N21 VCH rcvd 11/21/14
D2 12/18/14
D33

Texas Department of Transportation®
DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

November 21, 2014

SECTION 106 – DETERMINATION OF EFFECTS:
Preliminary Design -- North Approach Spans, Continental Avenue Viaduct

Dallas County: CSJs # 0918-45-121
Trinity Parkway

Ms. Linda Henderson
History Division
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711

Dear Ms. Henderson:

In accordance with 36 CFR 800 and the Programmatic Agreement (PA) between the Texas Department of Transportation (TxDOT), the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation, and the Texas Historical Commission (THC), this letter *resumes* Section 106 consultation for the above referenced project. We hereby present for your review a preliminary design for the north approach spans of the historic Continental Avenue Viaduct. These spans are scheduled to be replaced as part of Alternative 3C, which is identified as the recommended alternative in the approved Final Environmental Impact Statement for the proposed Trinity Parkway. *To reaffirm our statement in previous correspondence, the design of Continental Avenue Viaduct's north approach spans as part of Alternative 3C remains as the only outstanding effects issue in the Trinity Parkway Project pertaining to historic resources.*

Continental Avenue Viaduct -- Previous THC/TxDOT correspondence:

In its July 12, 2011 correspondence addressed to THC, TxDOT determined that floodway Alternative 3C would have an **adverse effect** on the Continental Avenue Viaduct due to the removal of its north approach spans required to incorporate parkway connector ramps. Since replacement of the north approach spans would only be necessary if 3C were to be recommended as the preferred alternative, TxDOT deferred development of mitigation plans for this adverse effect until an alternative recommendation was made during the Final Environmental Impact Statement phase of the project.

TxDOT stated in its July 12, 2011 correspondence that if alternative 3C was recommended it would consult with THC regarding the design of the new approach spans and their compatibility with the existing historic structure. On July 21, 2011, THC concurred with TxDOT's **adverse effect**

determination and the continued consultation process pending recommendation of Alternative 3C. Since that time, Continental Avenue Viaduct has been converted by the City of Dallas into a pedestrian structure (see attached photos).

Alternative 3C -- Required Removal of North Approach Spans, Continental Avenue Viaduct:

As stated in previous correspondence, Alternative 3C will remove approximately 195 feet of the north approach spans of the 2,130 ft.-long Continental Avenue Viaduct. These spans constitute 9.2 percent of total structure length. The removal is necessary to insert code-compliant, at-grade connector ramps extending from Woodall Rogers Freeway to the Trinity Parkway. This design option was developed to reduce safety concerns, minimize displacements, and provide a balanced approach to the competing needs of multiple transportation and utility projects along the Dallas Floodway without design exceptions.

North Approach Spans -- Preliminary Design:

The attached preliminary design for the approach span replacement is composed of two arched segments atop the existing East Levee and three pre-stressed flat girder unit spans extending beyond the land side of the levee. Both the arched and pre-stressed girder spans would be constructed in concrete to reflect the material of the historic viaduct. Due to their visibility from the floodway, the two spans atop the levee are proposed as arched structures to better blend with the rest of the historic viaduct. The proposed C411open rail, while not identical to the historic rail, would still blend compatibly with the rest of the viaduct.

The three pre-stressed girder spans would not be viewed from the floodway, as the levee acts as an obstacle deterring a visual linkage with the floodway portion of the structure. A narrow girder span stands atop the land side slope of the levee, while the remaining two spans are wider to allow for the at-grade connector ramps and a levee operations and maintenance road (see attached bridge layout plan). The proposed T401 rail for these spans would reflect the contemporary appearance of this new segment of the viaduct.

We note the possibility of preserving a historic arch span on the floodway side of the levee. Such an option, however, would not be viable unless the US Army Corps of Engineers (USACE) determines that the proposed diaphragm wall within the river side of the levee is not required (see attached bridge layout elevation sheet). If FHWA selects Alternative 3C in the upcoming Record of Decision (ROD) for Trinity Parkway, the diaphragm wall issue will not be resolved until the final project design phase leading up to the anticipated Section 408 construction approval from the USACE. Given this lengthy time frame and our current request for your comment on the attached preliminary design, preservation of the historic arched span cannot be presented to your agency as a viable option at this time.

Determination of Effects to Continental Avenue Viaduct:

While the proposed Alternative 3C constitutes an **adverse effect** to the Continental Avenue Viaduct, the main lengthier portion of the historic bridge traversing the floodway between the levees will remain intact as a visual unit that will still be able to convey its historic and engineering significance. On the other hand, the north approach spans have historically remained as a separate segment of the viaduct from that of the floodway due to the visual obstacle presented by the earthen levee and the awkward, narrow dimensions of its arched spans (see attached photos).

The two replacement arched spans atop the levee along with their C411 rail will stand as visually compatible units with the historic floodway segments of the viaduct. The three concrete girder spans with their T401 rail will stand as a compatible yet distinct unit within the viaduct denoting their recent construction. The location of these spans on the land side of the levee ensures they will be viewed as a separate, less prominent segment of the viaduct when compared to the floodway portion of the historic structure.

Building the connector ramps *above* the viaduct in order to preserve its historic approaches is not a viable option. As the ramps would have to extend *over* the recently built Margaret Hunt Hill Suspension Bridge to the east, this option is not considered feasible. Insertion of the connector ramps within the narrow arched segments of the historic approach spans is also not a viable option. While a design exception was considered by FHWA, such a measure was deemed unsafe due to the narrow dimensions of the historic arched spans and the required curvature of the new connector ramps. Construction of the connector ramps beneath the north approach spans of the viaduct avoids 24 business displacements and impacts to 36 parcels in a commercial warehouse area that would result from a complete avoidance alternative that was considered in the planning process.

