 per year in accordance with the above changes. Calculations for the increase/decrease to the maximum amount payable are as follows:

AMOUNT OF THIS SUPPLEMENTAL AGREEMENT	\$ <u>7,164.00</u>
ORIGINAL MAXIMUM AMOUNT PAYABLE PER YEAR	\$ <u>12,171.96</u>
TOTAL PREVIOUS SUPPLEMENTAL AGREEMENTS	\$ <u>17,179.92</u>
REVISED MAXIMUM AMOUNT PAYABLE PER YEAR	\$ <u>36,515.88</u>

ARTICLE 5. Payment

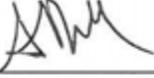
The amount of this supplemental agreement shown above shall be a prorated amount based on the cost for the type of installation calculated on EXHIBIT 3 of the original agreement and any increases or decreases caused by any subsequent supplemental agreements. The (monthly/quarterly/annual) payment shall be adjusted accordingly.

All other terms or conditions are unchanged and remain in full force and effect.

IN TESTIMONY WHEREOF, the parties hereto have caused these presents to be executed in duplicate on the dates shown hereinbelow.

THE CITY OF GRAND PRAIRIE
Executed on behalf of the City by:



By  Date 1/28/08

Typed or Printed Name and Title Anna Doll

Deputy City Manager

ATTEST:

By  Date 1/28/08
City Secretary

THE STATE OF TEXAS

Executed for the Executive Director and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

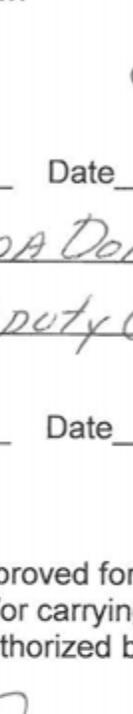
for  Date 2/29/08
Maribel P. Chavez, P.E.
District Engineer

EXHIBIT 1

Signalized intersections on State Highways located in the City of Grand Prairie.

LOCATION	TYPE OF SIGNAL
<ol style="list-style-type: none"> 1. SH 360 at Carrier Parkway 2. SH 360 at Post & Paddock 3. SH 360 at Green Oaks Boulevard 4. SH 360 at Fountain Parkway 5. SH 360 at Webb Lynn 6. SH 360 at New York Avenue 	<p><u>Diamond with one (1) Controller</u></p> <p>Original Agreement Original Agreement Supplemental Agreement 1 Supplemental Agreement 2 Supplemental Agreement 5 Supplemental Agreement 5</p> <p><u>Diamond with two (2) Controllers.</u></p>
<ol style="list-style-type: none"> 1. IH 20 at Great Southwest Parkway 2. SH 360 at Harwood/Camp Wisdom Road 3. SH 360 at Ragland Road 	<p>Original Agreement Supplemental Agreement 3</p> <p>Supplemental Agreement 4</p>

EXHIBIT 3

Actuated Signals at conventional intersections and at Tee intersections shall be reimbursed at N/A per intersection per year.

Calculations:

Fixed Time Signal shall be reimbursed at N/A per intersection per year.

Calculations:

Diamond Interchange Signals with one controller shall be reimbursed at \$3,582.00 per intersection per year.

Calculations:

$\$298.50/\text{MO.} \times 12 \text{ MONTHS} = \$3,582.00/\text{YR.}$

Diamond Interchange Signals with two or more controllers shall be reimbursed at \$5007.96 per intersection per year.

Calculations:

$\$417.33/\text{MO.} \times 12 \text{ MONTHS} = \$5,007.96/\text{YR.}$

Sign Mounted Flashers shall be reimbursed at N/A per unit per year.

Calculations:

Overhead Flashing Beacons shall be reimbursed at N/A per intersection per year.

Calculations:

STATE OF TEXAS §
COUNTY OF TRAVIS §

**AGREEMENT FOR CITY TO ASSUME OPERATION
AND MAINTENANCE OF EXISTING SIGNALS
WHEN ANNEXED BY CITY OVER 50,000 POPULATION
OR CITY GROWS TO OVER 50,000 POPULATION**

THIS AGREEMENT, by and between the State of Texas, acting by and through the Texas Department of Transportation, called the "State," and the City of Mansfield, Tarrant County, Texas, acting by and through its duly authorized officials, called the "City." This agreement becomes effective when signed by the last party whose signing makes the agreement fully executed. The City, acting by and through its duly authorized officers under Attachment "A", Ordinance / Resolution, dated November 14, 2011 is attached to and made part of this agreement.

WITNESSETH

WHEREAS, there are highway traffic signal(s) in place at the location(s) shown on Attachment "B" - Locations, attached to and made a part of this agreement, and said highway traffic signal(s) having been installed, operated, and maintained by the State at a time when said location(s) were not within the corporate limits of a City of 50,000 population or over; and

WHEREAS, said location(s) are now within the corporate limits of a City of 50,000 population or over; and

WHEREAS, the State under the provisions of Title 43, Texas Administrative Code, Section 25.5, has authority to install, operate and maintain traffic signals on freeway type highways in all cities and on other highway routes in cities of less than 50,000 population (latest Federal Census); and

WHEREAS, the City has requested the State to leave the highway traffic signal(s) in place at the location(s) shown on Attachment "B" and has authorized the continued existence, use, operation, and maintenance of the highway traffic signal(s) by Attachment "A", Ordinance / Resolution.

NOW THEREFORE, in consideration of the premises and of the mutual covenants and agreements of the parties hereto to be by them respectively kept and performed, as hereinafter set forth, it is agreed as follows:

AGREEMENT

Article 1. The State will leave the highway traffic signal(s) in place at the location(s) shown on Attachment "B" - Locations.

Article 2. For location(s) listed on Attachment "B" as non-freeway locations:

VC

The City will operate and maintain the signal(s) at their expense.

Article 3. The City will pay all power costs for operating the signal(s).

The City shall be the responsible authority to make changes in the design and operation of the highway traffic signal(s) as it may deem necessary and advisable to promote the safe, convenient and orderly movement of traffic.

The City will return any and all parts of said highway traffic signal installation(s) to the State should they be removed by the City for any reason other than for installation on a State or Federal numbered highway route at a location approved by the State.

The City acknowledges that it is not an agent, servant, or employee of the State, and thus, is responsible for its own acts and deeds and for those of its agents or employees during the performance of the work defined in this agreement.

Article 4. For location(s) listed on Attachment "B" as freeway locations:

The State will operate and maintain the signal(s) at its expense.

The State will pay all power costs for operating the signal(s).

The City will exercise no control whatsoever over the operation, maintenance, use, or existence of the highway traffic signal(s) without written authority from the Texas Department of Transportation.

The State shall have the authority to make such changes in the design and operation of the highway traffic signal(s) as it may deem necessary and advisable to promote the safe, convenient, and orderly movement of traffic.

Article 5. General conditions for all locations shown on Attachment "B".

The City will be responsible for the police enforcement required for securing obedience to the highway traffic signal(s).

In the event the signal installation(s) covered by this Agreement become unnecessary or are removed for any reason, this Agreement shall terminate.

The State will not incur any financial obligation to the City as a result of this Agreement.

Any changes in the provisions of this Agreement or obligations of the parties hereto shall be enacted by a written amendment executed by both the State and the City.

In case one or more of the provisions contained in this Agreement shall for any reason be held invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions hereof and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

Article 6. All notices to either party by the other required under this Agreement shall be delivered personally or sent by certified or U.S. mail, postage prepaid, addressed to such party at the following respective addresses:

City:	State:
<u>The City of Mansfield</u> <u>1200 East. Broad St.</u> <u>Mansfield, TX 76063</u>	<u>Texas Department of Transportation</u> <u>2501 Southwest Loop 820</u> <u>Fort Worth, Texas 76133</u>

All notices shall be deemed given on the date so delivered or so deposited in the mail, unless otherwise provided herein. Either party hereto may change the above address by sending written notice of such change to the other in the manner provided herein.

Article 7. The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the contract or indirectly through a subcontract under the contract. Acceptance of funds directly under the contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

Article 8. At the request of the State, the Local Government shall submit any information required by the State in the format directed by the State

Article 9. This Agreement constitutes the sole and only agreement between the parties hereto and supersedes any prior understandings or written or oral agreements respecting the within subject matter.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed in duplicate on the dates shown herein below.

THE CITY OF Mansfield

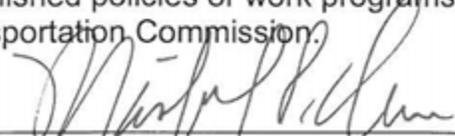
Executed on behalf of the City by:

By  Date _____

Typed or Printed Name and Title Clayton W. Chandler
City Manager

THE STATE OF TEXAS

Executed for the Executive Director and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By  Date 12/14/2011
Fort Worth District Engineer

ATTACHMENT "A"

11-2532

RESOLUTION NO. RE-2743-11

A RESOLUTION AUTHORIZING THE CITY OF MANSFIELD TO ENTER AN AGREEMENT WITH THE TEXAS DEPARTMENT OF TRANSPORTATION FOR THE CITY TO ASSUME OPERATION AND MAINTENANCE OF EXISTING TRAFFIC SIGNALS AND FLASHERS ON NON-FREEWAY STATE ROADWAYS

WHEREAS, it is recognized that it is the best interest of the citizens of the City of Mansfield that the City of Mansfield enter into a Agreement to assume operation and maintenance of existing traffic signals and flasher at non-freeway locations with the Texas Department of Transportation, and

WHEREAS, Texas Department of Transportation and the City of Mansfield have agreed to said terms of the Agreement, and

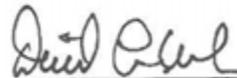
WHEREAS, the Texas Department of Transportation and the City of Mansfield have agreed to contract with each other for the City to assume operation and maintenance of existing TxDOT traffic signals and flashers at non-freeway locations within the City limits.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MANSFIELD, TEXAS, THAT:

SECTION 1.

The City of Mansfield enter into an Agreement for the City to assume operation of maintenance of existing TxDOT traffic signals and flashers at non-freeway locations within the City limits.

PASSED AND APPROVED THIS THE 14th DAY OF NOVEMBER, 2011.



David L. Cook, Mayor

ATTEST:



Vicki Collins, City Secretary

ATTACHMENT "B" - LOCATIONS

	MANSFIELD SIGNALS	TYPE OF ROADWAY
1	BU 287 P & BROAD STREET	NON-FREEWAY LOCATION
2	BU 287 P & FM 1187 / DEBBIE LANE	NON-FREEWAY LOCATION
3	BU 287 P & FM 157 / MOUSER	NON-FREEWAY LOCATION
4	BU 287 P & HUNT STREET	NON-FREEWAY LOCATION
5	BU 287 P & OAK STREET	NON-FREEWAY LOCATION
6	BU 287 P & PLEASNT RIDGE	NON-FREEWAY LOCATION
7	BU 287 P & TURNER WARNELL	NON-FREEWAY LOCATION
8	FM 1187 & GERTIE BARRETT	NON-FREEWAY LOCATION
9	FM 157 & DEBBIE LANE	NON-FREEWAY LOCATION
10	FM 157 & FORREST MILL TR.	NON-FREEWAY LOCATION
11	FM 157 & RUSSELL LANE	NON-FREEWAY LOCATION
12	FM 157 & TANGLEWOOD	NON-FREEWAY LOCATION
13	FM 157 & US 287 NB FR	FREEWAY LOCATION
14	FM 157 & US 287 SB FR	FREEWAY LOCATION
15	SH 360 NB FR & HOLLAND	FREEWAY LOCATION
16	SH 360 SB FR & HOLLAND	FREEWAY LOCATION
17	US 287 & BROAD STREET	FREEWAY LOCATION
18	US 287 & DEBBIE LANE	FREEWAY LOCATION
19	US 287 & WALNUT CREEK	FREEWAY LOCATION
20	SH 360 NB FR & EAST BROAD ST.	NON-FREEWAY LOCATION
21	SH 360 SB FR & EAST BROAD ST.	NON-FREEWAY LOCATION
	SCHOOL ZONE FLASHERS	
22	FM 1187 & GERTIE BARRETT WB	NON-FREEWAY LOCATION
23	FM 1187 & COASTLINE LANE EB	NON-FREEWAY LOCATION
24	FM 1187 EB & CARDINAL (SOLAR)	NON-FREEWAY LOCATION
25	FM 1187 WB & CARDINAL (SOLAR)	NON-FREEWAY LOCATION
26	BU 287 P NB & FM 1187 (SOLAR)	NON-FREEWAY LOCATION
27	BU 287 P SB & FM 1187 (SOLAR)	NON-FREEWAY LOCATION
28	BU 287 P NB & LONESTAR	NON-FREEWAY LOCATION
29	BU 287 P SB & LONESTAR (SOLAR)	NON-FREEWAY LOCATION
	ADVANCED FLASHERS	
30	FM 157 SB & US 287	NON-FREEWAY LOCATION
	FLASHING BEACONS	
31	BU 287 P & FM 157 / LONESTAR	NON-FREEWAY LOCATION
32	FM 917 & JESSICA DRIVE	NON-FREEWAY LOCATION

✓

RESOLUTION NO. RE-2743-11

A RESOLUTION AUTHORIZING THE CITY OF MANSFIELD TO ENTER AN AGREEMENT WITH THE TEXAS DEPARTMENT OF TRANSPORTATION FOR THE CITY TO ASSUME OPERATION AND MAINTENANCE OF EXISTING TRAFFIC SIGNALS AND FLASHERS ON NON-FREEWAY STATE ROADWAYS

WHEREAS, it is recognized that it is the best interest of the citizens of the City of Mansfield that the City of Mansfield enter into a Agreement to assume operation and maintenance of existing traffic signals and flasher at non-freeway locations with the Texas Department of Transportation, and

WHEREAS, Texas Department of Transportation and the City of Mansfield have agreed to said terms of the Agreement, and

WHEREAS, the Texas Department of Transportation and the City of Mansfield have agreed to contract with each other for the City to assume operation and maintenance of existing TxDOT traffic signals and flashers at non-freeway locations within the City limits.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MANSFIELD, TEXAS, THAT:

SECTION 1.

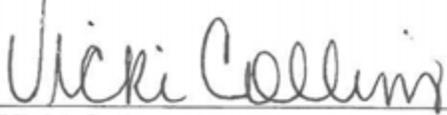
The City of Mansfield enter into an Agreement for the City to assume operation of maintenance of existing TxDOT traffic signals and flashers at non-freeway locations within the City limits.

PASSED AND APPROVED THIS THE 14th DAY OF NOVEMBER, 2011.



David L. Cook, Mayor

ATTEST:



Vicki Collins, City Secretary

Texas Department of Transportation
TECHNICAL PROVISIONS

STATE HIGHWAY 360

Attachment 5-2
Municipal Maintenance Agreement
Highway Lighting

**AGREEMENT FOR CONSTRUCTION, MAINTENANCE
AND OPERATION OF SAFETY LIGHTING
SYSTEMS WITHIN MUNICIPALITIES
(State Maintains and Contracts for Power)
(Blanket Agreement)**

STATE OF TEXAS §

COUNTY OF TRAVIS §

THIS AGREEMENT, dated this 22ND day of APRIL, 1998, by and between the State of Texas, hereinafter referred to as the "State," party of the first part, acting by and through the Texas Department of Transportation, and the City of Mansfield, Tarrant County, Texas, acting by and through its duly authorized officers under a resolution or ordinance passed the 25th day of August, 1997, hereinafter called the "City," party of the second part.

W I T N E S S E T H

WHEREAS, in order to provide a more adequate facility to the traveling public, the construction, maintenance, and operation of certain safety lighting systems is required within the corporate limits of the City. Within the City, said safety lighting system, hereinafter referred to as the "lighting system," is to consist of safety lighting to be built in sections as financed and designated by the Texas Transportation Commission; and

WHEREAS, the Executive Director, acting for and in behalf of the Texas Transportation Commission, has made it known to the City that the State will construct, maintain and operate said lighting systems, subject to the conditions and provisions stated herein, as provided for in Section 25.11, Texas Administrative Code and Article 6673b, Vernon's Texas Civil Statutes.

A G R E E M E N T

NOW THEREFORE, in consideration of the premises and of the mutual covenants and agreements of the parties hereto to be by them respectively

kept and performed as hereinafter set forth, it is agreed as follows:

1. CONSTRUCTION AND MAINTENANCE RESPONSIBILITIES

a. The State will prepare or provide for the plans and specifications, advertise for bids, let the construction contract, or otherwise provide for the construction, and will supervise construction, reconstruction, or betterment work as required by said plans and specifications. As a project is developed to construction stage, either as a unit or in increments, the State will submit plans and specifications of the proposed work to the City and will secure the City's consent to construct the lighting system prior to awarding the contract; said City consent to be signified by the signatures of duly authorized City officers in the spaces provided on the title sheet of plans containing the following notation:

"Attachment No. _____ to special AGREEMENT FOR CONSTRUCTION, MAINTENANCE, AND OPERATION OF SAFETY LIGHTING SYSTEMS WITHIN MUNICIPALITIES, dated _____. The City-State construction, maintenance, and operation responsibilities shall be as heretofore agreed to, accepted, and specified in the Agreement to which these plans are made a part."

b. All costs of construction, maintenance, and operation of the lighting system will be borne by the State, and the lighting system will remain the property of the state.

2. GENERAL

a. The State's obligation for operation and maintenance of the lighting system shall cease should the route on which it is located be dropped from the State Highway System.

b. This Agreement will cease to apply to sections of the lighting system in the event that those sections are removed or become a part of a continuous illumination system.

c. This Agreement shall remain in force for a period of two years from the date that it is signed by the State, and it is understood by both parties that at the end of the initial two-year period, the

Agreement will be automatically renewed for two-year periods thereafter unless modified by mutual agreement of both parties. In the event that the lighting system installed in accordance with this Agreement becomes unnecessary or is removed for any reason, this agreement will terminate.

d. Changes in time frame, character, cost, or obligations authorized herein shall be enacted by written amendment. Any amendment to this Agreement must be executed by both parties within the contract period.

e. This Agreement constitutes the sole and only agreement for lighting at the location described herein of the parties hereto and supersedes any prior understandings or written or oral agreement between the parties respecting the within subject matter.

IN WITNESS WHEREOF, the parties have thereunto affixed their signature, the City of Mansfield on the 26TH day of January, 1998, and the Texas Department of Transportation on the 22ND day of April, 1998.

CITY OF MANSFIELD
BY: Duane Murray
Signature
Duane Murray, Mayor
Type Name and Title

Date _____

THE STATE OF TEXAS

Executed for the Executive Director and approved for the Texas Transportation Commission under the Authority of Minute Order 100002 and Administrative Circular 26-93, for the purpose and effect of activating and/or carrying out the orders, established policies or work programs by the Texas Transportation Commission.

APPROVED:

By: Londell Laga
District Engineer

Ft Worth District

Date: 4-22-98

RESOLUTION NO. 1113

**A RESOLUTION AUTHORIZING THE CITY OF
MANSFIELD TO ENTER AN AGREEMENT WITH
THE TEXAS DEPARTMENT OF
TRANSPORTATION TO CONSTRUCT, MAINTAIN
AND OPERATE SAFETY LIGHTING SYSTEMS.**

WHEREAS, the Texas Department of Transportation desires to construct, maintain and operate safety lighting systems on state highways within the City of Mansfield; and,

WHEREAS, the City of Mansfield desires to allow the Texas Department of Transportation to perform this work for the safety of the traveling public.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MANSFIELD, TEXAS, THAT:

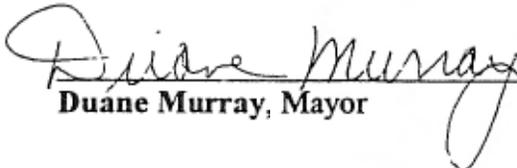
Section 1.

The Mayor is hereby authorized to execute an AGREEMENT FOR CONSTRUCTION, MAINTENANCE AND OPERATION OF SAFETY LIGHTING SYSTEMS WITHIN MUNICIPALITIES with the Texas Department of Transportation.

Section 2.

The Mayor is hereby authorized to indicate the City of Mansfield's consent of all projects by signing the title sheet of the construction plans.

PASSED AND APPROVED THIS THE 25th day of August, 1997.



Duane Murray, Mayor

ATTEST:



Judy Howard, City Secretary

Texas Department of Transportation
TECHNICAL PROVISIONS

STATE HIGHWAY 360

Attachment 5-3
Utility Joint Use Agreements

Dist.

Utility Joint Use Agreement (Controlled Access Highway)

Agreement No. U1-2782

THE STATE OF TEXAS

COUNTY OF TRAVIS

I
I
I

County TARRANT
Project No. F1128()
CSJ No. 2266-02-065
Account No. RW 8002-1-45
Highway No. SH 360
Limits: From STATION 815+00

To STATION 820+00

WHEREAS, the State of Texas, hereinafter called the State, acting by and through the State Department of Highways and Public Transportation, proposes to make certain highway improvements on that section of the above-indicated highway; and

WHEREAS, the TEXAS UTILITIES ELECTRIC COMPANY, hereinafter called the Owner, proposes to retain, locate or relocate certain of its facilities and retain title to any property rights it may have on, along or across, and within or over such limits of the highway right of way as indicated on the plans attached to Standard Utility Agreement as executed by Owner on the 31st day of February, 19 92, ~~or on location sketches attached hereto except as provided below;~~

NOW, THEREFORE, it is hereby mutually agreed that joint usage for both highway and utility purposes will be made of the area within the highway right of way limits as such area is defined and to the extent indicated on the aforementioned plans or sketches. Where Owner by reason of ownership of an easement or fee title or otherwise under law has the right to alter, modify or add to facilities presently located within the area above described or construct additional facilities therein, such right is hereby retained, provided, however, if existing facilities are to be altered or modified or new facilities constructed within said area the Owner agrees to notify the State Department of Highways and Public Transportation prior thereto, to furnish necessary sketches showing location, type of construction, and methods to be used for protection of traffic, and if, in the opinion of the State Department of Highways and Public Transportation, such alteration, modification, or new construction will injure the highway or endanger the traveling public using said highway, the State Department of Highways and Public Transportation shall have the right, within 30 days after the receipt of such notice, to prescribe such regulations as necessary for the protection of the highway facility and the traveling public using said highway; provided further, however, that such regulations shall not extend to the requiring of the placement of intended overhead lines underground or the routing of any lines outside of the area of joint usage above described.

Owner hereby agrees that access for servicing its facilities normally will be limited to access via (a) frontage roads where provided (b) nearby or adjacent public roads and streets, or (c) trails along or near the highway right of way lines, connecting only to an intersecting road; from any one or all of which entry may be made to the outer portion of the highway right of way. Where supports, manholes, or other appurtenances of the Owner's facilities are located in medians or interchange areas, access to them from the through-traffic roadways or ramps will be permitted but only by permits issued by the State to the Owner setting forth the conditions for policing and other controls to protect highway users. If an emergency situation occurs, and the usual means of access for service operations as herein provided will not permit the immediate action required by the Owner in making emergency repairs as required for the safety and welfare of the public, the Owner shall have a temporary right of access to and from the through-traffic roadways and ramp as necessary to accomplish the required emergency repairs.

Participation in actual costs incurred by the **Owner** for any future relocation or adjustment of utility facilities required by highway construction shall be in accordance with and to the extent possible under applicable laws of the State of Texas. Except as expressly provided herein, (1) the **Owner's** rights of access to the through-traffic roadways and/or ramps shall be subject to the same rules and regulations as apply to the general public, and (2) the **Owner** and the **State**, by the execution of this agreement, do not waive or relinquish any right which they may have under the law or Constitution, State or Federal.

In the event the **Owner** fails to comply with the requirements as set out herein, the **State** may take such action as it deems appropriate to compel compliance.

IN WITNESS WHEREOF, the parties hereto have affixed their signatures.

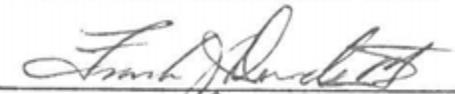
Owner: TEXAS UTILITIES ELECTRIC COMPANY

By: 
E. R. Holcomb

Title: Vice President

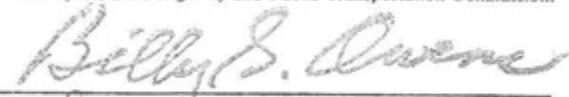
Date: Feb 17, 1992

EXECUTION RECOMMENDED:


for District Engineer

THE STATE OF TEXAS

Certified as being executed for the purpose and effect of activating and/or carrying out the orders, established policies, or work programs heretofore approved and authorized by the State Highway and Public Transportation Commission.

BY: 
for State Right of Way Engineer

Date: 3-13-92

* The Owner retains the right to review and approve the design for future excavation if the excavation is within 15 feet of the Owner's facilities.

Utility Joint Use Agreement
(Controlled Access Highway)

Agreement No. U/2783

THE STATE OF TEXAS
COUNTY OF TRAVIS

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I

County TARRANT
Project No. F 1128()
CSJ No. 2266 02 065
Account No. RW 8002-1-45
Highway No. S.H. 360
Limits: From STATION 745+00
To STATION 750+00

WHEREAS, the State of Texas, hereinafter called the **State**, acting by and through the State Department of Highways and Public Transportation, proposes to make certain highway improvements on that section of the above-indicated highway; and

WHEREAS, the TEXAS UTILITIES ELECTRIC COMPANY, hereinafter called the **Owner**, proposes to retain, locate or relocate certain of its facilities and retain title to any property rights it may have on, along or across, and within or over such limits of the highway right of way as indicated on the plans attached to Standard Utility Agreement as executed by **Owner** on the 25th day of November, 19 91, or on location sketches attached hereto except as provided below;

NOW, THEREFORE, it is hereby mutually agreed that joint usage for both highway and utility purposes will be made of the area within the highway right of way limits as such area is defined and to the extent indicated on the aforementioned plans or sketches. Where **Owner** by reason of ownership of an easement or fee title or otherwise under law has the right to alter, modify or add to facilities presently located within the area above described or construct additional facilities therein, such right is hereby retained, provided, however, if existing facilities are to be altered or modified or new facilities constructed within said area the **Owner** agrees to notify the State Department of Highways and Public Transportation prior thereto, to furnish necessary sketches showing location, type of construction, and methods to be used for protection of traffic, and if, in the opinion of the State Department of Highways and Public Transportation, such alteration, modification, or new construction will injure the highway or endanger the traveling public using said highway, the State Department of Highways and Public Transportation shall have the right, within 30 days after the receipt of such notice, to prescribe such regulations as necessary for the protection of the highway facility and the traveling public using said highway; provided further, however, that such regulations shall not extend to the requiring of the placement of intended overhead lines underground or the routing of any lines outside of the area of joint usage above described.

Owner hereby agrees that access for servicing its facilities normally will be limited to access via (a) frontage roads where provided (b) nearby or adjacent public roads and streets, or (c) trails along or near the highway right of way lines, connecting only to an intersecting road; from any one or all of which entry may be made to the outer portion of the highway right of way. Where supports, manholes, or other appurtenances of the **Owner's** facilities are located in medians or interchange areas, access to them from the through-traffic roadways or ramps will be permitted but only by permits issued by the **State** to the **Owner** setting forth the conditions for policing and other controls to protect highway users. If an emergency situation occurs, and the usual means of access for service operations as herein provided will not permit the immediate action required by the **Owner** in making emergency repairs as required for the safety and welfare of the public, the **Owner** shall have a temporary right of access to and from the through-traffic roadways and ramp as necessary to accomplish the required emergency repairs.

