

SCOPE OF WORK

REMOVAL OF BRIDGE SUPERSTRUCTURE AND REPLACEMENT WITH NEW STEEL GIRDERS AND FLOORBEAMS WITH CONCRETE DECK. PARTIAL RECONSTRUCTION OF SUBSTRUCTURES.

PROJECT LOCATION

THE PROJECT IS LOCATED ON CATTARAUGUS COUNTY ROUTE 12 (EDIES ROAD), AND ERIE COUNTY ROUTE 82 (MILL STREET) AT THE COUNTY LINE.

SPECIFICATIONS

ALL WORK CONTEMPLATED UNDER THIS CONTRACT IS TO BE COVERED BY AND IN CONFORMITY WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS EXCEPT AS MODIFIED ON THESE PLANS AND IN THE ITEMIZED PROPOSAL.

STANDARD SHEETS

209-01, 209-05, 209-06, 402-01, 606-04, 606-20, 619-01, 619-02, 619-04, 619-10, 619-11, 619-12, 619-66, 685-01

WORK ZONE TRAFFIC CONTROL

THE BRIDGE WILL BE CLOSED DURING CONSTRUCTION AND AN OFFSITE DETOUR WILL BE UTILIZED. PAYMENT FOR THIS WORK WILL BE MADE UNDER THE APPROPRIATE ITEM OF SECTION 619, WORK ZONE TRAFFIC CONTROL.

MAINTENANCE JURISDICTION

THE BRIDGE IS JOINTLY OWNED AND MAINTAINED BY CATTARAUGUS COUNTY AND ERIE COUNTY. THE COUNTIES WILL RETAIN JOINT OWNERSHIP OF AND MAINTENANCE RESPONSIBILITY FOR BIN 3328370.

HIGHWAY FUNCTIONAL CLASSIFICATION

RURAL LOCAL ROAD

PROJECTED TRAFFIC

DESIGN YEAR: 2036
DESIGN HOUR VOLUME: 52 VPH (TWO-WAY)
AVERAGE DAILY TRAFFIC: 496 VPD

DESIGN SPEED

40 MPH

TRUCK VOLUME

3.4% TRUCK

STREAM RESTRICTION

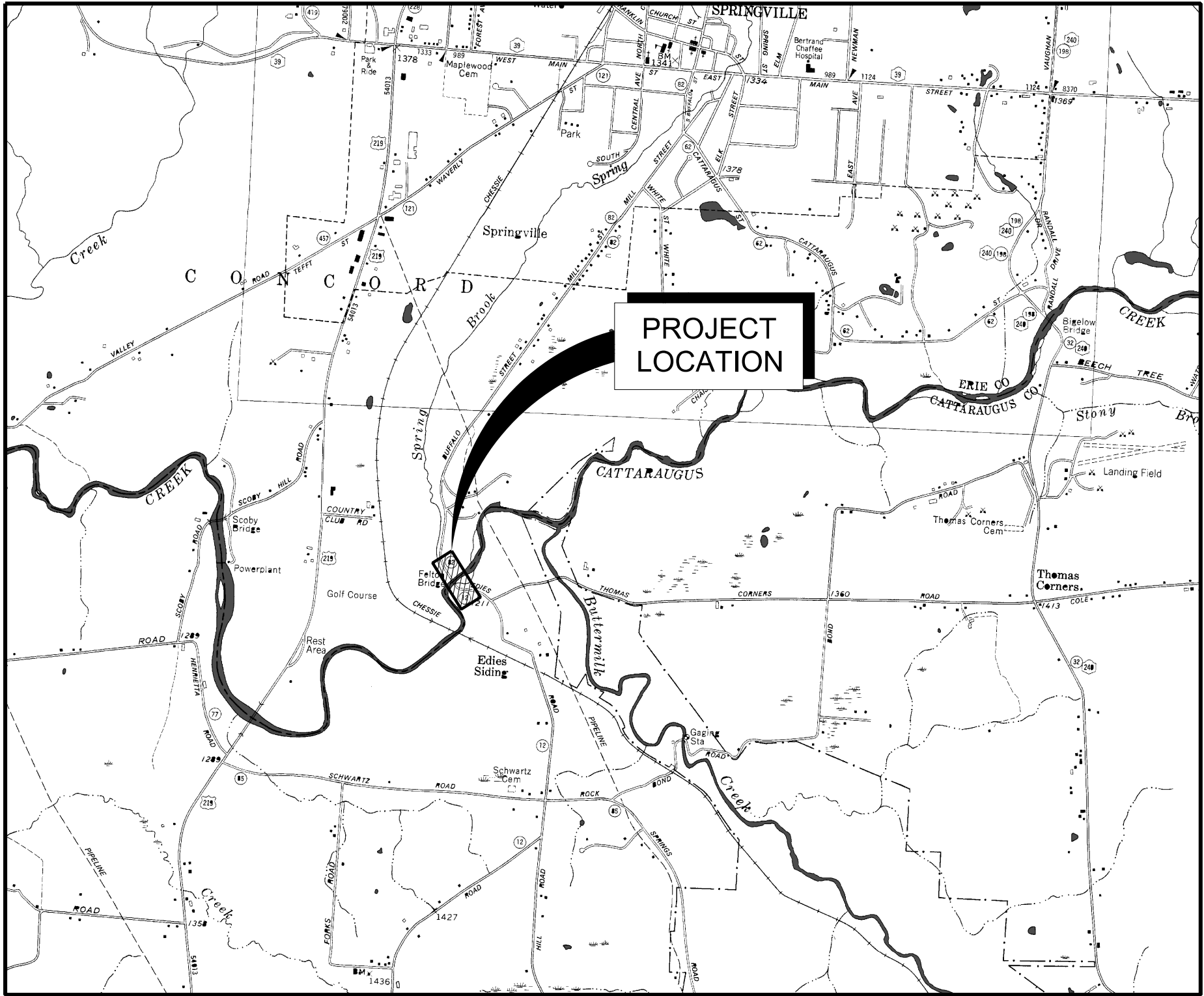
IN-WATER WORK WILL BE RESTRICTED TO THE PERIOD BETWEEN JUNE 1 AND SEPTEMBER 14. NO IN-WATER WORK SHALL BE PERFORMED BETWEEN SEPTEMBER 15 AND MAY 31.

LOAD RATING	
LOAD FACTOR RATING	
INVENTORY	HS-35 (64.1 TONS)
OPERATING	HS-59 (107 TONS)
LOAD AND RESISTANCE FACTOR RATING	
HL - 93 INVENTORY	RATING FACTOR = 1.27
HL - 93 OPERATING	RATING FACTOR = 2.22
PERMIT LOADING	N/A




DEPARTMENT OF PUBLIC WORKS

CONTRACT DRAWINGS FOR
CATTARAUGUS COUNTY ASHFORD BRIDGE #37
ERIE COUNTY BRIDGE 82-1
COUNTY ROADS 12 / 82
OVER
CATTARAUGUS CREEK
B.I.N. 3328370
P.I.N. 5757.31
46 SHEETS



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22	BR-12	PIER 1 RECONSTRUCTION DETAILS
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45	BR-35	RAILING DETAILS (SHEET 3 OF 4)
46	BR-36	RAILING DETAILS (SHEET 4 OF 4)

PREPARED BY:


JONATHAN T. DePLANCHE, P.E.
N.Y.S. P.E. LIC. NO. 081464
ERDMAN, ANTHONY AND ASSOCIATES, INC.

DATE: 5/2/2017

RECOMMENDED BY:

JOSEPH T. PILLITTERE
COMMISSIONER
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ASHFORD BRIDGE #37: C.R. 12/C.R. 82 OVER CATTARAUGUS CREEK			
CATTARAUGUS COUNTY			
FED. ROAD REG. NO.	STATE	SHEET NO.	TOTAL SHEETS
1	N.Y.	1	46
FEDERAL AID PROJECT NO.			
CAPITAL PROJECT IDENTIFICATION NO.	5757.31		
CONTRACT NO.			

ALIGNMENT	
AH	= AHEAD
AZ	= AZIMUTH
BK	= BACK
B	= BASELINE
BRG	= BEARING
C	= CENTERLINE
e	= CROSS SLOPE, SUPERELEVATION
E	= EXTERNAL DISTANCE
EQ	= EQUALITY
EXT	= EXTERNAL
HCL	= HORIZONTAL CONTROL LINE
HSD	= HEADLIGHT SIGHT DISTANCE
L	= LENGTH OF CIRCULAR CURVE
LT	= LEFT
LS	= LENGTH OF SPIRAL
LVC	= LENGTH OF VERTICAL CURVE
MO	= MIDDLE ORDINATE OF VERTICAL CURVE
M	= MAIN LINE
PC	= POINT OF CURVATURE
PI	= POINT OF INTERSECTION
POL	= POINT ON LINE
PT	= POINT OF TANGENT
PVC	= POINT OF VERTICAL CURVE
PVI	= POINT OF VERTICAL INTERSECTION
PVT	= POINT OF VERTICAL TANGENT
R	= RADIUS
RT	= RIGHT
SSD	= STOPPING SIGHT DISTANCE
STA	= STATION
T	= TANGENT LENGTH
TGL	= THEORETICAL GRADE LINE
VC	= VERTICAL CURVE
Δ	= DEFLECTION ANGLE

UTILITIES	
CO	= CLEAN OUT
E	= ELECTRIC
EMH	= ELECTRIC MANHOLE
G	= GAS
GP	= GUY POLE
GSB	= GAS SERVICE BOX (HOUSE LINE)
GV	= GAS VALVE (MAIN LINE)
HYD	= HYDRANT
LP	= LIGHT POLE
LPG	= LOW PRESSURE GAS
NPS	= NOMINAL PIPE SIZE
OH	= OVERHEAD
PED	= PEDESTAL
PP	= POWER POLE
SA	= SANITARY SEWER
SMH	= SANITARY MANHOLE
ST	= STORM SEWER
T	= TELEPHONE
TCB	= TRAFFIC CONTROL BOX
TEL P	= TELEPHONE POLE
TMH	= TELEPHONE MANHOLE
CTV	= CABLE TELEVISION
UT	= UNDERGROUND TELEPHONE
W	= WATER
WSB	= WATER SERVICE BOX (HOUSE LINE)
WV	= WATER VALVE (MAIN LINE)

SUBSURFACE EXPLORATION	
STANDARD SYMBOL	ABC-1
REPLACE ABBREVIATION "AB" WITH:	
AH	= HAND AUGER
CP	= CONE PENETROMETER
DA	= 2½" CASED DRILL HOLE
DM	= DRILLING MUD
DN	= 4" CASED DRILL HOLE
FH	= HOLLOW FLIGHT AUGER
PA	= POWER AUGER
PH	= PROBE
PT	= PERCOLATION TEST HOLE
RP	= 1" SAMPLER (RETRACTABLE PLUG)
SP	= SEISMIC POINT
TP	= TEST PIT
REPLACE ABBREVIATION "C" IN CATEGORIES: DA, DM, DN AND FH WITH:	
B	= BRIDGE
C	= CUT
D	= DAM
F	= FILL
K	= CULVERT
W	= WALL
X	= TO BE USED IF ONE OF THE ABOVE CANNOT BE DEFINED AT THE TIME THE EXPLORATION IS MADE

TOPOGRAPHY (DRAINAGE)	
BB	= BOTTOM OF BANK (STREAM)
BC	= BOTTOM OF CURB
BO	= BOTTOM OF OPENING
CAP	= CORRUGATED ALUMINUM PIPE
CB	= CATCH BASIN
CIP	= CAST IRON PIPE
CMP	= CORRUGATED METAL PIPE
CP	= CONCRETE PIPE
CSP	= CORRUGATED STEEL PIPE
CULV	= CULVERT
DIA, Ø	= DIAMETER
DMH	= DRAINAGE MANHOLE
DR	= DRAINAGE STRUCTURE
D'XING	= DITCH CROSSING
EL, ELEV	= ELEVATION
ES	= END SECTION
GSES	= GALVANIZED STEEL END SECTION
HW	= HEADWALL
INV	= INVERT
MH	= MANHOLE
MHW	= MEAN HIGH WATER
MLW	= MEAN LOW WATER
PE	= POLYETHYLENE
SICPP	= SMOOTH INTERIOR CORRUGATED PE PIPE
RCP	= REINFORCED CONCRETE PIPE
TB	= TOP OF BANK (STREAM)
TC	= TOP OF CURB
TG	= TOP OF GRATE
VCP	= VITRIFIED CLAY PIPE
XVCP	= EXTRA STRENGTH VITRIFIED CLAY PIPE

TOPOGRAPHY (MISCELLANEOUS)	
ABUT	= ABUTMENT
AOBE	= AS ORDERED/DETERMINED BY ENGINEER
ASPH	= ASPHALT
BDY	= BOUNDARY
BLDG	= BUILDING
BM	= BENCH MARK
CONC	= CONCRETE
CONST	= CONSTRUCTION
CR	= COUNTY ROAD
D	= DEED DISTANCE
DM	= DIRECT MEASUREMENT
DWY	= DRIVEWAY
EP	= EDGE OF PAVEMENT
ES	= EDGE OF SHOULDER
FP	= FENCE POST
FD	= FOUNDATION
FL	= FENCE LINE
GAR	= GARAGE
GR	= GRAVEL
HO	= HOUSE
HWY	= HIGHWAY
IP	= IRON PIN OR IRON PIPE
MB	= MAILBOX
MON	= MONUMENT
N&W	= NAIL AND WASHER
N&R	= NAIL AND RED
OG	= ORIGINAL GROUND
O/H	= OVERHEAD
P	= PARCEL
PAV'T	= PAVEMENT
PE	= PERMANENT EASEMENT
PED POLE	= PEDESTRIAN POLE
P	= PROPERTY LINE
POR	= PORCH
RR	= RAILROAD
RTE	= ROUTE
ROW	= RIGHT OF WAY
ROW W/A	= RIGHT OF WAY WITH ACCESS
ROW WO/A	= RIGHT OF WAY WITHOUT ACCESS
RW	= RETAINING WALL
SH	= STATE HIGHWAY
SHLDR	= SHOULDER
SPK	= SPIKE
ST	= STREET
STK	= STAKE
STY	= STORY
SW	= SIDEWALK
TE	= TEMPORARY EASEMENT
TO	= TEMPORARY OCCUPANCY
U/G	= UNDERGROUND
WW	= WING WALL



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FEATURE	SYMBOL	
	EXISTING	PROPOSED
SURVEY DATA		
SPOT ELEVATION	× 103.2	× 103.2
WATER ELEVATION	W.E. 102.5	
BENCH MARK	× BM #1	
BASELINE POINT	△	
PERMANENT SURVEY MON.	△	△
POINT ON LINE (POL)	○	
NORTH ARROW (GRID)	→ Z	
BASELINE	B 1+90	
CENTERLINE	----	----
CONTOURS		
MAJOR ELEVATION CONTOUR	160	160
MINOR ELEVATION CONTOUR		
DEPRESSION	210	
TOPOGRAPHY		
ROCK OUTCROP		
BOULDER		
TOP OF CUT		
BOTTOM OF FILL		
BOUNDARIES		
NATIONAL	CANADA	
	U.S.A.	
STATE	NEW YORK	
	PENNSYLVANIA	
COUNTY	ERIE	
	CATTARAUGUS	
TOWN	TOWN OF CHEMUNG	
	ATHENS TOWNSHIP	
CITY OR VILLAGE	CITY OF BINGHAMTON	
	PORT DICKINSON	
PUBLIC LAND		
HIGHWAY BOUNDARY APPROXIMATE	AHB	
PROPERTY LINE	P	
PROPERTY LINE MARKER	I.P.	
EASEMENT LINE		
RIGHT OF WAY LINE & MON.	MON.	MON.
ACCESS INFORMATION	ROW WO/A ROW W/A	ROW WO/A ROW W/A
ACQUISITION INFORMATION		
FEE WITH ACCESS		(M-1 P-1) FEE W/A
PERMANENT EASEMENT		(M-1 P-1) P.E.
TEMPORARY EASEMENT		(M-1 P-1) T.E.
TEMPORARY OCCUPANCY		(M-1 P-1) T.O.
BUILDING AND SPECIAL SITES		
BUILDING		
BUILDING TO BE DEMOLISHED		
UNDERPASS		
MAILBOX	□ MB	□ MB
POST, FLAGPOLE, PARKING METER	○ FP	○ FP
POLE (NON-UTILITY)	○	○

SAMPLE CURVE DATA
PI = POINT OF INTERSECTION
Δ = DEFLECTION ANGLE OF CURVE
R = RADIUS OF CIRCULAR CURVE
L = LENGTH OF CIRCULAR CURVE
T = TANGENT DISTANCE
E = EXTERNAL DISTANCE
e = SUPERELEVATION

FEATURE	SYMBOL	
	EXISTING	PROPOSED
TREES AND BRUSH		
DECIDUOUS TREE		
CONIFEROUS TREE		
DECIDUOUS BUSH		
CONIFEROUS BUSH		
STUMP		
HEDGE		
BRUSH LINE		
WOODED AREA EDGE		
DECIDUOUS TREE ROW		
CONIFEROUS TREE ROW		
FOUNDATION PLANTING		
TREE CARE		
TREE PROTECTION & CARE		
TREE TO BE REMOVED		
VEGETATION BARRIER		
VEGETATION/ SILT FENCE BARRIER		
SILT FENCE BARRIER		
WATER LOCATIONS		
STREAM OR RIVER		
INTERMITTENT STREAM		
MARSH OR SWAMP		
SIGNS AND BILLBOARDS		
SIGN (GROUND MOUNTED)		
SIGN (OVERHEAD)		
BILLBOARD, TWO POST SIGN	BB	BB
UTILITIES ABOVE GROUND		
UTILITY POLE	RGE 40 RTC 10	
GUY WIRE W/ ANCHOR		
STREET LIGHT		
PULLBOX STREET LIGHTS		
SIGNAL POLE W/ CONTROLLER		
PULLBOX TRAFFIC SIGNALS		
GAS SERVICE		
WATER SERVICE		
FIRE HYDRANT		
DRAINAGE MANHOLE		
SANITARY SEWER MANHOLE		
TELEPHONE MANHOLE		
GAS MANHOLE		
ELECTRIC MANHOLE		
WATER VALVE	W.V.	W.V.
GAS VALVE	G.V.	G.V.
LIGHT POLE		

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3/2/17 DATE

DATE

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT



DEPARTMENT
OF
PUBLIC WORKS

PROJECT NAME



ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

**ABBREVIATIONS
AND LEGEND**

SCALE	DATE
NONE	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 2 OF 46	DRAWING NO. LA-1

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<div>5/2/2017</div> <div>DATE</div>		<div>DATE</div>	
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REVISIONS			
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PROJECT NAME			
ASHFORD BRIDGE #37			
MILL ST./EDIES RD. OVER CATTARAUGUS CREEK B.I.N. 3328370			
DRAWING TITLE			
ESTIMATE OF QUANTITIES			
SCALE		DATE	
NONE		5/2/2017	
P.I.N. 5757.31		EAA PROJECT NO. 19473.00	
SHEET NO.		DRAWING NO.	
3 OF 46		EQ-1	

TRAFFIC CONTROL NOTES

- THE CONTRACTOR SHALL MAINTAIN TRAFFIC THROUGHOUT THE LENGTH OF THE CONTRACT IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 619 (WORK ZONE TRAFFIC CONTROL) OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS CURRENT AS OF THE LETTING DATE (SEE COVER SHEET), THE 2009 EDITION OF THE NATIONAL MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) WITH THE NYS SUPPLEMENT AND THE WORK ZONE TRAFFIC CONTROL DETAILS IN THE PLANS AND/OR PROPOSAL OR AS ORDERED BY THE ENGINEER (A.O.B.E.).
- THE DETAILS DEPICTED ON THESE PLANS, ON THE STANDARD SHEETS AND IN THE MUTCD, REFLECT THE MINIMUM REQUIREMENTS. ADDITIONAL SIGNS AND/OR CONTROL DEVICES MAY BE REQUIRED AOE, PAYMENT FOR THESE SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 619.01.
- THE CONTRACTOR MUST SUBMIT TO THE ENGINEER, IN WRITING, PROPOSED REVISIONS TO THE TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL BY THE COUNTIES FIFTEEN (15) WORKING DAYS PRIOR TO THE PLANNED IMPLEMENTATION OF SUCH PROPOSED REVISIONS, EXCEPT FOR CHANGES THAT ALTER THE SCOPE OF THE TRAFFIC CONTROL PLAN. SUCH CHANGES IN SCOPE MUST BE SUBMITTED TO THE ENGINEER-IN-CHARGE FOR APPROVAL BY THE COUNTIES THIRTY (30) WORKING DAYS PRIOR TO IMPLEMENTATION OF SUCH REVISION.
- THE CONTRACTOR SHALL PROVIDE THE ENGINEER, IN WRITING, WITH THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF STAFF WHO ARE AUTHORIZED TO SECURE LABOR, MATERIALS, AND EQUIPMENT FOR EMERGENCY REPAIRS OUTSIDE NORMAL WORKING HOURS. THE ENGINEER-IN-CHARGE WILL PROVIDE THE SUBMITTED INFORMATION TO THE NEW YORK STATE POLICE, THE COUNTIES, AND THE LOCAL POLICE.
- WHEN TYPE III BARRICADES ARE USED NEAR DRIVEWAYS OR INTERSECTIONS THEY SHALL BE PLACED A MINIMUM OF 100' FROM THE DRIVEWAY OR INTERSECTION AND SHALL NOT OBSCURE SIGHT DISTANCE.
- VEHICLES BELONGING TO THE CONTRACTOR AND WORKERS SHALL NOT BE PARKED ON THE PAVEMENT OR THE SHOULDERS ALONG THE ROADWAY BEING USED BY THE GENERAL PUBLIC WITHIN THE PROJECT LIMITS OR PARKED IN A MANNER WHICH OBSTRUCTS ANY SIGNS, BARRIERS, BARRICADES OR ANY OTHER TRAFFIC CONTROL DEVICES.
- EQUIPMENT SHALL NOT BE PARKED OVERNIGHT ON THE RIGHT-OF-WAY WITHIN 33' OF THE EDGE OF THE TRAVEL LANE.
- THE SCHEMATICS SHOWN IN THE PLAN SHEETS ARE THE PLAN FOR THE WORK ZONE TRAFFIC CONTROL FOR THIS CONTRACT DURING CONSTRUCTION. THE CONTRACTOR IS ADVISED THAT WRITTEN APPROVAL MUST BE RECEIVED FROM THE ENGINEER-IN-CHARGE TO ALTER THIS PLAN. IF, AFTER OBSERVING THAT THE EXECUTED TEMPORARY TRAFFIC CONTROL PLAN IS NOT WORKING AND THAT THE WORKERS AND/OR THE MOTORISTS ARE IN IMMEDIATE DANGER, THE CONTRACTOR SHALL IMMEDIATELY MODIFY THE TEMPORARY TRAFFIC CONTROL PLAN, USING GOOD JUDGEMENT AND THE RESOURCES AVAILABLE, TO BETTER PROTECT THE WORKERS AND THE MOTORISTS. THE PROJECT ENGINEER-IN-CHARGE SHALL BE NOTIFIED IMMEDIATELY OF ANY SUCH MODIFICATIONS.
- ALL MATERIALS FOR ESTABLISHING CONSTRUCTION WORK ZONES (I.E. SIGNS, BARRIERS, DRUMS, CONES, ETC.) SHALL BE IN PLACE PRIOR TO BEGINNING WORK.
- DELINEATION DEVICES SHALL CONFORM TO THE M.U.T.C.D. AND NEW YORK STATE SUPPLEMENT.
- THE CONTRACTOR SHALL NOT MIX DELINEATION DEVICES IN A LINEAR CLOSURE OR TAPER (I.E., CONES, VERTICAL PANELS, TUBULAR MARKERS, OR DRUMS SHALL NOT BE USED IN THE SAME TAPER OR CLOSURE). HOWEVER, DIFFERENT DELINEATION DEVICES MAY BE USED IN DIFFERENT AREAS OF THE PROJECT.
- THE CONTRACTOR SHALL NOTIFY ALL LOCAL AGENCIES BEFORE THE DETOUR IS SIGNED AND THE ROAD IS CLOSED (A.O.B.E.).

SIGNS

- THE LOCATIONS OF THE SIGNS SHOWN ON THE WORK ZONE TRAFFIC CONTROL PLANS AND DETAILS SHALL BE SPACED AND LOCATED AS PER M.U.T.C.D. AND MAY BE ADJUSTED BASED ON SIGHT DISTANCE AND OTHER CONSIDERATIONS. THE FINAL LOCATIONS OF SIGNS ARE SUBJECT TO APPROVAL BY THE ENGINEER-IN-CHARGE. COST TO BE INCLUDED IN ITEM 619.01.
- ANY EXISTING SIGNS, WHICH CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL SIGN LAYOUT SHALL BE COVERED, REMOVED, STORED OR RESET, AS APPROVED BY THE ENGINEER. ALL APPROPRIATE EXISTING SIGNS SHALL BE RESTORED TO STANDARD M.U.T.C.D. CONDITION AND/OR LOCATION UNLESS OTHERWISE REPLACED IN THIS CONTRACT. COST TO BE INCLUDED IN ITEM 619.01.
- SIGNS AT OR NEAR INTERSECTIONS SHALL BE PLACED SO THAT THEY DO NOT OBSTRUCT A MOTORIST'S LINE OF SIGHT. (AOBE)
- THE DIMENSIONS OF WORK ZONE TRAFFIC CONTROL SIGNS ARE DESCRIBED IN THE MUTCD. ANY CHANGES TO THE DIMENSIONS SHALL BE APPROVED BY THE ENGINEER-IN-CHARGE.
- SIGN NYR9-12 MAY BE USED IN PLACE OF NYR9-11.
- SIGN HEIGHT SHALL BE 7' IN AREAS WHERE PEDESTRIANS AND PARKED CARS ARE ENCOUNTERED. IN OTHER AREAS, MINIMUM SIGN HEIGHT SHALL BE 5'.

CHANNELIZATION DEVICES

- WHERE POSSIBLE ALL CHANNELIZING AND GUIDING DEVICES ARE TO BE PLACED SO AS TO PROVIDE A MINIMUM 2' LATERAL CLEARANCE TO THE TRAVELED WAY, UNLESS OTHERWISE SHOWN ON THE PLANS. PAYMENT IS INCLUDED IN ITEM 619.01.

PUBLIC ACCESS

- PROPERTY OWNERS WHOSE DRIVEWAYS MAY BE MADE TEMPORARILY INACCESSIBLE BY CONSTRUCTION OPERATIONS SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 1 WEEK PRIOR TO RESTRICTING USE OF THE DRIVEWAY. FOR MULTIPLE ACCESS PROPERTIES, AT LEAST ONE DRIVEWAY SHALL BE OPEN AT ALL TIMES. ACCESS SHALL BE RESTORED TO ALL DRIVEWAYS AS SOON AS POSSIBLE.
- SUITABLE RAMPS SHALL BE INSTALLED TO MAINTAIN SMOOTH TRANSITIONS FROM RESIDENTIAL AND COMMERCIAL DRIVEWAYS TO AND FROM THE WORK AREA.

INFORMATIONAL SIGNS

- AT LEAST THREE WEEKS PRIOR TO BEGINNING OF CONSTRUCTION THE CONTRACTOR SHALL INSTALL INFORMATIONAL SIGNS MEETING M.U.T.C.D STANDARDS THAT HAVE THE FOLLOWING INFORMATION:
 - WHEN THE ROAD WILL CLOSE
 - HOW LONG IT WILL BE CLOSED
- INFORMATIONAL SIGNS SHALL BE INSTALLED ON EDIES ROAD AT SCHWARTZ ROAD AND ON MILL STREET AT WHITE STREET.

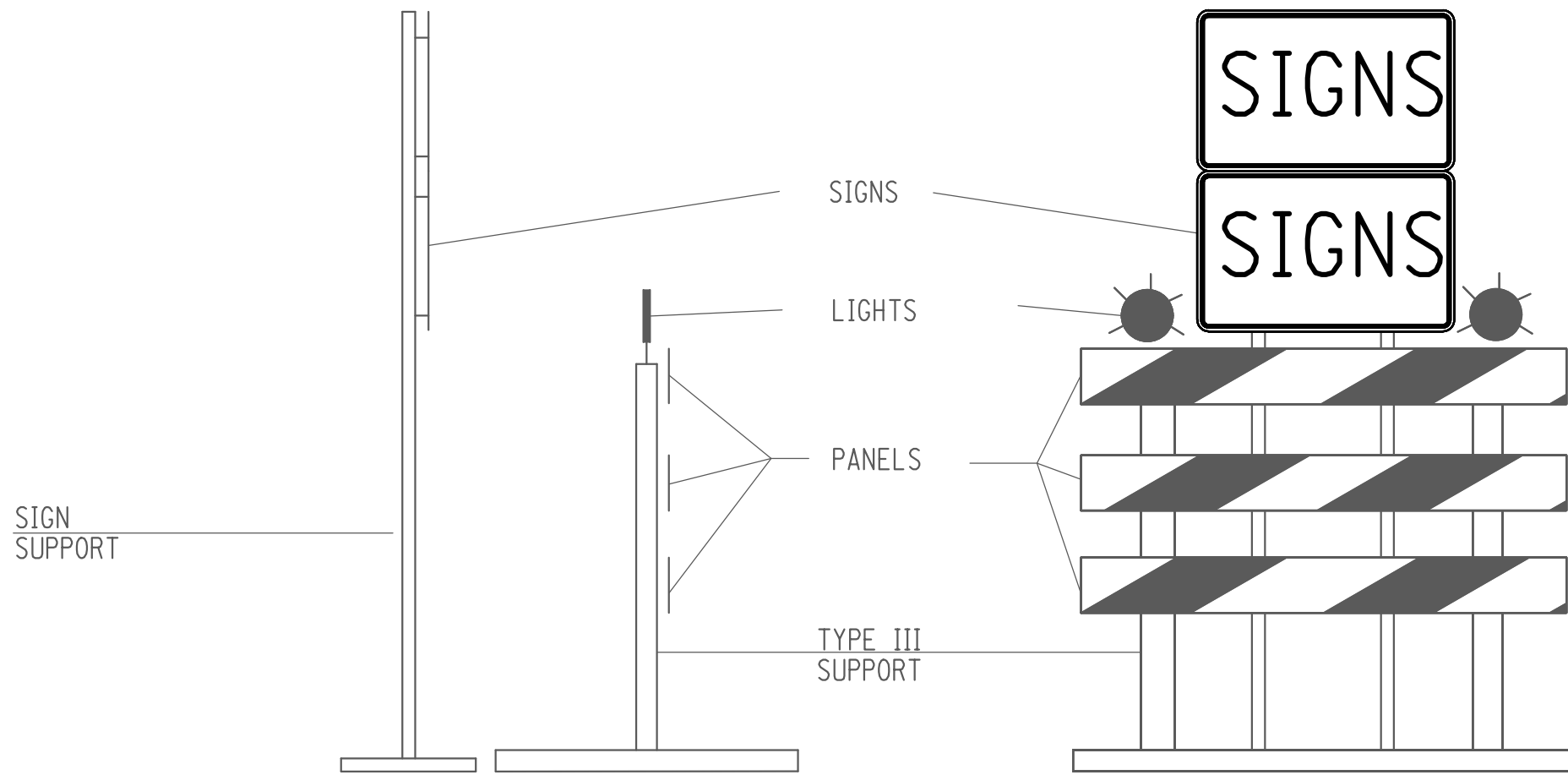
ROAD CLOSED
xx/xx/xx
EXPECTED DURATION
xxx DAYS

DETOUR

- IT IS ASSUMED THAT SOUTH CASCADE DRIVE/MILLER ROAD BRIDGE OVER CATTARAUGUS CREEK WILL BE OPEN AT THE START OF CONSTRUCTION FOR THIS PROJECT. THE DETOUR SIGNING ON WTC-2 SHOWS THE SIGNS NECESSARY TO USE SOUTH CASCADE DRIVE / MILLER ROAD. THE DETOUR SIGNING ON DETAIL "A" SHOWS THE SIGNS NECESSARY TO FOLLOW THE NYSDOT SHOULD IT BE REQUIRED AT ANY TIME DURING CONSTRUCTION. ANY ADDITIONAL SIGNING NEEDED TO ADJUST THE DETOUR SHALL BE INCLUDED IN THE COST BID FOR ITEM 619.01.

TYPE III BARRICADES

- THE CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE FLASHING WARNING LIGHT PER 619-3.11. COST INCLUDED IN ITEM 619.04.



CONFIGURATION FOR SIGN ASSEMBLY I, J, & K.
(SEE DWG. WTC-2)
R11-3a AND R11-2 SIGN DETAIL
NOT TO SCALE

NYSDOT STANDARD SHEETS INCLUDING BUT NOT LIMITED TO:

619-01
619-02
619-04
619-10
619-11
619-12
619-66

WATTS
ARCHITECTURE &
ENGINEERING



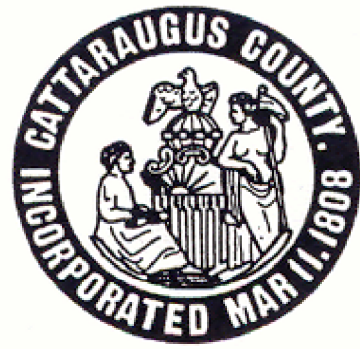
2/17/2017
DATE

DATE

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT



DEPARTMENT
OF
PUBLIC WORKS

PROJECT NAME

ASHFORD BRIDGE #37

MILL ST./EDIES RD.

OVER

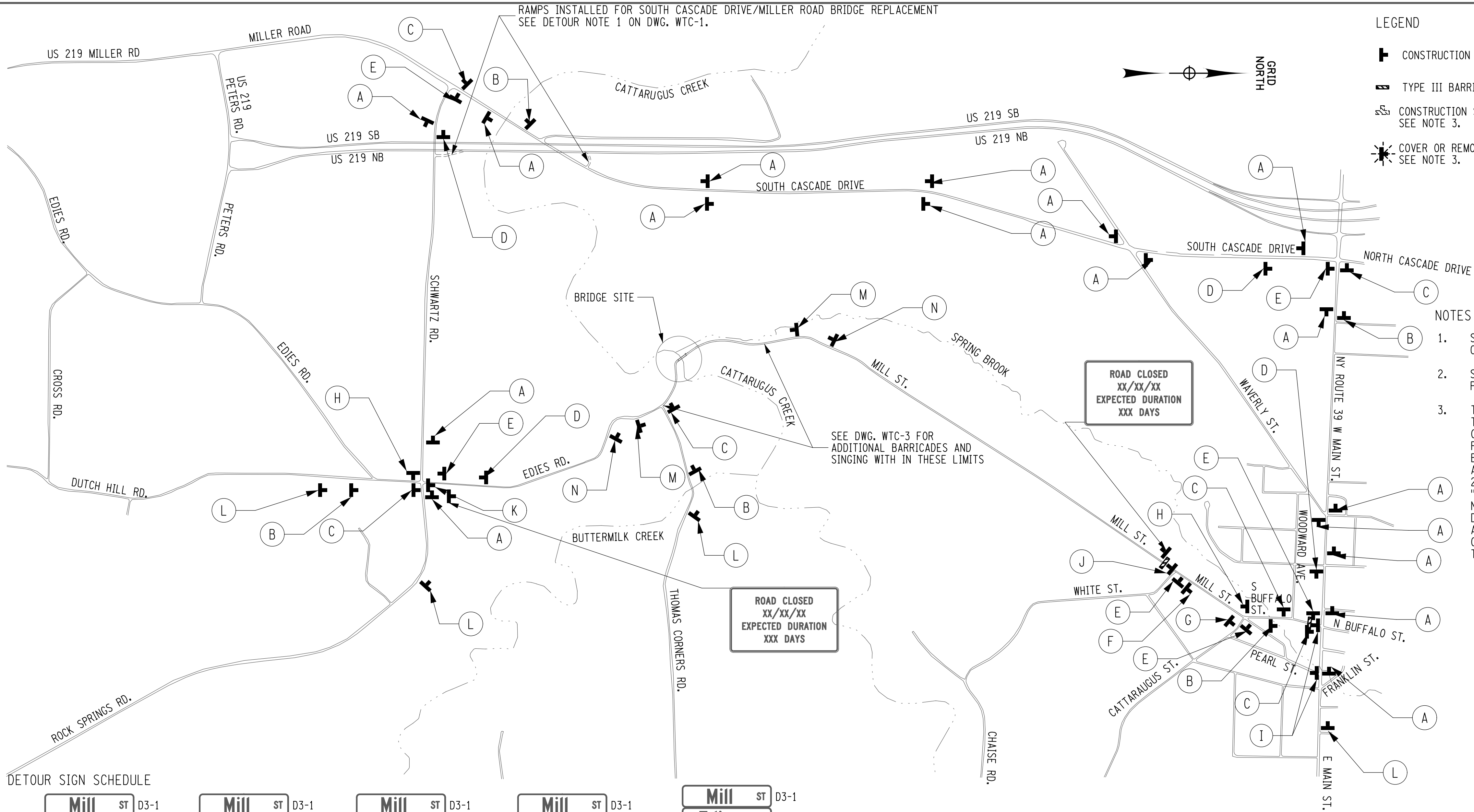
CATTARAUGUS CREEK

B.I.N. 3328370

DRAWING TITLE

WORK ZONE TRAFFIC CONTROL
NOTES AND DETAILS

SCALE	DATE
AS SHOWN	5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 4 OF 46	DRAWING NO. WTC-1



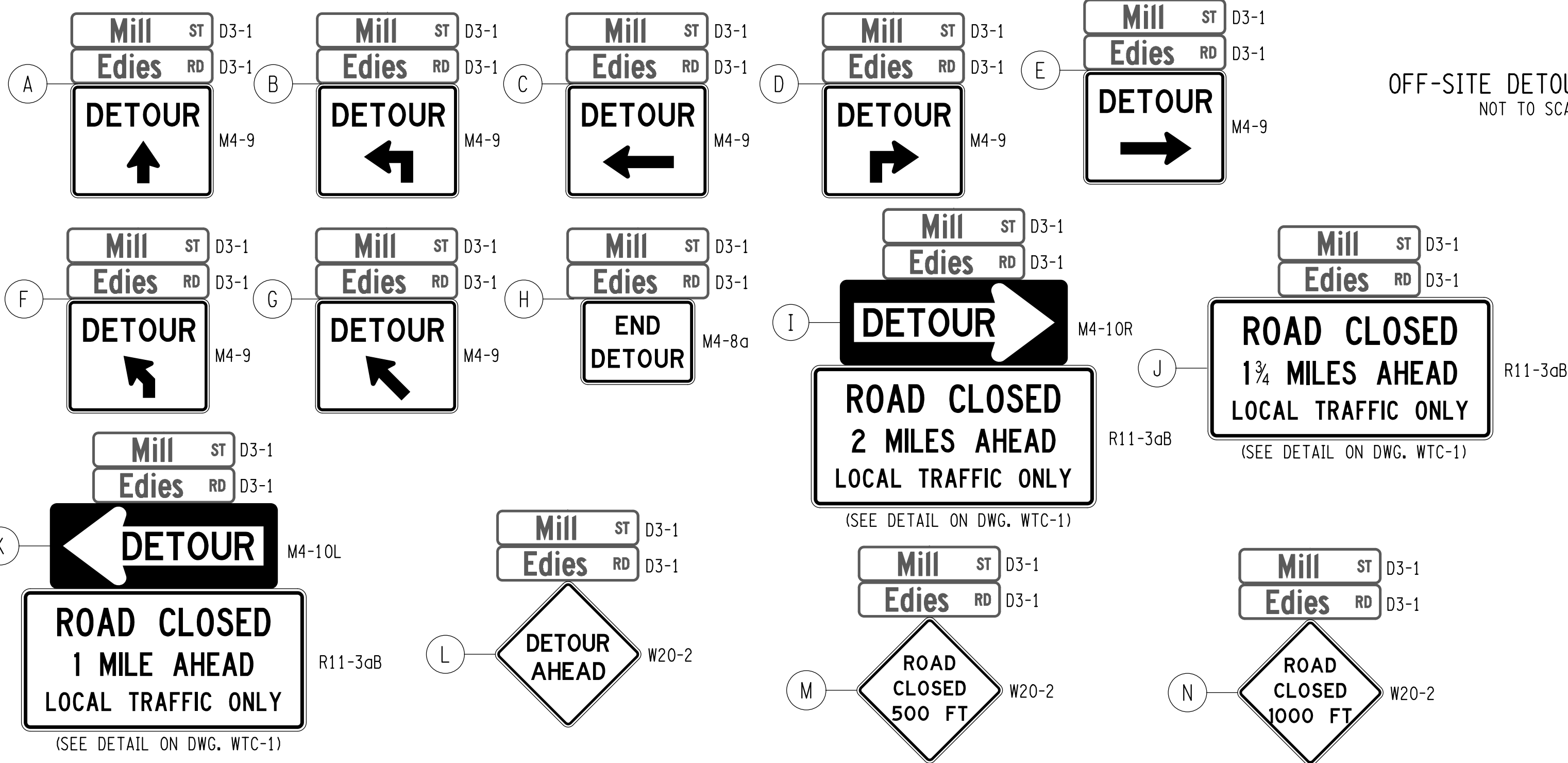
LEGEND

- CONSTRUCTION SIGN (ITEM 619.01)
- TYPE III BARRICADE (ITEM 619.04)
- CONSTRUCTION SIGN (ITEM 619.01) SEE NOTE 3.
- COVER OR REMOVE CONSTRUCTION SIGN (ITEM 619.01) SEE NOTE 3.

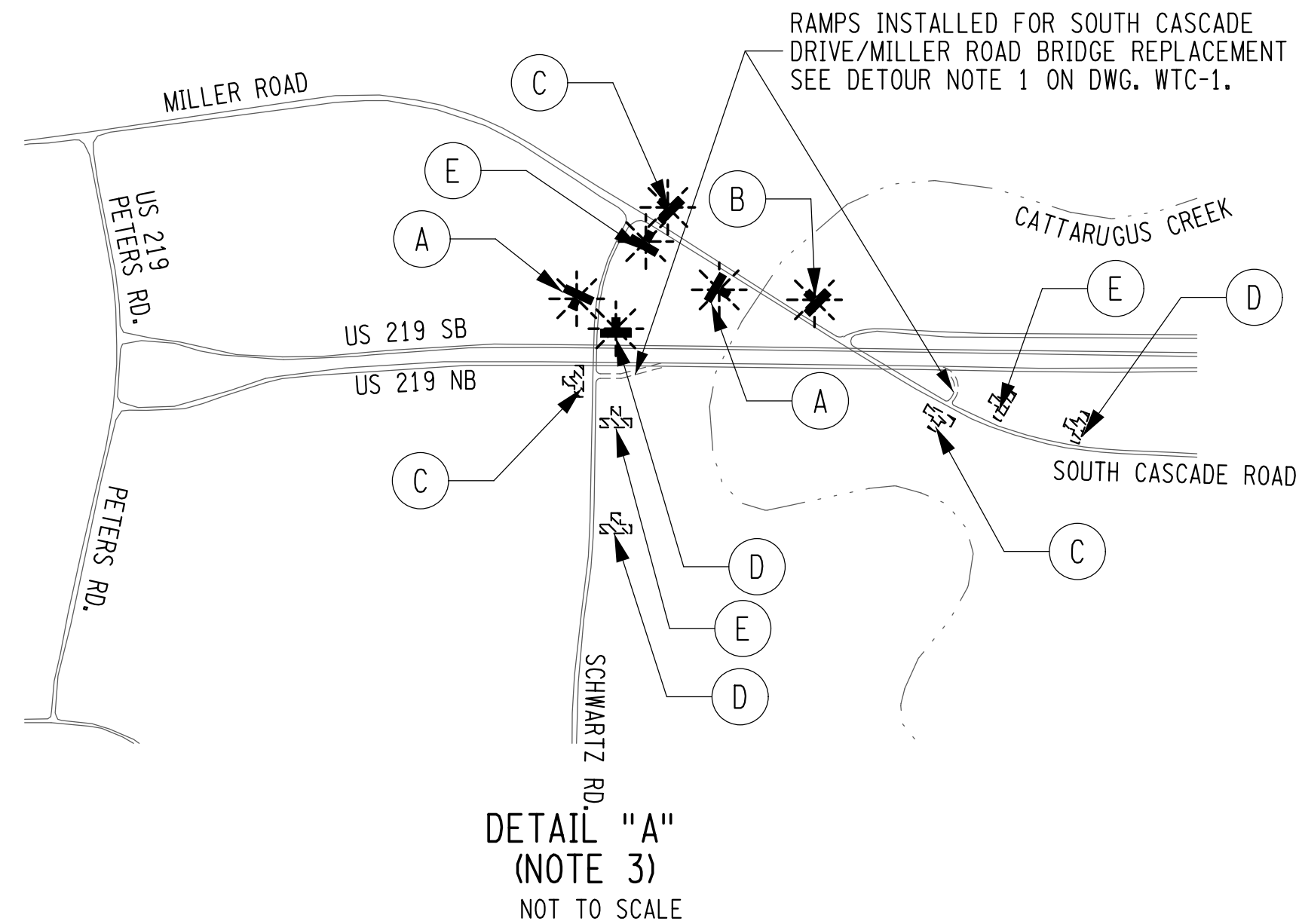
NOTES

- SEE DWG. WTC-1 FOR WORK ZONE TRAFFIC CONTROL NOTES.
- SEE DWG. WTC-3 FOR THE BRIDGE CLOSURE PLAN.
- THE OFF-SITE DETOUR PLAN ASSUMES THAT THE SOUTH CASCADE DRIVE BRIDGE WILL BE OPEN TO TRAFFIC AND CAN BE UTILIZED FOR THE DETOUR. IN THE EVENT THE BRIDGE IS NOT OPEN TO TRAFFIC, THE ALTERNATE DETOUR ROUTE UTILIZING US 219 WILL BE REQUIRED. REFER TO DETAIL "A" FOR DETOUR SIGNAGE MODIFICATIONS NECESSARY IN THE EVENT THE ALTERNATE DETOUR ROUTE IS REQUIRED. ALL COSTS ASSOCIATED WITH ADDITIONAL SIGNAGE OR COVERING SIGNAGE SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 619.01

DETOUR SIGN SCHEDULE



OFF-SITE DETOUR PLAN
NOT TO SCALE

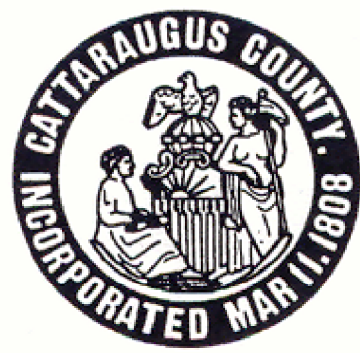


2/17/2017
DATE

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

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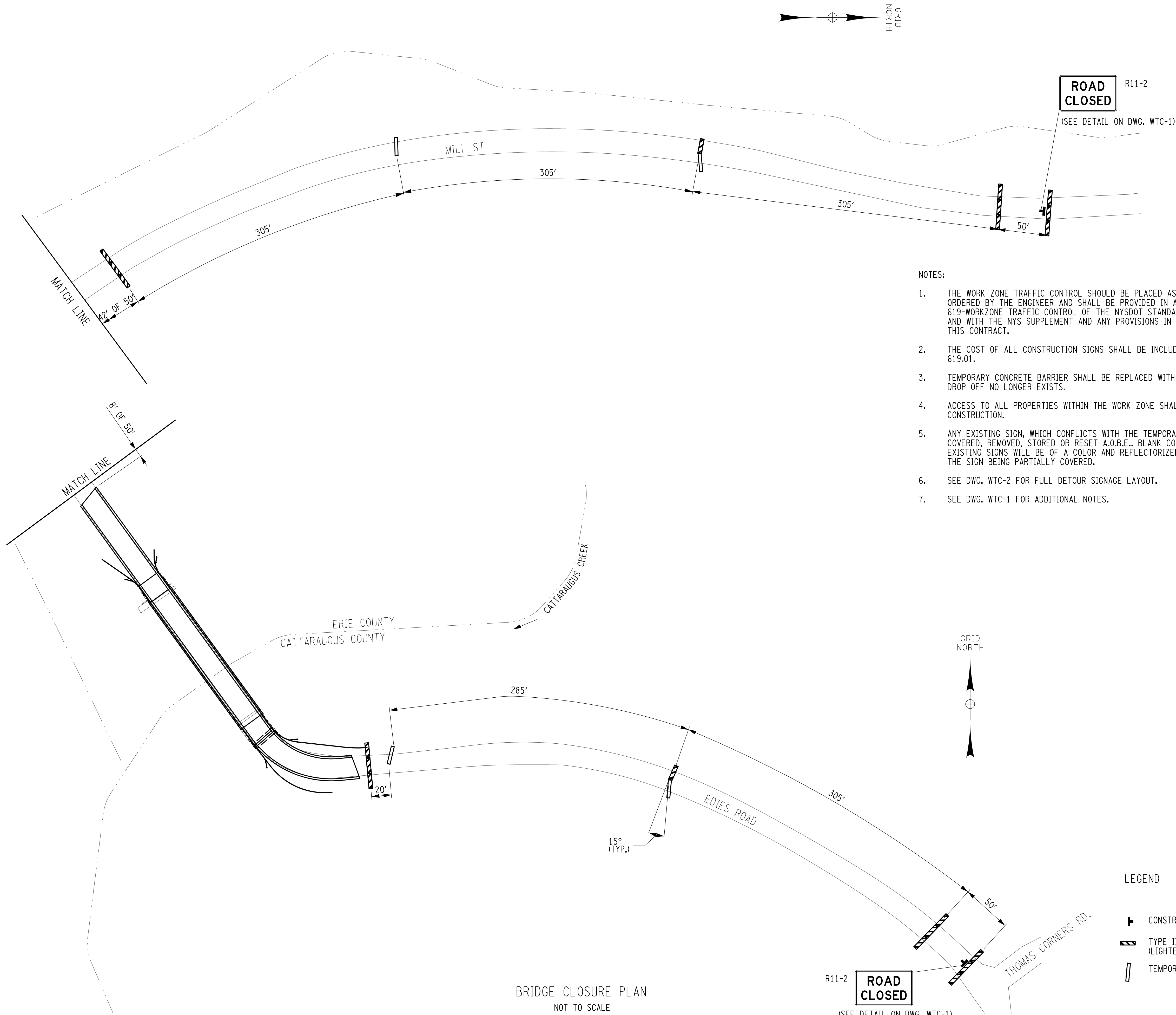
PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

WORK ZONE TRAFFIC
CONTROL
DETOUR PLAN

SCALE	DATE
AS SHOWN	5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 5 OF 46	DRAWING NO. WTC-2



BRIDGE CLOSURE PLAN
NOT TO SCALE

NOTES:

1. THE WORK ZONE TRAFFIC CONTROL SHOULD BE PLACED AS SHOWN ON THIS PLAN OR AS ORDERED BY THE ENGINEER AND SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 619-WORKZONE TRAFFIC CONTROL OF THE NYSDOT STANDARD SPECIFICATIONS, THE M.U.T.C.D. AND WITH THE NYS SUPPLEMENT AND ANY PROVISIONS IN THE PLANS AND/OR PROPOSAL OF THIS CONTRACT.
2. THE COST OF ALL CONSTRUCTION SIGNS SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 619.01.
3. TEMPORARY CONCRETE BARRIER SHALL BE REPLACED WITH TYPE III BARRICADES WHEN THE DROP OFF NO LONGER EXISTS.
4. ACCESS TO ALL PROPERTIES WITHIN THE WORK ZONE SHALL BE MAINTAINED DURING CONSTRUCTION.
5. ANY EXISTING SIGN, WHICH CONFLICTS WITH THE TEMPORARY TRAFFIC CONTROL WILL BE COVERED, REMOVED, STORED OR RESET A.O.B.E.. BLANK COVERS USED TO COVER PORTIONS OF EXISTING SIGNS WILL BE OF A COLOR AND REFLECTORIZED MATERIAL MATCHING THAT OF THE SIGN BEING PARTIALLY COVERED.
6. SEE DWG. WTC-2 FOR FULL DETOUR SIGNAGE LAYOUT.
7. SEE DWG. WTC-1 FOR ADDITIONAL NOTES.

LEGEND

- CONSTRUCTION SIGN (ITEM 619.01)
- TYPE III BARRICADE (ITEM 619.04) (LIGHTED)
- TEMPORARY CONCRETE BARRIER (ITEM 619.1701)



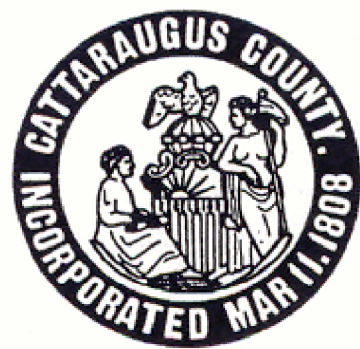
2/17/2017
DATE

DATE

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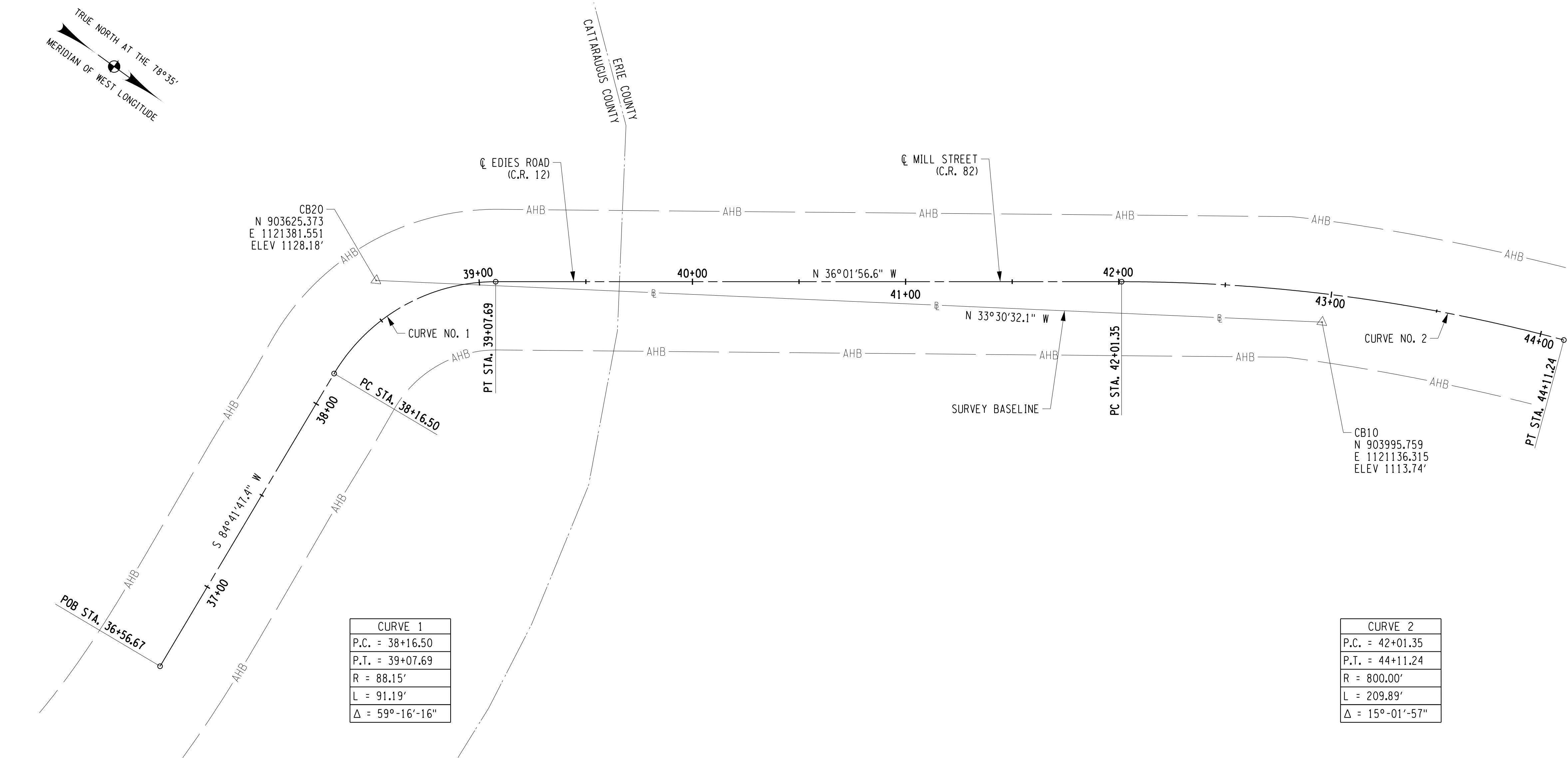
PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

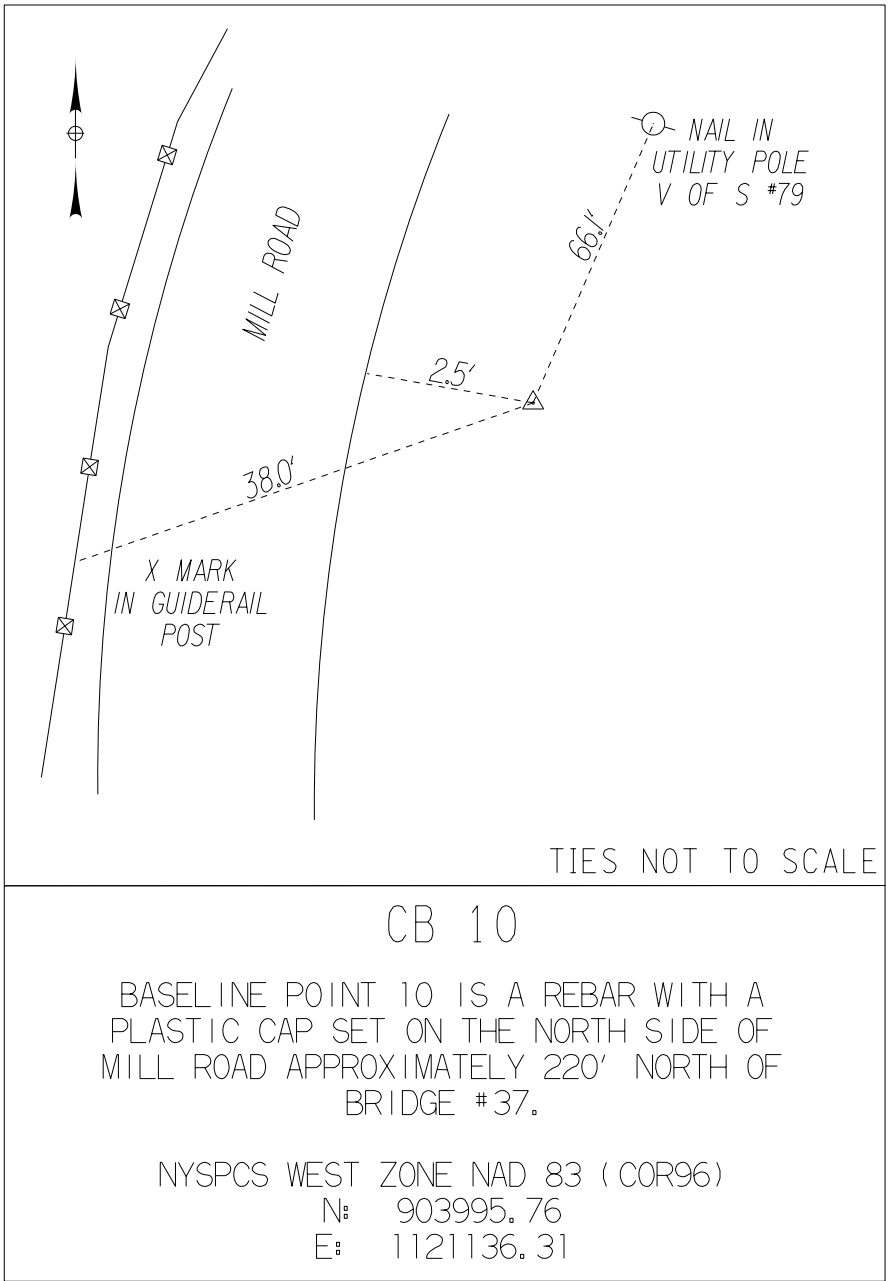
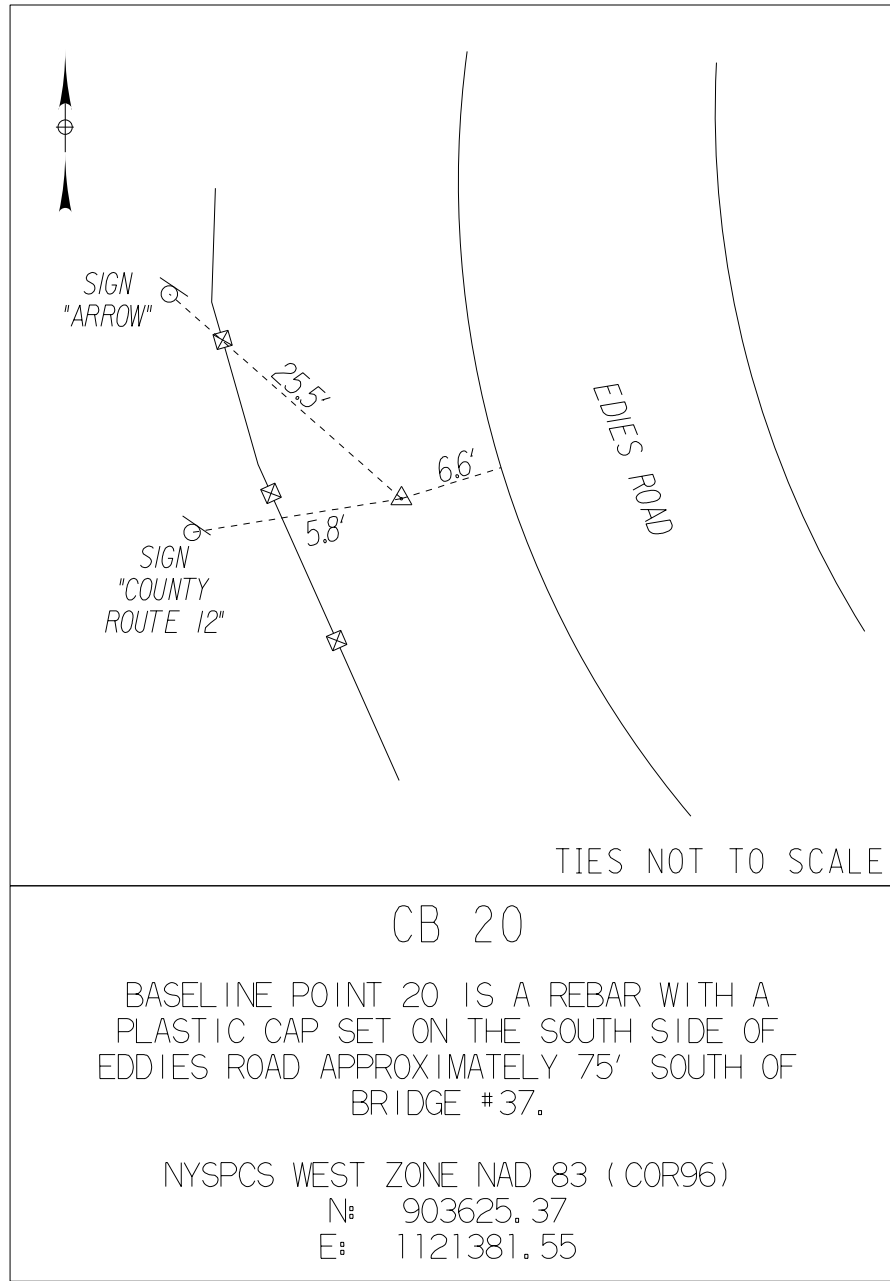
WORK ZONE TRAFFIC CONTROL
BRIDGE CLOSURE DETAIL

SCALE	DATE
AS SHOWN	5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 6 OF 46	DRAWING NO. WTC-3



CURVE 1
P.C. = 38+16.50
P.T. = 39+07.69
R = 88.15'
L = 91.19'
Δ = 59°-16'-16"

CURVE 2
P.C. = 42+01.35
P.T. = 44+11.24
R = 800.00'
L = 209.89'
Δ = 15°-01'-57"



NOTES:

- HORIZONTAL DATUM TIED TO CATTARAUGUS COUNTY MONUMENTS NUMBER AS-53-1 & AS-53-2 USED FOR THE ASHFORD BRIDGE #53 RECONSTRUCTION PROJECT. COORDINATES ARE REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM NAD83/96 (CORS) US SURVEY FEET, WESTERN ZONE.
- ELEVATIONS TIED TO MONUMENTS REFERENCED ABOVE WITH REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- THE ELEVATIONS TAKEN FROM THE 1977 RECORD PLANS HAVE BEEN ADJUSTED DOWN BY 0.51 FT. TO BETTER APPROXIMATE THE SURVEYED ELEVATIONS.

