CONSTRUCTION PROJECT NO. PCN 711 | LETTING DATE 11-15-02

DATE:

USERNAME:

FILE NAME: *title.dgn*

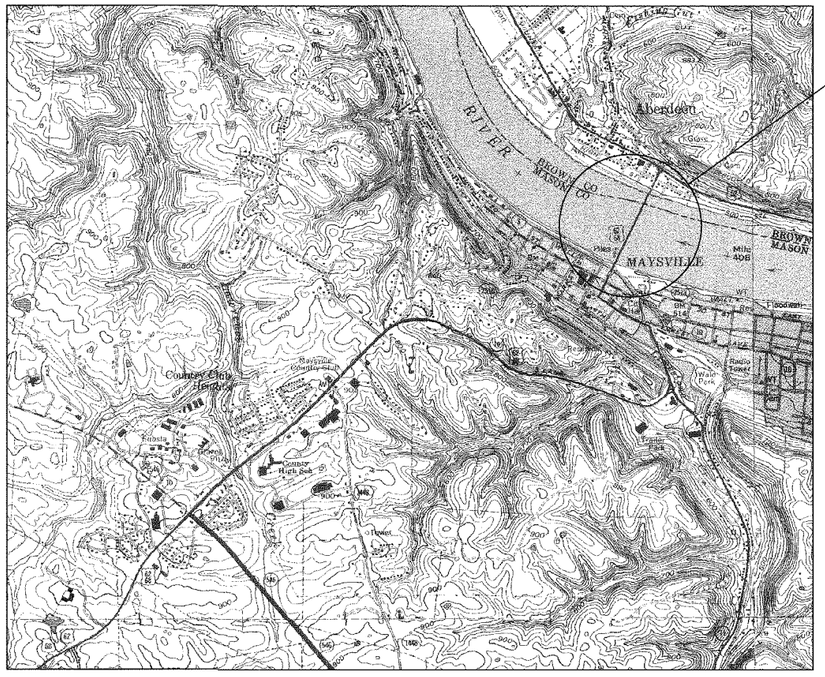
SHEET LOCATION: *I:\31046-028\DGN*

TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS

BRIDGE REPAIR PLANS FOR:

MASON COUNTY
SIMON-KENTON SUSPENSION BRIDGE
US 62 OVER THE OHIO RIVER
BETWEEN MAYSVILLE, KY & ABERDEEN, OH

PROJECT NO. FD52 081 062x003-004
STP 68-1 (21)



US 62 OVER THE OHIO RIVER

SIMON-KENTON SUSPENSION BRIDGE

INDEX OF SHEETS

SPECIAL NOTES

for Welding Steel Bridges

for Cleaning and Painting

for Bridge Closure

for Maintenance and Protection of Traffic

SPECIAL PROVISIONS

82 (2000) General Progress Schedule

for Protection of Railroad Interest

for Lightweight Concrete

STANDARD DRAWINGS

RDM-105-02	Frame and Lid Type 2
BJE-001-10	Neoprene Expansion Dams and Armored Edges

SPECIFICATIONS

2000 Kentucky Standard Specifications for Road and Bridge Construction with current supplemental specifications

1996 AASHTO Standard Specifications for Highway Bridges with interims

REVISION	DATE

Plan Approved By: Donald R. Hurd
Date 10/2/02

Plan Approved By: J. M. Yarnell
Date 10/2/02

Plan Approved By:
Date

STATE OF KENTUCKY
CRAIG RAYMOND KLUSMAN
22558
LICENSED PROFESSIONAL ENGINEER

By Craig Klus
Date 9-26-02

ITEM NUMBER
9-108

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: C. Klusman	K. Thompson
DETAILED BY: C. Klusman	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

TITLE SHEET

PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 001

DRAWING NO. 25348

LETTING DATE

CONSTRUCTION PROJECT NO.

DATE:

USERNAME:

FILE NAME: *quantity.dgn*

SHEET LOCATION: *I:\37046-028\DGN*

ESTIMATE OF QUANTITIES

SHEET⚠ NUMBER	BID ITEM	UNIT	AMOUNT
	Mobilization	LS	1
	Demobilization	LS	1
	Maintenance and Protection of Traffic	LS	1
	Cleaning and Painting	LS	1
16-24	Retrofit (1) Concrete patching repair	SF	150
16-24	Retrofit (2) Epoxy injection crack repair	LF	1850
25	Retrofit (3) Water shield replacement	EA	4
26	Retrofit (4) Tower Floorbeam bottom flange repairs	LBS	1,670
27-28	Retrofit (5) Floorbeam connection repair	EA	900
26	Retrofit (6) Floorbeam crack repair	EA	4
29	Retrofit (7) Stringer top flange repair*	LBS	13,200
29	Retrofit (8) Stringer diaphragm replacement	LBS	12,650
29	Retrofit (9) Stringer crack repair	EA	10
30	Retrofit (10) Stringer bearing replacement	EA	170
31	Retrofit (11) Approach floorbeam replacement	LBS	189,000
32	Retrofit (12) Approach girder bearing replacement	EA	40
33-35	Retrofit (13) Sidewalk stringer replacement	LBS	122,000
36-47	Retrofit (14) Bridge deck replacement		
	Concrete Class AA	CY	1,810
	Lightweight concrete	CY	165
	Steel Reinforcement Epoxy Coated	LBS	300,435
	Expansion Dam, 1½" Neoprene	LF	747
	Approach Slab	SY	72
	Micro Silica Modified Concrete Overlay	SY	180
	Frame and Lid Type 2	EA	4
	Removal of Deck Slab	LS	1
	Deck Drains	EA	196
48-50	Retrofit (15) Approach span bridge handrail repair⚠	LF	1800 ⚠
48	Retrofit (16) Main span bridge handrail replacement	LF	3980
51-53	Retrofit (17) Inspection walkway rehabilitation	LF	2036
54	Retrofit (18) Utility conduit & hanger supports	LF	2806
54	Retrofit (19) Bolt and rivet replacement	EA	30
54	Retrofit (20) Tower door repair	EA	24

* Quantity assumes 10% of stringer top flanges will require repair.

BILL OF INCIDENTAL MATERIALS

RETROFIT	MATERIAL	UNIT	AMOUNT	SIZE
(3)	Stainless Steel Box Gutter	LF	128	
(3)	Downspout	LF	172	
(12)	Lead Plate	EA	24	1" x 1'-9" x 2'-0"
(12)	Elastomeric Bearing	EA	24	1⅜" x 8" x 1'-10"
(12)	Position Dowels	EA	48	1" Ø x 12"
(15)	Structural Steel	LBS	68,000	
(16)	Structural Steel	LBS	102,500	
(17)	Structural Steel	LBS	40,500	
(17)	Steel Saftey Grating	LF	2036	
(18)	Structural Steel	LBS	4550	
(18)	¾" Inserts	EA	700	

⚠	Addendum No.1	11-05-02
	REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	C. Klusman
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

QUANTITIES

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO.
002

DRAWING NO.
25348

SPECIFICATIONS: References to the Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction including any current Supplemental Specifications. All references to the AASHTO Specifications are to the current edition of the AASHTO Standard Specifications for Highway Bridges, with interims.

DESIGN LOAD AND METHOD: See original contract plans for design loads. The new reinforced concrete deck and sidewalk stringers are designed by the Load Factor Design Method for HS20 live load as specified in the current AASHTO Specifications.

CONCRETE: Unless otherwise noted, Class 'AA' concrete shall be used throughout including superstructure and substructure retrofits.

REINFORCEMENT: Dimensions shown from the face of concrete to bars are to center of bars unless otherwise shown. Spacing of bars is from center to center of bars. Clear distance to face of concrete is 2", unless otherwise noted. Epoxy bars designated by the suffix (e) in accordance with Section 811.10 of the Standard Specifications. Use stirrup bend diameters for bars designated by suffix (s) in a Bill of Reinforcement.

EXISTING STEEL REINFORCEMENT: The cost of cutting, bending, and cleaning existing steel reinforcement shall be incidental to the appropriate items.

BEVELED EDGES: Bevel all exposed edges 7/8", unless otherwise noted.

BILL OF INCIDENTAL MATERIALS: Secure enough quantity of the items listed in the Bill of Incidental Materials to complete the work in accordance with the Plans and Specifications.

CLEARANCE: A minimum vertical construction clearance of 22 feet above the top of the highest rail and a minimum horizontal clearance of 14 feet measured perpendicular to the centerline of the nearest track shall be maintained at all times.

FALL PROTECTION: Provide flooring for workers in situations where danger from a fall are compounded by the traffic and for protection to the traffic. If temporary flooring is necessary in addition to slab forms, the flooring is to be designed using a sum of dead load and live vertical loads. Include 50 psf of horizontal surfaces and the weight of any material or equipment that is placed or allowed to fall during construction or demolition in the live load computation. Submit the flooring design along with the falsework design to the Engineer for approval. Extend temporary flooring across traffic lanes, ramps, and usable shoulders of highways and 8 (eight) feet beyond the outer rails of tracks for railways. Temporary flooring shall be installed as soon as practicable after the beams are set. Consider all phases of furnishing and removing the flooring as incidental to the contract. This item may be considered in addition to any requirement set forth in subsection 107.01.01 of the Specifications.

HIGH STRENGTH BOLT CONNECTIONS: Ensure all bolted connections shall be ASTM A325 7/8" diameter high strength bolts, nuts, and washers, mechanically zinc coated in accordance with AASHTO M298, for Class 50, unless otherwise noted. Diameter of open holes is 15/16". Install all high strength bolted field connections using 'direct tension indicators' (DTI's) in accordance with the Standard Specifications and ASTM F959. Ensure all DTI's are mechanically zinc coated. Show installation details of the DTI's on the shop plans.

DIMENSIONS: Dimensions shown on these plans are taken from the original construction contract plans dated 1930 and do not necessarily reflect revisions made during construction. The Contractor shall verify elevations, and dimensions, including thickness of parts, with field measurements prior to ordering materials or fabricating steelwork. All plan dimensions are for a normal temperature of 60°F. Layout dimensions are horizontal dimensions.

SHOP DRAWINGS: The Contractor shall submit full sets of prints of the detailed shop drawings, welding procedures, and detail material to the Department for approval in accordance with Section 607.03.01 of the Specifications. When any changes are proposed by the fabricator or supplier, the shop drawings reflecting these changes shall be submitted to the Department through the Contractor.

PARTIAL REMOVAL OF SUPERSTRUCTURE: This work shall consist of removing existing bridge deck, bituminous surfaces, bridge handrail, handrail posts, crossbeams, sidewalk rolled channel, etc. as shown. All removed materials shall be completely removed off of the right-of-way and shall become the property of the Contractor. No material shall be allowed to drop into the river. The lump sum price shall include all materials, labor and incidentals to complete the work.

PROHIBITED FIELD WELDING: Except as shown on the plans, no welding of any nature shall be performed on the load carrying members of the bridge without the written consent of the Director, Division of Bridge Design, and then only in the manner and at the locations designated in the authorization.

WELDING SPECIFICATIONS: All welding and welding materials, except for reinforcement, shall conform to 'Joint Specification ANSI/AASHTO/AWS D1.5-95 Bridge Welding Code'. Modification and additions as stated on the plans and Special Note for Welding Steel Bridges, shall supersede the Joint Specifications. Welding procedures shall be submitted to the Engineer and approved prior to the start of fabrication and retrofit. The cost of welding, welding materials, straightening, altering, and burning new or existing steel shall be included in the unit price bid for the appropriate items.

MILL TEST REPORTS: Notarized test reports shall be furnished in triplicate to the Department showing that all the materials used for these repairs conform to the requirements of the Specifications.

CONSTRUCTION IDENTIFICATION: The names of the prime Contractor and the sub-contractor shall be imprinted in the concrete with 1 inch letters at a location designated by the Engineer. The Contractor shall furnish all plans, equipment and labor necessary to do the work for which no direct payment will be made.

DAMAGE TO THE STRUCTURE: The Contractor shall bear full responsibility and expense for any and all damage to the structure, should such damage result from the Contractor's actions.

UTILITY PROTECTION: The active utility ducts and electrical conduit shall be adequately protected. Any damage to utilities caused by the Contractor shall be repaired at his own expense.

1 ROADWAY LIGHTING: The Contractor must safeguard the roadway lighting mounted on the upper chord of the stiffening truss in the main spans while performing work. Due to removal of the approach floorbeams, the roadway lighting in the approach spans must be removed, cleaned, salvaged, and reused. The Contractor must safeguard any and all wires, ties, connection boxes and supporting devices. All roadway lighting must be in working condition upon completion of work. Any damage to the roadway lighting caused by the Contractor shall be repaired at the Contractor's expense.

1 DECORATIVE LIGHTING: The Contractor must safeguard the decorative lighting on the main suspension cable while performing work. This includes, but is not limited to, any lights, wires, ties, connections and supporting devices. The lighting must be in working condition upon completion of work. Any damage to the decorative lighting caused by the Contractor shall be repaired at the Contractor's expense.

BRIDGE PLANS: A copy of the bridge construction contract plans and shop drawings, dated 1930, will be made available to the successful bidder upon his written request. They consist of the 1930 original design contract plans and 1931 shop drawings contract numbers 5883, 5884, 5885, 5886, and 5887.

ON SITE INSPECTION: Each Contractor submitting a bid for this work shall make a thorough inspection of the bridge and the work site prior to submitting a bid and shall be thoroughly familiarized with existing conditions so that work can be expeditiously performed after a contract is awarded. A suitable method of performing the work described herein should be investigated. Submission of a bid will be considered evidence of this inspection having been made. Any claims from site conditions will not be honored by the Department of Highways.

TOUCH-UP PAINTING: All areas of new or existing structural steel on which the paint has been damaged by the Contractor with weld burns or by other means during construction, shall be wire brush cleaned and spot painted in accordance with the special notes The cost of this touch-up painting is to be included in the price bid for appropriate items.

PAYMENT FOR STRUCTURAL STEEL REPAIRS: The unit price bid for all structural steel repair bid items listed in the Estimate of Quantities shall be full compensation for access, temporary supports, removing existing rivets, drilling, reaming, cutting, welding, removing deteriorated metal, and all new materials, labor, equipment, tools, and incidentals necessary to complete each item of work.

MATERIALS DESIGN SPECIFICATIONS:
For Class AA Concrete
f'c = 4000 psi

For Epoxy Coated Steel Reinforcement
Fy = 60000 psi

For Structural Steel (New)
Fy = 36000 psi for AASHTO M270 Grade 36
Fy = 50000 psi for AAHSTO M270 Grade 50

For Structural Steel (Existing)
Fy = 33000 psi for ASTM A7 and A373

MATERIALS: ASTM or AASHTO Specifications, current edition, as designated below shall govern the materials furnished.

Material	ASTM	AASHTO
Structural Steel	A709 Grade 50	M270 Grade 50
Structural Steel for Handrails and Inspection Walkway and Hanger Supports for Conduits	A709 Grade 36	M270 Grade 36
Black and Hot-Dipped Galvanized Welded and Seamless Steel Pipe	A53	
Welded and Seamless Carbon Steel Structural Tubing	A500	
Carbon Steel Bolts	A307	
High Strength Bolts, Nuts, and Washers	A325	M164

REMOVAL OF EXISTING RIVETS: The Contractor will be permitted to remove rivets in any manner that does not damage adjacent structural steel. This may include mechanical removal or other method approved by the Engineer. Use of cutting torches will not be permitted.

BONDING FRESH CONCRETE TO EXISTING CONCRETE: Fresh concrete shall be bonded to existing concrete in accordance with 601.03.10(B) of the Specifications. In addition, a two-component epoxy resin system conforming to Section 833 of the Specifications shall be applied before placing new concrete. The cost of this work, including all labor, tools and materials, shall be considered incidental to the specific bid for which this work applies.

RIVER NAVIGATION: Continuous maintenance and safety of river navigation throughout the term of the project shall be a prime consideration. All work involving the installation and removal of structural elements beneath the bridge deck shall cease when there is approaching river traffic. This work shall not resume until the river traffic is clear of the bridge area.

1 Existing navigational lighting must be in working order and visible at all times during construction.

At least 30 days in advance of beginning construction the successful contractor shall submit to the department (for submittal to the Coast Guard) a work plan for performing work over the Ohio River. This work plan shall include but is not limited to methods for containing debris, debris removal from stream and maintenance of existing navigational lighting during construction.

LEAD PAINT: Residual lead paint may still be on the bridge even through previous sandblastings and painting of the bridge. The contractor is advised to take all necessary protective measures when removing, cutting, or performing any other actions on the existing steel especially in areas of connections.

APPROACH FILL: If it is necessary to disturb the fill under each approach, the Contractor is required to return the fill material to its original condition. Due to environmental concerns, any fill material disturbed under 12' must be returned to its original location, 12' below clean fill.

SUPERSTRUCTURE REMOVAL: All removed materials, not being reused in the completed structure, shall be completely removed from the right-of-way and shall become property of the Contractor. No material shall be allowed to drop into the river or onto the ground.

MAINTAINING TRAFFIC: Traffic, pedestrian and automobile, shall be maintained at all times in accordance with the Special Note for Bridge Closure and the Special Note for Maintenance and Protection of Traffic.

The following abbreviations may have been used in the preparation of these plans:

bet.	Between
b.f.	Back Face
BOF	Bottom of Footing
bot.	Bottom
Brg.	Bearing
C to C	Center to Center
c.e.	Current Edition
C.Y.	Cubic Yard
Chd.	Chord
CL	Center Line
Cl.	Clear
Conc.	Concrete
Cu.	Cubic
D.S.	Downstream
Dwg.	Drawing
e.f.	Each Face
e.s	Each Side
El.	Elevation
eq.	Equal
E.F.	East Face
Est.	Estimate
Ext.	Exterior
F to F	Face to Face
f.f.	Front Face
f.s.	Far Side
fr.	Front
ft.	Feet
I.D.	Inside Diameter
in.	Inch
Int.	Interior
L	Left
LBS	Low Bridge Seat
LBS.	Pounds
M	Meter
MPH	Miles per Hour
n.s.	Near Side
N.F.	North Face
O.D.	Outside Diameter
Opp.	Opposite
PC	Point of Curve
Perp.	Perpendicular
PI	Point of Intersection
PPC	Precast Prestressed Concrete
PPCDU	Precast Prestressed Concrete Deck Unit
PSI	Pounds per Square Inch
PT	Point of Tangent
R	Radius
R	Right
RCBC	Reinforced Concrete Box Culvert
RCDG	Reinforced Concrete Deck Girder
Req'd.	Required
RR	Railroad
Shld	Shoulder
S.F.	South Face
spa.	Spaces
Sta.	Station
Std.	Standard
Str.	Straight
Tan	Tangent
Thru	Through
TOF	Top of Footing
Tot.	Total
Typ.	Typical
U.S.	Upstream
Vert.	Vertical
W.F.	West Face
W.P.	Working Point
Yd.	Yard

Typical Panel Point Designation:

31A - Panel Point 31 (Aberdeen Side)
31M - Panel Point 31 (Maysville Side)

1	Addendum No. 1	11-05-02
	REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	D. Amato
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: US 62
CROSSING: OHIO RIVER

GENERAL NOTES

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 003
DRAWING NO. 25348

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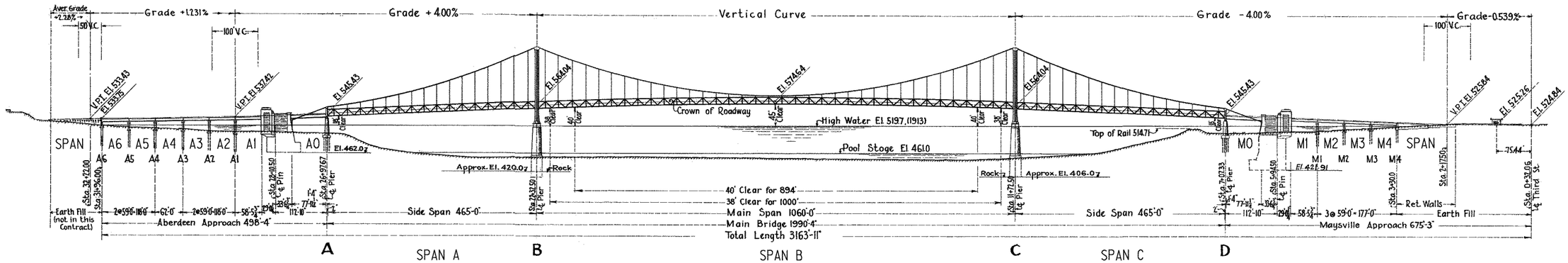
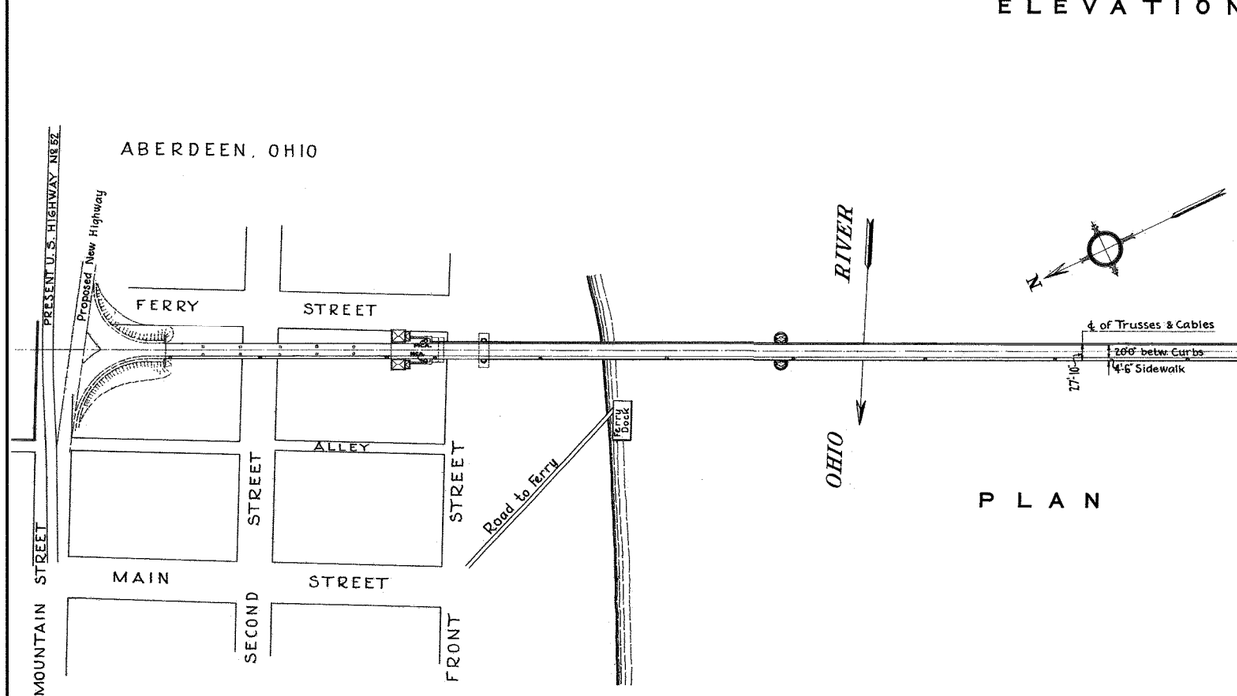
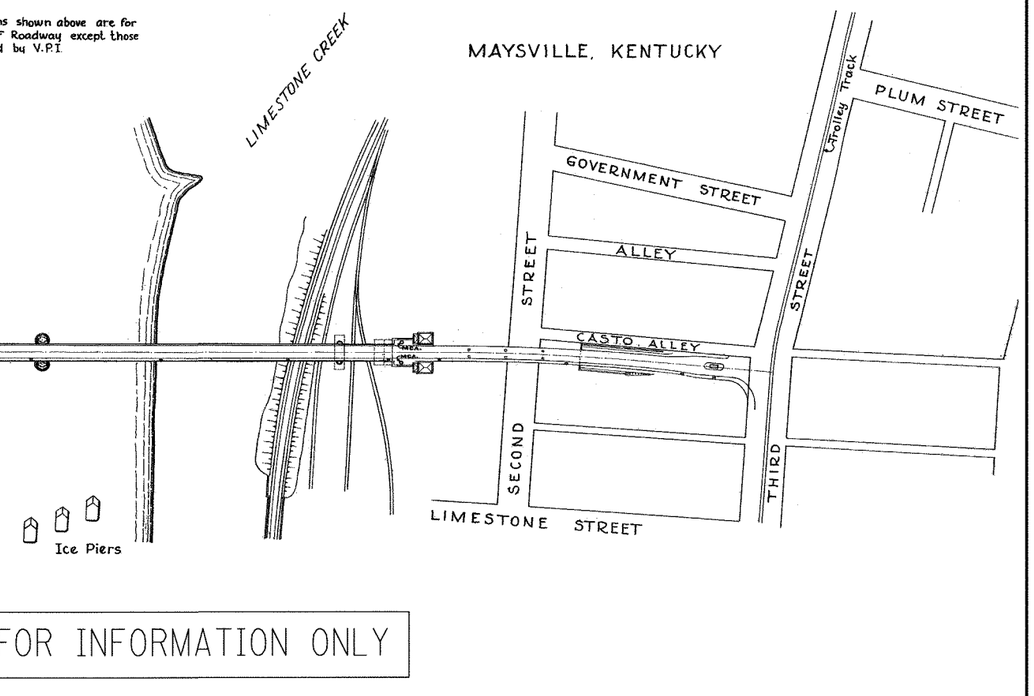


ELEVATION

NOTE:— Elevations shown above are for Crown of Roadway except those preceeded by V.P.I.



PLAN



FOR INFORMATION ONLY

BRIDGE REPAIR DESCRIPTIONS:

Retrofit (1) Concrete patching repair on abutments, piers, and anchorages.
Retrofit (2) Epoxy injection crack repair on abutments, piers, and anchorages.
Retrofit (3) Water shield replacement in anchorages.
Retrofit (4) Tower floorbeam bottom flange repair in suspended spans.
Retrofit (5) Floorbeam connection repair in suspended spans.
Retrofit (6) Floorbeam crack repair at Piers A & D.
Retrofit (7) Stringer top flange repair in suspended spans.
Retrofit (8) Stringer diaphragm replacement at expansion joints in suspended spans.
Retrofit (9) Stringer crack repair in suspended spans.
Retrofit (10) Stringer bearing replacement in suspended spans.
Retrofit (11) Approach floorbeam replacement.
Retrofit (12) Approach girder expansion bearing replacement.
Retrofit (13) Sidewalk stringer replacement in all spans.
Retrofit (14) Bridge deck replacement in all spans.
Retrofit (15) Approach span bridge handrail repair. ⚠1
Retrofit (16) Main span bridge handrail replacement.
Retrofit (17) Inspection walkway rehabilitation.
Retrofit (18) Utility conduit and hanger support installation in all spans.
Retrofit (19) Replace loose, missing, or deteriorated bolts and rivets.
Retrofit (20) Tower door repair at Piers B & C.

⚠	REVISION	DATE
1	Addendum No.1	11-05-02

DATE:	Sep. 26, 2002	CHECKED BY
DESIGNED BY:	K. Thompson	C. Klusman
DETAILED BY:	K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **MASON**

ROUTE: **US 62**

CROSSING: **OHIO RIVER**

LAYOUT

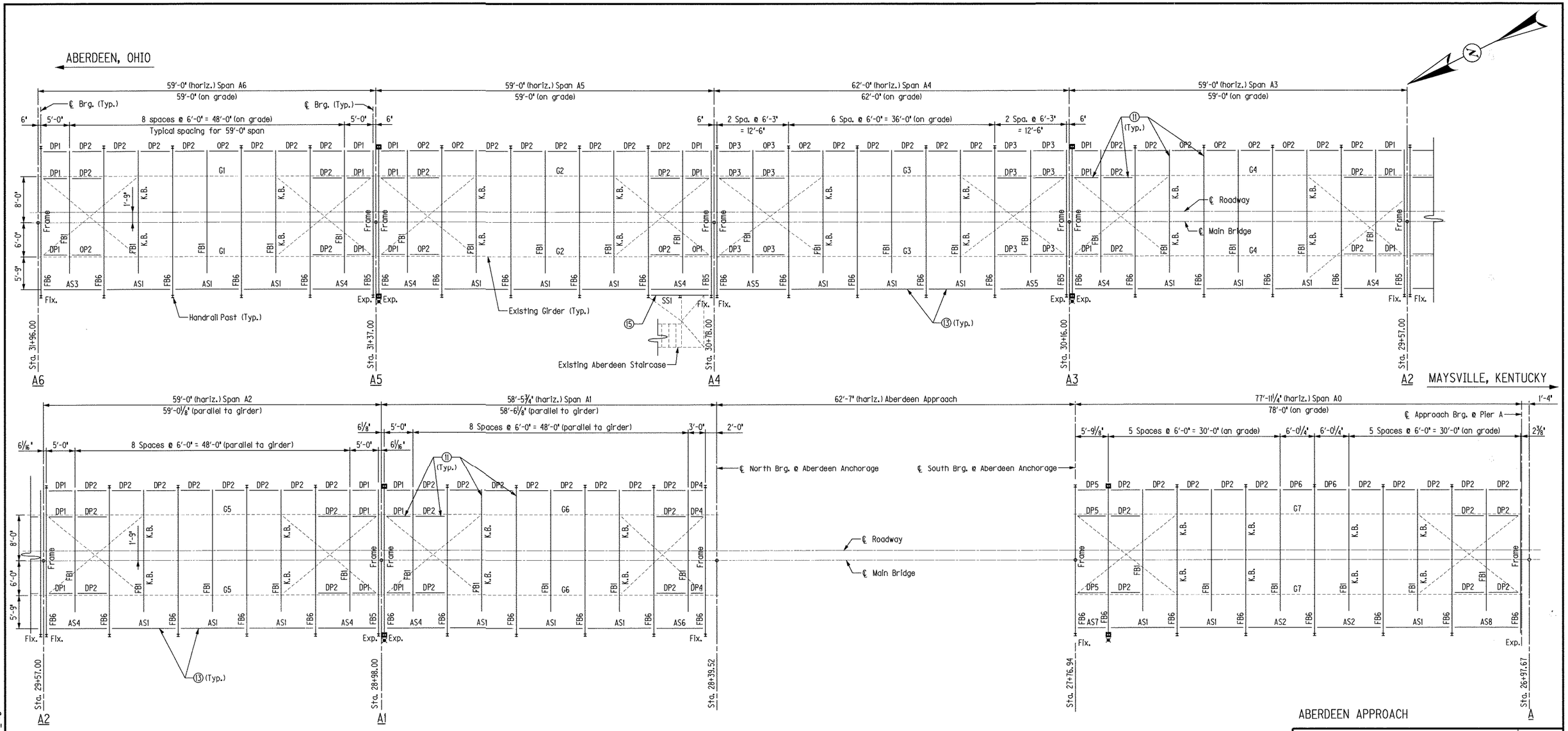
ITEM NUMBER: **9–108**

PREPARED BY:
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 004

DRAWING NO. 25348

SHEET LOCATION: I:\31046-028\DGN\ FILE NAME: layout.dgn USERNAME: DATE:



PROPOSED RETROFITS				
	MARK	DESCRIPTION	NO.	REMARKS
RETROFIT 11	FBI	Appr. Floor Beam	36	New
	FB5	" "	5	"
	FB6	" "	39	"

PROPOSED RETROFITS				
	MARK	DESCRIPTION	NO.	REMARKS
RETROFIT 11	DP1	Diaphragm	27	New
	DP2	" "	82	"
	DP3	" "	12	"
	DP4	" "	3	"
	DP5	" "	3	"
	DP6	" "	2	"

PROPOSED RETROFITS				
	MARK	DESCRIPTION	NO.	REMARKS
RETROFIT 13	AS1	Sidewalk Stringer	21	New
	AS2	" "	2	"
	AS3	" "	1	"
	AS4	" "	8	"
	AS5	" "	2	"
	AS6	" "	1	"
	AS7	" "	1	"
	AS8	" "	1	"

PROPOSED RETROFITS				
	MARK	DESCRIPTION	NO.	REMARKS
RETROFIT 15	SSI	Staircase Support	1	New

NOTES:

For details of proposed retrofit (11), see sheet 31

For details of proposed retrofit (13), see sheets 33 thru 35

For details of proposed retrofit (15), see sheets 48 thru 50

LEGEND:

(#) = Denotes repair number. See Sheet 3 for description

K.B. = Knee Brace

x = Handrail post

▪ = Handrail post with decorative cover

✕ = Existing Light Standard

---- = Existing Structurol Steel to be cleaned and reused

—— = New Structurol Steel

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: C. Klusman	D. Amato
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: US 62

CROSSING: OHIO RIVER

PROPOSED FRAMING PLAN

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 005

DRAWING NO. 25348

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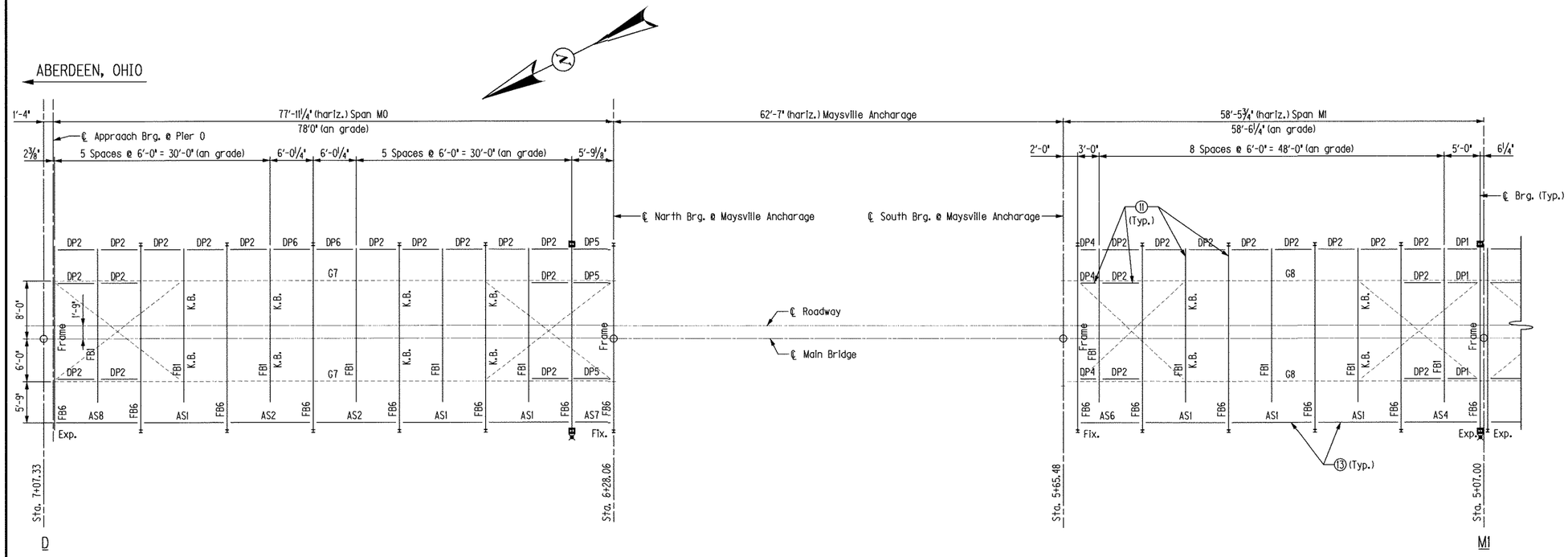

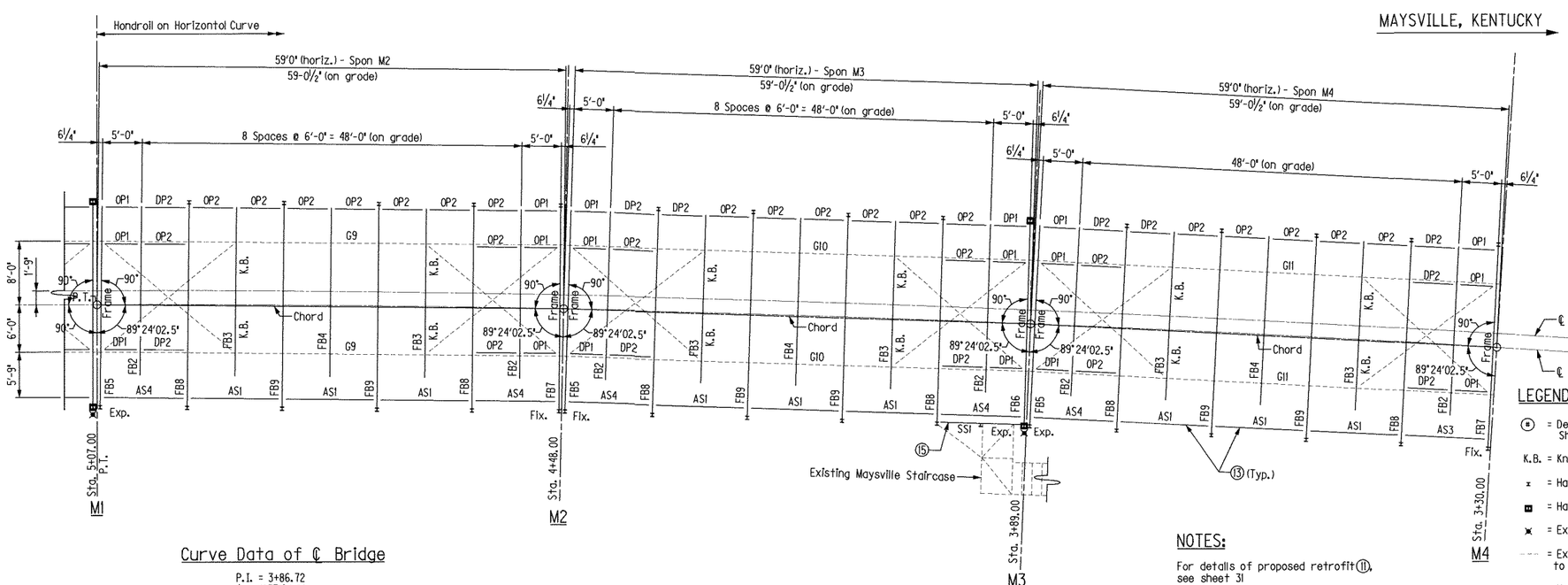

Curve Data of ℄ Bridge

P.I. = 3+86.72
Δ = 4°53'24.6"
R = 2820.33'
L = 240.71'
T = 120.43'

FRAMING PLAN - MAYSVILLE APPROACH

NOTES:

For details of proposed retrofit ⑪, see sheet 31

For details of proposed retrofit ⑬, see sheets 33 thru 35

For details of proposed retrofit ⑮, see sheets 48 thru 50

LEGEND:

- ⑧ = Denotes repair number. See Sheet 3 for description
- K.B. = Knee Brace
- = Handrail post
- = Handrail post with decorative cover
- = Existing Light Standard
- = Existing Structural Steel to be cleaned and reused
- = New Structural Steel

PROPOSED RETROFITS

	MARK	DESCRIPTION	NO.	REMARKS
RETROFIT 11	FB1	Appr. Flaar Beam	11	New
	FB2	" "	6	"
	FB3	" "	6	"
	FB4	" "	3	"
	FB5	" "	3	"
	FB6	" "	15	"
	FB7	" "	2	"
	FB8	" "	6	"
	FB9	" "	6	"
	DP1	Diaphragm	21	"
	OP2	" "	64	"
	OP4	" "	3	"
	DP5	" "	3	"
	DP6	" "	2	"

PROPOSED RETROFITS

	MARK	DESCRIPTION	NO.	REMARKS
RETROFIT 13	AS1	Sidewalk Stringer	15	New
	AS2	" "	2	"
	AS3	" "	1	"
	AS4	" "	6	"
	AS6	" "	1	"
	AS7	" "	1	"
	AS8	" "	1	"
RETROFIT 15	SS1	Staircase Support	1	New

MAYSVILLE APPROACH

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: C. Klusman	D. Amato
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: MASON

ROUTE: US 62 | CROSSING: OHIO RIVER

PROPOSED FRAMING PLAN

ITEM NUMBER: 9-108

PREPARED BY:
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 006

DRAWING NO. 25348

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USERNAME:
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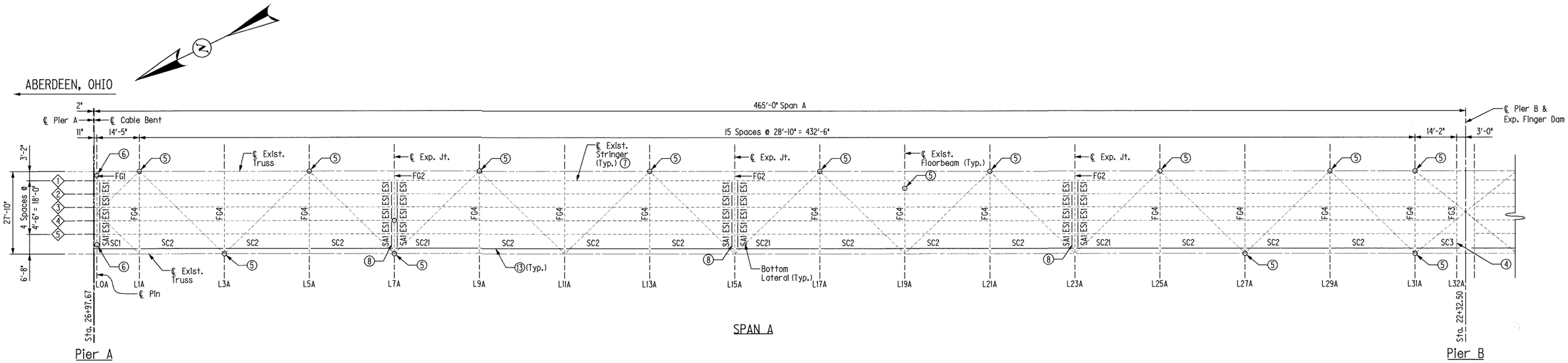


PROPOSED RETROFITS				
	MARK	DESCRIPTION	NO.	REMARKS
RETROFIT 4	FG3	Floorbeam	2	Repair
RETROFIT 6	FG1	Floorbeams	2	Repair

PROPOSED RETROFITS				
	MARK	DESCRIPTION	NO.	REMARKS
RETROFIT 8	ESI	Diaphragm	56	New
	SA1	Sidewalk Angle	14	New
RETROFIT 13	SC1	Sidewalk Stringer	1	New
	SC2	" "	24	"
	SC3	" "	1	"
	SC4	" "	1	"
	SC5	" "	1	"
	SC21	" "	6	"

NOTES:

For details of proposed retrofit ④ , see sheet 26

For details and quantities of proposed retrofit ⑤ , see sheet 27

For details and quantities of proposed retrofits ⑥ & ⑦, see sheet 29

For details of proposed retrofit ⑧ , see sheet 29

For details of proposed retrofit ⑬ , see sheet 33 thru 35

LEGEND:

① denotes repair number. See Sheet 4 for repair description.

◇1 denotes stringer number.

--- = Existing Structurol Steel to be cleaned and reused

—— = New Structural Steel

MAIN SPANS A & C

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thampsan	C. Klusman
DETAILED BY: K. Thampsan	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE **US 62** | CROSSING **OHIO RIVER**

PROPOSED FRAMING PLAN

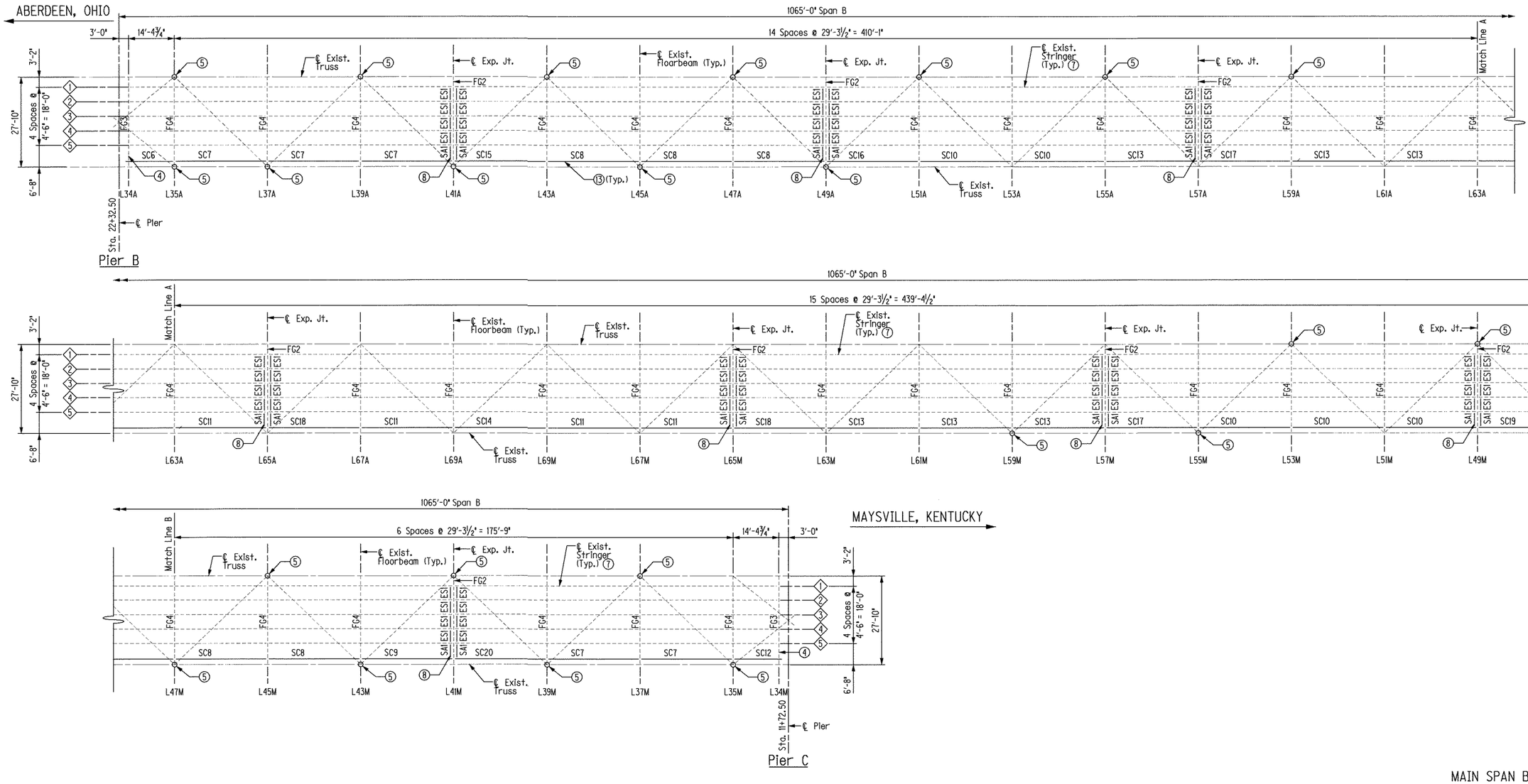
ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 007

DRAWING NO. 25348

DATE:
USERNAME:
FILE NAME: *frame_plan_3.dgn*
SHEET LOCATION: *F:\37046-028\DGN*



PROPOSED RETROFITS				
	MARK	DESCRIPTION	NO.	REMARKS
RETROFIT 4	FG3	Floorbeam	2	Repair

PROPOSED RETROFITS				
	MARK	DESCRIPTION	NO.	REMARKS
RETROFIT 8	ESI	Diaphragm	64	New

PROPOSED RETROFITS				
	MARK	DESCRIPTION	NO.	REMARKS
RETROFIT 13	SC6	Sidewalk Stringer	1	New
	SC7	" "	5	"
	SC8	" "	5	"
	SC9	" "	1	"
	SC10	" "	5	"
	SC11	" "	4	"
	SC12	" "	1	"
	SC13	" "	6	"
	SC14	" "	1	"
	SC15	" "	1	"
	SC16	" "	1	"
	SC17	" "	2	"
	SC18	" "	2	"
	SC19	" "	1	"
	SC20	" "	1	"

NOTES:

For details of proposed retrofit ④ , see sheet 26

For details and quantities of proposed retrofit ⑤ , see sheet 27

For details and quantities of proposed retrofits ⑥ & ⑦, see sheet 29

For details of proposed retrofit ⑧ , see sheet 29

For details of proposed retrofit ⑬ , see sheet 33 thru 35

LEGEND:

① denotes repair number. See Sheet 4 for repair description.