Participation in actual costs incurred by the **Owner** for any future relocation or adjustment of utility facilities required by highway construction shall be in accordance with and to the extent possible under applicable laws of the State of Texas. Except as expressly provided herein, (1) the **Owner's** rights of access to the through-traffic roadways and/or ramps shall be subject to the same rules and regulations as apply to the general public, and (2) the **Owner** and the **State**, by the execution of this agreement, do not waive or relinquish any right which they may have under the law or Constitution, State or Federal.

In the event the **Owner** fails to comply with the requirements as set out herein, the **State** may take such action as it deems appropriate to compel compliance.

IN WITNESS WHEREOF, the parties hereto have affixed their signatures.

Owner: TEXAS UTILITIES ELECTRIC COMPANY

EXECUTION RECOMMENDED:

By: 

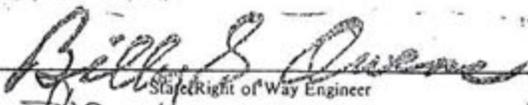
District Engineer

Title: VICE PRESIDENT

THE STATE OF TEXAS

Certified as being executed for the purpose and effect of activating and/or carrying out the orders, established policies, or work programs heretofore approved and authorized by the State Highway and Public Transportation Commission.

Date: Oct 31, 1991

BY: 
State Right of Way Engineer

Date: 2-3-92

Participation in actual costs incurred by the Owner for any future adjustment, removal or relocation of utility facilities required by highway construction shall be in accordance with and to the extent possible under applicable laws of the State of Texas. Except as expressly provided herein, (1) the Owner's rights of access to the through-traffic roadways and/or ramps shall be subject to the same rules and regulations as apply to the general public, and (2) the Owner and the State, by execution of this agreement, do not waive or relinquish any right which they may have under the law or Constitution, State or Federal.

In the event the Owner fails to comply with the requirements as set out herein, the State may take such action as it deems appropriate to compel compliance.

IN WITNESS WHEREOF, the parties hereto have affixed their signatures.

Owner: TU Electric

Utility Name

EXECUTION RECOMMENDED:

By: Joe R Thompson

Authorized Signature

Giddy C. Asedio P.E.
District Engineer, Texas Department of Transportation

Title: Senior Vice President

Date: 4/21/93

THE STATE OF TEXAS

Certified as being executed for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By: John P. Campbell P.E.

for Director of Right of Way
Texas Department of Transportation

Date: 04/10/93

38953

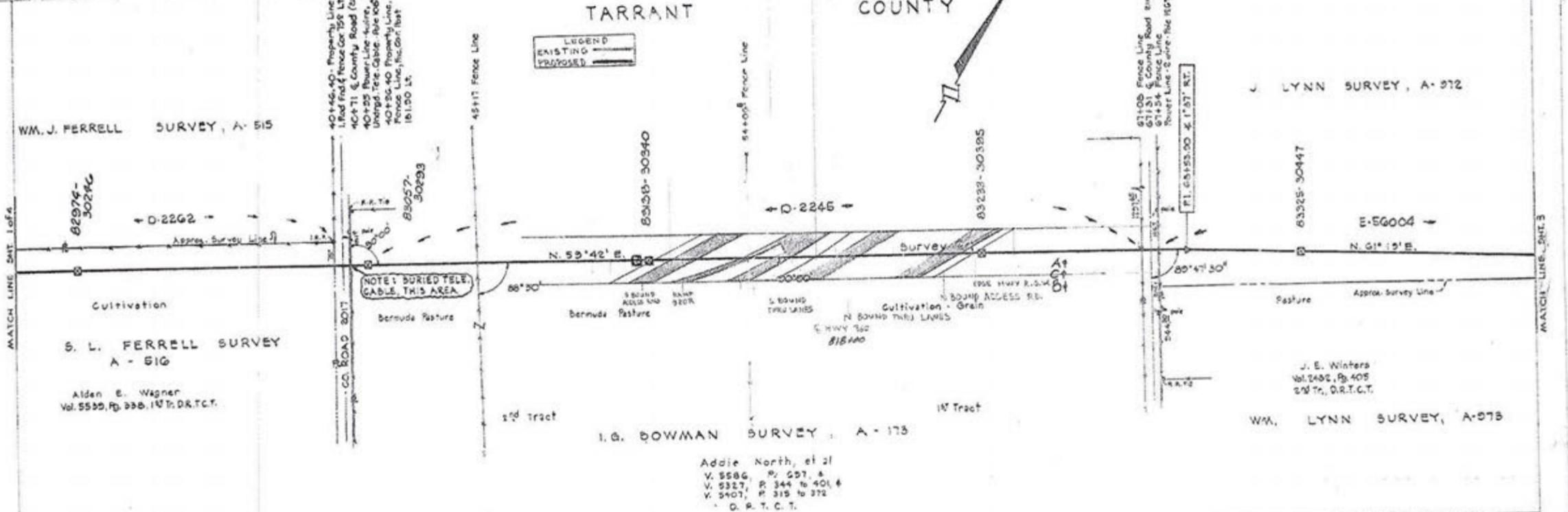
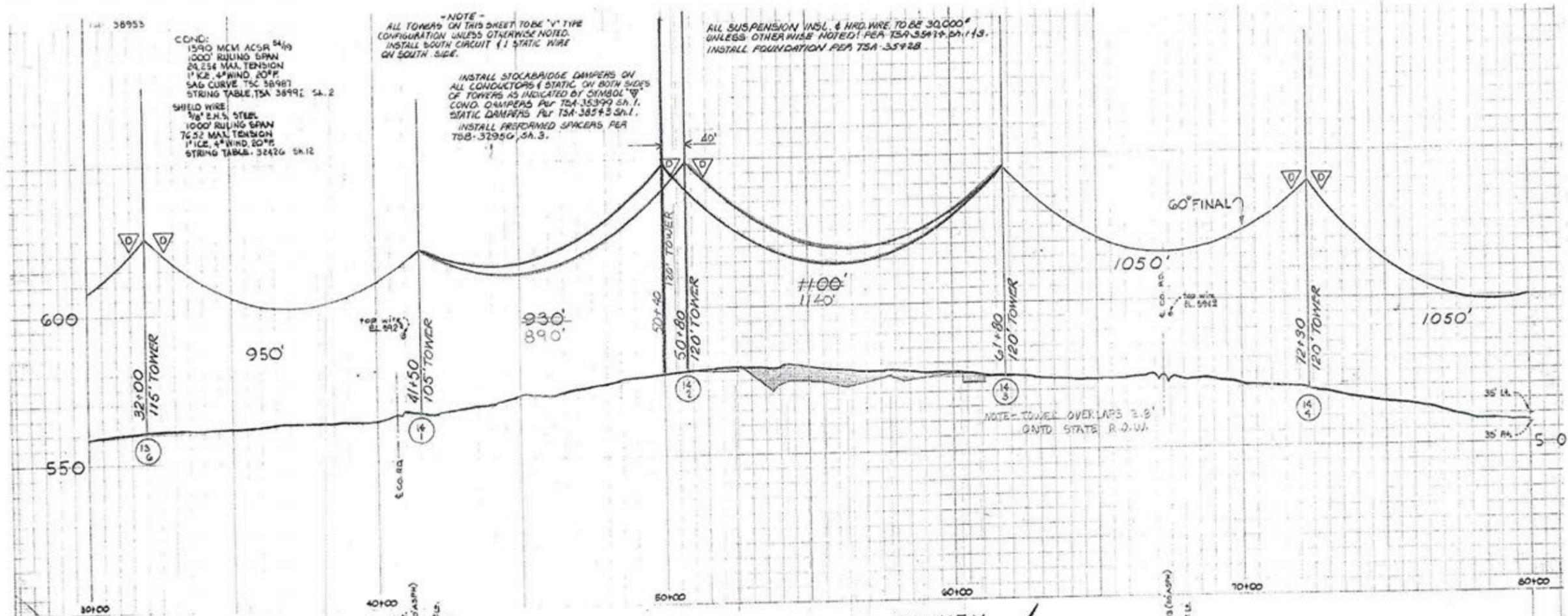
COND:
 1590 MCM ACSR 54/9
 1000' RULING SPAN
 24,254 MAA TENSION
 1" ICE, 4" WIND, 20" F
 SAG CURVE T5C 38987
 STRING TABLE T5A 38992 SA.2

SHIELD WIRE
 7/8" 2 X 5 STEEL
 1000' RULING SPAN
 7652 MAA TENSION
 1" ICE, 4" WIND, 20" F
 STRING TABLE 32426 SA.12

NOTE
 ALL TOWERS ON THIS SHEET TO BE "Y" TYPE
 CONFIGURATION UNLESS OTHERWISE NOTED.
 INSTALL SOUTH CIRCUIT (1) STATIC WIRE
 ON SOUTH SIDE.

INSTALL STOKABRIDGE DAMPERS ON
 ALL CONDUCTORS & STATIC ON BOTH SIDES
 OF TOWERS AS INDICATED BY SYMBOL "D"
 COND. DAMPERS PER T5A-35399 SA.1,
 STATIC DAMPERS PER T5A-38243 SA.1.
 INSTALL PREFORMED SPACERS PER
 T5B-32956 SA.3.

ALL SUSPENSION INSL. & HWD. WIRE TO BE 30,000#
 UNLESS OTHERWISE NOTED! PER T5A-35414 SA.113.
 INSTALL FOUNDATION PER T5A-35428.



Addie North, et al
 V. 5586, P. 257, &
 V. 5327, P. 344 to 401, &
 V. 5407, P. 315 to 372
 D. R. T. C. T.

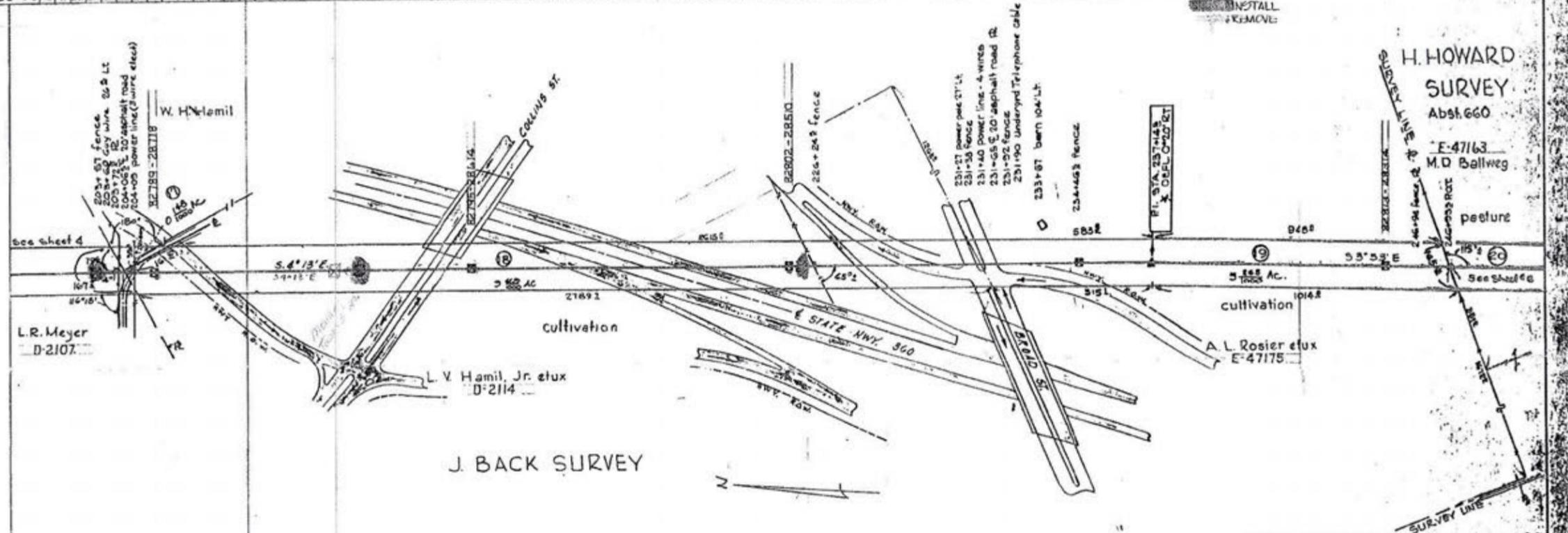
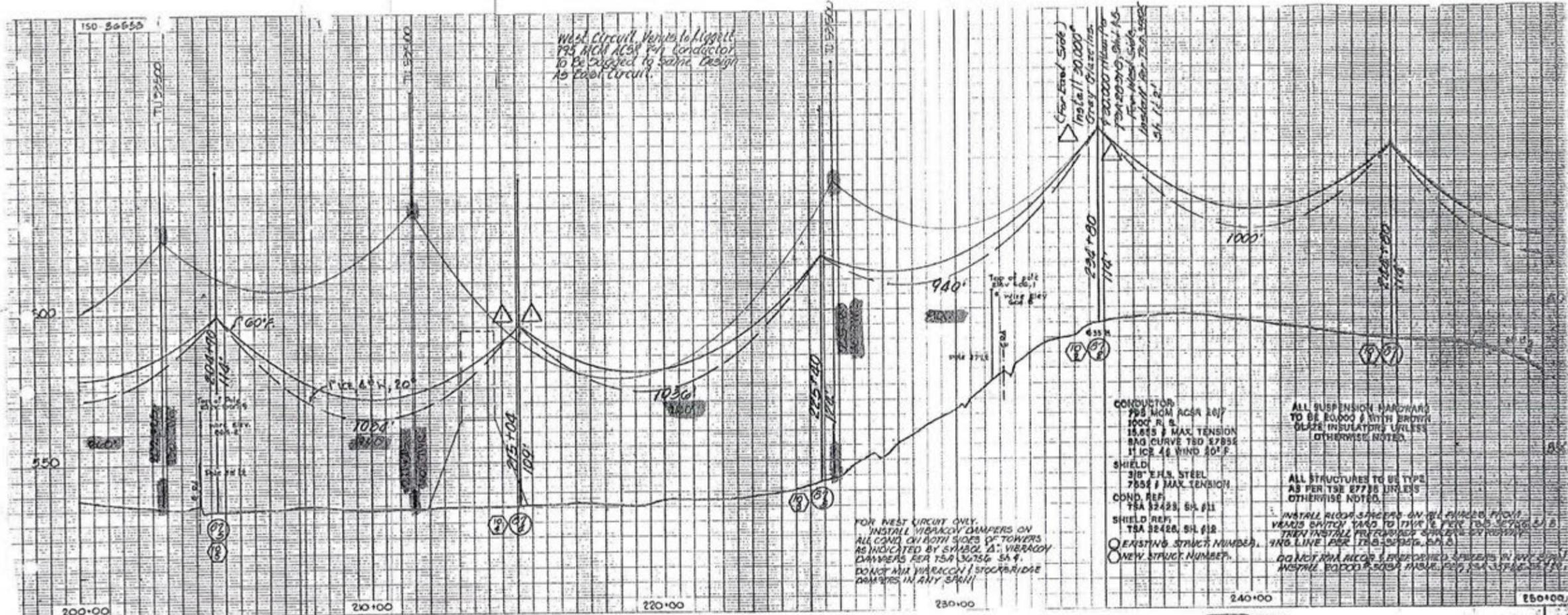
**VENUS - LIGGETT
 TRANSMISSION LINE**

DESIGNED BY
 TEXAS ELECTRIC SERVICE COMPANY
 FORT WORTH, TEXAS

SCALE:	APPROVED FOR:	DATE:	NO.:
1" = 400'	JAG	NOV 10, 1974	2
DATE:	PROJECT NO.:	DATE:	NO.:
NOV 10, 1974	1000000000	NOV 10, 1974	2

150 38953

NO.	DATE	REVISION
1	4-25-75	ADDED DEEP NUMBERS



NO.	DATE	REVISION
7	11/28/78	ACCD I.H. 360 ON PLAN
6	5/24/81	ADDED 1" ICE, 4" WIND 20" SAG
5	10-8-88	REV. SPAN BETWEEN 876 & 876
4	10-15-78	Changed Struct. numbers & Added Dampers
3	1-8-74	ADDED COORDINATE NUMBERS
2	5-16-73	ADD E & D NUMBER S
1	8/7/72	Relocated St. 876 6' North

CEDAR HILL - VENUS
345 KV TRANSMISSION LINE

ALIGNMENT MAP

TEXAS ELECTRIC SERVICE COMPANY
FORT WORTH, TEXAS

DATE: 8-2-71
SHEET: 5
PROJECT NO: 1910000

APPROVED FOR CONSTRUCTION: [Signature]

Texas Department of Transportation
TECHNICAL PROVISIONS

STATE HIGHWAY 360

Attachment 6-1

Utility Forms

- **PUAA- DB Contractor Managed**
- **PUAA – Owner Managed**
- **UAAA- DB Contractor Managed**
- **UAAA – Owner Managed**

County:
Highway:
Limits:
Fed. Proj. No.:
ROW CSJ No.:
Const. CSJ No.:

**PROJECT UTILITY ADJUSTMENT AGREEMENT
(Developer Managed)
Agreement No.: -U-_____**

THIS AGREEMENT, by and between _____, hereinafter identified as the "**Developer**", and _____, hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE OF TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as "TxDOT", is authorized to design, construct, operate, maintain, and improve turnpike projects as part of the state highway system throughout the State of Texas, all in conformance with the provisions of Chapters 201, 203, 222, 223, 224, and 228 Texas Transportation Code, as amended; and

WHEREAS, the TxDOT proposes to construct a toll project identified as the _____ Project (the "Project"); and

WHEREAS, pursuant to that certain Development Agreement by and between TxDOT and the Developer with respect to the Project (the "DA"), the Developer has undertaken the obligation to design, construct, finance, operate and maintain the Project and adhere to all requirements in the DA; and

WHEREAS, the Developer's duties pursuant to the DA include causing the relocation, removal or other necessary adjustment of existing utilities impacted by the Project (collectively, "Adjustment"), subject to the provisions herein; and

WHEREAS, the Project may receive Federal funding, financing and/or credit assistance; and

WHEREAS, the Developer has notified the Owner that certain of its facilities and appurtenances (the "Owner Utilities") are in locational conflict with the Project (and/or with the "Ultimate Configuration" of the Project), and the Owner has requested that the Developer undertake the Adjustment of the Owner Utilities as necessary to accommodate the Project (and the Ultimate Configuration) and Owner agrees that the "Project" will be constructed in accordance with §203.092, Texas Transportation Code, as amended, Rule 21.23 of Title 43 Tex. Admin. Code, and 23 CFR 645 Subpart A (Utility Relocations, Adjustments and Reimbursement); and

WHEREAS, the Owner Utilities and the proposed Adjustment of the Owner Utilities are described as follows *[insert below a description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00)]*:
_____; and

WHEREAS, the Owner recognizes that time is of the essence in completing the work contemplated herein; and

WHEREAS, the Developer and the Owner desire to implement the Adjustment of the Owner Utilities by entering into this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of these premises and of the mutual covenants and agreements of the parties hereto and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged, the Developer and the Owner agree as follows:

1. **Preparation of Plans.** [Check one box that applies:]

- The Developer has hired engineering firm(s) acceptable to the Owner to perform all engineering services needed for the preparation of plans, required specifications, and cost estimates, attached hereto as Exhibit A (collectively, the “Plans”), for the proposed Adjustment of the Owner Utilities. The Developer represents and warrants that the Plans conform to the most recent Utility Accommodation Rules issued by the Texas Department of Transportation (“TxDOT”), set forth in 43 Tex. Admin. Code Part 1, Chapter 21, Subchapter C *et seq.*, (the “UAR”). By its execution of this Agreement or by the signing of the Plans, the Owner hereby approves the Plans and confirms that the Plans are in compliance with the “standards” described in Paragraph 3(a)(4).

- The Owner has provided plans, required specifications and cost estimates, attached hereto as Exhibit A (collectively, the “Plans”), for the proposed Adjustment of the Owner Utilities. The Owner represents and warrants that the Plans conform to the UAR. By its execution of this Agreement, the Developer and the Owner hereby approve the Plans. The Owner also has provided to the Developer a utility plan view map illustrating the location of existing and proposed utility facilities on the Developer’s right of way map of the Project. With regard to its preparation of the Plans, the Owner represents as follows [*check one box that applies*]:
 - The Owner’s employees were utilized to prepare the Plans, and the charges therefore do not exceed the Owner’s typical costs for such work.

 - The Owner utilized consulting engineers to prepare the Plans, and the fees for such work are not based upon a percentage of construction costs. Further, such fees encompass only the work necessary to prepare the Plans for Adjustment of the Owner Utilities described herein, and do not include fees for work done on any other project. The fees of the consulting engineers are reasonable and are comparable to the fees typically charged by consulting engineers in the locale of the Project for comparable work for the Owner.

2. **Review by TxDOT.** The parties hereto acknowledge and agree as follows:

- (a) Upon execution of this Agreement by the Developer and the Owner, the Developer will submit this Agreement, together with the attached Plans, to TxDOT for its review and approval as part of a package referred to as a “Utility Assembly”. The parties agree to cooperate in good faith to modify this Agreement and/or the Plans, as necessary and mutually acceptable to all parties, to respond to any comments made by TxDOT thereon. Without limiting the generality of the foregoing, (i) the Owner agrees to respond (with comment and/or acceptance) to any modified Plans and/or Agreement prepared by the Developer in response to TxDOT comments within **fourteen (14) business days** after receipt of such modifications; and (ii) if the Owner originally prepared the Plans, the

Owner agrees to modify the Plans in response to TxDOT comments and to submit such modified Plans to the Developer for its comment and/or approval (and re-submittal to TxDOT for its comment and/or approval) within **fourteen (14) business days** after receipt of TxDOT's comments. The Owner's failure to timely respond to any modified Plans submitted by the Developer pursuant to this paragraph shall be deemed the Owner's approval of same. If the Owner fails to timely prepare modified Plans which are its responsibility hereunder, then the Developer shall have the right to modify the Plans for the Owner's approval as if the Developer had originally prepared the Plans. The process set forth in this paragraph will be repeated until the Owner, Developer and TxDOT have all approved this Agreement and accepted the Plans.

- (b) The parties hereto acknowledge and agree that TxDOT's review, comments, and/or approval of a Utility Assembly or any component thereof shall constitute TxDOT's approval of the location and manner in which a Utility Assembly will be installed, adjusted, or relocated within the state highway right of way (the "ROW"), subject to the Developer's and Owner's satisfactory performance of the Adjustment work in accordance with the approved Plans. TxDOT has no duty to review Owner Facilities or components for their quality or adequacy to provide the intended utility service.

3. **Design and Construction Standards.**

- (a) All design and construction performed for the Adjustment work which is the subject of this Agreement shall comply with and conform to the following:
 - (1) All applicable local and state laws, regulations, decrees, ordinances and policies, including the UAR, the Utility Manual issued by TxDOT (to the extent its requirements are mandatory for the Adjustment necessitated by the Project, as communicated to the Owner by the Developer, or TxDOT), the requirements of the DA, and the policies of TxDOT;
 - (2) All Federal laws, regulations, decrees, ordinances and policies applicable to projects receiving Federal funding, financing and/or credit assistance, including without limitation 23 CFR 645 Subparts A and B;
 - (3) The terms of all governmental permits or other approvals, as well as any private approvals of third parties necessary for such work; and
 - (4) The standard specifications, standards of practice, and construction methods (collectively, "standards") which the Owner customarily applies to utility facilities comparable to the Owner Utilities that are constructed by the Owner or for the Owner by its contractors at the Owner's expense, which standards are current at the time this Agreement is signed by the Owner, and which the Owner has submitted to the Developer in writing.
 - (5) Owner agrees that all service meters must be placed outside of the State ROW.
- (b) Such design and construction also shall be consistent and compatible with (i) the Developer's current design and construction of the Project, (ii) the "Ultimate Configuration" for the Project, and (iii) any other utilities being installed in the same vicinity. The Owner acknowledges receipt from the Developer of Project plans and Ultimate Configuration documents as necessary to comply with the foregoing. In

case of any inconsistency among any of the standards referenced in this Agreement, the most stringent standard shall apply.

- (c) The plans, specifications, and cost estimates contained in Exhibit A shall identify and detail all utility facilities that the Owner intends to abandon in place rather than remove, including material type, quantity, size, age, and condition. No facilities containing hazardous or contaminated materials may be abandoned, but shall be specifically identified and removed in accordance with the requirements of subparagraph (a). It is understood and agreed that the Developer shall not pay for the assessment and remediation or other corrective action relating to soil and ground water contamination caused by the utility facility prior to the removal.

4. **Responsibility for Costs of Adjustment Work.** With the exception of any Betterment (hereinafter defined), the parties shall allocate the cost of any Adjustment between themselves as identified in Exhibit A and in accordance with § 203.092, Texas Transportation Code. An allocation percentage may be determined by application of an eligibility ratio, if appropriate, as detailed in Exhibit A.

5. **Construction by the Developer.**

- (a) The Owner hereby requests that the Developer perform the construction necessary to adjust the Owner Utilities and the Developer hereby agrees to perform such construction. All construction work hereunder shall be performed in a good and workmanlike manner, and in accordance with the Plans (except as modified pursuant to Paragraph 16).
- (b) The Developer shall retain such contractor or contractors as are necessary to adjust the Owner Utilities.
- (c) The Developer shall obtain all permits necessary for the construction to be performed by the Developer hereunder, and the Owner shall cooperate in that process as needed.

6. **Reimbursement of Owner's Indirect Costs.**

- (a) Developer agrees to reimburse the Owner its share of the Owner's indirect costs (e.g., engineering, inspection, testing, ROW) as identified in Exhibit A. When requested by the Owner, monthly progress payments will be made. The monthly payment will not exceed 80% of the estimated indirect work done to date. Once the indirect work is complete, final payment of the eligible indirect costs will be made. Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

- (b) The Owner's indirect costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below [*check only one box*]:

(1) Actual related indirect costs accumulated in accordance with (i) a work order accounting procedure prescribed by the applicable Federal or State regulatory body, or (ii) established accounting procedure developed by the Owner and which the Owner uses in its regular operations (either (i) or (ii) referred to as "Actual Cost") or,

(2) The agreed sum of \$_____ ("Agreed Sum") as supported by the analysis of the Owner's estimated costs attached hereto as part of Exhibit A.

- (c) All indirect costs charged to the Developer by the Owner shall be reasonable and shall be computed using rates and schedules not exceeding those applicable to similar work

performed by or for the Owner at the Owner's expense. Developer's performance of the Adjustment work hereunder and payment of the Developer's share of the Owner's costs pursuant to this Agreement, if applicable, shall be full compensation to the Owner for all costs incurred by the Owner in Adjusting the Owner Utilities (including without limitation costs of relinquishing and/or acquiring right of way).

7. **Advancement of Funds by Owner for Construction Costs.**

(a) Advancement of Owner's share, if any, of estimated costs

Exhibit A shall identify all estimated engineering and construction-related costs, including labor, material, equipment and other miscellaneous construction items. Exhibit A shall also identify the Owner's and Developer's respective shares of the estimated costs.

