

Document 00911

NOTICE OF
ADDENDUM NO. 1

Date of Addendum: August 23, 2016

PROJECT NAME: Buffalo Speedway Grade Separation from South of Holmes Road to Willowbend Boulevard

PROJECT NO: WBS No. N-000784-0002-4

BID DATE: September 1, 2016 (This is a changed Bid Date.)

FROM: Ravi Kaleyatodi, P.E., CPM
City of Houston, Department of Public Works and Engineering
611 Walker, 14th Floor
Houston, Texas 77002
Attn: Stephen Campagna, Project Manager

TO: Prospective Bidders

CHANGE IN BID DATE

The Bid Date for this Project has been changed from August 25, 2016 to September 1, 2016.

Time of day and place for submittal of bid remains the same.

This Addendum includes:

ADDENDUM SYNOPSIS

Changes to Project Manual
Bidding Requirements
Clarifications



8/23/2016

A handwritten signature in blue ink, appearing to be "Oscar R. Aguirre".

DATED:

JK SC

A handwritten signature in blue ink, appearing to be "Ravi Kaleyatodi".

Ravi Kaleyatodi, P.E., CPM
Senior Assistant Director
Public Works and Engineering

END OF DOCUMENT

00911-1
02-01-2004

Document 00910

ADDENDUM NO. 1

Date of Addendum: August 23, 2016

PROJECT NAME: Buffalo Speedway Grade Separation from South of Holmes Road to Willowbend Boulevard

PROJECT NO: WBS No. N-000784-0002-4

BID DATE: September 1, 2016 (This is a changed Bid Date.)

FROM: J. Timothy Lincoln, P.E., City Engineer
City of Houston, Public Works and Engineering
611 Walker, 14th Floor
Houston, Texas 77002
Attn: Stephen Campagna, Project Manager

TO: Prospective Bidders

This Addendum forms a part of the Bidding Documents and will be incorporated into the Contract documents, as applicable. Insofar as the original Project Manual and Drawings are inconsistent, this Addendum governs.

CHANGE IN BID DATE

The Bid Date for this Project has been changed from August 25, 2016 to September 1, 2016.

Time of day and place for submittal of bid remains the same.

This Addendum uses the change page method: remove and replace or add pages, or Drawing sheets, as directed in the change instructions below. Change bars (|) are provided in the outside margins of pages from the Project Manual to indicate where changes have been made; no change bars are provided in added Sections. Reissued Drawing Sheets show the Addendum number below the title block and changes in the Drawing are noted by a revision mark and enclosed in a revision cloud.

ADDENDUM NO. 1

CHANGES TO PROJECT MANUAL

BIDDING REQUIREMENTS

1. Document 00410 - Bid Form, Part A and B. Replace this section in its entirety with the attached Document 00410, Part A and B.
2. Document 00851 - Document "Buy America Requirements" has been added.
3. Document 00010T - Document No. 00852, "Changed Conditions" – "Clauses" has been added to document title. Replace this document in its entirety with the attached document 00010-T
4. Document 01110 - Summary of Work – Paragraph "F" has been changed. Paragraph "K" has been revised with previous statement related to foundation removal being deleted and is now being used to reference the sample overpass agreement. Replace this document in its entirety with the attached document 01110.
5. Guide Specs - Guide Specifications 02105 "Chemical Sampling and Analysis" and 02120 Off-Site Transportation and Disposal" have been added with this addendum.

CLARIFICATIONS

Question 1: Is the low profile concrete barrier coming out of the TXDOT yard on Long Drive or does the contractor have to furnish?

Answer: Contractor shall be responsible for obtaining low profile concrete barrier for this project.

Question 2: Please provide details for temporary asphalt pavement shown on sheet #8.

Answer: Temporary asphalt shall be constructed in accordance with the 'Flexible Base Pavement – Ditch Section" without flush curb and with 8" (Min) crushed concrete as flexible base per COH DWG No. 02741-01.

Question 3: Please identify the scope/location for item #12 and 18. We are not able to locate any 36" pipe removed items and only 383' of 36" RCP.

Answer: Items #12 and #18 pertain to temporary storm pipe under the temporary pavement for the proposed traffic control on Holmes Road. Item #12 has been changed to items #14 in the revised Bid Form - 00410.

Question 4: Please clarify which pay item covers the cost for 48" RCP to be installed at STA 198+26.84, 35' LT.

Answer: New Items #53 for 48" RCP and #54 for 36" RCP have been added in the revised Bid Form - 00410.

Question 5: On sheet #64 the typical section shows the bridge deck having the deck panels plus 8.5" of bridge deck on top of the panels. Is this just a miss label? If you are using deck panels the deck on top of the panels should be 8.5" – deck panel thickness.

Answer: The overall slab thickness is correctly shown as 8.5". The slab thickness is the sum of the thickness of precast concrete panel (4") and the thickness of cast-in-place concrete (4.5"). For additional information on slab thickness, refer to circled note 9 on Sheet No. 111.

Question 6: Will there be a flagman bid item?

Answer: Yes, flagman bid item shall be required for maintaining traffic during construction. Item #4 has been added for flagmen.

Question 7: Please confirm storm items 12, 18, 53, 54.

Answer: Items #12 and #18 pertain to temporary storm pipe under the temporary pavement for the proposed traffic control on Holmes Road. Items #53 and #54 pertain to permanent storm sewer. Items # 12, 53 and 54 are now items #14, 55 and 56 respectively in the revised Bid Form - 00410.

Question 8: Sheet 21 says building and foundation removal by others, summary of work include foundations. Please confirm.

Answer: Removal of building foundations is part of associated Phase I contract. Document 01110 – Summary of Work – Paragraph "K" has been revised with previous statement related to foundation removal being deleted and is now being used to reference the sample overpass agreement.

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Question 9: Earthwork items 16, 17, 24, 58, 60, 72, 80 need definition of where they are used.

Answer: Item #16 has been omitted. Item #17 is the roadway excavation quantity for temporary asphalt pavement for the traffic control on Holmes Road. Item #24 is now indicated as "Borrow" being additional offsite material required for the embankment fill for the main roadway work. Item #58 is the excavation quantity of the excess material stored on storm sewer alignment.
Item #60 is TxDOT 132-6035, Embankment (FINAL) (DENS CONT) (TY E) (CSBE). The location of that is required is defined on sheet 37, "CEMENT STABILIZED BACKFILL EMBANKMENT (CSBE-RW)".
Item #72 is quantity for MSE reinforced volume per sheet 37, "CEMENT STABILIZED BACKFILL EMBANKMENT (CSBE-RW)". Item #80 is a duplicate of item #72 and therefore is removed.
Items #58, #60 and #72 are now items #60, #62 and #74 respectively in the revised Bid Form - 00410.

Question 10: On the storm sewer items there is only 24" bid item, but in the plans there is 24", 36" and 48". Will this be addressed in Add #1?

Answer: Yes, this is being addressed in the addendum #1. Separate pay items have been added each for 36" and 48" storm sewer.

Question 11: Please clarify which bid item covers the scope of work for 20 EA streets lights w/115W LED as shown on the sheet 134.

Answer: Per the form 01110 Summary of Work, paragraph I, "only underground conduit and pull boxes are to be installed as part of this project. Proposed street light locations are for informational purposes and will be installed by CenterPoint Energy contractor, as a separate contract, after the project is complete".

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Question 12: There are no insurance requirements for UPRR in the specs. We are assuming the typical UP requirements. That should be transmitted to all bidders.

Answer: Sample Overpass Agreement with UPRR insurance requirements has been added to the back of the document 01110 "Summary of Work".

Question 13: Please clarify which bid item covers the cost for Cement Stabilized Backfill embankment shown on sheet 37. The note on sheet 37 indicates payment under 132-6035 which is not found in the bid item list.

Answer: Item #60 of bid form covers the cost of this item. It has been corrected to spec 132-6035. Item #60 is now item #62 in the revised Bid Form – 00410.

Question 14: The bridge layout drawings show Terminal Anchor Beams. Bid form Item number I believe is 79, but spec Ref calls it out to be TXDOT 3010-6001. Shouldn't it be 368-6001?

Answer: Item 368 is not part of the 2014 Standard Specifications. The "Wide Flange Pavement Terminals (WFPT)" Standard for 2014 Specifications refers to a Special Specification. Item 3010-6001 is correct.



8/23/2016

DATED:

Ravi Kaleyatodi

Ravi Kaleyatodi, P.E., CPM
Senior Assistant Director
Public Works and Engineering

JK SC

RK:SMC

END OF DOCUMENT

00910-5
02-01-2004

Document 00010-T

TABLE OF CONTENTS

NOTE: Bold capitalized Specification Sections are included in the City of Houston Department of Public Works and Engineering Standard Construction Specifications for Wastewater Collection Systems, Water Lines, Storm Drainage, Street Paving, and Traffic located here: <https://edocs.publicworks.houstontx.gov/engineering-and-construction/specifications/division-02-16-standard-specifications.html>; and are incorporated in Project Manuals by reference as if copied verbatim. Documents listed "for filing" are to be provided by Bidder and are not included in this Project Manual unless indicated for example only. The Document numbers and titles hold places for actual documents to be submitted by Contractor during Bid, post-bid, or construction phase of the Project. Specification Sections marked with an asterisk (*) are amended by a supplemental specification, printed on blue paper and placed in front of the Specification it amends. Documents in the 200, 300 and 400 series of Division 00, except for Document 00410B – Bid Form, Part B, are not part of the Contract.

| <u>Doc. No.</u> | <u>Document Title</u> | <u>Doc. Date</u> |
|------------------------|------------------------------|-------------------------|
|------------------------|------------------------------|-------------------------|

INTRODUCTORY INFORMATION

| | | |
|---------|--|------------|
| 00010-T | TxDOT Table of Contents | 02-01-2015 |
| 00015 | List of Drawings..... | 02-01-2004 |
| 00041 | List of Pre-qualified Asbestos & Lead Abatement Contractors..... | 09-01-2004 |
| 00042 | List of Designated Subcontractors and Suppliers..... | 02-01-2004 |

BIDDING REQUIREMENTS

INSTRUCTIONS TO BIDDERS

| | | |
|---------|---|------------|
| 00200 | Instructions to Bidders..... | 03-01-2014 |
| 00210-T | TxDOT Supplementary Instructions to Bidders | 07-01-2013 |
| 00220 | Request for Bid Information..... | 02-08-2011 |

INFORMATION AVAILABLE TO BIDDERS

| | | |
|-------|---------------------------------|------------|
| 00320 | Geotechnical Information | 09-02-2005 |
| 00340 | Environmental Information | 09-14-2005 |

BID FORMS AND SUPPLEMENTS

| | | |
|-------|--|------------|
| 00410 | Bid Form, Parts A & B | 08-01-2013 |
| 00430 | Bidder's Bond (For filing; Example Form) | 02-01-2004 |
| 00450 | Bidder's Statement of MWBE/PDBE/DBE/SBE Status..... | 03-09-2007 |
| 00452 | Contractor Submission List - Fair Campaign Ordinance | 04-30-2004 |
| 00453 | Bidder's Statement of Residency | 02-01-2004 |
| 00454 | Affidavit of Non-interest..... | 02-01-2004 |
| 00455 | Affidavit of Ownership or Control..... | 09-04-2007 |

| <u>Doc. No.</u> | <u>Document Title</u> | <u>Doc. Date</u> |
|-----------------|---|------------------|
| 00457 | Conflict of Interest Questionnaire..... | 02-28-2006 |
| 00458 | Bidder's Certificate Regarding Foreign Trade Restriction..... | 02-01-2004 |
| 00459 | Contractor's Statement Regarding Previous Contracts Subject to EEO | 02-01-2004 |
| 00460 | Pay or Play Acknowledgement Form (POP 1-A)..... | 07-03-2012 |
| 00470 | Bidder's MWSBE Participation Plan..... | 08-01-2015 |
| 00471 | Pre-Bid Good Faith Efforts..... | 08-01-2015 |
| 00472 | Bidder's MWSBE Goal Deviation Request..... | 08-01-2015 |

POST-BID PROCEDURES

| | | |
|---------|--|------------|
| 00495-T | Post-bid Procedures for TxDOT Funded Projects..... | 08-01-2013 |
|---------|--|------------|

CONTRACTING REQUIREMENTS

AGREEMENT

| | | |
|---------|---|------------|
| 00500 | Form of Business..... | 02-01-2004 |
| 00501 | Resolution of Contractor | 02-01-2010 |
| 00520-T | Agreement | 07-01-2013 |
| 00570 | Contractor's Revised MWSBE Participation Plan | 08-01-2013 |
| 00571 | Record of Post-Award Good Faith Efforts..... | 08-01-2013 |
| 00572 | Contractor's Request for Plan Deviation | 08-01-2013 |

BONDS AND CERTIFICATES

| | | |
|---------|---|------------|
| 00600-T | List of Proposed Subcontractors and Suppliers, Parts A & B..... | 07-01-2013 |
| 00601 | Drug Policy Compliance Agreement..... | 02-01-2004 |
| 00602 | Contractor's Drug Free Workplace Policy (For filing) | |
| 00603 | Checklist for Drug Policy Submittal..... | 02-09-2012 |
| 00604 | History of OSHA Actions and List of On-the-job Injuries | 02-01-2004 |
| 00605 | List of Safety Impact Positions..... | 02-01-2004 |
| 00606 | Contractor's Certification of No Safety Impact Positions..... | 02-01-2004 |
| 00607 | Certification regarding Debarment, Suspension, and Other Responsibility Matters..... | 02-01-2004 |
| 00610 | Performance Bond | 05-17-2005 |
| 00611 | Statutory Payment Bond | 05-17-2005 |
| 00612-T | One-year Warranty of Work Bond..... | 04-10-2013 |
| 00620 | Affidavit of Insurance (with attached Certificates of Insurance) .. | 02-01-2004 |
| 00622 | Name and Qualifications of Proposed Superintendent (For filing) | |
| 00624 | Affidavit of Compliance with Affirmative Action Program | 02-01-2004 |

TABLE OF CONTENTS

| | | |
|-------|---|------------|
| 00633 | Equal Employment Opportunity-Certification by Material Suppliers..... | 02-01-2010 |
| 00642 | Monthly Subcontractor Payment Reporting Form | 02-01-2010 |
| 00646 | Payment Notification Explanation of Withholding..... | 02-01-2010 |

GENERAL CONDITIONS

| | | |
|-------|--------------------------|------------|
| 00700 | General Conditions | 08-15-2015 |
|-------|--------------------------|------------|

Doc.

| <u>No.</u> | <u>Document Title</u> | <u>Doc. Date</u> |
|-------------------|------------------------------|-------------------------|
|-------------------|------------------------------|-------------------------|

SUPPLEMENTARY CONDITIONS

| | | |
|---------|---|------------|
| 00800-T | TxDOT Supplementary Conditions | 01-01-2015 |
| 00805 | Equal Employment Opportunity Program Requirements | 05-01-2012 |
| 00808 | Requirements for the City of Houston Program for Minority, Women, and Small Business Enterprises (MWSBE), and Persons with Disabilities Business Enterprises (PDBE) Program | 08-01-2013 |
| 00820 | Wage Scale for Engineering Construction | 02-01-2015 |
| 00830 | Trench Safety Geotechnical Information..... | 02-01-2004 |
| 00851 | Buy America Requirements..... | 05-21-2012 |
| 00852 | Changed Conditions Clauses | 08-01-2011 |

ADDENDA AND MODIFICATIONS

| | | |
|-------|---|------------|
| 00910 | Addendum..... | 02-01-2004 |
| 00911 | Notice of Addendum..... | 02-01-2004 |
| 00912 | Rider | 05-15-2009 |
| 00931 | Request for Information (Example only)..... | 02-01-2004 |

SPECIFICATIONS

| <u>Doc. No.</u> | <u>Document Title</u> | <u>Doc. Date</u> |
|--|---|-------------------------|
| DIVISION 1 - GENERAL REQUIREMENTS | | |
| 01110 | Summary of Work | 06-27-2005 |
| 01145 | Use of Premises | 01-01-2011 |
| 01255 | Change Order Procedures | 08-01-2003 |
| 01270 | Measurement and Payment | 08-01-2003 |
| 01292 | Schedule of Values | 08-01-2003 |
| 01312 | Coordination and Meetings | 08-01-2003 |
| 01321 | Construction Photographs | 08-01-2003 |
| 01325 | Construction Schedule | 08-01-2003 |
| 01326 | Construction Schedule (Bar Chart) | 08-01-2003 |
| 01330 | Submittal Procedures | 08-01-2003 |
| 01340 | Shop Drawings, Product Data, and Samples | 08-01-2003 |
| 01351 | Environmental Safety and Worker Protection | 01-01-2011 |
| 01410 | TPDES Requirements (with Attachments) | 02-01-2011 |
| 01422 | Reference Standards | 08-01-2003 |
| 01450 | Contractor's Quality Control | 08-01-2003 |
| 01452 | Inspection Services | 08-01-2003 |
| 01454 | Testing Laboratory Services | 08-01-2003 |
| 01502 | Mobilization | 08-01-2008 |
| 01504 | Temporary Facilities and Controls | 01-01-2011 |
| 01506 | Diversion Pumping | 08-01-2003 |
| 01520 | Temporary Field Office | 02-08-2012 |
| 01554 | Traffic Control and Street Signs | 07-01-2012 |
| * 01555 | Traffic Control and Regulation | 01-01-2011 |
| 01562 | Tree and Plant Protection | 01-01-2011 |
| 01570 | Storm Water Pollution Control | 01-26-2012 |
| 01575 | Stabilized Construction Access | 02-01-2011 |
| 01576 | Waste Material Disposal | 08-01-2003 |
| 01578 | Control of Ground and Surface Water | 01-01-2011 |
| 01580 | Project Identification Signs | 08-01-2003 |
| 01581 | Excavation in Public Way Permit Signs | 08-01-2003 |
| 01610 | Basic Product Requirements | 01-01-2011 |
| 01630 | Product Substitution Procedures | 08-01-2003 |
| 01725 | Field Surveying | 01-01-2011 |
| 01731 | Cutting and Patching | 01-01-2011 |
| 01732 | Procedure for Water Valve Assistance (with Attachments) | 08-01-2003 |

TABLE OF CONTENTS

| <u>Doc. No.</u> | <u>Document Title</u> | <u>Doc. Date</u> |
|-----------------------------------|--|-------------------|
| 01740 | Site Restoration | 08-01-2003 |
| 01755 | Starting System..... | 08-01-2003 |
| 01770 | Closeout Procedures | 08-01-2003 |
| 01782 | Operations and Maintenance Data | 08-01-2003 |
| 01785 | Project Record Documents | 08-01-2003 |
| DIVISION 2 - SITE WORK | | |
| 02081 | CAST-IN-PLACE CONCRETE MANHOLES | 01-01-2011 |
| 02082 | PRECAST CONCRETE MANHOLES | 01-01-2011 |
| 02084 | FRAMES, GRATES, RINGS, AND COVERS..... | 08-01-2008 |
| 02085 | VALVE BOXES, METER BOXES, AND METER VAULTS | 01-01-2011 |
| 02086 | ADJUSTING MANHOLES, INLETS, AND VALVE BOXES TO GRADE | 01-01-2011 |
| 02087 | BRICK MANHOLE FOR STORM SEWERS | 10-01-2002 |
| 02105 | CHEMICAL SAMPLING AND ANALYSIS..... | 02-17-2011 |
| 02120 | OFF-SITE TRANSPORTATION AND DISPOSAL | 02-17-2011 |
| 02136 | WASTE MATERIAL HANDLING, TESTING AND DISPOSAL | 01-01-2011 |
| 02201 | SITE PREPARATION, GRADING, RESTORATION AND CLEAN UP FOR WATER STORAGE TANKS | 01-01-2011 |
| 02221S | REMOVING EXISTING PAVEMENTS AND STRUCTURES, WOOD AND DEMOLITION DEBRIS..... | 10-24-2012 |
| 02222 | ABANDONMENT OF SEWERS | 01-01-2011 |
| 02233 | CLEARING AND GRUBBING | 01-01-2011 |
| 02260 | TRENCH SAFETY SYSTEM | 02-01-2011 |
| 02315 | ROADWAY EXCAVATION | 07-01-2009 |
| 02316 | EXCAVATION AND BACKFILL FOR STRUCTURES..... | 01-01-2011 |
| 02317 | EXCAVATION AND BACKFILL FOR UTILITIES | 01-01-2011 |
| 02318 | EXTRA UNIT PRICE WORK FOR EXCAVATION AND BACKFILL | 01-01-2011 |
| 02319 | BORROW | 01-01-2011 |
| 02320 | UTILITY BACKFILL MATERIALS..... | 01-01-2011 |
| 02321 | CEMENT STABILIZED SAND | 01-01-2011 |
| 02322 | FLOWABLE FILL | 08-01-2008 |
| 02330 | EMBANKMENT | 10-01-2002 |
| 02336 | LIME-STABILIZED SUBGRADE | 10-01-2002 |
| 02337 | LIME/FLY-ASH STABILIZED SUBGRADE | 10-01-2002 |
| 02338 | PORTLAND CEMENT STABILIZED SUBGRADE | 10-01-2002 |
| 02340 | COMPACTED SANDFILL UNDER TANK FLOOR PLATE | 01-01-2011 |
| 02400 | TUNNEL SHAFTS | 01-01-2011 |
| 02401 | COMMON TUNNEL SHAFTS | 01-01-2011 |
| 02425 | TUNNEL EXCAVATION AND PRIMARY LINER..... | 10-01-2002 |

TABLE OF CONTENTS

| <u>Doc. No.</u> | <u>Document Title</u> | <u>Doc. Date</u> |
|-----------------|--|------------------|
| 02426 | SEWER LINE IN TUNNELS | 10-01-2002 |
| 02427 | PLASTIC LINER FOR LARGE-DIAMETER CONCRETE SEWERS AND STRUCTURES | 10-01-2002 |
| 02431 | TUNNEL GROUT | 10-01-2002 |
| 02441 | MICROTUNNELING AND PIPE-JACKED TUNNELS | 01-01-2011 |
| 02447 | AUGERING PIPE AND CONDUIT | 10-01-2002 |
| 02448 | PIPE AND CASING AUGERING FOR SEWERS..... | 10-01-2002 |
| 02465 | DRILLED SHAFT FOUNDATIONS | 10-01-2002 |
| 02476 | CAISSON FOR LIFT STATION..... | 01-01-2011 |
| 02501 | DUCTILE IRON PIPE AND FITTINGS | 02-01-2011 |
| 02502 | STEEL PIPE AND FITTINGS | 01-01-2011 |
| 02503 | COPPER TUBING..... | 10-01-2002 |
| 02504 | CENTRIFUGALLY CAST FIBERGLASS PIPE..... | 02-01-2011 |
| 02505 | HIGH DENSITY POLYETHYLENE (HDPE) SOLID AND PROFILE WALL PIPE..... | 02-01-2011 |
| 02506 | POLYVINYL CHLORIDE PIPE..... | 01-01-2011 |
| 02507 | PRESTRESSED CONCRETE CYLINDER PIPE..... | 01-01-2011 |
| 02508 | EXTRA STRENGTH CLAY PIPE | 02-01-2011 |
| 02509 | FIBERGLASS REINFORCED PIPE FOR PRESSURE MAINS | 01-01-2011 |
| 02511S | WATER LINES | 10-21-2013 |
| 02512 | WATER TAP AND SERVICE LINE INSTALLATION..... | 04-27-2012 |
| 02513S | WET CONNECTIONS | 10-24-2012 |
| 02514 | DISINFECTION OF WATER LINES | 01-01-2011 |
| 02515 | HYDROSTATIC TESTING OF PIPELINES..... | 01-01-2011 |
| 02516 | CUT, PLUG, AND ABANDONMENT OF WATER LINES..... | 01-01-2011 |
| 02517 | WATER LINE IN TUNNELS | 10-01-2002 |
| 02518 | STEEL PIPE AND FITTINGS FOR LARGE-DIAMETER WATER LINES | 01-01-2011 |
| 02520 | FIRE HYDRANTS..... | 05-05-2011 |
| 02521 | GATE VALVES | 01-01-2011 |
| 02522 | BUTTERFLY VALVES | 01-01-2011 |
| 02523 | PRESSURE REDUCING VALVES..... | 10-01-2002 |
| 02524S | AIR RELEASE AND VACUUM RELIEF VALVES | 01-16-2014 |
| 02525S | TAPPING SLEEVES AND VALVES | 10-24-2012 |
| 02526 | WATER METERS..... | 01-01-2011 |
| 02527 | POLYURETHANE COATINGS ON STEEL OR DUCTILE IRON PIPE..... | 10-01-2002 |
| 02528 | POLYETHYLENE WRAP | 01-01-2011 |
| 02531 | GRAVITY SANITARY SEWERS | 01-01-2011 |
| 02532 | SANITARY SEWER FORCE MAINS | 01-01-2011 |
| 02533 | ACCEPTANCE TESTING FOR SANITARY SEWERS | 01-01-2011 |

| <u>Doc. No.</u> | <u>Document Title</u> | <u>Doc. Date</u> |
|-----------------|---|------------------|
| 02534 | SANITARY SEWER SERVICE STUBS OR RECONNECTIONS ... | 01-01-2011 |
| 02550 | SLIPLINING SANITARY SEWERS | 01-01-2011 |
| 02553 | POINT REPAIR AND OBSTRUCTION REMOVALS | 01-01-2011 |
| 02555 | MANHOLE REHABILITATION | 01-01-2011 |
| 02557 | FOLDED AND FORMED PIPE..... | 01-01-2011 |
| 02558 | CLEANING AND TELEVISION INSPECTION | 01-01-2011 |
| 02571 | CRUSHING SANITARY SEWERS..... | 01-01-2011 |
| 02581 | STREET LIGHTING CONDUIT | 10-01-2002 |
| 02611 | REINFORCED CONCRETE PIPE..... | 02-01-2011 |
| 02612 | PRECAST REINFORCED CONCRETE BOX SEWERS..... | 10-01-2002 |
| 02613 | BAR WRAPPED STEEL CYLINDER PIPE..... | 01-01-2011 |
| 02621 | GEOTEXTILE | 10-01-2002 |
| 02631 | STORM SEWERS | 01-26-2012 |
| 02632 | CAST-IN-PLACE INLETS, HEADWALLS, AND WINGWALLS..... | 10-01-2002 |
| 02633 | PRECAST CONCRETE INLETS, HEADWALLS, AND WINGWALLS..... | 10-01-2002 |
| 02642 | CORRUGATED METAL PIPE..... | 10-01-2002 |
| 02643 | PLATE CULVERT STRUCTURES..... | 10-01-2002 |
| 02662 | PIPING, VALVES, FITTINGS, AND ACCESSORIES FOR WATER STORAGE TANKS..... | 01-01-2011 |
| 02711 | HOT MIX ASPHALT BASE COURSE..... | 07-01-2009 |
| 02712 | CEMENT STABILIZED BASE COURSE | 10-01-2002 |
| 02713 | RECYCLED CRUSHED CONCRETE BASE COURSE | 07-01-2009 |
| 02714 | FLEXIBLE BASE COURSE FOR TEMPORARY DRIVEWAYS | 07-01-2009 |
| 02741 | ASPHALTIC CONCRETE PAVEMENT | 07-01-2009 |
| 02742 | PRIME COAT | 10-01-2002 |
| 02743 | TACK COAT..... | 10-01-2002 |
| 02751 | CONCRETE PAVING | 07-01-2009 |
| 02752S | CONCRETE PAVEMENT JOINTS | 12-30-2009 |
| *02752 | CONCRETE PAVEMENT JOINTS | 10-01-2002 |
| 02753 | CONCRETE PAVEMENT CURING..... | 10-01-2002 |
| 02754 | CONCRETE DRIVEWAYS | 09-01-2002 |
| 02761 | COLORING CONCRETE FOR MEDIANS AND SIDEWALKS..... | 09-01-2002 |
| 02762 | BLAST CLEANING OF PAVEMENT | 10-01-2002 |
| 02764 | RAISED PAVEMENT MARKERS | 07-01-2012 |
| 02765 | TEMPORARY AND REMOVABLE REFLECTORIZED PAVEMENT MARKINGS | 07-01-2012 |
| 02767 | THERMOPLASTIC PAVEMENT MARKINGS..... | 07-01-2012 |
| 02768 | EPOXY PAVEMENT MARKINGS | 07-01-2012 |
| 02771 | CURB, CURB AND GUTTER, AND HEADERS..... | 10-01-2002 |

| <u>Doc. No.</u> | <u>Document Title</u> | <u>Doc. Date</u> |
|-------------------------------------|--|-------------------|
| 02772 | CONCRETE MEDIANS AND DIRECTIONAL ISLANDS | 10-01-2002 |
| 02775 | CONCRETE SIDEWALKS | 10-01-2002 |
| 02811 | LANDSCAPE IRRIGATION | 04-27-2015 |
| 02893 | TRAFFIC SIGNAL CONSTRUCTION | 07-01-2009 |
| 02911 | TOPSOIL | 10-01-2002 |
| 02912 | TREE, PLANT, AND HARDSCAPE PROTECTION..... | 07-01-2009 |
| 02915 | TREE PLANTING | 04-27-2015 |
| 02921 | HYDROMULCH SEEDING | 01-01-2011 |
| 02922 | SODDING | 07-01-2009 |
| 02951 | PAVEMENT REPAIR AND RESTORATION..... | 07-01-2009 |
| 02960 | MILLING PAVEMENT | 07-01-2009 |
| 02983S | <i>Removal and Restoration of Brick-Paved Streets.....</i> | <i>02-05-2014</i> |
| * 02983 | REMOVAL AND RESTORATION OF BRICK-PAVED STREETS. | 10-01-2002 |
| DIVISION 3 – CONCRETE | | |
| 03315 | CONCRETE FOR UTILITY CONSTRUCTION | 10-01-2002 |
| DIVISION 4 – MORTAR | | |
| 04061 | MORTAR | 10-01-2002 |
| 04210 | BRICK MASONARY FOR UTILITY CONSTRUCTION..... | 10-01-2002 |
| DIVISION 5 – METALS | | |
| 05501 | METAL FABRICATIONS | 01-01-2011 |
| DIVISION 9 – FINISHES | | |
| 09901 | PROTECTIVE COATINGS | 01-01-2011 |
| DIVISION 16 – ELECTRICAL | | |
| 16010 | BASIC ELECTRICAL REQUIREMENTS | 01-01-2011 |
| 16010 | PULL BOXES..... | 07-01-2009 |
| DIVISION 7 – NOT USED | | |
| DIVISION 8 – NOT USED | | |
| DIVISION 15 – NOT USED | | |

