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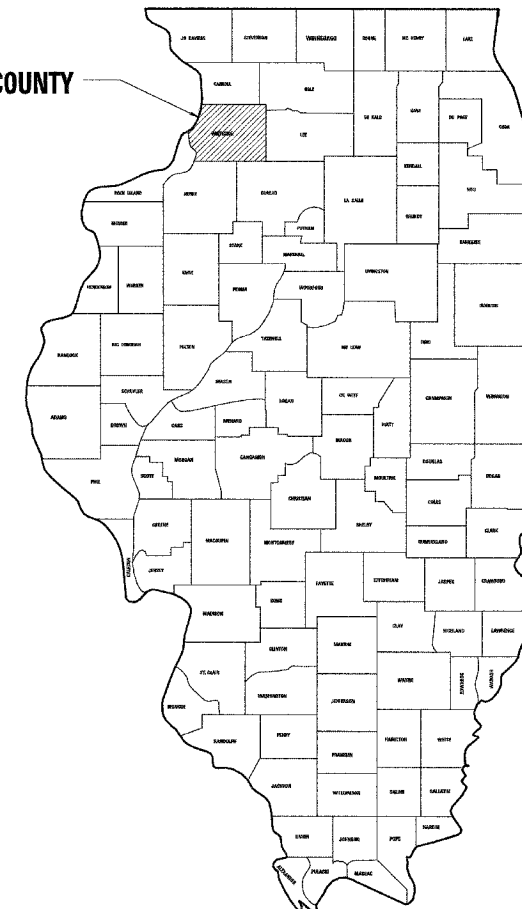
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STANDARDS

420701	PAVEMENT FABRIC
424001	CURB RAMPS FOR SIDEWALKS
515001	NAME PLATE FOR BRIDGES
664001	CHAIN LINK FENCE

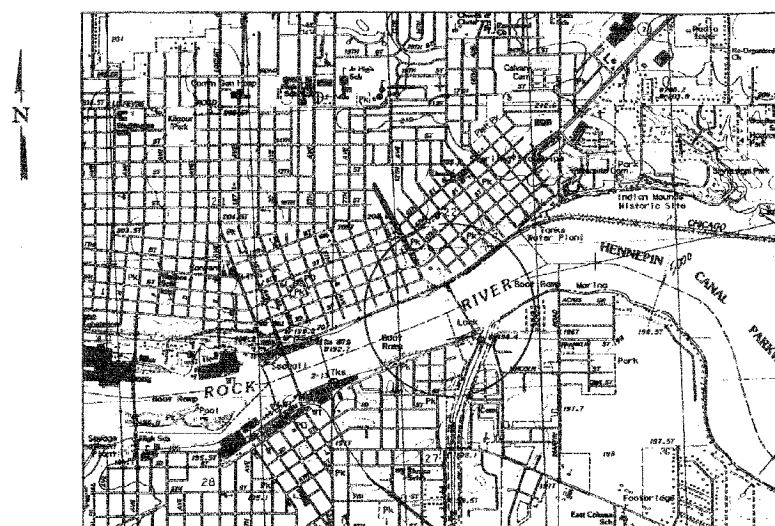
STATE OF ILLINOIS
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF WATER RESOURCES
PLANS FOR PROPOSED
PEDESTRIAN BRIDGE OVER SINNISSIPPI DAM
STERLING-ROCK FALLS, ILLINOIS
WHITESIDE COUNTY
2006
STEEL TRUSS BRIDGE
FEDERAL PROJECT NUMBER TE-00DC(45)
IDOT JOB NUMBER C-30-003-00
IDNR CONTRACT NUMBER FR-420

WHITESIDE COUNTY



REGIONAL MAP

R7E 4th PM



LOCATION MAP



Ted Montrey 3/22/06

ILLINOIS LICENSED STRUCTURAL ENGINEER NO. 081-005450
LICENSE EXPIRES 11/30/2006



Ted Montrey 3/22/06

ILLINOIS REGISTERED PROFESSIONAL ENGINEER NO. 062-049591
LICENSE EXPIRES 11/30/2007

SUBMITTED	<i>William J. Schuck</i>	DATE	3/22/06
APPROVED	<i>Greg R. Clark</i>	DATE	3/22/06

SUMMARY OF QUANTITIES			
CODE NO.	PAY ITEM	UNIT	QUANTITY
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	158
28000400	PERIMETER EROSION BARRIER	FOOT	184
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	146
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GAL	52
40600760	BITUMINOUS CONCRETE BINDER COURSE, MIXTURE B, CLASS I TYPE 2	TON	11
40600850	BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I TYPE 2	TON	11
*42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	11
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	51
50102400	CONCRETE REMOVAL	CU YD	0.5
50200500	COFFERDAMS	EACH	8
50300225	CONCRETE STRUCTURES	CU YD	11.1
50300310	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	8
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,250
51500100	NAME PLATES	EACH	1
58700200	BRIDGE SEAT SEALER	SQ FT	214
67100100	MOBILIZATION	L SUM	1
*Z0003900	BICYCLE RAILING	FOOT	181
*Z0032300	JACKING EXISTING SUPERSTRUCTURE	L SUM	1
*X0322508	PEDESTRIAN TRUSS SUPERSTRUCTURE	SQ FT	5,053
*X0323144	MODULAR SEGMENTAL BLOCK RETAINING WALL	SQ FT	1,070
*X0323146	COLLAPSIBLE VEHICLE STOP	EACH	1
*XX003949	CONSTRUCTION STAKING	L SUM	1
*	SEEDING, MULCHING AND FERTILIZING	ACRE	0.10
*	DAM SIGNAGE	L SUM	1
*	REMOVABLE ACCESS BRIDGE RAILING	FOOT	1,133
*	BRIDGE LIGHTING	L SUM	1

* SEE SPECIAL PROVISIONS

GENERAL NOTES

All elevations refer to N.A.V.D. (North American Vertical Datum) 1988.
The Contractor shall furnish, erect, and when directed by the Engineer, completely remove two construction signs (see Standard Sheet). The location of the signs shall be determined by the Engineer in the field.
All lateral drainage that exists prior to construction shall be restored as shown on the plans and as directed by the Engineer. Unless otherwise specified all costs of restoration shall be considered included in the Contract and no additional compensation will be allowed.
Prior to the beginning of work in the vicinity of utilities, the Contractor shall contact the respective owners as shown on the plans and schedule work so as not to interfere with required adjustments.
With the exception of those utilities designated on the plans to be adjusted by the Contractor, all existing utilities affected by the construction operations shall be adjusted by others. Utilities which do not require adjustments shall be protected and not disturbed. All cost of protection shall be incidental to the Contract, and no additional compensation will be allowed.
All construction operations shall be contained within the easement area or work limits as indicated on the plans. It shall be the full responsibility of the Contractor to secure all rights of ingress and egress to said Right - of - Way including the satisfactory protection and restoration of property as required in Art. 107.20 and 107.23 of the Standard Specifications.
The Contractor shall call J.U.L.I.E. (800-892-0123) for the location of existing utilities 48 hours prior to beginning construction.
Field welding of construction accessories will not be permitted to the bottom flange at floor beams or the bottom truss chords. Field welding in other areas will be permitted only when approved by the Engineer.
The main load carrying members subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the truss bottom chords and diagonals and the floor beam tension flanges and webs and all splice plate material except fill plates.
Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.
Plan dimensions and details relative to existing structures have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
Bridge Seat Sealer shall be applied to the seat area of the abutment and piers 8, 9, 10, & 11.
All timber members shall meet the requirements of Section 1007 of the Standard Specifications.

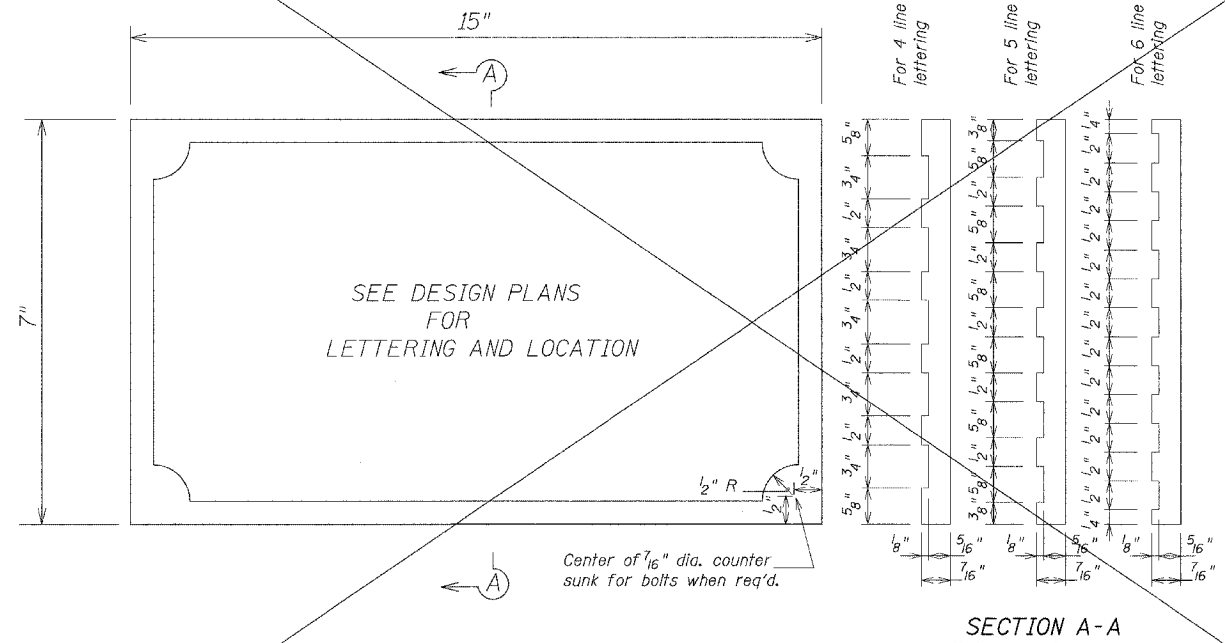
UTILITY REFERENCE TABLE

J.U.L.I.E.	Call 48 hours prior to construction	(800) 892-0123
Rockfalls Water Electric	Debbie Fecht 603 W. 10th Street Rockfalls IL. 61071	(815) 622-1106
Telephone Ameritech	Handled by J.U.L.I.E.	(800) 244-4444
TCI Cable	Handled by J.U.L.I.E.	(815) 344-3202
Nicor Gas	Handled by J.U.L.I.E.	(888) 642-6748

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STANDARD SYMBOLS

Center Line
Existing Right of Way	-----
Permanent Easement	Perm. Ease. Perm. Ease.
Temporary Easement	Temp. Ease. Temp. Ease.
Railroad Tracks	.....
Existing Culvert	.....
Culvert to be Constructed	.....
Guy Wire or Anchor	.....
Guy Pole	.....
Powerline Pole	.....
Telephone or Telegraph Pole	.....
Pipelines	.....
Gas	.....
Water	.....
Oil	.....
Storm Sewer	Storm Sewer Storm Sewer
Sanitary Sewer	San. Sewer San. Sewer
Electric Cable, U (Underground), A (Aerial)	E E E E E E E
Telephone Cable, U (Underground), A (Aerial)	T T T T T T T
Cable Television, U (Underground), A (Aerial)	TV TV TV TV TV TV TV
Catch Basin	○
Manhole	○
Inlet	□
Waterline Valve	.....
Fire Hydrant	.....
Vents	.....
Meter Boxes	.....
Traps, Grease etc.	.....
Cistern or Well	.....
Cesspool or Septic Tank	.....
Fountain	.....
Fenceline	x x x x x x x
Direction of Flow	.....
Bridge	.....
Tree	.....
Electrical Appurtenance	.....
Light Pole	.....



DETAIL OF NAME PLATE

Material - Best quality brass or bronze.

Bordering and Lettering - Raised 1/8", square cut and not tapered. Top surface polished.

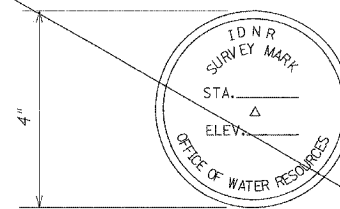
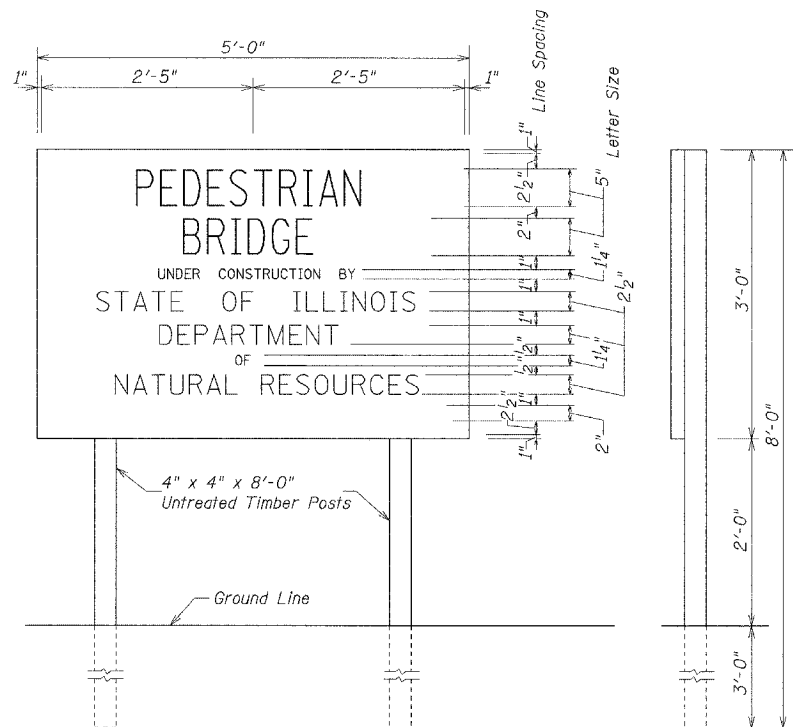
Fastenings - For concrete rails and culvert headwalls: 4 lugs at least 3" long cast on back of plate.
For steel rails: plate to be bolted on with 4 - 3/8" dia. brass or bronze hex head bolts.

GENERAL NOTES

Signs shall be made of 1" lumber rigidly cleated, or of metal (18 ga.). The Contractor shall furnish all material and labor for constructing and erecting the signs. The signs shall be placed prior to the starting of actual construction operations at each end of the construction section or as directed by the Engineer. Before any sign is erected, it shall be approved by the Engineer as to its appearance and quality of construction. The signs shall remain in place and shall be maintained in satisfactory condition until the project is accepted by the department. The Contractor shall then remove the signs and the material will become his property.

The letters on the sign shall be black mechanical style on a white background and appropriate border lines. The signs shall be painted by a professional painter, and the size of the letters shall be as shown on these Plans.

No extra compensation will be allowed the Contractor for these signs and the cost shall be considered incidental to the contract.



Bench Mark to be furnished by the Office of Water Resources.

See Design Plans for location.

Cost of placing shall be considered incidental to the Contract.

NOTE TO CONTRACTOR

The Standards for the Construction Sign, Name Plate and Bench Mark shown on this sheet shall be used only when called for on the Plans.

DETAIL OF BENCH MARK

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Drawn By JUF Checked By TMM

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B.M. #1: Chiseled square in corner of sea wall.
Elev. 633.74 (NAVD 88)

B.M. #2: Chiseled square in top of northernmost pier.
Elev. 641.35 (NAVD 88)

CURVE DATA

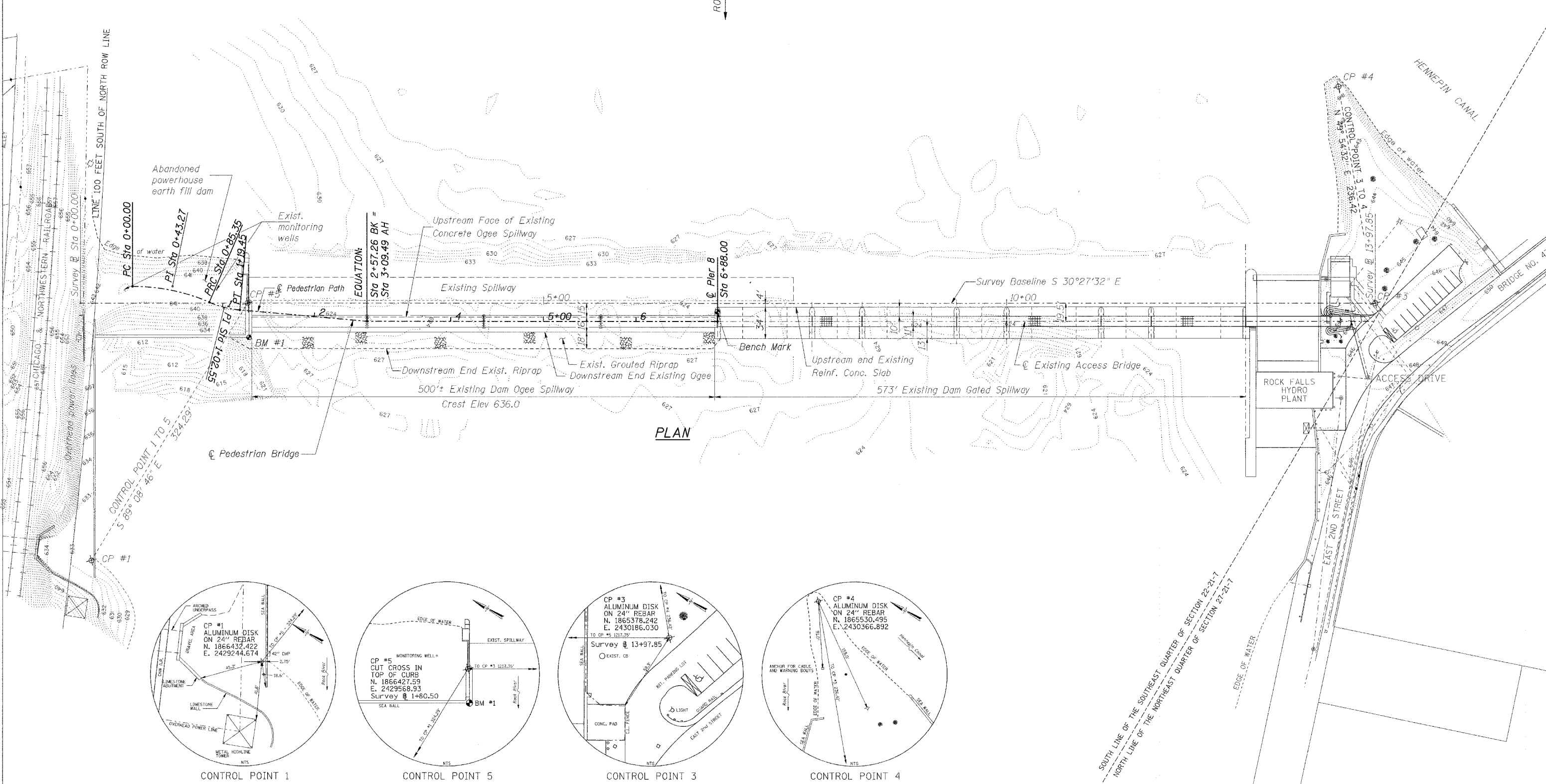
P.I. # 1
PI STA. = 0+43.27
 $\Delta = 23^\circ 17' 08''$ (RT)
D = 27° 17' 02"
R = 210.00'
T = 43.27'
L = 85.35'
E = 4.41'
P.C. STA = 0+00.00
P.R.C. STA = 0+85.35