The Owner shall advance to the Developer its allocated share, if any, of the estimated costs for construction and engineering work to be performed by the Developer, in accordance with the following terms:

- The adjustment of the Owner's Utilities does not require advancement of funds.
- The adjustment of the Owner's Utilities does require advancement of funds and the terms agreed to between the Developer and Owner are listed below.

[Insert terms of advance funding to be agreed between Developer and Owner.]

(b) Adjustment Based on Actual Costs or Agreed Sum

[Check the one appropriate provision, if advancement of funds is required]:

- The Owner is responsible for its share of the Developer's actual cost for the Adjustment, including the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Amendment, (i) the Owner shall pay to the Developers the amount, if any, by which the actual cost of the Betterment (as determined in Paragraph 9(b)) plus the actual cost of Owner's share of the Adjustment (based on the allocation set forth in Exhibit A) exceeds the estimated cost advanced by the Owner, or (ii) the Developer shall refund to the Owner the amount, if any, by which such advance exceeds such actual cost, as applicable.
- The Agreed Sum is the agreed and final amount due for the Adjustment, including any Betterment, under this Amendment. Accordingly, no adjustment (either up or down) of such amount shall be made based on actual costs.

8. **Invoices.** On invoices prepared by either the Owner or the Developer, all costs developed using the "Actual Cost" method described in Section 6(b)(1) shall be itemized in a format allowing for comparisons to the approved estimates, including listing each of the services performed, the amount of time spent and the date on which the service was performed. The original and three (3) copies of each invoice, together with (1) such supporting information to substantiate all invoices as reasonably requested, and (2) such waivers and releases of liens as the other party may reasonably require, shall be submitted to the other party at the address for notices stated in Paragraph 22, unless otherwise directed pursuant to Paragraph 22. The Owner and the Developer shall make commercially reasonable efforts to submit final invoices not later than one hundred twenty (120) days after completion of work. The Owner and the Developer hereby acknowledge and agree that any costs not submitted to the other party within eighteen months following completion of all Adjustment work to be performed by the parties pursuant to this Agreement shall be deemed to have been abandoned and waived.

9. **Betterment and Salvage**

(a) For purposes of this Agreement, the term "Betterment" means any upgrading of an Owner Utility being adjusted that is not attributable to the construction of the Project and is made solely for the benefit of and at the election of the Owner, including but not limited to an increase in the capacity, capability, efficiency or function of the adjusted Utility over that provided by the existing Utility facility or an expansion of the existing Utility facility; provided, however, that the following are not considered Betterments:

- (i) any upgrading which is required for accommodation of the Project;
- (ii) replacement devices or materials that are of equivalent standards although not identical;
- (iii) replacement of devices or materials no longer regularly manufactured with the next highest grade or size;
- (iv) any upgrading required by applicable laws, regulations or ordinances;
- (v) replacement devices or materials which are used for reasons of economy (e.g., non-stocked items may be uneconomical to purchase); or
- (vi) any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(d).

[Include the following for fiber optic Owner Utilities only:] Extension of an Adjustment to the nearest splice boxes shall not be considered a Betterment if required by the Owner in order to maintain its written telephony standards.

Any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(a)(4) shall be deemed to be of direct benefit to the Project.

(b) It is understood and agreed that the Developer shall not pay for any Betterments and that the Owner shall be solely responsible therefor. No Betterment may be performed hereunder which is incompatible with the Project or the Ultimate Configuration or which cannot be performed within the other constraints of applicable law, any applicable governmental approvals, including without limitation the scheduling requirements thereunder. Accordingly, the parties agree as follows *[check one box that applies, and complete if appropriate]*:

- The Adjustment of the Owner Utilities pursuant to the Plans does not include any Betterment.
- The Adjustment of the Owner Utilities pursuant to the Plans includes Betterment to the Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]*:_____. The Developer has provided to the Owner comparative estimates for (i) all work to be performed by the Developer pursuant to this Agreement, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Owner. The estimated cost of the Developer's work hereunder which is attributable to Betterment is \$_____, calculated by subtracting (ii) from (i). The percentage of the total cost of the Developer's work hereunder which is attributable to Betterment is _____%, calculated by subtracting (ii) from (i), which remainder is divided by (i).
- (c) If Paragraph 9(b) identifies Betterment, the Owner shall advance to the Developer, at least **fourteen (14) business days** prior to the date scheduled for commencement of construction for Adjustment of the Owner Utilities, the estimated cost attributable to Betterment as set forth in Paragraph 9(b). Should the Owner fail to advance payment to the Developer fourteen (14) business days prior to commencement of the Adjustment construction, the Developer shall have the option of commencing and completing (without delay) the Adjustment work without installation of the applicable Betterment. *[If Paragraph 9(b) identifies Betterment, check the one appropriate provision]:*
- The estimated cost stated in Paragraph 9(b) is the agreed and final amount due for Betterment hereunder, and accordingly no adjustment (either up or down) of such amount shall be made based on actual costs.
- The Owner is responsible for the Developer's actual cost for the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Agreement, (i) the Owner shall pay to the Developer the amount, if any, by which the actual cost of the Betterment (determined as provided below in this paragraph) exceeds the estimated cost advanced by the Owner, or (ii) the Developer shall refund to the Owner the amount, if any, by which such advance exceeds such actual cost, as applicable. Any additional payment by the Owner shall be due within **sixty (60) calendar days** after the Owner's receipt of the Developer's invoice therefor, together with supporting documentation; any refund shall be due within **sixty (60) calendar days** after completion of the Adjustment work hereunder. The actual cost of Betterment incurred by the Developer shall be calculated by multiplying (i) the Betterment percentage stated in Paragraph 9(b), by (ii) the actual cost of all work performed by the Developer pursuant to this Agreement (including work attributable to the Betterment), as invoiced by the Developer to the Owner.
- (d) If Paragraph 9(b) identifies Betterment, the amount allocable to Betterment in Owner's indirect costs shall be determined by applying the percentage of the Betterment calculated in Paragraph 9(b) to the Owner's indirect costs. The Owner's invoice to the Developer for the Developer's share of the Owner's indirect costs shall credit the Developer with any Betterment amount determined pursuant to this Paragraph 9(d).
- (e) For any Adjustment from which the Owner recovers any materials and/or parts and retains or sells the same, after application of any applicable Betterment credit, the

Owner's invoice to the Developer for its costs shall credit the Developer with the salvage value for such materials and/or parts..

- (f) The determinations and calculations of Betterment described in this Paragraph 9 shall exclude right of way acquisition costs. Betterment in connection with right-of-way acquisition is addressed in Paragraph 15.
10. **Management of the Adjustment Work.** The Developer will provide project management during the Adjustment of the Owner Utilities.
11. **Utility Investigations.** At the Developer's request, the Owner shall assist the Developer in locating any Utilities (including appurtenances) which are owned and/or operated by Owner and may be impacted by the Project. Without limiting the generality of the foregoing, in order to help assure that neither the adjusted Owner Utilities nor existing, unadjusted utilities owned or operated by the Owner are damaged during construction of the Project, the Owner shall mark in the field the location of all such utilities horizontally on the ground in advance of Project construction in the immediate area of such utilities.
12. **Inspection and Acceptance by the Owner.**
- (a) Throughout the Adjustment construction hereunder, the Owner shall provide adequate inspectors for such construction. The work shall be inspected by the Owner's inspector(s) at least once each working day, and more often if such inspections are deemed necessary by Owner. Further, upon request by the Developer or its contractors, the Owner shall furnish an inspector at any reasonable time in which construction is underway pursuant to this Agreement, including occasions when construction is underway in excess of the usual forty (40) hour work week and at such other times as reasonably required. The Owner agrees to promptly notify the Developer of any concerns resulting from any such inspection.
- (b) The Owner shall perform a final inspection of the adjusted Owner Utilities, including conducting any tests as are necessary or appropriate, within **five (5) business days** after completion of construction hereunder. The Owner shall accept such construction if it is consistent with the performance standards described in Paragraph 3, by giving written notice of such acceptance to the Developer within said **five (5) day** period. If the Owner does not accept the construction, then the Owner shall, not later than the expiration of said **five (5) day** period, notify the Developer in writing of its grounds for non-acceptance and suggestions for correcting the problem, and if the suggested corrections are justified, the Developer will comply. The Owner shall re-inspect any revised construction (and re-test if appropriate) and give notice of acceptance, not later than **five (5) business days** after completion of corrective work. The Owner's failure to inspect and/or to give any required notice of acceptance or non-acceptance within the specified time period shall be deemed acceptance.
- (c) From and after the Owner's acceptance (or deemed acceptance) of an adjusted Owner Utility, the Owner agrees to accept ownership of, and full operation and maintenance responsibility for, such Owner Utility.
13. **Design Changes.** The Developer will be responsible for additional Adjustment design and construction costs necessitated by design changes to the Project, upon the terms specified herein.

14. **Field Modifications.** The Developer shall provide the Owner with documentation of any field modifications, including Utility Adjustment Field Modifications as well as minor changes described in Paragraph 16(b), occurring in the Adjustment of the Owner Utilities.
15. **Real Property Interests.**
- (a) The Owner has provided, or upon execution of this Agreement shall promptly provide to the Developer, documentation acceptable to TxDOT indicating any right, title or interest in real property claimed by the Owner with respect to the Owner Utilities in their existing location(s). Such claims are subject to TxDOT's approval as part of its review of the Developer Utility Assembly as described in Paragraph 2. Claims approved by TxDOT as to rights or interests are referred to herein as "Existing Interests".
 - (b) If acquisition of any new easement or other interest in real property ("New Interest") is necessary for the Adjustment of any Owner Utilities, then the Owner shall be responsible for undertaking such acquisition. The Owner shall implement each acquisition hereunder expeditiously so that related Adjustment construction can proceed in accordance with the Developer's Project schedules. The Developer shall be responsible for its share (as specified in Paragraph 4) of the actual and reasonable acquisition costs of any such New Interest (including without limitation the Owner's reasonable overhead charges and reasonable legal costs as well as compensation paid to the landowner), excluding any costs attributable to Betterment as described in Paragraph 15(c), and subject to the provisions of Paragraph 15(e); provided, however, that all acquisition costs shall be subject to the Developer's prior written approval. Eligible acquisition costs shall be segregated from other costs on the Owner's estimates and invoices. Any such New Interest shall have a written valuation and shall be acquired in accordance with applicable law.
 - (c) The Developer shall pay its share only for a replacement in kind of an Existing Interest (e.g., in width and type), unless a New Interest exceeding such standard (i) is required in order to accommodate the Project or by compliance with applicable law, or (ii) is called for by the Developer in the interest of overall Project economy. Any New Interest which is not the Developer's responsibility pursuant to the preceding sentence shall be considered a Betterment to the extent that it upgrades the Existing Interest which it replaces, or in its entirety if the related Owner Utility was not installed pursuant to an Existing Interest. Betterment costs shall be solely the Owner's responsibility.
 - (d) For each Existing Interest located within the final Project right of way, upon completion of the related Adjustment work and its acceptance by the Owner, the Owner agrees to execute a quitclaim deed or other appropriate documentation relinquishing such Existing Interest to TxDOT, unless the affected Owner Utility is remaining in its original location or is being reinstalled in a new location within the area subject to such Existing Interest. All quitclaim deeds or other relinquishment documents shall be subject to TxDOT's approval as part of its review of the Utility Assembly as described in Paragraph 2. For each such Existing Interest relinquished by the Owner, the Developer shall do one of the following to compensate the Owner for such Existing Interest, as appropriate:
 - (e) (i) If the Owner acquires a New Interest for the affected Owner Utility, the Developer shall reimburse the Owner for the Developer's share of the Owner's actual and reasonable acquisition costs in accordance with Paragraph 15(b), subject to Paragraph 15(c); or

- (ii) If the Owner does not acquire a New Interest for the affected Owner Utility, the Developer shall compensate the Owner for the Developer's share of the fair market value of such relinquished Existing Interest, as mutually agreed between the Owner and the Developer and supported by a written valuation.

The compensation provided to the Owner pursuant to either subparagraph (i) or subparagraph (ii) above shall constitute complete compensation to the Owner for the relinquished Existing Interest and any New Interest, and no further compensation shall be due to the Owner from the Developer or TxDOT on account of such Existing Interest or New Interest(s).

- (f) The Owner shall execute a Utility Joint Use Acknowledgment (ROW-U-JUAA-DA) for each Adjustment where required pursuant to TxDOT policies. All Utility Joint Use Acknowledgments shall be subject to TxDOT approval as part of its review of the Utility Assembly as described in Paragraph 2.

16. **Amendments and Modifications.** This Agreement may be amended or modified only by a written instrument executed by the parties hereto, in accordance with Paragraph 16(a) or Paragraph 16(b) below.

- (a) Except as otherwise provided in Paragraph 16(b), any amendment or modification to this Agreement or the Plans attached hereto shall be implemented by a Utility Adjustment Agreement Amendment ("UAAA") in the form of Exhibit B hereto (TxDOT-DA-U-360A-DM). The UAAA form can be used for a new scope of work with concurrence of the Developer and TxDOT as long as the design and construction responsibilities have not changed. Each UAAA is subject to the review and approval of TxDOT, prior to its becoming effective for any purpose and prior to any work being initiated thereunder. The Owner agrees to keep and track costs for each UAAA separately from other work being performed.
- (b) For purposes of this Paragraph 16(b), "Utility Adjustment Field Modification" shall mean any horizontal or vertical design change from the Plans included in a Utility Assembly previously approved by TxDOT, due either to design of the Project or to conditions not accurately reflected in the approved Utility Assembly (e.g., shifting the alignment of an 8 in. water line to miss a modified or new roadway drainage structure). A Utility Adjustment Field Modification agreed upon by the Developer and Owner does not require a UAAA, provided that the modified Plans have been submitted to TxDOT for its review and comment. A minor change (e.g., an additional water valve, an added utility marker at a ROW line, a change in vertical bend, etc.) will not be considered a Utility Adjustment Field Modification and will not require a UAAA, but shall be shown in the documentation required pursuant to Paragraph 14.
- (c) This Agreement does not alter and shall not be construed in any way to alter the obligations, responsibilities, benefits, rights, remedies, and claims between the Developer and TxDOT to design and construct the Project, including the Adjustment.

17. **Entire Agreement.** This Agreement embodies the entire agreement between the parties and there are no oral or written agreements between the parties or any representations made which are not expressly set forth herein.

18. **Assignment; Binding Effect; TxDOT as Third Party Beneficiary.** Neither the Owner or the Developer may assign any of its rights or delegate any of its duties under this Agreement without the prior written consent of the other party and of TxDOT, which consent may not be

unreasonably withheld or delayed; provided, however, that the Developer may assign any of its rights and/or delegate any of its duties to TxDOT or to any other entity engaged by TxDOT to fulfill the Developer's obligations, at any time without the prior consent of the Owner.

This Agreement shall bind the Owner, the Developer and their successors and permitted assigns, and nothing in this Agreement nor in any approval subsequently provided by any party hereto shall be construed as giving any benefits, rights, remedies, or claims to any other person, firm, corporation or other entity, including, without limitation, any contractor or other party retained for the Adjustment work or the public in general; provided, however, that the Owner and the Developer agree that although TxDOT is not a party to this Agreement, TxDOT is intended to be a third-party beneficiary to this Agreement.

19. **Breach by the Parties.**

(a) If the Owner claims that the Developer has breached any of its obligations under this Agreement, the Owner will notify the Developer and TxDOT in writing of such breach, and the Developer shall have 30 days following receipt of such notice in which to cure such breach, before the Owner may invoke any remedies which may be available to it as a result of such breach; provided, however, that both during and after such period TxDOT shall have the right, but not the obligation, to cure any breach by the Developer. Without limiting the generality of the foregoing, (a) TxDOT shall have no liability to the Owner for any act or omission committed by the Developer in connection with this Agreement, including without limitation any claimed defect in any design or construction work supplied by the Developer or by its contractors, and (b) in no event shall TxDOT be responsible for any repairs or maintenance to the Owner Utilities Adjusted pursuant to this Agreement.

(b) If the Developer claims that the Owner has breached any of its obligations under this Agreement, the Developer will notify the Owner and TxDOT in writing of such breach, and the Owner shall have 30 days following receipt of such notice in which to cure such breach, before the Developer may invoke any remedies which may be available to it as a result of such breach.

20. **Traffic Control.** The Developer shall provide traffic control or shall reimburse the Owner for the Developer's share (if any, as specified in Paragraph 4) of the costs for traffic control made necessary by the Adjustment work performed by either the Developer or the Owner pursuant to this Agreement, in compliance with the requirements of the Texas Manual on Uniform Traffic Control Devices. Betterment percentages calculated in Paragraph 9 shall also apply to traffic control costs.

21. **Notices.** Except as otherwise expressly provided in this Agreement, all notices or communications pursuant to this Agreement shall be sent or delivered to the following:

The Owner:

Phone:
Fax:

The Developer:

Phone:

Fax:

A party sending a notice of default of this Agreement to another party shall also send a copy of such notice to TxDOT and the DA Utility Manager at the following addresses:

TxDOT: TxDOT Department of Transportation
Attention: Donald C. Toner, Jr., SR/WA
125 E. 11th Street
Austin, Texas 78701-2483
Phone: (512) 936-0980

DA Utility Manager:

Any notice or demand required herein shall be given (a) personally, (b) by certified or registered mail, postage prepaid, return receipt requested, or (c) by reliable messenger or overnight courier to the appropriate address set forth above. Any notice served personally shall be deemed delivered upon receipt, and any notice served by certified or registered mail or by reliable messenger or overnight courier shall be deemed delivered on the date of receipt as shown on the addressee's registry or certification of receipt or on the date receipt is refused as shown on the records or manifest of the U.S. Postal Service or such courier. Any party may from time to time designate any other address for this purpose by written notice to all other parties; TxDOT may designate another address by written notice to all parties.

22. **Approvals.** Any acceptance, approval, or any other like action (collectively "Approval") required or permitted to be given by either the Developer, , the Owner or TxDOT pursuant to this Agreement:

- (a) Must be in writing to be effective (except if deemed granted pursuant hereto),
- (b) Shall not be unreasonably withheld or delayed; and if Approval is withheld, such withholding shall be in writing and shall state with specificity the reason for withholding such Approval, and every effort shall be made to identify with as much detail as possible what changes are required for Approval, and
- (c) Except for approvals by TxDOT, and except as may be specifically provided otherwise in this Agreement, shall be deemed granted if no response is provided to the party requesting an Approval within the time period prescribed by this Agreement (or if no time period is prescribed, then fourteen (14) calendar days), commencing upon actual receipt by the party from which an Approval is requested or required, of a request for Approval from the requesting party. All requests for Approval shall be sent out by the requesting party to the other party in accordance with Paragraph 21.

23. **Time.**

- (a) Time is of the essence in the performance of this Agreement.
- (b) All references to "days" herein shall be construed to refer to calendar days, unless otherwise stated.
- (c) No party shall be liable to another party for any delay in performance under this Agreement from any cause beyond its control and without its fault or negligence ("Force

Majeure”), such as acts of God, acts of civil or military authority, fire, earthquake, strike, unusually severe weather, floods or power blackouts.

24. **Continuing Performance.** In the event of a dispute, the Owner and the Developer agree to continue their respective performance hereunder to the extent feasible in light of the dispute, including paying billings, and such continuation of efforts and payment of billings shall not be construed as a waiver of any legal right.
25. **Equitable Relief.** The Developer and the Owner acknowledge and agree that delays in Adjustment of the Owner Utilities will impact the public convenience, safety and welfare, and that (without limiting the parties’ remedies hereunder) monetary damages would be inadequate to compensate for delays in the construction of the Project. Consequently, the parties hereto (and TxDOT as well, as a third party beneficiary) shall be entitled to specific performance or other equitable relief in the event of any breach of this Agreement which threatens to delay construction of the Project; provided, however, that the fact that specific performance or other equitable relief may be granted shall not prejudice any claims for payment or otherwise related to performance of the Adjustment work hereunder.
26. **Authority.** The Owner and the Developer each represent and warrant to the other party that the warranting party possesses the legal authority to enter into this Agreement and that it has taken all actions necessary to exercise that authority and to lawfully authorize its undersigned signatory to execute this Agreement and to bind such party to its terms. Each person executing this Agreement on behalf of a party warrants that he or she is duly authorized to enter into this Agreement on behalf of such party and to bind it to the terms hereof.
27. **Cooperation.** The parties acknowledge that the timely completion of the Project will be influenced by the ability of the Owner (and its contractors) and the Developer to coordinate their activities, communicate with each other, and respond promptly to reasonable requests. Subject to the terms and conditions of this Agreement, the Owner and the Developer agree to take all steps reasonably required to coordinate their respective duties hereunder in a manner consistent with the Developer’s current and future construction schedules for the Project.
28. **Termination.** If the Project is canceled or modified so as to eliminate the necessity of the Adjustment work described herein, then the Developer shall notify the Owner in writing and the Developer reserves the right to thereupon terminate this Agreement. Upon such termination, the parties shall negotiate in good faith an amendment that shall provide mutually acceptable terms and conditions for handling the respective rights and liabilities of the parties relating to such termination.
29. **Nondiscrimination.** Each party hereto agrees, with respect to the work performed by such party pursuant to this Agreement, that such party shall not discriminate on the grounds of race, color, sex, national origin or disability in the selection and/or retention of contractors and consultants, including procurement of materials and leases of equipment.
30. **Applicable Law, Jurisdiction and Venue.** This Agreement shall be governed by the laws of the State of Texas, without regard to the conflict of laws principles thereof. Venue for any action brought to enforce this Agreement or relating to the relationship between any of the parties shall be the District Court of Travis County, Texas or the United States District Court for the Western District of Texas (Austin).
31. **Waiver of Consequential Damages.** No party hereto shall be liable to any other party to this Agreement, whether in contract, tort, equity, or otherwise (including negligence, warranty, indemnity, strict liability, or otherwise,) for any punitive, exemplary, special, indirect, incidental,

or consequential damages, including, without limitation, loss of profits or revenues, loss of use, claims of customers, or loss of business opportunity.

32. **Captions.** The captions and headings of the various paragraphs of this Agreement are for convenience and identification only, and shall not be deemed to limit or define the content of their respective paragraphs.
33. **Counterparts.** This Agreement may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one and the same instrument.
34. **Effective Date.** This Agreement shall become effective upon the later of (a) the date of signing by the last party (either the Owner or Developer) signing this Agreement, and (b) the date of TxDOT's approval as indicated by the signature of TxDOT's representative, below.

APPROVED BY:
**TEXAS DEPARTMENT OF
TRANSPORTATION**

OWNER

[Print Owner Name]

By: _____
Authorized Signature

By: _____
Duly Authorized Representative

Printed
Name: Donald C. Toner, Jr. SR/WA
Director – Strategic Projects Right of Way
Strategic Projects Division
Texas Department of Transportation

Printed
Name: _____
Title: _____
Date: _____

Date: _____

DEVELOPER

By: _____
Duly Authorized Representative

Printed
Name: _____
Title: _____
Date: _____

County:
ROW CSJ No.:
Const. CSJ No.:
Highway:
Limits:
Fed. Proj. No.:

EXHIBIT A

PLANS, SPECIFICATIONS, COST ESTIMATES AND ALLOCATION

County:
ROW CSJ No.:
Const. CSJ No.:
Highway:
Limits:
Fed. Proj. No.:

EXHIBIT B

**UTILITY ADJUSTMENT AGREEMENT AMENDMENT
(TxDOT-DA-U-360A-DM)**

County:
Highway:
Limits:
Fed. Proj. No.:
ROW CSJ No.:
Const. CSJ No.:

PROJECT UTILITY ADJUSTMENT AGREEMENT
(Owner Managed)
Agreement No.: -U-

THIS AGREEMENT, by and between _____, hereinafter identified as the "**Developer**", and _____, hereinafter identified as the "**Owner**", is as follows:

WITNESSETH

WHEREAS, the STATE OF TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as "TxDOT", is authorized to design, construct, operate, maintain, and improve turnpike projects as part of the state highway system throughout the State of Texas, all in conformance with the provisions of Chapters 201, 203, 222, 223, 224 and 228, Texas Transportation Code, as amended; and

WHEREAS, TxDOT proposes to construct a toll project identified as the _____ Project (the "Project"); and

WHEREAS, pursuant to that certain Development Agreement by and between TxDOT and the Developer with respect to the Project (the "DA"), the Developer has undertaken the obligation to design, construct, finance, operate and maintain the Project and adhere to all requirements in the DA; and

WHEREAS, the Developer's duties pursuant to the DA include causing the relocation, removal, or other necessary adjustment of existing utilities impacted by the Project (collectively, "Adjustment"), subject to the provisions herein; and

WHEREAS, the Project may receive Federal funding, financing and/or credit assistance; and

WHEREAS, the Developer has notified the Owner that certain of its facilities and appurtenances (the "Owner Utilities") are in locational conflict with the Project (and/or the "Ultimate Configuration" of the Project), and the Owner has decided to undertake the Adjustment of the Owner Utilities and agrees that the "Project" will be constructed in accordance with §203.092, Texas Transportation Code, as amended, Rule 21.23 of Title 43 Tex. Admin. Code, and 23 CFR 645A (Utility Relocations, Adjustments and Reimbursement); and

WHEREAS, the Owner Utilities and the proposed Adjustment of the Owner Utilities are described as follows *[insert below a description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., "adjust 12" waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00)]*: _____; and

WHEREAS, the Owner recognizes that time is of the essence in completing the work contemplated herein; and

WHEREAS, the Developer and the Owner desire to implement the Adjustment of the Owner Utilities by entering into this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of these premises and of the mutual covenants and agreements of the parties hereto and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged, the Developer and the Owner agree as follows:

1. **Preparation of Plans.** *[Check one box that applies:]*

- The Developer has hired engineering firm(s) acceptable to the Owner to perform all engineering services needed for the preparation of plans, required specifications, and cost estimates, attached hereto as Exhibit A (collectively, the “Plans”), for the proposed Adjustment of the Owner Utilities. The Developer represents and warrants that the Plans conform to the most recent Utility Accommodation Rules issued by the Texas Department of Transportation (“TxDOT”), set forth in 43 Tex. Admin. Code, Part 1, Chapter 21, Subchapter C, *et seq.* (the “UAR”). By its execution of this Agreement or by the signing of the Plans, Owner hereby approves and confirms that the Plans are in compliance with the “standards” described in Paragraph 3(d).

- The Owner has provided plans, required specifications and cost estimates, attached hereto as Exhibit A (collectively, the “Plans”), for the proposed Adjustment of the Owner Utilities. The Owner represents and warrants that the Plans conform to the UAR. By its execution of this Agreement the Developer hereby approves the Plans. The Owner also has provided to the Developer a utility plan view map illustrating the location of existing and proposed utility facilities on the Developer’s right of way map of the Project. With regard to its preparation of the Plans, Owner represents as follows *[check one box that applies]*:
 - The Owner’s employees were utilized to prepare the Plans, and the charges therefore do not exceed the Owner’s typical costs for such work.

 - The Owner utilized consulting engineers to prepare the Plans, and the fees for such work are not based upon a percentage of construction costs. Further, such fees encompass only the work necessary to prepare the Plans for Adjustment of the Owner Utilities described herein, and do not include fees for work done on any other project. The fees of the consulting engineers are reasonable and are comparable to the fees typically charged by consulting engineers in the locale of the Project for comparable work for the Owner.

