

HORSESHOE DESIGN-BUILD PROJECT



Pre-QS Workshop

Kelly Selman, P.E.

TxDOT, Dallas Deputy District Engineer

January, 9, 2012

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Project Location

Loc
In t



Houston Street Viaduct's Location in Mixmaster Interchange

IH 30

IH 35E

Houston Street Viaduct

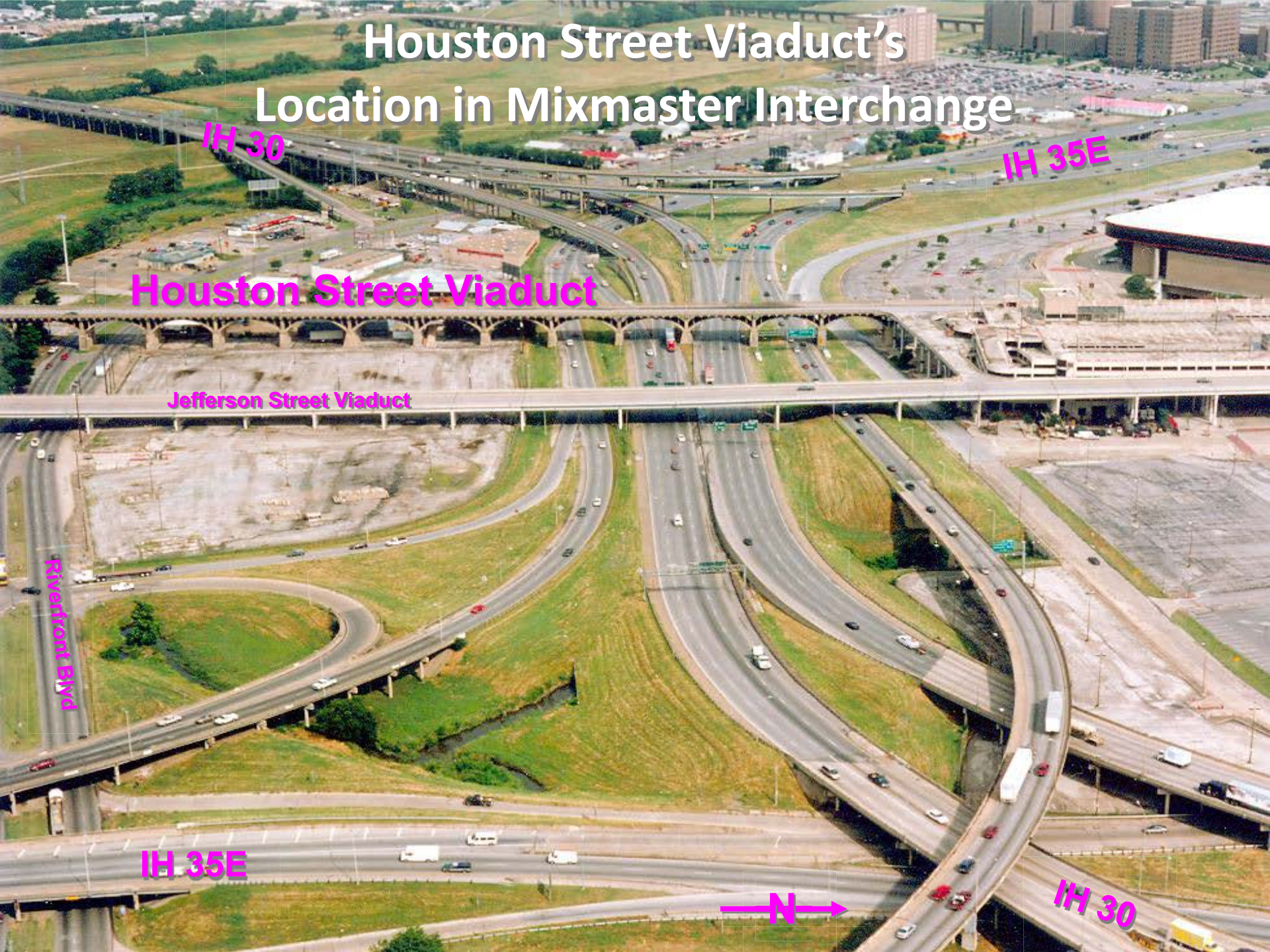
Jefferson Street Viaduct

Riverfront Blvd

IH 35E



IH 30



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Purpose and Need

Increasing maintenance tried costs 460,000 vehicles

Nation's 10 worst commuting trouble spots

Here are the worst commuting "choke points" in the USA, according to the American Automobile Association:

► **Dallas.** Interstate 35 at Interstate 30. Known as the "Mix Master" by local motorists, these two highways merge and struggle to carry more than 200,000 vehicles a day from downtown through the steep hills of "The Canyon."

► **Houston.** U.S. 59 at the 610 loop. Only one lane exits on U.S. 59 to the 610 loop, causing delays in

section has a traffic volume of 169,979 vehicles a day, and delays are estimated at 7.4 million hours per year.

► **New Orleans.** Interstates 10 and 610, eastbound. Traffic routinely backs up at this interchange every morning. Although it has recently undergone construction to ease the problem, a bottleneck still

terstate 90 interchange. This area has an average daily volume for both directions of 260,000 vehicles, with an average accident rate of 5.6 accidents per 1 million vehicles. However, this section typically operates below capacity for 10 hours per day. There is lots of weaving and merging through the collector-distributor lanes.

Washington, D.C., area. field, Va., Interstates 495 and 95. "The Mixing Bowl" is the major interstates of the metro area converge, resulting volume of 400,000 vehicles and 179 reported crashes a two-year period. The interchange is undergoing construction is expected to last eight months and is the second-largest project in the USA.