CURVE DATA

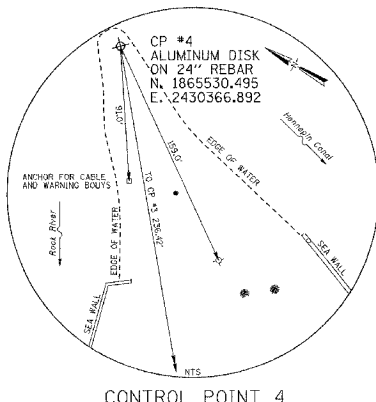
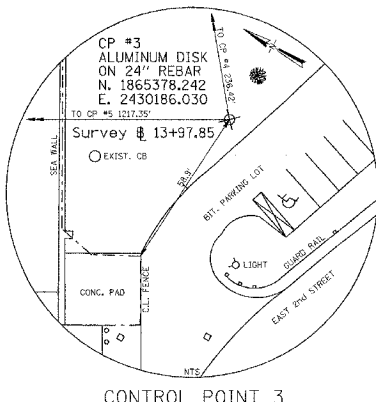
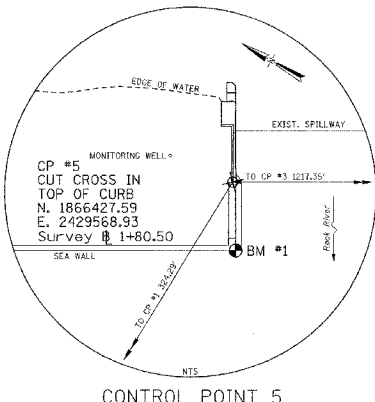
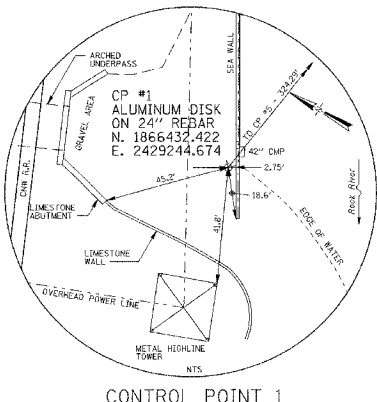
P.I. # 2
PI STA. = 1+02.55
 $\Delta = 18^\circ 14' 08''$ (LT)
D = 53° 27' 45"
R = 107.17'
T = 17.20'
L = 34.11'
E = 1.37'
P.R.C. STA = 0+85.35
P.T. STA = 1+19.45

CURVE DATA

RIGHT ANGLE OFFSETS FROM SURVEY BASELINE TO PEDESTRIAN PATH CENTERLINE					
SURVEY @ STATION	0+56.27	0+99.54	1+55.08	3+09.49	6+88.00
PEDESTRIAN PATH STATION	0+00.00	0+43.27	1+02.55	2+57.26	6+88.00
OFFSETS	18.05' Lt	18.05' Lt	5.85' Rt	19.50' Rt	19.50' Rt



PLAN



SOUTH LINE OF THE SOUTHEAST QUARTER OF SECTION 22-21-7
NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 27-21-7

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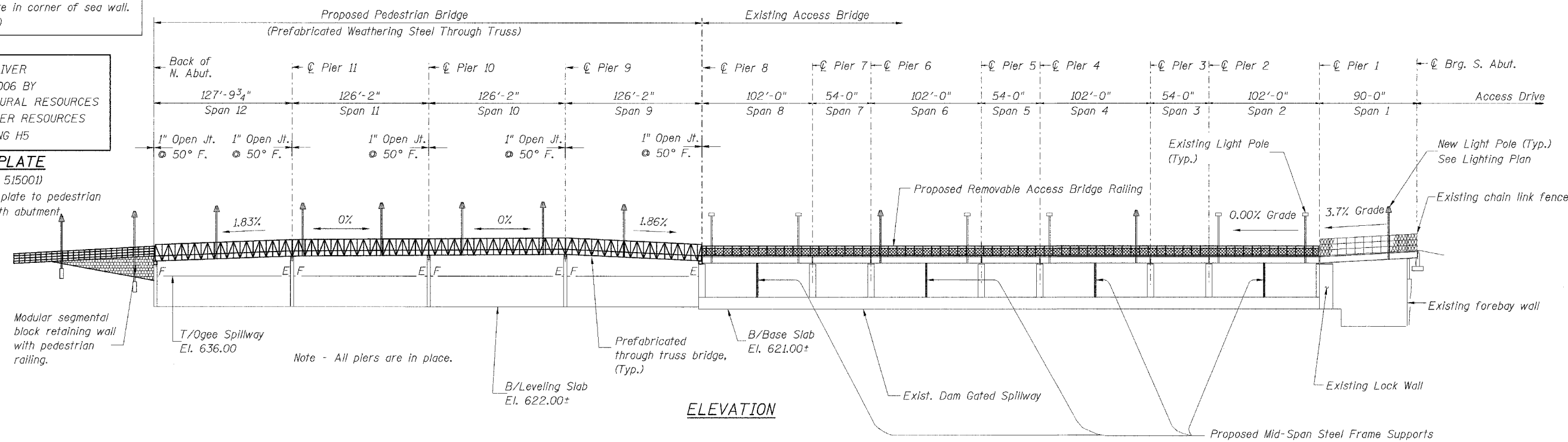
B.M. #1: Chiseled square in corner of sea wall.
Elev. 633.74 (NAVD 88)

ROCK RIVER
BUILT 2006 BY
IL. DEPT. OF NATURAL RESOURCES
OFFICE OF WATER RESOURCES
LOADING H5

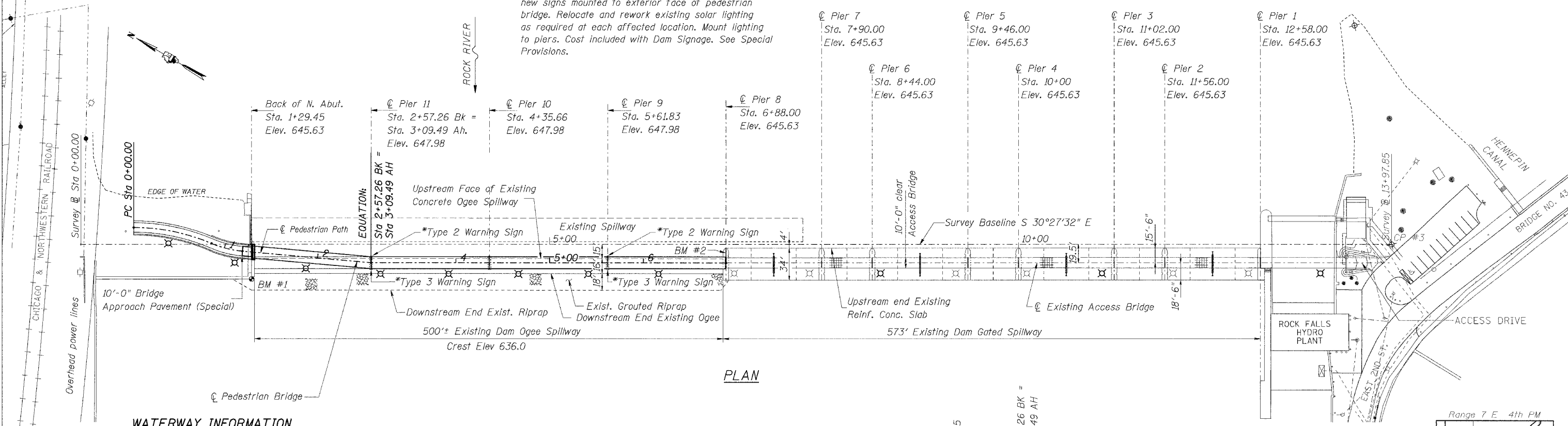
NAME PLATE

(See Std. 515001)

Note: Attach name plate to pedestrian railing at north abutment



* Remove existing dam warning signs and install new signs mounted to exterior face of pedestrian bridge. Relocate and rework existing solar lighting as required at each affected location. Mount lighting to piers. Cost included with Dam Signage. See Special Provisions.



WATERWAY INFORMATION

Drainage Area = 8740 sq. mil. Low Grade Elev. = 627.0 @Sta. = 10+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Created Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	42,000	6635	6369	0	0.11	636.85	636.96
Base	30	51,000	7380	7088	0	0.15	637.80	637.95
Overtopping	100	60,800	8568	8247	0	0.15	638.88	639.03
Max. Calc.	500	72,200	9767	9417	0	0.16	639.97	640.13

DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (M270, Grade 50W) Superstructure

LOADING

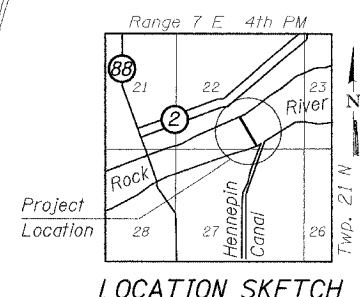
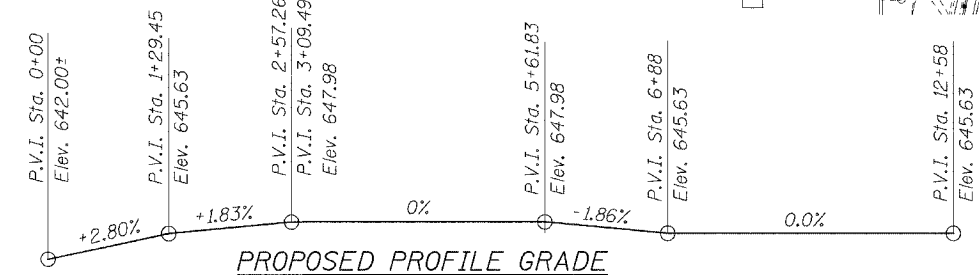
Pedestrian Live Load = 85 psf
Vehicle Live Load: H5 (10,000 lb. Truck) Ped. Bridge
Vehicle Live Load: H15 (30,000 lb. Truck) Access Bridge

DESIGN SPECIFICATIONS

2002 AASHTO Load Factor Design and Guide Specifications for design of Pedestrian Bridges Published by AASHTO, August 1997

SEISMIC DATA

SPC = A
A = 0.05g
Site Coefficient (S) = 1.0

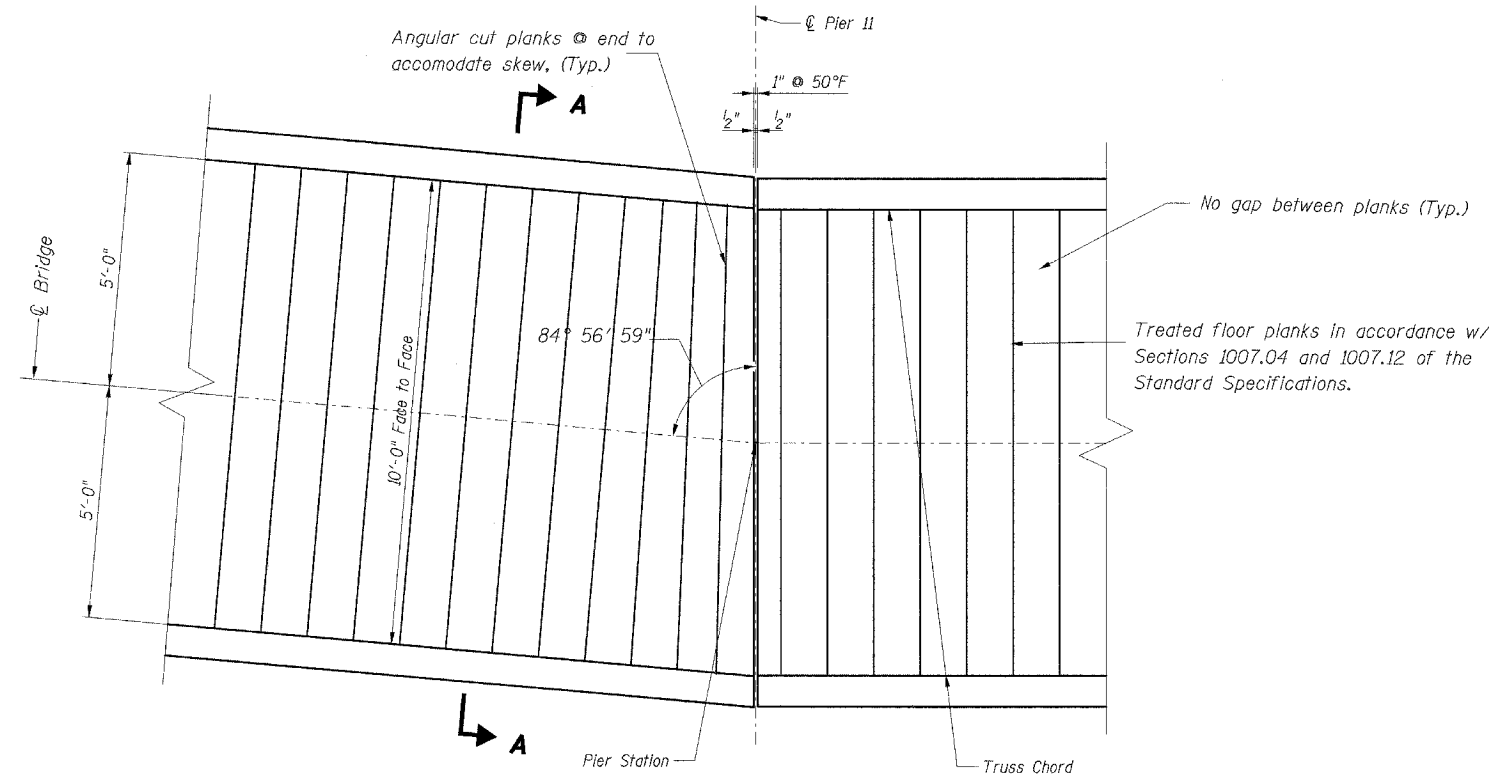
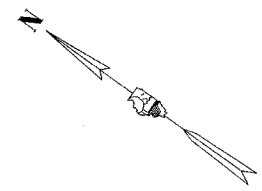


ISSUED	REVISION LETTER	DATE

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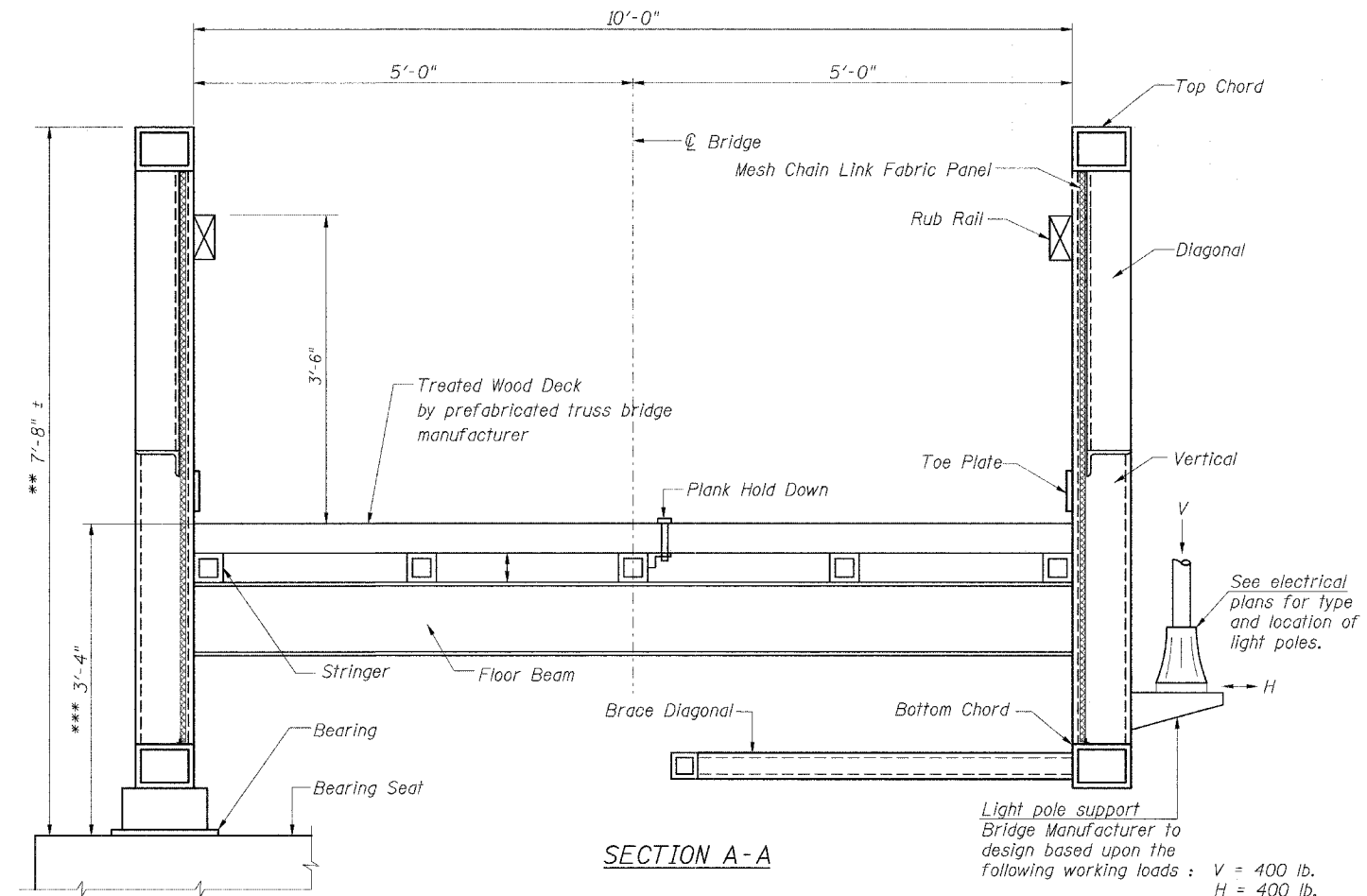
PARTIAL DECK PLAN

Substructure elements were designed and prepared in accordance with AASHTO Standard Specifications For Highway Bridges together with the latest interim specifications. The bridge supporting substructure units have been designed for the following loads and load combinations presented below:

BRIDGE REACTIONS	+ Downward Load - Upward Load		
	P (Lbs)	H (Lbs)	L (Lbs)
Dead Load	18,000		
Uniform Live Load	27,165		
Vehicle Load	5,000		
Wind Uplift 20 PSF	-10,870		
Wind	+6,170	17,160	
Seismic	N/A	N/A	N/A
Thermal			2,700

"P" - vertical load each base plate (4 per bridge)
 "H" - horizontal load each footing (2 per bridge)
 "L" - longitudinal load at each base plate (4 per bridge)

Any dimensional design or quantity modifications to the bridge due to a variation of these loading conditions shall be the responsibility of the contractor. Necessary details and design computations for design revisions shall be submitted (in accordance with Article 105.4 of the Standard Specifications) to the Engineer for approval with the bridge shop drawings prior to initiating construction.