◇1 denotes stringer number.

--- = Existing Structural Steel to be cleaned and reused

—— = New Structural Steel

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	C. Klusman
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: MASON

ROUTE: US 62

CROSSING: OHIO RIVER

PROPOSED FRAMING PLAN

ITEM NUMBER: 9-108

PREPARED BY:
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 008

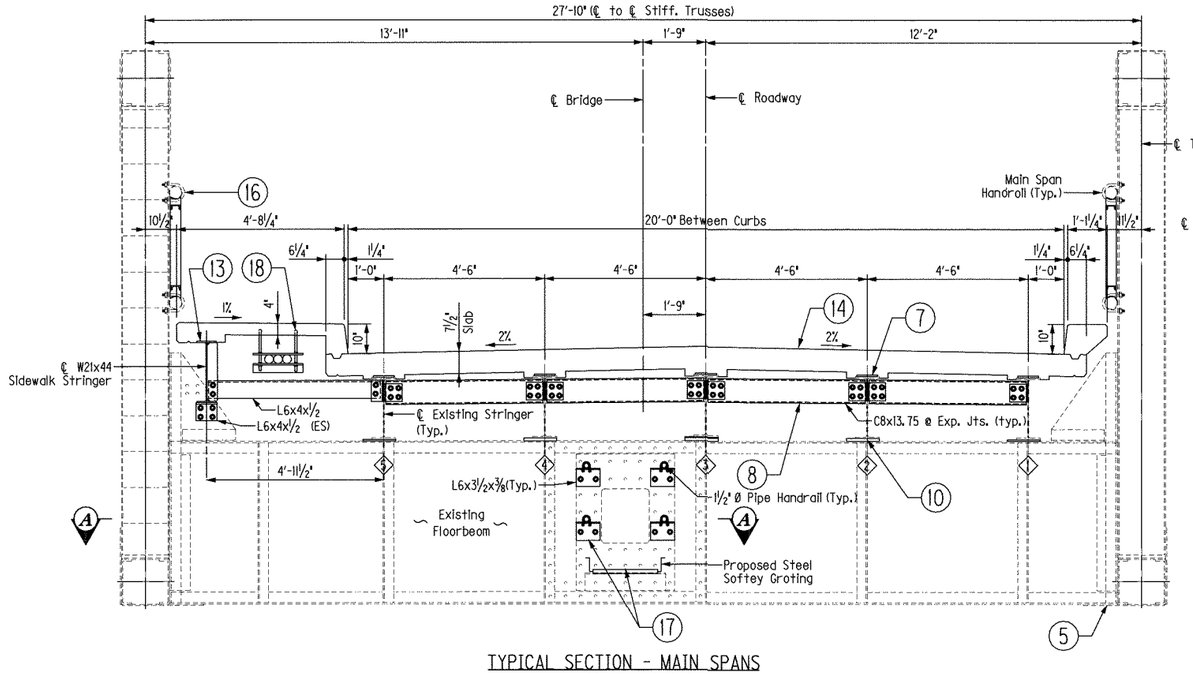
DRAWING NO. 25348

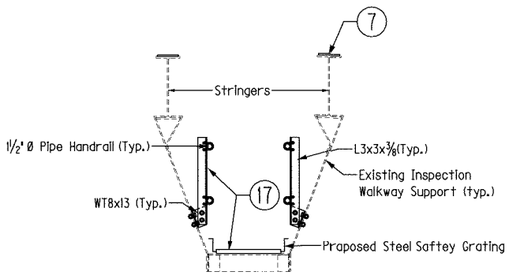
DATE:

USERNAME:

FILE NAME: frame_plan4.dgn

SHEET LOCATION: I:\31046-028\DGN\





INTERMEDIATE SUPPORT
FOR INSPECTION WALK

LEGEND:

① denotes repair number. See Sheet 4 for repair description.

◇ denotes stringer number.

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: C. Klusman	K. Thompson
DETAILED BY: C. Klusman	K. Thompson

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE **US 62** | CROSSING **OHIO RIVER**

PROPOSED TYPICAL SECTION

ITEM NUMBER
9-108

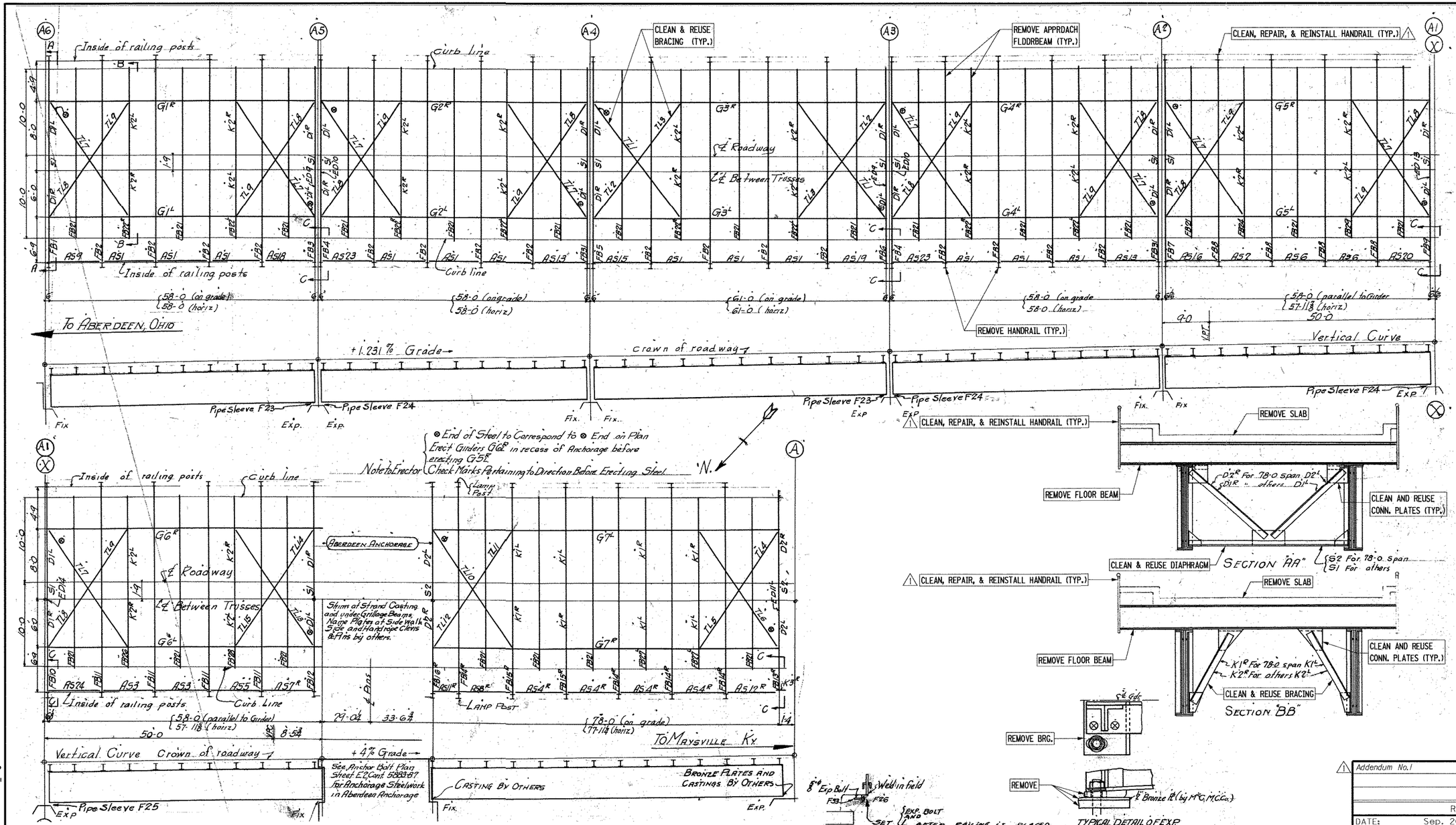
PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 009

DRAWING NO. 25348

SHEET LOCATION: I:\31046-028\DGN\ FILE NAME: typ_sect1.dgn USERNAME:

DATE:



ABERDEEN APPROACH

REMOVAL QUANTITIES

	MARK	DESCRIPTION	NO.
RETROFIT (11)	FB1	Appr. Floorbeam	1
	FB2	" "	16
	FB3	" "	1
	FB4	" "	2
	FB5	" "	1
	FB6	" "	1
	FB7	" "	1
	FB8	" "	4
	FB9	" "	1
	FB10	" "	1
	FB11	" "	4
	FB12	" "	1
	FB13	" "	1
	FB14	" "	4
	FB15	" "	2
	FB16	" "	1
	FB21	" "	22
	FB22	" "	8
	FB24	" "	1
	FB26	" "	1
	FB27	" "	2
	FB28	" "	1
	FB29	" "	1
	FB31	" "	2
(12)		Expansion Bearing	14
RETROFIT (13)	AS1	Sidewalk Stringer	12
	AS2	" "	1
	AS3	" "	2
	AS4	" "	4
	AS5	" "	1
	AS6	" "	2
	AS7	" "	1
	AS8	" "	1
	AS9	" "	1
	AS11	" "	1
	AS12	" "	1
	AS13	" "	2
	AS15	" "	1
	AS16	" "	1
	AS18	" "	1
	AS19	" "	1
	AS20	" "	1
	AS23	" "	2
	AS24	" "	1
(14)		Bridge Deck	12,840 SF

HANDRAIL

(15)	Approach Handrail	872 LF

REVISION	DATE
Addendum No.1	11-05-02

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	C. Klusman
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **MASON**

ROUTE: **US 62** | CROSSING: **OHIO RIVER**

STRUCTURE REMOVAL SHEET

ITEM NUMBER: **9-108**

PREPARED BY:
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 010

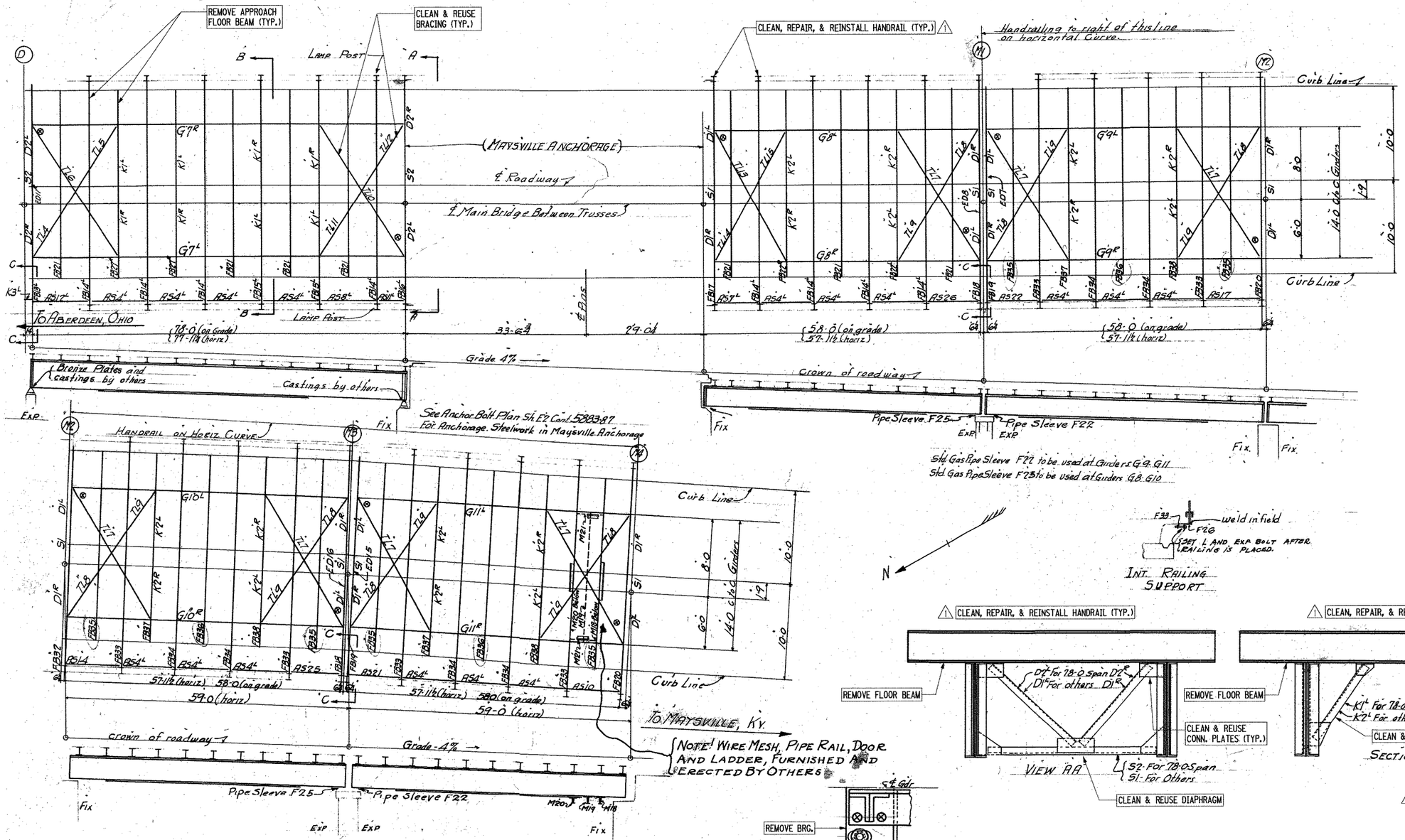
DRAWING NO. 25348

DATE:

USERNAME:

FILE NAME: exist_1.dgn

SHEET LOCATION: I:\37046-028\DGN\



MAYSVILLE APPROACH

REMOVAL QUANTITIES

	MARK	DESCRIPTION	NO.
RETROFIT (11)	FB13	Appr. Floorbeam	1
	FB14	" "	8
	FB15	" "	2
	FB16	" "	1
	FB17	" "	1
	FB18	" "	2
	FB19	" "	2
	FB20	" "	2
	FB21	" "	7
	FB22	" "	2
	FB27	" "	2
	FB32	" "	1
	FB33	" "	6
	FB34	" "	6
	FB35	" "	6
	FB36	" "	3
	FB37	" "	3
	FB38	" "	3
(12)		Expansion Bearing	10
RETROFIT (13)	AS4	Sidewalk Stringer	16
	AS7	" "	1
	AS8	" "	1
	AS10	" "	1
	AS11	" "	1
	AS12	" "	1
	AS14	" "	1
	AS17	" "	1
	AS21	" "	1
	AS22	" "	1
	AS25	" "	1
	AS26	" "	1
(14)		Bridge Deck	9,720 SF

HANDRAIL

(15)	Approach Handrail	630 LF
	Approach Fill Handrail	294 LF

REVISION	DATE
1 Addendum No.1	11-05-02

DATE: Sep. 26, 2002 | CHECKED BY
DESIGNED BY: K. Thompson | C. Klusman
DETAILED BY: K. Thompson | C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: MASON

ROUTE: US 62 | CROSSING: OHIO RIVER

STRUCTURE REMOVAL SHEET

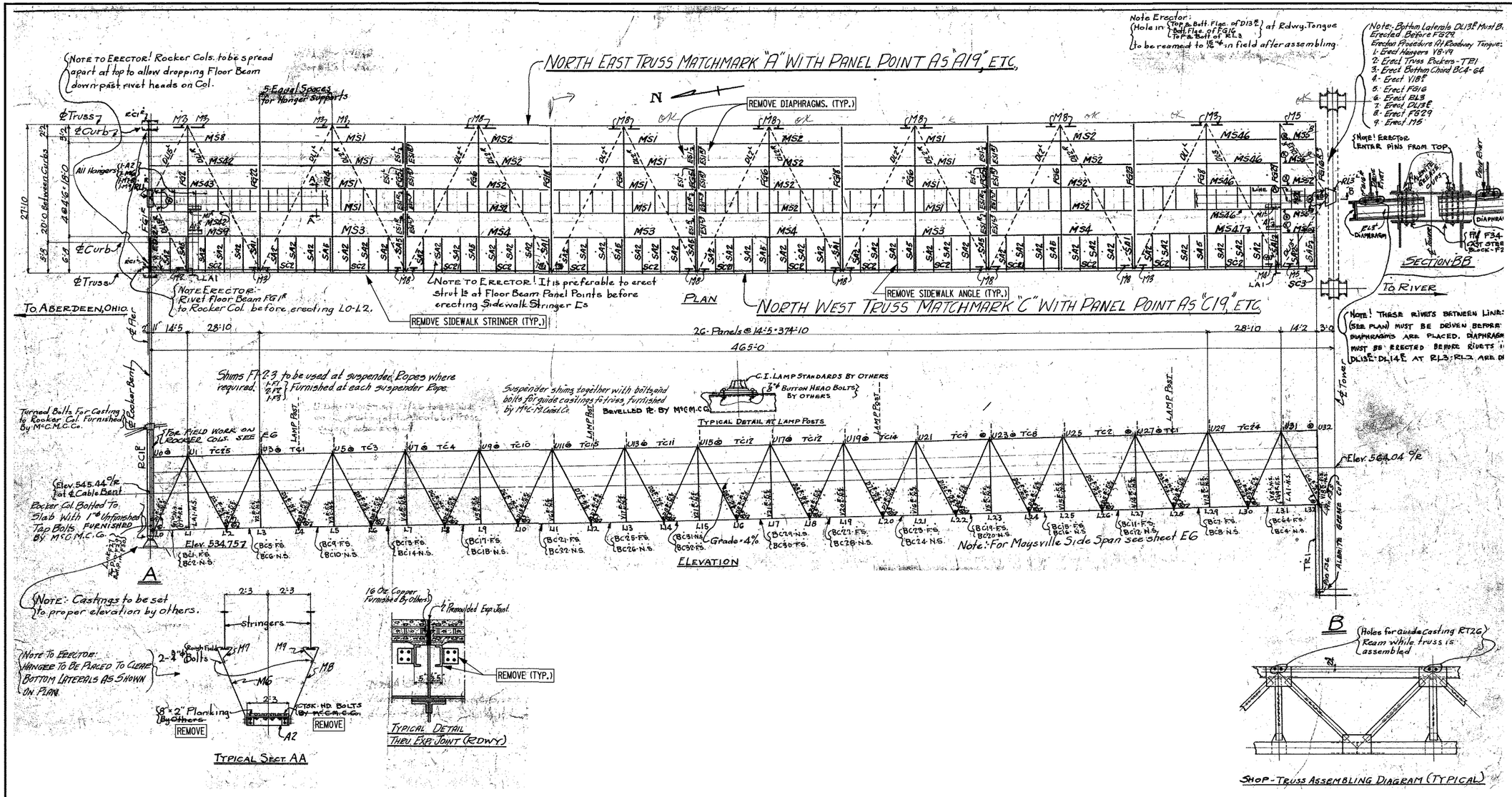
ITEM NUMBER: 9-108

PREPARED BY: URS Corporation, Waterfront Plaza Tower One, 325 West Main Street, Suite 1200, Louisville, Kentucky 40202-4251

SHEET NO. 011

DRAWING NO. 25348

SHEET LOCATION: I:\37046-028\DGN\ FILE NAME: exist_2.dgn USERNAME: DATE:



REMOVAL QUANTITIES

	MARK	DESCRIPTION	NO.
⑧ RETROFIT	ES1	Diaphragms	24
⑩ RETROFIT		Stringer Bearings @ Exp. Joints	40
⑬ RETROFIT	SA1	Sidewalk Angle	5
	SA2	" "	47
	SA5	" "	12
	SC1	Sidewalk Stringer	1
	SC2	" "	12
	SC3	" "	1
	SC21	" "	3
⑭		Bridge Deck	12,095 SF
⑯		Main Span Handrail	931 LF
⑰		Inspection Walkway	477 LF

MAYSVILLE SIDE SPAN

REVISION	DATE

DATE: Sep. 26, 2002 — CHECKED BY

DESIGNED BY: K. Thompson — C. Klusman

DETAILED BY: K. Thompson — C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: MASON

ROUTE: US 62 — CROSSING: OHIO RIVER

STRUCTURE REMOVAL SHEET

ITEM NUMBER: 9-108

PREPARED BY: URS Corporation, Waterfront Plaza Tower One, 325 West Main Street, Suite 1200, Louisville, Kentucky 40202-4251

SHEET NO. 012

DRAWING NO. 25348

DATE:

USERNAME:

FILE NAME: exist_3.dgn

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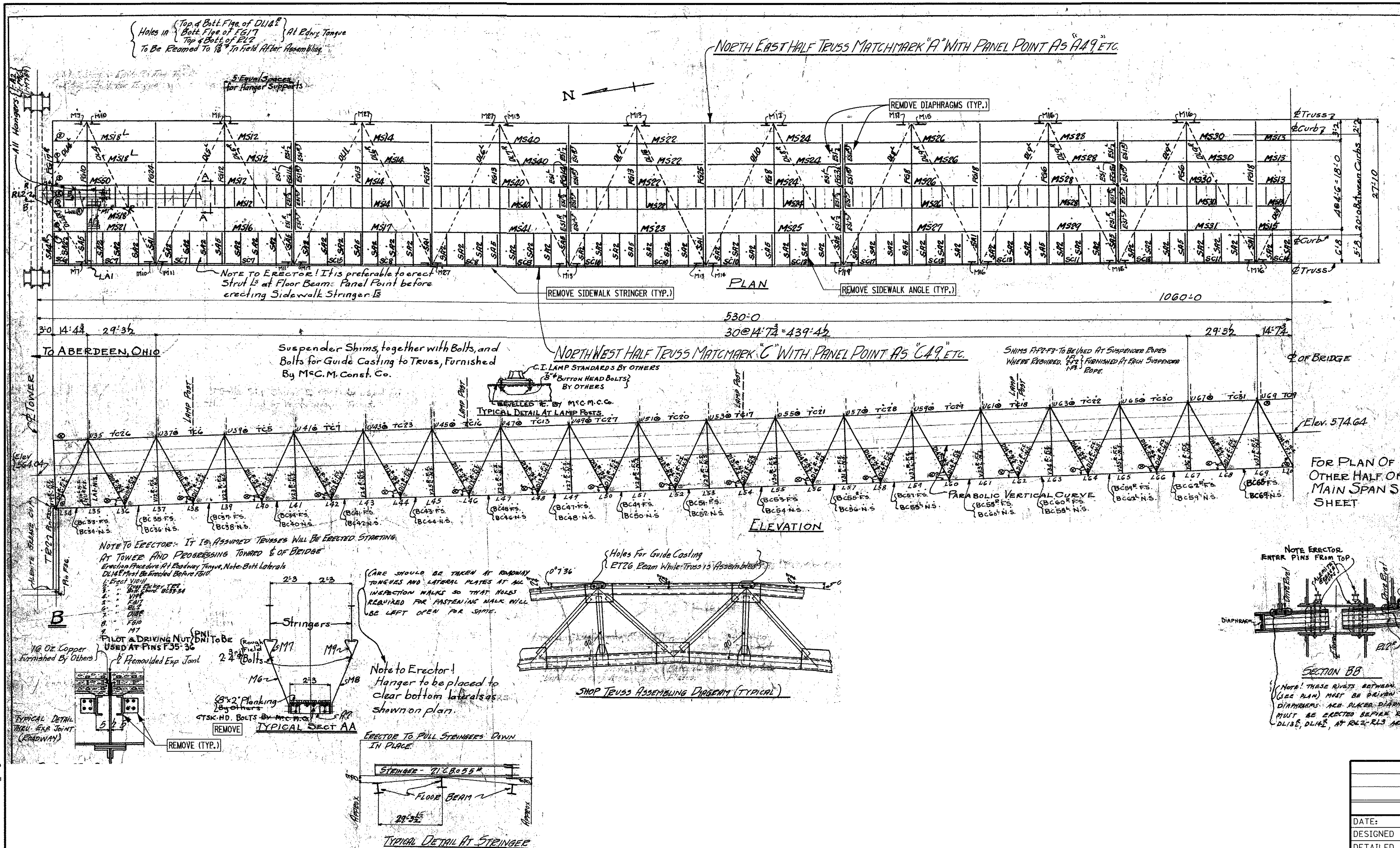


	MARK	DESCRIPTION	NO.
REMOVAL QUANTITIES			
RETROFIT ⑧	ES1	Diaphragm	32
⑩		Stringer Bearings @ Exp. Joints	45
RETROFIT ⑬	SA1	Sidewalk Angle	5
	SA2	" "	54
	SA4	" "	1
	SA5	" "	13
	SC6	Sidewalk Stringer	1
	SC7	" "	3
	SC8	" "	3
	SC10	" "	2
	SC11	" "	2
	SC13	" "	3
	SC14	" "	1
	SC15	" "	1
	SC16	" "	1
	SC17	" "	1
	SC18	" "	1
⑭		Bridge Deck	13,780 SF
⑯		Main Span Handrail	1060 LF
⑰		Inspection Walkway	542 LF

ABERDEEN MAIN SPAN

REVISION	DATE
DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	C. Klusman
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: MASON

ROUTE: US 62 — CROSSING: OHIO RIVER

STRUCTURE REMOVAL SHEET

PREPARED BY: URS Corporation, Waterfront Plaza Tower One, 325 West Main Street, Suite 1200, Louisville, Kentucky 40202-4251

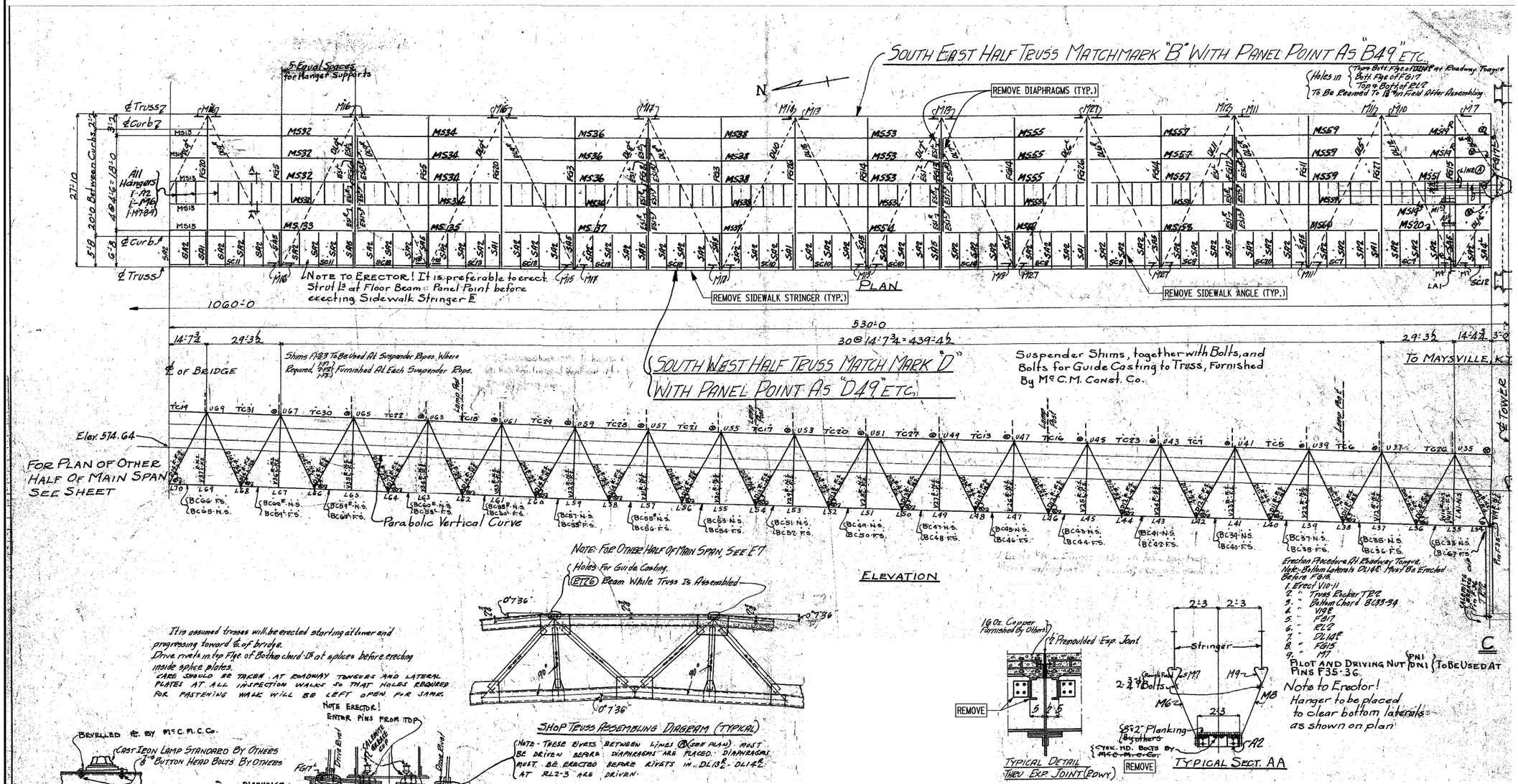
ITEM NUMBER: 9-108

SHEET NO. 013

DRAWING NO. 25348

SHEET LOCATION: I:\31046-028\DGN\ FILE NAME: exist_4.dgn USERNAME: DATE:

REMOVAL QUANTITIES			
	MARK	DESCRIPTION	NO.
⑧ RETROFIT	ES1	Diaphragm	32
⑩ RETROFIT		Stringer Bearings @ Exp. Joints	45
⑬ RETROFIT	SA1	Sidewalk Angle	5
	SA2	" "	54
	SA4	" "	1
	SA5	" "	13
	SC7	Sidewalk Stringer	2
	SC8	" "	2
	SC10	" "	3
	SC11	" "	2
	SC12	" "	1
	SC13	" "	3
	SC17	" "	1
	SC18	" "	1
	SC19	" "	1
	SC20	" "	1
	SC21	" "	1
⑭		Bridge Deck	13,780 SF
⑯		Main Span Handrail	1060 LF
⑰		Inspection Walkway	542 LF



MAYSVILLE MAIN SPAN

ITEM NUMBER
9–108

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	C. Klusman
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

STRUCTURE REMOVAL SHEET

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 014

DRAWING NO. 25348

DATE:
USERNAME:
FILE NAME: exist_5.dgn
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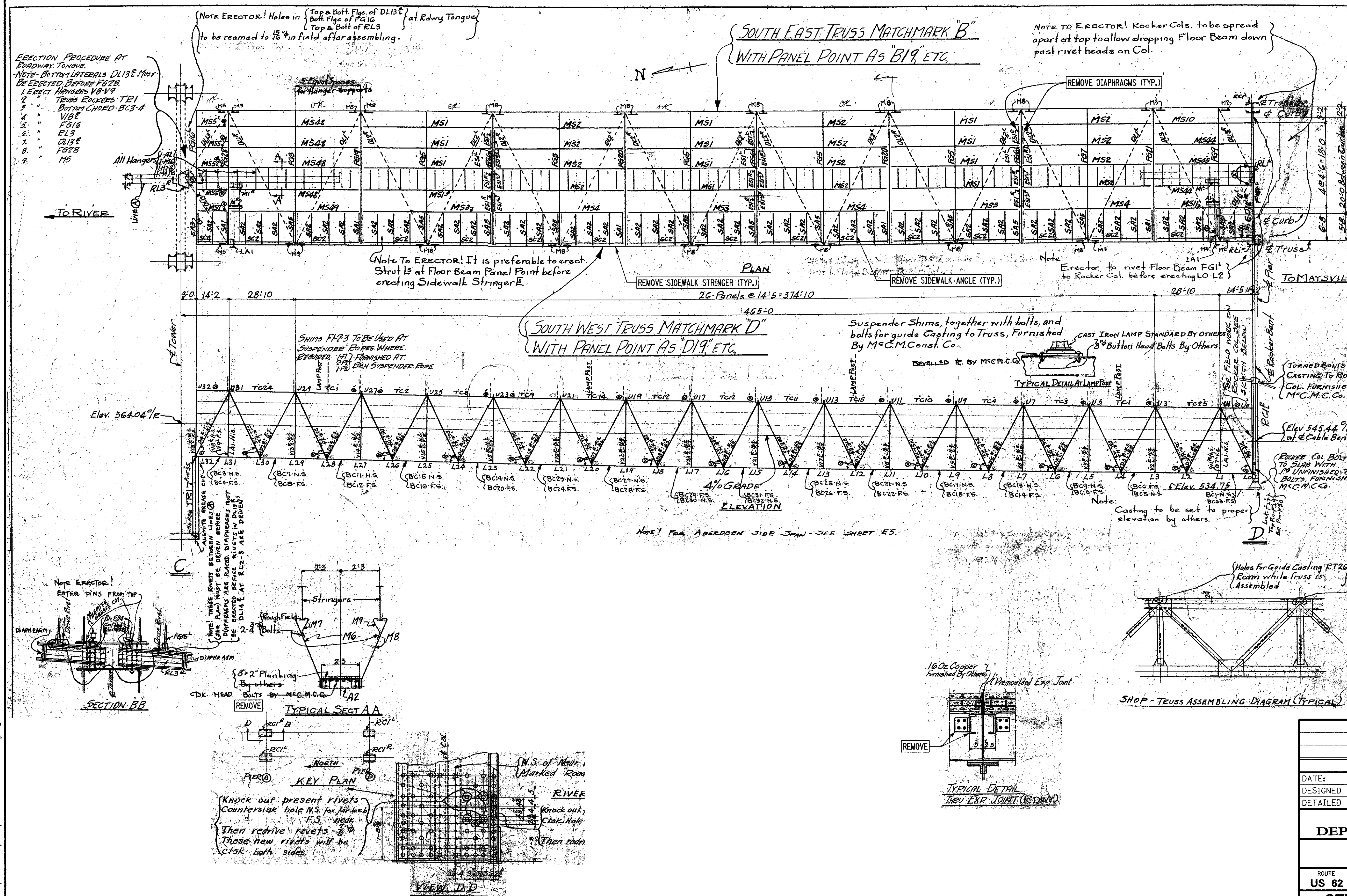


MAYSVILLE SIDE SPAN

	MARK	DESCRIPTION	NO.
REMOVAL QUANTITIES			
RETROFIT ⑧	ES1	Diaphragms	24
RETROFIT ⑩		Stringer Bearings @ Exp. Joints	40
RETROFIT ⑬	SA1	Sidewalk Angle	5
	SA2	" "	47
	SA3	" "	1
	SA5	Sidewalk Stringer	11
	SC2	" "	12
	SC4	" "	1
	SC5	" "	1
	SC21	" "	3
⑭		Bridge Deck	12,095 SF
⑯		Main Span Handrail	931 LF
⑰		Inspection Walkway	477 LF

REVISION	DATE
DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	C. Klusman
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **MASON**

ROUTE: US 62 — CROSSING: OHIO RIVER

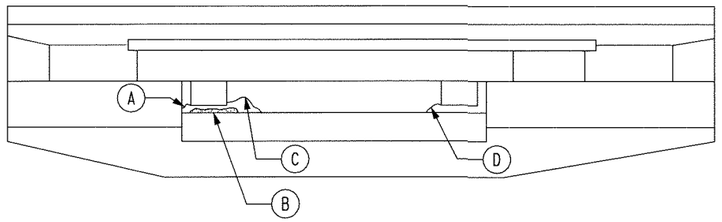
STRUCTURE REMOVAL SHEET

ITEM NUMBER: 9-108

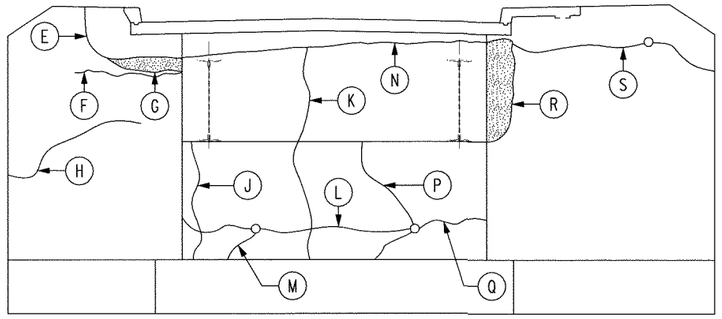
PREPARED BY: URS Corporation, Waterfront Plaza Tower One, 325 West Main Street, Suite 1200, Louisville, Kentucky 40202-4251

SHEET NO. 015 — DRAWING NO. 25348

SHEET LOCATION: I:\31046-028\DGN\ FILE NAME: exist_6.dgn USERNAME: DATE:

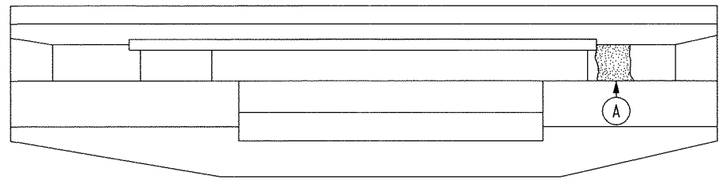


PLAN

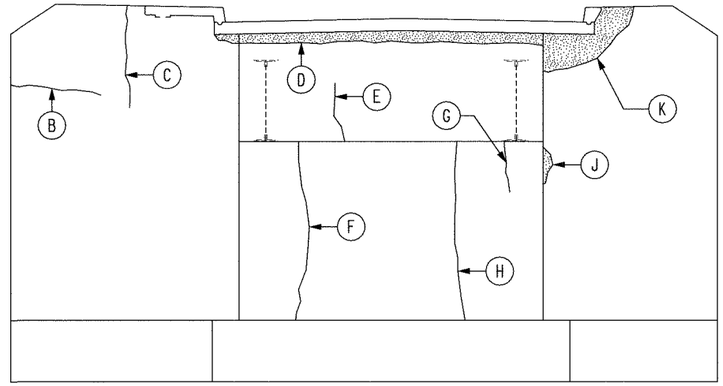


ELEVATION

ABUTMENT M4



PLAN



ELEVATION

ABUTMENT A6

RETROFIT (1) - CONCRETE PATCHING REPAIR

Repairing of spalled areas along existing exposed reinforcement shall consist of the following:

1. Chip out deteriorated concrete to and around rebars.
2. Clean chipped out areas to remove all loose rust and concrete.
3. Apply an approved epoxy resin mortar patch material in accordance with Section 510 of the Standard Specifications.

The Contractor shall be responsible for repairing areas of patch failure due to shrinkage and/or debonding of patches from existing concrete. There will be no additional compensation allowed for repair or replacement of failed patches.

Estimated repair quantities are based on observations and measurements from a September 2001 inspection.

The unit price bid for this item shall include all materials and labor for removing unsound concrete, placing patching mortar, and incidentals necessary to complete the work.

Limits and locations of patching shall be determined by the Engineer.

RETROFIT (2) - EPOXY INJECTION CRACK REPAIR

This work consists of injecting epoxy material in cracks 1/16" and larger. The crack shall wire brush cleaned by hand to remove loose particles before placing the epoxy cap. This crack repair work shall be performed by operators experienced in epoxy injection techniques. The epoxy cap shall be removed and the repair crack and adjacent surfaces ground smooth to facilitate inspection of the completed work. The unit price bid for this item shall include all materials and labor for cleaning cracks, epoxy injection materials, grinding repaired cracks, and incidentals necessary to complete the work. Limits and locations of injection shall be determined by the Engineer.