Source: American Automobile Association

Milk truck falls from ramp, spilling 5,000 gallons



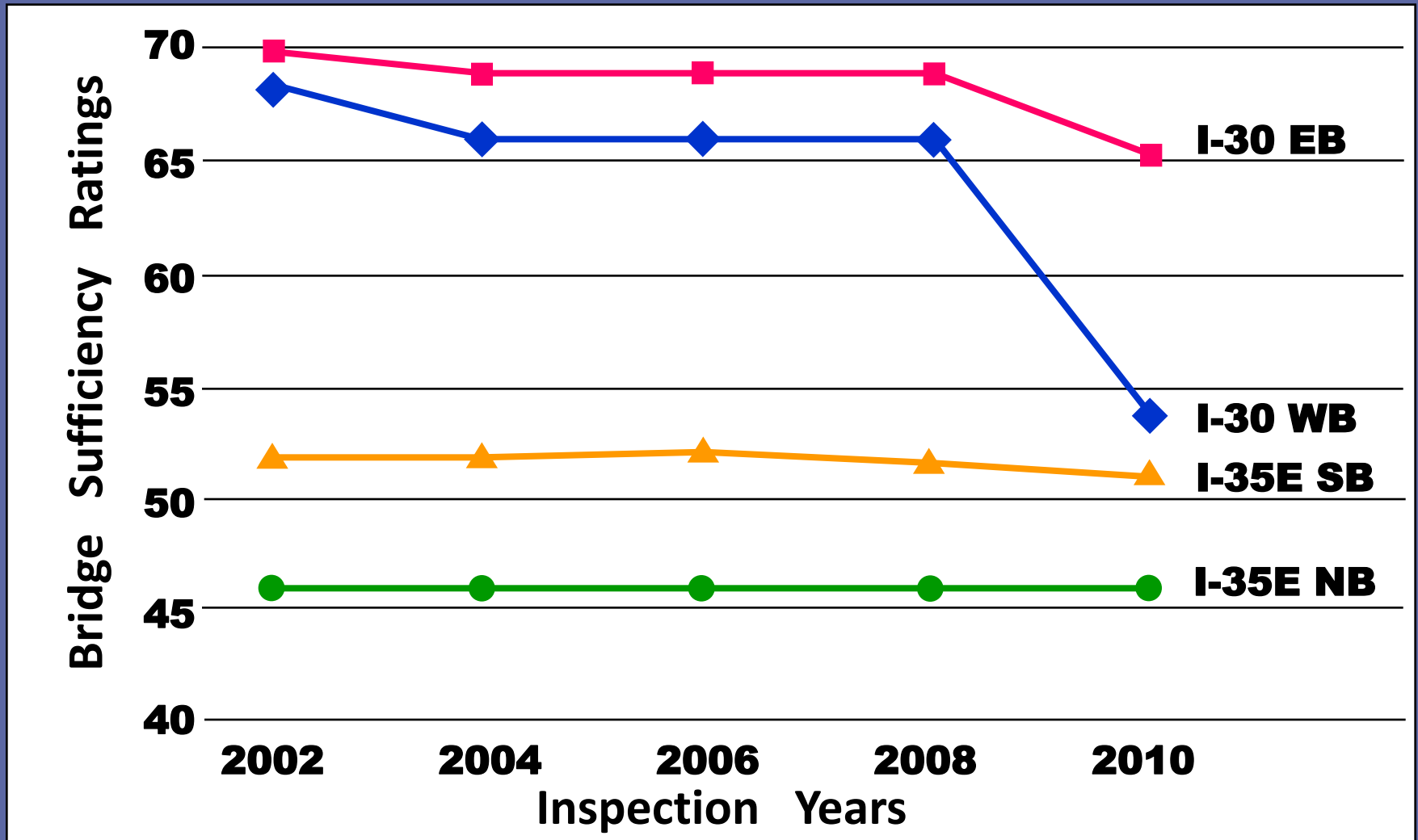
downtown traffic



The Dallas Morning News: Erich Schlegel

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Purpose and Need



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Horseshoe Project Management



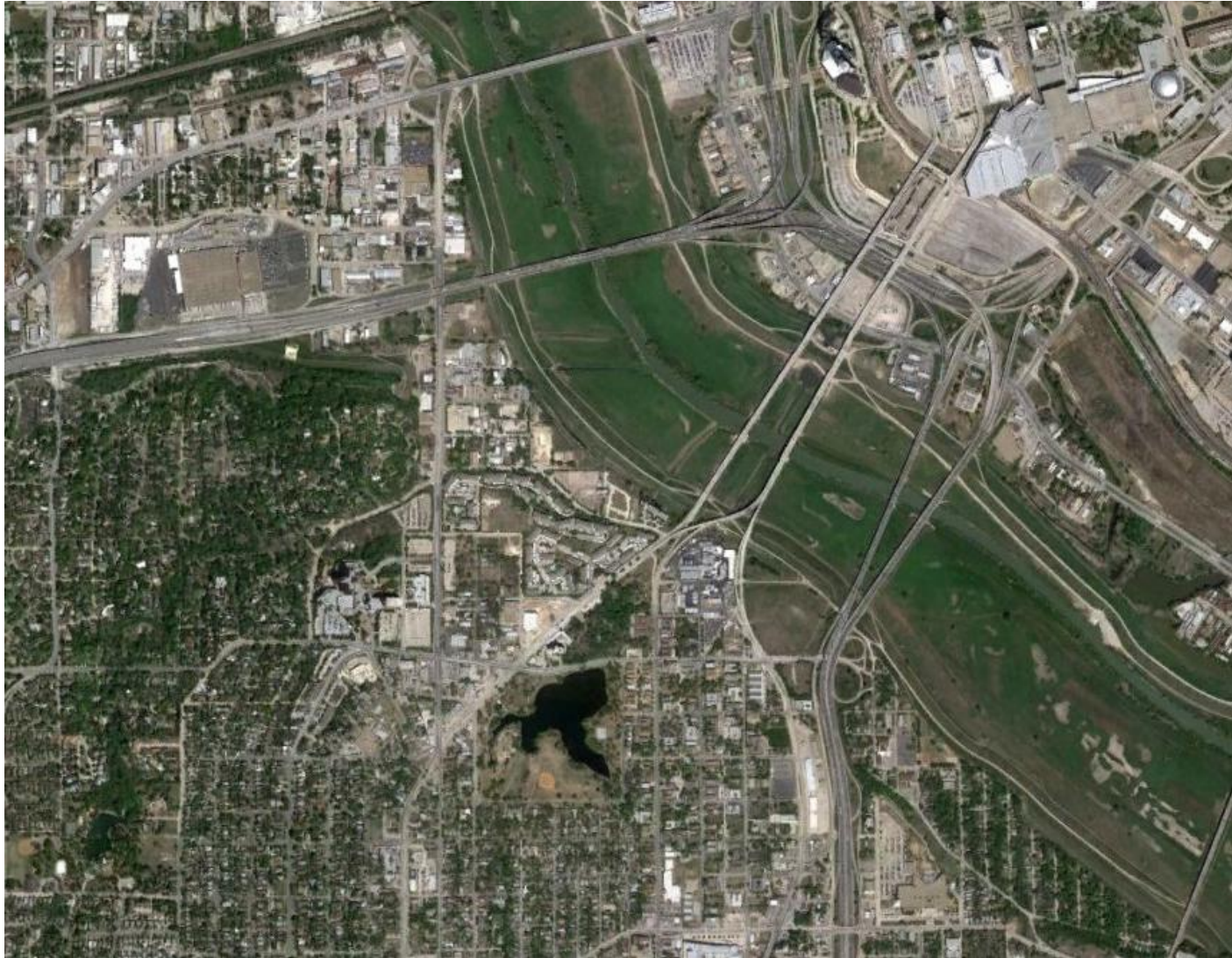
Duane Milligan, P.E.