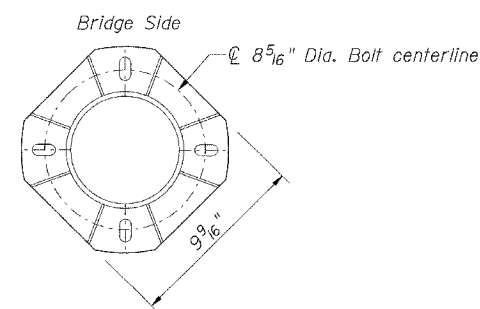
SECTION A-A

** Superstructure wind loads derived from this dimension. See Note 1.

*** Dimension shall be verified by the Contractor prior to ordering substructure concrete and reinforcement bars. Substructure quantities shall be adjusted accordingly.

Notes:

- Member sizes and types as shown are schematic and may differ from those provided by prefabricated truss bridge manufacturer.
- Bearings and anchor bolts shall be designed and furnished by the prefabricated truss bridge manufacturer.
- The chain link fabric shall be 9 gauge wire, 2" mesh and shall be in accordance with the requirements set forth on sheet 13, except that it shall be given a brown vinyl coating instead of being galvanized.



LIGHT POLE ANCHOR BOLT PATTERN

BILL OF MATERIAL

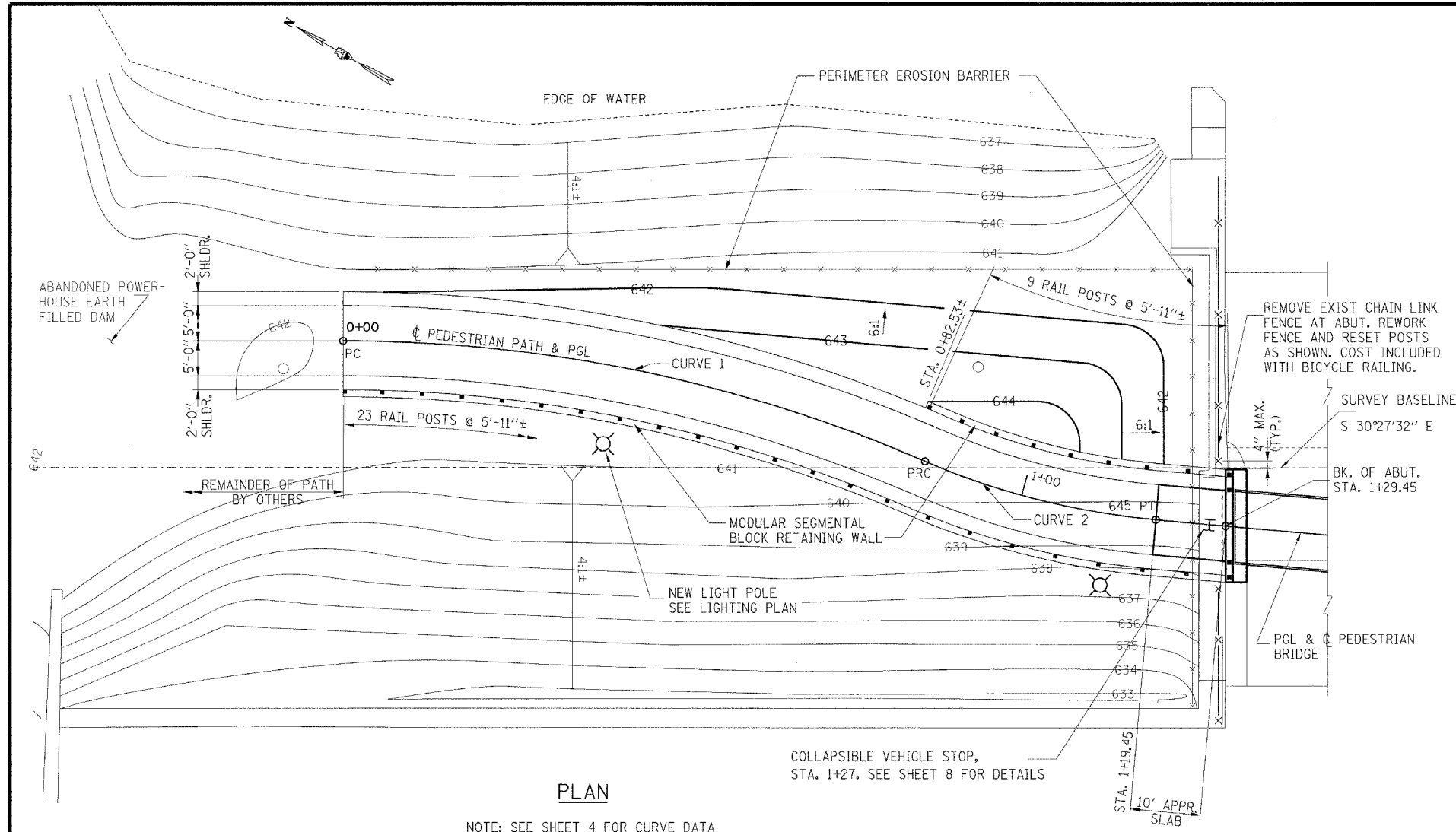
Item	Unit	Quantity
Pedestrian Truss Superstructure	Sq. Ft.	5,053

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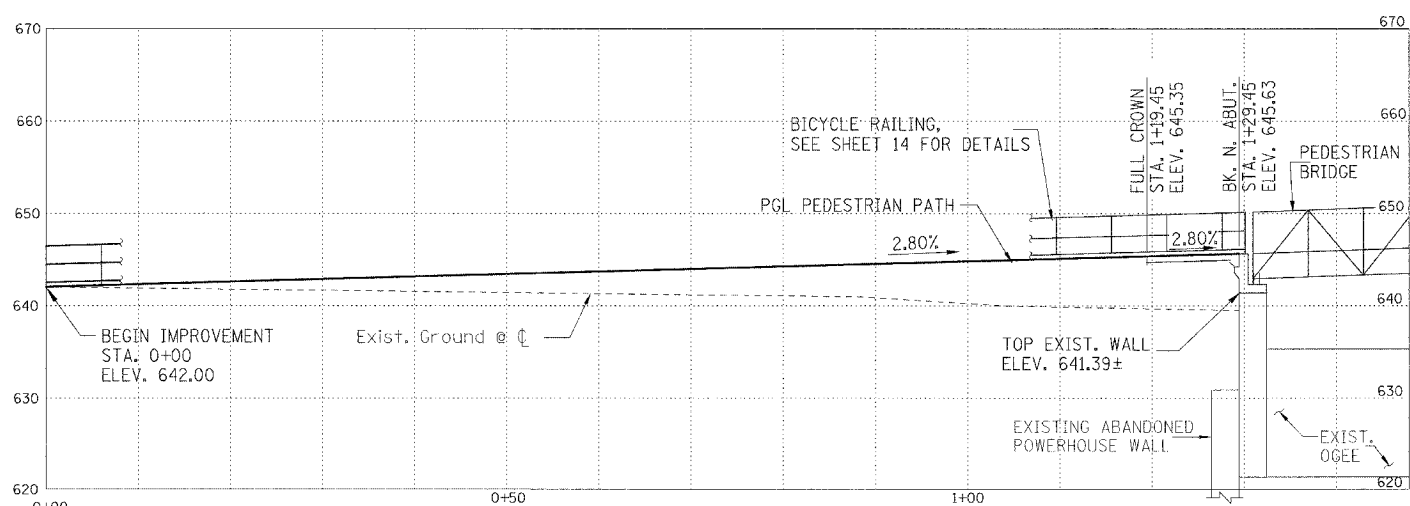
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Drawn By: JUF Checked By: TMM



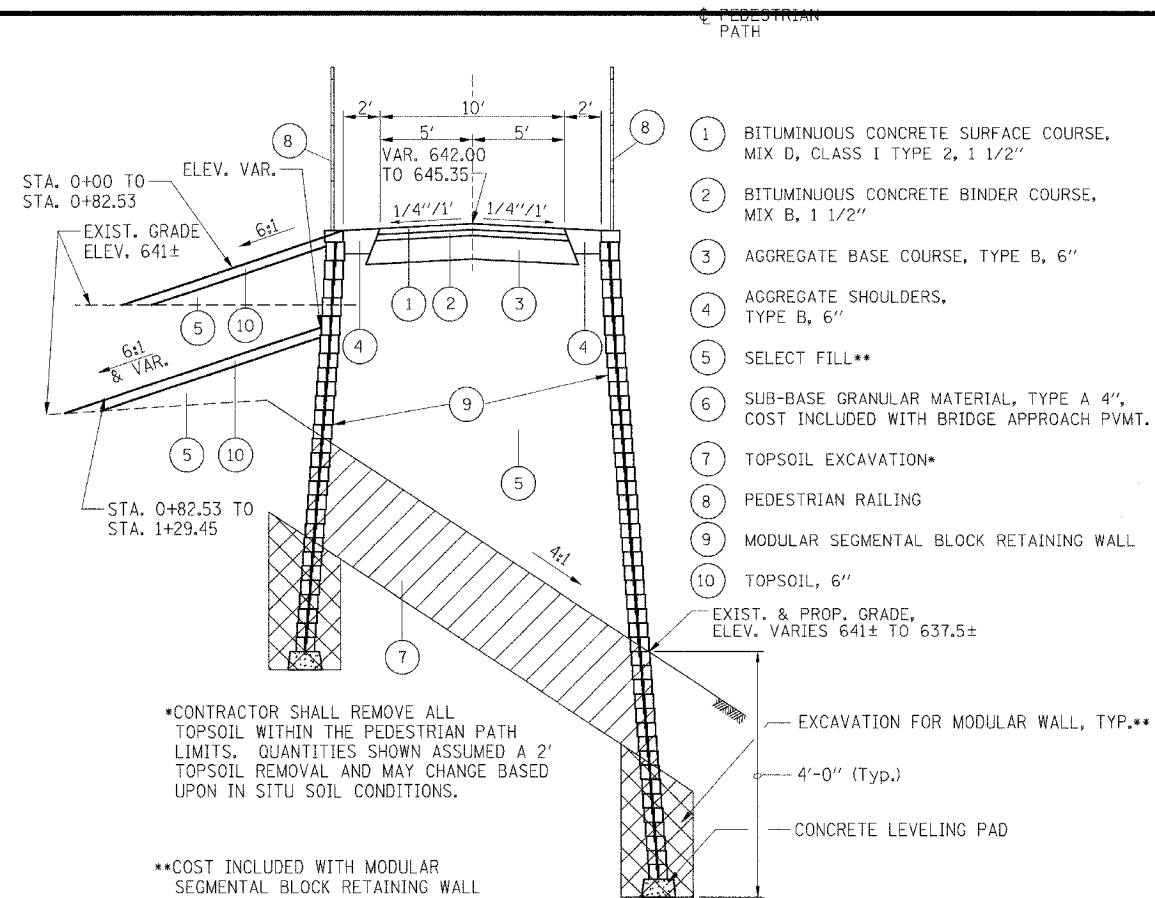
PLAN

NOTE; SEE SHEET 4 FOR CURVE DATA



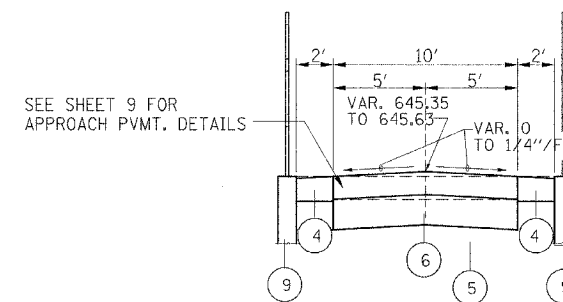
PEDESTRIAN PATH PROFILE

(Refer to sheet 8 for elevations of Left & Right walls)



TYPICAL SECTION - PEDESTRIAN PATH

NOTE:
WALL CONSTRUCTION, SOIL REINFORCEMENT, AND WALL DRAINAGE SYSTEM PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL SUBMIT WALL DESIGN FOR APPROVAL.

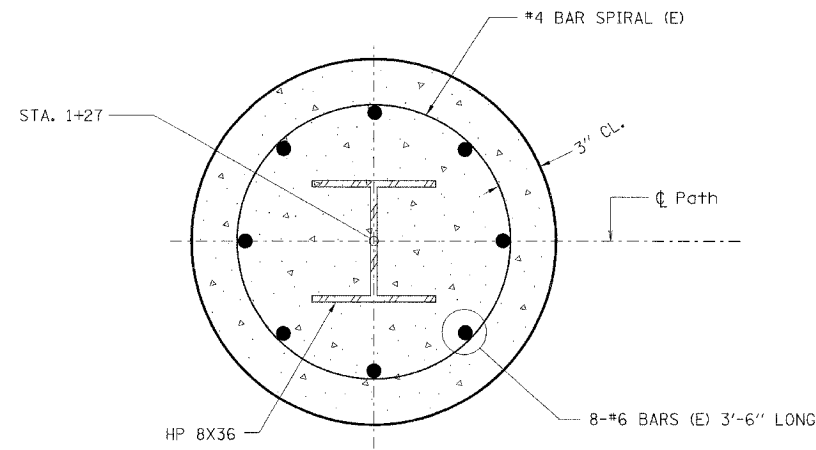


SECTION THRU APPROACH SLAB

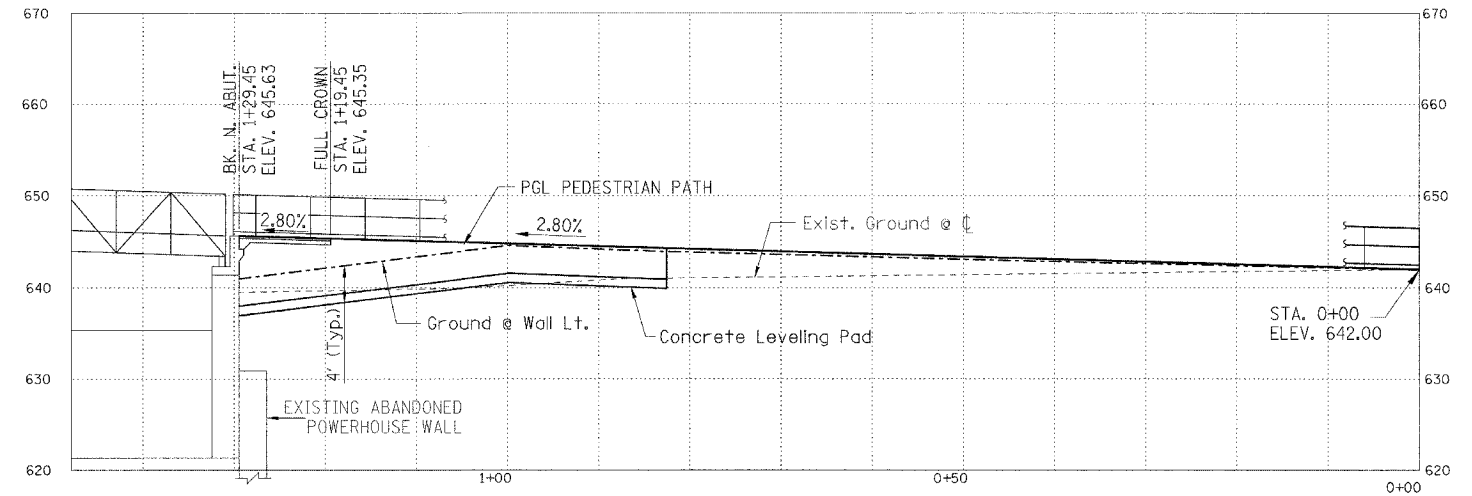
NOTE: TRANSITION APPROACH SLAB FROM FULL CROWN AT STA. 1+19.45 TO FLAT AT BK. OF ABUT.

