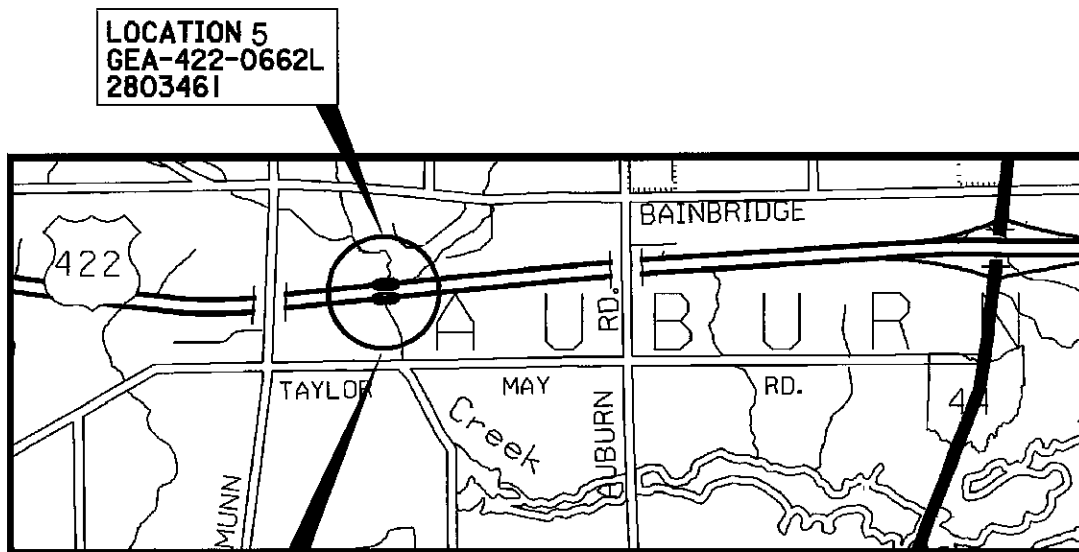
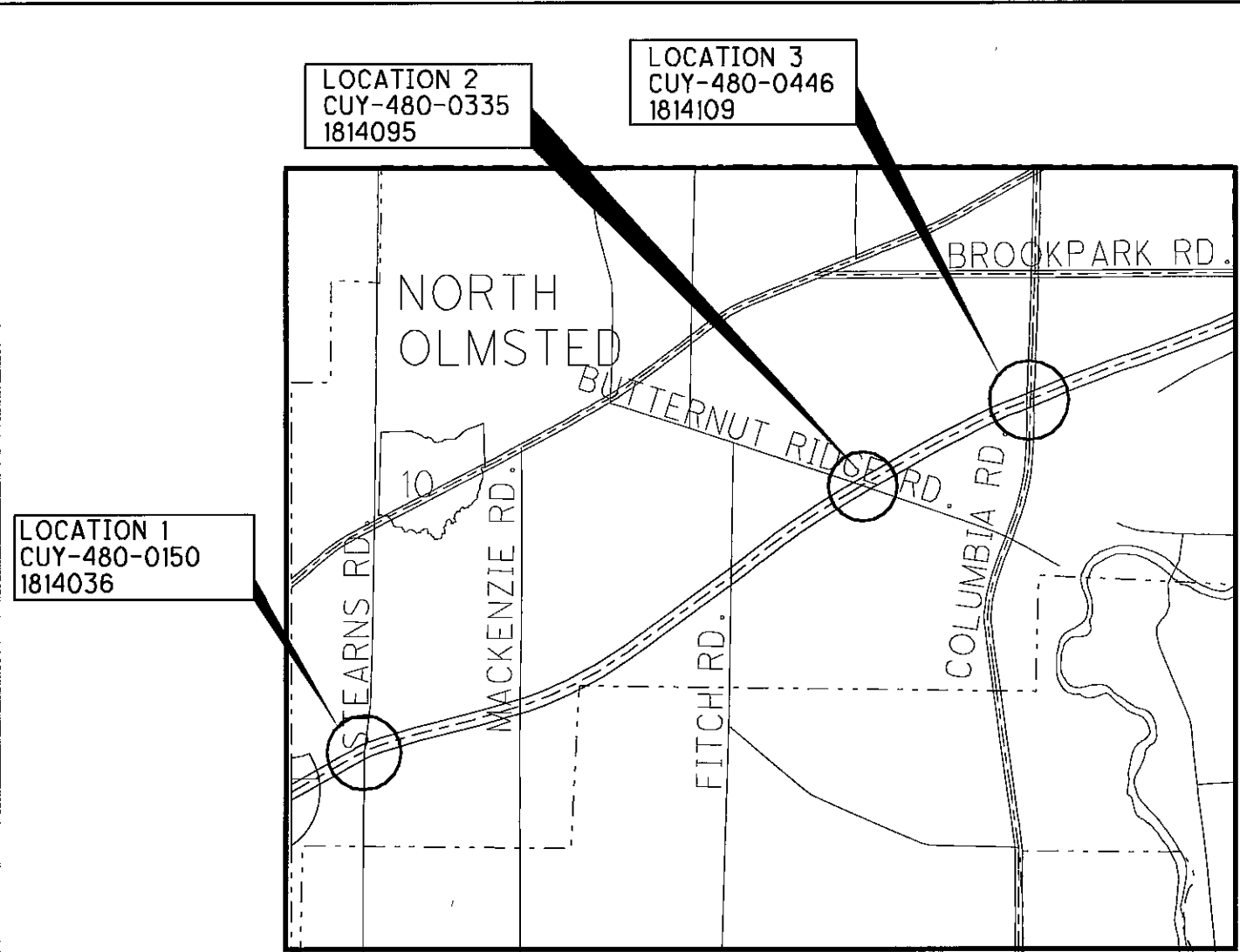
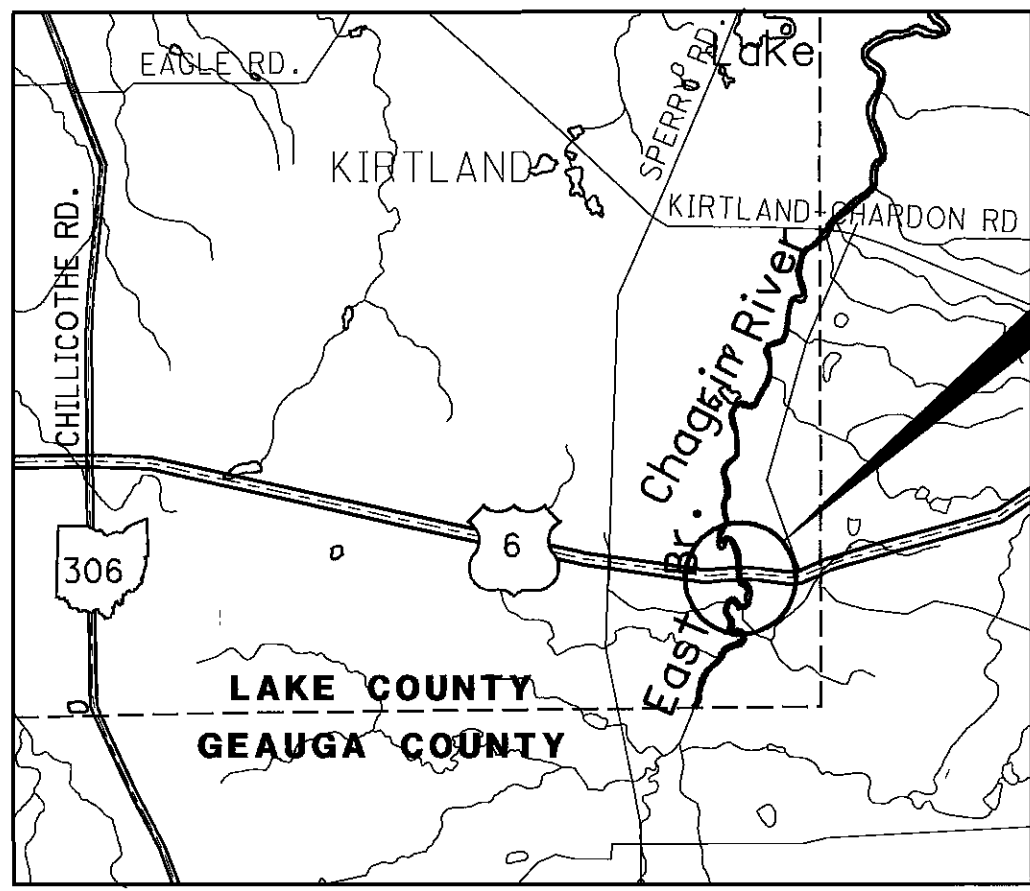


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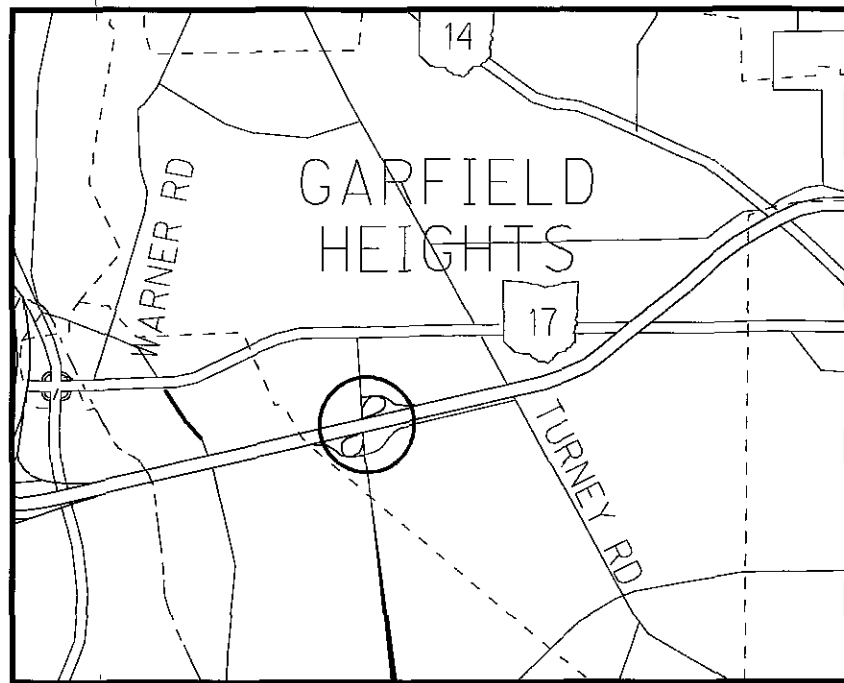
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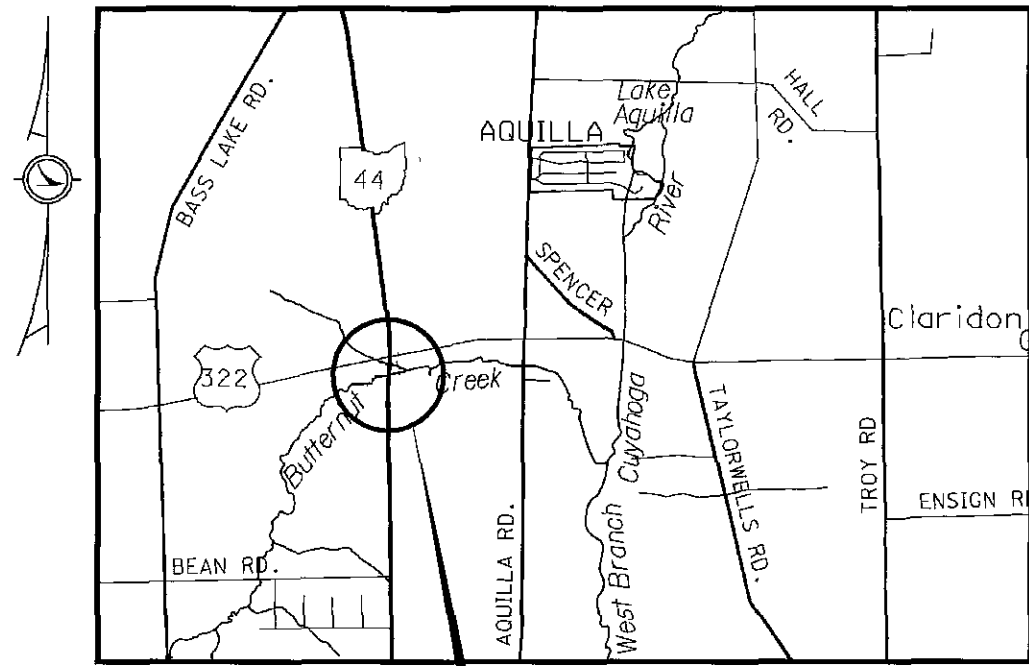
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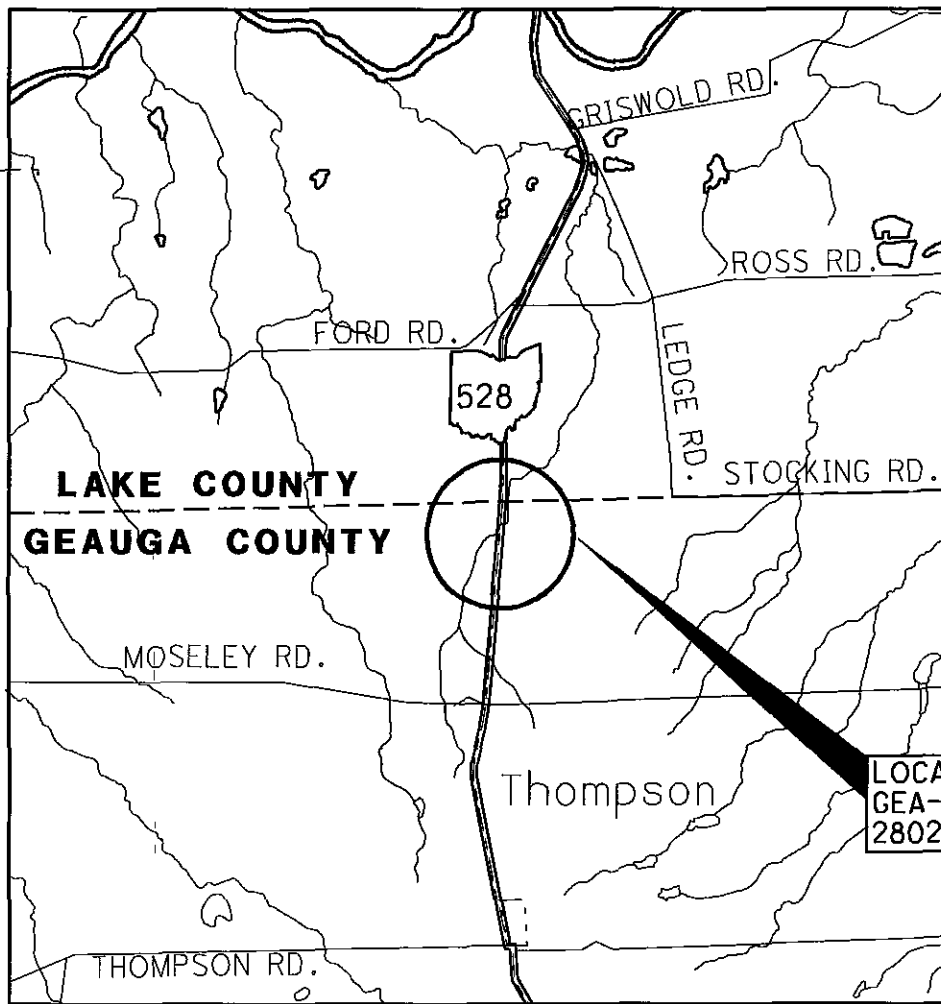
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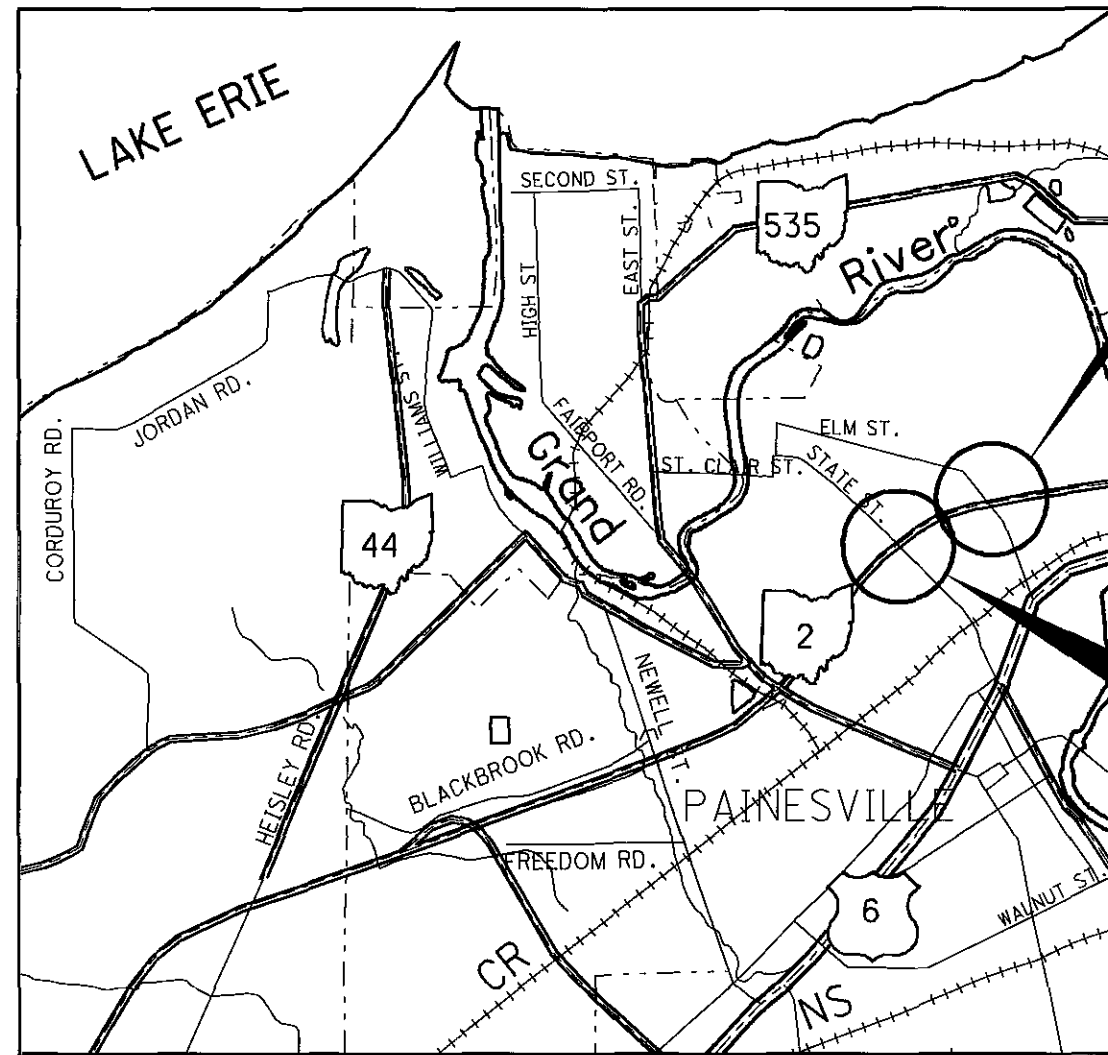
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 1812556



LOCATION 8
 GEA-44-1305
 2800276



LOCATION 9
 GEA-528-2395
 2802139



LOCATION 12
 LAK-2-1597
 4301625

LOCATION 10&11
 LAK-2-1553L&R
 4301560/4301595

Project Description

This project consists of miscellaneous concrete and steel bridge repairs

Refer to Standard Bridge Drawings

Listed on title sheet

And to Supplemental Specifications

Listed on title sheet

And to Proposal Notes

- Steel Price Adjustment
- Item Special – Patching Concrete Bridge Decks
- Temporary Sediment and Erosion Controls

Design Specifications

The structures conform to "Standard Specifications for Highway Bridges" adopted by the America Association of State Highway and Transportation Officials, 17th Edition, 2002 and the ODOT Bridge Design Manual.

Right of Way

All work is to be performed within the existing right of way or easements or within State property

Existing Structure Verification

Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structure and from field observations and measurements. Consequently, they are indicative of the existing structure and the proposed work but they shall be considered tentative and approximate. The contractor is referred to sections 102.05, 105.02, and 513.04 of the 2005 Construction and Material Specifications.

Base contract bid prices upon a recognition of the uncertainties described above and upon a pre-bid examination of the existing structure by the contractor. However, the Department will pay for all project work based upon actual details and dimensions that have been verified in the field

The existing structure plans may be reviewed at the

Ohio Department of Transportation
District 12 Office
5500 Transportation Boulevard
Garfield Heights, OH 44125

Cooperation Between Contractors

The Contractor shall cooperate and coordinate his/her operations with the contractors on other projects that may be in force during the life of the contract. No waiver of any provisions of 105.08 of the 2005 Construction and Material Specifications is intended.

Utility Ownership

The nature of the work required by this project will not affect any known utilities in the work areas

Existing Dimensions

All dimensions are ±

Limitations of Operations

General

The contractor's activities and work schedule shall be constrained by the following special limitations

1. Maintenance of Traffic Restrictions (Refer to the Maintenance of Traffic sheets in this plan)
2. Contractor shall prevent any debris from entering any stream, river, channel, or any other body of water.

Lak-6-0990

In addition to the "General" Limitations of Operations, the Contractor shall incorporate the following provisions, which shall be considered incidental to the items of work, as required of the State by the ODNR for Lak-6-0990

1. Best Management Practices (BMP's) shall be applied and enforced to reduce the potential for siltation
2. In-stream work is prohibited between April 15th and June 15th
3. Temporary work pads are to be used for construction. Only clean, non-erodible fill shall be used. All material shall be removed as soon as possible to recreate the original contours of the stream bed and river bank
4. If cofferdams are utilized, they shall be constructed of clean, non-erodible material and completely removed as soon as practical. Dewatering of cofferdams shall only be discharged to an upland site where a settling basin or other device is utilized in order to prevent siltation
5. Full containment shall be used for all surface penetrations, grouting, and concrete pouring operations
6. A spill prevention plan shall be developed and implemented throughout the life of the project
7. All equipment shall be in excellent operating condition, with not leakage of oil, hydraulic fluid, or fuel
8. Notify Steve Roloson at least seven (7) days prior to start of construction at the following
NE Ohio Regional Scenic River Manager
330-527-4184
sroloson@apk.net
9. Coordinate construction with PID 80805

Gea-44-1305

All work on GEA-44-1305 for phased construction of the overlay shall be completed by June 22, 2007. One lane of bi-directional traffic shall be maintained for 2 weekends with a flagger

Material Requirements

Structural Steel

All proposed structural steel shall be ASTM A709 Grade 36 or Grade 50 (minimum yield = 36 ksi), unless otherwise noted

Connection Between Existing and Proposed Guardrail

When it is necessary to splice proposed guardrail to existing guardrail, only the existing guardrail shall be cut, drilled, or punched. The connection shall be made using a "W-Beam Rail Splice" as shown in AASHTO M 180. Payment shall be included in the contract price for the respective guardrail items

Item 619 - Field Office, Type B, As Per Plan

A Type B Field Office may be required for this project

In addition to the requirements as described in Item 619 of the CMS, the field office shall include broadband (DSL or cable) access.