Determination of Effects to the Dallas Floodway:

In a letter dated March 26, 2013, THC concurred with FHWA's determination that the Dallas Floodway was **eligible** to the National Register of Historic Places under Criterion A, Community Planning and Development, at the local level of significance. Trinity Parkway traverses alongside various historic components of the Dallas Floodway, including levees, overbank, main diversion channel, and several culverts and sumps.

In the case of Continental Avenue Viaduct's north approach spans replacement, Trinity Parkway would have an effect on the East Levee, a contributing component of the engineered system comprising the historic Dallas Floodway. Work on the levee would include removal of the two historic viaduct arched segments at its top and removal of the top two feet of their piers. To construct the two segments of the new approach spans atop the levee, new piers would be drilled into the earthen levee. Considering that such work would not impair the visual appearance or the flood control function of the East Levee, the proposed work for the north approach spans replacement would have **no adverse effect** on this or any other **eligible** floodway system components (pump stations, sumps, sluices, outlet gates).

Section 4(f) Applicability:

In accordance with the Supplemental Appropriations Act of 2010 (Public Law No. 111-112), Section 405 (b), FHWA is exempt from the requirements of Section 4(f) of the US Department of Transportation Act of 1966 for any highway project to be constructed "in the vicinity of the Dallas Floodway." FHWA determined on January 12, 2012 that the exemption from the requirements of Section 4(f) established in Public Law No. 111-112 apply to all historic resources within the proposed Trinity Parkway Project's Area of Potential Effect (APE). As one of the historic resources in the project APE, Continental Avenue Viaduct is included in this Section 4(f) exemption, and the removal of its north approach spans does not require completion of a Section 4(f) evaluation.

Conclusion:

Floodway Alternative 3C impacts the north approach spans of the Continental Avenue Viaduct and will have an **adverse effect** upon this historic structure. Future coordination with your Agency regarding a final design for the approach spans will take place following the issuance of the ROD by FHWA. At that time, the compatible, visually acceptable design elements presented in this correspondence and concurred with by your agency will be included in a Memorandum of Agreement (MOA) as mitigation for the removal of the historic approach spans.

TxDOT hereby requests your concurrence that the proposed design treatments for the replacement of the north approach spans illustrated in the attached preliminary design are visually compatible with the historic Continental Avenue Viaduct and that the final design for the approaches should generally reflect such treatments. We request your written concurrence within 30 days of receiving this letter. If you have any questions or comments concerning these issues, please call me at (512) 416-2770.

Sincerely,

Mario L. Sanchez, Ph.D., R.A.
Historical Architect
Environmental Affairs Division

Attachments

TRINITY PARKWAY
(CSJs -- 0918-45-121)
Alternative 3C:

CONCUR:
NO ADVERSE EFFECT TO DALLAS FLOODWAY WITH REPLACEMENT OF CONTINENTAL VIADUCT NORTH APPROACH SPANS

CONCUR:
ADVERSE EFFECT TO CONTINENTAL AVENUE VIADUCT WITH REPLACEMENT OF NORTH APPROACH SPANS

CONCUR:
PRELIMINARY DESIGN -- CONTINENTAL AVENUE VIADUCT NORTH APPROACH SPANS

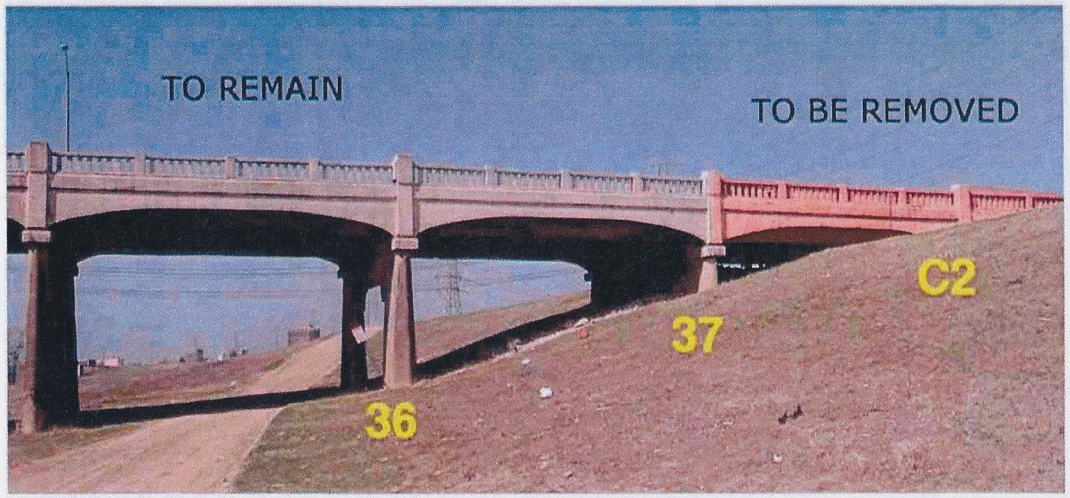
Name: Pria Henderson Date: 18 December 2014
State Historic Preservation Officer