TEXAS DEPARTMENT OF TRANSPORTATION

Local Government Standard Specifications

| | |
|----|--|
| 1L | Abbreviations and Definitions |
| 2L | Instructions to Bidders |
| | State of Texas Child Support Business Ownership Form |
| 3L | Award and Execution of Contract |
| 4L | Scope of Work |
| 5L | Control of the Work |
| 6L | Control of Materials |
| 7L | Legal Relations and Responsibilities |
| 8L | Prosecution and Progress |
| 9L | Measurement and Payment |

Special Provisions: State Construction Contracts

| | |
|-------------|--|
| SP 000-001L | Schedule of Liquidated Damages |
| SP 000-002L | Nondiscrimination |
| SP 000-008L | Special Labor Provisions for State Projects |
| SP 000-009L | Small Business Enterprise in State Funded Construction |

Special Provisions: Bid Items

| | |
|-------------|--|
| SP 506-001L | Temporary Erosion, Sedimentation, and Environmental Controls |
|-------------|--|

Standard Specifications Adopted by Texas Department of Transportation
(<http://www.txdot.gov/business/resources/txdot-specifications.html>)

November 1, 2014

| | |
|----------|---|
| Item 132 | Embankment (100) (160) (204) (210) (216) (260) (400) |
| Item 360 | Concrete Pavement (421) (422) (438) (440) (529) (585) |
| Item 400 | Excavation and Backfill for Structures (110) (132) (401) (402) (403) (416) (420) (421) (423) |
| Item 416 | Drilled Shaft Foundations (405) (420) (421) (423) (440) (448) |
| Item 420 | Concrete Substructures (400) (404) (421) (422) (426) (427) (440) (441) (448) |
| Item 422 | Concrete Superstructures (420) (421) (424) (438) (440) (448) (454) (782) |
| Item 423 | Retaining Walls (110) (132) (216) (400) (416) (420) (421) (424) (440) (445) (458) (556) |
| Item 425 | Precast Prestressed Concrete Structural Members (409) (420) (421) (424) (426) (427) (434) (440) (442) (445) (448) |
| Item 432 | RipRap (247) (420) (421) (431) (440) |

Buffalo Speedway Grade Separation
From South of Holmes Road to Willowbend Blvd.
WBS No. N-000784-0002-4
CSJ No. 0912-72-311

TABLE OF CONTENTS

| | |
|----------|---|
| Item 442 | Metal for Structures (441) (445) (446) (447) (448) |
| Item 450 | Railing (420) (421) (422) (424) (440) (441) (442) (445) (446) (448) (540) |
| Item 454 | Bridge Expansion Joints (429) (442) (785) |
| Item 471 | Frames, Grates, Rings, and Covers (441) (445) (448) (465) |
| Item 481 | Pipe for Drain (PVC) (SCH 40) (6 IN) (400) |
| Item 540 | Metal Beam Guard Fence (421) (441) (445) (529) |
| Item 544 | GuardRail End Treatments |
| Item 550 | Chain Link Fence (421) (445) |
| Item 556 | Pipe Underdrains (402) (432) |

Texas Department of Transportation Special Specifications

| | |
|---------|---|
| SS 3010 | Concrete Pavement Wide Flange Terminals (360) (400) (421) (422) (440) (442) |
|---------|---|

Right of Way Certification
Local Government's Notifications

END OF DOCUMENT

Document 00410A

BID FORM – PART A

To: **The Honorable Mayor and City Council of the City of Houston
City Hall Annex
900 Bagby Street
Houston, Texas 77002**

Project: Buffalo Speedway Grade Separation from South of Holmes Road to
Willowbend Blvd

Project No.: WBS No. N-000784-0002-4, CSJ No. 0912-72-311

Bidder:

(Print or type full name of business entity, such as corporation, LLC, etc)

1.0 OFFER

- A. Total Bid Price:** Having examined the Project location and all matters referred to in Bid Documents for the Project, we, the undersigned, offer to enter into a Contract to perform the Work for the Total Bid Price shown on the signature page of this Document
- B. Security Deposit:** Included with the Bid is a Security Deposit in the amount of 10 percent of the Total Bid Price subject to terms described in Document 00200 – Instructions to Bidders.
- C. Period for Bid Acceptance:** This offer is open to acceptance and is irrevocable for 90 days from Bid Date. That period may be extended by mutual written agreement of the City and Bidder.
- D. Addenda:** All Addenda have been received. Modifications to Bid Documents have been considered and all related costs are included in the Total Bid Price.
- E. Bid Supplements:** The following documents are attached:
- Security Deposit (*as defined in Document 00200 – Instructions to Bidders*)
 - Document 00450 - Bidder's Statement of MWBE/PDBE/DBE/SBE Status
 - Document 00452 - Contractor's Submission List - Fair Campaign Ordinance Form A
 - Document 00453 – Bidder's Statement of Residency (*not required for AIP funded project*)
 - Document 00454 - Affidavit of Non-interest
 - Document 00455 - Affidavit of Ownership or Control
 - Document 00456 - Bidder's Certificate of Compliance with Buy American Program (*required for AIP funded project*)
 - Document 00457 – Conflicts of Interest Questionnaire (CIQ)
 - Document 00458 - Bidder's Certificate Regarding Foreign Trade Restriction (*required for AIP funded project*)
 - Document 00459 - Contractor's Statement Regarding Previous Contracts Subject to EEO (*required for AIP funded project*)
 - Document 00460 – Pay or Play Acknowledgement Form (POP 1-A)
 - Document 00470 – Bidder's MWSBE Participation Plan (*required unless no MWSBE participation goal is provided in Document 00800 (the "Goal")*).

- Document 00471 – Bidder's Record of Good Faith Efforts (*required if the goal in Bidder's Participation Plan–Document 00470 is lower than the Goal*).
- Document 00472 – Bidder's Goal Deviation Request (*required if the goal in Bidder's Participation Plan–Document 00470 is lower than the Goal*).
- Others as listed: Valid Official letter from OBO with your designation as a City or Local Business (Bidder's Participation Hire Houston First), State of Texas Child Support Business Ownership Form

2.0 CONTRACT TIME

- A. If offer is accepted, Contractor shall achieve Date of Substantial Completion within 360 days after Date of Commencement of the Work, subject to adjustments of Contract Time as provided in the Contract.

Document 00410B

BID FORM – PART B

1.0 TOTAL BID PRICE HAS BEEN CALCULATED BY BIDDER, USING THE FOLLOWING COMPONENT PRICES AND PROCESS (PRINT OR TYPE NUMERICAL AMOUNTS):

A. STIPULATED PRICE: \$0.00 (N/A)

(Total Bid Price; minus Base Unit Prices, Extra Unit Prices, Cash Allowances and All Alternates, if any)

B. BASE UNIT PRICE TABLE:

| B1. UNIT PRICE – GENERAL ITEMS | | | | | | |
|---------------------------------------|------------------|--|------------------------|---------------------------|--|-----------------------------|
| Item No. | Spec Ref. | Base Unit Short Title | Unit of Measure | Estimated Quantity | Unit Price (this column controls) | Total in figures |
| 1 | 01502 | MOBILIZATION | LS | 1 | \$360,000.00 ⁽¹⁾ | \$360,000.00 ⁽¹⁾ |
| 2 | 01554 | TRAFFIC CONTROL AND STREET SIGNS | EA | 15 | | |
| 3 | 01555 | TRAFFIC CONTROL AND REGULATION | LS | 1 | \$10,000.00 ⁽²⁾ | \$10,000.00 ⁽²⁾ |
| 4 | 01555 | FLAGMAN <small>See Footnote (1) & (2)</small> | LS | 1 | \$45,000.00 ⁽²⁾ | \$45,000.00 ⁽²⁾ |
| 5 | 01555 | INSTALL LOW PROFILE CONCRETE BARRIERS | LF | 775 | | |
| 6 | 01555 | REMOVE LOW PROFILE CONCRETE BARRIERS | LF | 775 | | |
| 7 | 01570 | INLET PROTECTION BARRIER | LF | 200 | | |
| 8 | 01570 | FILTER FABRIC FENCE | LF | 3,546 | | |
| 9 | 01570 | REINFORCED FILTER FABRIC BARRIER | LF | 400 | | |
| 10 | 01575 | STABILIZED CONSTRUCTION EXIT | SY | 340 | | |
| 11 | 02105 | PREPARATORY WORK FOR SAMPLING AND ANALYSIS IN POTENTIALLY PETROLEUM CONTAMINATED AREA (PPCA) | LS | 1 | | |

| Item No. | Spec Ref. | Base Unit Short Title | Unit of Measure | Estimated Quantities | Unit Price (this column controls) | Total in figures |
|----------------------------|-----------|---|-----------------|----------------------|-----------------------------------|------------------|
| 12 | 02120 | TRANSPORTATION AND DISPOSAL OF CLASS I SOIL | CY | 370 | | |
| 13 | 02120 | TRANSPORTATION AND DISPOSAL OF CLASS II SOIL | CY | 1,481 | | |
| 14 | 02221 | REMOVE/DISPOSE OF STORM SEWER PIPE 36-INCH DIA (PVC). FOR TEMPORARY PAVEMENT. | LF | 1,775 | | |
| 15 | 02233 | CLEARING AND GRUBBING | AC | 4.16 | | |
| 16 | 02260 | TRENCH SAFETY SYSTEM FOR TRENCH EXCAVATIONS | LF | 1,900 | | |
| 17 | 02315 | ROADWAY EXCAVATION WITH OR WITHOUT SUBGRADE FOR TEMPORARY PAVEMENT. | CY | 2,103 | | |
| 18 | 02631 | 36-INCH DIA STORM SEWER PIPE BY OPEN CUT (PVC). FOR TEMPORARY PAVEMENT. | LF | 1,775 | | |
| 19 | 02741 | TEMPORARY ASPHALT PAVEMENT FOR DETOUR/ROADWAY AND SHOULDER | SY | 2,366 | | |
| 20 | 02767 | THERMOPLASTIC PAVEMENT MARKING 4-INCH WIDE WHITE (SLD) | LF | 3,550 | | |
| 21 | 02767 | THERMOPLASTIC PAVEMENT MARKING 4-INCH WIDE YELLOW (SLD) | LF | 3,550 | | |
| 22 | 02921 | HYDROMULCH SEEDING | AC | 2.40 | | |
| 23 | 02922 | SODDING | SY | 7,304 | | |
| TOTAL GENERAL ITEMS | | | | | | \$ _____ |

| B2. UNIT PRICE – PAVING ITEMS | | | | | | |
|--------------------------------------|------------------|---|------------------------|-----------------------------|--|-------------------------|
| Item No. | Spec Ref. | Base Unit Short Title | Unit of Measure | Estimated Quantities | Unit Price (this column controls) | Total in figures |
| 24 | 02319 | BORROW | CY | 16,108 | | |
| 25 | 02336 | LIME FOR LIME STABILIZED SUBGRADE (8% DRY WEIGHT) | TON | 207 | | |
| 26 | 02336 | LIME STABILIZED SUBGRADE 8- INCH THICK | SY | 5,478 | | |
| 27 | 02581 | CONDUIT 2-INCH SCH 80 PVC | LF | 4,317 | | |
| 28 | TXDOT 360-6032 | CONC PAV (JOINT REINF) (10") | SY | 624 | | |
| 29 | 02751 | REINFORCED CONCRETE PAVEMENT 10-INCH THICK | SY | 5,072 | | |
| 30 | 02752 | STREET PAVEMENT EXPANSION JOINT WITH OR WITHOUT LOAD TRANSFER | LF | 518 | | |
| 31 | 02752 | HORIZONTAL DOWELS, 18-INCH | EA | 476 | | |
| 32 | 02767 | THERMOPLASTIC PAVEMENT MARKING 4-INCH WIDE WHITE (BRK) | LF | 1,020 | | |
| 33 | 02767 | THERMOPLASTIC PAVEMENT MARKING 6-INCH WIDE WHITE (SLD) | LF | 140 | | |
| 34 | 02767 | THERMOPLASTIC PAVEMENT MARKING MED NOSE YELLOW TYPE II | EA | 2 | | |
| 35 | 02767 | THERMOPLASTIC PAVEMENT MARKING 12-INCH WIDE WHITE (SLD) | LF | 190 | | |
| 36 | 02767 | THERMOPLASTIC PAVEMENT MARKING 24-INCH WIDE WHITE (SLD) | LF | 60 | | |
| 37 | 02767 | THERMOPLASTIC PAVEMENT MARKING SYMBOL COMBINED ARROW | EA | 3 | | |
| 38 | 02767 | THERMOPLASTIC PAVEMENT MARKING ELONGATED WORD ONLY | EA | 1 | | |

| Item No. | Spec Ref. | Base Unit Short Title | Unit of Measure | Estimated Quantities | Unit Price (this column controls) | Total in figures |
|---------------------------|----------------|---|-----------------|----------------------|-----------------------------------|------------------|
| 39 | 02764 | RAISED PAVEMENT MARKER TYPE II - C/R | EA | 120 | | |
| 40 | 02767 | THERMOPLASTIC PAVEMENT MARKING 4-INCH WIDE WHITE (SLD) | LF | 2,905 | | |
| 41 | 02767 | THERMOPLASTIC PAVEMENT MARKING 4-INCH WIDE YELLOW (SLD) | LF | 2,605 | | |
| 42 | 02771 | 6-INCH CONCRETE CURB (MONOLITHIC) | LF | 3,675 | | |
| 43 | 02771 | MODIFIED CONCRETE PAVING HEADER | LF | 100 | | |
| 44 | 02772 | BLACK CONCRETE MEDIAN NOSE | SY | 8 | | |
| 45 | 02775 | SIDEWALK 4-1/2-INCH THICK | SF | 10,356 | | |
| 46 | 02775 | CURB RAMP | SF | 240 | | |
| 47 | 16710 | PULL BOXES | EA | 8 | | |
| 48 | TXDOT 540-6001 | MTL BM GD FEN (TIM POST) | LF | 400 | | |
| 49 | TXDOT 540-6016 | DOWNSTREAM ANCHOR TERMINAL SECTION | EA | 1 | | |
| 50 | TXDOT 544-6011 | GAURDRAIL END TREATMENT (INSTALL) | EA | 1 | | |
| TOTAL PAVING ITEMS | | | | | | \$ _____ |

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| B3. UNIT PRICE – STORM SEWER SYSTEM | | | | | | |
|--|------------------|---|------------------------|-----------------------------|--|-------------------------|
| Item No. | Spec Ref. | Base Unit Short Title | Unit of Measure | Estimated Quantities | Unit Price (this column controls) | Total in figures |
| 51 | 02082 | TYPE C MANHOLE FOR 42-INCH DIAMETER AND SMALLER SEWERS (ALL DEPTHS) | EA | 3 | | |
| 52 | 02082 | EXTRA DEPTH (GREATER THAN 8 FEET) FOR TYPE C MANHOLE FOR 42-INCH DIA AND SMALLER SEWERS | VF | 15 | | |
| 53 | 02631 | 48-INCH DIAMETER STORM SEWER BY OPEN CUT INCL LEAD (ALL DEPTHS) | LF | 41 | | |
| 54 | 02631 | 36-INCH DIAMETER STORM SEWER BY OPEN CUT INCL LEAD (ALL DEPTHS) | LF | 383 | | |
| 55 | 02631 | 24-INCH DIAMETER STORM SEWER BY OPEN CUT INCL LEAD (ALL DEPTHS) | LF | 603 | | |
| 56 | 02631, 02105 | 24-INCH DIAMETER STORM SEWER BY OPEN CUT INCL LEAD (ALL DEPTHS) (IN PPCA) | LF | 200 | | |
| 57 | 02633 | TYPE C INLET | EA | 6 | | |
| 58 | 02633 | TYPE A INLET WITH CONCRETE PAVING | EA | 1 | | |
| 59 | 02632 | SAFETY END TREATMENT | EA | 1 | | |
| 60 | 02315 | EXCAVATION OF EXCESS MATERIAL STORED ON SWALE ALIGNMENT | CY | 1797 | | |
| 61 | 02315 | EXCAVATION FOR SWALE | CY | 584 | | |
| TOTAL STORM SEWER SYSTEM | | | | | | \$ _____ |

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| B4. UNIT PRICE – BRIDGE AND RETAINING WALL | | | | | | |
|---|------------------|---------------------------------------|------------------------|-----------------------------|--|-------------------------|
| Item No. | Spec Ref. | Base Unit Short Title | Unit of Measure | Estimated Quantities | Unit Price (this column controls) | Total in figures |
| 62 | TXDOT 132-6035 | CEM STABIL BKFL | CY | 3,400 | | |
| 63 | TXDOT 416-6004 | DRILL SHAFT (36 IN) | LF | 816 | | |
| 64 | TXDOT 416-6005 | DRILL SHAFT (42 IN) | LF | 3,474 | | |
| 65 | TXDOT 420-6013 | CL C CONC (ABUT) | CY | 88.00 | | |
| 66 | TXDOT 420-6025 | CL C CONC (BENT) | CY | 669.70 | | |
| 67 | TXDOT 422-6001 | REINF CONC SLAB | SF | 82,800 | | |
| 68 | TXDOT 422-6013 | BRIDGE SIDEWALK | SF | 16,100 | | |
| 69 | TXDOT 425-6039 | PRESTR CONC GIRDER (TX54) | LF | 10,903.77 | | |
| 70 | TXDOT 432-6001 | RIPRAP (CONC)(4 IN) | CY | 60 | | |
| 71 | TXDOT 450-6004 | RAIL (TY T221) | LF | 2,390.00 | | |
| 72 | TXDOT 450-6030 | RAIL (TY C221) | LF | 3,881.30 | | |
| 73 | TXDOT 454-6001 | SEALED EXPANSION JOINT (4 IN)(SEJ-A) | LF | 300 | | |
| 74 | TXDOT 132-6006 | EMBANKMENT (FINAL) (DENS CONT) (TY C) | CY | 4,807 | | |
| 75 | TXDOT 442-6007 | STR STEEL (MISC NON-BRIDGE) | LB | 3,336 | | |
| 76 | TXDOT 471-6007 | GRATE AND FRAME (BRIDGE DRAIN) | EA | 16 | | |
| 77 | TXDOT 481-6013 | PIPE (PVC) (SCH 40) (6 IN) | LF | 250 | | |
| 78 | TXDOT 540-6006 | MTL BEAM GD FEN TRANS (THREE-BEAM) | EA | 2 | | |
| 79 | TXDOT 544-6001 | GUARDRAIL END TREATMENT (INSTALL) | EA | 2 | | |

00410B-6

Bidder's Initials []

08-01-2013

ADDENDUM NO. 1

| Item No. | Spec Ref. | Base Unit Short Title | Unit of Measure | Estimated Quantities | Unit Price (this column controls) | Total in figures |
|--|-----------------|---|-----------------|----------------------|-----------------------------------|------------------|
| 80 | TXDOT 550-6008 | CHAIN LINK FENCE (INSTALL) (8') | LF | 480 | | |
| 81 | TXDOT 3010-6001 | WIDE FLANGE PAVEMENT TERMINALS | LF | 136 | | |
| 82 | TXDOT 132-6036 | EMB(FNL)(DC)(TYE)(CSBE)(R WALL FND IMPR | CY | 1,018 | | |
| 83 | TXDOT 400-6001 | STRUCTURAL EXCAVATION | CY | 1,018 | | |
| 84 | TXDOT 423-6001 | RETAINING WALL (MSE) | SF | 14,336 | | |
| 85 | TXDOT 432-6045 | RIPRAP (MOW STRIP) (4 IN) | CY | 48 | | |
| TOTAL BRIDGE AND RETAINING WALL | | | | | | \$ _____ |

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| C. UNIT PRICE – EXTRA UNIT PRICE ITEMS | | | | | | |
|---|------------------|--|------------------------|---------------------------|--|---------------------------|
| Item No. | Spec Ref. | Extra Unit Short Title | Unit of Measure | Estimated Quantity | Unit Price (this column controls) | Total in figures |
| 86 | 01578 | GROUND WATER CONTROL FOR OPEN-CUT CONSTRUCTION | LF | 100 | | |
| 87 | 02318 | EXCAVATION AROUND OBSTRUCTIONS | CY | 100 | \$10.00 ⁽²⁾ | \$1,000.00 ⁽²⁾ |
| 88 | 02318 | EXTRA HAND EXCAVATION | CY | 100 | \$10.00 ⁽²⁾ | \$1,000.00 ⁽²⁾ |
| 89 | 02318 | EXTRA MACHINE EXCAVATION | CY | 100 | \$15.00 ⁽²⁾ | \$1,500.00 ⁽²⁾ |
| 90 | 02318 | EXTRA PLACEMENT OF BACKFILL MATERIAL | CY | 100 | \$25.00 ⁽²⁾ | \$2,500.00 ⁽²⁾ |
| 91 | 02318 | EXTRA CEMENT-STABILIZED SAND | CY | 100 | | |
| TOTAL EXTRA UNIT PRICE ITEMS | | | | | | \$ _____ |

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| D. UNIT PRICE – CASH ALLOWANCE ITEMS | | | |
|---|------------------|---------------------------------------|--------------------------------------|
| Item No. | Spec Ref. | Cash Allowance Short Title | Cash Allowance in figures (1) |
| 92 | 01110 | LANE CLOSURE PERMIT FEE | \$1000.00 |
| 93 | 01110 | UNION PACIFIC RAILROAD AND ROE PERMIT | \$10,000.00 |
| 94 | 02581 | STREET LIGHTING | \$14,000.00 |
| TOTAL CASH ALLOWANCE ITEMS | | | \$ _____ |

E. ALTERNATES TABLE:

F. TOTAL BID PRICE:

(Add Totals for Items A., B., C., D., and E. above)

\$ _____

2.0 SIGNATURES: By signing this Document, I agree that I have received and reviewed all Addenda and considered all costs associated with the Addenda in calculating the Total Bid Price.

Bidder:

(Print or type full name of your proprietorship, partnership, corporation, or joint venture.*)

**** *** By:**

Signature

Date

Name:

(Print or type name)

Title

Address:

(Mailing)

(Street, if different)

Telephone and Fax Number:

(Print or type numbers)

- * If Bid is a joint venture, add additional Bid Form signature sheets for each member of the joint venture.
- ** Bidder certifies that the only person or parties interested in this offer as principals are those named above. Bidder has not directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding.
- *** Under Section 231.006, family Code, the vendor or applicant certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate.

Note: This document constitutes a government record, as defined by § 37.01 of the Texas Penal Code. Submission of a false government record is punishable as provided in § 37.10 of the Texas Penal Code.

Footnotes for Tables B through E:

- (1) Fixed Unit Price determined prior to Bid. Cannot be adjusted by the Bidder.
- (2) Minimum Bid Price determined prior to Bid. Can be increased by the Bidder by crossing out the Minimum and noting revised price on the line above.
- (3) Maximum Bid Price determined prior to Bid. Can be decreased but not increased by Bidder by crossing out the Maximum and noting revised price on the line above. A Bid that increases the Maximum Bid Price may be found non-conforming and non-responsive.
- (4) Fixed Range Bid Price determined prior to Bid. Unit Price can be adjusted by Bidder to any amount within the range defined by crossing out prices noted and noting revised price on the line above.

00410B-10
08-01-2013
ADDENDUM NO. 1

Bidder's Initials []]

08-01-2013

DOCUMENT 00851

BUY AMERICA REQUIREMENTS

1.0 Contractors shall comply with the latest provisions of Buy America as listed at 23 CFR 635.410 and use steel or iron materials manufactured* in the United States except when:

- the cost of materials, including delivery, does not exceed 0.1% of the total Contract cost or \$2,500, whichever is greater;
- the Contract contains an alternate item for a foreign source steel or iron product and the Contract is awarded based on the alternate item; or
- the materials are temporarily installed.

2.0 Contractor shall provide a notarized original of the FORM D-9-USA-1 with the proper attachments for verification of compliance. A current version of FORM D-9-USA-1 can be found here:

<http://www.txdot.gov/txdot/forms/GetForm?formName=/1818.xdp&appId=/CST&status=/reportError.jsp&configFile=WFServletConfig.xml>

* *Manufacturing is any process that modifies the chemical content, physical shape or size, or final finish of a product. Manufacturing begins with initial melting and mixing and continues through fabrication (cutting, drilling, welding, bending, etc.) and coating (paint, galvanizing, epoxy, etc.).*

DOCUMENT 00851

BUY AMERICA REQUIREMENTS

23 Code of Federal Regulations (CFR) Chapter I
§ 635.410 Buy America Requirements

(a) The provisions of this section shall prevail and be given precedence over any requirements of this subpart which are contrary to this section. However, nothing in this section shall be construed to be contrary to the requirements of §635.409(a) of this subpart.

(b) No Federal-aid highway construction project is to be authorized for advertisement or otherwise authorized to proceed unless at least one of the following requirements is met:

(1) The project either: (i) Includes no permanently incorporated steel or iron materials, or (ii) if steel or iron materials are to be used, all manufacturing processes, including application of a coating, for these materials must occur in the United States. Coating includes all processes which protect or enhance the value of the material to which the coating is applied.