REFERENCES:

- HIGHWAY BOUNDARY SHOWN PER ERIE COUNTY DEPT. OF PUBLIC WORKS DIVISION OF HIGHWAYS TITLED "FELTON BRIDGE BR. 82-1" SHEET 2 OF 18, DATED NOVEMBER 23, 1977.

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3/2/2017
DATE

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

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OF
PUBLIC WORKS**

PROJECT NAME

ASHFORD BRIDGE #37

MILL ST./EDIES RD.

OVER

CATTARAUGUS CREEK

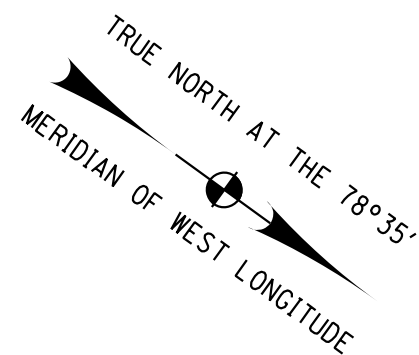
B.I.N. 3328370

DRAWING TITLE

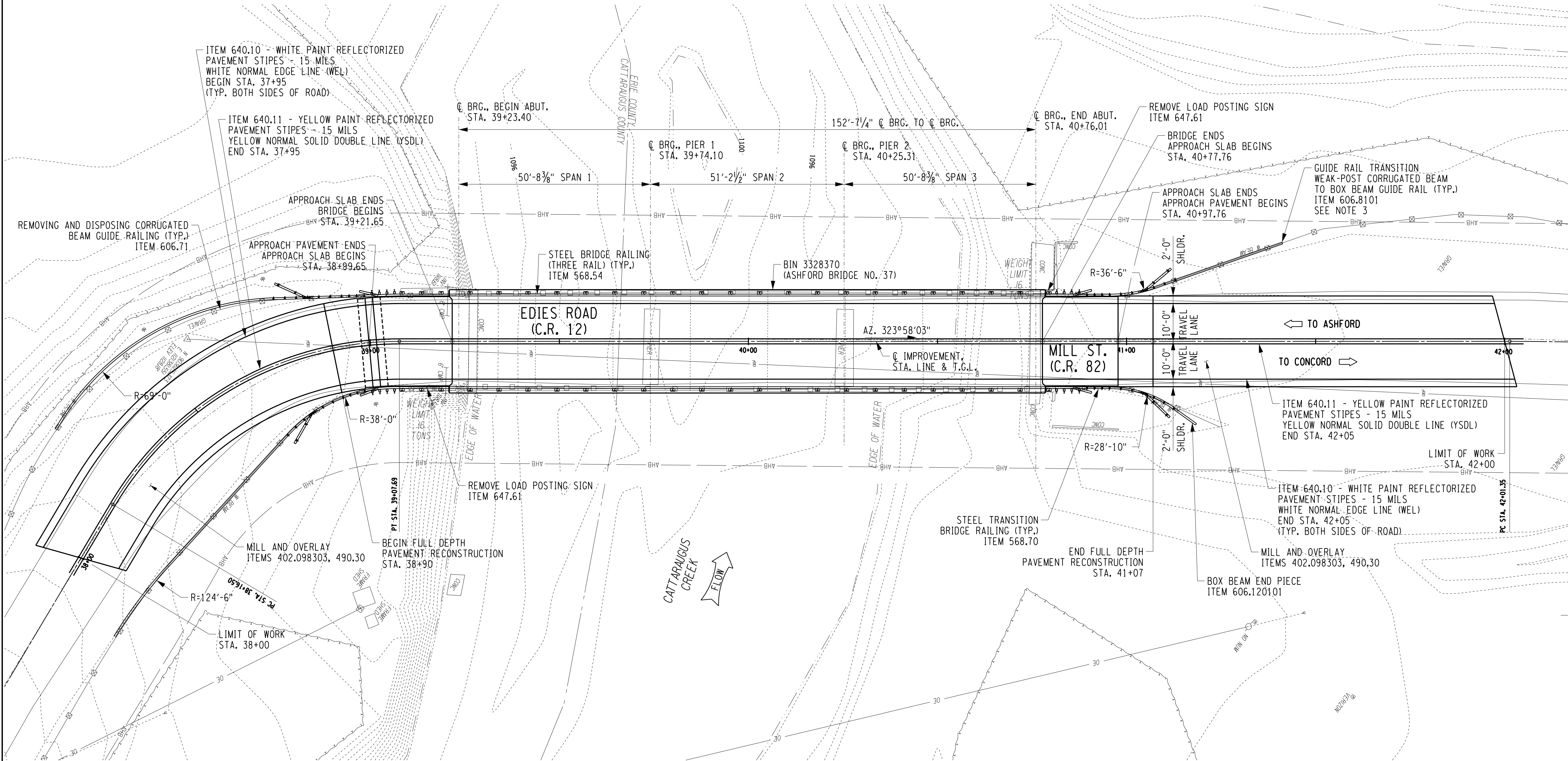
**BASELINE TIES,
SURVEY ALIGNMENT
& CURVE DATA**

SCALE	DATE
AS NOTED	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 7 OF 46	DRAWING NO. SAP-1

SCALE	DATE
AS NOTED	5/2/2017
P.I.N.	EAA PROJECT NO.
5757.31	19473.00
SHEET NO.	DRAWING NO.
8 OF 46	TS-1



CURVE 1
P.C. = 38+16.50
P.T. = 39+07.69
R = 88.15'
L = 91.19'
Δ = 59°-16'-16"



NOTES:

- SEE DWG. NO. BR-33 FOR GUIDE RAILING TABLES.
- REMOVE 16 TON LOAD POSTING SIGNS AT THE FOLLOWING INTERSECTIONS:
A. EDIES ROAD AND SCHWARTS ROAD/ROCK SPRINGS ROAD
B. EDIES ROAD AND THOMAS CORNERS ROAD
C. MILL STREET AND S. BUFFALO ST/CATTARAUGUS ST.

PAID FOR UNDER ITEM 647.61.

- RAILING TRANSITION AT END LEFT QUADRANT SHALL RETAIN THE EXISTING CORRUGATED BEAM GUIDE RAILING WITHIN THE TRANSITION LIMITS. ADDITIONAL POSTS WITHIN THE TRANSITION LIMITS AND WITHIN THE RIGHT-OF-WAY SHALL BE ADDED AS NEEDED TO ACHIEVE THE STANDARD. COSTS SHALL BE PAID FOR UNDER ITEM 606.8101.

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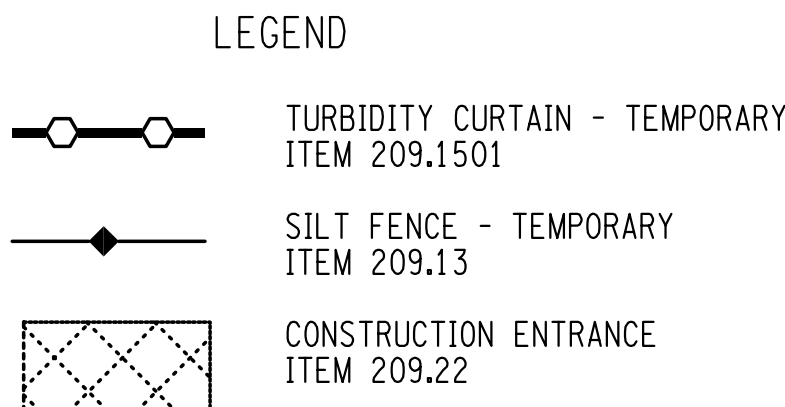
PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

ROADWAY PLAN

SCALE 1"=15'	DATE 5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 9 OF 46	DRAWING NO. RP-1



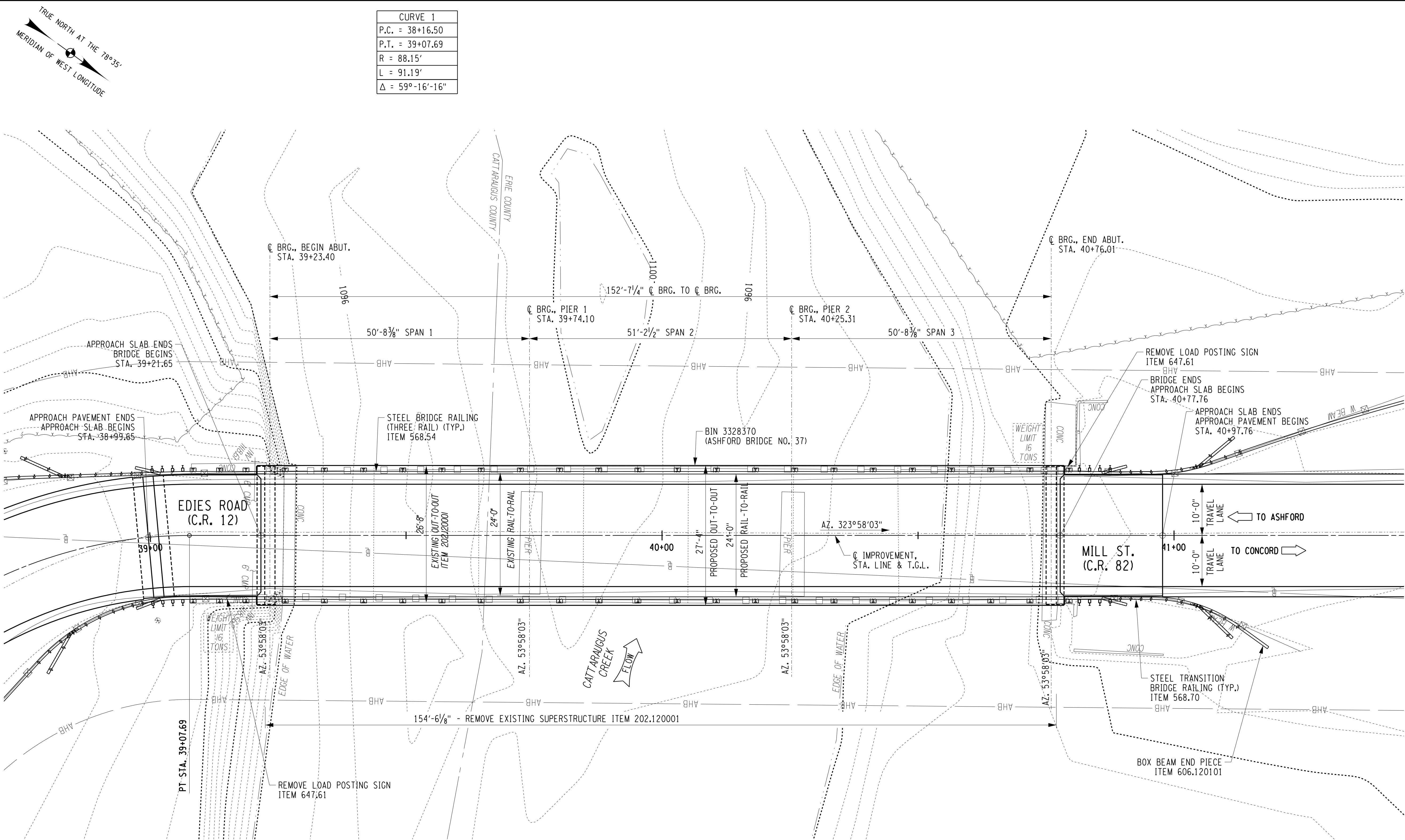
1. THE CONTRACTOR SHALL COMPLY WITH ALL GENERAL NOTES FOR THE UNITED STATES ARMY CORPS OF ENGINEERS, SECTION 404 NATIONWIDE PERMITS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL GENERAL NOTES FOR THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, SECTION 401 WATER QUALITY CERTIFICATION, WHICH ARE INCLUDED IN THE PROPOSAL.
3. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM WATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL DEVICES.
4. STORM WATER FROM DISTURBED AREAS MUST BE PASSED THROUGH A SILTATION FENCE BEFORE DISCHARGE BEYOND DISTURBED AREAS OR INTO INLETS OF OTHER DRAINAGE SYSTEMS.
5. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE TO ANY WATERS NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS, OR OTHER DEVICES BE ALLOWED TO ENTER ANY WATERS.
6. ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION OF THE PROJECT SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE BED AND BANKS OF ALL WATER AREAS TO AN APPROPRIATE UPLAND AREA FOR DISPOSAL.
7. ALL DREDGED AND EXCAVATED MATERIAL SHALL BE DISPOSED OF ON AN UPLAND SITE AND BE SUITABLY STABILIZED SO THAT IT CANNOT REASONABLY RE-ENTER ANY WATER BODY.
8. THE COST OF INSTALLING, CLEANING, MAINTAINING, AND REMOVING TEMPORARY SOIL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PAID FOR UNDER THE APPROPRIATE 209 ITEM.
9. THE LOCATIONS OF EROSION AND SEDIMENT CONTROL MEASURES, AS INDICATED IN THE CONTACT DOCUMENTS MAY REQUIRE FIELD ADJUSTMENT DEPENDING ON THE SEQUENCE OF CONSTRUCTION ACTIVITIES, CONSTRUCTION METHODS, AND/OR ACTUAL FIELD CONDITIONS. THE ENGINEER SHALL BE NOTIFIED OF ANY SIGNIFICANT FIELD CHANGES TO THE EROSION AND SEDIMENT CONTROL MEASURES INDICATED IN THE CONTRACT DOCUMENTS.
10. THE CONTRACTOR SHALL NOT USE THE STREAM BED OR BANKS AS A STAGING AREA FOR EQUIPMENT OR MATERIALS. AFTER EACH WORK DAY, ALL MECHANIZED EQUIPMENT SHALL BE REMOVED FROM THE STREAM BED AND BANKS AND STORED IN AN APPROVED UPLAND SITE.
11. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE ENGINEER A WRITTEN SCHEDULE AND PROPOSED MEASURES FOR TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENT CONTROL AS REQUIRED BY SECTION 209 OF THE NYSOT STANDARD SPECIFICATIONS.

209-01
209-05
209-06

ITEM 209.13 (LF)		
SILT FENCE - TEMPORARY		
LOCATION	SIDE	LENGTH
37+95 TO 38+05	RT	17.00
38+34 TO 38+45	RT	11.00
38+75 TO 38+84	RT	16.00
38+91 TO 39+08	RT	21.00
40+82 TO 41+09	RT	28.00
41+09 TO 42+08	RT	99.00
40+61 TO 40+61	LT TO RT	62.00
37+89 TO 38+07	LT	18.00
38+00 TO 38+38	LT	45.00
38+37 TO 39+10	LT	92.00
39+08 TO 39+20	LT	13.00
40+85 TO 42+00	LT	118.00
TOTAL:		540.00

ITEM 209.22 (SY)						
CONSTRUCTION ENTRANCE						
STATION	STATION	SIDE	LENGTH (FT)	WIDTH (FT)	AREA (SF)	AREA (SY)
40+50.00	41+50.00	RT	100.00	12.00	1,200.00	133.33
					TOTAL:	134.00

ITEM 209.1501 (LF)		
TURBIDITY CURTAIN - TEMPORARY		
LOCATION	SIDE	LENGTH
39+38	--	116.00
TOTAL:		116.00



LOAD RATING	
LOAD FACTOR RATING	
INVENTORY	HS-35 (64.1 TONS)
OPERATING	HS-59 (107 TONS)
LOAD AND RESISTANCE FACTOR RATING	
HL - 93 INVENTORY	RATING FACTOR = 1.27
HL - 93 OPERATING	RATING FACTOR = 2.22
PERMIT LOADING	N/A

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NO.	DESCRIPTION	BY	DATE

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DEPARTMENT
OF
PUBLIC WORKS

PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

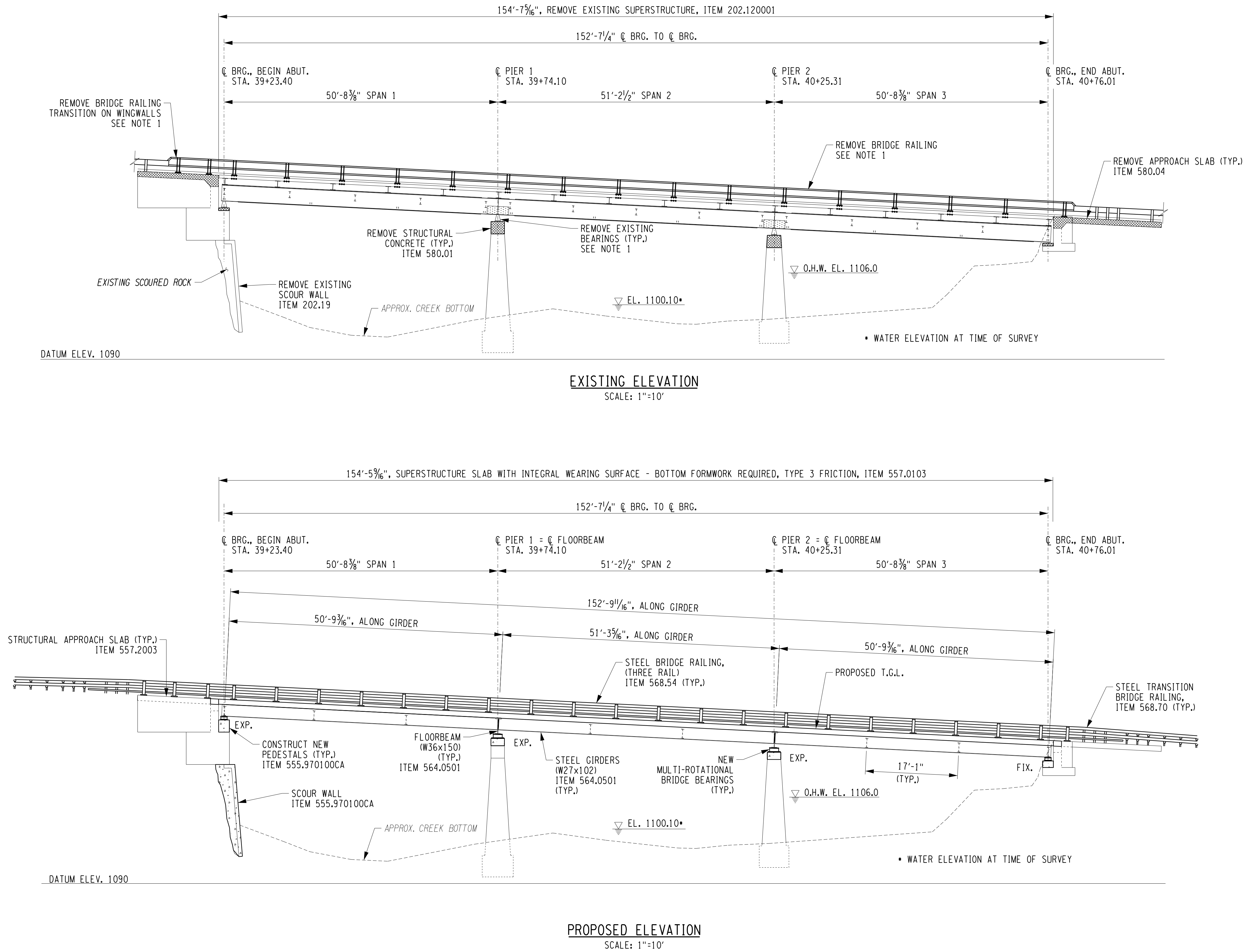
DRAWING TITLE

BRIDGE PLAN

SCALE	DATE
1"=20'	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 11 OF 46	DRAWING NO. BR-1

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DATE/TIME = 4/26/2017 4:10:10 PM
USER = Lindot

DESIGN SUPERVISOR D. ZIEMIANSKI JOB MANAGER C. GAWRON CHECKED BY J. DePLANCHE DRAFTED BY T. LINDO CHECKED BY J. DePLANCHE



NOTES:

1. COST INCLUDED UNDER ITEM 202.120001, REMOVE EXISTING SUPERSTRUCTURE.

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PROJECT NAME

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MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

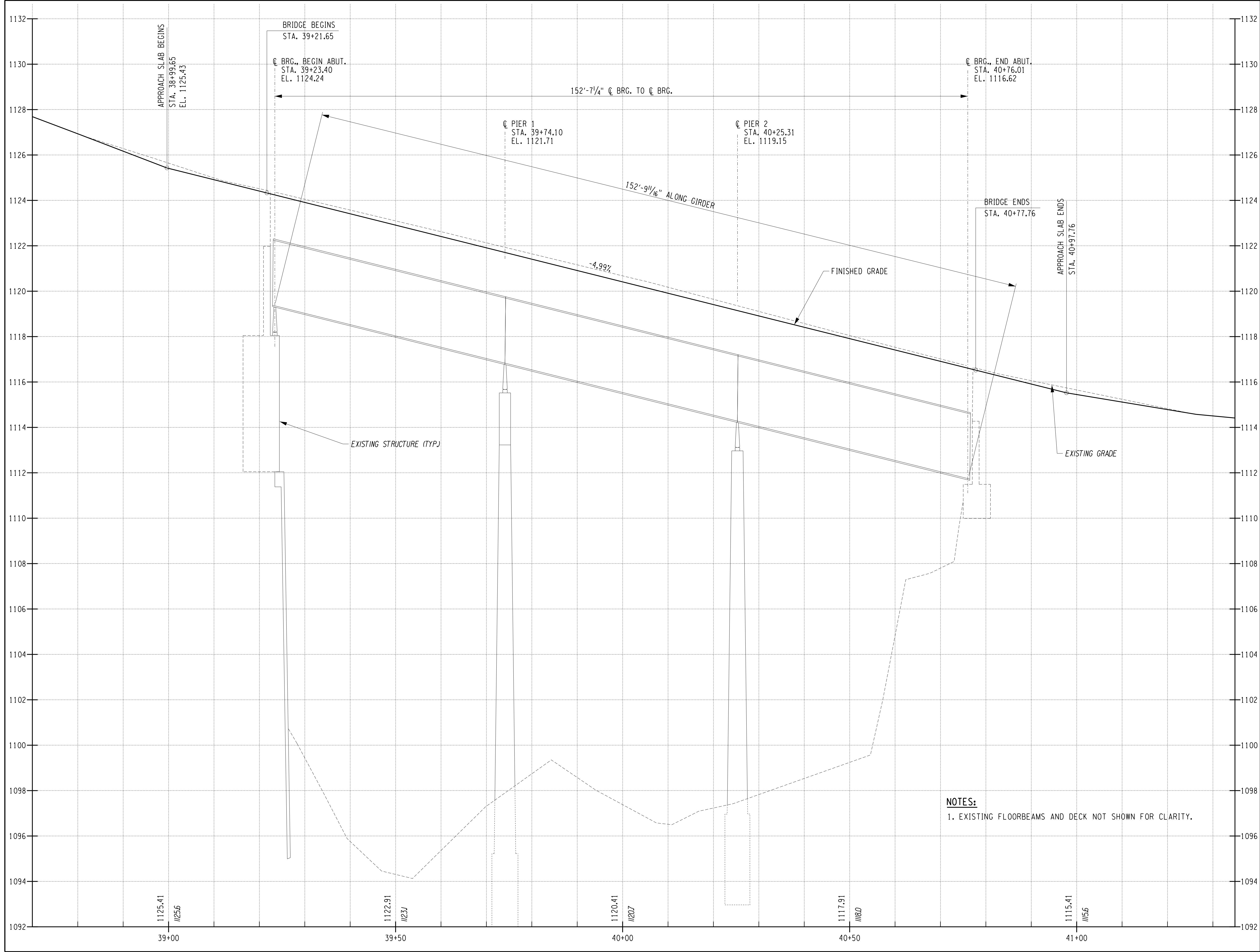
DRAWING TITLE

ELEVATIONS

SCALE	DATE
AS NOTED	5/2/2017
P.J.N.	EAA PROJECT NO.
5757.31	19473.00
SHEET NO.	DRAWING NO.
12 OF 46	BR-2

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DESIGN SUPERVISOR D. ZIEMIANSKI JOB MANAGER C. GAWRON CHECKED BY J. DePLANCHE DESIGNED BY J. DePLANCHE DRAFTED BY T. LINDO CHECKED BY J. DePLANCHE



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PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

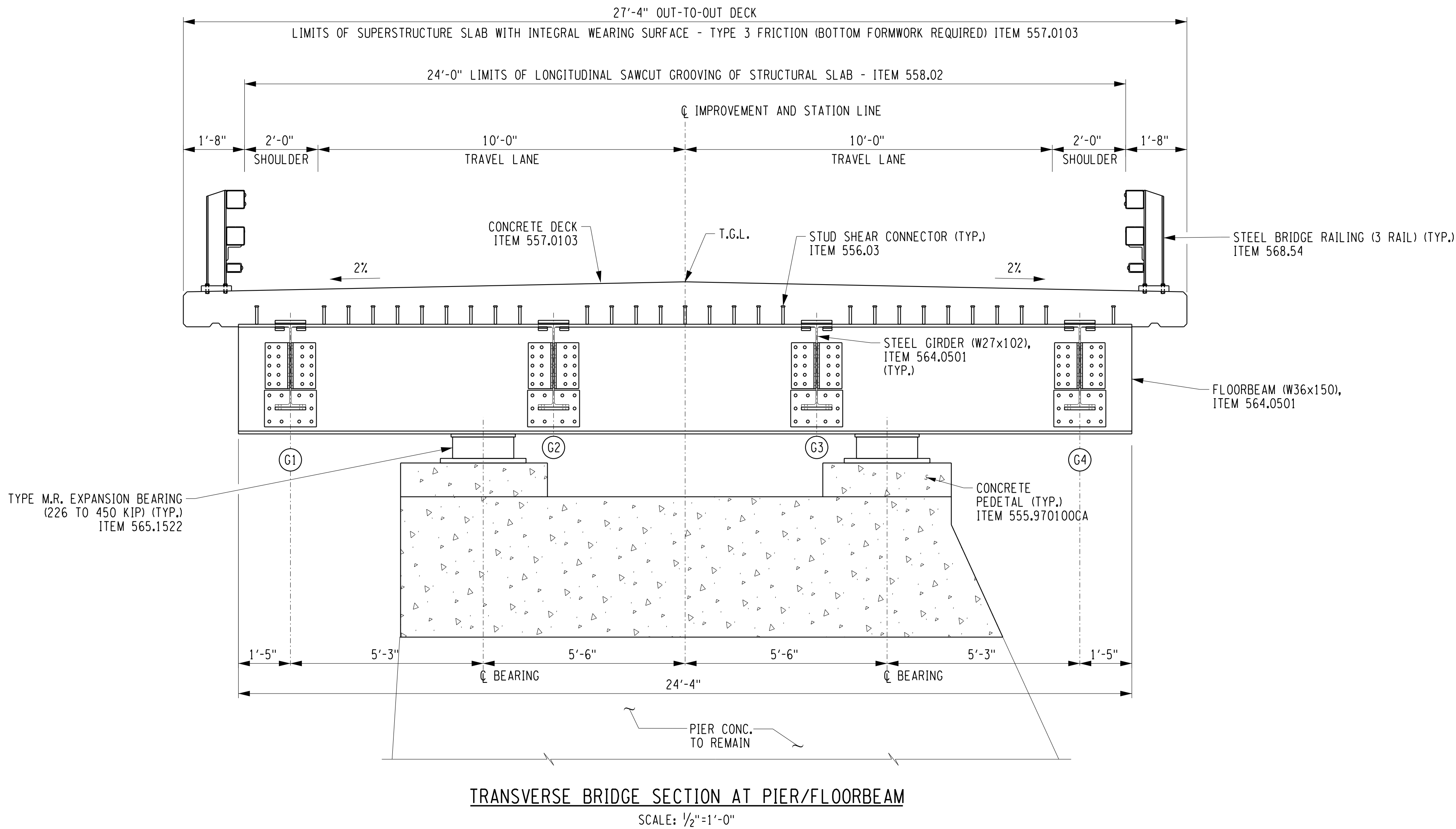
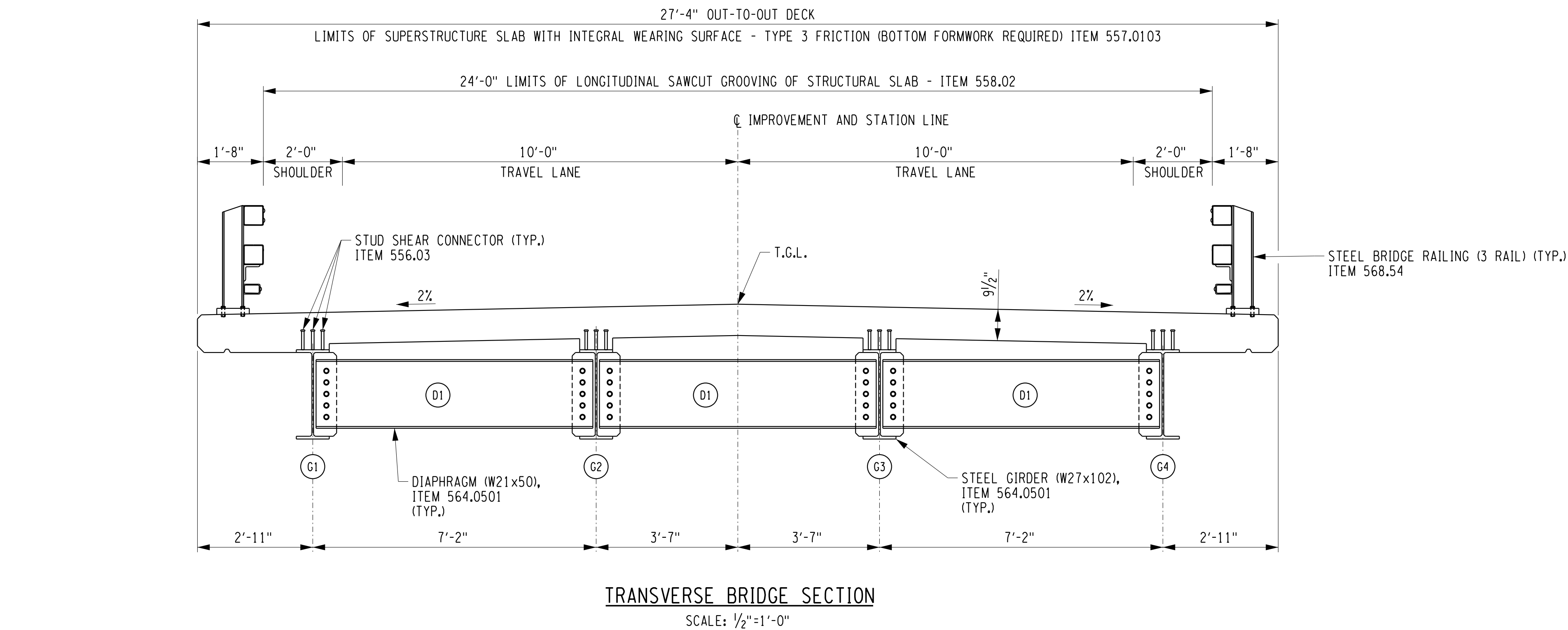
DRAWING TITLE

PROFILE

SCALE 1"=10' H. 1"=2' V. P.J.N. 5757.31	DATE 5/2/2017 EAA PROJECT NO. 19473.00
SHEET NO. 13 OF 46	DRAWING NO. BR-3

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DATE/TIME = 4/26/2017 4:10:15 PM
USER = Lindot

DESIGN SUPERVISOR D. ZIEMIANSKI JOB MANAGER C. GAWRON
DESIGNED BY J. DePLANCHE
CHECKED BY A. SCHWINGEL
DRAFTED BY T. LINDO
CHECKED BY J. DePLANCHE



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PROJECT NAME

ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
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B.I.N. 3328370

DRAWING TITLE

BRIDGE SECTIONS

SCALE AS NOTED	DATE 5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 14 OF 46	DRAWING NO. BR-4

GENERAL NOTES:

- DESIGN SPECIFICATIONS: NYSDOT LRFD BRIDGE DESIGN SPECIFICATIONS WITH ALL PROVISIONS IN EFFECT AS OF MARCH 2017 (FOR DESIGN PURPOSES, COMPRESSIVE STRENGTH OF CONCRETE FOR SUBSTRUCTURES AND DECK SLABS AT 28 DAYS: f'c = 3000 psi.)
- LIVE LOAD: AASHTO HL-93
- CONSTRUCTION AND MATERIALS SPECIFICATIONS: STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, OFFICE OF ENGINEERING.
- DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS FOR WHICH NO SCALE IS SHOWN ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.
- ALL SHOP DRAWINGS SUBMITTED FOR THIS PROJECT SHALL BE IN US CUSTOMARY UNITS.
- THE COST OF ALL JOINT MATERIAL SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS ITEMS OF THE CONTRACT, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- THIS STRUCTURE CONTAINS FRACTURE-CRITICAL MEMBERS. THESE MEMBERS ARE IDENTIFIED ON THE PLANS. THE CONTRACTOR SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF SECTION 9 OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (SCM).
- THE LOAD RATINGS ARE IN ACCORDANCE WITH THE AASHTO MANUAL FOR BRIDGE EVALUATION.
- DIMENSIONS FOR THICKNESSES OF STEEL ROLLED ANGLE SHAPES AND STRUCTURAL TUBING ARE SHOWN ACCORDING TO THE AISC MANUAL.
- THIS BRIDGE, INCLUDING EXISTING ELEMENTS AND THOSE REPAIRED OR REPLACED UNDER THIS CONTRACT, SHALL BE MAINTAINED IN ACCORDANCE WITH THE GUIDELINES CONTAINED IN THE CURRENT EDITION OF THE AASHTO MAINTENANCE MANUAL: THE MAINTENANCE AND MANAGEMENT OF ROADWAYS AND BRIDGES.

SUBSTRUCTURE NOTES:

- TOP OF BACKWALLS SHALL BE TROWEL FINISHED. SHEET GASKET (TREATED BOTH SIDES), 728-06, SHALL BE PLACED ON TOP OF THE BACKWALLS OF FIXED AND EXPANSION ABUTMENTS. TWO SHEETS SHALL BE USED; PAYMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.
- THE PROVISIONS OF SECTION 555-3.08, FINISHING, WITH REGARD TO REMOVING RUST STAINS FROM CONCRETE EXPOSED TO VIEW ARE WAIVED. RUST STAINS SHALL NOT BE REMOVED FROM THE SUBSTRUCTURE ON THIS BRIDGE.
- WHERE A COFFERDAM IS USED, THE COST OF DEWATERING THE ENTIRE EXCAVATION, REGARDLESS OF SOURCE OF WATER, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE COFFERDAM ITEM.
- SHOULD FIELD CONDITIONS REQUIRE A CHANGE FROM THE TYPE OF COFFERDAM SYSTEM CALLED FOR ON THE PLANS, THE ENGINEER-IN-CHARGE SHALL CONTACT THE COUNTY FOR COORDINATION WITH APPROPRIATE AGENCIES TO APPROVE THE CHANGE.
- ORDINARY HIGH WATER IS ESTIMATED TO BE 1106 FT. THIS IS DEFINED AS THE WATER SURFACE ELEVATION FOR THE MEAN ANNUAL FLOOD, WHICH IS THE FLOOD THAT HAS A RECURRENCE INTERVAL OF 2.33 YEARS.

ORDINARY WATER IS ESTIMATED TO BE 1101 FT. THIS IS DEFINED AS THE HIGHEST SURFACE WATER ELEVATION LIKELY TO BE ENCOUNTERED DURING ONE CONSTRUCTION SEASON (OTHER THAN MAJOR FLOODS). IT IS ALWAYS LESS THAN THE ORDINARY HIGH WATER ELEVATION AND IT IS USUALLY AN OBSERVED ELEVATION RATHER THAN A COMPUTED ONE.

SUPERSTRUCTURE NOTES:

- ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A709 GRADE 50.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PROVISIONS OF THE CURRENT SPECIFICATIONS FOR SUPERSTRUCTURE SLABS, WHICH ALLOW THE OPTION OF 3 FORMING SYSTEMS FOR THE UNDERSIDE OF THE SLABS. HOWEVER, ON THIS BRIDGE, ONLY THE FOLLOWING OPTION WILL BE PERMITTED:
 - REMOVABLE WOODEN FORMS
- NO DEVIATIONS FROM THE HAUNCH DETAILS SHOWN ON THESE PLANS MAY BE MADE WITHOUT THE PERMISSION OF THE COUNTY.
- THE STRUCTURAL STEEL FOR THIS BRIDGE SHALL BE COMPLETELY HOT-DIP GALVANIZED IN ACCORDANCE WITH ITEM 564.20010008.

SUPERSTRUCTURE NOTES CONT.:

- FOR THE VARIOUS LUMP SUM STRUCTURAL STEEL ITEMS IN THE CONTRACT, THE "TOTAL WEIGHT FOR PROGRESS PAYMENT" IS AS FOLLOWS:

ITEM TOTAL WEIGHT FOR PROGRESS PAYMENT
564.0501 82750 POUNDS

THESE WEIGHTS SHALL BE USED IN DETERMINING PARTIAL PAYMENTS AND PROGRESS. UNDER NO CIRCUMSTANCES SHALL THE "TOTAL WEIGHT FOR PROGRESS PAYMENT" BE USED FOR FINAL PAYMENT PURPOSES. THE CONTRACTOR IS ADVISED NOT TO USE THE "TOTAL WEIGHT FOR PROGRESS PAYMENT" AS A BIDDING TOOL. DISCREPANCIES WHICH MAY OCCUR BETWEEN THE TOTAL WEIGHT SHIPPED AND "TOTAL WEIGHT FOR PROGRESS PAYMENT" SHALL NOT BE A BASIS FOR ADDITIONAL COMPENSATION.
- DIAPHRAGMS FOR NONSKEWED STRAIGHT GIRDER SUPERSTRUCTURES SHALL BE FABRICATED TO FIT GIRDERS ERECTED WITH THEIR WEBS VERTICAL UNDER STEEL AND FULL DEAD LOAD CONDITIONS.
- STEEL ERECTION NOTES:
THE CONTRACTOR SHALL PROVIDE FOR THE STABILITY OF STRUCTURAL STEEL DURING ALL PHASES OF ERECTION AND CONSTRUCTION, AS PROVIDED IN SUBSECTION 204 OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (SCM). THE METHODS USED BY THE CONTRACTOR SHALL BE DOCUMENTED ON THE ERECTION DRAWINGS WITH ALL SUPPORTING STABILITY CALCULATIONS SUBMITTED AND STAMPED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER AND SUBMITTED TO THE ENGINEER IN ACCORDANCE WITH THE SCM.

- THE DESIGN OF THIS STRUCTURE ASSUMES THAT THE STRUCTURAL STEEL IS COMPLETELY ERECTED BEFORE IT IS ALLOWED TO DEFLECT UNDER ITS OWN DEAD LOAD. DEFLECTIONS INCURRED DURING THE VARIOUS STAGES OF THE ERECTION METHOD ARE NOT CONSIDERED. THEREFORE, THE ACTUAL ERECTION METHODS AND SEQUENCES EMPLOYED BY THE CONTRACTOR MAY HAVE A SUBSTANTIAL EFFECT ON THE FINAL STEEL PROFILE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ALL NECESSARY COMPENSATORY ACTION TO ENSURE THAT THE FINAL ALIGNMENT AND PROFILE OF THE ERECTED STEEL CONFORMS TO SUBSECTION 1213, 1214, AND 1215 OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (SCM). ANY CORRECTIVE WORK NECESSARY TO RE-POSITION PREVIOUSLY ERECTED STEEL TO ACHIEVE ACCEPTABLE ALIGNMENT AND PROFILE MUST BE APPROVED BY THE COUNTY, AND SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE COUNTY.
- FOR BIN 3328370, SHOP DRAWING SUBMITTALS ARE REQUIRED FOR THE FOLLOWING BRIDGE RAIL/TRANSITION ITEMS: 568.70.
- TOP SURFACES OF NEW BRIDGE DECKS AND APPROACH SLABS SHALL BE SEALED ACCORDING TO ITEM 559.18960118 - PROTECTIVE SEALING OF STRUCTURAL CONCRETE ON NEW BRIDGE DECKS AND BRIDGE DECK OVERLAYS.

REMOVAL NOTES:

- EXISTING SUPERSTRUCTURE SHALL BE REMOVED UNDER ITEM 202.120001 IN THE BRIDGE ESTIMATE.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF SUBSECTION 202-3.01 GENERAL AND SAFETY REQUIREMENTS. A REMOVAL PLAN, SIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK, SHALL BE SUBMITTED TO THE ENGINEER THIRTY (30) DAYS PRIOR TO BEGINNING THE DEMOLITION.
- RECORD PLANS FOR THIS STRUCTURE ARE AVAILABLE AT THE CATTARAUGUS COUNTY DEPARTMENT OF PUBLIC WORKS OFFICE.
- LIMITS AND METHODS FOR REMOVAL OF PAINT AT LOCATIONS OF FASTENER REMOVAL OR FLAME CUTTING SHALL BE AS DESCRIBED IN SUBSECTIONS 202-3.05 AND 574 OF THE STANDARD SPECIFICATIONS. THE COST OF PAINT REMOVAL SHALL BE INCLUDED IN THE LUMP SUM PRICE(S) BID FOR THE SUPERSTRUCTURE REMOVAL ITEM(S) (OR THE UNIT PRICE BID FOR THE SUBSTRUCTURE REMOVAL ITEM). PAINT WASTE NOT COLLECTED BY VACUUM METHODS SHALL BE COLLECTED USING THE ENVIRONMENTAL GROUND AND/OR WATERWAY PROTECTION ITEM(S). WASTE SHALL BE DISPOSED OF USING THE TREATMENT AND DISPOSAL OF PAINT REMOVAL WASTE ITEM.
- LOOSE AND/OR PEELING PAINT ON STEEL SURFACES MAY BECOME DISLODGED DURING REMOVAL OPERATIONS OR DURING TRANSPORTATION FROM THE SITE UNLESS APPROPRIATE MEASURES ARE TAKEN. THE CONTRACTOR SHALL FORMULATE AND SUBMIT A METHOD OF REMEDIATING THE CONDITION FOR APPROVAL BY THE ENGINEER. WORKER LEAD PROTECTION IN ACCORDANCE WITH OSHA 1926.62 MUST BE SATISFIED. ALTERNATIVES COULD INCLUDE TRANSPORTING AFFECTED MEMBERS IN CLOSED TRUCKS, WRAPPING AFFECTED MEMBERS PRIOR TO REMOVAL, ENCAPSULATING THE LOOSE PAINT OR REMOVAL OF LOOSE PAINT PRIOR TO DISMANTLING OPERATIONS. THE COST OF REMEDIATING THIS CONDITION SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE SUPERSTRUCTURE REMOVAL ITEM. THE USE OF ENVIRONMENTAL GROUND AND/OR WATERWAY PROTECTION ITEMS WILL BE REQUIRED. DEPENDING ON THE ALTERNATIVE CHOSEN, THE TREATMENT AND DISPOSAL OF PAINT REMOVAL WASTE ITEM MAY BE REQUIRED. BECAUSE OF THE ABOVE-MENTIONED CONDITION, THE CONTRACTOR SHOULD EXAMINE THE CONDITION OF THE STRUCTURE'S PAINT PRIOR TO SUBMITTING A BID.
- REFER TO SUBSECTION 107-05 OF THE STANDARD SPECIFICATIONS FOR SAFETY AND HEALTH REQUIREMENTS.

RECONSTRUCTION NOTES:

- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH FIELD CONDITIONS.
- THE CONTRACTOR SHALL VERIFY DIMENSIONS NECESSARY FOR THE PROPER FIT OF STEEL PIECES PRIOR TO THE FABRICATION OF THE STEEL. THE COST OF FIELD VERIFYING DIMENSIONS SHALL BE INCLUDED IN THE PRICE BID FOR STRUCTURAL STEEL ITEMS.
- THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE COUNTY, WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE OR WHICH ARE TO REMAIN THE PROPERTY OF THE COUNTY, THE DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
- WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED OF, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THAT AREA SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THOSE ITEMS.
- DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT BE ALLOWED TO DROP WASTE CONCRETE, DEBRIS AND OTHER MATERIAL TO THE AREA BELOW THE BRIDGE EXCEPT WHERE THE PLANS SPECIFICALLY PERMIT THE DROPPING OF MATERIAL. PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF THE ENGINEER DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.
- ALL MATERIAL FALLING ON THE AREA BELOW AND ADJACENT TO THE BRIDGE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO COST TO THE COUNTY.
- THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING AND DISPOSING OF ALL PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE APPROPRIATE ITEMS OF THE CONTRACT.
- THE DETAILS ON THE SUBSTRUCTURE DEMOLITION DETAIL DRAWINGS INDICATE THE MAJOR SPALLS, SCALES AND CRACKS NOTED ON A FIELD INSPECTION BY THE DESIGNER. ALL OF THE MAJOR AREAS OF SPALLING, SCALING AND CRACKING KNOWN TO EXIST AT THE TIME OF CONTRACT PREPARATION HAVE BEEN SHOWN TO INDICATE THE APPROXIMATE EXTENT OF DETERIORATION THAT WILL HAVE TO BE REPAIRED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE THE EIC ACCESS TO ALL ABUTMENT AND PIER SURFACES FOR SOUNDING TO DETERMINE AND MARK OUT REMOVAL LIMITS. THE EIC SHALL SUBMIT LABELED DIGITAL PHOTOS OF THE PIER TO THE COUNTY ALONG WITH THE CONTRACTOR'S PROPOSED REMOVAL AND REPLACEMENT SEQUENCE FOR APPROVAL. 10 CALENDAR DAYS SHALL BE ALLOWED FOR REVIEW AND APPROVAL. REMOVAL OF CONCRETE SHALL NOT COMMENCE WITHOUT AN APPROVED REMOVAL PLAN. THE COST FOR THESE ITEMS SHALL BE INCLUDED IN THE REMOVAL AND REPLACEMENT CONCRETE ITEMS.
- AREAS OF CONCRETE DETERIORATION SHALL BE REPAIRED USING ITEM 582.06 - REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE, AS SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER.
- ALL CONCRETE SURFACES RECEIVING NEW CONCRETE SHALL BE SANDBLASTED. PRIOR TO THE APPLICATION OF NEW CONCRETE, THE SURFACES SHALL BE AIR CLEANED THEN PRE-WET FOR 12 HOURS. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK. THE COST SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS CONCRETE ITEMS IN THE CONTRACT.
- THE EMBEDMENT DEPTH SHOWN ON THE PLANS FOR THE DRILLING AND GROUTING ITEM 586.0302 IS FOR ESTIMATING PURPOSES ONLY. THE ACTUAL EMBEDMENT DEPTH SHALL BE CALCULATED BASED ON THE SIZE OF THE BAR, ACTUAL EDGE DISTANCE OF THE BAR, THE SPACING OF THE BAR, ESTIMATED CONCRETE STRENGTH AND THE CHOSEN GROUT SUPPLIERS' RECOMMENDATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE TOP OF PEDESTAL ELEVATIONS PRIOR TO CASTING THE NEW PEDESTALS AND INSTALLING THE NEW BEARINGS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE FOLLOWING DIMENSIONS IN THE FIELD PRIOR TO THE FABRICATION OF NEW SUPERSTRUCTURE COMPONENTS:
 - EXISTING SPAN LENGTHS
- ELEVATIONS TAKEN FROM THE 1977 RECORD PLANS HAVE BEEN ADJUSTED DOWN BY 0.51 FT. ON ALL DRAWINGS TO BETTER APPROXIMATE THE SURVEYED ELEVATIONS.
- IF THE STRUCTURE HAS A BRIDGE IDENTIFICATION NUMBER (B.I.N.) PLATE ATTACHED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT IT DURING CONSTRUCTION OR REMOVE AND REMOUNT IT AFTER CONSTRUCTION IS COMPLETED.

STREAM PROTECTION NOTES:

- DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER AS TO PREVENT OR REDUCE TO A MINIMUM ANY DAMAGE TO ANY STREAM FROM POLLUTION BY DEBRIS, SEDIMENT, OR OTHER FOREIGN MATERIAL, OR FROM MANIPULATION OF EQUIPMENT AND/OR MATERIALS IN OR NEAR SUCH STREAMS. THE CONTRACTOR SHALL NOT RETURN DIRECTLY TO A STREAM ANY WATER WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS WHICH CAUSE THIS WATER TO BECOME POLLUTED WITH SAND, SILT, CEMENT, OIL, OR OTHER IMPURITIES. IF THE CONTRACTOR USES WATER FROM A STREAM, THE CONTRACTOR SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM REQUIRED TO PROTECT AND MAINTAIN WATER RIGHTS AND TO SUSTAIN FISH LIFE DOWNSTREAM.
- ALL WORK MUST CONFORM TO SECTION 404 OF THE CLEAN WATER ACT (CWA) AND NATIONWIDE PERMIT (NWP) #3-MAINTENANCE, ISSUED BY THE US ARMY CORPS OF ENGINEERS (USACE), AND MUST CONFORM STRICTLY TO ALL NYSDEC'S GENERAL CONDITIONS FOR A BLANKET WATER QUALITY CERTIFICATION (WQC) UNDER CWA SECTION 401.
- ACCESS TO THE SOUTH SIDE OF CATTARAUGUS CREEK FOR WORK ON THE SCOUR PROTECTION FEATURES BELOW THE SOUTH ABUTMENT MUST BE ACCOMPLISHED BY MEANS OTHER THAN CROSSING THE STREAM. CAUSEWAYS AND OTHER TEMPORARY FILL MEASURES WILL NOT BE PERMITTED IN CATTARAUGUS CREEK DUE TO THE NWP CONDITIONS INCLUDING, BUT NOT LIMITED TO, MAINTENANCE OF UPSTREAM AND DOWNSTREAM FLOWS AND MOVEMENT OF AQUATIC LIFE. ANY INTENTION TO TEMPORARILY PLACE EQUIPMENT, STRUCTURES, OR FILL IN THE CREEK OUTSIDE THE COFFERDAM WOULD REQUIRE PRE-CONSTRUCTION NOTIFICATION AND APPROVAL FROM THE USACE AND NYSDEC, AS WELL AS PERMISSION FROM THE EIC.

DECK PLACEMENT NOTES:

- CONCRETE PLACEMENT AND FINISHING OPERATIONS SHALL BE PERFORMED AS RAPIDLY AS POSSIBLE. THE ENGINEER MAY ORDER THE CONTRACTOR TO STOP PLACEMENT OPERATIONS AT ANY TIME IF, IN THE ENGINEER'S OPINION, CONCRETE PLACED DURING THE PLACEMENT HAS STARTED TO SET, OR IS ABOUT TO SET, AND FURTHER PLACEMENT OF CONCRETE WILL CAUSE DEFLECTION CRACKING.
- LONGITUDINAL CONSTRUCTION JOINTS WILL NOT BE PERMITTED.
- FINISHING MACHINE(S) SHALL BE OPERATED AS CLOSE TO THE SKEW ANGLE AS PRACTICABLE FOR SKEW ANGLES BETWEEN 0° AND 50°. WHEN THE SKEW ANGLE IS GREATER THAN 50° THE FINISHING MACHINE(S) SHALL BE OPERATED AT AN ANGLE OF 50°.
- WET BURLAP CURING BLANKETS ARE REQUIRED TO BE PLACED ON THE CONCRETE DECK WITHIN 30 MINUTES OF THE CONCRETE BEING DEPOSITED INTO THE FORMS OR 5 MINUTES AFTER FINISHING, WHICHEVER COMES FIRST. THE PLACEMENT OF THE TURF DRAG TEXTURE SHALL NOT INTERFERE WITH THESE REQUIREMENTS.
- IN THE EVENT THE CONTRACTOR'S DECK PLACEMENT OPERATION IS STOPPED PRIOR TO COMPLETION, WHETHER BY THE CONTRACTOR'S OWN DECISION OR BY ORDER OF THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FINISHED DECK GRADE WHICH MATCHES THE PLANNED PROFILE. ANY SUBSEQUENT REVISIONS TO DECK FORMS MADE NECESSARY BY SUCH ACTION SHALL BE AT THE CONTRACTOR'S EXPENSE.