Horseshoe Project Engineer

TxDOT Dallas District

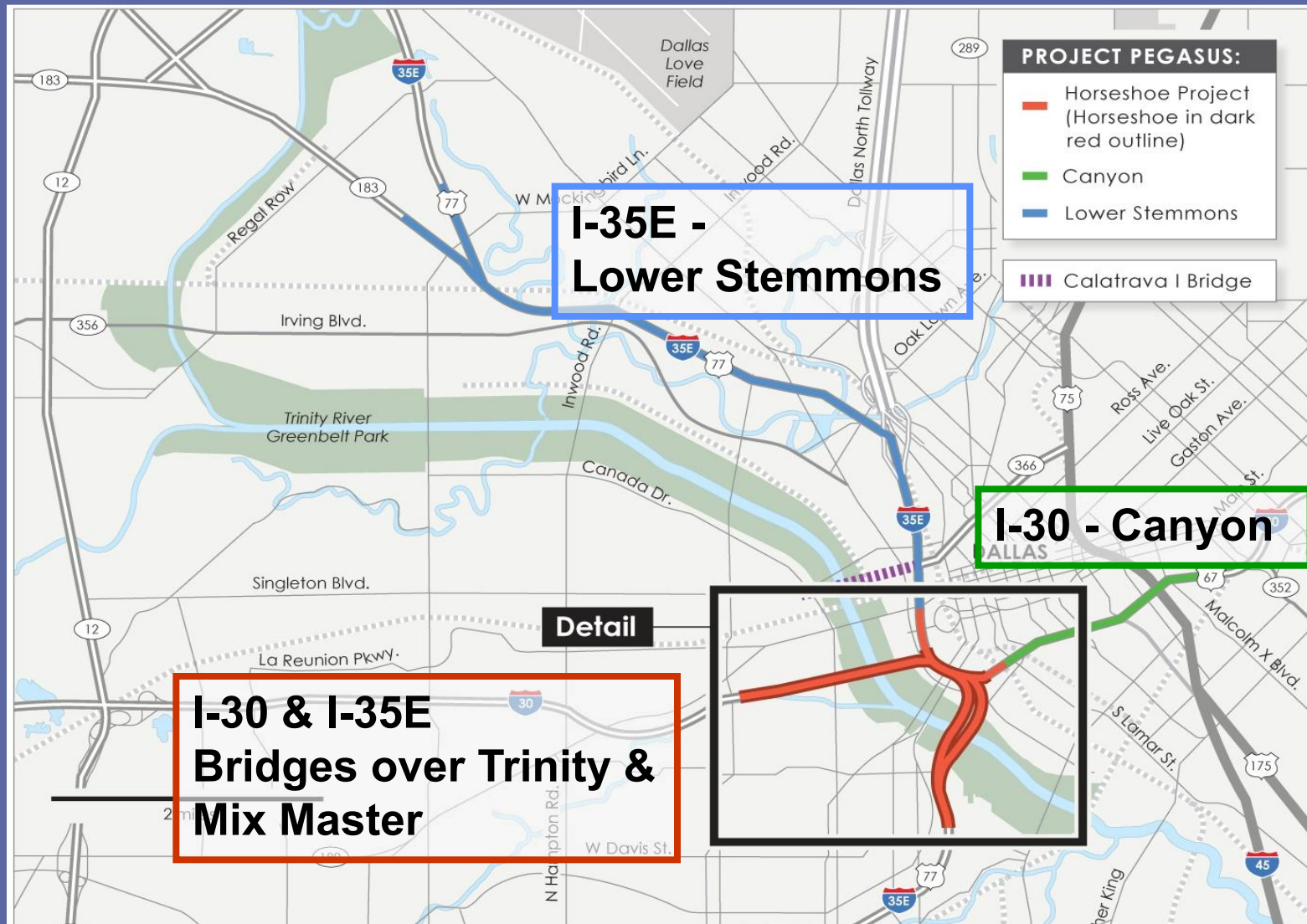
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Proposed Project