BILL OF MATERIAL

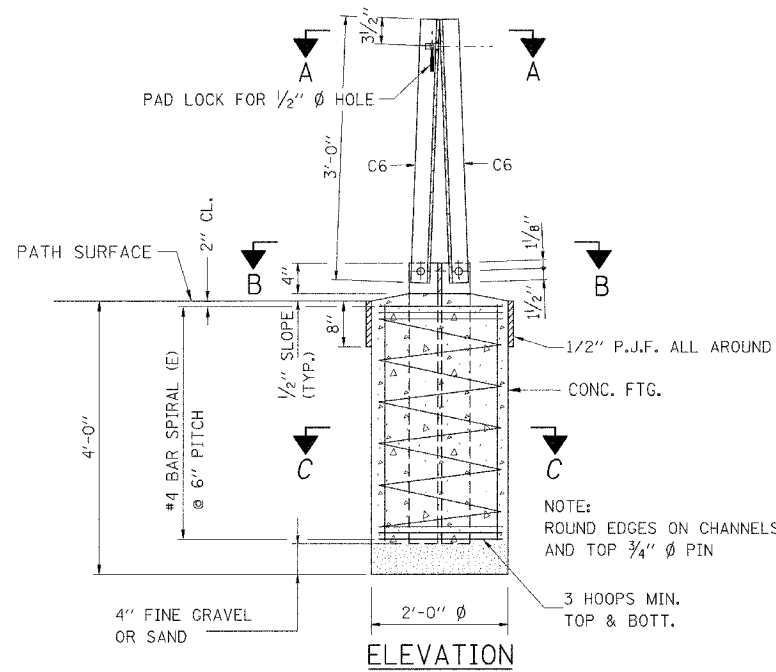
BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I TYPE 2	TON	11
BITUMINOUS CONCRETE BINDER COURSE, MIXTURE B, CLASS I TYPE 2	TON	11
BITUMINOUS MATERIALS (PRIME COAT)	GAL	52
AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	146
AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	51
BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	11
BICYCLE RAILING	FOOT	181
PERIMETER EROSION BARRIER	FOOT	184
COLLAPSIBLE VEHICLE STOP	EACH	1
MODULAR SEGMENTAL BLOCK RETAINING WALL	SQ FT	1,070
TOPSOIL EXCAVATION AND PLACEMENT	CU YD	158
SEEDING, MULCHING AND FERTILIZING	ACRE	0.1



SECTION C-C
(2'-0" Ø CAISSON)



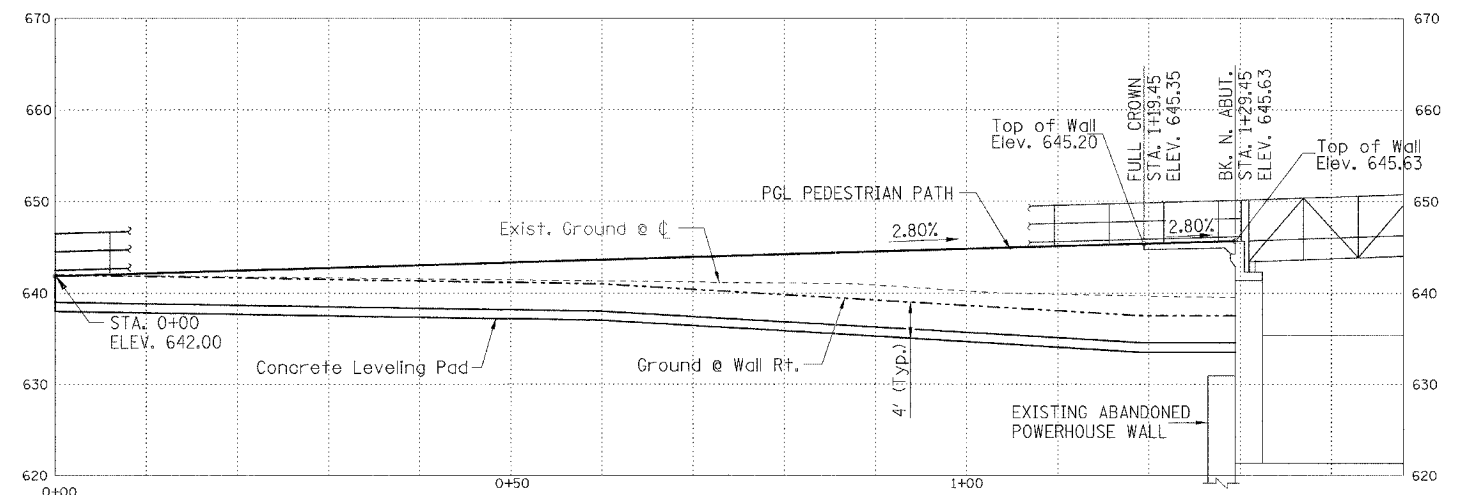
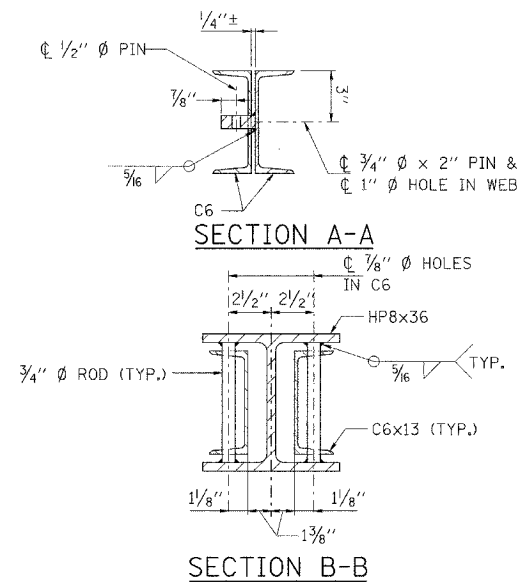
MODULAR SEGMENTAL BLOCK RETAINING WALL
LEFT WALL ELEVATION



COLLAPSIBLE VEHICLE STOP DETAILS

COLLAPSIBLE VEHICLE STOP NOTES:

1. ALL STRUCTURAL STEEL SHAPES AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 270 GRADE 36 OR GRADE 50 AND SHALL BE GALVANIZED ACCORDING TO AASHTO M11 AND ASTM A385. ALL BOLTS, NUTS, WASHERS, AND ANCHOR RODS SHALL BE GALVANIZED ACCORDING TO AASHTO M232.
2. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
3. EXCAVATION, REINFORCEMENT BARS, CONCRETE, P.J.F., STRUCTURAL STEEL, BOLTS, NUTS, WASHERS, AND ANCHOR RODS INCLUDED IN COST OF 'COLLAPSIBLE VEHICLE STOP'.

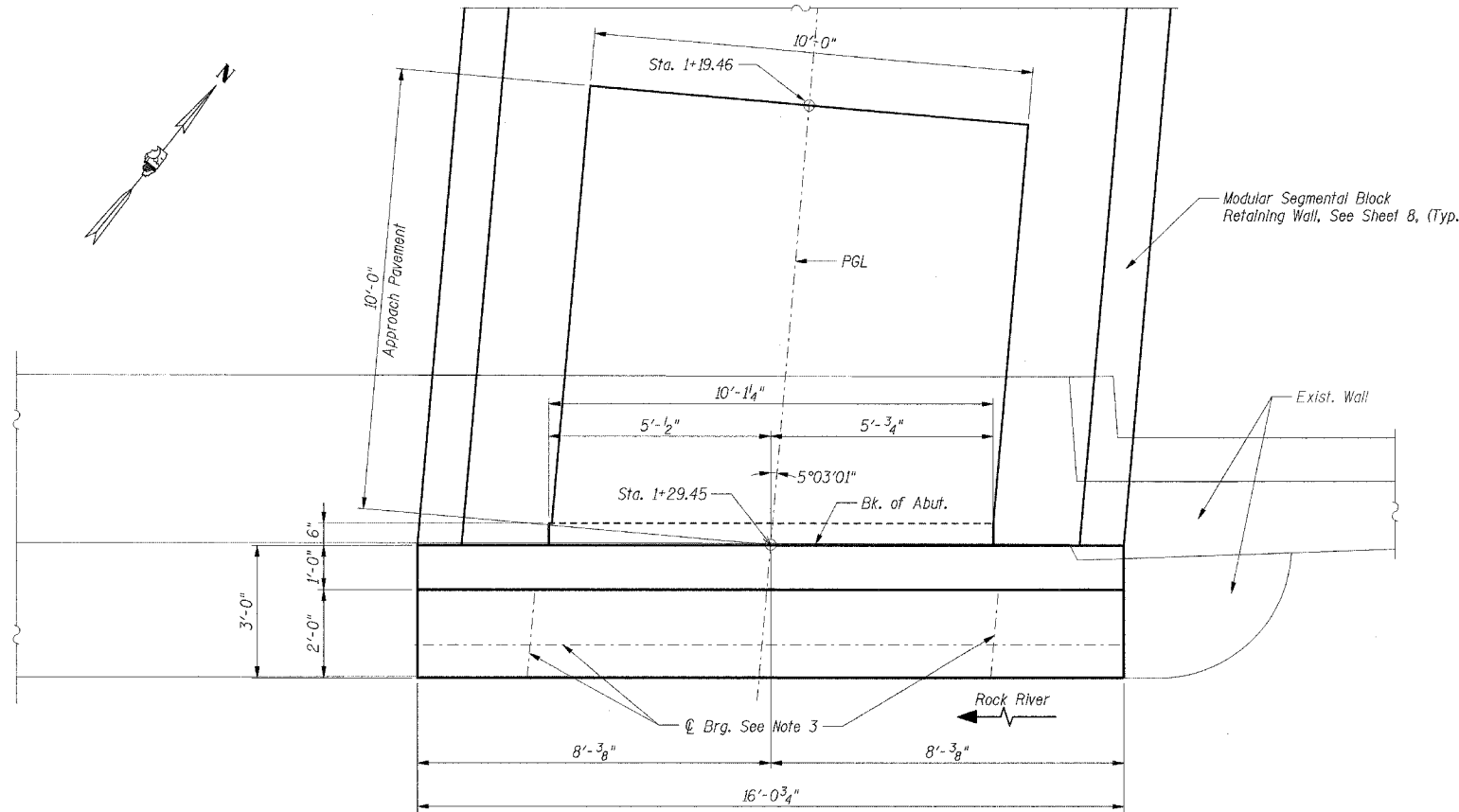


MODULAR SEGMENTAL BLOCK RETAINING WALL
RIGHT WALL ELEVATION

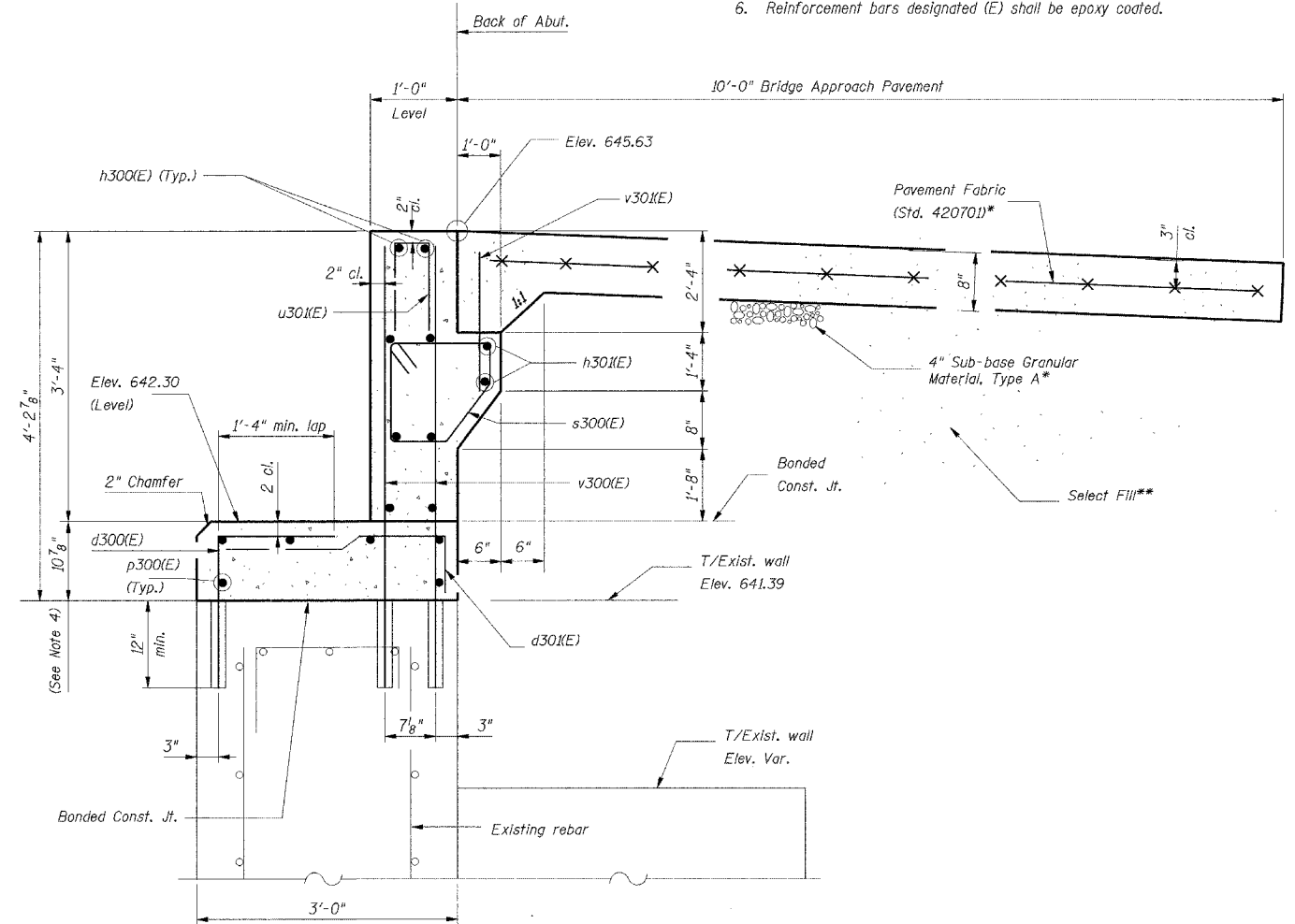
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 Drawn By: JUF Checked By: TMM
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Notes:

1. Space reinforcement to miss anchor bolts.
2. All edges shall have a 3/4" chamfer unless noted otherwise.
3. Location of bearings to be as required for prefabricated truss bridge used. Prefabricated truss bridge manufacturer shall design bearings and anchor bolts to accommodate bearing seat dimensions provided with due consideration for required anchor bolt spacing and distances from anchor bolts to free edges of concrete.
4. The quantities, dimensions, and reinforcement details shown were developed using the bearing seat elevations shown and may change based upon final bearing seat elevations. Contractor shall adjust the bearing seat elevations accordingly to accommodate the prefabricated truss bridge used. Vertical lengths of affected bars shall also be adjusted accordingly.
5. Epoxy grouting of bars shall be done according to Section 584 of the Standard Specifications. The grout and method of application shall be approved by the engineer. Cost included with Reinforcement Bars, Epoxy Coated.
6. Reinforcement bars designated (E) shall be epoxy coated.



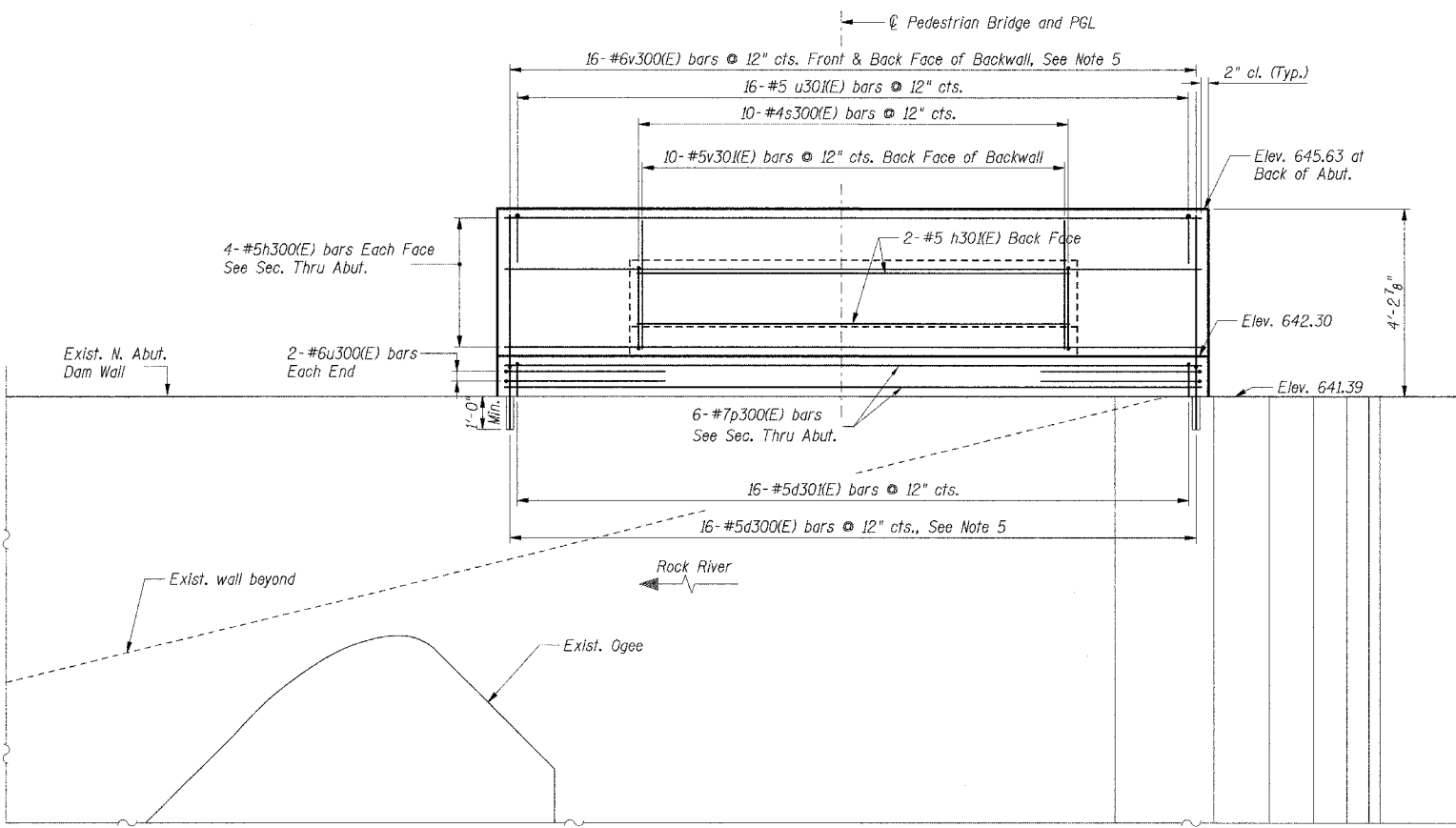
PLAN



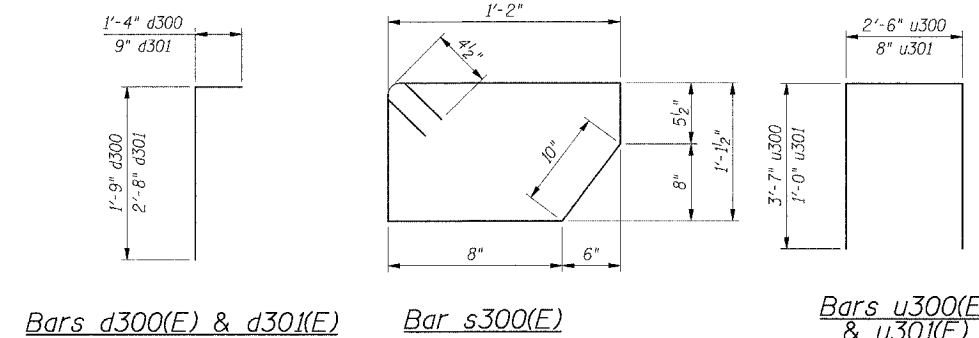
SEC. THRU ABUT.

*Included in the cost of Bridge Approach Pavement.