Item 619 - Field Office, Type B, As Per Plan **9 Months**

Item 202 - Fence Removed, As Per Plan, A

This item shall be used at the following locations

Location 1	CUY-480-0150
Location 4	CUY-480-1955

This item shall be used to remove the existing fence as detailed in the plans. The fence shall be removed flush with the top of the existing concrete barrier. The remaining steel sleeve shall be filled with Nonshrink Mortar as per 705.22

Payment for all of the above shall be at the unit price bid per foot for Item 202 – Fence Removed, As Per Plan, A and shall include all labor, equipment, materials and incidentals necessary to complete the above work

Item 202 - Fence Removed, As Per Plan, B

In addition to the Item 202 – Fence Removed, As Per Plan, A requirements, the area under the baseplate shall be ground level and smooth prior to the installation of the baseplate.

Location 3	CUY-480-0446
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Payment for all of the above shall be at the unit price bid per foot for Item 202 – Fence Removed, As Per Plan, B and shall include all labor, equipment, materials and incidentals necessary to complete the above work.

Item 503 – Unclassified Excavation, As Per Plan, A

Perform all work as per Item 503 in the CMS with the addition of the removal of existing rock channel protection and replacement Type A Rock Channel Protection

No more than 3 pier columns on one structure shall be excavated at any given time.

All equipment, labor, and materials required for the above described excavation shall be included for payment under Item 503 – Unclassified Excavation, As Per Plan, A

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Item 503 – Unclassified Excavation, As Per Plan, B

Perform all work as per Item 503 in the CMS with the addition of the removal of existing slurry and rock channel protection and replacement of grouted Type A Rock Channel Protection

No more than 3 pier columns on one structure shall be excavated at any given time

All equipment, labor, and materials required for the above described excavation shall be included for payment under Item 503 – Unclassified Excavation, As Per Plan, B

Item 510 – Dowel Holes with Non-shrink, Non-metallic Grout, As Per Plan

Grout material is limited to non-shrink, non-metallic epoxy grout

Item 511 – Class HP Concrete, Bridge Deck (Parapet), As Per Plan

The provisions of Item 511 shall apply except as noted below.

Integral Curb.

Proposed curb shall be integral with the concrete slab as per Curb 2-B on Standard Drawing BP-5.1.

Mix Options

All concrete shall be HP4, as per plan. The following proportions will be used as a starting mix design

Concrete Table
Quantities Per Cubic Yard
Aggregates (SSD)

Agg Type	Fine Agg (lb)	#8 Coarse Agg (lb)*	#57 Coarse Agg (lb)*	Total (lb)	Cement Content (lb)	GGBF Slag (lb)	Micro-silica (lb)	Water to Cement Ratio ± 0.1	Air Content ± 2%
Gravel	1245	360	1315	2920	400	170	30	0.43	7
Limestone	1245	360	1335	2940	400	170	30	0.43	7
Slag	1245	315	1155	2715	400	170	30	0.43	7

* All coarse aggregates shall have an absorption of 1.00% or greater as defined per ASTM C127.

The weights specified in the concrete table were calculated for materials of the following bulk specific gravities (SSD): natural sand and gravel, 2.62; limestone sand, 2.68; limestone, 2.65; slag, 2.30; fly ash, 2.65; GGRF slag, 2.90; Microsilica solids, 2.20, and Portland cement, 3.15. For aggregates of specific gravities differing more than plus or minus 0.02 from these, the weights will be corrected.

Measurement

The estimated quantity of deck slab concrete is based on the constant deck slab thickness, as shown, plus the quantity of concrete that forms each Type 2-B curb, that is integral with the slab and is constructed in accordance with Standard Drawing BP-5.1. Deviate from this slab thickness as necessary to place the deck surface at the finished grade, using the existing concrete culvert as a form.

Basis of Payment:

Payment for the above completed and accepted quantities will be made at the contract bid price for Item 511 - Class HP Concrete, Bridge Deck, As Per Plan.

Item 511 – Concrete, Misc.: Pile Encasement

Encase steel H-piles and cast-in-place reinforced concrete piles as shown in Standard Drawing CPP-2-94 as modified by these plans.

Locations 5 & 6 – work includes encasement of 14 piles per bridge

Location 7 – work includes encasement of 20 piles

Concrete for encasement shall be Class C. Provide a concrete slump between 6 and 8 inches with the use of a superplasticizer.

All equipment, labor, and materials required to encase piles shall be included for payment under Item 511 – Concrete, Misc. Pile Encasement

The Department will measure the quantity for pile encasement on a cubic yards basis. The Department will pay for accepted quantities at the contract price for Item 511 – Concrete, Misc. Pile Encasement

Item 512 Sealing Of Concrete Structures (Non-Epoxy), As Per Plan

Location 1 – work includes inside face and top of parapet, excluding newly patched areas sealed with epoxy-urethane and patched areas of curb, sidewalk and median

Location 2 – work includes patched areas of sidewalk and curb.

The limits of sealing shall be as detailed in the plans and as directed by the Engineer. Seal the entire area of exposed concrete surface for any structure unit (sidewalk and curb) being patched or repaired

The final color of the sealing shall closely match the existing color as approved by the Engineer

Item 512 Sealing Of Concrete Structures (Epoxy-Urethane), As Per Plan

Location 1 – work includes inside face and top of parapet for patched areas only

Location 2 – work includes inside face and top of parapet, abutment seat and backwall

Location 4 – seal parapet (inside and outside face) Color shall be Federal Color # 17778 (buff)

The limits of sealing shall be as detailed in the plans and as directed by the Engineer. Seal the entire area of exposed concrete surface for any structure unit (abutment, parapet, etc.) being patched or repaired

The final color of the sealing shall closely match the existing color as approved by the Engineer, unless otherwise specified,

Item 513 – Structural Steel Members, Level UF, As Per Plan

All requirements of 513 apply to shop fabricated members. Perform work for field-fabricated members according to Item 513, except as modified herein. The Department will not require the Contractor performing field fabrication to be pre-qualified as specified in Supplement 1078. Submit a written letter of material acceptance, 501.06, to the Engineer. Provide shop drawings according to 513.04 or supply the Engineer with "as-built" drawings meeting 513.04 after completion of field fabrication. The Engineer will review the submitted drawings for concurrence with the final as-built condition. If necessary, the Engineer may contact the Office of Structural Engineering for technical assistance. If the Engineer is satisfied with the "as-built" drawings and the delivered materials, supply a copy of the drawings, stamped and dated, along with microfilm, to the Structural, Welding and Metals Section of the Office of Material Management for record purposes.

Item 513 – Replacement of Deteriorated End Crossframes, As Per Plan

Existing damaged or deteriorated channels and angles are to be removed and replaced as per the plans or as directed by the Engineer. The existing end crossframe members shall be removed flush with the beam web. All end crossframe members in one bay shall be removed and replaced prior to removing any end crossframe members in another bay

Existing gusset plates are to be reused as weld connecting points for the new steel cross frame members. Cut or grind existing gusset plates to have a 1/2" ± tab remaining for welding purposes

Clean and paint areas of coating system damaged by this work per Item 513 – Structural Steel Misc. Coating System Repair. The coating system repair is incidental to this pay item

All equipment, labor, and materials required to remove and install the end crossframes and repair the coating system shall be included for payment under Item 513 – Replacement of Deteriorated End Crossframe, As Per Plan

Item 513 – Structural Steel, Misc.: Coating System Repair

After all new steel members or expansion joints are installed, and/or after all retrofits are performed, repair any areas of paint on all new and existing steel damaged during the installation or retrofitting process in accordance with section 514 of the ODOT CMS with the following modifications

- For existing steel on exterior girders, apply a three-coat system consisting of an organic zinc prime coat, an epoxy intermediate coat, and a urethane finish coat. For all other existing steel, apply a two-coat paint system consisting of organic zinc prime coat and an epoxy top coat (Section 514.02)
- Existing steel may be cleaned according to commercial blast specification SSPC-SP6. (Section 514.13)
- No destructive testing is to be performed on existing steel (Section 514.21)
- Paint feathering is not required. Minimal overspray is permissible, as determined by the Engineer (Section 514.22)

The final color of the finish coat shall closely match the existing bridge color as approved by the Engineer.

Item 513 – Structural Steel, Misc.: Replacement of Deteriorated Intermediate Crossframe

Existing damaged or deteriorated angles are to be removed and replaced as per the plans or as directed by the Engineer. The existing crossframe members shall be removed flush with the beam web.

Clean and paint areas of coating system damaged by this work per Item 513 – Structural Steel Misc. Coating System Repair. The coating system repair is incidental to this pay item

All equipment, labor, and materials required to remove and install the end crossframes and repair the coating system shall be included for payment under Item 513 – Structural Steel, Misc. Replacement of Deteriorated Intermediate Crossframe

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Item Special - Poured Polyurethane Joint Seal

Description

This work consists of sealing joints with a poured polyurethane joint seal in accordance with these specifications and in reasonably close conformity with the plans, manufacturer specifications and recommendations, and as directed by the Engineer

Material

The material for this item is a two-part, cold-applied, chemically curing, self leveling, elastomeric polyurethane joint sealant meeting the requirements of Federal Specification TT-S-00227E ASTM C920 All materials shall be stored and incorporated into the work as specified by the manufacturer

Application

Prior to installation, remove debris and any existing joint seal material Use abrasive blasting to thoroughly clean the surfaces to which the sealer is to adhere, pour polyurethane joint sealer over the full length of the 1/2 round foam seal previously installed in the open joint and in the full length of the expansion joints. Apply only when the surface is dry and its temperature is above 50 degrees F The installed and cured material shall be the depth as shown in the plans and shall be bonded to the concrete or steel sides of the joint Any unbonded section shall be removed and replaced at the contractor's expense Dams as required to contain the poured sealer are incidental to this item of work

Given expansion joint measurements are based on record data and field measurements Included with this pay item is the adjustment of the material size per contractor measurement and as approved by the Engineer

Method of payment

Footage under this item is for linear feet of poured polyurethane joint seal that are complete, in place, and accepted Replace any existing unbonded sealer as directed by the Engineer

Basis of payment

The accepted quantities of poured polyurethane joint seal will be paid for at the contract unit price per linear foot Price and payment will be in full compensation for preparing the surfaces, furnishing and installing all materials, and all other material, labor, and equipment necessary to complete the joint seal according to specifications Payment will be made under Item Special - Poured Polyurethane Joint Seal

Item 516 -- Structural Joint or Joint Sealer, Misc.: Precompressed Expansion Joint Filler

Description

This work consists of sealing joints using precompressed expansion joint filler in accordance with these specifications, in reasonably close conformity with the plans and manufacturer's specifications and recommendations, and as directed by the Engineer Completely cover and fill the joint gap with the filler

Expansion joint gap values listed are anticipated based on available record data Field measure the actual gap at the actual temperature prior to the manufacturing of joint components. If the measured values are reasonably close to the given values, the filler size given in the plans may be used Otherwise, adjust the size as recommended by the manufacturer and approved by the Engineer No separate payment will be made for measurement and adjustment.

Materials

Use precompressed expansion joint filler such as the Emseal DSM System or an approved equal, as directed by the Engineer The Emseal DSM System is comprised of three components. 1) acrylic-modified asphalt impregnated foam compressed 5-times and factory coated with highway-grade, fuel resistant silicone; 2) field-applied epoxy adhesive primer, 3) field-applied silicone corner beads Emseal DSM System can be obtained from:

Emseal Joint Systems, Ltd
108 Milk Street, Suite 3
Westborough, MA 10581-1228
Phone (800) 526-8365

Store and incorporate all material in the work as recommended by the manufacturer

Surface Preparation

Blast clean the faces to which the seal must adhere so that it is free of foreign material such as dirt, dust, grease, form release agents, and any other material detrimental to the adhesion of the sealant according to manufacturer specifications. Blasting abrasive containing more than 1% free silica is not allowed

Installation

Install the joint filler only when the surfaces are dry and the surface temperature is above 50 degrees Fahrenheit Do not proceed with installation under adverse weather conditions Prime both surfaces adjacent to the joint with adhesive as recommended by the manufacturer Remove the joint filler from the packaging, coat it with adhesive as recommended by the manufacturer, and insert its narrow edge into the joint opening The joint filler must be wedged in place while it recovers. At temperatures above 68 degrees Fahrenheit, the material will recover within a few hours At temperatures below 68 degrees Fahrenheit, accelerate recovery by heating with an open flame, gas burner, infra-red lamp, or hot air blower Keep the number of joints in the filler to a minimum Where a joint is required, create by pushing miters together and applying a thin bead of silicone sealant along the mitered joint in the silicone facing Install the joint filler approximately 1/4" recessed from the surface such that when the field-applied corner beads of silicone are installed, the system will be essentially flush with the substrate surface Once the joint filler has fully expanded across the joint gap, gun and tool a 1/4" x 1/4" bead of silicone into each of the corners formed at the substrate-to-bellows interface

All joint armor modifications detailed in the plans are included for payment with this item of work New steel is to be level and flush with existing steel Field measure and verify steel dimensions indicated in the plans prior to ordering material

Payment for labor, materials, and installation of this work is included in Item 516 -- Structural Joint or Joint Sealer, Misc. Precompressed Expansion Joint Filler

Item 518 -- Structure Drainage, Misc.: Scupper Plugging

This item consists of plugging of scuppers as shown in the plans These scuppers shall be filled with superplasticized dense concrete Prior to this, weld a plate to the bottom of each scupper

All costs and labor, materials and equipment necessary to complete this item of work shall be included in the unit price bid for Item Structure Drainage, Misc Scupper Plugging

Item 519 -- Patching Concrete Structures, As Per Plan

Use CMS 499 05 MS Concrete for all concrete repairs associated with expansion joint work including roadway repair on the bridge surface and backwall, as indicated in the plans and as directed by the Engineer

At those areas where the interface between the approach slab and backwall is disturbed, install a Type B Joint Seal in accordance with Standard Construction Drawing AS-1-81 The Contractor is not required to perform the waterproofing referenced in the standard drawing

Prior to the surface cleaning specified in 519.04 and within 24 hours of placing patching material, blast clean all surfaces to be patched, including the exposed reinforcing steel Acceptable methods include high-pressure water blasting with or without abrasives in the water, abrasive blasting with containment, or vacuum abrasive blasting

All equipment, labor, and materials to perform the above described work shall be included for payment under Item 519 -- Patching Concrete Structures, As Per Plan

Item 519 -- Special -- Patching Concrete Bridge Deck

Location 1 - work includes patching approach slabs and deck.
Location 2 - work includes patching bride deck

This item shall be performed as directed by the Engineer Concrete for this item shall be Class FS as per 499.05a

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Item Special - Structure Misc.: Emergency Asphalt Paving Operation on Standby:

This item shall apply to the following structure

Location 8 GEA-44-1305

The Contractor shall make arrangements to have an asphalt concrete supplier and asphalt paving company on call on Sundays that the bridge deck overlay is scheduled. If the Contractor has not stated to pour the concrete overlay by 3 AM Sunday, the Project Engineer will direct the Contractor to stop operations and pave the bridge with asphalt. The asphalt Contractor will have the ability to mobilize operations within 12 hours. This includes providing 448 Asphalt and a paving crew with compaction equipment.

The paving and all existing traffic control must be in place by 5 AM on Monday

The following items shall be used in this operation

Item	Unit	Description
614	Cu Yd.	Asphalt Concrete for Maintaining Traffic
848	Sq Yd	Wearing Course Removed, Asphalt, As Per Plan

The state will pay for all costs associated with placing and removing the asphalt if the Contractor was not responsible for the delay. The Contractor will have to pay all the cost associated with the placement and removal of the asphalt.

Payment for all of the above shall be at the unit price bid per each for Item Special - Structure Misc.: Emergency Asphalt Paving Operation on Standby which shall include all labor, equipment, materials, and incidentals necessary to complete the above work.

Item Special - Vandal Protection Fence, 6' Straight, Coated Fabric

Location 1	CUY-480-0150
Location 3	CUY-480-0446
Location 4	CUY-480-1955

This item shall be as per the details in the plans with the applicable portions of the standard drawing VPF-1-90 and the manufacturer's recommendations. Place proposed base plates at the same location as the existing fence posts.

The color of the fence and fence fabric, rails, posts, plates, ties, nuts, bolts, caulk and any additional visible hardware shall be coated black.

Payment for all of the above shall be at the unit price bid per linear foot for Item Special - Vandal Protection Fence 6 Foot Straight, Coated Fabric which shall include all labor, equipment, materials and incidentals necessary to complete the above work.

Item 606 - Anchor Assembly, Type E-98

This item shall consist of furnishing and installing either of the following guardrail end terminals, or an approved equal as listed on Roadway Engineering's web page at www.dot.state.oh.us/drrc/ under roadside safety devices for approved guardrail end treatments.

- 1) The ET-2000 (1997) manufactured by Trinity Industry, 1170 N State Street, Girard, Ohio 44420 (telephone 330-545-4373)

The length of the ET-2000 (1997) system is considered to be 50'-0", inclusive of two 25'-0" long rail elements. Installation shall be at the locations specified in the plans, in accordance with the manufacturer's specifications as detailed on the following pre-approved shop drawings.

DWG #	DRAWING NAME	DWG/REV DATE	ODOT APPROVAL DATE
SS265M	ET-2000 (1997) PLAN, ELEVATION & SECTIONS	6/20/97	3/6/98
SS142	ET2000 PLUS 50'-0" PLAN, ELEVATION & SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SS141	ET2000 PLUS PLAN, ELEVATION & SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SS158	ET2000 PLUS 50'-0" WITH 12'-6" PANELS & HBA POSTS 1-4 PLAN, ELEVATION & SECTION	5/22/00	7/31/00

- 2) The SKT-350 manufactured by Road Systems, Inc., 2516 Mallory Lane, Stow, Ohio 44224 (telephone 330-346-0721)

The length of the SKT-4 system is considered to be 50'-0", inclusive of four 12'-6" long rail elements. Installation shall be at the locations specified in the plans, in accordance with the manufacturer's specifications as detailed on the following pre-approved shop drawings.

DWG #	DRAWING NAME	DWG/REV DATE	ODOT APPROVAL DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/1997	3/6/1998

The face of the Type E-98 impact head shall be covered with a sheet of Type G reflective sheeting, per CMS 730 19, approximately 18"x18", or 12"x18" if applied to a rectangular ET-2000 "Plus" extruder head.

Refer to the manufacturer's instruction regarding the installation of, and the grading around, the foundation tubes and ground strut. The top of any foundation tube should be less than 4 inches above the ground. The placement of the foundation tubes should be an appropriate depth below the level line in order to maintain the finished guardrail heights of 27 3/4 inches from the edge of shoulder.

On-site grading is required if the top of the foundation tubes or top of the ground strut does project more than 4 inches above the ground line.

Payment for the above work shall be made at the unit bid price for Item 606 - Anchor Assembly, Type E-98, Each and shall include all labor, tools, equipment, and materials necessary to construct a complete and functional anchor assembly system, including all related transitions, reflective sheeting, hardware, grading, embankment and excavation not separately specified, as required by the manufacturer.

Item 848 - Micro Silica Modified Concrete Overlay using Hydrodemolition (5 3/4"), As Per Plan

This item shall also apply to the approach slab

This item shall be performed per Supplemental Specification "Bridge Deck Repair and Overlay with Concrete Using Hydrodemolition" with the following revisions.

The thickness of the concrete overlay removed, asphalt wearing course removed, proposed overlay and the depth of Hydrodemolition shall be as specified in the plans.

All coarse aggregate shall have an absorption of 100% or greater as defined by ASTM C-127.

Construction joints will not be permitted in the wheel line.

In addition to the above requirement, for structure.

Location 8 GEA-44-1305

(See 848.21) The removal operations shall not begin if sustained rains (5 hours or more with breaks between showers less than 1 1/2 hours) are predicted within 48 hours of commencement.

(See 848.21) The final deck sounding may take place within 24 hours of a rain and the deck does not have to be completely dry.

(See 848.29) The wet cure time is reduced from 72 hours to 24 hours or until a beam break of 600 PSI is achieved, whichever is greater. After the 24 hour wet cure, the finished overlay surface shall be cured by spraying a uniform application of curing material of 705 07, Type 1 or 1D, as per CMS 511 17 method (B) membrane curing. If the curing compound can not be placed within the same short term closure period as the overlay, the Contractor may allow traffic onto the overlay, and shall, at the next available short term closure period, apply the membrane curing compound.

(See 848.29) Traffic will not be permitted on the finished overlay surface until after the completion of the 24 hour wet cure and after two test beams have attained an average modulus of rupture of 600 PSI (4.2 Mpa).

(See 848.30) The overlay surface evaporation rate requirements are in effect from 9:30 AM to 11:00 PM. They are not in effect from 11:00 PM to 9:30 AM.

(See 848.31) For each phase the Contractor shall provide enough material for two beam breaks each at 12 hours, 24 hours, 36 hours and 48 hours. The Department will perform the beam break tests and document the time of the pour, the time of the beam break tests and the modulus of rupture for each beam break until the modulus of rupture of the two tests is not less than 650 PSI (4.5 Mpa). Traffic is allowed on the overlay at 600 PSI (4.2 Mpa).

If the Contractor can not comment the concrete pour by 3 AM Sunday, the Contractor shall follow Item Special Structure Misc.: Emergency Asphalt Paving Operation on Standby.