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SEAL OF THE STATE OF NEW YORK

JOHANN Y. DEPLANCHE

REGISTERED PROFESSIONAL ENGINEER

NO. 001468

3/2/2017

DATE

DATE

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT

CATTARAUGUS COUNTY

INCORPORATED 1811

DEPARTMENT OF PUBLIC WORKS

PROJECT NAME

ASHFORD BRIDGE #37

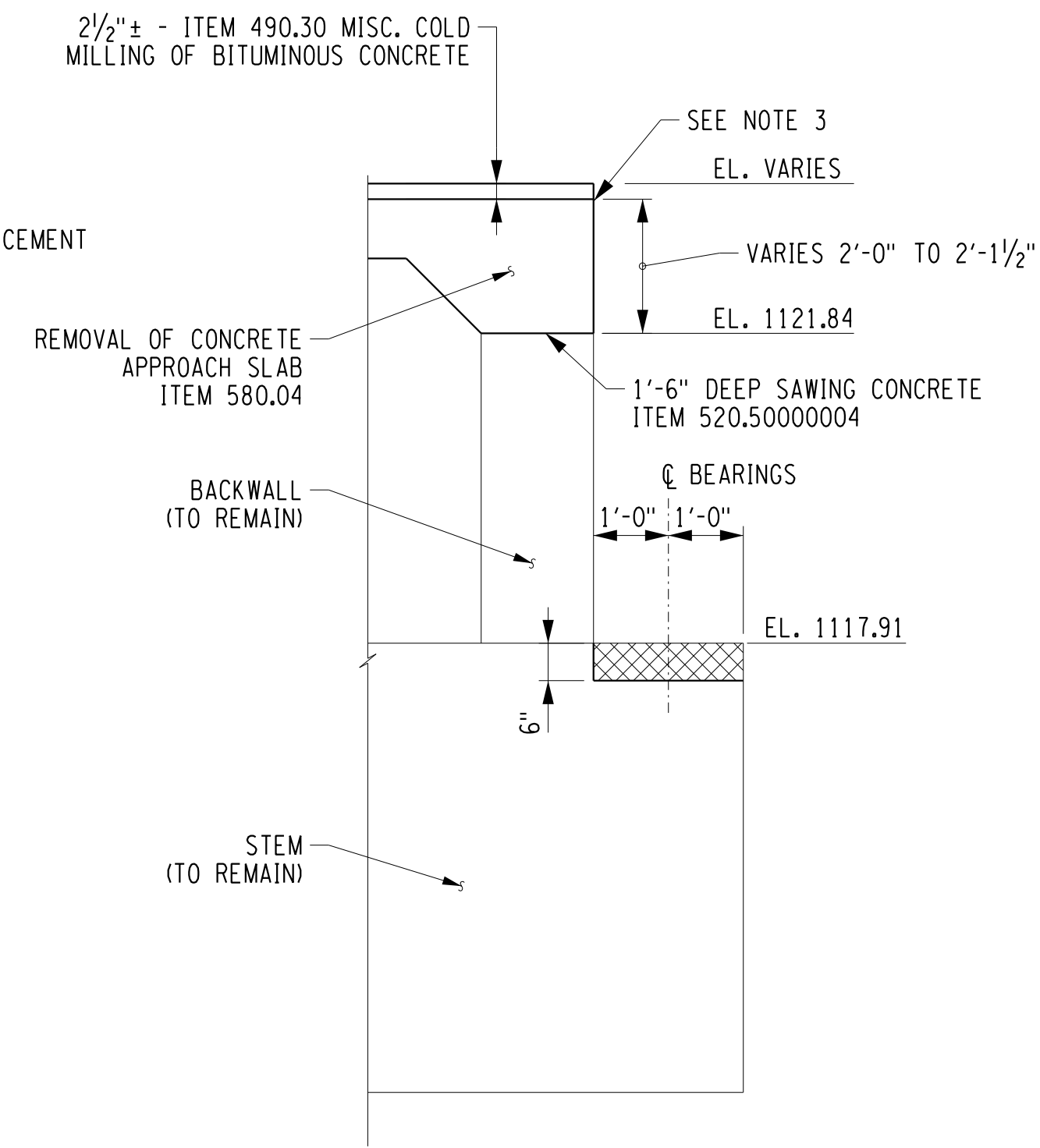
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK

B.I.N. 3328370

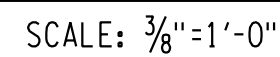
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GENERAL NOTES

SCALE	DATE
NONE	5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 15 OF 46	DRAWING NO. BR-5

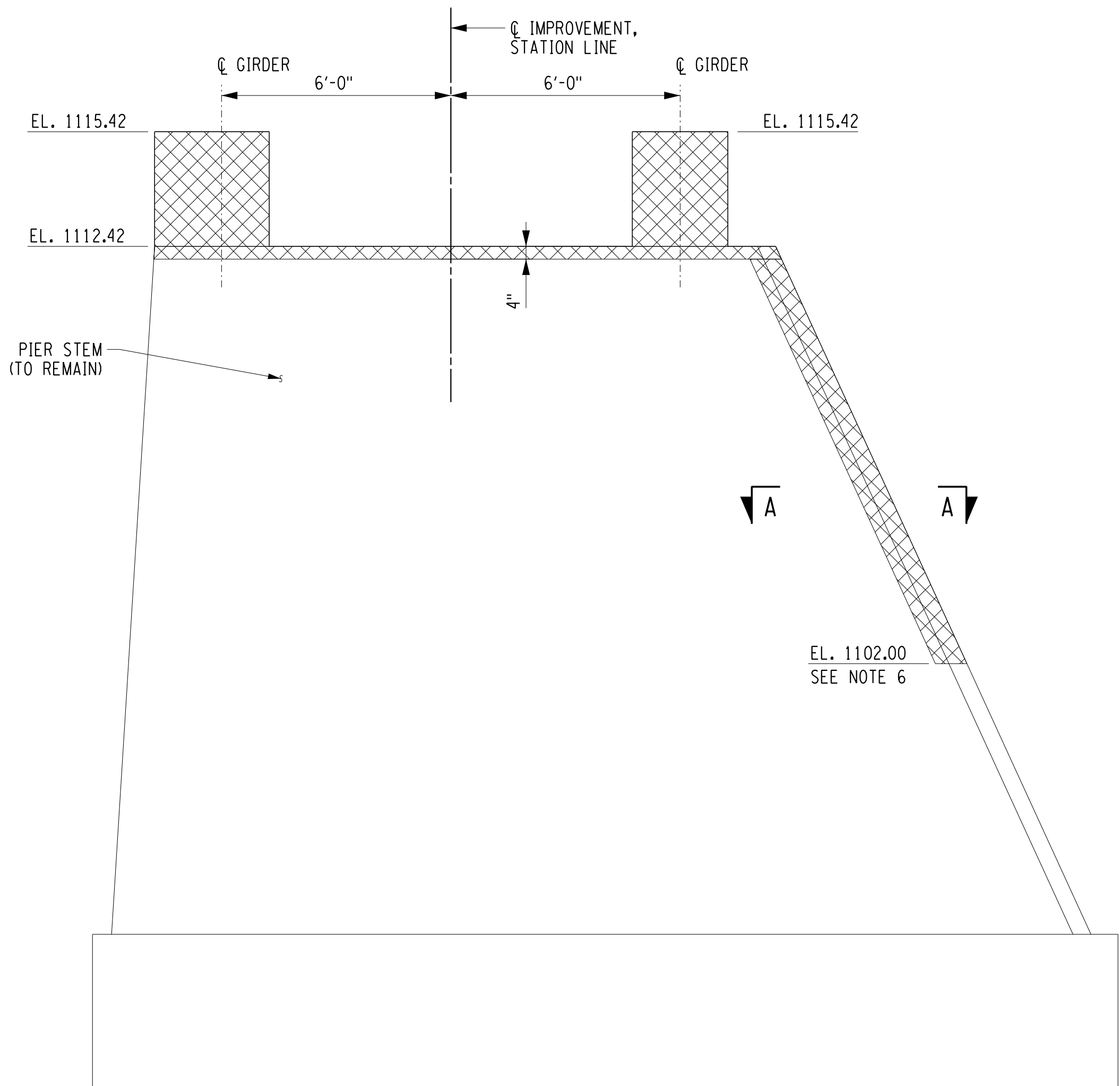
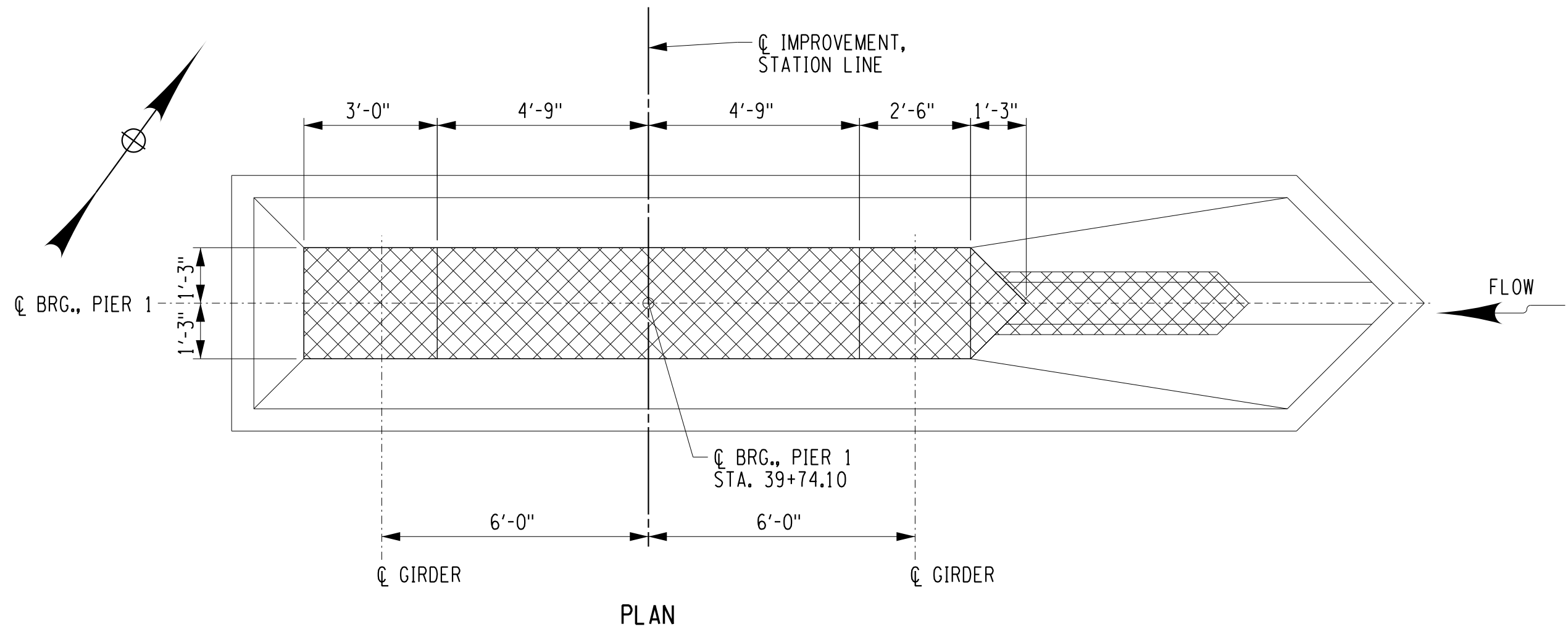


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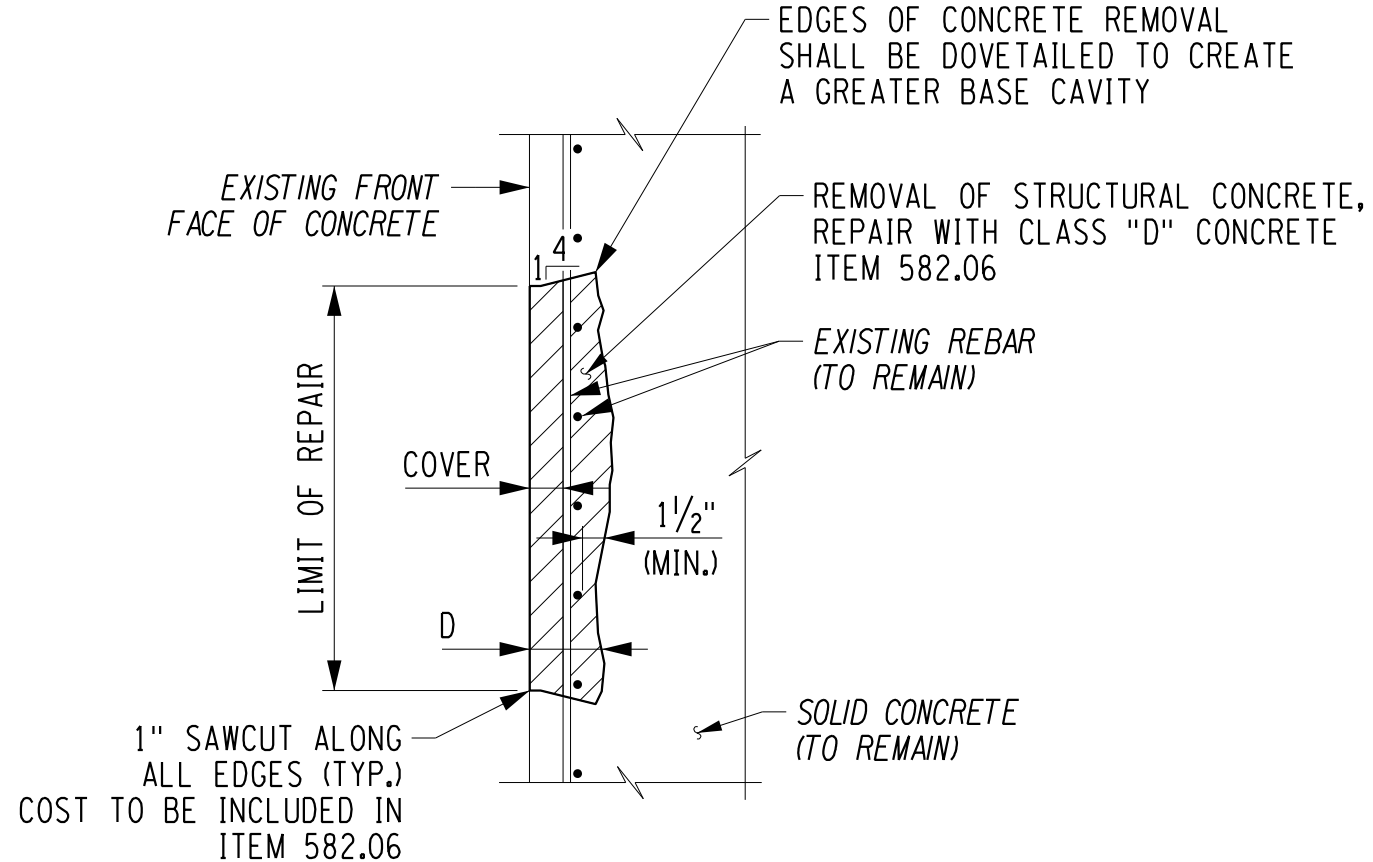
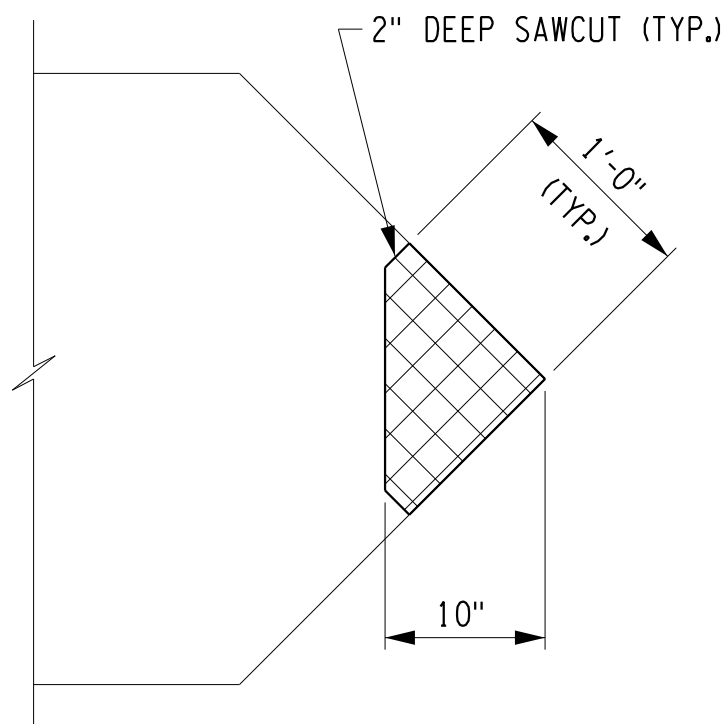
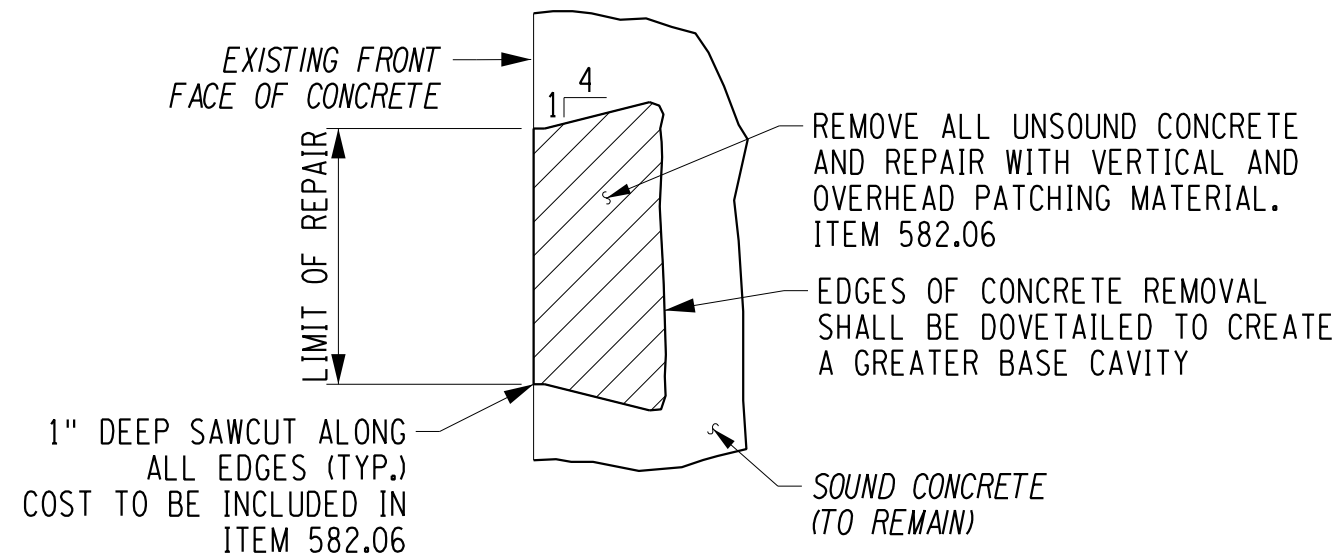
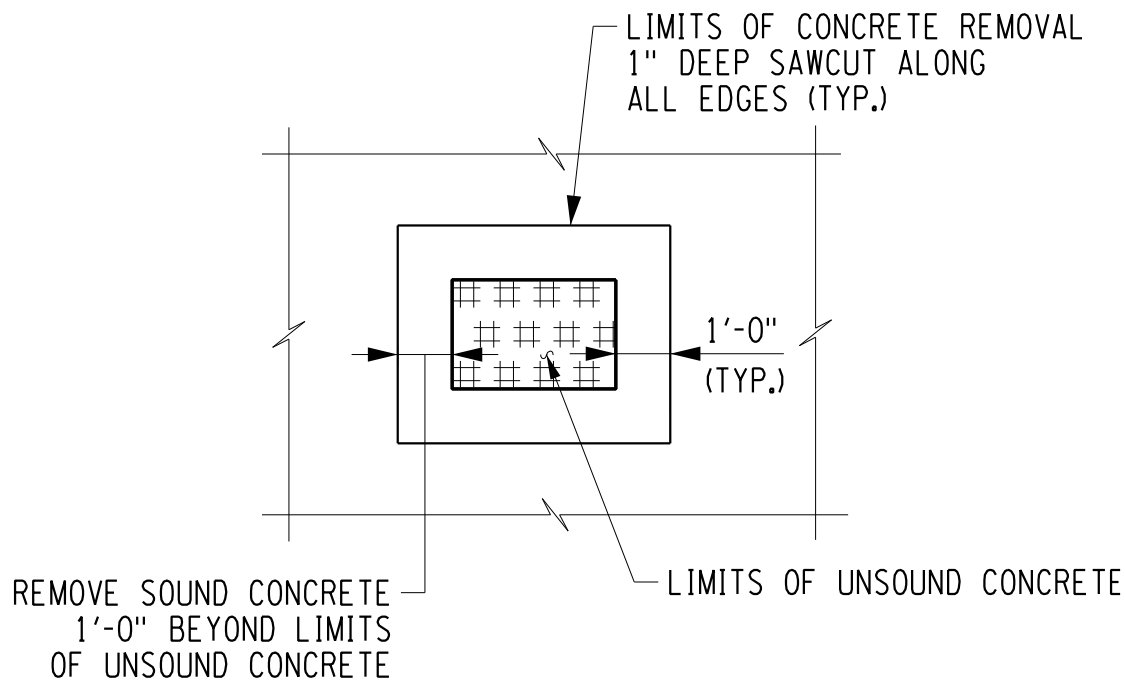


1. REMOVE EXISTING JOINT MATERIAL BETWEEN WINGWALL AND APPROACH SLAB. COST INCLUDED UNDER ITEM 580.04.
2. ALL REINFORCEMENT WITHIN THE LIMITS OF ITEMS 580.01 AND 582.06 SHALL REMAIN UNLESS OTHERWISE NOTED.
3. EXISTING BRIDGE JOINT SYSTEM SHALL BE REMOVED IN ITS ENTIRETY. COST INCLUDED IN THE VARIOUS REMOVAL ITEMS.
4. SAWCUT ALL CONCRETE REMOVAL LIMITS 1" MINIMUM ALONG ALL EDGES PRIOR TO CONCRETE REMOVAL. COST INCLUDED UNDER REMOVAL ITEM.
5. LIMITS OF ITEM 582.06 ARE DETERMINED BASED ON CONDITIONS NOTED IN FIELD INSPECTION AND REPORTS. THE CONTRACTOR SHALL MARK OUT ALL REPAIR LIMITS FOR APPROVAL BY THE ENGINEER PRIOR TO COMMENCING THE WORK.
6. SEE DWG. NO. BR-7 FOR CONCRETE REPAIR DETAILS.

SCALE	DATE
AS NOTED	5/2/2017
P.I.N.	EAA PROJECT NO.
5757.31	19473.00
SHEET NO.	DRAWING NO.
16 OF 46	BR-6



EXISTING PIER 1 DEMOLITION
SCALE: 3/8"=1'-0"



REMOVE AND REPAIR DETAILS
(SEE NOTE 4)

LEGEND:

- ITEM 580.01 - REMOVAL OF STRUCTURAL CONCRETE (SEE NOTE 1)
- ITEM 582.06 - REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE
- LIMITS OF UNSOUND CONCRETE

NOTES:

- ALL REINFORCEMENT WITHIN THE PIER PEDESTALS SHALL BE REMOVED AND CUT FLUSH WITH THE CONCRETE. ALL OTHER PIER STEM REINFORCEMENT SHALL REMAIN IN PLACE AND BE PREPARED & EVALUATED PER 584-3.03. ALL COSTS SHALL BE INCLUDED UNDER ITEM 580.01.
- UNLESS OTHERWISE NOTED, SAWCUT ALL CONCRETE REMOVAL LIMITS 1" MINIMUM ALONG ALL EDGES PRIOR TO CONCRETE REMOVAL. COST INCLUDED UNDER REMOVAL ITEM.
- LIMITS OF ITEM 582.06 ARE DETERMINED BASED ON CONDITIONS NOTED IN FIELD INSPECTION AND REPORTS. THE CONTRACTOR SHALL MARK OUT ALL REPAIR LIMITS FOR APPROVAL BY THE ENGINEER PRIOR TO COMMENCING THE WORK. ALL WORK SHALL BE ABOVE THE WATER LEVEL AT THE TIME OF CONSTRUCTION AS ORDERED BY THE ENGINEER. NO BELOW WATER WORK OR INSTALLATION OF COFFERDAMS IS REQUIRED FOR THIS WORK.
- THE TYPE OF CONCRETE REPAIR MATERIAL TO BE USED SHALL BE AS SPECIFIED UNDER ITEM 582.06 OR AS ORDERED BY THE ENGINEER.
- THE CONTRACTOR SHALL REMOVE THE CONCRETE 1'-0" BEYOND THE LIMITS OF UNSOUND CONCRETE. THE COST OF CONCRETE REMOVAL SHALL BE PAID UNDER THE RESPECTIVE REMOVAL ITEM.
- THE LOWER ELEVATION FOR THE PIER NOSE REPAIR IS BASED ON THE ESTIMATED ORDINARY WATER ELEVATION. THE ACTUAL LIMITS OF WORK SHALL BE DETERMINED IN THE FIELD BASED ON THE TIME OF CONSTRUCTION OR AS ORDERED BY THE ENGINEER. NO BELOW WATER WORK OR INSTALLATION OF COFFERDAMS IS REQUIRED FOR THIS WORK.

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3/2/2017
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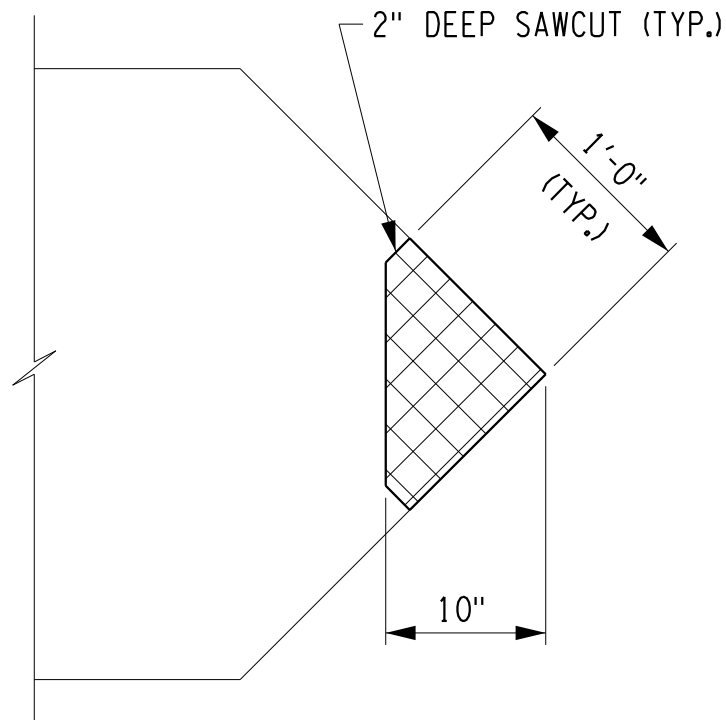
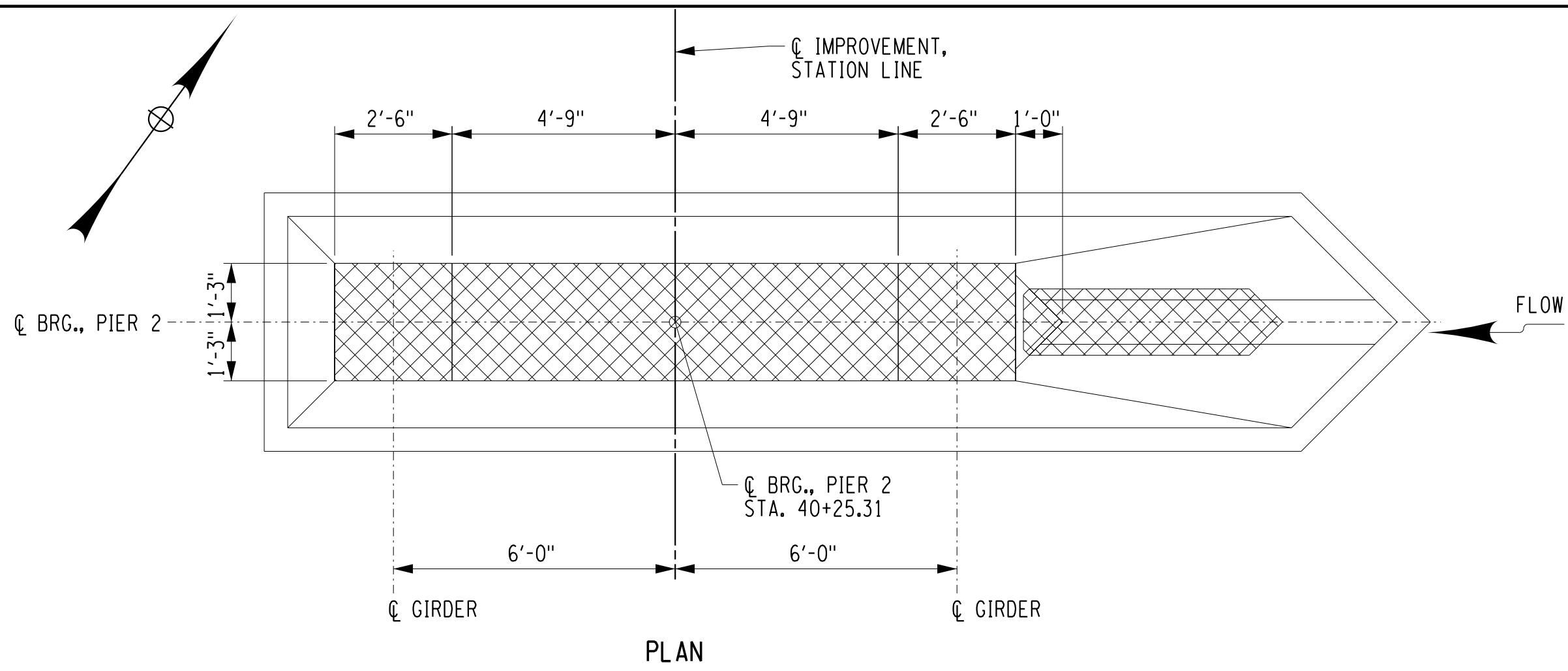
PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

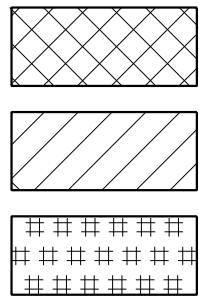
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PIER NO. 1 DEMOLITION DETAILS

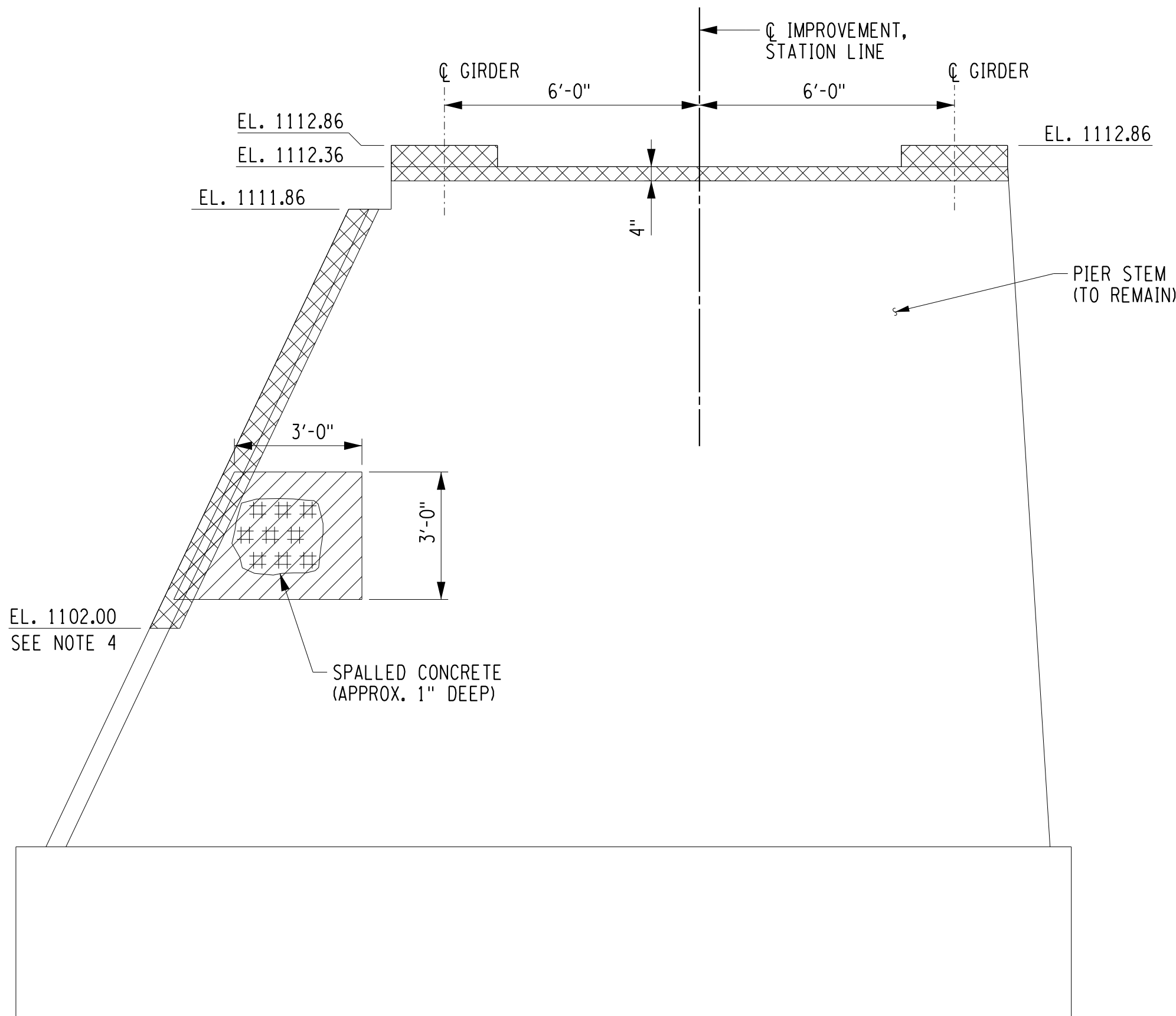
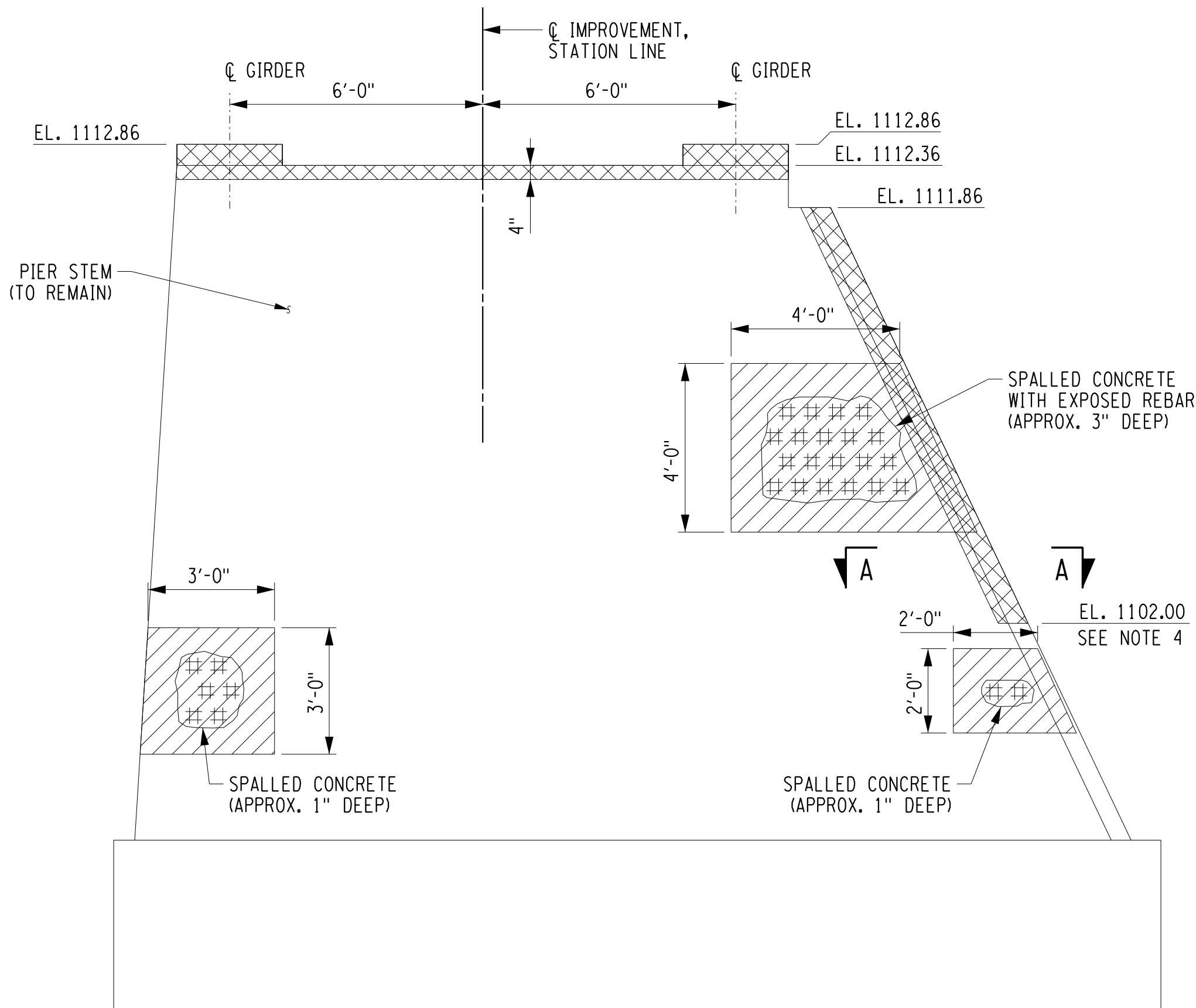
SCALE	DATE
AS NOTED	5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 17 OF 46	DRAWING NO. BR-7



LEGEND:



ITEM 580.01 - REMOVAL OF STRUCTURAL CONCRETE (SEE NOTE 1)
ITEM 582.06 - REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE
LIMITS OF UNSOUND CONCRETE



EAST ELEVATION

WEST ELEVATION

EXISTING PIER 2 DEMOLITION

SCALE: 3/8"=1'-0"

NOTES:

- ALL REINFORCEMENT WITHIN THE PIER PEDESTALS SHALL BE REMOVED AND CUT FLUSH WITH THE CONCRETE. ALL OTHER PIER STEM REINFORCEMENT SHALL REMAIN IN PLACE AND BE PREPARED & EVALUATED PER 584-3.03. ALL COSTS SHALL BE INCLUDED UNDER ITEM 580.01.
- UNLESS OTHERWISE NOTED, SAWCUT ALL CONCRETE REMOVAL LIMITS 1" MINIMUM ALONG ALL EDGES PRIOR TO CONCRETE REMOVAL. COST INCLUDED UNDER REMOVAL ITEM.
- LIMITS OF ITEM 582.06 ARE DETERMINED BASED ON CONDITIONS NOTED IN FIELD INSPECTION AND REPORTS. THE CONTRACTOR SHALL MARK OUT ALL REPAIR LIMITS FOR APPROVAL BY THE ENGINEER PRIOR TO COMMENCING THE WORK. ALL WORK SHALL BE ABOVE THE WATER LEVEL AT THE TIME OF CONSTRUCTION AS ORDERED BY THE ENGINEER. NO BELOW WATER WORK OR INSTALLATION OF COFFERDAMS IS REQUIRED FOR THIS WORK.
- THE LOWER ELEVATION FOR THE PIER NOSE REPAIR IS BASED ON THE ESTIMATED ORDINARY WATER ELEVATION. THE ACTUAL LIMITS OF WORK SHALL BE DETERMINED IN THE FIELD BASED ON THE TIME OF CONSTRUCTION OR AS ORDERED BY THE ENGINEER. NO BELOW WATER WORK OR INSTALLATION OF COFFERDAMS IS REQUIRED FOR THIS WORK.
- SEE DWG. NO. BR-7 FOR CONCRETE REPAIR DETAILS.

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5/2/2017
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DEPARTMENT
OF
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PROJECT NAME

ASHFORD BRIDGE #37

MILL ST./EDIES RD.

OVER

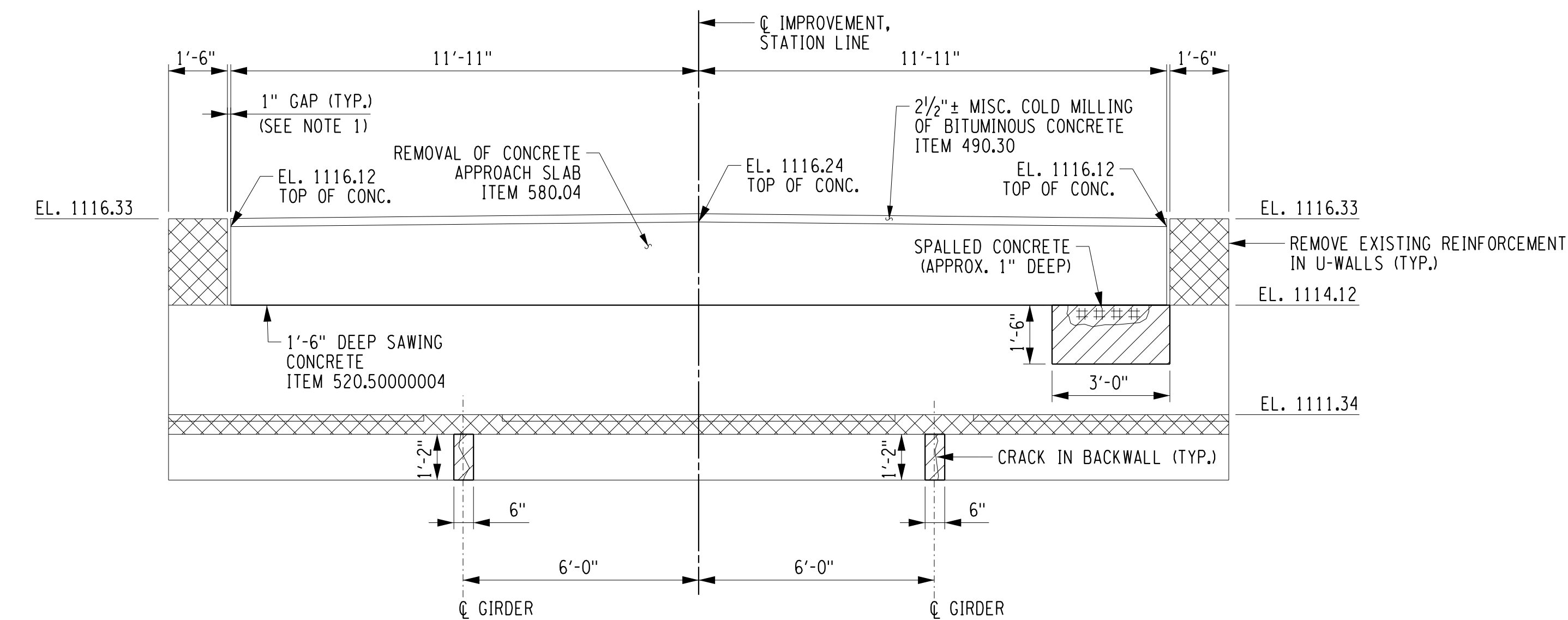
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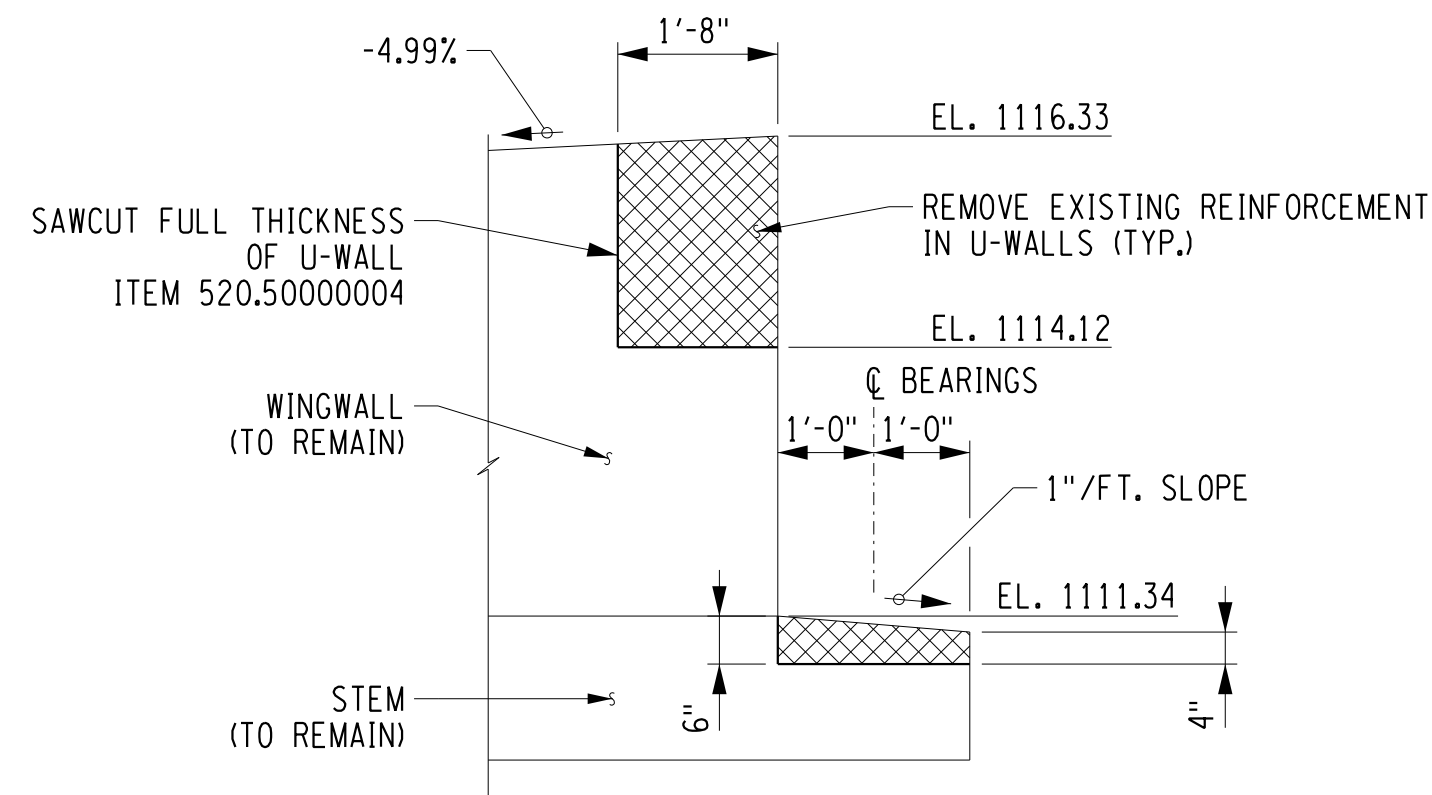
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PIER NO. 2 DEMOLITION
DETAILS

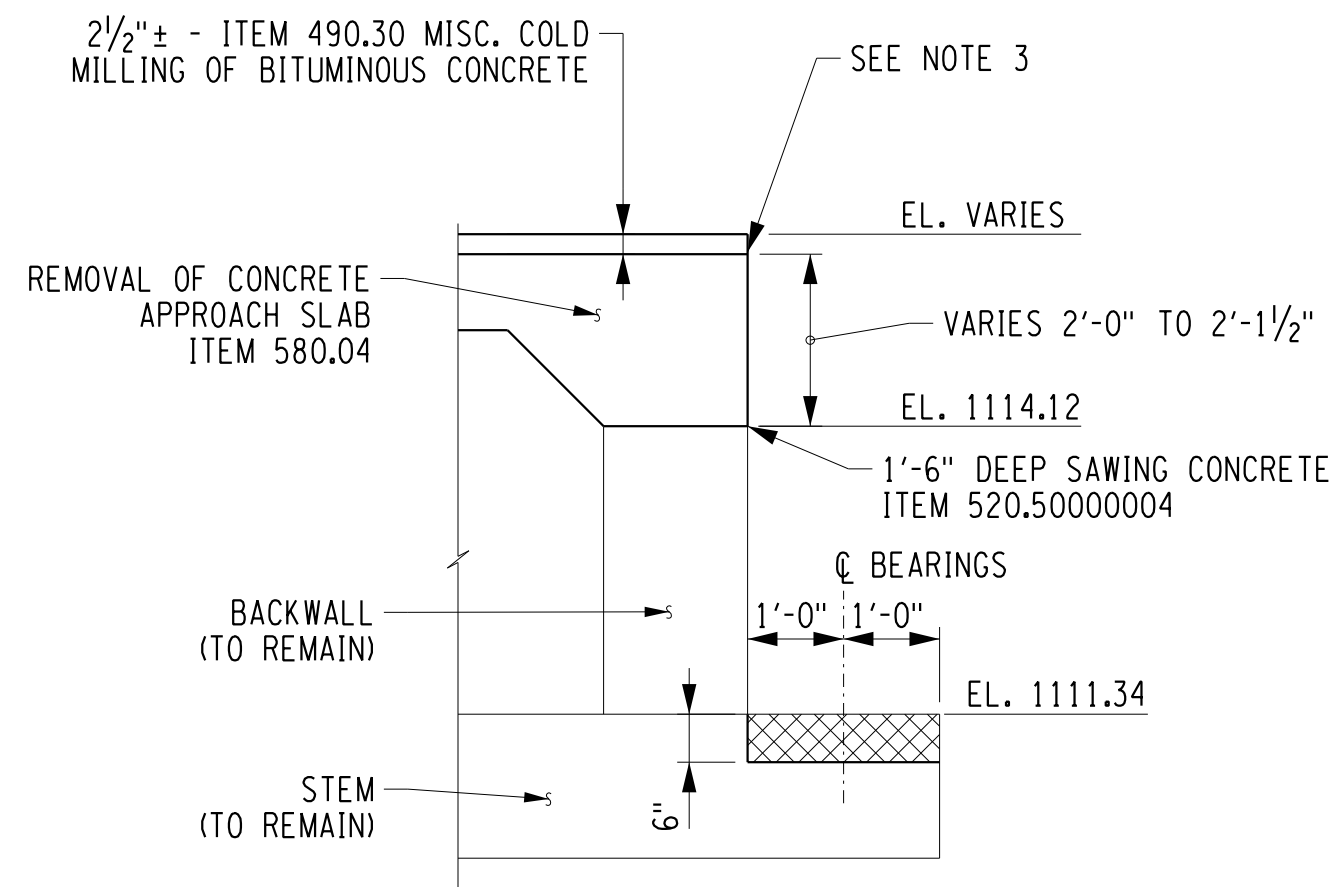
SCALE	DATE
AS NOTED	5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 18 OF 46	DRAWING NO. BR-8



ELEVATION
END ABUTMENT REMOVAL
SCALE: $\frac{3}{8}"=1'-0"$






SECTION A-A
SCALE: 1/2"=1'-0"



SECTION B-B
SCALE: 1/2"=1'-0"

LEGEND:

	ITEM 580.01 - REMOVAL OF STRUCTURAL CONCRETE
	ITEM 582.06 - REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE
	LIMITS OF UNSOUND CONCRETE

NOTES:

1. REMOVE EXISTING JOINT MATERIAL BETWEEN WINGWALL AND APPROACH SLAB. COST INCLUDED UNDER ITEM 580.04.
2. ALL REINFORCEMENT WITHIN THE LIMITS OF ITEMS 580.01 AND 582.06 SHALL REMAIN UNLESS OTHERWISE NOTED.
3. EXISTING BRIDGE JOINT SYSTEM SHALL BE REMOVED IN ITS ENTIRETY. COST INCLUDED IN THE VARIOUS REMOVAL ITEMS.
4. SAWCUT ALL CONCRETE REMOVAL LIMITS 1" MINIMUM ALONG ALL EDGES PRIOR TO CONCRETE REMOVAL. COST INCLUDED UNDER REMOVAL ITEM.
5. LIMITS OF ITEM 582.06 ARE DETERMINED BASED ON CONDITIONS NOTED IN FIELD INSPECTION AND REPORTS. THE CONTRACTOR SHALL MARK OUT ALL REPAIR LIMITS FOR APPROVAL BY THE ENGINEER PRIOR TO COMMENCING THE WORK.
6. SEE DWG. NO. BR-6 AND BR-7 FOR CONCRETE REPAIR DETAILS.



5/2/2017
DATE

DATE _____

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DEPARTMENT
OF
PUBLIC WORKS

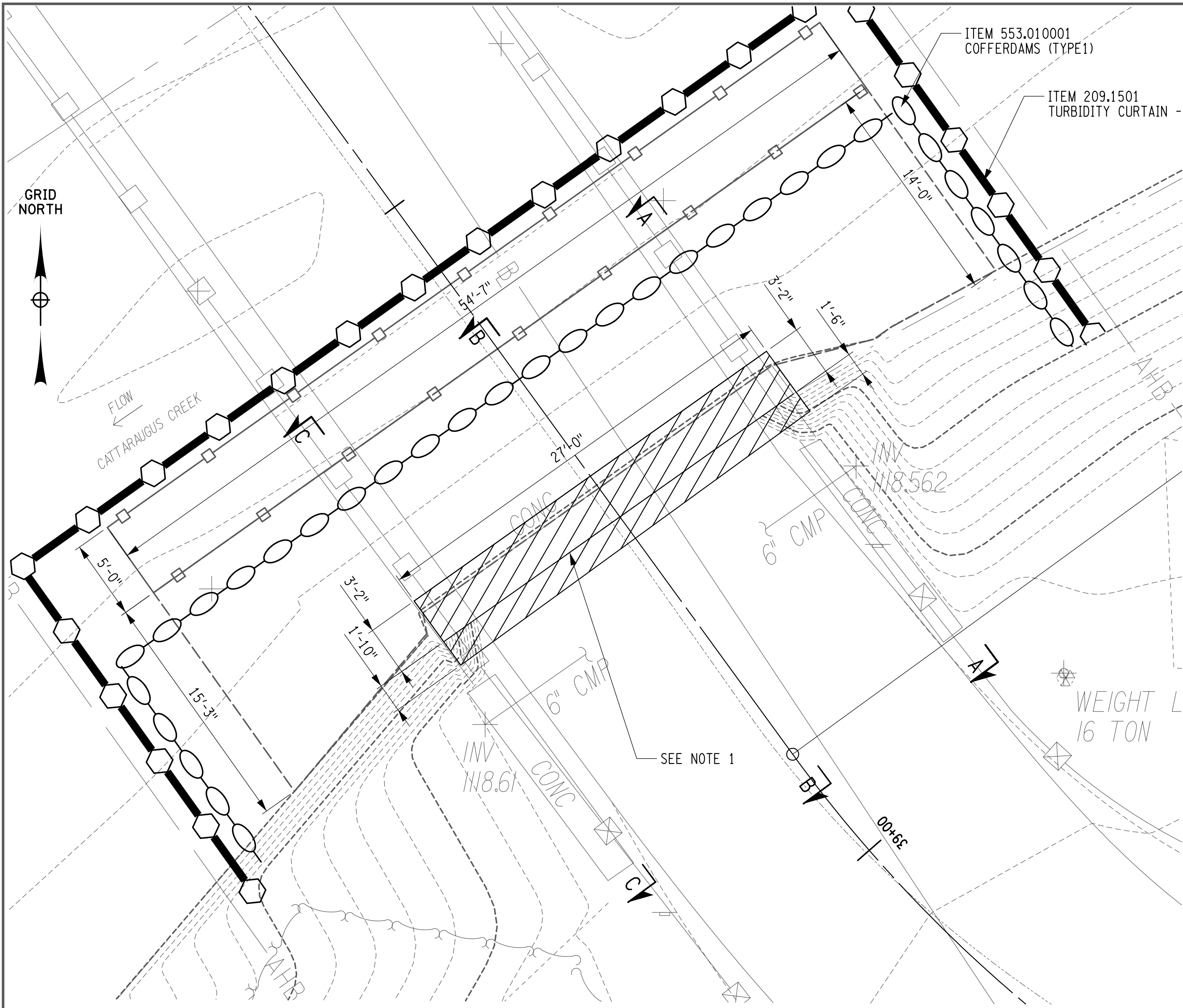
PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

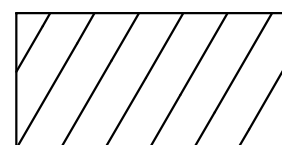
DRAWING TITLE

END ABUTMENT DEMOLITION DETAILS

SCALE AS NOTED	DATE 5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 19 OF 46	DRAWING NO. BR-9



LEGEND



ITEM 202.19
REMOVAL OF SUBSTRUCTURES

SCOUR WALL REMOVAL PLAN



NOTES:

- ACCESS TO THE SOUTH SIDE OF CATTARAUGUS CREEK FOR WORK ON THE SCOUR PROTECTION FEATURES BELOW THE SOUTH ABUTMENT MUST BE ACCOMPLISHED BY MEANS OTHER THAN CROSSING THE STREAM. CAUSEWAYS AND OTHER TEMPORARY FILL MEASURES WILL NOT BE PERMITTED IN CATTARAUGUS CREEK DUE TO THE NWP CONDITIONS INCLUDING, BUT NOT LIMITED TO, MAINTENANCE OF UPSTREAM AND DOWNSTREAM FLOWS AND MOVEMENT OF AQUATIC LIFE. ANY INTENTION TO TEMPORARILY PLACE EQUIPMENT, STRUCTURES, OR FILL IN THE CREEK OUTSIDE THE COFFERDAM WOULD REQUIRE PRE-CONSTRUCTION NOTIFICATION AND APPROVAL FROM THE USACE AND NYSDEC, AS WELL AS PERMISSION FROM THE ETC.