QUANTITIES

MARK	M4		A6	
	Concrete Patching	Epoxy Injection	Concrete Patching	Epoxy Injection
A		0'-6"	4.0 Sq. Ft.	
B	1.0 Sq.Ft.			5'-0"
C		2'-6"		6'-0"
D		1'-0"	11.0 Sq. Ft.	
E		3'-6"		3'-6"
F		6'-0"		10'-0"
G	3.0 Sq. Ft.			3'-0"
H		8'-6"		10'-0"
J		7'-0"	1.0 Sq. Ft.	
K		12'-6"	9.0 Sq. Ft.	
L		17'-0"		
M		2'-6"		
N		17'-0"		
P		6'-0"		
Q		6'-6"		
R	8.0 Sq. Ft.			
S		11'-6"		

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	D. Amato
DETAILED BY: B. Clyde	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: **US 62**

CROSSING: **OHIO RIVER**

RETROFIT (1)

RETROFIT (2)

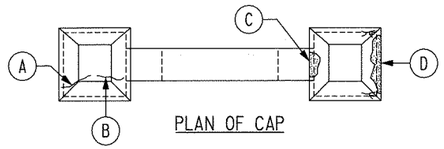
ABUTMENT REPAIR DETAILS

ITEM NUMBER
9-108

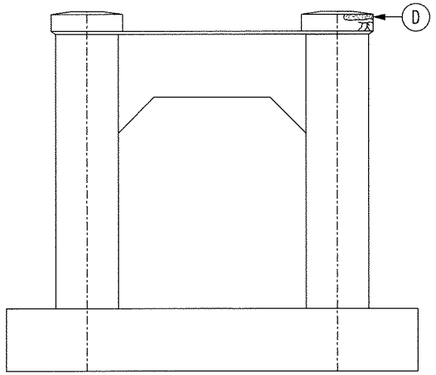
PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 016

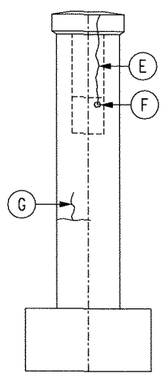
DRAWING NO. 25348



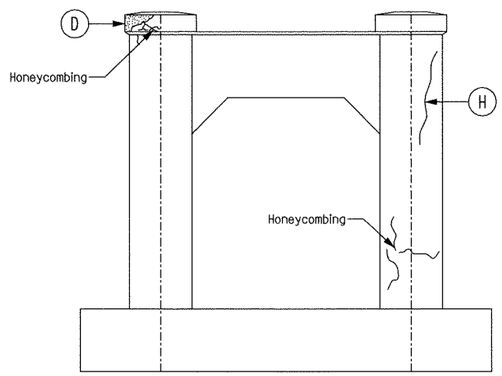
PLAN OF CAP



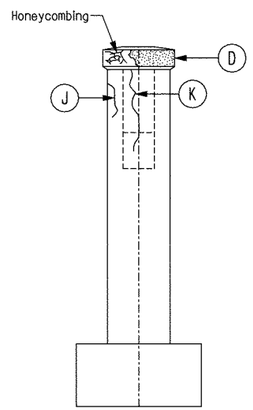
SOUTH ELEVATION



WEST ELEVATION



NORTH ELEVATION

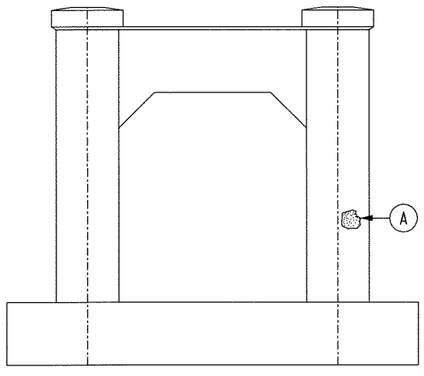


EAST ELEVATION

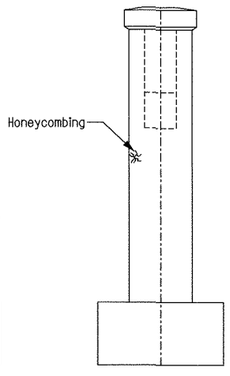
PIER A1

QUANTITIES				
MARK	A1		A2	
	Concrete Patching	Epoxy Injection	Concrete Patching	Epoxy Injection
A		2'-0"	0.9 Sq.Ft.	
B		1'-6"		3'-6"
C	1.0 Sq.Ft.			
D	4.0 Sq.Ft.			
E		5'-0"		
F	0.5 Sq.Ft.			
G		3'-6"		
H		5'-6"		
J		2'-0"		
K		5'-0"		

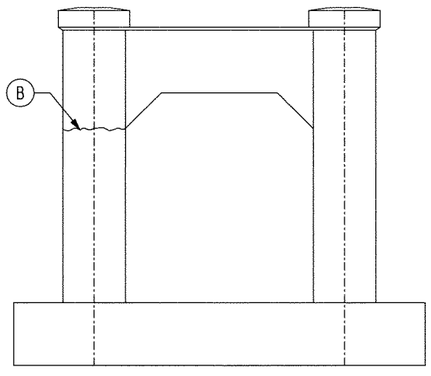
PLAN OF CAP



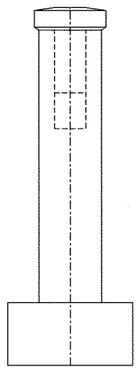
SOUTH ELEVATION



WEST ELEVATION



NORTH ELEVATION



EAST ELEVATION

PIER A2

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	D. Amato
DETAILED BY: B. Clyde	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE **US 62** | CROSSING **OHIO RIVER**

PIER REPAIR DETAILS

RETROFIT (1)
RETROFIT (2)

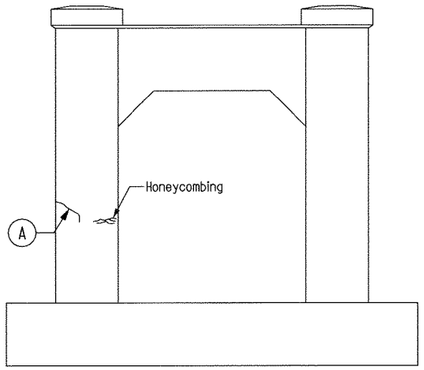
ITEM NUMBER
9-108

PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

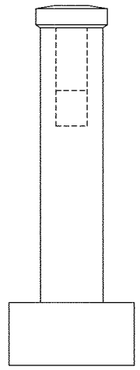
SHEET NO. 017
DRAWING NO. 25348

DATE:
USERNAME:
FILE NAME: *pier_repair_1.dgn*
SHEET LOCATION: *F:\3104B-028\DGN*

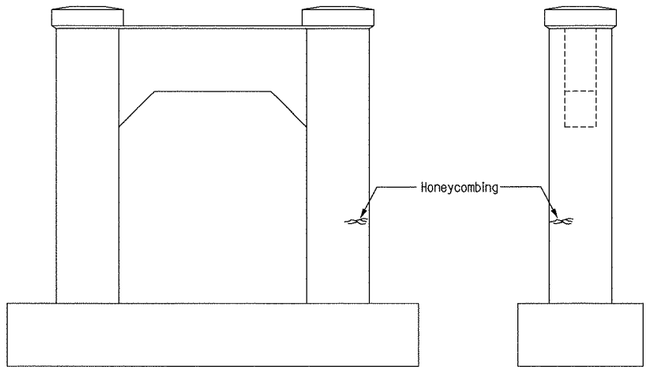
PLAN OF CAP



SOUTH ELEVATION



WEST ELEVATION

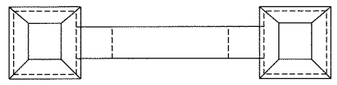


NORTH ELEVATION

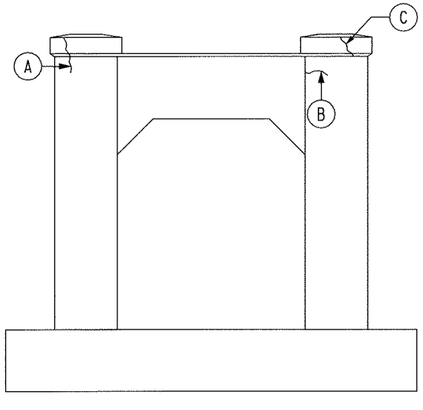
EAST ELEVATION

PIER A3

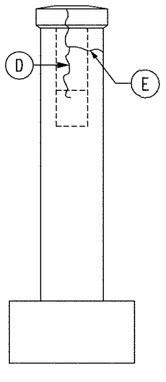
QUANTITIES				
MARK	A3		A4	
	Concrete Patching	Epoxy Injection	Concrete Patching	Epoxy Injection
A		2'-0"		2'-0"
B				1'-6"
C				1'-6"
D				3'-6"
E				4'-6"
F				4'-0"
G				1'-6"



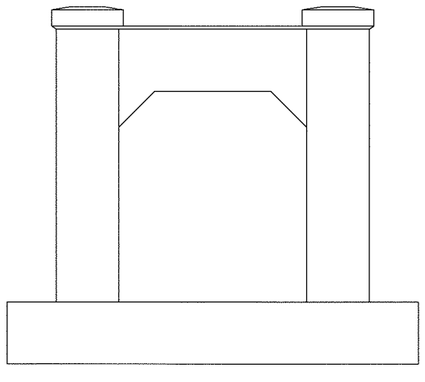
PLAN OF CAP



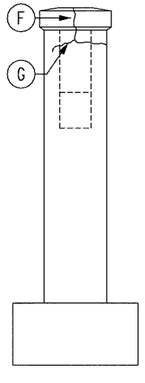
SOUTH ELEVATION



WEST ELEVATION



NORTH ELEVATION



EAST ELEVATION

PIER A4

REVISION	DATE

DATE:	Sep. 26, 2002	CHECKED BY
DESIGNED BY:	K. Thompson	D. Amato
DETAILED BY:	B. Clyde	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

PIER REPAIR DETAILS

RETROFIT (1)
RETROFIT (2)

ITEM NUMBER
9-108

PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 018

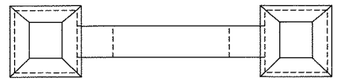
DRAWING NO. 25348

DATE:

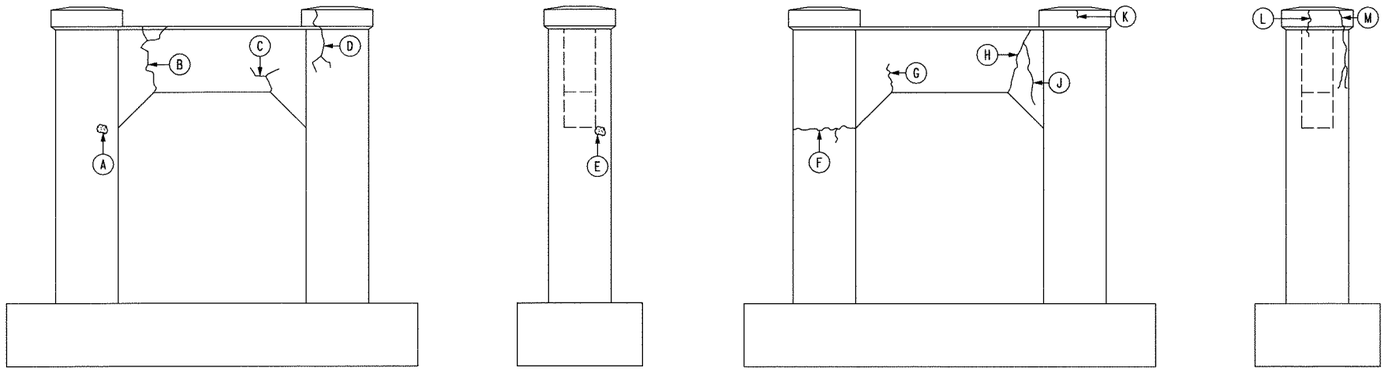
USERNAME:

FILE NAME: *pier_repair_2.dgn*

SHEET LOCATION: *I:\31046-028\DGN*



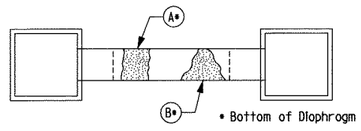
PLAN OF CAP



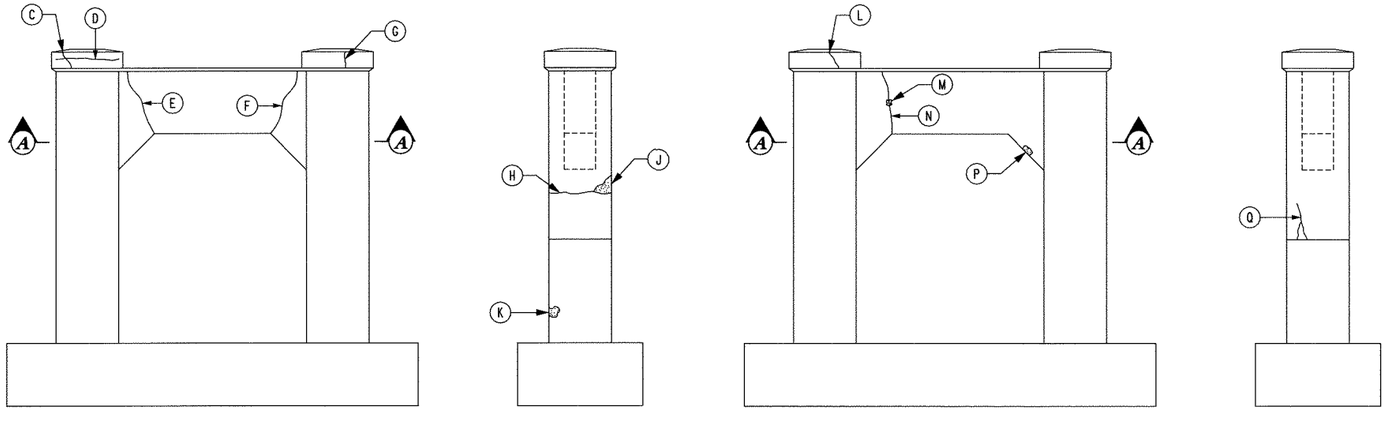
SOUTH ELEVATION | WEST ELEVATION | NORTH ELEVATION | EAST ELEVATION

PIER A5

QUANTITIES				
MARK	A5		M1	
	Concrete Patching	Epoxy Injection	Concrete Patching	Epoxy Injection
A	0.5 Sq.Ft.		3.0 Sq.Ft.	
B		6'-0"	3.0 Sq.Ft.	
C		3'-0"		1'-0"
D		5'-0"		3'-6"
E	0.5 Sq.Ft.			4'-0"
F		4'-6"		4'-0"
G		2'-0"		1'-0"
H		4'-0"		3'-6"
J		3'-6"	1.0 Sq.Ft.	
K		0'-6"	0.5 Sq.Ft.	
L		1'-6"		1'-0"
M		6'-0"	0.5 Sq.Ft.	
N				3'-6"
P			0.5 Sq.Ft.	
Q				3'-0"



VIEW A-A



SOUTH ELEVATION | WEST ELEVATION | NORTH ELEVATION | EAST ELEVATION

PIER M1

REVISION	DATE
DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	D. Amato
DETAILED BY: B. Clyde	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: MASON

ROUTE: US 62

CROSSING: OHIO RIVER

RETROFIT (1)
RETROFIT (2)

PIER REPAIR DETAILS

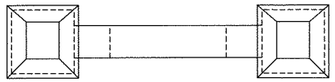
ITEM NUMBER: 9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

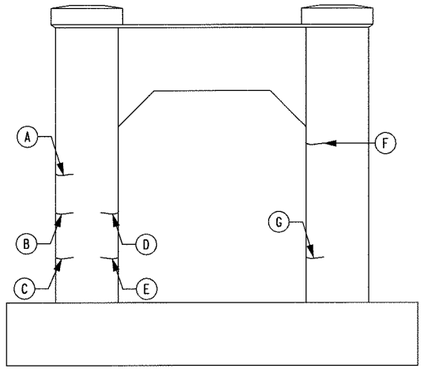
SHEET NO. 019

DRAWING NO. 25348

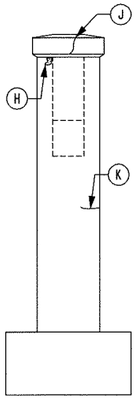
DATE:
USERNAME:
FILE NAME: pier_repair_3.dgn
SHEET LOCATION: I:\37046-028\DGN\



PLAN OF CAP



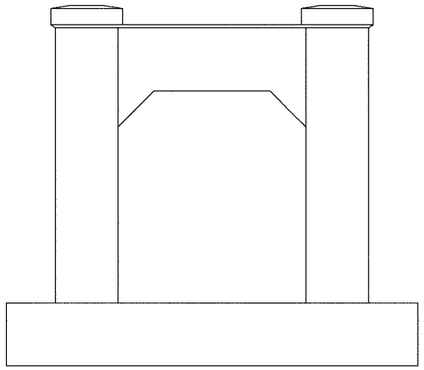
SOUTH ELEVATION



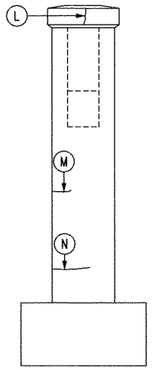
WEST ELEVATION

PIER M2

PLAN OF CAP



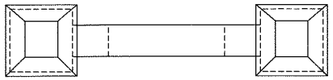
NORTH ELEVATION



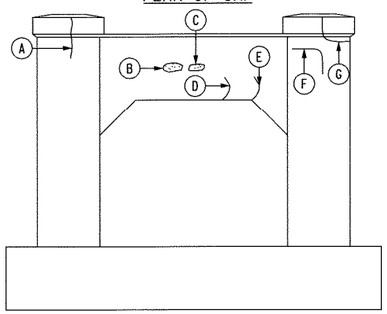
EAST ELEVATION

PIER M2

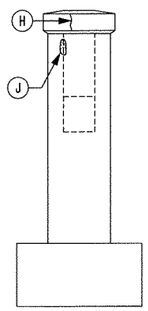
QUANTITIES				
MARK	M2		M3	
	Concrete Patching	Epoxy Injection	Concrete Patching	Epoxy Injection
A		1'-6"		2'-6"
B		1'-6"	1.0 Sq.Ft.	
C		1'-6"	0.5 Sq.Ft.	
D		1'-6"		1'-6"
E		1'-6"		1'-6"
F		1'-6"		3'-0"
G		1'-6"		2'-6"
H	1.0 Sq.Ft.			1'-0"
J		1'-0"	0.5 Sq.Ft.	
K		1'-6"		3'-0"
L		1'-0"	0.5 Sq.Ft.	
M		1'-6"		1'-0"
N		2'-0"		1'-0"
P				2'-0"



PLAN OF CAP

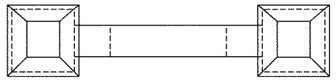


SOUTH ELEVATION

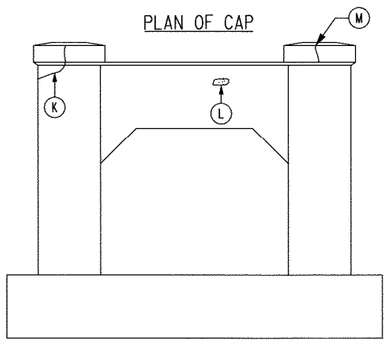


WEST ELEVATION

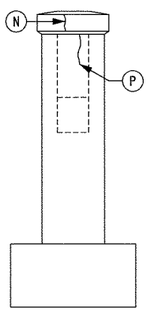
PIER M3



PLAN OF CAP



NORTH ELEVATION



EAST ELEVATION

PIER M3

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	D. Amato
DETAILED BY: B. Clyde	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: **US 62**

CROSSING: **OHIO RIVER**

PIER REPAIR DETAILS

RETROFIT (1)
RETROFIT (2)

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 020

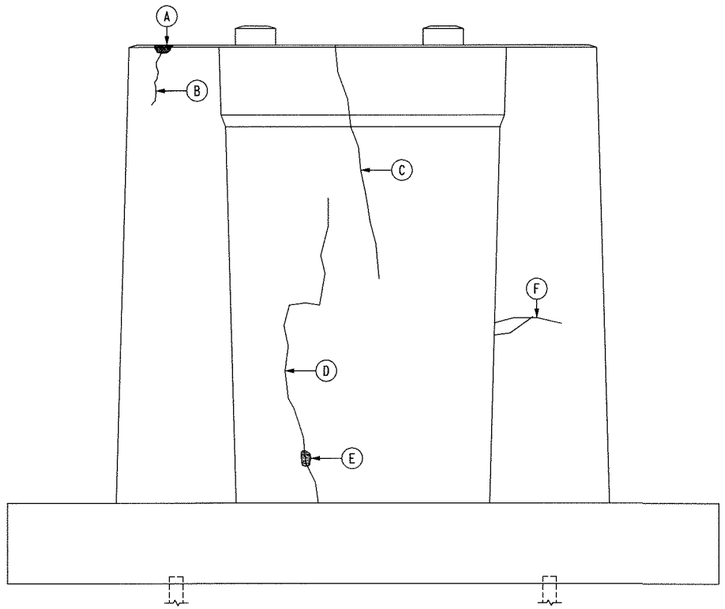
DRAWING NO. 25348

DATE:

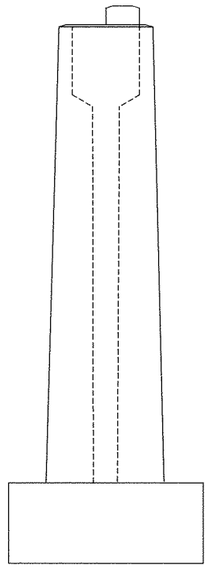
USERNAME:

FILE NAME: *pier_repair_4.dgn*

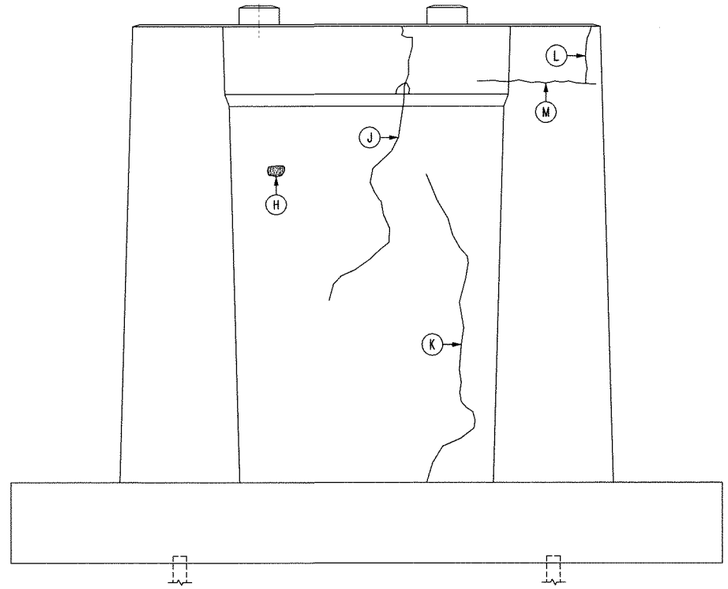
SHEET LOCATION: *I:\31046-028\DGN*



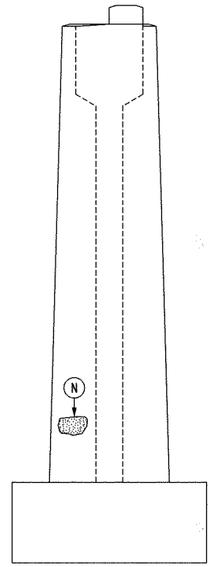
SOUTH ELEVATION



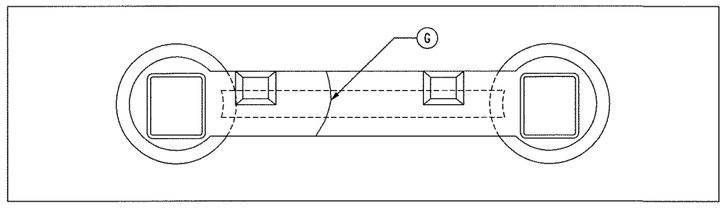
WEST ELEVATION



NORTH ELEVATION



EAST ELEVATION



PLAN OF CAP

MARK	QUANTITIES	
	PIER A	
	Concrete Patching	Epoxy Injection
A	1.0 Sq.Ft.	
B		4'-0"
C		18'-0"
D		25'-6"
E	1.0 Sq.Ft.	
F		8'-6"
G		5'-0"
H	1.0 Sq.Ft.	
J		26'-6"
K		26'-0"
L		4'-6"
M		9'-0"
N	2.5 Sq.Ft.	

PIER A REPAIRS

RETROFIT (1)
RETROFIT (2)

ITEM NUMBER
9-108

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	D. Amato
DETAILED BY: B. Clyde	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

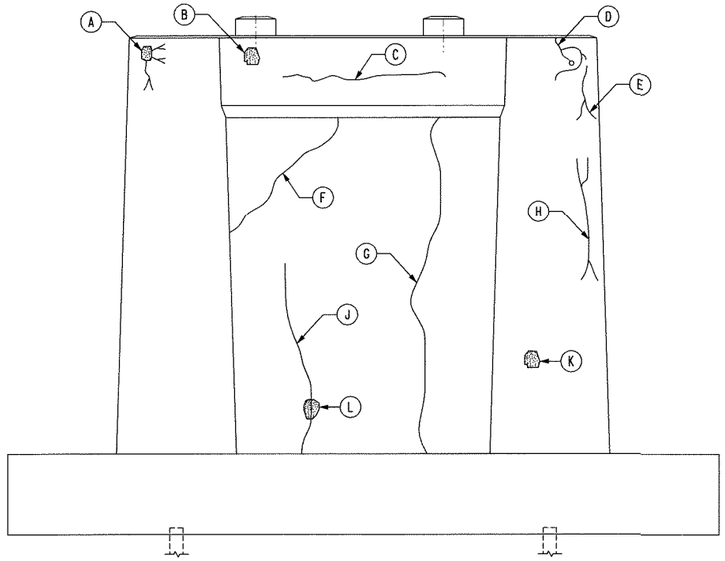
ROUTE **US 62** | CROSSING **OHIO RIVER**

PIER REPAIR DETAILS

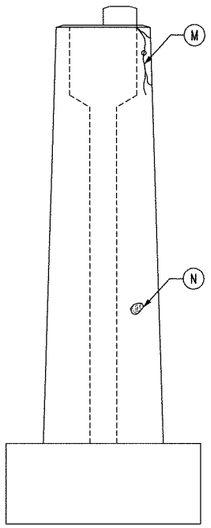
PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 021
DRAWING NO. 25348

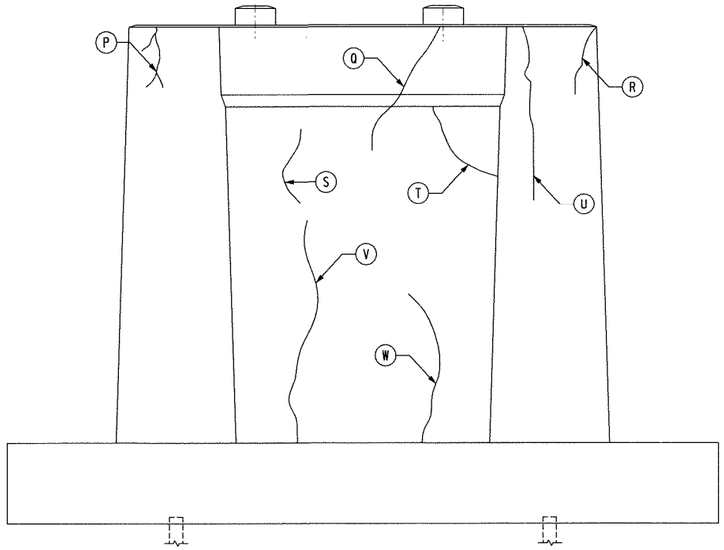
DATE:
USERNAME:
FILE NAME: *pier_repair_5.dgn*
SHEET LOCATION: *I:\31046-028\DGN*



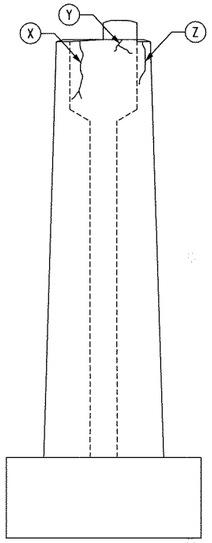
SOUTH ELEVATION



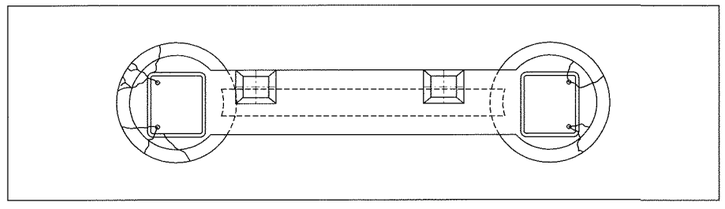
WEST ELEVATION



NORTH ELEVATION



EAST ELEVATION



PLAN OF CAP

MARK	QUANTITIES	
	D	
	Concrete Patching	Epoxy Injection
A	1.0 Sq.Ft.	
B	1.5 Sq.Ft.	
C		12'-6"
D		7'-6"
E		6'-0"
F		12'-6"
G		26'-0"
H		13'-6"
J		14'-6"
K	1.5 Sq.Ft.	
L	1.5 Sq.Ft.	
M		8'-0"
N	1.5 Sq.Ft.	
P		7'-6"
Q		10'-6"
R		5'-6"
S		6'-6"
T		7'-6"
U		13'-0"
V		17'-0"
W		12'-0"
X		5'-0"
Y		2'-6"
Z		3'-0"

PIER D REPAIRS

RETROFIT (1)
RETROFIT (2)

ITEM NUMBER
9-108

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	D. Amato
DETAILED BY: B. Clyde	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

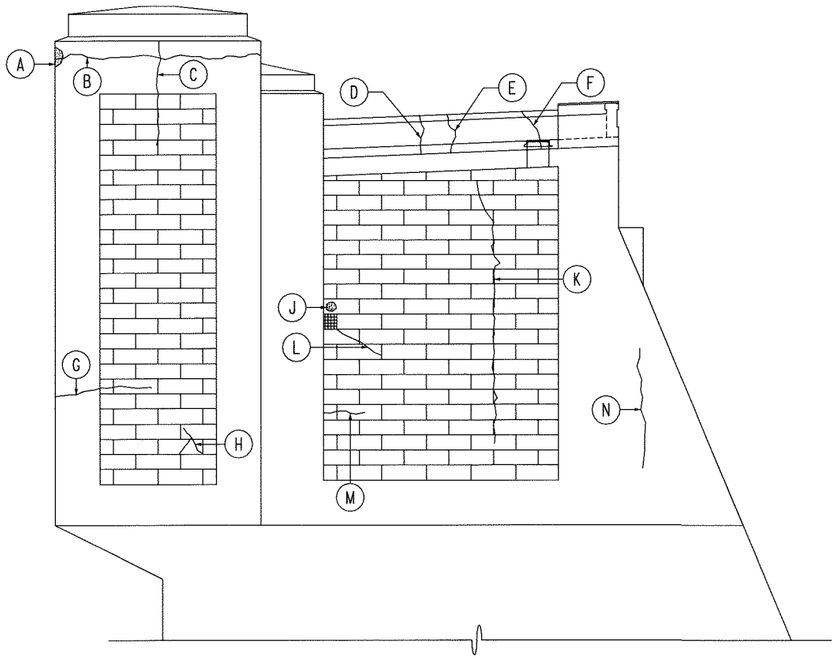
CROSSING
OHIO RIVER

PIER REPAIR DETAILS

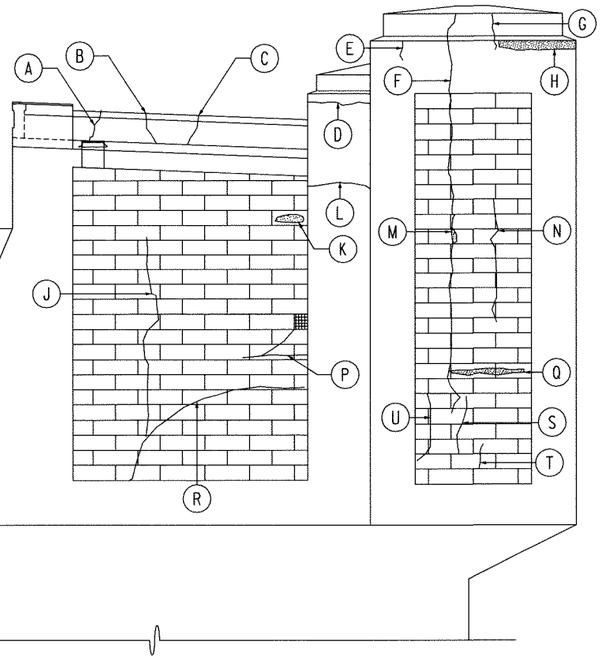
PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 022
DRAWING NO. 25348

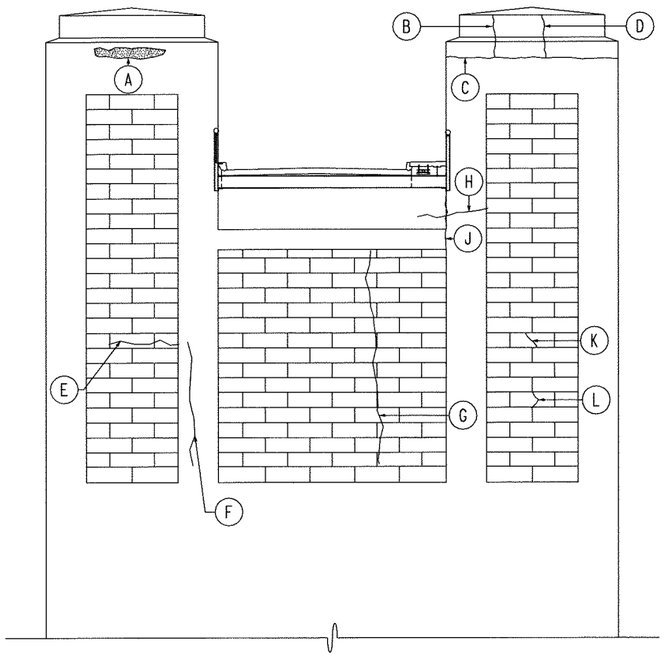
DATE:
USERNAME:
FILE NAME: *pier_repair_6.dgn*
SHEET LOCATION: I:\31046-028\DGN\



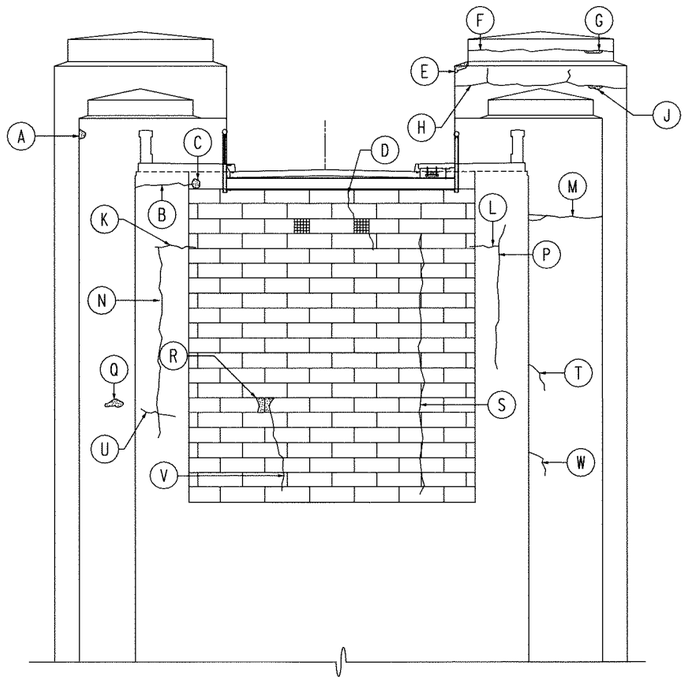
WEST ELEVATION



EAST ELEVATION



NORTH ELEVATION



SOUTH ELEVATION

MARK	QUANTITIES			
	WEST FACE		EAST FACE	
	Conc. Patch.	Epoxy Inj.	Conc. Patch.	Epoxy Inj.
A	1.3 Sq.Ft.			3'-6"
B		23'-6"		3'-6"
C		11'-6"		3'-6"
D		4'-6"		7'-0"
E		4'-6"		2'-0"
F		4'-6"		46'-0"
G		11'-0"		4'-0"
H		6'-0"	19.0 Sq.Ft.	
J	1.0 Sq.Ft.			23'-6"
K		31'-0"	2.5 Sq.Ft.	
L		6'-0"		7'-0"
M		5'-0"	1.0 Sq.Ft.	
N		13'-6"		14'-6"
P				12'-0"
Q			5.0 Sq.Ft.	
R				8'-0"
S				6'-6"
T				3'-0"
U				4'-0"

MARK	QUANTITIES			
	NORTH FACE		SOUTH FACE	
	Conc. Patch.	Epoxy Inj.	Conc. Patch.	Epoxy Inj.
A	8.0 Sq.Ft.		1.0 Sq.Ft.	
B		5'-0"		6'-6"
C		19'-6"	1.0 Sq.Ft.	
D		5'-0"		5'-6"
E		8'-0"	1.0 Sq.Ft.	
F		14'-0"		16'-6"
G		24'-6"	0.5 Sq.Ft.	
H		8'-0"		22'-6"
J		7'-0"	0.5 Sq.Ft.	
K		2'-0"		4'-6"
L		2'-0"		3'-0"
M				10'-6"
N				21'-6"
P				16'-6"
Q			1.5 Sq.Ft.	
R			2.5 Sq.Ft.	
S				30'-0"
T				4'-0"
U				4'-0"
V				9'-6"
W				4'-0"

ABERDEEN ANCHORAGE

RETROFIT (1)

RETROFIT (2)

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	D. Amato
DETAILED BY: B. Clyde	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

ANCHORAGE REPAIR DETAILS

ITEM NUMBER
9-108

PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 023

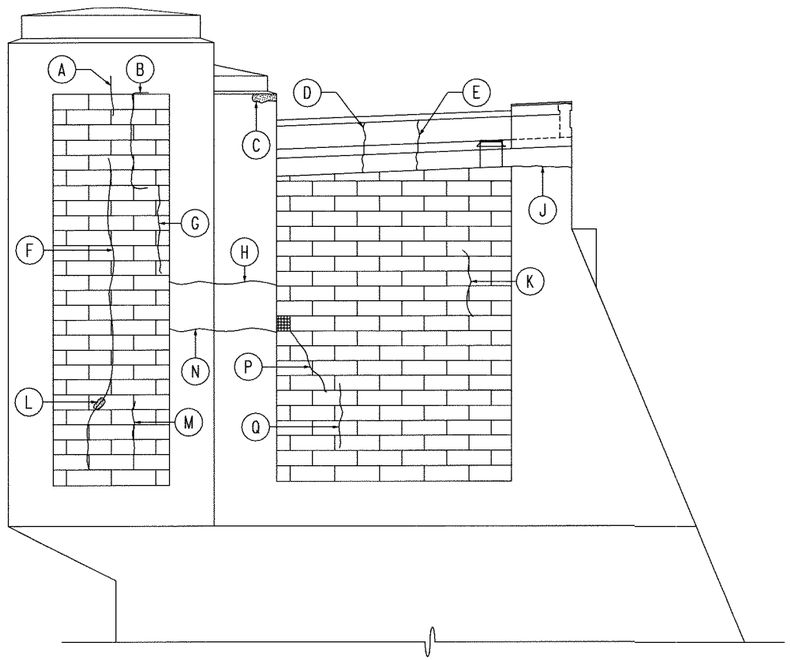
DRAWING NO. 25348

DATE:

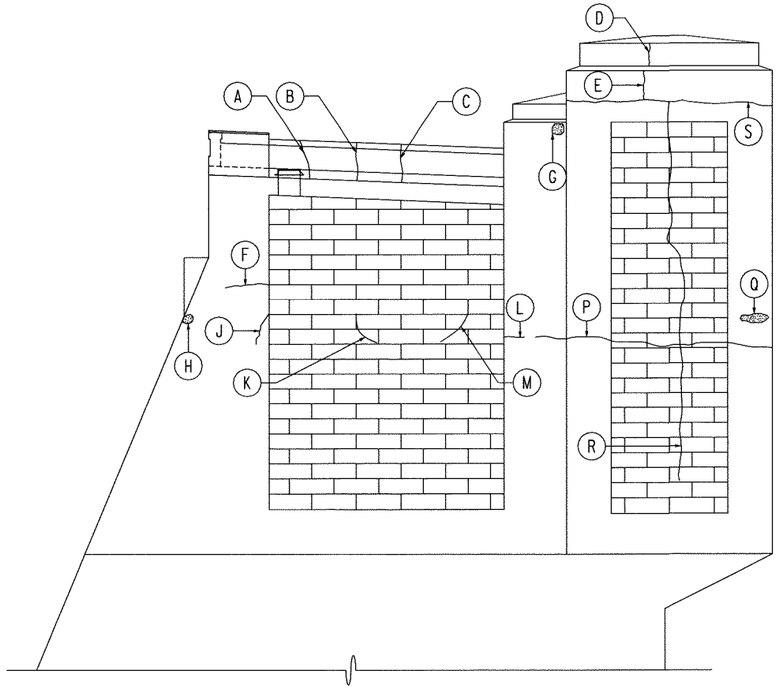
USERNAME:

FILE NAME: *anchorage_repair_1.dgn*

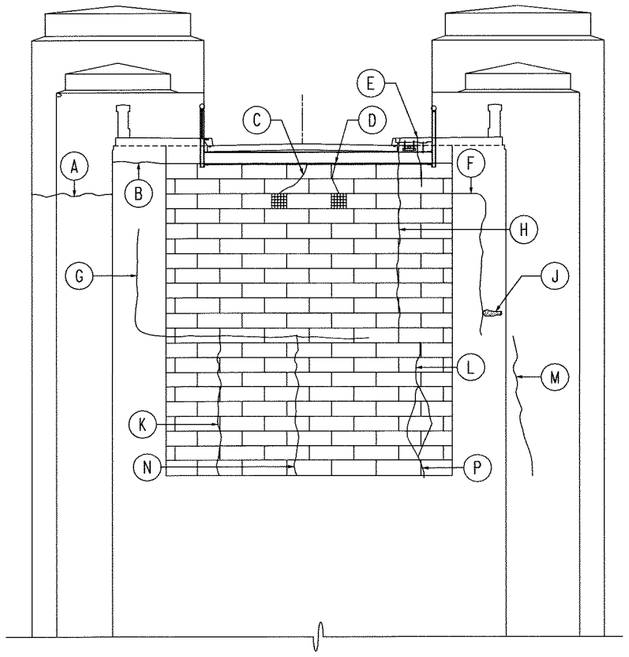
SHEET LOCATION: *I:\31046-028\DGN*



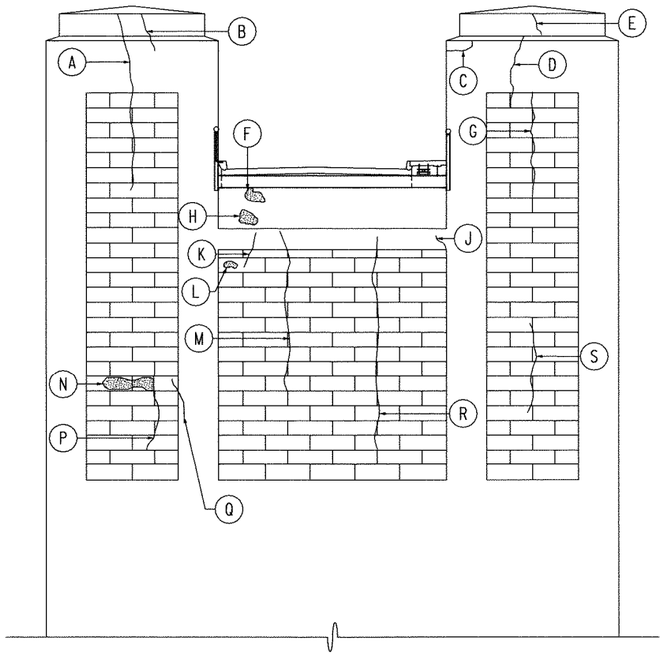
EAST ELEVATION



WEST ELEVATION



NORTH ELEVATION



SOUTH ELEVATION

MARK	QUANTITIES			
	EAST FACE		WEST FACE	
	Conc. Patch.	Epoxy Inj.	Conc. Patch.	Epoxy Inj.
A		4'-6"		4'-6"
B		14'-0"		4'-6"
C	2.5 Sq.Ft.			4'-6"
D		6'-0"		2'-6"
E		6'-0"		3'-6"
F		35'-6"		5'-0"
G		10'-0"	1.5 Sq.Ft.	
H		12'-0"	1.0 Sq.Ft.	
J		7'-0"		4'-0"
K		8'-0"		4'-6"
L	1.0 Sq.Ft.			2'-6"
M		6'-0"		4'-6"
N		12'-0"		
P		8'-0"		26'-6"
Q		7'-6"	3.0 Sq.Ft.	
R				43'-0"
S				23'-0"

MARK	QUANTITIES			
	NORTH FACE		SOUTH FACE	
	Conc. Patch.	Epoxy Inj.	Conc. Patch.	Epoxy Inj.
A		9'-6"		20'-0"
B		6'-0"		4'-6"
C		4'-6"		3'-6"
D		3'-6"		8'-6"
E		5'-6"		2'-6"
F		19'-6"	2.5 Sq.Ft.	
G		14'-6"		12'-0"
H		21'-6"	2.5 Sq.Ft.	
J	1.0 Sq.Ft.			2'-0"
K		16'-6"		4'-0"
L		16'-0"	1.0 Sq.Ft.	
M		16'-6"		18'-6"
N		16'-6"	7.0 Sq.Ft.	
P		16'-0"		9'-0"
Q				4'-6"
R				24'-0"
S				10'-6"

MAYSVILLE ANCHORAGE

RETROFIT (1)

RETROFIT (2)

ITEM NUMBER

9-108

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	D. Amato
DETAILED BY: B. Clyde	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

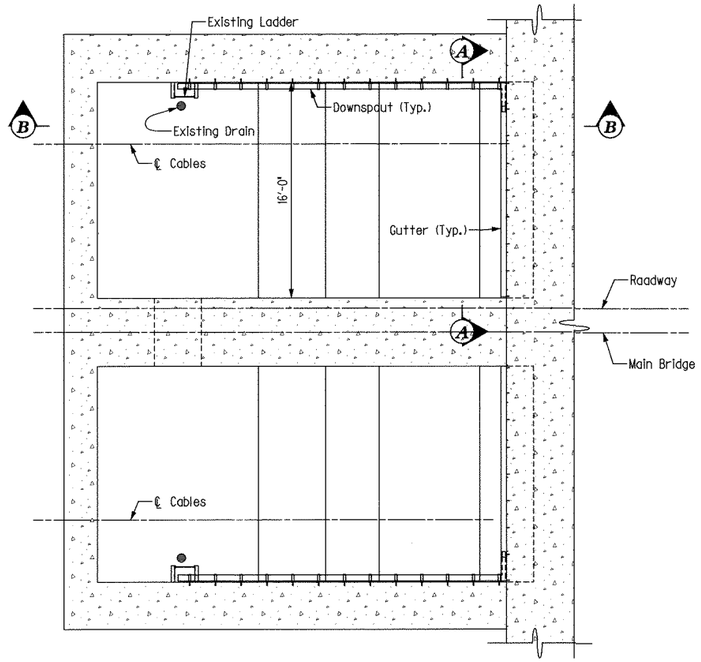
CROSSING
OHIO RIVER

ANCHORAGE REPAIR DETAILS

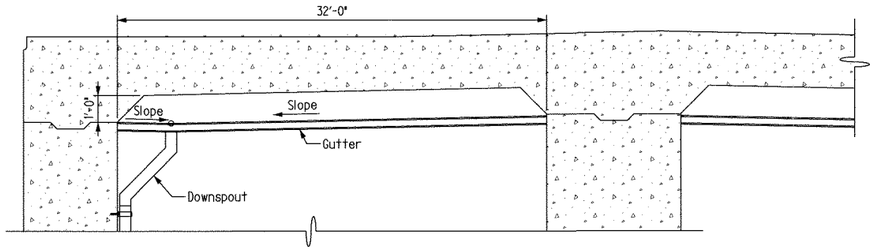
PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 024

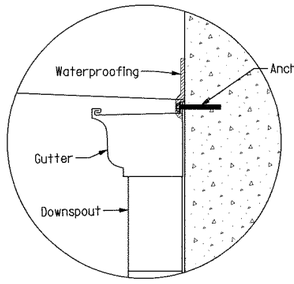
DRAWING NO. 25348



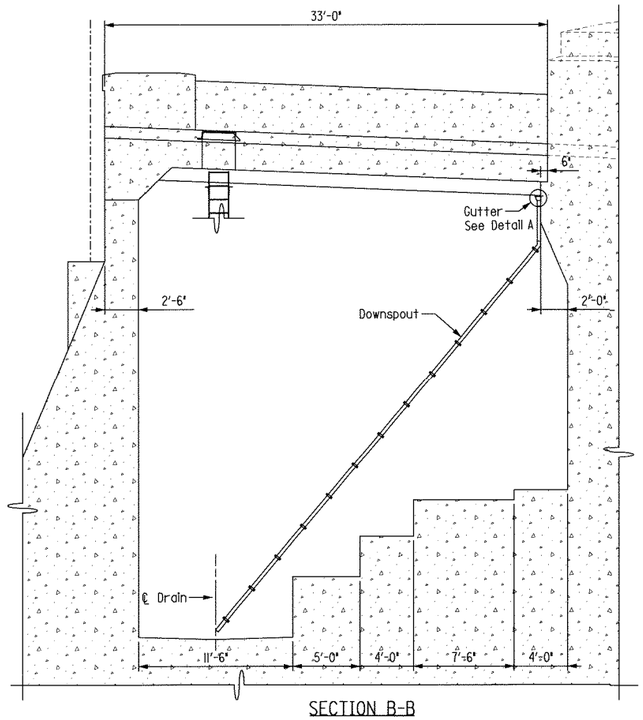
PLAN OF ANCHORAGE



SECTION A-A



DETAIL A



SECTION B-B

RETROFIT (3) - WATER SHIELD REPLACEMENT

This item of wark shall cansist of installing a new box gutter ar appraved equivalent and dawnspaut abave each ancharage.

The unit price bid far this item shall be full campensatian far all materials, labar, equipment, taals, and incidentals necessary ta camplete the wark.