2. **Review by TxDOT.** The parties hereto acknowledge and agree as follows:

- (a) Upon execution of this Agreement by the Developer and the Owner, the Developer will submit this Agreement, together with the attached Plans, to TxDOT for its review and approval as part of a package referred to as a “Utility Assembly”. The parties agree to cooperate in good faith to modify this Agreement and/or the Plans, as necessary and mutually acceptable to all parties, to respond to any comments made by TxDOT thereon. Without limiting the generality of the foregoing, (i) the Owner agrees to respond (with comment and/or acceptance) to any modified Plans and/or Agreement prepared by the Developer in response to TxDOT comments within **fourteen (14) business days** after receipt of such modifications; and (ii) if the Owner originally prepared the Plans, the

Owner agrees to modify the Plans in response to TxDOT comments and to submit such modified Plans to the Developer for its comment and/or approval (and re-submittal to TxDOT for its comment and/or approval) within **fourteen (14) business days** after receipt of TxDOT's comments. The Owner's failure to timely respond to any modified Plans submitted by the Developer pursuant to this paragraph shall be deemed the Owner's approval of same. If the Owner fails to timely prepare modified Plans which are its responsibility hereunder, then the Developer shall have the right to modify the Plans for the Owner's approval as if the Developer had originally prepared the Plans. The Developer shall be responsible for providing Plans to and obtaining comments on and approval of the Plans from the Developer. The process set forth in this paragraph will be repeated until the Owner, the Developer and TxDOT have all approved this Agreement and the Plans.

- (b) The parties hereto acknowledge and agree that TxDOT's review, comments, and/or approval of a Utility Assembly or any component thereof shall constitute TxDOT's approval of the location and manner in which a Utility Assembly will be installed, adjusted, or relocated within the state highway right of way, subject to the Developer's and Owner's satisfactory performance of the Adjustment work in accordance with the approved Plans. TxDOT has no duty to review Owner facilities or components for their quality or adequacy to provide the intended utility service.

3. **Design and Construction Standards.**

- (a) All design and construction performed for the Adjustment work which is the subject of this Agreement shall comply with and conform to the following:
 - (1) All applicable local and state laws, regulations, decrees, ordinances and policies, including the UAR, the Utility Manual issued by TxDOT (to the extent its requirements are mandatory for Utility Adjustments necessitated by the Project, communicated to the Owner by the Developer or TxDOT), the requirements of the DA, and the policies of TxDOT;
 - (2) All Federal laws, regulations, decrees, ordinances and policies applicable to projects receiving Federal funding, financing and/or credit assistance, including without limitation 23 CFR 645 Subparts A and B;
 - (3) The terms of all governmental permits or other approvals, as well as any private approvals of third parties necessary for such work; and
 - (4) The standard specifications, standards of practice, and construction methods (collectively, "standards") which the Owner customarily applies to facilities comparable to the Owner Utilities that are constructed by the Owner or for the Owner by its contractors at the Owner's expense, which standards are current at the time this Agreement is signed by the Owner, and which the Owner has submitted to the Developer in writing.
 - (5) Owner agrees that all service meters must be placed outside of the State ROW.
- (b) Such design and construction also shall be consistent and compatible with (i) the Developer's current design and construction of the Project, (ii) the "Ultimate Configuration" for the Project, and (iii) any other utilities being installed in the same

vicinity. The Owner acknowledges receipt from the Developer of Project plans and Ultimate Configuration documents as necessary to comply with the foregoing. In case of any inconsistency among any of the standards referenced in this Agreement, the most stringent standard shall apply.

- (c) The plans, specifications, and cost estimates contained in Exhibit A shall identify and detail all utility facilities that the Owner intends to abandon in place rather than remove, including material type, quantity, size, age, and condition. No facilities containing hazardous or contaminated materials may be abandoned, but shall be specifically identified and removed in accordance with the requirements of subparagraph (a). It is understood and agreed that the Developer shall not pay for the assessment and remediation or other corrective action relating to soil and ground water contamination caused by the utility facility prior to the removal.

4. **Construction by the Owner; Scheduling.**

- (a) The Owner hereby agrees to perform the construction necessary to adjust the Owner Utilities. All construction work hereunder shall be performed in a good and workmanlike manner, and in accordance with the Plans (except as modified pursuant to Paragraph 17). The Owner agrees that during the Adjustment of the Owner Utilities, the Owner and its contractors will coordinate their work with the Developer so as not to interfere with the performance of work on the Project by the Developer or by any other party. "Interfere" means any action or inaction that interrupts, interferes, delays or damages Project work.
- (b) The Owner may utilize its own employees or may retain such contractor or contractors as are necessary to adjust the Owner Utilities, through the procedures set forth in Form TxDOT-U-48 "Statement Covering Contract Work" attached hereto as Exhibit C. If the Owner utilizes its own employees for the Construction work portion of the Adjustment of Owner Utilities, a Form TxDOT-U-48 is not required. If the Adjustment of the Owner Utilities is undertaken by the Owner's contractor under a competitive bidding process, all bidding and contracting shall be conducted in accordance with all federal and state laws and regulations applicable to the Owner and the Project.
- (c) The Owner shall obtain all permits necessary for the construction to be performed by the Owner hereunder, and the Developer shall cooperate in that process as needed. The Owner shall submit a traffic control plan to the Developer as required for Adjustment work to be performed on existing road rights of way.
- (d) The Owner shall commence its construction for Adjustment of each Owner Utility hereunder promptly after (i) receiving written notice to proceed therewith from the Developer, and (ii) any Project right of way necessary for such Adjustment has been acquired either by Developer (for adjusted facilities to be located within the Project right of way) or by the Owner (for adjusted facilities to be located outside of the Project right of way), or a right-of-entry permitting Owner's construction has been obtained from the landowner by the Developer or by the Owner with the Developer's prior approval. The Owner shall notify the Developer at least 72 hours prior to commencing construction for the Adjustment of each Owner Utility hereunder.

- (e) The Owner shall expeditiously stake the survey of the proposed locations of the Owner Utilities being adjusted, on the basis of the final approved Plans. The Developer shall verify that the Owner's Utilities, whether moving to a new location or remaining in place, clear the planned construction of the Project as staked in the field as well as the Ultimate Configuration.
- (f) The Owner shall complete all of the Utility reconstruction and relocation work, including final testing and acceptance thereof *[check one box that applies]*:
- on or before _____, 20____.
- a duration not to exceed _____ calendar days upon notice to proceed by the Developer.
- (g) The amount of reimbursement due to the Owner pursuant to this Agreement for the affected Adjustment(s) shall be reduced by ten percent (10%) for each 30-day period (and by a pro rata amount of said ten percent (10%) for any portion of a 30-day period) by which the final completion and acceptance date for the affected Adjustment(s) exceeds the applicable deadline. The provisions of this Paragraph 4(g) shall not limit any other remedy available to the Developer at law or in equity as a result of the Owner's failure to meet any deadline hereunder.

The above reduction applies except to the extent due to (i) Force Majeure as described in Paragraph 24(c), (ii) any act or omission of the Developer, if the Owner fails to meet any deadline established pursuant to Paragraph 4(f), or (iii) if the Developer and/or TxDOT determine, in their sole discretion, that a delay in the relocation work is the result of circumstances beyond the control of the Owner or Owner's contractor and the Developer will not reduce the reimbursement.

5. **Costs of the Work.**

- (a) The Owner's costs for Adjustment of each Owner Utility shall be derived from (i) the accumulated total of costs incurred by the Owner for design and construction of such Adjustment, plus (ii) the Owner's other related costs to the extent permitted pursuant to Paragraph 5(c) (including without limitation the eligible engineering costs incurred by the Owner for design prior to execution of this Agreement), plus (iii) the Owner's right of way acquisition costs, if any, which are reimbursable pursuant to Paragraph 16.
- (b) The Owner's costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below *[check only one box]*:
- (1) Actual costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body ("Actual Cost"); or
- (2) Actual costs accumulated in accordance with an established accounting procedure developed by the Owner and which the Owner uses in its regular operations ("Actual Cost"); or
- (3) The agreed sum of \$ _____ ("Agreed Sum"), as supported by the analysis of estimated costs attached hereto as part of Exhibit A.

6. **Responsibility for Costs of Adjustment Work.**

The Agreed Sum or Actual Cost, as applicable, of all work to be performed pursuant to this Agreement shall be allocated between the Developer and the Owner as identified in Exhibit A and in accordance with §203.092, Texas Transportation Code. An allocation percentage may be determined by application of an eligibility ratio, if appropriate, as detailed in Exhibit A; provided, however, that any portion of an Agreed Sum or Actual Cost attributable to Betterment shall be allocated 100% to the Owner in accordance with Paragraph 10. All costs charged to the Developer by the Owner shall be reasonable and shall be computed using rates and schedules not exceeding those applicable to similar work performed by or for the Owner at the Owner's expense. Payment of the costs allocated to the Developer pursuant to this Agreement (if any) shall be full compensation to the Owner for all costs incurred by the Owner in Adjusting the Owner Utilities (including without limitation costs of relinquishing and/or acquiring right of way).

7. **Billing, Payment, Records and Audits: Actual Cost Method.** The following provisions apply if the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b):

- (a) After (i) completion of all Adjustment work to be performed pursuant to this Agreement, (ii) the Developer's final inspection of the Adjustment work by Owner hereunder (and resolution of any deficiencies found), and (iii) receipt of an invoice complying with the applicable requirements of Paragraph 9, the Developer shall pay to the Owner an amount equal to ninety percent (90%) of the Developer's share of the Owner's costs as shown in such final invoice (less amounts previously paid, and applicable credits). After completion of the Developer's audit referenced in Paragraph 7(c) and the parties' mutual determination of any necessary adjustment to the final invoice resulting therefrom, the Developer shall make any final payment due so that total payments will equal the total amount of the Developer's share reflected on such final invoice (as adjusted, if applicable).
- (b) When requested by the Owner and properly invoiced in accordance with Paragraph 9, the Developer shall make intermediate payments to the Owner based upon the progress of the work completed at not more than monthly intervals, and such payments shall not exceed eighty percent (80%) of the Developer's share of the Owner's eligible costs as shown in each such invoice (less applicable credits). Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.
- (c) The Owner shall maintain complete and accurate cost records for all work performed pursuant to this Agreement. The Owner shall maintain such records for four (4) years after receipt of final payment hereunder. The Developer and their respective representatives shall be allowed to audit such records during the Owner's regular business hours. Unsupported charges will not be considered eligible for reimbursement. The parties shall mutually agree upon (and shall promptly implement by payment or refund, as applicable) any financial adjustment found necessary by the Developer's audit. TxDOT, the Federal Highway Administration, and their respective representatives also shall be allowed to audit such records upon reasonable notice to the Owner, during the Owner's regular business hours.

8. **Billing and Payment: Agreed Sum Method.** If the Owner's costs are developed under procedure (3) described in Paragraph 5(b), then the Developer shall pay its share of the Agreed Sum to the Owner after (a) completion of all Adjustment work to be performed pursuant to this Agreement, (b) the Developer's final inspection of the Adjustment work by Owner hereunder

(and resolution of any deficiencies found), and (c) receipt of an invoice complying with the applicable requirements of Paragraph 9.

9. **Invoices.** If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b), then Owner shall list each of the services performed, the amount of time spent and the date on which the service was performed. The original and three (3) copies of each invoice shall be submitted to the Developer at the address for notices stated in Paragraph 22, unless otherwise directed by the Developer pursuant to Paragraph 22, together with (1) such supporting information to substantiate all invoices as reasonably requested by the Developer, and (2) such waivers or releases of liens as the Developer may reasonably require. The Owner shall make commercially reasonable efforts to submit final invoices not later than one hundred twenty (120) days after completion of work. Final invoices shall include any necessary quitclaim deeds pursuant to Paragraph 16, and all applicable record drawings accurately representing the Adjustment as installed. The Owner hereby acknowledges and agrees that any right it may have for reimbursement of any of its costs not submitted to the Developer within eighteen months following completion of all Adjustment work to be performed by both parties pursuant to this Agreement shall be deemed to have been abandoned and waived. Invoices shall clearly delineate total costs, and those costs that are reimbursable pursuant to the terms of this Agreement.

10. **Betterment.**

- (a) For purposes of this Agreement, the term "Betterment" means any upgrading of an Owner Utility being adjusted that is not attributable to the construction of the Project and is made solely for the benefit of and at the election of the Owner, including but not limited to an increase in the capacity, capability, efficiency or function of the adjusted Utility over that provided by the existing Utility facility or an expansion of the existing Utility facility; provided, however, that the following are not considered Betterments:
- (i) any upgrading which is required for accommodation of the Project;
 - (ii) replacement devices or materials that are of equivalent standards although not identical;
 - (iii) replacement of devices or materials no longer regularly manufactured with the next highest grade or size;
 - (iv) any upgrading required by applicable laws, regulations or ordinances;
 - (v) replacement devices or materials which are used for reasons of economy (e.g., non-stocked items may be uneconomical to purchase); or
 - (vi) any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(a)(4).

[Include the following for fiber optic Owner Utilities only:] Extension of an Adjustment to the nearest splice boxes shall not be considered a Betterment if required by the Owner in order to maintain its written telephony standards.

Any upgrading required by the Owner's written "standards" meeting the requirements of Paragraph 3(a)(4) shall be deemed to be of direct benefit to the Project.

(b) It is understood and agreed that the Developer will not pay for any Betterments and that the Owner shall not be entitled to payment therefor. No Betterment may be performed in connection with the Adjustment of the Owner Utilities which is incompatible with the Project or the Ultimate Configuration or which cannot be performed within the other constraints of applicable law, any applicable governmental approvals, including without limitation the scheduling requirements thereunder. Accordingly, the parties agree as follows *[check the one box that applies, and complete if appropriate]*:

(i) The Adjustment of the Owner Utilities pursuant to the Plans does not include any Betterment.

The Adjustment of the Owner Utilities pursuant to the Plans includes Betterment to the Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: _____. The Owner has provided to the Developer comparative estimates for (i) all costs for work to be performed by the Owner pursuant to this Agreement, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Developer. The estimated amount of the Owner's costs for work hereunder which is attributable to Betterment is \$_____, calculated by subtracting (ii) from (i). The percentage of the total cost of the Owner's work hereunder which is attributable to Betterment is _____%, calculated by subtracting (ii) from (i), which remainder shall be divided by (i).

(c) If Paragraph 10(b) identifies Betterment, then the following shall apply:

(i) If the Owner's costs are developed under procedure (3) described in Paragraph 5(b), then the Agreed Sum stated in that Paragraph includes any credits due to the Developer on account of the identified Betterment, and no further adjustment shall be made on account of same.

(ii) If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b), the parties agree as follows *[If Paragraph 10(b) identifies Betterment and the Owner's costs are developed under procedure (1) or (2), check the one appropriate provision]*:

The estimated cost stated in Paragraph 10(b) is the agreed and final amount due for Betterment hereunder. Accordingly, each intermediate invoice submitted pursuant to Paragraph 7(b) shall include a credit for an appropriate percentage of the agreed Betterment amount, proportionate to the percentage of completion reflected in such invoice. The final invoice submitted pursuant to Paragraph 7(a) shall reflect the full amount of the agreed Betterment credit. For each invoice described in this paragraph, the credit for Betterment shall be applied before calculating the Developer's share (pursuant to Paragraph 6) of the cost of the Adjustment work. No other adjustment (either up or down) shall be made based on actual Betterment costs.

The Owner is responsible for the actual cost of the identified Betterment, determined by multiplying (a) the Betterment percentage stated in Paragraph 10(b), by (b) the actual cost of all work performed by the Owner pursuant to this Agreement (including work attributable to the Betterment), as invoiced by the Owner to the Developer. Accordingly, each invoice submitted pursuant to either Paragraph 7(a) or Paragraph 7(b) shall credit the Developer

with an amount calculated by multiplying (x) the Betterment percentage stated in Paragraph 10(b), by (y) the amount billed on such invoice.

- (d) The determinations and calculations of Betterment described in this Paragraph 10 shall exclude right of way acquisition costs. Betterment in connection with right-of-way acquisition is addressed in Paragraph 16.
11. **Salvage.** For any Adjustment from which the Owner recovers any materials and/or parts and retains or sells the same, after application of any applicable Betterment credit, the Developer is entitled to a credit for the salvage value of such materials and/or parts. If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 5(b), then the final invoice submitted pursuant to Paragraph 7(a) shall credit the Developer with the full salvage value. If the Owner's costs are developed under procedure (3) described in Paragraph 5(b), then the Agreed Sum includes any credit due to the Developer on account of salvage.
12. **Utility Investigations.** At the Developer's request, the Owner shall assist the Developer in locating any Utilities (including appurtenances) which are owned and/or operated by Owner and may be impacted by the Project. Without limiting the generality of the foregoing, in order to help assure that neither the adjusted Owner Utilities nor existing, unadjusted utilities owned or operated by the Owner are damaged during construction of the Project, the Owner shall mark in the field the location of all such utilities horizontally on the ground in advance of Project construction in the immediate area of such utilities.
13. **Inspection and Ownership of Owner Utilities.**
- (a) The Developer shall have the right, at its own expense, to inspect the Adjustment work performed by the Owner or its contractors, during and upon completion of construction. All inspections of work shall be completed and any comment provided within **five (5) business days** after request for inspection is received.
- (b) The Owner shall accept full responsibility for all future repairs and maintenance of said Owner Utilities. In no event shall the Developer or TxDOT become responsible for making any repairs or maintenance, or for discharging the cost of same. The provisions of this Paragraph 13(b) shall not limit any rights which the Owner may have against the Developer if either party respectively damages any Owner Utility as a result of its respective Project activities.
14. **Design Changes.** The Developer will be responsible for additional Adjustment design and responsible for additional construction costs necessitated by design changes to the Project made after approval of the Plans, upon the terms specified herein.
15. **Field Modifications.** The Owner shall provide the Developer with documentation of any field modifications, including Utility Adjustment Field Modifications as well as minor changes as described in Paragraph 17(b), occurring in the Adjustment of the Owner Utilities.
16. **Real Property Interests.**
- (a) The Owner has provided, or upon execution of this Agreement shall promptly provide to the Developer, documentation acceptable to TxDOT indicating any right, title or interest in real property claimed by the Owner with respect to the Owner Utilities in their existing location(s). Such claims are subject to TxDOT's approval as part of its review of the Developer's Utility Assembly as described in Paragraph 2. Claims approved by TxDOT as to rights or interests are referred to herein as "Existing Interests".

- (b) If acquisition of any new easement or other interest in real property (“New Interest”) is necessary for the Adjustment of any Owner Utilities, then the Owner shall be responsible for undertaking such acquisition. The Owner shall implement each acquisition hereunder expeditiously so that related Adjustment construction can proceed in accordance with the Developer’s Project schedules. The Developer shall be responsible for its share (if any, as specified in Paragraph 6) of the actual and reasonable acquisition costs of any such New Interest (including without limitation the Owner’s reasonable overhead charges and reasonable legal costs as well as compensation paid to the landowner), excluding any costs attributable to Betterment as described in Paragraph 16(c), and subject to the provisions of Paragraph 16(e); provided, however, that all acquisition costs shall be subject to the Developer’s prior written approval. Eligible acquisition costs shall be segregated from other costs on the Owner’s estimates and invoices. Any such New Interest shall have a written valuation and shall be acquired in accordance with applicable law.
- (c) The Developer shall pay its share only for a replacement in kind of an Existing Interest (e.g., in width and type), unless a New Interest exceeding such standard (i) is required in order to accommodate the Project or by compliance with applicable law, or (ii) is called for by the Developer in the interest of overall Project economy. Any New Interest which is not the Developer’s cost responsibility pursuant to the preceding sentence shall be considered a Betterment to the extent that it upgrades the Existing Interest which it replaces, or in its entirety if the related Owner Utility was not installed pursuant to an Existing Interest. Betterment costs shall be solely the Owner’s responsibility.
- (d) For each Existing Interest located within the final Project right of way, upon completion of the related Adjustment work and its acceptance by the Owner, the Owner agrees to execute a quitclaim deed or other appropriate documentation relinquishing such Existing Interest to TxDOT, unless the affected Owner Utility is remaining in its original location or is being reinstalled in a new location within the area subject to such Existing Interest. All quitclaim deeds or other relinquishment documents shall be subject to TxDOT’s approval as part of its review of the Utility Assembly as described in Paragraph 2. For each such Existing Interest relinquished by the Owner, the Developer shall do one of the following to compensate the Owner for such Existing Interest, as appropriate:
- (i) If the Owner acquires a New Interest for the affected Owner Utility, the Developer shall reimburse the Owner for the Developer’s share of the Owner’s actual and reasonable acquisition costs in accordance with Paragraph 16(b) and subject to Paragraph 16(c); or
- (ii) If the Owner does not acquire a New Interest for the affected Owner Utility, the Developer shall compensate the Owner for the Developer’s share of the fair market value of such relinquished Existing Interest, as mutually agreed between the Owner and the Developer and supported by a written valuation.

The compensation, if any, provided to the Owner pursuant to either subparagraph (i) or subparagraph (ii) above shall constitute complete compensation to the Owner for the relinquished Existing Interest and any New Interest, and no further compensation shall be due to the Owner from the Developer or TxDOT on account of such Existing Interest or New Interest(s).

- (e) The Owner shall execute a Utility Joint Use Acknowledgment (ROW-U-JUAA-DA) for each Adjustment where required pursuant to TxDOT policies. All Utility Joint Use

Acknowledgments shall be subject to TxDOT approval as part of its review of the Utility Assembly as described in Paragraph 2.

17. **Amendments and Modifications.** This Agreement may be amended or modified only by a written instrument executed by the parties hereto, in accordance with Paragraph 17(a) or Paragraph 17(b) below.
- (a) Except as otherwise provided in Paragraph 17(b), any amendment or modification to this Agreement or the Plans attached hereto shall be implemented by a Utility Adjustment Agreement Amendment ("UAAA") in the form of Exhibit B hereto (TxDOT-DA-U-360A-OM). The UAAA form can be used for a new scope of work with concurrence of the Developer and TxDOT as long as the Design and Construction responsibilities have not changed. Each UAAA is subject to the review and approval of TxDOT, prior to its becoming effective for any purpose and prior to any work being initiated thereunder. The Owner agrees to keep and track costs for each UAAA separately from other work being performed.
- (b) For purposes of this Paragraph 17(b), "Utility Adjustment Field Modification" shall mean any horizontal or vertical design change from the Plans included in a Utility Assembly previously approved by TxDOT, due either to design of the Project or to conditions not accurately reflected in the approved Utility Assembly (e.g., shifting the alignment of an 8 in. water line to miss a modified or new roadway drainage structure). A Utility Adjustment Field Modification agreed upon by the Developer and the Owner does not require a UAAA, provided that the modified Plans have been submitted to TxDOT for its review and comment. A minor change (e.g., an additional water valve, an added Utility marker at a ROW line, a change in vertical bend, etc.) will not be considered a Utility Adjustment Field Modification and will not require a UAAA, but shall be shown in the documentation required pursuant to Paragraph 15.
18. **Entire Agreement.** This Agreement embodies the entire agreement between the parties and there are no oral or written agreements between the parties or any representations made which are not expressly set forth herein.
19. **Assignment; Binding Effect; TxDOT as Third Party Beneficiary.** The Owner and the Developer may not assign any of its rights or delegate any of its duties under this Agreement without the prior written consent of the other parties and of TxDOT, which consent may not be unreasonably withheld or delayed; provided, however, that the Developer may assign any of its rights and/or delegate any of its duties to TxDOT or to any other entity with which TxDOT contracts to fulfill the Developer's obligations at any time without the prior consent of the Owner.

This Agreement shall bind the Owner, the Developer and their successors and permitted assigns, and nothing in this Agreement nor in any approval subsequently provided by any party hereto shall be construed as giving any benefits, rights, remedies, or claims to any other person, firm, corporation or other entity, including, without limitation, any contractor or other party retained for the Adjustment work or the public in general; provided, however, that the Owner and the Developer agree that although TxDOT is not a party to this Agreement, TxDOT is intended to be a third-party beneficiary to this Agreement.

20. **Breach by the Parties.**

- (a) If the Owner claims that the Developer has breached any of its obligations under this Agreement, the Owner will notify the Developer and TxDOT in writing of such breach, and the Developer shall have 30 days following receipt of such notice in which to cure such breach, before the Owner may invoke any remedies which may be available to it as a

result of such breach; provided, however, that both during and after such period TxDOT shall have the right, but not the obligation, to cure any breach by the Developer. Without limiting the generality of the foregoing, (a) TxDOT shall have no liability to the Owner for any act or omission committed by the Developer in connection with this Agreement, and (b) in no event shall TxDOT be responsible for any repairs or maintenance to the Owner Utilities adjusted pursuant to this Agreement.

- (b) If the Developer claims that the Owner has breached any of its obligations under this Agreement, the Developer will notify the Owner and TxDOT in writing of such breach, and the Owner shall have 30 days following receipt of such notice in which to cure such breach, before the Developer or the Developer may invoke any remedies which may be available to it as a result of such breach.

21. **Traffic Control.** The Developer shall provide traffic control or shall reimburse the Owner for the Developer's share (if any, as specified in Paragraph 6) of the costs for traffic control made necessary by the Adjustment work performed by either the Developer or the Owner pursuant to this Agreement, in compliance with the requirements of the Texas Manual on Uniform Traffic Control Devices. Betterment percentages calculated in Paragraph 10 shall also apply to the traffic control costs.

22. **Notices.** Except as otherwise expressly provided in this Agreement, all notices or communications pursuant to this Agreement shall be sent or delivered to the following:

The Owner:

Phone:
Fax:

The Developer:

Phone:
Fax:

A party sending a notice of default of this Agreement to another party shall also send a copy of such notice to TxDOT and to the DA Utility Manager at the following addresses:

TxDOT:

TxDOT Department of Transportation
Attention: Donald C. Toner, Jr., SR/WA
125 E. 11th Street
Austin, Texas 78701-2483
Phone: (512) 936-0980

DA Utility Manager:

Any notice or demand required herein shall be given (a) personally, (b) by certified or registered mail, postage prepaid, return receipt requested, or (c) by reliable messenger or overnight courier to the appropriate address set forth above. Any notice served personally shall be deemed delivered upon receipt and served by certified or registered mail or by reliable messenger or overnight courier shall be deemed delivered on the date of receipt as shown on the addressee's

registry or certification of receipt or on the date receipt is refused as shown on the records or manifest of the U.S. Postal Service or such courier. Any party may from time to time designate any other address for this purpose by written notice to all other parties; TxDOT may designate another address by written notice to all parties.

23. **Approvals.** Any acceptance, approval, or any other like action (collectively "Approval") required or permitted to be given by either the Developer or the Owner pursuant to this Agreement:

- (a) Must be in writing to be effective (except if deemed granted pursuant hereto),
- (b) Shall not be unreasonably withheld or delayed; and if Approval is withheld, such withholding shall be in writing and shall state with specificity the reason for withholding such Approval, and every effort shall be made to identify with as much detail as possible what changes are required for Approval, and
- (c) Except for approvals by TxDOT, and except as may be specifically provided otherwise in this Agreement, shall be deemed granted if no response is provided to the party requesting an Approval within the time period prescribed by this Agreement (or if no time period is prescribed, then fourteen (14) calendar days), commencing upon actual receipt by the party from which an Approval is requested or required, of a request for Approval from the requesting party. All requests for Approval shall be sent out by the requesting party to the other party in accordance with Paragraph 22.