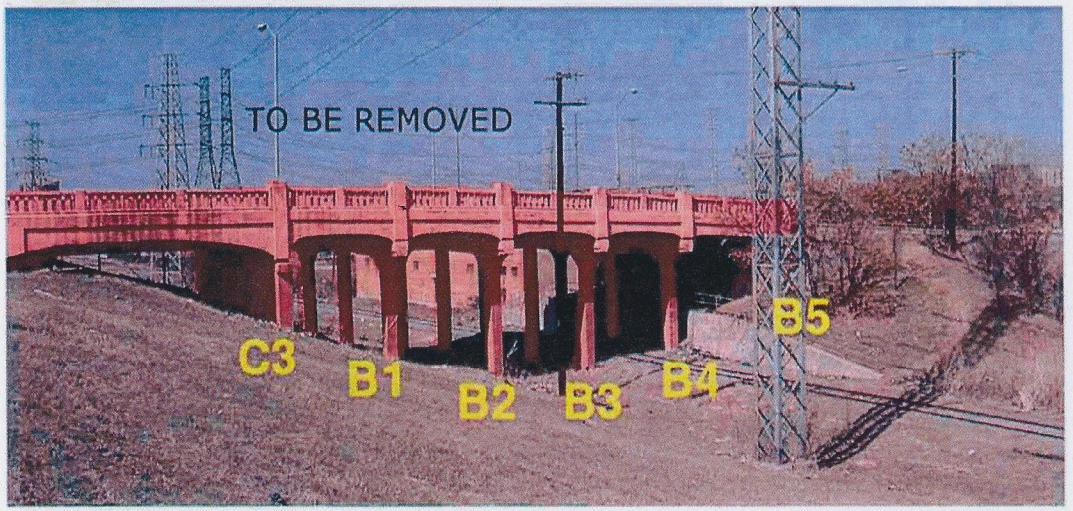
cc. with attachments:
Preservation Dallas, David Preziosi
Dallas CLG, Mark Doty
Dallas Co. Historical Commission, Don Baynham
Historic Bridge Foundation, Kitty Henderson

cc. without attachments:
Halff Associates, Jason Diamond
NTTA, Elizabeth Mow
FHWA, Anita Wilson
USACE, Joseph Murphey
HNTB, Dan Chapman

Table 5.3 Changes (Cont.)

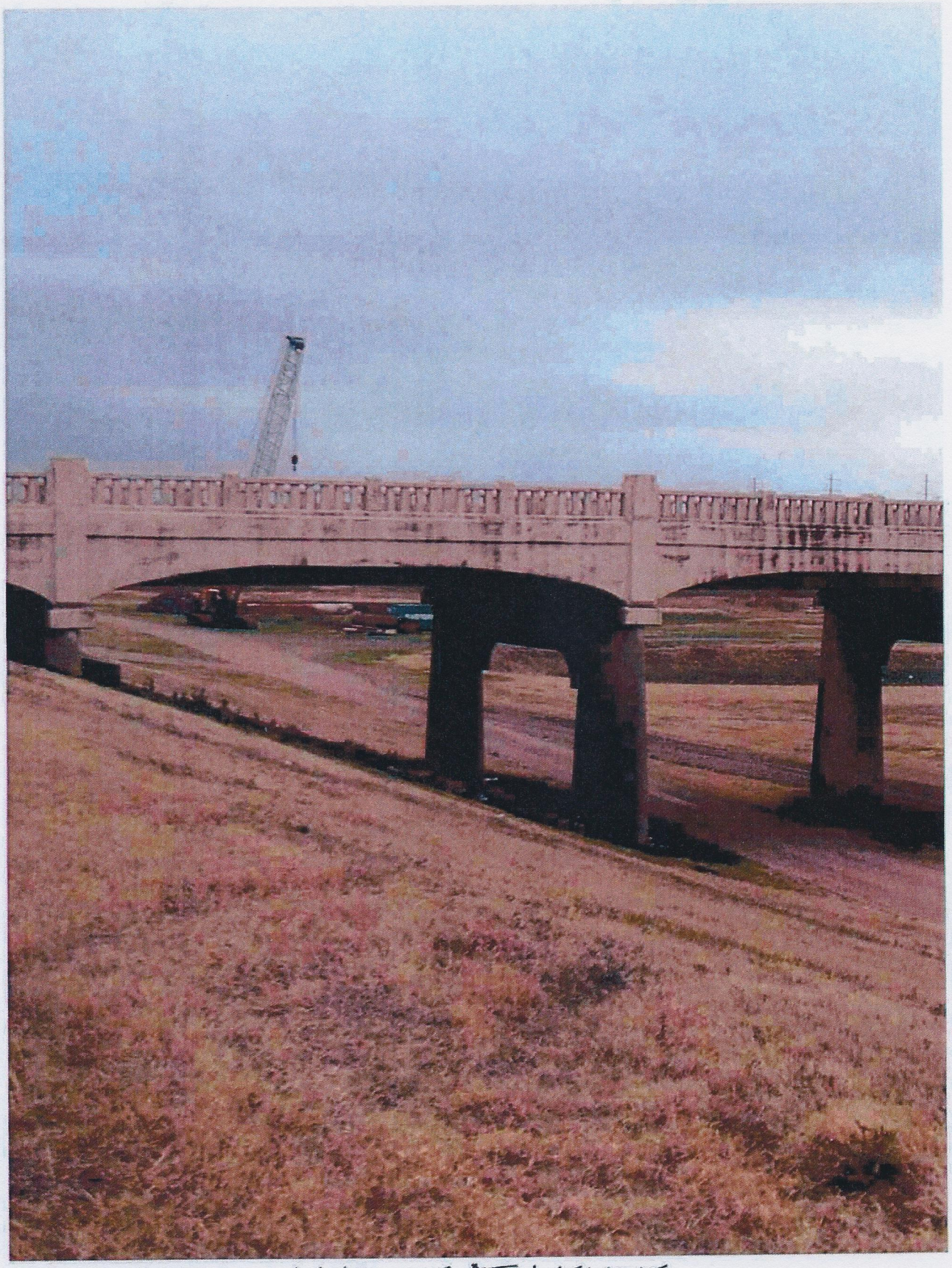
Continental Ave.