(2) The State has standard contract provisions that require the use of domestic materials and products, including steel and iron materials, to the same or greater extent as the provisions set forth in this section.

(3) The State elects to include alternate bid provisions for foreign and domestic steel and iron materials which comply with the following requirements. Any procedure for obtaining alternate bids based on furnishing foreign steel and iron materials which is acceptable to the Division Administrator may be used. The contract provisions must (i) require all bidders to submit a bid based on furnishing domestic steel and iron materials, and (ii) clearly state that the contract will be awarded to the bidder who submits the lowest total bid based on furnishing domestic steel and iron materials unless such total bid exceeds the lowest total bid based on furnishing foreign steel and iron materials by more than 25 percent.

(4) When steel and iron materials are used in a project, the requirements of this section do not prevent a minimal use of foreign steel and iron materials, if the cost of such materials used does not exceed one-tenth of one percent (0.1 percent) of the total contract cost or \$2,500, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the steel and iron products as they are delivered to the project.

(c)(1) A State may request a waiver of the provisions of this section if;

(i) The application of those provisions would be inconsistent with the public interest; or

- (ii) Steel and iron materials/products are not produced in the United States in sufficient and reasonably available quantities which are of a satisfactory quality.
- (2) A request for waiver, accompanied by supporting information, must be submitted in writing to the Regional Federal Highway Administrator (RFHWA) through the FHWA Division Administrator. A request must be submitted sufficiently in advance of the need for the waiver in order to allow time for proper review and action on the request. The RFHWA will have approval authority on the request.
- (3) Requests for waivers may be made for specific projects, or for certain materials or products in specific geographic areas, or for combinations of both, depending on the circumstances.
- (4) The denial of the request by the RFHWA may be appealed by the State to the Federal Highway Administrator (Administrator), whose action on the request shall be considered administratively final.
- (5) A request for a waiver which involves nationwide public interest or availability issues or more than one FHWA region may be submitted by the RFHWA to the Administrator for action.
- (6) A request for waiver and an appeal from a denial of a request must include facts and justification to support the granting of the waiver. The FHWA response to a request or appeal will be in writing and made available to the public upon request. Any request for a nationwide waiver and FHWA's action on such a request may be published in the FEDERAL REGISTER for public comment.
- (7) In determining whether the waivers described in paragraph (c)(1) of this section will be granted, the FHWA will consider all appropriate factors including, but not limited to, cost, administrative burden, and delay that would be imposed if the provision were not waived.
- (d) Standard State and Federal-aid contract procedures may be used to assure compliance with the requirements of this section.

[48 FR 53104, Nov. 25, 1983, as amended at 49 FR 18821, May 3, 1984; 58 FR 38975, July 21, 1993]

Section 01110
SUMMARY OF WORK

PART1 GENERAL

1.01 SECTION INCLUDES

- A. Summary of the Work including work by the City, City-furnished products, work sequence, future work, Contractor use of premises, special conditions for substantial completion and City occupancy.
- B. The purpose of the project is to construct a major thoroughfare that will improve circulation, mobility and drainage in the service area. These improvements will be constructed to Major Thoroughfare Freeway Plan (MTFP) standards.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work of the Contract is for construction of pavement; bridge over Holmes Road and UPRR and storm sewers along or in the vicinity of proposed Buffalo Speedway.
- B. Proposed pavement for Buffalo Speedway consists of a four-lane boulevard with 10 inch reinforced concrete pavement on 8 inch stabilized subgrade.
- C. Bridge Work: Proposed Northbound and Southbound Buffalo Speedway Bridges are 15-span pre-stressed concrete girder (Type Tx54) structures spanning over Holmes Road and Union Pacific Railroad 100' ROW. Bridge abutments are founded on 36 inch diameter drilled shafts. Interior bents are founded on 36 inch and 42 inch diameter drilled shafts. The total bridge deck area is approximately 82,800 square feet. The bridge approaches have MSE Retaining Walls (4 total) that require foundation improvements in the form of replacement of existing soil with cement stabilized fill.
- D. This project will tie into Buffalo Speedway Phase I Roadway and Drainage. Coordination may be required during construction.
- E. Holmes Road widening is a separate project in the vicinity of the Buffalo Speedway project. The project name is "Holmes Road Reconstruction from Main Street Split to Kirby Dr." (WBS: N-000590-0001-3). Coordination may be required during construction.
- F. The proposed storm sewer system consists of approximately 803 LF of 24 inch, 383 LF of 36 inch and 41 LF of 48 inch diameter storm sewer including inlet leads and 622 LF of grass Swale. All sewers are to be constructed by open-cut methods,

SUMMARY OF WORK

except where noted on plans. Proposed storm sewer appurtenances include manholes, bridge drains, type "C" inlets and type "A" inlet.

- G. Clearing Work/Demolition: The proposed site shall be cleared of trees and shrubs leaving those which are designated to remain.
- H. Sidewalks and wheelchair ramps on the proposed roads that are being constructed will be 6' wide and then tapered over one sidewalk panel to existing widths at the limits of the improvements. Construct new 4.5-inch concrete sidewalks, and wheelchair ramps that are compliant with the Americans with Disability Act (ADA) and the Texas Accessibility Standards (TAS) and City of Houston standards.
- I. Street Lights: Only underground conduit and pull boxes are to be installed as part of this project. Proposed street light locations are for informational purposes and will be installed by CenterPoint Energy contractor, as a separate contract, after the project is complete.
- J. Other components of the project include traffic control, permanent signage and striping, and storm water pollution prevention measures.
- K. A sample overpass agreement has been inserted in the back of this document.

1.03 CASH ALLOWANCES

- A. Include the following specific Cash Allowances in Contract Price under provision of General Conditions Paragraph 3.11:
 - 1. Lane Closure Permit Fee.....\$1,000.00
 - 2. Union Pacific Railroad Boring and ROE Permit.....\$10,000.00
 - 3. Street Lighting..... \$14,000.00
- B. Union Pacific Railroad (UPRR) – the contractor will be required to apply and receive all required UPRR permits from UPRR directly. The fees associated with these permits will be reimbursed to the contractor as a cash allowance.
 - 1. The contractor is responsible for scheduling all UPRR Flagmen directly with UPRR, as required. The City of Houston is in the process of obtaining an overpass agreement with Union Pacific Railroad for easement rights to work above UPRR right of way. A sample agreement is attached to this document.
 - 2. It is contractor's responsibility to schedule UPRR Flagmen such that the

SUMMARY OF WORK

allowance amount as provided for in the overpass agreement is not exceeded, Typically, UPRR Flagmen are billed on a per hour basis plus overtime with an 8 hour per day minimum (regardless of how many hours they are needed). Contractor must provide UPRR a minimum of five (5) days' notice prior to the cessation of the need for a flagman. An additional thirty (30) days' notice must be given to UPRR if flagging services are needed again after such five day cessation notice has been given to UPRR.

3. The UPRR contact information is mentioned below;
Dale Hill,
UPRR Municipal Coordinator
Union Pacific Railroad
24125 Old Aldine Westfield Road
Spring, TX 77373
281-350-7798

1.04 ALTERNATES

Not Applicable

1.05 CITY-FURNISHED PRODUCTS

- A. Items furnished by the City for installation and final connection by the Contractor:

None.
- B. Contractor's Responsibilities: Contractor will supply all new construction materials.
 1. Arrange and pay for Product delivery to the site.
 2. Receive and unload Products at the site; jointly with the City, inspect completeness or damage.
 3. Handle, store, install and furnish Products.
 4. Repair or replace damaged items.

1.06 WORK SEQUENCE

- A. There will be no Construction Phasing during the construction period.
- B. For projects with no Phases, do not disturb more than 50% of total project linear feet of disturbed right-of-way and easement until site restored in accordance with Section 01740 – Site Restoration.
- C. Coordination of the Work: Refer to Section 01312 – Coordination and Meetings.

1.07 CONTRACTOR USE OF PREMISES

SUMMARY OF WORK

- A. Comply with procedures for access to the site and Contractor's use of rights-of-way as specified in Section 01145 – Use of Premises.
- B. Construction Operations: Limited to the City's rights-of-way provided by the City and Areas shown or described in the Contract documents.
- C. Utility Outages and Shutdown: Provide a minimum of 48 hours' notice to the City and private utility companies (when applicable), excluding weekends and holidays, in advance of required utility shutdown. Coordinate all work as required.
- D. Private Utility Relocations: Pursuant to Section 40-395 of the City of Houston (City) Utility Relocation Ordinance Program (URO), the following private utilities were identified and scheduled for relocation within the scope of the project limits. Based on the relocation schedules provided by the utility owners, the city anticipates these relocations to be completed by the dates listed below, and unless otherwise stated, clearance of these potential obstructions will be performed by their respective owners.

The following is a description of the private utilities identified for relocation within the project limits:

| Utility Owner | Type of Facility | Approximate Location | Estimated Clearance Date | Anticipated Effect to Construction |
|----------------------|------------------------------|--|--------------------------|------------------------------------|
| CenterPoint Energy | 4" STL Gas Line | Buffalo Speedway, STA 189+52, ROW to ROW | May 1, 2016 | None |
| CenterPoint Electric | Power Pole | Buffalo Speedway, STA 186+06, 14' LT | May 1, 2016 | None |
| CenterPoint Electric | Power Pole | Buffalo Speedway, STA 187+77, 38' RT | May 1, 2016 | None |
| CenterPoint Electric | Power Pole | Buffalo Speedway, STA 188+02, 50' RT | May 1, 2016 | None |
| AT&T | Overhead Communication Lines | Buffalo Speedway, STA 186+06, | May 1, 2016 | None |

SUMMARY OF WORK

| | | | | |
|---------|------------------------------------|---|-------------|------|
| | | ROW to ROW | | |
| Comcast | Overhead Communication Lines | Buffalo Speedway, STA 186+06, ROW to ROW | May 1, 2016 | None |

The relocation of these facilities is not anticipated to interfere with the contractor's operations, but the contractor shall develop the project construction schedule and bid accordingly. In the event that the clearance dates are deviated and proven to impact the contractor's schedule, the contractor shall notify the construction project manager per Article 7 – Changes in Work under Document 00700 General Conditions. The Contractor is invited to review all information of potential obstructions currently on file with the Engineer.

1.08 STREET CUT ORDINANCE

- A. Excavation on or under pavement in the city's right-of-way must have a permit. Comply with City of Houston, Texas Ordinance No. 2000-1115, an ordinance amending Chapter 40 of the Code of Ordinances, Houston, Texas, relating to excavating in the Public right-of-way.
- B. Comply with the latest edition of street cut New Pavement Repair and Pavement Replacement details.

1.09 WARRANTY

- A. Comply with warranty requirements in accordance with Document 00700 – General Condition.

1.10 ADDITIONAL CONDITIONS FOR SUBSTANTIAL COMPLETION

- A. In addition to requirements outlined in Document 00700 – General Conditions, for Contractor to be substantially complete with the Work and call for inspection by Project Manager to confirm, the following conditions must be met or completed:
 - 1. All safety related work including pavement stripping, signing and signalization:
 - a. All safety-related systems and equipment shall be installed, accepted by the manufacturer's representative and approved for use.

2. All pay items complete and reported.
3. Contractor shall contact Construction Project Manager to complete Texas Department of Licensing and Regulation Post Construction Inspection of pedestrian elements for Texas Accessibility Standards.
4. Complete report of all pay items.

1.11 GENERAL CONSTRUCTION NOTES, SWPPP INFO AND TREE PRESERVATION INFO

A. General Construction Notes:

1. The flow lines and locations of all underground utilities must be located by whatever means may be required (Metal detection equipment, probes, excavation, survey, coordination with utility companies) by the contractor prior to construction. All field verification work and utility adjustments shall be completed prior to excavation for proposed utilities. No separate pay; include cost in unit price for work in appropriate sections.
2. Utilities presented on the drawings are based on the best available information. Contractor shall verify the exact locations in the field prior to commencing construction. Contractor shall notify Texas One Call at 713-223-4567 or 1-800-245-4545 and Lone Star One Call at 1-800-66-8344 at 48 hours prior to commencing construction.
3. Adequate drainage shall be maintained at all time during construction and any drainage ditch or structure disturbed during construction shall be restored to existing or better condition.
4. Services are to be transferred between existing and proposed water lines with minimum disruption of service. Existing water lines must be maintained in service until service transfer is done.
5. Call the traffic management and maintenance division of the City of Houston Public Works and Engineering Department when work is scheduled near signal conduits within the City of Houston (713) 837-7280. Call at least five working days in advance. The contractor shall be responsible for any damages to existing traffic signal cables as a result of construction activities for the project. No separate payment for repair to signal conduit.
6. Service line installation could be hindered by the cement stabilized sand backfill. Include cost of crossing cement stabilized backfill if encountered during service line installation in the unit price of services.
7. Contractor must refer to the City of Houston standard detail drawings included in the City of Houston's "Standard Construction Details for Wastewater Collection Systems, Water Lines, Storm Drainage, and Street Paving" dated July 2015 or latest edition, for any other details not included in the construction drawings.
8. The contractor shall maintain an on-site bulletin board for this project to include

SUMMARY OF WORK

all items as listed in the Bulletin Board Check List as attached to this document.

B. SWPPP Info:

1. Storm Water Pollution Prevention Plan shall be in accordance with specifications and drawings.
2. All disturbed areas that are not paved, covered by pavement; sidewalk or structure shall be sodded.
3. Provide a Stabilized Construction Exist in the Contractor's Lay Down/Storage area.
4. Filter Fabric Fence shall not be placed across driveways or sidewalks accessing private property.
5. Contractor to place dewatering sedimentation tanks to wash concrete trucks as directed by the engineer.

C. Tree Prevention Info

There are no tree prevention plans in this phase of construction. Phase I (WBS No.: N-000784-0001-4) accounts for tree prevention plans for this Phase of work

PART 2 PRODUCTS – Not Used
PART 3 EXECUTION – Not Used

*Guide Specifications Instructions:
Edit these specifications to tailor to Project, closely coordinating with City-
assigned Project Manager. Insert Project Name and Number in headers.
Insert Revision Date and Design Consultant's Firm Name, which edited
the Section, in footers. Remove all instructions, this cover page and any
Notes to Specifier at the end of this Section prior to publishing. Note that
headers and footers are mirrored and must be edited separately on even
and odd pages. Do not change the base date of this Section in the footer.*

Section 02105

CHEMICAL SAMPLING AND ANALYSIS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preparatory work related to site remediation and excavation in a Potentially Petroleum Contaminated Area (PPCA).
- B. Sampling and analysis of site material.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices

- 1. Preparatory work is paid on a lump sum basis. Item includes hiring environmental consultants, preparing Environmental Health and Safety Plan, preparing Environmental Work Plan, training personnel, and obtaining permits and additional insurance.
- 2. Underground Utility Construction in PPCA.
 - a. Underground utility construction and appurtenances in areas identified within PPCA limits is on a linear foot basis, each basis, or lump sum basis, as shown in Document 00410 – Bid Form.
 - b. Payment includes compensation for labor, equipment, and supervision for mobilization, environmental monitoring and field screening, handling, sampling, and testing of contaminated soil and groundwater. Contaminated soil may be Category I or II. Contaminated groundwater will be that encountered during excavation for underground utilities and flowing at a rate not greater than 20 gallons per minute. Included in this pay item is incremental cost for upgraded piping, gaskets, and appurtenant materials.
 - c. Limits of measurement under this section are noted on Drawings as 'Begin PPCA Excavation' and 'End PPCA Excavation' and other areas determined by Project Manager during the course of the work.

CHEMICAL SAMPLING AND ANALYSIS

- d. Payment will be made upon receipt of field test reports from approved analytical laboratory.
 - 3. A force account for Extra Work for PPCA Handling will be used to compensate for time and materials required for additional work associated with PPCA when directed by Project Manager to perform such work and for which there is no bid item. Authorization and compensation for this work will be in accordance with Document 00700 - General Conditions.
 - 4. Refer to Section 01270 - Measurement and Payment for unit price procedures.
- B. Stipulated Price (Lump Sum). If the Contract is a Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 REFERENCE STANDARDS

- A. ASTM D 5092 - Practice for Design and Installation of Groundwater Monitoring Wells.
- B. Code of Federal Regulation (CFR), Title 40, Section 261.24. - Protection of the Environment.
- C. CFR, Title 29, Section 1910.120. - Occupational Safety and Health Administration, Department of Labor.
- D. CFR, Title 29, Section 1926. - Occupational Safety and Health Administration, Department of Labor.
- E. CFR, Title 40, Section 261, Appendix II. - Protection of the Environment.
- F. Texas Administrative Code (TAC), Title 30, Chapter 335. - Industrial Solid Waste and Municipal Hazardous Waste.
- G. TAC, Title 30, Chapter 334. - Underground and Aboveground Storage Tanks.
- H. TAC, Title 30, Chapter 106.533. - Exemptions from Permitting, Subchapter X. Waste Processes and Remediation.
- I. U.S. Environmental Protection Agency (EPA), (SW-846) Test Methods for Evaluating Solid Waste, Office of Solid Waste and Emergency Response, Washington, D.C. (P1388-239223, November 1986).
- J. Texas Commission on Environmental Quality (TCEQ) Interoffice Memo, dated 4/12/94, by Chris Chandler, RPR Section, PST Division, regarding

'Revised Procedures for Classifying and Assigning Waste Codes for Underground and Aboveground Petroleum Storage Tank Wastes' (text attached following this section).

1.04 DEFINITIONS

- A. Petroleum: Crude oil, natural gas, natural gas liquids, liquefied natural gas, and synthetic gas usable for fuel, as well as distillates of crude oil including gasoline, kerosene, diesel oil, motor oil, waste oil, jet fuels, and fuel oil.
- B. Potentially Petroleum Contaminated Area (PPCA): An area within station-to-station locations identified on Drawings where petroleum contamination has been detected in the soil or groundwater. PPCA also includes areas where contamination is suspected or encountered during utility installation outside areas identified on Drawings, and such contamination has been verified by Project Manager.
- C. Category I Soil: Soil containing visual or physical evidence of contamination, as described in paragraph 3.01, and that is not Category II Soil.
- D. Category II Soil: Soil that contains petroleum contamination in excess of levels identified in paragraph 3.04, and is consistent with a classification as Special Waste-PST as defined by TCEQ in their interoffice memo dated 4/12/94, or soil that contains visible free product or is impacted with non-petroleum compounds detected above Risk Reduction Standard Number 2 levels as defined in Texas Administrative Code, Title 30, Chapter 335.
- E. Potentially Contaminated Groundwater: Water recovered in a groundwater control system located in PPCA or groundwater that contains visual or physical evidence of contamination, as described in paragraph 3.01, and such contamination has been verified by Project Manager.

1.05 SUBMITTALS

- A. Conform to requirements of Section 01330 - Submittal Procedures.
- B. Submit an Environmental Work Plan within 30 days after issuance of Notice to Proceed.
 - 1. The Environmental Work Plan shall be prepared by a Corrective Action Project Manager licensed in Texas, who has completed 40-hours of Health and Safety Training and the required annual refresher training, and in the employment of a registered Corrective Action Specialist firm.

CHEMICAL SAMPLING AND ANALYSIS

2. The Environmental Work Plan shall include the following items. Compile and arrange in a format that can be reviewed by TCEQ.
 - a. Proposed sequence of construction through PPCA;
 - b. Procedures for screening soil in PPCA, identifying Category I or II Soil;
 - c. Procedures for handling material from PPCA;
 - d. Proposed location of stockpile areas;
 - e. Proposed reuse of Category I Soil as trench backfill below depths of 30 inches;
 - f. Proposed methods for disposal or recycling of Category I or II Soil;
 - g. Proposed carriers of Category I or II Soil or potentially contaminated groundwater with verification each is properly licensed;
 - h. Proposed recycle/disposal sites for Category I or II Soil or potentially contaminated groundwater with verification that each is properly licensed;
 - i. Copy of permit required for discharge of potentially contaminated groundwater in sanitary sewer system, if to be disposed in sanitary sewer;
 - j. Name and qualifications of Corrective Action Project Manager and professional environmental consultants for health, environmental, and safety issues regarding operations within PPCA; and,
 - k. Proposed analytical laboratory with verification it is accredited by A2LA or other recognized association, or it is a participant in the EPA's Performance Evaluation Program.
 3. Do not commence work in PPCA until Environmental Work Plan has been reviewed and accepted by Project Manager.
- C. Submit Environmental Health and Safety Plan within 30 days after issuance of Notice to Proceed.

1. The Health and Safety Plan shall be prepared by a Corrective Action Project Manager licensed in Texas, who has completed 40 hours of health and safety training, and required annual refresher training, or a Certified Industrial Hygienist.
 2. Include methods and procedures for assuring work, which will be conducted under conditions expected in the field, is safe.
- D. As work proceeds, submit field screening, monitoring and analytical laboratory test results on a weekly basis for soil and on a daily basis for groundwater. Summarize test results in tables together with applicable regulatory criteria.
- E. Submit copies of correspondence, reports, permits and other documents provided to, or received from, regulatory agencies.

1.06 PERSONNEL REQUIREMENTS

- A. Provide trained personnel who have completed minimum health and safety programs specified by the Occupational Safety and Health Administration in 29 CFR 1910.120. Before beginning work at the site, each employee that will work in PPCA is required to have completed 40 hours health and safety training and the required annual refresher training.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Do not use polyvinyl chloride or other plastic material, unless approved by Project Manager.
- B. Water Line Pipe Material.
1. Furnish ductile-iron pipe or steel pipe material within station-to-station locations identified as PPCA on Drawings.
 2. Provide restrained joints for ductile-iron pipe or welded joints for steel pipe.
 3. Provide pipe material conforming to Section 02501 – Ductile Iron Pipe and Fittings or Section 02502 - Steel Pipe and Fittings.
- C. Sanitary Sewer Pipe Material.

CHEMICAL SAMPLING AND ANALYSIS

1. Furnish ductile iron pipe, fiberglass reinforced pipe, or equivalent protective materials approved by Project Manager.
 2. Provide restrained joints.
 3. Provide pipe material conforming to Section 02501 – Ductile Iron Pipe and Fittings or Section 02504 - Fiberglass Reinforced Pipe. Use pipe with a minimum pressure rating of 150 psi.
- D. Use Viton (FKM) type gaskets, or approved equal, for water lines and appurtenances requiring gaskets. Use Nitrile Rubber type gaskets, or approved equal, for sanitary and storm sewer pipes, precast concrete manhole joints and appurtenances requiring gaskets

PART 3 EXECUTION

3.01 POTENTIALLY PETROLEUM CONTAMINATED AREAS

- A. Conduct operations in PPCA in accordance with the accepted Environmental Work Plan and the Environmental Health and Safety Plan and to minimize the spread of contamination. In other areas which are either detected or suspected to be potentially petroleum contaminated areas, immediately notify Project Manager and proceed with work in accordance with this Section, unless otherwise directed by Project Manager.
- B. Immediately notify Project Manager and TCEQ's Region 12 Field Office whenever Category I or II Soil or potentially contaminated groundwater are encountered.
1. Provide location, depth, type (soil or groundwater), source (if known), and evidence of suspected contamination.
 2. Determine if Category I Soil or potentially contaminated groundwater is present by visual or physical evidence of contamination. Visual or physical evidence includes:
 - a. Petroleum or chemical odor.
 - b. Indication of levels of contamination by air monitoring devices employed as part of the Environmental Health and Safety Plan.
 - c. Soil or groundwater discoloration.
 - d. Material oozing/dripping into excavation.

- e. Liquid or oily sheen floating on groundwater.
 - f. Buried containers or refuse.
 - g. Field screening 'head-space' results in excess of a 25 ppm reading on a photoionization detector (PID) or flame ionization detector (FID).
- C. Install piping and gasket materials and appurtenances in conformance with appropriate section, except as modified in this Section.
- D. Construct trench dams within a utility trench at each boundary of PPCA and laterals to minimize potential for contaminant transport within pipe bedding material. A trench dam shall consist of at least 24 inches of cement stabilized sand with 10 percent bentonite clay added, extending from 6 inches below bottom of trench to within 12 inches of limits of topsoil or pavement.

3.02 ENVIRONMENTAL MONITORING

- A. An environmental consultant shall monitor conditions in PPCA, as specified in the Environmental Health and Safety Plan. Maintain safe working conditions in accordance with OSHA requirements (29 CFR 1926).

3.03 SCREENING PPCA SOILS

- A. An environmental consultant shall perform field screening of soil removed from excavation or tunneling in PPCA.
- B. Screening Procedures.
1. Place samples in a sealed plastic bag and place in a warm location for 15 minutes prior to screening.
 2. Properly calibrate the PID/FID using a calibration gas. For PID use 100 ppm isobutylene and for FID use 100 ppm methane.
 3. Open bag just enough to insert instrument probe and take maximum headspace reading.
 4. Screen at least twice per hour while removing soils in open cut areas or shafts.
 5. During tunneling, screen once for each pipe length in pipe jacked tunnels or each advance of tunnel shield in primary lined tunnels. Screen at least once per shift when excavating.

CHEMICAL SAMPLING AND ANALYSIS

3.04 SAMPLING AND TESTING

A. Frequency.

1. Sample soil in PPCA at a rate of not less than one composite sample for every 20 cubic yards of excavation or volume corresponding to every 50 linear feet of installed underground utility, whichever is more frequent.
2. Sample water from PPCA to be discharged to a sanitary sewer one week prior to initiation of discharge, and at a rate of one grab sample once per day during discharge to sanitary sewer.

B. Analyze soil samples for parameters listed in Section 02120 – Off-Site Transportation and Disposal, Table 02120-1, Soil Criteria - Petroleum Only, and in accordance with SW-846. Handle as a Category II Soil if analytical results indicate any one, or more, parameters exceed allowable Maximum Concentration listed in Table 02120-1. If benzene concentration from composite sample is greater than 5 milligrams per kilogram (mg/kg) or lead concentration is greater than 30 mg/kg, perform Toxicity Characteristic Leaching Procedure (TCLP) analysis of appropriate compound for that sample to determine if a more stringent disposal classification is warranted. If contaminants other than petroleum are suspected, immediately notify Project Manager who will determine the list of parameters to be analyzed. If such are encountered, compensation will be made under the Allowance for PPCA Handling. Use a 4-part representative composite sample for analysis of parameters, except when inconsistent with SW-846.

C. Analyze groundwater samples for discharge to sanitary sewers. Analyze samples for BTEX by EPA Method 602, 8020, or 8021; TPH by EPA Method 418.1 or Method TX 1005; and Lower Explosive Limit (LEL) in accordance with EPA Method 1010.

D. Conduct analyses by proposed analytical testing laboratory listed in Environmental Work Plan.

3.05 AIR MONITORING REQUIREMENTS

A. Ensure health and safety of workers at the construction site. Maintain air quality within the construction zone to conform to exposure limits specified in Code of Federal Regulations (CFR) Title 29, Section 1910.120 enforceable by OSHA.

B. Provide adequate shoring and sufficient escape ladders in accordance with applicable trench safety regulatory requirements.

- C. In the trench, continuously operate a combustible gas indicator (CGI) with LEL/O₂ meter to monitor vapor and oxygen levels. Properly calibrate CGI and provide an alarm that sounds if greater than or equal to 20 percent Lower Explosive Limit (LEL), less than or equal to 19.5 percent oxygen, or greater than or equal to 25 percent oxygen is reached. Record monitoring data from CGI every 15 minutes to ensure safe work conditions.
- D. Take appropriate measures during construction to keep LEL levels below 20 percent in the trench. If vapor concentrations exceed 20 percent of LEL stop construction work, turn off equipment, and have workers immediately vacate the PPCA in an upwind direction.
- E. Take readings with PID/FID 50 feet downwind of area during excavation or work in contaminated excavation areas and until one hour after cessation of such work. Take readings within breathing zone at approximately 4 feet above ground level. Record readings, date, time, initials of person taking reading, PID/FID serial number and last calibration date of PID/FID in bound field book.