24. **Time; Force Majeure.**

- (a) Time is of the essence in the performance of this Agreement.
- (b) All references to "days" herein shall be construed to refer to calendar days, unless otherwise stated.
- (c) No party shall be liable to another party for any delay in performance under this Agreement from any cause beyond its control and without its fault or negligence ("Force Majeure"), such as acts of God, acts of civil or military authority, fire, earthquake, strike, unusually severe weather, floods or power blackouts. If any such event of Force Majeure occurs, the Owner agrees, if requested by the Developer, to accelerate its efforts hereunder if reasonably feasible in order to regain lost time, so long as the Developer agrees to reimburse the Owner for the reasonable and actual costs of such efforts.

25. **Continuing Performance.** In the event of a dispute, the Owner and the Developer agree to continue their respective performance hereunder to the extent feasible in light of the dispute, including paying billings, and such continuation of efforts and payment of billings shall not be construed as a waiver of any legal right.

26. **Equitable Relief.** The Developer and the Owner acknowledge and agree that delays in Adjustment of the Owner Utilities will impact the public convenience, safety and welfare, and that (without limiting the parties' remedies hereunder) monetary damages would be inadequate to compensate for delays in the construction of the Project. Consequently, the parties hereto (and TxDOT as well, as a third party beneficiary) shall be entitled to specific performance or other equitable relief in the event of any breach of this Agreement which threatens to delay construction of the Project; provided, however, that the fact that specific performance or other equitable relief may be granted shall not prejudice any claims for payment or otherwise related to performance of the Adjustment work hereunder.

27. **Authority.** The Owner and the Developer each represent and warrant to the other party that the warranting party possesses the legal authority to enter into this Agreement and that it has taken all actions necessary to exercise that authority and to lawfully authorize its undersigned signatory to execute this Agreement and to bind such party to its terms. Each person executing this Agreement on behalf of a party warrants that he or she is duly authorized to enter into this Agreement on behalf of such party and to bind it to the terms hereof.
28. **Cooperation.** The parties acknowledge that the timely completion of the Project will be influenced by the ability of the Owner (and its contractors) and the Developer to coordinate their activities, communicate with each other, and respond promptly to reasonable requests. Subject to the terms and conditions of this Agreement, the Owner and the Developer agree to take all steps reasonably required to coordinate their respective duties hereunder in a manner consistent with the Developer's current and future construction schedules for the Project. The Owner further agrees to require its contractors to coordinate their respective work hereunder with the Developer.
29. **Termination.** If the Project is canceled or modified so as to eliminate the necessity of the Adjustment work described herein, then the Developer shall notify the Owner in writing and the Developer reserves the right to thereupon terminate this Agreement. Upon such termination, the parties shall negotiate in good faith an amendment that shall provide mutually acceptable terms and conditions for handling the respective rights and liabilities of the parties relating to such termination.
30. **Nondiscrimination.** Each party hereto agrees, with respect to the work performed by such party pursuant to this Agreement, that such party shall not discriminate on the grounds of race, color, sex, national origin or disability in the selection and/or retention of contractors and consultants, including procurement of materials and leases of equipment.
31. **Applicable Law, Jurisdiction and Venue.** This Agreement shall be governed by the laws of the State of Texas, without regard to the conflict of laws principles thereof. Venue for any action brought to enforce this Agreement or relating to the relationship between any of the parties shall be the District Court of Travis County, Texas or the United States District Court for the Western District of Texas (Austin).
32. **Waiver of Consequential Damages.** No party hereto shall be liable to any other party to this Agreement, whether in contract, tort, equity, or otherwise (including negligence, warranty, indemnity, strict liability, or otherwise), for any punitive, exemplary, special, indirect, incidental, or consequential damages, including, without limitation, loss of profits or revenues, loss of use, claims of customers, or loss of business opportunity.
33. **Captions.** The captions and headings of the various paragraphs of this Agreement are for convenience and identification only, and shall not be deemed to limit or define the content of their respective paragraphs.
34. **Counterparts.** This Agreement may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one and the same instrument.
35. **Effective Date.** This Agreement shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the Developer) signing this Agreement, and (b) the date of TxDOT's approval as indicated by the signature of TxDOT's representative, below.

APPROVED BY:
**TEXAS DEPARTMENT OF
TRANSPORTATION**

OWNER

[Print Owner Name]

By: _____
Authorized Signature

By: _____
Duly Authorized Representative

Printed
Name: Donald C. Toner, Jr. SR/WA
Director – Strategic Projects Right of Way
Strategic Projects Division
Texas Department of Transportation

Printed
Name: _____

Title: _____

Date: _____

Date: _____

DEVELOPER

By: _____
Duly Authorized Representative

Printed
Name: _____

Title: _____

Date: _____

County:
ROW CSJ No.:
Const. CSJ No.:
Highway:
Limits:
Fed. Proj. No.:

EXHIBIT A

PLANS, SPECIFICATIONS, COST ESTIMATES AND ALLOCATION

County:
ROW CSJ No.:
Const. CSJ No.:
Highway:
Limits:
Fed. Proj. No.:

EXHIBIT B

**UTILITY ADJUSTMENT AGREEMENT AMENDMENT
(TxDOT-DA-U-360A-OM)**

County:
ROW CSJ No.:
Const. CSJ No.:
Highway:
Limits:
Fed. Proj. No.:

EXHIBIT C

**STATEMENT COVERING CONTRACT WORK
(TxDOT-U-48)**

County:
Highway:
Limits:
Fed. Proj. No.:
ROW CSJ No.:

UTILITY ADJUSTMENT AGREEMENT AMENDMENT (Developer Managed)

(Amendment No. _____ to Agreement No.: -U- _____)

THIS AMENDMENT TO PROJECT UTILITY ADJUSTMENT AGREEMENT (this “Amendment”), by and between _____, hereinafter identified as the “**Developer**”, and _____, hereinafter identified as the “**Owner**”, is as follows:

WITNESSETH

WHEREAS, the STATE of TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as “TxDOT”, proposes to construct the toll project identified above (the “Project”, as more particularly described in the “Original Agreement”, defined below); and

WHEREAS, pursuant to that certain Development Agreement (“DA”) by and between TxDOT and the Developer with respect to the Project, the Developer has undertaken the obligation to design, construct, and potentially maintain the Project, including causing the removal, relocation, or other necessary adjustment of existing utilities impacted by the Project (collectively, “Adjustment”); and

WHEREAS, the Owner and Developer are parties to that certain executed Project Utility Adjustment Agreement designated by the “Agreement No.” indicated above, as amended by previous amendments, if any (the “Original Agreement”), which provides for the adjustment of certain utilities owned and/or operated by the Owner (the “Utilities”); and

WHEREAS, the parties are required to utilize this Amendment form in order to modify the Original Agreement to add the adjustment of Owner facilities not covered by the Original Agreement; and

WHEREAS, the parties desire to amend the Original Agreement to add additional Owner utility facility(ies), on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the agreements contained herein, the parties hereto agree as follows:

1. **Amendment.** The Original Agreement is hereby amended as follows:

1.1 **Plans.**

- (a) The description of the Owner Utilities and the proposed Adjustment of the Owner Utilities in the Original Agreement is hereby amended to add the following utility facility(ies) (“Additional Owner Utilities”) and proposed Adjustment(s) to the Owner Utilities described in the Original Agreement *[insert below a description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., “adjust 12” waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00)]*; and

- (b) The Plans, as defined in Paragraph 1 of the Original Agreement, are hereby amended to add thereto the plans, specifications and cost estimates attached hereto as Exhibit A.
- (c) The Plans attached hereto as Exhibit A, along with this Amendment, shall be submitted upon execution to TxDOT in accordance with Paragraph 2 of the Original Agreement, and Paragraph 2 shall apply to this Amendment and the Plans attached hereto in the same manner as if this Amendment were the Original Agreement. If the Owner claims an Existing Interest for any of the Additional Owner Utilities, documentation with respect to such claim shall be submitted to TxDOT as part of this Amendment and the attached Plans, in accordance with Paragraph 15(a) of the Original Agreement.

1.2 **Reimbursement of Owner's Indirect Costs.** For purposes of Paragraph 6 of the Original Agreement, the following terms apply to the Additional Owner Utilities and proposed Adjustment:

- (a) Developer agrees to reimburse the Owner its share of the Owner's indirect costs (e.g., engineering, inspection, testing, ROW) as identified in Exhibit A. When requested by the Owner, monthly progress payments will be made. The monthly payment will not exceed 80% of the estimated indirect work done to date. Once the indirect work is complete, final payment of the eligible indirect costs will be made. Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.
- (b) The Owner's indirect costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below [*check only one box*]:
 - (1) Actual related indirect costs accumulated in accordance with (i) a work order accounting procedure prescribed by the applicable Federal or State regulatory body, or (ii) established accounting procedure developed by the Owner and which the Owner uses in its regular operations (either (i) or (ii) referred to as "Actual Cost") or,
 - (2) The agreed sum of \$_____ ("Agreed Sum") as supported by the analysis of the Owner's estimated costs attached hereto as part of Exhibit A.

1.3 **Advancement of Funds by Owner for Construction Costs.**

- (a) Advancement of Owner's Share, if any, of Estimated Costs

Exhibit A shall identify all estimated engineering and construction-related costs, including labor, material, equipment and other miscellaneous construction items. Exhibit A shall also identify the Owner's and Developer's respective shares of the estimated costs.

The Owner shall advance to the Developer its allocated share, if any, of the estimated costs for construction and engineering work to be performed by Developer, in accordance with the following terms:

- The adjustment of the Owner's Utilities does not require advancement of funds.
- The adjustment of the Owner's Utilities does require advancement of funds and the terms agreed to between the Developer and Owner are listed below.

[Insert terms of advance funding to be agreed between Developer and Owner.]

(b) Adjustment Based on Actual Costs or Agreed Sum

[Check the one appropriate provision, if advancement of funds is required]:

- The Owner is responsible for its share of the Developer actual cost for the Adjustment, including the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Amendment, (i) the Owner shall pay to the Developer the amount, if any, by which the actual cost of the Betterment (as determined in Paragraph 9(b)) plus the actual cost of Owner's share of the Adjustment (based on the allocation set forth in Exhibit A) exceeds the estimated cost advanced by the Owner, or (ii) the Developer shall refund to the Owner the amount, if any, by which such advance exceeds such actual cost, as applicable.
- The Agreed Sum is the agreed and final amount due for the Adjustment, including any Betterment, under this Amendment. Accordingly, no adjustment (either up or down) of such amount shall be made based on actual costs.

1.4 **Reimbursement of Owner's Indirect Costs.** For purposes of Paragraph 6 of the Original Agreement, the following terms apply to the Additional Owner Utilities and proposed Adjustment:

- (a) Developer agrees to reimburse the Owner its share of the Owner's indirect costs (e.g., engineering, inspection, testing, ROW) as identified in Exhibit A. When requested by the Owner, monthly progress payments will be made. The monthly payment will not exceed 80% of the estimated indirect work done to date. Once the indirect work is complete, final payment of the eligible indirect costs will be made. Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.
- (b) The Owner's indirect costs associated with Adjustment of the Owner Utilities shall be developed pursuant to the method checked and described below *[check only one box]*:
 - (1) Actual related indirect costs accumulated in accordance with (i) a work order accounting procedure prescribed by the applicable Federal or State regulatory body, or (ii) established accounting procedure developed by the Owner and which the Owner uses in its regular operations (either (i) or (ii) referred to as "Actual Cost") or,

- (2) The agreed sum of \$_____ (“Agreed Sum”) as supported by the analysis of the Owner’s estimated costs attached hereto as part of Exhibit A.

1.5 **Responsibility for Costs of Adjustment Work.** For purposes of Paragraph 4 of the Original Agreement, responsibility for the Agreed Sum or Actual Cost, as applicable, of all Adjustment work to be performed pursuant to this Amendment shall be allocated between the Developer and the Owner as identified in Exhibit A hereto and in accordance with §203.092, Texas Transportation Code. An allocation percentage may be determined by application of an Eligibility Ratio, if appropriate, as detailed in Exhibit A, provided however, that any portion of an Agreed Sum or Actual Cost attributable to Betterment shall be allocated 100% to the Owner in accordance with Paragraph 9 of the Original Agreement.

1.6 **Betterment.**

(a) Paragraph 9(b) (Betterment and Salvage) of the Original Agreement is hereby amended to add the following [*Check the one box that applies, and complete if appropriate*]:

- The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, does not include any Betterment.
- The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, includes Betterment to the Additional Owner Utilities by reason of [*insert explanation, e.g. “replacing 12” pipe with 24” pipe*]: _____. The Developer has provided to the Owner comparative estimates for (i) all work to be performed by the Developer pursuant to this Amendment, including work attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Owner. The estimated cost of the Developer work under this Amendment which is attributable to Betterment is \$_____, calculated by subtracting (ii) from (i). The percentage of the total cost of the Developer work under this Amendment which is attributable to Betterment is _____%, calculated by subtracting (ii) from (i), which remainder is divided by (i).

(b) If the above Paragraph 1.6(a) identifies Betterment, the Owner shall advance to the Developer, at least **fourteen (14) days** prior to the date scheduled for commencement of construction for Adjustment of the Additional Owner Utilities, the estimated cost attributable to Betterment as set forth in Paragraph 1.6(a) of this Amendment. If the Owner fails to advance payment to the Developer on or before the foregoing deadline, the Developer shall have the option of commencing and completing (without delay) the Adjustment work without installation of the applicable Betterment. [*Check the one appropriate provision*]:

- The estimated cost stated in Paragraph 1.6(a) of this Amendment is the agreed and final amount due for Betterment under this Amendment, and accordingly no adjustment (either up or down) of such amount shall be made based on actual costs.
- The Owner is responsible for the Developer Actual Cost for the identified Betterment. Accordingly, upon completion of all Adjustment work to be performed by both parties pursuant to this Amendment, (i) the Owner shall pay to the Developer the amount, if any, by which the actual cost of the Betterment (determined as provided below in this paragraph) exceeds the estimated cost advanced by the Owner, or (ii) the Developer shall refund to the Owner the

amount, if any, by which such advance exceeds such actual cost, as applicable. Any additional payment by the Owner shall be due within **sixty (60) days** after the Owner's receipt of the Developers invoice therefor, together with supporting documentation; any refund shall be due within **sixty (60) days** after completion of the Adjustment work under this Amendment. The Actual Cost of Betterment incurred by the Developer shall be calculated by multiplying (i) the Betterment percentage stated in Paragraph 1.6(a) of this Amendment, by (ii) the Actual Cost of all work performed by the Developer pursuant to this Amendment (including work attributable to the Betterment), as invoiced by the Developer to the Owner.

- (c) The determinations and calculations of Betterment described in this Amendment shall exclude right-of-way acquisition costs. Betterment in connection with right-of-way acquisition is addressed in Paragraph 15 of the Original Agreement.

1.7 **Miscellaneous.**

- (a) Owner and Developer agree to refer to this Amendment, designated by the "Amendment No." and "Agreement Number" indicated on page 1 above, on all future correspondence regarding the Adjustment work that is the subject of this Amendment and to track separately all costs relating to this Amendment and the Adjustment work described herein.
- (b) *[Include any other proposed amendments allowed by applicable law.]*



2. **General.**

- (a) All capitalized terms used in this Amendment shall have the meanings assigned to them in the Original Agreement, except as otherwise stated herein.
- (b) This Amendment may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one and the same instrument.
- (c) Except as amended hereby, the Original Agreement shall remain in full force and effect. In no event shall the responsibility, as between the Owner and the Developer, for the preparation of the Plans and the Adjustment of the Owner Utilities be deemed to be amended hereby.
- (d) This Amendment shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the Developer) signing this Amendment, and (b) the completion of TxDOT's review and approval as indicated by the signature of TxDOT's representative, below.

APPROVED BY:

**TEXAS DEPARTMENT OF
TRANSPORTATION**

OWNER

[Print Owner Name]

By: _____
Authorized Signature

By: _____
Duly Authorized Representative

Printed
Name: _____

Printed
Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

DEVELOPER

By: _____
Duly Authorized Representative

Printed
Name: _____

Title: _____

Date: _____

County:
Highway:
Limits:
Fed. Proj. No.:
ROW CSJ No.:
Const. CSJ No.:

UTILITY ADJUSTMENT AGREEMENT AMENDMENT (Owner Managed)

(Amendment No. to Agreement No.: -U-)

THIS AMENDMENT TO PROJECT UTILITY ADJUSTMENT AGREEMENT (this “Amendment”), by and between, hereinafter identified as the “**Developer**”, and _____, hereinafter identified as the “**Owner**”, is as follows:

WITNESSETH

WHEREAS, the STATE of TEXAS, acting by and through the Texas Department of Transportation, hereinafter identified as “TxDOT”, proposes to construct the toll project identified above (the “Project”, as more particularly described in the “Original Agreement”, defined below); and

WHEREAS, pursuant to that certain Development Agreement (“DA”) by and between TxDOT and the Developer with respect to the Project, the Developer has undertaken the obligation to design, construct, and potentially maintain the Project, including causing the removal, relocation, or other necessary adjustment of existing utilities impacted by the Project (collectively, “Adjustment”); and

WHEREAS, the Owner and Developer are parties to that certain executed Project Utility Adjustment Agreement designated by the “Agreement No.” indicated above, as amended by previous amendments, if any (the “Original Agreement”), which provides for the adjustment of certain utilities owned and/or operated by the Owner (the “Utilities”); and

WHEREAS, the parties are required to utilize this Amendment form in order to modify the Original Agreement to add the adjustment of Owner utilities facilities not covered by the Original Agreement; and

WHEREAS, the parties desire to amend the Original Agreement to add additional Owner utility facility(ies), on the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the agreements contained herein, the parties hereto agree as follows:

1. **Amendment.** The Original Agreement is hereby amended as follows:
 - (a) The description of the Owner Utilities and the proposed Adjustment of the Owner Utilities in the Original Agreement is hereby amended to add the following facility(ies) (“Additional Owner Utilities”) and proposed Adjustment(s) *[insert below a description of the affected facilities (by type, size and location) as well as a brief description of the nature of the Adjustment work to be performed (e.g., “adjust 12” waterline from approximately Highway Station 100+00 to approximately Highway Station 200+00)]*:
 - (b) The Plans, as defined in Paragraph 1 of the Original Agreement, are hereby amended to add thereto the plans, specifications and cost estimates attached hereto as Exhibit A.

- (c) The Plans attached hereto as Exhibit A, along with this Amendment, shall be submitted upon execution to TxDOT in accordance with Paragraph 2 of the Original Agreement, and Paragraph 2 shall apply to this Amendment and the Plans attached hereto in the same manner as if this Amendment were the Original Agreement. If the Owner claims an Existing Interest for any of the Additional Owner Utilities, documentation with respect to such claim shall be submitted to TxDOT as part of this Amendment and the attached Plans, in accordance with Paragraph 16(a) of the Original Agreement.
- (d) Paragraph 4(f) of the Original Agreement is hereby amended to add the following deadline for the Adjustment of the Additional Owner Utilities *[check one box that applies]*:
- Owner shall complete all of the utility reconstruction and relocation work, including final testing and acceptance thereof, on or before _____, 20____.
- Owner shall complete all of the utility reconstruction and relocation work, including final testing and acceptance thereof, within _____ calendar days after delivery to Owner of a notice to proceed by Developer.
- (e) For purposes of Paragraph 5(b) of the Original Agreement, the Owner's costs associated with Adjustment of the Additional Owner Utilities shall be developed pursuant to the method checked and described below, *[check only one box]*:
- (1) Actual costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body ("Actual Cost"); or
- (2) Actual costs accumulated in accordance with an established accounting procedure developed by the Owner and which the Owner uses in its regular operations ("Actual Cost"); or
- (3) The agreed sum of \$_____ ("Agreed Sum"), as supported by the analysis of estimated costs attached hereto as part of Exhibit A
- (f) For purposes of Paragraph 6 of the Original Agreement, responsibility for the Agreed Sum or Actual Cost, as applicable, of all Adjustment work to be performed pursuant to this Amendment shall be allocated between the Developer and the Owner as identified in Exhibit A and in accordance with §203.092 of the Texas Transportation Code. An allocation percentage may be determined by application of an Eligibility Ratio, if appropriate, as detailed in Exhibit A; provided, however, that any portion of an Agreed Sum or Actual Cost attributable to Betterment shall be allocated 100% to the Owner in accordance with Paragraph 10 of the Original Agreement.
- (g) Paragraph 10(b) of the Original Agreement is hereby amended to add the following *[Check the one box that applies]*:
- The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, does not include any Betterment.
- The Adjustment of the Additional Owner Utilities, pursuant to the Plans as amended herein, includes Betterment to the Additional Owner Utilities by reason of *[insert explanation, e.g. "replacing 12" pipe with 24" pipe]*: _____. The Owner has provided to the Developer comparative estimates for (i) all costs for work to be performed by the Owner pursuant to this Amendment, including work

attributable to the Betterment, and (ii) the cost to perform such work without the Betterment, which estimates are hereby approved by the Developer. The estimated amount of the Owner's costs for work under this Agreement which is attributable to Betterment is \$_____, calculated by subtracting (ii) from (i). The percentage of the total cost of the Owner's work hereunder which is attributable to Betterment is _____%, calculated by subtracting (ii) from (i) which remainder shall be divided by (i).

- (h) The following shall apply to any Betterment described in Paragraph 1(g) of this Amendment:
- (i) If the Owner's costs are developed under procedure (3) described in Paragraph 1(e) of this Amendment, then the agreed sum stated in that Paragraph includes any credits due to the Developer on account of the identified Betterment, and no further adjustment shall be made on account of same.
- (ii) If the Owner's costs are developed under procedure (1) or (2) described in Paragraph 1(e) of this Amendment, the parties agree as follows [*check the one appropriate provision*]:
- The estimated cost stated in Paragraph 1(g) of this Amendment is the agreed and final amount due for Betterment under this Amendment. Accordingly, each intermediate invoice submitted for Adjustment(s) of the Additional Owner Utilities pursuant to Paragraph 7(b) of the Original Agreement shall credit the Developer with an appropriate amount of the agreed Betterment amount, proportionate to the percentage of completion reflected in such invoice. The final invoice submitted for Adjustment(s) of the Additional Owner Utilities pursuant to Paragraph 7(a) of the Original Agreement shall reflect the full amount of the agreed Betterment credit. For each invoice described in this paragraph, the credit for Betterment shall be applied before calculating the Developer's share (pursuant to Paragraph 1(e) of this Amendment) of the cost of the Adjustment work. No other adjustment (either up or down) shall be made based on actual Betterment costs.
- The Owner is responsible for the actual cost of the identified Betterment, determined by multiplying (a) the Betterment percentage stated in Paragraph 1(g) of this Amendment, by (b) the actual cost of all work performed by the Owner pursuant to this Amendment (including work attributable to the Betterment), as invoiced by the Owner to the Developer. Accordingly, each invoice submitted for Adjustment of the Additional Owner Utilities pursuant to either Paragraph 7(a) or Paragraph 7(b) of the Original Agreement shall credit the Developer with an amount calculated by multiplying (x) the Betterment percentage stated in Paragraph 1(g) of this Amendment, by (y) the amount billed on such invoice.
- (i) The determinations and calculations of Betterment described in this Amendment shall exclude right-of-way acquisition costs. Betterment in connection with right-of-way acquisition is addressed in Paragraph 16 of the Original Agreement.
- (j) Owner and the Developer agree to refer to this Amendment, designated by the "Amendment No." and "Agreement number" indicated on page 1 above, on all future correspondence regarding the Adjustment work that is the subject of this Amendment and to track separately all costs relating to this Amendment and the Adjustment work described herein.

- (k) *[Include any other proposed amendments in compliance with the applicable law.]*



2. **General.**

- (a) All capitalized terms used in this Amendment shall have the meanings assigned to them in the Original Agreement, except as otherwise stated herein.
- (b) This Amendment may be executed in any number of counterparts. Each such counterpart hereof shall be deemed to be an original instrument but all such counterparts together shall constitute one and the same instrument.
- (c) Except as amended hereby, the Original Agreement shall remain in full force and effect. In no event shall the responsibility, as between the Owner and the Developer, for the preparation of the Plans and the Adjustment of the Owner Utilities be deemed to be amended hereby.
- (d) This Amendment shall become effective upon the later of (a) the date of signing by the last party (either the Owner or the Developer) signing this Amendment, and (b) the completion of TxDOT's review and approval as indicated by the signature of TxDOT's representative, below.

APPROVED BY:

**TEXAS DEPARTMENT OF
TRANSPORTATION**

OWNER

[Print Owner Name]

By: _____
Authorized Signature

By: _____
Duly Authorized Representative

Printed
Name: _____

Printed
Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

DEVELOPER

By: _____
Duly Authorized Representative

Printed
Name: _____

Title: _____

Date: _____

Texas Department of Transportation
TECHNICAL PROVISIONS

STATE HIGHWAY 360
Attachment 8-1
ESAL Counts

TRAFFIC ANALYSIS FOR HIGHWAY DESIGN

Fort Worth District

October 24, 2011

										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2020 to 2040)			
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB	
	2020	2040			ADT	DHV							
	Base Year				Base Year								
<u>SH 360</u> <u>Section 1</u> From Green Oaks Blvd To Holland Road Tarrant County	80,000	119,800	62 - 38	10.5	6.5	4.3	15,100	40	18,352,000	3	23,627,000	8"	
Data for Use in Air & Noise Analysis													
Vehicle Class		Base Year											
		% of ADT	% of DHV										
Light Duty		93.5	95.7										
Medium Duty		3.1	2										
Heavy Duty		3.4	2.3										
										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 30 Year Period (2020 to 2050)			
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB	
	2020	2050			ADT	DHV							
	Base Year				Base Year								
<u>SH 360</u> <u>Section 1</u> From Green Oaks Blvd To Holland Road Tarrant County	80,000	145,400	62 - 38	10.5	6.5	4.3	15,300	40	31,053,000	3	39,980,000	8"	

TRAFFIC ANALYSIS FOR HIGHWAY DESIGN

Fort Worth District

October 24, 2011

										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 20 Year Period (2020 to 2040)													
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Base Year Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB											
	2020	2040			ADT	DHV																	
Data for Use in Air & Noise Analysis																							
Vehicle Class	Base Year																						
	% of ADT	% of DHV																					
Light Duty	94.4	96.3																					
Medium Duty	2.7	1.8																					
Heavy Duty	2.9	1.9																					
										Total Number of Equivalent 18k Single Axle Load Applications One Direction Expected for a 30 Year Period (2020 to 2050)													
Description of Location	Average Daily Traffic		Dir Dist %	K Factor	Base Year Percent Trucks		ATHWLD	Percent Tandem Axles in ATHWLD	Flexible Pavement	S N	Rigid Pavement	SLAB											
	2020	2050			ADT	DHV																	
<p style="text-align: center;"><u>SH 360</u></p> <p style="text-align: center;"><u>Section 2</u></p> <p>From Holland Road To US 287</p> <p>Tarrant County</p>												44,500	81,100	62 - 38	10.5	5.6	3.7	14,200	50	9,958,000	3	12,809,000	8"
<p style="text-align: center;"><u>SH 360</u></p> <p style="text-align: center;"><u>Section 2</u></p> <p>From Holland Road To US 287</p> <p>Tarrant County</p>												44,500	103,900	62 - 38	10.5	5.6	3.7	14,500	50	17,649,000	3	22,700,000	8"

Texas Department of Transportation

TECHNICAL PROVISIONS

STATE HIGHWAY 360

DESIGN-BUILD PROJECT

Attachment 11-1

Roadway Design Criteria

TABLE 11-1: Geometric Design Criteria

	SH 360 Main lanes	Ramps and Transitions	Direct Connectors	SH 360 Frontage Roads	Cross Streets
Functional Classification	Urban Freeway	Urban Freeway	Urban Freeway	Urban Collector	See Table 11-2
Design Speed (MPH)	70	50	50	40	See Table 11-2
Stopping Sight Distance (ft)	730	425	425	305	-
Horizontal Alignment					
Superelevation	e(max)= 6%	e(max)= 6%	e(max)= 6%	e(max)= 6%	N/A
Minimum Radius of Curvature (ft)	3390	1050	1050	485	-
Vertical Alignment					
Minimum Grade (%)	0.5	0.5	0.5	0.35 (curbed)	-
Maximum Grade (%)	3	4	4	7	-
Crest (Min. K-Value)	247	84	84	44	-
Sag (Min. K-Value)	181	96	96	64	-
Cross Section					
Lane Widths (ft)	12	14	14	12 ⁴	12-14
Inside Shoulder Widths (ft)	4-24 ¹	4	4	2' curb offset	-
Outside Shoulder Widths (ft)	6-22 ²	8	8	10 ⁴	-
Pavement Cross Slope (ft/ft)	0.0200 ³	0.0200	0.0200	0.0200	0.0200
Clear Zone					
Within Clear Zone	6:1	6:1	6:1	1.5% max for sidewalks	1.5% max
Outside of Clear Zone	4:1 max	4:1 max	4:1 max	4:1 max	3:1 max
Clear Zone Width (ft)	30	16	16	4' min / 6' des / 6' min to column	4' min / 6' des / 6' min to column

1. 4' inside shoulder only for new Super 2 SB passing lane area.
2. 6' outside shoulder only for new Super 2 SB passing lane area.
3. 2% for 2 interior lanes, then 2.5% for outside lanes
4. Outside lane width shall be 12' when 10' shoulder is used; otherwise a 14' outside lane is required to accommodate bicycle traffic.
5. Design vehicle WB-62
6. Design speed for SSD on direct connector ramps shall be 45 mph.