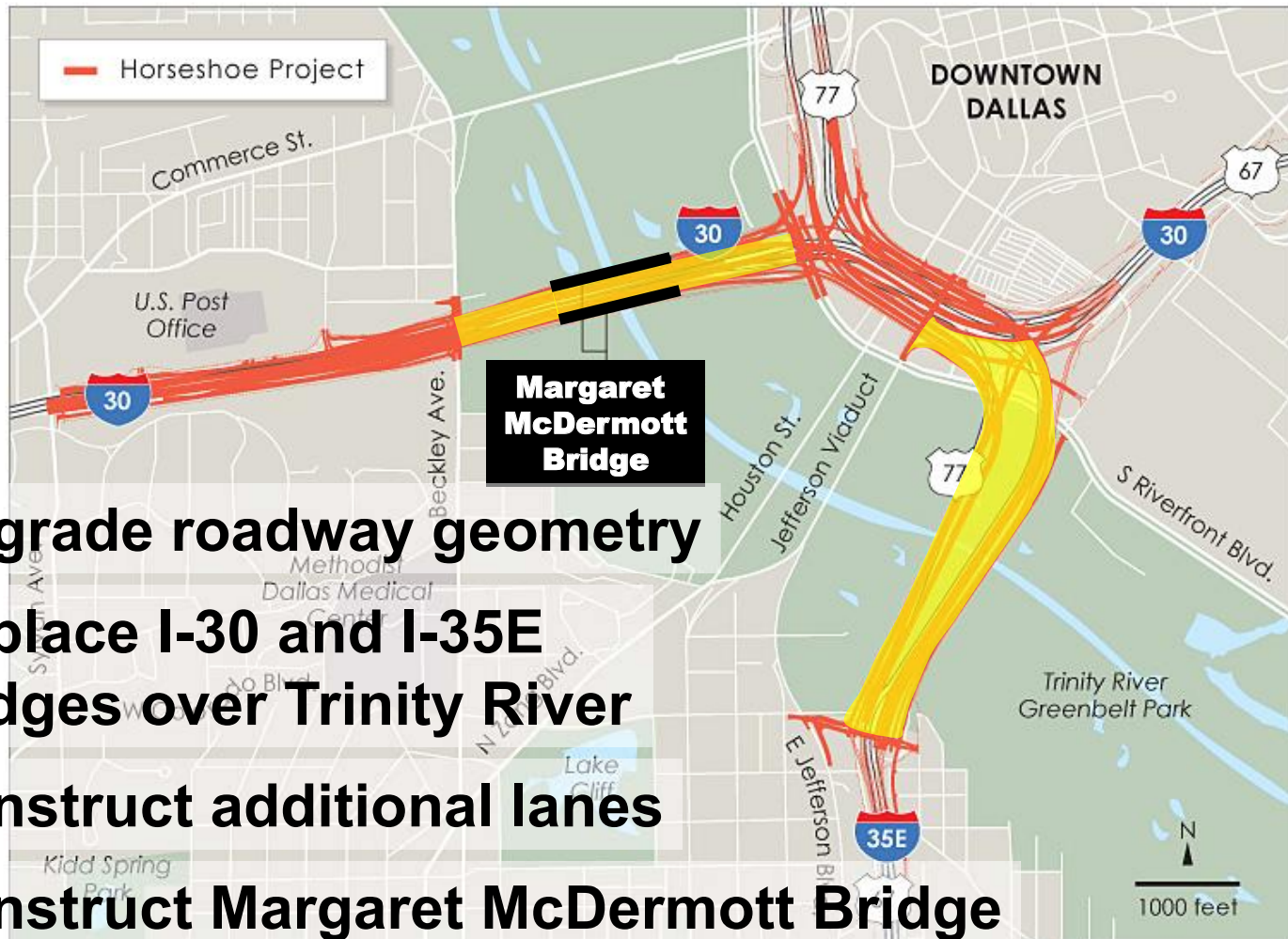
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Proposed Project



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Proposed Project



Upgrade roadway geometry

**Replace I-30 and I-35E
bridges over Trinity River**

Construct additional lanes

Construct Margaret McDermott Bridge

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Approved Funding

Cost Estimate

Construction	\$620
Margaret McDermott Bridge	\$80
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SUB-TOTAL	\$700
Design, Testing & Construction Mgmt.	\$56
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SUB-TOTAL	\$756
R.O.W. & Utilities	\$62
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TOTAL	\$818

Dedicated Funding Sources

Federal Allocation	\$181.4
Prop-12 Major Bridges	\$400.5
SH 121 RTR	\$72
Remainder Prop-12 V1 (MO 112473)	\$10
Remainder Prop-14 (MO 111680)	\$13.3
Dallas District's Prop-12 V2	\$53.7
NCTCOG Prop-12 V2	\$87.1
<hr/>	
TOTAL	\$818

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Work Complete / Underway

Commission approved funding

Commission approved “Design-Build”