END OF SECTION

Attachment to Section 02105

PETROLEUM CONTAMINATION

Following, for informational purposes only, is the text of the 4/12/94 Interoffice Memo from Chris Chandler of the Texas Commission on Environmental Quality (TCEQ), RPR Section, PST Division, regarding Revised Procedures for Classifying and Assigning Waste Codes for Underground and Aboveground Petroleum Storage Tank Wastes:

This document is a revision of the waste classification memo dated July 18, 1991 which revised the original March 11, 1991 document. The main difference between the first two documents was the elimination of the distinction between industrial and nonindustrial petroleum substance wastes. This latest version has been revised to reflect changes in the rules and in the agency itself. Significant changes are denoted by underlines. Please discard the previous document.

An appropriate response to any leaking petroleum storage tank incident must always include the proper handling and disposal of all generated wastes. In the majority of cases these wastes include contaminated soils and/or wastewater. Before a disposal destination can be determined for a particular waste, the waste must be classified based on the concentrations of contaminants. The procedures for classification of petroleum contaminated wastes are detailed in the attached Guidance Document for the proper Management of Wastes Associated With Underground and Aboveground Petroleum Storage Tanks. The waste first must be analyzed by a laboratory and then, based upon the results of the analysis, a classification can be assigned to the waste with its corresponding waste code number. The waste code is a predesignated number based upon both the waste's classification and the type of contaminants.

Many disposal facilities are now requiring the generator of any petroleum substance waste to obtain a waste classification from TCEQ that assigns a waste code number to that particular waste before the facility will accept it (even though this is not a regulatory requirement for nonhazardous PST wastes). In order to receive this waste code, the generator first must submit laboratory reports and other information providing the results of analysis for the waste. This information should be attached to a completed copy of TCEQ Form No. 0197. Only after receipt of this documentation should the waste code assignment be made. Waste code numbers should never be issued based upon analytical results unsupported by laboratory documentation.

Laboratory reports should include a description of the analytical procedures utilized, the condition in which the sample was received, and the signature of the laboratory personnel. Also, reports must be accompanied by a description of the sample collection and handling procedures. If the procedures described are not in accordance with EPA-approved and/or TCEQ-accepted procedures, the results should be rejected as invalid.

Soil samples should be collected at the rate of one sample for every fifty cubic yards of material, and each sample should be a composite which is representative of the fifty

cubic yard unit. Water samples from inside storage vessels should be collected from the top of the water column in order to identify the highest contaminant level. Water should be sampled at the rate of one sample per 3000 gallons of water, or a minimum of one sample per container if there is more than one container.

When a waste is categorized as Class II PST or Special Waste-PST, the generator must document the volume, means of transportation, and ultimate destination for the waste. Once all of the proper information has been received by the PST of FO Division in writing, the waste classification and code number can be verbally issued to the generator. The number should be written on the submitted Form No. 0197 in the space marked TCEQ Use Only, and a copy of the form mailed or faxed to the Responsible Party (not the contractor or consultant). Also include the date, the person issuing the code number and the Regional Office number on the form. A copy of the completed form and all submitted information should be sent to the Central Office (or regional office as appropriate).

Regional Field Inspectors as well as PST Division Coordinators should issue waste classifications and code numbers for only Class II PST and Special Wastes-PST on cases they are responsible for coordinating.

Additionally, for all waste classification requests which are not associated with LPST sites (such as for disposal of water used to clean tanks or for disposal of soil/backfill material not associated with a confirmed release), the I&HW Division or the appropriate Regional Office should oversee the waste classification. All hazardous and industrial Class I waste must be manifested in accordance with the Industrial Solid Waste Rules, Chapter 335, Texas Administrative Code. Generators of any hazardous wastes or industrial Class I waste should be referred to the Waste Evaluation Section of the TCEQ Industrial and Hazardous Waste Division at (512) 239-6832.

Following are the waste classification and code numbers for typical nonhazardous wastes generated at leaking underground and aboveground petroleum storage tank sites involving the release of petroleum substances only (i.e., gasoline, diesel, kerosene, jet fuel, etc.).

CONTAMINATED SOILS

| Contaminant Level | Classification | Waste Code Number |
|--|-----------------------|--------------------------|
| If greater than 150 ppm BTEX OR 600 ppm TPH | Special Waste PST | PSTW4891 |
| If less than 150 ppm BTEX AND 600 ppm TPH | Class II PST Waste | PSTW4892 |

CHEMICAL SAMPLING AND ANALYSIS

Note Soils saturated ('drippy') with gasoline are likely to be ignitable. Contaminated soils analyzed as ignitable are classified as hazardous waste and therefore can only be transported by a registered hazardous waste hauler and only disposed of at a permitted facility authorized to receive hazardous wastes.

CONTAMINATED WATER

| Contaminant Level | Classification | Waste Code Number |
|--|-----------------------|--------------------------|
| Any concentration of dissolved contamination with no phase-separated product | Class II PST Waste | PSTW1021 |

As routinely requested in TCEQ's letters, documentation of the handling and disposition of all wastes generated in a LPST response action must be provided to TCEQ. It is essential that we track PST wastes through signed receipts and, when required, manifests to prevent their illegal dumping.

Should you have any questions or comments, please contact me at 512/239-2245 or the Waste Evaluation Section at 512/239-6832.

(Signed) Chris Chandler

END OF ATTACHMENT

THE REMAINING PAGES SHOULD NOT BE INCLUDED IN THE CONTRACT DOCUMENTS BUT ARE INCLUDED FOR INSTRUCTIONAL PURPOSES ONLY.

THE FOLLOWING ITEMS SHOULD BE CHECKED FOR COORDINATION DURING DESIGN:

- A. This section is to be used only if a PPCA is identified on the Drawings and the contamination or suspected contamination is characterized in a Phase II Environmental Site Assessment (ESA) report referenced in the Bid Documents. This section applies to Class I non-hazardous petroleum contaminated soil (Special Waste-PST) that can be properly disposed in a landfill and petroleum contaminated water that can be disposed off-site or in a sanitary sewer or treated for such disposal.

Other types of known contamination (including non-petroleum hydrocarbons and hazardous wastes) should be addressed in a separate specification. Obtain direction from Project Manager and Environmental Engineering Specialists.

- B. Drawing/Specification Coordination.
1. Clearly identify PPCA along the alignment from station to station on the Drawings where petroleum contamination is indicated in the Phase II ESA. Use following labels on Drawings: Begin PPCA Excavation and End PPCA Excavation. PPCA along the alignment should begin and end at a clean boring. Use good engineering judgement where no contamination is identified along the utility alignment but where contamination adjacent to the right-of-way is known.
 2. Show existing environmental borings and well locations on the Drawings. Indicate boring and monitoring well designations. Use different symbols for borings (target) and monitoring wells (target in circle). Indicate direction of groundwater flow, if known.
 3. Show existing geotechnical boring and piezometer locations on the Drawings. Use different symbols for borings and piezometers.
 4. If possible, avoid constructing utilities in PPCA. If locating a utility in a PPCA is unavoidable, design and construct a shallow utility that minimizes the need for de-watering which may exacerbate the migration of contaminated liquids and the handling of contaminated material.
 5. Primary-lined, rib-and-lagging tunnel construction will not be allowed in PPCA.

CHEMICAL SAMPLING AND ANALYSIS

6. Within limits of Drawings, indicate location of Leaking Registered Storage Tank sites and show the following information in a note on the Drawings:

Present Owner of Tank

(Owner of Tank when contamination initially disclosed, i.e., Potentially Responsible Party, if different from Present Owner and designated by TCEQ records)

Street Address

Leaking Petroleum Storage Tank Identification Number (Texas LPST ID Number)

7. Within limits of Drawings, indicate location of other sites of known contamination and show the following information in a note on the Drawings:

Present Owner of Facility

Street Address

Facility Type

Contaminate(s)

Affected Media (i.e.; soil, groundwater, other)

- C. Document 01110 - Summary of Work should include a short paragraph describing the environmental contamination expected, including a summary of the type, level, and location of contamination, a reference to the ESA reports, and noting Section 02105 - Chemical Sampling and Analysis and 02120 – Off-Site Transportation and Disposal.
- D. Document 00320 - Geotechnical Information should reference the ESA reports.
- E. Verify pipe specifications, including pipe coatings, linings, and gaskets to require special materials that are resistant to the levels of contaminants identified in the Phase II ESA for application in PPCA, especially where free product is found near the elevation of the proposed utility, as recommended by manufacturers.
- F. Whenever this section is used, additional required insurance coverages must be included. Refer to Article 11 of Document 00800 - Supplementary Conditions.
- G. The following provides direction for the development and delineation of pay items associated with petroleum contamination.
1. Preparatory Work (paragraph 1.02A). A minimum acceptable price should be derived by the Design Consultant and shown on Document 00410 – Bid Form, with a line above to allow the Contractor to cross out the minimum price and provide a higher bid if he so desires. Use the following schedule as a guideline, with site-specific adjustments, as necessary, to determine the appropriate minimum lump sum bid:

SCHEDULE OF MINIMUM PRICE - PREPARATORY WORK

| Item | Minimum |
|--|--------------|
| Hiring environmental consultants ^a | \$2000/month |
| Preparation of Environmental Health & Safety Plan ^{b,c} | \$2000 |
| Training of personnel ^d | \$2000 |
| Obtaining permits ^e | \$300 |
| Obtaining additional insurance | \$2000 |

- Notes:
- ^a Primarily dependent on number of people required. Minimum price assumes one person 25 percent of the time for a one-month duration.
 - ^b Primarily dependent on level of contamination expected and resultant special requirements.
 - ^c Minimum price assumes 1 week to prepare.
 - ^d Primarily dependent on level of contamination and type of construction (i.e., trench or tunnel). Minimum price assumes 8 hours of training for 2 people, including training course, labor hours, and minimal expenses.
 - ^e Minimum price based on time for applications to discharge to sanitary sewer or for air emissions.

2. **Underground Utility Construction in PPCA** (paragraph 1.02B). Those bid items normally paid separately by City of Houston, that are anticipated within limits defined as PPCA, need to have a separate Bid Item in Document 00410 – Bid Form. These Bid Items need to be designated as in PPCA. For example, 8 inch Water Main in Augered Hole, in PPCA.
3. **Extra Work for PPCA Handling**. This item provides funds for immediate response and continuation of the Work when an unexpected or additional contamination problem develops which is not covered by existing pay items. An amount of \$50,000 per contamination location is recommended, up to a maximum of \$150,000 for a project.

END OF NOTES

Guide Specifications Instructions:

Edit these specifications to tailor to Project, closely coordinating with City-assigned Project Manager. Insert Project Name and Number in headers. Insert Revision Date and Design Consultant's Firm Name, which edited the Section, in footers. Remove all instructions, this cover page and any Notes to Specifier at the end of this Section prior to publishing. Note that headers and footers are mirrored and must be edited separately on even and odd pages. Do not change the base date of this Section in the footer.

Section 02120

OFF-SITE TRANSPORTATION AND DISPOSAL

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Off-site disposal of non-hazardous and hazardous solid, liquid and resinous waste.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices

1. Payment for transportation and disposal of Class II Soil at approved facility is on a cubic yard basis.
2. Payment for transportation and disposal of Class I Soil at approved facility is on a cubic yard basis.
3. No separate payment will be made for soil reused as backfill material.
4. Payment for transportation and disposal of contaminated groundwater at approved facility is on a per gallon basis.
5. No separate payment for groundwater discharged into a sanitary sewer.
6. Refer to Section 01270 - Measurement and Payment for unit price procedures.

- B. Stipulated Price (Lump Sum). If the Contract is a Stipulated Price Contract, payment for work in this Section is included in the total Stipulated Price.

1.03 REFERENCES

- A. CFR, Title 29, Section 1910.120.- Occupational Safety and Health Administration, Department of Labor.
- B. Texas Administrative Code (TAC), Title 30, Chapter 335.- Industrial Solid Waste and Municipal Hazardous Waste.
- C. TAC, Title 30, Chapter 334.- Underground and Aboveground Storage Tanks.

- D. TAC, Title 30, Chapter 106.533.- Exemptions from Permitting, Subchapter X, Waste Processes and Remediation.
- E. U.S. Environmental Protection Agency (EPA), (SW-846) Test Methods for Evaluating Solid Waste, Office of Solid Waste and Emergency Response, Washington, D.C. (P1388-239223, November 1986).

PART 2 P R O D U C T S (Not Used)

PART 3 E X E C U T I O N

3.01 H A N D L I N G C A T E G O R Y I A N D I I S O I L S

- A. Do not place Category II Soil back into excavation. Properly dispose of Category II Soil at the facility listed in Environmental Work Plan. Category I Soil consistent with classification as Class II PST Waste as defined by Texas Commission on Environmental Quality (TCEQ) in their interoffice memo dated 4/12/94, and not Category II Soil (as demonstrated through laboratory testing) can be reused as backfill material, provided;
 - 1. Soil is reused in the same area from which it originated at depths greater than 30 inches below top of pavement, finished grade or ditch flowline, whichever is lower.
 - 2. Soil has suitable engineering properties for backfill material as specified in Section 02320 - Utility Backfill Material.
 - 3. Does not have indications of impact by contaminants other than petroleum.
- B. Do not spread Category I or II Soil on ground surface.
- C. Place Category I or II Soil in covered roll-off box with a minimum 20-mil plastic liner or in a stockpile at temporary storage area, pending receipt of analytical results and receipt of authorization from TCEQ and the disposal site for final disposal; or, in trucks for transport directly to the disposal facility.
 - 1. Do not commingle Category I or II Soil from different locations or with different sources.
 - 2. Temporary storage area to meet following criteria:

- a. Within 2 miles of project site, to allow access by City personnel, unless otherwise approved by Project Manager.
 - b. Outside the 100-year floodplain.
 - c. Outside of, and not adjacent to, an area known or suspected to be a wetland.
 - d. Acceptable to Project Manager.
3. Secure using temporary fencing or other means of controlling access.
 4. Place stockpiled soils on an impervious membrane. Surround with a berm to prevent migration of soils or moisture either into or out of the stockpile, other than evaporation.
 5. Protect and cover the stockpile with minimum 20-mil plastic or other approved waterproof membrane covering. Replace damaged covers.
 6. Do not place soil over monitoring wells or piezometers, utility line manholes, or any other potential route for water to migrate to subsurface.
 7. Handle runoff from the temporary storage area in accordance with paragraph 3.02, Handling Water.
 8. Do not stockpile soil for greater than 30 days.
 9. Remove remaining material, including excavated soil from construction site, from temporary storage area prior to completion of Work.
- D. Remove, handle, transport, stockpile, and dispose of Category II Soil under direction of Corrective Action Project Manager. Dispose waste classified (i.e., meets characteristics or other definitions of) a hazardous waste consistent with Resource Conservation and Recovery Act (RCRA) and 30 TAC Chapter 335.
- E. Transport Category I or II Soil in accordance with Department of Transportation (DOT) and TCEQ rules and regulations.
- F. Dispose Category I Soil, not reused as backfill, under direction of Corrective Action Project Manager, at a properly licensed facility with prior approval of Project Manager.
- G. Obtain signed manifests from the receiving facility and provide originals to Project Manager.

- H. Decontaminate large equipment to prevent cross-contamination with clean material. Steam clean or pressure wash dump trucks, bulldozers, backhoes, and other large equipment prior to use in uncontaminated areas after being used in PPCA.

3.02 HANDLING WATER

- A. Prior to discharging petroleum contaminated groundwater, obtain an Industrial Wastewater Discharge Permit (no cost) from the City for disposal directly to a sanitary sewer which discharges to a City-owned wastewater treatment plant.
- B. Procedures.
 - 1. Provide equipment sized to handle flows anticipated by dewatering operations.
 - 2. Include commercially available oil/water separator unit as part of the treatment system for dewatering operation discharging to sanitary sewer.
 - 3. Do not exceed limits listed in Table 02120-2, Potentially Contaminated Groundwater Discharge Limits for groundwater discharged to the sanitary sewer. Provide additional treatment systems as needed prior to discharge to sanitary sewers where groundwater contamination levels exceed those noted in Table 02120-2. Approval by Project Manager shall be obtained for proposed treatment system prior to initiation of treatment and discharge.
 - 4. Comply with all applicable requirements of 30 TAC, Chapter 106.533, including submitting a PI-7 form to the TCEQ for a standard exemption of oil/water separator unit, and any additional treatment systems. Submit copy of PI-7 form to Project Manager.
 - 5. Do not discharge treated water into sanitary sewer if water level is within one foot of the top of sanitary sewer manhole or would cause an overflow situation.
 - 6. Recover free product collected in treatment equipment. Recycle for beneficial reuse or dispose of recovered contaminants in a manner acceptable to Project Manager and TCEQ.
 - 7. Transport potentially contaminated groundwater and free product in accordance with DOT and TCEQ rules and regulations for flammable products. Use DOT-licensed carrier for transport.

8. Obtain signed manifests for potentially contaminated groundwater and free product from the receiving facility and provide originals to Project Manager.
9. Furnish laboratory reports to Project Manager within one week of sample date.
- C. Install and operate groundwater control systems, as described in Section 01578 - Control of Groundwater. Design and operate groundwater control systems so water from PPCA is handled in a system separated and isolated from groundwater control systems outside PPCA.
- D. Handle, test, treat, and discharge potentially contaminated groundwater to the sanitary sewer in accordance with the City of Houston, Industrial Wastewater Discharge Permit requirements, or have water evacuated and hauled for off-site treatment and disposal at a TCEQ-permitted facility. Perform discharge under direction of Corrective Action Project Manager.

3.03 AIR MONITORING REQUIREMENTS

- A. Ensure health and safety of workers at the construction site. Maintain air quality within the construction zone to conform to exposure limits specified in Code of Federal Regulations (CFR) Title 29, Section 1910.120 enforceable by OSHA.
- B. Provide adequate shoring and sufficient escape ladders in accordance with applicable trench safety regulatory requirements.
- C. In the trench, continuously operate a combustible gas indicator (CGI) with LEL/O₂ meter to monitor vapor and oxygen levels. Properly calibrate CGI and provide an alarm that sounds if greater than or equal to 20 percent Lower Explosive Limit (LEL), less than or equal to 19.5 percent oxygen, or greater than or equal to 25 percent oxygen is reached. Record monitoring data from CGI every 15 minutes to ensure safe work conditions.
- D. Take appropriate measures during construction to keep LEL levels below 20 percent in the trench. If vapor concentrations exceed 20 percent of LEL stop construction work, turn off equipment, and have workers immediately vacate the PPCA in an upwind direction.
- E. Take readings with PID/FID 50 feet downwind of area during excavation or work in contaminated excavation areas and until one hour after cessation of such work. Take readings within breathing zone at approximately 4 feet above ground level. Record readings, date, time, initials of person taking

**OFF-SITE
TRANSPORTATION AND DISPOSAL**

[Short Project Name]
Project No. [WBS/CIP/AIP/FILE NO.]

reading, PID/FID serial number and last calibration date of PID/FID in bound field book.

3.04 DISPOSAL OF MATERIAL

- A. Non-categorized Material. Dispose of excess or unsuitable excavated materials, not Category I or II Soil, off-site in accordance with Section 01576 - Waste Material Disposal.
- B. Category I or II Soil. Dispose of excess or unsuitable excavated materials off-site at a state registered Treatment, Storage, or Disposal (TSD) facility. Obtain signed manifests from the receiving facility and provide originals to Project Manager.

**TABLE 02120-1
SOIL CRITERIA - PETROLEUM ONLY**

| Contaminant | Maximum^a Concentration (mg/kg) | Method |
|--------------------|--|--------------------|
| TPH | 1500 | EPA 418.1/TX 1005 |
| Total BTEX | 150 | EPA 8020/8021 |
| Total Lead | 30 | EPA 6000/6010/7000 |

Notes: ^a If any parameters exceed the maximum concentrations, then the soil shall be considered Category II Soil and a Special Waste-PST as defined by the TCEQ in their interoffice memo dated 4/12/94.

Definitions: BTEX - benzene, toluene, ethyl benzene, and total xylenes
TPH - total petroleum hydrocarbons
mg/kg - milligrams per kilogram
mg/l - milligrams per liter

**TABLE 02120-2
POTENTIALLY CONTAMINATED GROUNDWATER DISCHARGE LIMITS**

| Parameter | Discharge to Sanitary Sewer | |
|---------------------------|-----------------------------|-------------------|
| | Limit | Method |
| TPH (mg/l) | 30.0 | EPA 418.1/TX 1005 |
| Total BTEX (mg/l) | 1.0 | EPA 602/8020/8021 |
| Lower Explosive Limit (%) | 10 | EPA 1010 |

Notes: See definitions above.

END OF SECTION

4600011508
2012-0357

NEW PUBLIC HIGHWAY OVERPASS AGREEMENT

BETWEEN

UNION PACIFIC RAILROAD COMPANY

AND THE

CITY OF HOUSTON

COVERING THE

CONSTRUCTION, MAINTENANCE AND USE OF
THE NEW HOMESTEAD ROAD OVERPASS
GRADE SEPARATED PUBLIC ROAD CROSSING

AT

RAILROAD MILE POST 380.14 – BEAUMONT SUBDIVISION
DOT NO.: 440-602E

IN

HOUSTON
HARRIS COUNTY,
TEXAS



UPRR Folder No.: 2617-30

UPRR Audit No. _____

PUBLIC HIGHWAY OVERPASS AGREEMENT

Homestead Road Overpass – DOT No. 440-602E
Railroad Mile Post 380.14 – Beaumont Subdivision
Houston, Harris County, Texas

THIS AGREEMENT ("Agreement") is made and entered into as of the _____ day of _____, 20__ ("Effective Date"), by and between **UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation, to be addressed at Real Estate Department, 1400 Douglas Street, Mail Stop 1690, Omaha, Nebraska 68179 ("Railroad") and the **CITY OF HOUSTON**, a municipal corporation of the State of Texas to be addressed at 611 Walker, 14th Floor, Houston, Texas 77002 ("City"),

RECITALS:

Presently, the City utilizes the existing Homestead Road at-grade public road crossing (agreement not found) at Railroad's Mile Post 380.14, (DOT No. 450-640R), on the Railroad's Beaumont Subdivision in Houston, Harris County, State of Texas.

The City desires to undertake as its project (the "Project") the permanent closure of the existing Homestead Road at-grade public road crossing (DOT No. 450-640R), and the construction of a new grade separated public road crossing overpass structure (the "Structure") that will carry vehicular traffic traversing on Homestead Road over Railroad's track(s) at Railroad's Mile Post 380.14, (DOT No. 440-602E), on the Railroad's Beaumont Subdivision in Houston, Harris County, State of Texas (the "Crossing Area"). The Crossing Area is shown on the Railroad Location Print marked **Exhibit A**, attached hereto and hereby made a part hereof. The City's type, size and location prints of the Structure are labeled Detailed Prints collectively marked **Exhibit A-1**, attached hereto and hereby made a part hereof.

Under this Agreement, the Railroad will be granting rights to the City so that the City can perform the Project work.

The Railroad and the City are entering into this Agreement to cover the above.

AGREEMENT:

NOW, THEREFORE, it is mutually agreed by and between the parties hereto as follows:

Section 1. EXHIBITS B AND D

The General Terms and Conditions marked **Exhibit B**, and the Railroad's Coordination Requirements marked **Exhibit D**, are attached hereto and hereby made a part hereof.

Section 2. RAILROAD GRANTS RIGHT

For and in consideration of an administrative fee in the amount of **ONE THOUSAND DOLLARS (\$1,000.00)** to be paid by the City to the Railroad and delivery of this Agreement and in further consideration of the City's agreement to perform and comply with the terms of this Agreement including, without limitation, the indemnity agreements set forth in Section 6B, Section 6D and Section 10C of **Exhibit B** of this Agreement, the Railroad hereby grants to the City the right to construct, maintain and repair the Structure over and across the Crossing Area.

Section 3. DEFINITION OF CONTRACTOR

For purposes of this Agreement the term "Contractor" shall mean the contractor or contractors hired by the City to perform any Project work on any portion of the Railroad's property and shall also include the Contractor's subcontractors and the Contractor's and subcontractor's respective employees, officers and agents, and others acting under its or their authority.

Section 4. CONTRACTOR'S RIGHT OF ENTRY AGREEMENT - INSURANCE

- A. Prior to Contractor performing any work within the Crossing Area involving the Project, and any subsequent maintenance or repair work, the City shall require the Contractor to:
- execute the Railroad's then current Contractor's Right of Entry Agreement
 - obtain the then current insurance required in the Contractor's Right of Entry Agreement; and
 - provide such insurance policies, certificates, binders and/or endorsements to the Railroad.
- B. The Railroad's current Contractor's Right of Entry Agreement is marked **Exhibit E**, attached hereto and hereby made a part hereof. The City confirms that it will inform its Contractor that it is required to execute such form of agreement and obtain the required insurance before commencing any work on any Railroad property. Under no circumstances will the Contractor be allowed on the Railroad's property without first executing the Railroad's Contractor's Right of Entry Agreement and obtaining the insurance set forth therein and also providing to the Railroad the insurance policies, binders, certificates and/or endorsements described therein.
- C. All insurance correspondence, binders, policies, certificates and/or endorsements shall be sent to:

*Senior Manager - Contracts
Union Pacific Railroad Company
Real Estate Department*



1400 Douglas Street, Mail Stop 1690
Omaha, NE 68179-1690
UPRR Folder No. 2617-30

- D. If the City's own employees will be performing any of the Project work, the City may self-insure all or a portion of the insurance coverage subject to the Railroad's prior review and approval.

Section 5. FEDERAL AID POLICY GUIDE

If the City will be receiving any federal funding for the Project the current rules, regulations and provisions of the Federal Aid Policy Guide as contained in 23 CFR 140, Subpart I and 23 CFR 646, Subparts A and B are incorporated into this Agreement by reference.

Section 6. NO PROJECT EXPENSES TO BE BORNE BY RAILROAD

The City agrees that no Project costs and expenses are to be borne by the Railroad. In addition, the Railroad is not required to contribute any funding for the Project.

Section 7. WORK TO BE PERFORMED BY RAILROAD; BILLING SENT TO CITY; CITY'S PAYMENT OF BILLS

- A. As part of this transaction, the Railroad shall provide engineering design review, flagging and other services, if any, described in this Section and in the Estimate (as defined in this Paragraph) for the estimated consideration described in the Estimate. The engineering design review, flagging and other services, if any, are understood and agreed to be services performed by the Railroad for the City, at the City's sole cost and expense and are described in the Railroad's estimate dated October 10, 2011. The estimate is labeled Railroad's Summary Estimate and marked **Exhibit C**, and is attached hereto and hereby made a part hereof (the "Estimate"). As set forth in the Estimate, the Railroad's estimated cost for the Railroad's services associated with the Project is \$130,630.00.
- B. The Railroad, if it so elects, may recalculate and update the Estimate submitted to the City in the event the City does not commence construction on the portion of the Project located on the Railroad's property within six (6) months from the date of the Estimate.
- C. The City agrees to reimburse the Railroad within thirty (30) days of its receipt of billing from the Railroad for one hundred percent (100%) of all actual costs incurred by the Railroad for the services provided by the Railroad to the City in connection with the Project including, but not limited to, all actual costs of engineering review (including preliminary engineering review costs incurred by Railroad prior to the Effective Date of this Agreement), construction, inspection, flagging (unless flagging costs are to be billed directly to the Contractor), procurement of materials, equipment rental, manpower and deliveries to the job site and all direct and indirect overhead labor/construction costs including Railroad's standard additive rates.
- D. The City agrees that this Agreement in its entirety is subject to Texas Local Government Code Section 262.007.