CONTINENTAL VIADUCT – FLOODWAY SPANS

CONTINENTAL – NORTH APPROACH SPANS

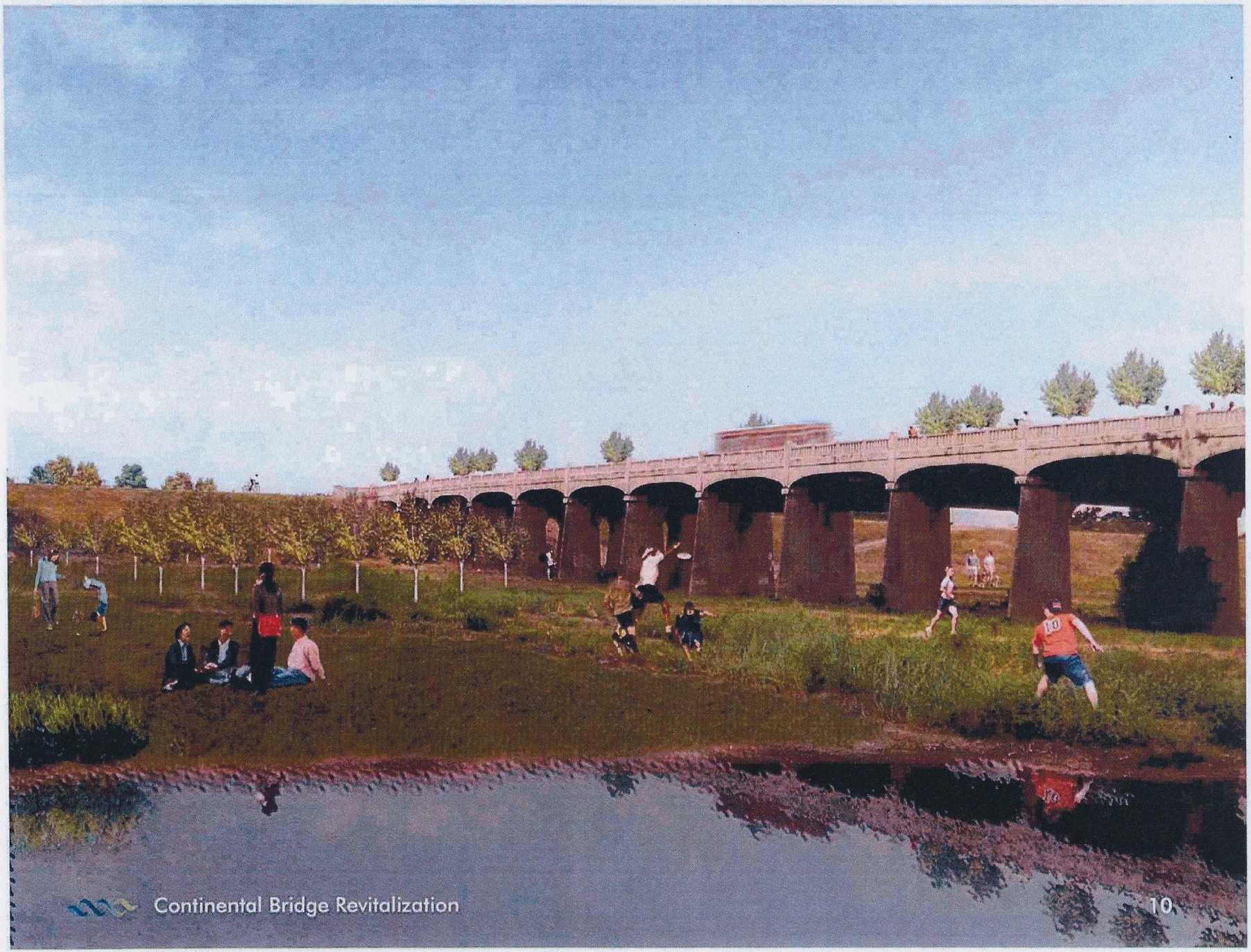


CONTINENTAL VIADUCT AT LEVEE

CONTINENTAL VIADUCT —
REHAB. AS PEDESTRIAN STRUCTURE

Alternative 3C approaching the Continental Bridge

TRINITY PKWY APPROACHING CONTINENTAL VIADUCT



Traffic Railing Type C411

Description
This railing is a 42-inch high continuous concrete railing that has 6-inch wide windows spaced every 18 inches, center to center. Its minimum height after maintenance overlays is 42 inches.

The C411 railing has been evaluated and approved for TL-2 (NCHRP 350) use. It cannot be used for bridge with design speeds over 45 mph.