Margaret McDermott bridge: 50% design complete

I-30: 30% design complete

I-35E: 30% design underway

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Next Steps

Draft RFP – March / April 2012

Entire Project: 30% design – April 2012

**Margaret McDermott bridge: 90% design –
~~June~~ April 2012**

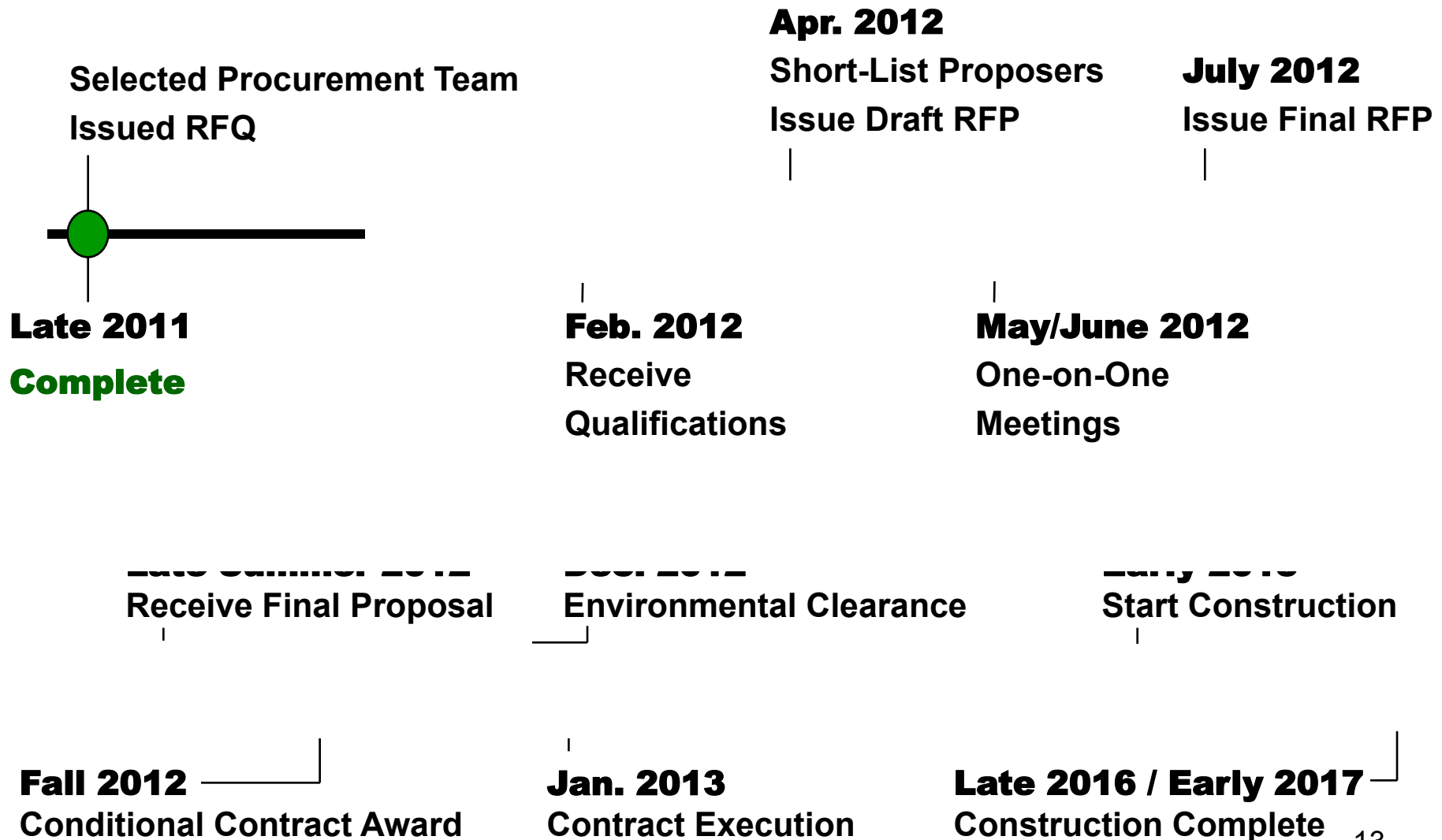
Issue RFP – July 2012

USACE 408 Permit – Fall 2012

Environmental Clearance – December 2012

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Next Steps: Preliminary Timeline



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Margaret McDermott Bridges



**Margaret McDermott Bridges on the I-30 EB
and WB frontage roads**

**Designed and engineered to 100% by Santiago
Calatrava LLC**

Under contract with the City of Dallas

Built by the Design-Build Contractor

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Margaret McDermott Bridge Design



**Charlie Quade, P.E.
Huitt – Zollars Inc.**

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I-30 Frontage Road Bridges



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I-30 Frontage Road Bridges

This presentation provides a summary of the “Signature” aspect of the bridge and includes reference projects to indicate the level of workmanship and quality required for the Frontage Road Bridges

