

GENERAL LOCATION OF CONTRACT

THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY
UNITS



CONSTRUCTION PLANS FOR:

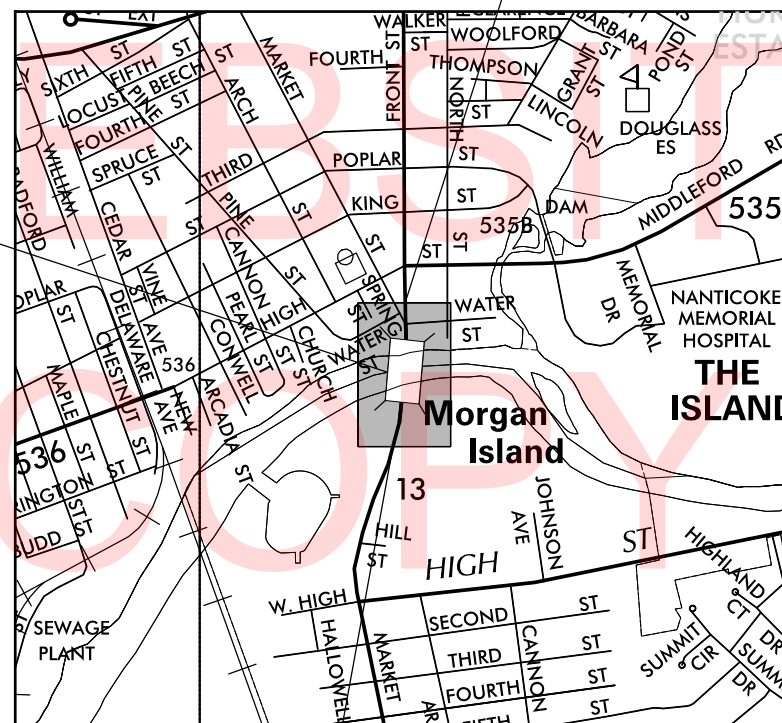
STRUCTURE MAINTENANCE CONTRACT BRIDGE 3-151, FY19

CONTRACT NUMBER: T201807601
FEDERAL AID PROJECT NUMBER: EBHOS-013(05)

COUNTY: SUSSEX M.R. #: S13

END CONTRACT
STATION 11+50

BR 3-151



BEGIN CONTRACT
STATION 8+50

PROJECT LOCATION

DESIGN DESIGNATION		
FUNCTIONAL CLASS: MAJOR COLLECTOR	D.H.V. PROJECTED:	YEAR:
TYPE OF CONSTRUCTION: BRIDGE REHABILITATION	DESIGN SPEED: 30 M.P.H.	
A.A.D.T. CURRENT: 12210	YEAR: 2014	TRUCKS: %
A.A.D.T. PROJECTED:	YEAR:	DIRECTION OF DISTRIBUTION: %

INDEX OF SHEETS	
SHEET NO	TABLE OF CONTENTS
1	TITLE SHEET
2	LEGEND
3	GENERAL AND PROJECT NOTES
4	INDEX OF DRAWINGS, LOAD RATINGS AND QUANTITIES
5	BRIDGE PLAN AND ELEVATION
6	FRAMING PLAN - SPAN 3
7	FLOORBEAM RETROFIT DETAILS
8-9	WEB PLATE REPAIR DETAILS
10	TRUNNION TIE PLATE REPAIR DETAIL & MISC. REPAIR DETAILS
11	ENVIRONMENTAL COMPLIANCE PLAN
12	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN
13	DETOUR PLAN
14	PEDESTRIAN DETOUR PLAN

TOTAL SHEETS: 14

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA & REVISIONS

DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
42B	SEAFORD BRIDGE
42C	TRUNNION BASCULE BRIDGE OVER NANTICOKE RIVER
1043A	SEAFORD BRIDGE REFLOORING
67-10-005	REHABILITATION OF SEAFORD MOVABLE BRIDGE
89-076-02	REHABILITATION OF BRIDGE NO. 151 AT SEAFORD, DELAWARE