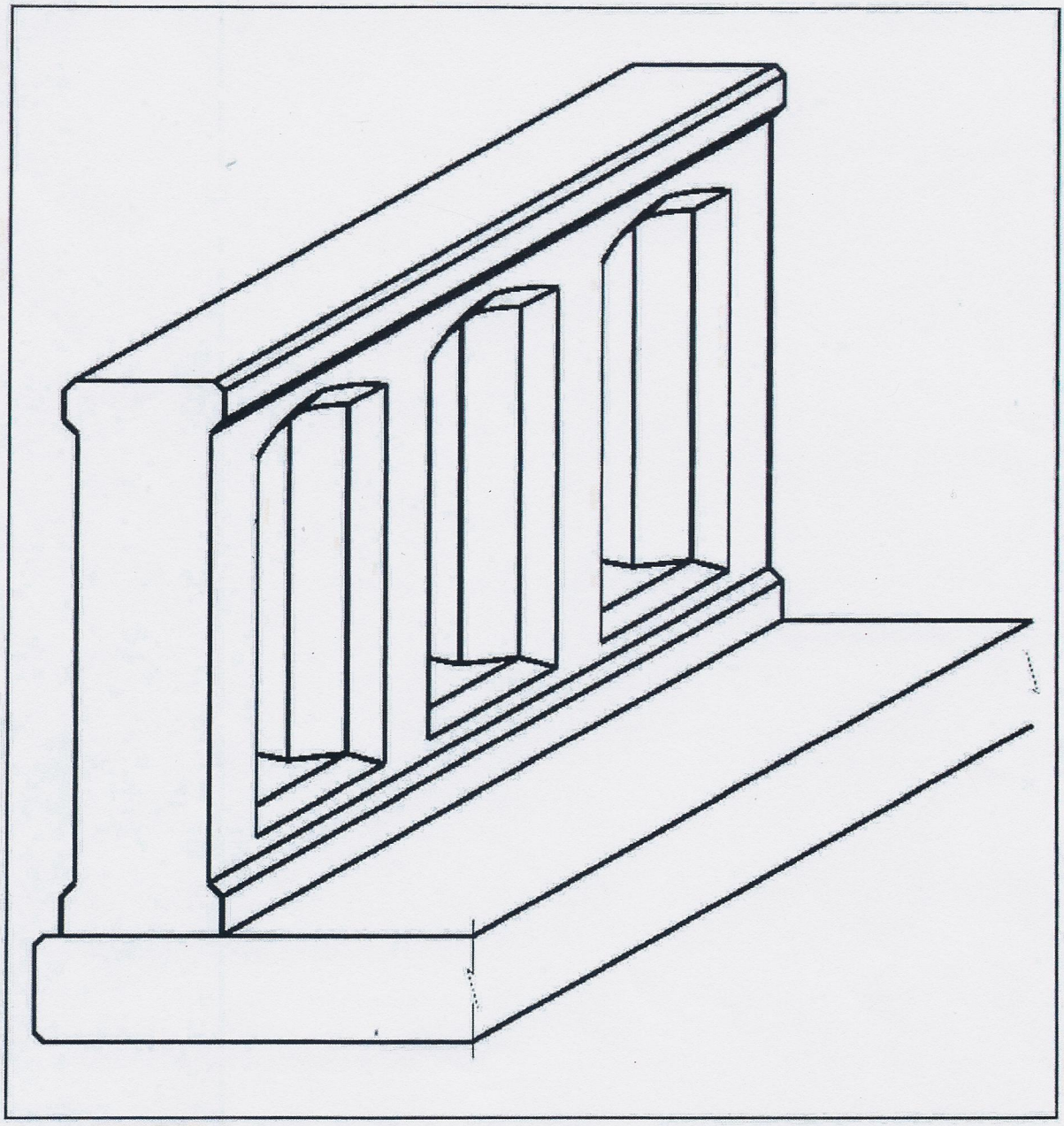


Figure 2-23. Type C411 Rail

Traffic Railing Type T401

Description
This railing is 33-inches high with an 18-inch concrete parapet and a steel ellipse or rectangular HSS 15 inches above the concrete. It has twin steel posts spaced a maximum of 10 ft. apart. It features a bolt anchorage system for the steel rail posts that may be drilled and epoxy-anchored allowing slip-forming of the concrete parapet. Its parapet is thicker than the T4(S) rail, from which its design is derived. Its minimum height after maintenance overlays is 31 inches.

The T401 railing has been evaluated and approved for TL-3 (NCHRP 350) use.