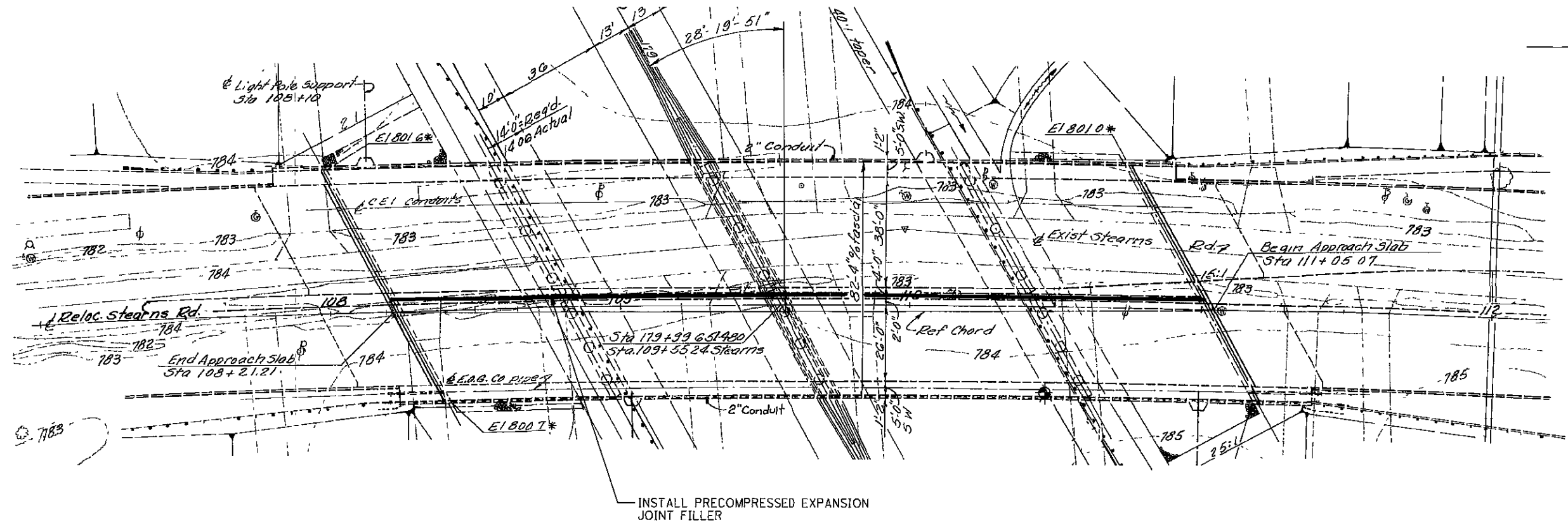
In addition to the requirements of Item 848 in CMS, the removal of any waterproofing fabric shall be included. Payment for the waterproofing fabric removal shall be included under Item 848 - Micro Silica Modified Concrete Overlay using Hydrodemolition.

All other requirements of the Supplemental Specification shall remain in effect.

LOCATION	BRIDGE NO. SFN DESCRIPTION	STRUCTURE TYPE	STRUCTURE LIMITS	BRIDGE WIDTH OUT/OUT	LANES ON	LANES UNDER	PROPOSED WORK
1	Cuy-480-0150 1814036 Stearns Road over I-480	4 span continuous steel beam	284'	83'	5	7	REPLACE FENCE; PATCH BARRIER, CURB, SIDEWALK, MEDIAN, DECK AND APPROACH, SEAL MEDIAN JOINT; SEAL CONCRETE SURFACES
2	Cuy-480-0335 1814095 Butternut Ridge Road over I-480	4 span continuous steel beam	295'	65'	4	6	PATCH ABUTMENT SEAT, CURB, BARRIER, SIDEWALK AND BACKWALL; SEAL CONCRETE SURFACES
3	Cuy-480-0446 1814109 Columbia Road over I-480	4 span continuous steel beam	262'	41'	2	6	SEAL JOINT REPLACE FENCE SEAL CONCRETE SURFACES
4	Cuy-480-1955 1812556 Transportation Blvd. over I-480	5 span continuous steel beam	408'	65'	4	10	REPLACE FENCE PATCH BARRIER
5	Gea-422-0662 L 2803461 Bridge Creek 2.53 miles west of 44	3 span simple prestressed concrete box beam	123'	43'	2	NA	PILE ENCASEMENT
6	Gea-422-0662 R 2803496 Bridge Creek 2.53 miles west of 44	3 span simple prestressed concrete box beam	123'	43'	2	NA	PILE ENCASEMENT
7	Lak-6-0990 4302060 East Branch of Chagrin River 2.5 miles east of 306	3 span continuous concrete slab	120'	44'	2	NA	PILE ENCASEMENT
8	Gea-44-1305 2800276 Butternut Creek 0.1 mile south of 322	1 span simple concrete slab	30'	36'	2	NA	NEW RAILING OVERLAY REMOVE EXISTING GUARDRAIL & INSTALL NEW GUARDRAIL
9	Gea-528-2395 2802139 Stream 3.44 miles north of 166	1 span filled concrete culvert	11'	NA	2	NA	INSTALL GUARDRAIL
10	Lak-2-1553 L 4301560 State Street	3 span continuous steel beam	138'	44'	3	2	SEAL JOINT
11	Lak-2-1553 R 4301595 State Street	3 span continuous steel beam	138'	44'	3	2	SEAL JOINT
12	Lak-2-1597 4301625 Elm Street	4 span continuous steel beam	285'	38'	2	4	SEAL LEAKY JOINT END X-FRAME & INTERMEDIATE X-FRAME REPAIR PLUG SCUPPERS

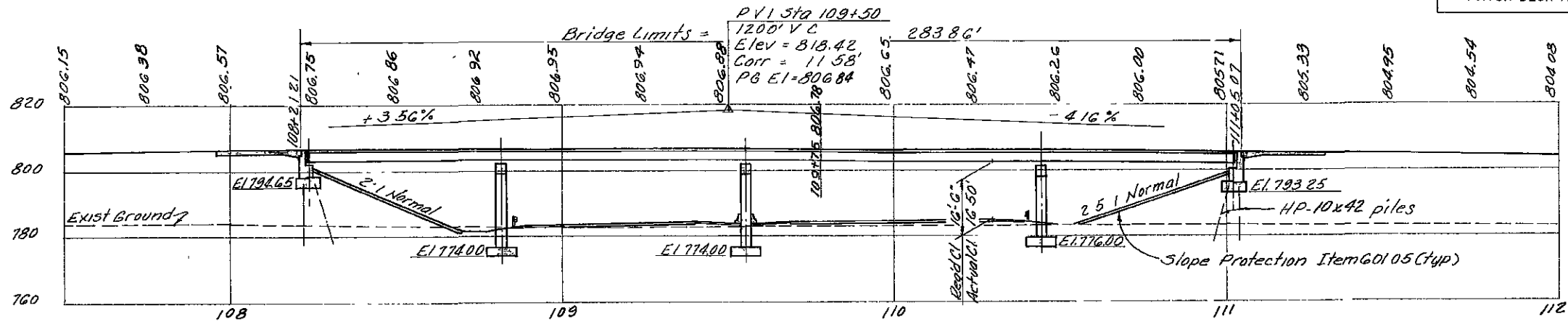
BRIDGE DATA SHEET

D12 BH FY2007



PLAN

- PROPOSED WORK**
- REPLACE FENCE AND BARRIER, CURB, SIDEWALK AND MEDIAN
 - SEAL MEDIAN JOINT
 - SEAL CONCRETE SURFACES WITH EPOXY-URETHANE
 - SEAL CONCRETE SURFACES WITH NON-EPOXY
 - PATCH DECK AND APPROACHES



PROFILE ALONG & RELOCATED STEARNS ROAD

PLAN AND ELEVATION VIEWS ARE TAKEN FROM ORIGINAL PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES.

ALL DIMENSIONS ARE +/-

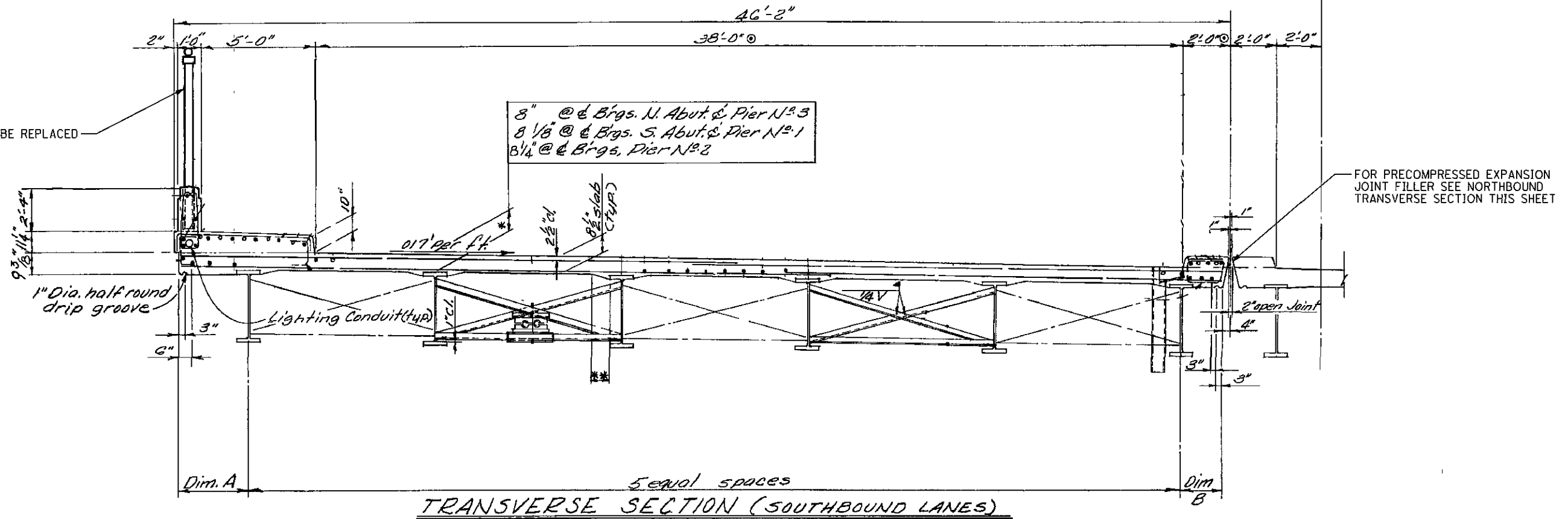
DO ONLY WORK LISTED UNDER PROPOSED WORK.

I:\PROJECTS\PID80804\dgn\new\12-location 1-joint.dgn 22-JAN-2007 8:14AM sheintz

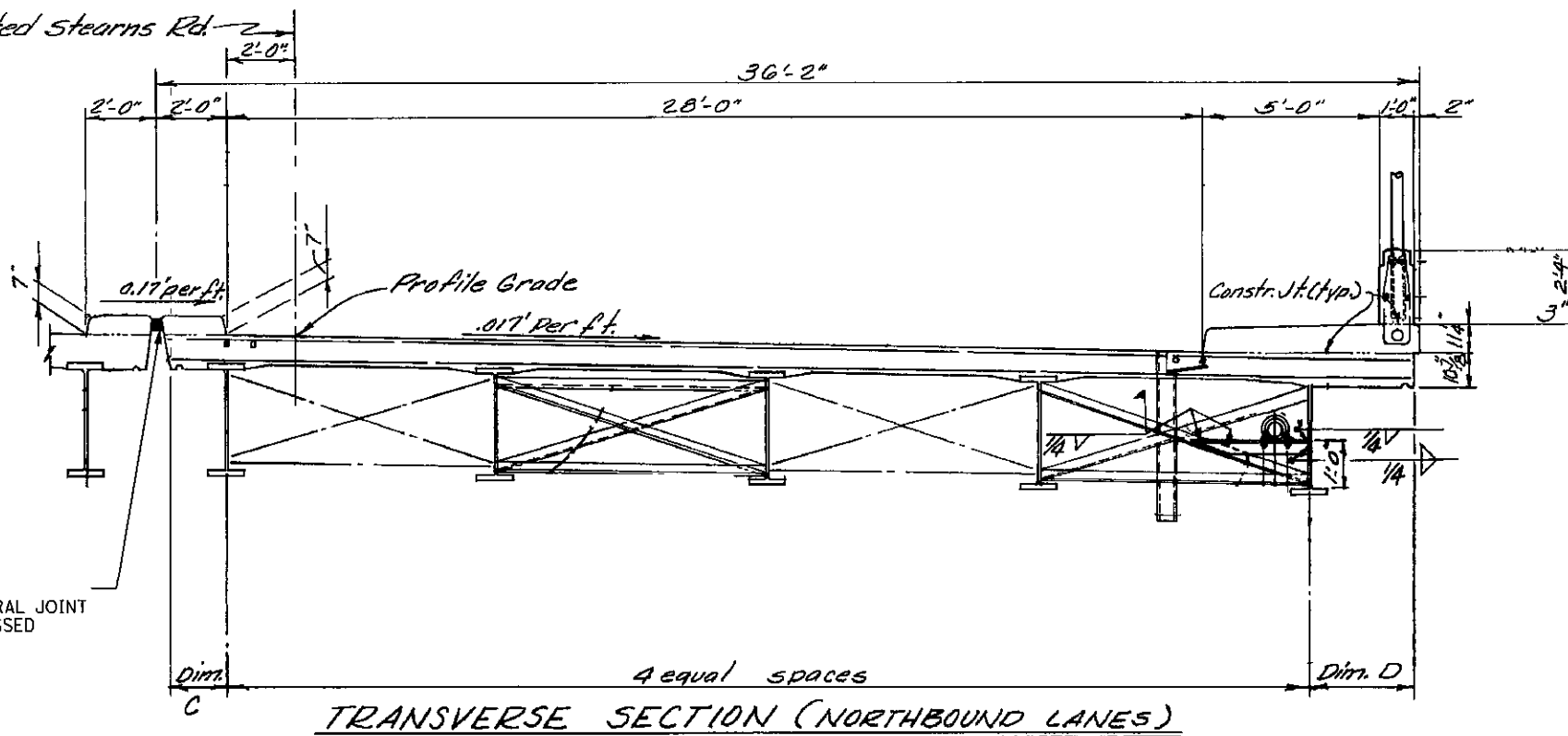
FENCE TO BE REPLACED

From Sta. 110+50 forward these dimensions vary due to median taper.

Relocated Stearns Rd.



Relocated Stearns Rd.

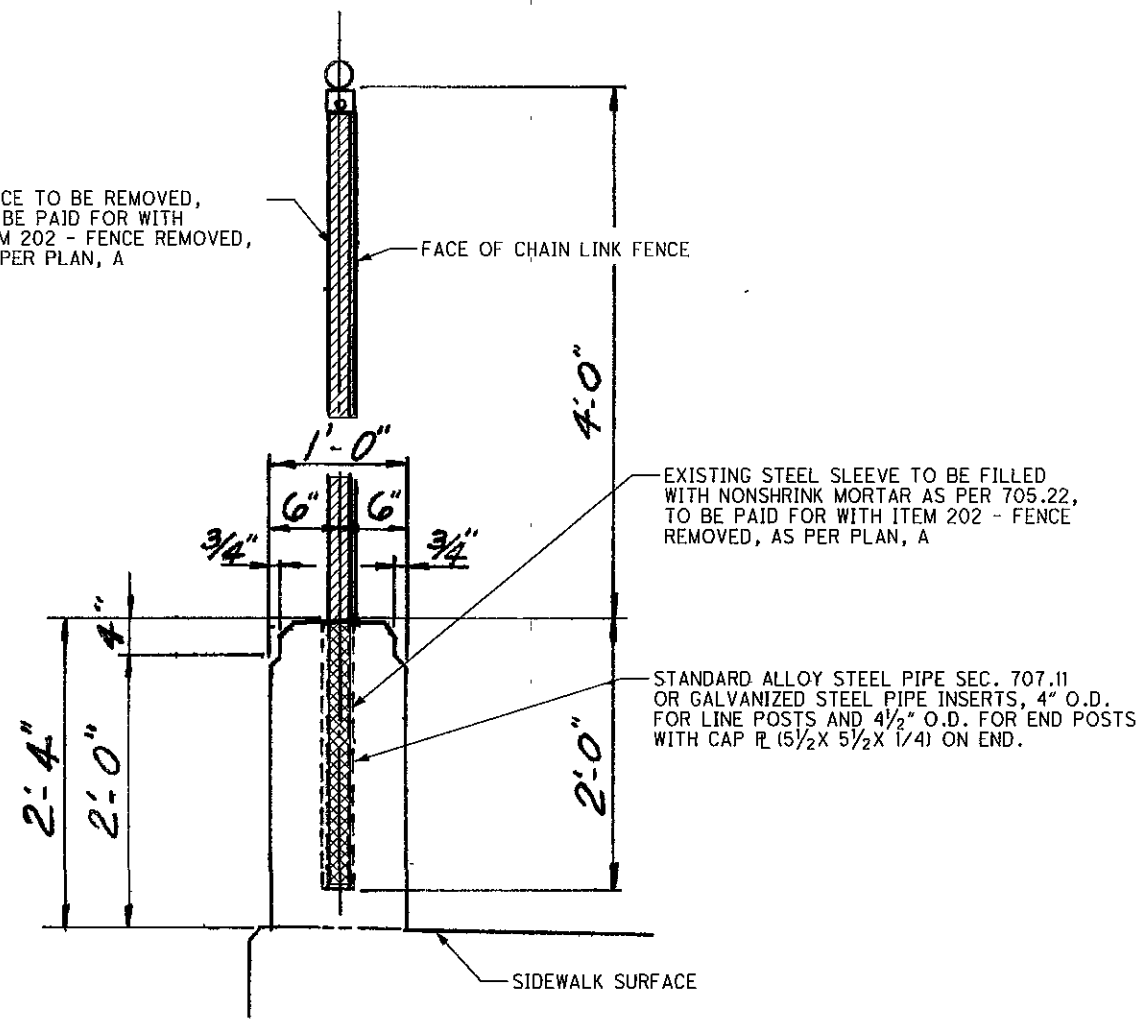


PRECOMPRESSED EXPANSION JOINT FILLER TO BE PAID FOR WITH ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: 2 1/2" PRECOMPRESSED EXPANSION JOINT FILLER

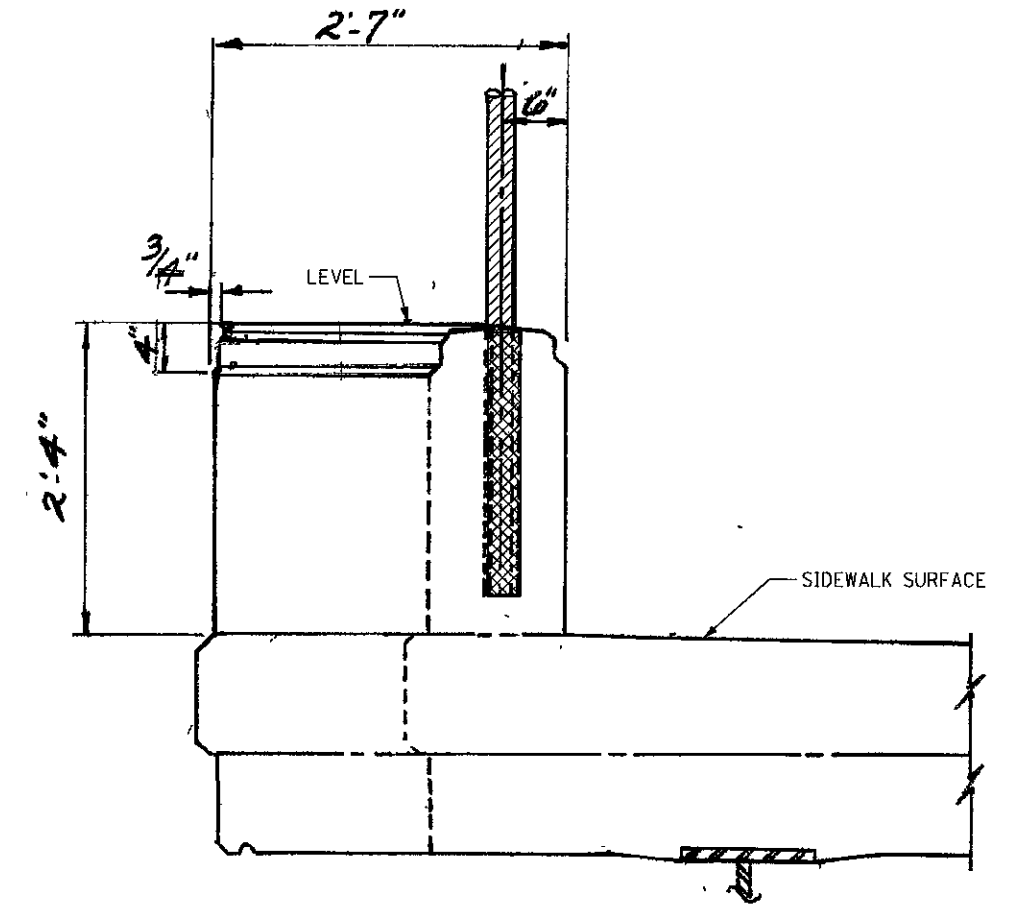
PLAN AND ELEVATION VIEWS ARE TAKEN FROM ORIGINAL PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES.
ALL DIMENSIONS ARE +/-.
DO ONLY WORK LISTED UNDER PROPOSED WORK.