Section 8. PLANS

- A. The City, at its expense, shall prepare, or cause to be prepared by others, the detailed plans and specifications for the Project and the Structure and submit such plans and specifications to the Railroad's Assistant Vice President Engineering-Design, or his authorized representative, for prior review and approval. The plans and specifications shall include all appurtenances, associated drainage, shoring, sheeting and excavations for bents and/or abutments next to or adjacent to the Railroad's tracks and, if applicable, all demolition and removal plans for the existing structure.
- B. The final one hundred percent (100%) completed plans that are approved in writing by the Railroad's Assistant Vice President Engineering-Design, or his authorized representative, are hereinafter referred to as the "Plans". The Plans are hereby made a part of this Agreement by reference.
- C. No changes in the Plans shall be made unless the Railroad has consented to such changes in writing.
- D. Upon completion of the Structure, the City, at its expense, shall furnish to the Railroad two (2) sets of reproducible "as constructed" Plans of the Structure.
- E. The Railroad's review and approval of the Plans in no way relieves the City or the Contractor from their responsibilities, obligations and/or liabilities under this Agreement, and will be given with the understanding that the Railroad makes no representations or warranty as to the validity, accuracy, legal compliance or completeness of the Plans and that any reliance by the City or Contractor on the Plans is at the risk of the City and Contractor.

Section 9. NON-RAILROAD IMPROVEMENTS

- A. Submittal of plans and specifications for protecting, encasing, reinforcing, relocation, replacing, removing and abandoning in place all non-railroad owned facilities (the "Non Railroad Facilities") affected by the Project including, without limitation, utilities, fiber optics, pipelines, wirelines, communication lines and fences is required under Section 8. The Non Railroad Facilities plans and specifications shall comply with Railroad's standard specifications and requirements, including, without limitation, American Railway Engineering and Maintenance-of-Way Association ("AREMA") standards and guidelines. Railroad has no obligation to supply additional land for any Non Railroad Facilities and does not waive its right to assert preemption defenses, challenge the right-to-take, or pursue compensation in any condemnation action, regardless if the submitted Non Railroad Facilities plans and specifications comply with Railroad's standard specifications and requirements. Railroad has no obligation to permit any Non Railroad Facilities to be abandoned in place or relocated on Railroad's property.
- B. Upon Railroad's approval of submitted Non Railroad Facilities plans and specifications, Railroad will attempt to incorporate them into new agreements or supplements of existing agreements with Non Railroad Facilities owners or



operators. Railroad may use its standard terms and conditions, including, without limitation, its standard license fee and administrative charges when requiring supplements or new agreements for Non Railroad Facilities. Non Railroad Facilities work shall not commence before a supplement or new agreement has been fully executed by Railroad and the Non Railroad Facilities owner or operator, or before Railroad and City mutually agree in writing to (i) deem the approved Non Railroad Facilities plans and specifications to be Plans pursuant to Section 8B, (ii) deem the Non Railroad Facilities part of the Structure, and (iii) supplement this Agreement with terms and conditions covering the Non Railroad Facilities.

Section 10. RAILROAD'S COORDINATION REQUIREMENTS

The City, at its expense, shall ensure that the Contractor complies with all of the terms and conditions contained in the Railroad's Coordination Requirements that are described in **Exhibit D**, attached hereto and hereby made a part hereof, and other special guidelines and/or requirements that the Railroad may provide to the City for this Project.

Section 11. EFFECTIVE DATE; TERM; TERMINATION

- A. This Agreement is effective as of the Effective Date first herein written and shall continue in full force and effect for as long as the Structure remains on the Railroad's property.
- B. The Railroad, if it so elects, may terminate this Agreement effective upon delivery of written notice to the City in the event the City does not commence construction on the portion of the Project located on the Railroad's property within twelve (12) months from the Effective Date.
- C. If the Agreement is terminated as provided above, or for any other reason, the City shall pay to the Railroad all actual costs for services provided by the Railroad to the City in connection with the Project up to the date of termination, including, without limitation, all actual costs incurred by the Railroad in connection with reviewing any preliminary or final Project Plans.

Section 12. CONDITIONS TO BE MET BEFORE CITY CAN COMMENCE WORK

Neither the City nor the Contractor may commence any work within the Crossing Area or on any other Railroad property until:

- The Railroad and the City have executed this Agreement.
- The Railroad has provided to the City the Railroad's written approval of the Plans.
- Each Contractor has executed Railroad's Contractor's Right of Entry Agreement and has obtained and/or provided to the Railroad the insurance policies, certificates, binders, and/or endorsements required under the Contractor's Right of Entry Agreement.
- Each Contractor has given the advance notice(s) required under the Contractor's Right of Entry Agreement to the Railroad Representative named in the Contractor's Right of Entry Agreement.

Section 13. FUTURE PROJECTS

Future projects involving substantial maintenance, repair, reconstruction, renewal and/or demolition of the Structure shall not commence until Railroad and City agree on the plans for such future projects, cost allocations, right of entry terms and conditions and temporary construction rights, terms and conditions.

Section 14. ASSIGNMENT; SUCCESSORS AND ASSIGNS

- A. City shall not assign this Agreement without the prior written consent of Railroad.
- B. Subject to the provisions of Paragraph A above, this Agreement shall inure to the benefit of and be binding upon the successors and assigns of Railroad and City.

Section 15. SPECIAL PROVISIONS PERTAINING TO AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009.

If the City will be receiving American Recovery and Reinvestment Act ("ARRA") funding for the Project, the City agrees that it is responsible in performing and completing all ARRA reporting documents for the Project. The City confirms and acknowledges that Section 1512 of the ARRA provisions applies only to a "recipient" receiving ARRA funding directly from the federal government and, therefore, (i) the ARRA reporting requirements are the responsibility of the City and not of the Railroad and (ii) the City shall not delegate any ARRA reporting responsibilities to the Railroad. The City also confirms and acknowledges that (i) the Railroad shall provide to the City the Railroad's standard and customary billing for expenses incurred by the Railroad for the Project including the Railroad's standard and customary documentation to support such billing and (ii) such standard and customary billing and documentation from the Railroad provides the information needed by the City to perform and complete the ARRA reporting documents. The Railroad confirms that the City and the Federal Highway Administration shall have the right to audit the Railroad's billing and documentation for the Project as provided in this Agreement.

Section 16. SPECIAL PROVISIONS

All financial obligation of the City hereunder shall be subject to the prior appropriation of monies therefore by the Houston City Council, its governing body.

Section 17. TERMINATION OF ORIGINAL AGREEMENT

Upon the completion of the Structure, the Original Agreement covering the existing Homestead Road at-grade public road crossing (if any) shall terminate and the terms and conditions of this Agreement shall govern the use, maintenance and repair of the Structure.

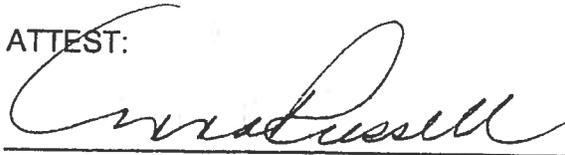
IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed as of the Effective Date first herein written.

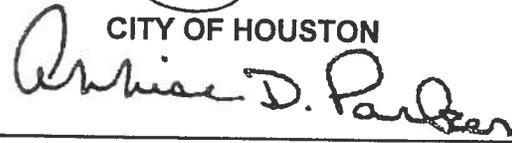
UNION PACIFIC RAILROAD COMPANY

(Federal Tax ID #94-6001323)

By 
PAUL G. FARRELL
Senior Manager Contracts

ATTEST:


ANNA RUSSELL
City Secretary

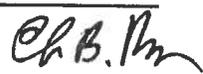
CITY OF HOUSTON
By 
ANNISE D. PARKER
Mayor City of Houston 

APPROVED AND RECOMMENDED:


DANIEL W. KRUEGER, P.E.
Director, Department of Public Works &
Engineering

sc
JK
RB

COUNTERSIGNED:


RONALD C. GREEN
Controller 

COUNTERSIGNATURE DATE:

4-30-12

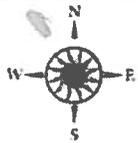
APPROVED AS TO FORM:


GARY W. DZIERLENGA
Senior Assistant City Attorney

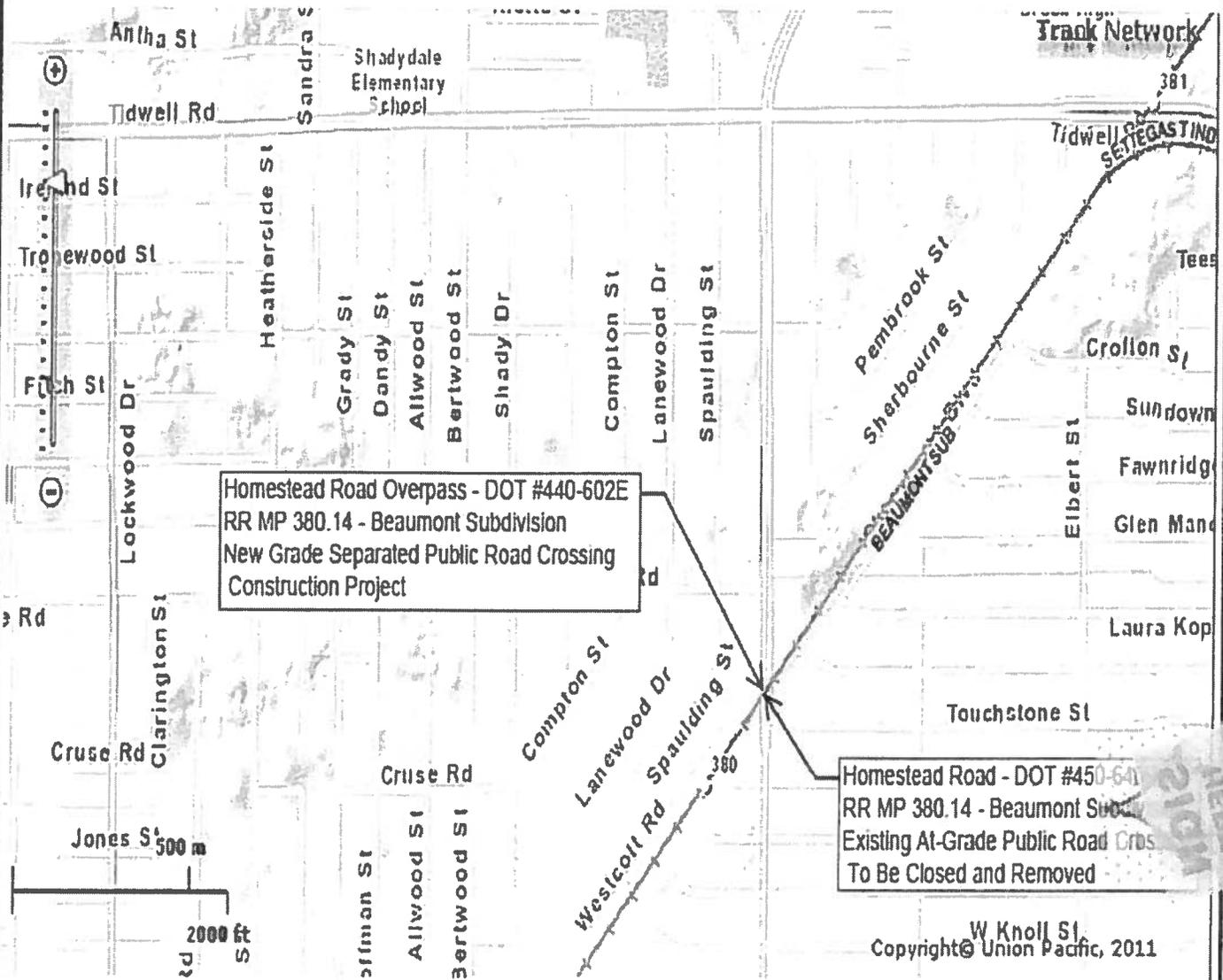
EXHIBIT A

To Public Highway Overpass Agreement

Cover Sheet for the
Railroad Location Print



RAILROAD LOCATION PRINT OF A NEW GRADE SEPARATED PUBLIC ROAD CROSSING CONSTRUCTION PROJECT



Homestead Road Overpass - DOT #440-602E
RR MP 380.14 - Beaumont Subdivision
New Grade Separated Public Road Crossing
Construction Project

Homestead Road - DOT #450-640
RR MP 380.14 - Beaumont Subdivision
Existing At-Grade Public Road Crossing
To Be Closed and Removed

Copyright © Union Pacific, 2011

RAILROAD WORK TO BE PERFORMED:

1. Remove existing at-grade road crossing surface materials and warning signal facilities.
2. Engineering Design Review & Flagging.

EXHIBIT "A"

UNION PACIFIC RAILROAD COMPANY

BEAUMONT SUBDIVISION
MILE POST 380.14
GPS: N 29° 50.3391', W 95° 18.1211'
HOUSTON, HARRIS CO., TX.

Railroad Location Print of a new grade separated
public road crossing construction project with the
CITY OF HOUSTON.

Folder No. 2617-30

Date: October 17, 2011

WARNING

IN ALL OCCASIONS, U.P. COMMUNICATIONS DEPARTMENT MUST BE CONTACTED IN ADVANCE
OF ANY WORK TO DETERMINE EXISTENCE AND LOCATION OF FIBER OPTIC CABLE
PHONE: 1-(800) 336-9193

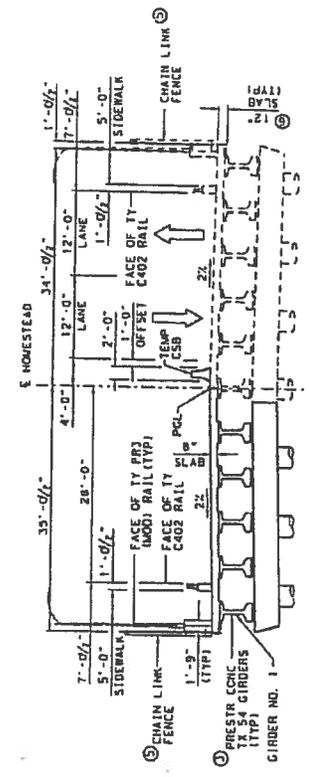
EXHIBIT A-1

To Public Highway Overpass Agreement

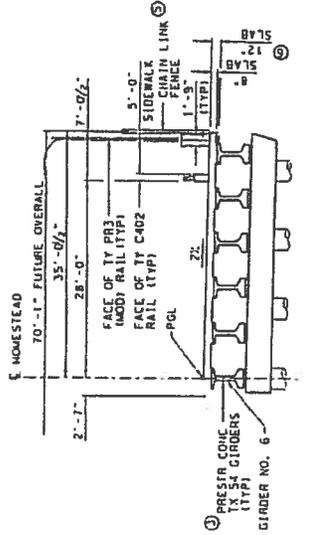
Cover Sheet for the
Detailed Prints

NOTE: SEE SHEET 1 OF 4 FOR GENERAL NOTES.

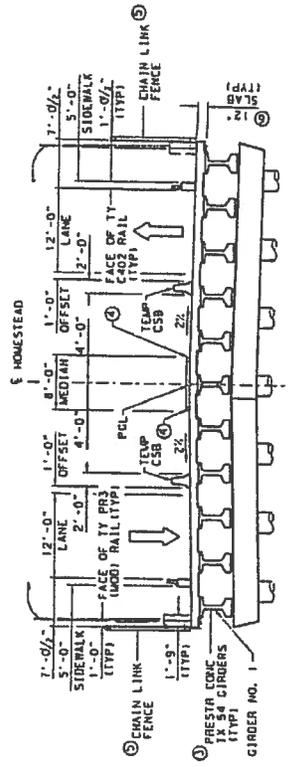
- ① PRESTR. CONC TYPE T-70 GIRDERS FOR SPAN 5 OHL, ② TYPE 11 MONO CURB
- ③ SEE CUL-RO (MOD) T-600 STANDARD FOR DETAILS.
- ④ SLAB THICKENED AT LIGHT POLE LOCATIONS. SEE SLAB PLANS FOR LOCATIONS.



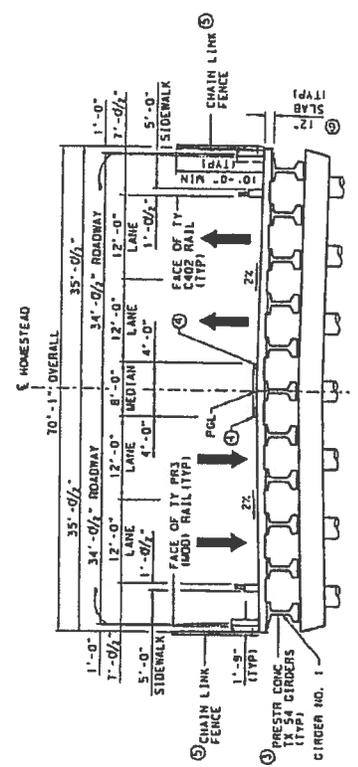
TYPICAL SECTION - PHASE 2



TYPICAL SECTION - PHASE 3



TYPICAL SECTION - PHASE 3A

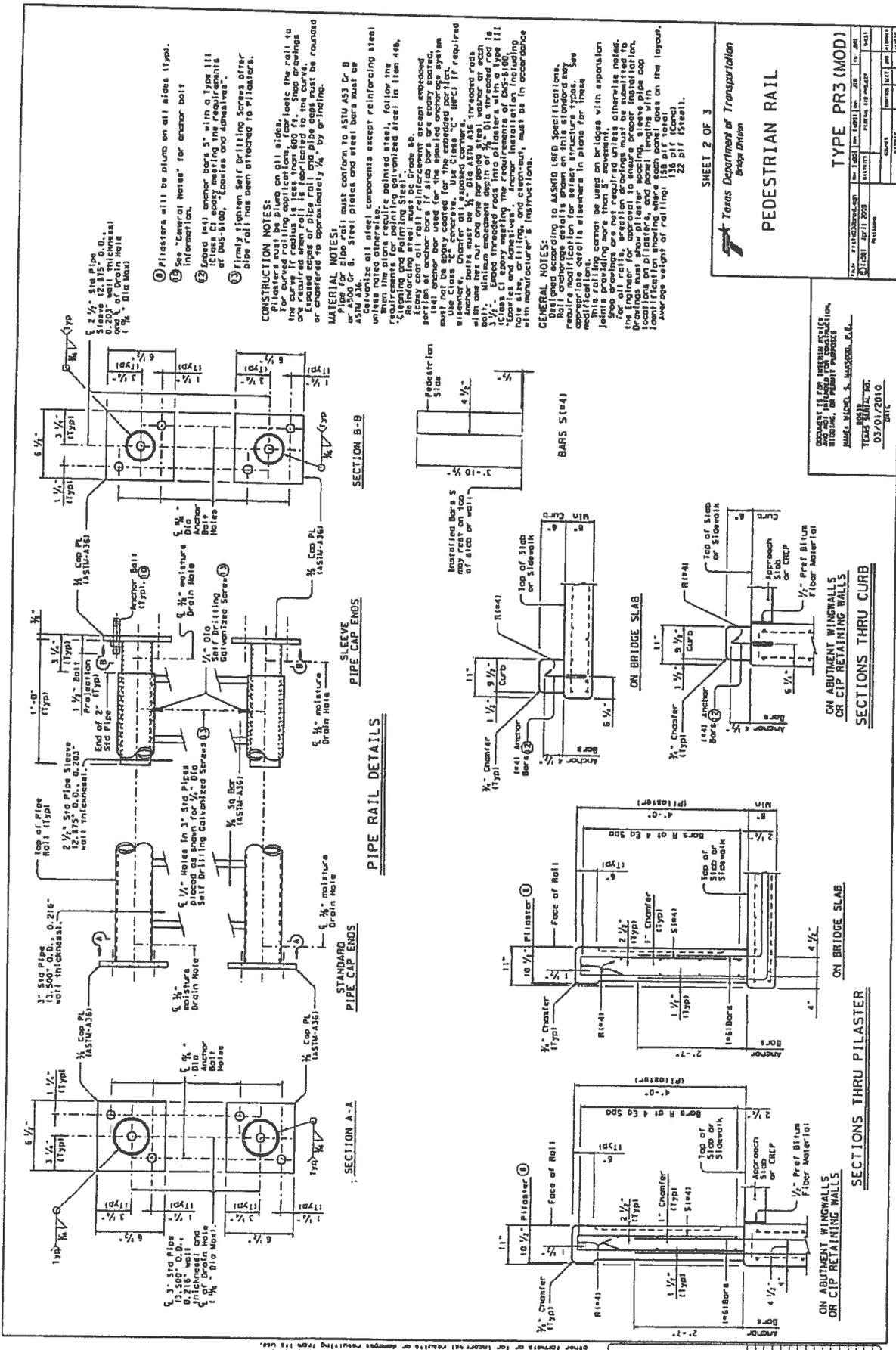


FINAL TYPICAL SECTION



| | | | |
|---|--|---|--|
| DESIGN LICENSED ENGINEER | | DATE: 11/15/13 | |
| PROJECT: BRIDGE LAYOUT | | REVISION: 1 | |
| SHEET NO. 01 | | SHEET TOTAL 01 | |
| PROJECT NO. 13-0000-3 | | CITY OF HOUSTON | |
| PROJECT NAME: HOMESTEAD ROAD | | PROJECT LOCATION: HOMESTEAD BRIDGE RENOVATION OVERLAP | |
| DESIGNER: DANENBAUM ENGINEERING CORPORATION | | CITY OF HOUSTON | |
| PROJECT NO. 13-0000-3 | | SHEET NO. 01 | |
| PROJECT NAME: HOMESTEAD ROAD | | PROJECT LOCATION: HOMESTEAD BRIDGE RENOVATION OVERLAP | |
| DESIGNER: DANENBAUM ENGINEERING CORPORATION | | CITY OF HOUSTON | |
| PROJECT NO. 13-0000-3 | | SHEET NO. 01 | |
| PROJECT NAME: HOMESTEAD ROAD | | PROJECT LOCATION: HOMESTEAD BRIDGE RENOVATION OVERLAP | |
| DESIGNER: DANENBAUM ENGINEERING CORPORATION | | CITY OF HOUSTON | |

10-11



CONSTRUCTION NOTES:
 1) Pilasters will be placed on all sides (Typ.).
 2) See "General Notes" for anchor bolt information.
 3) Lined test anchor bars 3" with a type III reinforcement steel. Requirements of DWS-5100, "Cast-in-Place and Adhesives."
 4) Firmly tighten self-drilling screws after pipe rail has been attached to pilasters.

GENERAL NOTES:
 1) Rail head according to AASHTO LRFD specifications. Rail head modification for exact structure types. See appropriate details elsewhere in plans for these joints providing more than 2" movement.
 2) This railing cannot be used on bridges with expansion joints unless otherwise noted.
 3) For all other cases, the railing must be installed in locations where the engineer for approval to ensure proper installation. Location must show pilaster footing, sleeve pipe cap identification showing where each panel meets on the layout. Average weight of railing: 158 lbs per total 122 lbs per 1000 ft.

MATERIAL NOTES:
 1) Pipe for pipe rail must conform to ASTM A53 or B or A500 or 8. Steel plates and steel bars must be galvanized all steel components except reinforcing steel unless noted otherwise.
 2) The plans require painted steel, follow the requirements for "Painting and Finishing Steel."
 3) Reinforcing steel must be Grade 40.
 4) Seal anchor bar used for the sealed enclosure system must be applied to the inside of the enclosure system.
 5) Use Class 1 epoxy for the adhesive portion.
 6) Use Class 1 epoxy for the adhesive portion.
 7) Minimum embedment depth of 3/4" Dia threaded rod in concrete.
 8) Minimum embedment depth of 1/2" Dia threaded rod in concrete.
 9) Minimum embedment depth of 3/8" Dia threaded rod in concrete.
 10) Minimum embedment depth of 1/4" Dia threaded rod in concrete.
 11) Minimum embedment depth of 1/8" Dia threaded rod in concrete.
 12) Minimum embedment depth of 1/4" Dia threaded rod in concrete.
 13) Minimum embedment depth of 1/8" Dia threaded rod in concrete.
 14) Minimum embedment depth of 1/4" Dia threaded rod in concrete.
 15) Minimum embedment depth of 1/8" Dia threaded rod in concrete.

TEXAS Department of Transportation
 Bridge Division

PEDESTRIAN RAIL

SHEET 2 OF 3

TYPE PR3 (MOD)

| | | | | |
|-------------|------|----------|------------|-------|
| PROJECT NO. | DATE | DRAWN BY | CHECKED BY | SCALE |
| | | | | |

APPROVED FOR THE DESIGN OF THIS PROJECT
 BRIDGE DIVISION, TEXAS DEPARTMENT OF TRANSPORTATION
 MUEL WICKEL, S. MANAGER, C.E.
 TCEQ BRIDGE DIV.
 03/01/2010

ON ABUTMENT WINDWALLS
 OR CIP RETAINING WALLS

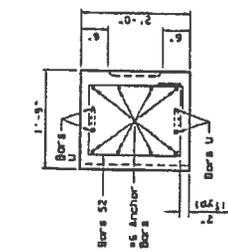
SECTIONS THRU CURB

ON BRIDGE SLAB

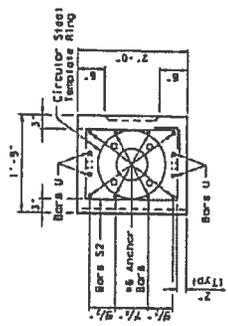
SECTIONS THRU PILASTER

NOTE:
See CenterPoint Energy "30" Street Light Standard" for Light Pole Details.

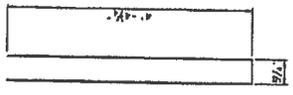
- 1) 6'-0" Max Panel and Curb Length.
- 2) Pilasters will have pilasters at each end (Typ).
- 3) Bars U will have a diameter of each end (Typ).
- 4) 1/2" Chamfer and Max Panel and Curb Length.
- 5) 3/4" Sq Bar Equally Spaced at 5 3/4" Max Along Center at 2" Std Pipe (Typ).
- 6) 3" Std Pipe (3.500" O.D., 0.216" wall thickness) (Typ).
- 7) Parallel to top of curb (Typ).
- 8) Pilasters will be placed on all sides (Typ).
- 9) Terminate 3" Std Pipe as shown on one end only of each side Rail Panel. This allows for future repairs and/or replacement.
- 10) 3" Std Pipe at Bar as shown on each end of Pipe Rail Panel.
- 11) See "General Notes" for anchor bolt information.
- 12) 1/2" Sq Bar will be Plumb.
- 13) Embed 14# Bars 5" with a Type III Class C epoxy meeting the requirements of DMS-6100, "Epoxy and Admixtures".