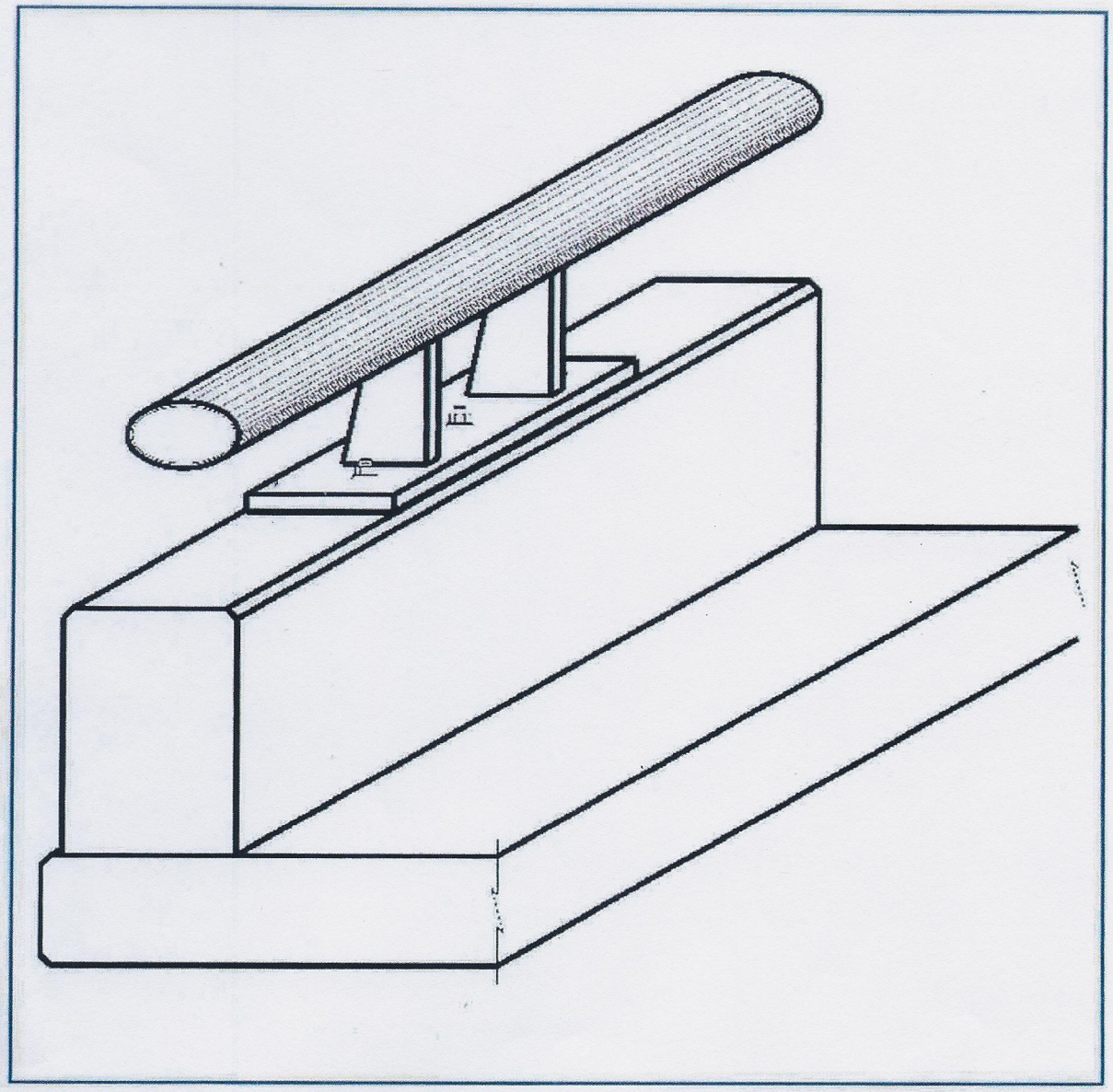
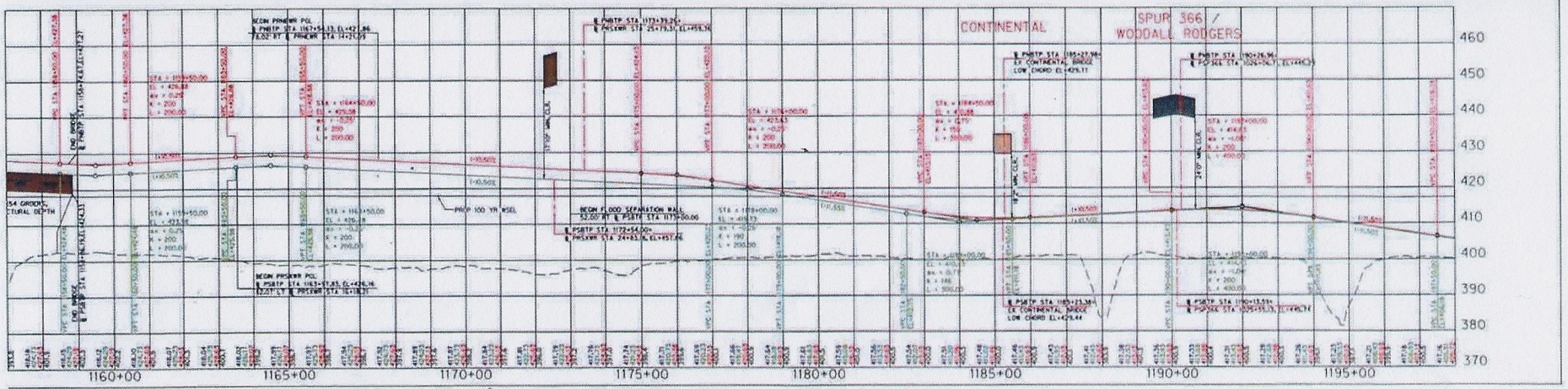
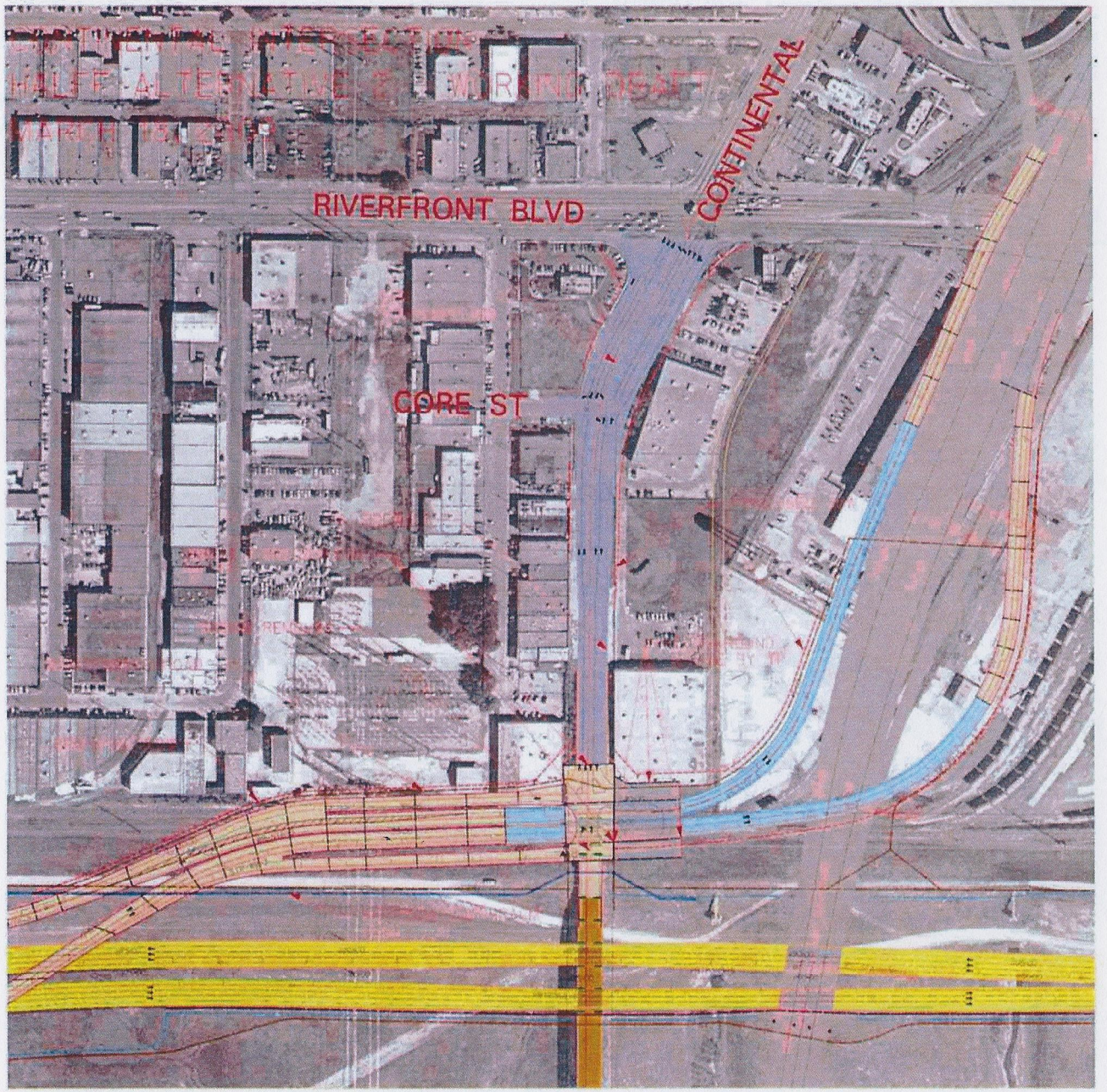