PREPARED BY
THE CONSULTING FIRM OF
TYLIN INTERNATIONAL
DOVER, DELAWARE



Douglas E. Finney
RECOMMENDED
08/20/2018
DATE

RECOMMENDED

Matthew J. Schmitt
08/22/2018
DATE
ASSISTANT MAINTENANCE ENGINEER

J. McCluskey
08/27/2018
DATE
MAINTENANCE ENGINEER

[Signature]
08/27/2018
DATE
DISTRICT ENGINEER

RECOMMENDED

Stephen Dirck Richter
BRIDGE MAINTENANCE ENGINEER
DATE 08/21/2018



RECOMMENDED

[Signature]
BRIDGE MANAGEMENT ENGINEER
DATE 08/28/2018



RECOMMENDED

[Signature]
ASSISTANT DIRECTOR, BRIDGE
DATE 08/28/2018



APPROVED

Robert Brian McClary
CHIEF ENGINEER
DATE 08/28/2018



EXISTING SYMBOLS

DRAINAGE	
	DITCH OR STREAM CENTERLINE
	DIRECTIONAL STREAM FLOW ARROW
	DRAINAGE INLET
	DRAINAGE JUNCTION BOX
	DRAINAGE MANHOLE
	DRAINAGE PIPE AND FLOW ARROW
	DRAINAGE PIPE HEADWALL
	RIPRAP - AREA FEATURE
	RIPRAP - LINEAR FEATURE

MANMADE ROADSIDE FEATURES	
	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
	CURB
	CURB AND GUTTER
	FENCE - CHAINLINK OR STRANDED
	FENCE - STOCKADE OR SPLIT RAIL
	FLAG POLE
	GUARDRAIL - STEEL BEAM
	GUARDRAIL - WIRE ROPE
	LAMP AND POST - RESIDENTIAL
	MAILBOX
	PARKING METER AND POST
	PAVEMENT - FLEXIBLE
	PAVEMENT - RIGID
	PILE - BRIDGE
	PILLAR OR MISCELLANEOUS POST
	TRAFFIC SIGN AND POST
	WALL - BRICK OR BLOCK
	WALL - STONE

NATURAL ROADSIDE FEATURES	
	GRASS LAWN
	HEDGEROW OR THICKET
	MARSH BOUNDARY LINE
	TREE - CONIFEROUS
	TREE - DECIDUOUS
	TREE STUMP
	SHRUBBERY
	DELINEATED WETLAND BOUNDARY LINE
	WOODS LINE BOUNDARY

RIGHT-OF-WAY SYMBOLS	
	PROPERTY MARKER - CONCRETE MON.
	PROPERTY MARKER - IRON PIPE
	HISTORIC RIGHT-OF-WAY BASELINE
	EXISTING RIGHT-OF-WAY
	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING DENIAL OF ACCESS
	EXISTING R/W & DENIAL OF ACCESS

SURVEY CONTROL & MONUMENTATION	
	SURVEY BENCHMARK LOCATION
	SURVEY TIE POINT LOCATION
	SURVEY TRAVERSE POINT
	POINT OF CURVATURE OR TANGENCY
	POINT OF INTERSECTING TANGENTS

UTILITY	
	SOIL BORING LOCATION
	UTILITY TEST HOLE LOCATION
	CABLE TV DISTRIBUTION BOX
	ELECTRIC MANHOLE
	ELECTRIC METER
	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
	GAS MANHOLE
	GAS METER
	GAS VALVE
	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
	SANITARY SEWER MANHOLE
	SANITARY SEWER VALVE
	SANITARY SEWER CLEANOUT OR VENT
	SEPTIC DRAIN FIELD
	TELEPHONE BOOTH
	TELEPHONE MANHOLE
	TELEPHONE TEST POINT
	TRAFFIC - CONDUIT JUNCTION WELL
	TRAFFIC - LIGHT POLE AND BASE
	TRAFFIC - PEDESTRIAN POLE & BASE
	TRAFFIC - SIGNAL CABINET & BASE
	TRAFFIC - SIGNAL POLE AND BASE
	UTILITY BOX
	UTILITY POLE GUY WIRE ANCHOR
	UTILITY POLE
	WATER - FIRE HYDRANT
	WATER METER
	WATER VALVE
	WELL HEAD
	MANHOLE - UNDETERMINED OWNER