**Included in the cost of Modular Segmental Block Retaining Wall.



ELEVATION

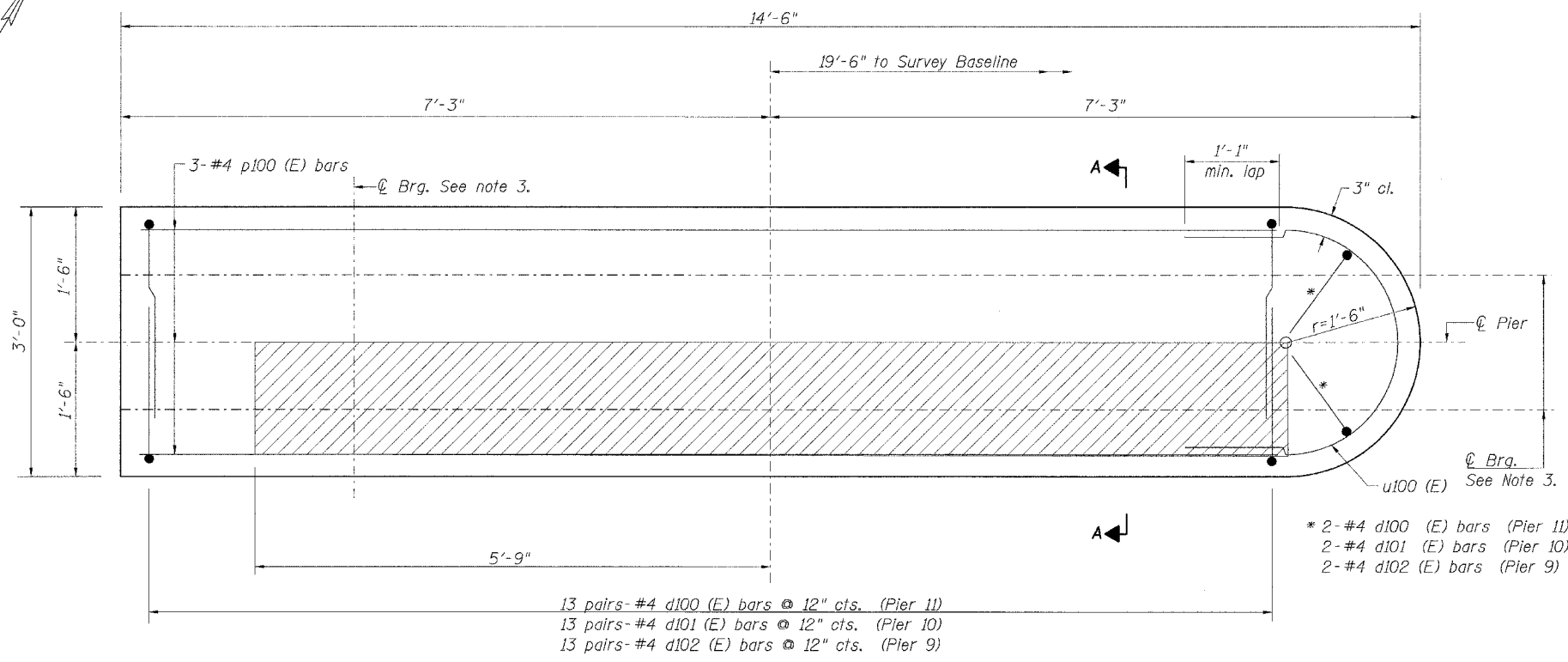
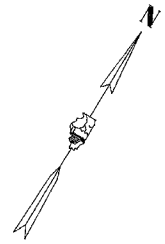


BILL OF MATERIAL ***

Bar	No.	Size	Length	Shape	
d300(E)	16	#5	3'-1"	┌───┐	
d301(E)	16	#5	3'-5"	┌───┐	
h300(E)	8	#5	15'-8"	───	
h301(E)	2	#5	9'-9"	───	
p300(E)	6	#7	15'-8"	───	
s300(E)	10	#4	5'-0"	┌──┐	
u300(E)	4	#6	9'-8"	┌──┐	
u301(E)	16	#5	2'-8"	┌──┐	
v300(E)	32	#6	5'-1"	───	
v301(E)	10	#5	1'-7"	───	
Concrete Structures				Cu. Yd.	3.8
Reinforcement Bars, Epoxy Coated				Pound	850
Bridge Seal Sealer				Sq. Ft.	32

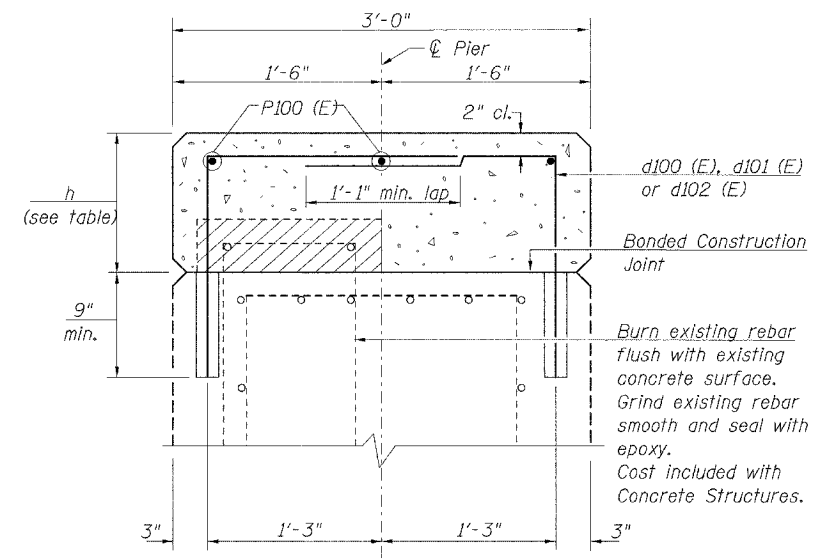
***See Note 4

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 Drawn By: RMM, Checked By: TMM

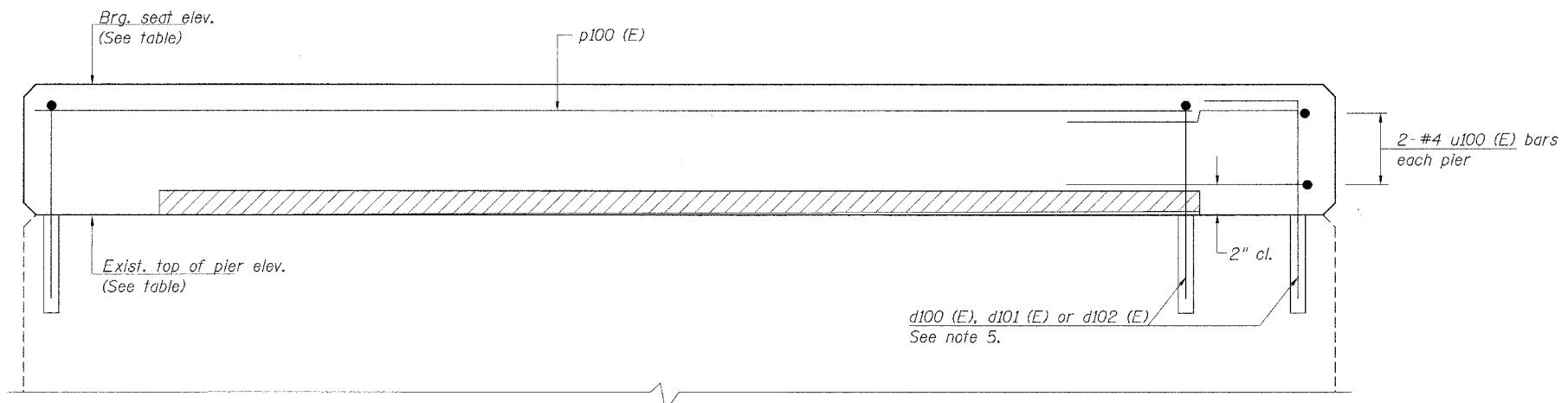


PLAN VIEW

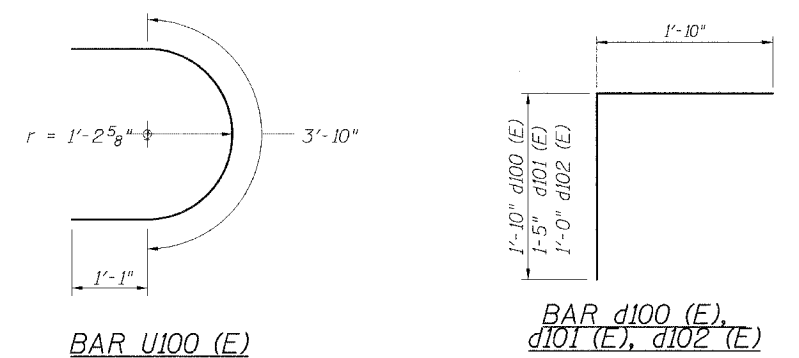
- Notes:
1. Space reinforcement to miss anchor bolts.
 2. All edges shall have a 3/4" chamfer unless otherwise noted.
 3. Location of bearings to be as required for the prefabricated truss bridge used. Prefabricated truss bridge manufacturer shall design bearings and anchor bolts to accommodate bearing seat dimensions provided with due consideration for required anchor bolt spacing and distances from anchor bolts to free edges of concrete.
 4. The quantities and reinforcement details shown were developed from the bearing seat elevations shown and may change based upon the final bearing seat elevations. Contractor shall adjust the bearing seat elevations accordingly to accommodate the prefabricated truss bridge used. Vertical lengths of d100 (E), d101 (E) and d102 (E) shall also be adjusted accordingly.
 5. Epoxy grouting of bars shall be done according to Section 584 of the Standard Specifications. The grout and method of application shall be approved by the engineer. Cost included with Reinforcement Bars, Epoxy Coated.
 6. Reinforcement bars designated (E) shall be epoxy coated



SECTION A-A



ELEVATION



**** BILL OF MATERIAL (PIERS 9-11)**

PIERS 9-11 ELEVATION TABLE

Pier	Exist. T/O Pier Elev.	Bearing Seat Elev.	h
9	644.21	644.65	5 1/4"
10	643.85	644.65	9 5/8"
11	643.42	644.65	1'-2 3/4"

Bar	No.	Size	Length	Shape	
d100 (E)	28	#4	3'-8"	┌	
d101 (E)	28	#4	3'-3"	┌	
d102 (E)	28	#4	3'-10"	┌	
p100 (E)	9	#4	12'-10"	—	
u100 (E)	6	#4	6'-0"	└	
Concrete Structures				Cu. Yd.	3.9
Reinforcement Bars, Epoxy Coated				Pounds	310
Concrete Removal				Cu. Yd.	0.5
Bridge Seat Sealer				Sq. Ft.	138

Legend:
 Concrete Removal

** See Note 4

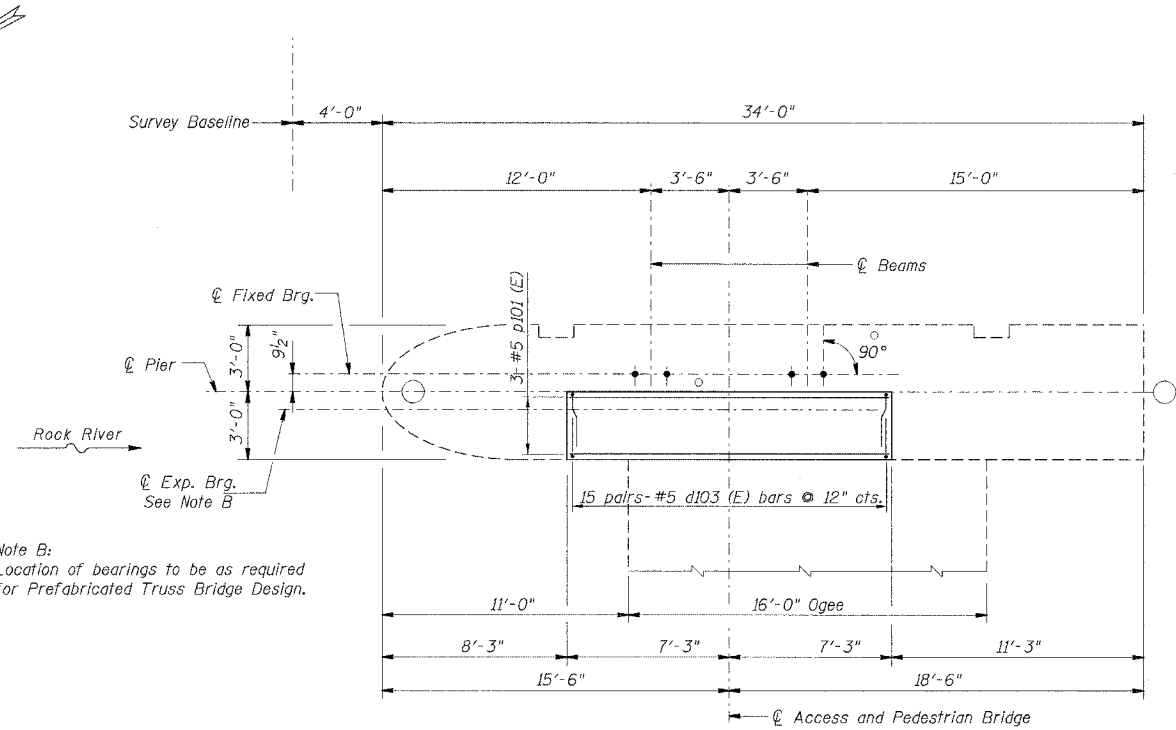
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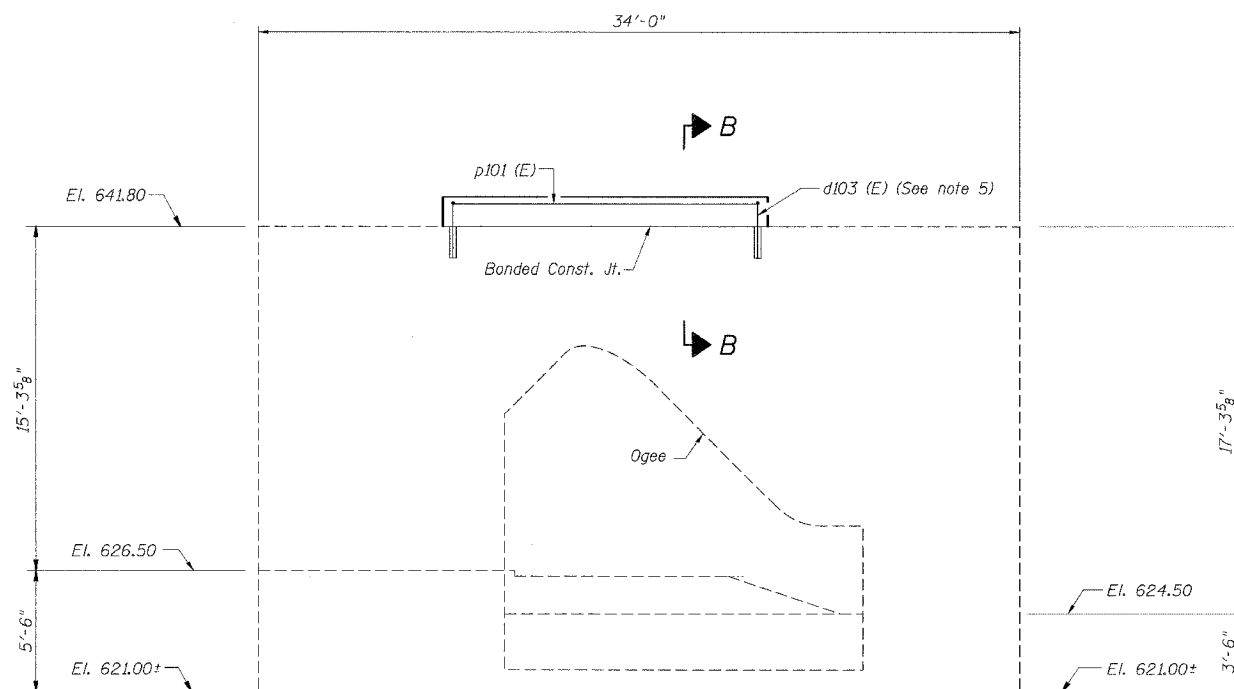
Designed By TMM Checked By RLP
Drawn By RJM Checked By TMM

Pier8.dgn



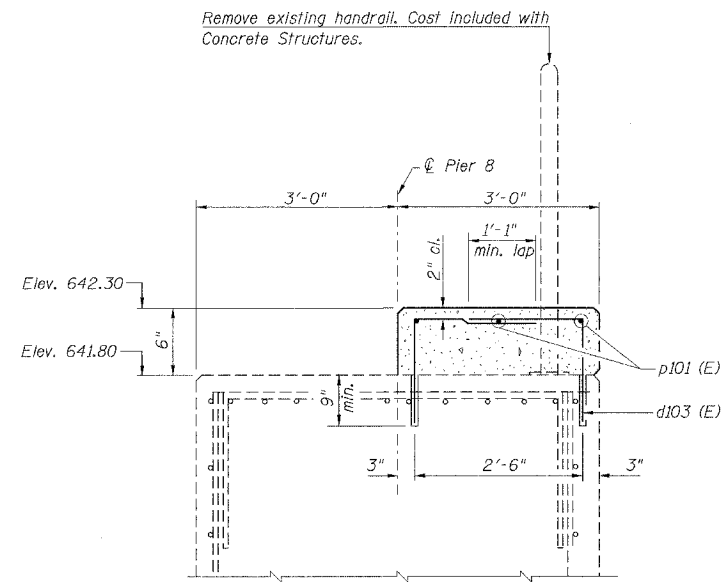
Note B:
Location of bearings to be as required for Prefabricated Truss Bridge Design.

TOP PLAN

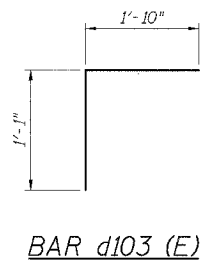


ELEVATION

- Notes:
1. Space reinforcement to miss anchor bolts.
 2. All edges shall have a 3/4" chamfer unless otherwise noted.
 3. Location of bearings to be as required for the prefabricated truss bridge used. Prefabricated truss bridge manufacturer shall design bearings and anchor bolts to accommodate bearing seat dimensions provided with due consideration for required anchor bolt spacing and distances from anchor bolts to free edges of concrete.
 4. The quantities and reinforcement details shown were developed from the bearing seat elevations shown and may change based upon the final bearing seat elevations. Contractor shall adjust the bearing seat elevations accordingly to accommodate the prefabricated truss bridge used. Vertical lengths of d103 (E) bars shall also be adjusted accordingly.
 5. Epoxy grouting of bars shall be done according to Section 584 of the Standard Specifications. The grout and method of application shall be approved by the engineer. Cost included with Reinforcement Bars, Epoxy Coated.
 6. Reinforcement bars designated (E) shall be epoxy coated.