Figure 2-5. Type T401 Rail



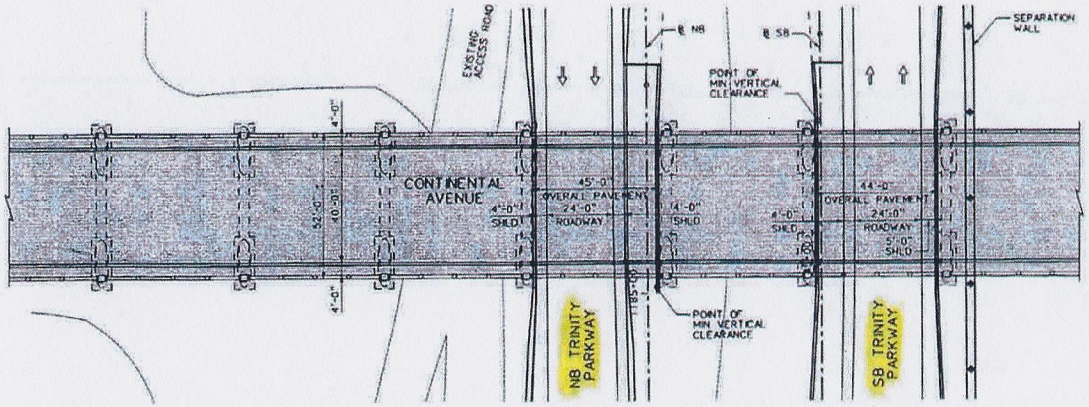
CONTINENTAL (DARK BROWN) NORTH APPROACH SPANS



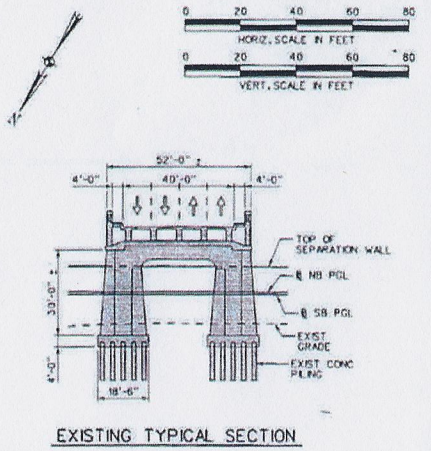
Continental Ave.

NORTH APPROACH SPANS

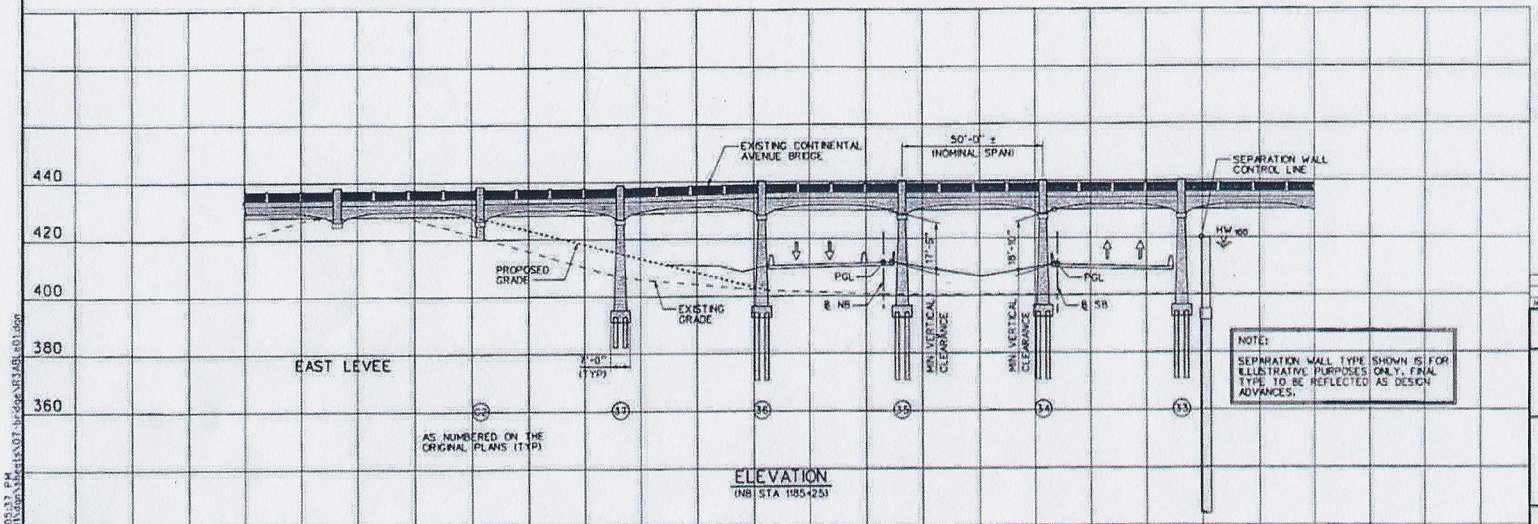
TRINITY PKWY. (YELLOW)



PLAN



EXISTING TYPICAL SECTION



ELEVATION
(NB STA 1185+25)

NOTE:
SEPARATION WALL TYPE SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. FINAL TYPE TO BE REFLECTED AS DESIGN ADVANCES.