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I-30 Frontage Road Bridges

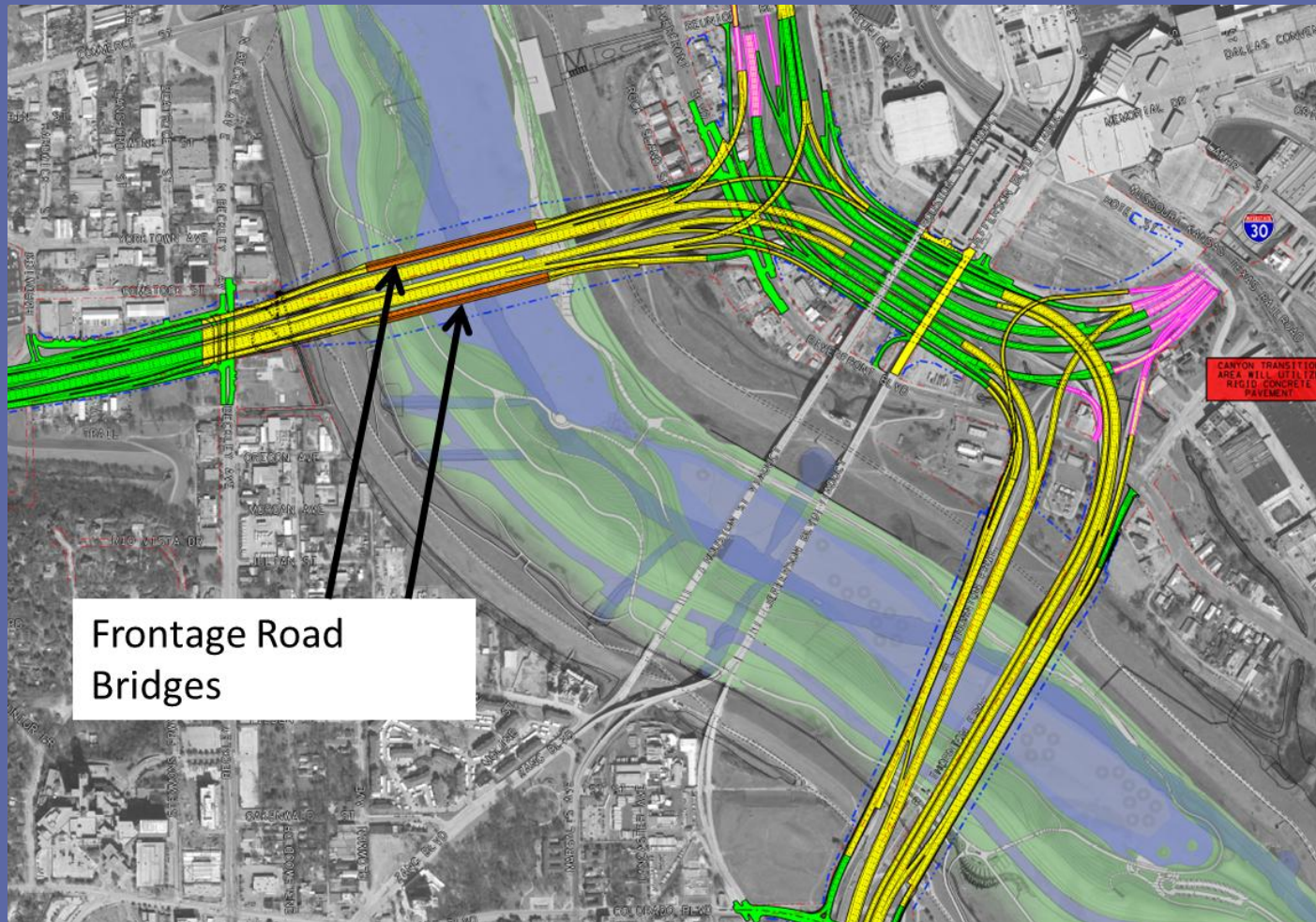


■ Santiago Calatrava, LLC Company Profile

- Established 1981
- Principal Santiago Calatrava, Architect and Engineer
- Offices: Zurich, New York, Valencia
- 100 employees worldwide
- Worldwide experience in many forms of construction
- Excellence in bridge design
- Proven experience in delivering large scale projects
- Specific experience in Dallas

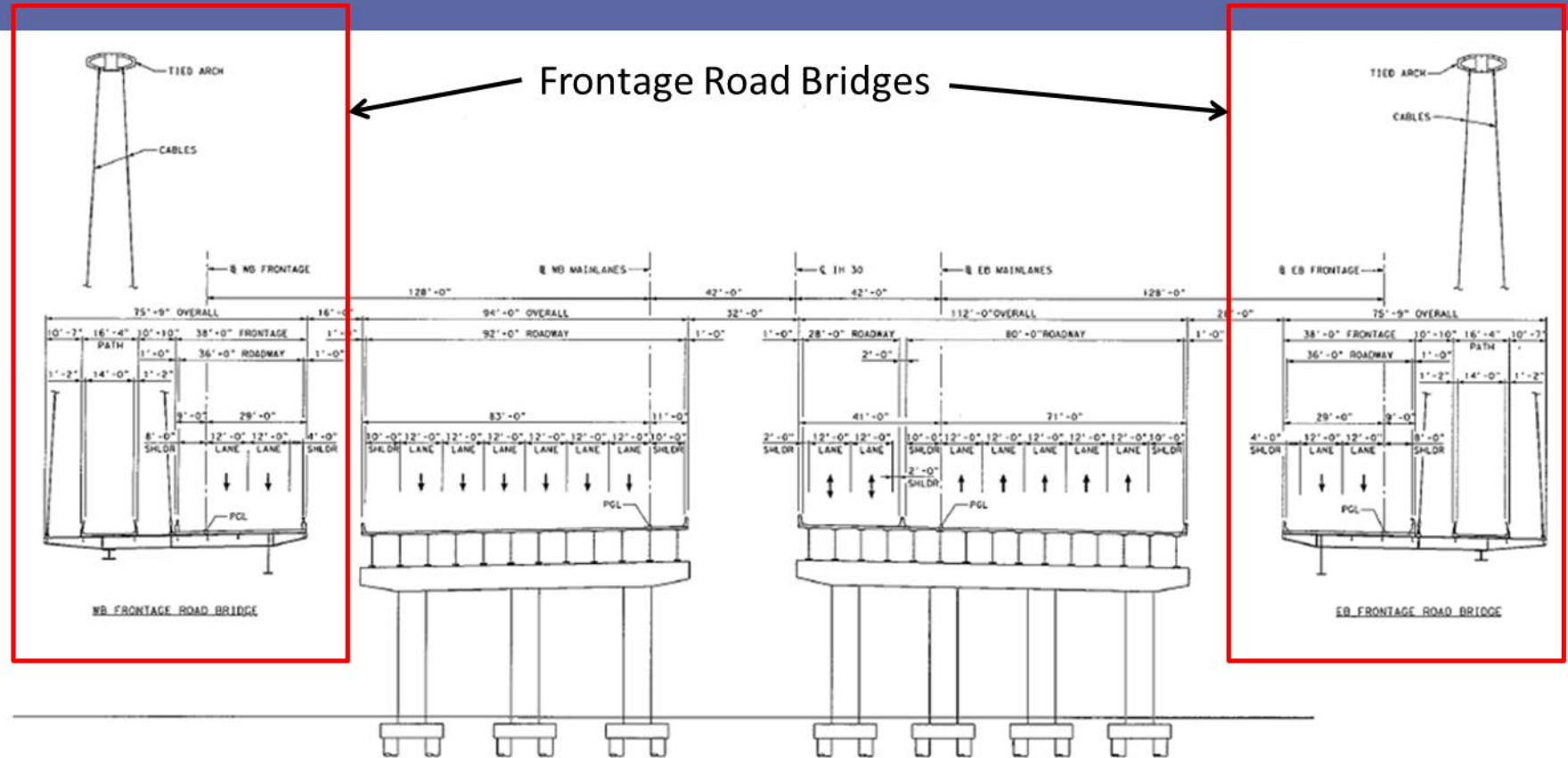
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I-30 Frontage Road Bridges