UTILITY COMPANY FACILITIES	
	CITY OF SEAFORD (SEWER)
	CITY OF SEAFORD (WATER)
	DELMARVA POWER (ELECTRIC)
	UNKNOWN (GAS)

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
	BIOFILTRATION SWALE
	BRICK PATTERNED SURFACE
	BUTT JOINT
	CLEAR ZONE
	CONSTRUCTION BASELINE
	CONSTRUCTION SAFETY FENCE
	CURB, TYPE 1 & TYPE 3
	CURB, TYPE 2
	CURB & GUTTER, TYPE 1
	CURB & GUTTER, TYPE 2
	CURB & GUTTER, TYPE 3
	CURB & GUTTER, TYPE 4
	CURB OPENING
	DRAINAGE INLET
	DITCH
	FENCE - METAL
	FENCE - WOOD
	FLARED END SECTION
	GUARDRAIL, TYPE 1
	GUARDRAIL, TYPE 2
	GUARDRAIL, TYPE 3
	GUARDRAIL END ANCHORAGE
	GUARDRAIL END TREATMENT, TYPE 1
	GUARDRAIL END TREATMENT, TYPE 2
	GUARDRAIL END TREATMENT, TYPE 3
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
	LATERAL OFFSET
	LIMIT OF CONSTRUCTION
	MAILBOX
	MANHOLE
	PAVEMENT PATCH
	PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH
	PIPE & DIRECTIONAL FLOW ARROW
	RIPRAP
	P.C.C. SIDEWALK - 4"
	P.C.C. SIDEWALK - 6" (USE 8" DEPTH FOR CHANNELIZATION ISLANDS.)
	UNDERDRAIN
	UNDERDRAIN OUTLET

RIGHT-OF-WAY SYMBOLS	
	PROPOSED RIGHT-OF-WAY MONUMENT
	PROPOSED DENIAL OF ACCESS
	PROPOSED PERMANENT EASEMENT
	PROPOSED RIGHT-OF-WAY
	PROPOSED R/W & DENIAL OF ACCESS
	TEMPORARY CONSTRUCTION EASEMENT
	PROPOSED RIGHT-OF-WAY BASELINE

PROPOSED SYMBOLS

IDENTIFIERS	
	ADJUST BY CONTRACTOR
	ADJUST BY OTHERS
	CONCRETE SAFETY BARRIER
	CURB OR CURB & GUTTER
	CONVERT TO JUNCTION BOX
	CONVERT TO DRAINAGE MANHOLE
	CURB OPENING
	CURB RAMP / TYPE
	CURB RAMP / TYPE - WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
	CONSTRUCTION SAFETY FENCE
	DRAINAGE INLET
	DO NOT DISTURB
	ENERGY DISSIPATOR
	FENCE
	FLARED END SECTION
	FILL WITH FLOWABLE FILL
	FILTRATION STRUCTURE
	GUARDRAIL
	JUNCTION BOX
	MANHOLE
	MONUMENT - RIGHT-OF-WAY
	PIPE
	RELOCATE BY CONTRACTOR
	RELOCATE BY OTHERS
	RELOCATE BY PROPERTY OWNER
	REMOVE BY CONTRACTOR
	REMOVE BY TRAFFIC CONTRACTOR
	REMOVE BY OTHERS
	UNDERDRAIN / LENGTH
	UNDERDRAIN OUTLET PIPE

LANDSCAPING	
	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

TRAFFIC	
	ITMS CONDUIT
	SIGNAL CONDUIT
	CONDUIT JUNCTION WELL
	LUMINAIRE
	PAVEMENT MARKINGS
	PAVEMENT STRIPING
	TRAFFIC SIGN

EROSION & SEDIMENT CONTROL	
	COMPOST FILTER LOG
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP / NUMBER
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	TURBIDITY CURTAIN

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GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2016 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2017, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.