DESIGN AGENCY	Ohio Dept of Transportation
DATE	District 12
REVIEWED	STRUCTURE FILE NUMBER 1814036
DESIGNED	DRAWN
KJW	KJW
CHECKED	REVIS
JDL	
LOCATION 1 - TRANSVERSE SECT	
CUY-480-0150	
STEARNS ROAD OVER I-480	
D12 BH FY2007	PID No. 80804
2 / 3	12 / 31

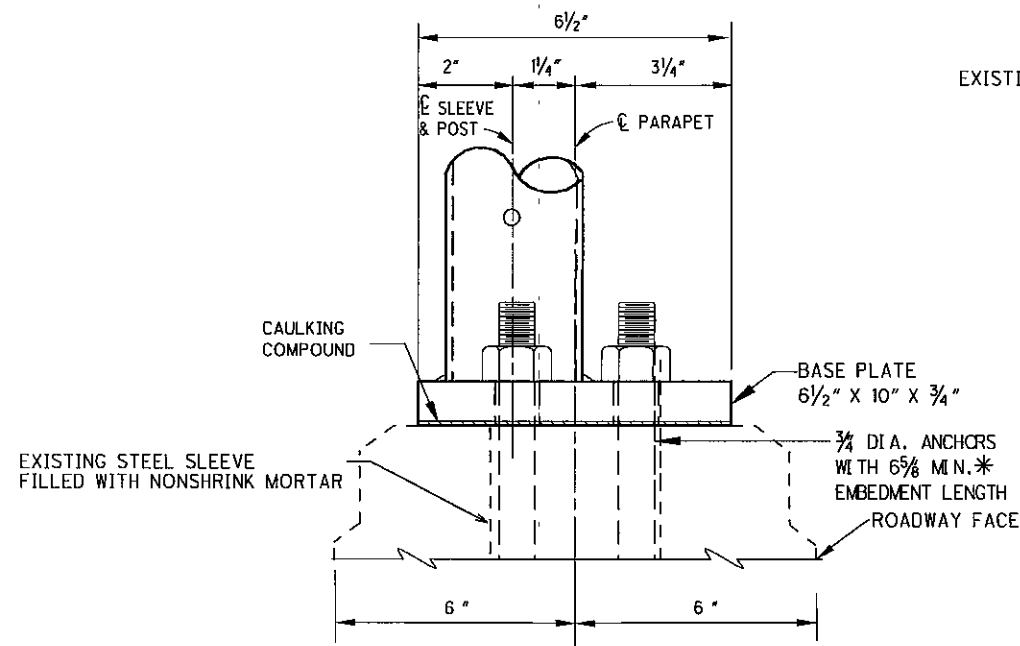
FENCE TO BE REMOVED,
TO BE PAID FOR WITH
ITEM 202 - FENCE REMOVED,
AS PER PLAN, A



EXISTING FENCE DETAILS

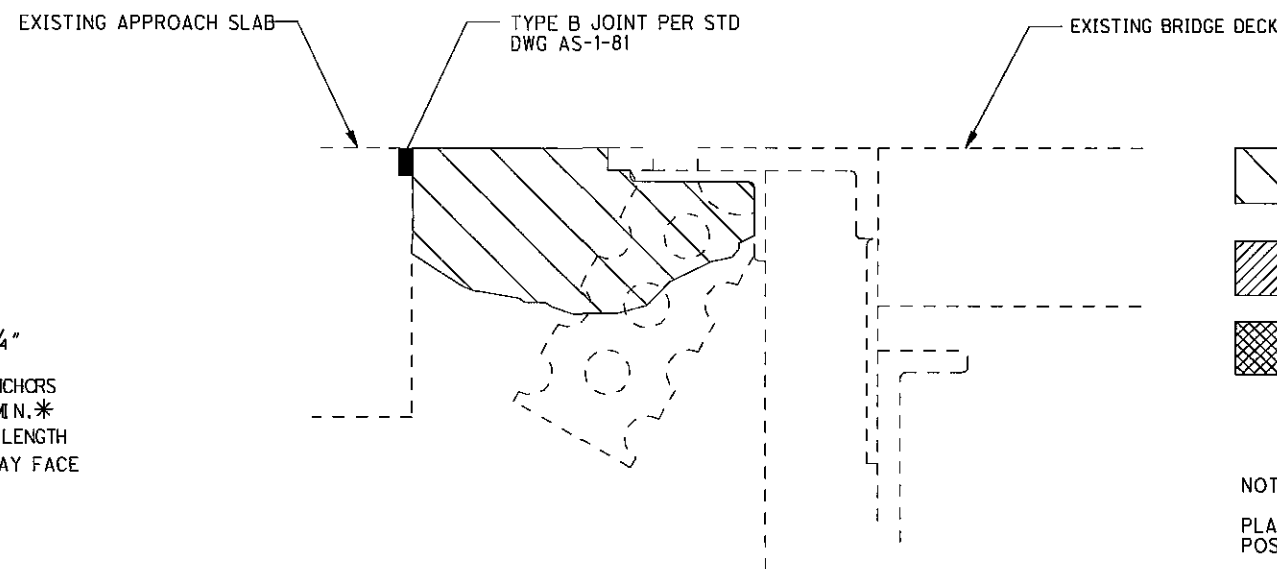


EXISTING FENCE DETAILS






PROPOSED BASE PLATE

* OR AS RECOMMENDED BY MANUFACTURER



BACKWALL REPAIR DETAILS

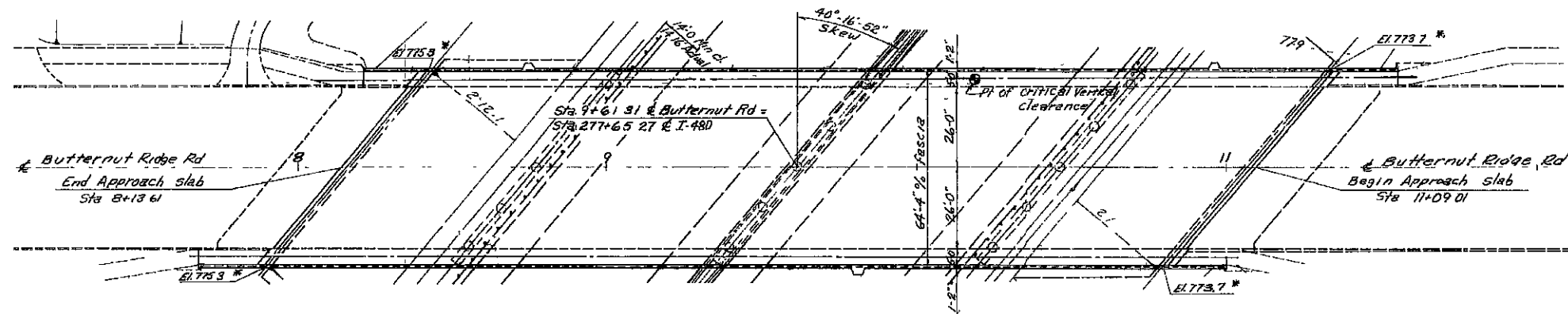
-  TO BE REPAIRED AS PER ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN
-  ITEM 202 - FENCE REMOVED, AS PER PLAN
-  FILL EXISTING STEEL SLEEVE WITH NONSHRINK MORTAR

NOTE:
PLACE PROPOSED BASE PLATE OVER EACH EXISTING POST LOCATION.

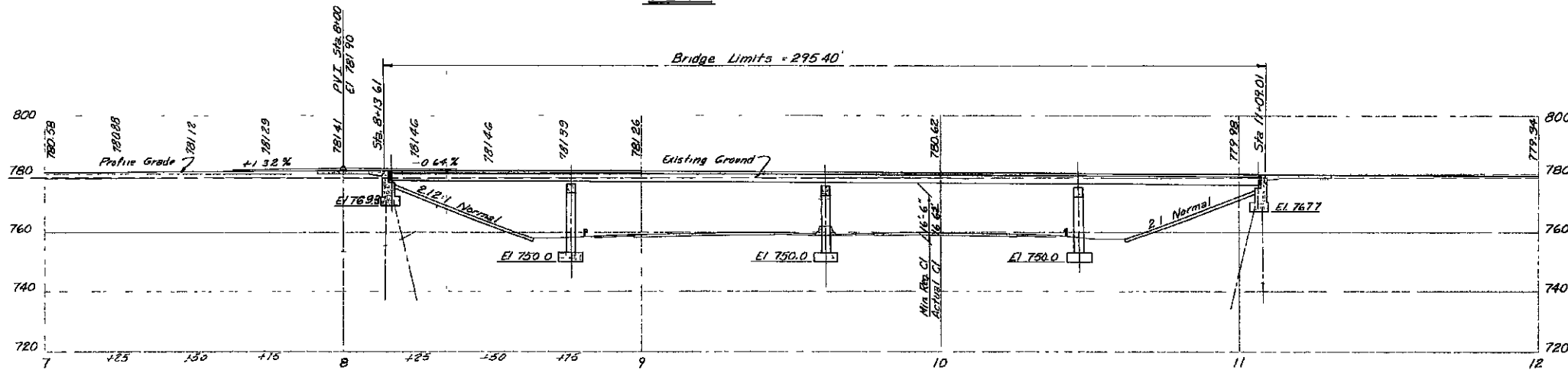
PLAN AND ELEVATION VIEWS ARE TAKEN FROM ORIGINAL PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES.
ALL DIMENSIONS ARE +/-
DO ONLY WORK LISTED UNDER PROPOSED WORK.

PROJECTS\PID80804\dgn\new\13-location1--fence.dgn 22-JAN-2007 10:40AM sheintz

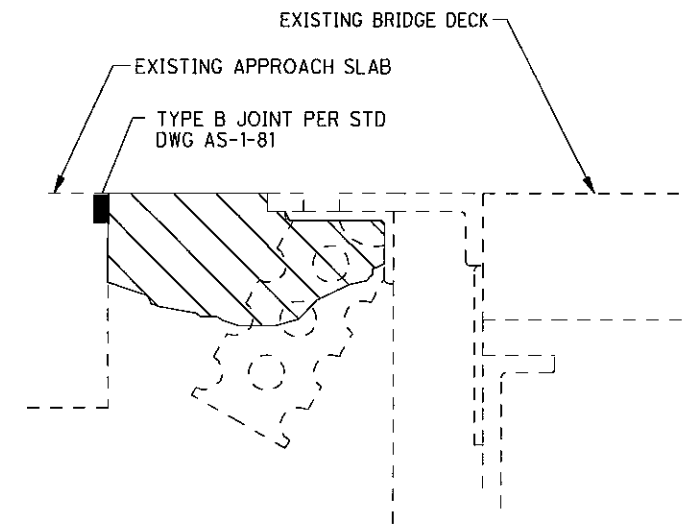
DESIGNED	DRAWN	REVIEWED	DATE
KJW	KJW		
CHECKED	REVISIONS	STRUCTURE FILE NUMBER	
JDL		1814036	



PLAN.



PROFILE ALONG & BUTTERNUT RIDGE ROAD



BACKWALL REPAIR DETAILS



TO BE REPAIRED AS PER ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PROPOSED WORK

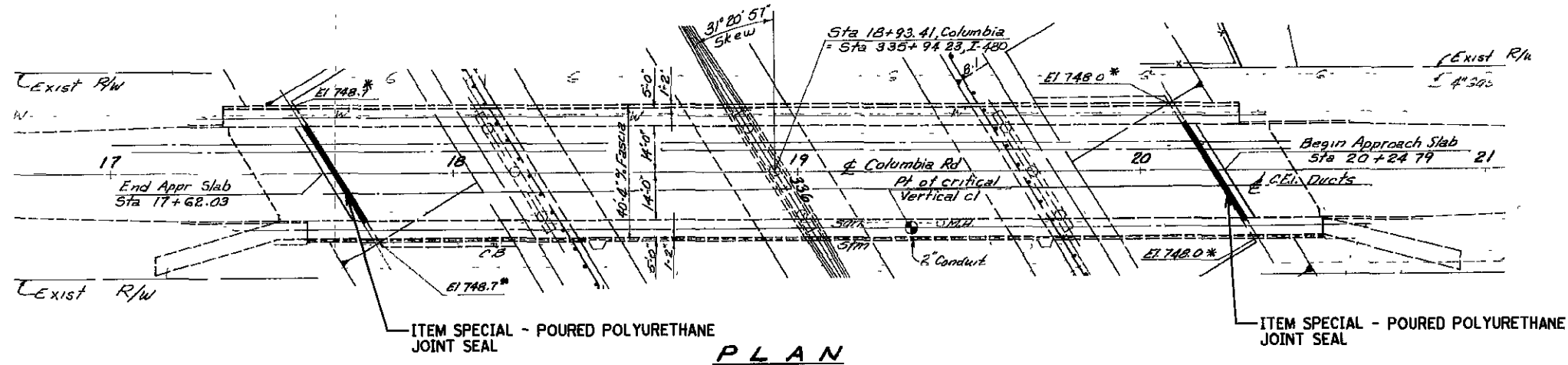
- PATCH TOP OF BACKWALL TO BE PAID FOR IN ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN
- PATCH ABUTMENT SEAT, CURB, PARAPET, SIDEWALK, N. APPROACH SIDEWALK, AND BACKWALL TO BE PAID FOR IN ITEM SPECIAL-PATCHING CONCRETE STRUCTURES, AS PER PLAN
- SEAL ABUTMENT SEAT, BACKWALL AND PARAPET TO BE PAID FOR IN ITEM 512 - SEALING CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN
- SEAL SIDEWALK AND CURB TO BE PAID FOR IN ITEM 512 - SEALING CONCRETE SURFACES (NON EPOXY), AS PER PLAN

PLAN AND ELEVATION VIEWS ARE TAKEN FROM ORIGINAL PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES.

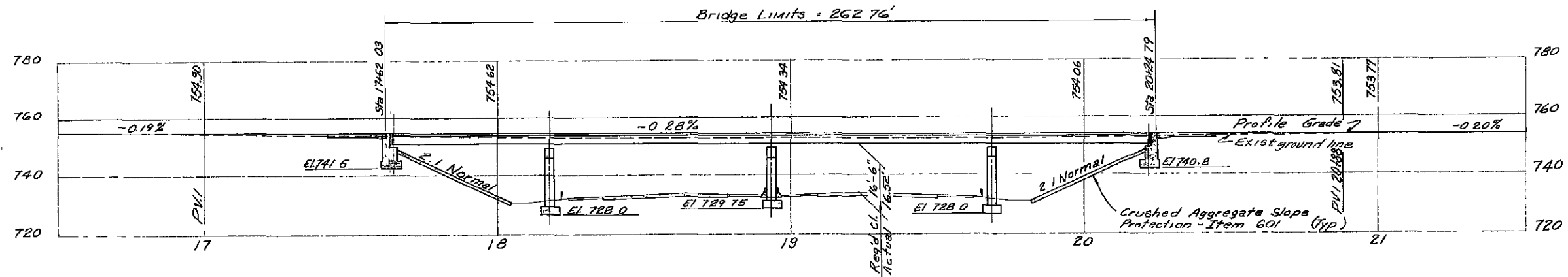
ALL DIMENSIONS ARE +/-.

DO ONLY WORK LISTED UNDER PROPOSED WORK

I:\PROJECTS\PID80804\dgn\new\15-location\3-site dgn 22-JAN-2007 8:15AM shentz



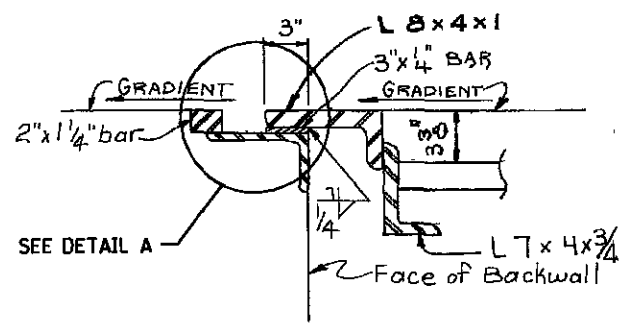
PLAN



PROFILE ALONG COLUMBIA ROAD

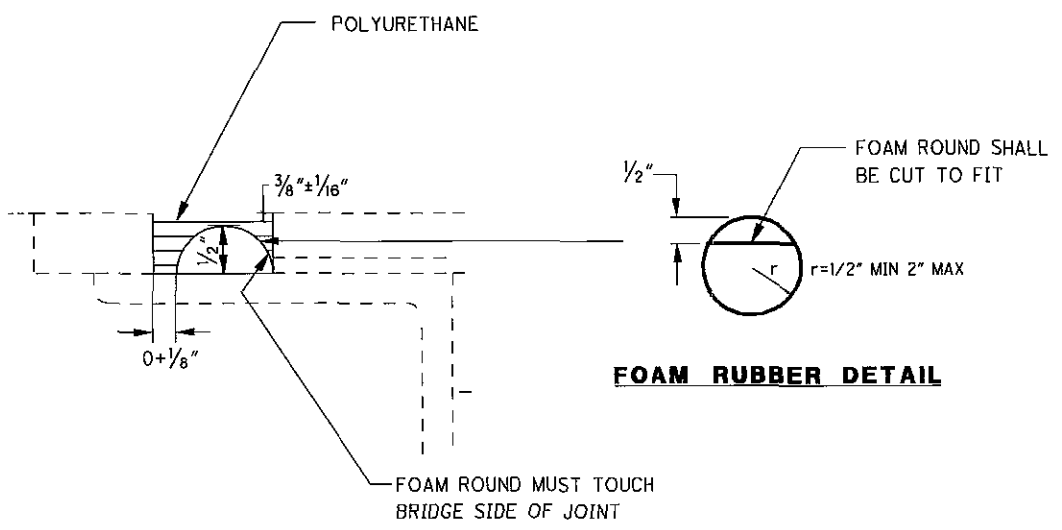
PROPOSED WORK

- SEAL JOINT
- REMOVE EXISTING FENCE
- ADD 6' TALL VANDAL PROTECTION FENCE



SECTION-END DAM SHOWING DRIP PLATE

For additional details, see Standard Drawing SD-1-69



FOAM RUBBER DETAIL

DIMENSION A	
	45° F
NORTH JOINT	2 1/2"
SOUTH JOINT	2 1/2"

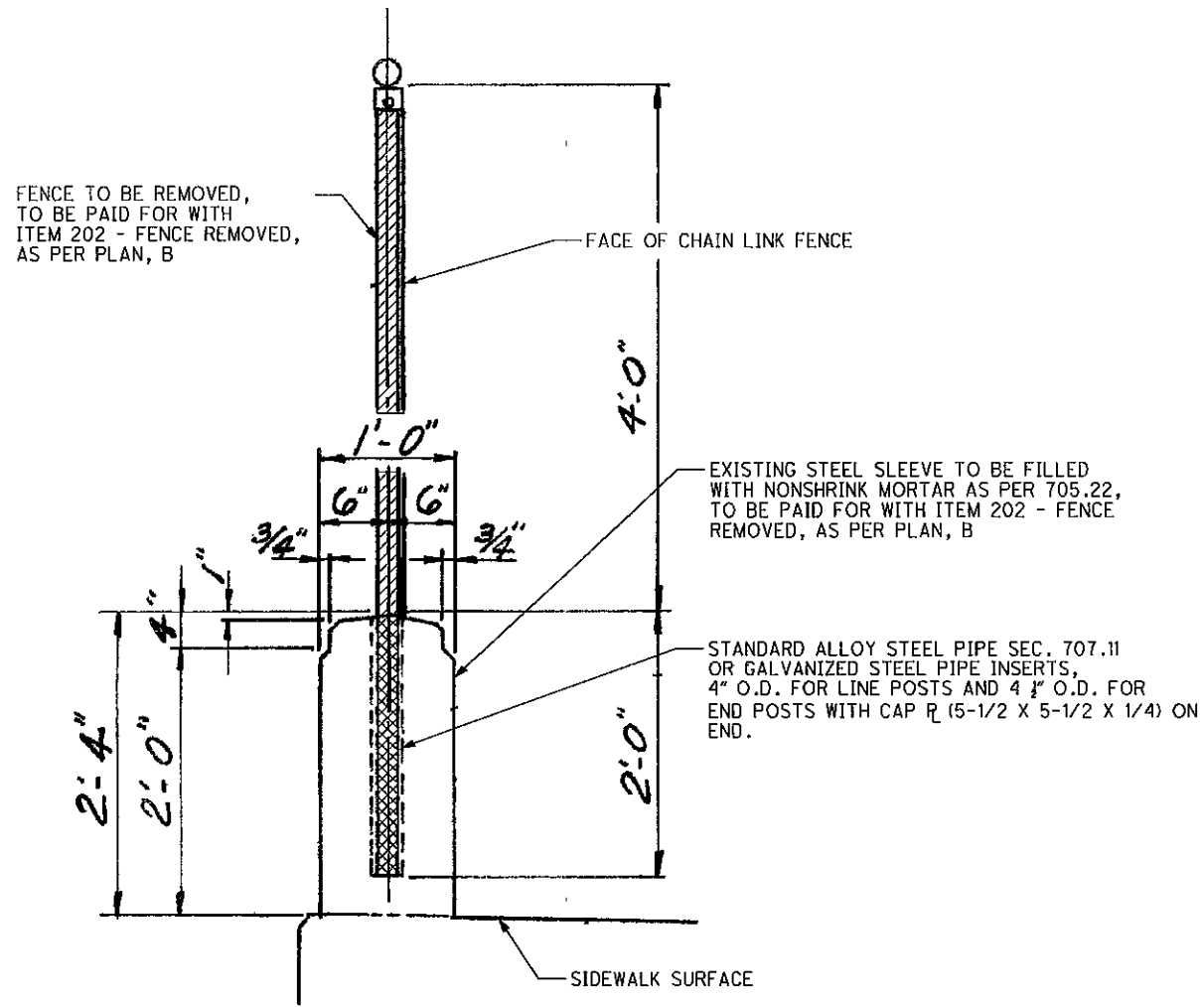
DETAIL A: POLYURETHANE JOINT SEAL

PLAN AND ELEVATION VIEWS ARE TAKEN FROM ORIGINAL PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES

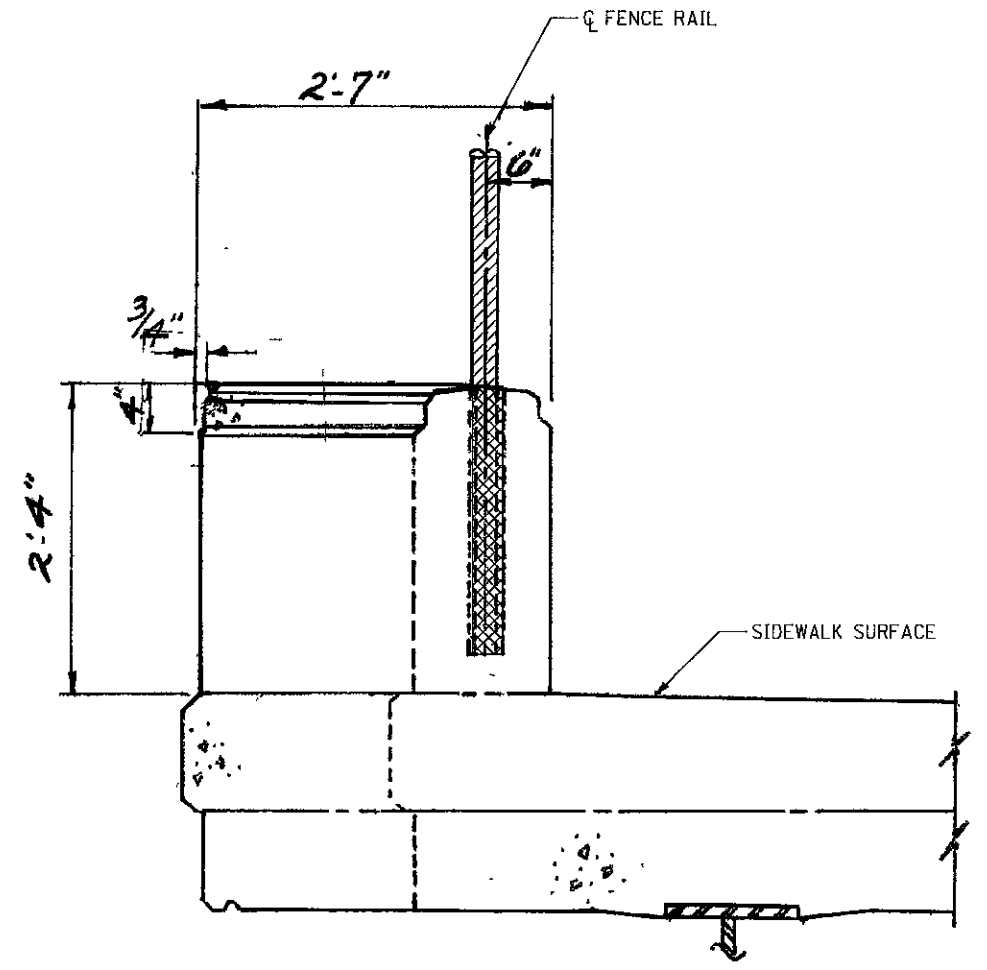
ALL DIMENSIONS ARE +/-.

DO ONLY WORK LISTED UNDER PROPOSED WORK.