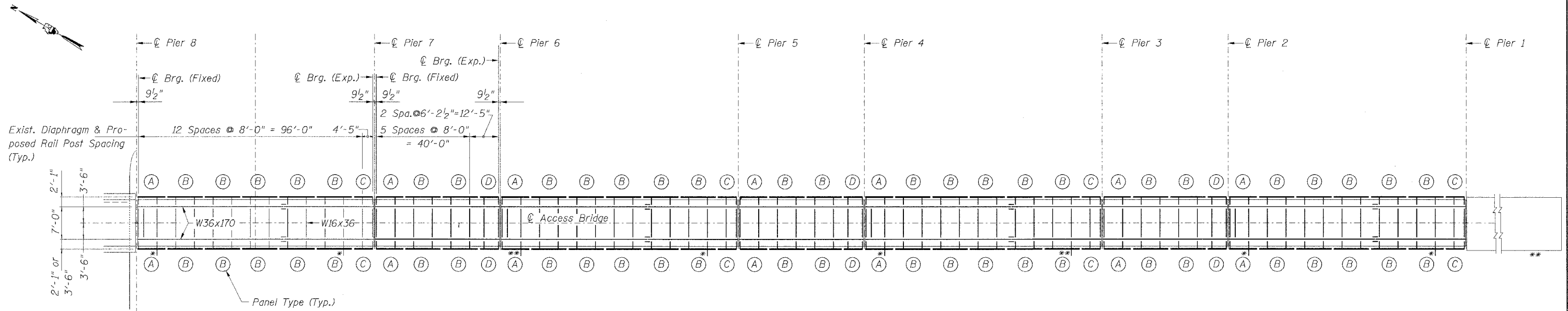
SECTION B-B



** BILL OF MATERIAL

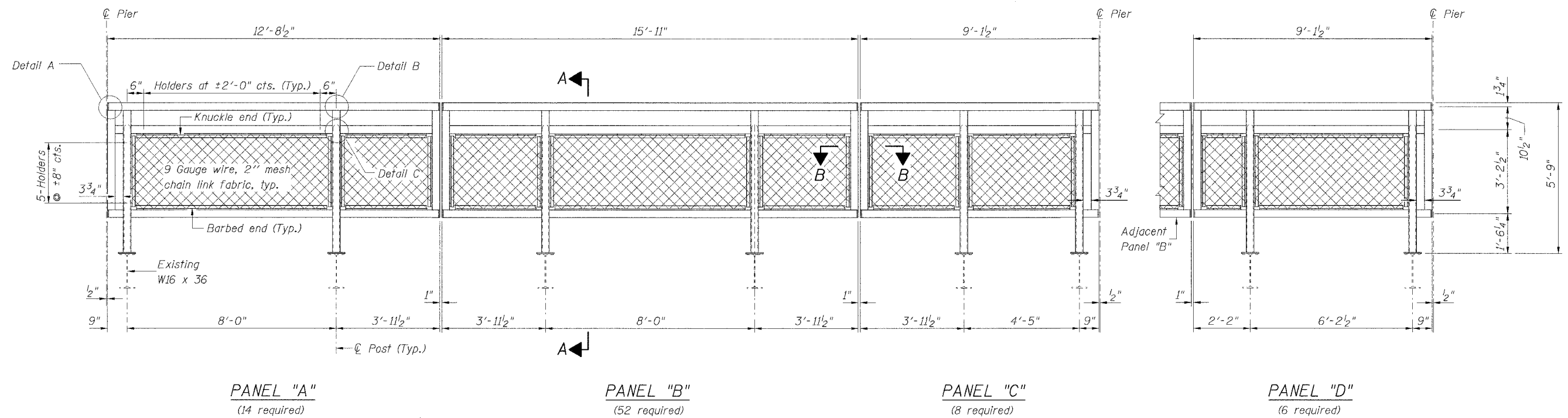
Bar	No.	Size	Length	Shape
d103 (E)	30	#4	2'-11"	L
p101 (E)	3	#4	13'-11"	—
Concrete Structures			Cu. Yd.	0.8
Reinforcement Bars, Epoxy Coated			Pounds	90
Bridge Seat Sealer			Sq. Ft.	44

** See Note 4



* Location of existing light poles
** Location of new light poles

ACCESS BRIDGE RAILING PLAN



PANEL "A"
(14 required)

PANEL "B"
(52 required)

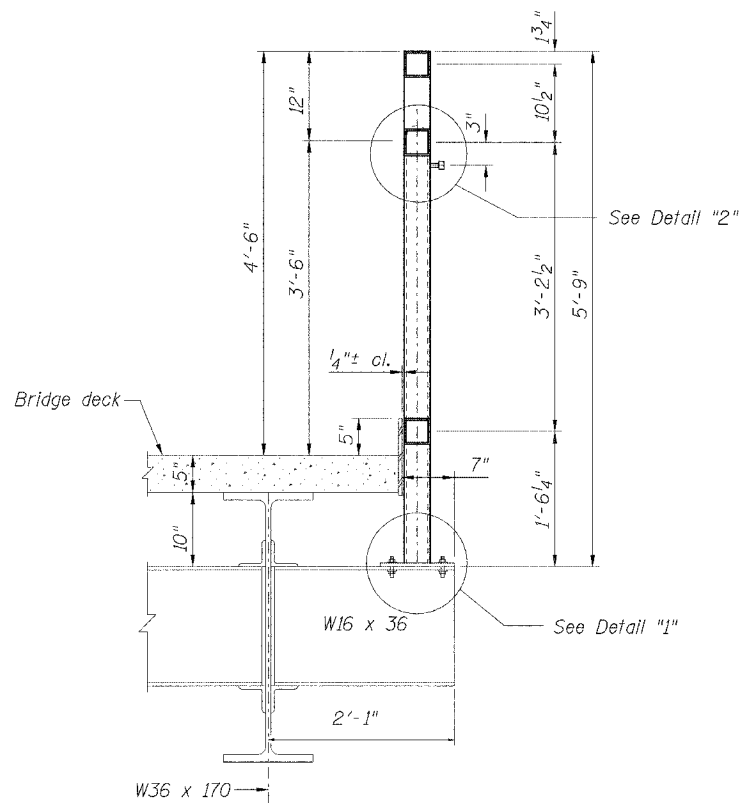
PANEL "C"
(8 required)

PANEL "D"
(6 required)

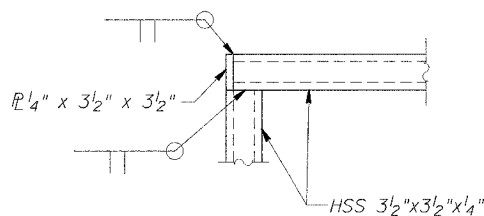
RAILING ELEVATION
(Inside Face)

Note: Sections A-A and B-B shown on sheet 13

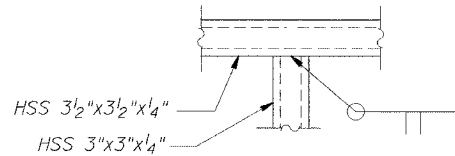
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 Drawn By JUF checked by TMM



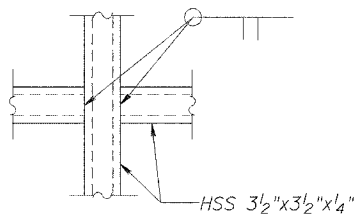
SECTION A-A



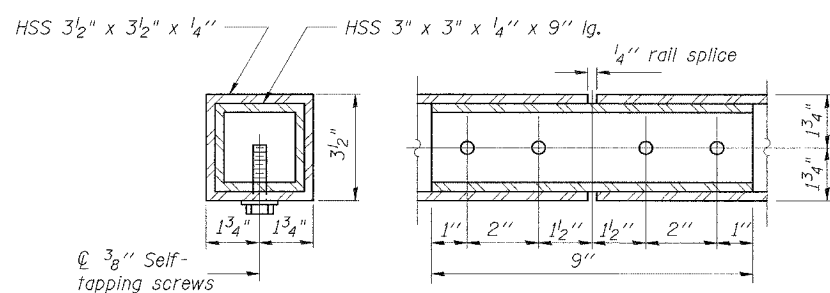
DETAIL A



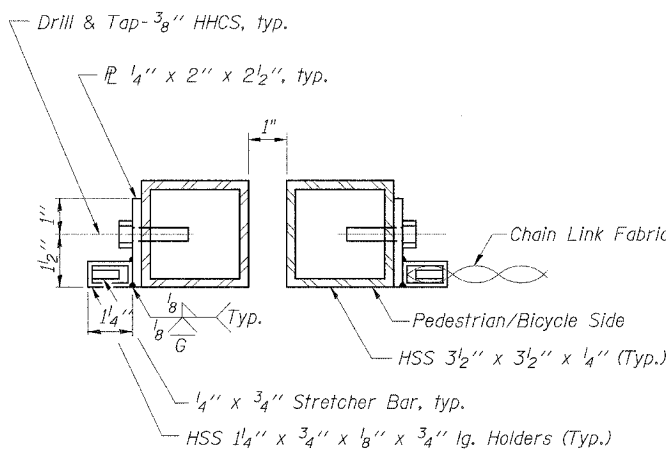
DETAIL B



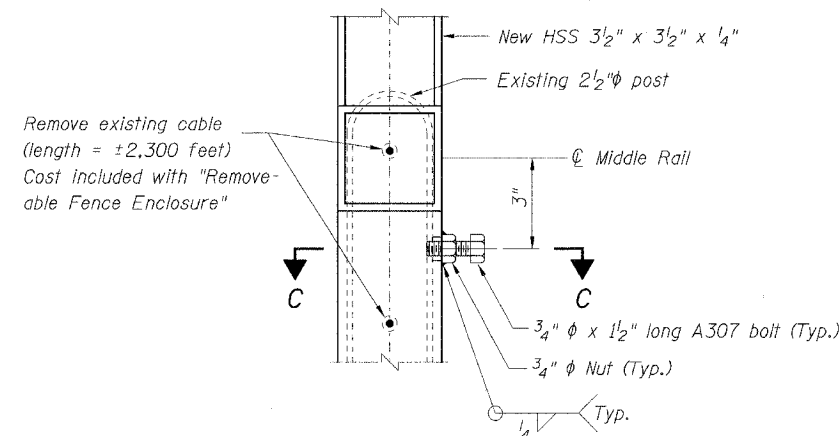
DETAIL C



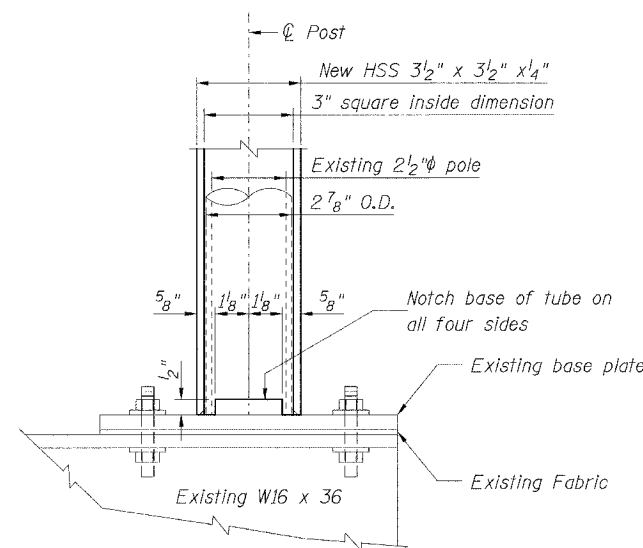
RAIL SPLICE



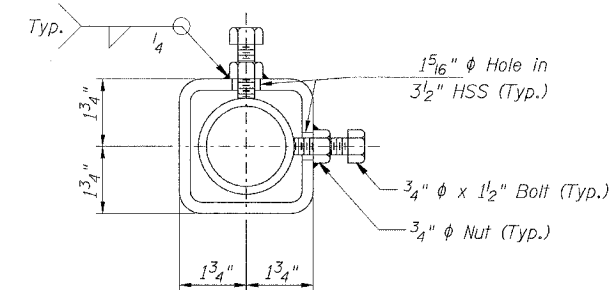
SECTION B-B



DETAIL "2"



DETAIL "1"



SECTION C-C

NOTES

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per foot for Bicycle Railing.

The 9 gauge Fabric ties shall be according to Article 1006.27 (d) of the Standard Specifications.

Installation of the chain link fabric shall be according to Section 664 of the Standard Specifications.

Hollow structural sections shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36.

The chain link fabric shall be placed along Pedestrian/Bicycle side as shown on Section B-B.

Stretcher bars shall be used at all four sides of each panel.

All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. All bolts, nuts, washers, and anchor rods shall be galvanized according to AASHTO M 232 except stainless steel bolts as noted.

Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.

The chain link fabric shall conform to the requirements of Article 1006.27(a)(1)a, b or c of the Standard Specifications.

BILL OF MATERIAL

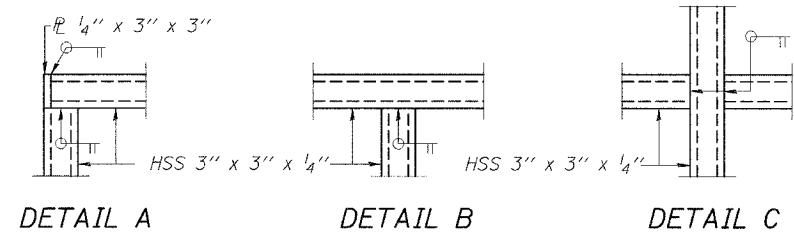
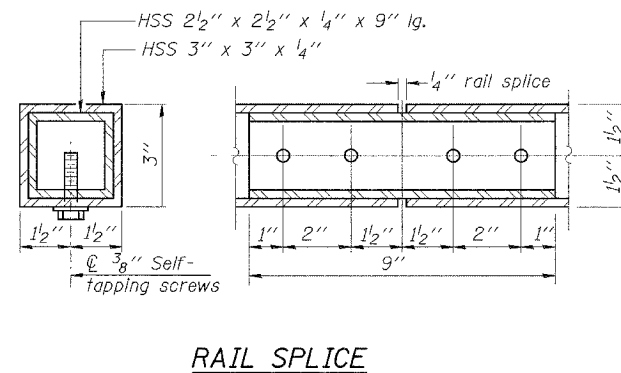
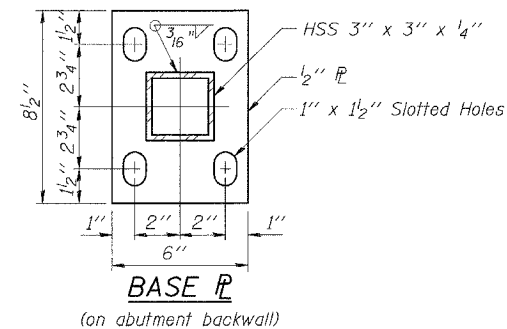
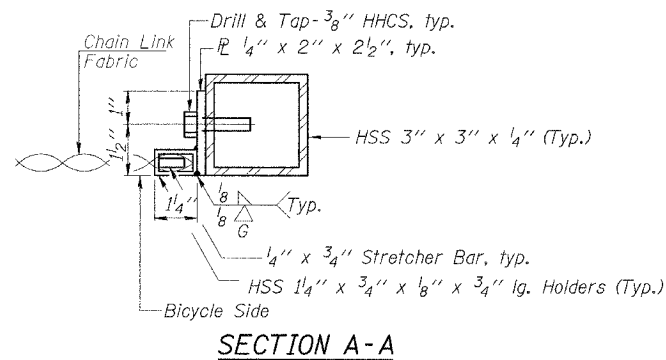
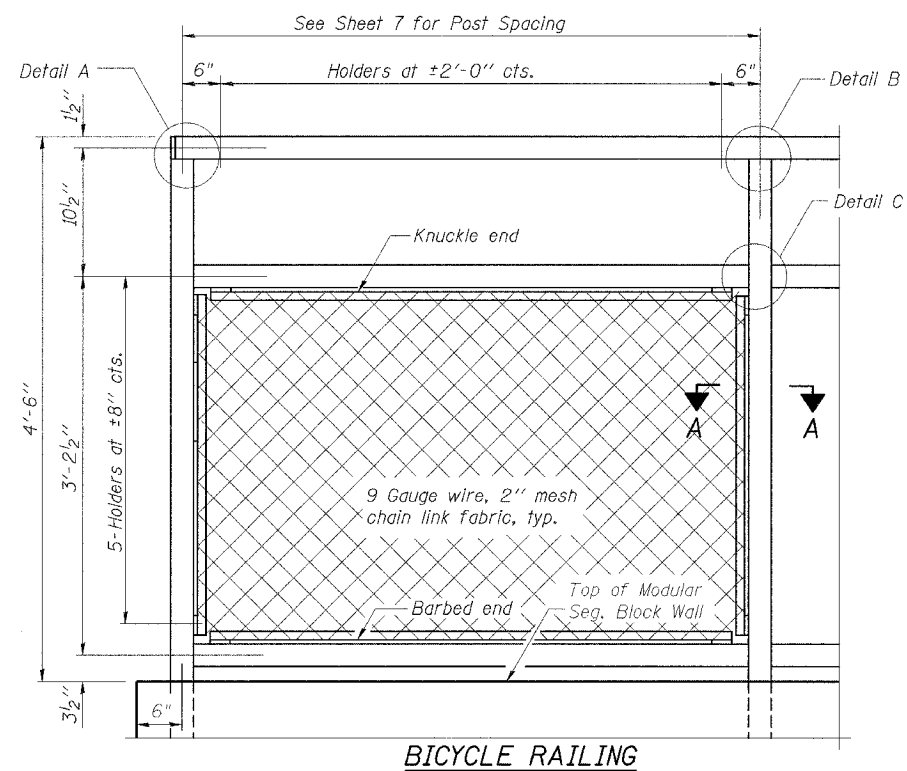
Item	Unit	Quantity
Removable Access Bridge Railing	Foot	1,133

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NOTES

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per foot for Bicycle Railing.
The 9 gauge fabric ties shall be according to Article 1006.27 (d) of the Standard Specifications.
Installation of the chain link fabric shall be according to Section 664 of the Standard Specifications.
Hollow structural sections shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.
All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36.

The chain link fabric shall be placed along Bicycle Side as shown on Section A-A.
Stretcher bars shall be used at all four sides of each panel.
If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with pre-measured amounts of the adhesive chemical.
Space reinforcement to miss anchor rods.
All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. All bolts, nuts, washers, and anchor rods shall be galvanized according to AASHTO M 232 except stainless steel bolts as noted.
Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.
The chain link fabric shall conform to the requirements of Article 1006.27(a)(1)a, b or c of the Standard Specifications.