ITEM 553.010001 (EACH)
COFFERDAMS (TYPE 1)

STATION	DESCRIPTION	OFFSET	SIDE	QTY. (EA)
39+35.00	SCOUR WALL COFFER DAM	28 TO 28	LT TO RT	1
TOTAL:				1

ITEM 553.010001
COFFERDAMS (TYPE1)

ITEM 209.1501
TURBIDITY CURTAIN - TEMPORARY

VARIES FROM 3' WIDE TO 0' WIDE TO THE BACK OF THE WALL
VARIES FROM 2'-3" TO 0'-0" ALONG THE FRONT FACE OF THE WALL
FOR THE HEIGHT OF THE EXPOSED WALL

DATUM ELEV. 1094

ASSUMED BOTTOM OF WALL
PER RECORD PLANS EL. 1094.89

SCOUR WALL REMOVAL SECTION A-A
NOT TO SCALE

REMOVE ANY LOOSE ROCK,
A.O.B.E.
(ITEM 206.01 STRUCTURE
EXCAVATION)

SCoured ROCK

ITEM 206.01 STRUCTURE
EXCAVATION

ITEM 206.0201 TRENCH
AND CULVERT
EXCAVATION

EL. 1111.90

REMOVE EXISTING SCOUR WALL
(ITEM 202.19 REMOVAL OF
SUBSTRUCTURES)

1'-6"
3'-0"
1'-6"±

8"±

2'-6"

3'-0"

VARIES SEE PLAN

5'-0"

4'-0"

REMOVE ANY LOOSE ROCK,
A.O.B.E.
(ITEM 206.01 STRUCTURE
EXCAVATION)

ITEM 206.01 STRUCTURE
EXCAVATION

8"±

2'-6"

3'-0"

VARIES SEE PLAN

5'-0"

4'-0"

SCOUR WALL REMOVAL SECTION B-B
NOT TO SCALE

DATUM ELEV. 1094

ASSUMED BOTTOM OF WALL
PER RECORD PLANS EL. 1094.89

EL. 1111.90

REMOVE EXISTING SCOUR WALL
(ITEM 202.19 REMOVAL OF
SUBSTRUCTURES)

ITEM 206.01 STRUCTURE
EXCAVATION

ITEM 206.0201 TRENCH AND CULVERT
EXCAVATION

2'-9"±

1'-10"

3'-2"

8"±

2'-6"

3'-0"

VARIES SEE PLAN

5'-0"

4'-0"

SCOUR WALL REMOVAL SECTION C-C
NOT TO SCALE

DATUM ELEV. 1094

ASSUMED BOTTOM OF WALL
PER RECORD PLANS EL. 1094.89

VARIES FROM 2'-9" WIDE TO 0' WIDE TO THE BACK OF THE WALL
VARIES FROM 1'-11" TO 0'-0" ALONG THE FRONT FACE OF THE WALL
FOR THE HEIGHT OF THE EXPOSED WALL

REMOVE ANY LOOSE ROCK,
A.O.B.E.
(ITEM 206.01 STRUCTURE
EXCAVATION)

SCoured ROCK

ITEM 206.01 STRUCTURE
EXCAVATION

ITEM 206.0201 TRENCH AND CULVERT
EXCAVATION

2'-9"±

1'-10"

3'-2"

8"±

2'-6"

3'-0"

VARIES SEE PLAN

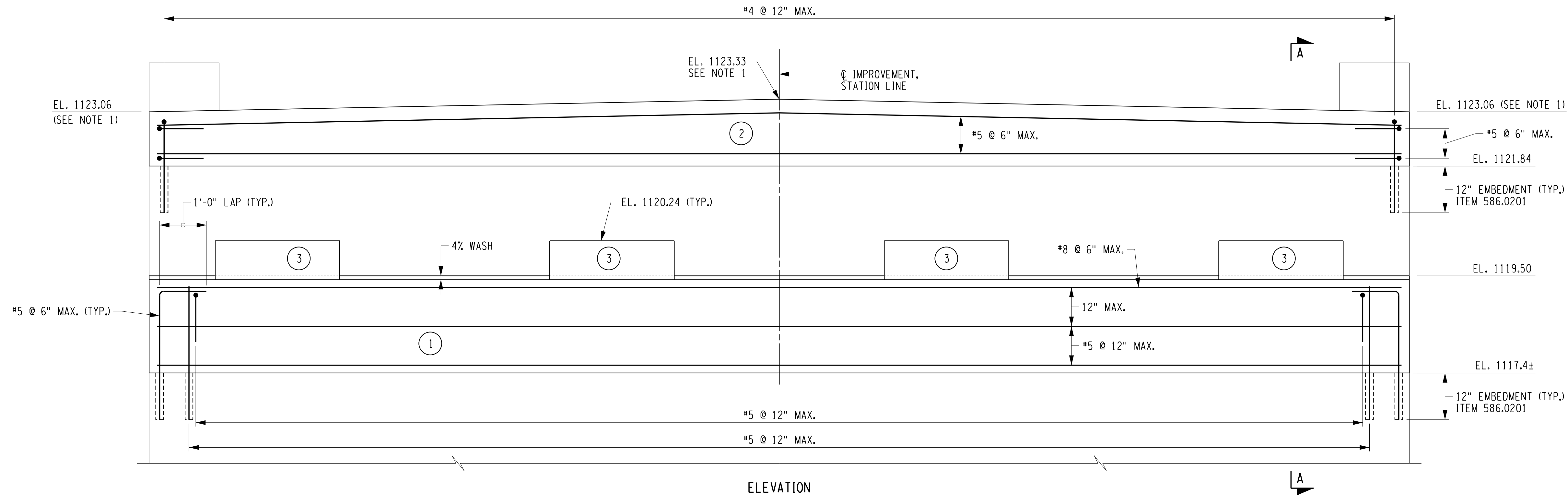
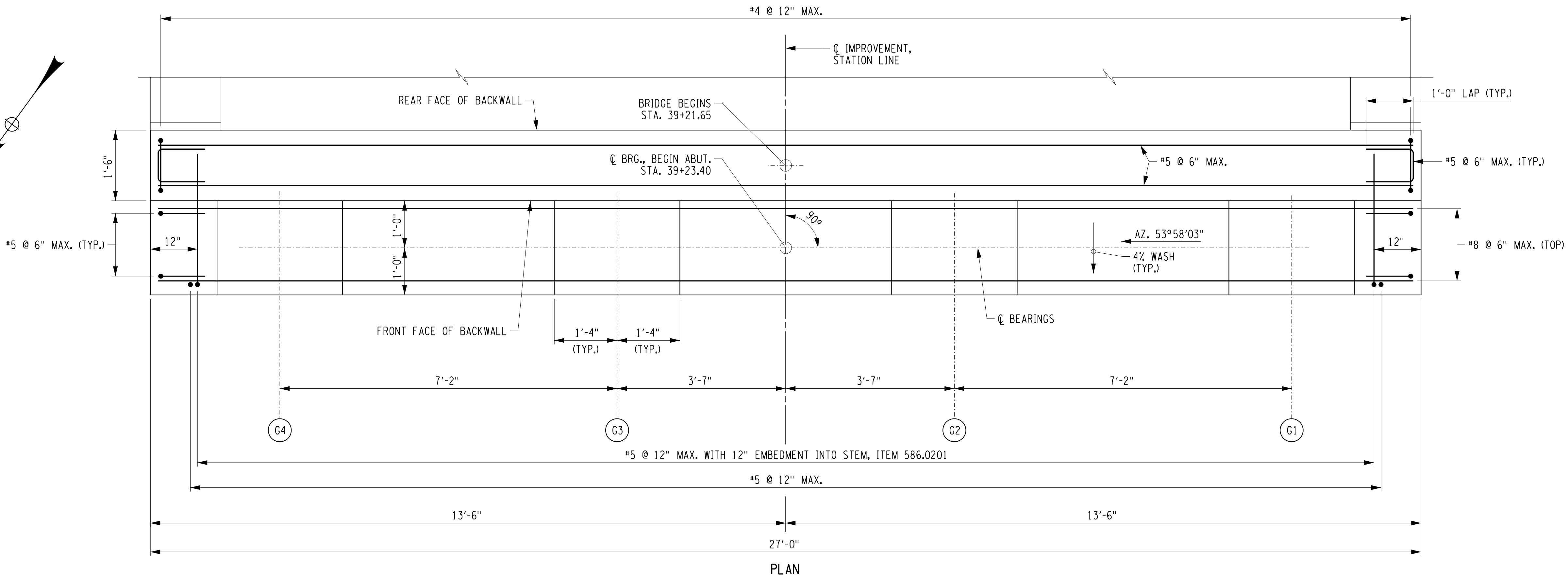
5'-0"

4'-0"

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USER = Lindot

DESIGN SUPERVISOR D. ZIEMIANSKI JOB MANAGER C. GAWRON CHECKED BY J. DePLANCHE ESTIMATED BY J. DePLANCHE DRAFTED BY T. LINDO CHECKED BY J. DePLANCHE

BEGIN ABUTMENT CONCRETE TABLE	
PLACEMENT	ITEM 555.970100CA
1	4.2 cy
2	2.1 cy
3	0.6 cy
TOTAL	6.9 cy



PROPOSED BEGIN ABUTMENT
SCALE: 3/4"=1'-0"

NOTES:

- BACKWALL ELEVATIONS SHOWN ARE TAKEN AT THE JOINT BETWEEN THE SUPERSTRUCTURE SLAB AND APPROACH SLAB (BRIDGE BEGINS).
- (NO) INDICATES CONCRETE PLACEMENT NUMBER.
- SEE DWG. NO. BR-16 FOR SECTION A-A.
- CHAMFER ALL EXPOSED EDGES OF CONCRETE 1".

- PEDESTAL ELEVATIONS AND ANCHOR BOLT LOCATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMODATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL DIMENSIONS.
- SEE DWG. NO. BR-16 FOR PEDESTAL REINFORCEMENT DETAILS.
- EXISTING CONCRETE REINFORCEMENT NOT SHOWN FOR CLARITY.
- ALL COVER SHALL BE 2" UNLESS OTHERWISE NOTED.
- ALL REINFORCEMENT SHALL BE GALVANIZED. COST INCLUDED UNDER ITEM 555.970100CA.

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ANTHONY**
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erdmananthony.com



3/2/2017
DATE

DATE

NOTE: UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW ARTICLE 145, SECTION 7209.

REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT



**DEPARTMENT
OF
PUBLIC WORKS**

PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

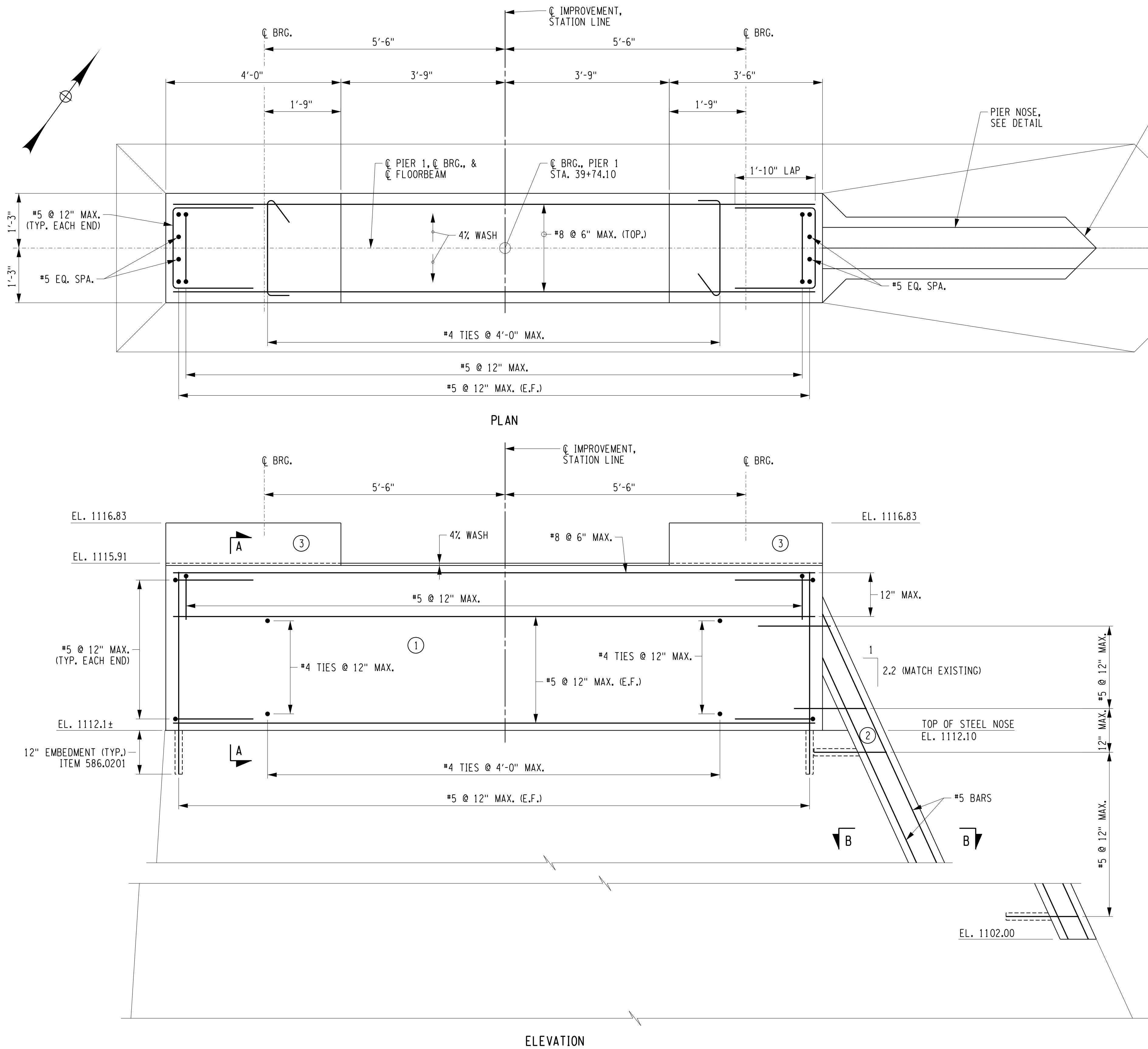
DRAWING TITLE

**BEGIN ABUTMENT
RECONSTRUCTION
DETAILS**

SCALE	DATE
AS NOTED	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 21 OF 46	DRAWING NO. BR-11

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USER = Lindot

DESIGN SUPERVISOR D. ZIEMIAWSKI JOB MANAGER C. GAWRON
DESIGNED BY J. DePLANCHE
CHECKED BY A. SCHWINGEL
ESTIMATED BY J. DePLANCHE
DRAFTED BY T. LINDO
CHECKED BY J. DePLANCHE



PIER 1 CONCRETE TABLE	
PLACEMENT	ITEM 555.970100CA
1	5.4 cy
2	0.4 cy
3	0.7 cy
TOTAL	6.5 cy

PROPOSED PIER 1
SCALE: 3/4"=1'-0"

NOTES:

- (NO) INDICATES CONCRETE PLACEMENT NUMBER.
- CHAMFER ALL EXPOSED EDGES OF CONCRETE 1".
- PEDESTAL ELEVATIONS AND ANCHOR BOLT LOCATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMODATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL DIMENSIONS.
- SEE DWG. NO. BR-16 FOR PEDESTAL REINFORCEMENT DETAILS.

- EXISTING CONCRETE REINFORCEMENT NOT SHOWN FOR CLARITY.
- ALL COVER SHALL BE 2" UNLESS OTHERWISE NOTED.
- SEE DWG. NO. BR-13 FOR PIER NOSE DETAIL AND PIER NOSE WELDING DETAIL

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3/2/2017
DATE

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EDUCATION LAW ARTICLE 145, SECTION 7209.

REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT

DEPARTMENT
OF
PUBLIC WORKS

PROJECT NAME
ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

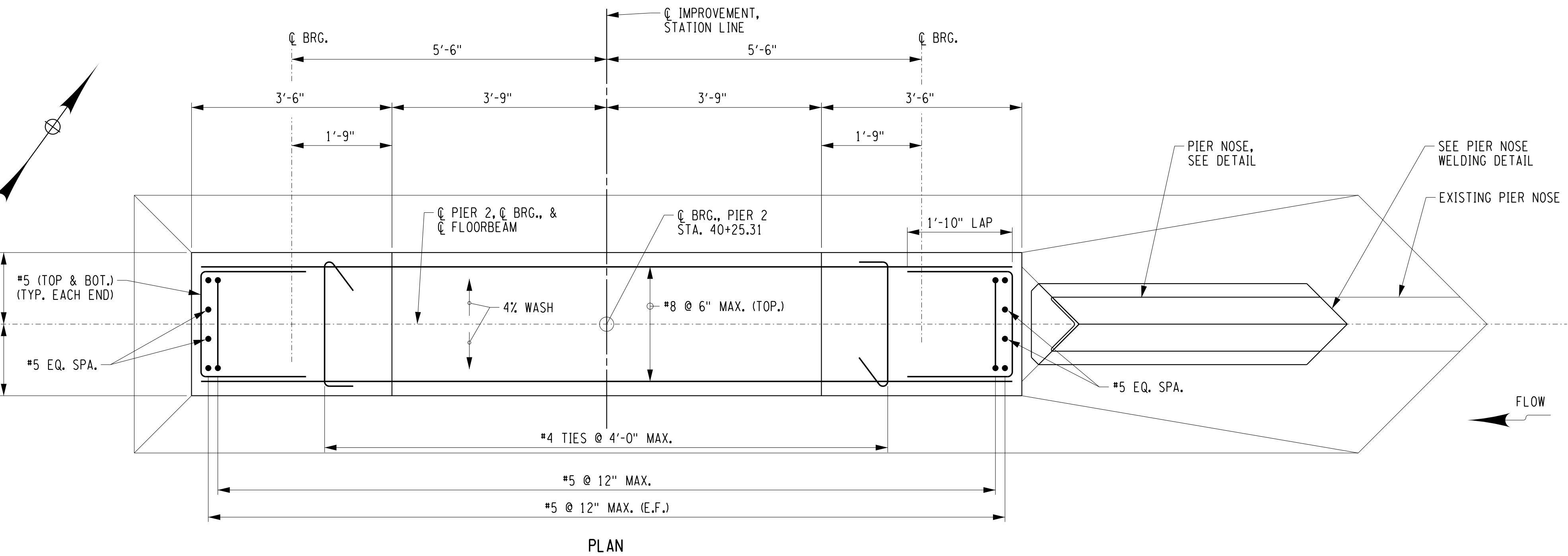
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**PIER 1
RECONSTRUCTION
DETAILS**

SCALE	DATE
AS NOTED	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 22 OF 46	DRAWING NO. BR-12

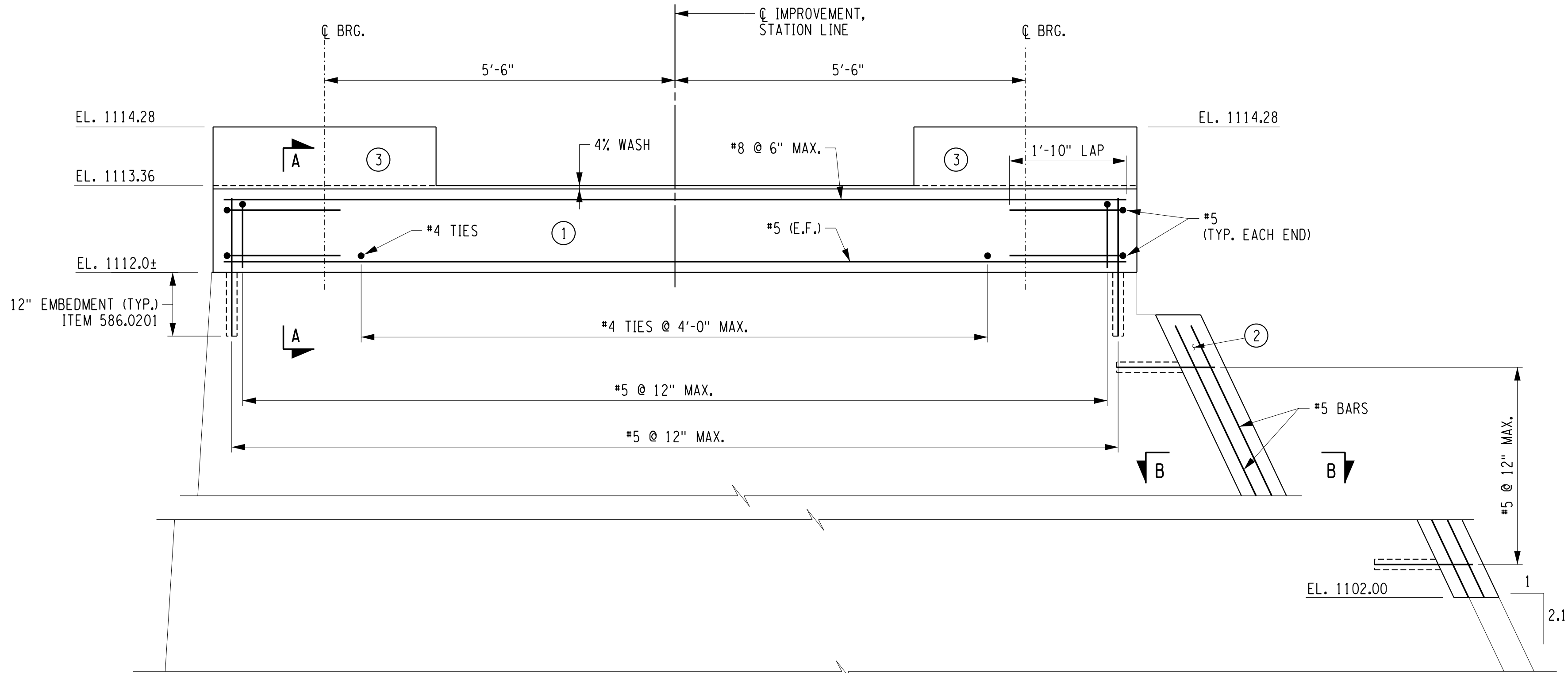
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USER = Lindot

DESIGN SUPERVISOR D. ZIEMIANSKI JOB MANAGER C. GAWRON CHECKED BY J. DePLANCHE ESTIMATED BY A. SCHWINGEL DRAFTED BY J. DePLANCHE CHECKED BY J. DePLANCHE

PIER 2 CONCRETE TABLE	
PLACEMENT	ITEM 555.970100CA
1	1.9 cy
2	0.3 cy
3	0.6 cy
TOTAL	2.8 cy



PLAN



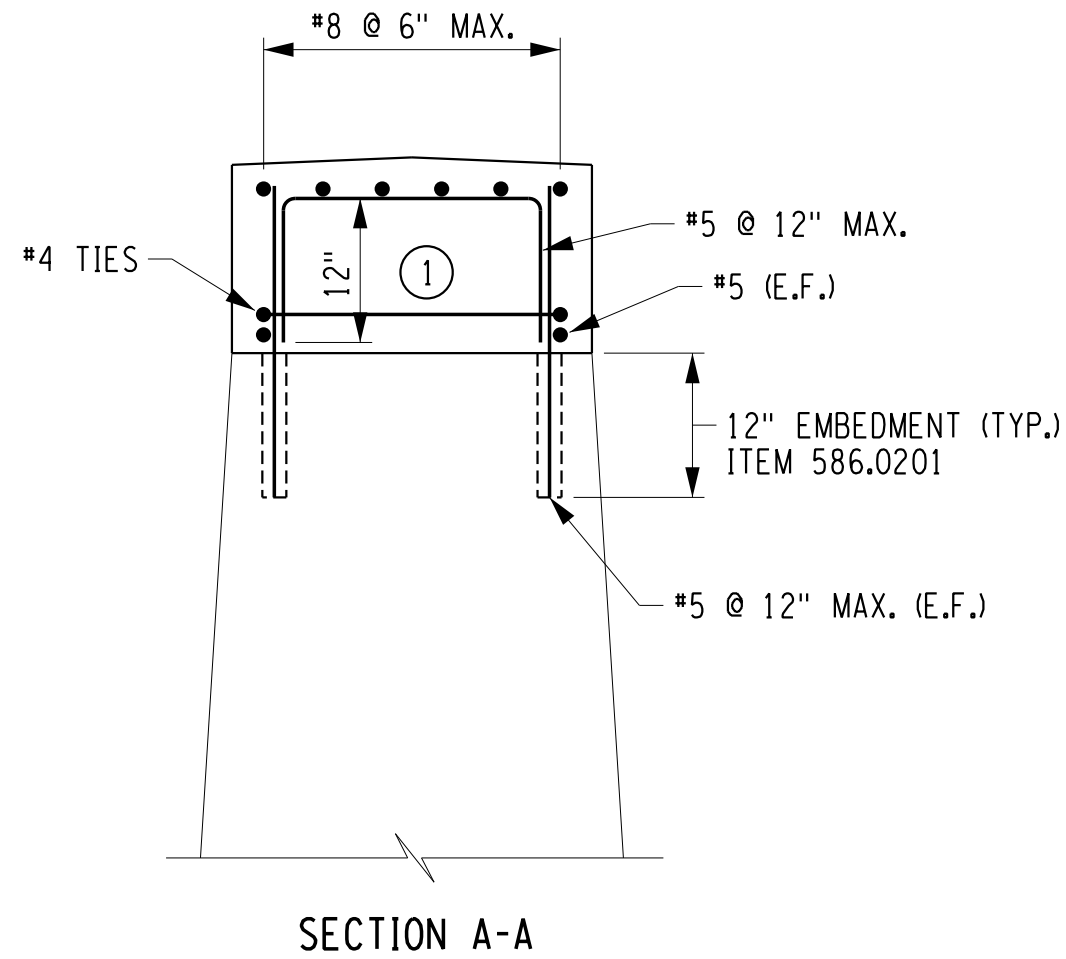
ELEVATION

PROPOSED PIER 2

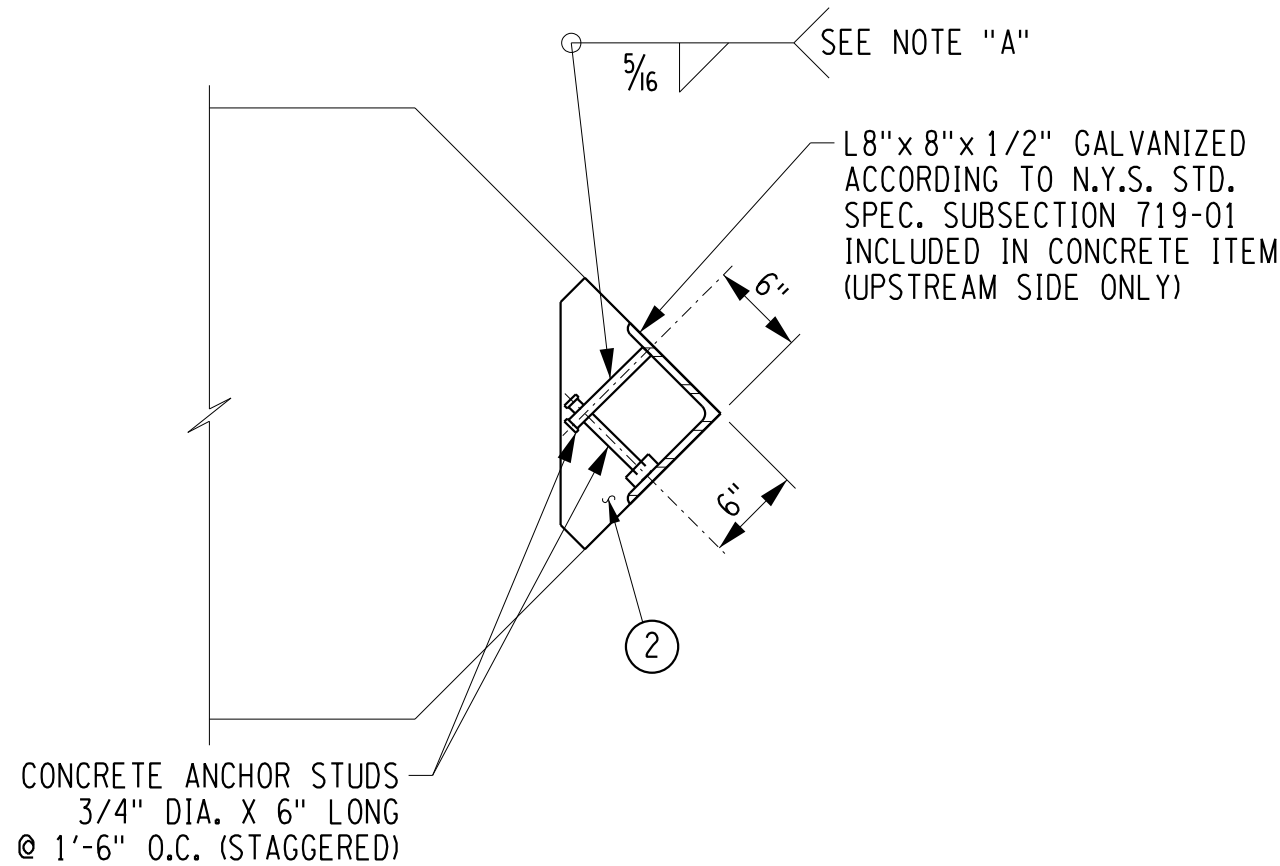
SCALE: 3/4"=1'-0"

NOTES:

- (NO) INDICATES CONCRETE PLACEMENT NUMBER.
- CHAMFER ALL EXPOSED EDGES OF CONCRETE 1".
- PEDESTAL ELEVATIONS AND ANCHOR BOLT LOCATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMODATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL DIMENSIONS.
- SEE DWG. NO. BR-16 FOR PEDESTAL REINFORCEMENT DETAILS.
- EXISTING CONCRETE REINFORCEMENT NOT SHOWN FOR CLARITY.
- ALL COVER SHALL BE 2" UNLESS OTHERWISE NOTED.
- SEE DWG. NO. BR-12 FOR SECTION B-B.



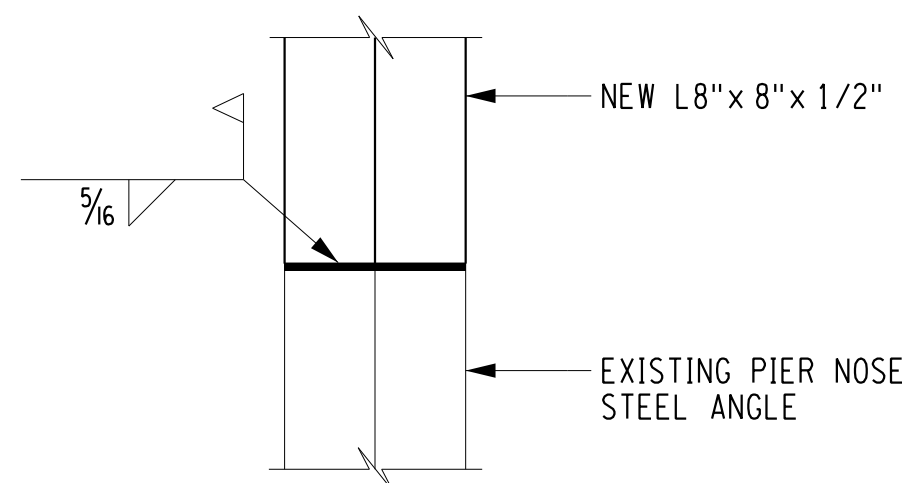
SECTION A-A



PIER NOSE DETAIL

NOT TO SCALE

NOTE "A"
DUE TO THE POSSIBILITY OF REINFORCEMENT INTERFERENCE WITH ANCHOR STUDS, FOR CONSTRUCTABILITY THE OPTIONS ARE TO WELD A563 GRADE A HEX NUTS ON ONE LEG OF ANGLE AND USE THREADED ANCHOR STUDS OR FIELD WELD ANCHOR STUDS TO ANGLE



PIER NOSE WELDING DETAIL

NOT TO SCALE

ERDMAN
ANTHONY

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5/2/2017
DATE

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT



DEPARTMENT
OF
PUBLIC WORKS

PROJECT NAME

ASHFORD BRIDGE #37

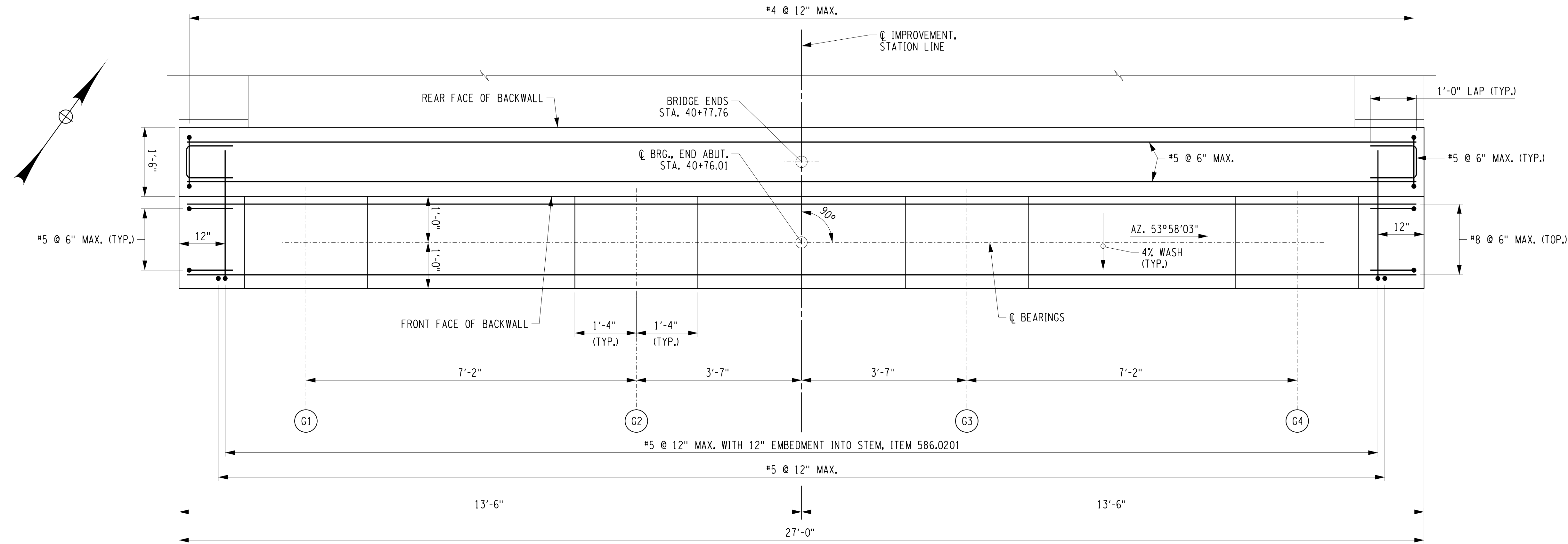
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

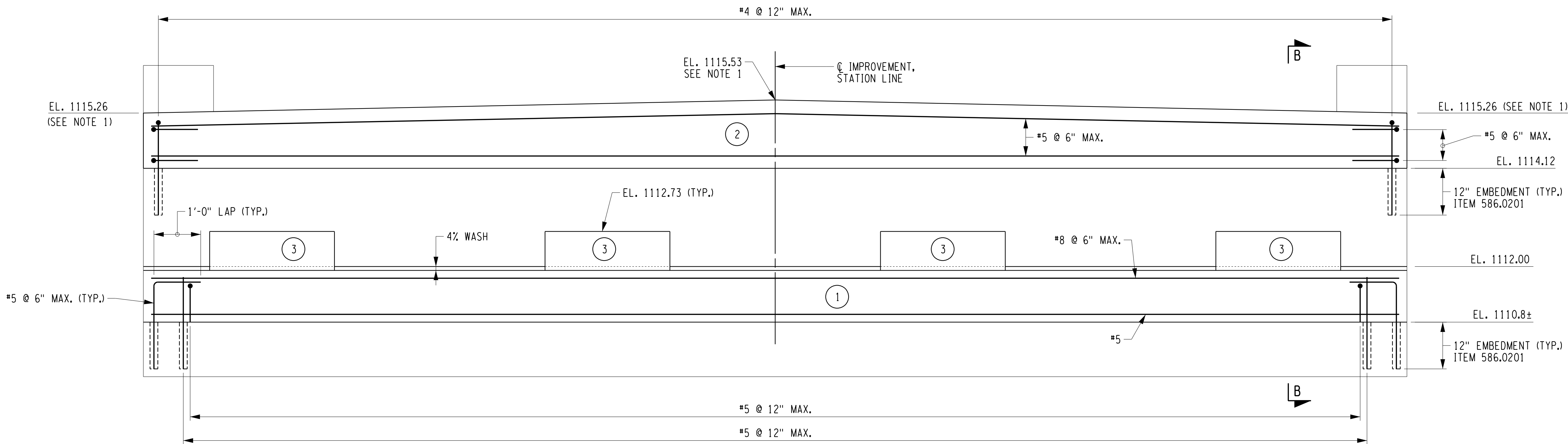
PIER 2
RECONSTRUCTION
DETAILS

SCALE	DATE
AS NOTED	5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 23 OF 46	DRAWING NO. BR-13

END ABUTMENT CONCRETE TABLE	
PLACEMENT	ITEM 555.970100CA
1	2.5 cy
2	2.0 cy
3	0.6 cy
TOTAL	5.1 cy



PLAN



ELEVATION

PROPOSED END ABUTMENT

SCALE: $\frac{3}{4}$ "=1'-0"

NOTES:

- BACKWALL ELEVATIONS SHOWN ARE TAKEN AT THE JOINT BETWEEN THE SUPERSTRUCTURE SLAB AND APPROACH SLAB (BRIDGE ENDS).
- (NO) INDICATES CONCRETE PLACEMENT NUMBER.
- SEE DWG. NO. BR-16 FOR SECTION B-B.
- CHAMFER ALL EXPOSED EDGES OF CONCRETE 1".

- PEDESTAL ELEVATIONS AND ANCHOR BOLT LOCATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMODATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL DIMENSIONS.
- SEE DWG. NO. BR-16 FOR PEDESTAL REINFORCEMENT DETAILS.
- EXISTING CONCRETE REINFORCEMENT NOT SHOWN FOR CLARITY.
- ALL COVER SHALL BE 2" UNLESS OTHERWISE NOTED.
- ALL REINFORCEMENT SHALL BE GALVANIZED. COST INCLUDED UNDER ITEM 555.970100CA.

**ERDMAN
ANTHONY**

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3/2/2017
DATE

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT



**DEPARTMENT
OF
PUBLIC WORKS**

PROJECT NAME

ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

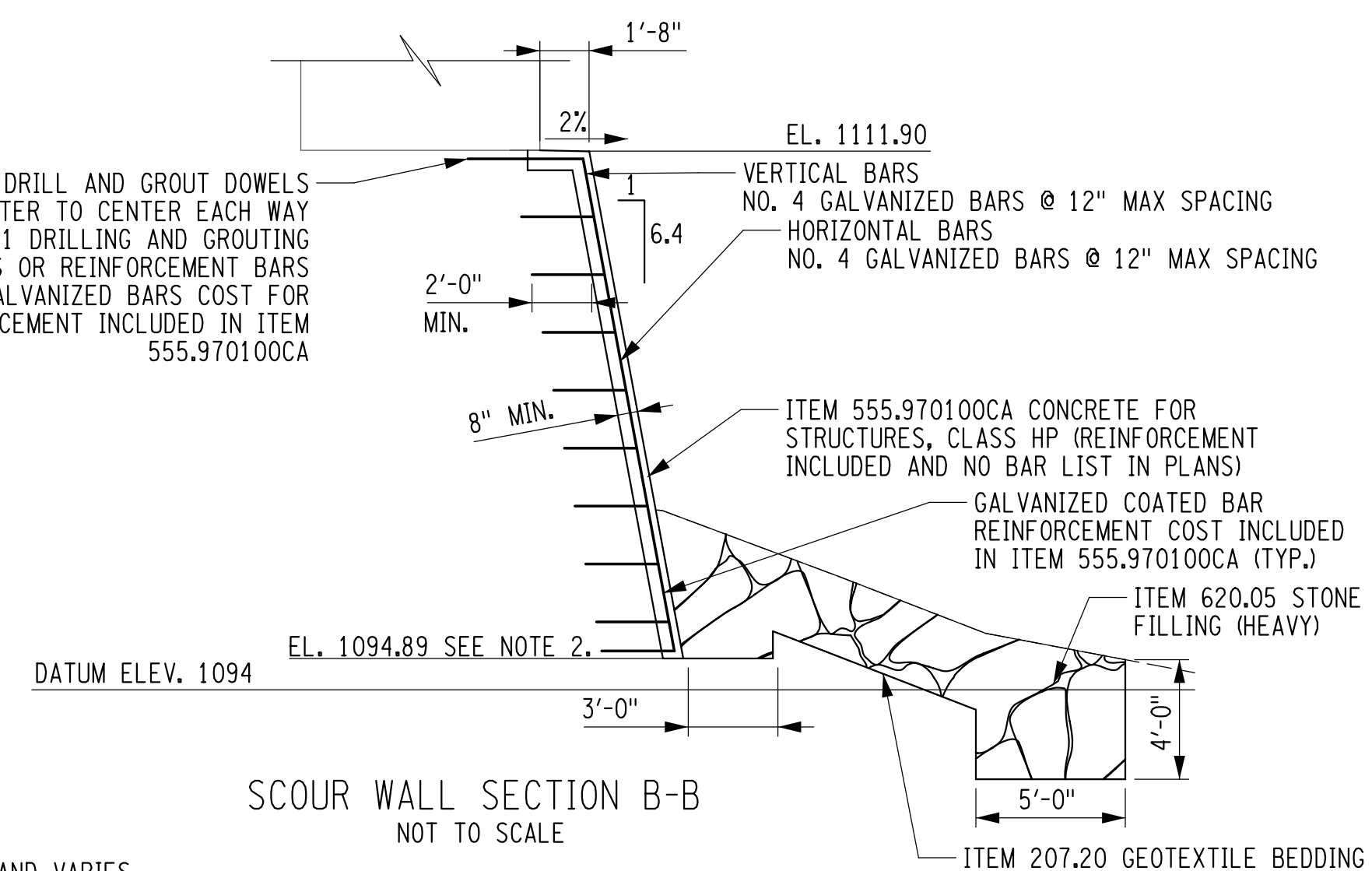
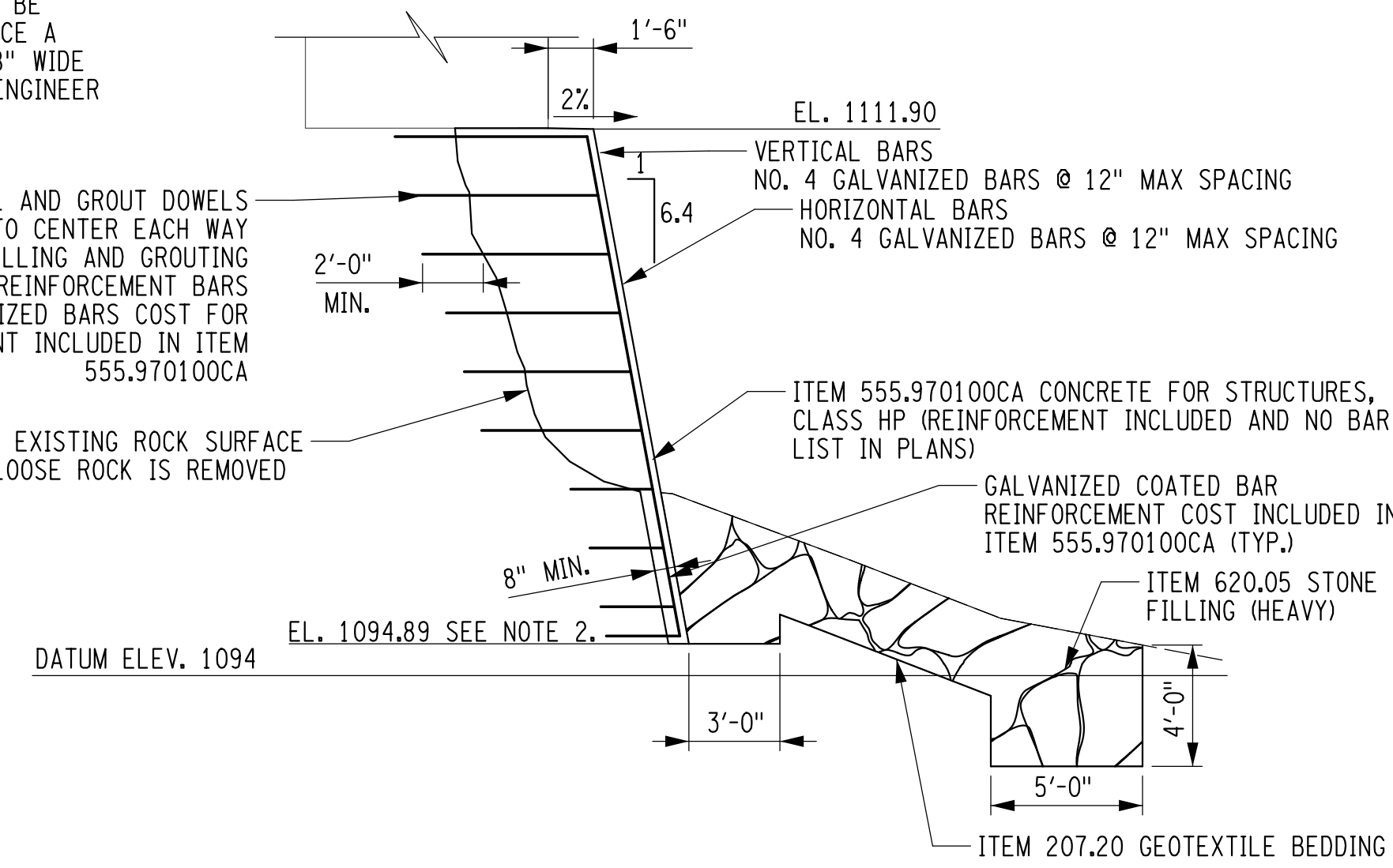
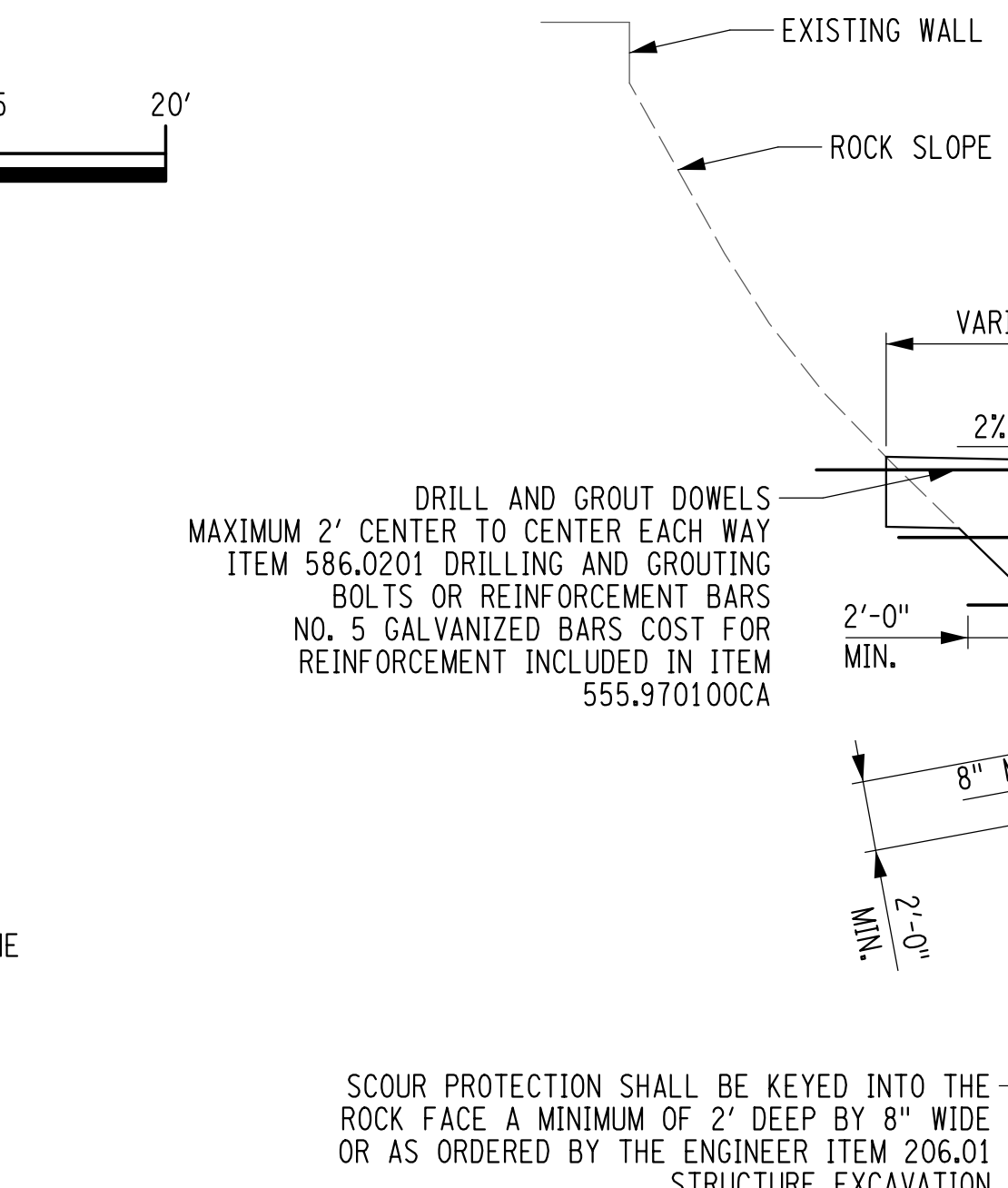
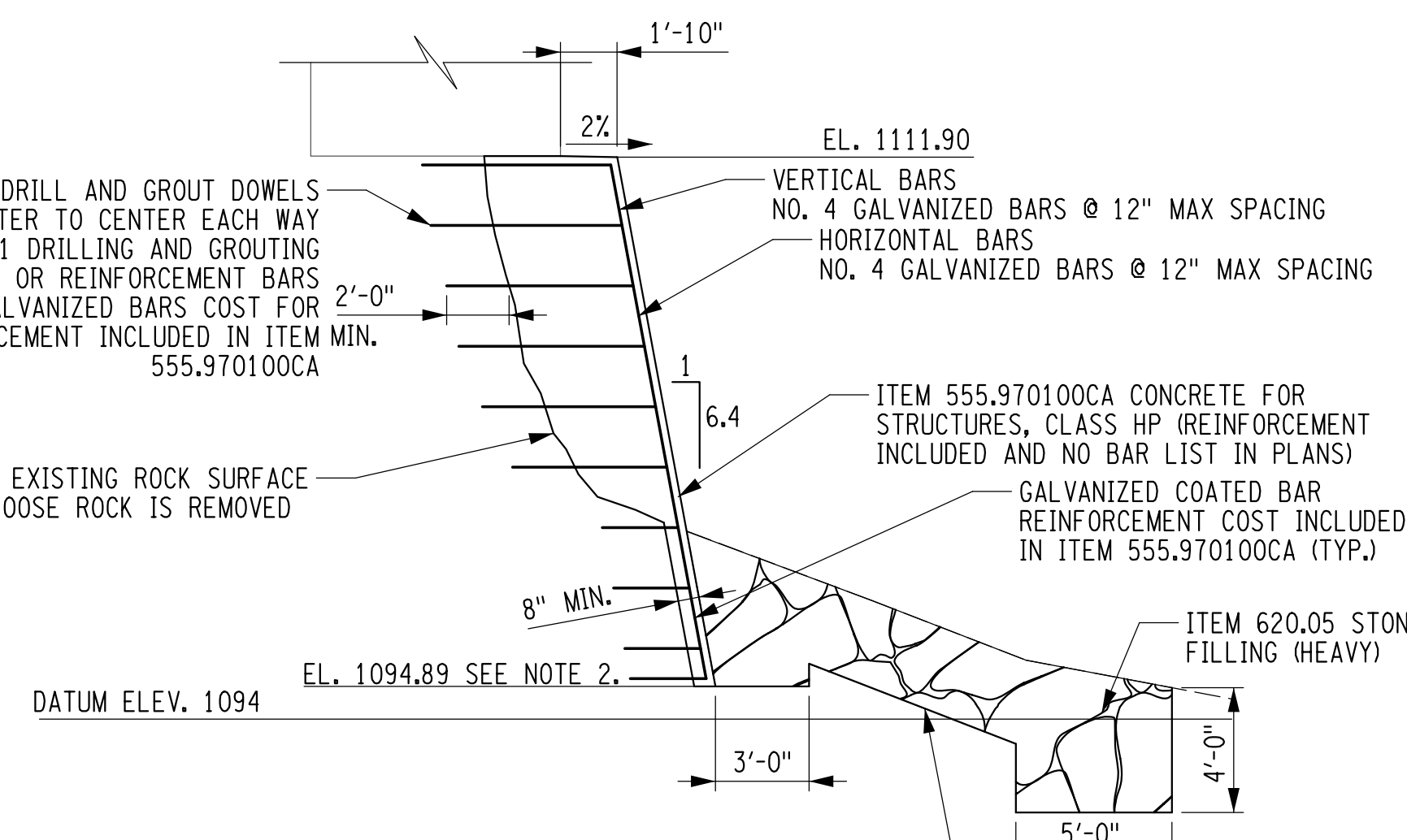
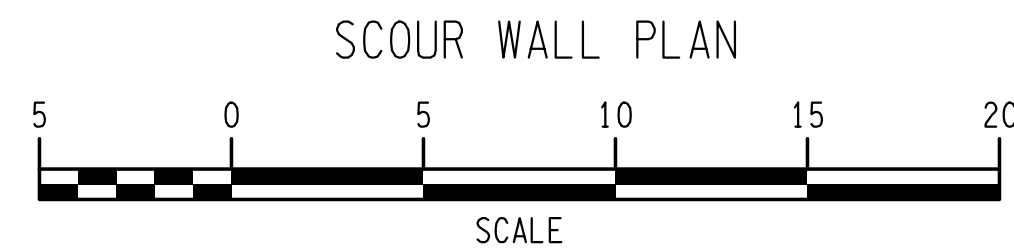
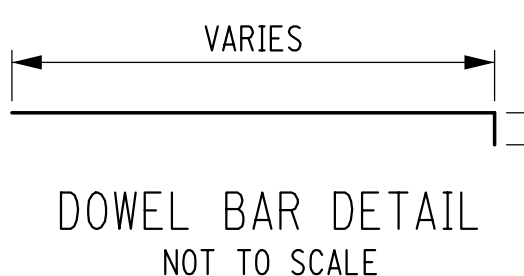
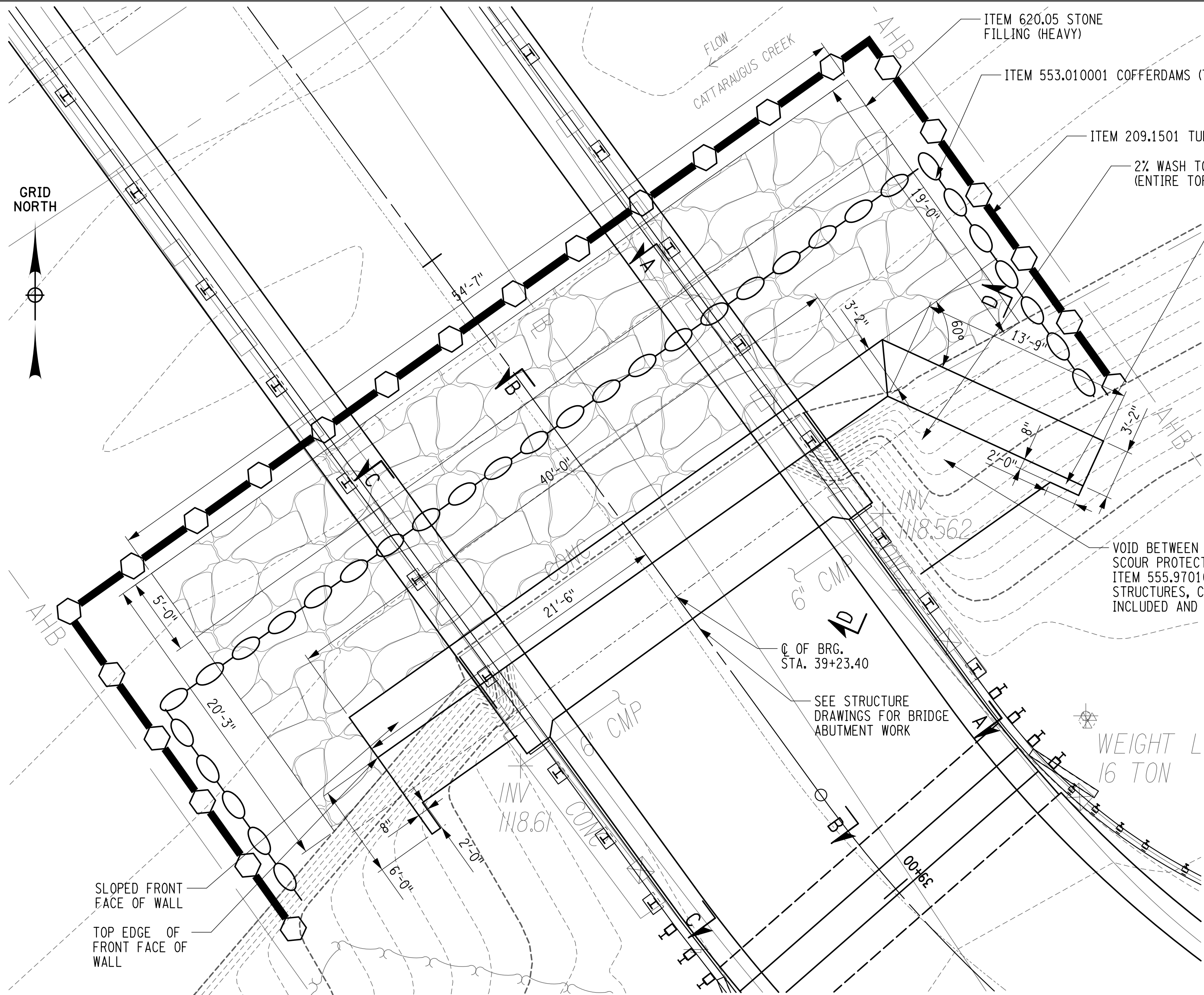
**END ABUTMENT
RECONSTRUCTION
DETAILS**

SCALE	DATE
AS NOTED	5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 24 OF 46	DRAWING NO. BR-14

FILE NAME = 575731_cph_SW_2.dgn
DATE/TIME = DGNSDATES
USER = jkoch

DGNSTIMES

DESIGN SUPERVISOR P. GALBO
JOB MANAGER J. KOCH
DESIGNED BY J. KOCH
CHECKED BY J. KOCH
ESTIMATED BY T. MAJOR
DRAFTED BY J. KOCH
CHECKED BY J. KOCH
T. MAJOR



- NOTES:
- SEE DWG. BR-10 FOR EXISTING SCOUR WALL REMOVAL DETAILS AND SECTIONS.
 - THE BOTTOM OF WALL SHALL REST ON SOUND BEDROCK OR BE EQUAL TO THE ELEVATION OF BOTTOM OF THE EXISTING WALL WHICH EVER IS LOWER.
 - THE CONTRACTOR SHALL PROVIDE 4-4" DIA. WEEP HOLES ALONG THE FRONT FACE OF THE WALL 6" ABOVE ORDINARY HIGH WATER.