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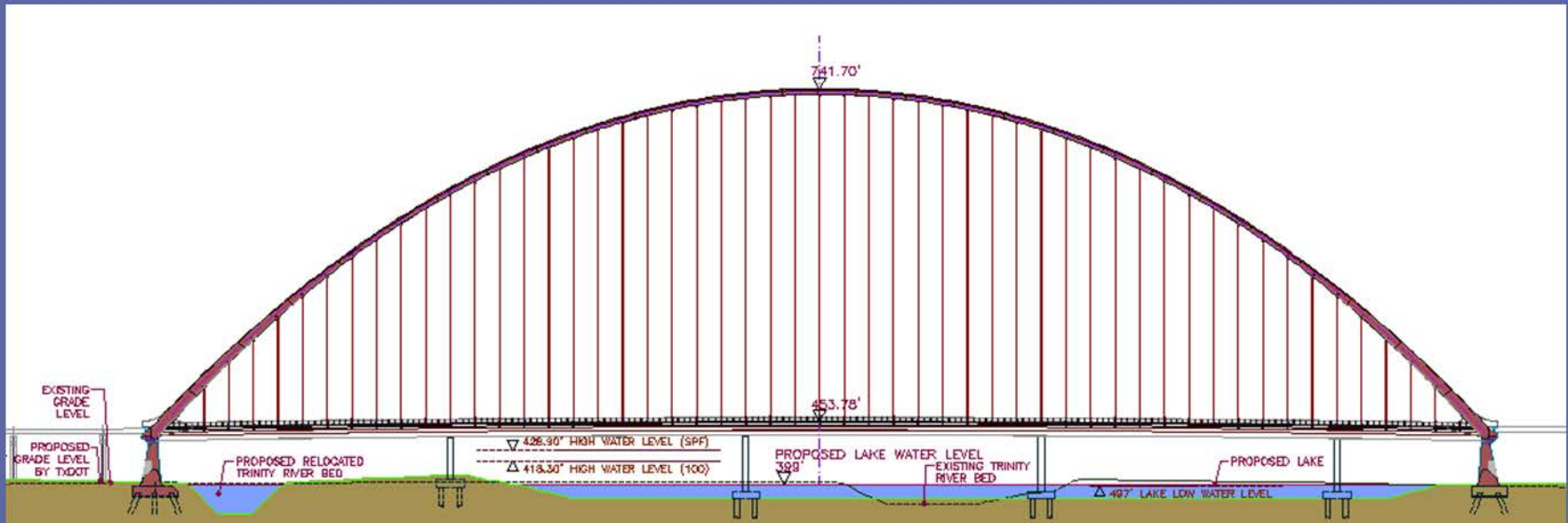
I-30 Frontage Road Bridges