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	C. Klusman
DETAILED BY: C. Klusman	M. Zwick

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

RETROFIT (3)

ANCHORAGE REPAIR DETAILS

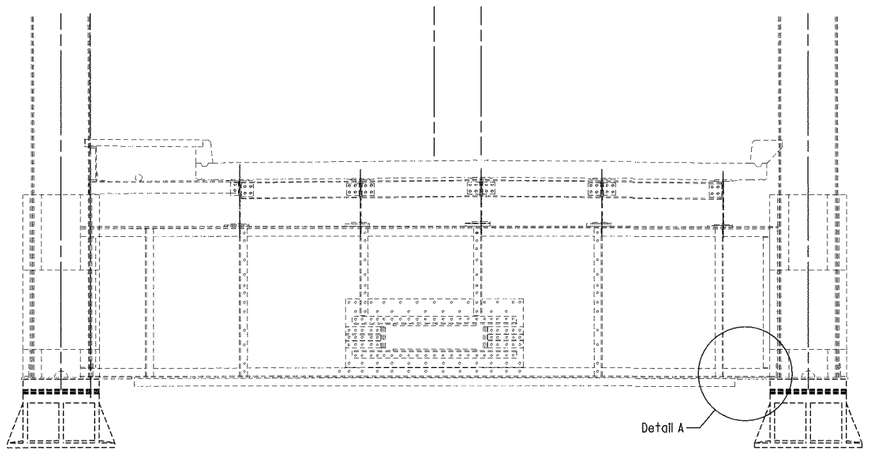
ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 025

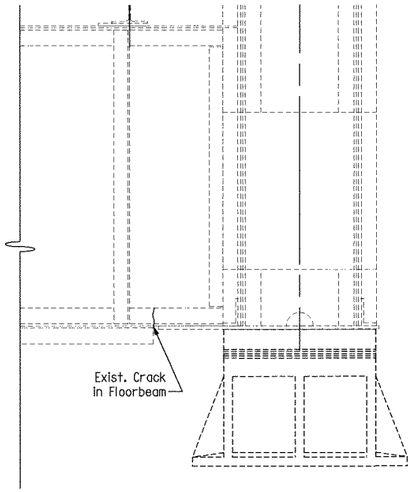
DRAWING NO. 25348

DATE:
USERNAME:
FILE NAME: *anchorage_repair_3.dgn*
SHEET LOCATION: *I:\37046-028\DGN*

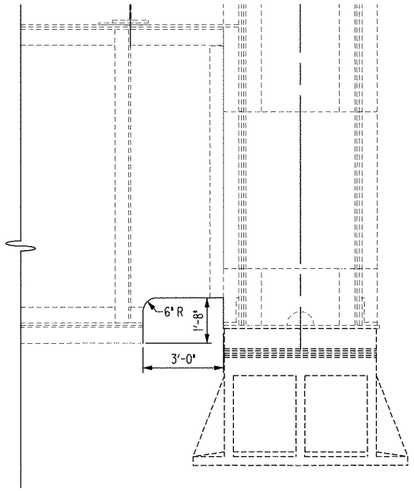


EXISTING FLOORBEAM ELEVATION AT ROCKER BENT

RETROFIT (6)

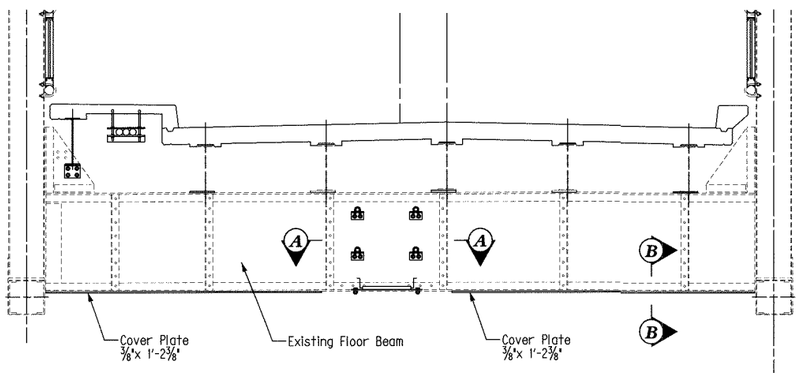


EXISTING CONDITION



PROPOSED REPAIR

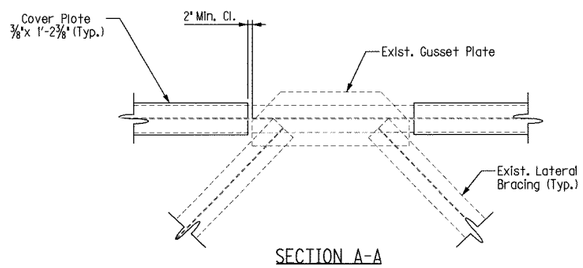
DETAIL A



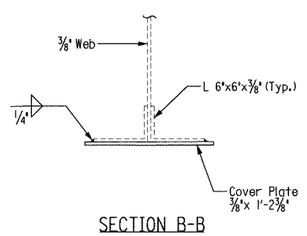
FLOORBEAM ELEVATION

(Panel Points 32A, 34A, 34M, 32M)

RETROFIT (4)



SECTION A-A



SECTION B-B

RETROFIT (4) - TOWER FLOORBEAM FLANGE REPAIR

This item of work shall consist of attaching new cover plates to the damaged bottom flanges of floorbeams at specified locations in the plans.

The unit price bid for this item shall be full compensation for all materials, labor, equipment, tools, and incidentals necessary to complete the work.

RETROFIT (6) - FLOORBEAM CRACK REPAIR

Cracks at the bottom flange fillet shall be repaired at the following locations:

Panel Point L0A:	Upstream	Rocker Bent
Panel Point L0A:	Downstream	Rocker Bent
Panel Point L0M:	Upstream	Rocker Bent
Panel Point L0M:	Downstream	Rocker Bent

This item of work shall consist of coping out the bottom flange of the floorbeams, as shown in the plans, at the rocker bents.

The unit price bid for this item shall be full compensation for all materials, labor, equipment, tools, and incidentals necessary to complete the work. Cleaning and painting shall be included in the bid item 'Cleaning and Painting'.

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **MASON**

ROUTE: **US 62** | CROSSING: **OHIO RIVER**

RETROFIT (4)
RETROFIT (6)

FLOORBEAM REPAIR DETAILS

ITEM NUMBER: **9-108**

PREPARED BY:
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 026

DRAWING NO. 25348

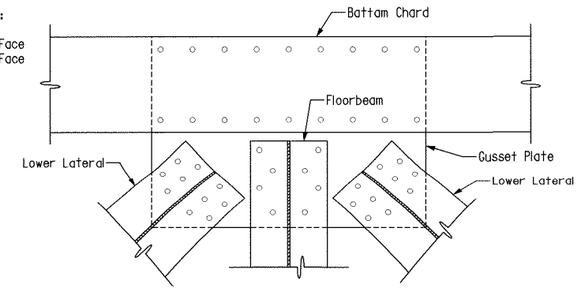
DATE:
USERNAME:
FILE NAME: floorbeam_1.dgn
SHEET LOCATION: I:\31046-028\DGN\

OUANTITY AND LOCATION OF FLOORBEAM CONNECTION REPAIR

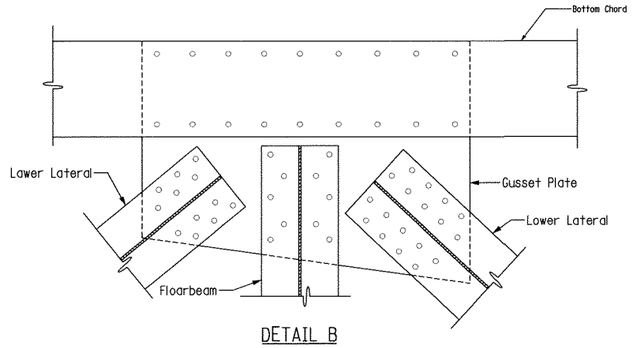
PANEL POINT	DETAIL	STIFFENING TRUSS Upstream N.F.	Upstream S.F.	Downstrm. N.F.	Downstrm. S.F.	NO. OF RIVETS	DESCRIPTION
L1A	A		✓			10	10- lateral @ lower gusset
L3A	A				✓	10	10- lateral @ lower gusset
L5A	C	✓	✓			18	18-lateral @ lower gusset
L7A	F			✓	✓	18	16 - lateral @ lower gusset, 2 - web of lateral
L9A	F	✓				10	8 - lateral @ lower gusset, 2 - web af lateral
L13A	F	✓	✓			16	16 - lateral @ lower gusset
L17A	F		✓			8	8 - lateral @ lower gusset
L19A			✓			1	1- bott. flange af FB
L21A	F	✓				8	8 - lateral @ lower gusset
L25A	F	✓	✓			16	16 - lateral @ lower gusset
L27A	C				✓	11	8 - lateral @ lower gusset, 3 - web af lateral
L29A	A	✓	✓			20	20 - lateral @ lower gusset
L31A	A&L		✓	✓	✓	30	30 - loteral @ lower gusset
L35A	B&K	✓	✓	✓		57	43 - lateral @ lower gusset, 10 - batt. flonge of FB @ lower gusset, 4 - web af lateral
L37A	E			✓	✓	34	34 - lateral @ lower gusset
L39A	D	✓	✓			42	32 - lateral @ lower gusset, 10 - batt. flange af FB @ lower gusset
L41A	G			✓	✓	30	30 - lateral @ lower gusset
L43A	H	✓	✓			40	28 - lateral @ lower gusset, 10 - bott. flange af FB @ lower gusset, 2 - web af lateral
L45A	J			✓		8	8 - lateral @ lower gusset
L47A	P	✓				13	8 - lateral @ lower gusset, 5 - batt. flange af FB @ lower gusset
L49A	M			✓		8	8 - lateral @ lower gusset
L51A	M	✓	✓			28	16 - lateral @ lower gusset, 10 - batt. flange af FB @ lower gusset, 2 - web af lateral
L55A	J	✓				8	8 - lateral @ lower gusset
L59A	P	✓				12	8 - lateral @ lower gusset, 4 - bott. flange of FB @ lower gusset
L59M	P				✓	4	4 - lateral @ lower gusset
L55M	J			✓		8	8 - lateral @ lower gusset
L53M	N		✓			10	10 - lateral @ lower gusset
L49M	M		✓			13	8 - lateral @ lower gusset, 5 - bott. flange of FB @ lower gusset
L47M	P			✓		8	8 - lateral @ lower gusset
L45M	J		✓			8	8 - lateral @ lower gusset
L43M	H				✓	14	14 - lateral @ lower gusset
L41M	G	✓	✓			40	30 - lateral @ lower gusset, 10 - bott. flange of FB @ lower gusset
L39M	D			✓		16	16 - lateral @ lower gusset
L37M	E	✓	✓			44	34 - lateral @ lower gusset, 10 - bott. flange of FB @ lower gusset
L35M	B&K			✓	✓	31	31 - lateral @ lower gusset
L31M	A&L	✓	✓			20	20 - lateral @ lower gusset
L27M	C	✓	✓			18	18 - lateral @ lower gusset
L25M	F			✓	✓	16	16 - lateral @ lower gusset
L23M	F	✓	✓			16	16 - lateral @ lower gusset
L21M	F			✓	✓	16	16 - lateral @ lower gusset
L19M	F	✓				8	8 - lateral @ lower gusset
L17M	F			✓	✓	28	16 - lateral @ lower gusset, 8 - bott. flange of FB @ lower gusset, 4 - web of lateral
L15M	F	✓	✓			16	16 - lateral @ lower gusset
L13M	F			✓	✓	16	16 - lateral @ lower gusset
L11M	F	✓	✓			16	16 - lateral @ lower gusset
L9M	F			✓		12	8 - lateral @ lower gusset, 4 - bott. flange of FB @ lower gusset
L7M	F	✓				12	8 - lateral @ lower gusset, 4 - bott. flange of FB @ lower gusset
L5M	C			✓		12	8 - lateral @ lower gusset, 4 - bott. flange of FB @ lower gusset
L3M	A		✓			10	10 - lateral @ lower gusset

lateral @ lower gusset - rivets connecting lower lateral bracing to lower gusset plate
bott. flange of FB @ lower gusset - rivets connecting bottom flange of floorbeam to lower gusset plate
web of lateral - rivets in web of lower lateral bracing member near bottom flange

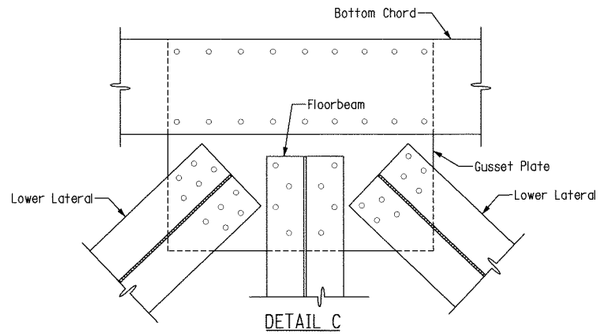
Abbreviations:
N.F. - North Face
S.F. - South Face



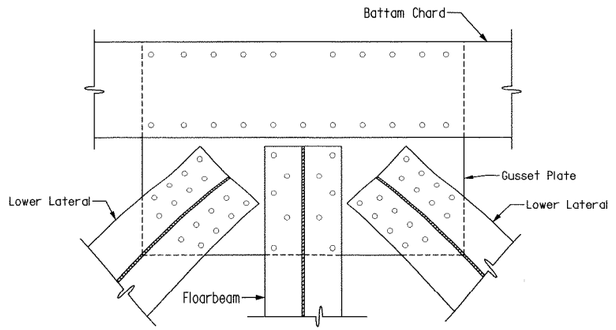
DETAIL A



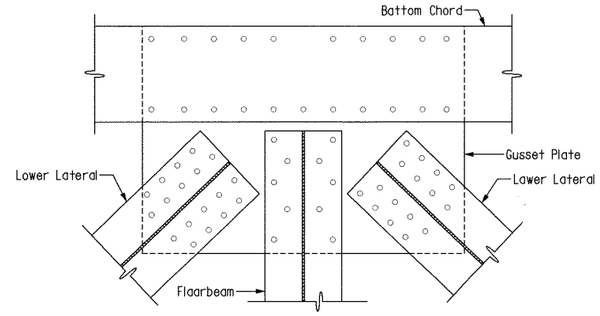
DETAIL B



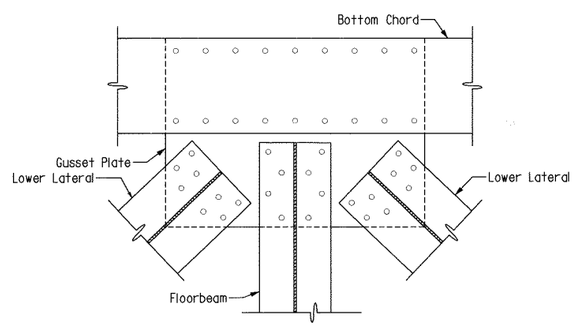
DETAIL C



DETAIL D



DETAIL E



DETAIL F

RETROFIT ⑤ - FLOORBEAM CONNECTION REPAIR

This item of work shall consist of replacing deteriorated rivets at floorbeam connections to the lower chord in the suspended spans.

Deteriorated rivets attaching the gusset plate to the bottom flange af the floorbeams and lateral bracing shall be replaced with new ⅞" HS Bolts.

The unit price bid for this item shall be full compensation for all materials, labor, equipment, tools, and incidentals necessary to complete the work.

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE **US 62** | CROSSING **OHIO RIVER**

RETROFIT ⑤

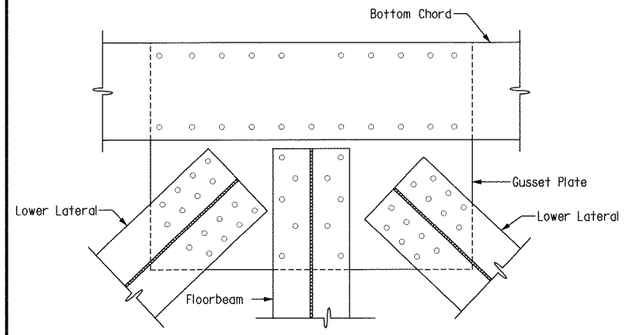
FLOORBEAM REPAIR DETAILS

ITEM NUMBER
9-108

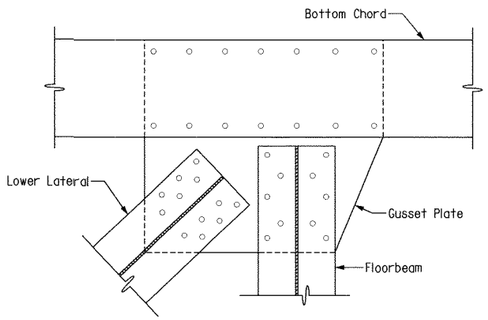
PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 027
DRAWING NO. 25348

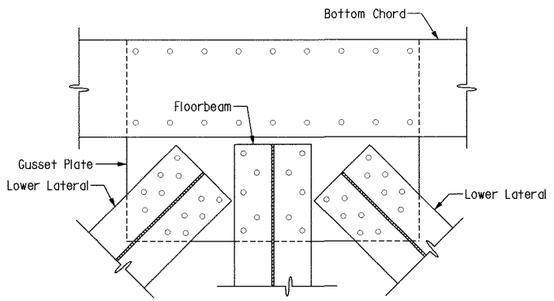
DATE:
USERNAME:
FILE NAME: floorbeam_2.dgn
SHEET LOCATION: F:\3104B-028\DGN\



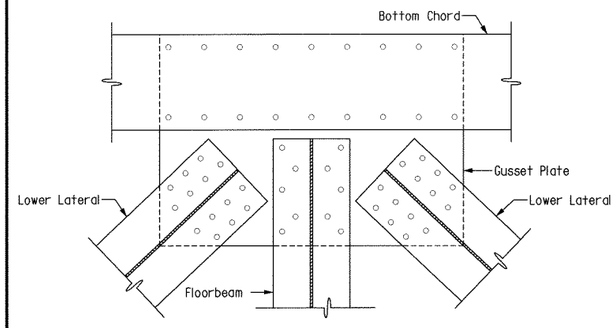
DETAIL G



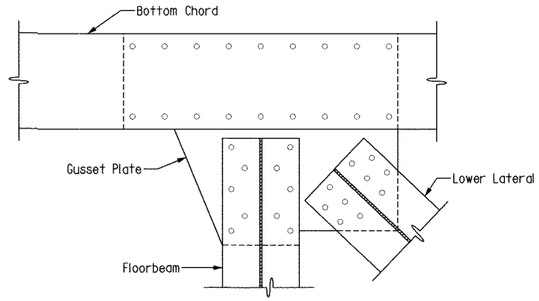
DETAIL K



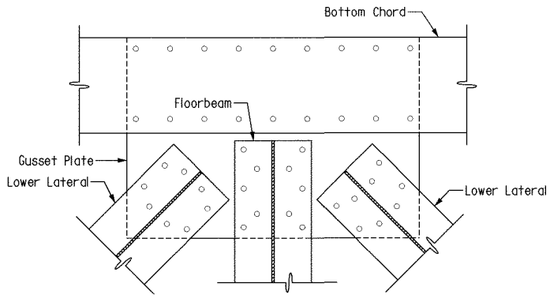
DETAIL N



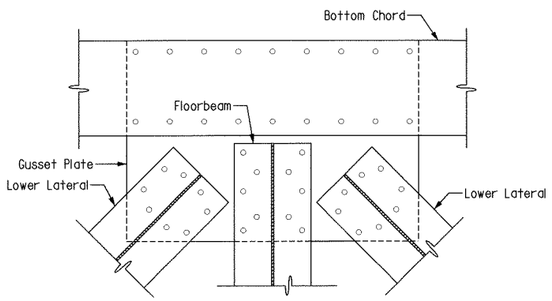
DETAIL H



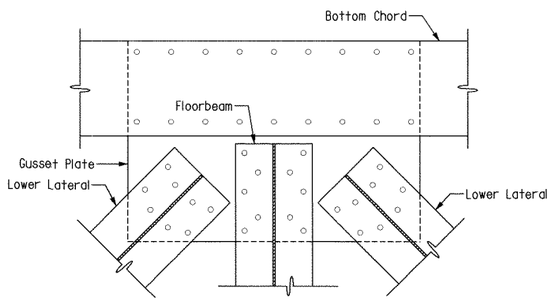
DETAIL L



DETAIL P



DETAIL J



DETAIL M

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	D. Amato

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

RETROFIT (5)

FLOORBEAM REPAIR DETAILS

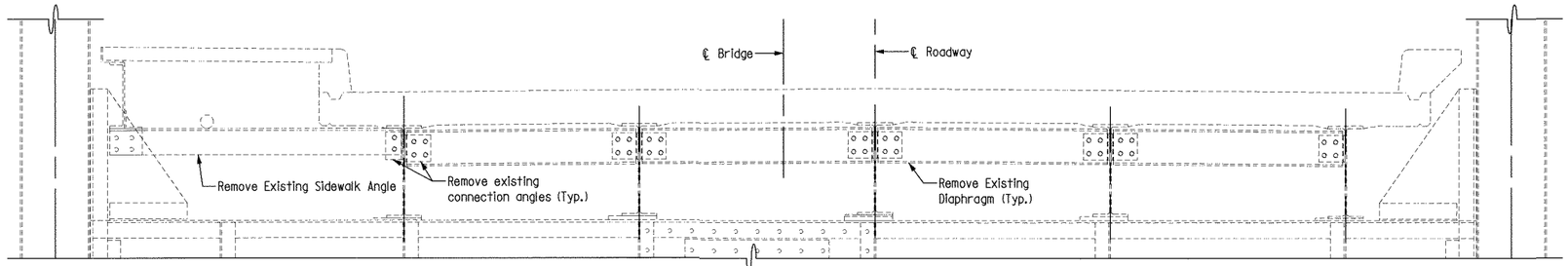
ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO.
028

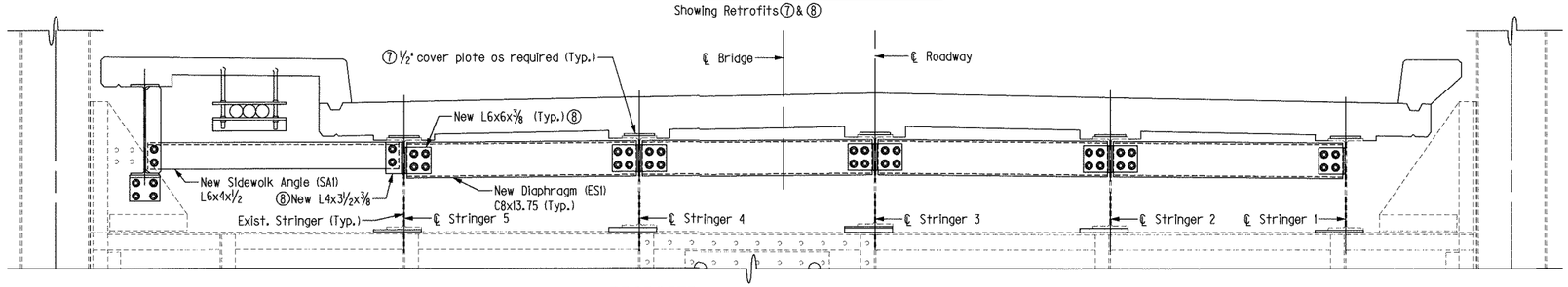
DRAWING NO.
25348

SHEET LOCATION: I:\37046-028\DGN\ FILE NAME: *floorbeam_3.dgn* USERNAME:



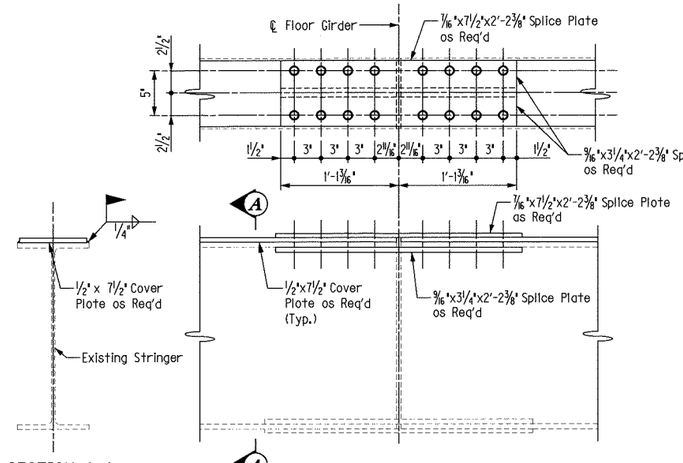
EXISTING TYPICAL SECTION (REMOVAL)

Showing Retrofits⑦& ⑧



PROPOSED STRINGER REPAIR PLAN

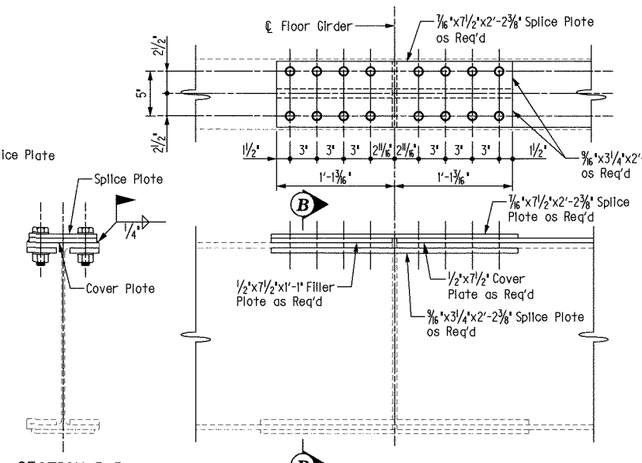
Showing Retrofits⑦& ⑧



SECTION A-A

DETAIL OF STRINGER SPLICE

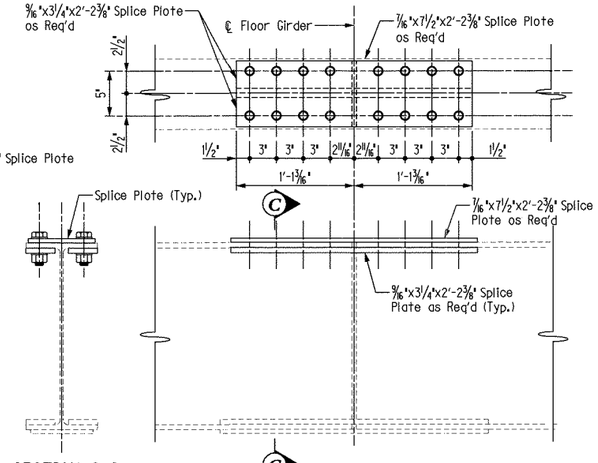
Cover plates required both sides of splice



SECTION B-B

DETAIL OF STRINGER SPLICE

Cover plates required on one side of splice



SECTION C-C

DETAIL OF STRINGER SPLICE

Cover plates not required on either side of splice

RETROFIT ⑦

RETROFIT ⑦ - STRINGER TOP FLANGE REPAIR

This item of work shall consist of replacing top flange field splices and installing a new cover plate where necessary as determined by the Engineer over deteriorated top flanges of the stringers throughout the suspended spans. After the deck is removed, the Engineer shall inspect each top flange and top flange splice and make repair recommendations.

The existing rivets attaching the field splice to the top flange of the stringers shall be replaced with new ⅞" H.S. Bolts. Prior to fabrication of new field splice pieces, the Contractor shall field verify hole locations.

The quantity for this item is given for bidding purposes only, payment will be based on the actual work performed. The unit price bid for this item shall be full compensation for all materials,labor, equipment, tools, and incidentals necessary to complete the work.

RETROFIT ⑧ - STRINGER DIAPHRAGM REPLACEMENT

This item of work shall consist of replacing the stringer diaphragms and sidewalk angles at expansion joint and expansion finger dam locations and removing all other sidewalk angles in the suspended spans.

To insure alignment with existing bolt hole locations, only one stringer diaphragm per expansion joint location shall be removed and replaced at a time.

The unit price bid for this item shall be full compensation for all materials, labor, equipment, tools, and incidentals necessary to complete the work.

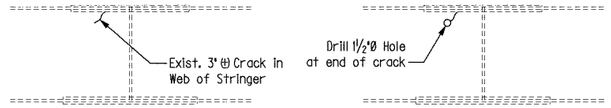
RETROFIT ⑨ - STRINGER CRACK REPAIR

This item of work shall consist of drilling 1½"Ø holes at the end of cracks in stringer webs near the top flange at the following locations:

Panel Point 27M: Stringer 5	Panel Point 37A: Stringer 5
Panel Point 37M: Stringer 5	Panel Point 27A: Stringer 5
Panel Point 69A: Stringer 5	Panel Point 19A: Stringer 5
Panel Point 61A: Stringer 5	Panel Point 11A: Stringer 5
Panel Point 53A: Stringer 5	Panel Point 3A: Stringer 5

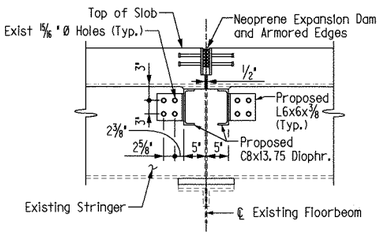
Following drilling, the Contractor shall use ultrasonic testing to verify that the end of the crack has been removed.

The unit price bid for this item shall be full compensation for all materials, labor, equipment, tools, and incidentals necessary to complete the work.

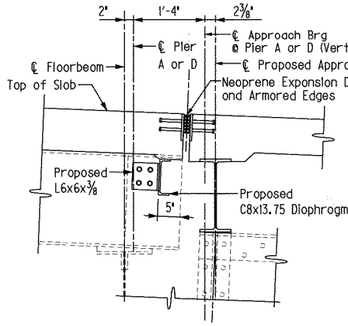


EXIST. STRINGER ELEVATION PROPOSED STRINGER REPAIR ELEVATION

RETROFIT ⑨



SECTION THRU EXP. JT.



SECTION THRU EXP. JT. @ PIERS A & D

RETROFIT ⑧

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	C. Klusman
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **MASON**

ROUTE: **US 62** | CROSSING: **OHIO RIVER**

STRINGER REPAIR DETAILS

RETROFIT ⑦
RETROFIT ⑧
RETROFIT ⑨

ITEM NUMBER: **9-108**

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 029

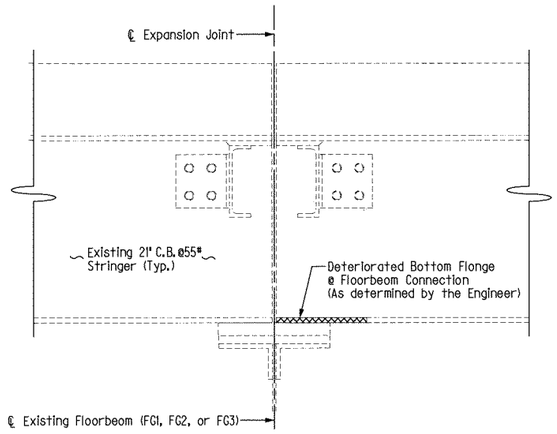
DRAWING NO. 25348

DATE:

USERNAME:

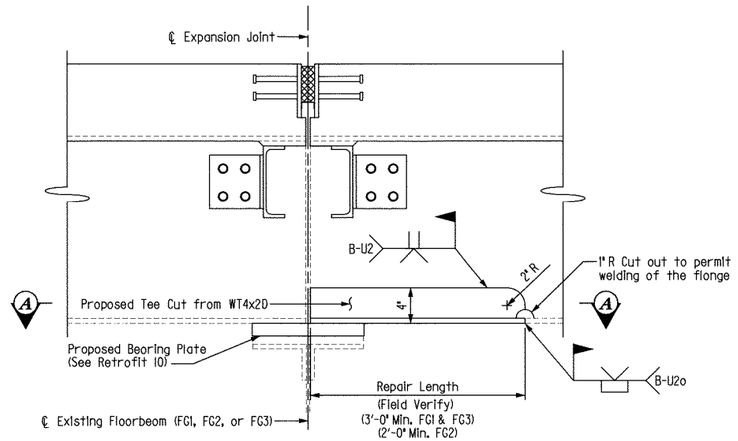
FILE NAME: *stringer_1.dgn*

SHEET LOCATION: I:\31046-028\DGN\



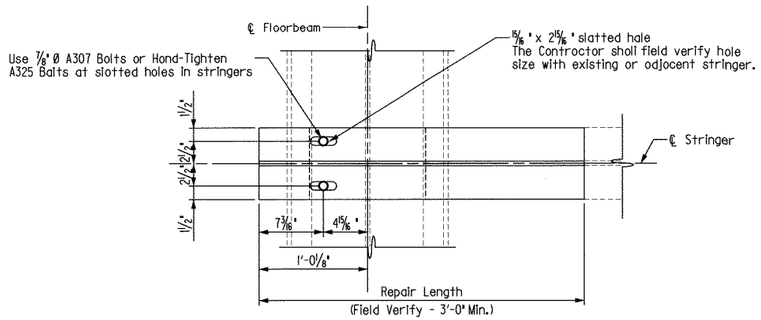
EXISTING SECTION THRU EXP. JOINT

FG2 Shown



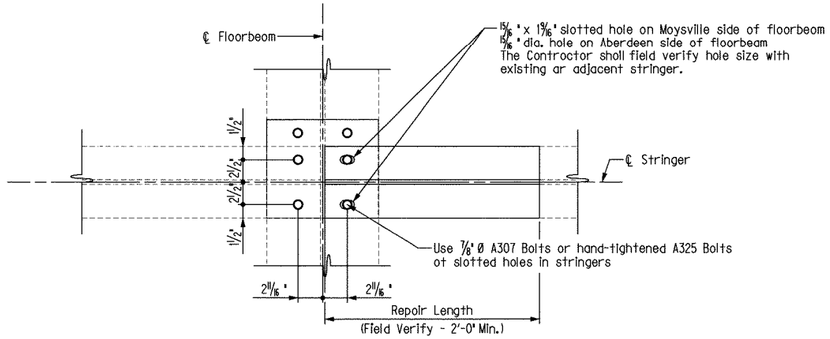
PROPOSED BOTTOM FLANGE REPAIR @ EXP. JOINT

FG2 Shown



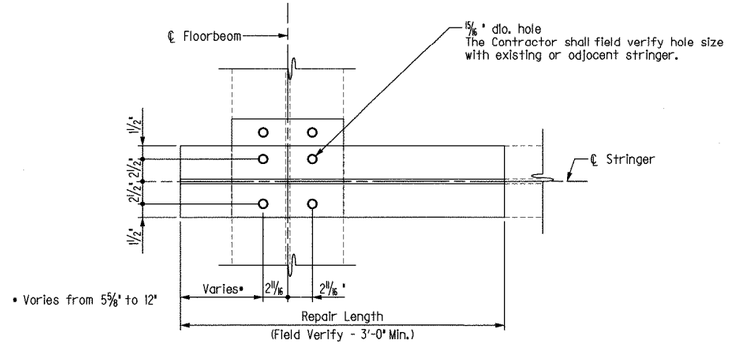
SECTION A-A

FG1



SECTION A-A

FG2



SECTION A-A

FG3

NOTE:

See Proposed Framing Plan, Sheets 7-8, for locations of FG1, FG2, & FG3

RETROFIT (7A) - STRINGER BOTTOM FLANGE REPAIR

This item of work shall consist of repairing deteriorated stringer bottom flanges as determined by the Engineer at expansion joints or expansion dam locations throughout the suspended spans.

This item of work will be completed in conjunction with Retrofit (10), Stringer Bearing Replacement. Prior to fabrication of new WT sections, the Contractor shall field verify the hole locations.

Payment for work will be based on the actual number of repaired bottom flanges as determined by the Engineer. The unit price for this item shall be full compensation for all materials, labor, equipment, tools, and incidentals necessary to complete the work.

⚠1	Revision No.1 (Sheet 29A - New)	04-18-03
	REVISION	DATE

DATE:	Sep. 26, 2002	CHECKED BY
DESIGNED BY:	C. Klusman	T.J. Fu
DETAILED BY:	C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

STRINGER REPAIR DETAILS

RETROFIT (7A)

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO.
029A

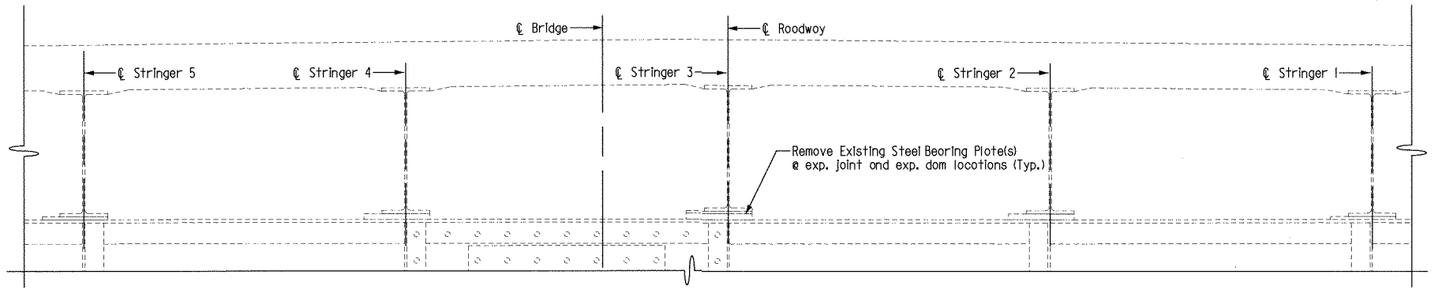
DRAWING NO.
25348

DATE:

USERNAME:

FILE NAME: *stringer_1A.dgn*

SHEET LOCATION: *I:\31046-026\DGN*



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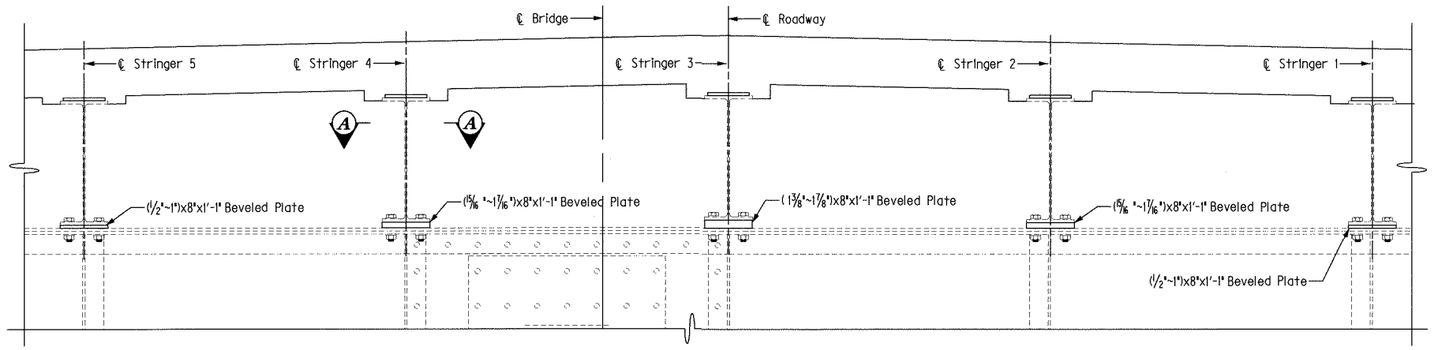
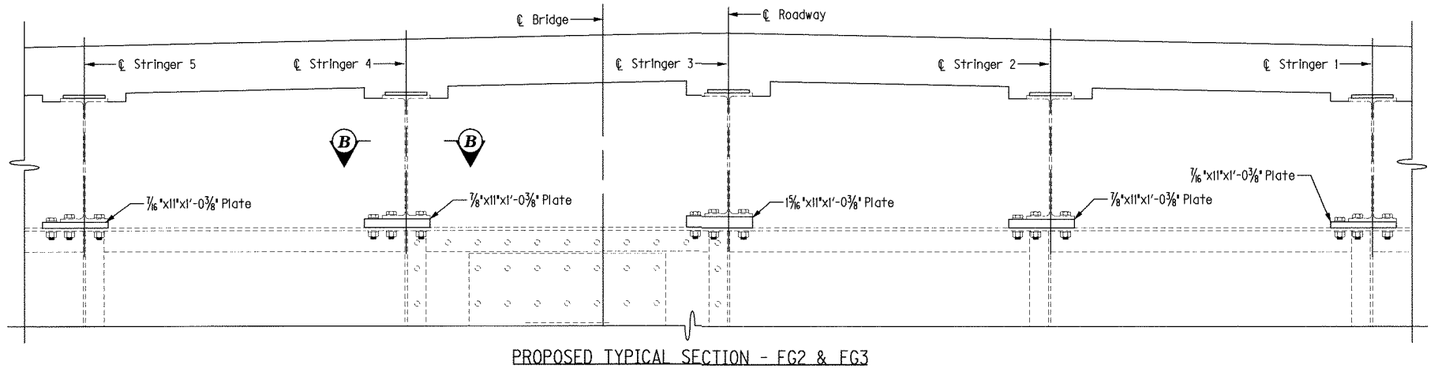


PROPOSED TYPICAL SECTION - FG1

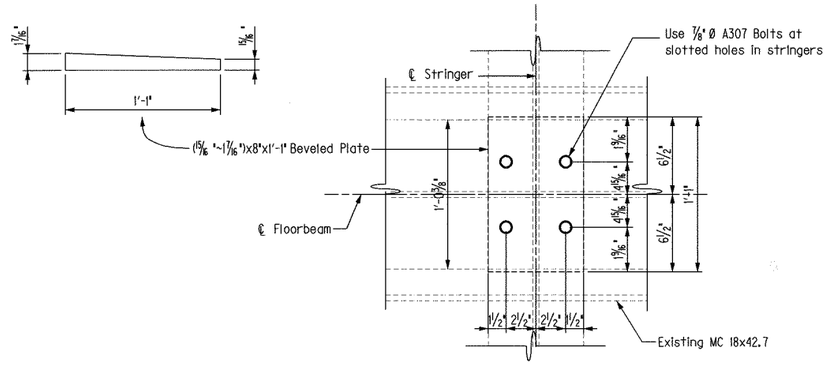


PROPOSED TYPICAL SECTION - FG2 & FG3

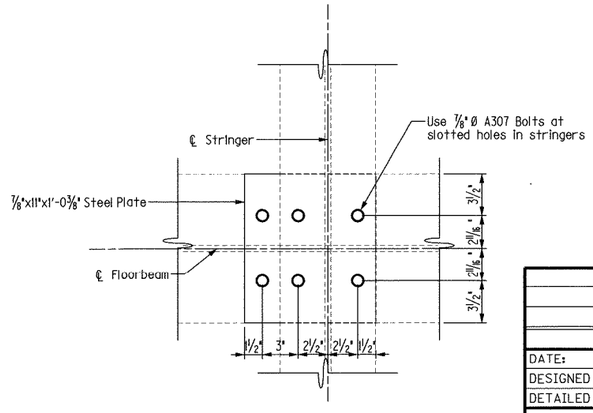
RETROFIT (10) - STRINGER BEARINGS

This work shall consist of removing and replacing the stringer bearings in suspended spans A, B, and C at expansion joint and expansion dam locations.

The unit price bid for this item of work shall include the cost of falsework and all materials, labor, and incidentals necessary to complete the work.



SECTION A-A



SECTION B-B

REVISION	DATE
DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

RETROFIT (10)

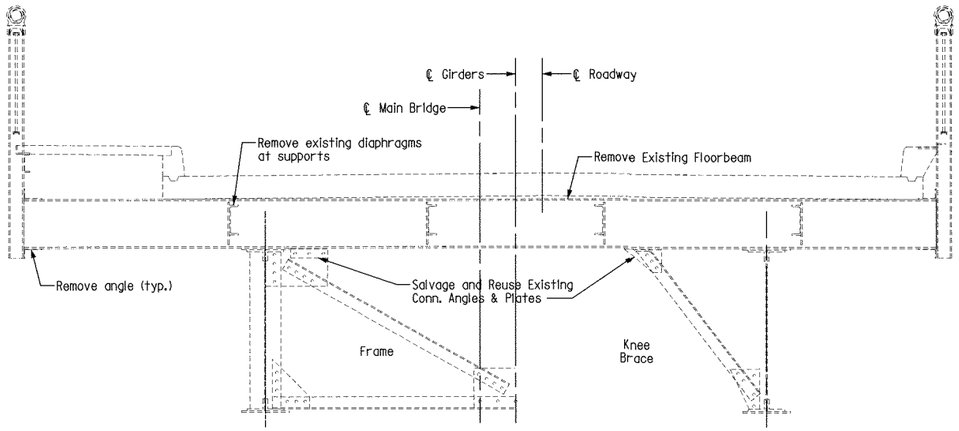
STRINGER BEARING DETAILS

ITEM NUMBER
9-108

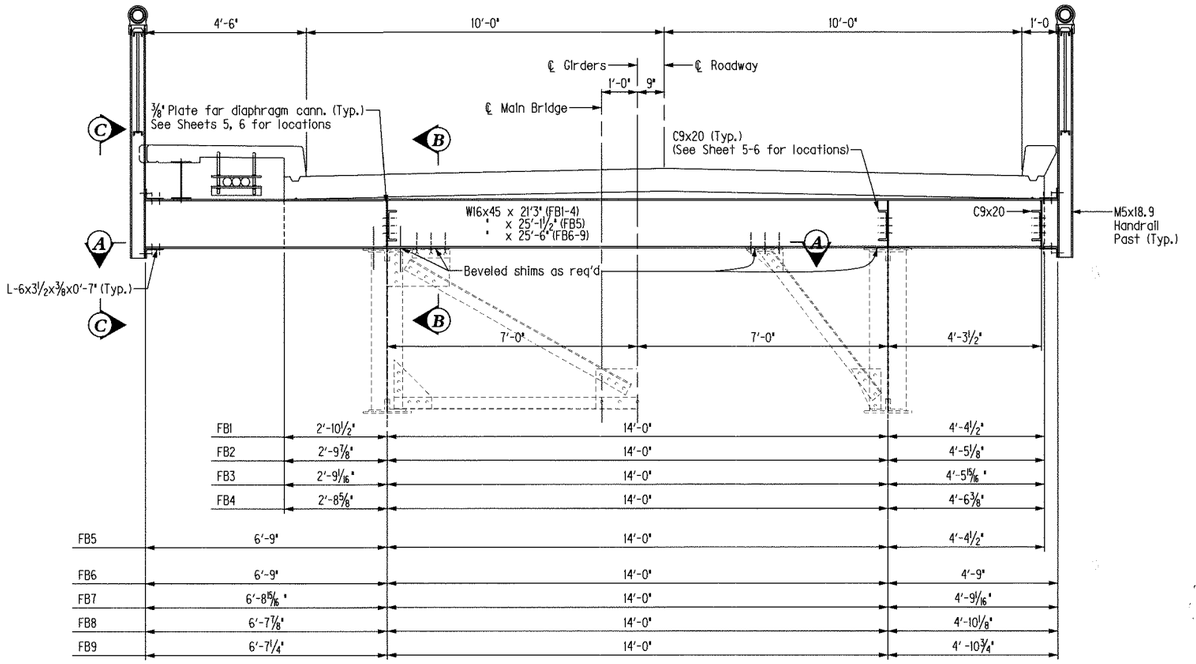
PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 030

DRAWING NO. 25348

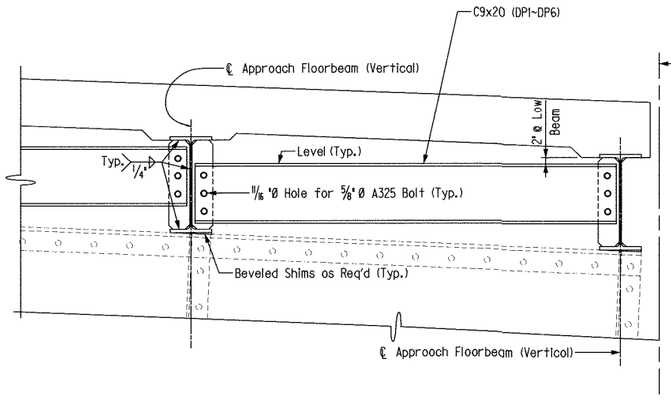


EXISTING TYPICAL SECTION - REMOVAL

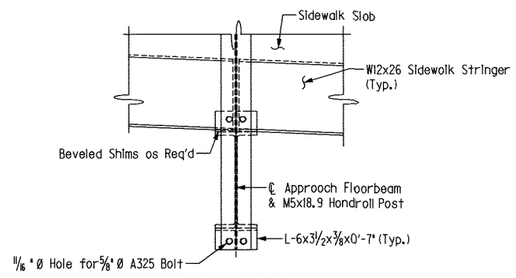


PROPOSED TYPICAL SECTION

SECTION A-A



SECTION B-B
Between opprooch floorbeams



SECTION C-C

RETROFIT (11)- APPROACH FLOORBEAM REPLACEMENT

This work shall consist of removing ond replacing the floor beams in approach spans as designated in the plans.