WATTS
ARCHITECTURE & ENGINEERING

2/17/2017
DATE

DATE

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

DEPARTMENT
OF
PUBLIC WORKS

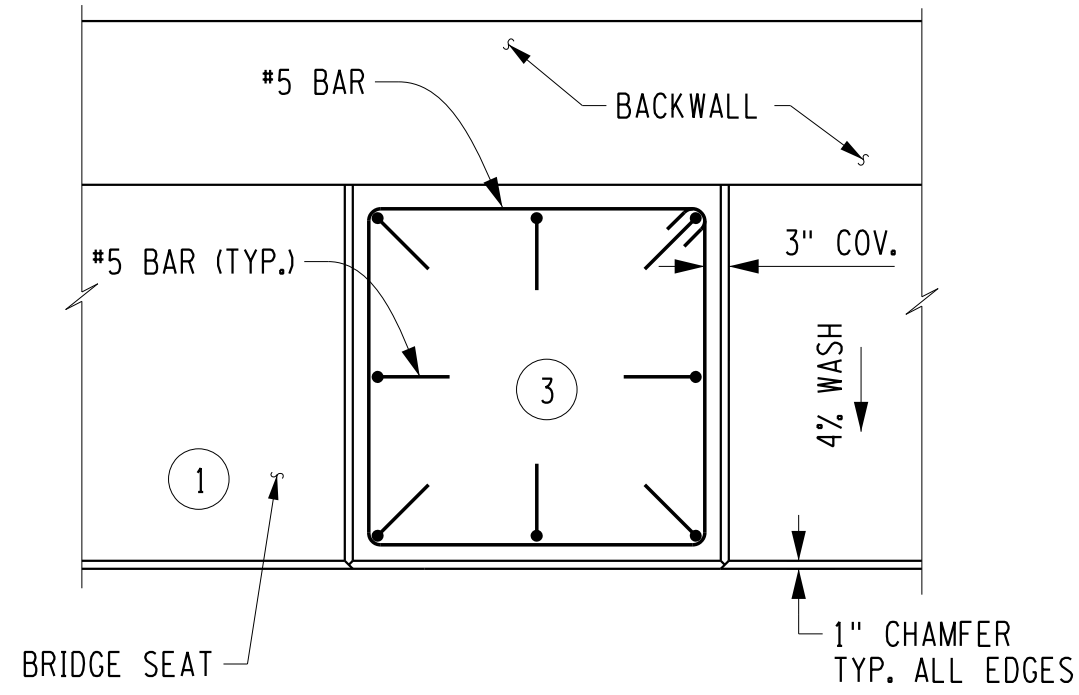
PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

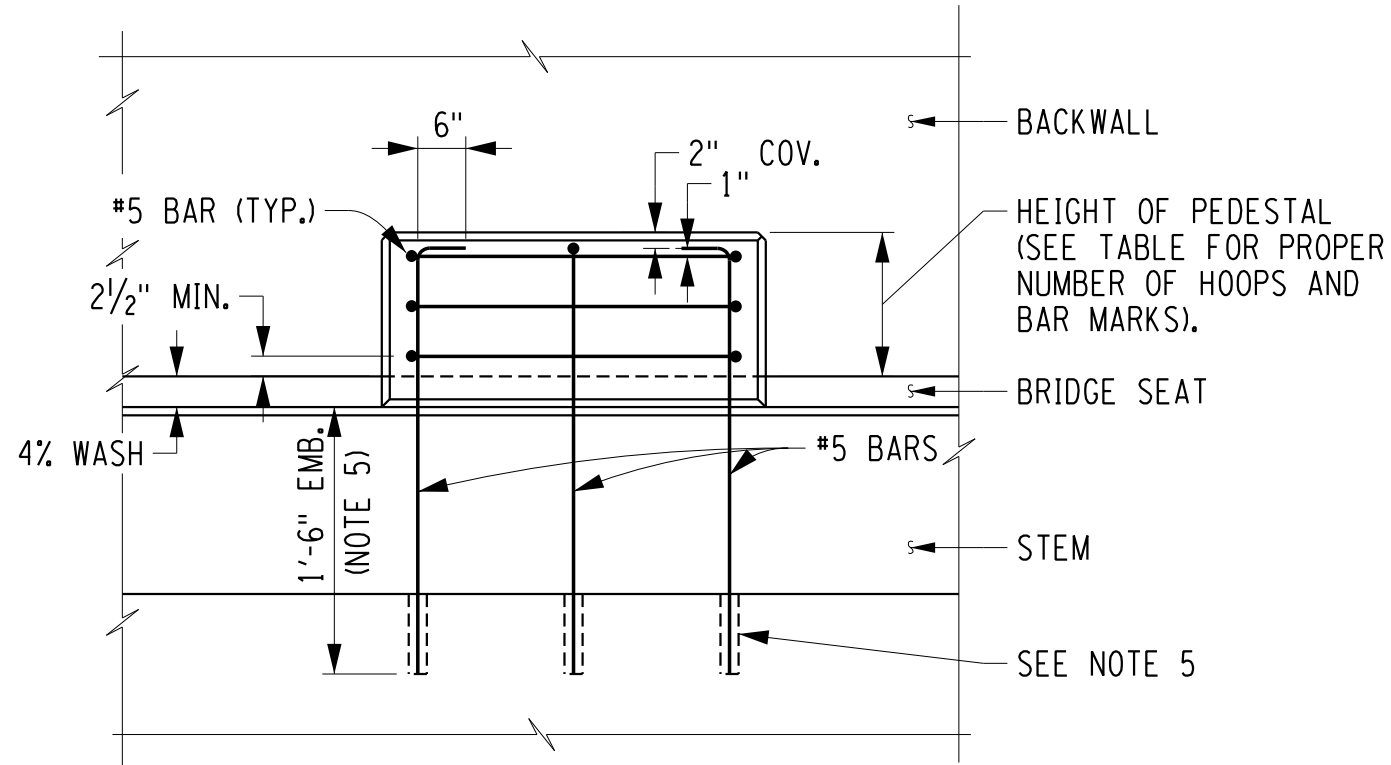
DRAWING TITLE

PROPOSED SCOUR
PROTECTION

SCALE	DATE
AS SHOWN	5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 25 OF 46	DRAWING NO. BR-15



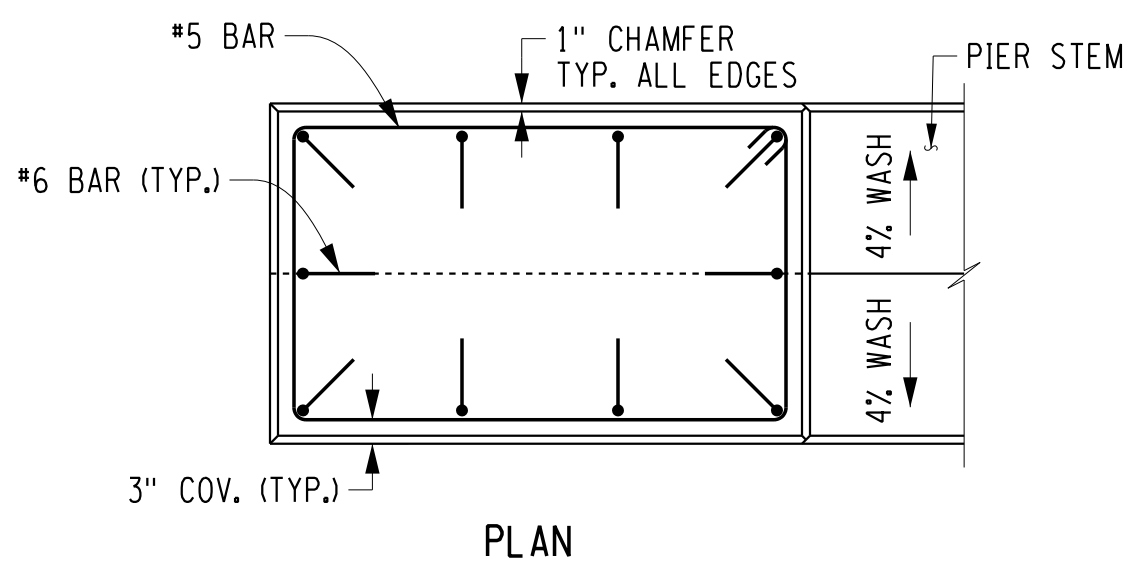
TYPICAL PEDESTAL PLAN



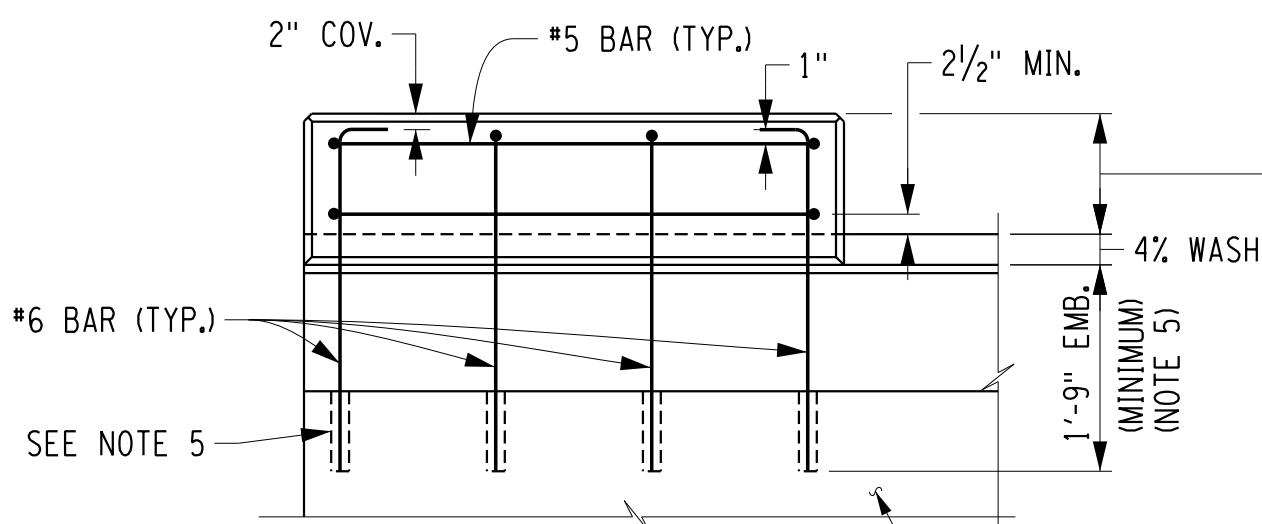
TYPICAL PEDESTAL ELEVATION

ABUTMENT PEDESTAL DETAILS
NOT TO SCALE

PEDESTAL HEIGHT	NUMBER OF HOOPS
6" TO 8"	1
8" TO 11"	2
11" TO 14"	3
14" TO 17"	4
17" TO 20"	5



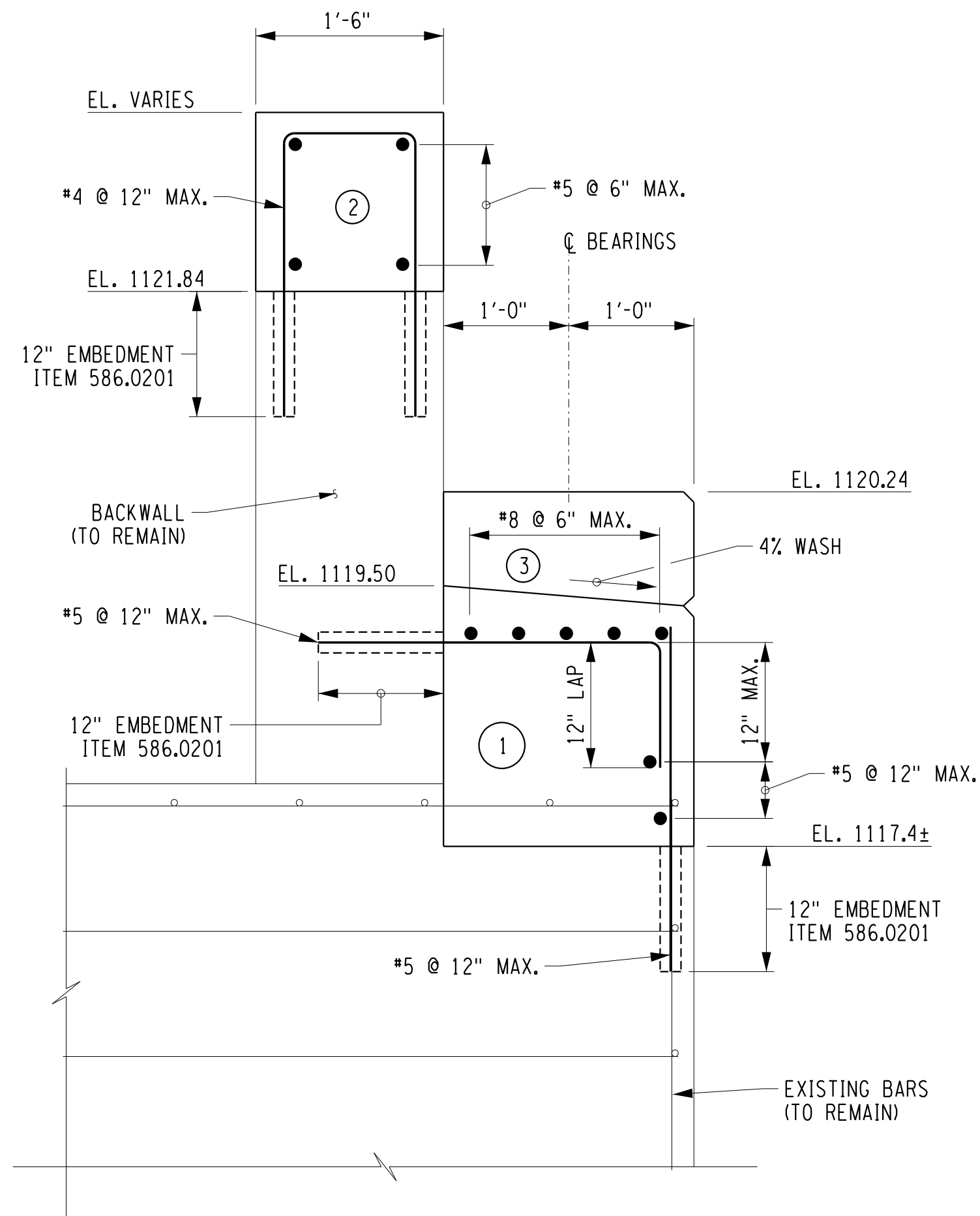
PLAN



ELEVATION

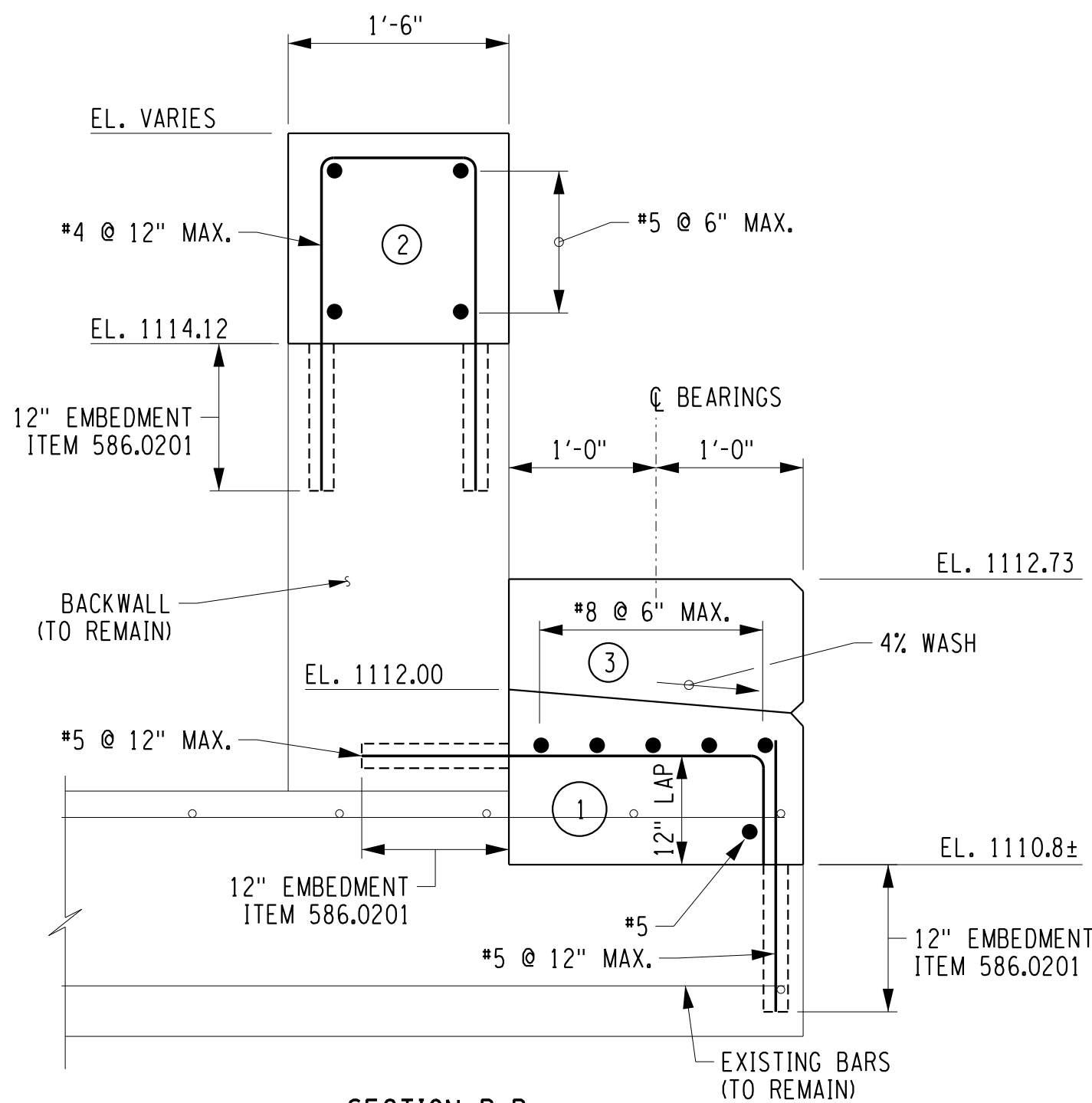
PIER PEDESTAL REINFORCEMENT
NOT TO SCALE

HEIGHT OF PEDESTAL MEASURED FROM PIER C (SEE TABLE FOR PROPER NUMBER OF HOOPS AND BAR MARKS).



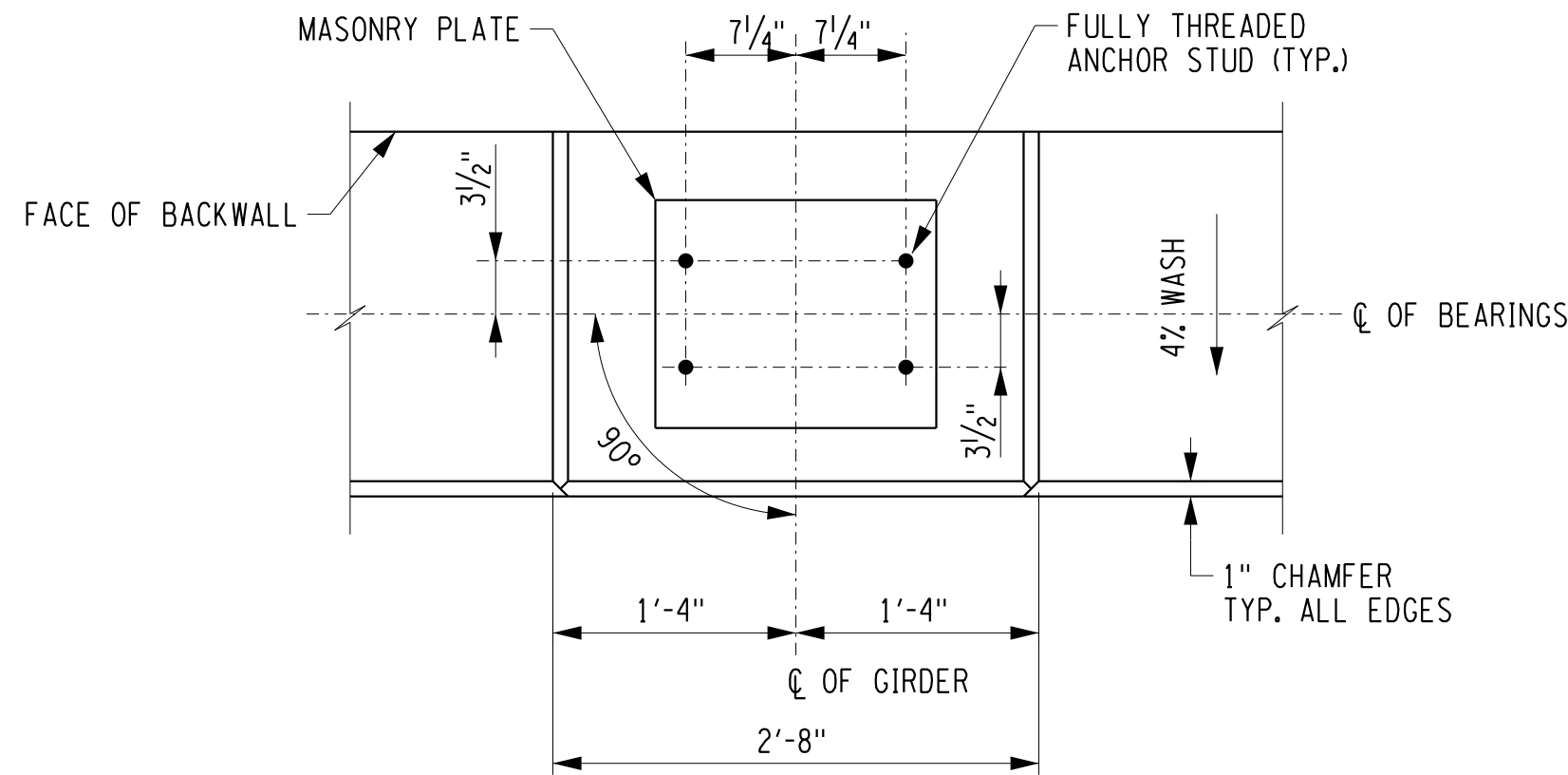
SECTION A-A

BEGIN ABUTMENT
SCALE: 1"=1'-0"

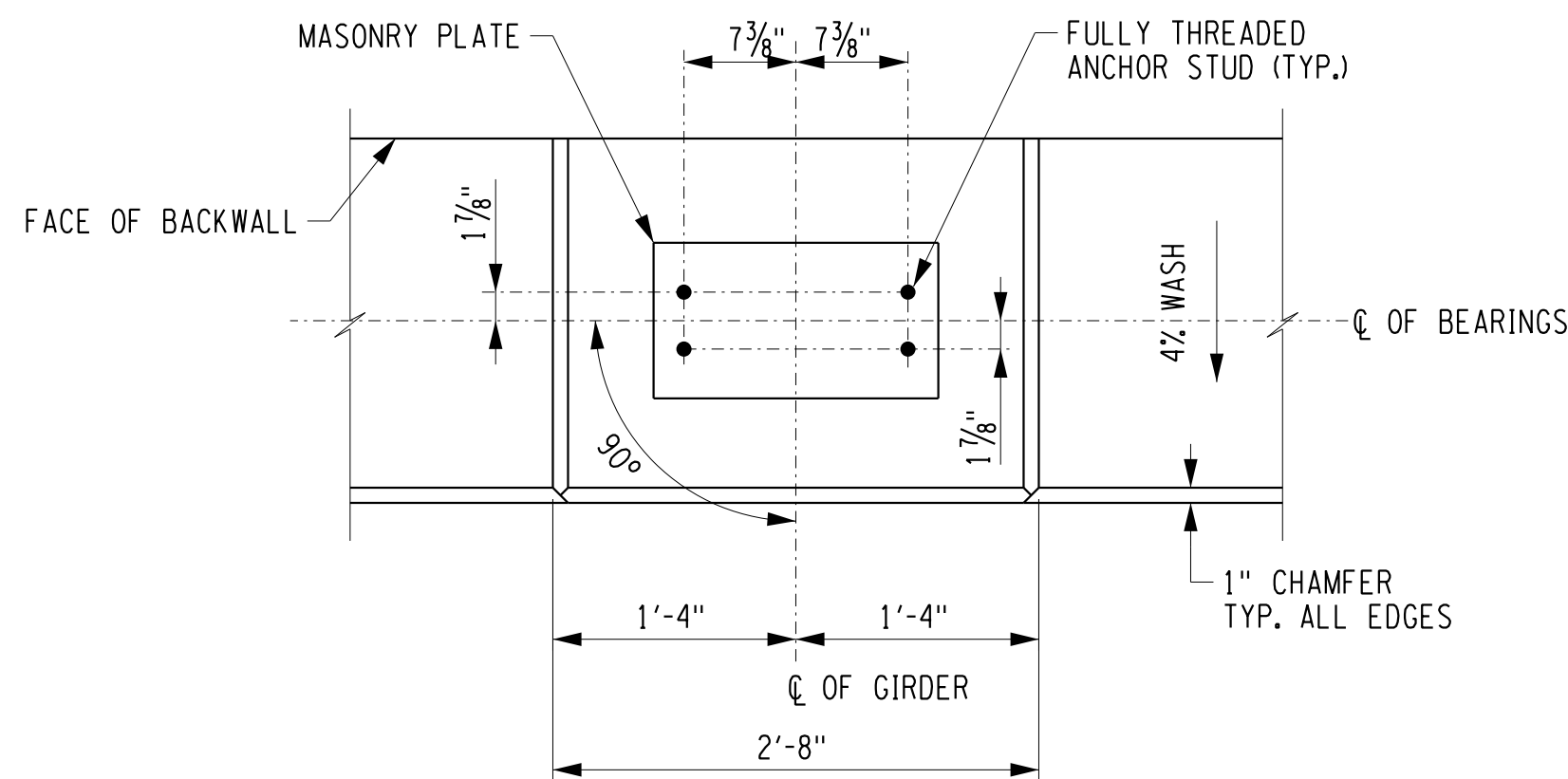


SECTION B-B

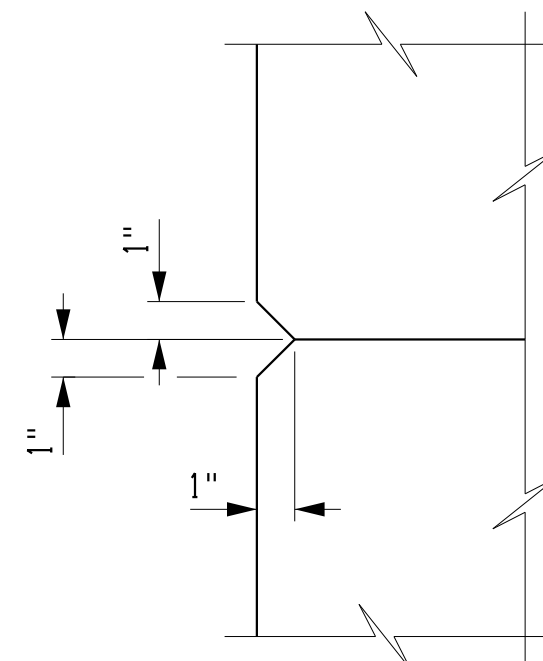
END ABUTMENT
SCALE: 1"=1'-0"



BEGIN ABUTMENT ANCHOR BOLT LAYOUT
NOT TO SCALE



END ABUTMENT ANCHOR BOLT LAYOUT
NOT TO SCALE



CHAMFER DETAIL
NOT TO SCALE

NOTES:

- COVER FOR STEEL REINFORCEMENT SHALL BE 2" UNLESS OTHERWISE NOTED.
- (NO) INDICATES CONCRETE PLACEMENT NUMBER.
- CHAMFER ALL EXPOSED EDGES OF CONCRETE 1".
- PEDESTAL ELEVATIONS AND ANCHOR BOLT LOCATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMODATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL DIMENSIONS.
- WHERE MINIMUM EMBEDMENT LENGTH CANNOT BE ACHIEVED IN NEW CONCRETE, BARS SHALL BE DRILLED AND GROUTED INTO EXISTING CONCRETE IN ACCORDANCE WITH ITEM 586.0201.
- ALL REINFORCEMENT SHALL BE GALVANIZED. COST INCLUDED UNDER ITEM 555.970100CA.
- DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

ERDMAN ANTHONY
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erdmananthony.com



3/2/2017
DATE

DATE

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT



DEPARTMENT OF PUBLIC WORKS

PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

MISCELLANEOUS RECONSTRUCTION DETAILS

SCALE	DATE
AS NOTED	5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 26 OF 46	DRAWING NO. BR-16



INDICATES PARTS DESIGNED BY MANUFACTURER

1. WHEN THE THICKNESS OF THE MASONRY PLATE OR ANY OTHER PLATE BEING WELDED EXCEEDS 1 1/2", THE PLATES SHALL BE PREHEATED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL
2. BEARING DIMENSIONS SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. ACTUAL DIMENSIONS WILL BE DETERMINED BY THE MANUFACTURER. THE ASSUMED DIMENSIONS OF THE BEARING (WIDTH, LENGTH AND HEIGHT) WERE TAKEN FROM THE NYSDOT BD SHEETS AND ARE SHOWN ON THE PLANS.

- * ONE-WAY LONGITUDINAL IS THE MAXIMUM ONE-WAY MOVEMENT (EXPANSION OR CONTRACTION) OF THE SUPERSTRUCTURE WHEN BEARING ARE SET AT 68°F PLUS 1 INCH OF TOLERANCE
- ** MAXIMUM (ABSOLUTE) DUE TO LL+I ONLY. A 1.75 LIVE LOAD STRENGTH FACTOR HAS BEEN APPLIED.

TABLE DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



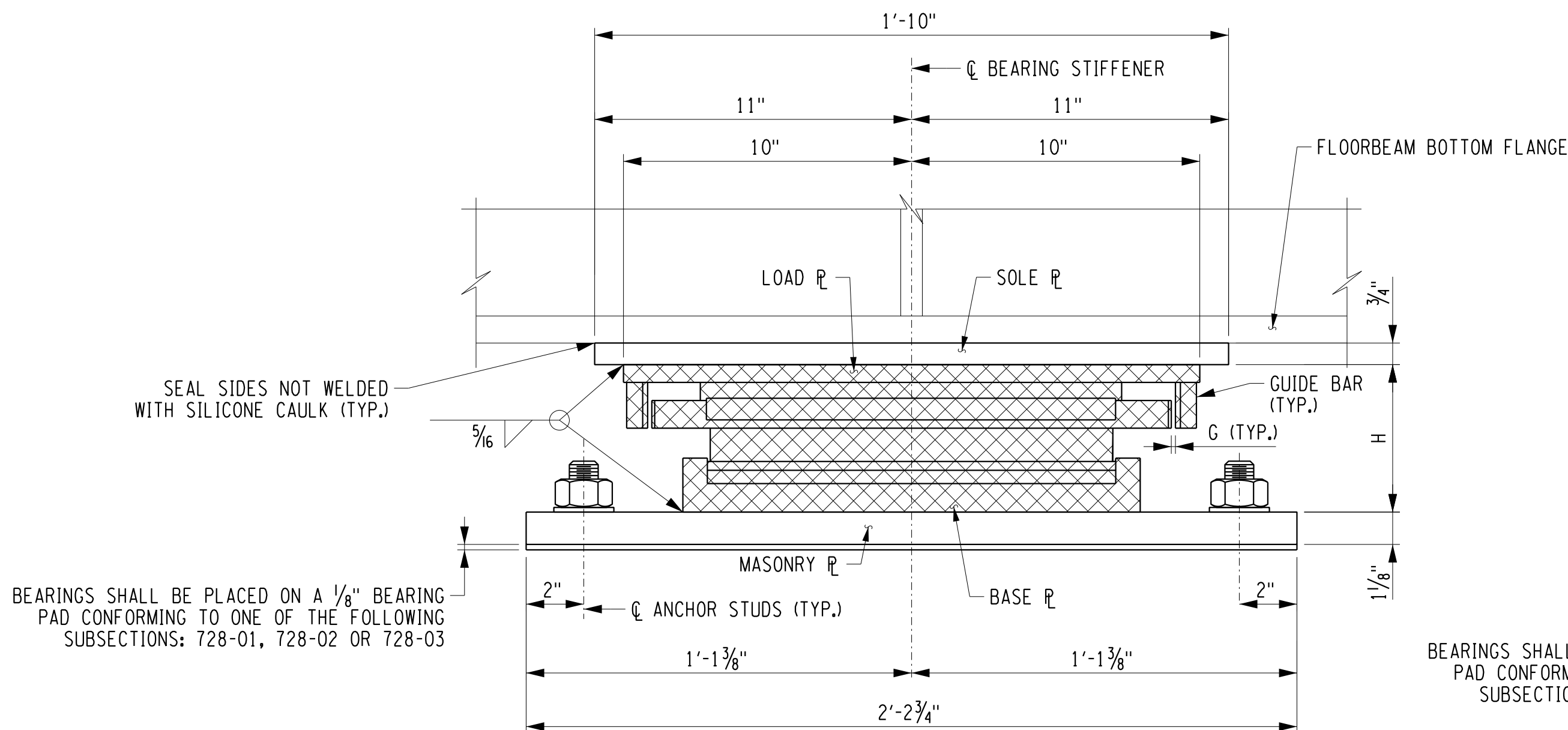
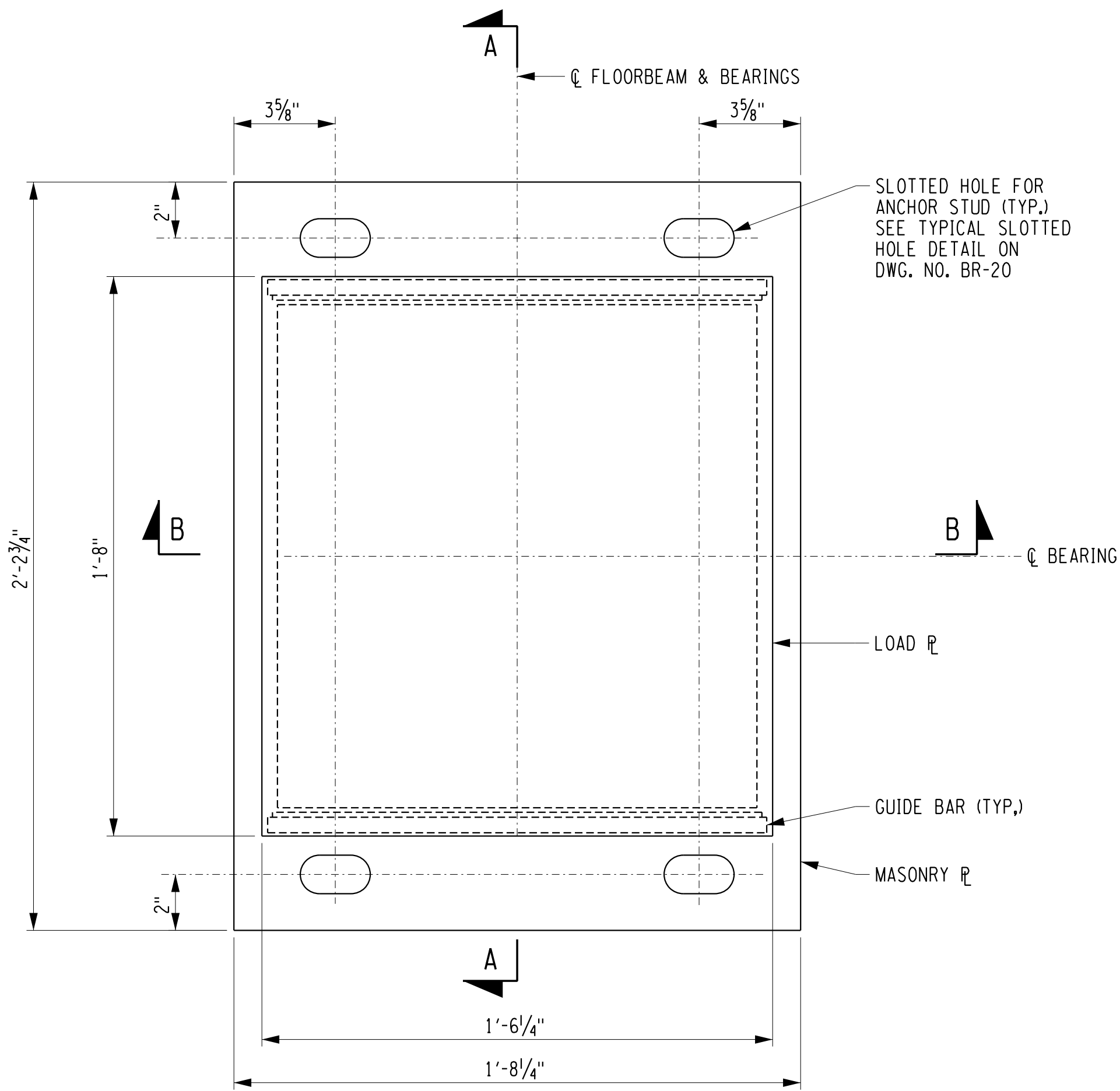
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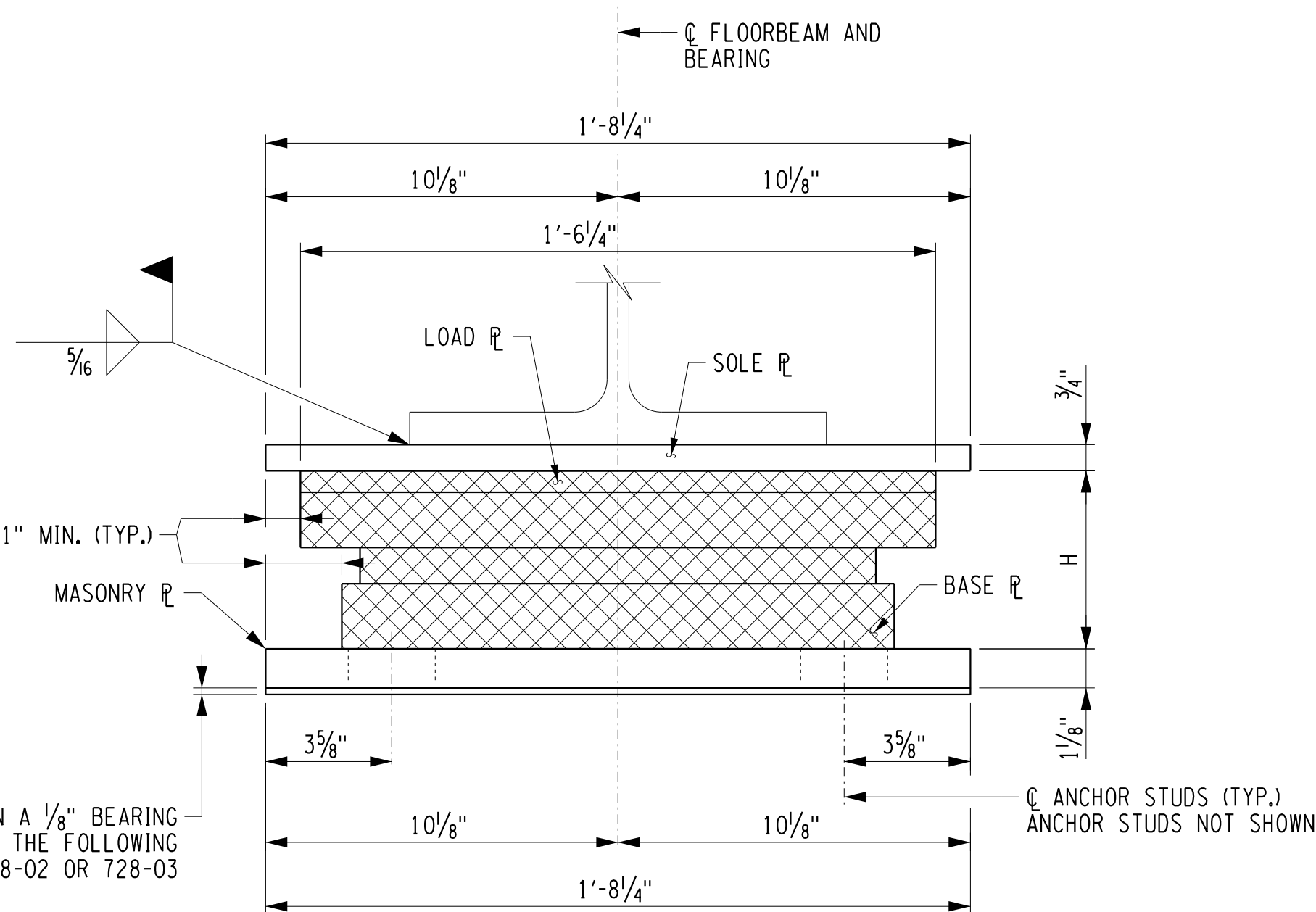
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

BEGIN ABUTMENT
EXPANSION
MULTI-ROTATIONAL
BEARINGS (TYPE M.R.)

SCALE NONE	DATE 5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 27 OF 46	DRAWING NO. BR-17



BEARINGS SHALL BE PLACED ON A 1/8" BEARING PAD CONFORMING TO ONE OF THE FOLLOWING SUBSECTIONS: 728-01, 728-02 OR 728-03



SECTION B-B

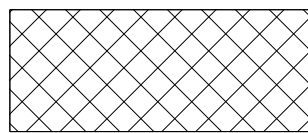
BEARING TABLE																
LOCATION	FIX./EXP.	ITEM NO.	QUANTITY REQUIRED	UNFACTORED SERVICE LOADS			SERVICE LOADS		STRENGTH LOADS			•ONE WAY LONG. MOVEMENT	(G) GUIDE CLEARANCE	BRG. H	ANCHOR STUDS	
				VERTICAL (Kips)											DIA.	STUDS/BRG.
				DC	DW	LL+IM	VERT. (Kips)	HORIZ. (Kips)	VERT. (Kips)	HORIZ. (Kips)	ROTATION (RAD)**					
PIER 1	EXP.	565.1522	2	120	16	179	315	10	485	22	0.0041	1 7/8"	1/8"	6 3/8"	1"	4
PIER 2	EXP.	565.1522	2	120	16	179	315	10	485	22	0.0041	1 1/2"	1/8"	6 3/8"	1"	4

• ONE-WAY LONGITUDINAL IS THE MAXIMUM ONE-WAY MOVEMENT (EXPANSION OR CONTRACTION) OF THE SUPERSTRUCTURE WHEN BEARING ARE SET AT 68°F PLUS 1 INCH OF TOLERANCE

TABLE DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

•• MAXIMUM (ABSOLUTE) DUE TO LL+I ONLY. A 1.75 LIVE LOAD STRENGTH FACTOR HAS BEEN APPLIED.

LEGEND:



INDICATES PARTS DESIGNED BY MANUFACTURER

NOTES:

- THE CONTRACTOR SHALL SUPPLY MULTI-ROTATIONAL STRUCTURAL BRIDGE BEARINGS CONFORMING TO THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 565 AND SUBJECT TO THE FOLLOWING CONDITIONS:
 - THE BEARING DEVICE SUPPLIED SHALL BE CAPABLE OF TRANSMITTING THE LOADS AND MOVEMENT SHOWN ON THESE PLANS.
 - THE DIMENSION "H" IN THE BEARING TABLE REPRESENTS THE ASSUMED TOTAL HEIGHT OF BEARING MECHANISM BETWEEN THE SOLE PLATE AND MASONRY PLATE USED BY THE DESIGNER TO ESTABLISH THE PEDESTAL ELEVATIONS. THE MINIMUM PEDESTAL HEIGHT SHALL NOT BE CHANGED WITHOUT WRITTEN APPROVAL OF THE PROJECT MANAGER.
 - ALL STEEL SHALL CONFORM TO ASTM A709, GR. 50.
 - ALL STEEL FABRICATION SHALL CONFORM TO THE PROVISIONS OF THE LATEST EDITION OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
 - ALL METAL COMPONENTS OF THE BEARING SYSTEM WHICH ARE LIABLE TO COME INTO CONTACT DURING TRANSLATION SHALL HAVE A TEFLON SLIDING SURFACE FINISH.
 - ALL EXPANSION BEARINGS SHALL HAVE A MAXIMUM FRICTION COEFFICIENT OF 3%.
 - THE BEARING DEVICE, MASONRY PLATE, SOLE PLATE, ANCHOR STUDS, NUTS, WASHER PLATES AND BEARING PAD SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEMS.
 - ANCHOR STUDS, WASHERS, WASHER PLATES, ANCHOR PLATES, AND NUTS SHALL MEET THE REQUIREMENTS OF SUBSECTION 723-60. THEY SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF MATERIAL SUBSECTION 719-01, "GALVANIZED COATINGS AND REPAIR METHODS."
- BEARING DIMENSIONS SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. ACTUAL DIMENSIONS WILL BE DETERMINED BY THE MANUFACTURER. THE ASSUMED DIMENSIONS OF THE BEARING (WIDTH, LENGTH AND HEIGHT) WERE TAKEN FROM THE NYSDD BD SHEETS AND ARE SHOWN ON THE PLANS.

ERDMAN ANTHONY

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Buffalo, NY 14221
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erdmananthony.com



3/2/2017 DATE
DATE

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT

DEPARTMENT OF PUBLIC WORKS

PROJECT NAME

ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

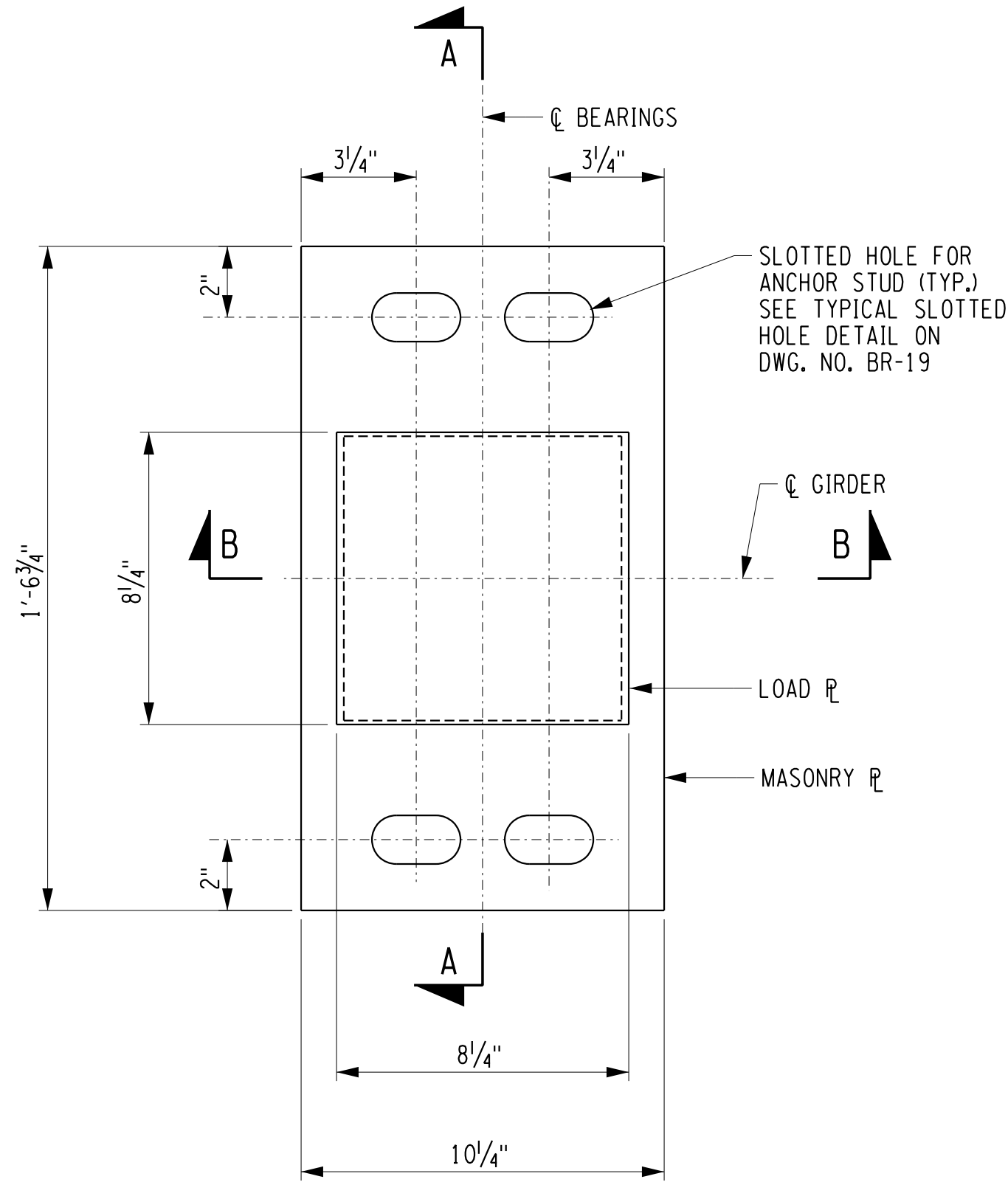
DRAWING TITLE

PIER EXPANSION MULTI-ROTATIONAL BEARINGS (TYPE M.R.)

SCALE	DATE
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P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 28 OF 46	DRAWING NO. BR-18

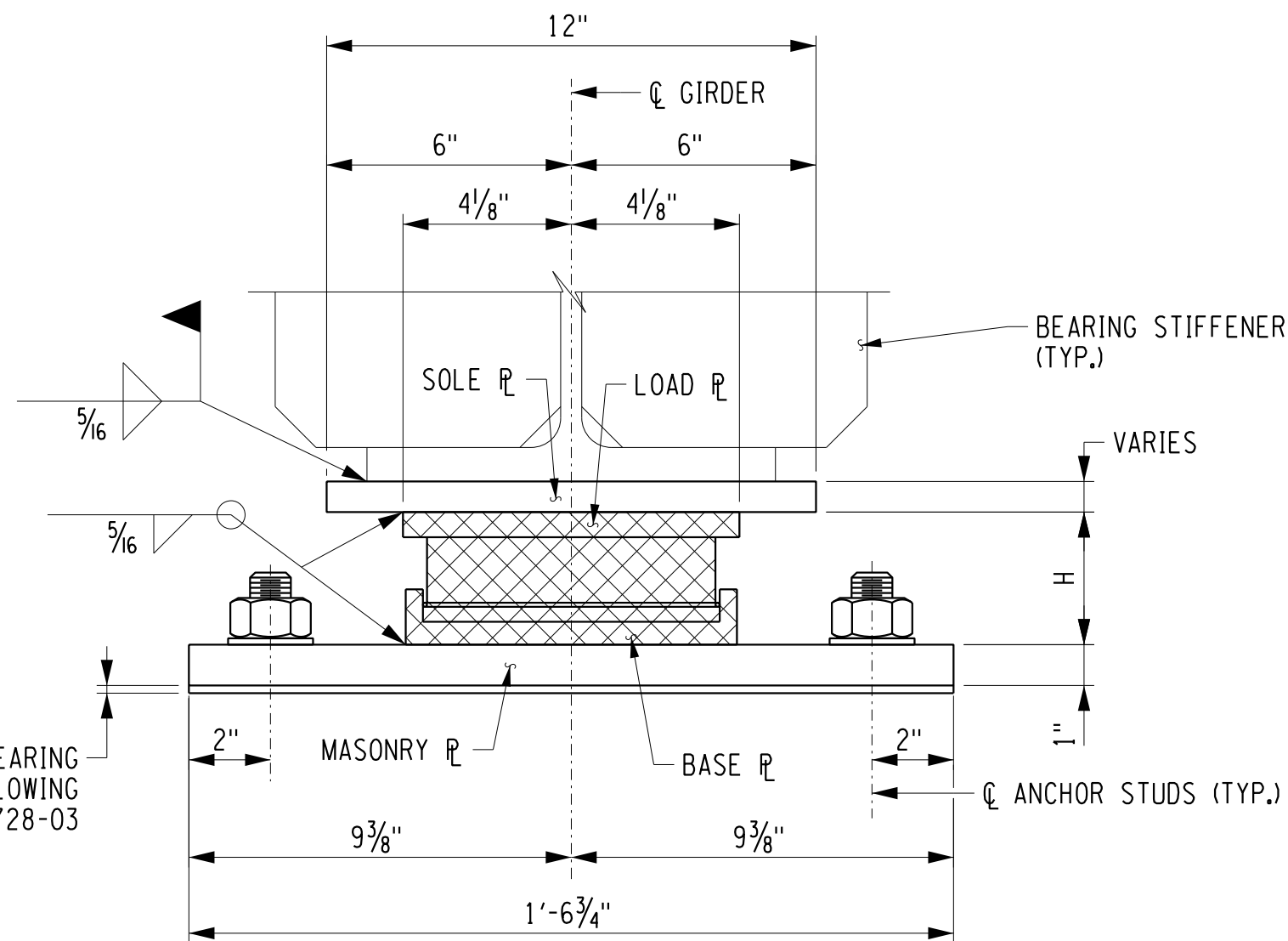
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DATE/TIME = 4/26/2017 4:11:01 PM
USER = Lindot

DESIGN SUPERVISOR D. ZIEMIANSKI JOB MANAGER C. GAWRON
DESIGNED BY A. SCHWINGEL
CHECKED BY A. SCHWINGEL
ESTIMATED BY J. DePLANCHE
DRAFTED BY T. LINDO
CHECKED BY A. SCHWINGEL

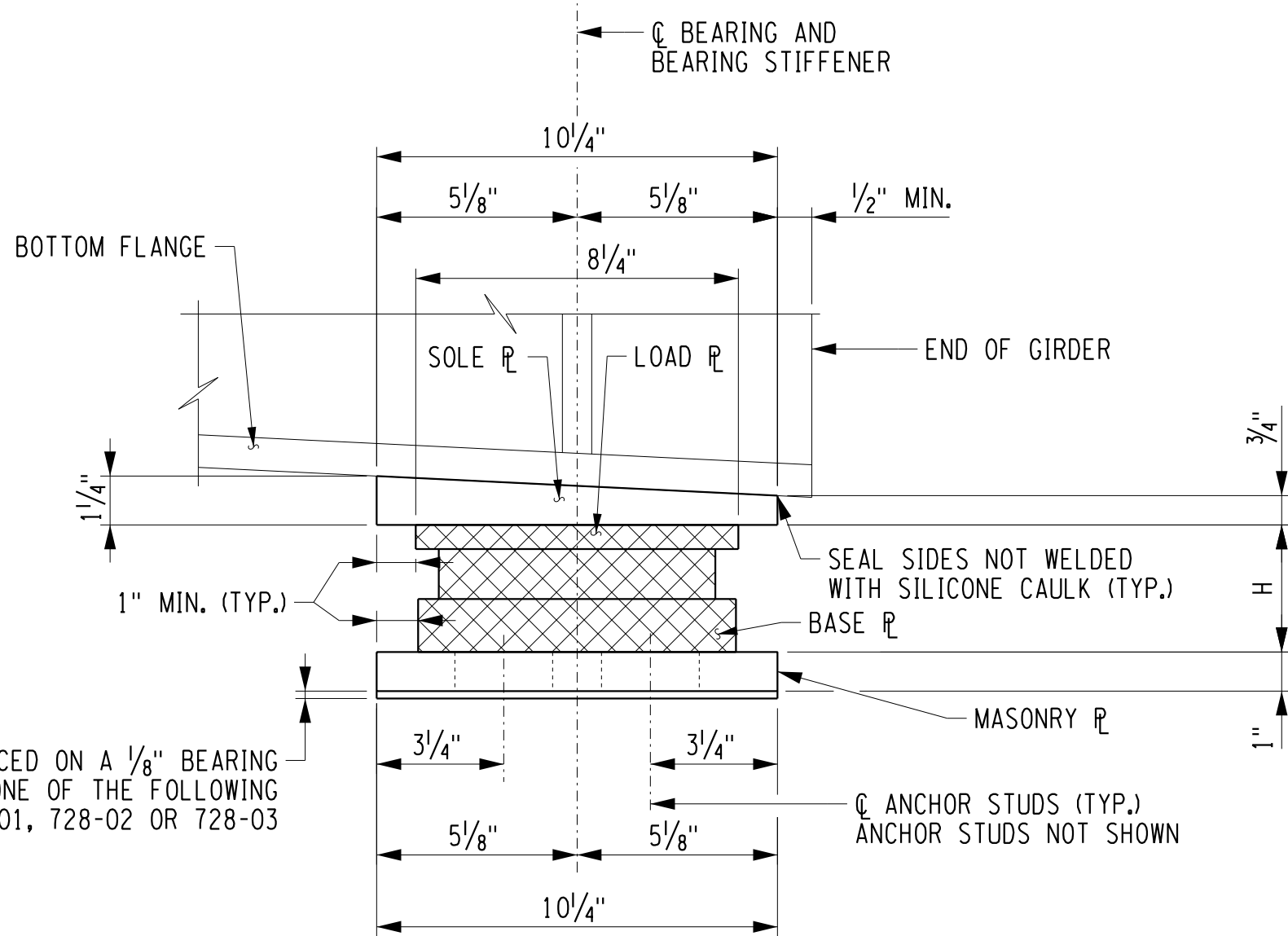


PLAN

(SOLE PLATE NOT SHOWN FOR CLARITY)



SECTION A-A

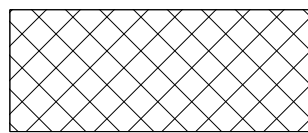


SECTION B-B

NOTES:

1. THE CONTRACTOR SHALL SUPPLY MULTI-ROTATIONAL STRUCTURAL BRIDGE BEARINGS CONFORMING TO THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 565 AND SUBJECT TO THE FOLLOWING CONDITIONS:
 - A. THE BEARING DEVICE SUPPLIED SHALL BE CAPABLE OF TRANSMITTING THE LOADS AND MOVEMENT SHOWN ON THESE PLANS.
 - B. THE DIMENSION "H" IN THE BEARING TABLE REPRESENTS THE ASSUMED TOTAL HEIGHT OF BEARING MECHANISM BETWEEN THE SOLE PLATE AND MASONRY PLATE USED BY THE DESIGNER TO ESTABLISH THE PEDESTAL ELEVATIONS. THE MINIMUM PEDESTAL HEIGHT SHALL NOT BE CHANGED WITHOUT WRITTEN APPROVAL OF THE PROJECT MANAGER.
 - C. ALL STEEL SHALL CONFORM TO ASTM A709, GR. 50.
 - D. ALL STEEL FABRICATION SHALL CONFORM TO THE PROVISIONS OF THE LATEST EDITION OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
 - E. ALL METAL COMPONENTS OF THE BEARING SYSTEM WHICH ARE LIABLE TO COME INTO CONTACT DURING TRANSLATION SHALL HAVE A TEFLON SLIDING SURFACE FINISH.
 - F. ALL EXPANSION BEARINGS SHALL HAVE A MAXIMUM FRICTION COEFFICIENT OF 3%.
 - G. THE BEARING DEVICE, MASONRY PLATE, SOLE PLATE, ANCHOR STUDS, NUTS, WASHER PLATES AND BEARING PAD SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARING ITEMS.
 - H. ANCHOR STUDS, WASHERS, WASHER PLATES, ANCHOR PLATES, AND NUTS SHALL MEET THE REQUIREMENTS OF SUBSECTION 723-60. THEY SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF MATERIAL SUBSECTION 719-01, "GALVANIZED COATINGS AND REPAIR METHODS."
2. BEARING DIMENSIONS SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. ACTUAL DIMENSIONS WILL BE DETERMINED BY THE MANUFACTURER. THE ASSUMED DIMENSIONS OF THE BEARING (WIDTH, LENGTH AND HEIGHT) WERE TAKEN FROM THE NYSDOT BD SHEETS AND ARE SHOWN ON THE PLANS.