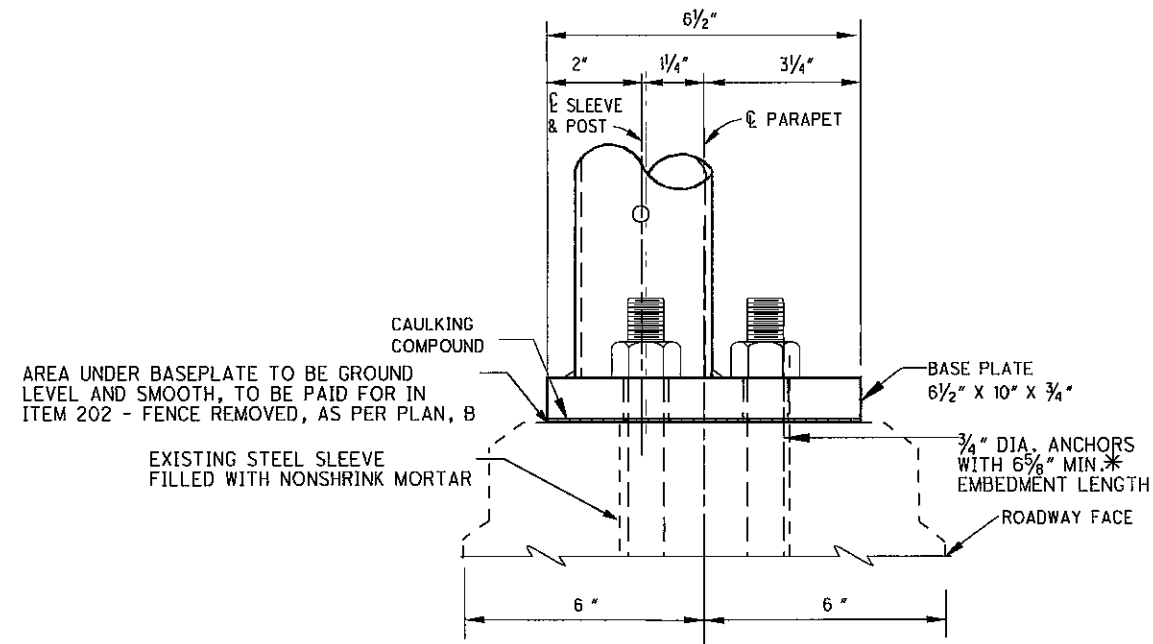
I:\PROJECTS\PID80804\dgn\new\16--location 3--fence.dgn 22-JAN-2007 10:43AM shentz



EXISTING FENCE DETAILS

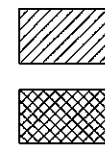


EXISTING FENCE DETAILS



PROPOSED BASE PLATE

* OR AS RECOMMENDED BY THE MANUFACTURER



ITEM 202 - FENCE REMOVED, AS PER PLAN

FILL EXISTING STEEL SLEEVE WITH NONSHRINK MORTAR

NOTE:

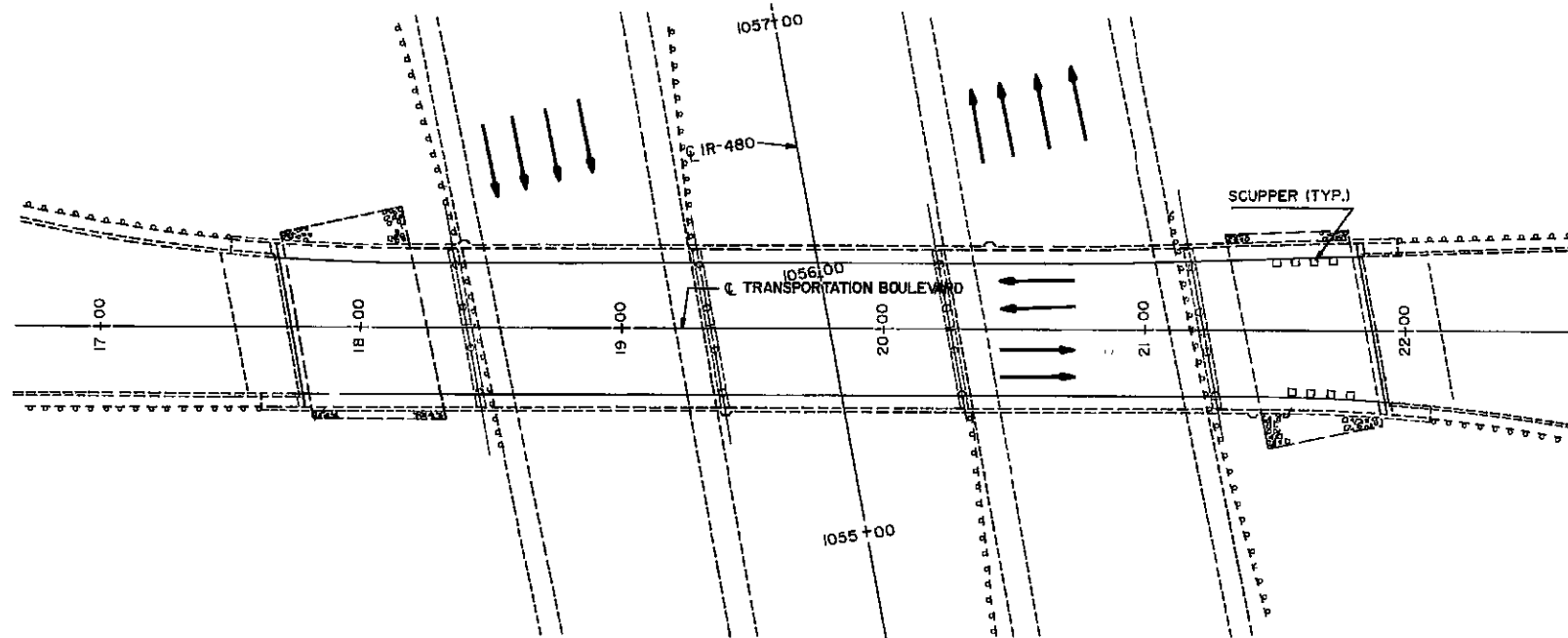
PLACE PROPOSED BASE PLATE OVER EACH EXISTING POST LOCATION.

PLAN AND ELEVATION VIEWS ARE TAKEN FROM ORIGINAL PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES.

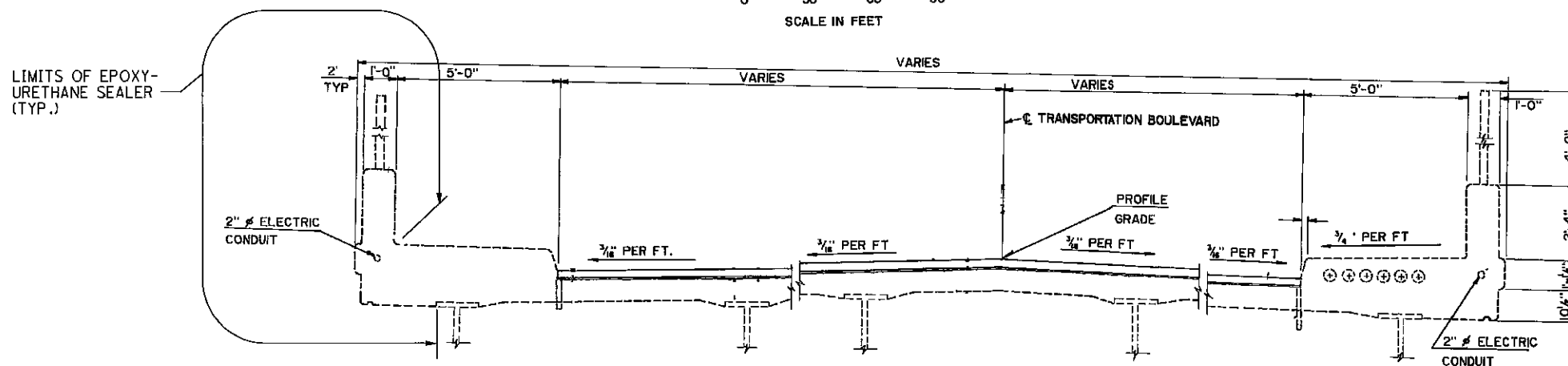
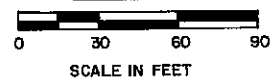
ALL DIMENSIONS ARE +/-.

DO ONLY WORK LISTED UNDER PROPOSED WORK

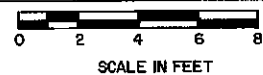
I:\PROJECTS\PID80804\dgn\new\17-location 4--site dgn 22-JAN-2007 8:15AM sheintz



PLAN VIEW



TYPICAL TRANSVERSE SECTION



PROPOSED WORK

- PATCH BARRIER
- SEAL CONCRETE SURFACES WITH EPOXY URETHANE
- REMOVE EXISTING FENCE
- ADD 6' TALL VANDAL PROTECTION FENCE

PLAN AND ELEVATION VIEWS ARE TAKEN FROM ORIGINAL PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES.

ALL DIMENSIONS ARE +/-.

DO ONLY WORK LISTED UNDER PROPOSED WORK.

D12 BH FY2007
PID No. 80804

LOCATION 4 - GENERAL PLAN
CUI-480-1955
TRANSPORTATION BLVD OVER I-480

DESIGNED	KJW	CHECKED	JDL
DRAWN	KJW	REVIEWED	
DATE		STRUCTURE FILE NUMBER	1812556

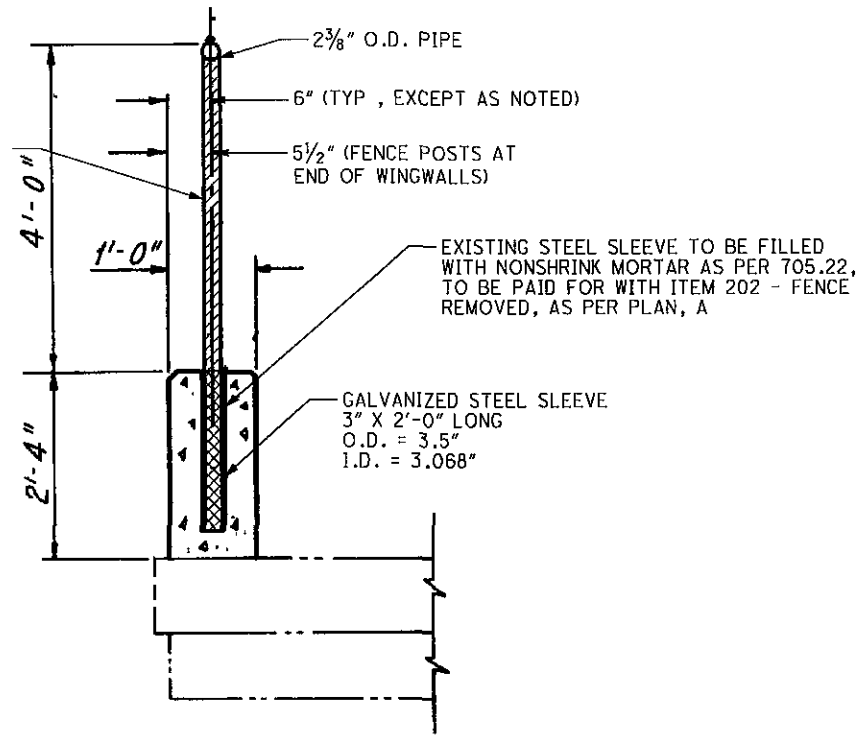
DESIGN AGENCY
Ohio Dept of Transportation
District 12

1 / 2

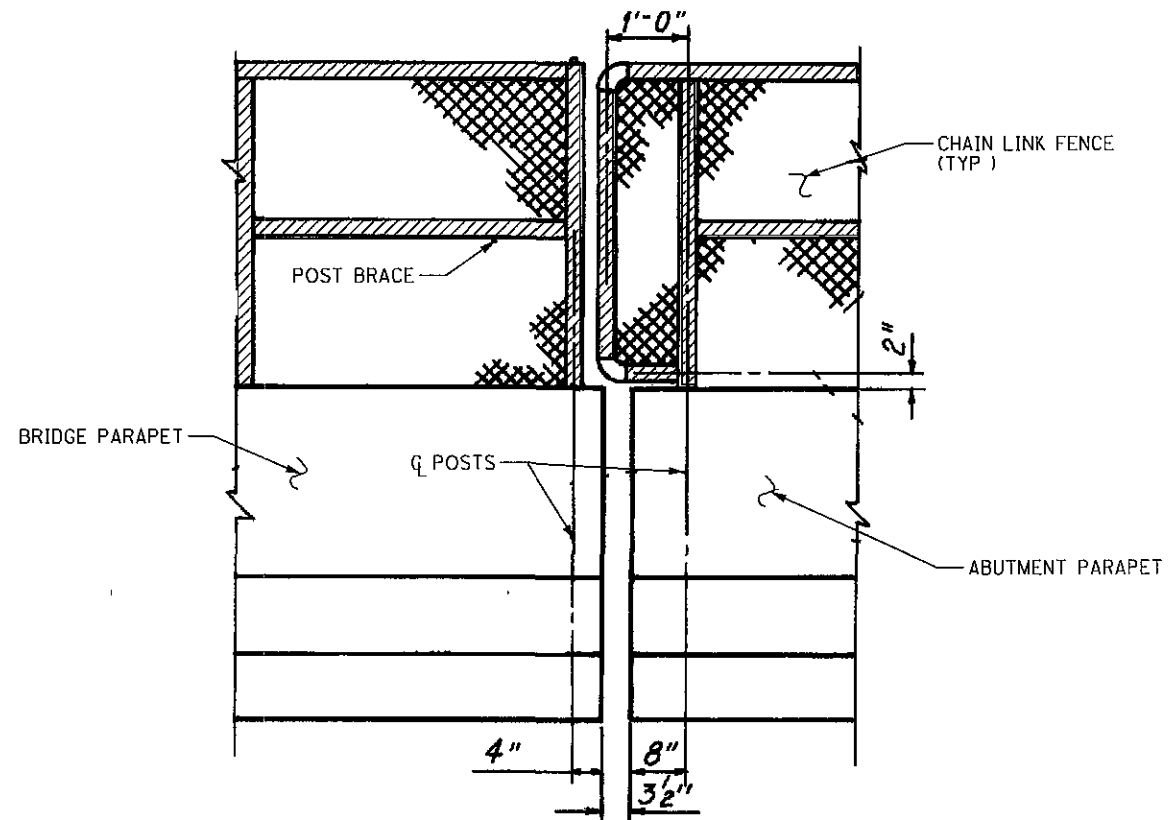
17
31

\PROJECTS\PID80804\new\18-location\4-fence.dgn 22-JAN-2007 10:44AM sheintz

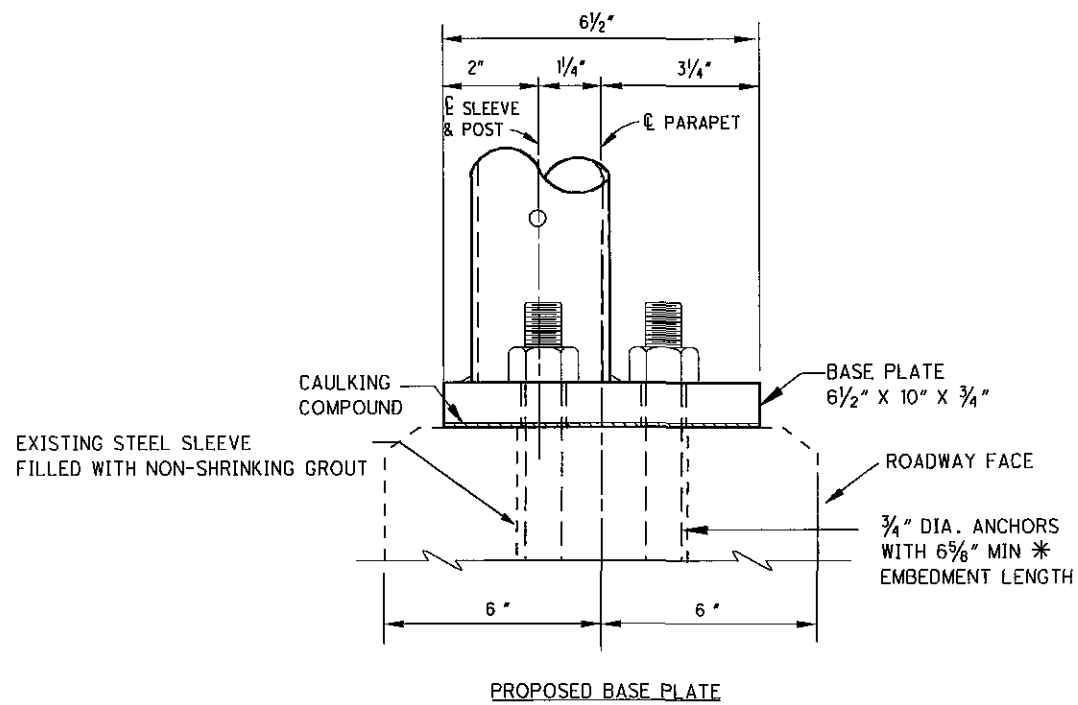
FENCE TO BE REMOVED, TO BE PAID FOR WITH ITEM 202 - FENCE REMOVED, AS PER PLAN, A



EXISTING FENCE DETAILS



EXISTING FENCE DETAILS



PROPOSED BASE PLATE

* OR AS RECOMMENDED BY MANUFACTURER

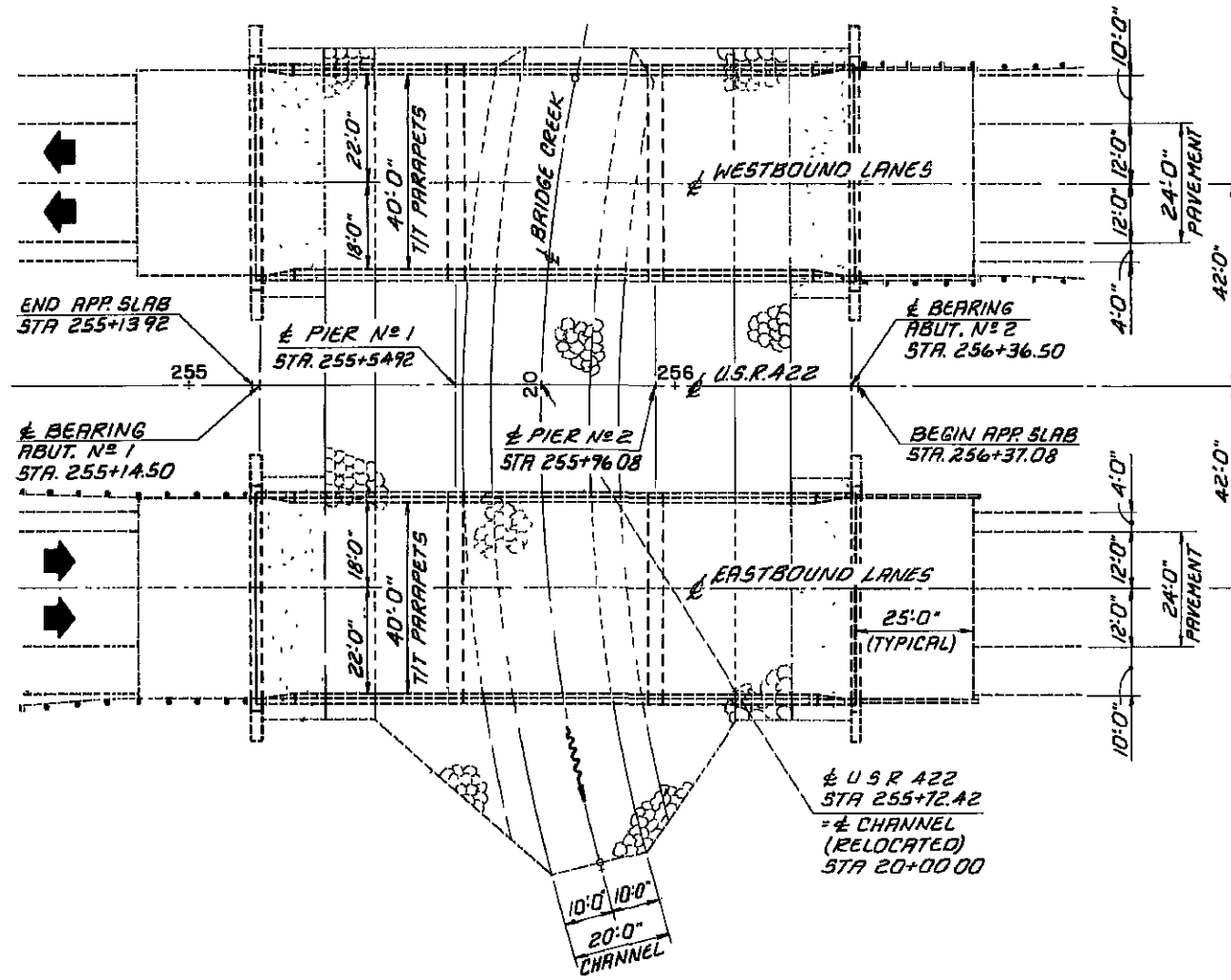
- ITEM 202 - FENCE REMOVED, AS PER PLAN
- FILL EXISTING STEEL SLEEVE WITH NONSHRINK MORTAR

NOTE:
PLACE PROPOSED BASE PLATE OVER EACH EXISTING POST LOCATION

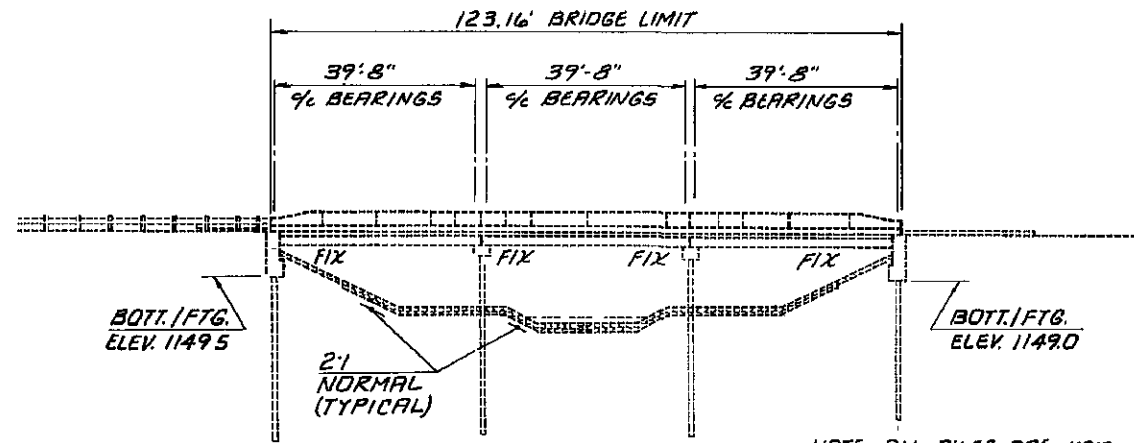
PLAN AND ELEVATION VIEWS ARE TAKEN FROM ORIGINAL PLANS AND SHOULD BE USED FOR INFORMATIONAL PURPOSES.

ALL DIMENSIONS ARE +/-.

DO ONLY WORK LISTED UNDER PROPOSED WORK.