Prior to fobricating new beams, the Contractor shall field meosure hole sizes ond locations.

See framing plan for location of opproach floorbeams.

All bolted connections shall have 15/16" Ø holes for ASTM A325 7/8" diameter high strength bolts unless otherwise noted.

The unit price bid for this item of work shall include the cost of all materials, labor, and incidentals necessary to complete the work.

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: C. Klusman	T.J. Fu
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

RETROFIT (11)

APPROACH FLOORBEAM DETAILS

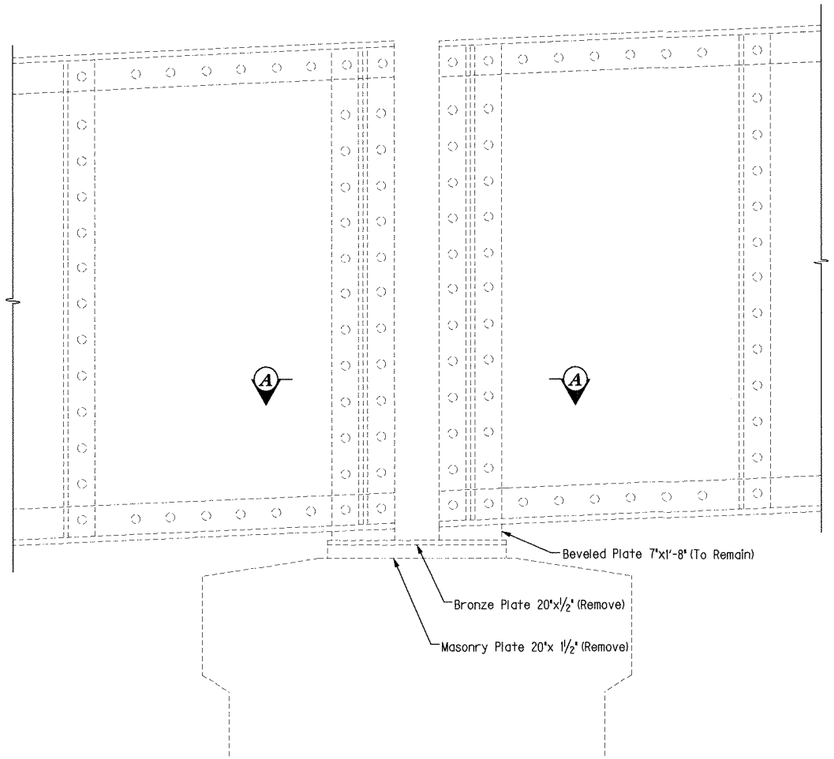
ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

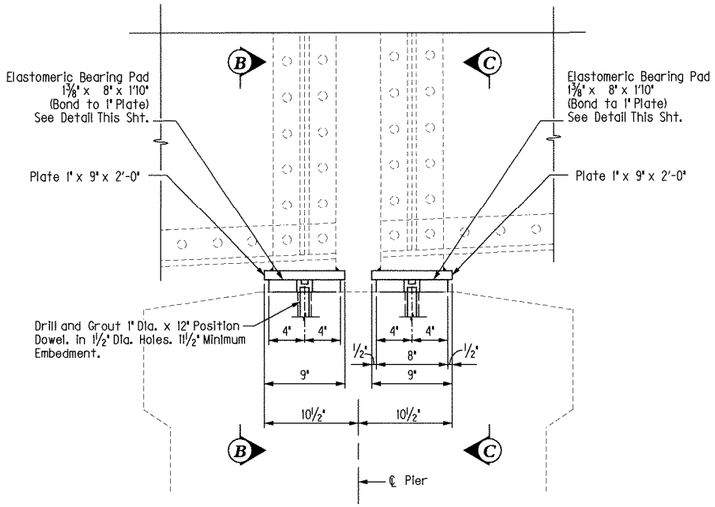
SHEET NO. 031

DRAWING NO. 25348

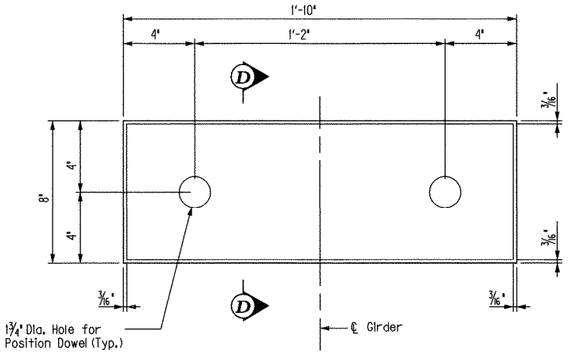
DATE:
USERNAME:
FILE NAME: *Appr_Floor_Beam_1.dgn*
SHEET LOCATION: I:\31046-028\DGN\



ELEVATION - EXISTING



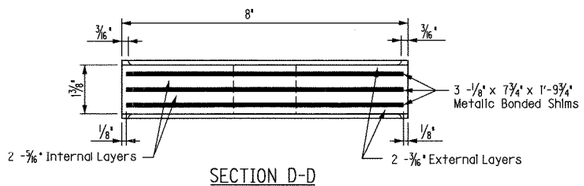
ELEVATION - PROPOSED REPAIR



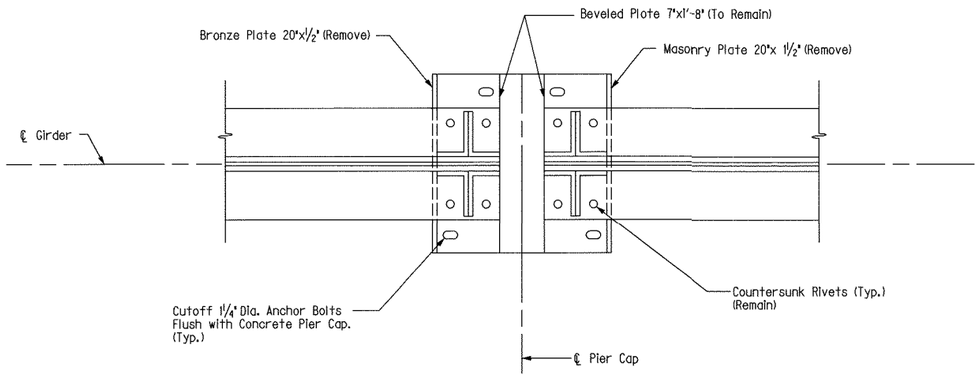
1 3/8" x 8" x 1'-10" BEARING PAD

(24 Required)

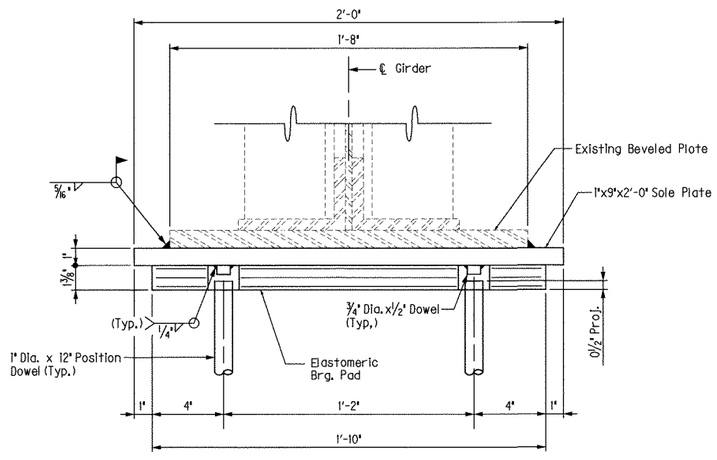
Bearings shall be low temperature Grade 3 with durometer hardness of 50 and shall be subjected to the load testing requirements corresponding to Design Method A.



SECTION D-D



SECTION A-A



SECTION B-B

(Section C-C Similar)

RETROFIT (12) - APPROACH GIRDER BEARING REPLACEMENT

This work shall consist of removing and replacing expansion bearings in the approach spans. The existing anchor bolts shall be cutoff flush with the top of the concrete prior to placement of the new bearing assemblies.

This work shall consist of removing and replacing the stringer girders in suspended spans A, B, and C at expansion joint and expansion dam locations.

The contractor shall perform this work after the concrete deck and approach floorbeams have been removed. At this stage, the temporary support for the two-girder system shall be designed to support 38 kips.

The unit price bid for this item of work shall include the cost of all materials, labor, and incidentals necessary to complete the work.

See Revised Sheet

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: T.J. Fu	D. Amato
DETAILED BY: D. Amato	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: MASON

ROUTE: US 62 | CROSSING: OHIO RIVER

RETROFIT (12)

APPROACH BEARING DETAILS

ITEM NUMBER: 9-108

PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 032

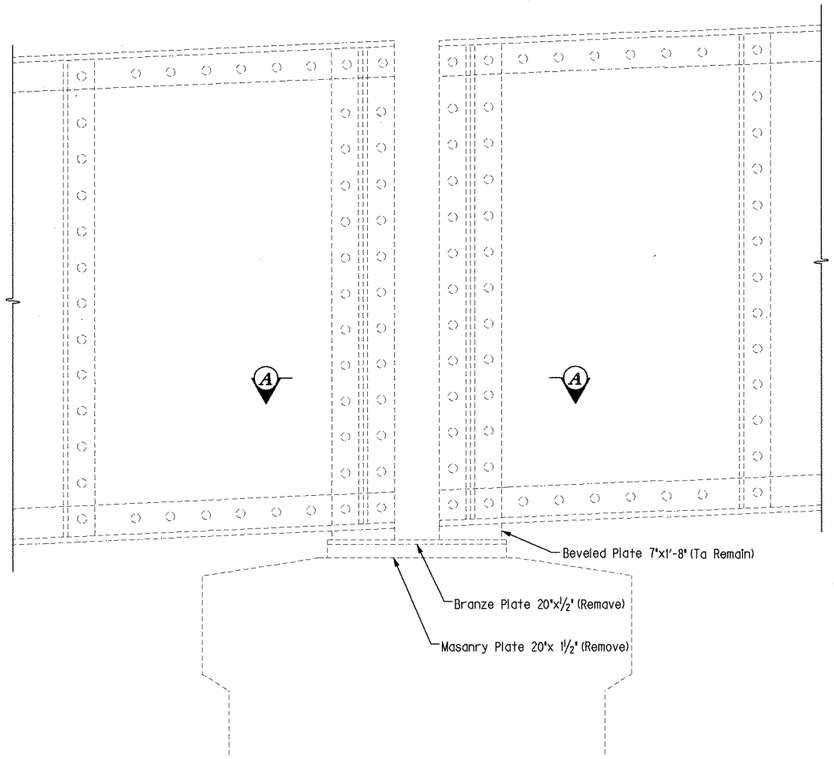
DRAWING NO. 25348

DATE:

USERNAME:

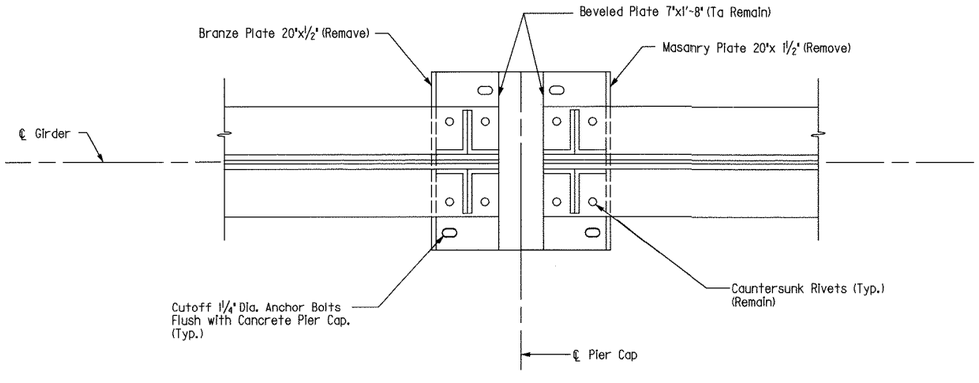
FILE NAME: appr_brg.dgn

SHEET LOCATION: F:\37046-028\DGN\

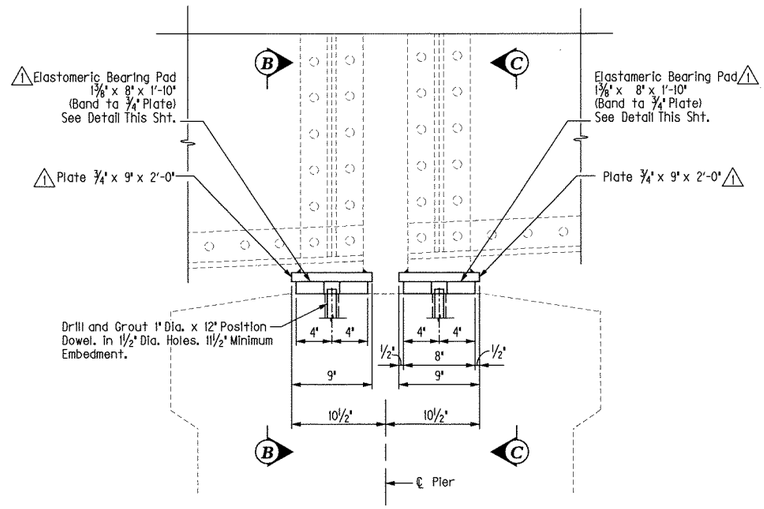


ELEVATION - EXISTING

⚠1 Piers A1, A3, A5, M1, & M3

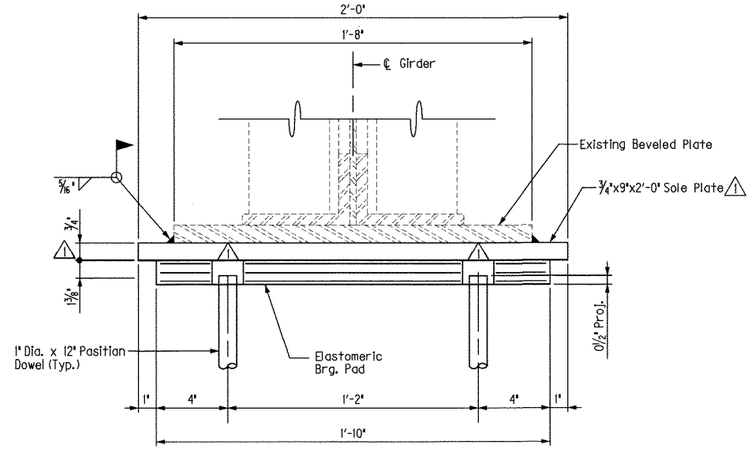


SECTION A-A



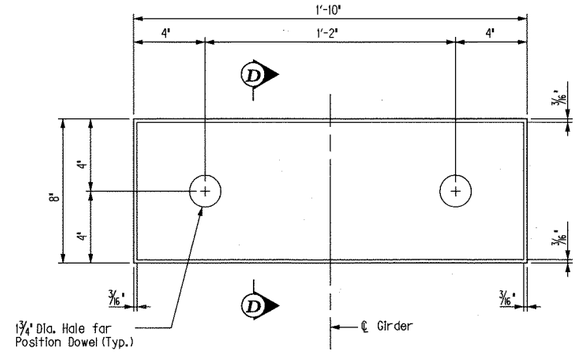
ELEVATION - PROPOSED REPAIR

⚠1 Piers A1, A3, A5, M1, & M3



SECTION B-B

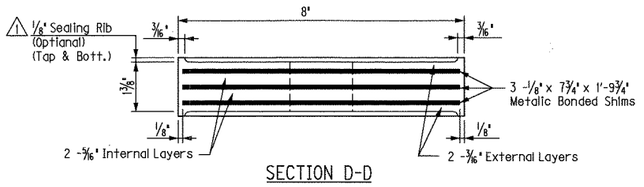
(Section C-C Similar)



1⅜" x 8" x 1'-10" BEARING PAD

⚠1 (20 Required)

Bearings shall be low temperature Grade 3 with durometer hardness of 50 and shall be subjected to the load testing requirements corresponding to Design Method A.



SECTION D-D

RETROFIT (12) - APPROACH GIRDER BEARING REPLACEMENT

This work shall consist of removing and replacing expansion bearings in the approach spans. The existing anchor bolts shall be cutoff flush with the top of the concrete prior to placement of the new bearing assemblies.

⚠1

The contractor shall perform this work after the concrete deck and approach floorbeams hove been removed. At this stage, the temporory support for the two-girder system shall be designed to support 38 kips.

The unit price bid for this item of work shall include the cost of all materials, labor, and incidentals necessary to complete the work.

⚠1 Revision No.1	04-18-03
REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: T.J. Fu	D. Amato
DETAILED BY: D. Amato	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: **US 62** | CROSSING: **OHIO RIVER**

RETROFIT (12)

APPROACH BEARING DETAILS

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 032

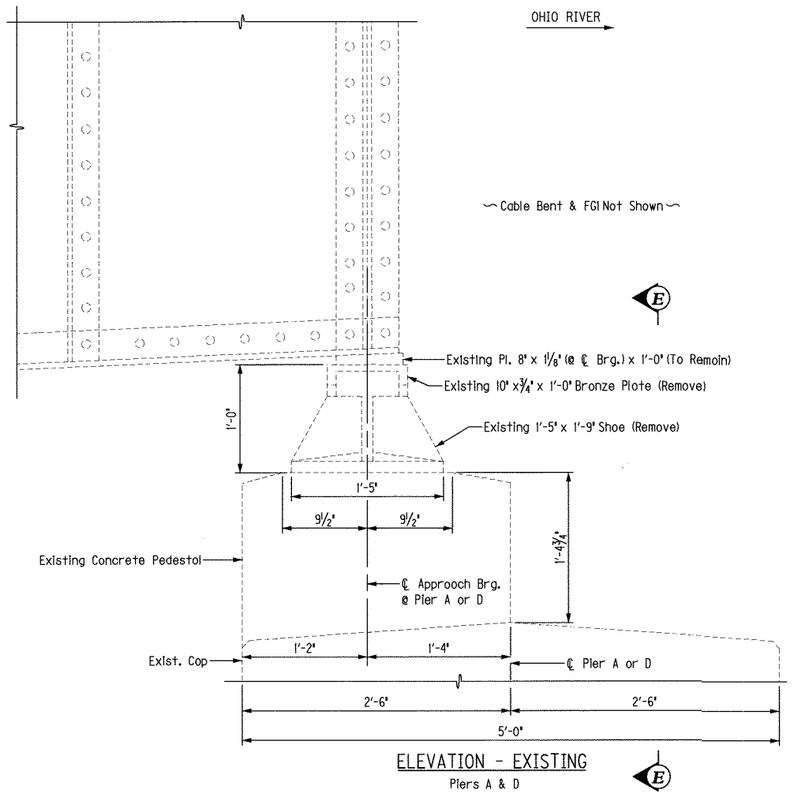
DRAWING NO. 25348

DATE:

USERNAME:

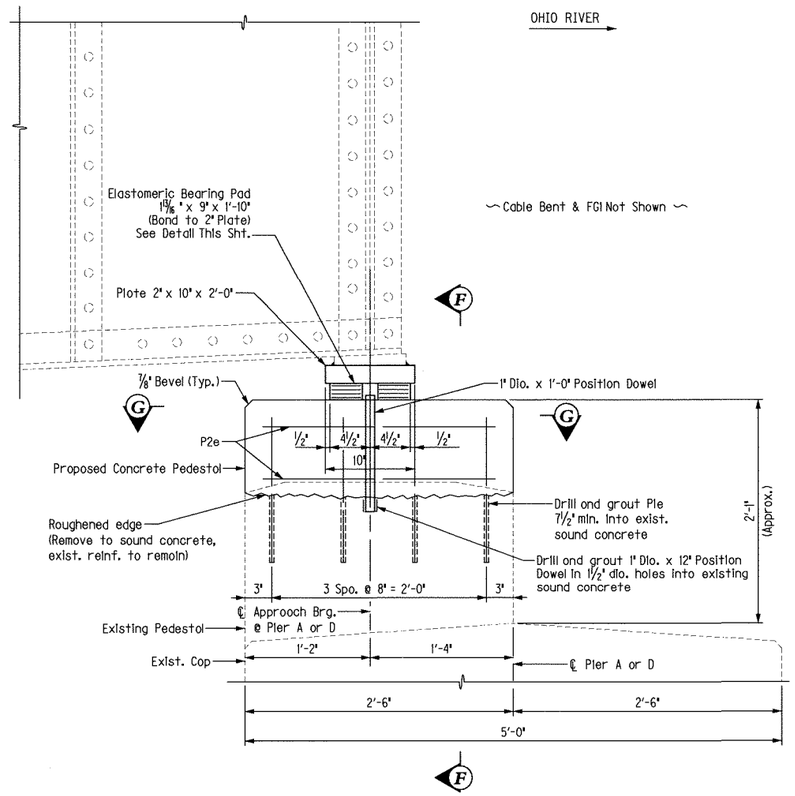
FILE NAME: appr_brg.dgn

SHEET LOCATION: I:\37046-028\DGN\



ELEVATION - EXISTING

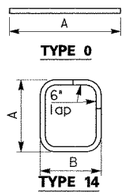
Piers A & D



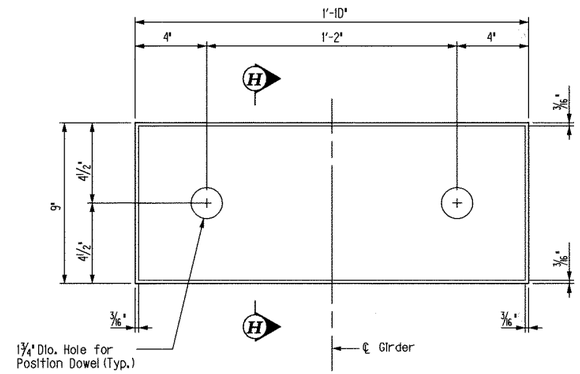
ELEVATION - PROPOSED REPAIR

Piers A & D

BILL OF REINFORCEMENT - PEDESTALS



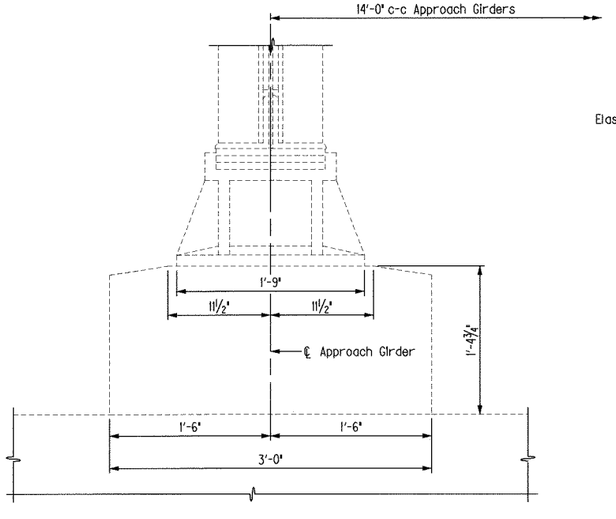
MARK	TYPE	NO.	SIZE	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.
P1e	0	48	5	1	4	Pedestal	1	4		
P2e	14	8	4	10	6	Pedestal	2	7⅝	2	1⅝



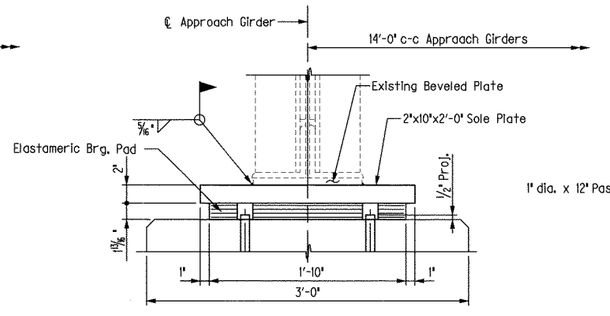
1 13/16" x 9" x 1'-10" BEARING PAD

(4 Required)

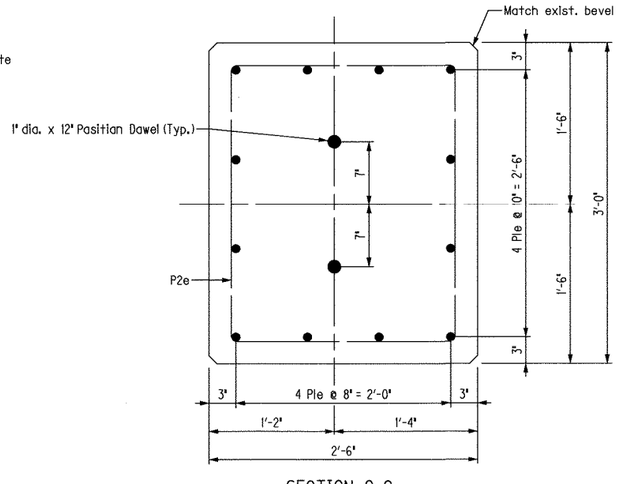
Bearings shall be low temperature Grade 3 with durometer hardness of 50 and shall be subjected to the load testing requirements corresponding to Design Method A.



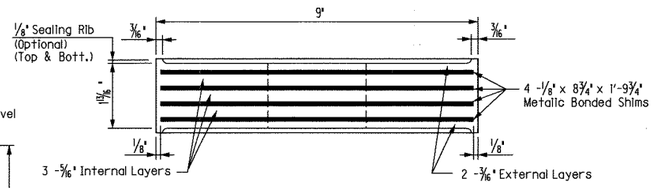
SECTION E-E - EXISTING



SECTION F-F



SECTION G-G



SECTION H-H

1	Revision No.1 (Sheet 32A - New)	04-18-03
	REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: T.J. Fu	D. Amato
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: US 62 | CROSSING: OHIO RIVER

RETROFIT (12)

APPROACH BEARING DETAILS

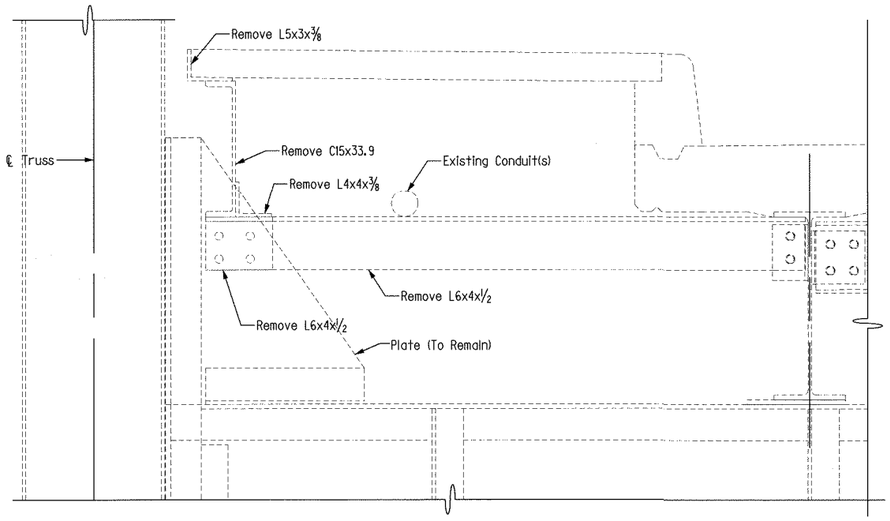
ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

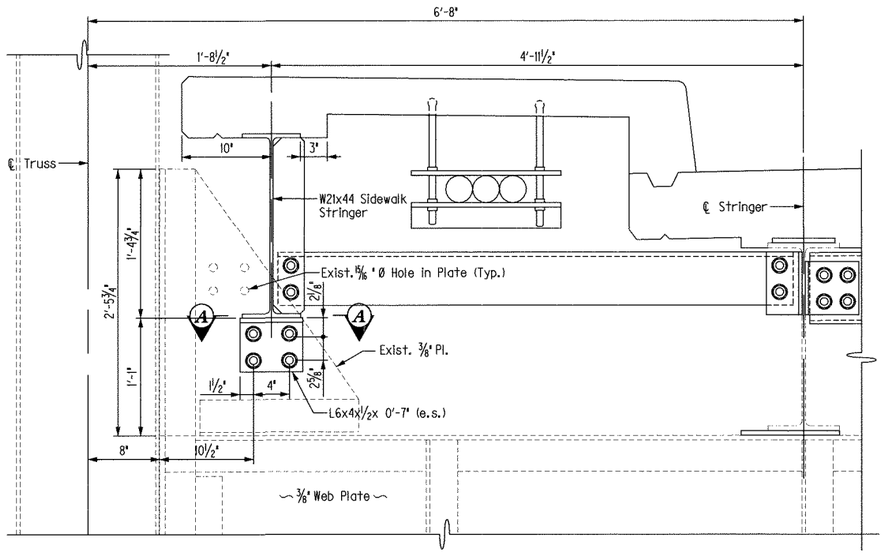
SHEET NO. 032A

DRAWING NO. 25348

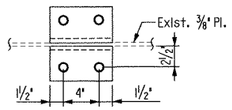
SHEET LOCATION: I:\31046-028\DGN\ FILE NAME: appr_brg_A.dgn USERNAME: DATE:



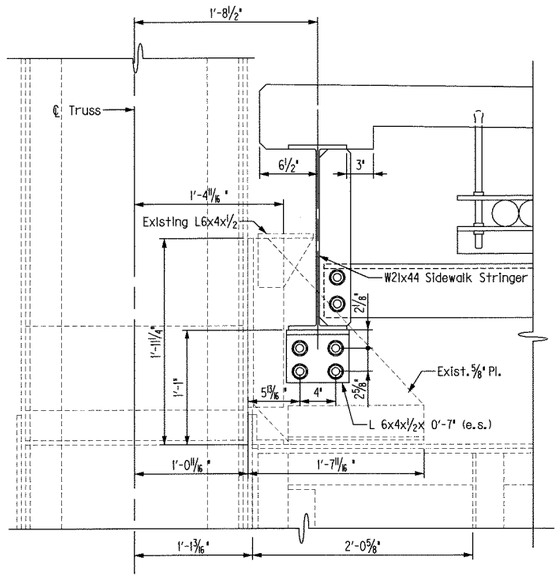
EXISTING TYPICAL SECTION - MAIN SPANS (TYP. REMOVAL - ALL FLOORBEAMS)



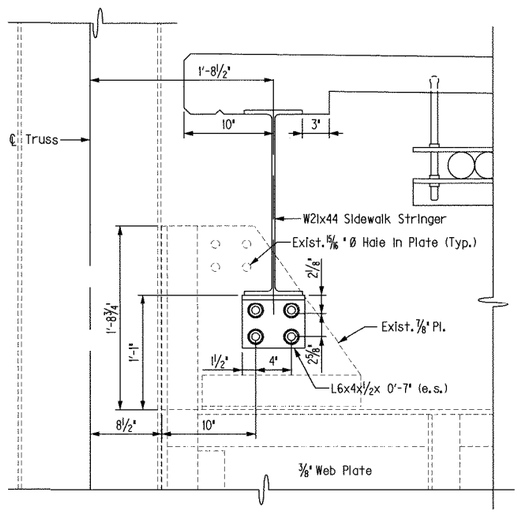
NEW TYPICAL SECTION - MAIN SPANS (FG2)



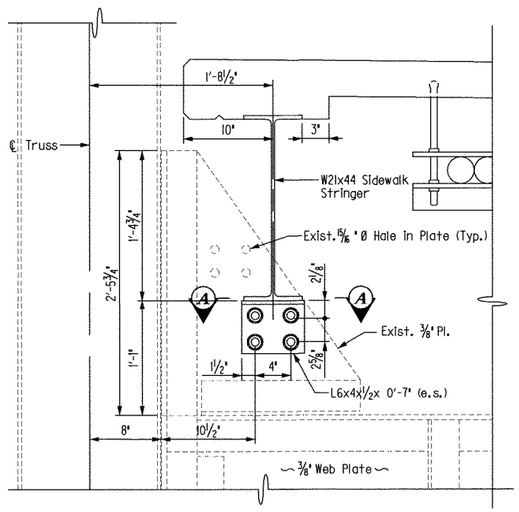
SECTION A-A



NEW TYPICAL SECTION - MAIN SPANS (FG1)



NEW TYPICAL SECTION - MAIN SPANS (FG3)



NEW TYPICAL SECTION - MAIN SPANS (FG4)

RETROFIT (13) - SIDEWALK STRINGER REPLACEMENT

This wark shall canslst af remaving and replacing sidewalk stringers in approach and main spans as designated in the plans.

Prlar ta fabricating new beams, the Cantractar shall field measure hale sizes and lacatlans.

See the prapased framing plan far lacatlan af sidewalk stringers.

All balted cannectlans shall have 15/16 "Ø hales far ASTM A325 7/8" diameter high strength balts unless atherwise nated.

The unit price bid for this item of work shall include the cost of all materials, labar, and incidentals necessary ta camplete the wark.

REVISION	DATE
DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: C. Klusman	T.J. Fu
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: MASON

ROUTE: US 62

CROSSING: OHIO RIVER

SIDEWALK STRUCTURAL STEEL

RETROFIT (13)

ITEM NUMBER: 9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 033

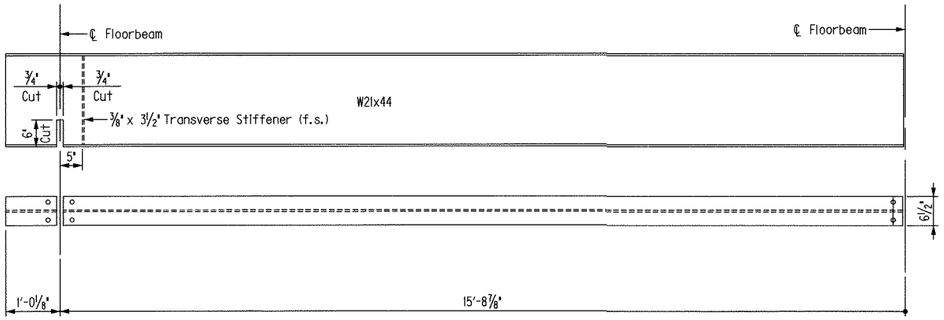
DRAWING NO. 25348

DATE:

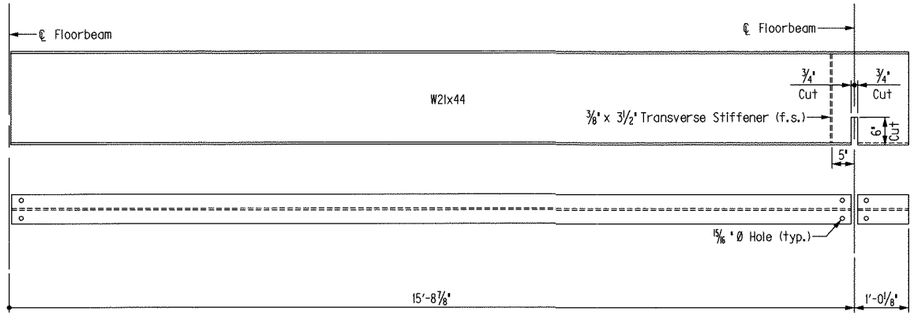
USERNAME:

FILE NAME: sidewalk_steel1.dgn

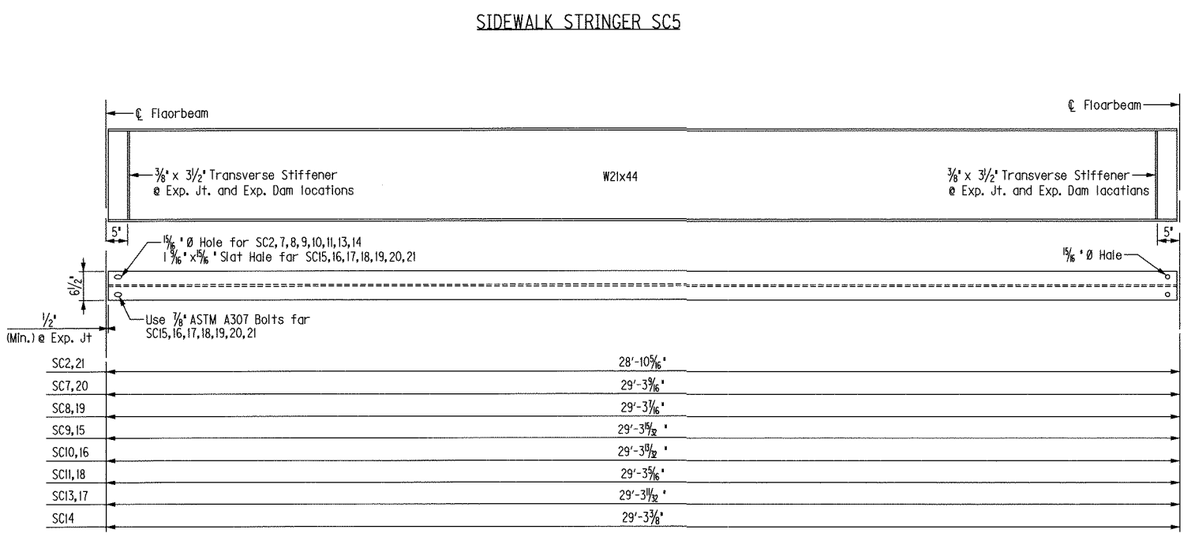
SHEET LOCATION: I:\31046-020\DGN\



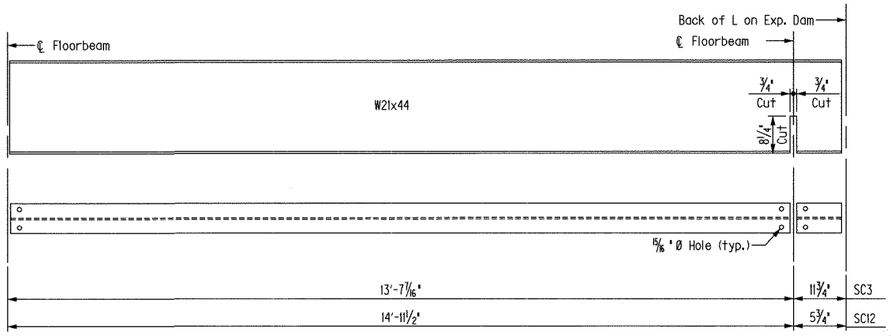
SIDEWALK STRINGER SC1



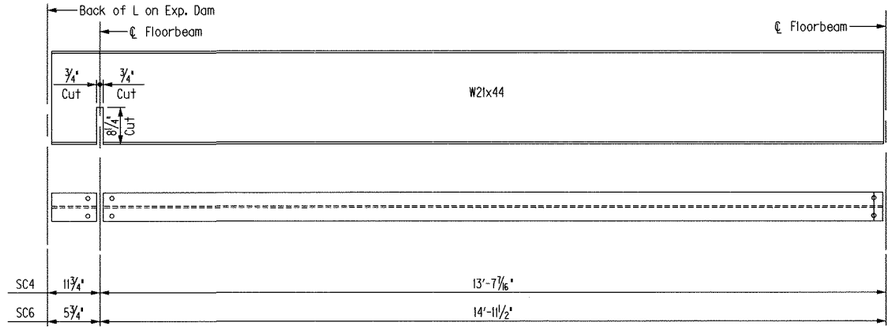
SIDEWALK STRINGER SC5



SIDEWALK STRINGER SC2,7,8,9,10,11,13,14,15,16,17,18,19,20,21



SIDEWALK STRINGER SC3 & SC12



SIDEWALK STRINGER SC4 & SC6

NOTES:

Dimensions are on grade unless noted.

RETROFIT (13)

ITEM NUMBER

9-108

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: C. Klusman	T.J. Fu
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

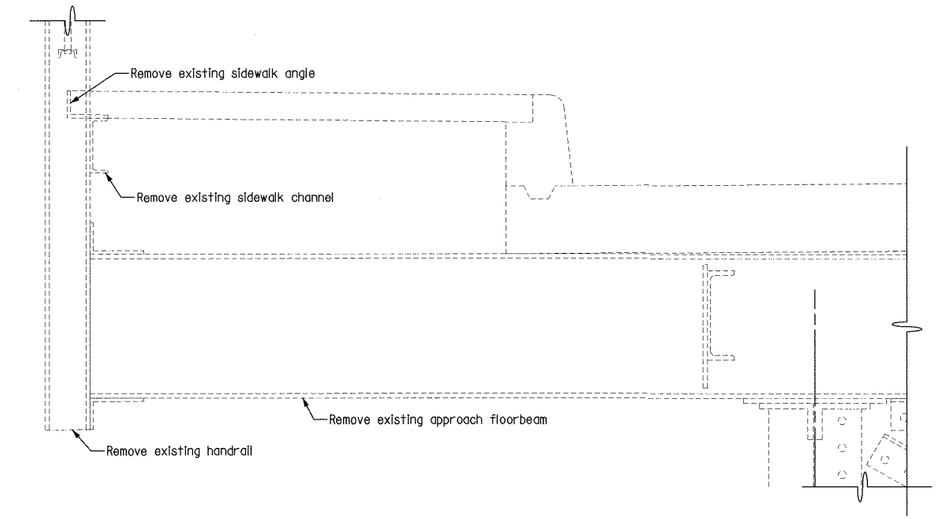
ROUTE **US 62** | CROSSING **OHIO RIVER**

SIDEWALK STRUCTURAL STEEL

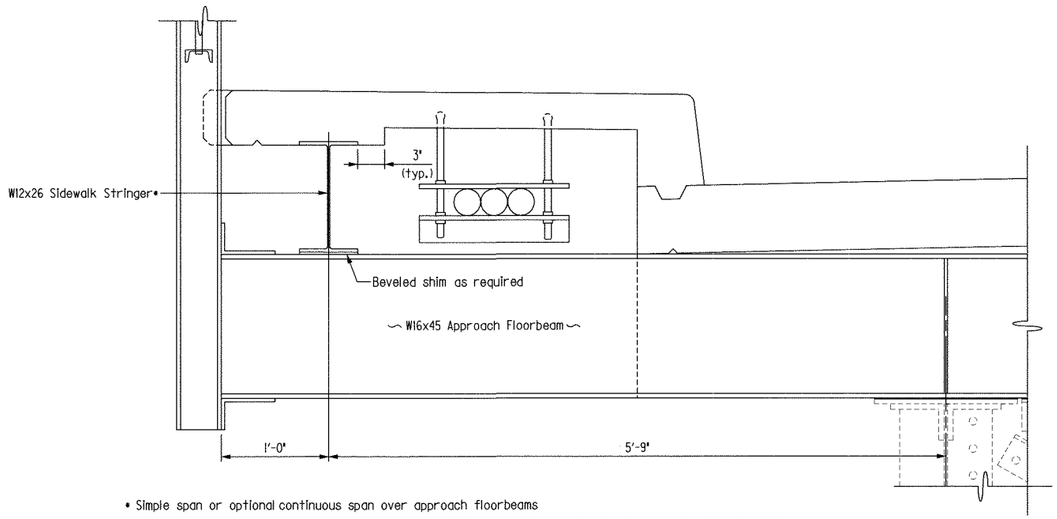
PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 034

DRAWING NO. 25348

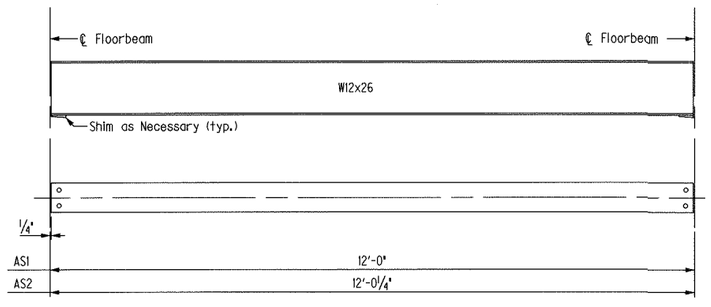


EXISTING TYPICAL SECTION - APPROACH SPANS

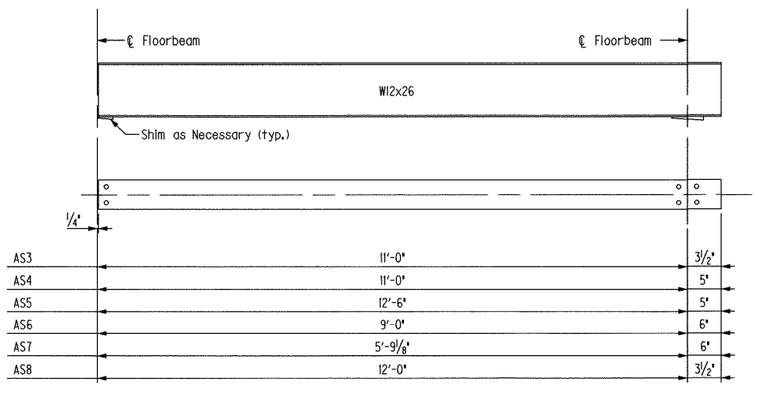


• Simple span or optional continuous span over approach floorbeams

NEW TYPICAL SECTION - APPROACH SPANS



SIDEWALK STRINGER AS1 & AS2



SIDEWALK STRINGER AS3-8

NOTES:

If W12x26 sidewalk stringers are constructed as continuous spans, provide a 2" open joint at all expansion joints. If necessary, provide field splices at quarter points along spans.

Dimensions shown are parallel to girder.