LEGEND:



INDICATES PARTS DESIGNED BY MANUFACTURER

ERDMAN ANTHONY

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erdmananthony.com



3/2/2017
DATE

DATE

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT

CATTARAUGUS COUNTY
INCORPORATED MAR 11, 1808

DEPARTMENT OF PUBLIC WORKS

PROJECT NAME

ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

**END ABUTMENT
FIXED
MULTI-ROTATIONAL
BEARINGS (TYPE M.R.)**

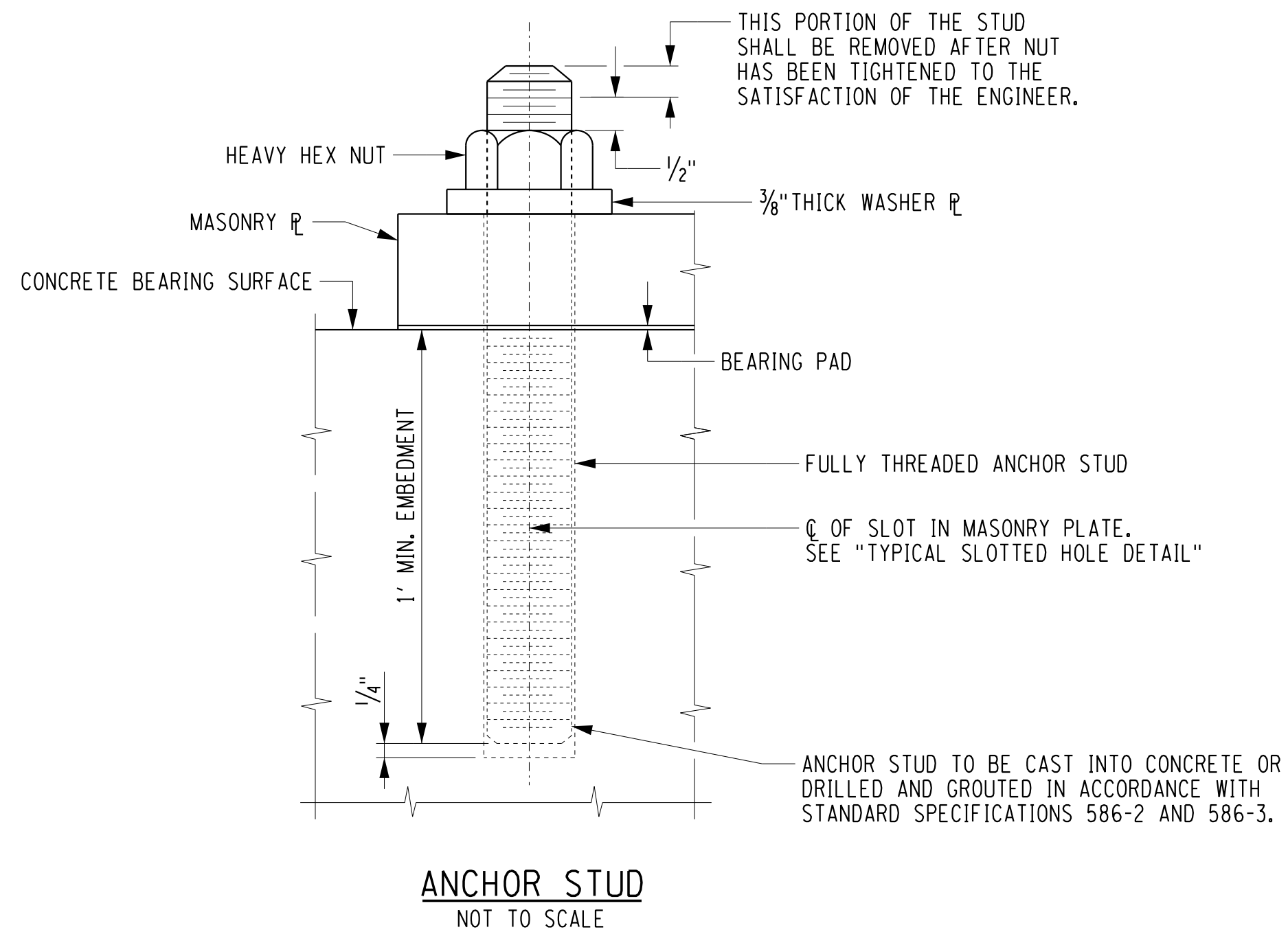
SCALE	DATE
NONE	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 29 OF 46	DRAWING NO. BR-19

BEARING TABLE																
LOCATION	FIX./EXP.	ITEM NO.	QUANTITY REQUIRED	UNFACTORED SERVICE LOADS			SERVICE LOADS		STRENGTH LOADS			•ONE WAY LONG. MOVEMENT	(G) GUIDE CLEARANCE	BRG. H	ANCHOR STUDS	
				VERTICAL (Kips)			VERT. (Kips)	HORIZ. (Kips)	VERT. (Kips)	HORIZ. (Kips)	ROTATION (RAD)**				DIA.	STUDS/BRG.
				DC	DW	LL+IM										
END ABUT.	FIX.	565.1721	4	23	3	59	85	9	135	11	0.0061	0"	0"	3/4"	1"	4

- ONE-WAY LONGITUDINAL IS THE MAXIMUM ONE-WAY MOVEMENT (EXPANSION OR CONTRACTION) OF THE SUPERSTRUCTURE WHEN BEARING ARE SET AT 68°F PLUS 1 INCH OF TOLERANCE
- MAXIMUM (ABSOLUTE) DUE TO LL+I ONLY. A 1.75 LIVE LOAD STRENGTH FACTOR HAS BEEN APPLIED.

TABLE DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

TYPICAL SLOTTED HOLE DETAIL MASONRY PLATE
SCALE: 6"=1'-0"



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5/2/2017
DATE

DATE _____

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EDUCATION LAW ARTICLE 145, SECTION 7209.

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CLIENT



DEPARTMENT
OF
PUBLIC WORKS

PROJECT NAME

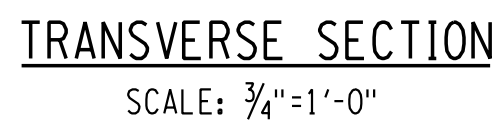
ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

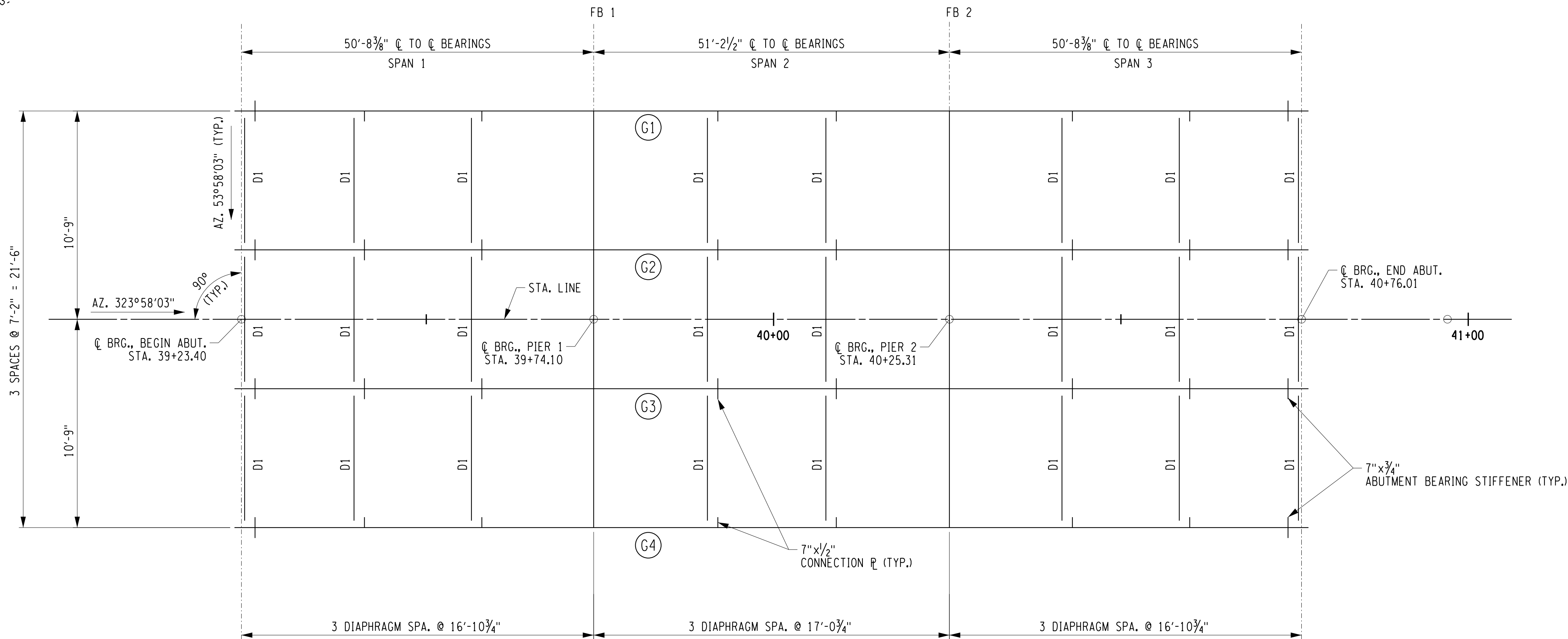
DRAWING TITLE

MULTI-ROTATIONAL MISCELLANEOUS BEARING DETAILS

SCALE	DATE
AS NOTED	5/2/2017
P.I.N.	EAA PROJECT NO.
5757.31	19473.00
SHEET NO.	DRAWING NO.
30 OF 46	BR-20



1. (G1) INDICATES GIRDER NUMBER
2. FOR DIAPHRAGM DETAILS, SEE DWG. NO BR-24.
3. FOR RAILING DETAILS, SEE DWG. NO'S BR-32 - BR-36.
4. FOR STUD SHEAR CONNECTOR DETAILS, SEE DWG. NO BR-24.
5. TOP BARS SHALL BE LAPPED BETWEEN GIRDERS 1 & 2 OR 3 & 4.
6. ALL REINFORCEMENT SHALL BE GALVANIZED.
7. THE COST FOR ALL REINFORCEMENT SHALL BE INCLUDED UNER ITEM 557.0103.
8. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.



NOTES:

1. CONNECTIONS SHALL BE MADE ACCORDING TO THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.
2. ALL BOLTS SHALL BE $\frac{7}{8}$ " DIA. HIGH-STRENGTH A325 TYPE 1 (HOT-DIPPED GALVANIZED). NUTS AND WASHERS SHALL BE A563 GRADE DH (HOT-DIPPED GALVANIZED) AND F436 TYPE 1 (HOT-DIPPED GALVANIZED) RESPECTIVELY.
3. THE CONTRACTOR MAY PLACE DIAPHRAGMS ON EITHER SIDE OF THE BEARING STIFFENERS OR CONNECTION PLATES AS NECESSARY TO CORRECT ALIGNMENT PROVIDED THERE WILL BE NO INTERFERENCE WITH OTHER STRUCTURAL DETAILS.
4. ALL BOLT HEADS SHALL BE PLACED ON TOP OF CONNECTIONS UNLESS OTHERWISE NOTED.
5. ALL STRUCTURAL STEEL, ITEM 564.0501, SHALL BE ASTM A709, GRADE 50.
6. ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ITEM 564.20010008.
7. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

NOTE: UNAUTHORIZED ALTERATION OR ADDITION TO THIS
DRAWING IS A VIOLATION OF THE NEW YORK STATE
EDUCATION LAW ARTICLE 145, SECTION 7209.

REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT



PROJECT NAME

MILL ST./EDIES RD
OVER
ATTARAUGUS CRE
B.I.N. 3328370

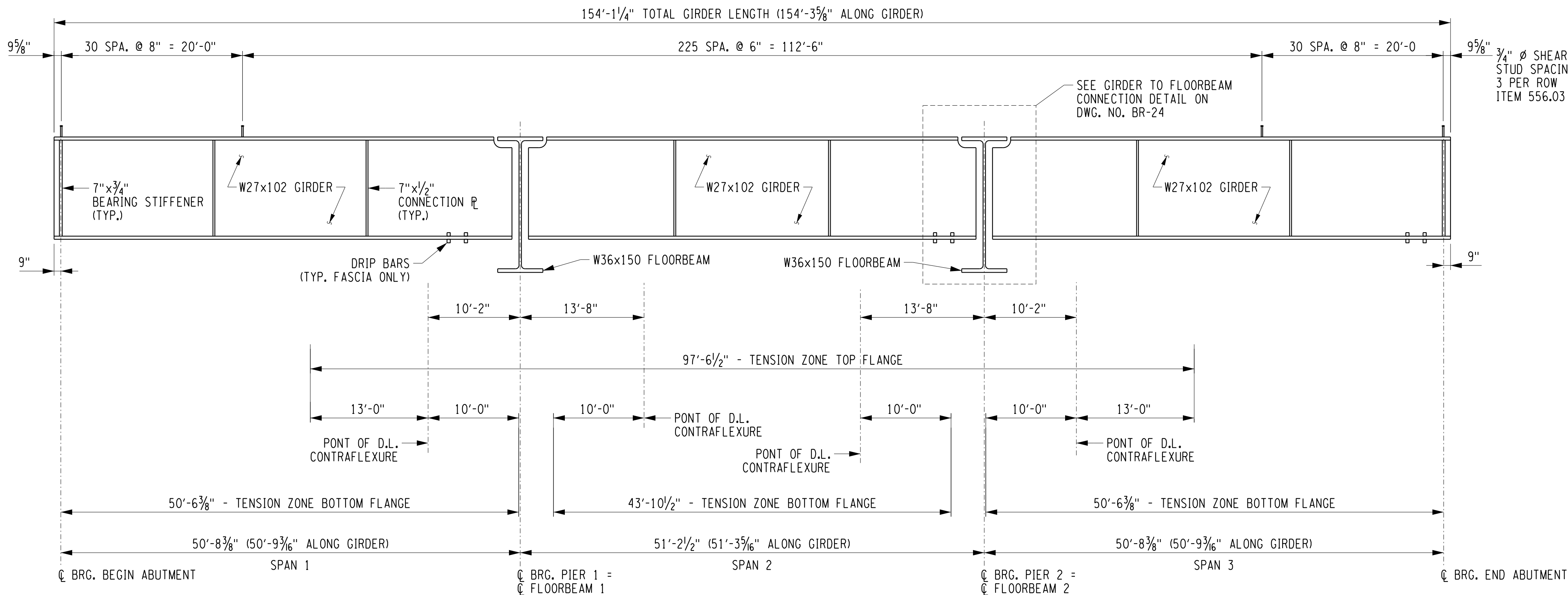
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FRAMING PLAN

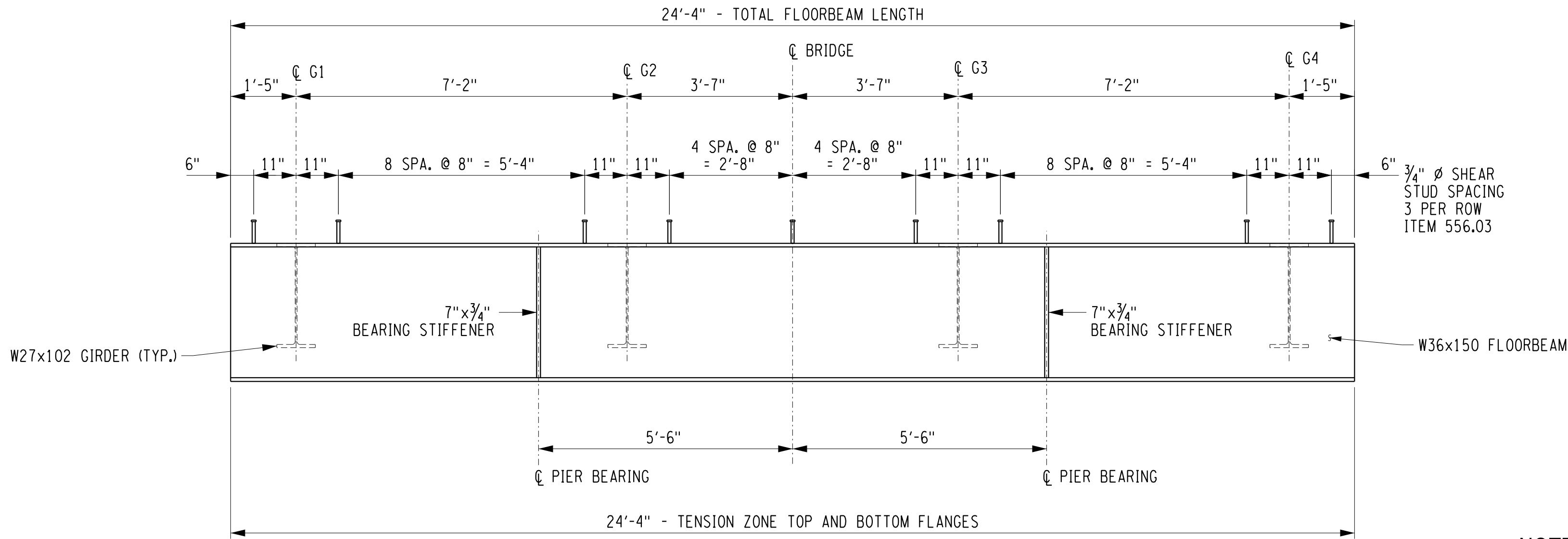
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P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 32 OF 46	DRAWING NO. BR-22

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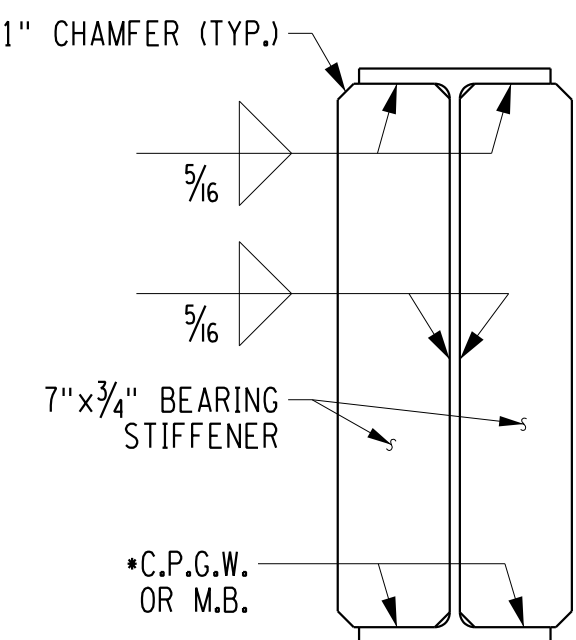
DESIGN SUPERVISOR D. ZIEMIAJSKI JOB MANAGER C. GAWRON CHECKED BY J. DePLANCHE DRAFTED BY T. LINDO CHECKED BY J. DePLANCHE



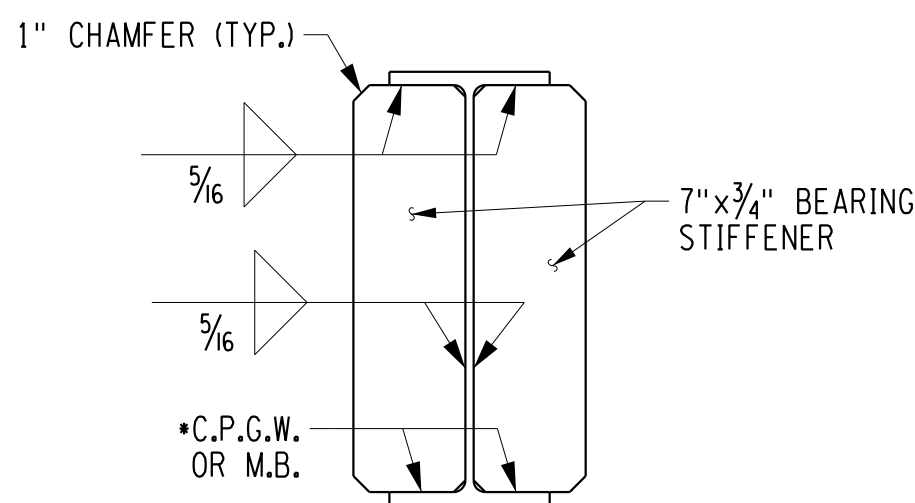
GIRDER ELEVATION
NOT TO SCALE



FLOORBEAM ELEVATION
(GIRDER CONNECTIONS NOT SHOWN FOR CLARITY)
NOT TO SCALE



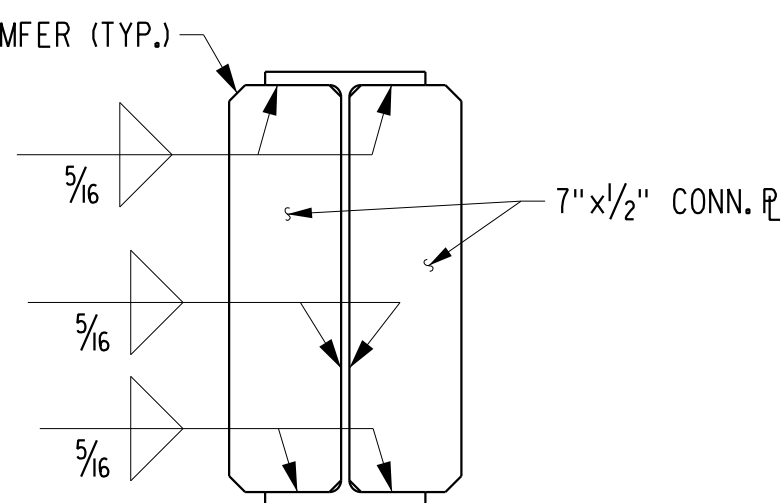
FLOORBEAM SECTION
NOT TO SCALE



BEARING STIFFENER

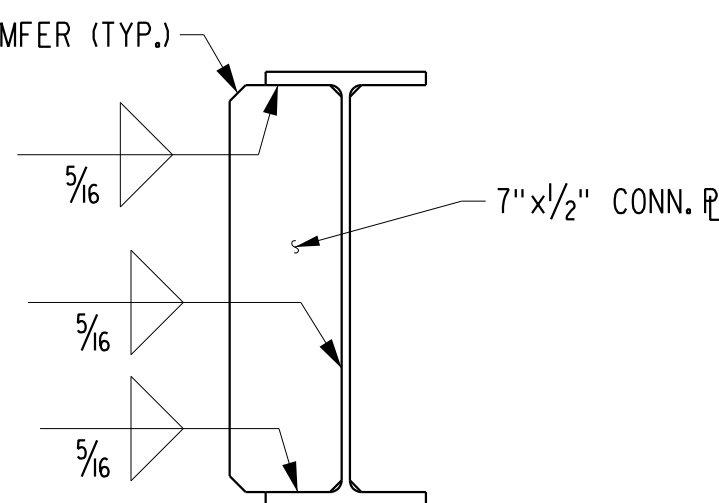
* C.P.G.W. = COMPLETE PENETRATION GROOVE WELD

* M.B. = MILL TO BEAR THEN FILLET WELDED (5/16)



INTERIOR GIRDER
CONNECTION PLATE

GIRDER SECTIONS
NOT TO SCALE



FASCIA GIRDER
CONNECTION PLATE

NOTES:

- SEE DWG. NO. BR-22 FOR STEEL NOTES.
- NO WELDING SHALL BE ALLOWED WITHIN THE TENSION ZONES SHOWN UNLESS SPECIFICALLY NOTED. THE ATTACHMENT OF FORMING DEVICES OR OTHER CONSTRUCTION AIDS BY WELDING WITHIN THE TENSION AREA SHOWN IS PROHIBITED.
- THE ENDS OF ALL GIRDERS, THE BEARING STIFFENERS AND WEB OF FLOORBEAMS SHALL BE VERTICAL. ALL CONNECTION PLATES AND INTERMEDIATE STIFFENERS MAY BE PERPENDICULAR TO THE TOP FLANGES.
- ALL DIMENSIONS ARE SHOWN BASED ON THE HORIZONTAL DISTANCE BETWEEN POINTS (STATION TO STATION DIMENSION) UNLESS OTHERWISE NOTED.
- FLOORBEAMS SHALL BE INSTALLED WITH THE MILL CAMBER DOWN.
- DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

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3/2/2017
DATE

DATE

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EDUCATION LAW ARTICLE 145, SECTION 7209.

REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT



DEPARTMENT
OF
PUBLIC WORKS

PROJECT NAME

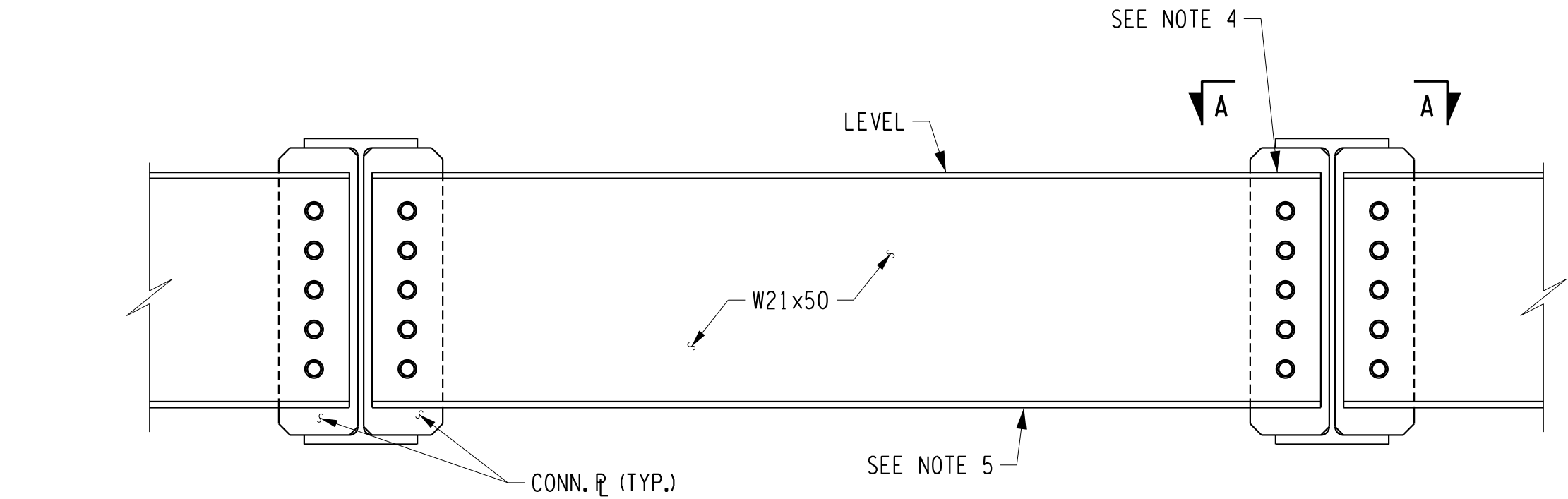
ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

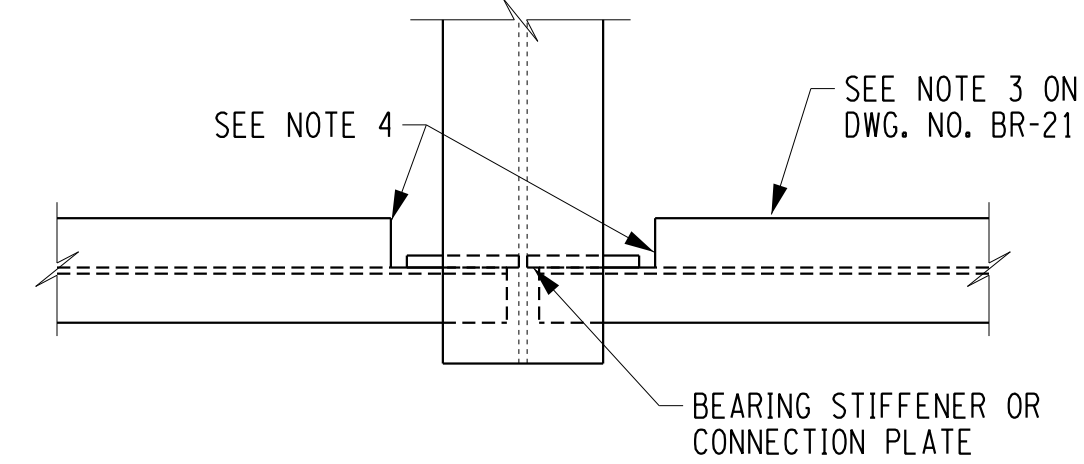
DRAWING TITLE

GIRDER ELEVATIONS
AND SECTIONS

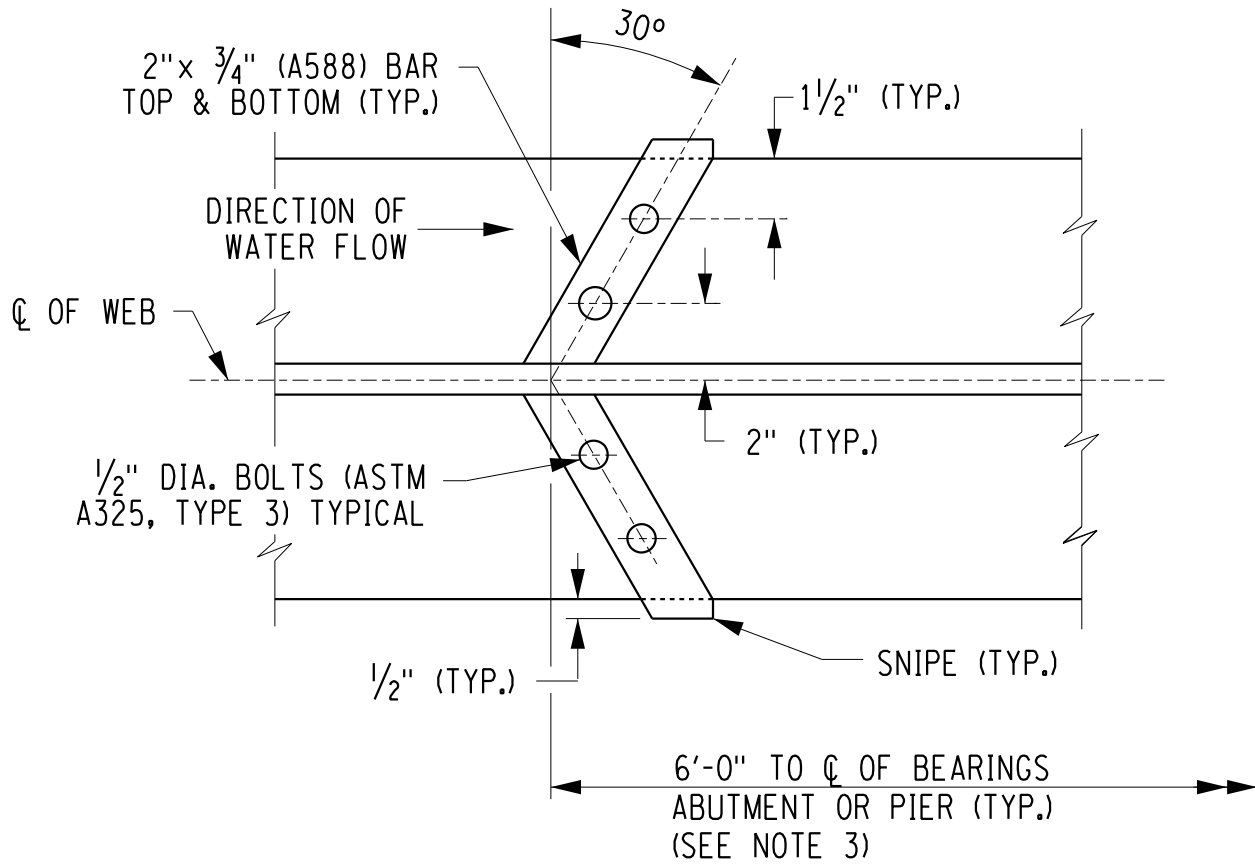
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AS NOTED	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 33 OF 46	DRAWING NO. BR-23



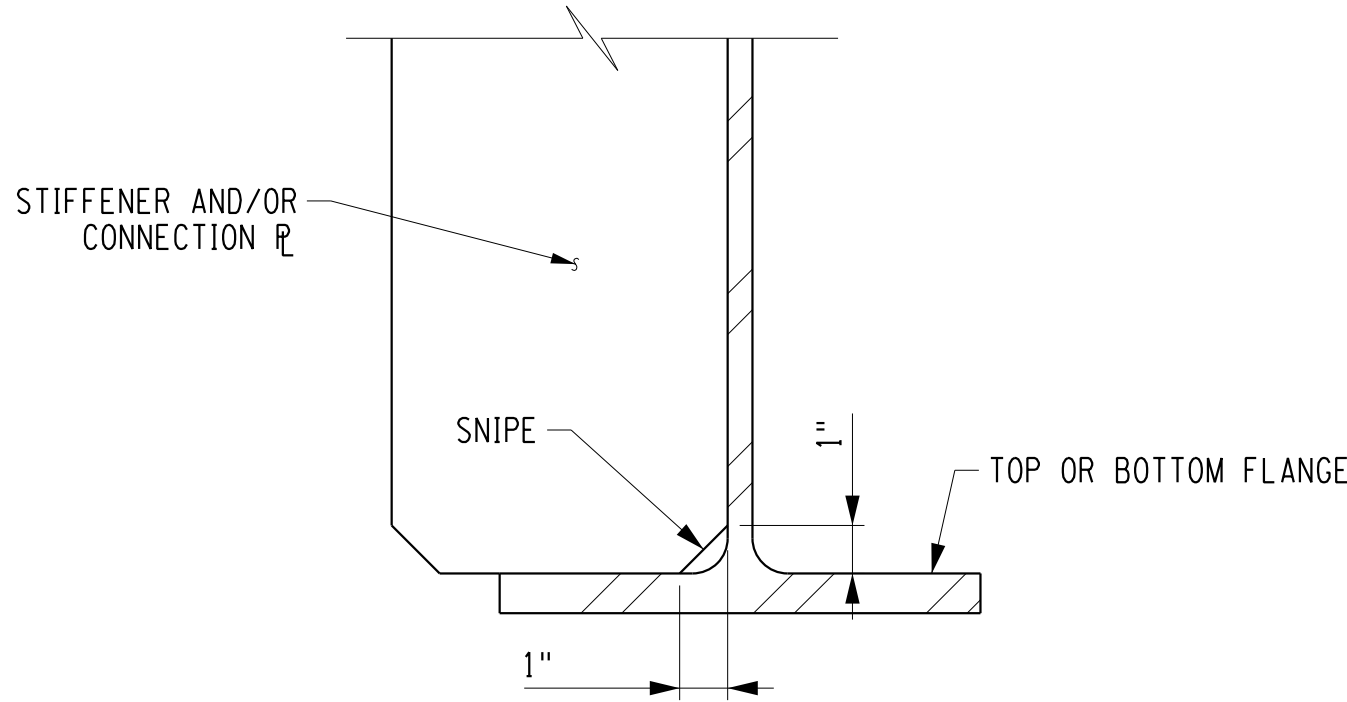
D1 - DIAPHRAGM
SCALE: 1"=1'-0"



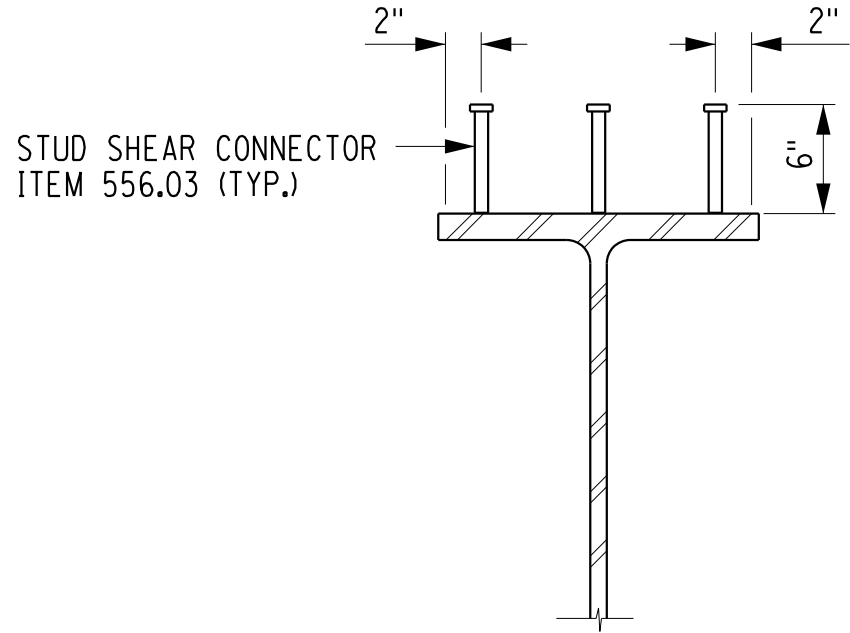
SECTION A-A



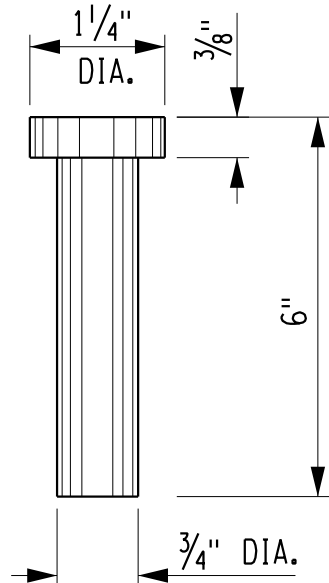
DRIP BAR DETAIL
NOT TO SCALE



STIFFENER/CONNECTION PLATE SNIPE DETAIL
NOT TO SCALE



STUD SHEAR CONNECTOR DETAIL
NOT TO SCALE



STUD DETAIL
NOT TO SCALE

NOTES:

- SEE DWG. NO. BR-22 FOR STEEL NOTES.
- PLACE BROWN COLOR SILICONE SEALER BETWEEN DRIP BARS AND FLANGE AND WEB PRIOR TO BOLTING. BARS BELOW FLANGE SHALL BE LONGER THAN THOSE ABOVE SO AS TO TOUCH AT C OF GIRDER.
- DRIP BARS SHALL BE ATTACHED TO THE LOW END OF FASCIA GIRDERS. DRIP BARS ARE PAID FOR UNDER THE STRUCTURAL STEEL ITEM 564.0501. A SECOND SET OF DRIP BARS SHALL BE ADDED 3'-0" FROM C OF BEARINGS.
- DIAPHRAGM MEMBERS SHALL BE BLOCKED AS SHOWN WITH THEIR FLANGE CUT BACK ON ONE SIDE, AND CLIPPED OR GROUND FLUSH. IN LIEU OF BLOCKING THE DIAPHRAGM, THE FABRICATOR SHALL HAVE THE OPTION OF COPING THE FLANGE.
- REMOVE BOTTOM FLANGE ON THE ABUTMENT SIDE OF THE END DIAPHRAGMS TO CLEAR THE CONNECTION PLATE AND IMPROVE ACCESS BEHIND THE DIAPHRAGM.
- DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

ERDMAN
ANTHONY



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erdmananthony.com




5/2/2017
DATE

DATE

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EDUCATION LAW ARTICLE 145, SECTION 7209.

REVISIONS			
NO.	DESCRIPTION	BY	DATE

CLIENT



DEPARTMENT
OF
PUBLIC WORKS

PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

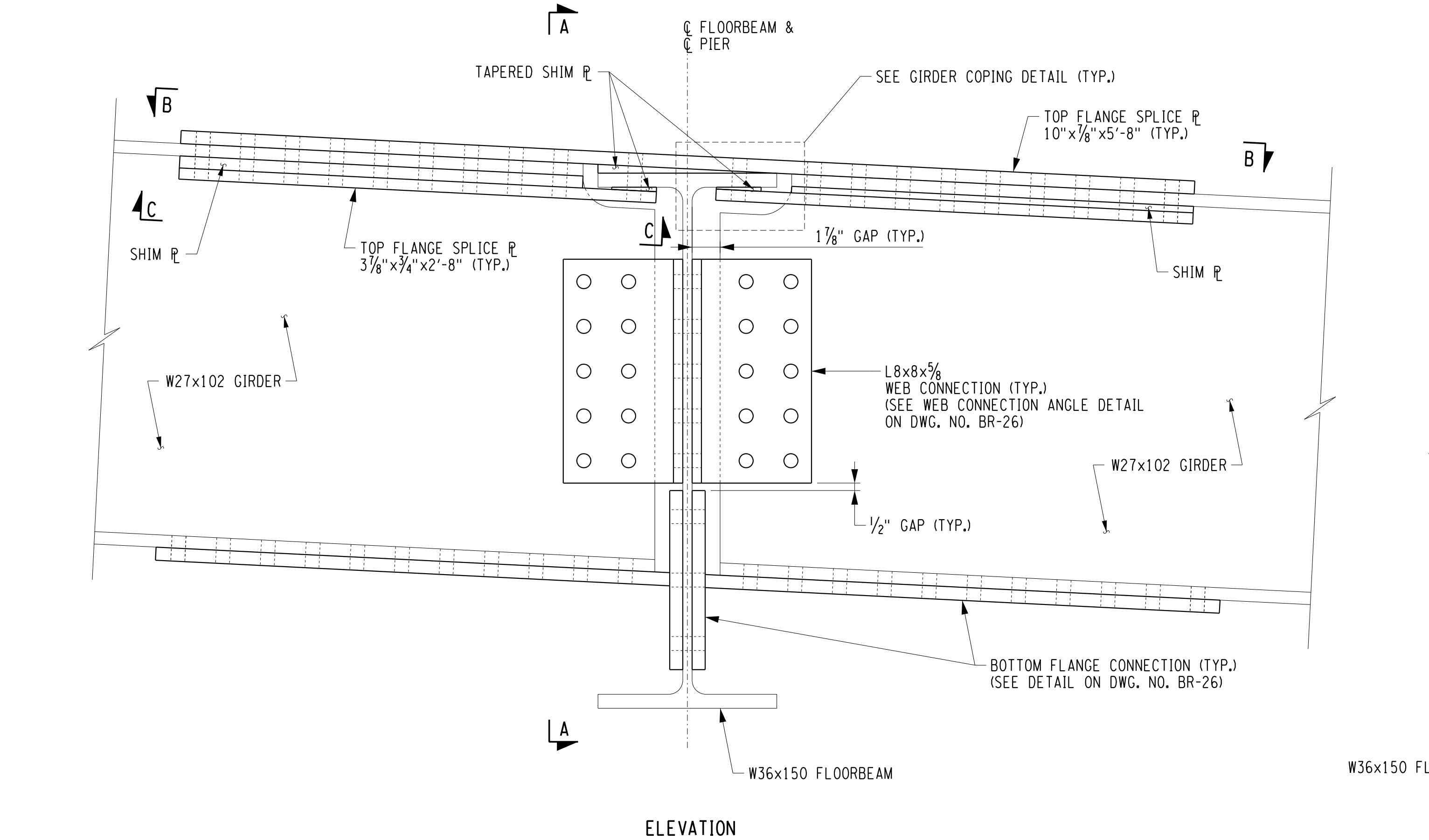
DRAWING TITLE

DIAPHRAGM AND
MISCELLANEOUS STEEL
DETAILS

SCALE	DATE
AS NOTED	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 34 OF 46	DRAWING NO. BR-24

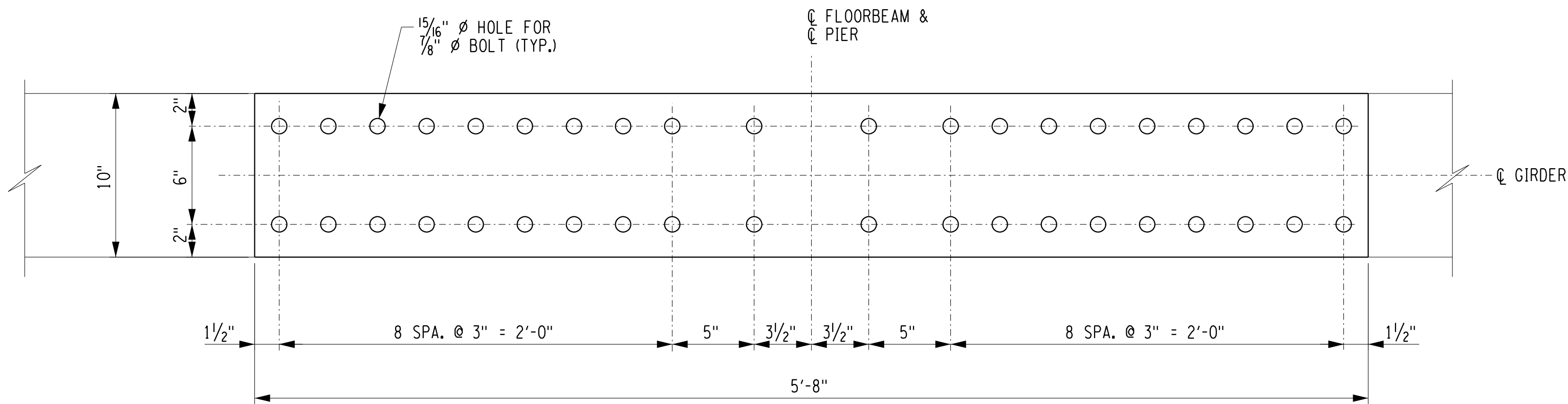
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DATE/TIME = 4/26/2017 4:11:21 PM
USER = Lindot

DESIGN SUPERVISOR D. ZIEMIAJSKI JOB MANAGER C. GAWRON
DESIGNED BY J. DePLANCHE CHECKED BY J. DePLANCHE
DRAFTED BY T. LINDO CHECKED BY J. DePLANCHE

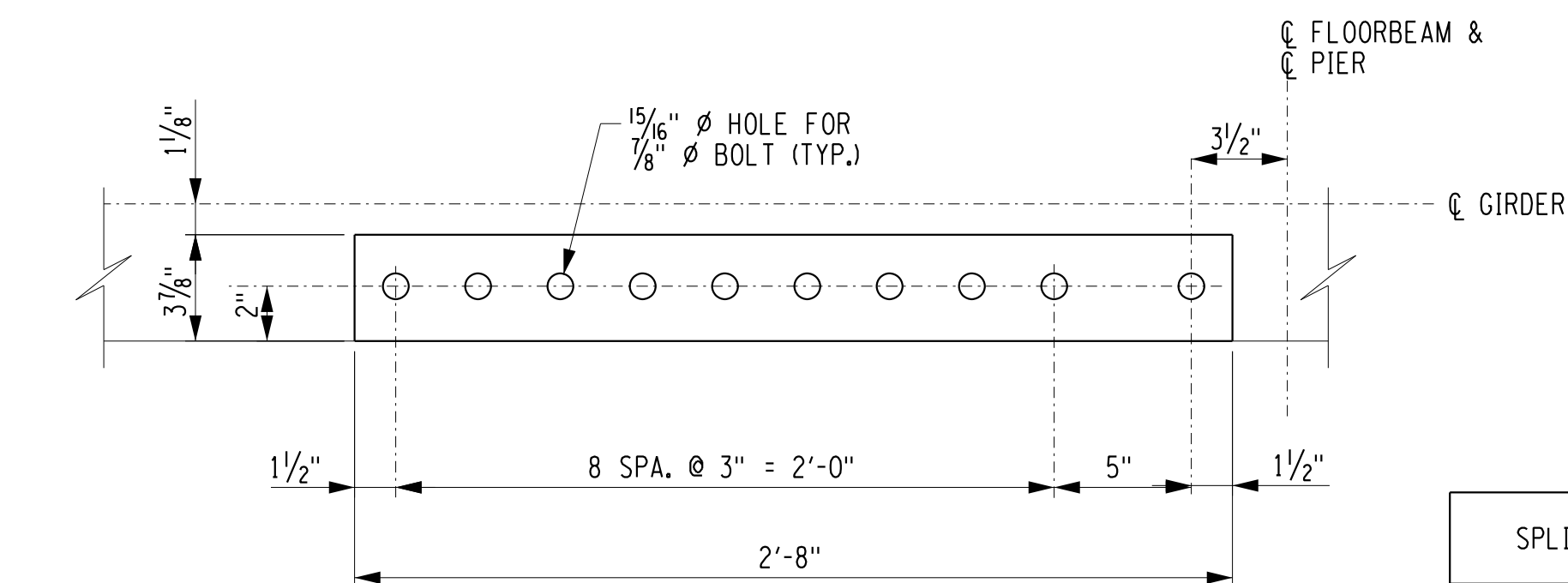


ELEVATION

GIRDER TO FLOORBEAM CONNECTION
SCALE: 2"=1'-0"



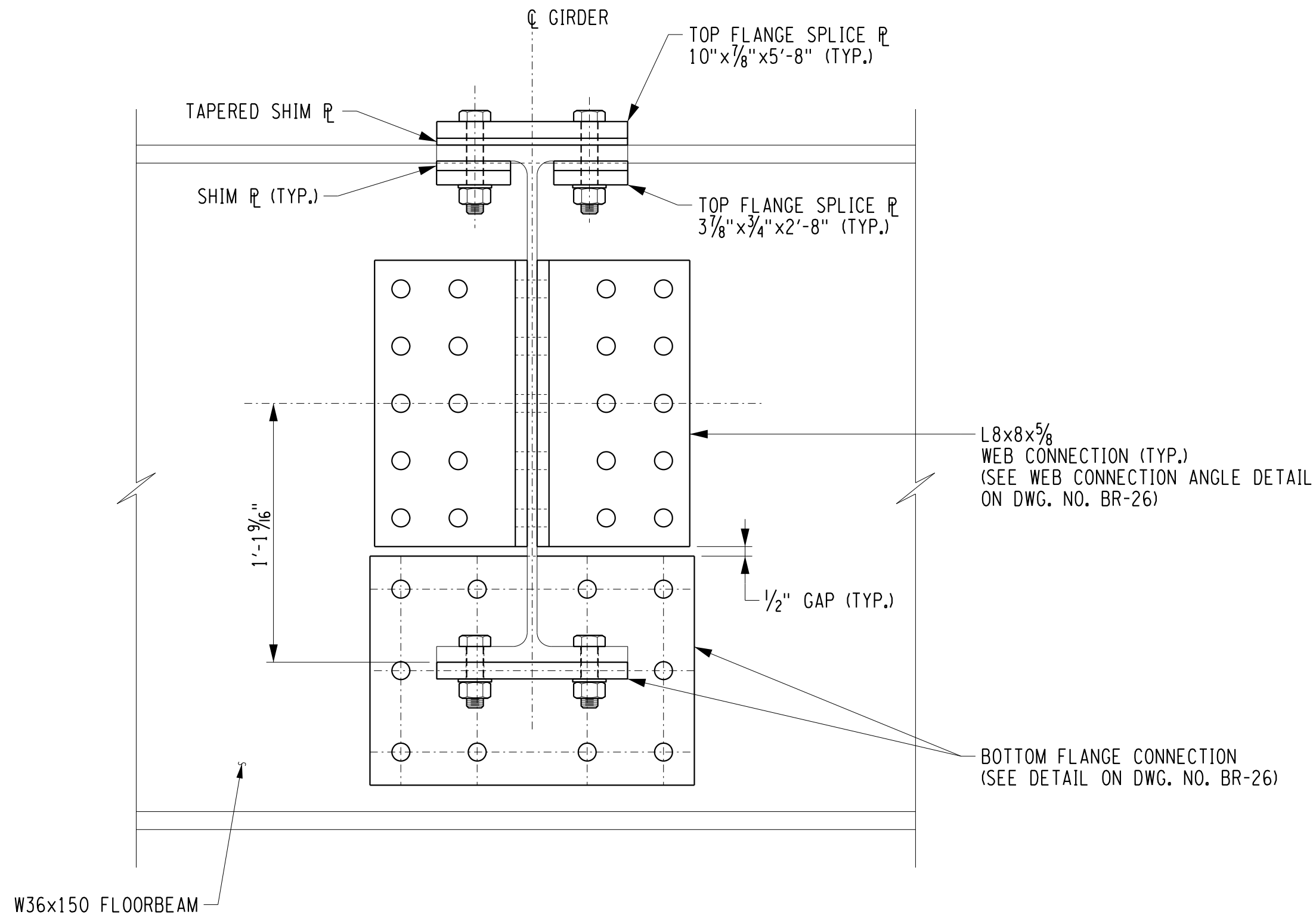
SECTION B-B
SCALE: 2"=1'-0"



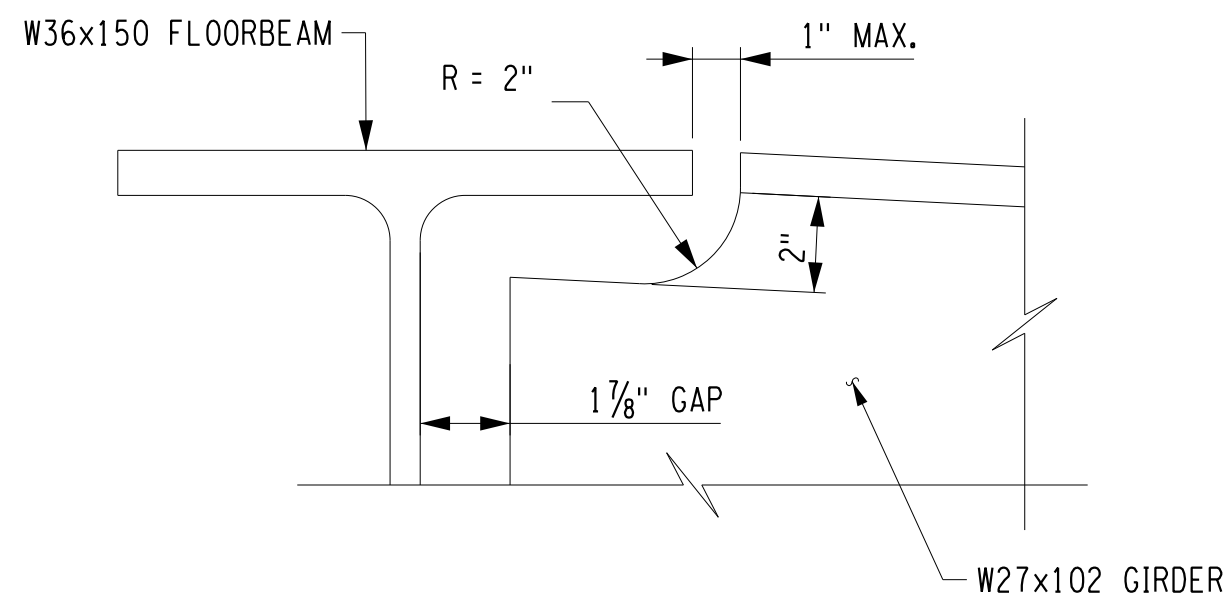
SECTION C-C
SCALE: 2"=1'-0"

	TOP FLANGE SPLICE	BOTTOM FLANGE CONNECTION	WEB CONNECTION
SPLICE PL	1 - 10"x1/8"x5'-8" PL 2 - 3/8"x3/4"x2'-8" PL	1 - 10"x1/8"x2'-10 1/2" PL 1 - 1'-0"x1/8"x1'-5" PL	4 - L8x8x5/8"x1'-3" LONG
NO. OF BOLTS	40	54	40

(TYPICAL FOR ALL SPLICES ON ALL GIRDERS)



SECTION A-A



GIRDER COPING DETAIL
NOT TO SCALE

NOTES:

- ALL SHIMS SHALL HAVE A MINIMUM THICKNESS OF 1/16".
- ALL COSTS FOR BOLTS, NUTS, AND WASHERS SHALL BE INCLUDED IN THE PRICE BID FOR STRUCTURAL STEEL.
- DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

BOLTS NUTS AND WASHERS:

ALL BOLTS SHALL BE 7/8" DIA. HIGH STRENGTH A325 TYPE 1 (HOT-DIPPED GALVANIZED), NUTS AND WASHERS SHALL BE A563 GRADE DH (HOT-DIPPED GALVANIZED) AND F436 TYPE 1 (HOT-DIPPED GALVANIZED) RESPECTIVELY.

ALL PLATES SHALL HAVE OXYGEN CUT EDGES, AS PER SECTION 609 OF THE NYS STEEL CONSTRUCTION MANUAL.

SUBJECT TO D.C.E.S. APPROVAL, THE CONTRACTOR CAN PROPOSE THE USE OF A WELDED SPLICE. HOWEVER, ALL COST ASSOCIATED WITH THIS CHANGE WILL BE AT THE CONTRACTOR'S EXPENSE. ADDITIONALLY, A DETAILED WELDING PROCEDURE, AS PER NYS STEEL CONSTRUCTION MANUAL 203.5(D), OF THE NYS STEEL CONSTRUCTION MANUAL SHALL BE SUBMITTED TO THE D.C.E.S. FOR APPROVAL.

BOLT LOCATIONS SHOWN MAY HAVE TO BE MOVED Laterally ON THEIR FLANGE TO MEET SEALING REQUIREMENTS AS DESCRIBED IN SECTION 203.13 OF THE NYS STEEL CONSTRUCTION MANUAL.

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PROJECT NAME

ASHFORD BRIDGE #37

MILL ST./EDIES RD.