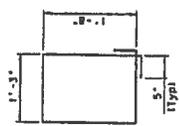
SECTION B-B



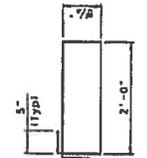
SECTION A-A



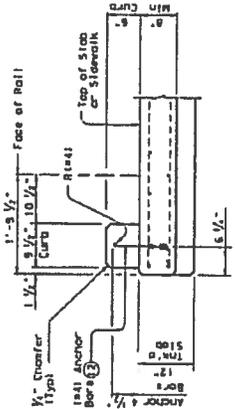
BARS U (16)



BARS S2 (14)

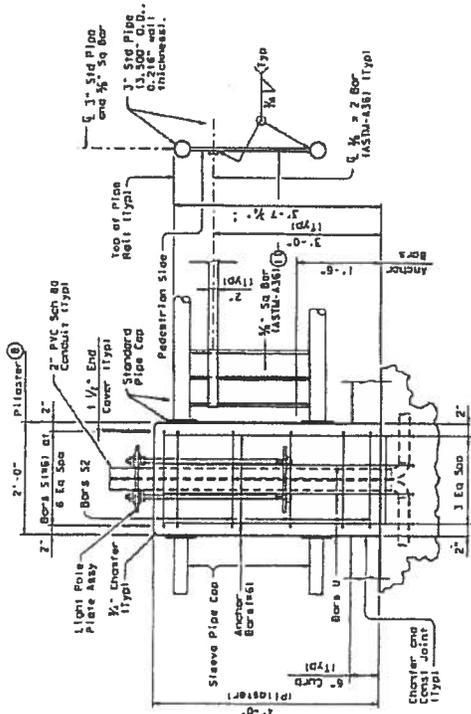


BARS S1 (14)



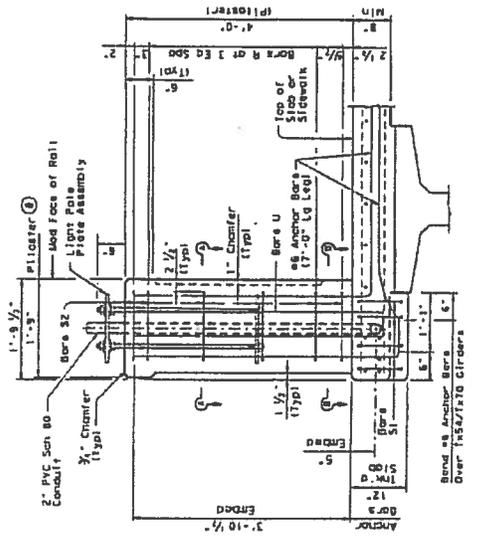
ON BRIDGE SLAB

SECTIONS THRU CURB



PIPE RAIL SECTION

ELEVATION OF TYPICAL REINFORCING WITH PIPE RAIL AND PILASTER CONNECTION WITH LIGHT



PILASTER ELEVATION

ON BRIDGE SLAB

SECTIONS THRU PILASTER WITH LIGHT

SHEET 3 OF 3
Texas Department of Transportation
Bridge Division
PEDESTRIAN RAIL

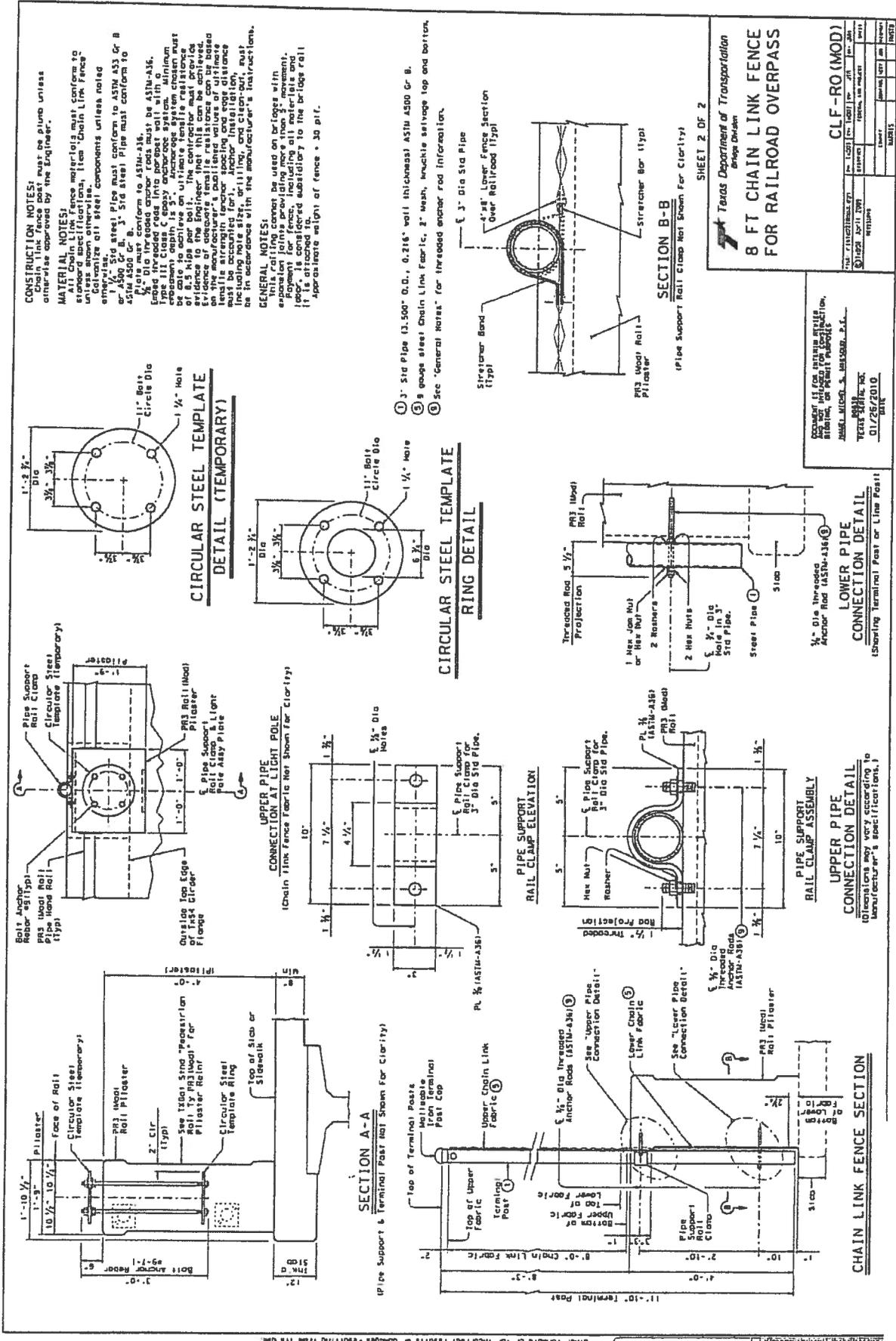
TYPE PR3 (MOD)

| | | | |
|------------|------------|------------|------------|
| DATE | BY | CHKD | APP'D |
| 03/01/2010 | TECHNICAL | 03/01/2010 | 03/01/2010 |
| 03/01/2010 | 03/01/2010 | 03/01/2010 | 03/01/2010 |

DESIGNED BY THE ARCHITECT AND NOT BE USED FOR CONSTRUCTION WITHOUT THE ARCHITECT'S APPROVAL.
TECHNICAL
03/01/2010

DISCLAIMER: The use of this standard is governed by the Texas Engineering Practice Act. No warranty is made by TREC for the use of this standard in any other context or for the construction of this standard in any other context or for the construction of this standard in any other context.

| | | | |
|------------|------------|------------|------------|
| DATE | BY | CHKD | APP'D |
| 03/01/2010 | TECHNICAL | 03/01/2010 | 03/01/2010 |
| 03/01/2010 | 03/01/2010 | 03/01/2010 | 03/01/2010 |

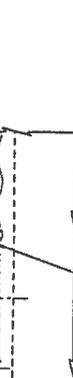
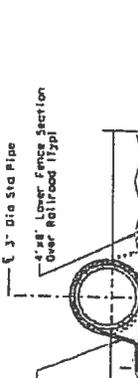


CONSTRUCTION NOTES:
 1. All Chain Link Fence materials must conform to standard specifications, Item "Chain Link Fence" of the Texas Department of Transportation. Galvanize all steel components unless noted otherwise.
 2. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 3. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 4. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 5. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 6. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 7. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 8. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 9. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 10. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.

MATERIAL NOTES:
 1. All Chain Link Fence materials must conform to standard specifications, Item "Chain Link Fence" of the Texas Department of Transportation. Galvanize all steel components unless noted otherwise.
 2. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 3. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 4. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 5. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 6. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 7. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 8. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 9. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.
 10. 3" Dia Steel Pipe must conform to ASTM A53 Gr. B or ASTM A500 Gr. B.

GENERAL NOTES:
 1. This drawing cannot be used on bridges with spans greater than 30 feet.
 2. This drawing cannot be used on spans greater than 30 feet.
 3. This drawing cannot be used on spans greater than 30 feet.
 4. This drawing cannot be used on spans greater than 30 feet.
 5. This drawing cannot be used on spans greater than 30 feet.
 6. This drawing cannot be used on spans greater than 30 feet.
 7. This drawing cannot be used on spans greater than 30 feet.
 8. This drawing cannot be used on spans greater than 30 feet.
 9. This drawing cannot be used on spans greater than 30 feet.
 10. This drawing cannot be used on spans greater than 30 feet.

- ① 3" Dia Steel Pipe 13,500" O.D., 0.216" wall thickness ASTM A500 Gr. B.
- ② 5 gauge steel Chain Link Fabric, 2" mesh, knuckle salvage top and bottom.
- ③ See "General Notes" for threaded anchor rod information.



SECTION B-B
 PIPE Support Rail Clamp Not Shown For Clarity

SHEET 2 OF 2

8 FT CHAIN LINK FENCE FOR RAILROAD OVERPASS

Texas Department of Transportation
 Bridge Division

CLF-RO (MOD)

| | | | |
|------------|-----|------|-------|
| DATE | BY | CHKD | APP'D |
| 01/26/2010 | JMM | JMM | JMM |
| 01/26/2010 | JMM | JMM | JMM |
| 01/26/2010 | JMM | JMM | JMM |

CONTRACT NO. 01/26/2010
 PROJECT NO. 01/26/2010
 DRAWING NO. 01/26/2010

UPPER PIPE CONNECTION DETAIL
 (Showing Terminal Post or Line Post)

LOWER PIPE CONNECTION DETAIL
 (Showing Terminal Post or Line Post)

UPPER PIPE CONNECTION DETAIL
 (Showing Terminal Post or Line Post)

LOWER PIPE CONNECTION DETAIL
 (Showing Terminal Post or Line Post)

UPPER PIPE CONNECTION DETAIL
 (Showing Terminal Post or Line Post)

LOWER PIPE CONNECTION DETAIL
 (Showing Terminal Post or Line Post)

UPPER PIPE CONNECTION DETAIL
 (Showing Terminal Post or Line Post)

LOWER PIPE CONNECTION DETAIL
 (Showing Terminal Post or Line Post)

UPPER PIPE CONNECTION DETAIL
 (Showing Terminal Post or Line Post)

LOWER PIPE CONNECTION DETAIL
 (Showing Terminal Post or Line Post)

EXHIBIT B

To Public Highway Overpass Agreement

**Cover Sheet for the
General Terms & Conditions**

EXHIBIT B

TO PUBLIC HIGHWAY OVERPASS AGREEMENT

GENERAL TERMS & CONDITIONS

SECTION 1 - CONDITIONS AND COVENANTS

- A. The Railroad makes no covenant or warranty of title for quiet possession or against encumbrances. The City shall not use or permit use of the Crossing Area for any purposes other than those described in this Agreement. Without limiting the foregoing, the City shall not use or permit use of the Crossing Area for railroad purposes, or for gas, oil or gasoline pipe lines. Any lines constructed on the Railroad's property by or under authority of the City for the purpose of conveying electric power or communications incidental to the City's use of the property for highway purposes shall be constructed in accordance with specifications and requirements of the Railroad, and in such manner as not adversely to affect communication or signal lines of the Railroad or its licensees now or hereafter located upon said property. No nonparty shall be admitted by the City to use or occupy any part of the Railroad's property without the Railroad's written consent. Nothing herein shall obligate the Railroad to give such consent.
- B. The Railroad reserves the right to cross the Crossing Area with such railroad tracks as may be required for its convenience or purposes.
- C. The right hereby granted is subject to any existing encumbrances and rights (whether public or private), recorded or unrecorded, and also to any renewals thereof. The City shall not damage, destroy or interfere with the property or rights of nonparties in, upon or relating to the Railroad's property, unless the City at its own expense settles with and obtains releases from such nonparties.
- D. The Railroad reserves the right to use and to grant to others the right to use the Crossing Area for any purpose not inconsistent with the right hereby granted, including, but not by way of limitation, the right to construct, reconstruct, maintain, operate, repair, alter, renew and replace tracks, facilities and appurtenances on the property and the right to cross the Crossing Area with all kinds of equipment. The Railroad further reserves the right to attach signal, communication or power lines to the Structure, provided that such attachments shall comply with City's specifications and will not interfere with the City's use of the Crossing Area.
- E. So far as it lawfully may do so, the City will assume, bear and pay all taxes and assessments of whatsoever nature or kind (whether general, local or special) levied or assessed upon or against the Crossing Area, excepting taxes levied upon and against the property as a component part of the Railroad's operating property.
- F. If any property or rights other than the right hereby granted are necessary for the construction, maintenance and use of the Structure and its appurtenances, or for the performance of any work in connection with the Project, the City will acquire all such other property and rights at its own expense and without expense to the Railroad.

SECTION 2 - CONSTRUCTION OF STRUCTURE

- A. The City, at its expense, will apply for and obtain all public authority required by law, ordinance, rule or regulation for the Project, and will furnish the Railroad upon request with satisfactory evidence that such authority has been obtained.
- B. Except as may be otherwise specifically provided herein, the City, at its expense, will furnish all necessary labor, material and equipment, and shall construct and complete the Structure and all appurtenances thereof. The appurtenances shall include, without limitation, all necessary and proper drainage facilities, guard rails or barriers, and right of way fences between the Structure and the railroad tracks. Upon completion of the Project, the City shall remove from the Railroad's property all temporary structures and false work, and will leave the Crossing Area in a condition satisfactory to the Railroad.
- C. All construction work of the City upon the Railroad's property (including, but not limited to, construction of the Structure and all appurtenances and all related and incidental work) shall be performed and completed in a manner satisfactory to the Assistant Vice President Engineering-Design of the Railroad or his authorized representative and in compliance with the Plans, the Railroad's Coordination Requirements set forth in **Exhibit D** and other guidelines furnished by the Railroad.

- D. All construction work of the City shall be performed diligently and completed within a reasonable time. No part of the Project shall be suspended, discontinued or unduly delayed without the Railroad's written consent, and subject to such reasonable conditions as the Railroad may specify. It is understood that the Railroad's tracks at and in the vicinity of the work will be in constant or frequent use during progress of the work and that movement or stoppage of trains, engines or cars may cause delays in the work of the City. The City hereby assumes the risk of any such delays and agrees that no claims for damages on account of any delay shall be made against the Railroad by the City and/or the Contractor.

SECTION 3 - INJURY AND DAMAGE TO PROPERTY

If the City, in the performance of any work contemplated by this Agreement or by the failure to do or perform anything for which the City is responsible under the provisions of this Agreement, shall injure, damage or destroy any property of the Railroad or of any other person lawfully occupying or using the property of the Railroad, such property shall be replaced or repaired by the City at the City's own expense, or by the Railroad at the expense of the City, and to the satisfaction of the Railroad's Assistant Vice President Engineering-Design.

SECTION 4 - RAILROAD MAY USE CONTRACTORS TO PERFORM WORK

The Railroad may contract for the performance of any of its work by other than railroad forces. The Railroad shall notify the City of the contract price within ninety (90) days after it is awarded. Unless the Railroad's work is to be performed on a fixed price basis, the City shall reimburse the Railroad for the amount of the contract.

SECTION 5 - MAINTENANCE AND REPAIRS

- A. The City, at its expense, shall maintain, repair and renew, or cause to be maintained, repaired and renewed, the entire Structure, including, but not limited to, the superstructure, substructure, piers, abutments, walls, approaches and all backfill, grading and drainage required by reason of the Structure, as well as all graffiti removal or overpainting involving the Structure.
- B. The Railroad, at its expense, will maintain, repair and renew, or cause to be maintained, repaired and renewed, the rails, ties, ballast and communication and signal facilities owned by the Railroad beneath the Structure.

SECTION 6 - SAFETY MEASURES; PROTECTION OF RAILROAD COMPANY OPERATIONS

It is understood and recognized that safety and continuity of the Railroad's operations and communications are of the utmost importance; and in order that the same may be adequately safeguarded, protected and assured, and in order that accidents may be prevented and avoided, it is agreed with respect to all of said work of the City that the work will be performed in a safe manner and in conformity with the following standards:

- A. **Definitions.** All references in this Agreement to the City shall also include the Contractor and their respective officers, agents and employees, and others acting under its or their authority; and all references in this Agreement to work of the City shall include work both within and outside of the Railroad's property.
- B. **Entry on to Railroad's Property by City.** If the City's employees need to enter Railroad's property in order to perform an inspection of the Structure, minor maintenance or other activities, the City shall first provide at least ten (10) working days advance notice to the Railroad Representative. **WITH RESPECT TO SUCH ENTRY ON TO RAILROAD'S PROPERTY, THE CITY, TO THE EXTENT PERMITTED BY LAW, AGREES TO RELEASE, DEFEND AND INDEMNIFY THE RAILROAD FROM AND AGAINST ANY LOSS, DAMAGE, INJURY, LIABILITY, CLAIM, COST OR EXPENSE INCURRED BY ANY PERSON, INCLUDING, WITHOUT LIMITATION, THE CITY'S EMPLOYEES, OR DAMAGE TO ANY PROPERTY INCLUDING, WITHOUT LIMITATION, THE CITY'S PROPERTY OR EQUIPMENT (COLLECTIVELY THE "LOSS") THAT ARISES FROM THE PRESENCE OR ACTIVITIES OF CITY'S EMPLOYEES ON RAILROAD'S PROPERTY, EXCEPT TO THE EXTENT THAT ANY LOSS IS CAUSED BY THE SOLE DIRECT NEGLIGENCE OF RAILROAD.**
- C. **Flagging.**
- (i) If the City's employees need to enter Railroad's property as provided in Paragraph B above, the City agrees to notify the Railroad Representative at least thirty (30) working days in advance of proposed performance of any work by City in which any person or equipment will be within twenty-five (25) feet of any track, or will be near enough to any track that any equipment extension (such as, but not limited to, a crane boom) will reach to within twenty-five (25) feet of any

track. No work of any kind shall be performed, and no person, equipment, machinery, tool(s), material(s), vehicle(s), or thing(s) shall be located, operated, placed, or stored within twenty-five (25) feet of any of Railroad's track(s) at any time, for any reason, unless and until a Railroad flagman is provided to watch for trains. Upon receipt of such thirty (30) day notice, the Railroad Representative will determine and inform City whether a flagman need be present and whether City needs to implement any special protective or safety measures. If flagging or other special protective or safety measures are performed by Railroad, Railroad will bill City for such expenses incurred by Railroad. If Railroad performs any flagging, or other special protective or safety measures are performed by Railroad, City agrees that City is not relieved of any of its responsibilities or liabilities set forth in this Agreement.

- (ii) The rate of pay per hour for each flagman will be the prevailing hourly rate in effect for an eight-hour day for the class of flagmen used during regularly assigned hours and overtime in accordance with Labor Agreements and Schedules in effect at the time the work is performed. In addition to the cost of such labor, a composite charge for vacation, holiday, health and welfare, supplemental sickness, Railroad Retirement and unemployment compensation, supplemental pension, Employees Liability and Property Damage and Administration will be included, computed on actual payroll. The composite charge will be the prevailing composite charge in effect at the time the work is performed. One and one-half times the current hourly rate is paid for overtime, Saturdays and Sundays, and two and one-half times current hourly rate for holidays. Wage rates are subject to change, at any time, by law or by agreement between Railroad and its employees, and may be retroactive as a result of negotiations or a ruling of an authorized governmental agency. Additional charges on labor are also subject to change. If the wage rate or additional charges are changed, City shall pay on the basis of the new rates and charges.
- (iii) Reimbursement to Railroad will be required covering the full eight-hour day during which any flagman is furnished, unless the flagman can be assigned to other Railroad work during a portion of such day, in which event reimbursement will not be required for the portion of the day during which the flagman is engaged in other Railroad work. Reimbursement will also be required for any day not actually worked by the flagman following the flagman's assignment to work on the project for which Railroad is required to pay the flagman and which could not reasonably be avoided by Railroad by assignment of such flagman to other work, even though City may not be working during such time. When it becomes necessary for Railroad to bulletin and assign an employee to a flagging position in compliance with union collective bargaining agreements, City must provide Railroad a minimum of five (5) days notice prior to the cessation of the need for a flagman. If five (5) days notice of cessation is not given, City will still be required to pay flagging charges for the five (5) day notice period required by union agreement to be given to the employee, even though flagging is not required for that period. An additional thirty (30) days notice must then be given to Railroad if flagging services are needed again after such five day cessation notice has been given to Railroad.

- D. **Compliance With Laws.** The City shall comply with all applicable federal, state and local laws, regulations and enactments affecting the work. The City shall use only such methods as are consistent with safety, both as concerns the City, the City's agents and employees, the officers, agents, employees and property of the Railroad and the public in general. The City (without limiting the generality of the foregoing) shall comply with all applicable state and federal occupational safety and health acts and regulations. All Federal Railroad Administration regulations shall be followed when work is performed on the Railroad's premises. **IF ANY FAILURE BY THE CITY TO COMPLY WITH ANY SUCH LAWS, REGULATIONS AND ENACTMENTS SHALL RESULT IN ANY FINE, PENALTY, COST OR CHARGE BEING ASSESSED, IMPOSED OR CHARGED AGAINST THE RAILROAD, THE CITY SHALL REIMBURSE AND, TO THE EXTENT IT MAY LAWFULLY DO SO, INDEMNIFY THE RAILROAD FOR ANY SUCH FINE, PENALTY, COST, OR CHARGE, INCLUDING WITHOUT LIMITATION, ATTORNEYS' FEES, COURT COSTS AND EXPENSES. THE CITY FURTHER AGREES IN THE EVENT OF ANY SUCH ACTION, UPON NOTICE THEREOF BEING PROVIDED BY THE RAILROAD, TO DEFEND SUCH ACTION FREE OF COST, CHARGE, OR EXPENSE TO THE RAILROAD.**
- E. **No Interference or Delays.** The City shall not do, suffer or permit anything which will or may obstruct, endanger, interfere with, hinder or delay maintenance or operation of the Railroad's tracks or facilities, or any communication or signal lines, installations or any appurtenances thereof, or the operations of others lawfully occupying or using the Railroad's property or facilities.
- F. **Supervision.** The City, at its own expense, shall adequately police and supervise all work to be performed by the City, and shall not inflict injury to persons or damage to property for the safety of whom or of which the Railroad may be responsible, or to property of the Railroad. The responsibility of the City for safe conduct and adequate policing and supervision of the Project shall not be lessened or otherwise affected by the Railroad's approval of plans and specifications, or by the Railroad's collaboration in performance of any work, or by the presence at the work site of the Railroad's representatives, or by compliance by the City with any requests or recommendations made by such representatives. If a representative of

the Railroad is assigned to the Project, the City will give due consideration to suggestions and recommendations made by such representative for the safety and protection of the Railroad's property and operations.

- G. **Suspension of Work.** If at any time the City's engineers or the Vice President-Engineering Services of the Railroad or their respective representatives shall be of the opinion that any work of the City is being or is about to be done or prosecuted without due regard and precaution for safety and security, the City shall immediately suspend the work until suitable, adequate and proper protective measures are adopted and provided.
- H. **Removal of Debris.** The City shall not cause, suffer or permit material or debris to be deposited or cast upon, or to slide or fall upon any property or facilities of the Railroad; and any such material and debris shall be promptly removed from the Railroad's property by the City at the City's own expense or by the Railroad at the expense of the City. The City shall not cause, suffer or permit any snow to be plowed or cast upon the Railroad's property during snow removal from the Crossing Area.
- I. **Explosives.** The City shall not discharge any explosives on or in the vicinity of the Railroad's property without the prior consent of the Railroad's Vice President-Engineering Services, which shall not be given if, in the sole discretion of the Railroad's Vice President-Engineering Services, such discharge would be dangerous or would interfere with the Railroad's property or facilities. For the purposes hereof, the "vicinity of the Railroad's property" shall be deemed to be any place on the Railroad's property or in such close proximity to the Railroad's property that the discharge of explosives could cause injury to the Railroad's employees or other persons, or cause damage to or interference with the facilities or operations on the Railroad's property. The Railroad reserves the right to impose such conditions, restrictions or limitations on the transportation, handling, storage, security and use of explosives as the Railroad, in the Railroad's sole discretion, may deem to be necessary, desirable or appropriate.
- J. **Excavation.** The City shall not excavate from existing slopes nor construct new slopes which are excessive and may create hazards of slides or falling rock, or impair or endanger the clearance between existing or new slopes and the tracks of the Railroad. The City shall not do or cause to be done any work which will or may disturb the stability of any area or adversely affect the Railroad's tracks or facilities. The City, at its own expense, shall install and maintain adequate shoring and cribbing for all excavation and/or trenching performed by the City in connection with construction, maintenance or other work. The shoring and cribbing shall be constructed and maintained with materials and in a manner approved by the Railroad's Assistant Vice President Engineering-Design to withstand all stresses likely to be encountered, including any stresses resulting from vibrations caused by the Railroad's operations in the vicinity.
- K. **Drainage.** The City, at the City's own expense, shall provide and maintain suitable facilities for draining the Structure and its appurtenances, and shall not suffer or permit drainage water therefrom to flow or collect upon property of the Railroad. The City, at the City's own expense, shall provide adequate passageway for the waters of any streams, bodies of water and drainage facilities (either natural or artificial, and including water from the Railroad's culvert and drainage facilities), so that said waters may not, because of any facilities or work of the City, be impeded, obstructed, diverted or caused to back up, overflow or damage the property of the Railroad or any part thereof, or property of others. The City shall not obstruct or interfere with existing ditches or drainage facilities.
- L. **Notice.** Before commencing any work, the City shall provide the advance notice that is required under the Contractor's Right of Entry Agreement.
- M. **Fiber Optic Cables.** 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. City shall telephone the Railroad during normal business hours (7:00 a.m. to 9:00 p.m. Central Time, Monday through Friday, except holidays) at 1-800-336-9193 (also a 24-hour, 7-day number for emergency calls) to determine if fiber optic cable is buried anywhere on the Railroad's premises to be used by the City. If it is, City 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.

SECTION 7 - INTERIM WARNING DEVICES

If at anytime it is determined by a competent authority, by the City, or by agreement between the parties, that new or improved train activated warning devices should be installed at the Crossing Area, the City shall install adequate temporary warning devices or signs and impose appropriate vehicular control measures to protect the motoring public until the construction or reconstruction of the Structure has been completed.

SECTION 8 - OTHER RAILROADS

All protective and indemnifying provisions of this Agreement shall inure to the benefit of the Railroad and any other railroad company lawfully using the Railroad's property or facilities.

SECTION 9 - BOOKS AND RECORDS

The books, papers, records and accounts of Railroad, so far as they relate to the items of expense for the materials to be provided by Railroad under this Project, or are associated with the work to be performed by Railroad under this Project, shall be open to inspection and audit at Railroad's offices in Omaha, Nebraska, during normal business hours by the agents and authorized representatives of City for a period of three (3) years following the date of Railroad's last billing sent to City.

SECTION 10 - REMEDIES FOR BREACH OR NONUSE

- A. If the City shall fail, refuse or neglect to perform and abide by the terms of this Agreement, the Railroad, in addition to any other rights and remedies, may perform any work which in the judgment of the Railroad is necessary to place the Structure and appurtenances in such condition as will not menace, endanger or interfere with the Railroad's facilities or operations or jeopardize the Railroad's employees; and the City will reimburse the Railroad for the expenses thereof.
- B. Nonuse by the City of the Crossing Area for public highway purposes continuing at any time for a period of eighteen (18) months shall, at the option of the Railroad, work a termination of this Agreement and of all rights of the City hereunder.
- C. The City will surrender peaceable possession of the Crossing Area and Structure upon termination of this Agreement. **TERMINATION OF THIS AGREEMENT SHALL NOT AFFECT ANY RIGHTS, OBLIGATIONS OR LIABILITIES OF THE PARTIES, ACCRUED OR OTHERWISE, WHICH MAY HAVE ARISEN PRIOR TO TERMINATION.**

SECTION 11 - MODIFICATION - ENTIRE AGREEMENT

No waiver, modification or amendment of this Agreement shall be of any force or effect unless made in writing, signed by the City and the Railroad and specifying with particularity the nature and extent of such waiver, modification or amendment. Any waiver by the Railroad of any default by the City shall not affect or impair any right arising from any subsequent default. This Agreement and Exhibits attached hereto and made a part hereof constitute the entire understanding between the City and the Railroad and cancel and supersede any prior negotiations, understandings or agreements, whether written or oral, with respect to the work or any part thereof.