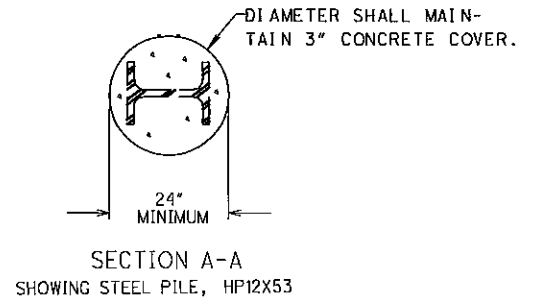
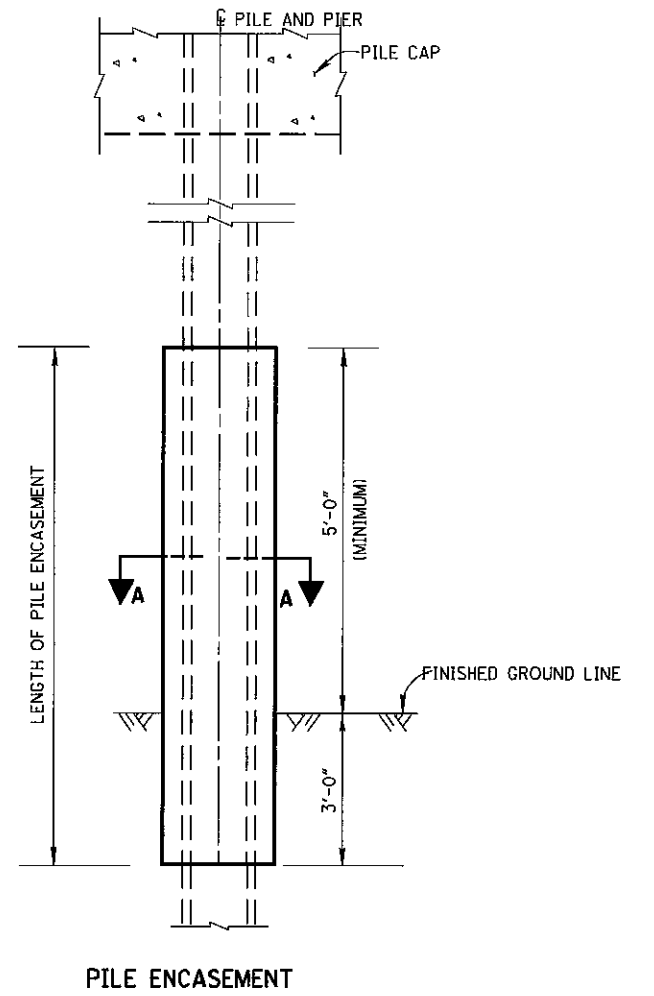
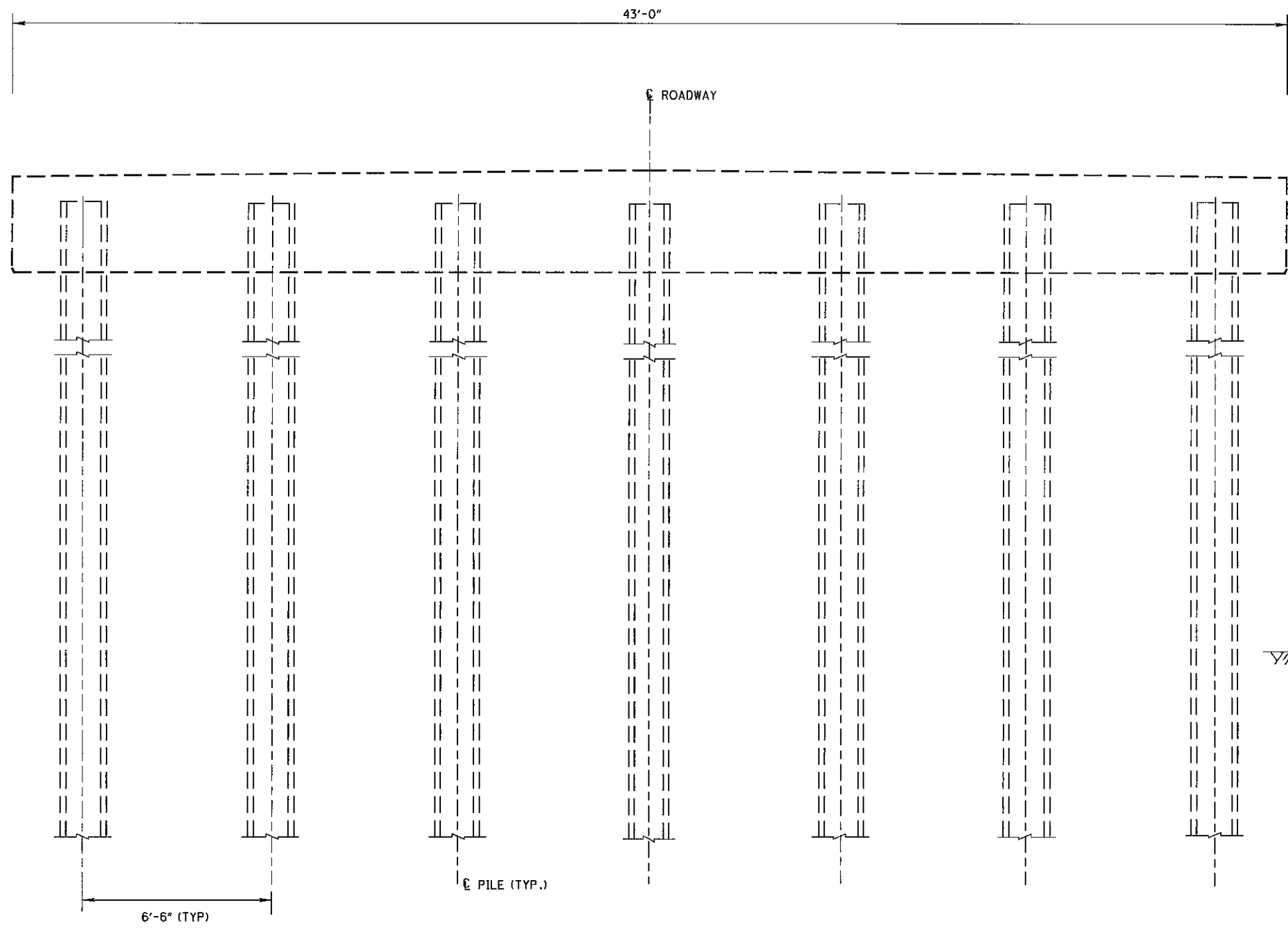
GENERAL PLAN



ELEVATION

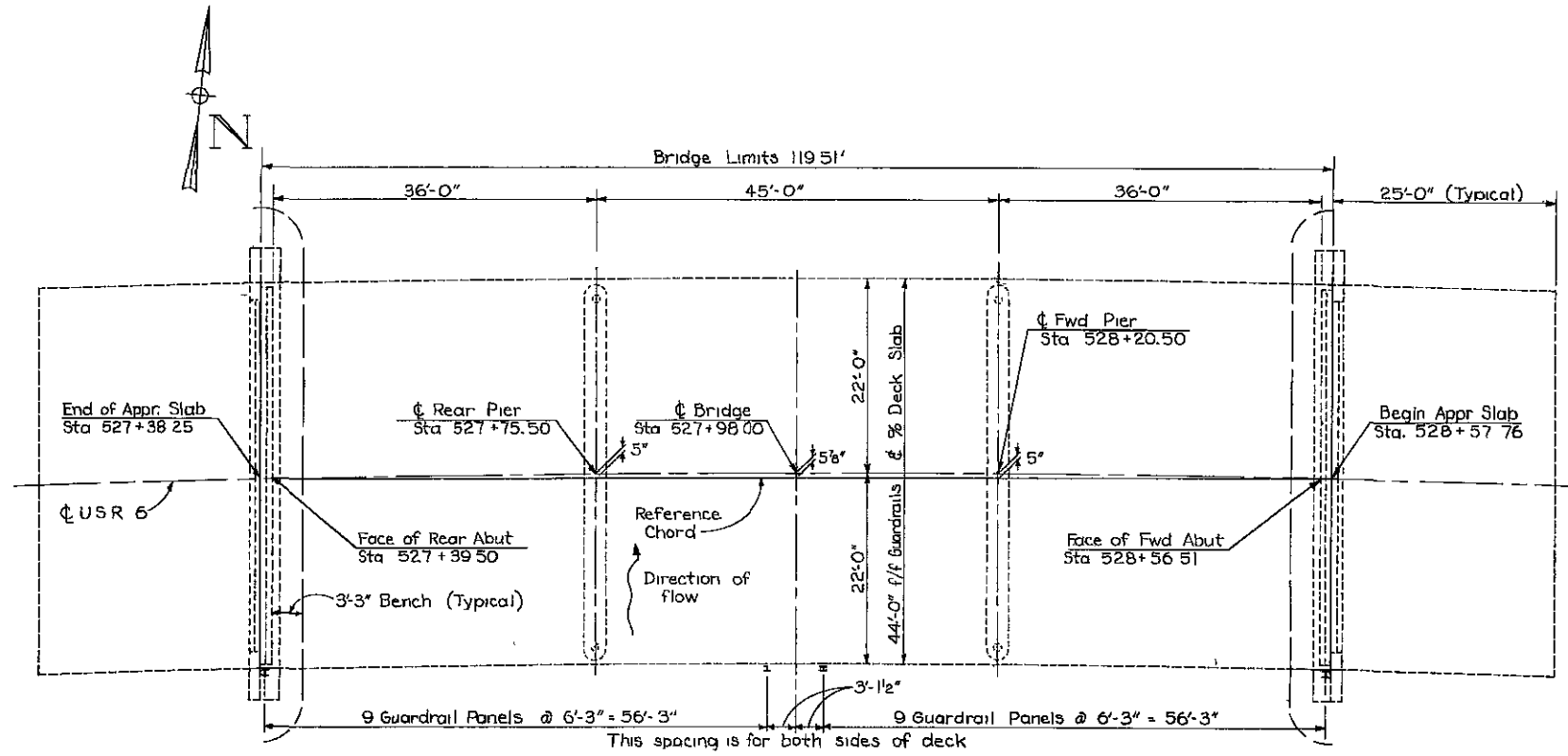
NOTE: ALL PILES ARE HPI2x53 STEEL H PILES.

I:\PROJECTS\PID80804\dgn\new\20-location 5&6 - pile repair detail.dgn 22-JAN-2007 8:16AM shentz

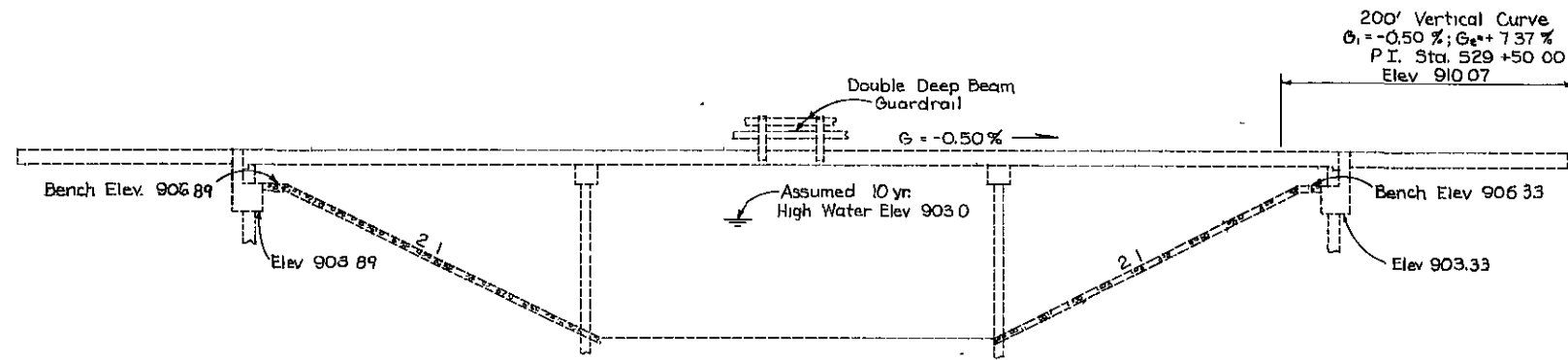


D12 BH FY2007 PID No. 80804	LOCATIONS 5 & 6 - PILE ENCASEMENT GEA-422-0662 L & R BRIDGE CREEK		DESIGNED SKP	CHECKED JDL	DRAWN SKP	REVIEWED REUSED	DATE STRUCTURE FILE NUMBER 2803461 & 2803496	DESIGN AGENCY Ohio Dept of Transportation District 12
	2 / 2	20 / 31						

PROJECTS\PID80804\dgn\new\21-location 7 - site.dgn 22-JAN-2007 8:17AM sheintz

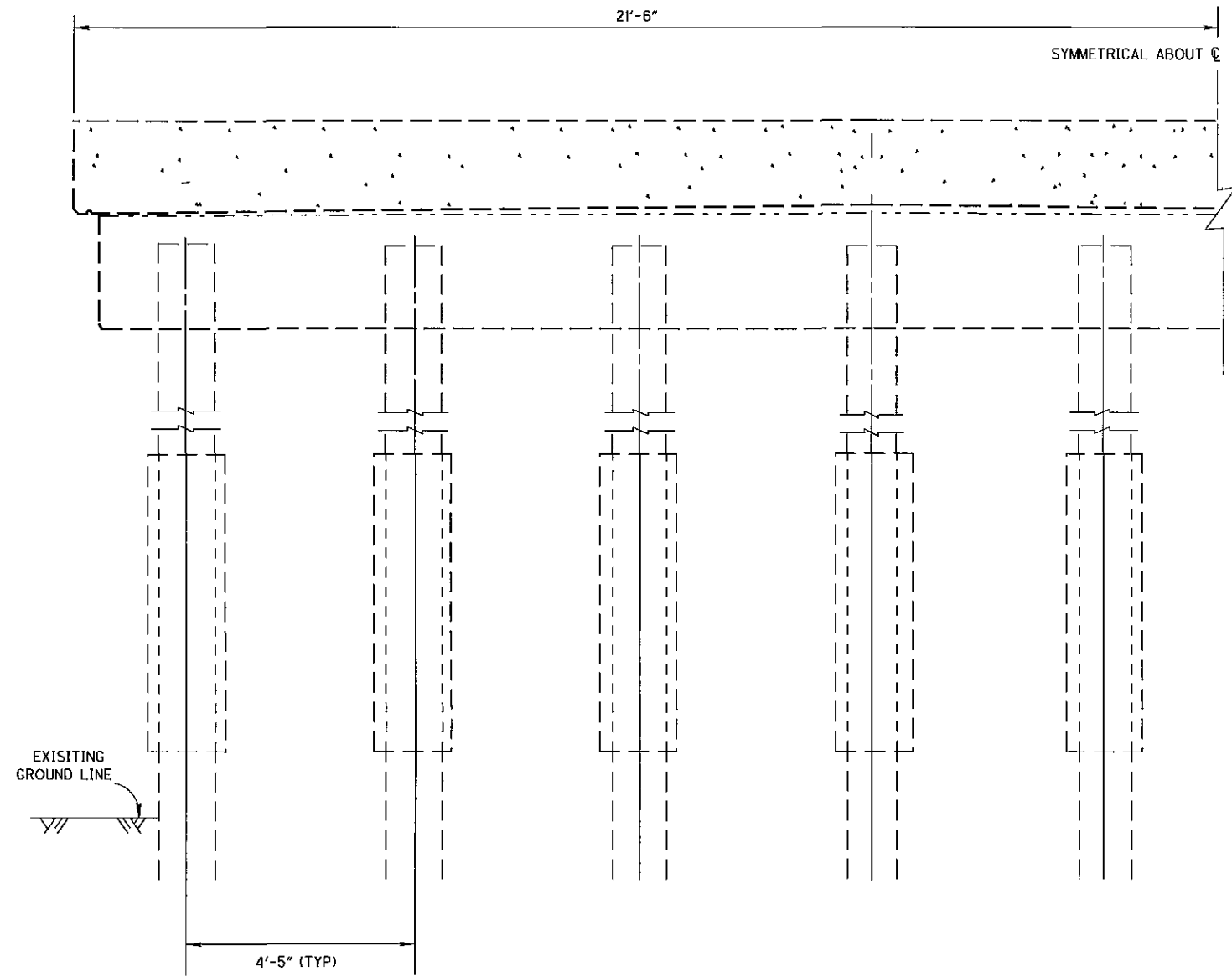


GENERAL PLAN

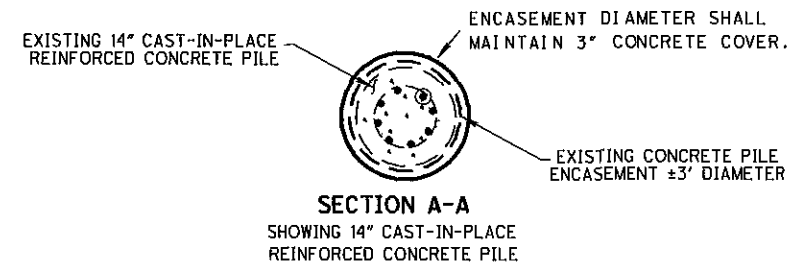
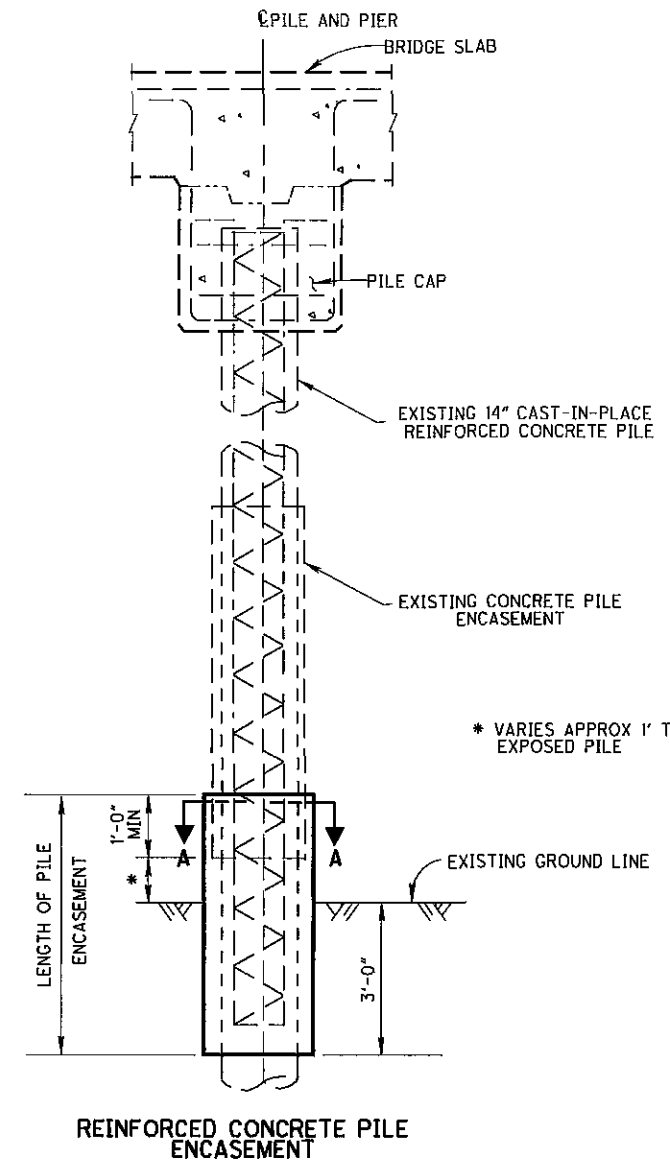


ELEVATION

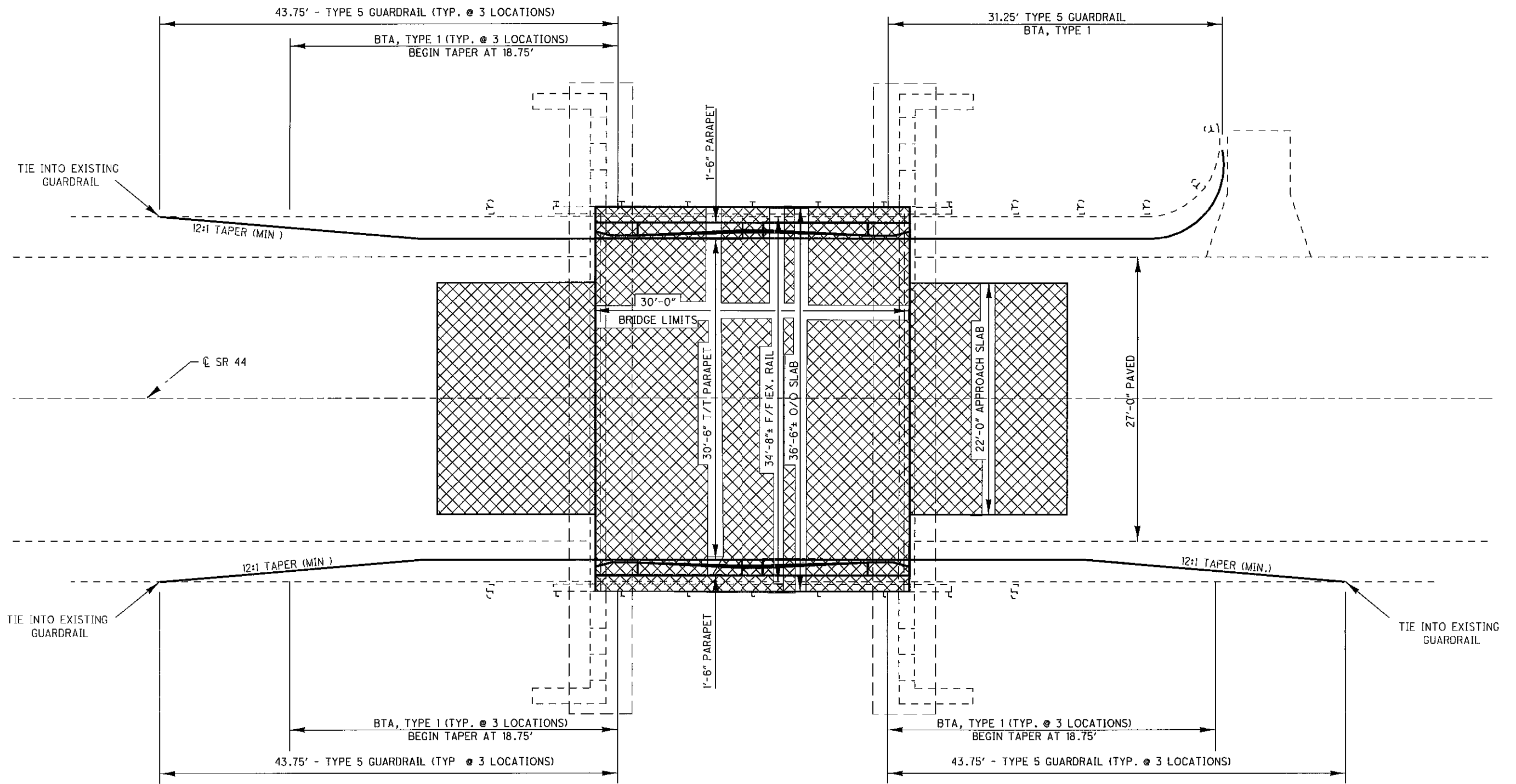
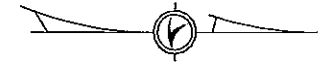
DESIGNED SKP	CHECKED JDL	DRAWN SKP	REVISED	DATE	DESIGN AGENCY Ohio Dept of Transportation District 12
				STRUCTURE FILE NUMBER 4302060	
LOCATION 7 - PLAN AND ELEVATION					
LAK-6-0990 EAST BRANCH OF CHAGRIN RIVER					
D12 BH FY2007 PID No. 80804					
1 / 2					
21 31					