2. ELECTRONIC PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR, INCLUDE:

()	NONE
()	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
(X)	ALL PLAN SHEETS, IN PDF FORMAT.
()	EXISTING DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
()	PROPOSED DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
()	DESIGN FILE, IN .DGN FILE FORMAT, CONTAINING ONLY THE PROPOSED 3D TRIANGLES OF THE PROPOSED DIGITAL TERRAIN MODEL (DTM).

NOTE: THE DOCUMENT ENTITLED "RELEASE FOR DELIVERY OF DOCUMENTS IN ELECTRONIC FORM TO A CONTRACTOR" MUST BE SIGNED BY ALL PARTIES PRIOR TO THE DELIVERY OF ANY ELECTRONIC PROJECT FILES.

3. PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE CONTRACTOR, INCLUDE:

()	CROSS SECTIONS
()	RIGHT-OF-WAY PLANS (WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR)

BRIDGE PROJECT NOTES

SECTION 100

1. ANY DAMAGE TO ITEMS NOTED TO BE RELOCATED OR RESET BY THE CONTRACTOR, AT THE DISCRETION OF THE ENGINEER, SHALL BE REPAIRED AND/OR REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

SECTION 200

2. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 a. WOOD PLANK SIDEWALKS
 b. WOOD SIDEWALK STRINGERS AND ATTACHMENT ANGLES

SECTION 600

3. STRUCTURAL STEEL:
 PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M270 (ASTM A709), GRADE 36, EXCEPT WHEN NOTED OTHERWISE.

PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH AASHTO/AWS D1.5 BRIDGE WELDING CODE AND CONTRACT DOCUMENTS. MAKE TACK WELDS WITH THE SAME TYPE OF ELECTRODE AND INCORPORATE IN THE FINAL WELD.

ALL BOLTED CONNECTIONS SHALL BE MADE WITH ASTM A325, TYPE 1, HIGH STRENGTH BOLTS UNLESS OTHERWISE NOTED. NUTS SHALL MEET ASTM A563 AND WASHER SHALL MEET ASTM F436.

STRUCTURAL STEEL DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT CONTRACTOR'S SOLE EXPENSE.

4. COATINGS:
 ALL EXISTING STRUCTURAL STEEL AS DIRECTED IN THE PLANS, SHALL BE CLEANED AND PAINTED IN ACCORDANCE WITH ITEM 616000 - CLEANING AND PAINTING EXISTING STEEL.

PAINTING OF NEW STRUCTURAL STEEL SHALL BE INCIDENTAL TO ITEM 615001 - STEEL STRUCTURES AND ITEM 615006 - STEEL STRUCTURES REPAIR.

THE FINAL COLOR SHALL BE FEDERAL STANDARD COLOR NO. 24172 (GREEN) OF FED-STD-595C, OR MATCH EXISTING. THE COLOR SHALL BE SUBMITTED FOR APPROVAL.

NOTE THAT THE EXISTING PAINT MAY CONTAIN LEAD.

SECTION 800

5. MAINTENANCE OF TRAFFIC:
 MAINTENANCE OF TRAFFIC WILL BE IN ACCORDANCE WITH THE APPROVED DETOUR PLAN. ALL MOT ITEMS WILL BE INCLUDED IN ITEM 801500 - MAINTENANCE OF TRAFFIC, ALL INCLUSIVE.