Texas Department of Transportation

TECHNICAL PROVISIONS

STATE HIGHWAY 360

DESIGN-BUILD PROJECT

Attachment 11-2

Cross Street Design Criteria

TABLE 11-2 Cross Streets – Interim

Intersecting Street	Functional Classification	Design Speed (MPH)	Configuration (Over/Under)	Design Vehicle	CONFIGURATION													
					EASTBOUND								WESTBOUND					
					U-Turn	Sidewalk Width	Curb	Curb/Barrier Offset (to face)	Through Lanes	Shoulders	Turn Lanes	Median	Shoulders	Through Lanes	Curb/Barrier Offset (to face)	Curb	Sidewalk Width	U-Turn
E. Sublett Rd / W. Camp Wisdom Rd	Urban Major Arterial	35	Over	WB-62	N	11' 5' min	Y	2'	2 (1-12' 1-14')	N	Y (2-12')	N	N	2 (1-12' 1-14')	N/A	N	N/A	N
Webb Lynn Rd / Lynn Creek Parkway	Urban Minor Collector	35	Over	WB-62	N	N/A	N	N/A	2 (1-12' 1-14')	N	Y (2-11')	N	N	1 (14')	2'	Y	9'	Y (24')
New York Ave ¹	Urban Major Collector	20	Under	WB-62	Y (20')	-												Y (20')
Debbie Ln / Ragland Rd	Urban Major Arterial	35	Over	WB-62	N	8.5'	Y	2'	1 (14')	N	Y (3-12')	N	N	1 (14')	2 ²	N	N/A	N
Holland Rd	Urban Principal Arterial	30	Over	WB-62	N	8.5'	Y	2'	2 (1-12' 1-14')	N	N	N	N	2 (1-12' 1-14')	2 ²	N	N/A	N
Broad St	Urban Principal Arterial	40	Over	WB-62	N	8.5'	Y	2'	2 (1-12' 1-14')	N	Y (2-12')	N	N	2 (1-12' 1-14')	2 ²	N	N/A	N
Heritage Pkwy	Urban Principal Arterial	40	Over	WB-62	N	8.5'	Y	2'	2 (1-12' 1-14')	N	N	N	N	2 (1-12' 1-14')	2 ²	N	N/A	N
Lone Star Rd	Urban Principal Arterial	40	Under	WB-62	N	8.5'	Y	2'	1 (14')	N	Y (2-12')	Y (8')	N	1 (14')	2'	Y	N/A	N
Matlock Rd at SH 360	Urban Major Arterial	40	N/A	WB-62	N	N/A	Y	2'	1 (12')	N	N	N	N	1 (12')	2'	Y	5'	N

¹ Design criteria for "New York Ave" are for U-Turns only.

² To bridge rail face.

TABLE 11-3 Cross Streets – Ultimate

Intersecting Street	Functional Classification	Design Speed (MPH)	Configuration (Over/Under)	Design Vehicle	CONFIGURATION													
					EASTBOUND								WESTBOUND					
					U-Turn	Sidewalk Width	Curb	Curb/Barrier Offset (to face)	Through Lanes	Shoulders	Turn Lanes	Median	Shoulders	Through Lanes	Curb/Barrier Offset (to face)	Curb	Sidewalk Width	U-Turn
E. Sublett Rd / W. Camp Wisdom Rd	Urban Major Arterial	35	Over	WB-62	Y (24')	11' 5' min	Y	2'	3 (2-12' 1-14')	N	Y (2-12')	Y (5', striped)	N	3 (2-12' 1-14')	2'	Y	11' 5' min	Y (24')
Webb Lynn Rd / Lynn Creek Parkway	Urban Minor Collector	35	Over	WB-62	Y (24')	9' 5' min	Y	2'	2 (1-11' 1-14')	N	Y (1-12')	Y (5', striped)	N	2 (1-11' 1-14')	2'	Y	9' 5' min	Y (24')
New York Ave	Urban Major Collector	40	Under	WB-62	Y (24')	5' min	Y	2'	2 (1-12' 1-14')	N	Y (2-12')	Y (20')	N	2 (1-12' 1-14')	2'	Y	5' min	Y (24')
Debbie Ln / Ragland Rd	Urban Major Arterial	35	Over	WB-62	Y (24')	8.5' 5' min	Y	2'	2 (1-12' 1-14')	N	Y (2-12')	Y (8')	N	2 (1-12' 1-14')	2'	Y	8.5' 5' min	Y (24')
Holland Rd	Urban Principal Arterial	30	Over	WB-62	Y (24')	9' 5' min	Y	2'	3 (2-12' 1-14')	N	Y (1-12')	Y (15')	N	3 (2-12' 1-14')	2'	Y	9' 5' min	Y (24')
Broad St	Urban Principal Arterial	40	Over	WB-62	Y (24')	9' 5' min	Y	2'	3 (2-12' 1-14')	N	Y (2-12')	Y (8')	N	2 (1-12' 1-14')	2'	Y	21' 5' min	Y (24')
Heritage Pkwy	Urban Principal Arterial	40	Over	WB-62	Y (24')	9' 5' min	Y	2'	3 (2-12' 1-14')	N	Y (1-15')	N	N	3 (2-12' 1-14')	2'	Y	9' 5' min	Y (24')
Lone Star Rd	Urban Principal Arterial	40	Under	WB-62	Y (24')	5' min	Y	2'	2 (1-12' 1-14')	N	Y (2-12')	Y (8')	N	2 (1-12' 1-14')	2'	Y	5' min	Y (24')
Matlock Rd at SH 360	Urban Major Arterial	40	Under	WB-62	Y (24')	5' min	Y	2'	2 (1-12' 1-14')	N	Y (2-12')	Y (20')	N	2 (1-12' 1-14')	2'	Y	5' min	Y (24')

Texas Department of Transportation
TECHNICAL PROVISIONS

STATE HIGHWAY 360
Attachment 13-1
PSN Request Form

PSN REQUEST FORM

Description:

County Name:

County Number:

Built CSJ:

Controlling CSJ:

Controlling Roadway:

Feature Crossed: (what is under the bridge, creek, road, RR, etc.)

Feature Carried: (what is "on" the bridge, highway etc.)

Old Structure #:(if being replaced)

Beginning Bridge Station #

Ending Bridge Station #

Route Direction:

Not Applicable **NOTE: If you use North/South or East/West together you are specifying that the bridge deck is carrying both directions of traffic.**

Intersecting Route:

Letting Date: (Must be within 1 year of request date)

Additional Comments:

PSN REQUEST FORM

Description:

County Name:

County Number:

Built CSJ:

Controlling CSJ:

Controlling Roadway:

Feature Crossed: (what is under the bridge, creek, road, RR, etc.)

Feature Carried: (what is "on" the bridge, highway etc.)

Old Structure #:(if being replaced)

Beginning Bridge Station #

Ending Bridge Station #

Route Direction:

Not Applicable **NOTE: If you use North/South or East/West together you are specifying that the bridge deck is carrying both directions of traffic.**

Intersecting Route:

Letting Date: (Must be within 1 year of request date)

Additional Comments:

Texas Department of Transportation

TECHNICAL PROVISIONS

STATE HIGHWAY 360

DESIGN-BUILD PROJECT

Attachment 14-1

Railroad Agreement

Tarrant and Ellis County
CSJ 2266-02-103
Project NH () M
SH 360 in Mansfield (Proposed)
DOT No. 411 744S

STATE OF TEXAS §

COUNTY OF TRAVIS § CONTRACT NO 022XXX5005

**TEXAS DEPARTMENT OF TRANSPORTATION
RAILROAD HIGHWAY UNDERPASS AGREEMENT**

THIS AGREEMENT, made on the date hereinafter shown as being fully executed, by and between the State of Texas, acting by and through the Texas Department of Transportation, hereinafter called the "State" and/or "Department," and the Union Pacific Railroad Company, a Delaware corporation, hereinafter called the "Railroad," acting by and through its official contracting executives.

W I T N E S S E T H

WHEREAS, the State proposes to construct **SH 360** under the tracks of the Railroad at **Railroad Milepost 31.00 (Highway Station 1106+13.99) in Mansfield, Texas, Tarrant and Ellis Counties,** Texas, and the State proposes to construct an underpass structure, as shown on the print marked Exhibit "A," attached hereto and made a part hereof.

WHEREAS, all work to be performed and all materials to be provided will be at the State's expense.

A G R E E M E N T

NOW THEREFORE, in consideration of the premises and of mutual covenants and agreements of the parties hereto, to be by them respectively kept and performed as hereinafter set forth, it is agreed as follows:

1. LICENSE.

a. The Railroad hereby gives to the State license and permission for the construction, maintenance, and use of the aforesaid underpass structure and highway across its property and under its tracks at the intersection of the railroad and highway, as shown on Exhibit "A." The license, given hereby, shall not prevent the Railroad from operating its trains or multiplying or changing its tracks across the land over which license has been given or under the underpass contemplated hereby.

b. It is agreed that should the property or any portion thereof, which is licensed hereunder, cease to be used for public road purposes, this license, as to the portion so abandoned, shall immediately cease and terminate.

2. PLANS, ESTIMATES, CONSTRUCTION, and MAINTENANCE.

a. In order to provide for the safety of rail traffic, the Railroad may provide, at State's expense, flaggers during the period of performance of work in or incident to the proposed underpass construction. The State shall give the Railroad's Superintendent of Transportation at least 72 hours written notice prior to commencement of any work hereunder.

b. The Railroad shall perform the flagging to be done by the Railroad as required by the project only after receipt of a written Work Order from the State to proceed withsame. Payment will not be made for flagging done by the Railroad which is performed at the project site prior to the issuance of a "Work Order" by the State. The providing of this service shall not relieve the State and/or its Contractor of any responsibility or liability.

c. The State agrees to prepare plans and specifications, subject to approval by the Railroad, for the proposed underpass. Said plans and specifications, after having been approved in writing by the State and the Railroad, are hereby adopted as plans and specifications covering the construction of said underpass structure and, when so approved, shall be attached hereto, marked "Exhibit B," and made a part hereof. No changes in the Exhibit "B" are to be made without the written approval of such changes by the State and the Railroad.

d. The State shall furnish material for and perform the work to be done by it hereunder in accordance with the approved plans and specifications. The State shall construct the underpass structure(s), drainage facilities, and build its roadway, sidewalks, and pavement across the Railroad's right of way as shown on the plans and in accordance with approved specifications and shall maintain or arrange for the maintenance of these facilities.

e. The Railroad, unless otherwise provided, shall make such changes or alterations in the tracks, communication and signal pole and wire lines, pipe sewer and drainage or other facilities or buildings located upon the Railroad's right of way, which may be displaced or required by the construction of the project, as may be necessary to maintain continuous service and conform them to said construction and restore them to former condition for service either prior to, during, or following construction of said work. The Railroad shall prepare estimates, subject to approval by the State, for the adjustment of such facilities. The Railroad should also include flagging and engineering in the estimate. Only work shown in the estimates will be reimbursed.

f. The Railroad shall commence the work to be done by it herein within thirty (30) days, after receipt of written notice from the State that the work may proceed and shall proceed diligently to the conclusion of its obligations herein. Assembly of materials should be made sufficiently in advance of the work to assure prompt delivery to the jobsite.

g. The State assumes the entire responsibility for the construction, maintenance, and use of said highway upon the Railroad's property at the location herein described and nothing contained herein shall ever be construed to place upon the Railroad any manner of liability for injury to or death of persons, or for damage to or loss of property arising from or in any manner connected with the construction, maintenance, or use of the portion of said highway located upon the Railroad's said property.

h. Upon completion of the underpass project, the State shall maintain or, arrange for the maintenance of the substructure units of the underpass, consisting of the piers, abutments, and wingwalls, and shall maintain or arrange for the maintenance of the highway, roadway, walks, and drainage across

the Railroad's right of way. The Railroad, at its expense, shall maintain the super-structure units of the underpass, including the beams, shoes, deck, waterproofing, track, and all Railroad facilities, except that the State will assume the repair costs on damage to beams and deck caused by highway traffic. In the event of damage to beams and/or deck by highway traffic, the extent and method of repair shall be agreed upon by the State and Railroad. In the future maintenance painting of the structural steel, the Railroad shall retain the original aluminum color and keep the underpass structure free of all advertising matter or insignia, except such identification lettering as may be approved by the State.

3. INSURANCE.

The contract or contracts to be let by the State for the construction of the work to be undertaken by it hereunder shall provide:

a. Comprehensive General Liability Insurance Policy. The Department's Contractor shall furnish evidence to the State that, with respect to the operations the Contractor performs, the Contractor carries a Standard Comprehensive General Liability Insurance Policy providing limits of not less than two million dollars (\$2,000,000) for bodily injury and property damage per occurrence, and not less than two million dollars (\$2,000,000) aggregate for all occurrences.

If any part of the work is sublet, similar insurance shall be provided by or on behalf of the subcontractors to cover their operations.

b. Contractors' Protective Liability Insurance. The Department's Contractor shall furnish evidence to the State that, with respect to the operations performed for the Contractor by subcontractors, the Contractor carries on his own behalf a Contractors' Protective Liability Insurance Policy providing for a limit of not less than two million dollars (\$2,000,000) for bodily injury and property damage per occurrence, and not less than two million dollars (\$2,000,000) aggregate for all occurrences.

c. Railroad Protective Liability Insurance (which includes Bodily Injury, Property Damage, and Physical Damage Insurance). The Department's Contractor shall furnish an original policy to the State for and on behalf of the Railroad which, with respect to the operations the Contractor or any subcontractors perform, provides the Standard Railroad Protective Liability Insurance Policy, with a limit of not less than two million dollars (\$2,000,000) for bodily injury, property damage and physical damage to property, and not less than six million dollars (\$6,000,000) aggregate for all occurrences.

d. General. The insurance specified in paragraphs a. and b. shall be carried until all work required to be performed under the terms of the contract is satisfactorily completed as evidenced by formal acceptance by the State.

The insurance specified in paragraph c. above shall be carried until all work performed on the Railroad right of way has been completed and the temporary grade crossing, if any, is no longer used by the Contractor.

4. PAYMENT.

a. No payment will be due the Railroad unless a Work Order for work to begin is issued. This Work Order will normally be issued shortly after the contract letting.

b. Reimbursement to the Railroad will be made for work performed and materials furnished, including but not limited to, insurance premiums and coverage at the rate and amount set forth in the approved cost estimate attached, in accordance with the provisions of the Federal-Aid Policy Guide, Subchapter B, Part 140, Subpart I, issued by the Federal Highway Administration on December 9, 1991 and amendments thereto except as modified by the provisions herein.

c. The cost of preliminary engineering is ineligible for reimbursement with Federal funds due to being incurred prior to date of program approval and will therefore be reimbursed with State funds if incurred after the State's request for preparation of estimates.

d. The Railroad may submit monthly bills of at least \$500.00, prepared in satisfactory form for work performed and materials installed. Payment will be made for as much as 95% of the costs detailed on the bills.

e. The Railroad will submit a complete and final bill, including all eligible costs, when the project is completed, and the State will pay to the Railroad as much as 95% of the costs detailed on the bill. After audit of the Railroad's documentation for the final bill, the State will make payment of the complete balance due the Railroad.

f. The Railroad shall retain adequate cost accounting records for auditing purposes for a period of three years after payment of the final bill.

5. CONDITIONS.

a. The State reserves the right to cancel this agreement for any reason and at any time prior to the issuance of a "Work Order" by the State to the Railroad to proceed with any part of the Railroad's flagging work. The State will not be responsible for any expense incident to any cost incurred in the event of the cancellation of this contract, unless a "Work Order" was issued by the State and the Railroad incurred expenses pursuant to that "Work Order."

b. In accordance with the Federal-Aid Policy Guide, Subchapter G, Part 646, Subpart B, the Railroad will not be required to participate in the cost of the project.

c. Upon execution by all parties, this agreement will be in effect and continue thereafter for so long as the Railroad premises shall be used for the purposes set forth herein; provided, however, if the State shall abandon the use of the Railroad premises, or any part thereof for such purposes, this permission and the rights and privileges granted hereby as to the portion or portions so abandoned whereupon the Railroad shall have the same complete title to the Railroad premises so abandoned as though these presents had never been executed and the right to enter thereon, and exclude therefrom the State, its successors, and assigns.

d. The State shall not assign this agreement, in whole or in part, or any rights herein granted, without the written consent of the Railroad, and it is agreed that any transfer or assignment or attempted transfer or assignment of this agreement or any of the rights herein granted, whether voluntary, by operation of law, or otherwise, without such consent in writing, shall be absolutely void and at the option of the Railroad shall terminate this agreement.

6. PROTECTION OF FIBER OPTIC CABLE SYSTEMS. Fiber optic cable systems may be buried on the Railroad's property. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. The State and/or its Contractor shall telephone the Railroad at 1-800-336-9193 (a 24-hour number) to determine if fiber optic cable is buried anywhere on the Railroad's premises to be used by the State. If it is, the State and/or its Contractor will telephone the telecommunications company(ies) involved, arrange for a cable locator, and make arrangements for relocation or other protection of the fiber optic cable prior to beginning any work on the Railroad's premises.

7. NOTIFICATION. The State agrees to notify the Railroad in writing when all work on the Railroad's right of way is complete.

8. The State acknowledges that it is not an agent, servant, or employee of the Railroad, and is responsible for its own acts and deeds and for those of its agents and employees during performance of contract work.

IN TESTIMONY WHEREOF, the parties hereto have caused these presents to be executed in duplicate on the dates indicated.

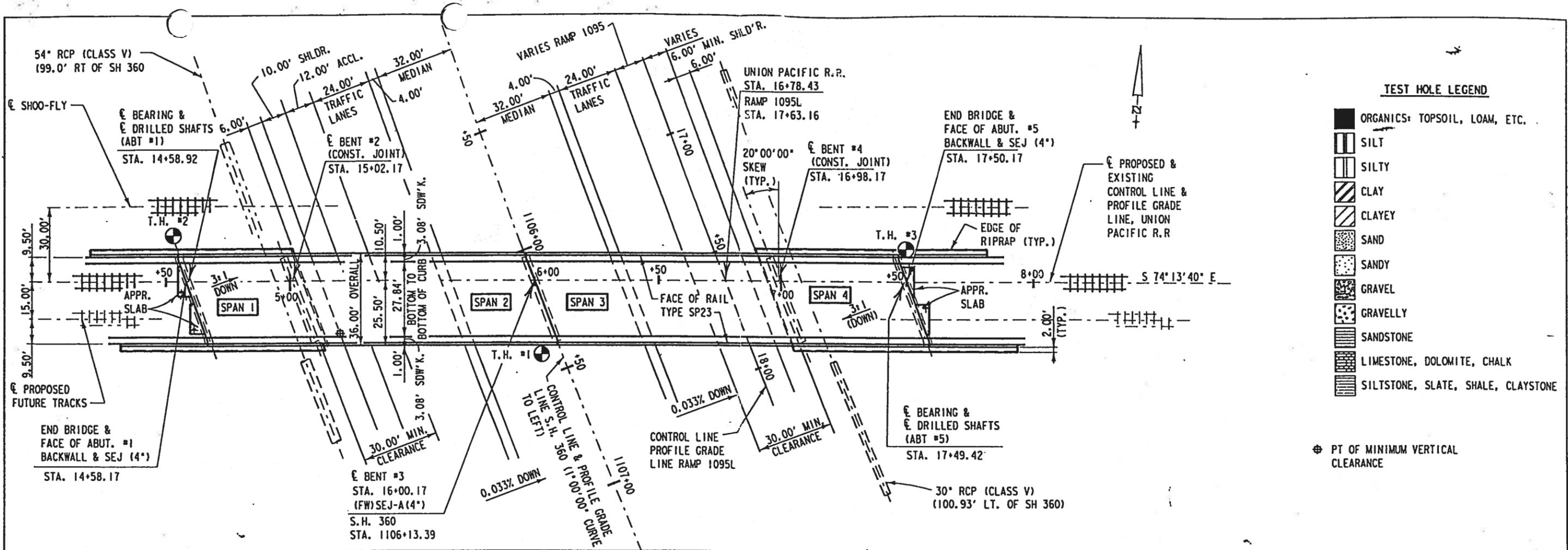
**UNION PACIFIC
RAILROAD COMPANY**

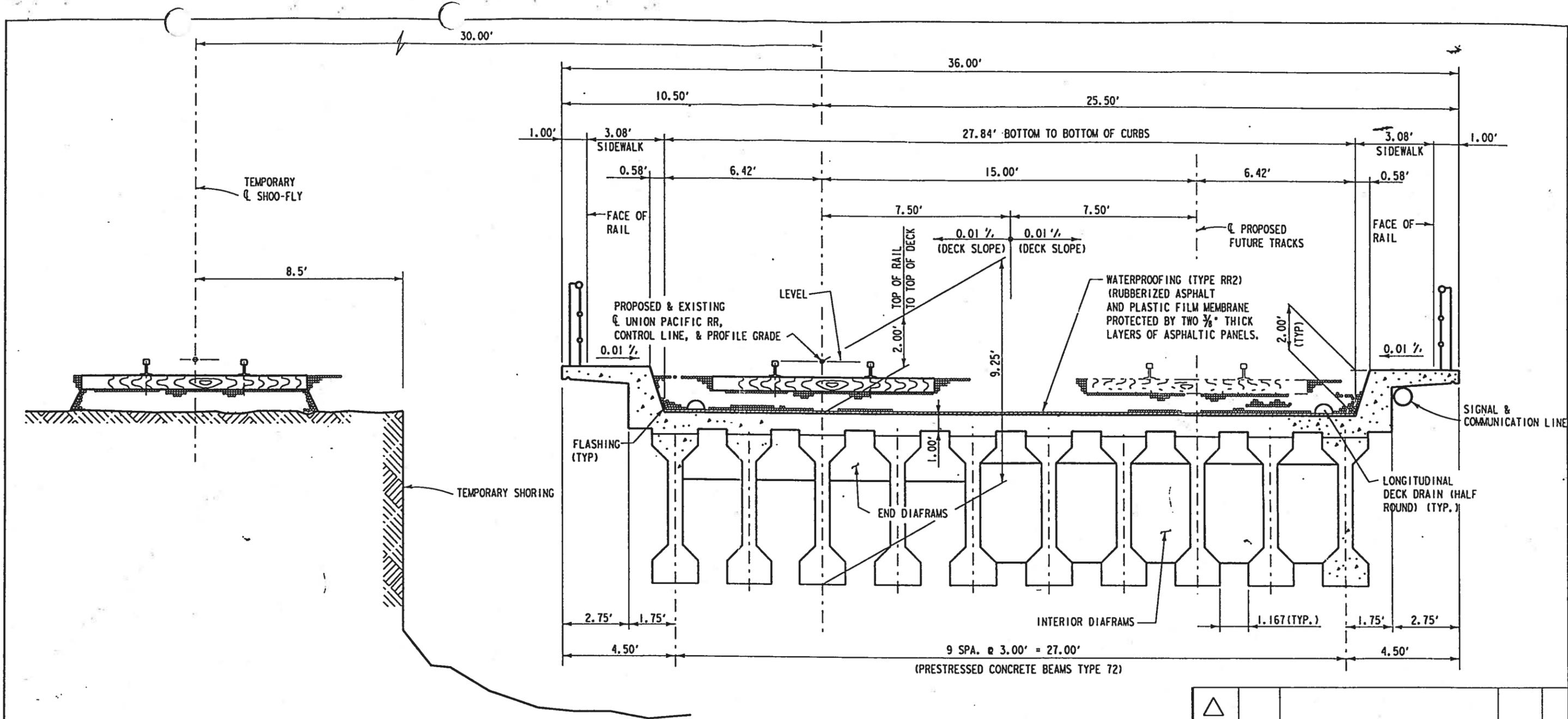
By: Thomas J. Ogee
(Title) ~~Assistant Vice President~~
Chief Engineer Design
Date: _____

THE STATE OF TEXAS

Certified as being executed for the purpose and effect of activating and/or carrying out established policies or work programs heretofore approved and authorized by the Texas Transportation Commission:

By: Carlos A. Lopez, P.E.
for CARLOS A. LOPEZ, P.E., DIRECTOR
Traffic Operations Division
Date: 6/12/02