EXHIBIT C

To Public Highway Overpass Agreement

Cover Sheet for the
Railroad's Estimate

DATE: 2011-10-10

ESTIMATE OF MATERIAL AND FORCE ACCOUNT WORK
BY THE
UNION PACIFIC RAILROAD

THIS ESTIMATE GOOD FOR 6 MONTHS EXPIRATION DATE IS :2012-04-09

DESCRIPTION OF WORK:

REMOVE 4 ROAD CROSSING WARNING DIVICES AND 240 FOOT OF ROAD CROSSING SURFACE AT HOMESTEAD STREET IN HOUSTON TX. MP. 380.14 ON THE BEAUMONT SUB. THE RAILROAD WILL ALSO PROVIDE FLAGGING PROTECTION. THIS PROJECT IS 100% RECOLLECTABLE FROM THE CITY OF HOUSTON. USING FEDERAL FUNDING WITH OVERHEAD AND INDIRECT ADDITIVES OF 205%

PID: 70164 AWO: 05845 MP, SUBDIV: 380.14, BEAUMONT
SERVICE UNIT: 09 CITY: HOUSTON STATE: TX

| DESCRIPTION | QTY | UNIT | LABOR | MATERIAL | RECOLL | UPRR | TOTAL |
|------------------------------------|-----|------|--------|----------|--------|------|--------|
| ENGINEERING WORK | | | | | | | |
| ENGINEERING | | | 1000 | | 1000 | | 1000 |
| FLAGGING | | | 32786 | | 32786 | | 32786 |
| LABOR ADDITIVE 205% | | | 69261 | | 69261 | | 69261 |
| TOTAL ENGINEERING | | | 103047 | | 103047 | | 103047 |
| SIGNAL WORK | | | | | | | |
| BILL PREP | | | 900 | | 900 | | 900 |
| LABOR ADDITIVE 205 | | | 14901 | | 14901 | | 14901 |
| SIGNAL | | | 6369 | | 6369 | | 6369 |
| TOTAL SIGNAL | | | 22170 | | 22170 | | 22170 |
| TRACK & SURFACE WORK | | | | | | | |
| ENVIRONMENTAL - PERMITS | | | | 1 | 1 | | 1 |
| LABOR ADDITIVE 205% | | | 3030 | | 3030 | | 3030 |
| RDXING | | | 2382 | | 2382 | | 2382 |
| TOTAL TRACK & SURFACE | | | 5412 | 1 | 5413 | | 5413 |
| LABOR/MATERIAL EXPENSE | | | 130629 | 1 | | | |
| RECOLLECTIBLE/UPRR EXPENSE | | | | | 130630 | 0 | |
| ESTIMATED PROJECT COST | | | | | | | 130630 |
| EXISTING REUSEABLE MATERIAL CREDIT | | | | | | 0 | |
| SALVAGE NONUSEABLE MATERIAL CREDIT | | | | | | 0 | |
| RECOLLECTIBLE LESS CREDITS | | | | | | | |

THE ABOVE FIGURES ARE ESTIMATES ONLY AND SUBJECT TO FLUCTUATION. IN THE EVENT OF AN INCREASE OR DECREASE IN THE COST OR QUANTITY OF MATERIAL OR LABOR REQUIRED, UPRR WILL BILL FOR ACTUAL CONSTRUCTION COSTS AT THE CURRENT EFFECTIVE RATE.

EXHIBIT D

To Public Highway Overpass Agreement

Cover Sheet for the
Railroad's Coordination Requirements

EXHIBIT D

TO PUBLIC HIGHWAY OVERPASS AGREEMENT

RAILROAD COORDINATION REQUIREMENTS

1.01 DEFINITIONS

| | |
|----------------------------------|--|
| Agreement: | Agreement that has been signed, or will be signed, between Railroad and Agency covering the construction and maintenance of the Project. |
| Agency: | City of Houston |
| AREMA: | American Railway Engineering and Maintenance-of-way Association |
| Contractor: | The contractor or contractors hired by the Agency to perform any project work on any portion of Railroad's property and shall also include the Contractor's subcontractors and the Contractor's and subcontractor's respective employees, officers and agents, and others acting under its or their authority. |
| MUTCD: | Manual on Uniform Traffic Control Devices |
| Project: | Agency's Project Number _____ covering the construction, maintenance and use of the new Homestrad Road Overpass grade separated public road crossing |
| Railroad: | Union Pacific Railroad Company |
| Railroad Project Representative: | Railroad's Manager of Industry and Public Projects for this Project (see Section 1.03) |
| Railroad MTM Representative: | Railroad's Manager of Track Maintenance for this Project (see Section 1.03) |
| Requirements: | The Railroad Coordination Requirements set forth in this Exhibit. |

1.02 DESCRIPTION

This Project includes construction work within Railroad's right-of-way. These Requirements describe coordination with the Railroad when work by the Contractor will be performed upon, over or under the Railroad right-of-way or may impact current or future Railroad operations. The Contractor will coordinate with the Railroad while performing the work outlined in this Agreement and shall afford the same cooperation with the Railroad as it does with the Agency. All submittals and work shall be completed in compliance with these Requirements, Railroad guidelines and requirements, AREMA recommendations and/or as directed by the Railroad Local Representative and/or the Railroad MTM Representative.

1.03 UPRR CONTACTS

The Railroad Project Representative for this project is:

*Dale Hill
Manager Industry & Public Projects
Union Pacific Railroad Company
24125 Aldine-Westfield Rd
Spring, TX 77373
Phone: 281-350-7798
Fax: 281-350-7671
Cell: 832-797-3076*

For Railroad flagging services and track work, contact the following Railroad MTM Representative:

*Tommy Russell
Manager Track Maintenance
Union Pacific Railroad Company
3601 McKinney Street
Houston, TX 77023
Phone: 281-986-4508
Fax: 281-986-4519*

1.04 PLANS / SPECIFICATIONS

The plans and specifications for this Project, affecting the Railroad, are subject to the written approval by the Railroad. Changes in the plans made after the execution of the Agreement and/or the awarding of the Project to the Contractor are subject to the prior review and written approval of the Agency and the Railroad. No construction work shall commence until final stamped plans and/or changes to final stamped plans have been reviewed and approved by the Railroad in writing. The Railroad's review and approval of the Agency's and/or Contractor's plans in no way relieves the Agency and Contractor from their responsibilities, obligations and/or liabilities under this Agreement, Agency's agreement with the Contractor for the Project and/or in the separate Contractor's Right of Entry Agreement referenced in Section 1.08. Railroad's approval will be given with the understanding that the Railroad makes no representations or warranty as to the validity, accuracy, legal compliance or completeness of Agency's and/or Contractor's plans and that any reliance by the Agency or the Contractor with respect to such plans is at the risk of the Agency and the Contractor.

1.05 UTILITIES AND FIBER OPTICS

- A. All installations shall be constructed in accordance with current AREMA recommendations and Railroad specifications and requirements. Railroad general guidelines and the required application forms for utility installations can be found on the Railroad website at <http://www.uprr.com/reus/pipeline/install.shtml>.
- B. It shall be the responsibility of the Contractor, at its expense, to make arrangements directly with utility companies involving the protection, encasement, reinforcement, relocation, replacement, removing or abandonment in place of non-railroad facilities affected by the Project. Railroad has no obligation to supply additional Railroad property for non-railroad facilities affected by this Project, nor does the Railroad have any obligation to permit non railroad facilities to be abandoned in place or relocated on Railroad's property. Any facility and/or utility that crosses Railroad right of way must be covered under an agreement with the Railroad including, without limitation, any relocations of an existing facility and/or utility.
- C. Any longitudinal fiber optic lines on Railroad right of way shall be treated as Railroad facilities. Project design may need to be altered to accommodate such facilities.
- D. Any fiber optic relocations or protections that are required due to this Project will be at the Agency's expense.

1.06 GENERAL

- A. It is essential that the proposed construction shall be performed without interference to Railroad operations and in compliance with all applicable Railroad and Federal Railroad Administration rules and regulations. The Railroad shall be reimbursed by the Contractor or Agency for train delay costs and lost revenue claims due to any delays or interruption of train operations resulting from the Contractor's construction or other activities.
- B. Track protection is required for all work equipment (including rubber tired equipment) operating within 25 feet from nearest rail. All work shall be designed and executed outside the temporary construction clearance envelope defined in Section 1.12.
- C. The Contractor is also advised that new facilities within the Project may be scheduled to be built by the Railroad and that certain Contractor's activities cannot proceed until that work is complete. The Contractor shall be aware of the limits of responsibilities, allow sufficient time in the schedule for that work to be accomplished and shall coordinate its efforts with the Railroad.

1.07 RAILROAD OPERATIONS

- A. The Contractor shall be advised that trains and/or equipment should be expected on any track, at any time, and in either direction. The Contractor shall communicate with the Railroad MTM Representative to improve the Contractor's understanding of Railroad traffic volume and operation at the Project site. The Contractor's bid shall be structured assuming intermittent track windows as defined in Section 1.07 C
- B. All Railroad tracks within and adjacent to the Project site are to be assumed as active and rail traffic over these facilities shall be maintained throughout the Project. Activities may include both through moves and switching moves to local customers. Railroad traffic and operations can occur continuously throughout the day and night on these tracks and shall

- be maintained at all times as defined herein. The Contractor shall coordinate and schedule the work so that construction activities do not interfere with Railroad's operations.
- C. Work windows for this Project shall be coordinated with the Agency or Contractor and the Railroad Project Representative and the Railroad MTM Representative. Types of work windows include Conditional Work Windows and Absolute Work Windows, as defined below:
1. **Conditional Work Window:** A period of time in which Railroad's operations have priority over construction activities. When construction activities may occur on and adjacent to the railroad tracks within 25 feet of the nearest track, a Railroad flag person will be required. At the direction of the flag person, upon approach of a train and when trains are present on the tracks, the tracks must be cleared (i.e., no construction equipment, materials or personnel within 25 feet from the nearest active track or as directed by the Railroad MTM Representative). Conditional Work Windows are available for the project subject to Railroad's local operating unit review and approval.
 2. **Absolute Work Window:** A period of time in which construction activities are given priority over Railroad's operations. During this time the designated Railroad track(s) will be inactive for train movements and may be fouled by the Contractor. Before the end of an Absolute Work Window, all Railroad tracks and signals must be completely operational for normal train operations. Also, all Railroad, Public Utilities Commission and Federal Railroad Administration requirements, codes and regulations for operational tracks must be complied with. Should the operating tracks and/or signals be affected, the Railroad will perform inspections of the work prior to placing the affected track back into service. Railroad flag persons will be required for construction activities requiring an Absolute Work Window. **Absolute Work Windows will generally not be granted. Any request will require a detailed written explanation for Railroad review and approval.**

1.08 RIGHT OF ENTRY, ADVANCE NOTICE AND WORK STOPPAGES

- A. Prior to beginning any work within the Railroad right-of-way, the Contractor shall enter into an agreement with the Railroad in the form of the Contractor's Right of Entry Agreement, attached as Exhibit E, or latest version thereof provided by the Railroad. There is a fee for processing of the agreement which shall be borne by the Contractor. The right of entry agreement shall specify working time frames, flagging, inspection and insurance requirements and any other items specified by the Railroad.
- B. The Contractor shall give advance notice to the Railroad as required in the Contractor's Right of Entry Agreement before commencing work in connection with construction upon or over Railroad's right-of-way and shall observe the Railroad rules and regulations with respect thereto.
- C. All work upon the Railroad right-of-way shall be done at such times and in such a manner as not to interfere with or endanger the operations of the Railroad. Whenever work may affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad MTM Representative for approval, but such approval shall not relieve the Contractor from liability. Any work to be performed by the Contractor, which requires flagging service or inspection service, shall be deferred until the flagging protection required by the Railroad is available at the job site. See Section 1.21 for railroad flagging requirements.
- D. The Contractor shall make requests in writing to both the Railroad Project Representative and the Railroad MTM Representative for both Absolute and Conditional Work Windows, at least two weeks in advance of any work. The written request must include:
1. Description of work to be done.
 2. The days and hours that work will be performed.
 3. The exact location of the work and proximity to the tracks.
 4. The type of window and amount of time requested.
 5. The designated contact person for the Contractor.

The Contractor shall provide a written confirmation notice to the Railroad MTM Representative at least fifteen (15) days prior to commencing work in connection with the approved work windows when work will be performed within **25 feet of any track center line**. All work shall be performed in accordance with previously approved work plans.

- E. Should a condition arise from, or in connection with, the work which requires immediate and unusual actions to be made to protect operations and property of the Railroad, the Contractor shall undertake such actions. If, in the judgment of the

Railroad MTM Representative, such actions are insufficient, the Railroad MTM Representative may require or provide such actions as deemed necessary. In any event, such actions shall be at the Contractor's expense and without cost to the Railroad. The Railroad or Agency have the right to order the Contractor to temporarily cease operations in the event of an emergency or if, in the opinion of the Railroad MTM Representative, the Contractor's operations may inhibit the Railroads operations. In the event such an order is given, the Contractor shall immediately notify the Agency of the order.

1.09 INSURANCE

The Contractor shall not begin work within the Railroad's right-of-way until the Railroad has been furnished the insurance policies, binders, certificates and endorsements required by the Contractor's Right-of-Entry Agreement, and the Railroad Project Representative has advised the Agency that such insurance is in accordance with such Agreement. The required insurance shall be kept in full force and effect during the performance of work and thereafter until the Contractor removes all tools, equipment, and material from Railroad property and cleans the premises in a manner reasonably satisfactory to the Railroad.

1.10 RAILROAD SAFETY ORIENTATION

All personnel employed by the Agency, Contractor and all subcontractors must complete the Railroad's course "Orientation for Contractor's Safety" and be registered prior to working on Railroad property. This orientation is available at www.contractororientation.com. This course is required to be completed annually. The preceding training does not apply for longitudinal fiber optic installations.

1.11 COOPERATION

The Railroad shall cooperate with the Contractor in the scheduling of Project work with the understanding that Railroad's train operations at the job site shall have priority over the Contractor's activities.

1.12 CONSTRUCTION CLEARANCES

The Contractor shall abide by the twenty-one (21) foot temporary vertical construction clearance defined in section 4.4.1.1 and twelve (12) foot temporary horizontal construction clearance defined in section 4.4.1.2 of BNSF and UPRR Guidelines for Railroad Grade Separation Projects. It shall be the Contractor's responsibility to obtain such guidelines from the Agency or Railroad.

Reduced temporary construction clearances, which are less than construction clearances defined above, will require special review and approval by the Railroad.

Any proposed variance on the specified minimum clearances due to the Contractor's operations shall be submitted to the Railroad Project Representative through the Agency at least thirty (30) days in advance of the work. No work shall be undertaken until the variance is approved in writing by the Railroad Project Representative.

1.13 SUBMITTALS

- A. Construction submittals and Requests for Information (RFI) shall be submitted per Section 3.5 of BNSF and UPRR Guidelines for Railroad Grade Separation Projects.
- B. The minimum review times, as indicated in tables 3-1 and 3-2 of Section 3.5 of the BNSF and UPRR Guidelines for Railroad Grade Separation Projects, should be anticipated for review of all submittals. Guidelines for Railroad Grade Separation Projects, should be anticipated for review of all submittals. The details of the construction affecting the Railroad tracks and property, not already included in the contract plans, shall be submitted by the Agency to the Railroad Project Representative for the Railroad's review and written approval before such construction is undertaken. The Railroad shall not be liable to Agency, Contractor, and or any other person or entity if the Railroad's review exceeds a four-week review time.
- C. As Built Submittals shall be submitted per Section 3.6 of BNSF and UPRR Guidelines for Railroad Grade Separation Projects.

1.14 MAINTENANCE OF PROPER DRAINAGE AND DAMAGE TO RAILROAD FACILITIES

- A. The Contractor, at its expense, shall be required to maintain all ditches and drainage structures free of silt or other obstructions which may result from the Contractor's operations and to repair and restore any Railroad property, tracks and facilities of Railroad and/or its tenants.
- B. The Contractor must submit a proposed method of erosion control and have the method reviewed and approved by the Railroad prior to beginning any grading on the project site. Erosion control methods must comply with all applicable local, state and federal regulations.

1.15 SITE INSPECTIONS BY RAILROAD PROJECT REPRESENTATIVE, RAILROAD MTM REPRESENTATIVE OR RAILROAD'S CONTRACTOR

- A. In addition to the office reviews of construction submittals, site observations will be performed by the Railroad Project Representative, Railroad MTM Representative or Railroad's Contractor at significant points during construction per Section 4.11 of BNSF and UPRR Guidelines for Railroad Grade Separation Projects.
- B. Site inspections are not limited to the milestone events listed in the guidelines. Site visits to check the progress of work may be performed at any time throughout the construction process as deemed necessary by the Railroad.
- C. A detailed construction schedule, including the proposed temporary horizontal and vertical clearances and construction sequence for all work to be performed, shall be provided by the Contractor to the Agency for submittal to the Railroad's Project Representative for review and approval prior to commencement of work. This schedule shall also include the anticipated dates on which the above listed events will occur. This schedule shall be updated for all critical listed events as necessary but at least monthly so that site visits may be scheduled.

1.16 RAILROAD REPRESENTATIVES

- A. Railroad representatives, conductors, flag persons or watch persons will be provided by the Railroad at the expense of the Agency or Contractor (as stated elsewhere in these bid documents) to protect Railroad facilities, property and movements of its trains and engines. In general, the Railroad will furnish such personnel or other protective services as follows:
 - 1. When any part of any equipment or object, such as erection or construction activities, is standing or being operated within 25 feet, measured horizontally from centerline, of any track on which trains may operate.
 - 2. For any excavation below the elevation of track subgrade when, in the opinion of the Railroad MTM Representative, the track or other Railroad facilities may be subject to settlement or movement.
 - 3. During any clearing, grubbing, excavation or grading in proximity to Railroad facilities which, in the opinion of the Railroad MTM Representative, may affect Railroad facilities or inhibit operations.
 - 4. During any Contractor's operations when, in the opinion of the Railroad MTM Representative, the Railroad facilities, including, but not limited to, tracks, buildings, signals, wire lines or pipe lines, may be endangered.
- B. The Contractor shall arrange with the Railroad Local Representative to provide the adequate number of flag persons to accomplish the work.

1.17 WALKWAYS REQUIRED

Parallel to the outer side of each exterior track of multiple operated track and on each side of single operated track, an unobstructed continuous space suitable for trainman's use in walking along trains, extending in width not less than twelve feet (12') perpendicular from centerline of track, shall be maintained. Any temporary impediments to walkways and track drainage encroachments or obstructions allowed during working hours must be covered, guarded and/or protected as soon as practical. Walkways with railings shall be constructed by the Contractor over open excavation areas when in close proximity of track, and railings shall not be closer than 9' perpendicular from the center line of tangent track or 9' - 6" horizontal from curved track.

1.18 COMMUNICATIONS AND SIGNAL LINES

If required, the Railroad, at Agency's expense, will rearrange its communications and signal lines, grade crossing warning devices, train signals, tracks and facilities that are in use and maintained by Railroad forces in connection with its operation. This work by the Railroad will be done by its own forces or by contractors under a continuing contract and may or may not be a part of the work under this contract.

1.19 TRAFFIC CONTROL

The Contractor's operations which control traffic across or around Railroad facilities shall be coordinated with and approved by the Railroad MTM Representative and shall be in compliance with the MUTCD.

1.20 CONSTRUCTION EXCAVATIONS;CALL BEFORE YOU DIG NUMBER

- A. The Contractor shall be required to take special precautions and care in connection with excavating and shoring. Excavations for construction of footings, piers, columns, walls or other facilities that require shoring shall comply with requirements of OSHA, AREMA and Railroad "Guidelines for Temporary Shoring".
- B. In addition to calling the "811" number and/or the local "one call center", the Contractor shall call the Railroad's "Call Before Your Dig" number at least 48 hours prior to commencing work at 1-800-336-9193 during normal business hours (6:30 a.m. to 8:00 p.m. Central Standard Time, Monday through Friday, except holidays - also a 24 hour, 7 day a week number for emergency calls) to determine location of fiber optics. If a telecommunications system is buried anywhere on or near Railroad property, the Contractor will co-ordinate with the Railroad and the Telecommunication Company(ies) to arrange for relocation or other protection of the system prior to beginning any work on or near Railroad property. The determination of whether fiber optics will be affected by the Project shall be made during the initial design phase of the Project.
- C. The Railroad does not allow temporary at grade crossings unless absolutely necessary and there is no alternative route available to contractor to access the project site. Alternative plans should be considered to avoid crossing Railroad tracks at grade.

1.21 RAILROAD FLAGGING

Performance of any work by the Contractor in which person(s) or equipment will be within twenty-five (25) feet of any track, or that any object or equipment extension (such as, but not limited to, a crane boom) will reach within twenty-five (25) feet of any track, require railroad flagging services or other protective measures. The Contractor shall give an advance notice to the Railroad as required in the Contractor's Right of Entry Agreement before commencing any such work, allowing the Railroad to determine the need for flagging or other protective measures which ensure the safety of Railroad's operations, employees and equipment. Contractor shall comply with all other requirements regarding flagging services covered by the Contractor's Right of Entry Agreement. Any costs associated with failure to abide by these requirements will be borne by the Contractor.

The estimated pay rate for each flag person is \$1,000.00 per day for a(n) 8-hour work day with time and one-half for overtime, Saturdays, Sundays; double time and one-half for holidays. Flagging rates are set by the Railroad and are subject to change due to, but not limited to, travel time, setup plus, per diem and rest time (if work is required at night).

1.22 CLEANING OF RIGHT-OF-WAY

The Contractor shall, upon completion of the work to be performed within the right-of-way and/or properties of the Railroad and adjacent to its tracks, wire lines and other facilities, promptly remove from the Railroad right-of-way all Contractor's tools, implements and other materials whether brought upon the right-of-way by the Contractor or any subcontractors employee or agent of Contractor or of any subcontractor, and leave the right-of-way in a clean and presentable condition to the satisfaction of the Railroad.

1.23 CONTRACTOR'S RESPONSIBILITY OF SUPERVISION

The Contractor, at its expense, shall adequately supervise all work to be performed by the Contractor. Such responsibility shall not be lessened or otherwise affected by Railroad's approval of plans and specifications, or by the presence at the work site of the Railroad Project Representative, Railroad MTM Representative or any other Railroad representative or Railroad contractor

providing inspection services, or by the compliance by the Contractor with any requests or recommendations made by such representatives. The Contractor will give due consideration to suggestions and recommendations made by such representatives for the safety and protection of the Railroad's property and operations.

1.24 USE OF EXPLOSIVES AT PROJECT SITE PROHIBITED

The Contractor's use of explosives at the Project site is expressly prohibited unless authorized in advance in writing by the Railroad Project Representative.

EXHIBIT E

To Public Highway Overpass Agreement

Cover Sheet for the
Railroad's Contractor's Right of Entry
Agreement



UPRR Folder No.: 2617-30

UPRR Audit No.: _____

CONTRACTOR'S RIGHT OF ENTRY AGREEMENT

([TEXAS - CITY/COUNTY PROJECTS])

THIS AGREEMENT is made and entered into as of the _____ day of _____, 20_____, by and between **UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation ("Railroad"); and

(NAME OF CONTRACTOR)
a(n) _____ corporation ("Contractor").
(State of Incorporation)

RECITALS:

Contractor has been hired by the *City of Houston* ("City") to perform work relating to the construction of the new Homestead Road Overpass grade separated public road crossing (the "work"), with all or a portion of such work to be performed on property of Railroad in the vicinity of Railroad's Mile Post 380.14 on Railroad's Beaumont Subdivision located Houston, Harris County, State of Texas, as such location is in the general location shown on the Railroad Location Print marked **Exhibit A**, and as specified on the Detailed Prints collectively marked **Exhibit A-1**, each attached hereto and hereby made a part hereof, which work is the subject of a contract dated _____ between the Railroad and the City.
(Date of Contract)

Railroad is willing to permit Contractor to perform the work described above at the location described above subject to the terms and conditions contained in this Agreement

AGREEMENT:

NOW, THEREFORE, it is mutually agreed by and between Railroad and Contractor, as follows:

ARTICLE 1 - DEFINITION OF CONTRACTOR.

For purposes of this Agreement, all references in this agreement to Contractor shall include Contractor's contractors, subcontractors, officers, agents and employees, and others acting under its or their authority.

ARTICLE 2 - RIGHT GRANTED; PURPOSE.

Railroad hereby grants to Contractor the right, during the term hereinafter stated and upon and subject to each and all of the terms, provisions and conditions herein contained, to enter upon and have ingress to and egress from the property described in the Recitals for the purpose of performing the work described in the Recitals above. The right herein granted to Contractor is limited to those portions of Railroad's property specifically described herein, or as designated by the Railroad Representative named in Article 4.

ARTICLE 3 - TERMS AND CONDITIONS CONTAINED IN EXHIBITS B, C AND D.

The General Terms and Conditions marked in **Exhibit B**, the Insurance Requirements marked **Exhibit C** and the Minimum Safety Requirements marked **Exhibit D**, each attached hereto, are hereby made a part of this Agreement.

ARTICLE 4 - ALL EXPENSES TO BE BORNE BY CONTRACTOR; RAILROAD REPRESENTATIVE.

- A. Contractor shall bear any and all costs and expenses associated with any work performed by Contractor, or any costs or expenses incurred by Railroad relating to this Agreement.
- B. Contractor shall coordinate all of its work with the following Railroad representative or his or her duly authorized representative (the "Railroad Representative"):

*Tommy Russell
Manager Track Maintenance
Union Pacific Railroad Company
3601 McKinney Street
Houston, TX 77023
Phone: 281-986-4508
Fax: 281-986-4519*

- C. Contractor, at its own expense, shall adequately police and supervise all work to be performed by Contractor and shall ensure that such work is performed in a safe manner as set forth in Section 7 of **Exhibit B**. The responsibility of Contractor for safe conduct and adequate policing and supervision of Contractor's work shall not be lessened or otherwise affected by Railroad's approval of plans and specifications involving the work, or by Railroad's collaboration in performance of any work, or by the presence at the work site of a Railroad Representative, or by compliance by Contractor with any requests or recommendations made by Railroad Representative.

ARTICLE 5 - SCHEDULE OF WORK ON A MONTHLY BASIS.

The Contractor, at its expense, shall provide on a monthly basis a detailed schedule of work to the Railroad Representative named in Article 4B above. The reports shall start

at the execution of this Agreement and continue until this Agreement is terminated as provided in this Agreement or until the Contractor has completed all work on Railroad's property.

ARTICLE 6 - TERM; TERMINATION.

- A. The grant of right herein made to Contractor shall commence on the date of this Agreement, and continue until _____, unless sooner
(*Expiration Date*)
terminated as herein provided, or at such time as Contractor has completed its work on Railroad's property, whichever is earlier. Contractor agrees to notify the Railroad Representative in writing when it has completed its work on Railroad's property.
- B. This Agreement may be terminated by either party on ten (10) days written notice to the other party.

ARTICLE 7 - CERTIFICATE OF INSURANCE.

- A. Before commencing any work, Contractor will provide Railroad with the (i) insurance binders, policies, certificates and endorsements set forth in **Exhibit C** of this Agreement, and (ii) the insurance endorsements obtained by each subcontractor as required under Section 12 of **Exhibit B** of this Agreement.
- B. All insurance correspondence, binders, policies, certificates and endorsements shall be sent to:

*Union Pacific Railroad Company
Real Estate Department
1400 Douglas Street, MS1690
Omaha, NE 68179-1690
Attn: Senior Manager Contracts
UPRR Folder No. 2617-30*

ARTICLE 8 - DISMISSAL OF CONTRACTOR'S EMPLOYEE.