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: C. Klusman	T.J. Fu
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE **US 62** | CROSSING **OHIO RIVER**

SIDEWALK STRUCTURAL STEEL

RETROFIT (13)

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 035

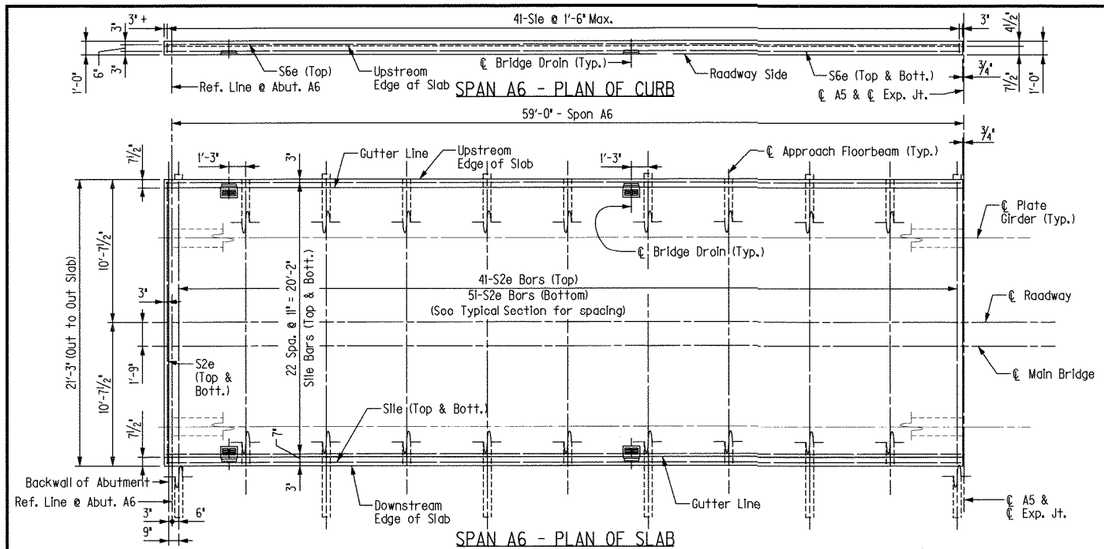
DRAWING NO. 25348

DATE:

USERNAME:

FILE NAME: *sidewalk_steel3.dgn*

SHEET LOCATION: *F:\3046-028\DGN*



MIN. LAP TABLE	
BAR SIZE	LENGTH
#4	1'-7"
#5	2'-0"
#6	2'-4"
#7	3'-0"

RETROFIT (14) - BRIDGE DECK REPLACEMENT

This item of work shall consist of replacing the bridge deck and installing new deck drains throughout the suspended and approach spans.

The quantity for Class "AA" Concrete is based on a 7½" slab thickness. Any additional concrete required above the plan quantity is the contractor's responsibility and at no cost to the Department. The quantity for Class "AA" Concrete includes all curbs and the sidewalk in the approach spans. The unit price bid for this item shall be full compensation for all materials, labor, equipment, tools, and incidental necessary to complete the work.

The sidewalks on the main spans shall be cast using lightweight concrete. The concrete shall meet the requirements of the Special Provision for Lightweight Concrete. The unit bid price for this item shall be full compensation for all materials, labor, equipment, tools, and incidental necessary to complete the work.

The unit price bid per square foot of approach slab shall include the cost of Class "AA" concrete, epoxy-coated reinforcement, 4 inches DGA and any other cost necessary to construct the approach slab.

The proposed profile will be higher than the existing profile due to the change in cross slope from the existing structure. The Contractor is to taper from the 2% proposed cross slope on the bridge to the existing cross slope on the approach fill in the approach slabs.

The use of stay in place forms is prohibited.

Bridge Drains shall be conform to Neenah B-4001-B Bridge Drain Heavy Duty or approved equivalent.

For a recommended removal and construction sequence for the mains spans, see Sheet 55.

There is not a recommended pouring sequence for the approach spans. However, the contractor is required to complete the approach span deck pours in one continuous operation between expansion joints. If the contractor is unable to meet this requirement due to any reason, at no additional cost to the Department, the Engineer may require the portion already completed to be removed and poured again. This criteria is to prevent excessive cracking in the slab over fixed piers.

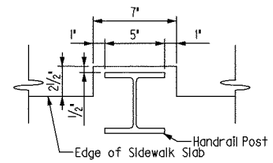
NOTES:

See Sheet 43 for the Bill of Reinforcement and Typical Sections.

See Sheet 46 for expansion dam details.

See Sheet 47 for Drainage Details.

All dimensions are horizontal.



TYPICAL 2½"x7" BLOCKOUT FOR APPROACH HANDRAIL POST

APPROACH SPANS A6-A4

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: US 62 | CROSSING: OHIO RIVER

RETROFIT (14)

SLAB DETAILS - APPROACHES

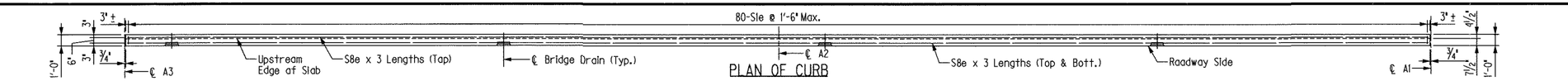
ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

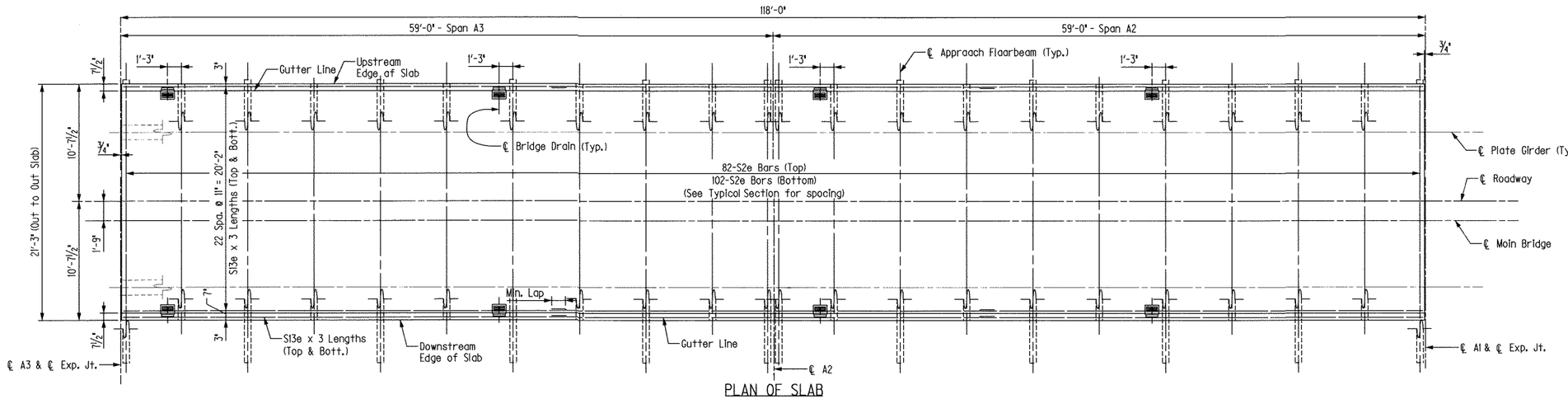
SHEET NO. 036

DRAWING NO. 25348

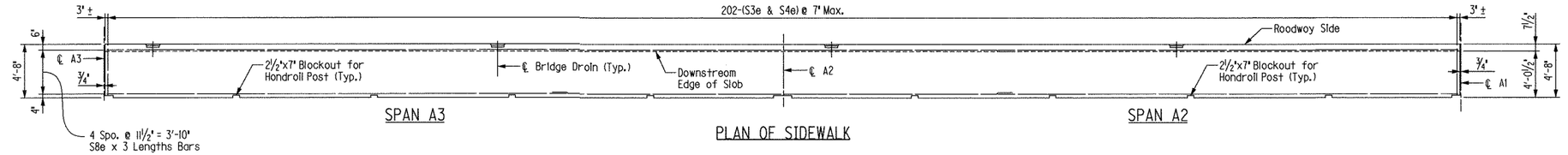
DATE:
USERNAME:
FILE NAME: slab_appr_1.dgn
SHEET LOCATION: I:\31046-028\DGN\



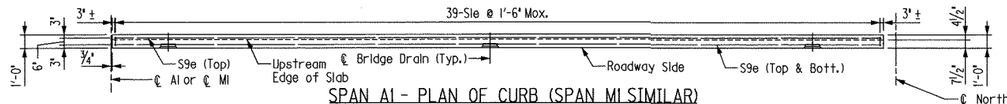
PLAN OF CURB



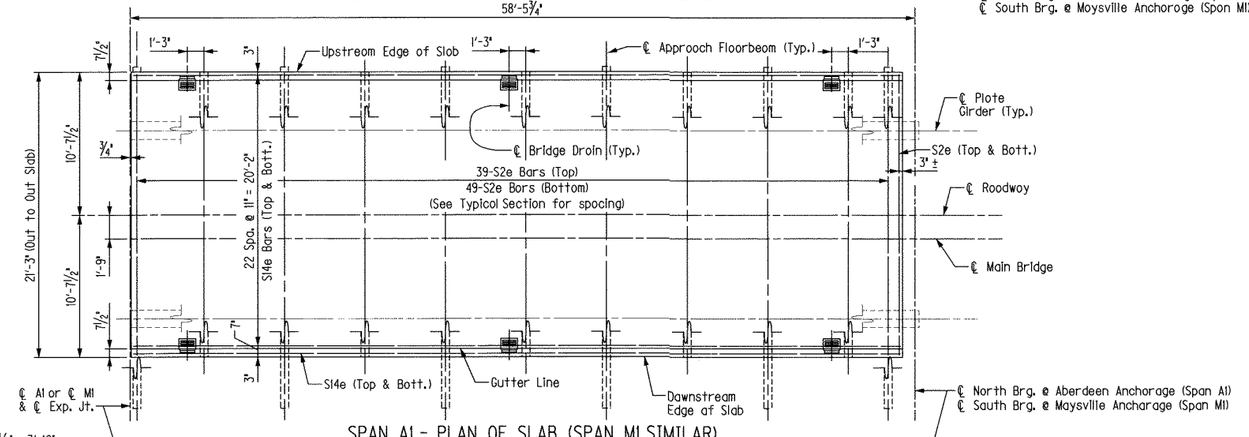
PLAN OF SLAB



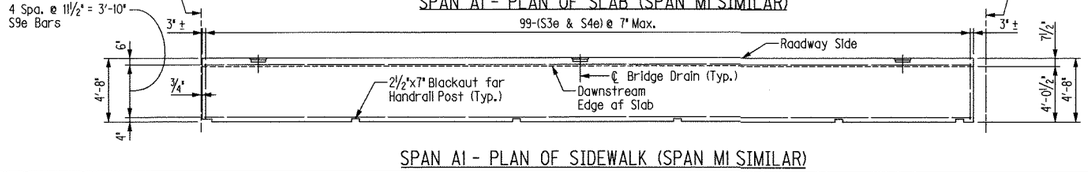
SPAN A3 PLAN OF SIDEWALK SPAN A2



SPAN A1 - PLAN OF CURB (SPAN M1 SIMILAR)



SPAN A1 - PLAN OF SLAB (SPAN M1 SIMILAR)



SPAN A1 - PLAN OF SIDEWALK (SPAN M1 SIMILAR)

NOTES:

See Sheet 43 for the Bill of Reinforcement and Typicol Sections.

See Sheet 46 for exponsion dom detoils.

See Sheet 47 for Droinoge Detoils.

All dimensions ore horizontol.

APPROACH SPANS A3-A1 & M1

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

SLAB DETAILS – APPROACHES

RETROFIT **(14)**

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 037

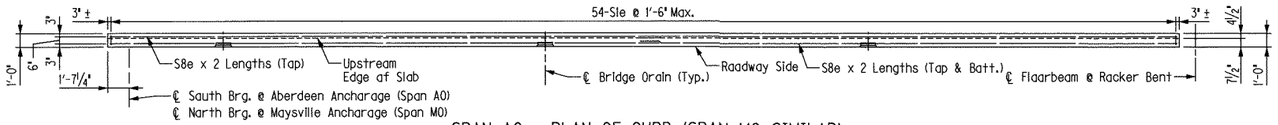
DRAWING NO. 25348

DATE:

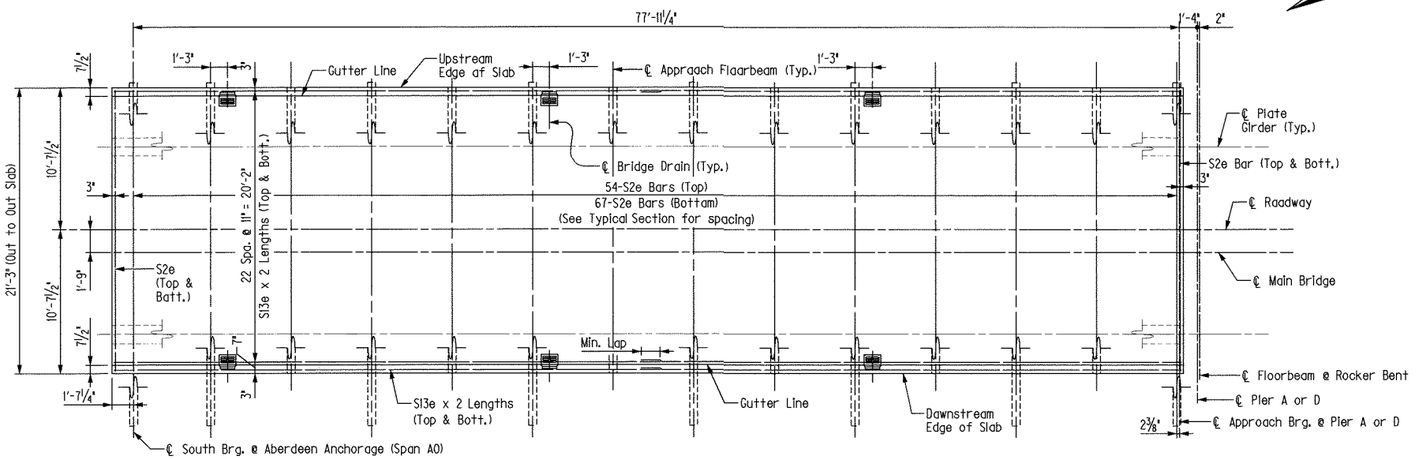
USERNAME:

FILE NAME: *slab_appr_2.dgn*

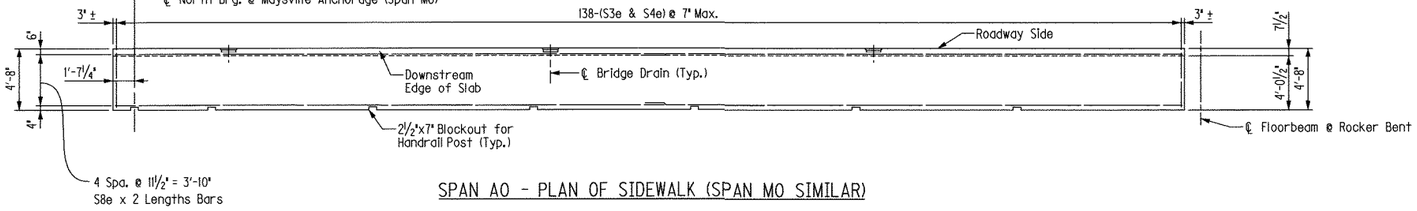
SHEET LOCATION: *I:\31046-028\DGN*



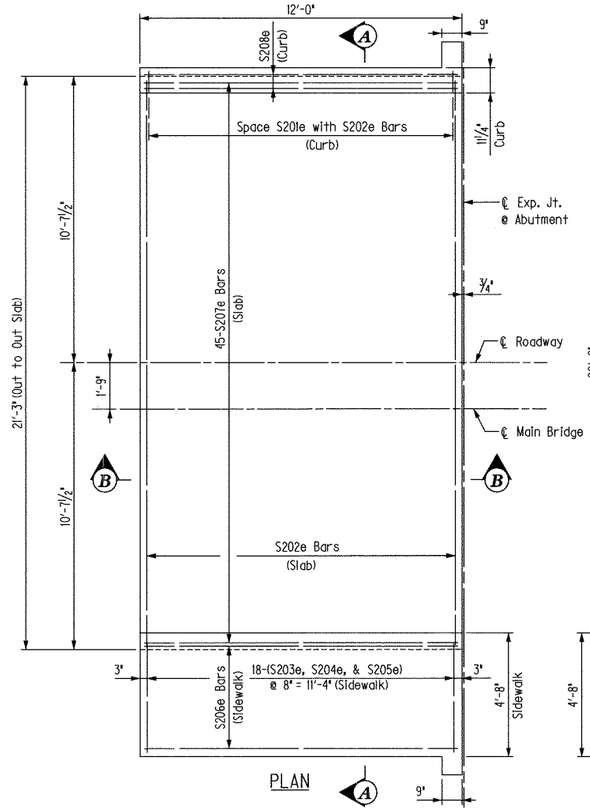
SPAN AO - PLAN OF CURB (SPAN MO SIMILAR)

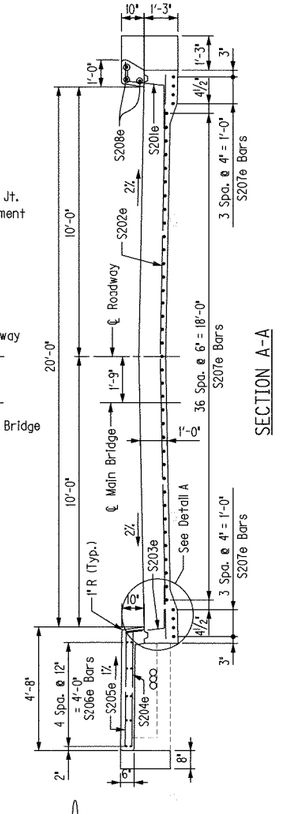


SPAN AO - PLAN OF SLAB (SPAN MO SIMILAR)

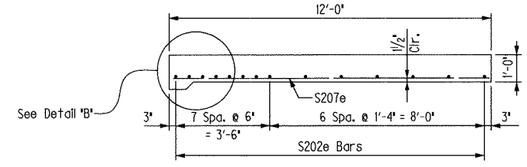


SPAN AO - PLAN OF SIDEWALK (SPAN MO SIMILAR)

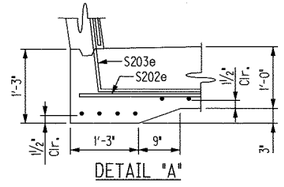




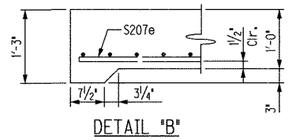
SECTION A-A



SECTION B-B



DETAIL "A"



DETAIL "B"

APPROACH SLAB DETAILS
(Aberdeen Approach Slab Shown)

APPROACH SPANS AO & MO & APPROACH SLAB

NOTES:

See Sheet 43 for the Bill of Reinforcement and Typical Sections.

See Sheet 46 for expansion dam details.

See Sheet 47 for Drainage Details.

All dimensions are horizontal.

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE **US 62** | CROSSING **OHIO RIVER**

SLAB DETAILS - APPROACHES

RETROFIT (14)

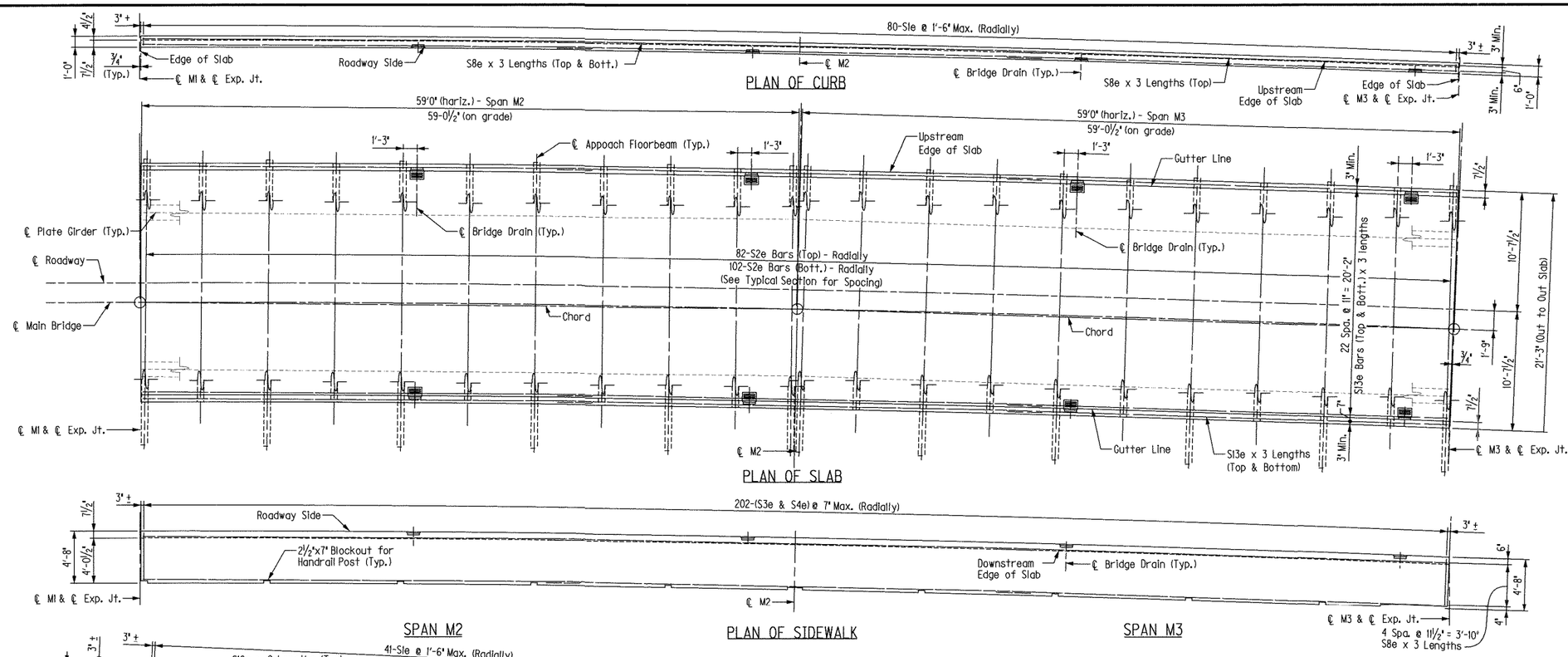
ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 038

DRAWING NO. 25348

DATE:
USERNAME:
FILE NAME: *slab_appr_3.dgn*
SHEET LOCATION: *I:\31046-028\DGN*



SPAN M0 - SIMILAR TO SPAN A0 (See Sheet 38)

SPAN M1 - SIMILAR TO SPAN A1 (See Sheet 37)

NOTES:

See Sheet 43 for the Bill of Reinforcement and Typical Sections.

See Sheet 46 for expansion dam details.

See Sheet 47 for Drainage Details.

All dimensions are horizontal.

APPROACH SPANS M2-M4

REVISION	DATE
	4

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: US 62 | CROSSING: OHIO RIVER

SLAB DETAILS – APPROACHES

RETROFIT (14)

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 039

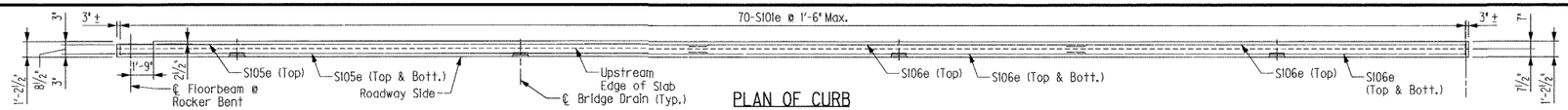
DRAWING NO. 25348

DATE:

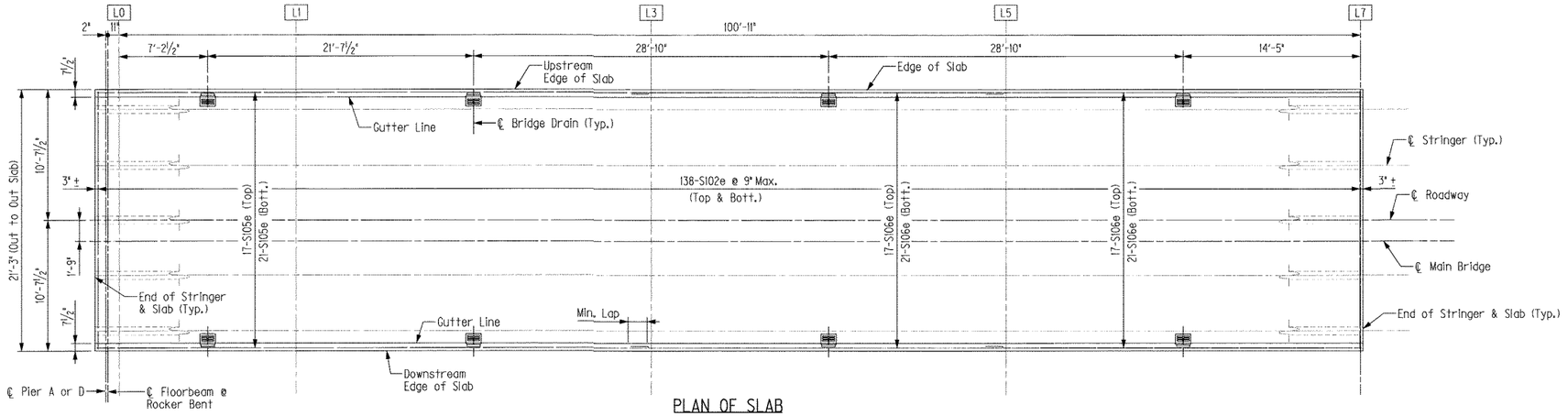
USERNAME:

FILE NAME: *sleb_appr_4.dgn*

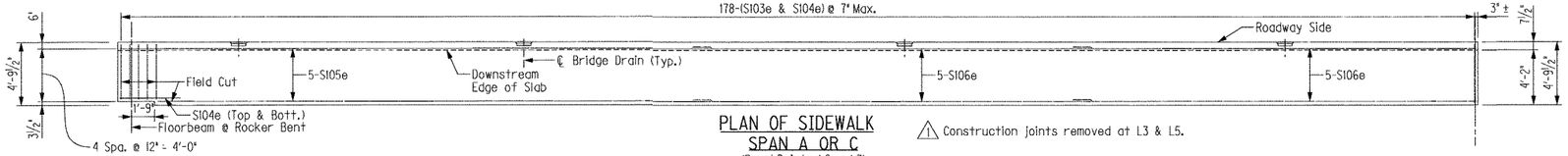
SHEET LOCATION: I:\37046-028\DGN\



PLAN OF CURB

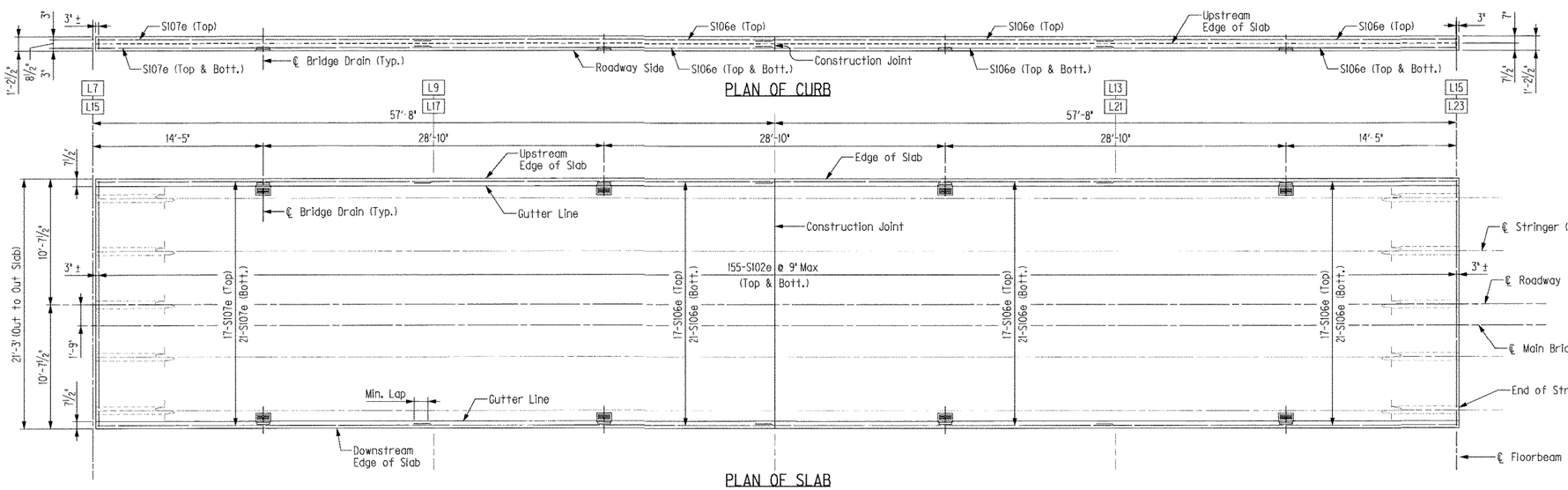


PLAN OF SLAB



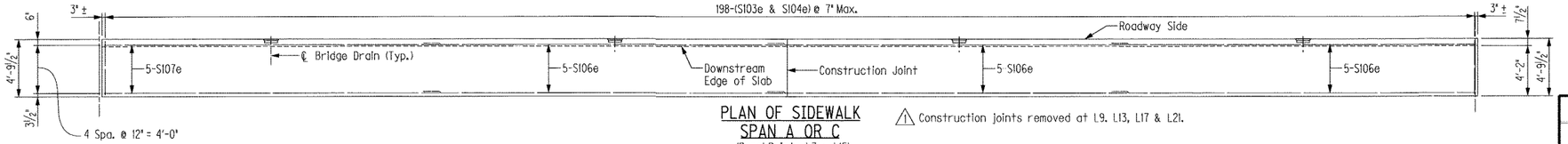
PLAN OF SIDEWALK
SPAN A OR C
(Panel Points L0 ~ L7)

⚠1 Construction joints removed at L3 & L5.



PLAN OF CURB

PLAN OF SLAB



PLAN OF SIDEWALK
SPAN A OR C
(Panel Points L7 ~ L15)
(Panel Points L15 ~ L23 Similar)

⚠1 Construction joints removed at L9, L13, L17 & L21.

MIN. LAP TABLE	
BAR SIZE	LENGTH
#4	1'-7"
#5	2'-0"
#6	2'-4"
#7	3'-0"

NOTES:

See Sheet 43 for the Bill of Reinforcement and Typical Sections.

See Sheet 46 for expansion dam details.

See Sheet 47 for Drainage Details.

All dimensions are horizontal.

MAIN SPANS: L0-L23

⚠1	Addendum No.1	11-05-02
	REVISION	DATE

DATE:	Sep. 26, 2002	CHECKED BY
DESIGNED BY:	K. Thompson	T. J. Fu
DETAILED BY:	K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: US 62
CROSSING: OHIO RIVER

SLAB DETAILS - MAIN SPANS

RETROFIT (14)

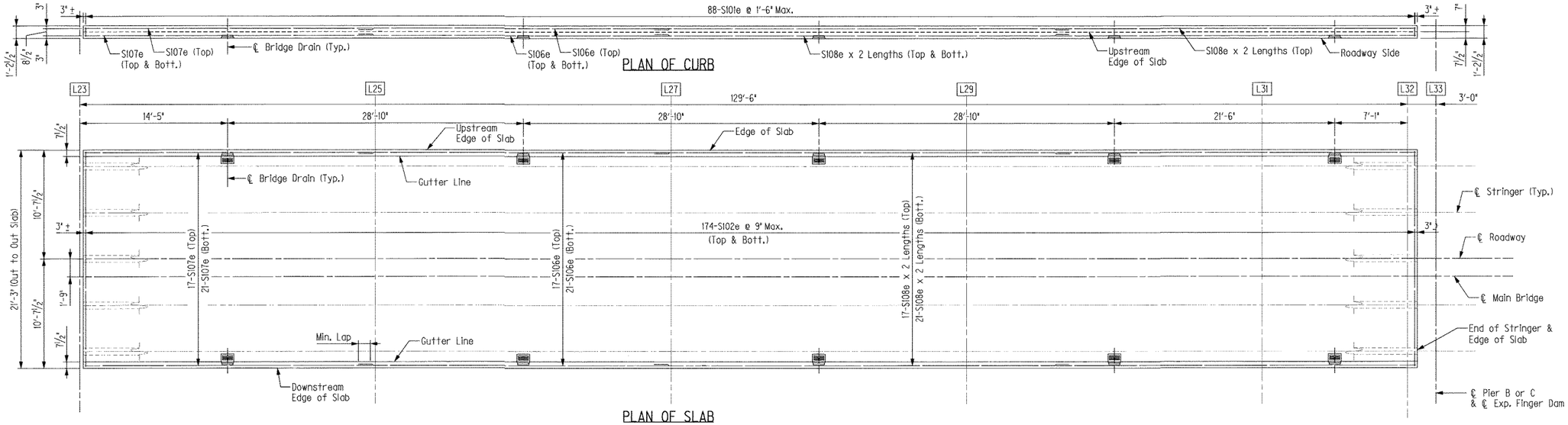
ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 040

DRAWING NO. 25348

DATE:
USERNAME:
FILE NAME: *slab_main_1.dgn*
SHEET LOCATION: *I:\31046-028\DGN*



NOTES:

See Sheet 43 for the Bill of Reinforcement and Typical Sections.

See Sheet 46 for expansion dam details.

See Sheet 47 for Drainage Details.

All dimensions are horizontal.

MAIN SPANS: L23-L41

⚠1	Addendum No.1	11-05-02
	REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: US 62 | CROSSING: OHIO RIVER

RETROFIT (14)

SLAB DETAILS – MAIN SPANS

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 041

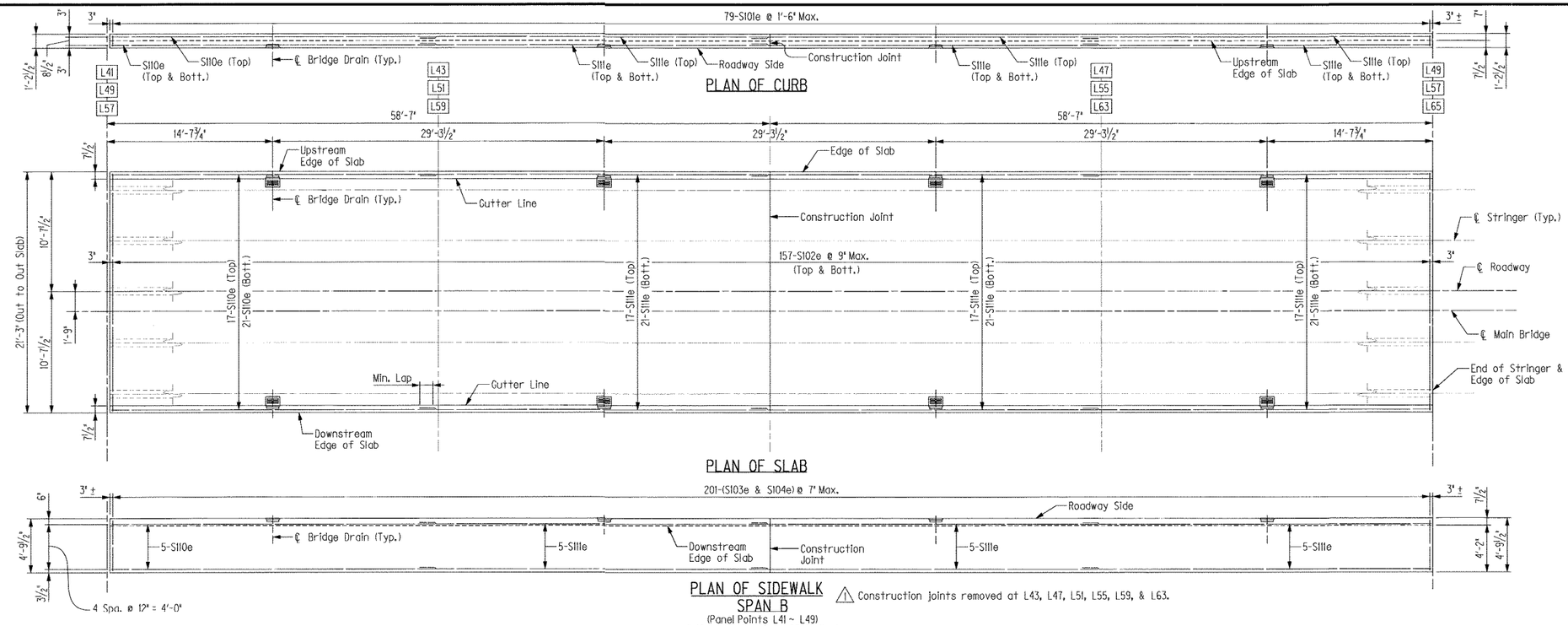
DRAWING NO. 25348

DATE:

USERNAME:

FILE NAME: *slab_main_2.dgn*

SHEET LOCATION: *I:\91046-028\DGN*



NOTES:

See Sheet 43 for the Bill of Reinforcement and Typical Sections.

See Sheet 46 for expansion dam details.

See Sheet 47 for Drainage Details.

All dimensions are horizontal.

MAIN SPANS: L41-L70

⚠1	Addendum No.1	11-05-02
	REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

SLAB DETAILS - MAIN SPANS

RETROFIT (14)

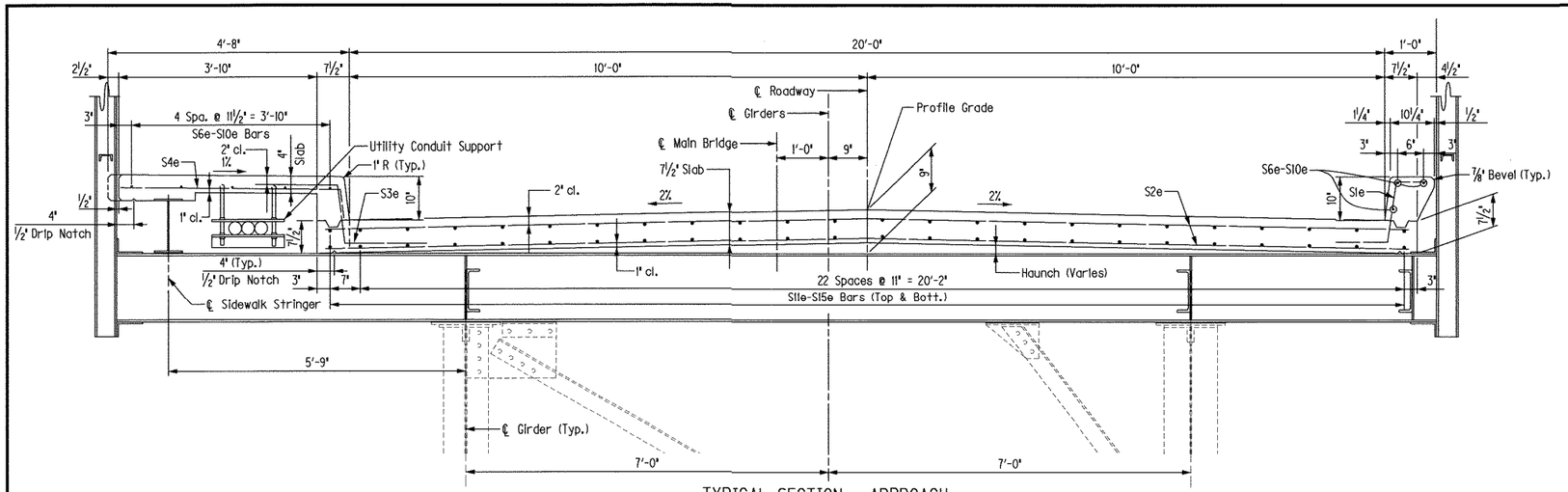
ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 042

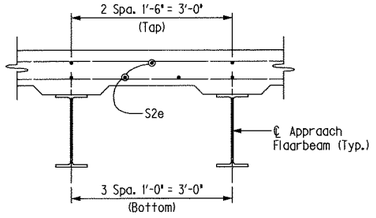
DRAWING NO. 25348

DATE: 16-Jan-2002
USERNAME:
FILE NAME: slab_main_3.dgn
SHEET LOCATION: A:\31046-028\DGN\

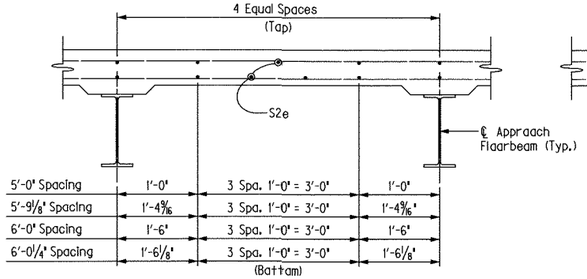


TYPICAL SECTION - APPROACH

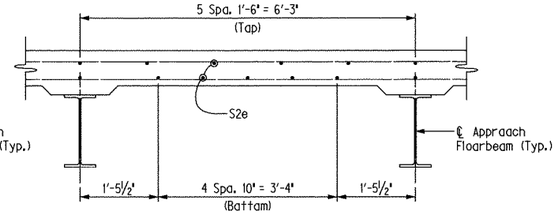
(Looking Downstation)



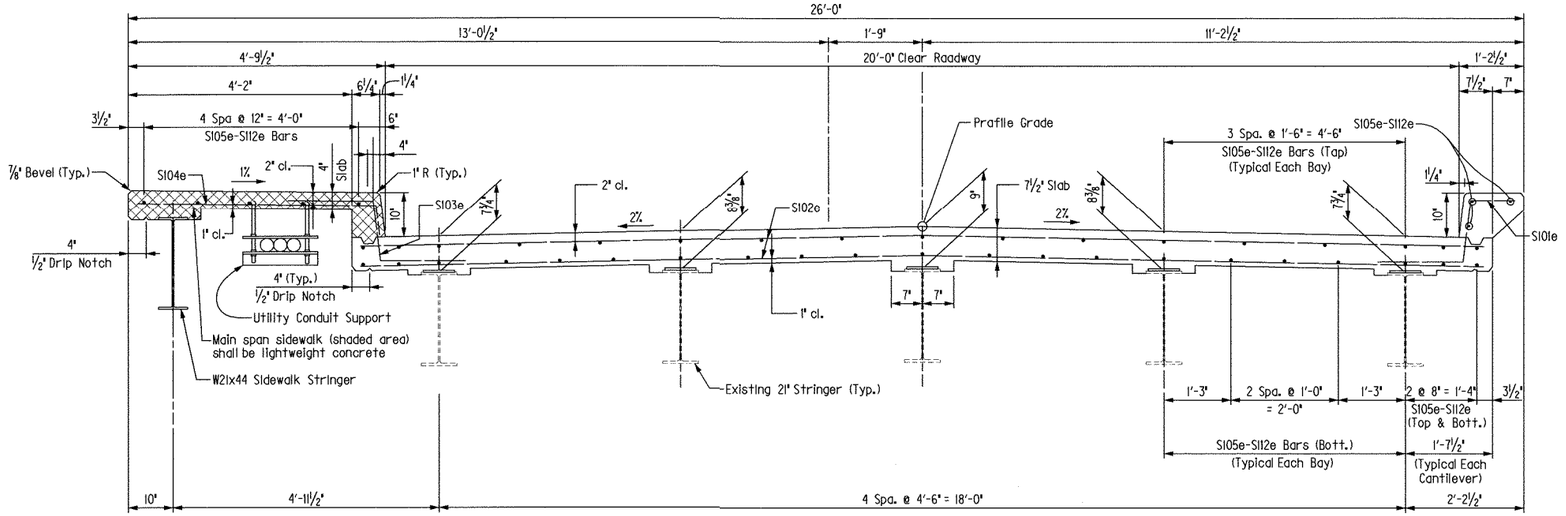
TYPICAL SECTION BETWEEN APPROACH FLOORBEAMS (3'-0" SPACING)



TYPICAL SECTION BETWEEN APPROACH FLOORBEAMS (5'-0" - 6'-0¼" SPACING)



TYPICAL SECTION BETWEEN APPROACH FLOORBEAMS (6'-3" SPACING)

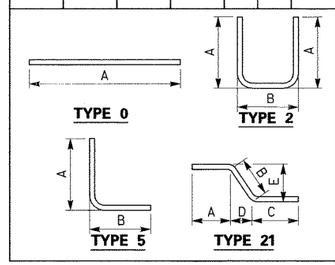


TYPICAL SECTION - MAIN SPANS

(Looking Downstation)

BILL OF REINFORCEMENT - SLAB

MARK	TYPE	NO.	SIZE	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.
S1e	21	510	4	3	4	Approach Spans	0	7	1	2	1	7	0	1⅞	1	1⅞
S2e	0	1174	6	20	11	Approach Spans	20	11								
S3e	21	1292	4	4	4	Approach Spans	1	7	1	2	1	7	0	1⅞	1	1⅞
S4e	21	1292	4	4	9	Approach Spans	4	2	0	7	0	0	0	1	0	7
S5						Not Used										
S6e	0	8	4	59	2	Approach Spans	59	2								
S7e	0	24	4	41	4	Approach Spans	41	4								
S8e	0	80	4	40	7	Approach Spans	40	7								
S9e	0	16	4	57	1	Approach Spans	57	1								
S10e	0	16	7	30	5	Approach Spans	30	5								
S11e	0	48	7	59	2	Approach Spans	59	2								
S12e	0	144	7	42	4	Approach Spans	42	4								
S13e	0	480	7	41	4	Approach Spans	41	4								
S14e	0	96	7	57	1	Approach Spans	57	1								
S15e	0	96	7	31	3	Approach Spans	31	3								
S101e	21	1341	4	3	6	Main Spans	0	9	1	2	1	7	0	1⅞	1	1⅞
S102e	0	2654	5	20	11	Main Spans	20	11								
S103e	21	3408	4	4	4	Main Spans	1	7	1	2	1	7	0	1⅞	1	1⅞
S104e	21	3408	4	4	11	Main Spans	4	4	0	7	0	0	0	1	0	7
S105e	0	92	4	44	8	Main Spans	44	8								
S106e	0	828	4	30	6	Main Spans	30	6								
S107e	0	276	4	28	4	Main Spans	28	4								
S108e	0	184	4	36	10	Main Spans	36	10								
S109e	0	184	4	52	4	Main Spans	52	4								
S110e	0	368	4	28	11	Main Spans	28	11								
S111e	0	920	4	31	0	Main Spans	31	0								
S112e	0	46	4	32	2	Main Spans	32	2								
S201e	21	28	4	3	7	Approach Slab	0	7	1	5	1	7	0	2	1	4⅞
S202e	0	28	5	20	11	Approach Slab	20	11								
S203e	21	36	4	2	9	Approach Slab	0	0	1	2	1	7	0	2	1	4⅞
S204e	0	36	4	4	2	Approach Slab	4	2								
S205e	21	36	4	4	9	Approach Slab	4	2	0	7	0	0	0	1	0	7
S206e	0	20	4	11	8	Approach Slab	11	8								
S207e	0	90	8	11	8	Approach Slab	11	8								
S208e	0	6	4	11	8	Approach Slab	11	8								



REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	C. Klusman
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: MASON

ROUTE: US 62

CROSSING: OHIO RIVER

RETROFIT (14)

SLAB DETAILS - TYPICAL SECTIONS

ITEM NUMBER

PREPARED BY
URS
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 043

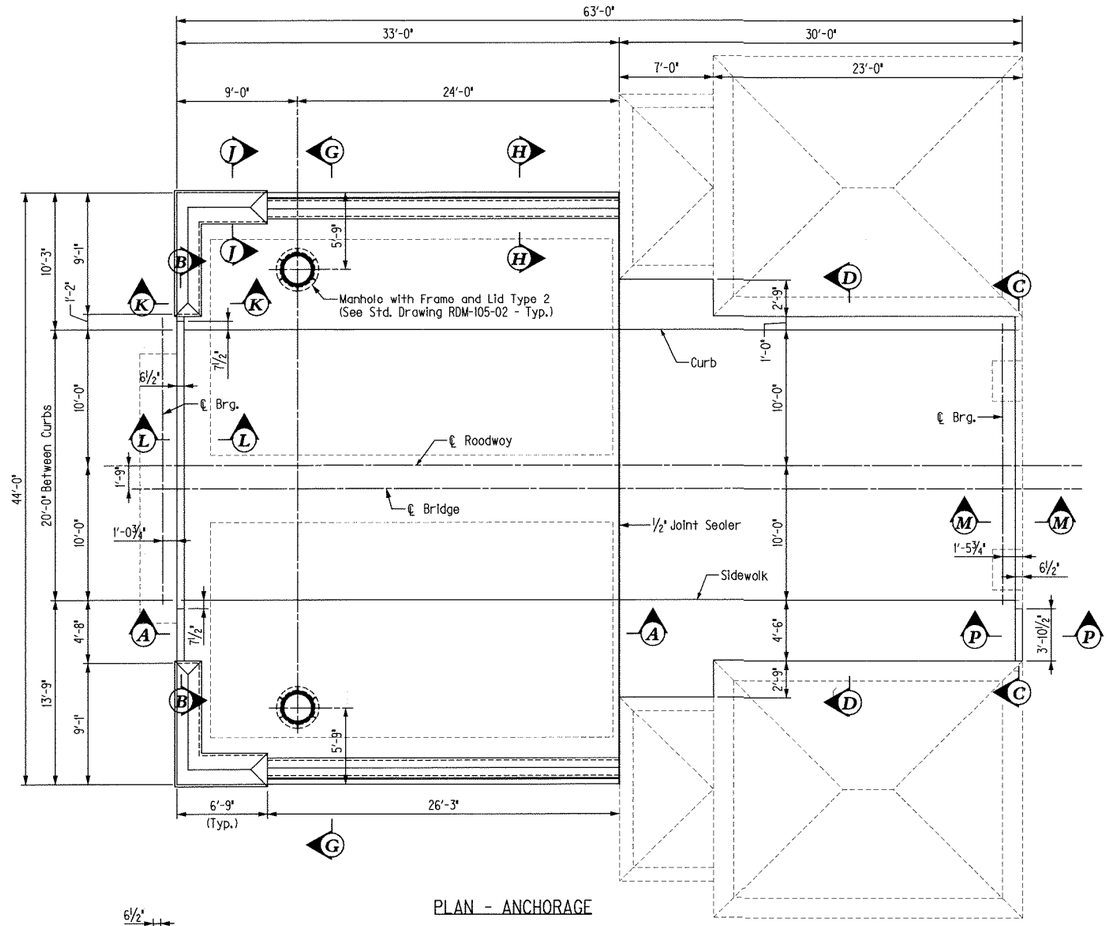
DRAWING NO. 25348

DATE:

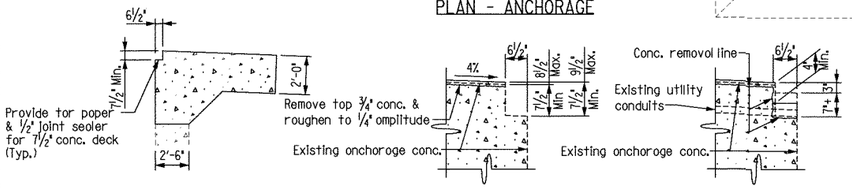
USERNAME:

FILE NAME: slab_typ_sect.dgn

SHEET LOCATION: I:\30146-028\DGN\



PLAN - ANCHORAGE



SECTION L-L

SECTION M-M

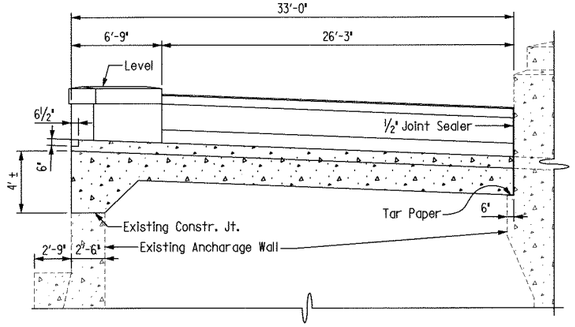
SECTION P-P

NOTES:

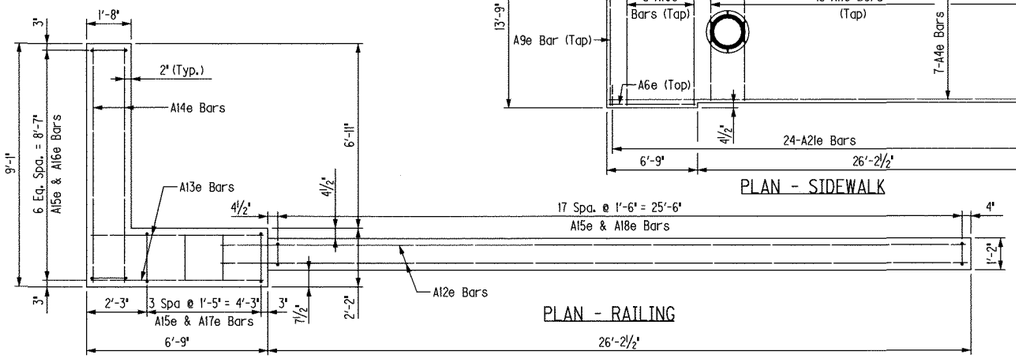
See Sheet 45 for the Bill of Reinforcement

See Sheet 46 for expansion dam details.