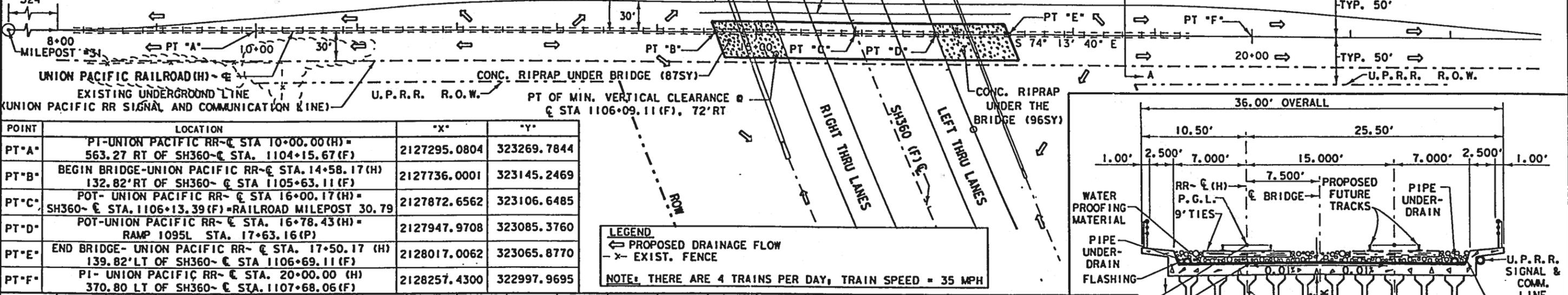
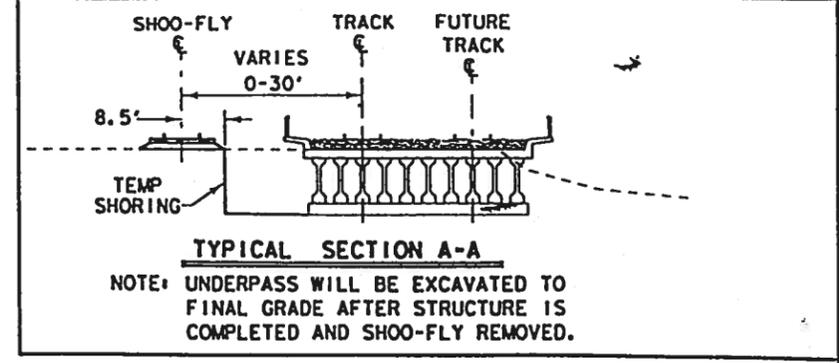
TRANSVERSE SECTION

△				
△				
△				
REV.	C.O.#	DESCRIPTIONS	DATE	DN.
TEXAS DEPARTMENT OF TRANSPORTATION LAYOUT UNION PACIFIC RAILROAD UNDERPASS				
SHEET 2 of 2 SHEETS				
1360spr.dgn	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.	
ORIGINAL DRAWING DATE: 12-29-97	6			
DN: AV	REVISIONS:	STATE	STATE DIST. NO.	COUNTY
CK:		TEXAS	02	TARRANT
DW:		CONT.	SECT.	JOB HIGHWAY NO.
		2200	02	SH 360

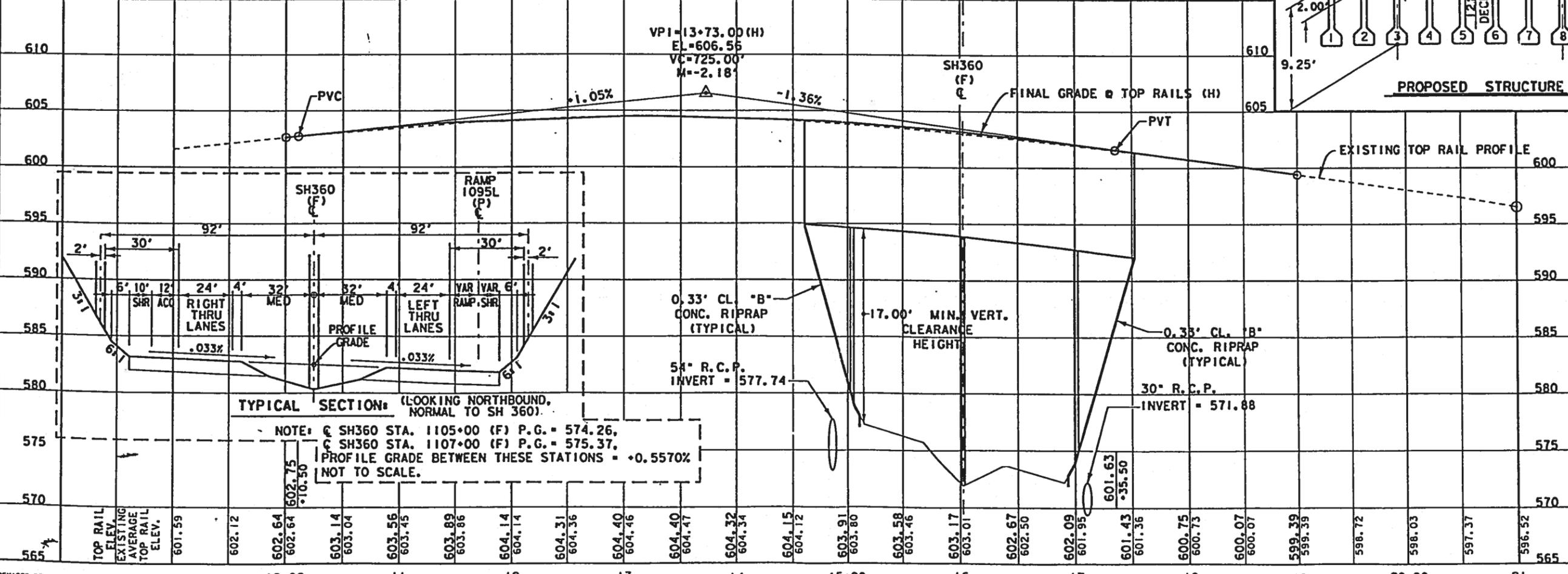
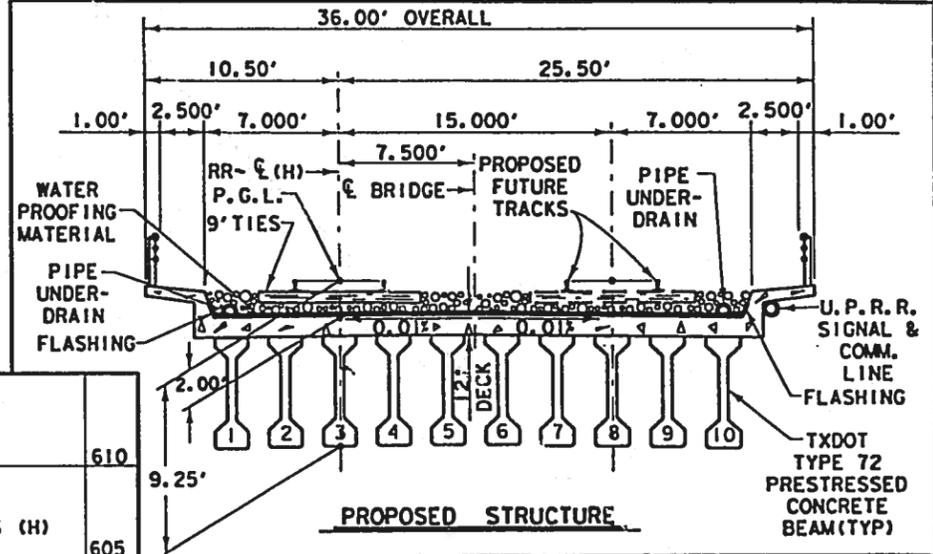
SEQUENCE WORK:

- 1) PLACE THE PILINGS FOR THE TEMP. SPECIAL SHORING.
- 2) CONSTRUCT THE SHOOFLY AND THE TEMP. 6" PIPE UNDERDRAIN THEN REROUTE THE SIGNAL & COMMUNICATION LINE ALONG THE SHOOFLY.
- 3) MOVE THE EXISTING TRAIN MOVEMENTS ONTO THE SHOOFLY.
- 4) CONSTRUCT PROPOSED RAILROAD BRIDGE AS SHOWN IN TYPICAL SECTION A-A AND JACK AND BORE THE 36" RCP TO ALLOW FOR DRAINAGE DURING BRIDGE CONSTRUCTION.
- 5) REROUTE THE SIGNAL & COMMUNICATION LINE ONTO THE BRIDGE.
- 6) ALLOW FOR TRAIN MOVEMENTS ON THE PROPOSED BRIDGE, THEN REMOVE THE SHOOFLY AND REMOVE THE TEMP. SPL. SHORING.
- 7) EXCAVATE TO CONSTRUCT THE SH360 THRU LANES UNDERNEATH THE BRIDGE.

NOTE: A) REFER TO THE SHOOFLY SHEETS FOR THE SUMMARY OF WORK TO BE PERFORMED BY THE RAILROAD AND BY THE CONTRACTOR.
 B) WHEN CONSTRUCTION IS PERFORMED 25 FEET OR LESS FROM THE ACTIVE RR TRACK, A RR FLAGMAN SHALL BE PRESENT.



POINT	LOCATION	"X"	"Y"
PT*A*	PT-UNION PACIFIC RR- @ STA 10+00.00 (H) = 563.27 RT OF SH360- @ STA. 1104+15.67 (F)	2127295.0804	323269.7844
PT*B*	BEGIN BRIDGE-UNION PACIFIC RR- @ STA. 14+58.17 (H) 132.82' RT OF SH360- @ STA 1105+63.11 (F)	2127736.0001	323145.2469
PT*C*	POT- UNION PACIFIC RR- @ STA 16+00.17 (H) = SH360- @ STA. 1106+13.39 (F) = RAILROAD MILEPOST 30.79	2127872.6562	323106.6485
PT*D*	POT-UNION PACIFIC RR- @ STA. 16+78.43 (H) = RAMP 1095L STA. 17+63.16 (P)	2127947.9708	323085.3760
PT*E*	END BRIDGE- UNION PACIFIC RR- @ STA. 17+50.17 (H) 139.82' LT OF SH360- @ STA 1106+69.11 (F)	2128017.0062	323065.8770
PT*F*	PI- UNION PACIFIC RR- @ STA. 20+00.00 (H) 370.80 LT OF SH360- @ STA. 1107+68.06 (F)	2128257.4300	322997.9695



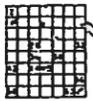
TYPICAL SECTION: (LOOKING NORTHBOUND, NORMAL TO SH 360).
 NOTE: @ SH360 STA. 1105+00 (F) P.G. = 574.26,
 @ SH360 STA. 1107+00 (F) P.G. = 575.37,
 PROFILE GRADE BETWEEN THESE STATIONS = +0.5570%
 NOT TO SCALE.

PROPOSED DOT #

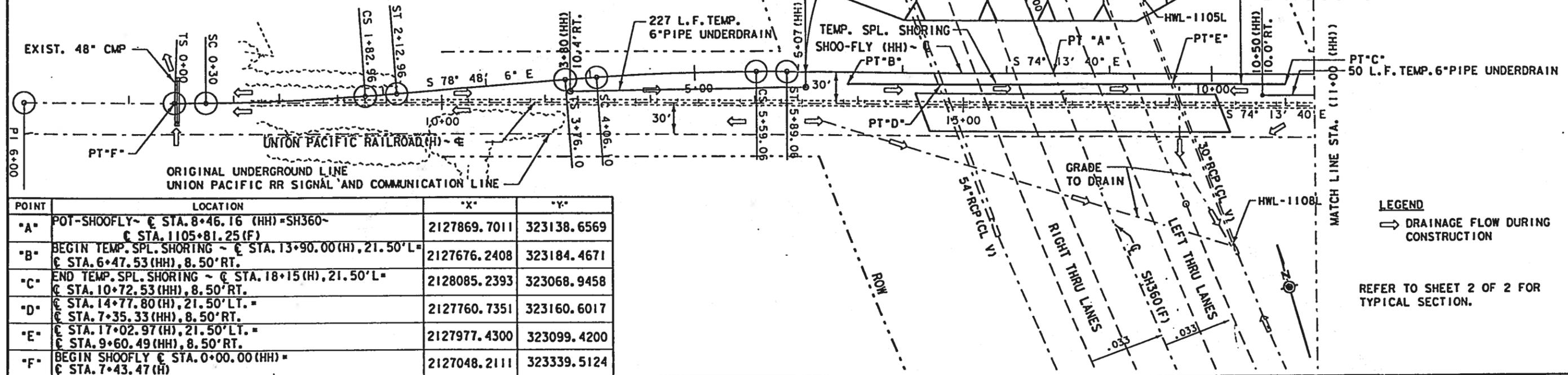
SH 360 AT UNION PACIFIC RAILROAD PROPOSED UNDERPASS EXHIBIT "A"

SHEET 1 OF 1 SHEETS

FED. RD DIST. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
6	NH () M	
STATE	DIST.	COUNTY
TEXAS	DAL.	TARRANT
CONT.	SECT.	JOB
		HIGHWAY NO.
		SH360



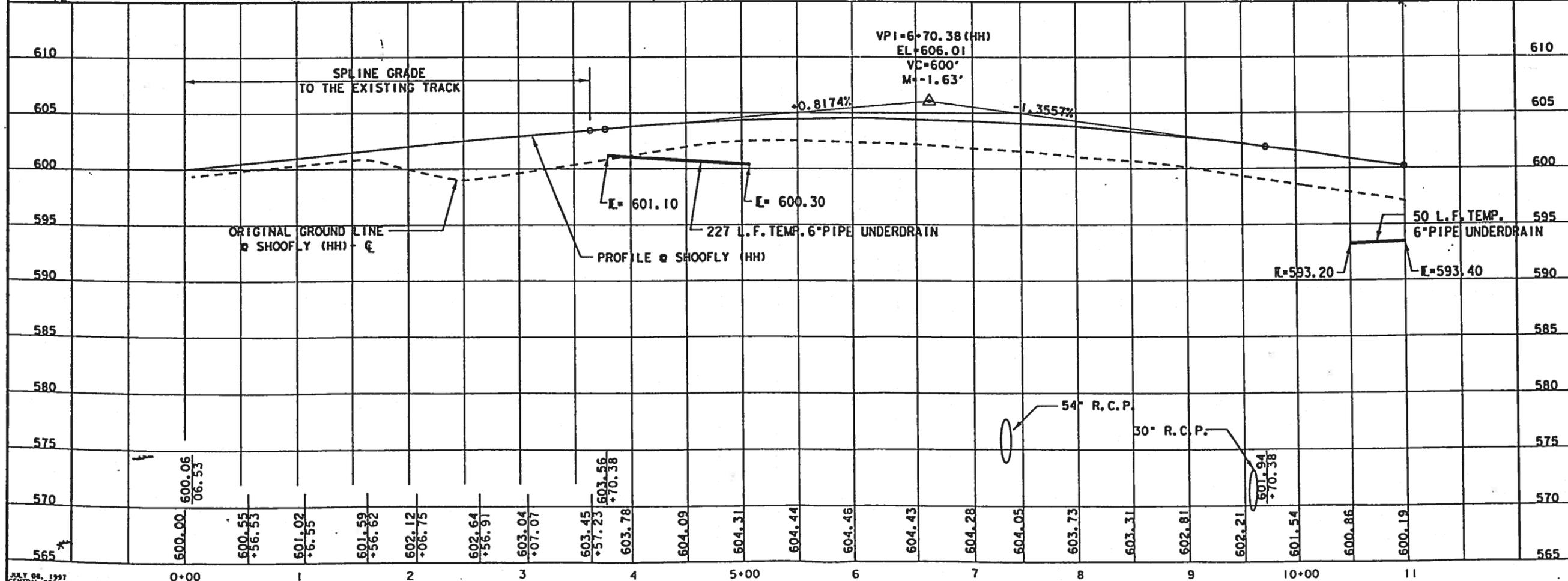
- SUMMARY OF WORK TO BE COMPLETED BY TXDOT OR TXDOT'S CONTRACTOR:
- 1) CONSTRUCT TEMP. SPL. SHORING.
 - 2) CONTRACTOR SHALL PROVIDE MATERIALS FOR SHOOFLY SUBGRADE & SHALL PERFORM ALL SUBGRADE WORK.
 - 3) EXCAVATE SH 360 ON BOTH SIDES OF THE RAILROAD/SHOOFLY SO THAT THE 30" RCP CAN BE JACKED AND BORED.
 - 4) JACK AND BORE THE 30" RCP AN ADDITIONAL 72 L.F. BEYOND THE PROPOSED LENGTH AND THEN PLACE AN ADDITIONAL 16 L.F. OF 30" RCP (USE SLOPE=0.65%). DO NOT CONSTRUCT HWL-1105L AT THIS TIME.
 - 5) AS THE BRIDGE IS BEING CONSTRUCTED, PLACE 6" PIPE UNDERDRAINS AND GRADE THE BRIDGE CONSTRUCTION AREA TO DRAIN TO HWL-1108L.
 - 6) UPON COMPLETION OF THE PROPOSED BRIDGE, AND OPENING TO THE RR TRAFFIC, THE CONTRACTOR SHALL REMOVE & DISPOSE OF SHOOFLY BALLAST, SHOOFLY SUBGRADE, 6" PIPE UNDERDRAINS & TEMP. SPL. SHORING.



POINT	LOCATION	"X"	"Y"
"A"	POT-SHOOFLY ~ C STA. 8+46.16 (HH) = SH360- C STA. 1105+81.25 (F)	2127869.7011	323138.6569
"B"	BEGIN TEMP. SPL. SHORING ~ C STA. 13+90.00 (H), 21.50' L = C STA. 6+47.53 (HH), 8.50' RT.	2127676.2408	323184.4671
"C"	END TEMP. SPL. SHORING ~ C STA. 18+15 (H), 21.50' L = C STA. 10+72.53 (HH), 8.50' RT.	2128085.2393	323068.9458
"D"	C STA. 14+77.80 (H), 21.50' LT. = C STA. 7+35.33 (HH), 8.50' RT.	2127760.7351	323160.6017
"E"	C STA. 17+02.97 (H), 21.50' LT. = C STA. 9+60.49 (HH), 8.50' RT.	2127977.4300	323099.4200
"F"	BEGIN SHOOFLY C STA. 0+00.00 (HH) = C STA. 7+43.47 (H)	2127048.2111	323339.5124

LEGEND
 DRAINAGE FLOW DURING CONSTRUCTION

REFER TO SHEET 2 OF 2 FOR TYPICAL SECTION.

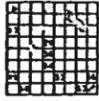


SHOOFLY AT UNION PACIFIC RAILROAD TO ACCOMPANY EXHIBIT "A"

SHEET 1 of 2

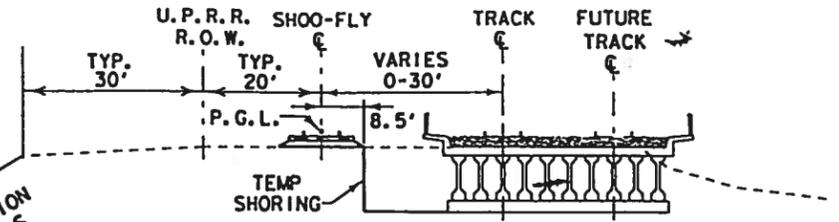
STATE	DIST.	COUNTY
TEXAS	DAL	TARRANT
CONTR.	SECT.	JOB
2266	28	DOT

FED. RD DIST. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
6	MH () M	000
HIGHWAY NO.		
SH360		



SUMMARY OF WORK TO BE COMPLETED BY THE RAILROAD AT TXDOT'S EXPENSE.

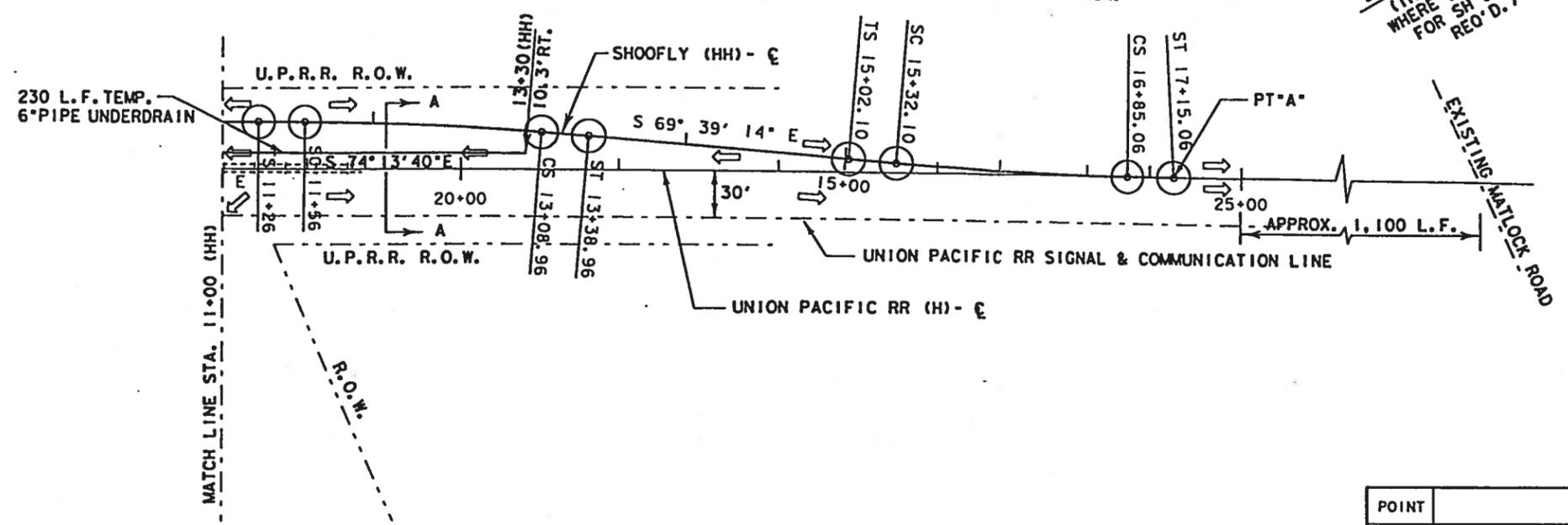
- 1) UPON COMPLETION OF THE SHOOFLY SUBGRADE BY THE CONTRACTOR, THE RR SHALL FURNISH & INSTALL BALLAST, TIES & RAILS FOR THE SHOOFLY TRACK. USE A 1/2 INCH SUPERELEVATION FOR THE SPIRAL CURVES.
- 2) RELOCATE U.P.R.R. SIGNAL & COMMUNICATION LINE ALONG THE SHOOFLY.
- 3) UPON COMPLETION OF THE PROPOSED BRIDGE, THE RR SHALL:
 - FURNISH & INSTALL BALLAST, TIES & RAILS FOR PERMANENT TRACK.
 - REMOVE SHOOFLY RAILS & TIES.
 - INSPECT THE BRIDGE PRIOR TO OPENING TO THE RR TRAFFIC.
 - REROUTE U.P.R.R. SIGNAL & COMMUNICATION LINE ALONG THE PERMANENT TRACK.



A-A SECTION

NOTE: UNDERPASS WILL BE EXCAVATED TO FINAL GRADE AFTER STRUCTURE IS COMPLETED AND SHOOF-FLY REMOVED.

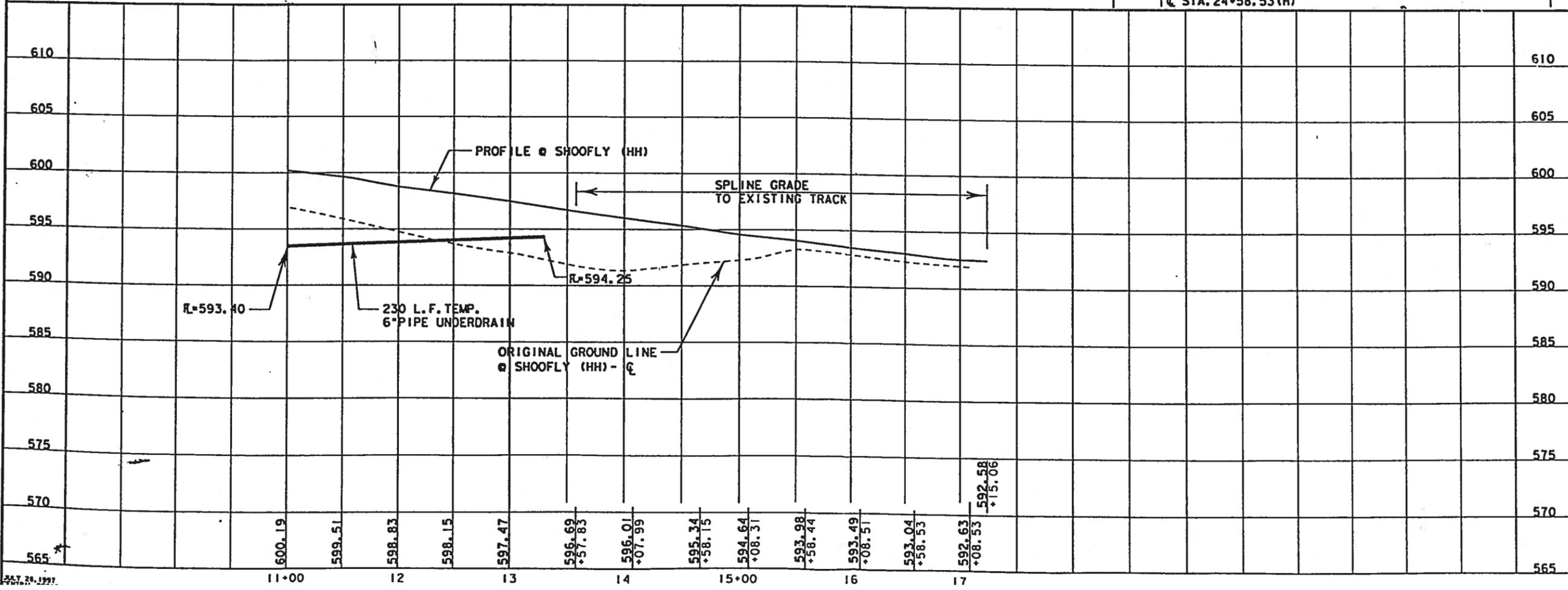
NOTE: REFER TO UNION PACIFIC RAILROAD ENGINEERING STANDARDS "ROADBED SECTION FOR WOOD TIE TRACK CONSTRUCTION" (STD DWG 0001) FOR TYPICAL SECTION OF SHOOFLY, & MAIN LINE.



LEGEND

⇒ DRAINAGE FLOW DURING CONSTRUCTION

POINT	LOCATION	"X"	"Y"
"A"	END SHOOFLY C STA. 17+15.06 (HH) = C STA. 24+58.53 (H)	2128696.7692	322873.8785



SHOOFLY AT UNION PACIFIC RAILROAD

TO ACCOMPANY EXHIBIT "A"

SHEET 2 of 2

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
6	NH () JM	000
STATE	DIST.	COUNTY
TEXAS	DAL.	TARRANT
CONT.	SECT.	JOB HIGHWAY NO.

Thomas D. Ben, P.E.