OVER

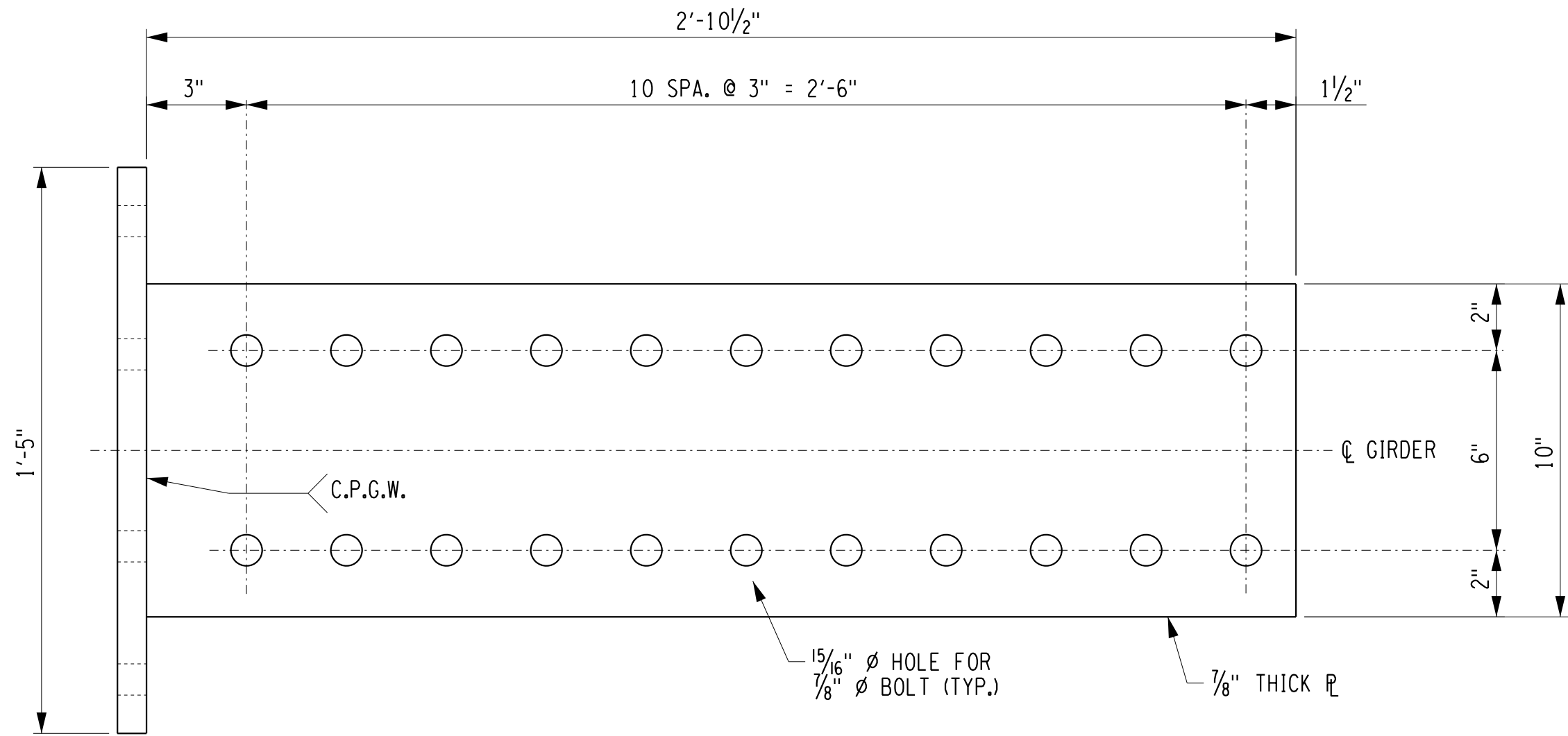
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B.I.N. 3328370

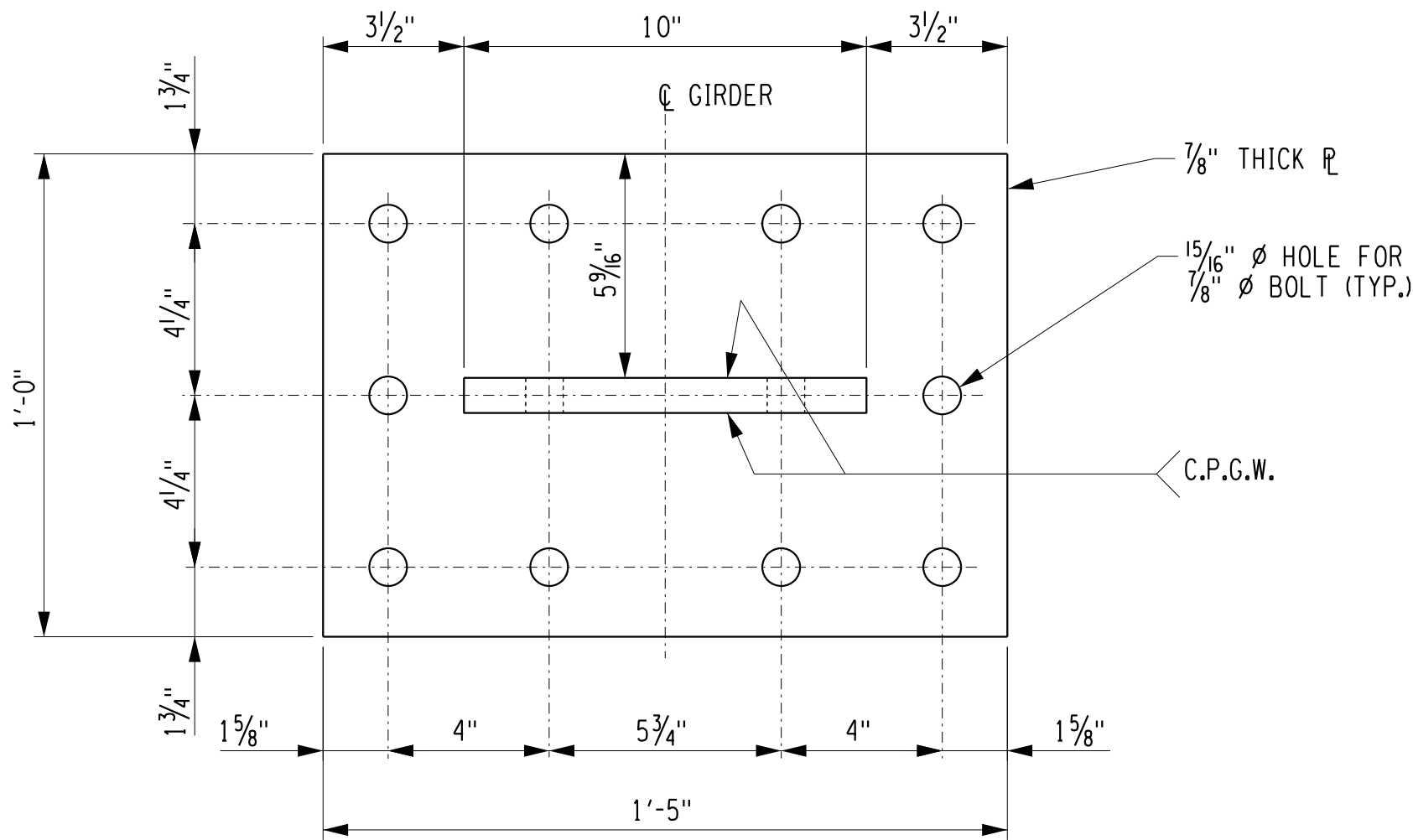
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STEEL CONNECTION
DETAILS
1 OF 2

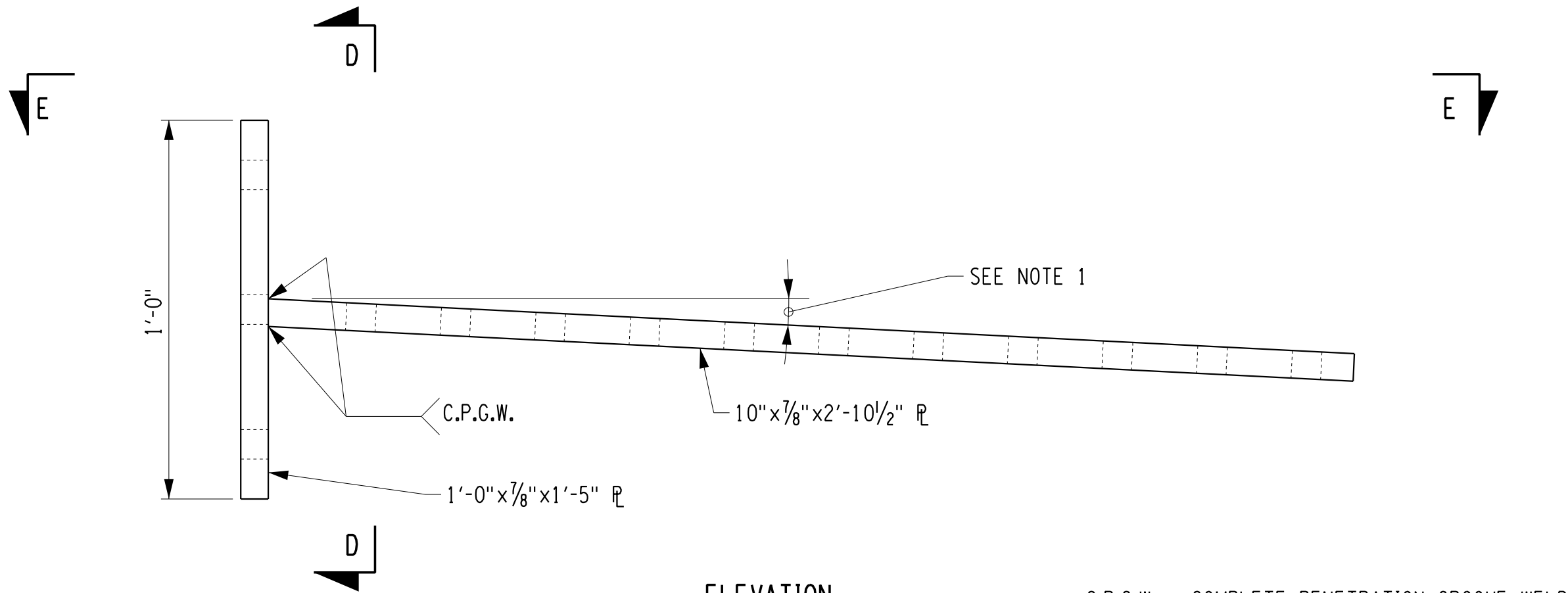
SCALE	DATE
AS NOTED	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 35 OF 46	DRAWING NO. BR-25



SECTION E-E



SECTION D-D

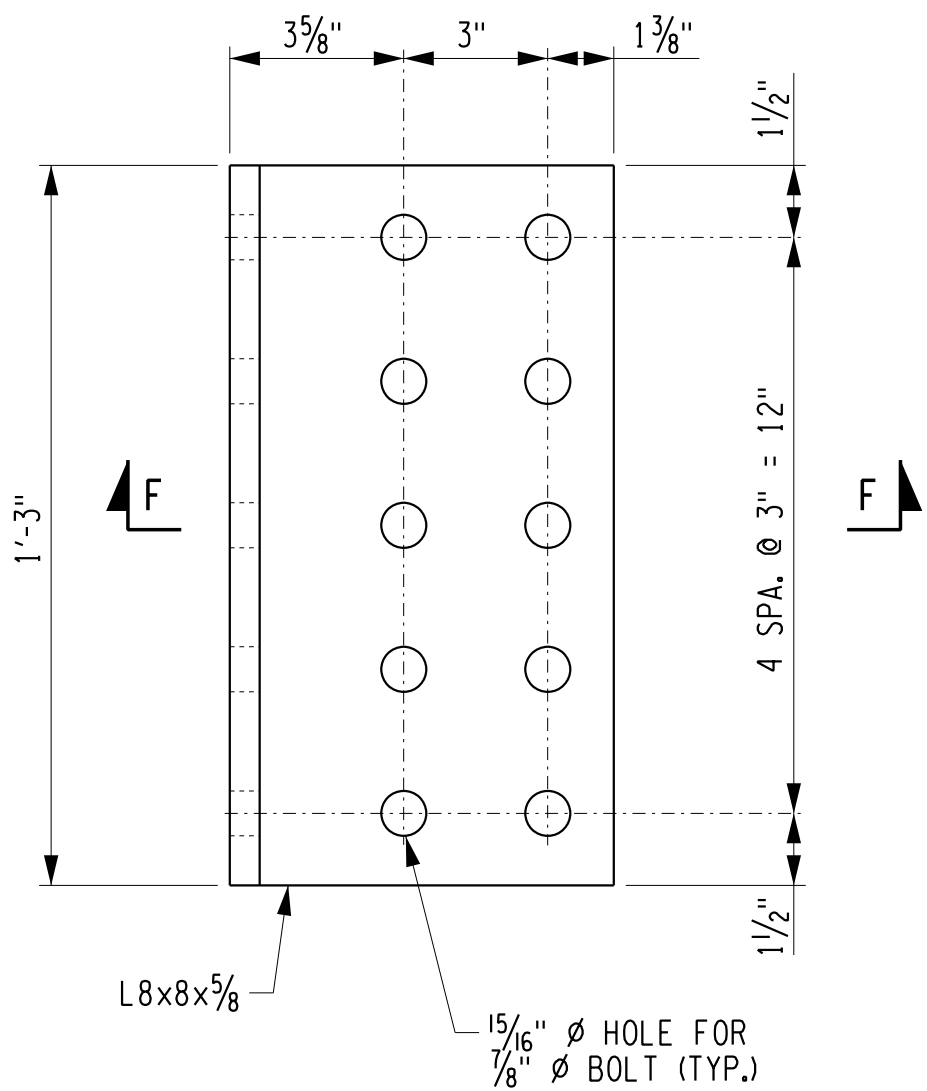


ELEVATION

C.P.G.W. = COMPLETE PENETRATION GROOVE WELD

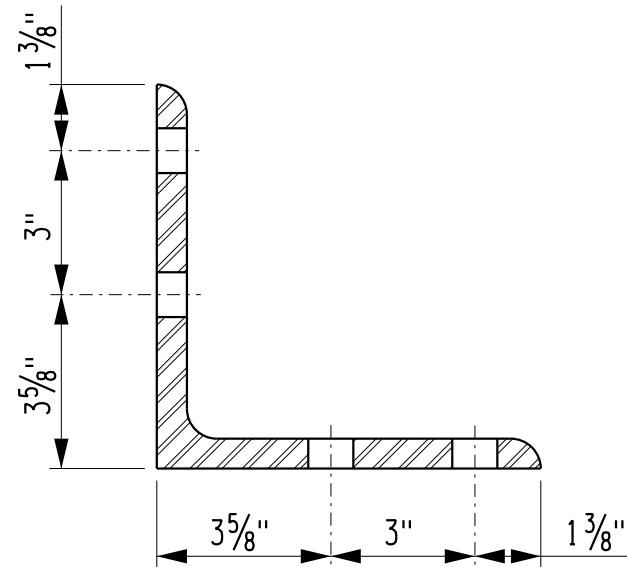
BOTTOM FLANGE CONNECTION DETAIL

SCALE: 3"=1'-0"



WEB CONNECTION ANGLE DETAIL

SCALE: 3"=1'-0"



SECTION F-F

NOTES:

1. ANGLE SHALL MATCH THE GRADE OF THE ROADWAY.
2. SEE DWG. NO. BR-25 FOR ADDITIONAL CONNECTION NOTES.
3. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

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DRAWING TITLE

**STEEL
CONNECTION DETAILS
2 OF 2**

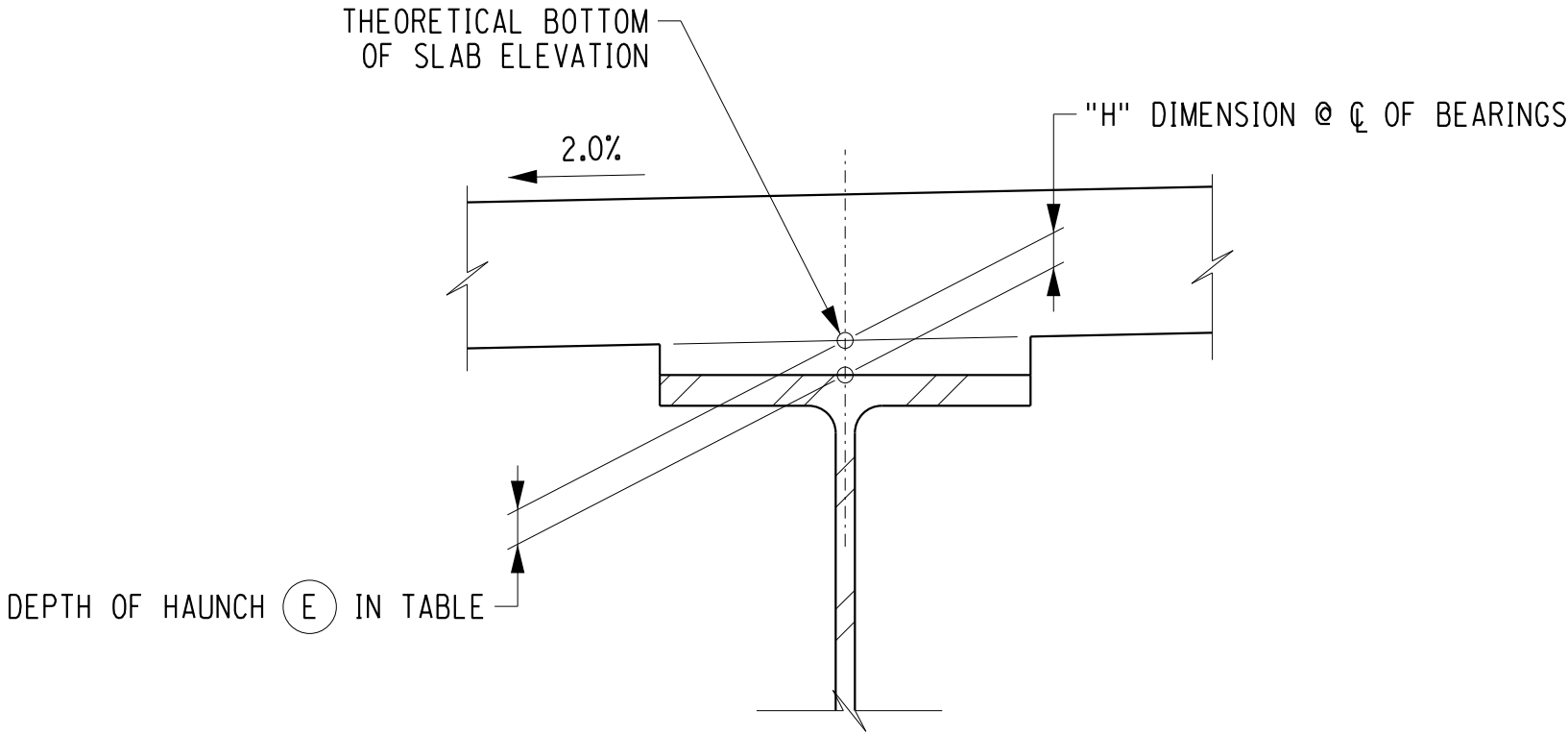
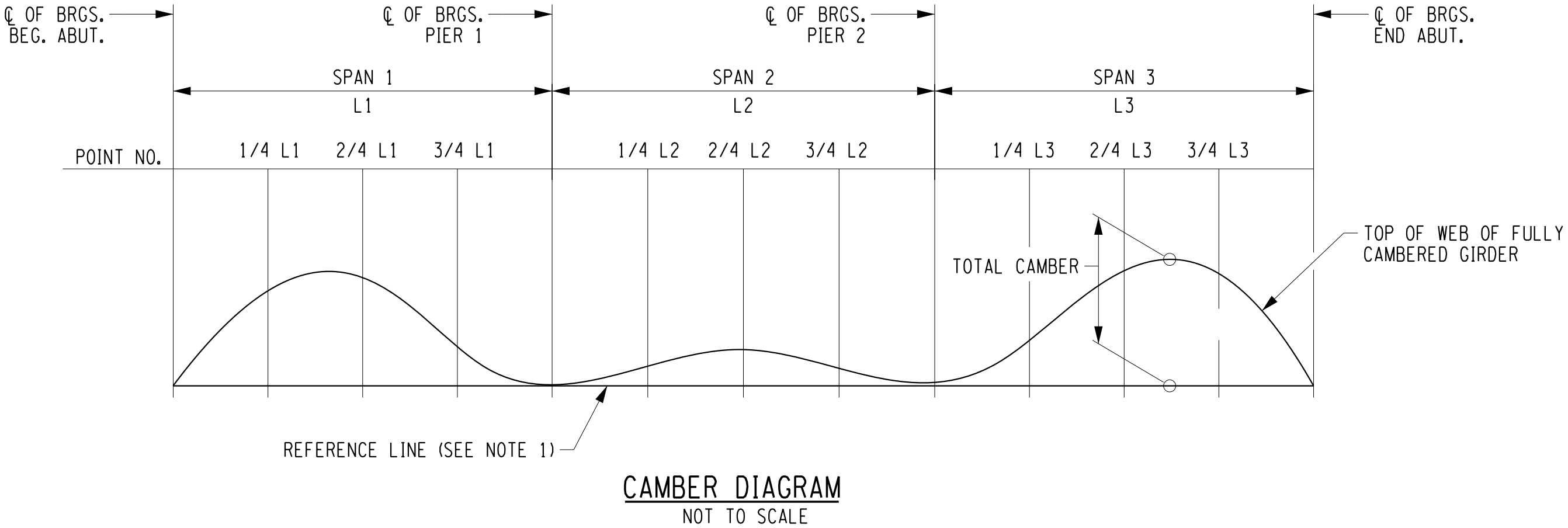
SCALE	DATE
AS NOTED	5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 36 OF 46	DRAWING NO. BR-26

HAUNCH TABLE		CL BEGIN BRGS.	SPAN 1			CL PIER 1 BRGS.	SPAN 2			CL PIER 2 BRGS.	SPAN 3			CL END BRGS.
			1/4 L ₁	2/4 L ₁	3/4 L ₁		1/4 L ₂	2/4 L ₂	3/4 L ₂		1/4 L ₃	2/4 L ₃	3/4 L ₃	
GIRDER G1	A REQ'D BOTTOM OF SLAB ELEVATION	1123.233	1122.600	1121.967	1121.334	1120.701	1120.062	1119.422	1118.783	1118.143	1117.510	1116.877	1116.244	1115.611
	B TOP OF STEEL EL. (FIELD MEASURE)													
	C = A - B													
	D CONCRETE + S.D.L. DEFLECTION	0.000	0.046	0.058	0.033	0.000	0.000	0.006	0.000	0.000	0.032	0.058	0.046	0.000
	E DEPTH OF HAUNCH REQ'D = C + D (FT)													
GIRDER G2	A REQ'D BOTTOM OF SLAB ELEVATION	1123.377	1122.744	1122.111	1121.478	1120.844	1120.205	1119.566	1118.926	1118.287	1117.654	1117.021	1116.388	1115.755
	B TOP OF STEEL EL. (FIELD MEASURE)													
	C = A - B													
	D CONCRETE + S.D.L. DEFLECTION	0.000	0.047	0.059	0.033	0.000	0.000	0.006	0.000	0.000	0.033	0.059	0.047	0.000
	E DEPTH OF HAUNCH REQ'D = C + D (FT)													
GIRDER G3	A REQ'D BOTTOM OF SLAB ELEVATION	1123.377	1122.744	1122.111	1121.478	1120.844	1120.205	1119.566	1118.926	1118.287	1117.654	1117.021	1116.388	1115.755
	B TOP OF STEEL EL. (FIELD MEASURE)													
	C = A - B													
	D CONCRETE + S.D.L. DEFLECTION	0.000	0.047	0.059	0.033	0.000	0.000	0.006	0.000	0.000	0.033	0.059	0.047	0.000
	E DEPTH OF HAUNCH REQ'D = C + D (FT)													
GIRDER G4	A REQ'D BOTTOM OF SLAB ELEVATION	1123.233	1122.600	1121.967	1121.334	1120.701	1120.062	1119.422	1118.783	1118.143	1117.510	1116.877	1116.244	1115.611
	B TOP OF STEEL EL. (FIELD MEASURE)													
	C = A - B													
	D CONCRETE + S.D.L. DEFLECTION	0.000	0.046	0.058	0.033	0.000	0.000	0.006	0.000	0.000	0.032	0.058	0.046	0.000
	E DEPTH OF HAUNCH REQ'D = C + D (FT)													

NOTE:
THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THE COMPLETED HAUNCH TABLE PRIOR TO SETTING THE BOTTOM FORMWORK OF THE DECK.

CAMBER TABLE		CL BEGIN BRGS.	SPAN 1			CL PIER 1 BRGS.	SPAN 2			CL PIER 2 BRGS.	SPAN 3			CL END BRGS.
			1/4 L ₁	2/4 L ₁	3/4 L ₁		1/4 L ₂	2/4 L ₂	3/4 L ₂		1/4 L ₃	2/4 L ₃	3/4 L ₃	
GIRDER G1	I STEEL DEAD LOAD (FT)	0.000	0.005	0.007	0.004	0.000	0.000	0.001	0.000	0.000	0.004	0.007	0.005	0.000
	II CONC. DEAD LOAD (FT)	0.000	0.042	0.053	0.030	0.000	0.000	0.005	0.000	0.000	0.029	0.053	0.042	0.000
	III S.I. DEAD LOAD (FT)	0.000	0.004	0.005	0.003	0.000	0.000	0.001	0.000	0.000	0.003	0.005	0.004	0.000
	IV VERTICAL CURVE (FT)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I + II + III + IV (FT)	0.000	0.051	0.065	0.036	0.000	0.000	0.007	0.000	0.000	0.036	0.065	0.051	0.000
GIRDER G2	I STEEL DEAD LOAD (FT)	0.000	0.005	0.007	0.004	0.000	0.000	0.001	0.000	0.000	0.004	0.007	0.005	0.000
	II CONC. DEAD LOAD (FT)	0.000	0.043	0.054	0.031	0.000	0.000	0.006	0.000	0.000	0.030	0.054	0.043	0.000
	III S.I. DEAD LOAD (FT)	0.000	0.004	0.005	0.003	0.000	0.000	0.001	0.000	0.000	0.003	0.005	0.004	0.000
	IV VERTICAL CURVE (FT)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I + II + III + IV (FT)	0.000	0.052	0.066	0.037	0.000	0.000	0.007	0.000	0.000	0.037	0.066	0.052	0.000
GIRDER G3	I STEEL DEAD LOAD (FT)	0.000	0.005	0.007	0.004	0.000	0.000	0.001	0.000	0.000	0.004	0.007	0.005	0.000
	II CONC. DEAD LOAD (FT)	0.000	0.043	0.054	0.031	0.000	0.000	0.006	0.000	0.000	0.030	0.054	0.043	0.000
	III S.I. DEAD LOAD (FT)	0.000	0.004	0.005	0.003	0.000	0.000	0.001	0.000	0.000	0.003	0.005	0.004	0.000
	IV VERTICAL CURVE (FT)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I + II + III + IV (FT)	0.000	0.052	0.066	0.037	0.000	0.000	0.007	0.000	0.000	0.037	0.066	0.052	0.000
GIRDER G4	I STEEL DEAD LOAD (FT)	0.000	0.005	0.007	0.004	0.000	0.000	0.001	0.000	0.000	0.004	0.007	0.005	0.000
	II CONC. DEAD LOAD (FT)	0.000	0.042	0.053	0.030	0.000	0.000	0.005	0.000	0.000	0.029	0.053	0.042	0.000
	III S.I. DEAD LOAD (FT)	0.000	0.004	0.005	0.003	0.000	0.000	0.001	0.000	0.000	0.003	0.005	0.004	0.000
	IV VERTICAL CURVE (FT)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	TOTAL = I + II + III + IV (FT)	0.000	0.051	0.065	0.036	0.000	0.000	0.007	0.000	0.000	0.036	0.065	0.051	0.000

NOTE:
THE TOTAL CAMBER IS THE SUM OF VERTICAL CURVE, STEEL DEAD LOAD, CONCRETE DEAD LOAD AND SUPERIMPOSED DEAD LOAD. ALL CAMBER OFFSETS ARE MEASURED VERTICALLY TO THE TOP OF WEB FROM A STRAIGHT REFERENCE LINE DRAWN FROM THE INTERSECTION OF TOP OF WEB AND CENTERLINE OF BEARINGS AT ONE END OF THE GIRDER TO THE CORRESPONDING POINT AT THE OTHER END OF THE GIRDER.



GIRDER HAUNCH DETAIL
NOT TO SCALE

"H" (INCHES)				
	CL BRGS. BEG. ABUT.	CL BRGS. PIER 1	CL BRGS. PIER 2	CL BRGS. END ABUT.
G1/G4	2.000	2.000	2.000	2.000
G2/G3	3.720	3.720	3.720	3.720

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PROJECT NAME

ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

CAMBER, HAUNCH &
DESIGN LOAD TABLE,
CAMBER DIAGRAM &
HAUNCH DETAIL

SCALE	DATE
NONE	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 37 OF 46	DRAWING NO. BR-27

DESIGN LOAD TABLE K/FT			
UNIT		EXT. GIRDER (G1/G4)	INT. GIRDER (G2/G3)
D.L.	SLAB	0.848	0.851
	HAUNCH	0.021	0.039
	GIRDER	0.102	0.102
	DIAPHRAGMS	0.010	0.020
	TOTAL	0.981	1.012
	RAILING	0.036	0.036
	FUTURE W.S.	0.137	0.137
	TOTAL	0.173	0.173

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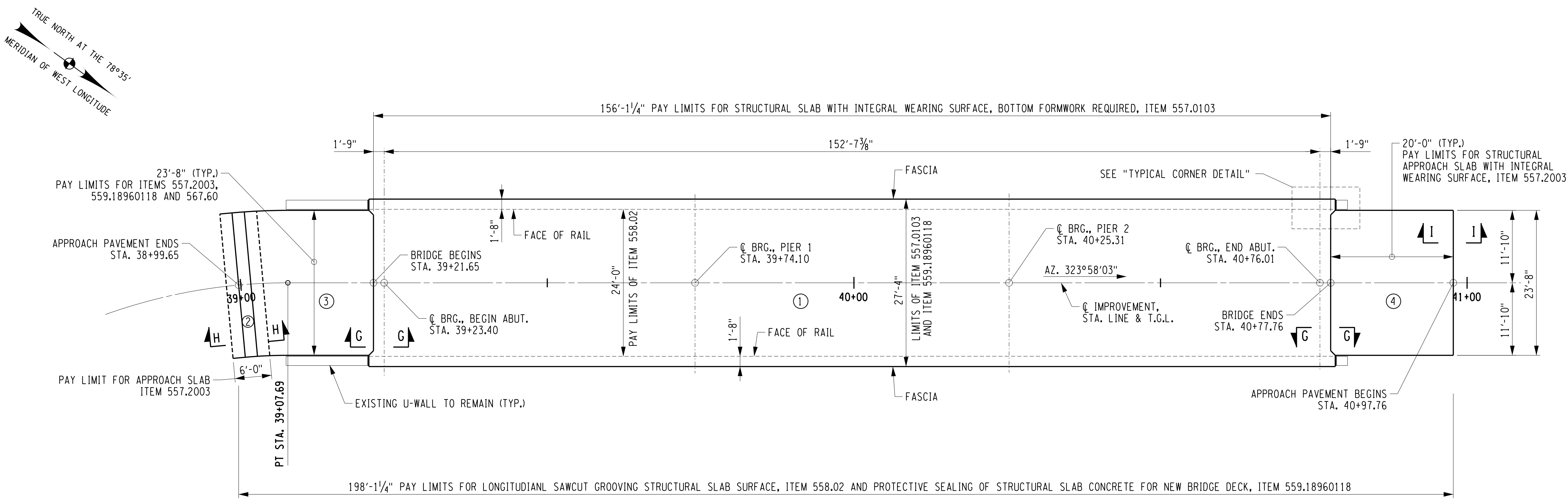
ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

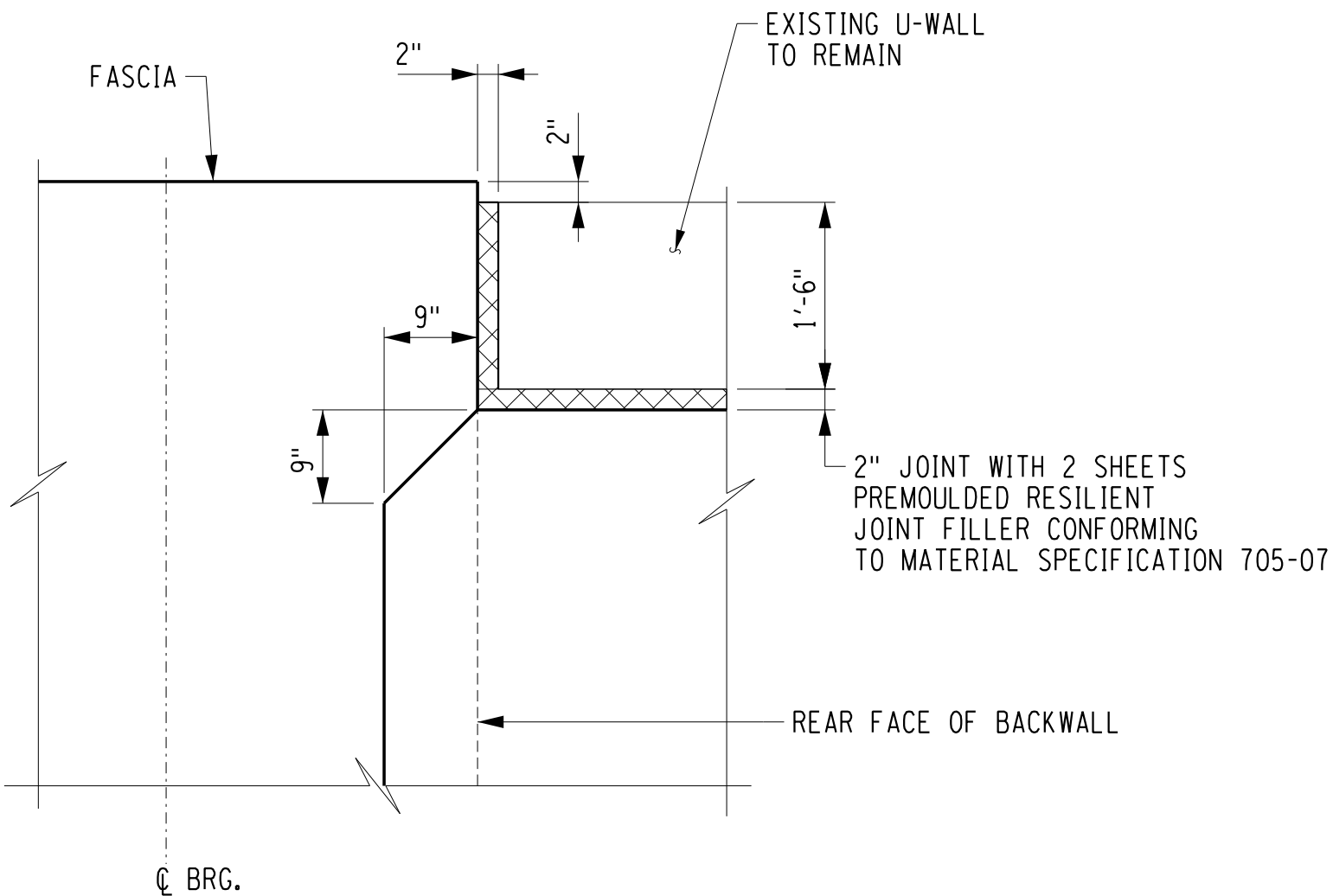
MOMENT AND SHEAR & DESIGN LOAD TABLE

SCALE NONE	DATE 5/2/2017
P.I.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 38 OF 46	DRAWING NO. BR-28



DECK AND APPROACH SLAB PLAN

SCALE: 1"=20'



TYPICAL CORNER DETAIL

SCALE: 3/4" = 1'-0"

NOTES:

1. (NO) INDICATES CONCRETE PLACEMENT NUMBER.
2. SEE DWG. NO. BR-30 FOR SECTION G-G, SECTION H-H AND SECTION I-I.

CONCRETE QUANTITIES TABLE				
POUR NO.	ITEM 557.0103 (sy)	ITEM 557.2003 (sy)	ITEM 558.02 (sy)	ITEM 559.18960118 (sf)
1	474.9	0	417.0	4868
2	0	15.8	5.3	47
3	0	52.5	52.5	473
4	0	52.5	52.5	473
TOTAL	474.9	120.8	527.3	5861

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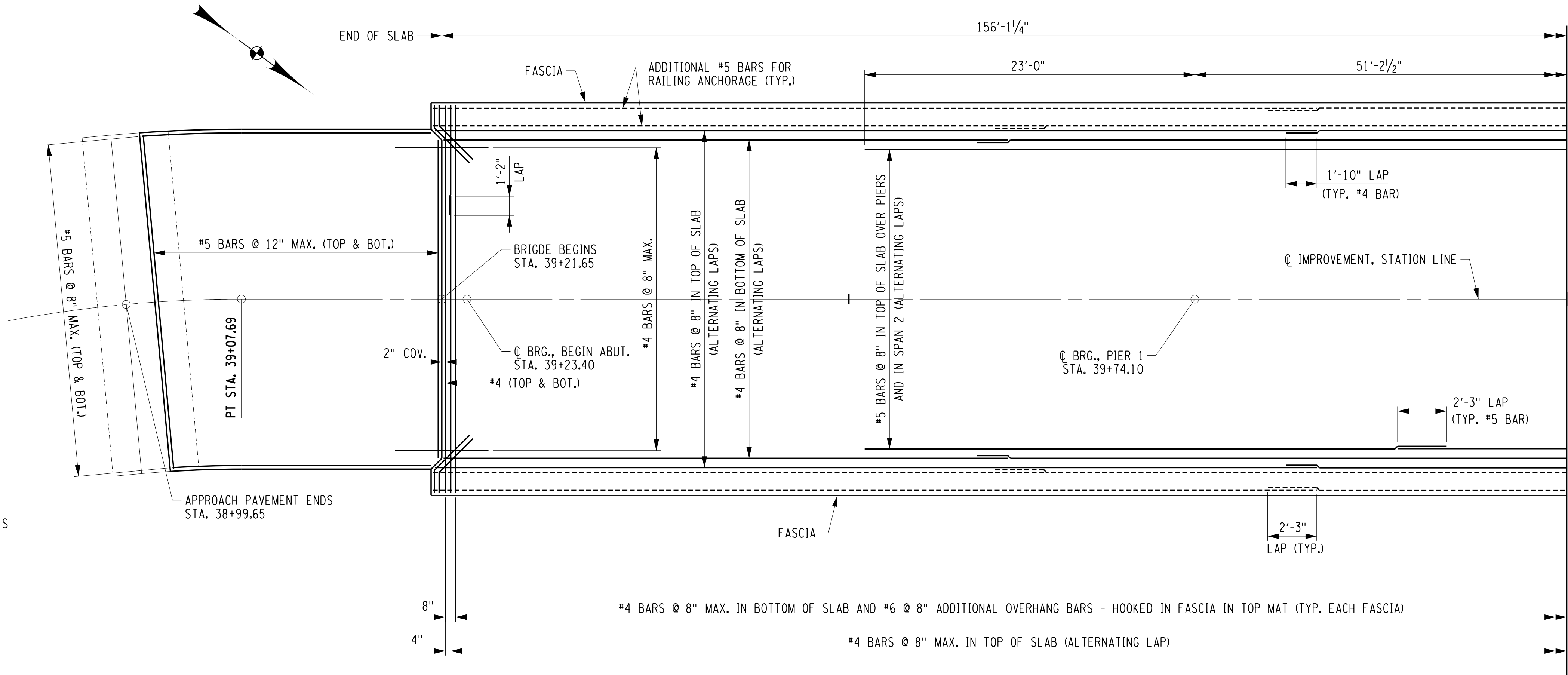
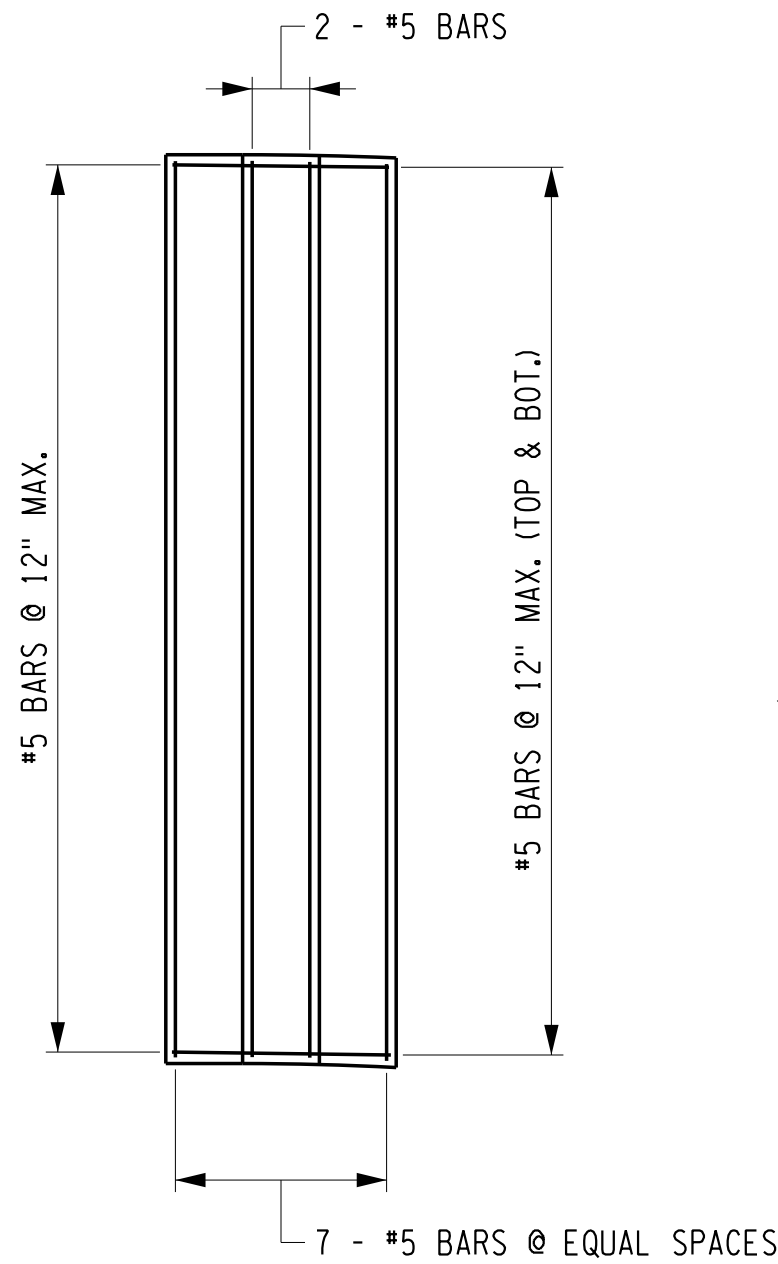
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

DECK AND APPROACH
SLAB PLAN

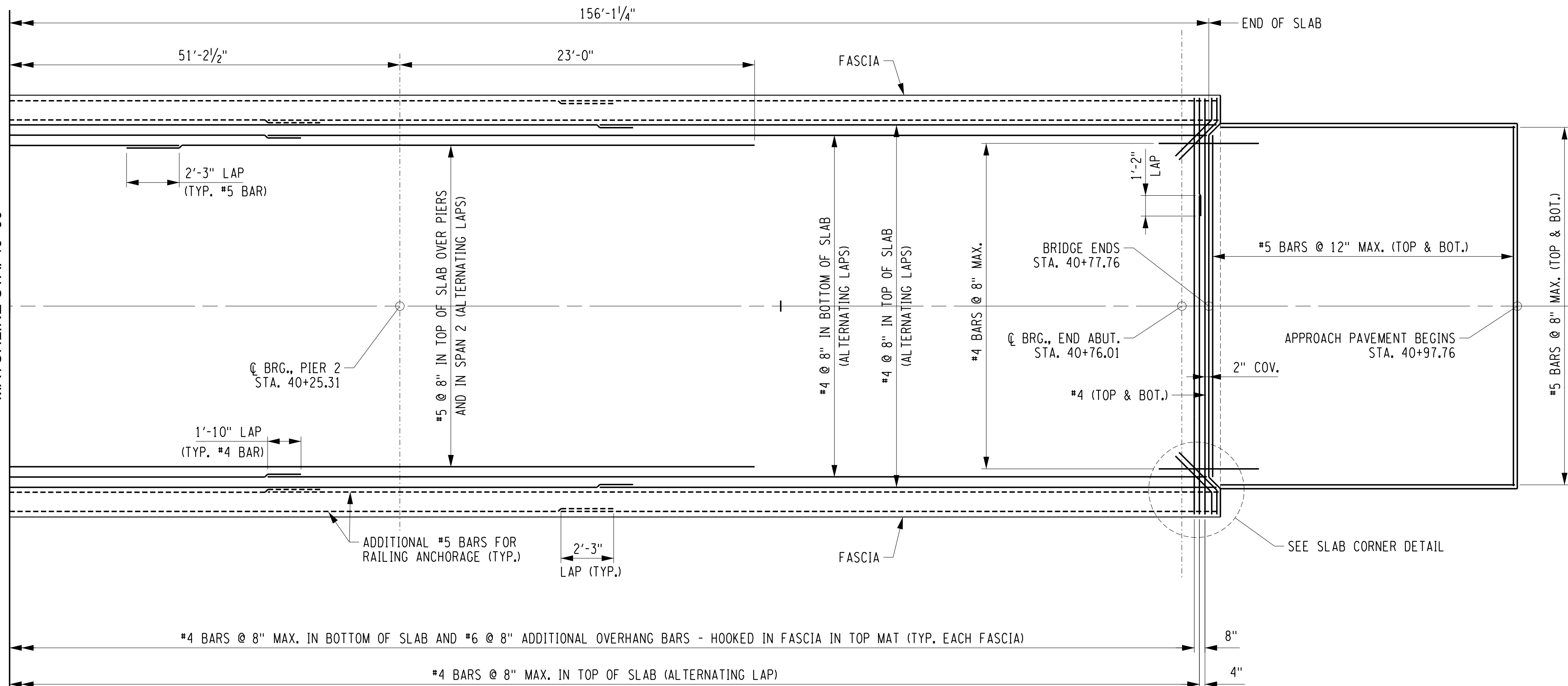
SCALE	DATE
AS NOTED	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 39 OF 46	DRAWING NO. BR-29

SLEEPER SLAB REINFORCEMENT PLAN
NOT TO SCALE

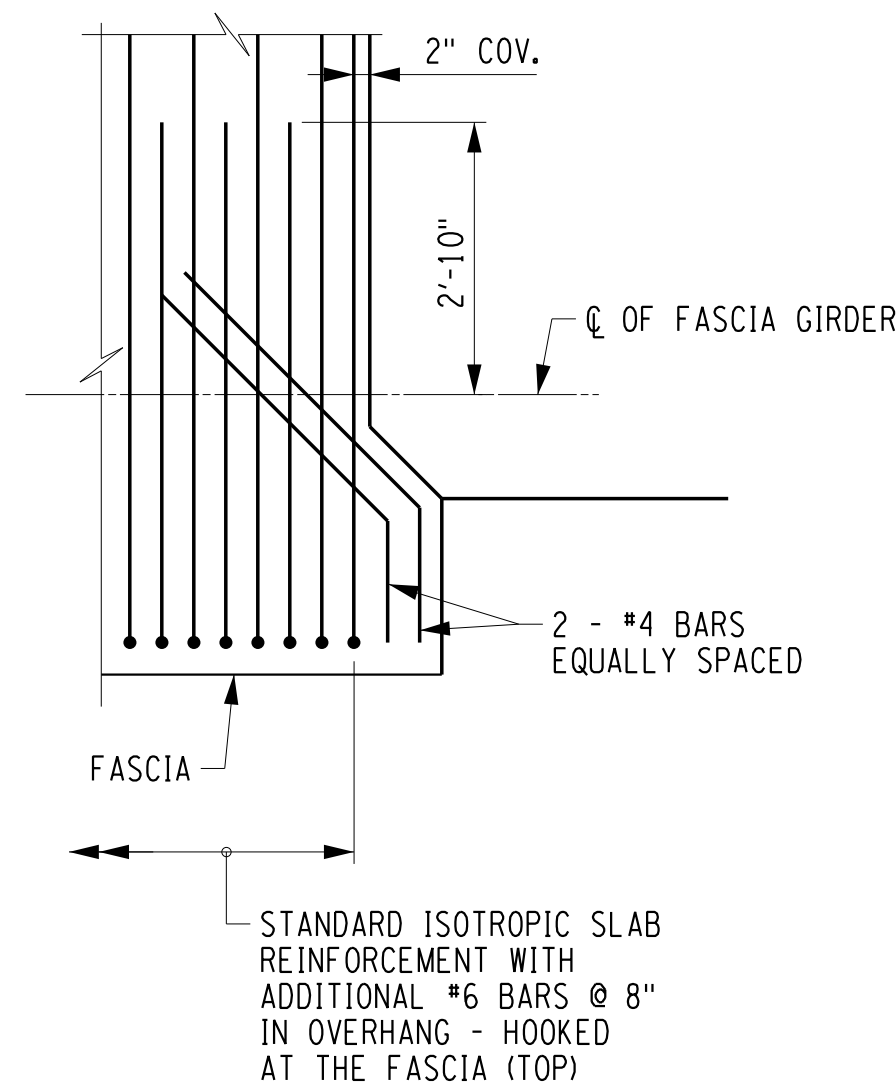


DECK REINFORCEMENT PLAN
NOT TO SCALE

MATCHLINE STA. 40+00



DECK REINFORCEMENT PLAN
NOT TO SCALE



SLAB CORNER DETAIL
NOT TO SCALE

NOTES:

1. ALL REINFORCEMENT SHALL HAVE 3" COVER UNLESS OTHERWISE NOTED.
2. ALL REINFORCEMENT SHALL BE GALVANIZED. COST INCLUDED UNDER THE APPROPRIATE SLAB ITEM.
3. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

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B.I.N. 3328370

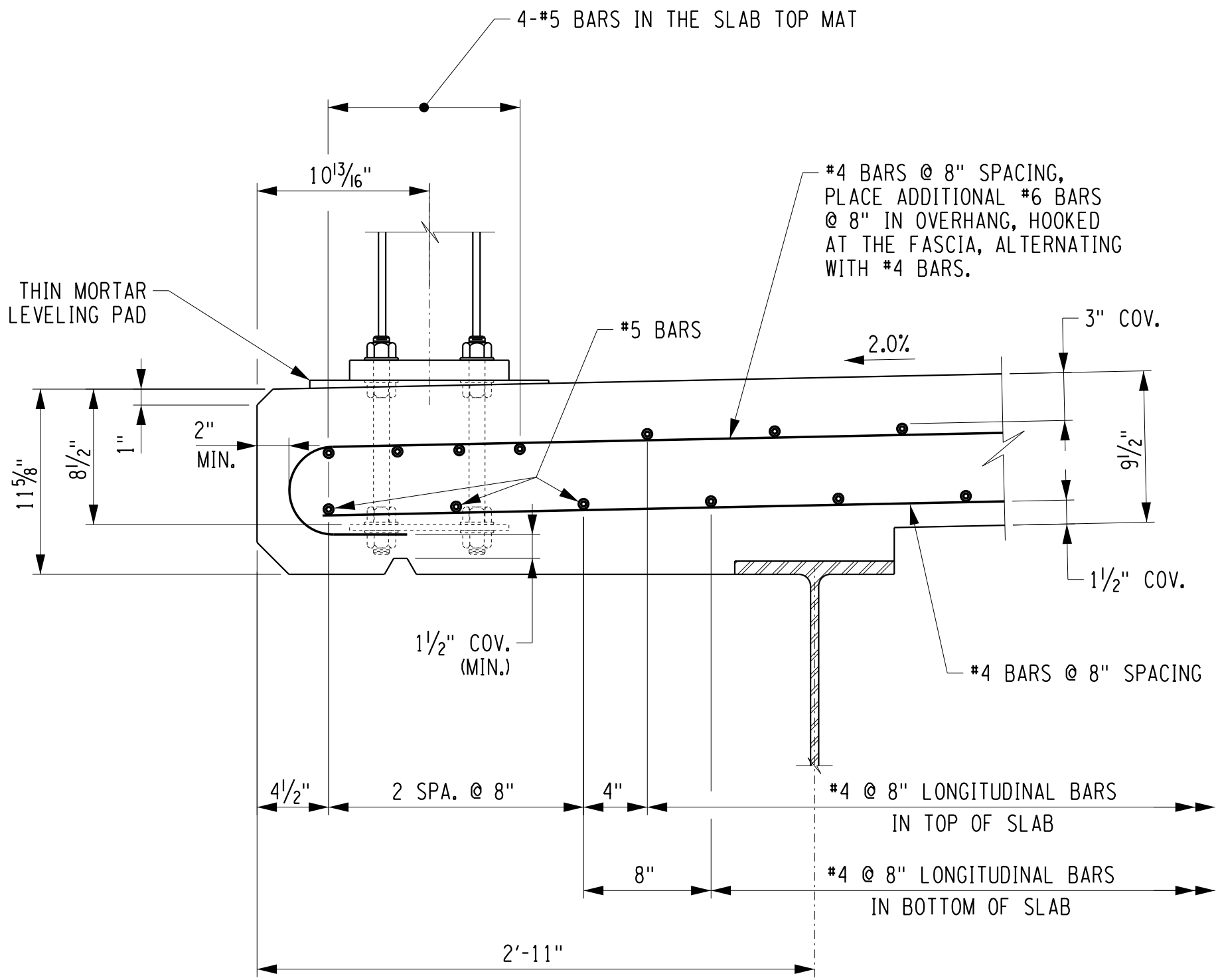
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**DECK SLAB
REINFORCING PLAN**

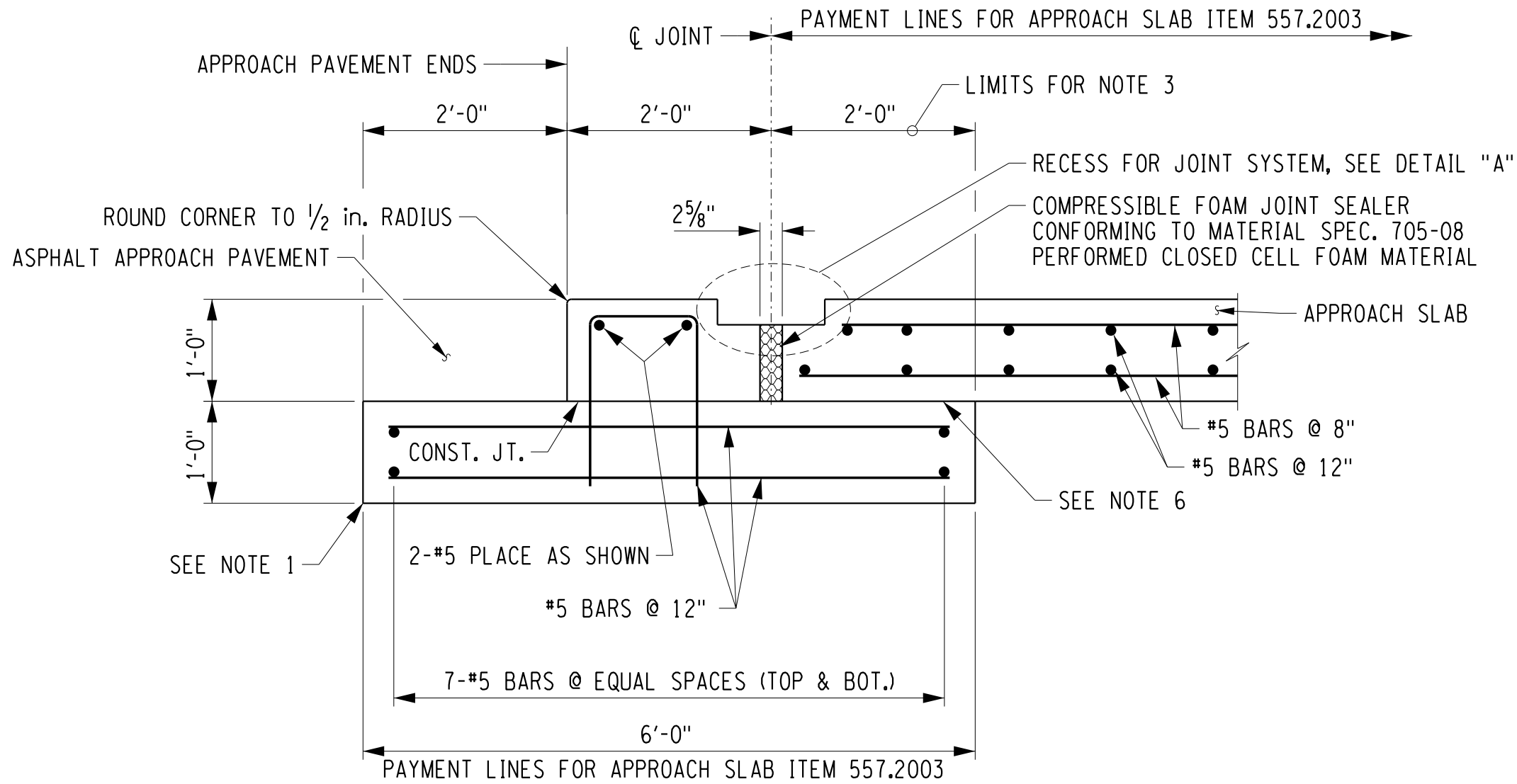
SCALE	DATE
1"=5'-0"	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 40 OF 46	DRAWING NO. BR-30

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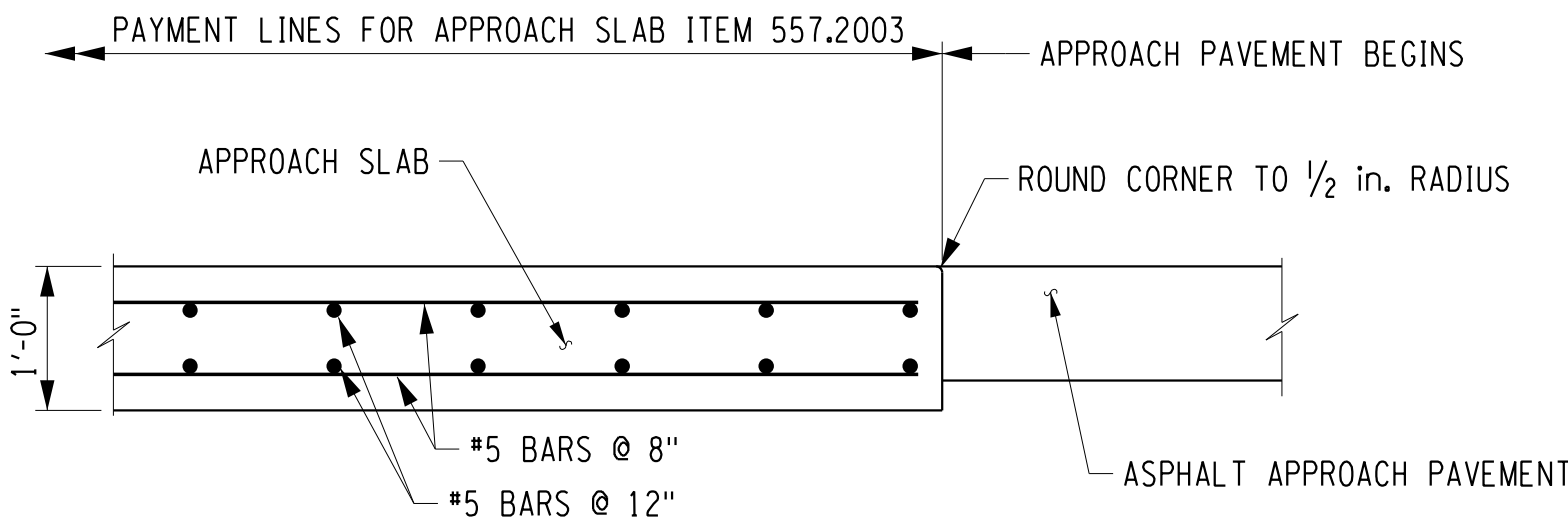
DESIGN SUPERVISOR D. ZIEMIANSKI JOB MANAGER C. GAWRON
CHECKED BY J. DePLANCHE
DRAFTED BY J. DePLANCHE
ESTIMATED BY J. DePLANCHE
CHECKED BY J. DePLANCHE
DRAFTED BY T. LINDO
CHECKED BY J. DePLANCHE