EXISTING PIER ELEVATION



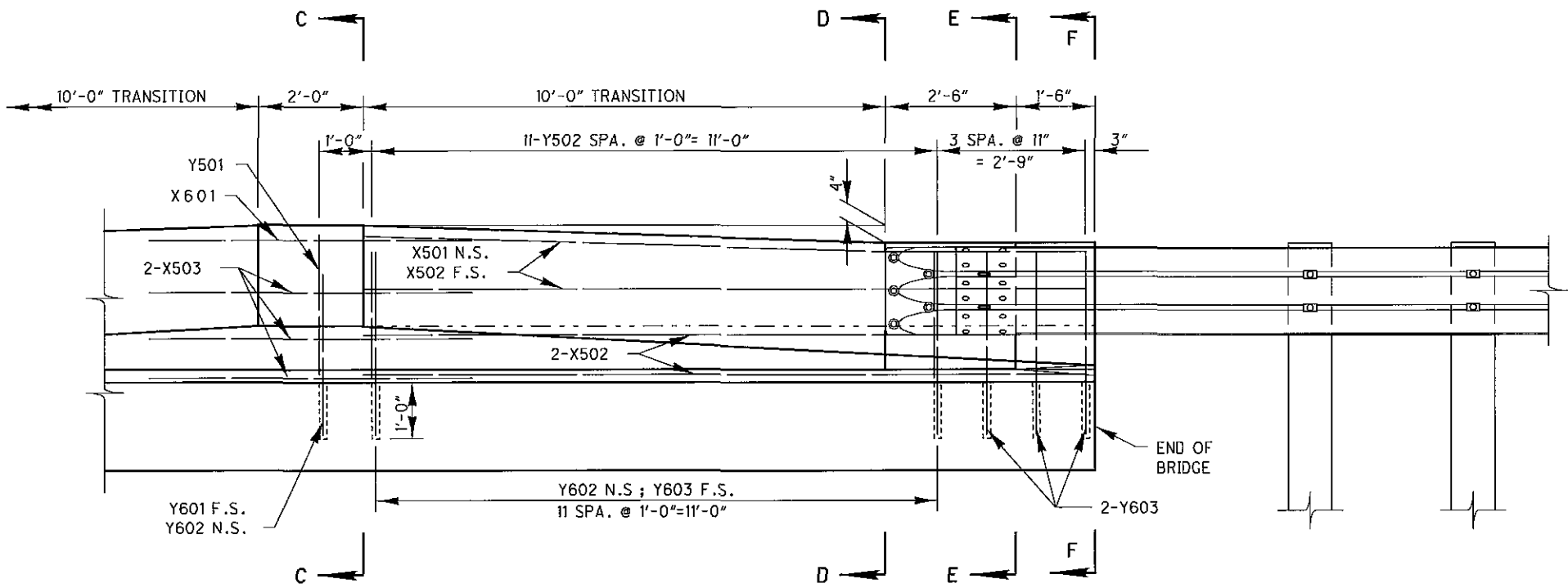
PROJECTS\PID80804.dgn\new\23-location 8 a - plan view REDO.dgn 22-JAN-2007 8:17AM sheintz



 AREA TO BE OVERLAYED

DESIGNED NRC CHECKED JDL	DRAWN NRC REVISED	REVIEWED	DATE	DESIGN AGENCY Ohio Dept of Transportation District 12
		STRUCTURE FILE NUMBER 2800276		
LOCATION 8 - SITE PLAN				
GEA-44-1305 BUTTERNUT CREEK				
D12 BH FY 2007		PID No. 80804		
1 / 3		23 31		

PROJECTS\PID80804\dgn\new\25-location B.c - barrier.dgn 22-JAN-2007 8:18AM sheintz

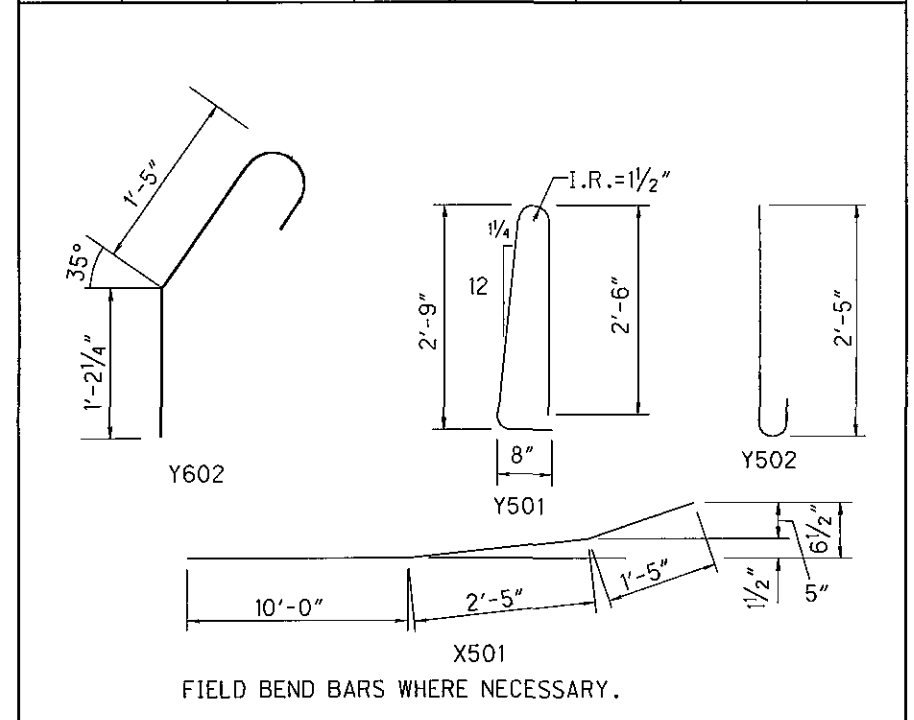


PARTIAL ELEVATION

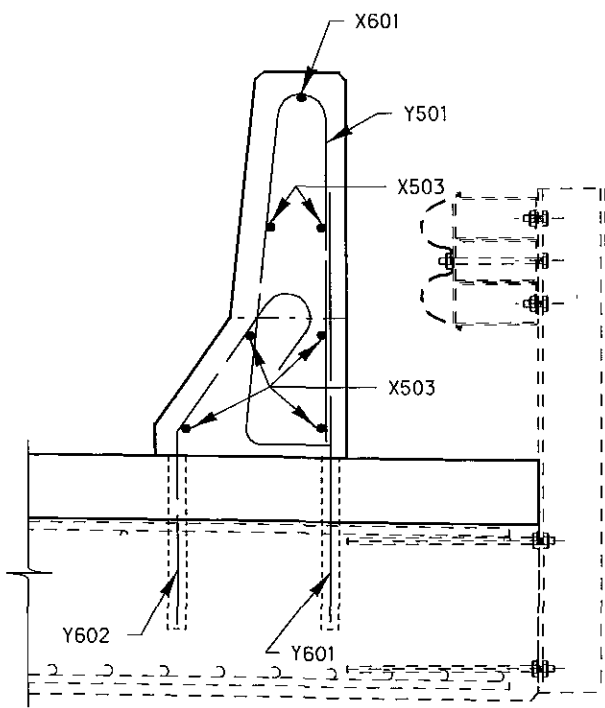
NOTES:

1. FOR PARAPET DIMENSIONS AND DETAILS NOT SHOWN SEE STANDARD DRAWING BR-1 SHEET 1 OF 2.
2. EPOXY GROUT AND DOWEL HOLES INTO THE EXISTING DECK AS PER CMS 510. CORE DRILL SHALL NOT BE USED. RELOCATE HOLE TO MISS EXISTING REBAR.

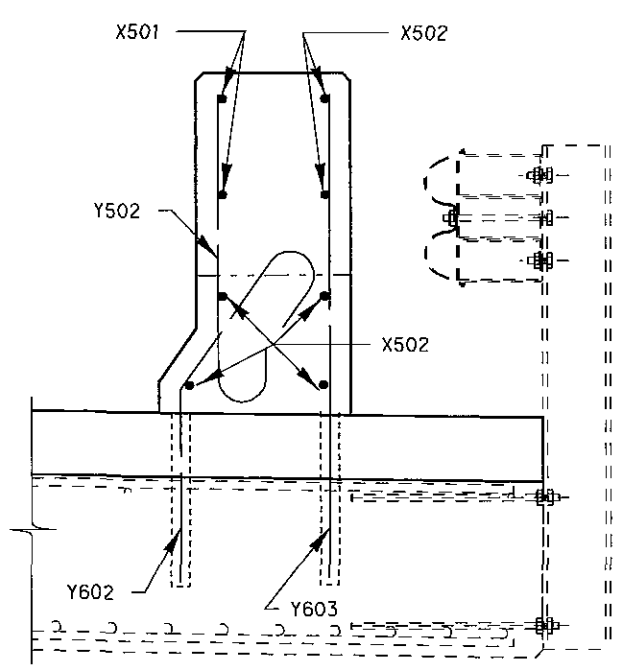
REINFORCING BAR LIST							
MARK	NO.	LENGTH	SHP.	MARK	NO.	LENGTH	SHP.
X501	8	13'-10"	BT.	Y501	2	6'-0"	BT.
X502	24	13'-10"	STR.	Y502	44	3'-0"	BT.
X503	24	5'-4"	STR.				
X601	2	6'-2"	STR.	Y601	2	3'-1"	STR.
				Y602	50	3'-3/4"	BT.
				Y603	64	3'-6"	STR.



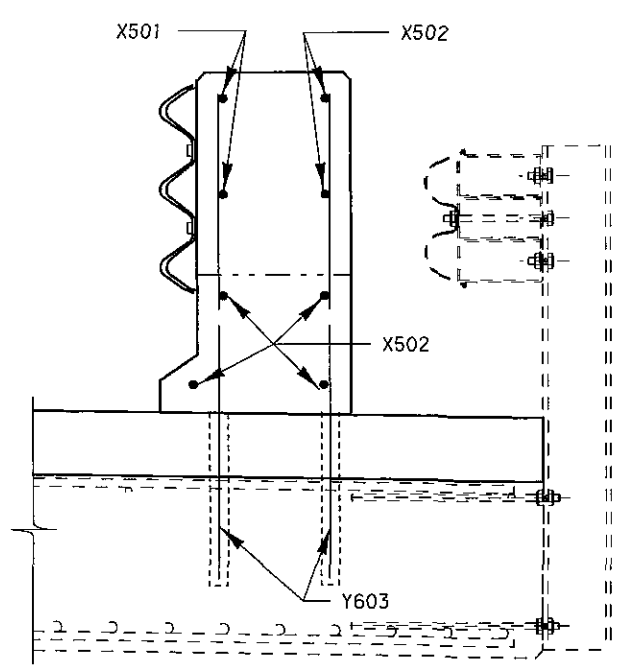
★ ROUND OFF AT END OF STRUCTURE, BOTH PARALLEL AND TRANSVERSE TO TRAFFIC



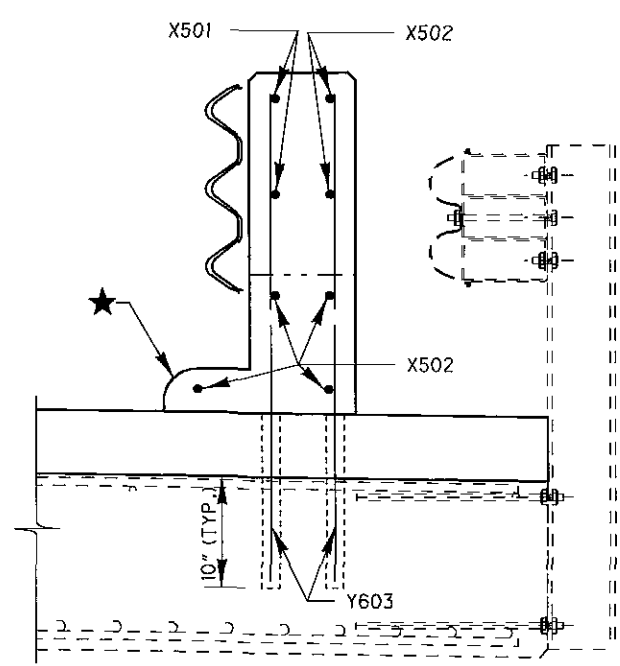
SECTION C-C



SECTION D-D



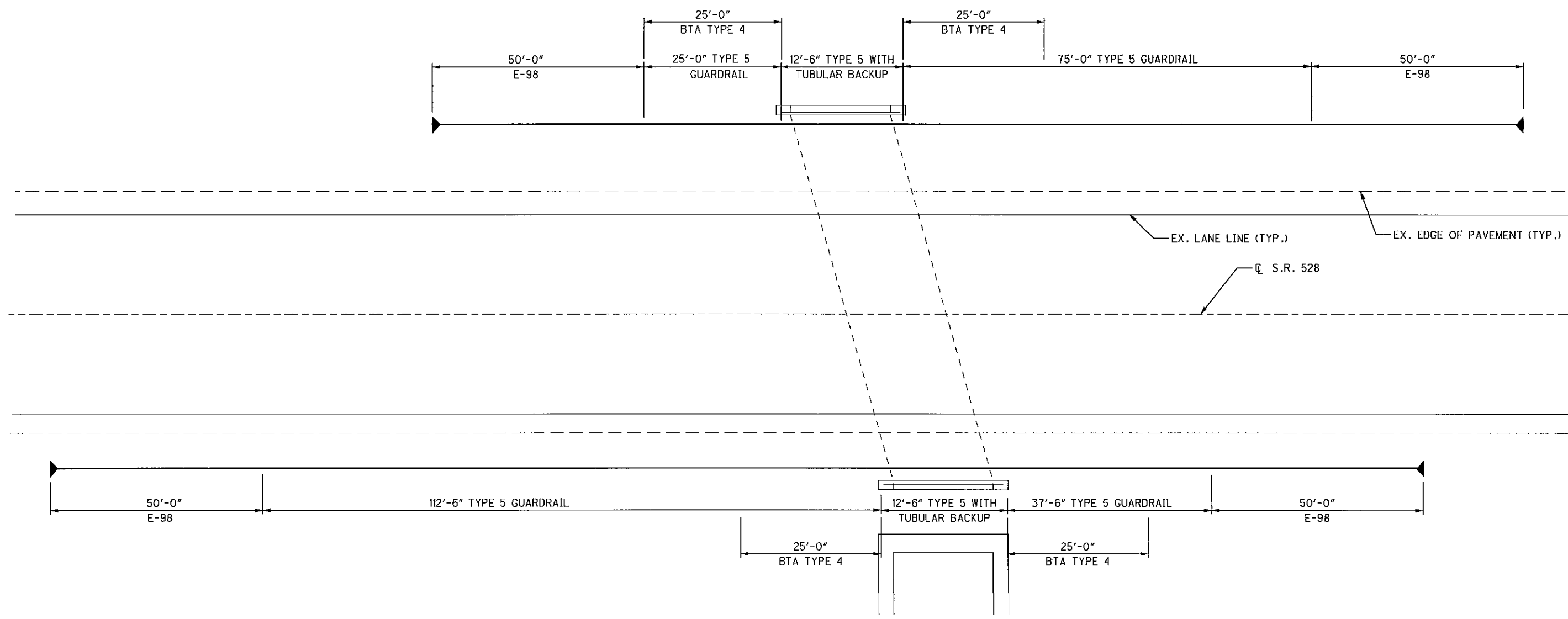
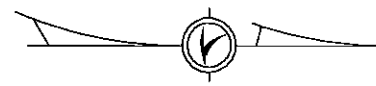
SECTION E-E



SECTION F-F

DESIGN AGENCY: Ohio Dept of Transportation District 12
 DATE: 2800276
 STRUCTURE FILE NUMBER: 2800276
 DRAWN: NRC
 CHECKED: JDL
 REVISIONS: REVISED
 LOCATION 8 - PARAPET DETAILS
 GEA-44-1305
 BUTTERNUT CREEK
 D12 BH FY2007
 PID No. 80804
 3 / 3
 25 / 31

I:\PROJECTS\PID80804\dgn\new\26-location 9 - 528.dgn 22-JAN-2007 8:18AM sheintz

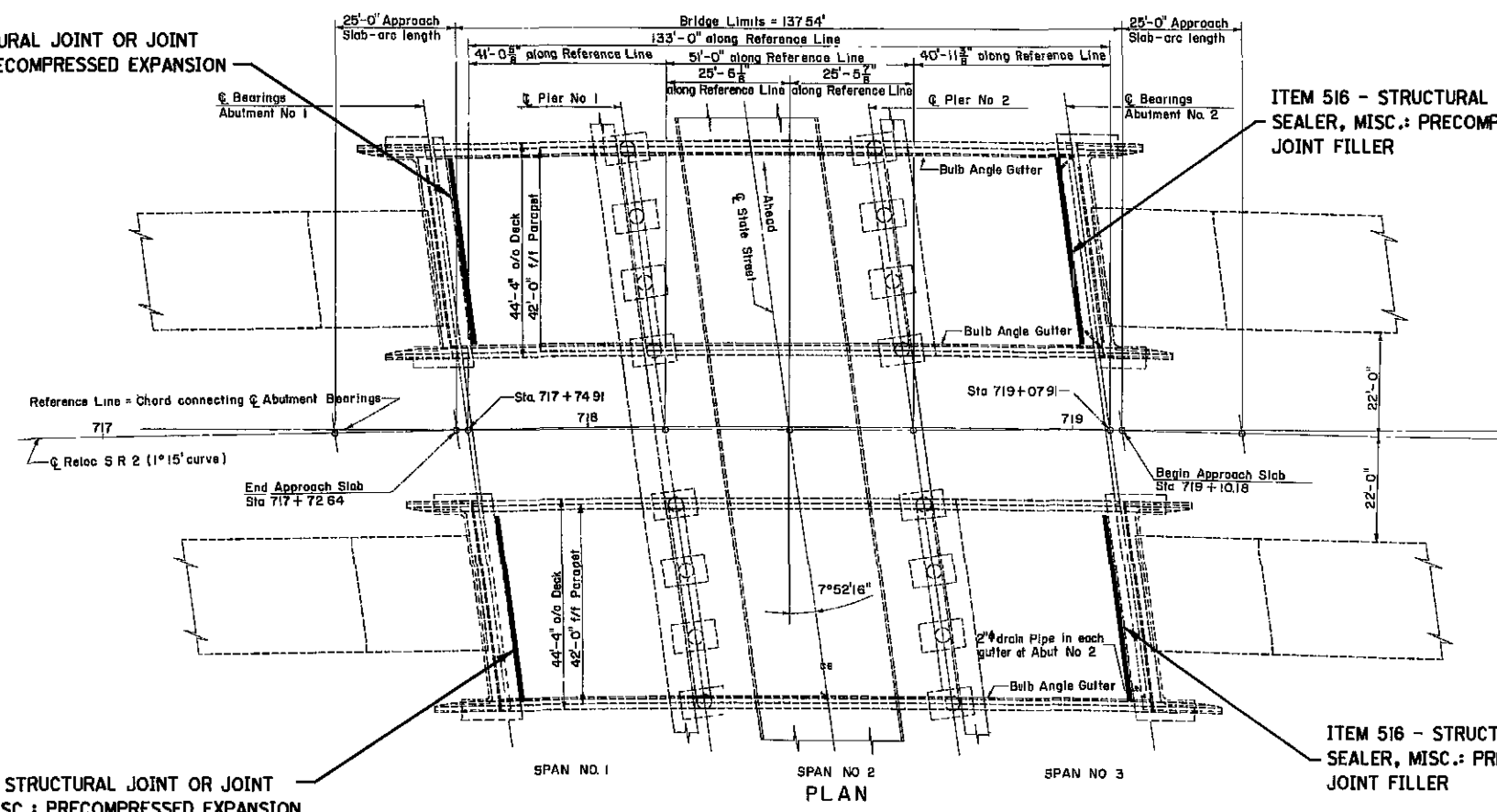


NOTES: ITEM 626 - BARRIER REFLECTOR TYPE A-2
 TO BE CARRIED TO GENERAL SUMMARY
 SEE APPLICABLE STANDARD DRAWINGS LISTED
 ON TITLE SHEET

DESIGNED SKP	DRAWN K.U.W.	REVIEWED	DATE	DESIGN AGENCY Ohio Dept of Transportation District 12
		CHECKED JDL	STRUCTURE FILE NUMBER 2802139	
LOCATION 9 - GUARDRAIL DETAILS				PID No. 80804
GEA-528-2395 STREAM 3.44 MI. N. OF 106				
1 / 1				26 31

\PROJECTS\PID80804\80804 filed\27new-location 10&11 - joint repair.dgn 27-JAN-2007 1:01PM sheintz

ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: PRECOMPRESSED EXPANSION JOINT FILLER