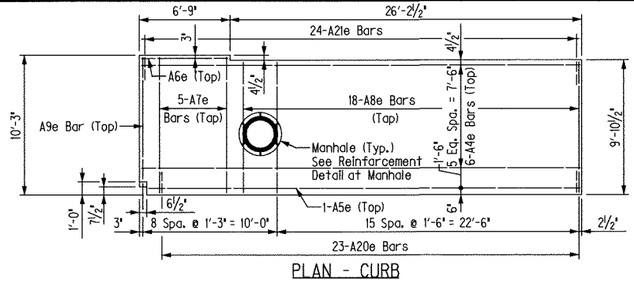
The manhole access shall conform to Std. Drawing RDM-105-02, Frame and Lid Type 2. The unit price bid for this item shall be full compensation for all materials, labor, equipment, tools, and incidental necessary to complete the work.



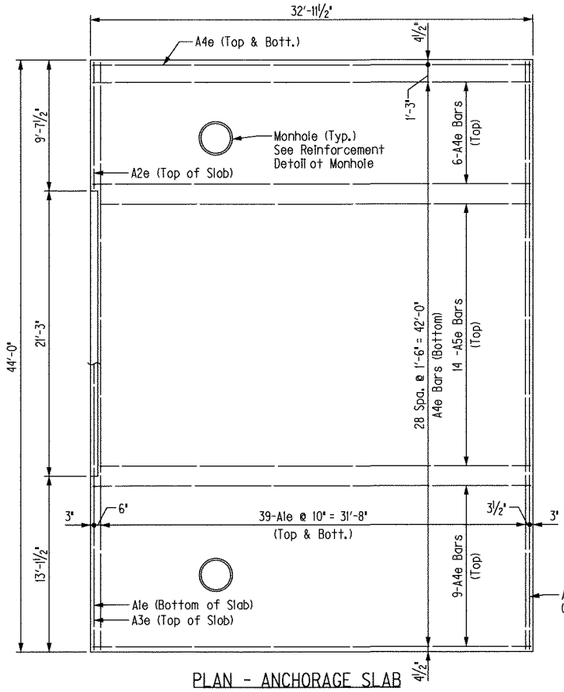
SECTION A-A



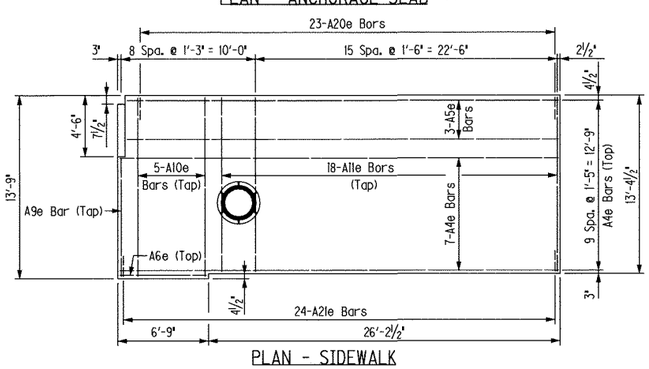
PLAN - RAILING



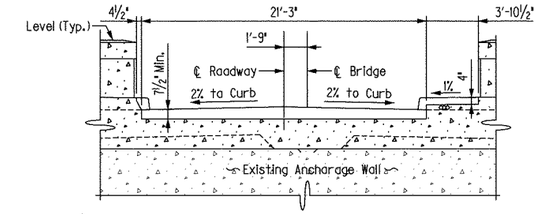
PLAN - CURB



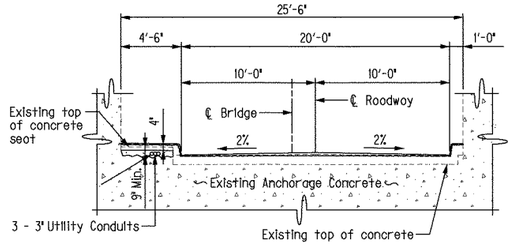
PLAN - ANCHORAGE SLAB



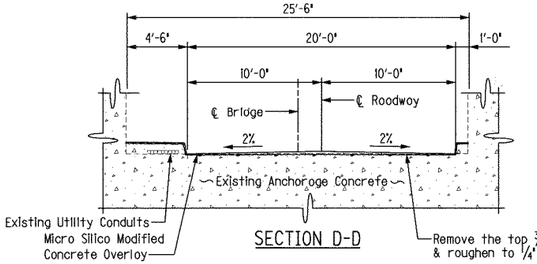
PLAN - SIDEWALK



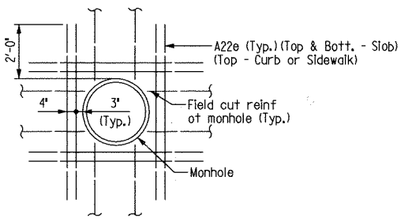
SECTION B-B



SECTION C-C



SECTION D-D



REINFORCEMENT DETAIL AT MANHOLE

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

RETROFIT (14)

SLAB DETAILS - ANCHORAGES

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 044

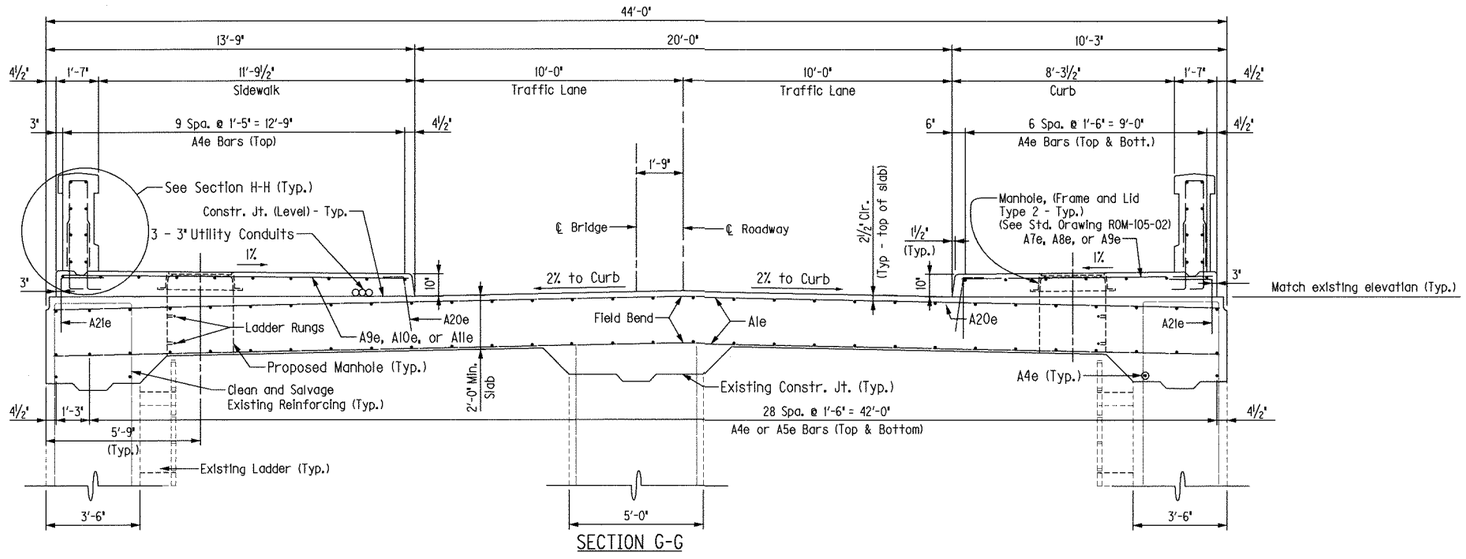
DRAWING NO. 25348

DATE:

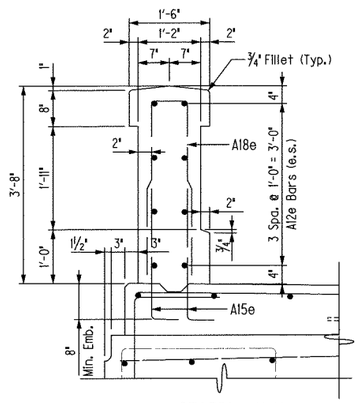
USERNAME:

FILE NAME: *slab_anch_1.dgn*

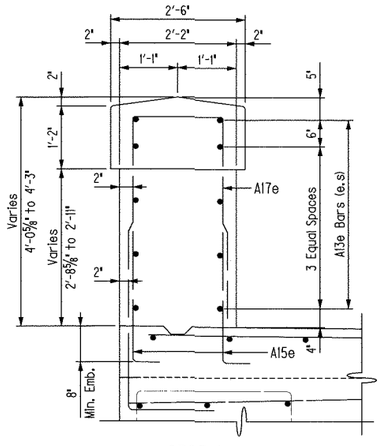
SHEET LOCATION: *I:\31046-028\DGN*



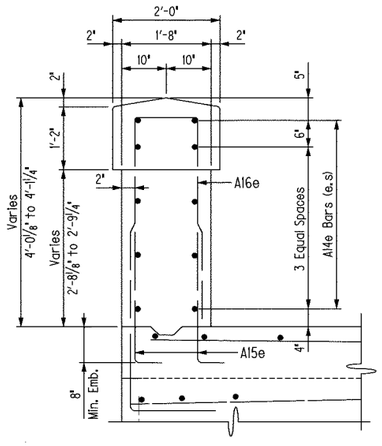
SECTION G-G



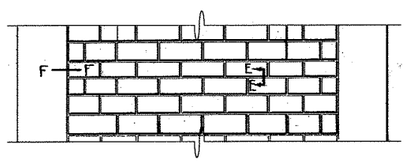
SECTION H-H



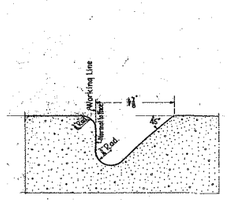
SECTION J-J



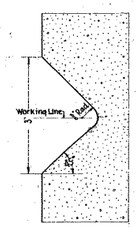
SECTION K-K



TYPICAL EXTERIOR WALL



SECTION F-F
At edges of panels only

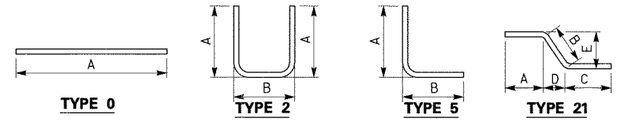


SECTION E-E

DETAILS OF RUSTICATION
Match existing rustication

BILL OF REINFORCEMENT - ANCHORAGES

MARK	TYPE	NO.	SIZE	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.
A1e	0	162	5	43	8	Slab	43	8								
A2e	0	2	5	9	3	Slab	9	3								
A3e	0	2	5	12	9	Slab	12	9								
A4e	0	126	4	32	7	Slab/Curb/Sidewalk	32	7								
A5e	0	36	4	32	0	Curb	32	0								
A6e	0	4	4	6	5	Curb	6	5								
A7e	0	10	4	9	10	Curb	9	10								
A8e	0	36	4	9	5	Curb	9	5								
A9e	0	4	4	8	11	Sidewalk	8	11								
A10e	0	10	4	13	4	Sidewalk	13	4								
A11e	0	36	4	12	11	Sidewalk	12	11								
A12e	0	16	4	27	10	Railing	27	10								
A13e	0	40	4	6	5	Railing	6	5								
A14e	0	40	4	8	9	Railing	8	9								
A15e	5	232	4	3	0	Sidewalk/Railing	2	6	0	6						
A16e	2	28	4	8	4	Railing	3	6	1	4						
A17e	2	16	4	8	10	Railing	3	6	1	10						
A18e	2	72	4	7	4	Railing	3	3	0	10						
A19e	0	64	5	6	5	Slab/Curb/Sidewalk	6	5								
A20e	21	92	4	3	7	Slab/Curb	1	7	2	0	0	0	0	3½	1	11¾
A21e	5	96	4	3	7	Slab/Curb	2	0	1	7						



REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

RETROFIT (14)

SLAB DETAILS - ANCHORAGES

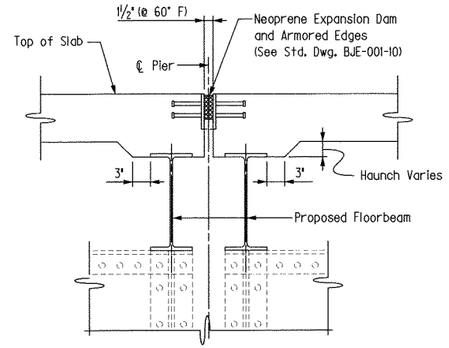
ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

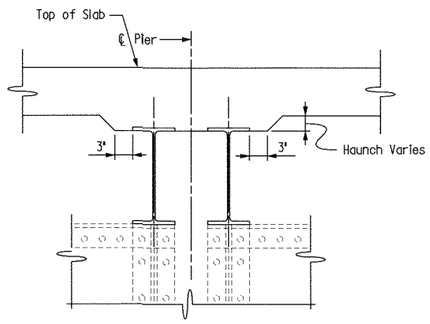
SHEET NO. 045

DRAWING NO. 25348

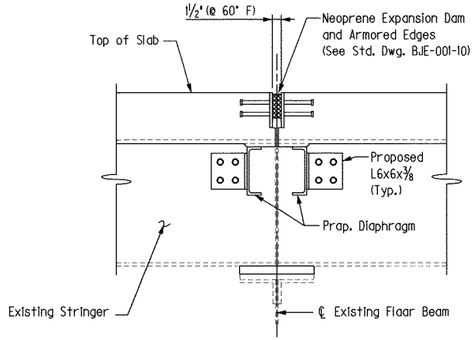
DATE:
USERNAME:
FILE NAME: slab_anch_2.dgn
SHEET LOCATION: I:\37046-028\DGN\



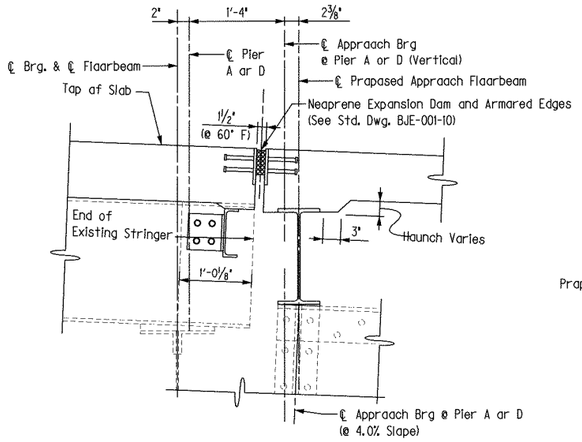
TYPICAL SECTION @ EXP. PIER
(APPROACH)



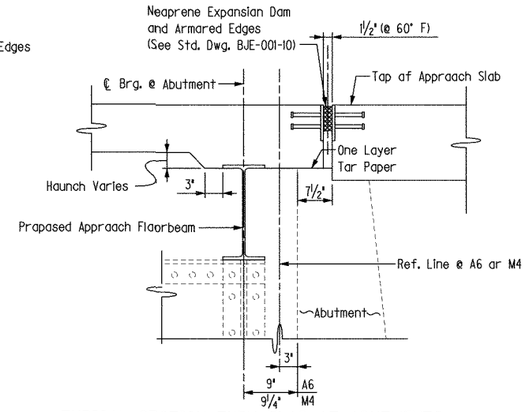
TYPICAL SECTION @ FIXED PIER
(APPROACH)



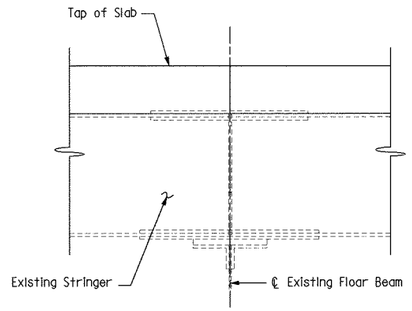
TYPICAL SECTION @ EXP. SUPPORT
(MAIN SPANS)



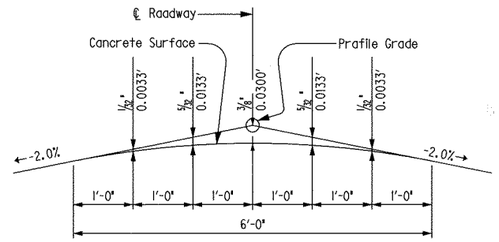
TYPICAL SECTION THRU SLAB AT PIERS A & D



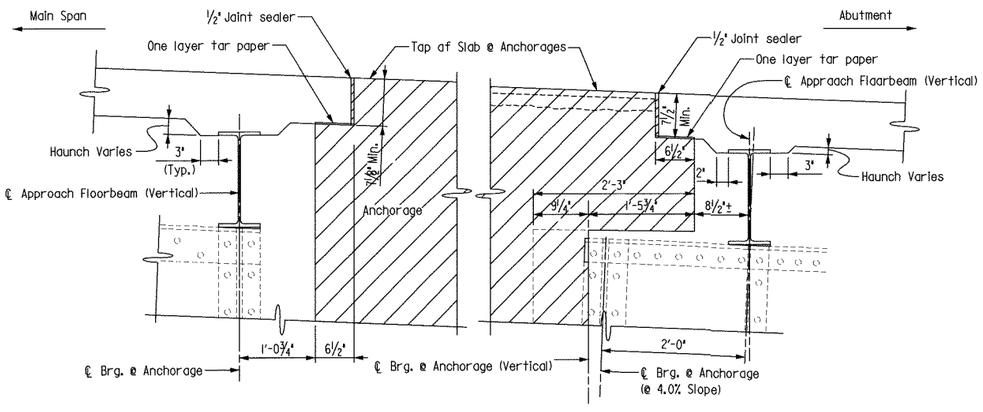
TYPICAL SECTION THRU SLAB AT ABUTMENTS



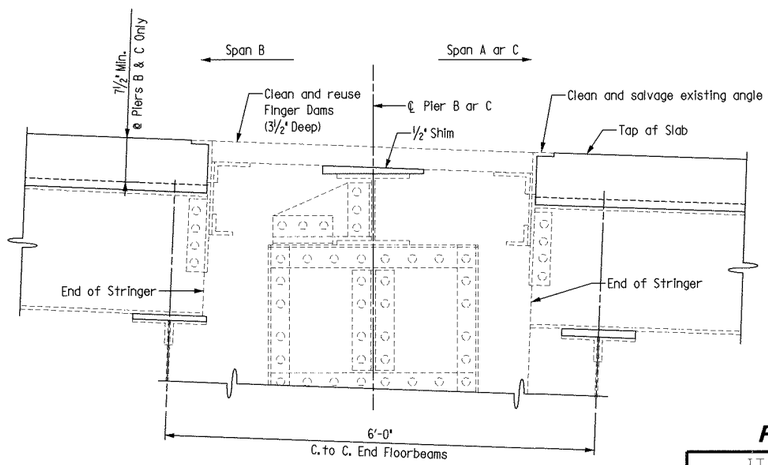
TYPICAL SECTION AT FIXED SUPPORT
(MAIN SPANS)



PARABOLIC CROWN



TYPICAL SECTIONS THRU SLAB AT ANCHORAGES



TYPICAL SECTION THRU SLAB AT PIERS B & C

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	C. Klusman
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

RETROFIT (14)

SLAB DETAILS – MISCELLANEOUS

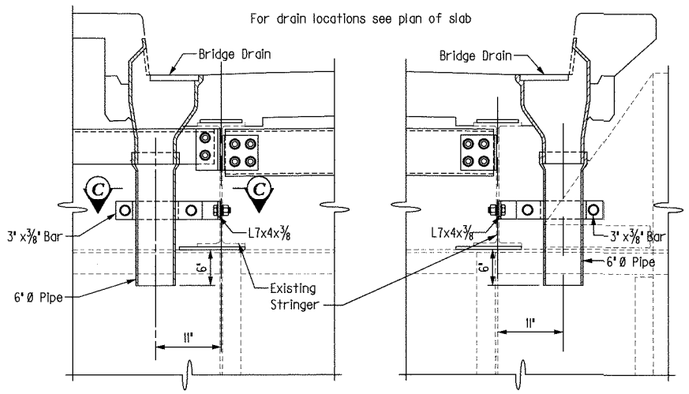
ITEM NUMBER

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 046

DRAWING NO. 25348

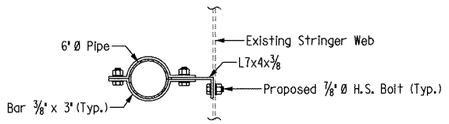
DATE:
USERNAME:
FILE NAME: *slab_misc.dgn*
SHEET LOCATION: *I:\37046-028\DGN*



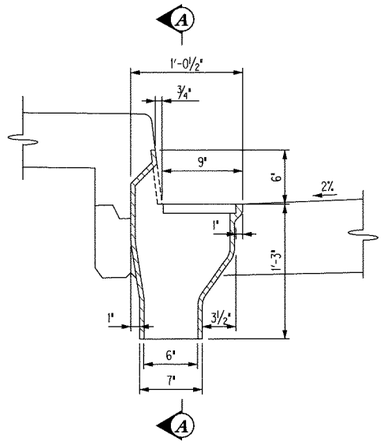
SECTION THRU DRAIN AT SIDEWALK

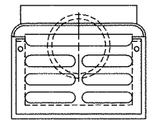
SECTION THRU DRAIN AT CURB

MAIN SPANS

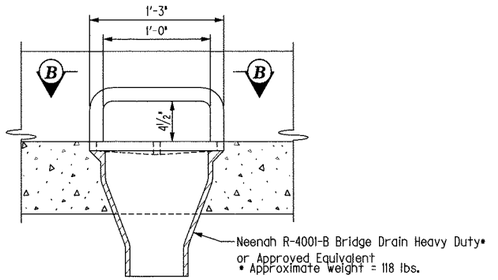


SECTION C-C





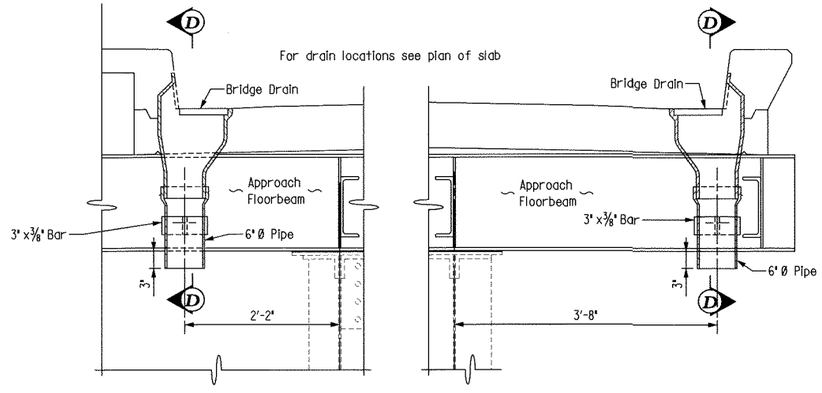
SECTION B-B



SECTION A-A

BRIDGE DRAIN DETAIL

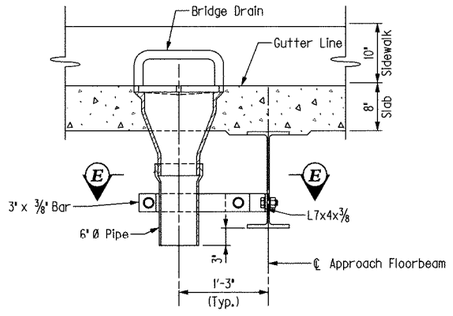
Sidewalk side shown



SECTION THRU DRAIN AT SIDEWALK

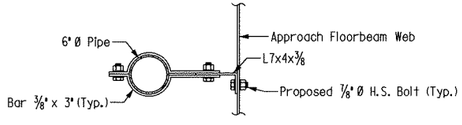
SECTION THRU DRAIN AT CURB

APPROACH SPANS



SECTION D-D

Drain shown to the left of floorbeam



SECTION E-E

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	C. Klusman
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: US 62

CROSSING: OHIO RIVER

RETROFIT (14)

DRAINAGE DETAILS

ITEM NUMBER

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 047

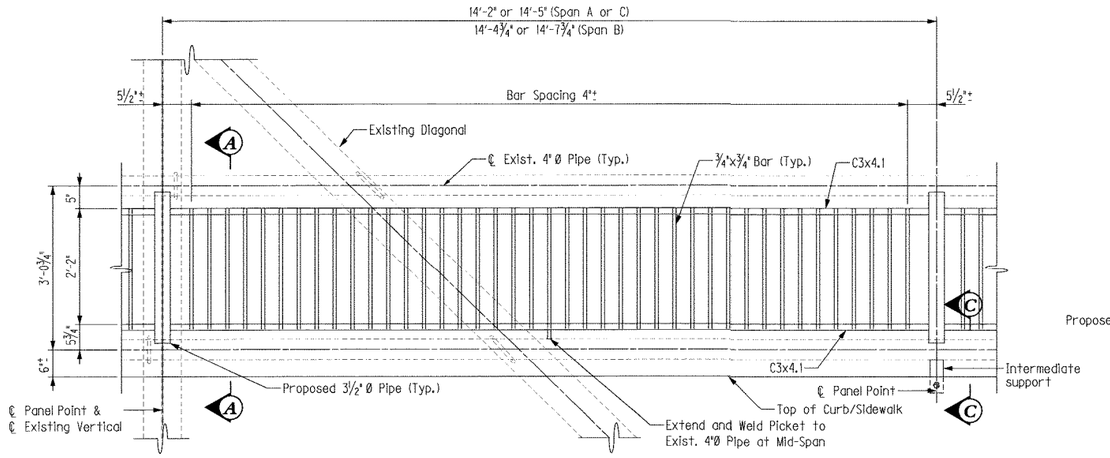
DRAWING NO. 25348

DATE:

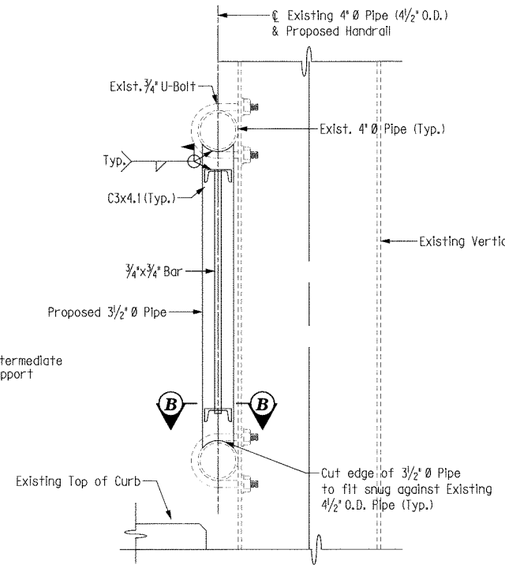
USERNAME:

FILE NAME: *drainage_1.dgn*

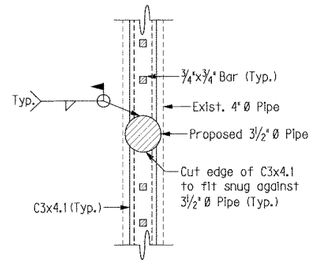
SHEET LOCATION: *I:\31046-028\DGN*



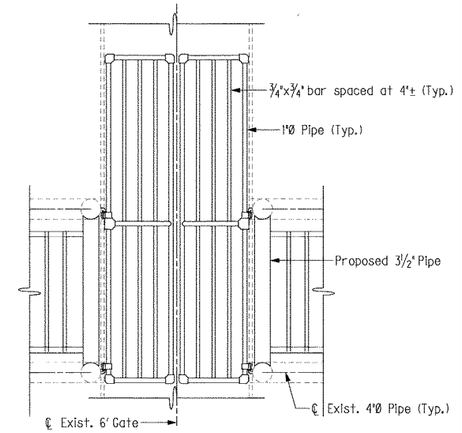
TYPICAL HANDRAIL PANEL - MAIN SPANS



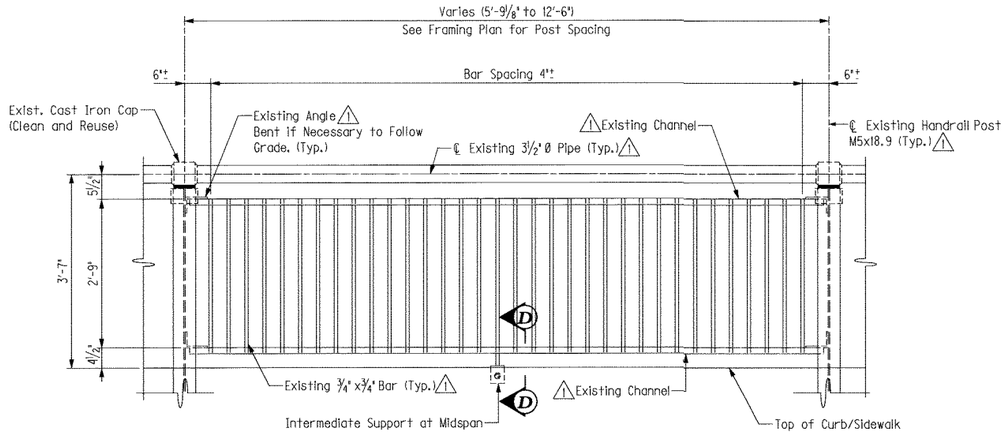
SECTION A-A
Curb Side Shown



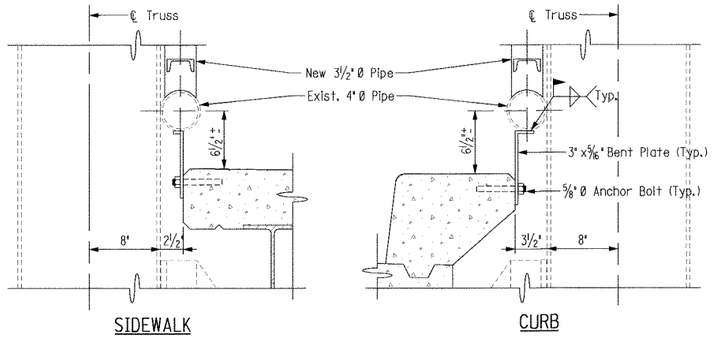
SECTION B-B



TYPICAL 6' GATE DETAIL - MAINSPANS
(Located at Piers B & C for tower access)

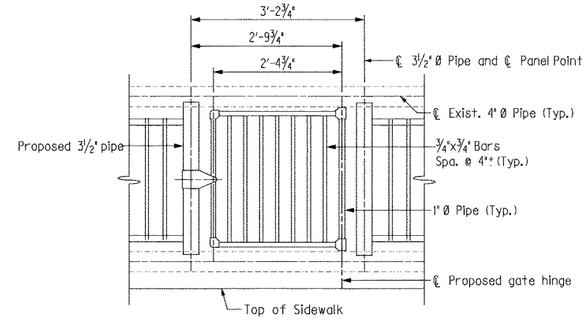


TYPICAL HANDRAIL PANEL - APPROACH SPANS

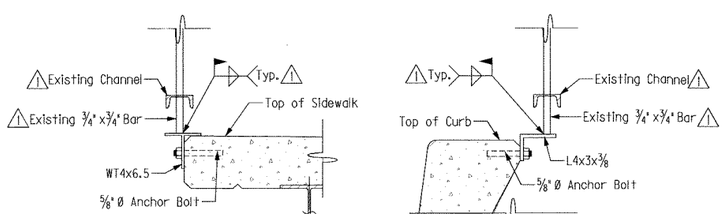


SIDEWALK CURB

SECTION C-C

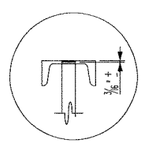


TYPICAL HANDRAIL GATE DETAIL - MAIN SPANS
(Located at Panel Points L1A, L35A, L35M, & L1M for access to inpection walkway)

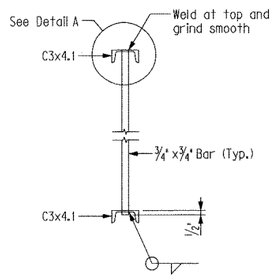


SIDEWALK CURB

SECTION D-D



DETAIL A



BAR CONNECTION DETAIL
⚠1 (for new handrail)

⚠1 RETROFIT (15) - APPROACH SPAN BRIDGE HANDRAIL REPAIR

This item of work shall consist of removing, cleaning, and reinstalling the existing handrail on the approach spans. The Contractor must repair and/or replace any damaged handrail in the approach spans and on the approach fill as directed by the Engineer.

The unit price bid for these items of work shall include the cost of all materials, labor, and incidentals necessary to complete the work.

RETROFIT (16) - MAIN SPAN BRIDGE HANDRAIL REPLACEMENT

This item of work consists of removing the existing handrail on the main spans and replacing it with new handrail in accordance with these plans.

Shop drawings for the new handrail shall be submitted for approval prior to beginning this work. The contractor is responsible for all field measurements necessary to produce the shop drawings.

Weather tough, high security, padlocks No. 6121 by Master Lock Company or approved equivalent shall be furnished at each access door in the handrail on the main spans. Each padlock shall be furnished with four (4) keys and given to the Engineer. Each padlock furnished on the bridge shall be keyed alike.

The unit price bid for these items of work shall include the cost of all materials, labor, and incidentals necessary to complete the work.

⚠1 Clean and reuse the handrail, including the handrail posts, in the approach spans. Existing handrail posts shall be bolted through existing holes to new connection angles at approach floorbeams, as illustrated on Sheet 31.

Repair and/or replace any damaged handrail and handrail posts as directed by the Engineer.

⚠1	Addendum No.1	11-05-02
	REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: C. Klusman	T.J. Fu
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: US 62 | CROSSING: OHIO RIVER

HANDRAIL DETAILS

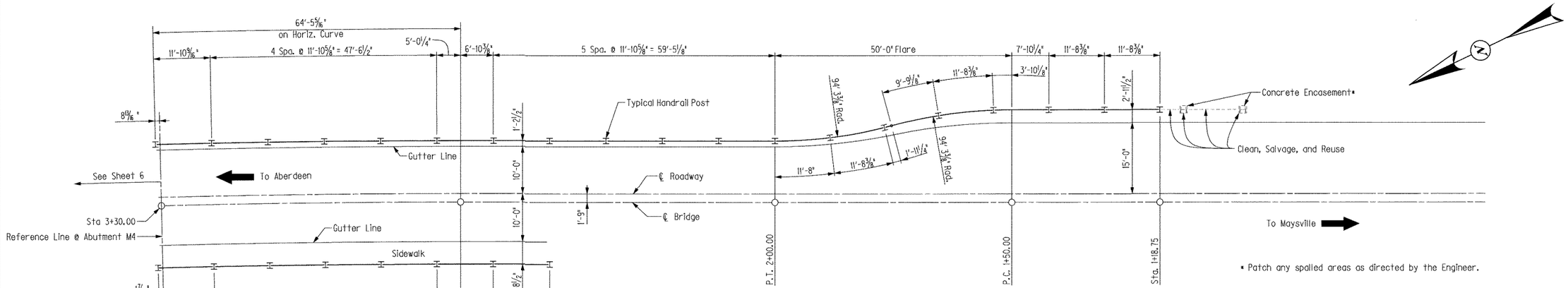
RETROFIT (15)
RETROFIT (16)

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

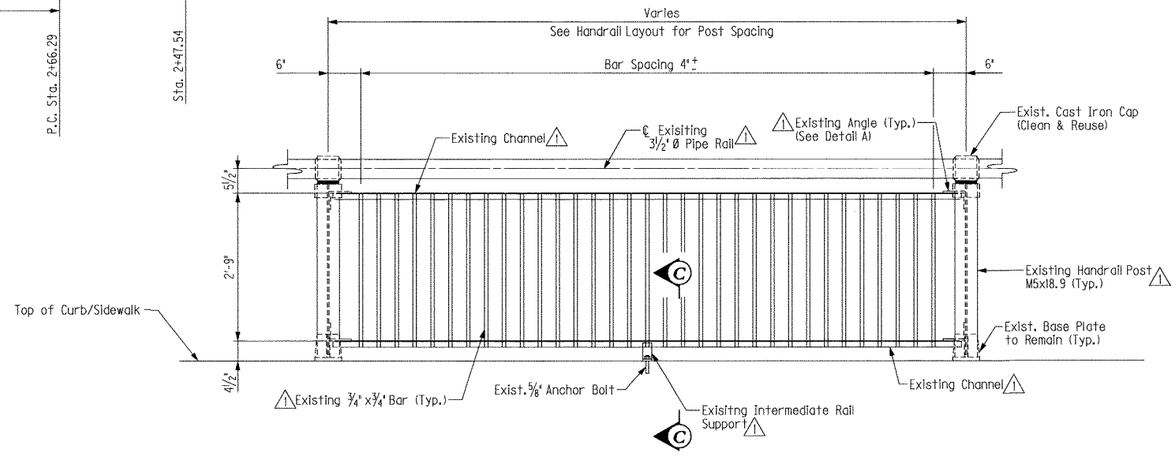
SHEET NO. 048
DRAWING NO. 25348

DATE:
USERNAME:
FILE NAME: handrail_1.dgn
SHEET LOCATION: I:\31046-028\DGN\

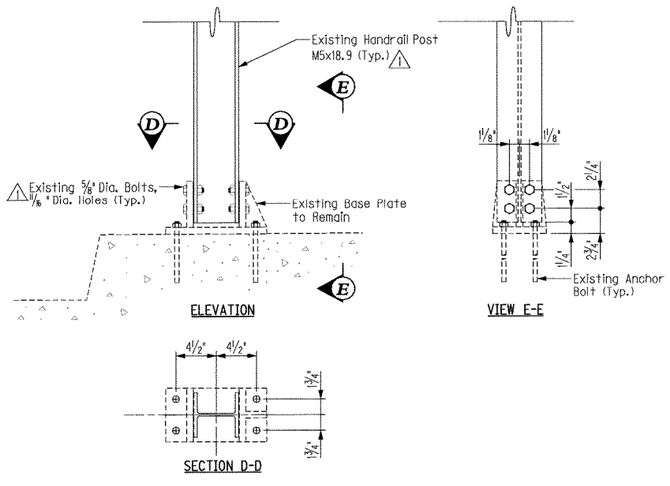


* Patch any spalled areas as directed by the Engineer.

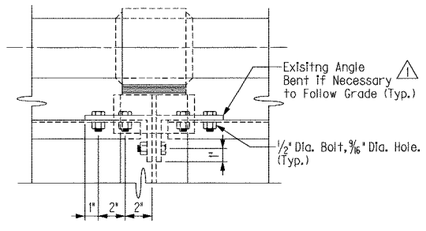
HANDRAIL LAYOUT - MAYSVILLE APPROACH FILL



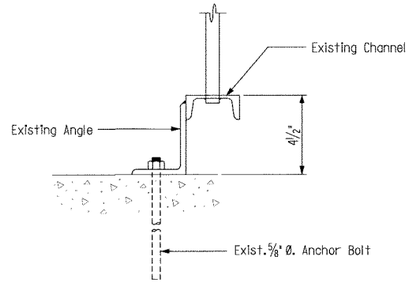
TYPICAL HANDRAIL PANEL - MAYSVILLE APPROACH FILL



BASE PLATE DETAILS



DETAIL A



SECTION C-C

⚠1 FOR INFORMATION ONLY

⚠1 Clean and reuse the handrail in the approach fill. Repair and/or replace any damaged handrail as directed by the Engineer.