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I-30 Frontage Road Bridges

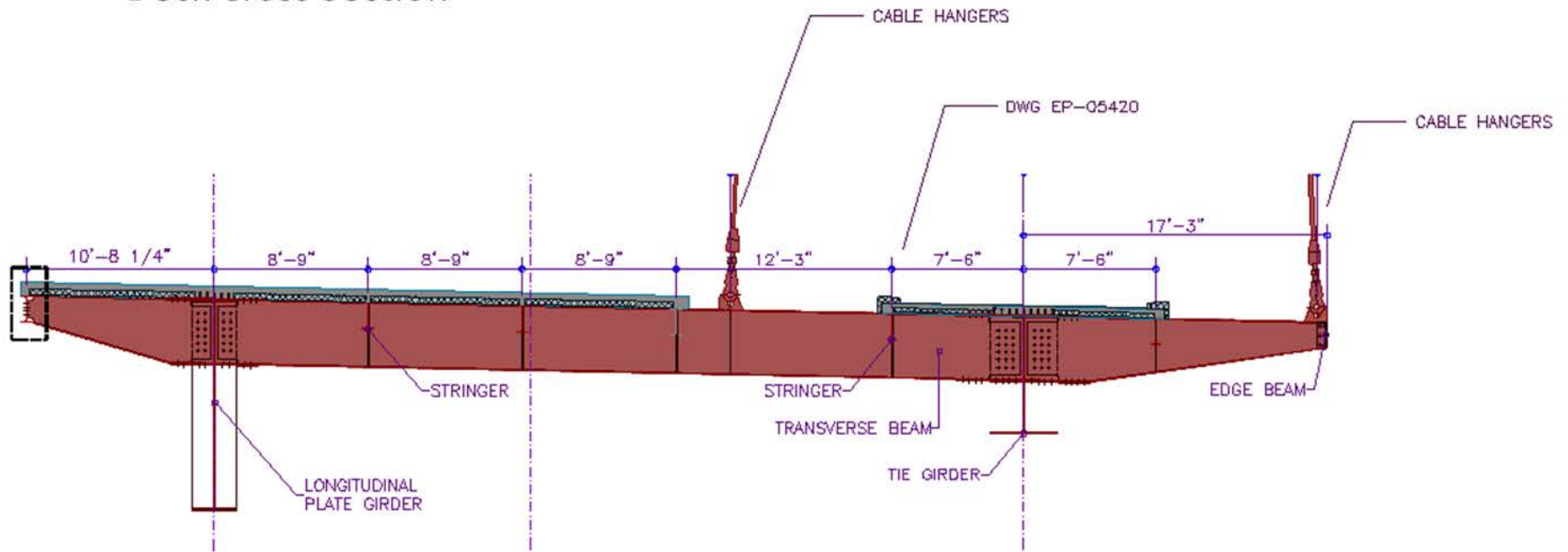
Bridge Elevation



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I-30 Frontage Road Bridges

Deck Cross Section

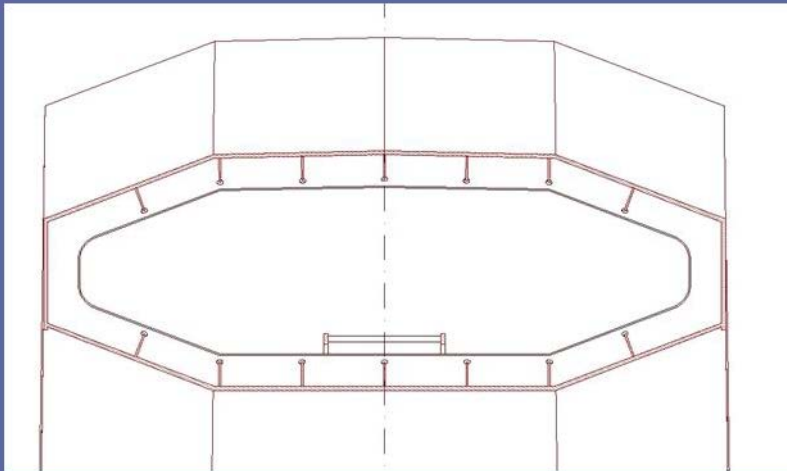


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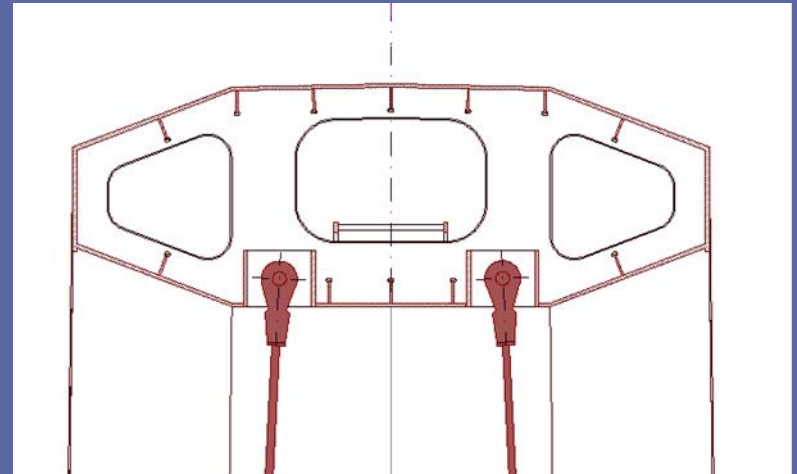
I-30 Frontage Road Bridges



Arch Cross Section



Between Cables



At Cable Anchorage

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I-30 Frontage Road Bridges

Possible Arch Construction



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QUALITY - Welding



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I-30 Frontage Road Bridges



QUALITY - Steelwork Finishing



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I-30 Frontage Road Bridges

QUALITY - Concrete Works



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Reference Projects



Reggio Emilia - Italy



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Reference Projects



Reggio Emilia - Italy



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Reference Projects



Light Rail Train Bridge - Jerusalem



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Reference Projects



Light Rail Train Bridge - Jerusalem



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Reference Projects



Margaret Hunt Hill Bridge - Dallas



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Reference Projects



Margaret Hunt Hill Bridge - Dallas



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Reference Projects



Samuel Beckett Bridge - Dublin



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Reference Projects



Samuel Beckett Bridge - Dublin



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Reference Projects



Bridges over the Hoofdvaart – The Netherlands



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Reference Projects



Bridges over the Hoofdvaart – The Netherlands



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Horseshoe Project Management



Ceason Clemens, P.E.

Horseshoe Deputy Project Engineer

TxDOT Dallas District

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Project Challenges

Maintaining traffic under construction

Construction of Margaret McDermott bridge

Reconstruction of 2 major freeway interchanges

Crossing of Trinity River Levees

Accommodating future Trinity Lakes Project

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QS Evaluation

Project Qualifications and Experience (65%)

Statement of Technical Approach (35%)

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QS Evaluation



Project Qualifications and Experience (65%)

- Experience with developing, designing and constructing comparable projects (20 points)
- Experience of the management team and Key Personnel for the project (16 points)
- Success of the Proposer and individual team members, management team and key personnel in working together on comparable projects and responsibilities (8 points)
- Stability, strength and likelihood of success of the proposed management structure and team (8 points)
- Experience with performing capital maintenance on comparable projects (8 points)
- Responsiveness toward the DBE involvement, objectives and goals (5 points)

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QS Evaluation



Statement of Technical Approach (35%)

- **Demonstrate a full understanding of the Project's scope and complexity (20 points)**
- **Demonstrate a complete understanding of Project risks and potential solutions that may arise during all Project phases, including design, construction, and capital maintenance (10 points)**
- **The general approach to public involvement recognizing unique characteristics of this Project and its impacts on the community (5 points)**

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Procurement Schedule



RFQ Issued	December 9, 2011
Qualification Statements Due	February 22, 2012
Short-list Announced	March 30, 2012
Release Draft Request For Proposals	March 30, 2012
30% Plans Complete	April, 2012
90% Signature Bridge Plans	April, 2012
Industry Review One-on-One Meetings	May & June, 2012
100% Signature Bridge Plans	June 30, 2012
Issue Final RFP	July, 2012
Proposals Due	September, 2012
Conditional Award	October, 2012
USACE Permit	Fall, 2012
Environmental Clearance	December, 2012
Contract Execution	January 2, 2013

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Delivering QS Submittals



Proposers are responsible for ensuring QS submittals are delivered by hand or courier on Wednesday, February 22, 2012 by 3:00 p.m. to:

**Attn: Kelly Selman
TxDOT, Dallas District
4777 East Highway 80
Mesquite, TX 75150**

Any QSs received after the above date and time will be rejected and returned to the sending party unopened.

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Responsibilities

Proposers are responsible for monitoring the Project Website for information concerning this procurement.

Proposers are advised that responses to questions posed at this workshop are considered to be on an informational basis and are not binding on TxDOT. The process for official questions and answers remains as given in the RFQ via e-mail to horseshoe@txdot.gov.

TxDOT will post responses to those questions of general application and requests for clarifications which TxDOT deems to be material and not adequately addressed in previously provided documents on the Project Website.

TxDOT will post any addenda to this RFQ on the Project Website.

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Horseshoe Project Manager



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Email: horseshoe@txdot.gov

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Questions