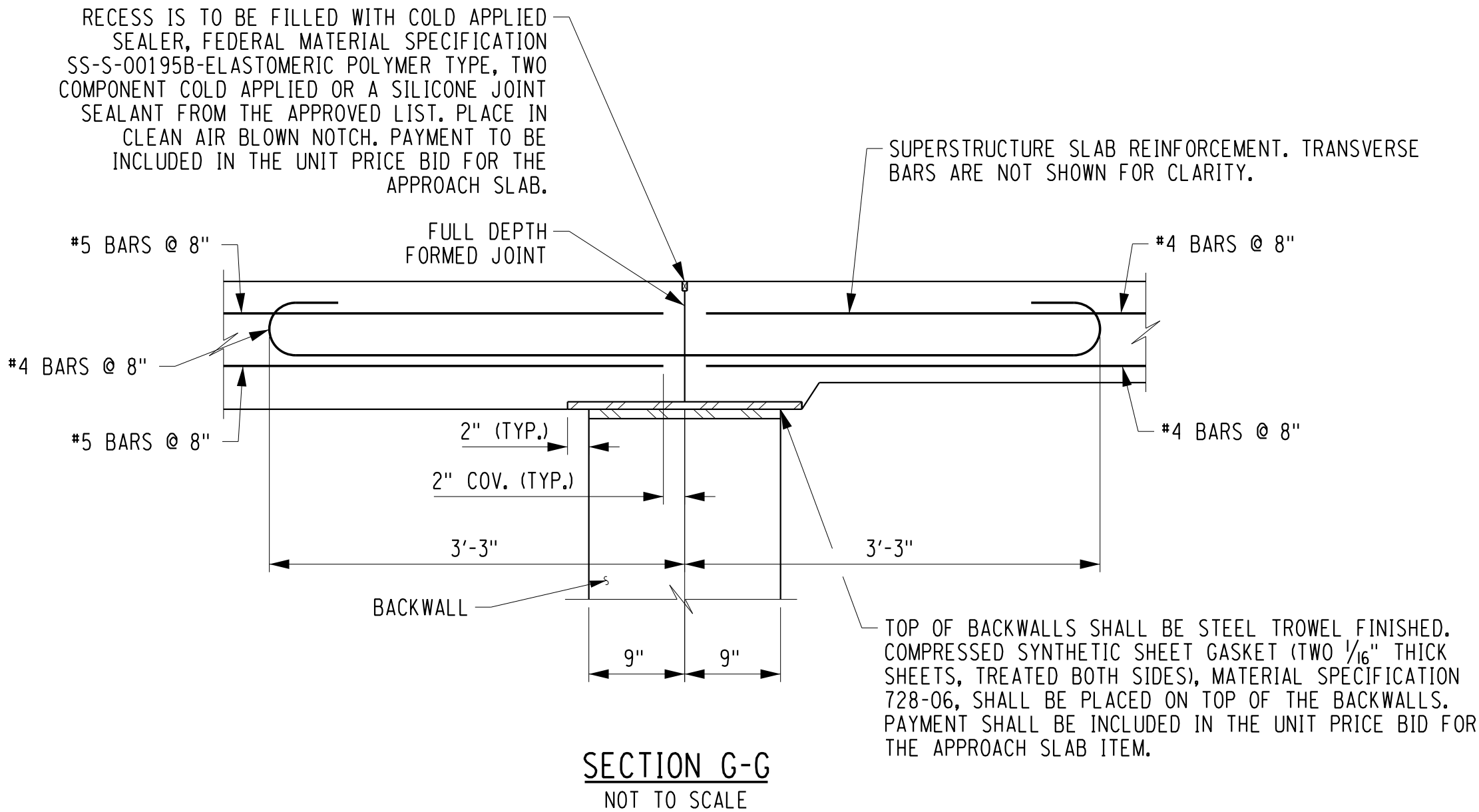
BRIDGE OVERHANG DETAIL



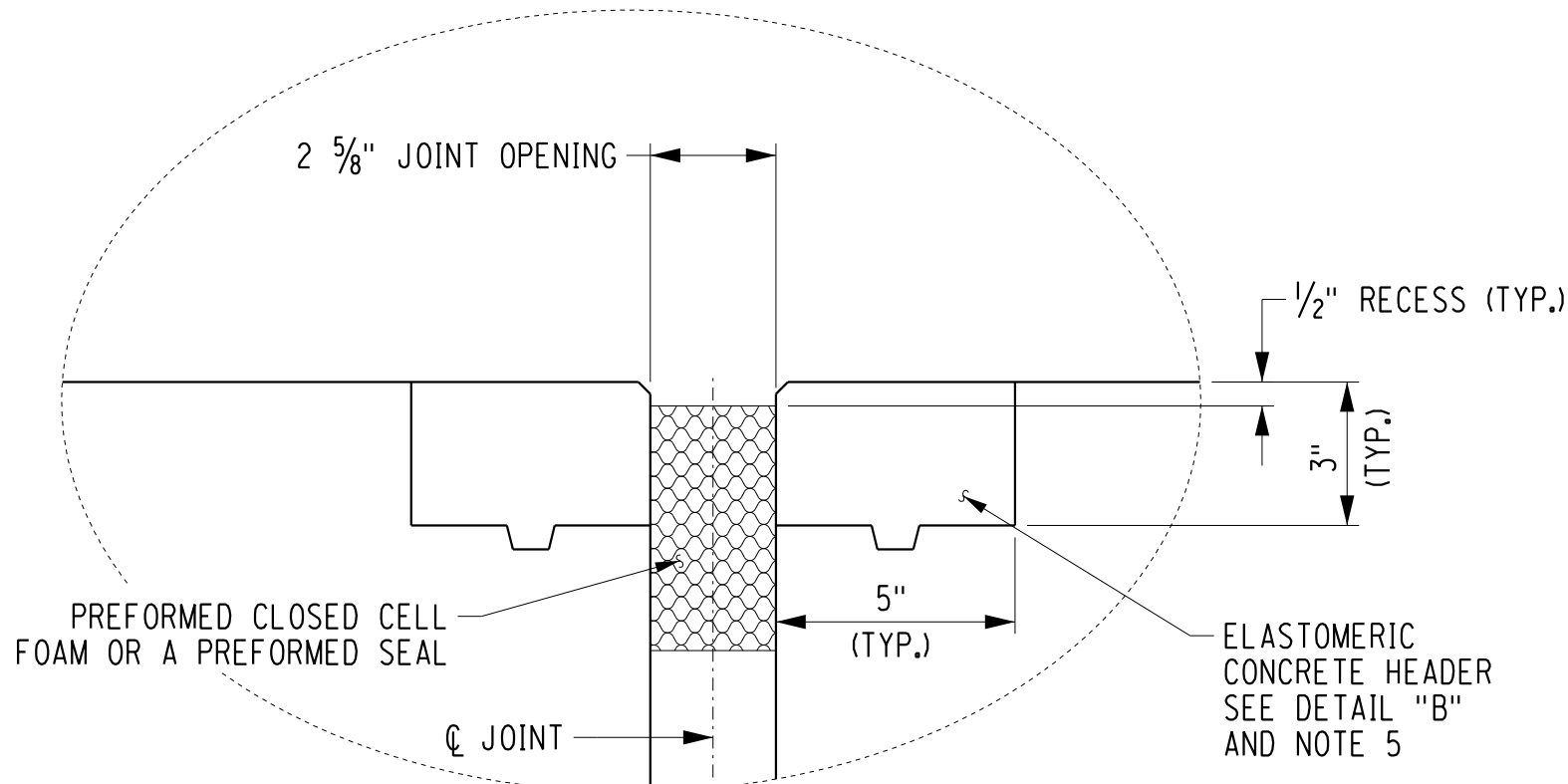
SECTION H-H



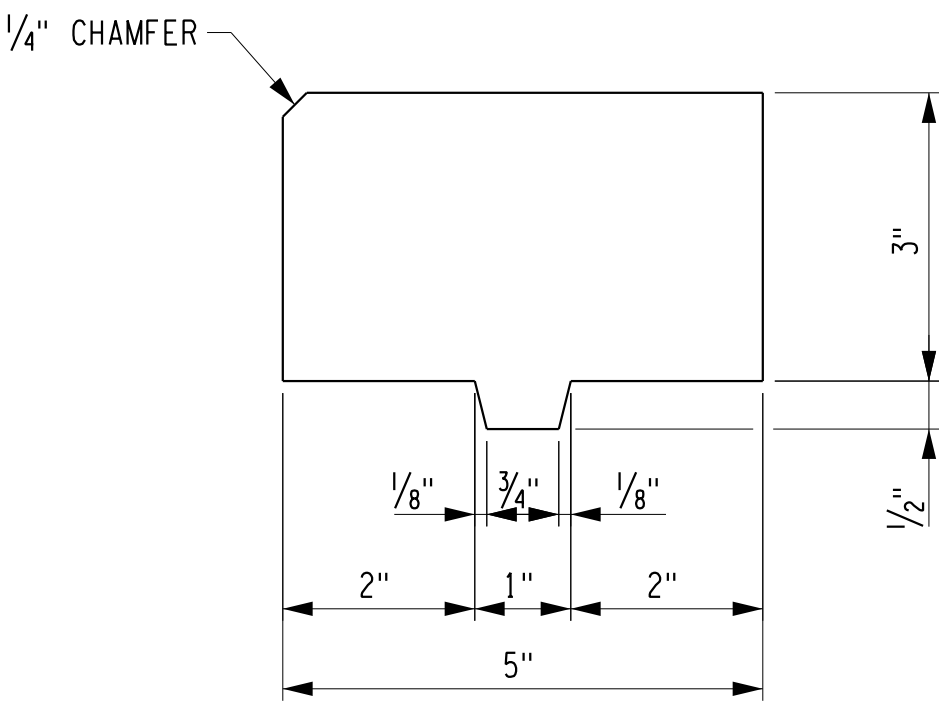
SECTION I-I



SECTION G-G
NOT TO SCALE



DETAIL "A"
CLOSED CELL FOAM/PREFORMED SEAL
ARMORLESS BRIDGE JOINT
SCALE: 3"=1'-0"



DETAIL "B"
NOT TO SCALE

JOINT TABLE	
TOTAL MOVEMENT	JOINT OPENING (@ 68°F)
2.12"	2.625"

CONTRACTOR SHALL DETERMINE AND SUPPLY CLOSED CELL FOAM/PREFORMED SEAL DIMENSIONS BASE UPON JOINT OPENING SIZE AND EXPECTED MOVEMENT.

NOTES:

- EXCAVATION FOR SLEEPER SLABS SHALL BE CAREFULLY MADE AFTER COMPACTED ABUTMENT EMBANKMENT IS IN PLACE. THE SLEEPER SLABS SHALL BE FOUNDED ON UNDISTURBED COMPACT MATERIAL OR RE-COMPACTED MATERIAL. NO LOOSE BACKFILL SHALL BE ALLOWED. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE SLEEPER SLAB FROM TEMPORARY LOADINGS OR ANY CONDITION WHICH COULD CAUSE MOVEMENTS OR UNEVEN SETTLEMENT OF THE SLEEPER SLAB.
- TO PERMIT UNHINDERED LONGITUDINAL MOVEMENT OF SLAB, THE SURFACE OF THE SUBBASE COURSE MUST BE ACCURATELY CONTROLLED TO FOLLOW AND BE PARALLEL TO THE ROADWAY GRADE AND CROSS SLOPE. POLYETHYLENE CURING COVERS (WHITE OPAQUE) IN ACCORDANCE WITH MATERIAL SPECIFICATION SUBSECTION 711-04 SHALL BE PLACED ON THE FINISHED SUBBASE COURSE THE FULL WIDTH OF THE APPROACH SLAB PRIOR TO PLACEMENT OF THE REINFORCEMENT. THE CURING COVERS SHALL BE 0.004 in. THICK, AND LAPS SHALL BE 2 ft. MINIMUM.
- TOP OF SLEEPER SLABS SHALL BE STEEL TROWEL FINISHED AND COATED WITH A 0.04 in. NOMINAL THICKNESS OF PERFORMANCE GRADE ASPHALT AS INDICATED IN THE PROPOSAL, OR MATERIAL SPECIFICATION 702-3101. THE TOP OF SLEEPER SLABS SHALL FOLLOW THE CROSS SLOPE AND GRADE OF ROADWAY. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.
- TOP SURFACES OF STRUCTURAL SLABS, APPROACH SLABS AND EXPOSED TOP SURFACES OF SLEEPER SLABS SHALL BE GROOVED UNDER THE SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE, ITEM 559.18960118.
- PAYMENT FOR THE ELASTOMERIC CONCRETE HEADERS SHALL BE INCLUDED IN THE ITEM FOR THE JOINT SYSTEM. THE JOINT SYSTEM SHALL BE PAID FOR UNDER ITEM 567.60.
- COMPRESSED SYNTHETIC SHEET GASKET (TREATED BOTH SIDES), MATERIAL SPECIFICATION 728-06, TWO 0.06 in. THICK SHEETS. PRICE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB, ITEM 557.2003.
- ALL REINFORCEMENT SHALL HAVE 3 in. COVER UNLESS OTHERWISE NOTED.
- ALL REINFORCEMENT SHALL BE GALVANIZED. COST INCLUDED UNDER THE APPROPRIATE SLAB ITEM.
- DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

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NO.	DESCRIPTION	BY	DATE

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DEPARTMENT
OF
PUBLIC WORKS

PROJECT NAME

ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

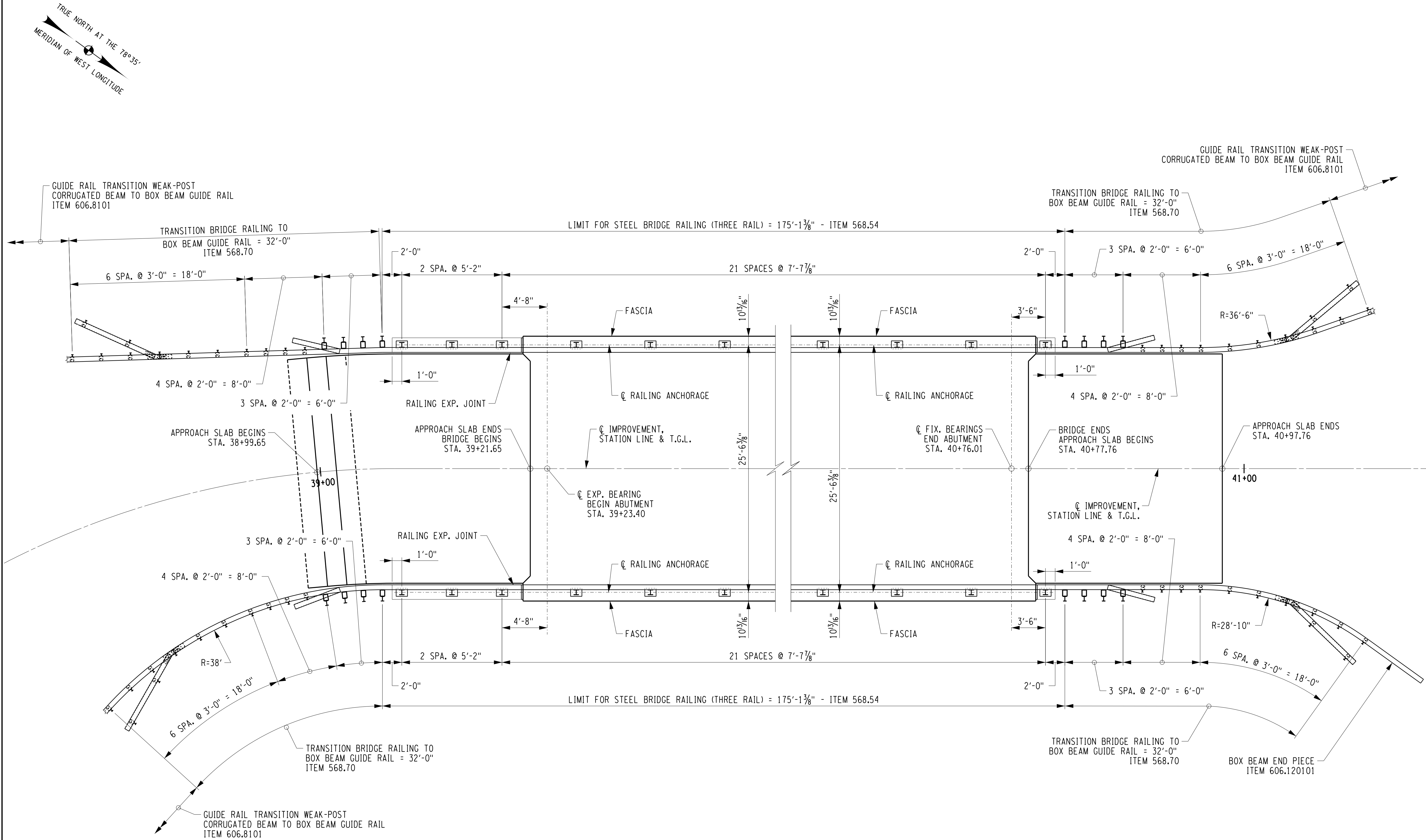
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SUPERSTRUCTURE
DETAILS

SCALE	DATE
AS NOTED	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 41 OF 46	DRAWING NO. BR-31

FILE NAME = N:\1947300-Ashford\Drawings\Structures\19473_Railing Layout Plan.dgn
DATE/TIME = 4/26/2017 4:12:31 PM
USER = LindoT

DESIGN SUPERVISOR D. ZIEMIAJSKI JOB MANAGER C. CAMRON
DESIGNED BY A. SCHWINGEL
ESTIMATED BY J. DePLANCHE
DRAFTED BY T. LINDO
CHECKED BY A. SCHWINGEL
CHECKED BY A. SCHWINGEL



RAILING LAYOUT PLAN
NOT TO SCALE

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DEPARTMENT
OF
PUBLIC WORKS

PROJECT NAME

ASHFORD BRIDGE #37
MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

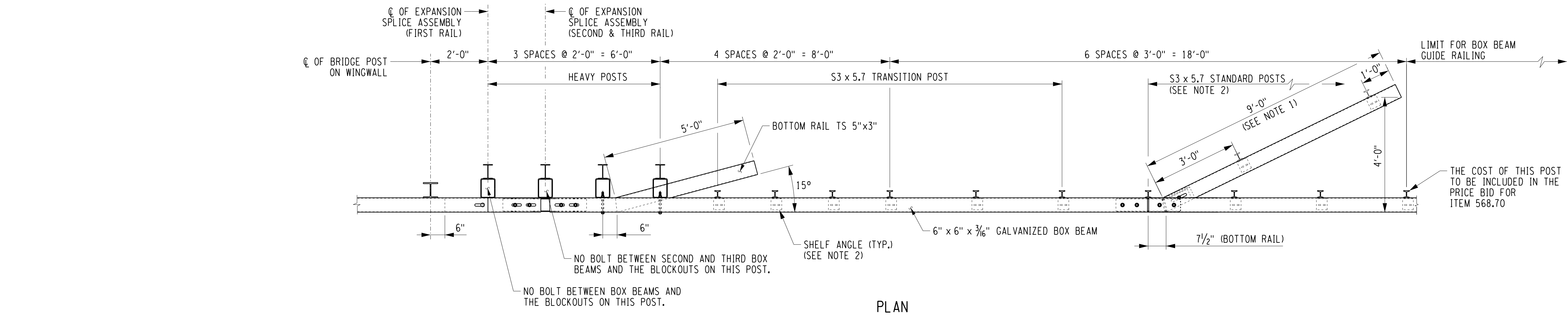
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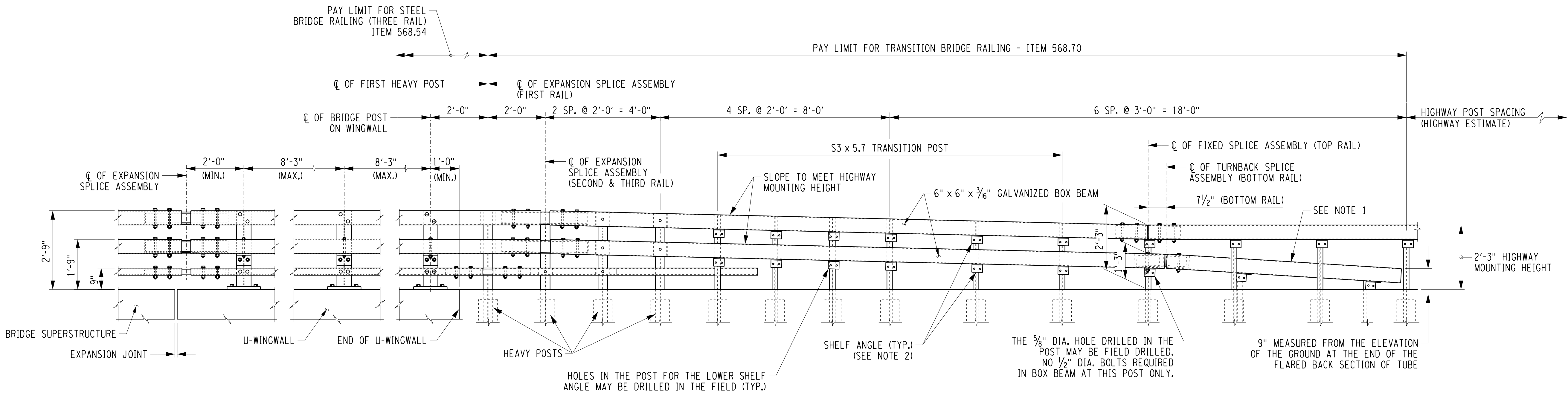
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AS NOTED	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 42 OF 46	DRAWING NO. BR-32

FILE NAME = N:\1947300-Ashford\Drawings\Structures\19473_Railing Details-1.dgn
DATE/TIME = 4/26/2017 4:12:34 PM
USER = Lindot

DESIGN SUPERVISOR D. ZIEMIANSKI JOB MANAGER C. GAWRON
DESIGNED BY J. DePLANCHE
ESTIMATED BY J. DePLANCHE
DRAFTED BY T. LINDO
CHECKED BY A. SCHWINGEL
CHECKED BY A. SCHWINGEL



PLAN



ELEVATION

GUIDE RAIL TABLE								
ITEM 568.54 - STEEL BRIDGE RAILING (THREE-RAIL)								
ITEM 568.70 - TRANSITION BRIDGE RAILING								
ITEM 606.8101 - GUIDE RAIL TRANSITION WEAK-POST CORRUGATED BEAM TO BOX BEAM GUIDE RAIL (ONE OR TWO WAY OPERATION)								
ITEM 606.120101 - BOX BEAM END PIECE								
STATION	TO	STATION	SIDE	RADIUS (FT)	ITEM 568.54 (LF)	ITEM 568.70 (LF)	ITEM 606.8101 (EA)	ITEM 606.120101 (EA)
38+23.79	TO	38+79.29	LT	69.0			1	
38+79.29	TO	39+06.56	LT	-		32.0		
39+06.56	TO	40+81.51	LT	-	175.1			
40+81.51	TO	40+95.51	LT	-				
40+95.51	TO	41+07.71	LT	36.5		32.0		
41+07.71	TO	41+12.97	LT	-				
41+12.97	TO	41+65.79	LT	-			1	
37+86.62	TO	38+09.94	RT	124.5			1	
38+09.94	TO	38+69.14	RT	-				
38+69.14	TO	39+06.19	RT	38.0		32.0		
39+06.19	TO	40+81.51	RT	-	175.1			
40+81.51	TO	40+95.51	RT	-		32.0		
40+95.51	TO	41+12.66	RT	28.83				
41+12.66	TO	41+18.51	RT	-				1
TOTALS					350.2	128.0	3.0	1

GUIDE RAIL REMOVAL TABLE				
ITEM 606.71- REMOVING AND DISPOSING CORRUGATED BEAM GUIDE RAILING				
STATION	TO	STATION	SIDE	ITEM 606.71 (LF)
38+23.79	TO	39+23.03	LT	117.6
40+81.20	TO	41+29.88	LT	50.3
37+86.62	TO	39+23.29	RT	118.8
40+80.24	TO	41+24.82	RT	46.6
TOTALS				333.4

NOTES:

- THE COST OF THE POSTS, SPLICE TUBE AND RAIL FOR THE LOWER TUBE FLARE SECTION IS INCLUDED IN THE PRICE BID FOR ITEM 568.70.
- SEE TYPICAL RAIL TO POST CONNECTION DETAIL ON CURRENT HIGHWAY STANDARD SHEET TITLED "BOX BEAM GUIDE RAIL".
- FOR SPLICE ASSEMBLY DETAILS, SEE DWG. NO. BR-35.
- FOR TURN BACK SPLICE DETAILS, SEE DWG. NO. BR-36.
- FOR TRANSITION POST AND HEAVY POST DETAILS, SEE DWG. NO. BR-36.
- RAILING TRANSITION AT END LEFT QUADRANT SHALL RETAIN THE EXISTING CORRUGATED BEAM GUIDE RAILING WITHIN THE TRANSITION LIMITS. ADDITIONAL POSTS WITHIN THE TRANSITION LIMITS AND WITHIN THE RIGHT-OF-WAY SHALL BE ADDED AS NEEDED TO ACHIEVE THE STANDARD. COSTS SHALL BE PAID FOR UNDER ITEM 606.8101.
- DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

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REVISIONS			
NO.	DESCRIPTION	BY	DATE

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PROJECT NAME

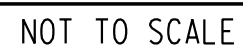
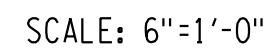
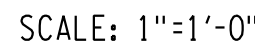
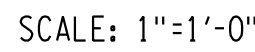
ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

RAILING DETAILS
(SHEET 1 OF 4)

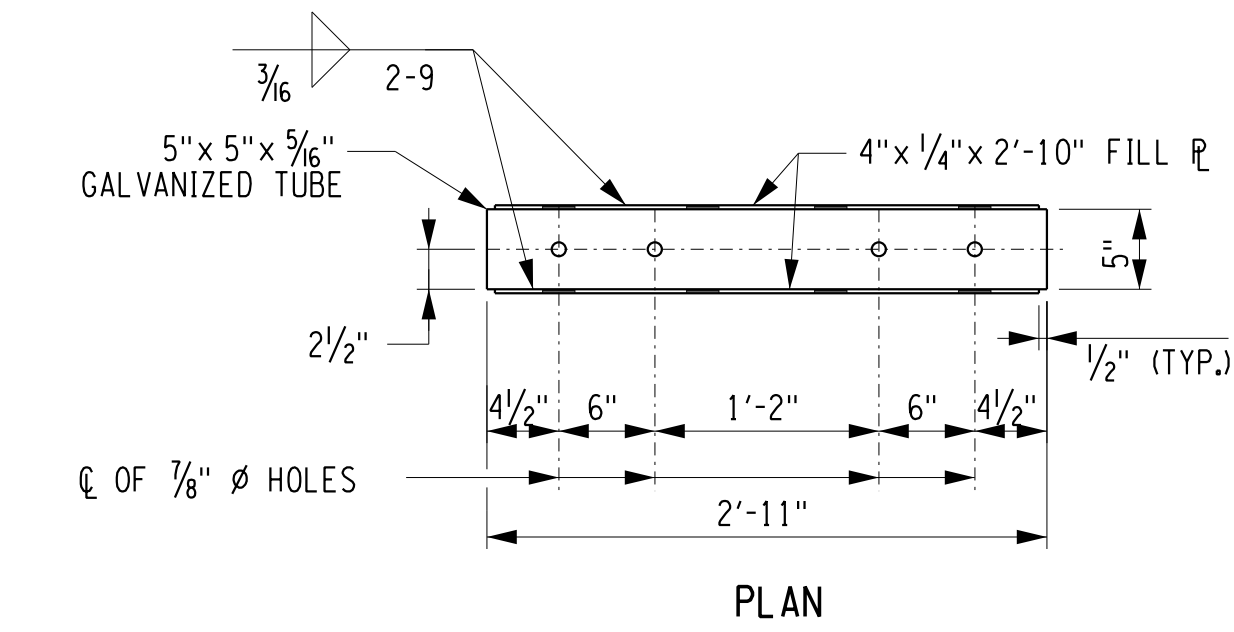
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AS NOTED	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 43 OF 46	DRAWING NO. BR-33



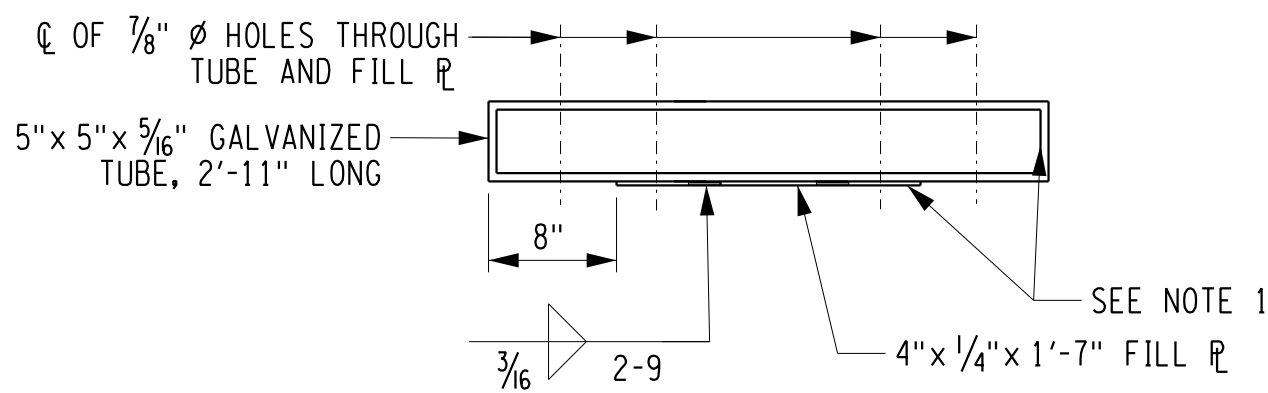
1. FOR SPLICE ASSEMBLY DETAILS, SEE DWG. NO. BR-35.
2. ALL RAILING IS TO BE FABRICATED AND ERECTED ACCORDING TO SECTION 568 OF THE STANDARD SPECIFICATIONS.
3. PRIOR TO GALVANIZING THE ASSEMBLED POST, GRIND ALL EDGES TO A MINIMUM RADIUS OF $\frac{1}{16}$ ".
4. BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 ft-lb.).
5. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

FILE NAME = N:\1947300-Ashford37\Drawings\Structures\19473_Railing Details-3.dgn
DATE/TIME = 4/26/2017 4:12:53 PM
USER = Lindot

DESIGN SUPERVISOR D. ZIEMIANSKI JOB MANAGER C. CAMRON
CHECKED BY A. SCHWINGEL
DRAFTED BY J. DePLANCHE
ESTIMATED BY A. SCHWINGEL
CHECKED BY A. SCHWINGEL
DESIGNED BY A. SCHWINGEL
DRAFTED BY T. LINDO
CHECKED BY A. SCHWINGEL

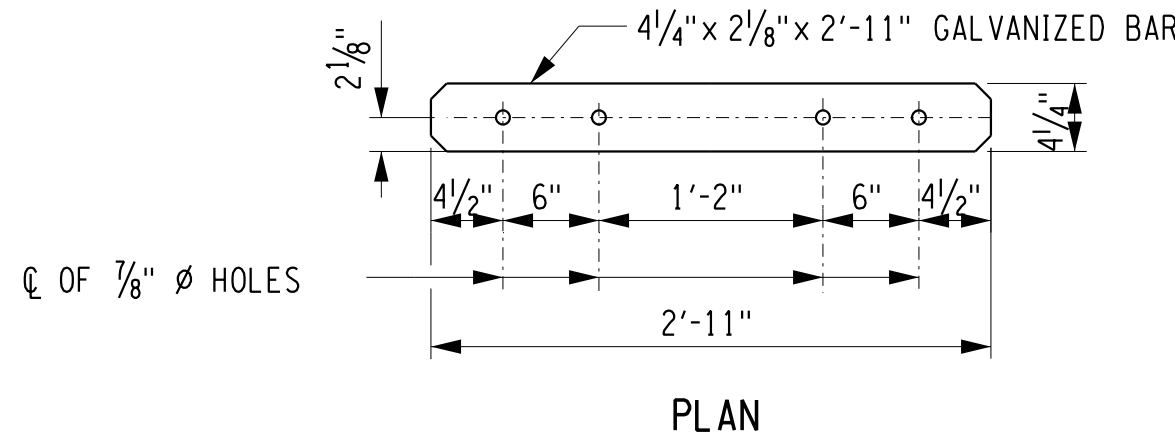


PLAN

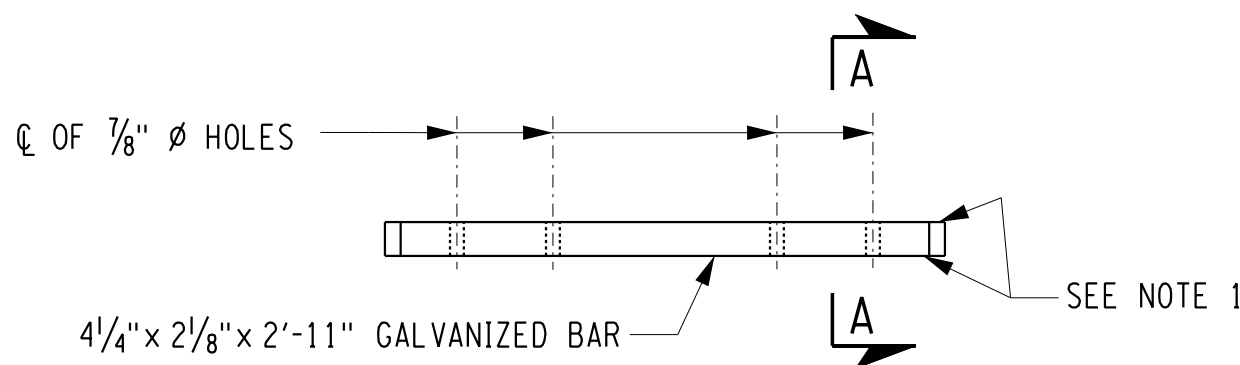


ELEVATION

EXPANSION SPLICE TUBE

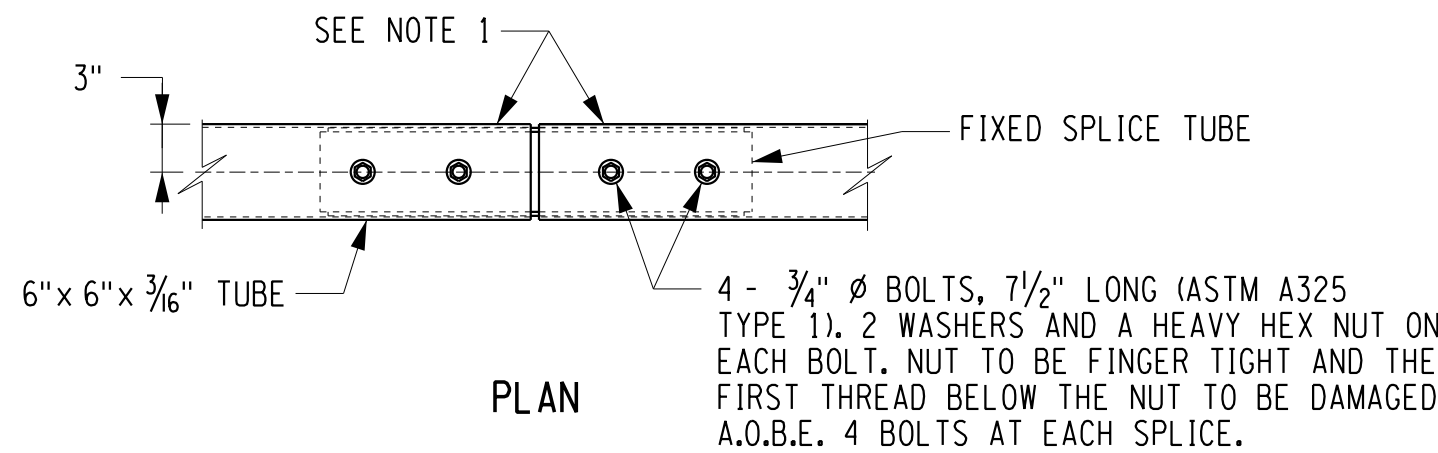


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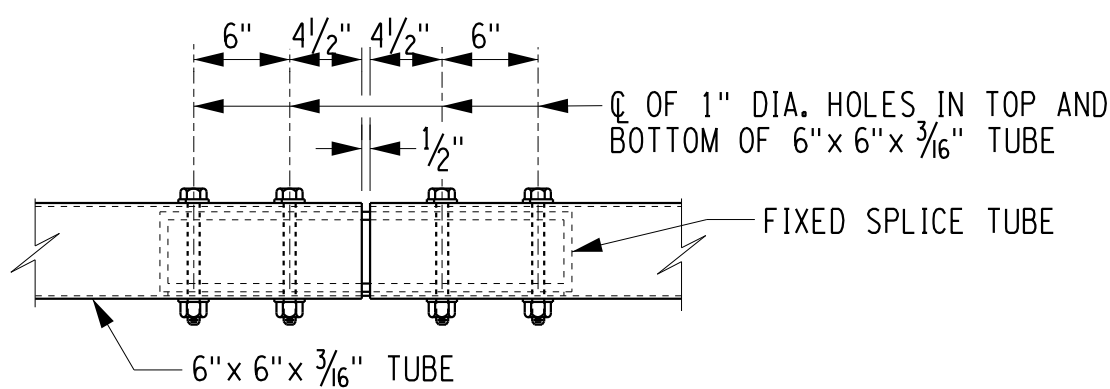


ELEVATION

EXPANSION SPLICE BAR

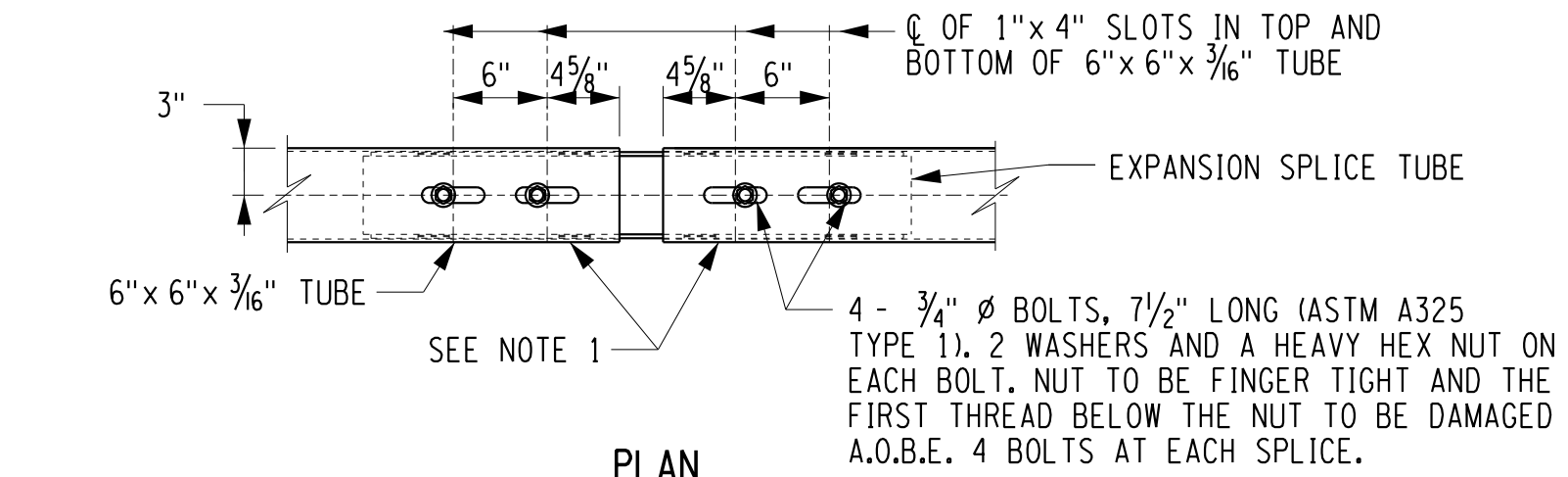


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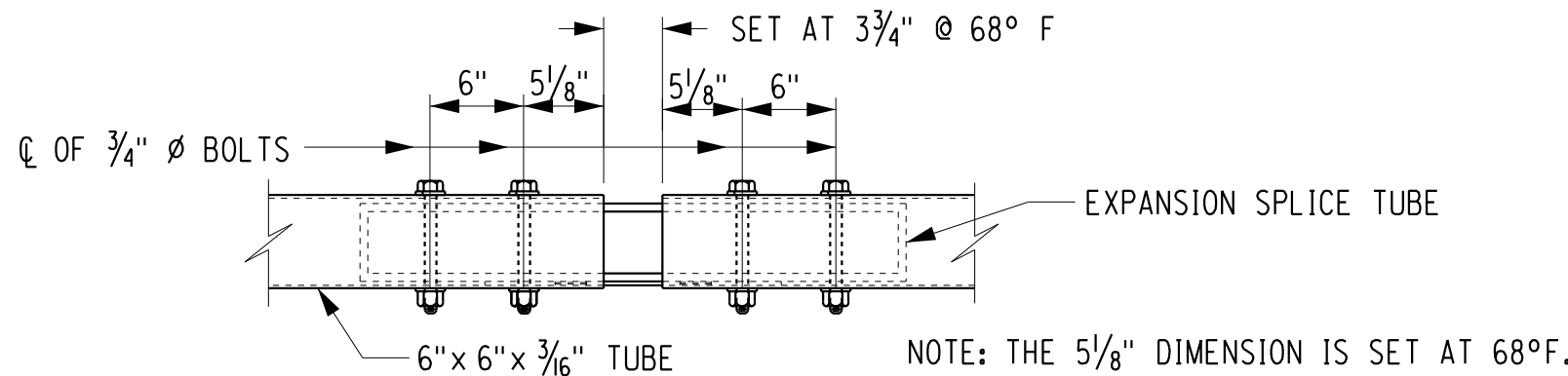


ELEVATION

FIXED SPLICE TUBE ASSEMBLY

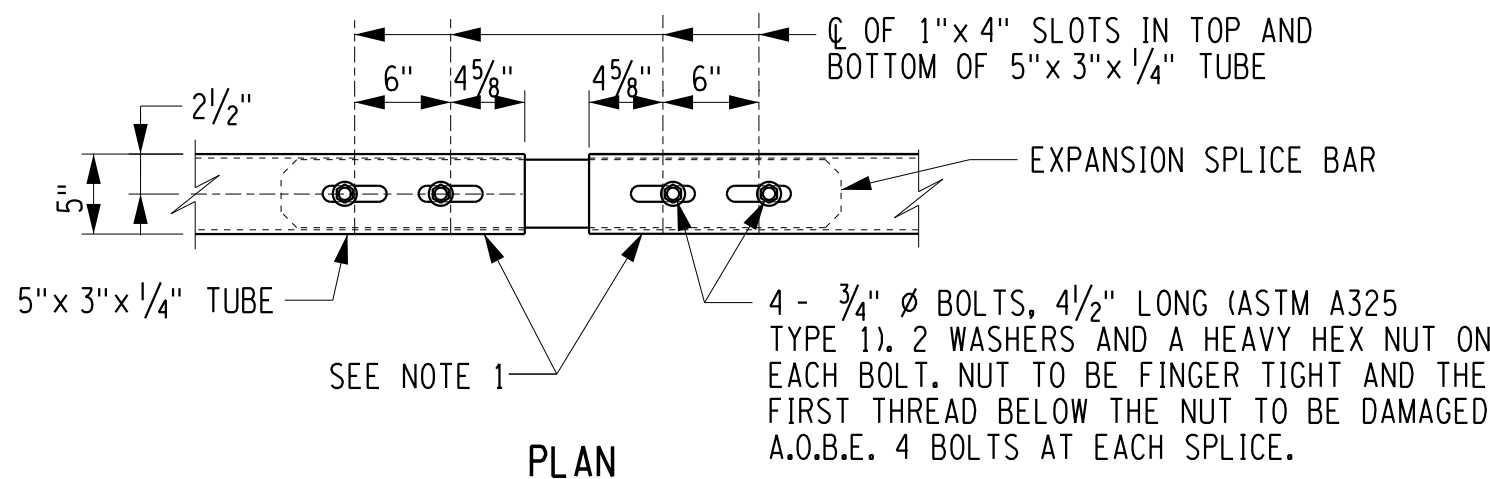


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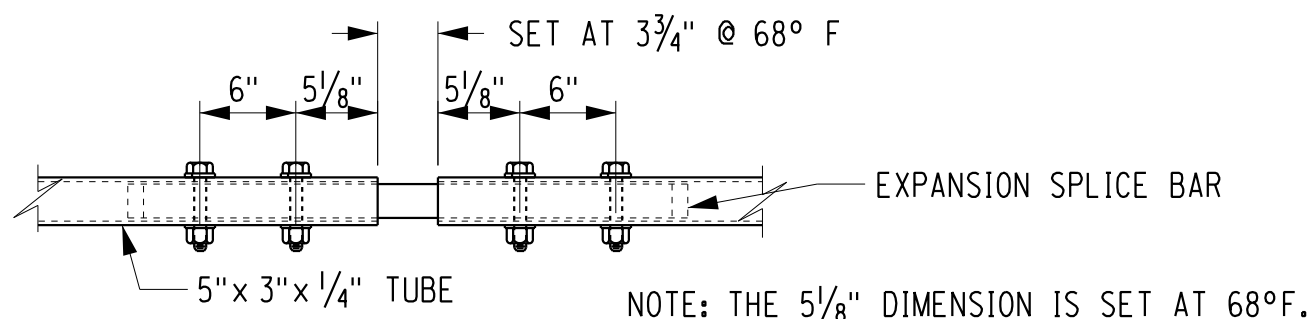


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EXPANSION SPLICE TUBE ASSEMBLY

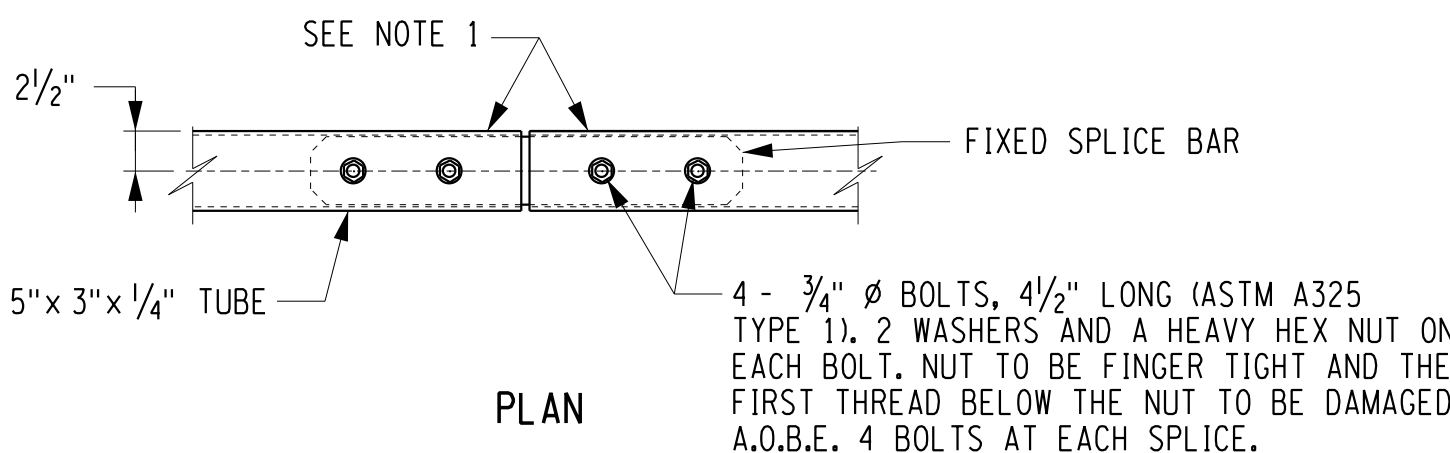


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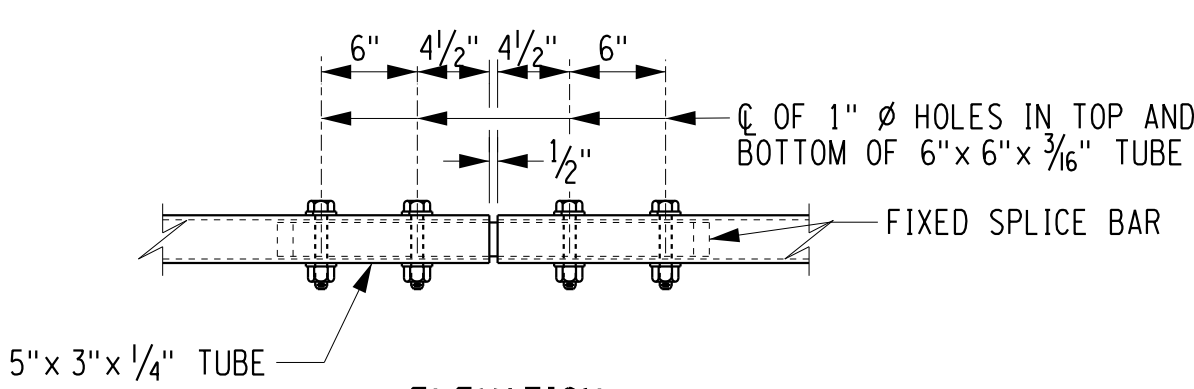


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EXPANSION SPLICE BAR ASSEMBLY

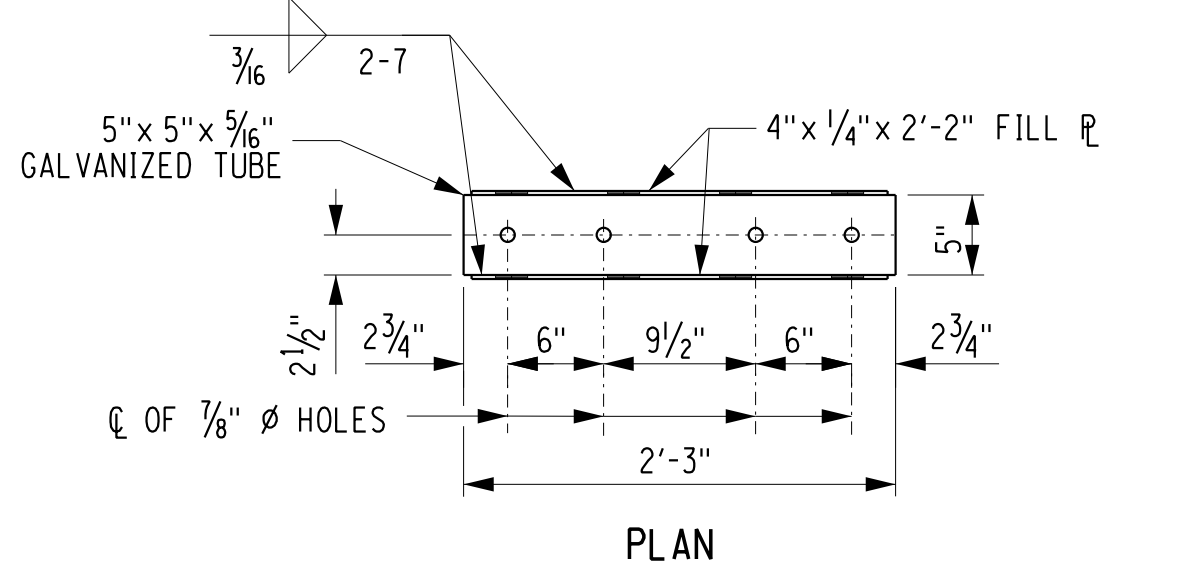


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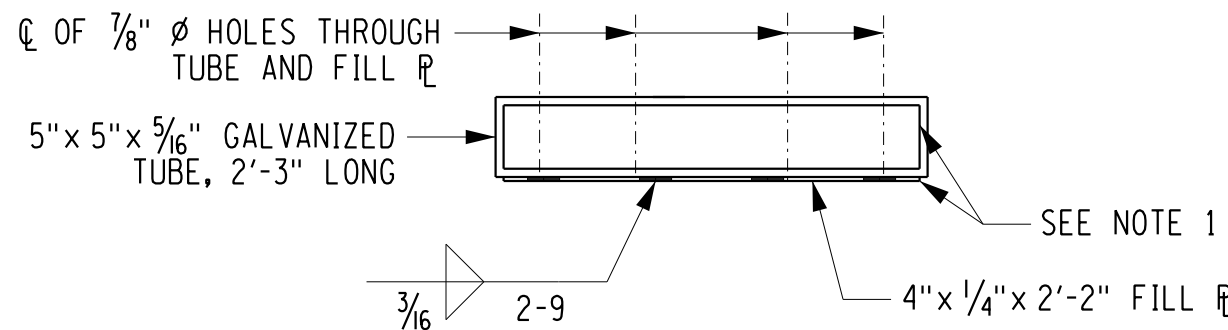


ELEVATION

FIXED SPLICE BAR ASSEMBLY

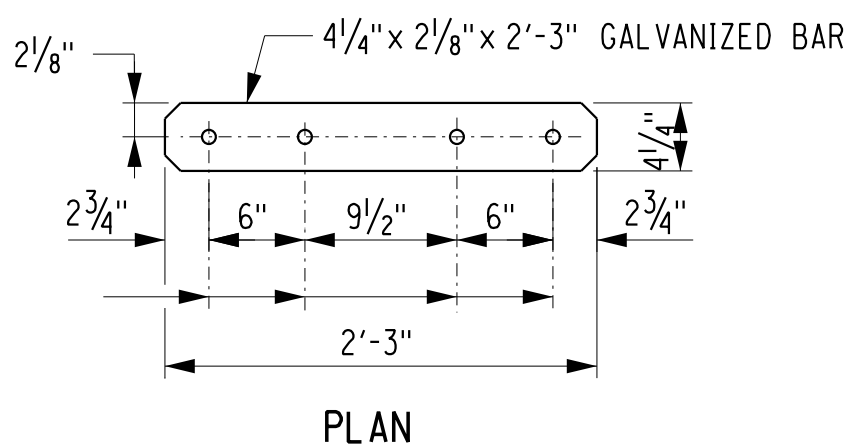


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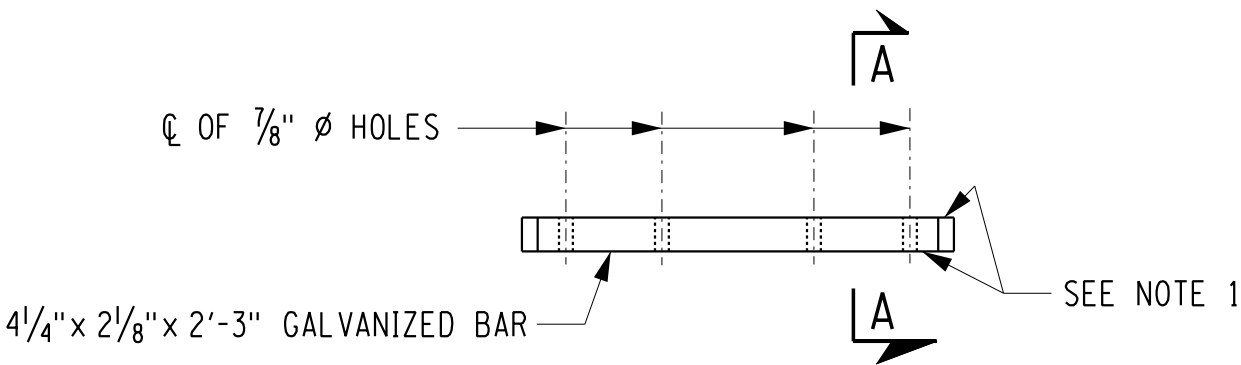


ELEVATION

FIXED SPLICE TUBE

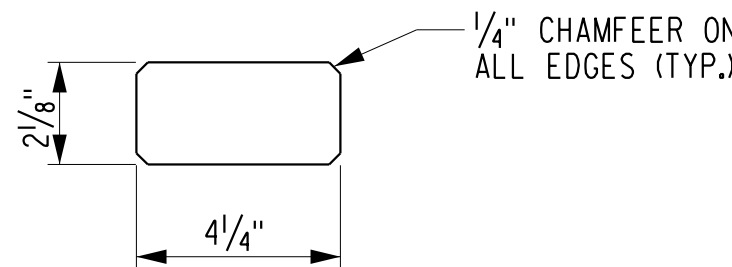


PLAN



ELEVATION

FIXED SPLICE BAR



SECTION A-A

NOTES:

1. PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE BOX BEAM RAILS, SPLICE TUBES AND FILL PLATES.
2. DETAILS ON THE DRAWINGS LABELED AS "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS, FOR WHICH NO SCALE IS SHOWN, ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.

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DEPARTMENT OF PUBLIC WORKS

PROJECT NAME

ASHFORD BRIDGE #37

MILL ST./EDIES RD.
OVER
CATTARAUGUS CREEK
B.I.N. 3328370

DRAWING TITLE

**RAILING DETAILS
(SHEET 3 OF 4)**

SCALE	DATE
NONE	5/2/2017
P.J.N. 5757.31	EAA PROJECT NO. 19473.00
SHEET NO. 45 OF 46	DRAWING NO. BR-35