⚠1	Addendum No.1	11-05-02
	REVISION	DATE

DATE:	Sep. 26, 2002	CHECKED BY
DESIGNED BY:	K. Thompson	T.J. Fu
DETAILED BY:	D. Amato	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: MASON

ROUTE: US 62 | CROSSING: OHIO RIVER

HANDRAIL DETAILS

RETROFIT (15)

ITEM NUMBER 9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 049

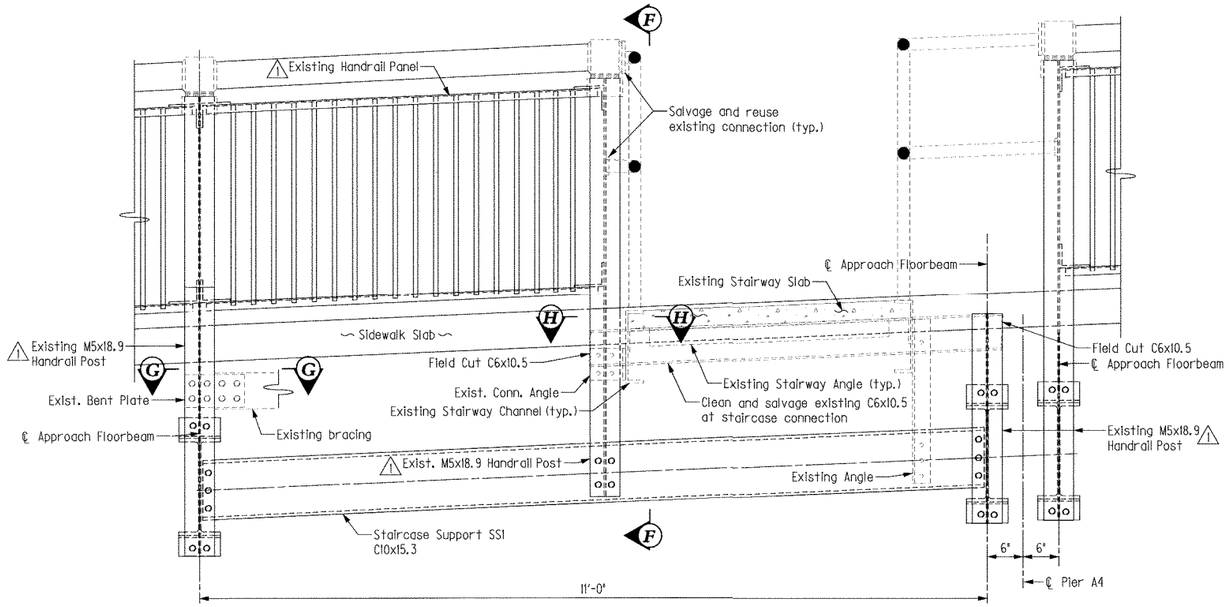
DRAWING NO. 25348

DATE:

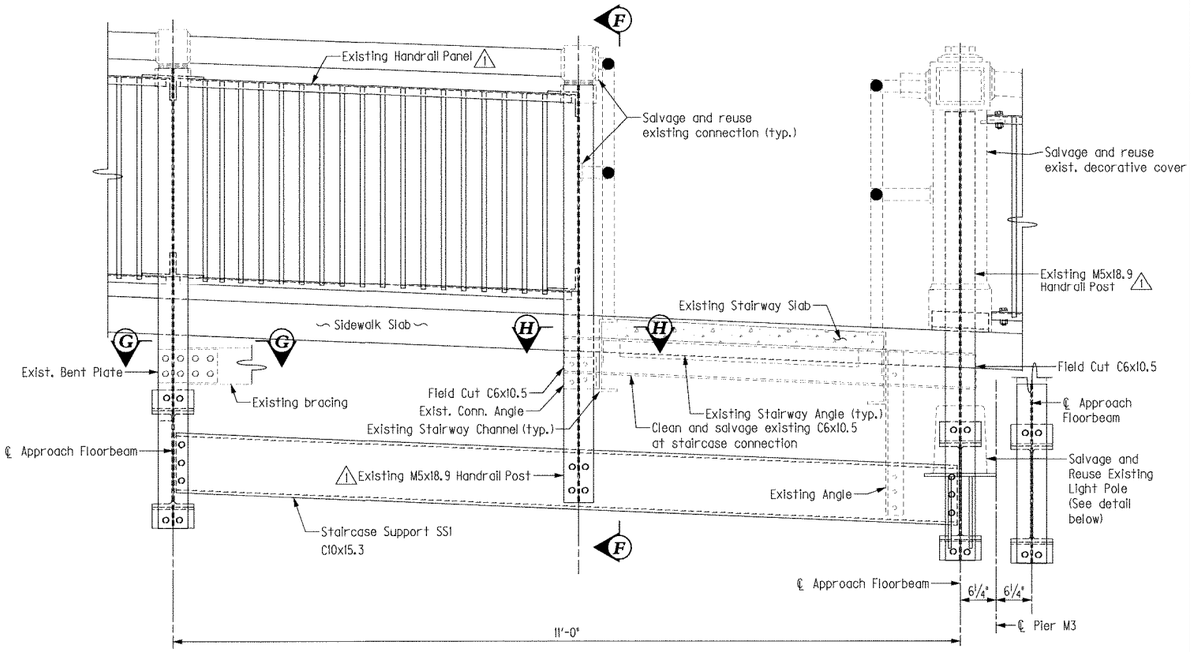
USERNAME:

FILE NAME: handrail_2.dgn

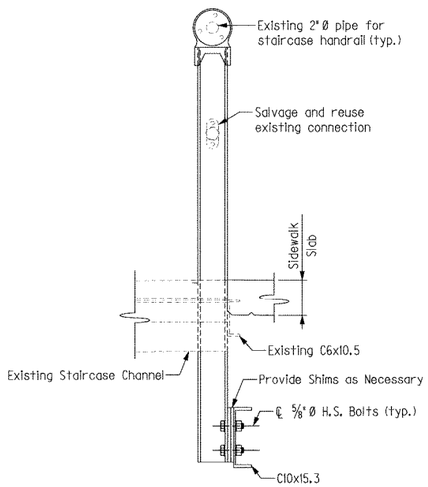
SHEET LOCATION: I:\31046-028\DGN\



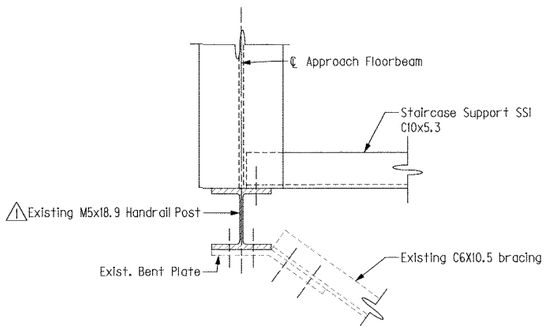
STAIRCASE CONNECTION AT ABERDEEN APPROACH



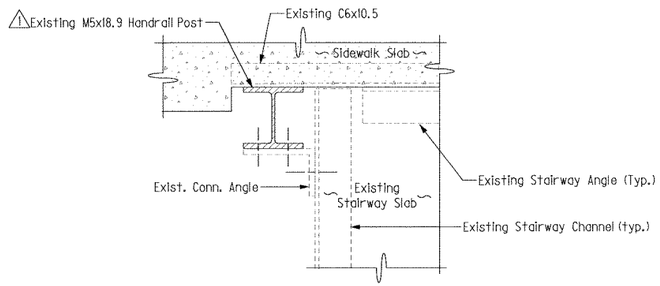
STAIRCASE CONNECTION AT MAYSVILLE APPROACH



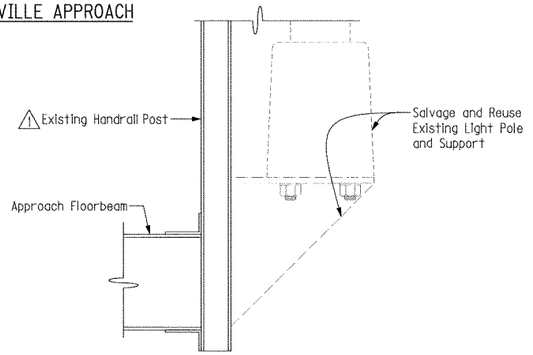
VIEW F-F



SECTION G-G



SECTION H-H



LIGHT STANDARD

⚠ Clean and reuse the handrail, including the handrail posts, in the approach spans. Reconnect the staircase to the approach spans as shown on this sheet. Repair and/or replace any damaged handrail and staircase connection members as directed by the Engineer.

NOTES:

All bolts at staircase connection to be ⅝" Ø A325 H.S. bolts unless noted.

⚠	Addendum No.1	11-05-02
	REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: C. Klusman	T.J. Fu
DETAILED BY: C. Klusman	T.J. Fu

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE **US 62** | CROSSING **OHIO RIVER**

HANDRAIL DETAILS

RETROFIT (15)

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 050

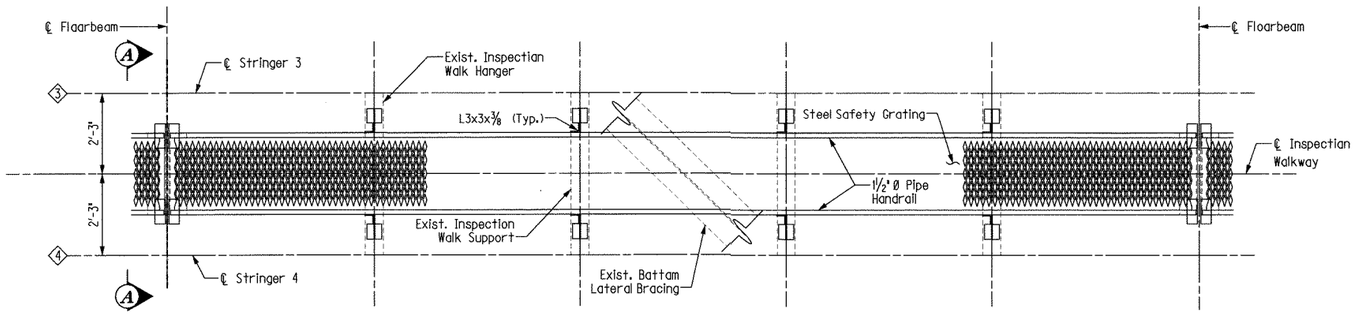
DRAWING NO. 25348

DATE:

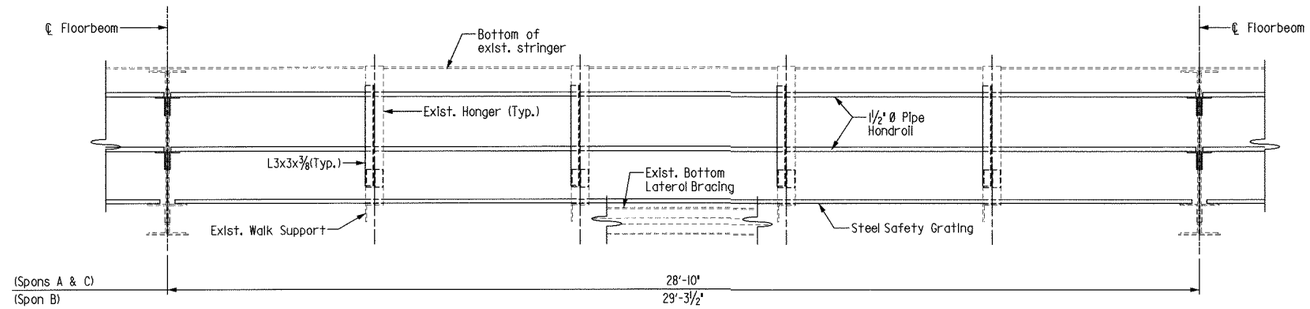
USERNAME:

FILE NAME: *handrail_3.dgn*

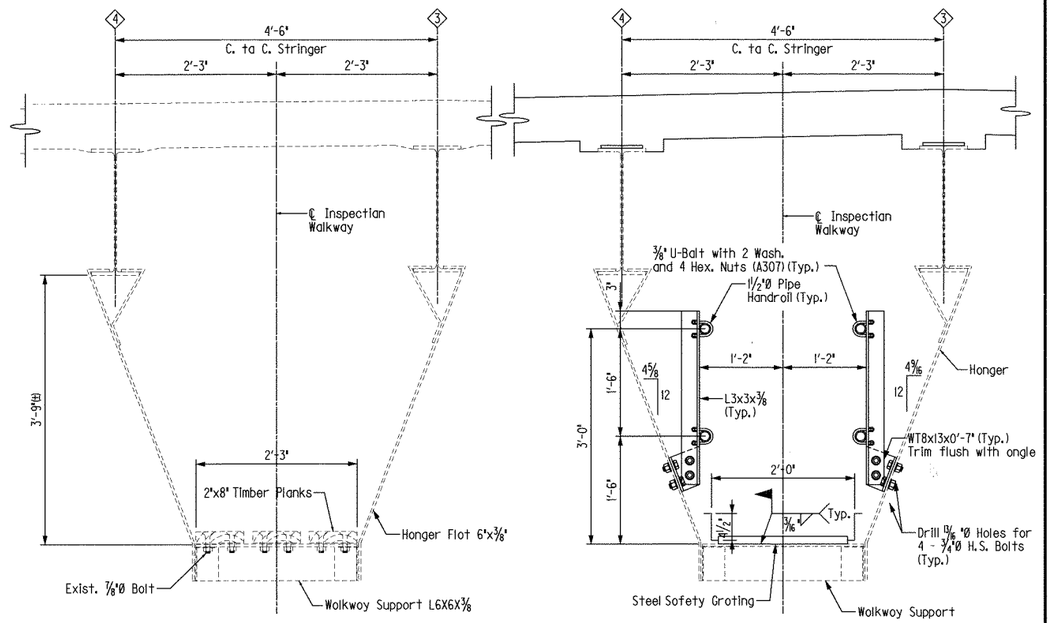
SHEET LOCATION: *I:\31046-028\DGN*



INSPECTION WALKWAY PLAN
Typicol Panel

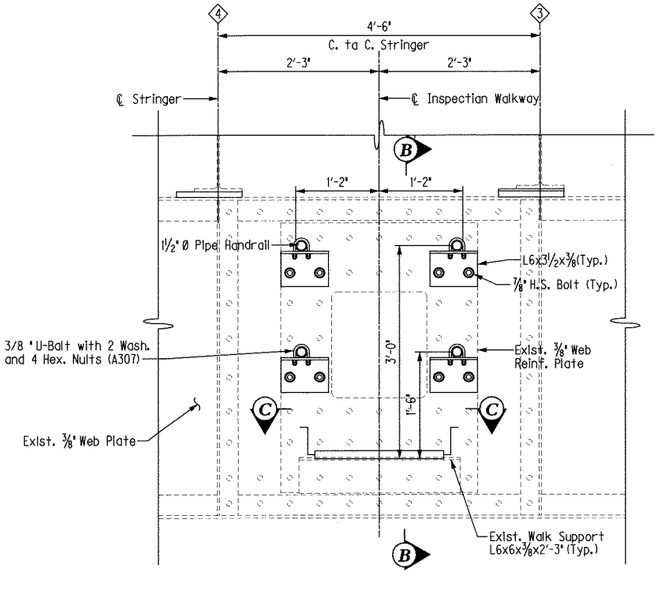


INSPECTION WALKWAY ELEVATION
Typical Panel

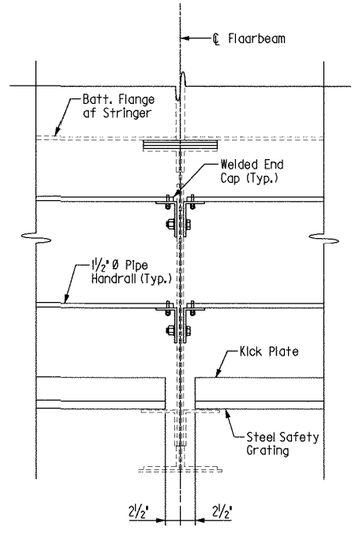


TYPICAL INSPECTION WALKWAY SECTION

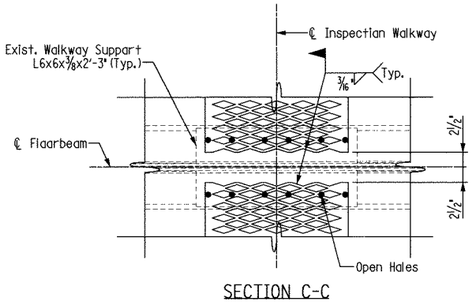
- Dimensions shown are taken from as built shop drawings and should be varified in field before fabrication.



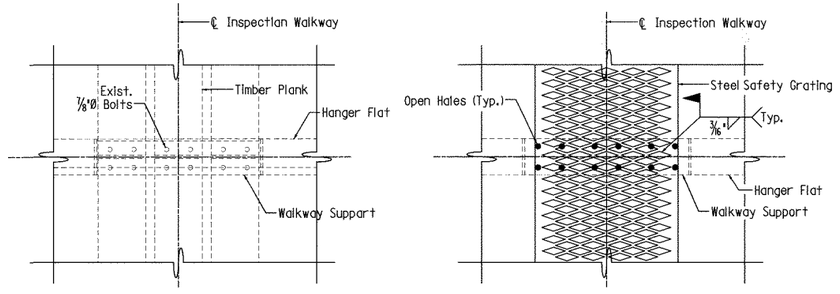
SECTION A-A



SECTION B-B



SECTION C-C



TYPICAL INSPECTION WALKWAY SUPPORT DETAILS

RETROFIT (17) - INSPECTION WALKWAY REHABILITATION

This item of work shall consist of replacing the existing timber walkway deck with a new steel safety grating and installing a new inspection handrail throughout the suspended spans.

The steel safety grating shall be 12 ga. steel Grip Strut 10-Diamand Walkway - 24" Width (GS Metals Corp. Catalog 104512-U) ar appraved equivalent.

Handrail shall be 1½" Ø galvanized steel pipe in accordance with ASTM A53.

The top surface of walk support angles including the inside surface af apen hales shall be cleaned and painted with one coat of gray modified epoxy mastic before installing the steel saftey grating.

Welds shall be ⅜" fillet welds. Welds can be made in the shap ar field unless nated and shall be indicated an the shap drawings.

The unit price bid far this item shall be full campensatian far all materials, labar, equipment, tools, and incidental necessary to complete the work.

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE: US 62
CROSSING: OHIO RIVER

INSPECTION WALK DETAILS

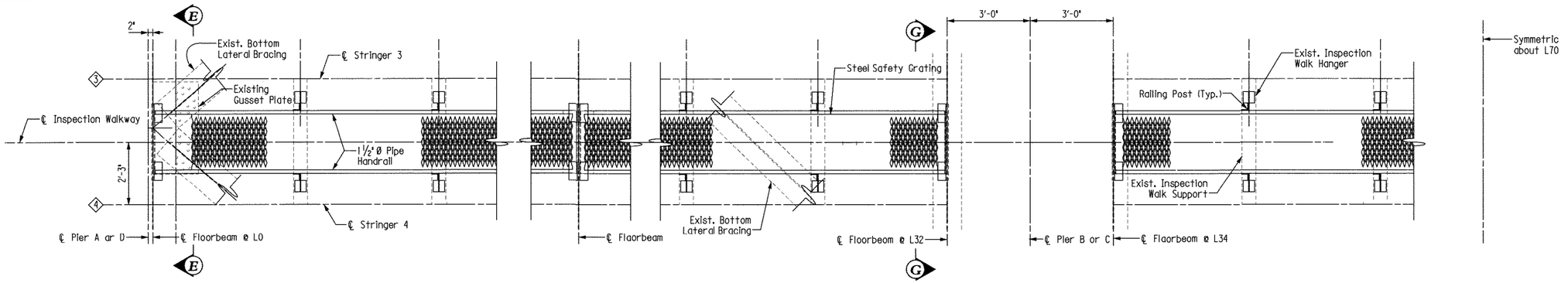
RETROFIT (17)

ITEM NUMBER
9-108

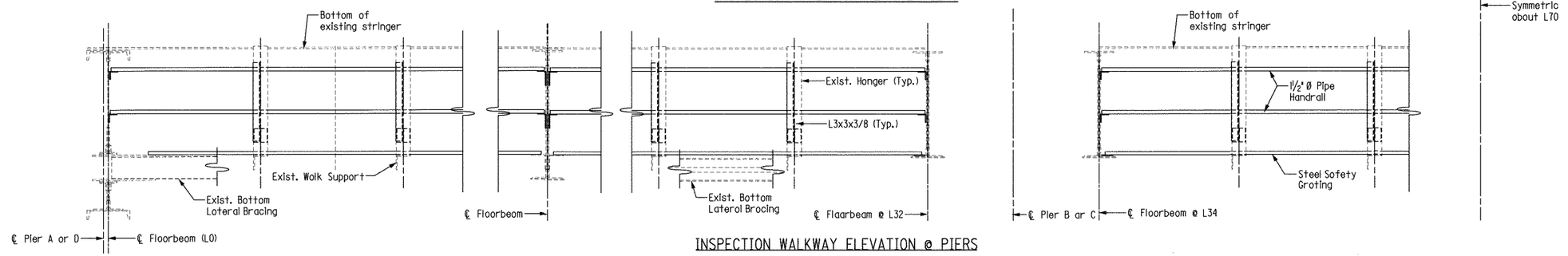
PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 051
DRAWING NO. 25348

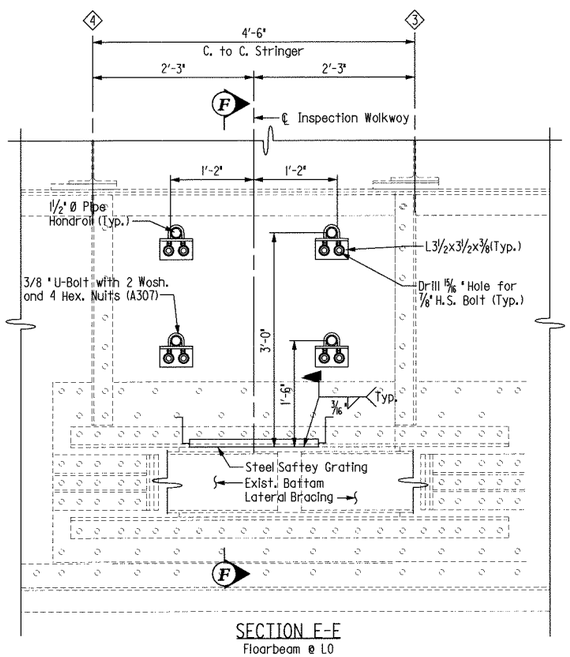
DATE:
USERNAME:
FILE NAME: *Insp_walkt.dgn*
SHEET LOCATION: *I:\31046-028\DGN*



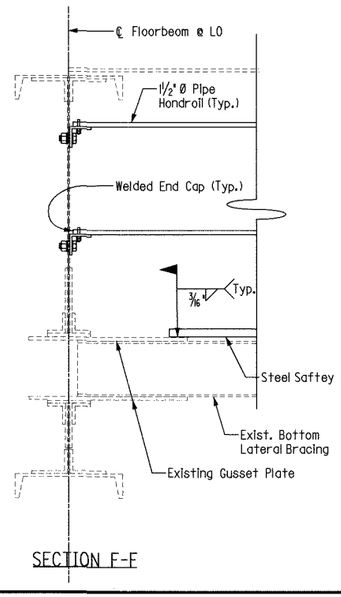
INSPECTION WALKWAY PLAN @ PIERS



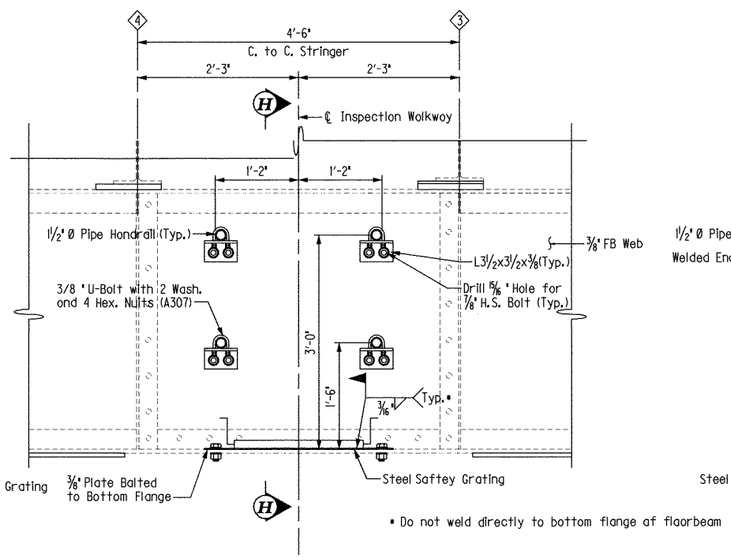
INSPECTION WALKWAY ELEVATION @ PIERS



SECTION E-E
Floorbeam @ L0

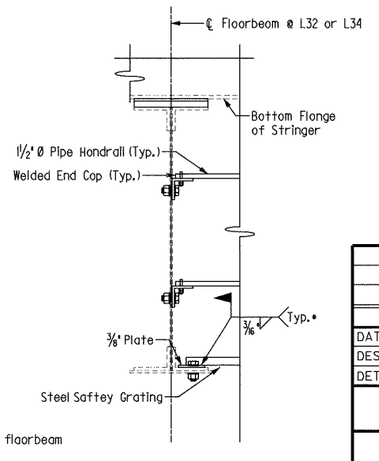


SECTION F-F



SECTION G-G
Floorbeam @ L32 & L34

* Do not weld directly to bottom flange of floorbeam



SECTION H-H

REVISION	DATE
DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE
US 62

CROSSING
OHIO RIVER

INSPECTION WALK DETAILS

RETROFIT (17)

ITEM NUMBER
9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 052

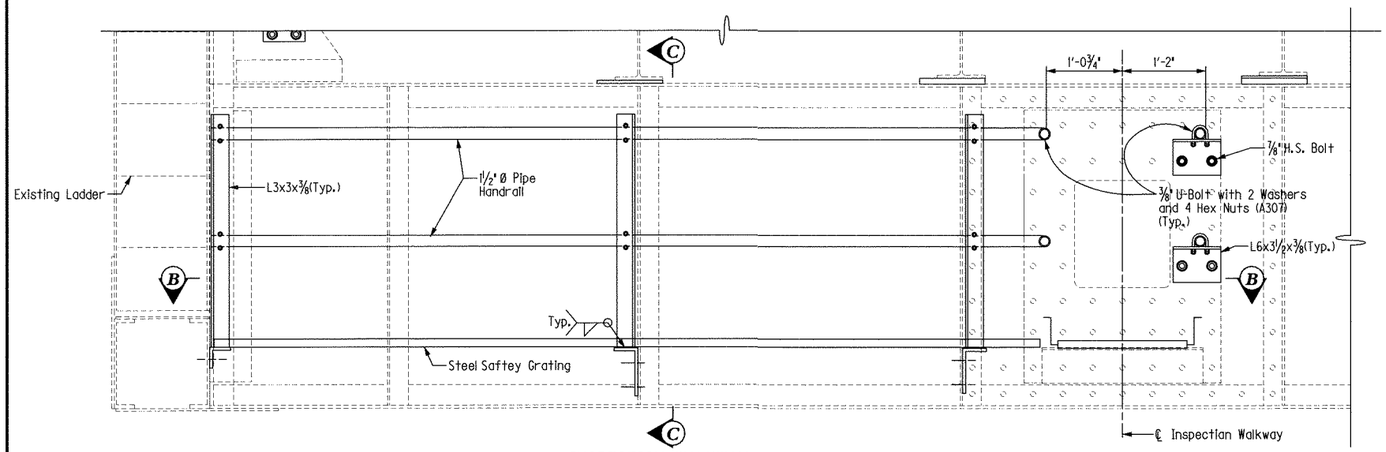
DRAWING NO. 25348

DATE:

USERNAME:

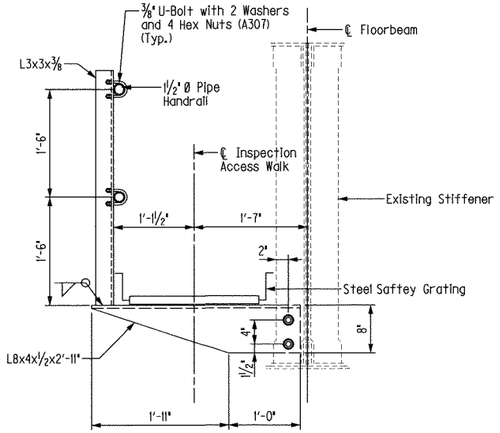
FILE NAME: *insp_walk2.dgn*

SHEET LOCATION: *I:\31046-028\DGN*

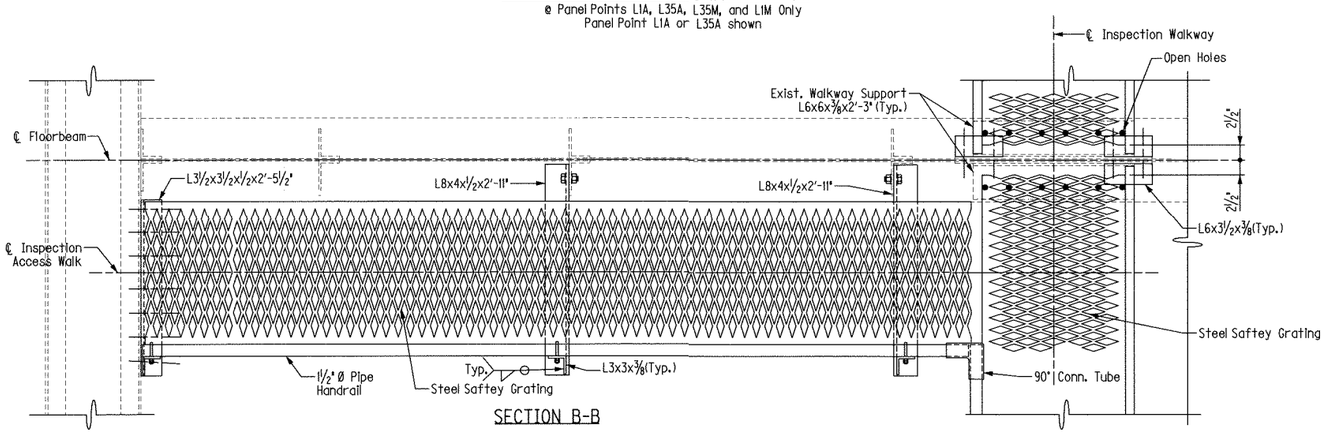


INSPECTION WALKWAY ACCESS PANEL

@ Panel Points L1A, L35A, L35M, and L1M Only
Panel Point L1A or L35A shown



SECTION C-C



SECTION B-B

DATE:

USERNAME:

FILE NAME: *insp_walk3.dgn*

SHEET LOCATION: *I:\31046-028\DGN*

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
MASON

ROUTE	CROSSING
US 62	OHIO RIVER

RETROFIT (17)

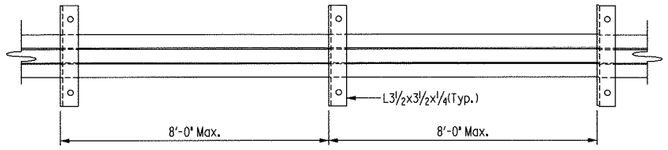
INSPECTION WALK DETAILS

ITEM NUMBER
9-108

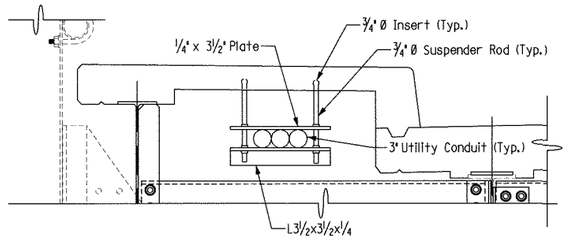
PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 053

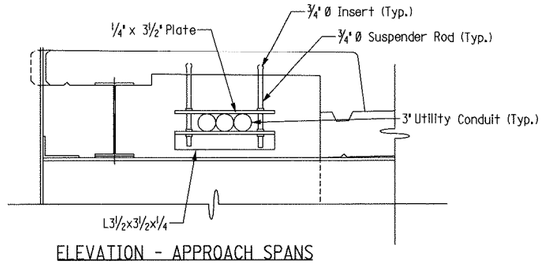
DRAWING NO. 25348



TYPICAL SUSPENDER SPACING



ELEVATION - MAIN SPANS



ELEVATION - APPROACH SPANS

RETROFIT ⑱ - HANGER SUPPORT ASSEMBLY

RETROFIT ⑲ - KNOWN LOOSE AND MISSING RIVET TABLE		
LOCATION	NUMBER OF RIVETS	DESCRIPTION
Span M4	4	Missing - Bottom Flange of Upstream Girder near Pier M3
Span M3	4	Missing - Bottom Flange of Upstream Girder near Pier M3
Span M3	2	Missing - Bottom Flange of Upstream Girder near Pier M2
L7M	1	Missing- Stringer 1 Bearing East Side
L23A	1	Missing - Stringer 5 Bearing West Side
L19A	1	Loose - Floorbeam Web near Bottom Flange
South Tower	1	Loose - Upstream side of Upstream Saddle
N/A	16	For use at Engineers discretion

RETROFIT ⑱ - UTILITY CONDUIT & HANGER SUPPORTS

This item of work shall consist of placing new hanger support assemblies and utility conduit throughout the suspended and approach spans.

The support assemblies will be supported from the bottom of the reinforced concrete sidewalk. Inserts shall be placed as part of the concrete pours for the bridge deck.sidewalk.

The unit price bid for this item shall be full compensation for all materials, labor, equipment, tools, and incidental necessary to complete the work.

RETROFIT ⑲ - REPLACE LOOSE, MISSING OR DETERIORATED RIVETS

This item of work shall consist of replacing all loose or missing rivets as determined by the Engineer with ASTM A325 H.S. bolts throughout the suspended and approach spans.

The table on this sheet shows the location of known loose & missing rivets based on the September 2001 inspection. An additional 16 rivets has been included in the quantities for use by the Engineer. The Contractor shall replace any rivets or bolts at the Engineer's discretion. Payment for work will be based on the actual number of bolts or rivets replaced. The size of new bolts shall be 1/16" less in diameter than the final reamed holes. Rivets replaced under Retrofit 5 shall not be included in this item.

The unit price bid for this item shall be full compensation for all materials, labor, equipment, tools, and incidental necessary to complete the work.

RETROFIT ⑳ - TOWER DOOR REPAIR

This item of work shall consist of replacing the existing door hinges and fasteners on the towers doors at Piers B, C and replace missing tower doors.

The existing hinges and fasteners shall be replaced with similar connections. Any missing doors shall be replaced with new doors similar to the existing doors.

Any debris inside the access hatches shall also be cleaned out. Damaged or missing bird screens shall be replaced.

Weather tough, high security, padlocks No. 6121 by Master Lock Company or approved equivalent shall be furnished at each tower door. Each padlock shall be furnished with four (4) keys and given to the Engineer. Each padlock furnished on the bridge shall be keyed alike.

The unit price bid for this item shall be full compensation for all materials, labor, equipment, tools, and incidental necessary to complete the work.

REVISION	DATE

DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: K. Thompson	T.J. Fu
DETAILED BY: K. Thompson	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: MASON

ROUTE: US 62

CROSSING: OHIO RIVER

RETROFIT ⑱
RETROFIT ⑲
RETROFIT ⑳

MISCELLANEOUS RETROFIT DETAILS

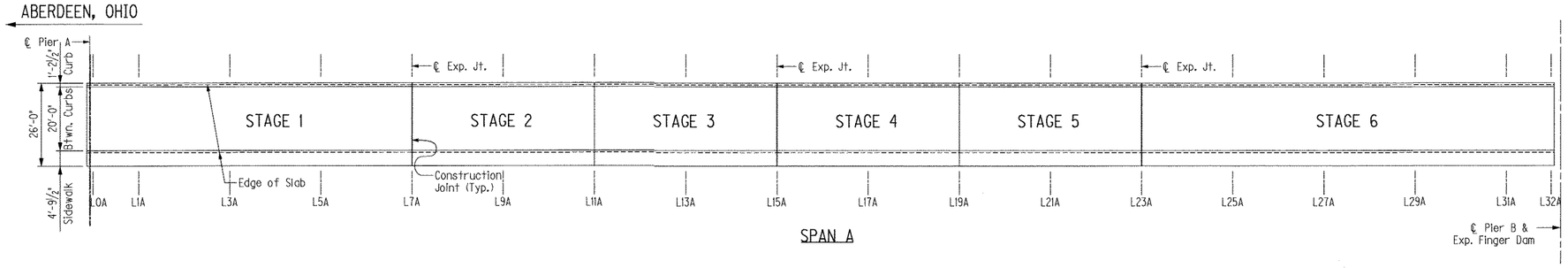
ITEM NUMBER: 9-108

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

SHEET NO. 054

DRAWING NO. 25348

DATE:
USERNAME:
FILE NAME: Misc_Repair.dgn
SHEET LOCATION: I:\37046-028\DGN\



SPAN A

CONSTRUCTION STAGING

Deck removals and pours in the main spans are to be made in stages as designated on this sheet. To prevent unsafe stresses and deflections in the structure, each stage must be completed before the next one commences. Each stage must consist of a minimum of removing all existing concrete and placing all proposed concrete, including the curb and sidewalk. A removal allowance of 2 feet is allowed into an adjacent stage for rebar lap lengths. Construction stages may be performed in any order, provided that any two adjacent stages between expansion joints are made in consecutive order.

Construction live load must be limited to one (1) AASHTO Type 3 vehicle shown on this page and an allowable construction live load of 10 psf placed anywhere on the roadway surface. This maximum loading must be adhered to during all construction stages.

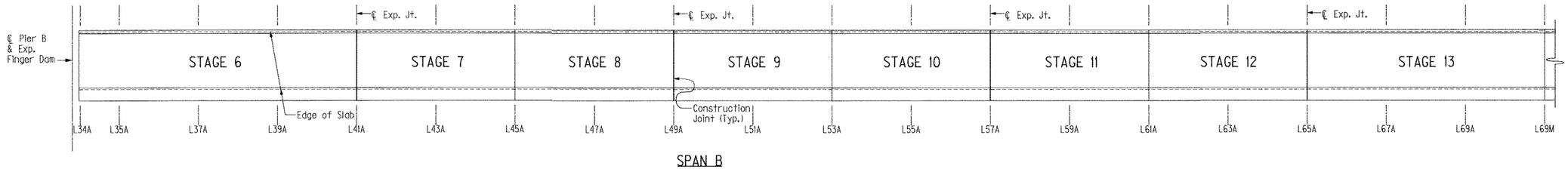
If the Contractor proposes to use an alternate construction sequence, approval must be obtained by the Engineer. The Contractor must submit 3 copies of the proposed construction sequence for approval. The copies shall be stamped by a professional engineer in the State of Kentucky and include the following:

1) Maximum stress levels in the stiffening truss members due to construction operations including:
   - Deck Removal
   - Equipment Live Load
   - Wind Load
   - New Deck Placement

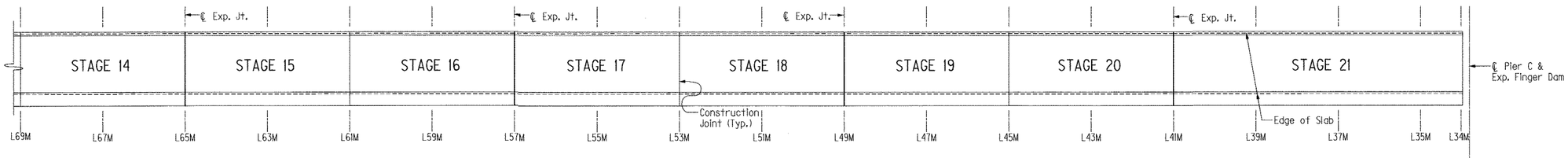
2) The maximum deflections anticipated due to construction operations.

3) A statement that no operation would result in the loss of tension in any suspender cable.

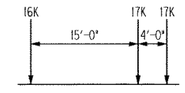
For the approach spans, see the note on Sheet 36.



SPAN B

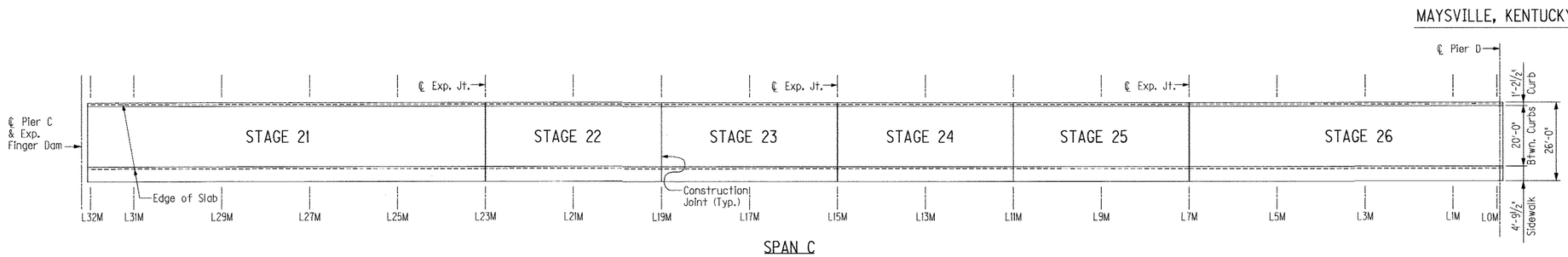


SPAN B



AASHTO TYPE 3 VEHICLE
Unit Weight = 50 Kips (K)
(Indicated Concentrations are axle loads)

MAYSVILLE, KENTUCKY



SPAN C

REVISION	DATE
1 Addendum No.1: Construction Staging Revision	11-05-02
DATE: Sep. 26, 2002	CHECKED BY
DESIGNED BY: C. Jacob	M. Zwick
DETAILED BY: B. Clyde	C. Klusman

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **MASON**

ROUTE: **US 62** | CROSSING: **OHIO RIVER**

CONSTRUCTION STAGING

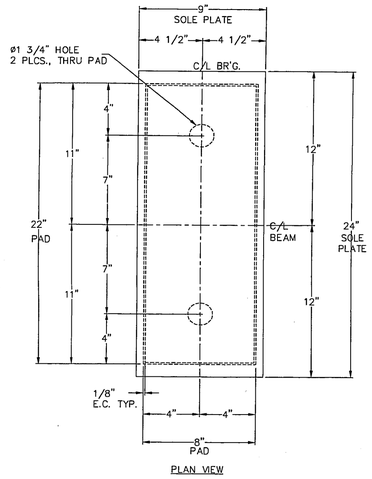
ITEM NUMBER: **9-108**

PREPARED BY
URS Corporation
Waterfront Plaza Tower One
325 West Main Street, Suite 1200
Louisville, Kentucky 40202-4251

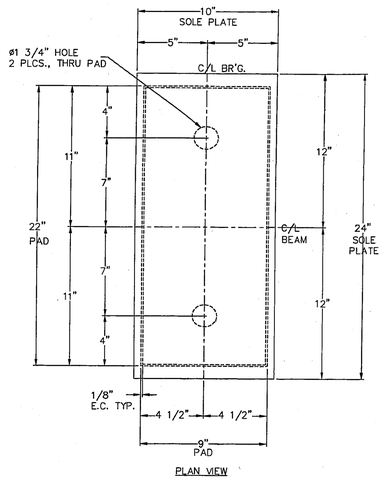
SHEET NO. 055

DRAWING NO. 25348

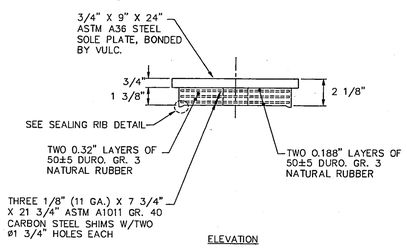
DATE:
USERNAME:
FILE NAME: Construction_Staging_1.dgn
SHEET LOCATION: I:\37046-0281\DGN\



PLAN VIEW



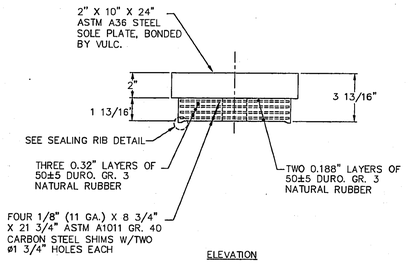
PLAN VIEW



ELEVATION

MK. 01, 20 REQUIRED

4 EACH AT PIERS A1, A3, A5, M1 & M3



ELEVATION

MK. 02, 4 REQUIRED

2 EACH AT PIERS A & D

SEALING RIB DETAIL
TYP. ALL AROUND BOTTOM OF PADS

NOTES:

1. BEARINGS TO BE MANUFACTURED IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.
2. ELASTOMER IS 50 ± 5 DURO. NATURAL RUBBER, GR. 3. INTERNAL SHIMS ARE ASTM A1011 GR. 40. EXTERNAL PLATES ARE ASTM A36 STEEL WITH ONE COAT SHERWIN WMS. ORGANIC ZINC PRIMER, COROTHANE I, GALVAPAC ONE PACK ZINC PRIMER, B65G11, COLOR GRAY. CARE SHOULD BE TAKEN TO AVOID GOUGES, SCRATCHES OR DENTS. NO SHOP MARKINGS OR IDENTIFICATION IS ALLOWED ON THE PLATES. (1)
3. TOLERANCES:

DESIGN THICKNESS	−0, +1/4"
HORIZONTAL DIM.	−0, +1/4"
THICKNESS OF INDIVIDUAL LAYERS AT ANY POINT WITHIN THE BEARINGS	±20% OF DESIGN VALUE BUT NO MORE THAN ±1/8"
PARALLELISM WITH OPPOSITE FACE	
TOP & BOTTOM	±0.005 RADIANS
SIDES	±0.02 RADIANS
SIZE AND POSITION OF EXPOSED CONNECTION MEMBERS, HOLES, SLOTS OR INSERTS	±1/8"
EDGE COVER	−0, +1/8"
THICKNESS OF TOP & BTM LAYER	−0, THE SMALLER OF 1/16" AND 20% OF THE NOMINAL COVER LAYER THICKNESS
CORNERS OF TOP & BTM LOAD PLATES PLAN DIMENSIONS	1/8"

4. MF'G. IDENTITY AND DATE OF MF'G. TO BE PERMANENTLY MARKED ON EACH PAD AND LOT NUMBER TO BE WRITTEN ON EACH PAD.
5. BEARING PADS WERE DESIGNED PER AASHTO ARTICLE 14.6.6 DIVISION I (METHOD A). BEARINGS TO BE LOAD TESTED TO REQUIREMENTS CORRESPONDING TO METHOD A DESIGN.
6. ONLY ITEMS SHOWN ON THIS DRAWING ARE TO BE PROVIDED BY S.E.P.

BR'G. MK.	01	02
SHAPE FACTOR	7.30	8.06
COMP. AREA IN. 2	163.75	185.50
SHEAR AREA IN. 2	171.19	193.19
EFFECTIVE RUBBER IN.	1.02	1.33
LENGTH TO HEIGHT RATIO	7.87	6.75
(1) LIVE LOAD W/O IMPACT, KIPS	67.8	70.2
(1) DEAD LOAD KIPS	57.6	77.4
(1) TOTAL LOAD KIPS	125.4	147.6

REV.	DESCRIPTION	DATE
1	REVISED PER URS CORP.	7/7/03

BRIDGE NO. 9-108
PROJECT NO. FD52 081062X003-004
COUNTY MASON
CONTRACT NO. STP-1 (21)

CONTRACTOR:

Seismic Energy Products, L.P.
STRUCTURAL BEARINGS FOR BRIDGES & BUILDINGS
ATHENS, TEXAS

COMMONWEALTH OF KENTUCKY
DEPT. OF HIGHWAYS

STRUCTURAL BEARING DETAILS FOR:

U.S. 62 OVER OHIO RIVER, REPAIR
RETROFIT 12

CAD FILE: 15022B_KY

CUSTOMER:
BOTTOMS ENGINEERING & SERVICE, INC.
955 CHENAULT RD.
FRANKFORT, KY. 40601

DRN. T.A.	6/19/03	P.O. NO.	S.O. NO.
CHKD.C.R.	6/20/03	0611TGT	15022B
Q.A. REVW'D.	REV. 1	DWG. NO. 0603116	SHT 1 OF 1