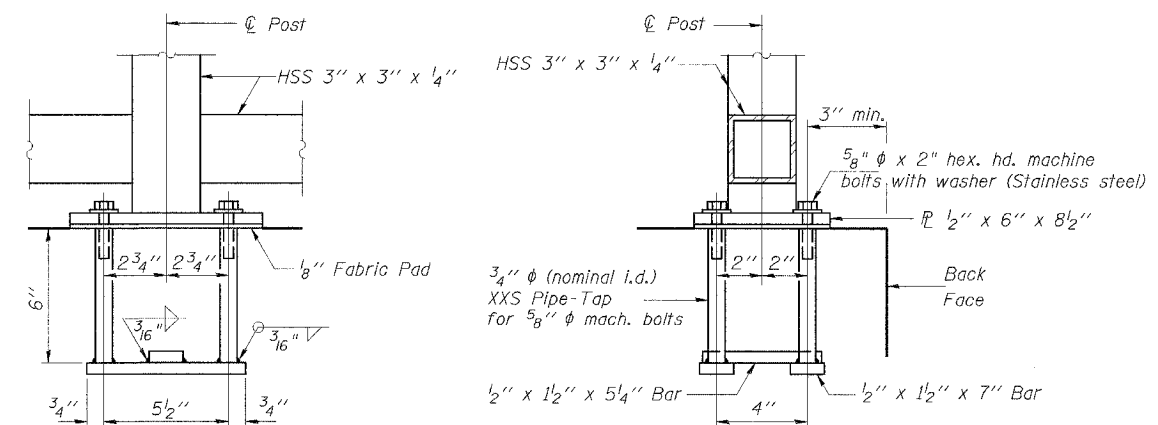
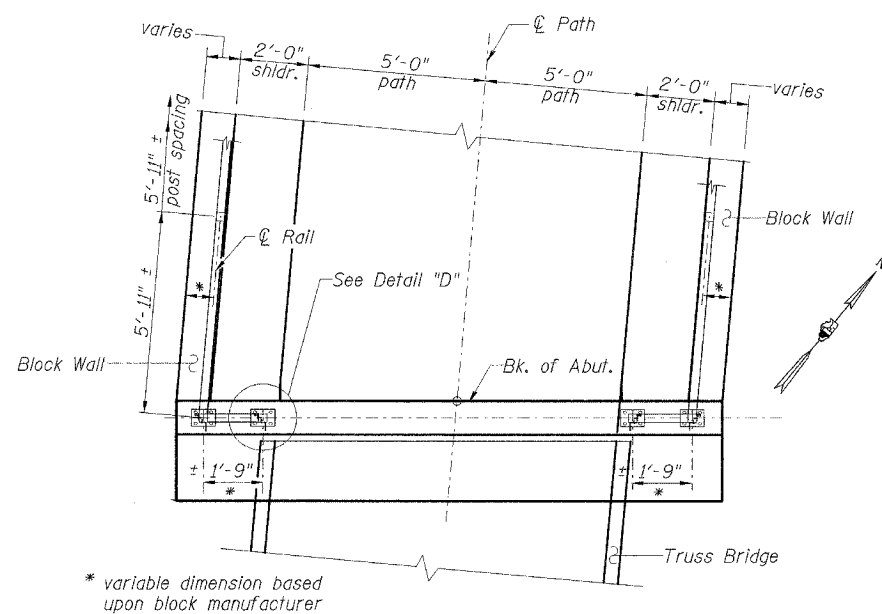
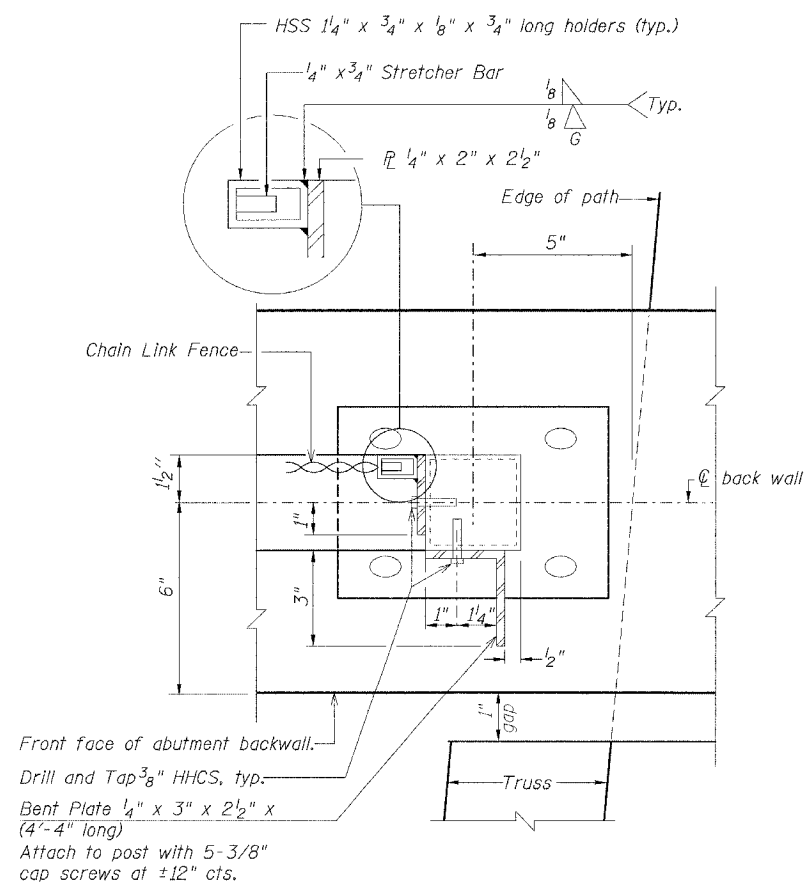


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Drawn by RLM
Checked by TMW

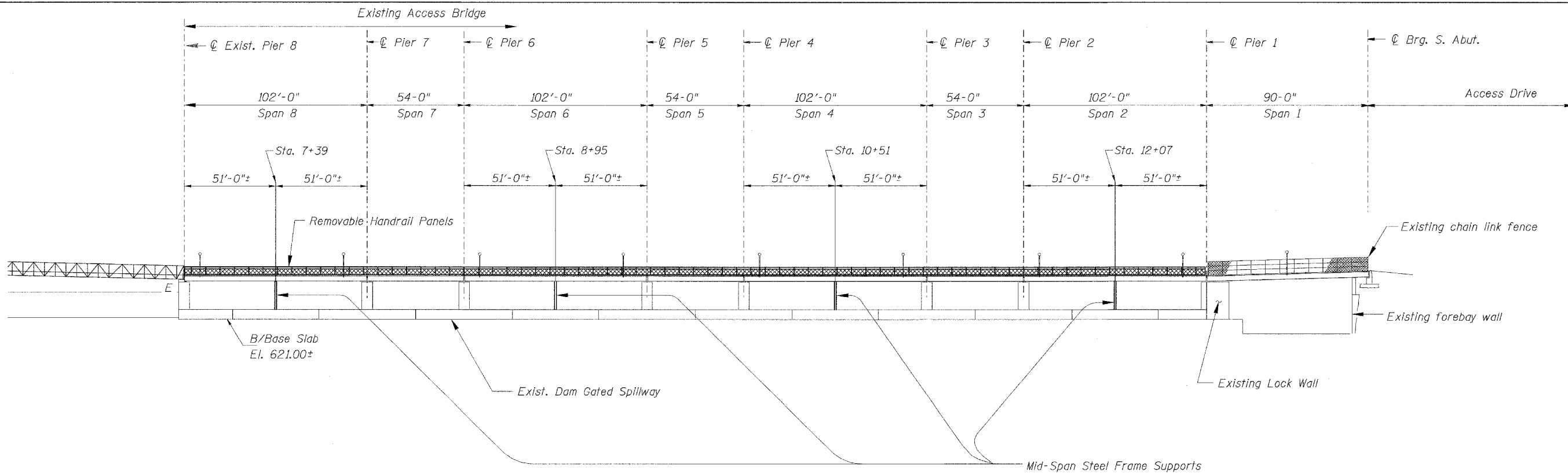


RAILING PLAN AT NORTH ABUTMENT

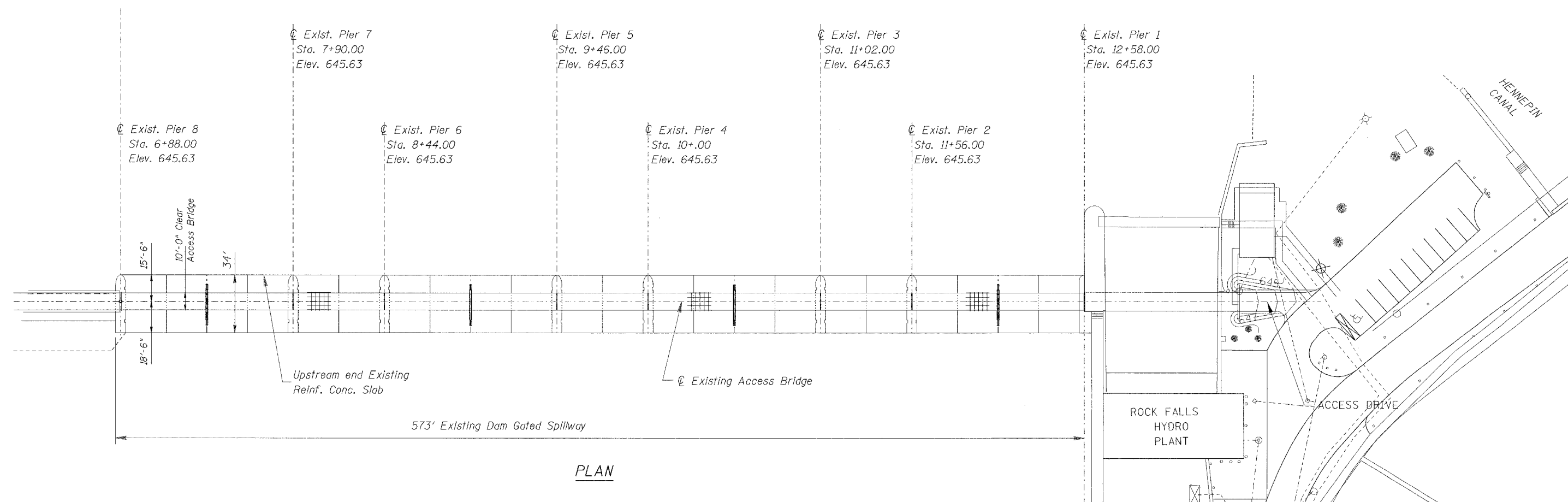
ANCHOR BOLT DETAILS

(along abutment backwall)

BICYCLE RAILING
(Billed on sheet 7)

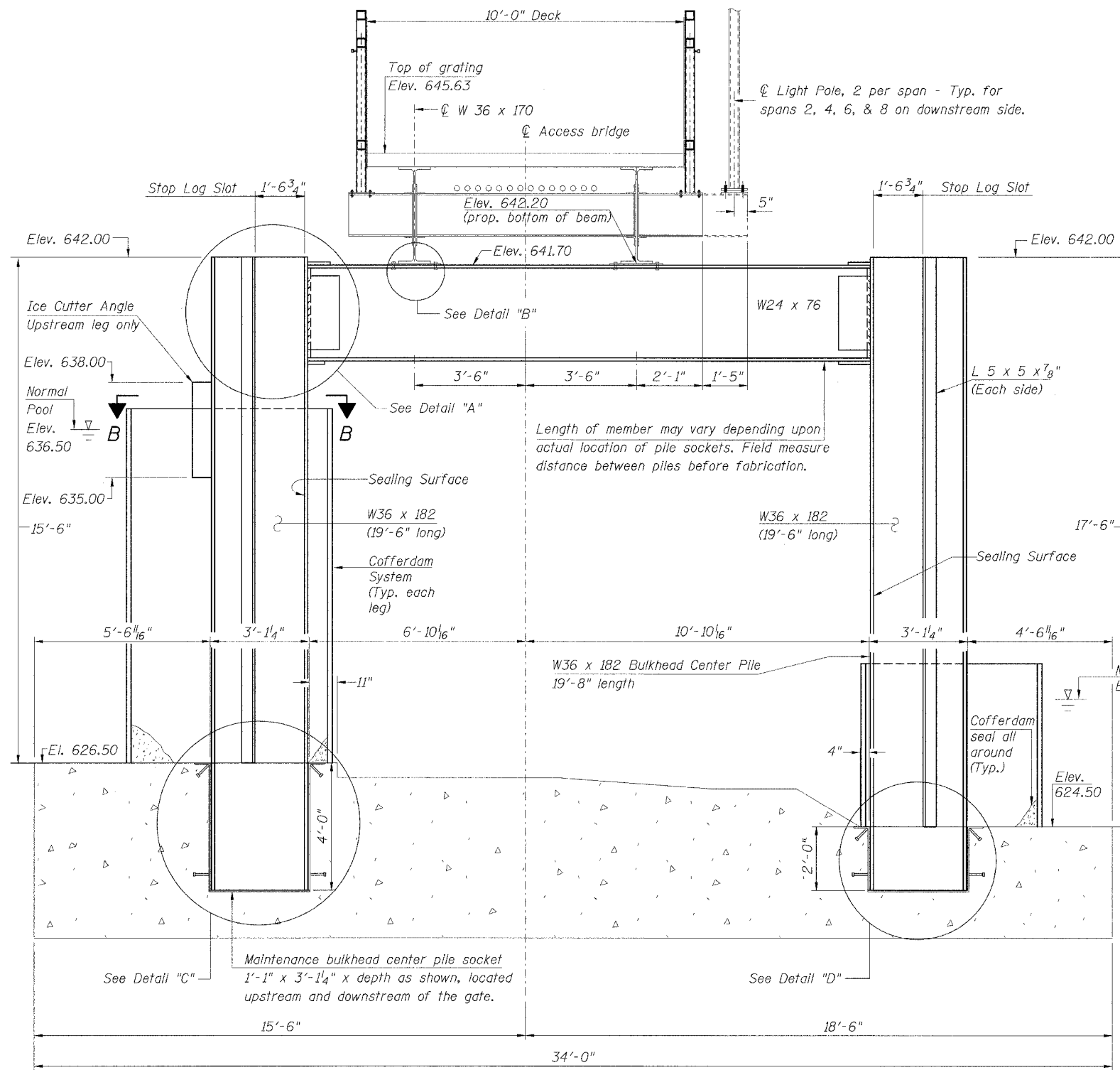


ELEVATION

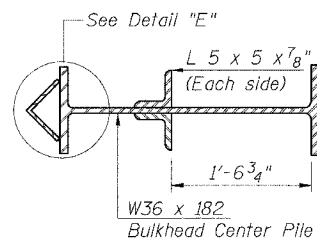


PLAN

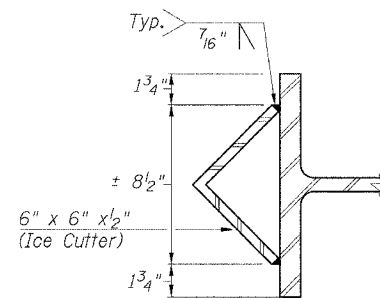
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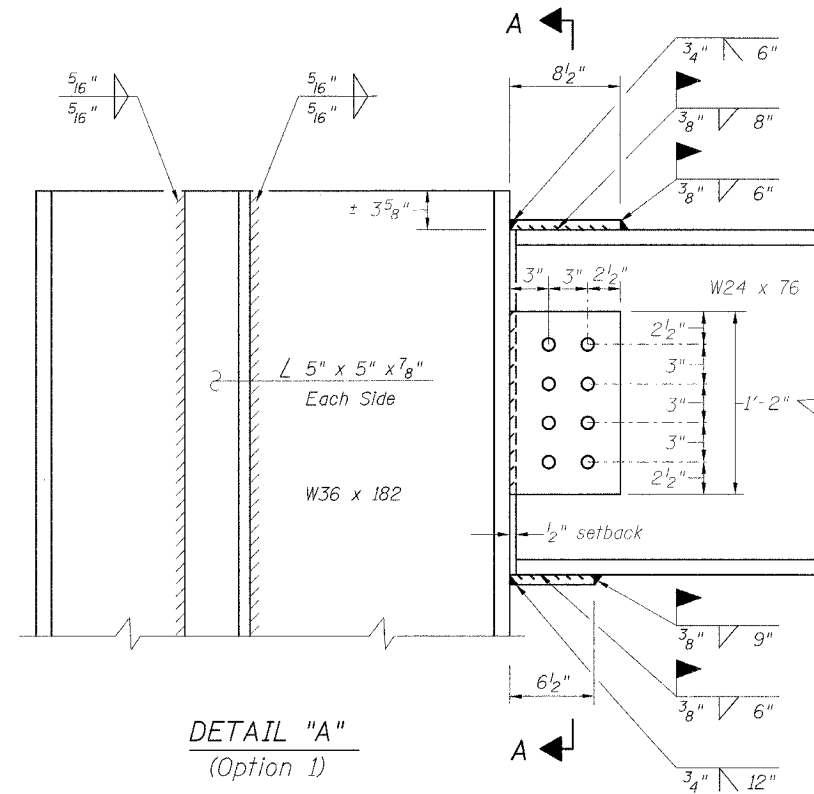
MID-SPAN STEEL FRAME SUPPORTS (4 required)
(Looking South)



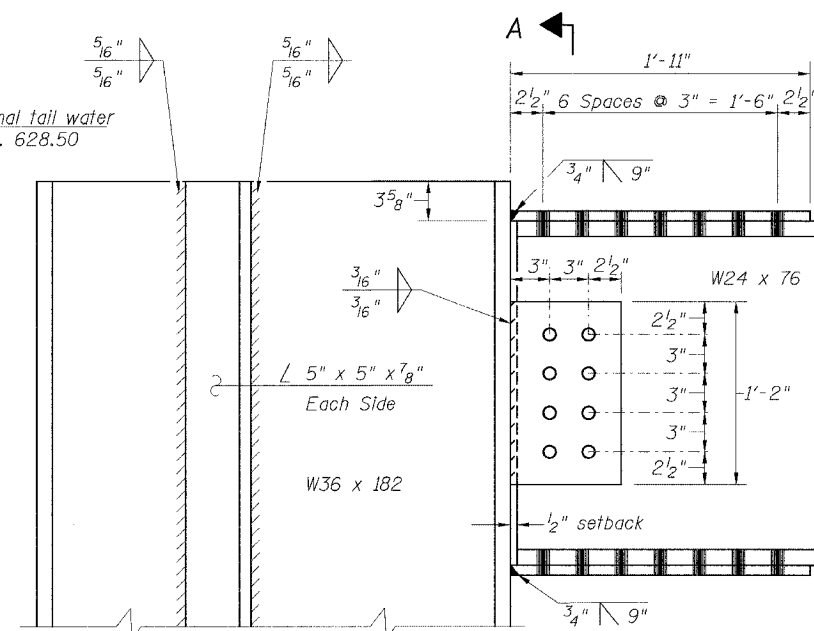
SECTION B-B



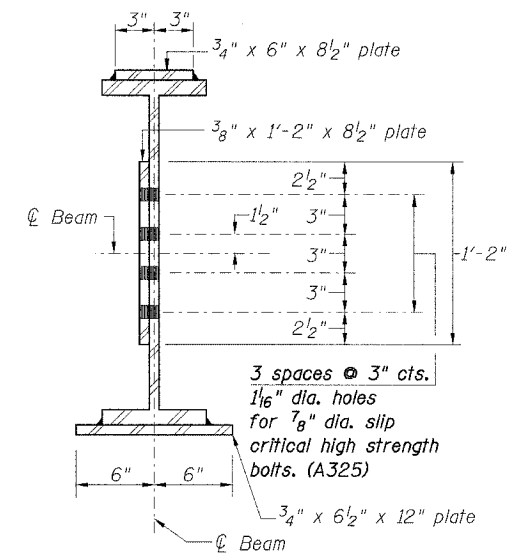
DETAIL "E"