At the request of Railroad, Contractor shall remove from Railroad's property any employee of Contractor who fails to conform to the instructions of the Railroad Representative in connection with the work on Railroad's property, and any right of Contractor shall be suspended until such removal has occurred. Contractor shall indemnify Railroad against any claims arising from the removal of any such employee from Railroad's property.



ARTICLE 9 - ADMINISTRATIVE FEE.

Upon the execution and delivery of this Agreement, Contractor shall pay to Railroad FIVE HUNDRED DOLLARS (\$500.00) as reimbursement for clerical, administrative and handling expenses in connection with the processing of this Agreement.

ARTICLE 10 - CROSSINGS.

No additional vehicular crossings (including temporary haul roads) or pedestrian crossings over Railroad's trackage shall be installed or used by Contractor without the prior written permission of Railroad.

ARTICLE 11.- EXPLOSIVES.

Explosives or other highly flammable substances shall not be stored on Railroad's property without the prior written approval of Railroad.

IN WITNESS WHEREOF, the parties hereto have duly executed this agreement in duplicate as of the date first herein written.

UNION PACIFIC RAILROAD COMPANY
(Federal Tax ID #94-6001323)

By _____
PAUL G. FARRELL
Senior Manager Contracts

(NAME OF CONTRACTOR)

By _____
Printed Name: _____
Title: _____

EXHIBIT B

TO CONTRACTOR'S RIGHT OF ENTRY AGREEMENT

GENERAL TERMS & CONDITIONS

Section 1. NOTICE OF COMMENCEMENT OF WORK - FLAGGING.

- A. Contractor agrees to notify the Railroad Representative at least ten (10) working days in advance of Contractor commencing its work and at least thirty (30) working days in advance of proposed performance of any work by Contractor in which any person or equipment will be within twenty-five (25) feet of any track, or will be near enough to any track that any equipment extension (such as, but not limited to, a crane boom) will reach to within twenty-five (25) feet of any track. No work of any kind shall be performed, and no person, equipment, machinery, tool(s), material(s), vehicle(s), or thing(s) shall be located, operated, placed, or stored within twenty-five (25) feet of any of Railroad's track(s) at any time, for any reason, unless and until a Railroad flagman is provided to watch for trains. Upon receipt of such thirty (30) day notice, the Railroad Representative will determine and inform Contractor whether a flagman need be present and whether Contractor needs to implement any special protective or safety measures. If flagging or other special protective or safety measures are performed by Railroad, Railroad will bill Contractor for such expenses incurred by Railroad, unless Railroad and a federal, state or local governmental entity have agreed that Railroad is to bill such expenses to the federal, state or local governmental entity. If Railroad will be sending the bills to Contractor, Contractor shall pay such bills within thirty (30) days of Contractor's receipt of billing. If Railroad performs any flagging, or other special protective or safety measures are performed by Railroad, Contractor agrees that Contractor is not relieved of any of its responsibilities or liabilities set forth in this Agreement.
- B. The rate of pay per hour for each flagman will be the prevailing hourly rate in effect for an eight-hour day for the class of flagmen used during regularly assigned hours and overtime in accordance with Labor Agreements and Schedules in effect at the time the work is performed. In addition to the cost of such labor, a composite charge for vacation, holiday, health and welfare, supplemental sickness, Railroad Retirement and unemployment compensation, supplemental pension, Employees Liability and Property Damage and Administration will be included, computed on actual payroll. The composite charge will be the prevailing composite charge in effect at the time the work is performed. One and one-half times the current hourly rate is paid for overtime, Saturdays and Sundays, and two and one-half times current hourly rate for holidays. Wage rates are subject to change, at any time, by law or by agreement between Railroad and its employees, and may be retroactive as a result of negotiations or a ruling of an authorized governmental agency. Additional charges on labor are also subject to change. If the wage rate or additional charges are changed, Contractor (or the governmental entity, as applicable) shall pay on the basis of the new rates and charges.
- C. Reimbursement to Railroad will be required covering the full eight-hour day during which any flagman is furnished, unless the flagman can be assigned to other Railroad work during a portion of such day, in which event reimbursement will not be required for the portion of the day during which the flagman is engaged in other Railroad work. Reimbursement will also be required for any day not actually worked by the flagman following the flagman's assignment to work on the project for which Railroad is required to pay the flagman and which could not reasonably be avoided by Railroad by assignment of such flagman to other work, even though Contractor may not be working during such time. When it becomes necessary for Railroad to bulletin and assign an employee to a flagging position in compliance with union collective bargaining agreements, Contractor must provide Railroad a minimum of five (5) days notice prior to the cessation of the need for a flagman. If five (5) days notice of cessation is not given, Contractor will still be required to pay flagging charges for the five (5) day notice period required by union agreement to be given to the employee, even though flagging is not required for that period. An additional thirty (30) days notice must then be given to Railroad if flagging services are needed again after such five day cessation notice has been given to Railroad.

Section 2. LIMITATION AND SUBORDINATION OF RIGHTS GRANTED

- A. The foregoing grant of right is subject and subordinate to the prior and continuing right and obligation of the Railroad to use and maintain its entire property including the right and power of Railroad to construct, maintain, repair, renew, use, operate, change, modify or relocate railroad tracks, roadways, signal, communication, fiber optics, or other wirelines, pipelines and other facilities upon, along or across any or all parts of its property, all or any of which may be freely done at any time or times by Railroad without liability to Contractor or to any other party for compensation or damages.

- B. The foregoing grant is also subject to all outstanding superior rights (including those in favor of licensees and lessees of Railroad's property, and others) and the right of Railroad to renew and extend the same, and is made without covenant of title or for quiet enjoyment.

Section 3. NO INTERFERENCE WITH OPERATIONS OF RAILROAD AND ITS TENANTS.

- A. Contractor shall conduct its operations so as not to interfere with the continuous and uninterrupted use and operation of the railroad tracks and property of Railroad, including without limitation, the operations of Railroad's lessees, licensees or others, unless specifically authorized in advance by the Railroad Representative. Nothing shall be done or permitted to be done by Contractor at any time that would in any manner impair the safety of such operations. When not in use, Contractor's machinery and materials shall be kept at least fifty (50) feet from the centerline of Railroad's nearest track, and there shall be no vehicular crossings of Railroads tracks except at existing open public crossings.
- B. Operations of Railroad and work performed by Railroad personnel and delays in the work to be performed by Contractor caused by such railroad operations and work are expected by Contractor, and Contractor agrees that Railroad shall have no liability to Contractor, or any other person or entity for any such delays. The Contractor shall coordinate its activities with those of Railroad and third parties so as to avoid interference with railroad operations. The safe operation of Railroad train movements and other activities by Railroad takes precedence over any work to be performed by Contractor.

Section 4. LIENS.

Contractor shall pay in full all persons who perform labor or provide materials for the work to be performed by Contractor. Contractor shall not create, permit or suffer any mechanic's or materialmen's liens of any kind or nature to be created or enforced against any property of Railroad for any such work performed. **CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS RAILROAD FROM AND AGAINST ANY AND ALL LIENS, CLAIMS, DEMANDS, COSTS OR EXPENSES OF WHATSOEVER NATURE IN ANY WAY CONNECTED WITH OR GROWING OUT OF SUCH WORK DONE, LABOR PERFORMED, OR MATERIALS FURNISHED. IF CONTRACTOR FAILS TO PROMPTLY CAUSE ANY LIEN TO BE RELEASED OF RECORD, RAILROAD MAY, AT ITS ELECTION, DISCHARGE THE LIEN OR CLAIM OF LIEN AT CONTRACTOR'S EXPENSE.**

Section 5. PROTECTION OF FIBER OPTIC CABLE SYSTEMS.

- A. Fiber optic cable systems may be buried on 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. Contractor shall telephone Railroad during normal business hours (7:00 a.m. to 9:00 p.m. Central Time, Monday through Friday, except holidays) at 1-800-336-9193 (also a 24-hour, 7-day number for emergency calls) to determine if fiber optic cable is buried anywhere on Railroad's property to be used by Contractor. If it is, Contractor will telephone the telecommunications company(ies) involved, make arrangements for a cable locator and, if applicable, for relocation or other protection of the fiber optic cable. Contractor shall not commence any work until all such protection or relocation (if applicable) has been accomplished.
- B. IN ADDITION TO OTHER INDEMNITY PROVISIONS IN THIS AGREEMENT, CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD RAILROAD HARMLESS FROM AND AGAINST ALL COSTS, LIABILITY AND EXPENSE WHATSOEVER (INCLUDING, WITHOUT LIMITATION, ATTORNEYS' FEES, COURT COSTS AND EXPENSES) ARISING OUT OF ANY ACT OR OMISSION OF CONTRACTOR, ITS AGENTS AND/OR EMPLOYEES, THAT CAUSES OR CONTRIBUTES TO (1) ANY DAMAGE TO OR DESTRUCTION OF ANY TELECOMMUNICATIONS SYSTEM ON RAILROAD'S PROPERTY, AND/OR (2) ANY INJURY TO OR DEATH OF ANY PERSON EMPLOYED BY OR ON BEHALF OF ANY TELECOMMUNICATIONS COMPANY, AND/OR ITS CONTRACTOR, AGENTS AND/OR EMPLOYEES, ON RAILROAD'S PROPERTY. CONTRACTOR SHALL NOT HAVE OR SEEK RECOURSE AGAINST RAILROAD FOR ANY CLAIM OR CAUSE OF ACTION FOR ALLEGED LOSS OF PROFITS OR REVENUE OR LOSS OF SERVICE OR OTHER CONSEQUENTIAL DAMAGE TO A TELECOMMUNICATION COMPANY USING RAILROAD'S PROPERTY OR A CUSTOMER OR USER OF SERVICES OF THE FIBER OPTIC CABLE ON RAILROAD'S PROPERTY.**

Section 6. PERMITS - COMPLIANCE WITH LAWS.

In the prosecution of the work covered by this Agreement, Contractor shall secure any and all necessary permits and shall comply with all applicable federal, state and local laws, regulations and enactments affecting the work including, without limitation, all applicable Federal Railroad Administration regulations.

Section 7. SAFETY.

- A. Safety of personnel, property, rail operations and the public is of paramount importance in the prosecution of the work performed by Contractor. Contractor shall be responsible for initiating, maintaining and supervising all safety, operations and programs in connection with the work. Contractor shall at a minimum comply with Railroad's safety standards listed in **Exhibit D**, hereto attached, to ensure uniformity with the safety standards followed by Railroad's own forces. As a part of Contractor's safety responsibilities, Contractor shall notify Railroad if Contractor determines that any of Railroad's safety standards are contrary to good safety practices. Contractor shall furnish copies of **Exhibit D** to each of its employees before they enter the job site.
- B. Without limitation of the provisions of paragraph A above, Contractor shall keep the job site free from safety and health hazards and ensure that its employees are competent and adequately trained in all safety and health aspects of the job.
- C. Contractor shall have proper first aid supplies available on the job site so that prompt first aid services may be provided to any person injured on the job site. Contractor shall promptly notify Railroad of any U.S. Occupational Safety and Health Administration reportable injuries. Contractor shall have a nondelegable duty to control its employees while they are on the job site or any other property of Railroad, and to be certain they do not use, be under the influence of, or have in their possession any alcoholic beverage, drug or other substance that may inhibit the safe performance of any work.
- D. If and when requested by Railroad, Contractor shall deliver to Railroad a copy of Contractor's safety plan for conducting the work (the "Safety Plan"). Railroad shall have the right, but not the obligation, to require Contractor to correct any deficiencies in the Safety Plan. The terms of this Agreement shall control if there are any inconsistencies between this Agreement and the Safety Plan.

Section 8. INDEMNITY.

- A. **TO THE EXTENT NOT PROHIBITED BY APPLICABLE STATUTE, CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS RAILROAD, ITS AFFILIATES, AND ITS AND THEIR OFFICERS, AGENTS AND EMPLOYEES (INDIVIDUALLY AN "INDEMNIFIED PARTY" OR COLLECTIVELY "INDEMNIFIED PARTIES") FROM AND AGAINST ANY AND ALL LOSS, DAMAGE, INJURY, LIABILITY, CLAIM, DEMAND, COST OR EXPENSE (INCLUDING, WITHOUT LIMITATION, ATTORNEY'S, CONSULTANT'S AND EXPERT'S FEES, AND COURT COSTS), FINE OR PENALTY (COLLECTIVELY, "LOSS") INCURRED BY ANY PERSON (INCLUDING, WITHOUT LIMITATION, ANY INDEMNIFIED PARTY, CONTRACTOR, OR ANY EMPLOYEE OF CONTRACTOR OR OF ANY INDEMNIFIED PARTY) ARISING OUT OF OR IN ANY MANNER CONNECTED WITH (I) ANY WORK PERFORMED BY CONTRACTOR, OR (II) ANY ACT OR OMISSION OF CONTRACTOR, ITS OFFICERS, AGENTS OR EMPLOYEES, OR (III) ANY BREACH OF THIS AGREEMENT BY CONTRACTOR.**
- B. **THE RIGHT TO INDEMNITY UNDER THIS SECTION 8 SHALL ACCRUE UPON OCCURRENCE OF THE EVENT GIVING RISE TO THE LOSS, AND SHALL APPLY REGARDLESS OF ANY NEGLIGENCE OR STRICT LIABILITY OF ANY INDEMNIFIED PARTY, EXCEPT WHERE THE LOSS IS CAUSED BY THE SOLE ACTIVE NEGLIGENCE OF AN INDEMNIFIED PARTY AS ESTABLISHED BY THE FINAL JUDGMENT OF A COURT OF COMPETENT JURISDICTION. THE SOLE ACTIVE NEGLIGENCE OF ANY INDEMNIFIED PARTY SHALL NOT BAR THE RECOVERY OF ANY OTHER INDEMNIFIED PARTY.**
- C. **CONTRACTOR EXPRESSLY AND SPECIFICALLY ASSUMES POTENTIAL LIABILITY UNDER THIS SECTION 8 FOR CLAIMS OR ACTIONS BROUGHT BY CONTRACTOR'S OWN EMPLOYEES. CONTRACTOR WAIVES ANY IMMUNITY IT MAY HAVE UNDER WORKER'S COMPENSATION OR INDUSTRIAL INSURANCE ACTS TO INDEMNIFY RAILROAD UNDER THIS SECTION 8. CONTRACTOR ACKNOWLEDGES THAT THIS WAIVER WAS MUTUALLY NEGOTIATED BY THE PARTIES HERETO.**

- D. NO COURT OR JURY FINDINGS IN ANY EMPLOYEE'S SUIT PURSUANT TO ANY WORKER'S COMPENSATION ACT OR THE FEDERAL EMPLOYERS' LIABILITY ACT AGAINST A PARTY TO THIS AGREEMENT MAY BE RELIED UPON OR USED BY CONTRACTOR IN ANY ATTEMPT TO ASSERT LIABILITY AGAINST ANY INDEMNIFIED PARTY.
- E. THE PROVISIONS OF THIS SECTION 8 SHALL SURVIVE THE COMPLETION OF ANY WORK PERFORMED BY CONTRACTOR OR THE TERMINATION OR EXPIRATION OF THIS AGREEMENT. IN NO EVENT SHALL THIS SECTION 8 OR ANY OTHER PROVISION OF THIS AGREEMENT BE DEEMED TO LIMIT ANY LIABILITY CONTRACTOR MAY HAVE TO ANY INDEMNIFIED PARTY BY STATUTE OR UNDER COMMON LAW.

Section 9. RESTORATION OF PROPERTY.

In the event Railroad authorizes Contractor to take down any fence of Railroad or in any manner move or disturb any of the other property of Railroad in connection with the work to be performed by Contractor, then in that event Contractor shall, as soon as possible and at Contractor's sole expense, restore such fence and other property to the same condition as the same were in before such fence was taken down or such other property was moved or disturbed. Contractor shall remove all of Contractor's tools, equipment, rubbish and other materials from Railroad's property promptly upon completion of the work, restoring Railroad's property to the same state and condition as when Contractor entered thereon.

Section 10. WAIVER OF DEFAULT.

Waiver by Railroad of any breach or default of any condition, covenant or agreement herein contained to be kept, observed and performed by Contractor shall in no way impair the right of Railroad to avail itself of any remedy for any subsequent breach or default.

Section 11. MODIFICATION - ENTIRE AGREEMENT.

No modification of this Agreement shall be effective unless made in writing and signed by Contractor and Railroad. This Agreement and the exhibits attached hereto and made a part hereof constitute the entire understanding between Contractor and Railroad and cancel and supersede any prior negotiations, understandings or agreements, whether written or oral, with respect to the work to be performed by Contractor.

Section 12. ASSIGNMENT - SUBCONTRACTING.

Contractor shall not assign or subcontract this Agreement, or any interest therein, without the written consent of the Railroad. Contractor shall be responsible for the acts and omissions of all subcontractors. Before Contractor commences any work, the Contractor shall, except to the extent prohibited by law; (1) require each of its subcontractors to include the Contractor as "Additional Insured" in the subcontractor's Commercial General Liability policy and Business Automobile policies with respect to all liabilities arising out of the subcontractor's performance of work on behalf of the Contractor by endorsing these policies with ISO Additional Insured Endorsements CG 20 26, and CA 20 48 (or substitute forms providing equivalent coverage; (2) require each of its subcontractors to endorse their Commercial General Liability Policy with "Contractual Liability Railroads" ISO Form CG 24 17 10 01 (or a substitute form providing equivalent coverage) for the job site; and (3) require each of its subcontractors to endorse their Business Automobile Policy with "Coverage For Certain Operations In Connection With Railroads" ISO Form CA 20 70 10 01 (or a substitute form providing equivalent coverage) for the job site.

EXHIBIT C

TO CONTRACTOR'S RIGHT OF ENTRY AGREEMENT

INSURANCE REQUIREMENTS

Contractor shall, at its sole cost and expense, procure and maintain during the course of the Project and until all Project work on Railroad's property has been completed and the Contractor has removed all equipment and materials from Railroad's property and has cleaned and restored Railroad's property to Railroad's satisfaction, the following insurance coverage:

- A. Commercial General Liability Insurance.** Commercial general liability (CGL) with a limit of not less than \$5,000,000 each occurrence and an aggregate limit of not less than \$10,000,000. CGL insurance must be written on ISO occurrence form CG 00 01 12 04 (or a substitute form providing equivalent coverage).

The policy must also contain the following endorsement, which must be stated on the certificate of insurance:

- Contractual Liability Railroads ISO form CG 24 17 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Railroad Company Property" as the Designated Job Site.
- Designated Construction Project(s) General Aggregate Limit ISO Form CG 25 03 03 97 (or a substitute form providing equivalent coverage) showing the project on the form schedule.

- B. Business Automobile Coverage Insurance.** Business auto coverage written on ISO form CA 00 01 10 01 (or a substitute form providing equivalent liability coverage) with a combined single limit of not less \$5,000,000 for each accident and coverage must include liability arising out of any auto (including owned, hired and non-owned autos).

The policy must contain the following endorsements, which must be stated on the certificate of insurance:

- Coverage For Certain Operations In Connection With Railroads ISO form CA 20 70 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Property" as the Designated Job Site.
- Motor Carrier Act Endorsement - Hazardous materials clean up (MCS-90) if required by law.

- C. Workers' Compensation And Employers' Liability Insurance.** Coverage must include but not be limited to:

- Contractor's statutory liability under the workers' compensation laws of the State of Texas.
- Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 disease policy limit \$500,000 each employee.

If Contractor is self-insured, evidence of state approval and excess workers compensation coverage must be provided. Coverage must include liability arising out of the U. S. Longshoremen's and Harbor Workers' Act, the Jones Act, and Outer Continental Shelf Land Act, if applicable.

The policy must contain the following endorsement, which must be stated on the certificate of insurance:

- Alternate Employer endorsement ISO form WC 00 03 01 A (or a substitute form providing equivalent coverage) showing Railroad in the schedule as the alternate employer (or a substitute form providing equivalent coverage).

- D. Railroad Protective Liability Insurance.** Contractor must maintain Railroad Protective Liability insurance written on ISO occurrence form CG 00 35 12 04 (or a substitute form providing equivalent coverage) on behalf of Railroad as named insured, with a limit of not less than \$2,000,000 per occurrence and an aggregate of \$6,000,000. A binder stating the policy is in place must be submitted to Railroad before the work may be commenced and until the original policy is forwarded to Railroad.

- E. Umbrella Or Excess Insurance.** If Contractor utilizes umbrella or excess policies, these policies must "follow form" and afford no less coverage than the primary policy.

- F. Pollution Liability Insurance.** Pollution liability coverage must be written on ISO form Pollution Liability Coverage Form Designated Sites CG 00 39 12 04 (or a substitute form providing equivalent liability coverage), with limits of at least \$5,000,000 per occurrence and an aggregate limit of \$10,000,000.

If the scope of work as defined in this Agreement includes the disposal of any hazardous or non-hazardous materials from the job site, Contractor must furnish to Railroad evidence of pollution legal liability insurance maintained by the disposal site operator for losses arising from the insured facility accepting the materials, with coverage in minimum amounts of \$1,000,000 per loss, and an annual aggregate of \$2,000,000.

OTHER INSURANCE REQUIREMENTS

- G. All policy(ies) required above (except worker's compensation and employers liability) must include Railroad as "Additional Insured" using ISO Additional Insured Endorsements CG 20 26, and CA 20 48 (or substitute forms providing equivalent coverage). The coverage provided to Railroad as additional insured shall, to the extent provided under ISO Additional Insured Endorsement CG 20 26, and CA 20 48 provide coverage for Railroad's negligence whether sole or partial, active or passive, and shall not be limited by Contractor's liability under the indemnity provisions of this Agreement.
- H. Punitive damages exclusion, if any, must be deleted (and the deletion indicated on the certificate of insurance), unless the law governing this Agreement prohibits all punitive damages that might arise under this Agreement.
- I. Contractor waives all rights of recovery, and its insurers also waive all rights of subrogation of damages against Railroad and its agents, officers, directors and employees. This waiver must be stated on the certificate of insurance.
- J. Prior to commencing the work, Contractor shall furnish Railroad with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements in this Agreement.
- K. All insurance policies must be written by a reputable insurance company acceptable to Railroad or with a current Best's Insurance Guide Rating of A- and Class VII or better, and authorized to do business in the State of Texas.
- L. The fact that insurance is obtained by Contractor or by Railroad on behalf of Contractor will not be deemed to release or diminish the liability of Contractor, including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Railroad from Contractor or any third party will not be limited by the amount of the required insurance coverage.

EXHIBIT D

TO CONTRACTOR'S RIGHT OF ENTRY AGREEMENT

MINIMUM SAFETY REQUIREMENTS

The term "employees" as used herein refer to all employees of Contractor as well as all employees of any subcontractor or agent of Contractor.

I. Clothing

- A. All employees of Contractor will be suitably dressed to perform their duties safely and in a manner that will not interfere with their vision, hearing, or free use of their hands or feet.

Specifically, Contractor's employees must wear:

- (i) Waist-length shirts with sleeves.
 - (ii) Trousers that cover the entire leg. If flare-legged trousers are worn, the trouser bottoms must be tied to prevent catching.
 - (iii) Footwear that covers their ankles and has a defined heel. Employees working on bridges are required to wear safety-toed footwear that conforms to the American National Standards Institute (ANSI) and FRA footwear requirements.
- B. Employees shall not wear boots (other than work boots), sandals, canvas-type shoes, or other shoes that have thin soles or heels that are higher than normal.
- C. Employees must not wear loose or ragged clothing, neckties, finger rings, or other loose jewelry while operating or working on machinery.

II. Personal Protective Equipment

Contractor shall require its employees to wear personal protective equipment as specified by Railroad rules, regulations, or recommended or requested by the Railroad Representative.

- (i) Hard hat that meets the American National Standard (ANSI) Z89.1 – latest revision. Hard hats should be affixed with Contractor's company logo or name.
- (ii) Eye protection that meets American National Standard (ANSI) for occupational and educational eye and face protection, Z87.1 – latest revision. Additional eye protection must be provided to meet specific job situations such as welding, grinding, etc.
- (iii) Hearing protection, which affords enough attenuation to give protection from noise levels that will be occurring on the job site. Hearing protection, in the form of plugs or muffs, must be worn when employees are within:
 - 100 feet of a locomotive or roadway/work equipment
 - 15 feet of power operated tools
 - 150 feet of jet blowers or pile drivers
 - 150 feet of retarders in use (when within 10 feet, employees must wear dual ear protection – plugs and muffs)
- (iv) Other types of personal protective equipment, such as respirators, fall protection equipment, and face shields, must be worn as recommended or requested by the Railroad Representative.

III. On Track Safety

Contractor is responsible for compliance with the Federal Railroad Administration's Roadway Worker Protection regulations – 49CFR214, Subpart C and Railroad's On-Track Safety rules. Under 49CFR214, Subpart C, railroad contractors are responsible for the training of their employees on such regulations. In addition to the instructions contained in Roadway Worker Protection regulations, all employees must:

- (i) Maintain a distance of twenty-five (25) feet to any track unless the Railroad Representative is present to authorize movements.



- (ii) Wear an orange, reflectorized workwear approved by the Railroad Representative.
- (iii) Participate in a job briefing that will specify the type of On-Track Safety for the type of work being performed. Contractor must take special note of limits of track authority, which tracks may or may not be fouled, and clearing the track. Contractor will also receive special instructions relating to the work zone around machines and minimum distances between machines while working or traveling.

IV. Equipment

- A. It is the responsibility of Contractor to ensure that all equipment is in a safe condition to operate. If, in the opinion of the Railroad Representative, any of Contractor's equipment is unsafe for use, Contractor shall remove such equipment from Railroad's property. In addition, Contractor must ensure that the operators of all equipment are properly trained and competent in the safe operation of the equipment. In addition, operators must be:
 - Familiar and comply with Railroad's rules on lockout/tagout of equipment.
 - Trained in and comply with the applicable operating rules if operating any hy-rail equipment on-track.
 - Trained in and comply with the applicable air brake rules if operating any equipment that moves rail cars or any other railbound equipment.
- B. All self-propelled equipment must be equipped with a first-aid kit, fire extinguisher, and audible back-up warning device.
- C. Unless otherwise authorized by the Railroad Representative, all equipment must be parked a minimum of twenty-five (25) feet from any track. Before leaving any equipment unattended, the operator must stop the engine and properly secure the equipment against movement.
- D. Cranes must be equipped with three orange cones that will be used to mark the working area of the crane and the minimum clearances to overhead powerlines.

V. General Safety Requirements

- A. Contractor shall ensure that all waste is properly disposed of in accordance with applicable federal and state regulations.
- B. Contractor shall ensure that all employees participate in and comply with a job briefing conducted by the Railroad Representative, if applicable. During this briefing, the Railroad Representative will specify safe work procedures, (including On-Track Safety) and the potential hazards of the job. If any employee has any questions or concerns about the work, the employee must voice them during the job briefing. Additional job briefings will be conducted during the work as conditions, work procedures, or personnel change.
- C. All track work performed by Contractor meets the minimum safety requirements established by the Federal Railroad Administration's Track Safety Standards 49CFR213.
- D. All employees comply with the following safety procedures when working around any railroad track:
 - (i) Always be on the alert for moving equipment. Employees must always expect movement on any track, at any time, in either direction.
 - (ii) Do not step or walk on the top of the rail, frog, switches, guard rails, or other track components.
 - (iii) In passing around the ends of standing cars, engines, roadway machines or work equipment, leave at least 20 feet between yourself and the end of the equipment. Do not go between pieces of equipment if the opening is less than one car length (50 feet).
 - (iv) Avoid walking or standing on a track unless so authorized by the employee in charge.
 - (v) Before stepping over or crossing tracks, look in both directions first.
 - (vi) Do not sit on, lie under, or cross between cars except as required in the performance of your duties and only when track and equipment have been protected against movement.
- E. All employees must comply with all federal and state regulations concerning workplace safety.