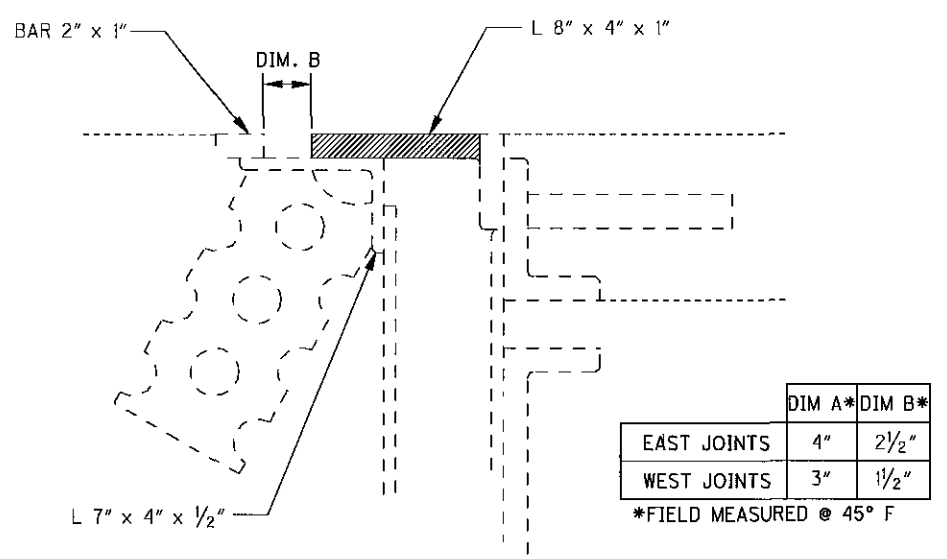
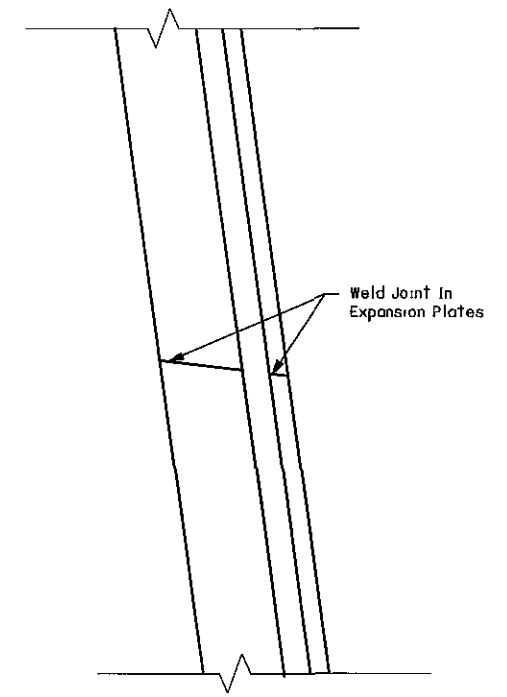


ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: PRECOMPRESSED EXPANSION JOINT FILLER

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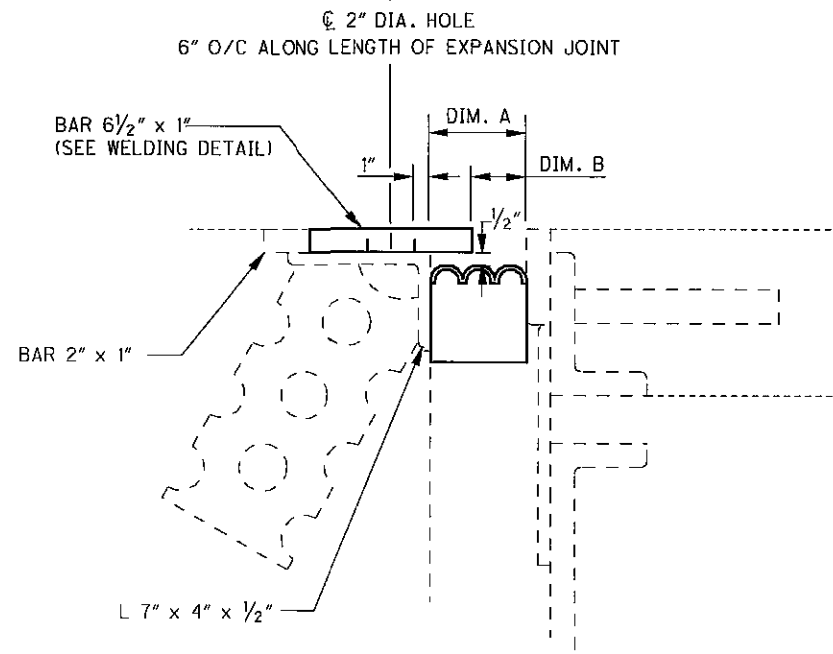
PLAN



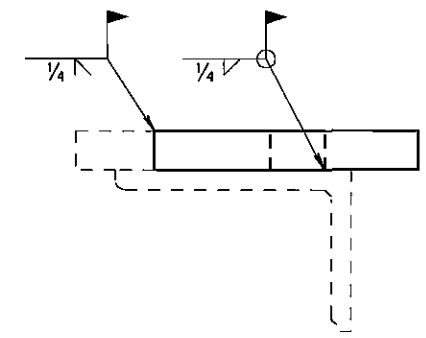
EXPANSION JOINT DETAIL

(SEE RETIRED STANDARD DRAWING SD-1-69 FOR ADDITIONAL INFORMATION)

PORTION TO BE REMOVED PER ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: PRECOMPRESSED EXPANSION JOINT FILLER



DETAIL A: PRECOMPRESSED EXPANSION JOINT FILLER

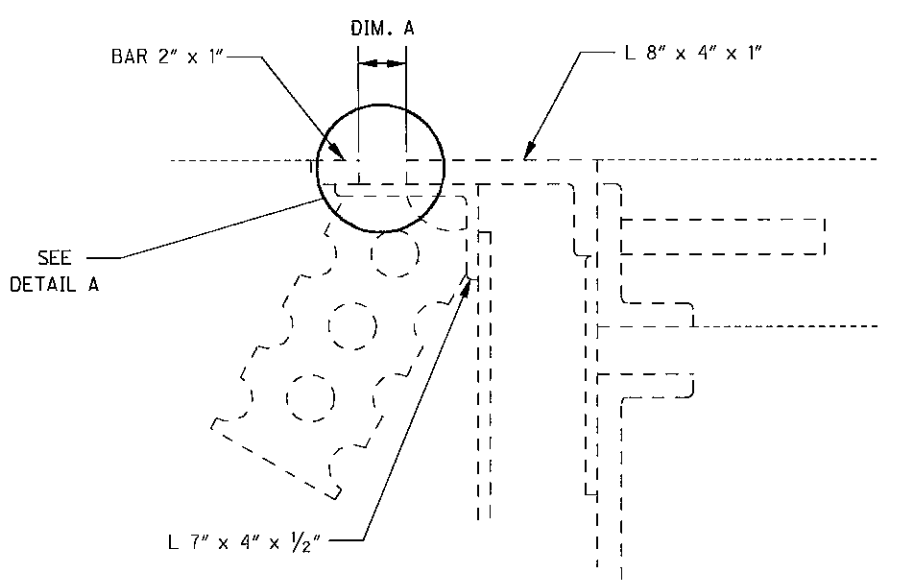
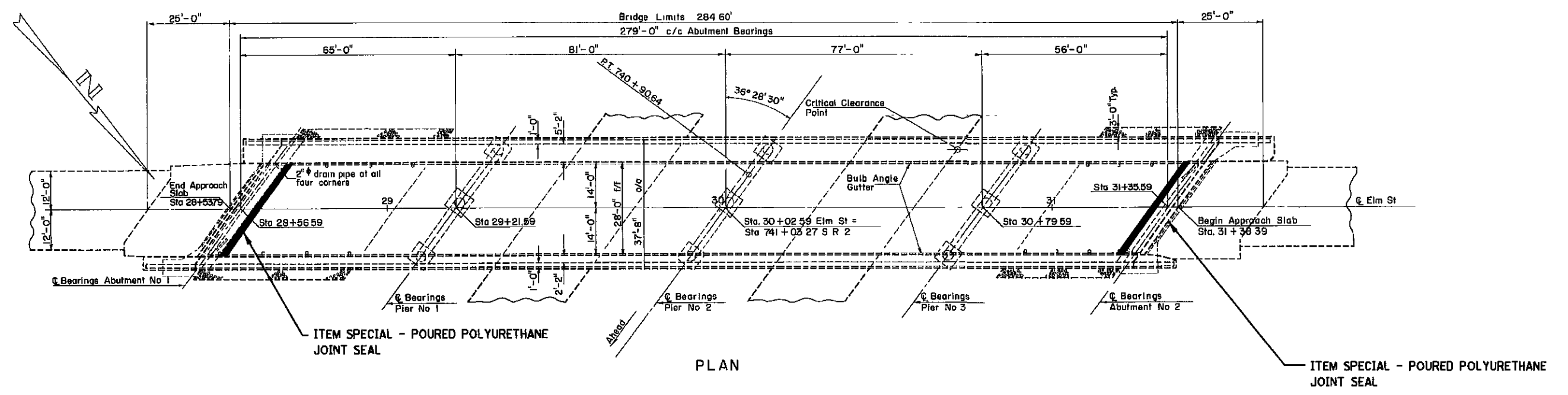


DATE	STRUCTURE FILE NUMBER
REVIEWED	4301560 & 4301595
DRAWN SKP	REVISD
DESIGNED SKP	CHECKED YSS

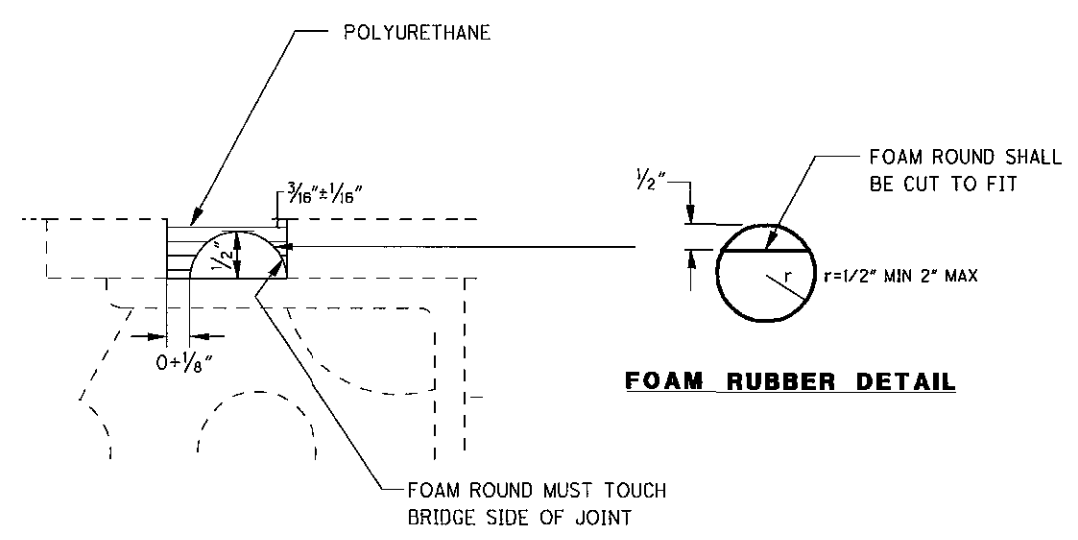
LOCATIONS 10 & 11 - JOINT DETAILS
 LAK-2-1553 L & R
 STATE STREET

D12 BH FY2007
 PID No. 80804

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EXPANSION JOINT DETAIL
(SEE RETIRED STANDARD DRAWING SD-1-69 FOR ADDITIONAL INFORMATION)



DETAIL A: POLYURETHANE JOINT SEAL

DIMENSION A	
	45° F
NORTH JOINT	2 1/2"
SOUTH JOINT	2 1/4"

DESIGN AGENCY		OHIO DEPT OF TRANSPORTATION	
DATE		DISTRICT 12	
REVIEWED	DATE	STRUCTURE FILE NUMBER	4301625
DRAWN	SKP	REVISIONS	
DESIGNED	SKP	CHECKED	JDL
LOCATION 12 - JOINT REPAIR			
LAK-2-1597 ELM STREET			
D12 BH FY2007		PID No. 80804	
1 / 2		28 31	

Item 614 - Maintaining Traffic

Generally the Contractor shall conduct his operations as to make the proposed repair with a minimum of hazard, delay and inconvenience to the motorists using the highway affected by the work done under this contract. In addition to the Construction and Material Specifications, the following specific provisions are mandatory

I. Notification

Since functional traffic control is a major concern on this project, it is essential that the motoring public be adequately forewarned of future lane closures and traffic constrictions. Therefore, the contractor must submit a written schedule to the engineer, responsible law enforcement agencies, City Engineer's Office, and the ODOT Public Information Office (216-584-2007) indicating the locations and dates of the lane closures at least 3 days prior to the implementation of any such closures. Use portable changeable message signs to alert motorists 3 days prior to the implementation of any changes such as lane closures or other restrictions.

II. Lane Closure Restrictions

- Lane closures may only be implemented at the times permitted by the "District 12 Permitted Lane Closure Times" list which is located on the ODOT web site

www.dot.state.oh.us/dist12/workzone/laneclo.htm

The latest revision at 14 days prior to the bid date shall be in effect for this project

- Any roadway not listed in the "District 12 Permitted Lane Closure Times" shall not have any weekday closures from 7:00AM - 9:00AM or 3:00PM - 6:00 PM.
- Unless otherwise noted, exit and entrance ramp lanes shall remain open at all times and exhibit a minimum width of ten (10) feet.
- No lane or shoulder closures shall be in place when no work is being performed
- Maintenance of Traffic shall follow the instruction of the Standard Construction Drawings listed on the title sheet and the latest revision of the OMUTCD
- Pedestrian traffic shall be permitted and accommodated on at least one side at all times
- All work on CUY-480-1955 (Transportation Blvd) on top shall be completed during nights and in accordance with the "District 12 Permitted Lane Closure Times"
- All work on LAK-2-1553 L&R shall be completed while maintaining one lane in each direction
- All work on GEA-44-1305 for phased construction of the overlay shall be completed by June 22, 2007. One lane of bi-directional traffic shall be maintained for 2 weekends with a flagger

Notwithstanding the above, no lane closures shall occur during the period beginning at 12:00 noon on the day preceding and continuing until noon on the day following legal holidays and holiday weekends such as Memorial Day, Fourth of July, and Labor Day. Furthermore, no lane closures are to be implemented or in place during increased traffic volumes caused by special events or when the Engineer deems the climatological conditions too hazardous.

III. Maintenance of Traffic Systems

1. When Required

Whenever any part of the traveled surface is being worked upon or is otherwise not suitable for safe and convenient use by vehicles, traffic control devices sufficient to protect such areas to assure the safe and convenient passage of vehicular traffic shall be installed and maintained. Such traffic control devices and the manner in which they are used shall be consistent with these plans and the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways, hereinafter referred to as the "Manual". The traffic control device system shall constitute the minimum provisions for traffic control for each particular situation. Whenever the Engineer deems it necessary especially where a grade, curve, or merge conditions exists, he may direct that additional or alternative devices be used.

2. Conditions

During all parts of this project flaggers, signing, barricades, flashing arrows, etc shall be located as indicated in the "Manual" or as shown in the Standard Drawings. Two-way traffic shall be maintained on one lane at least 10' wide at all times.

3. Advance Warning Signs

All advance warning signs for any condition which restricts traffic shall be erected before any such restriction is put into effect. All such signs shall be covered or removed from the view of traffic whenever they are not applicable.

4. Flaggers

At least two flaggers are required for each closure. The Contractor shall furnish additional flaggers as directed by the Engineer.

5. Protection of Public

Personal cars shall not be parked within the Right of Way.

6. Failure to Comply

If there is any failure to comply with provisions for traffic control set out in these plans and notes, or with the provisions of the "Manual", the highway in the vicinity of the work area shall not be considered in a condition for the safe and convenient use by the traveling public. Any failure to keep the highway, in the vicinity of the work area, in a condition for the safe and convenient use by the traveling public shall be considered a breach of this contract. Work shall be suspended until the Contractor complies with the provisions of the aforementioned items.

IV. Maintenance of Traffic Materials

1. Signs

Sign dimensions and specifications, including letter sizes are to be as provided in the "Manual", or in design drawings provided by the Department of Transportation. The signs shall be subject to approval of the Engineer prior to the start of the project.

2. Sign Support

Sign supports shall be of sufficient size and mass as to support the signs at the appropriate height. Supports shall be as shown on the Standard Drawings.

3. Flashing Arrow Requirement

Whenever any part of the traveled surface is closed, the motorists shall be warned and directed by the Contractor through the use of one flashing arrow panel for each lane closed. The Contractor shall refer to Standard Drawing MT-35.10 and the provisions set forth in the "Manual" for all information regarding furnishing, maintaining, and use of flashing arrow panels. Payment for the abovementioned items shall be included in the lump sum bid for Item 614 - Maintaining Traffic.

4. Drums

Drums shall be in accordance with pertinent sections of the "Manual". All costs for installing, maintaining, and subsequent removal of said drums is to be included in the lump sum bid price for Item 614 - Maintaining Traffic.

5. Cones

Cones, if utilized, are to be located as shown in the "Manual" and the Standard Drawings.

6. Flashers

Flashers shall be 12 Volt battery-operated models with 7 inch diameter yellow lenses illuminated by rapid intermittent flashers of short duration and are to be placed on all signs at all times as required by the "Manual" and the Standard Construction Drawings.

V. Payment

Payment for providing, erecting, maintaining and removing temporary maintenance of traffic control devices shall be made under the lump sum price bid for Item 614 - Maintaining Traffic.

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MOT NOTES

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Item 614 – Law Enforcement Officer with Patrol Car

In addition to the requirements of Item 614 and the latest edition of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD), a uniformed Law Enforcement Officer and official patrol car with working top mounted emergency flashing lights shall be provided for controlling traffic for the following tasks

- For lane closures During initial set-up periods, tear down periods, substantial shifts of a closure or when new lane closure arrangements are initiated
- When directed by the Engineer

Law Enforcement Officers (LEO's) should not be used where the OMUTCD intends that flaggers be used. The LEO's are considered to be employed by the Contractor and the Contractor shall be responsible for their actions. Although they are employed by the Contractor, the Project Engineer shall have control over their placement. The official patrol car shall be a public safety vehicle as required by the Ohio Revised Code. The Contractor shall make arrangements with the City of Mentor for these services.

Law Enforcement Officers with Patrol Cars required by the traffic maintenance tasks above shall be paid for on a unit price (hourly) basis under Item 614 – Law Enforcement Officer with Patrol Car. The following estimated quantities have been carried to the General Summary

Item 614 - Law Enforcement Officer with Patrol Car **100 Hours**

The hours paid shall include minimum show-up time required by the law enforcement agency involved

If the Contractor wishes to utilize LEO's for flagging and traffic control other than for that required in these plans, he may do so at his own expense

Construction Traffic

All construction traffic shall use acceptable truck routes to access the construction area. Use of local residential streets is strictly prohibited unless allowed in writing by the local enforcement authority

Equipment and Material Storage

In order to provide for the safety of the traveling public the Contractor's attention is directed to 614.03. In addition the following provisions shall apply

- 1 Any removed items shall not be stored on the right of way for more than thirty days
- 2 The storage of equipment, materials, and vehicles within the highway right of way will be permitted. The number of areas and exact locations shall be approved by the Engineer
- 3 All disturbed areas shall be returned to their original condition at no expense to the state

Continuous Access

The Contractor shall maintain safe and adequate driveways and walkways in order to provide continuous access for pedestrians, passenger vehicles, trucks, and safety equipment to all adjoining properties. The cost for all materials, equipment and labor necessary to provide continuous access shall be included in the lump sum price bid for Item 614 - Maintaining Traffic

Maintenance of Traffic Scheme

The Contractor shall devise a simple maintenance of traffic scheme, which shall be stamped by a Professional Engineer (scheme may be a hand sketch) and presented to the District Work Zone Safety Engineer and Project Engineer for acceptance at least two weeks prior to implementation. In general, the methods for maintaining traffic that the Contractor proposes to use for conducting the required work in a safe and efficient manner, supported by hand sketches as necessary. The maintenance of traffic scheme shall be in conformance with the Ohio Manual of Uniform Traffic Control Devices, latest revision, the references standard construction drawings, the attached maintenance of traffic sheets, and the specifications. The Contractor shall not commence work until the maintenance of traffic scheme has been approved

All work shall be conducted from within a one or two (1 or 2) lane closure using drums according to the restrictions and the concepts presented in MT-95.30 and associated standard construction drawings MT-98 12 thru MT-98 16 (see title sheet), and these plans

If during the project the Engineer determines that the approved maintenance of traffic plan is not performing as desired, the work shall be suspended until the problem is resolved to the satisfaction of the Engineer and the maintenance of traffic plan is revised accordingly. Any costs or delays incurred as a result of the failure of the satisfaction of the Engineer shall be the full responsibility of the Contractor.

During non-working hours, all lanes shall be in full operation with all traffic control signs, except OW-124 (Road Construction Ahead) signs, removed or covered and all channelizing devices removed from the pavement surfaces. Channelizing devices may be stored or deployed temporarily adjacent to the shoulder to minimize the nightly traffic control set-up time

Contractors Equipment and Operation

All vehicles and equipment must be equipped with at least one flashing, rotating, or oscillating amber light that is visible in all directions of traffic for at least one quarter mile, day or night

Unless behind concrete barrier, the Contractor's equipment shall be operated in the direction of traffic only

Item 621 – RPM, As Per Plan

This item shall be used to replace any raised pavement markers that are affected by the proposed work. Also included is the removal and disposal of the existing raised pavement markers affected by the proposed work. All equipment, labor, and materials required to remove and dispose of existing raised pavement markers and replace the raised pavement markers shall be included for payment under Item 621 – RPM

The following estimated quantity has been included in the General Summary to be used throughout this project

Item 621 – RPM **2 EA.**

Item 614 - Work Zone Pavement Markings

The following estimated quantities have been carried to the General Summary, to be used as directed by the Engineer. Place temporary markings at the locations of the permanent markings as shown in the traffic control plans

After the pavement planing process is completed, and again after the asphalt concrete intermediate course is placed, the following work zone markings shall be used

Item 614 - Work Zone Center Line, Class I, 740 06, Type I .. **0.02 Mile**

Item 614 - Work Zone Edge Line, Class I, 740 06, Type I. **0.12 Mile**

After placing the surface course, the Contractor may place permanent pavement markings at the locations previously field surveyed instead of placing temporary pavement markings, which shall be non-performed at these locations

Item 614 - Portable Changeable Message Signs, As Per Plan

The Contractor shall furnish, install, maintain, and remove when no longer needed a portable changeable message sign(s). The PCMS shall be of the type shown on the list of approved PCMS maintained by the director:

<http://www.dot.state.oh.us/testlab/applists/misc/pcms%20%20ntpep-based.htm>

With the exception that no flip disc (or variation of flip disc) units will be allowed. The PCMS shall be a class I or II type unit

The portable changeable message sign shall be mounted on a trailer. The location of the PCMS shall be as directed by the engineer. The engineer shall be provided access to each sign unit and shall be provided with appropriate training and operation instructions

The PCMS shall contain a cellular telephone link which will allow remote sign activation, deactivation, message changes, message additions and revisions to time of day programs. The system shall also permit verification of current and programmed messages

The contractor shall provide to the engineer the software necessary to control the PCMS remotely.

The PCMS shall be equipped with a myriad safety beam or an approved equal as determined by the engineer. The myriad safety beam sends out a signal that activates radar detectors. The beam is approved by the FCC. The myriad safety beam shall use the same power supply as the PCMS. The myriad safety beam shall be able to be activated with the PCMS running or not. The myriad safety beam is distributed by The Triplex Group, Inc. P.O. Box 428 New Hope, PA 18938 Phone (215) 862-5077

At the direction of the engineer the PCMS may be removed for periods of times when not in use. No payment will be made for these times (ex Winter months). Two message boards at eight months each shall be used.

Item 614 - Portable Changeable Message Sign, As Per Plan. **.16 Sign-Month**

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