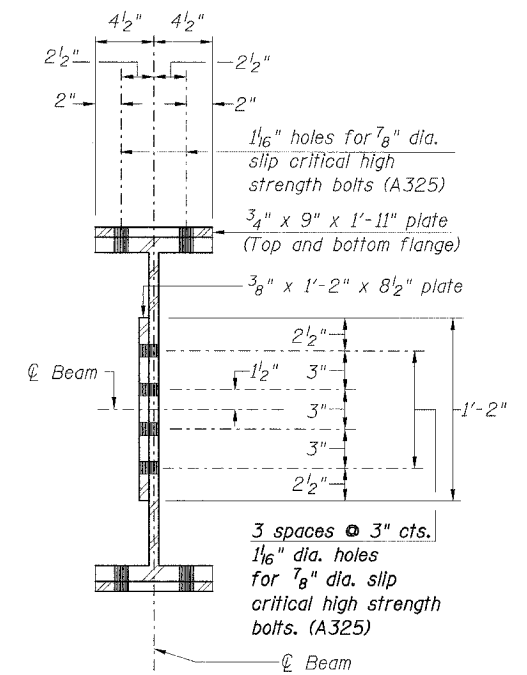
DETAIL "A"
(Option 1)



DETAIL "A"
(Option 2)



SECTION A-A
(Option 1)

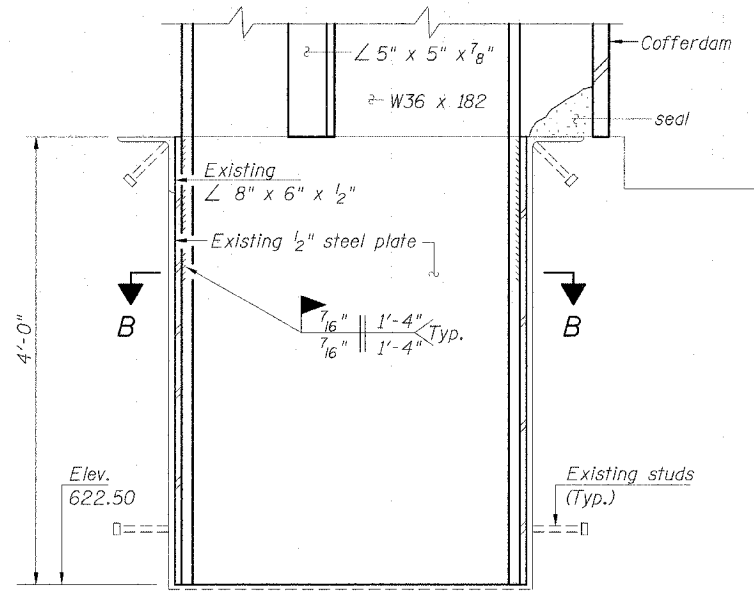


SECTION A-A
(Option 2)

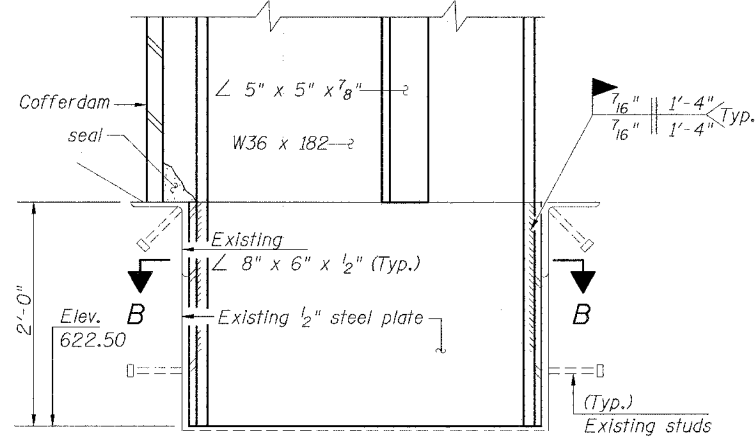
Notes:

1. The Contractor shall have the option of using either Option 1 or Option 2 in Detail "A".
2. The calculated weight of structural steel which is based upon the use of Option 2 = 43,710 pounds.
3. All structural steel shall be AASHTO M270, Grade 50W.
4. All structural steel shall conform to the supplemental requirements for Notch Toughness Zone 2.
5. The cofferdam shall be designed and constructed according to the requirements of Article 502.06 of the Standard Specifications.
6. All costs to dewater the cofferdam shall be considered as included with "Cofferdams".

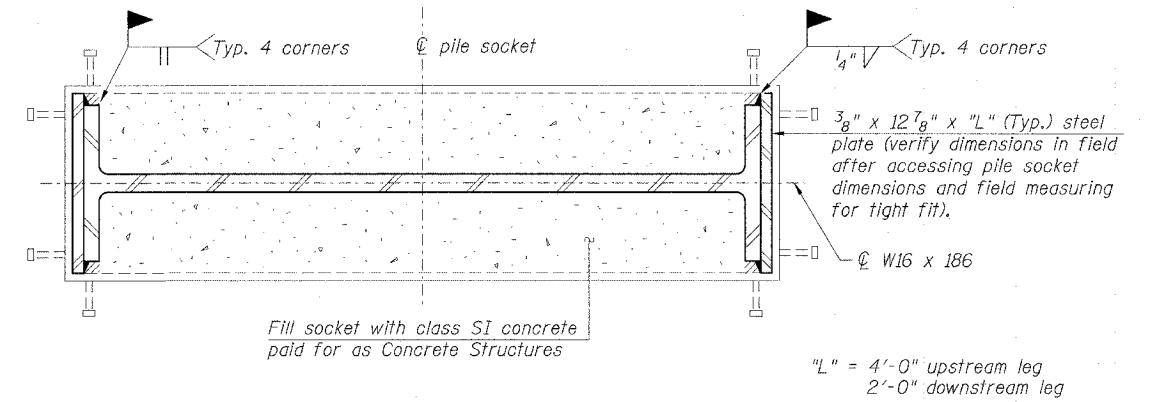
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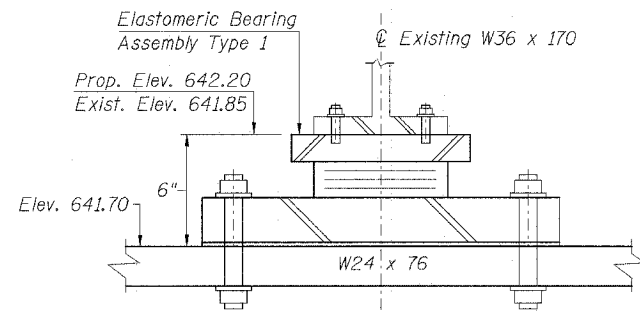
DETAIL "C"



DETAIL "D"



SECTION B-B

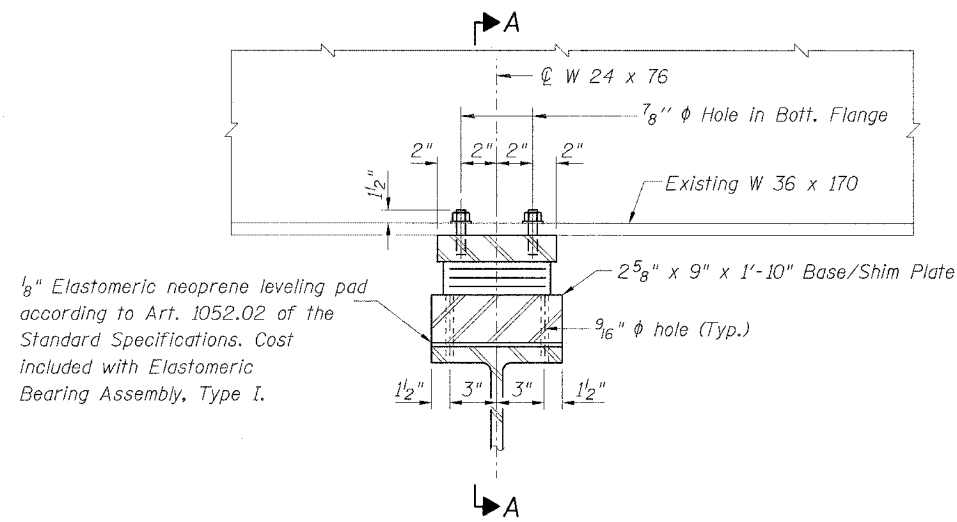


DETAIL "B"

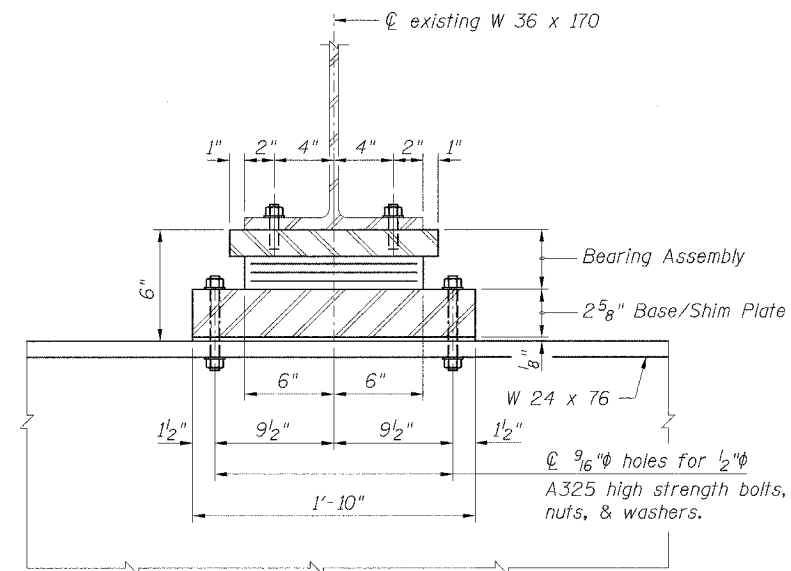
BILL OF MATERIAL

Item	Unit	Quantity
Concrete Structures	Cu Yd	2.6
Furnishing and Erecting Structural Steel	L Sum	1
Cofferdams	Each	8

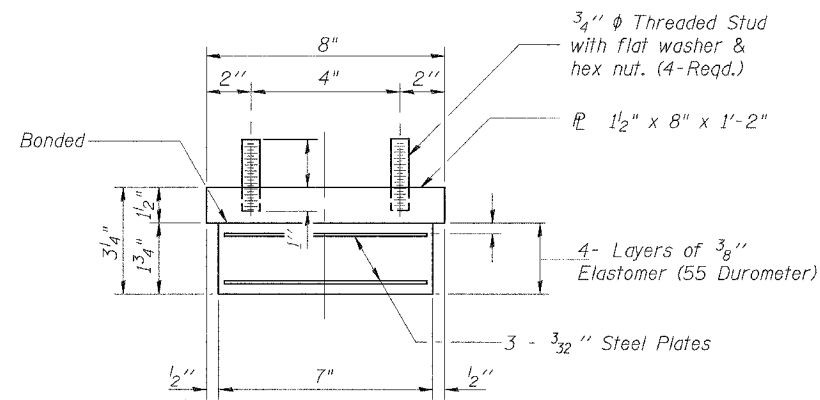
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ELEVATION AT MID-SPAN SUPPORT



SECTION A-A



BEARING ASSEMBLY

TYPE I ELASTOMERIC EXPANSION BEARING DETAILS

Notes:

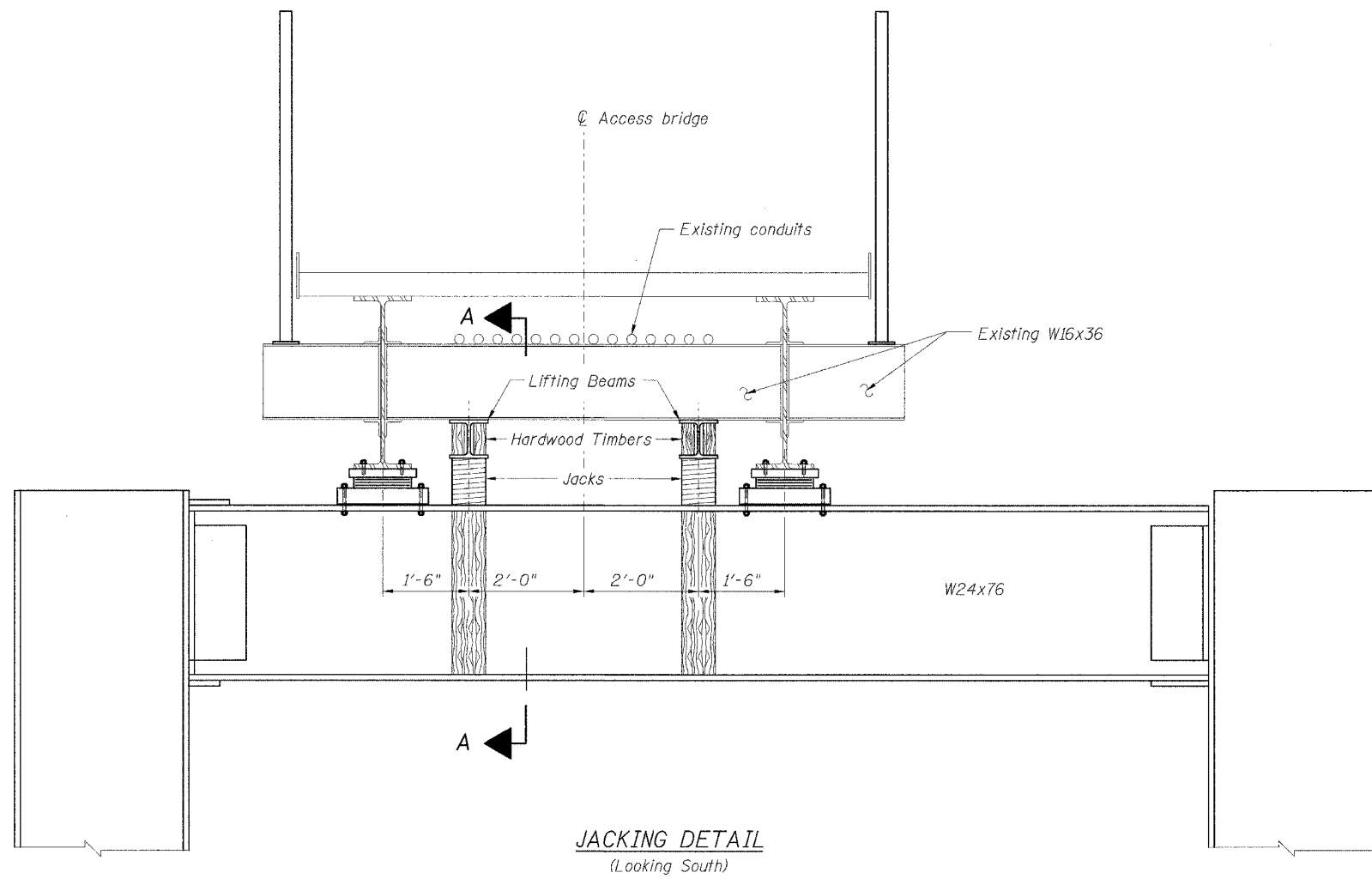
All steel plates shall conform to AASHTO M270 Grade 50W.

Calculated weight of structural steel (Plates, bolts, nuts and washers) is 1,220 pounds.

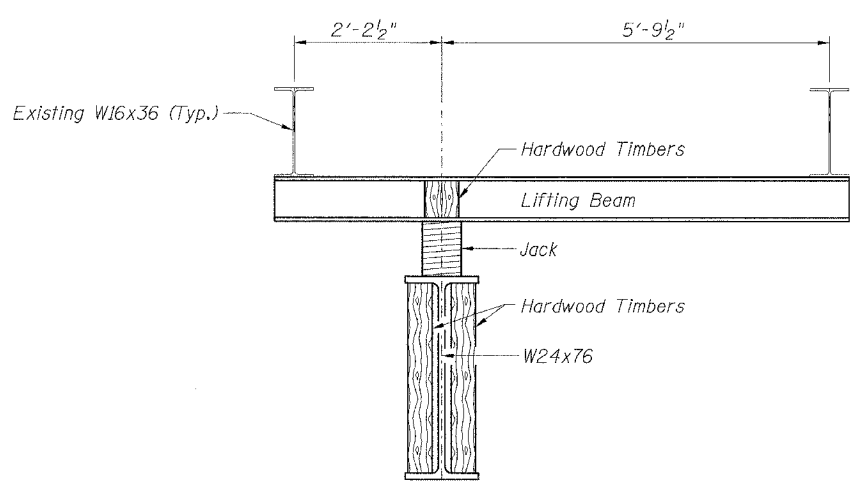
BILL OF MATERIAL

Item	Unit	Quantity
Elastomeric Bearing Assembly, Type I	Each	8

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JACKING DETAIL
(Looking South)



SECTION A-A

Notes:

1. The jack capacity provided shall be between 50% to 100% greater than the maximum expected working load.
2. The jack shall be centered directly over the web of the W24x76 beam of the mid-span steel frame supports.
3. Hardwood timbers shall be installed tightly between the top and bottom flanges of each beam that is directly under or over a jack.
4. Contractor shall not allow the main W36x170 beams to rotate out of plane when jacking/cribbing.
5. Jacking system shall be paid for as indicated in the special provision for "Jacking Existing Superstructure".
6. The jacking system shown is for bidding purposes only. The Contractor shall be responsible for the design and safety of the structure.
7. The Contractor shall use caution during construction so as to avoid damaging the existing utility conduits mounted beneath the bridge deck. The Contractor shall repair damage at his/her expense to the satisfaction of the Engineer.

Suggesting Jacking Sequence

1. Build mid-span steel frame support.
2. Set up jacks and lifting beams. See Special Provision entitled "Jacking Existing Superstructure".
3. Use synchronized jacks to lift bridge with deck in place.
 - Estimated required working jack load = 35 kips (for bid purposes only).
 - Estimated lifting beam size = W8x24 (for bid purposes only).
4. Place base/shim plate. Fully tighten 1/2" φ bolts.
5. Drill 7/8" φ holes in bottom flange of main W36x170 beams.
6. Set bearing assembly in proper position.
7. Lower W36x170 beams onto bearing assembly.
8. Place washers and nuts over threaded studs and fully tighten.

BILL OF MATERIAL

Item	Unit	Quantity
Jacking Existing Superstructure	L Sum	1

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