STATE COPY - EXHIBIT B

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY IMPROVEMENT

FEDERAL AID PROJECT NO. NH 2001 (842)
LENGTH OF PROJECT: 2387 FEET = 0.452 MILES

SH 360
IN

TARRANT COUNTY

FROM 0.4 MILES SOUTH OF MATLOCK ROAD TO TARRANT/ELLIS COUNTY LINE
CONSTRUCTION OF A NEW LOCATION FREEWAY FACILITY
CONSISTING OF GRADING, DRAINAGE FACILITIES, STRUCTURES,
HOT MIX, CONCRETE PAVEMENTS, SIGNING AND PAVEMENT MARKINGS

STATE	FEDERAL AID PROJECT NO.	SHEET NO.
TEXAS	NH 2001 (842)	1
DATE	DATE	DATE
11/15/01	11/15/01	11/15/01
F.W.D.	2266-02-103	SH360

DESIGN SPEED = 70 MPH
FUTURE ADT FOR 2025: 60,000 VEH
MAINLANES=20,300 VEHICLES PER DAY
FRONTAGE ROADS=15,700 VEHICLES PER DAY

INDEX OF SHEETS

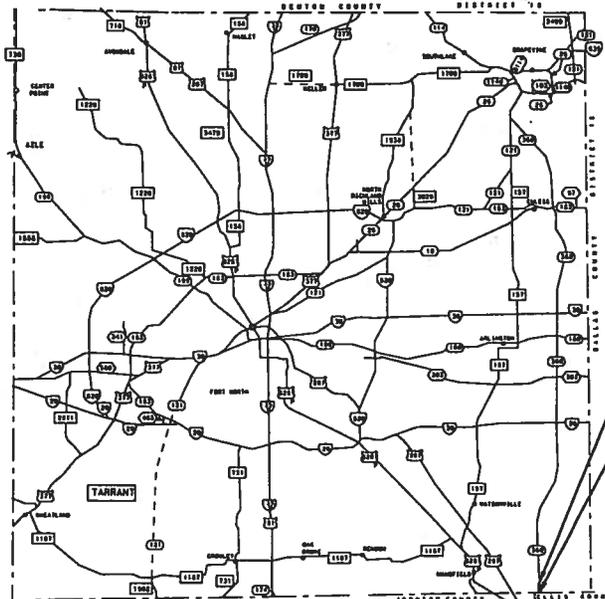
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2,3	INDEX OF SHEETS

ROADWAY	2,095 FEET
RAILROAD BRIDGE	0 FEET (OVER ROADWAY)
PROJECT LENGTH	2,095 FEET = 0.396 MILES

EXHIBIT B

FINAL PLANS

DATE CONTRACTOR BEGIN WORK:
DATE WORK WAS COMPLETED AND ACCEPTED:
FINAL CONTRACT COST:



BEGIN PROJECT NO. NH 2001 (842)

STATE CONTROL NO. 2266-02-103
1103+50(F)
RM NO. 28+1.725

END PROJECT NO. NH 2001 (842)

STATE CONTROL NO. 2266-02-103
(END AT THE TARRANT CO. LINE)
STA 1124+44.99(F)
RM NO. 28+2.123

NO EQUATIONS
NO EXCEPTIONS
NO RAILROAD CROSSINGS

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(817) 416-2055; all rights reserved

TEXAS DEPARTMENT OF TRANSPORTATION

SUBMITTED FOR LETTING: 9-25-01
John A. Tamm
CENTRAL DESIGN ENGINEER
RECOMMEND FOR LETTING: 9-25-01
William C. Pridgen, P.E.
DISTRICT DESIGN ENGINEER
RECOMMEND FOR LETTING: SEPT. 25, 2001
Steve R.
DISTRICT ENGINEER

APPROVED FOR LETTING: [Signature]
DIRECTOR OF TRAFFIC OPERATION DIVISION
APPROVED FOR LETTING: [Signature]
DIRECTOR OF DESIGN DIVISION

CONCURRENCE: 9-10-01
Raymond D. Dandridge
CITY MANAGER, CITY OF MANSFIELD



NOTES:
SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION
MARCH 1, 1965, AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS
SMALL COPIES ON THIS PROJECT:
REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS
(FORM FHWS 1275, DECEMBER 1993).

Material and Force Account Estimate

Texas DOT - AWO 29165 - PID 29649

Standard Rates: Labor Additive = 130.53% WT Labor Additive = 145.04% Inflation Additive = 0.00%

Estimate Good for 6 Months Until 6/13/02

Location: Mansfield, Tx - MP 31 - Midlothian Sub

Description of Work: Construct Shoofly for Grade Separation Work at SH360

COMMENTS	FACILITY	LONGDESC	QTY	UOM	UCST	LABOR	MATERIAL	TOTAL
ENGINEERING								
	ENGINEERING	ENGINEERING	10	%	5917.63	59,176	0	59,176
\$45/MD Co. Owned Equip.	ENGINEERING	UP EQUIPMENT CHARGES	1	LS	32284	0	32,284	32,284
387 Mi. From Pkt	ENGINEERING	HOME LINE FREIGHT	3.5	TN MI	18898.6	0	66,145	66,145
Sub-Total =						59,176	98,429	157,605

TRACK CONSTRUCTION / RENEWAL

	FLDWLD	133# FIELD WELD FACILITY	8	EA	314.286	1,931	583	2,514
#10 Track Element	TRACK	133# CWRSS00CWR 24-9'PPHWD 16"N TP	120	TF	144.49	7,954	9,385	17,339
100% Blst for ML Rem/Repl	BALAST	CLS 1 BALLAST PER CARLOAD IN TONS	10	CL	2839.94	21,289	7,111	28,399
25% Tie Replacement-Shifted Trk	XTIES	NO DRILL 9" HARDWOOD XTIE W/8 SPIKES	149	EA	89.8000	7,261	6,119	13,380
4-24' Temp. RdXings	RDXING	133# PREFAB RDXING W/PLANKS ONLY	96	TF	452.594	23,848	19,601	43,449
50% Blst Replacement-Shifted Trk	BALAST	CLS 1 BALLAST PER CARLOAD IN TONS	8	CL	2839.94	17,031	5,689	22,720
50% Ties for ML Rem/Repl	XTIES	NO DRILL 9" HARDWOOD XTIE W/8 SPIKES	185	EA	89.8000	9,015	7,598	16,613
Shoofly Track	TRACK	133# CWRSS00CWR 24-9'PPHWD 16"N TP	1485	TF	144.49	98,431	116,137	214,568
Temporary Turnout	PPTO	133# #10 RH HT XLSR PP-PRE PREPLATE TO	1	EA	91725.8	23,086	68,640	91,726
Sub-Total =						209,845	240,862	450,708

TRACK REMOVAL / RELOCATION

Main Line Track	REM TRK	REMOVE TRACK	600	TF	8.18643	4,912	0	4,912
Reconstruct Main Line Track	REL TRK	RELOCATE TRACK	600	TF	14.7356	8,841	0	8,841
Shift Both Ends Twice	SHIFT TRK	SHIFT TRACK	968	TF	9.82372	9,509	0	9,509
Shoofly	REM TRK	REMOVE TRACK	1485	TF	8.18643	12,157	0	12,157
Temp. Rdxings	REM RDXING	REMOVE RDXING	96	TF	28.8163	2,766	0	2,766
Temporary Turnout	REM TO 7,9,10	TURNOUT REMOVAL/RETIREMENT #7,#9,#10	1	EA	3457.95	3,458	0	3,458
Track Element	REM TRK	REMOVE TRACK	120	TF	8.18643	982	0	982
Sub-Total =						42,626	0	42,626

SALVAGE CREDIT

	SALV CREDIT	RDXING MATERIAL (85% OF NEW)	96	TF	-54.396	0	-5,222	-5,222
	SALV CREDIT	SALV CREDIT 131#-136# N.RAIL (85% OF NEW)	1485	TF	-50.37	0	-74,799	-74,799
	SALV CREDIT	SALVAGE CREDIT-N.#10 TURNOUT (85% OF NEW)	1	EA	-46814	0	-46,814	-46,814
Sub-Total =						0	-126,835	-126,835

Total Wgt. in Tons = 4,883

Totals = 311,648 212,456 524,103

Grand Total = \$524,103

Please Note: The above figures are estimates only and are subject to fluctuation. In the event of an increase or decrease in the cost or amount of material or labor required, Texas DOT will pay actual construction costs at the current rates effective thereof.

Texas Department of Transportation
TECHNICAL PROVISIONS

STATE HIGHWAY 360
DESIGN-BUILD PROJECT

Attachment 17-1
TOLL FACILITY
FIBER OPTIC CABLE CONNECTIONS

Attachment 17-1
SH 360 TOLL FACILITY FIBER OPTIC CABLE CONNECTIONS

SH 360 to PGBT Western Extension Fiber Connections

Overview

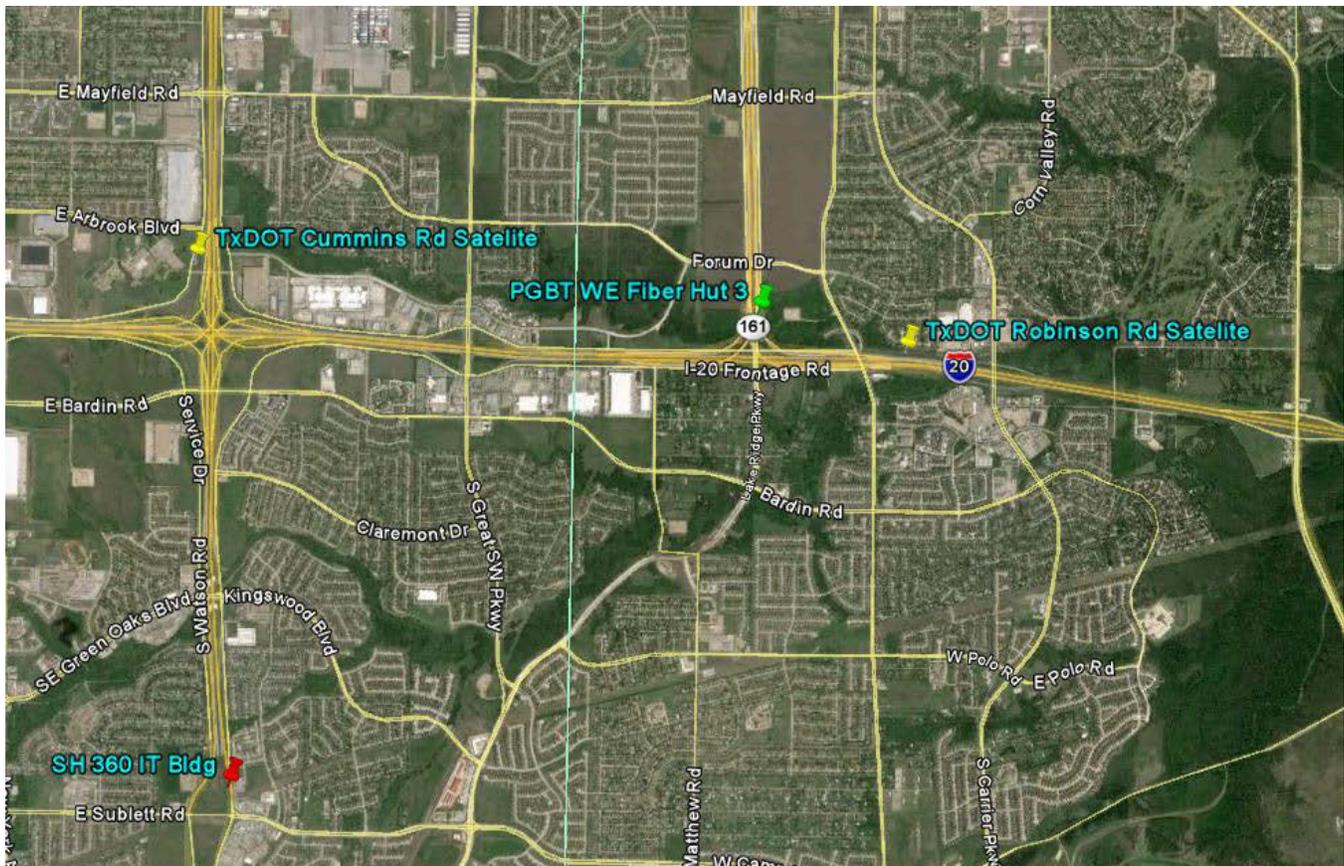
Fiber optic cable and associated infrastructure shall be provided to connect existing TxDOT and NTTA fiber optic cable systems.

The DB Contractor shall install (2) multiduct conduits and fiber optic cable as specified in the SH 360 Technical Provisions, Section 17, from the proposed SH 360 mainlane gantry IT building to the existing TxDOT Satellite building located near the north-east corner of the intersection of Cummins Road and the southbound SH 360 frontage road. DB Contractor shall provide all necessary materials, and make all connections and splices as required in the agreement.

The DB Contractor shall install (1) multiduct conduit from the existing PGBT WE Fiber Hut 3 to the existing conduit infrastructure along the westbound IH 20 frontage road at the PGBT WE and IH 20 interchange.

The DB Contractor shall install fiber optic cable specified in the SH 360 Technical Provisions, Section 17, from the existing PGBT WE Fiber Hut 3 to the existing TxDOT Satellite building located east of Robinson Road along the westbound IH 20 frontage road. DB Contractor shall provide all necessary materials, and make all connections and splices as required in Section 17 of the Technical Provisions.

Project Map



Texas Department of Transportation
TECHNICAL PROVISIONS

STATE HIGHWAY 360

Attachment 18-1

Motor Carrier Division

Permit Restriction Application



Motor Carrier Division Permit Restriction Application

Rev. 7/2012

District Number: _____	District Name: _____
------------------------	----------------------

New Restriction <input type="checkbox"/>	Amend Restriction <input type="checkbox"/>	Cancel Restriction <input type="checkbox"/>
--	--	---

Highway: _____ County: _____

From junction: _____

To junction: _____

Direction(s) affected: Northbound Southbound Eastbound Westbound

Turns affected: _____

*Maximum dimensions allowed. If a dimension is not affected, please put N/A in the space provided.
Please enter dimensions in feet and inches DO NOT enter "legal."*

Width: _____	Height: _____	Overall Length: _____	Trailer Length: _____
Weight: _____	Overweight ONLY is Okay: _____		

NOTE: Do not over restrict your highways; loads with small dimensions might safely travel through the restricted area without any inconvenience to the construction crew and/or the traveling public.

Start date: _____ End date: _____

Type of work or reason:

Construction: Maintenance: Sealcoat: Safety: (physical limits) Other:

Comments: _____

Approved by: _____ Date: _____

Date restriction lifted: _____ Approved by: _____

MCD Mapping Coordinator phone: 512-302-2166
e-mail: mcd_permit-restriction-@txdmv.gov

We cannot correctly restrict your roadway unless this form is filled out completely.

Texas Department of Transportation

TECHNICAL PROVISIONS

STATE HIGHWAY 360

DESIGN-BUILD PROJECT

Attachment 21-1

Toll Facility Responsibility Matrix

**TOLL FACILITY RESPONSIBILITY MATRIX
SH 360 Project**

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	DB Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
GENERAL REQUIREMENTS							
Schedule	P	P	P	S	C	S	DB Contractor must accommodate and incorporate the SI scheduled activities into DB Contractor schedule. All schedule changes or updates which impact the SI tasks must be agreed to by the SI prior to submittal to the Authority. A weekly schedule must be distributed and incorporate any SI updates or changes.
Request for Early Opening	P	P	P	S	S	S	SI must be able to match schedule request for early opening to conform to requirements in RFDP.
Design Package – Installation and Electrical Design and Plans	P	P	P	C	N	C	DB Contractor to incorporate all SI requirements and specifications into Structural and Electrical Design Packages. SI to provide approval prior to issuance of Released For Construction (RFC) plans.
Grading	P	P	P	C	N	C	
Drainage	P	P	P	C	N	C	No culverts or pipes under tolling zones.
Utilities/Electrical Services	P	P	P	S	C	C	SI to provide specific power requirements for the Toll System. DB Contractor to incorporate into toll facilities design and construct power utilities interface, and all power infrastructure.
Traffic Control/Safe work zone	P	P	P	S	N	C	SI to provide DB Contractor detailed lane closure requirements and schedule for installation and testing. DB Contractor to provide traffic control including all devices and safe working conditions for SI to perform Toll Zone Work.
Signing	P	P	P	C	N	N	All toll signing must be coordinated with and approved by the Authority. If toll price signs utilize changeable electronic signs, DB Contractor will provide the static sign and the SI will provide the electronic insert.
Striping	P	P	P	S	N	C	SI to coordinate striping with pavement loop locations.
Lighting	P	P	P	S	C	S	Roadway and toll location lighting provided by DB Contractor. SI to provide lighting requirements in vicinity of toll locations and locations of other Toll System equipment. DB Contractor to confirm that lighting does not obstruct toll related signing or impede the Toll System.
Landscaping	P	P	P	C	N	N	

**TOLL FACILITY RESPONSIBILITY MATRIX
SH 360 Project**

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	DB Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
Fencing/Guardrail/Bollards/Concrete Barrier	P	P	P	S	C	C	SI to provide requirements for specific equipment clearances for Toll System. DB Contractor to incorporate into roadway design. SI to confirm that design plans meet requirements.
TOLL SYSTEM: LOCATIONS, LAYOUTS, STRUCTURES, MOUNTS/BRACKETS							
Locations and Layouts	P	P	P	S	C	C	SI to provide specific locations for the Toll System, SI to provide requirements for specific lane and facility layouts. DB Contractor to incorporate into Design Packages. SI to review and approve.
Gantries/Foundation/Trusses/Junction boxes/Conduits/Grounding	P	P	P	S	C	S	SI to provide requirements for conduits (for SI installed power and communications cables, including specific requirement for below ground conduits for the loops), junction boxes, and power needs for the Toll System. DB Contractor to incorporate into structural design, including electrical grounding, bonding. DB Contractor to provide and install junction boxes and conduit pull strings and bell ends for all conduits up to one foot above pole and gantry foundation. DB Contractor will require SI to sign off on below-ground conduits for the loops prior to installation of special pavement structure.
Gantries/Foundation/Trusses/Junction boxes/Conduits/Grounding	S	C	S	P	P	P	SI to install conduits from one foot above grade to all Toll System components.
Equipment Mounts on Brackets/Frames	S	N	C	P	P	P	SI to procure and install all Toll System equipment, and related cable & wiring, including communications from roadside cabinets to the equipment mounted on the gantries. SI to provide requirements for all brackets and frames needed to attach SI procured equipment to DB Contractor provided truss.

**TOLL FACILITY RESPONSIBILITY MATRIX
SH 360 Project**

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	DB Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
Equipment Brackets/Frames on Gantries	P	P	P	S	N	C	DB Contractor to provide and install all frames needed to attach all SI procured equipment. SI to provide locations for installation to DB Contractor. SI to provide and install all mounting brackets required for tolling equipment.
Pavement structure, including special nonferrous zones and conduit stub-outs for in-pavement sensors/loops	P	P	P	S	N	C	SI to provide requirements for special pavement structure at toll gantry areas. SI shall coordinate joint spacing to avoid conflicts with loop placement and sign off on riser locations before concrete pour. DB Contractor to assure ferrous objects (i.e. rebar, grates, pipes, etc.) are not in toll revenue collection detection system(s) zone of influence. DB Contractor to locate loop risers after pavement is poured.
EQUIPMENT CABINETS							
Toll Equipment Cabinets	C	N	S	P	P	P	SI to provide size and number of cabinets needed for Toll System. DB Contractor shall incorporate location into site grading and drainage. SI to procure and install environmentally controlled cabinets. The environmentally controlled enclosures provided by SI must comply with the America Society of Heating, Refrigeration, and Air Conditioning Engineers: Thermal Guidelines for Data Processing Environments. DB Contractor to provide traffic control devices and safe working conditions for SI during installation of all toll equipment.
Toll Equipment Cabinet Site (TEC) and Roadside Equipment Cabinet Base Slabs	P	P	P	S	N	C	SI to provide requirements for specific equipment weight and anchorages for cabinets to DB Contractor. DB Contractor to incorporate into Roadway Design. DB Contractor to install slabs with conduit plumbing.
Facility Security and Security Communications at Toll System locations	C	N	C	P	P	P	SI to provide security communications for all toll system equipment. DB Contractor to incorporate into the Roadway Design.

**TOLL FACILITY RESPONSIBILITY MATRIX
SH 360 Project**

Responsibility Assignment Legend								
Primary Responsibility: P		Support Responsibility: S			Coordination Responsibility Only: C			No Responsibility: N
Element/Task/Component/ Sub-system	DB Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information	
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct		
TOLL SUB-SYSTEMS								
Automatic Vehicle Identification (AVI) Antennas and Readers	N	N	S	P	P	P	SI to provide AVI System Mounts, Wiring and Cables. SI will perform all AVI system installation and terminations, and to make the connections to the electronics in the cabinets.	
Automatic Vehicle Classification and Detection (AVC) and (AVD)	N	N	S	P	P	P	SI to install, connect and terminate AVC and/or AVD System mounted on the gantries and/or installed in the pavement to the electronics in the cabinets.	
In-Pavement Sensors/Loops	N	N	S	P	P	P	SI to saw cut pavement, procure, install, and seal pavement sensors with approved sealant. DB Contractor to assure ferrous objects (i.e. rebar, grates, etc.) are not in toll revenue collection detection system(s) zone of influence.	
Video Capture Sub-System (VCS/VES) Cameras, Illumination, Sensors and Servers	N	N	S	P	P	P	SI to provide, install, terminate all Video Capture Sub-System (VCS/VES) equipment.	
In-Lane Processing Servers and Electronics	N	N	N	P	P	P	SI to provide, install, connect, and terminate all electronics in the cabinet and assures proper communications to the devices on the gantry and/or in the pavement.	
POWER DISTRIBUTION SUB-SYSTEM								
Metered power service at each location:	P	P	P	C	N	C	DB Contractor to provide power requirements and special requirements for construction of utilities near each Toll System. DB Contractor to provide and install necessary conduit & junction/pull boxes.	
Metered power service at each toll location:	C	N	C	P	P	P	The SI shall provide and install all other wiring, switches, surge protection/suppression, etc. for power from the meter for the Toll System equipment. SI will terminate all power wiring from ATS at Toll System.	
Generators & Automatic Transfer Switches (ATS)	S	N	C	P	P	P	DB Contractor to provide generators, ATS, generator cabinets, wiring, connect and terminate all power at the Toll System sites.	

**TOLL FACILITY RESPONSIBILITY MATRIX
SH 360 Project**

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	DB Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
Generator Power Source is Natural Gas (if applicable)	P	P	P	S	N	C	If natural gas is available, DB Contractor shall provide, install and incorporate the gas lines into the roadway design. SI to coordinate and provide generator requirements including location for gas feed.
Generator Power Source is propane or diesel	S	N	C	P	P	P	The SI shall provide, and install the propane/diesel tank for the generator if natural gas is not a viable option for the project. The Authority will decide if propane or diesel will be used.
Uninterruptible Power Supplies (UPS)	S	N	C	P	P	P	SI to provide and install Uninterruptible Power Supply Systems (UPS) in the cabinets. UPS will be required for the Toll System.
Lightning Protection & Grounding	P	P	P	S	C	C	SI to provide specific requirements for equipment lightning protection and grounding. DB Contractor to furnish and install required lightning protection and grounding.
COMMUNICATIONS SUB-SYSTEMS							
Conduits/Ducts & Junction/Pull Boxes/Outlets	P	P	P	S	C	S	SI to provide specific Communications design requirements including location of long-radius sweep conduit bends. DB Contractor to incorporate into the roadway design and install including conduits, junction boxes, bell ends with pull strings. DB Contractor shall verify that all duct banks and conduits are clear and have pull strings prior to the beginning of the Toll System installation.
Fiber Optic cabling in conduits for Toll System	P	P	P	S	S	S	SI to provide fiber requirements for Toll System. DB Contractor to incorporate into design of backbone and laterals. SI to furnish and install along the corridor from communication hub to cabinets.
Toll Hardware in Cabinets	C	N	C	P	P	P	SI to provide and install all toll hardware within the cabinets. Equipment must be installed in a clean and organized manner and must not be affected by the environmental controls. The SI must provide and install the redundant environmental controls.

**TOLL FACILITY RESPONSIBILITY MATRIX
SH 360 Project**

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	DB Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
Routers	C	N	C	P	P	P	SI to provide, install and configure the routers for connection from hub locations to the Authority's Traffic Management Center (TMC).
Hubs	N	N	C	P	P	P	If applicable.
Switches	N	N	C	P	P	P	SI to provide, install and configure the switches for connection from tolling to hub locations.
Firewalls	N	N	C	P	P	P	SI to provide, install and configure the necessary firewall for the toll system.
Patch/Distribution Panels	P	P	P	C	C	C	SI to provide and install all the necessary patch and distribution panels to provide Fault Tolerant Single Mode Fiber Optic IP-Based Communication System.
Corridor Communications System	S	N	C	P	P	P	SI to provide Fault Tolerant Single Mode Fiber Optic IP-Based Communication System for Toll Revenue Collection Systems.
Corridor Communications Conduits	P	P	P	C	N	S	DB Contractor to provide branch conduit to the TxDOT duct bank system, including conduit, ground boxes, and terminations
Corridor to Traffic Management Center (TMC)	N	N	N	P	P	P	SI to provide Fault Tolerant IP-Based Communication System to the TMC for Toll Revenue Collection Systems.
Data/Communications Service to each Tolling Location	N	N	N	P	P	P	SI to provide system design plans indicating power and communications/data requirements. SI to install up to the Toll System locations at demark panel.
SYSTEMS SERVERS AND SPACE							
Toll Collection Systems Computer(s)	N	N	N	P	P	P	
Support Equipment at the Authority's Offices	N	N	N	P	P	P	SI to provide data and power wiring schematics, equipment rack/cabinet requirement, and elevations, layouts, floor plans, air flow diagrams, and environmental controls load calculations, electrical power distribution, including grounding, bonding, lightning protection, panel boards, TVSS, circuit breakers conduit, conductors, j-boxes, receptacles.

**TOLL FACILITY RESPONSIBILITY MATRIX
SH 360 Project**

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	DB Contractor			Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
Systems Servers & Workstations	N	N	C	P	P	P	SI to provide, install and configure all system servers and workstations required at the TMC to support the operations and management of the Project.
Federal Communication Commission License Preparation and Submission	C	N	N	P	P	P	SI to provide all information necessary to acquire FCC Licensing to the Authority.
DUCT BANK & INTELLIGENT TRANSPORTATION SYSTEMS (ITS)							
Duct Bank Adjustment & ITS relocations design	P	P	P	N	N	N	DB Contractor is responsible for the design of any necessary ITS relocations, including, foundations, conduits, electrical services, grounding circuits, and support structures. DB Contractor responsible for adjusting any existing duct bank manholes and providing new junction/boxes and manholes if in conflict with the project. Coordination with TxDOT will be required.
Duct Bank Adjustments/new connections	P	P	P	S	N	C	DB Contractor is responsible for all manhole adjustments and new manhole ties.
Fiber optic cables	P	P	P	N	N	N	Any adjustments to existing cables are DB Contractor responsibility.
Relocation of existing CCTV & DMS foundations, conduits, grounding, camera poles, and electrical services	P	P	P	N	N	N	DB Contractor is responsible for relocating any existing CCTV and DMS structures and services impacted by the Project Design, including communications and power. Damaged or inoperable equipment shall be removed but not repaired.
Existing and new vehicle detector foundations, conduits, loops, grounding, vehicle detector support structures, and electrical services	P	P	P	N	N	N	DB Contractor to coordinate with TxDOT regarding any existing vehicle detector/ loops within the pavement to determine if they need to be replaced/ relocated. DB Contractor will replace/relocate any detectors/loops unless TxDOT prefers to do the work. Any damaged detectors/loops that are to remain must be replaced by DB Contractor.
Vehicle detectors, communications, and equipment enclosures	P	P	P	N	N	N	