NOTE:
CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.

EXISTING BRIDGE INFORMATION SHOWN OBTAINED FROM LAMAR (CONTINENTAL) STREET VIADUCT AS-BUILT DRAWINGS DATED 1929.

DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

CHARLES E. QUADE, P.E.
69196
TEXAS SERIAL NO.
4/21/2009
DATE
HUITT-ZOLLARS, INC.
FIRM REGISTRATION NO. F-761

NO.	DATE	REVISION	APPROV.

TRINITY PARKWAY

NTTA
NORTH TEXAS TOLLWAY AUTHORITY

EXISTING BRIDGE PLAN AND PROFILE CONTINENTAL AVENUE

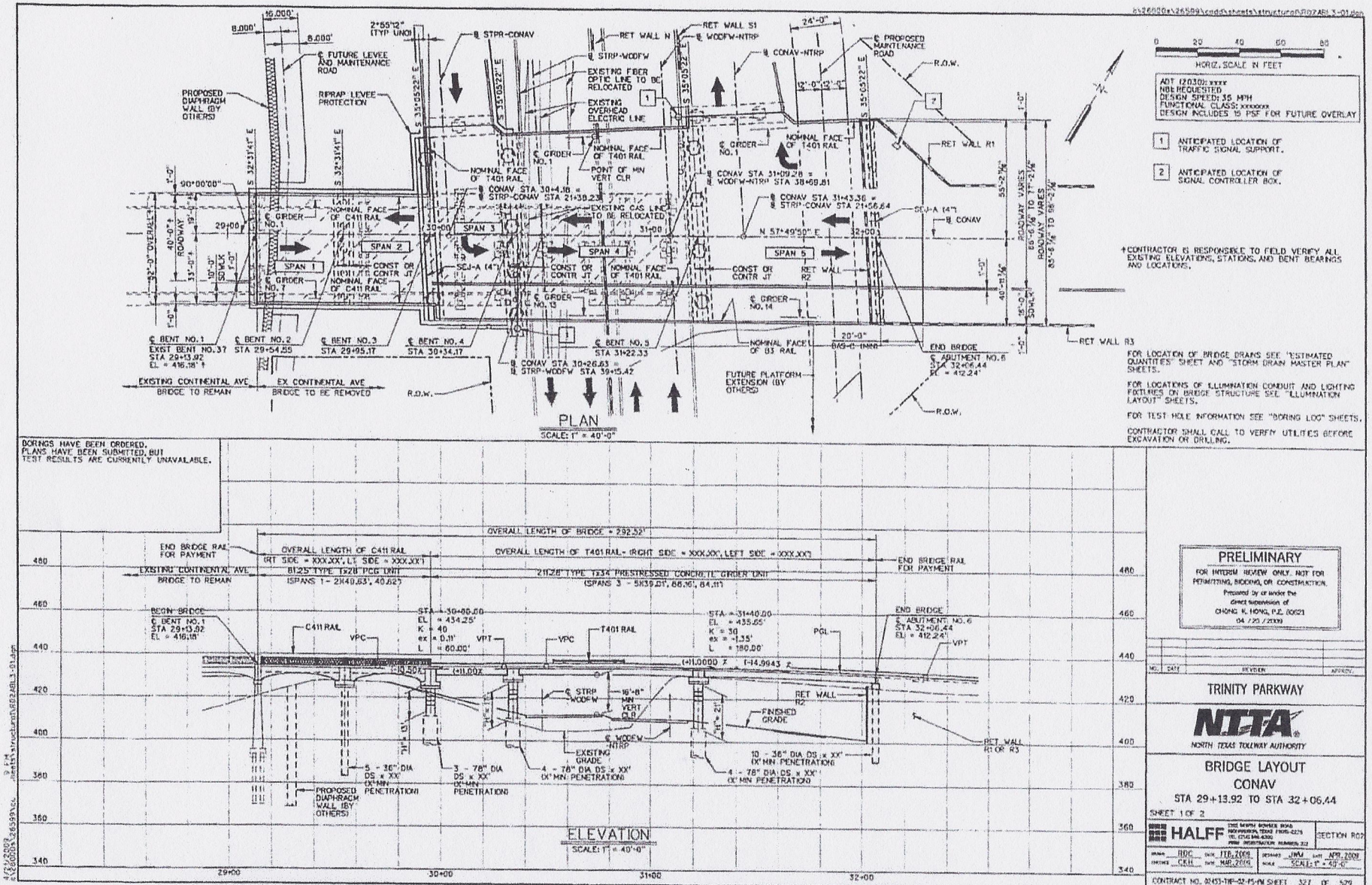
HUITT-ZOLLARS
SECTION R03

DRAWN KKQ DATE
CHECKED CEQ DATE
DESIGNED DATE
SCALE 1"=40' HORIZ., 1"=40' VERT.

CONTRACT NO. 0245A-TRP-03-PS-PM SHEET 346 OF 579

12:05:36 PM

1 OF 2



CONTINENTAL: NORTH APPROACH SPANS

PROPOSED PRELIM. DESIGN

2 OF 2