MISCELLANEOUS

6. DESIGN SPECIFICATIONS:
 (A) 2017 DELDOT BRIDGE DESIGN MANUAL
 (B) 2014 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH ED., U.S. CUSTOMARY UNITS
 (C) PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH THE 2016 DELDOT STANDARD SPECIFICATIONS

7. EXISTING CONDITIONS:
 ALL EXISTING DIMENSIONS AND ELEVATIONS ARE BASED ON THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, GEOMETRY, AND ELEVATIONS AS NECESSARY PRIOR TO ORDERING ANY MATERIALS AND COMMENCING CONSTRUCTION TO ENSURE PROPER FIT OF THE PROPOSED CONSTRUCTION. PAYMENT SHALL BE INCIDENTAL TO ITEM 763501 - CONSTRUCTION ENGINEERING.

THE CONTRACTOR SHALL NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN DRAWINGS OR MADE AVAILABLE BY THE DEPARTMENT OR ITS AUTHORIZED AGENTS AS ACCURATE REPRESENTATION OF ANY OF THE CONDITIONS THAT WILL BE ENCOUNTERED IN THE FIELD.

THE INFORMATION SHOWN ON THESE PLANS FOR THE EXISTING BRIDGE MAY NOT BE ACCURATE AND SHOULD NOT BE CONSIDERED THE SOLE BASIS FOR COMPUTATION OF UNIT PRICES FOR BIDDING PURPOSES. THE CONTRACTOR SHALL ASSUME THAT CONDITIONS AFFECTING THE COST AND/OR QUANTITIES OF THE WORK TO BE PERFORMED MAY DIFFER FROM THOSE INDICATED AND MAY NEED TO BE VERIFIED.

PLANS OF THE EXISTING STRUCTURE ARE AVAILABLE AND CAN BE OBTAINED THROUGH THE DEPARTMENT. ALL STATIONING AND DIMENSIONS SHOWN ON THESE DRAWINGS WERE TAKEN FROM THE EXISTING PLANS AND SHOWN BE VERIFIED IN THE FIELD. THE EXISTING PLANS ARE AS FOLLOWS:

CONTRACT NO.	DESCRIPTION
42B	SEAFORD BRIDGE
42C	TRUNNION BASCULE BRIDGE OVER NANTICOKE RIVER
1043A	SEAFORD BRIDGE REFLORING
67-10-005	REHABILITATION OF SEAFORD MOVABLE BRIDGE
89-076-02	REHABILITATION OF BRIDGE NO. 151 AT SEAFORD, DELAWARE

8. UTILITIES:
 SEE UTILITY STATEMENT FOR FURTHER INFORMATION ON UTILITY COORDINATION.

9. RIGHT-OF-WAY:
 ALL WORK SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY.

10. LOAD RATING:
 LOAD RATING PERFORMED USING LOAD AND RESISTANCE FACTOR RATING METHOD.

11. STORAGE OR STOCKPILING OF MATERIALS OR EQUIPMENT ON THE BRIDGE DECK IS PROHIBITED WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER. TO REQUEST STORAGE OR STOCKPILING AREAS ON THE BRIDGE, THE CONTRACTOR SHALL SUBMIT THE SPECIFIC LOCATIONS, DIMENSIONS, AND WEIGHTS OF EQUIPMENT OR MATERIALS TO BE STORED. REFER TO DELDOT STANDARD SPECIFICATIONS SECTION 104.16.

12. 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 STATE, 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 STATE, THE DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.

13. THE CONTRACTOR SHALL CONTACT THE CHIEF OF SCHEDULING FOR DART FIRST STATE, 14 DAYS TO THE START OF CONSTRUCTION AT 302-576-6191.

14. CONSTRUCTION SCHEDULE:
 PHASE 1 OF THIS PROJECT TO BEGIN AFTER THE END OF THE SCHOOL YEAR ON JUNE 17, 2019 AND MUST BE COMPLETE BEFORE JULY 12, 2019. THE BRIDGE MUST BE FULLY OPEN AND OPERATIONAL FOR VEHICLE, PEDESTRIAN AND MARINE TRAFFIC FOR NANTICOKE RIVERFEST ON JULY 13, 2019. PHASE 2 OF THIS PROJECT TO BEGIN AFTER NANTICOKE RIVERFEST ON JULY 15, 2019 AND MUST BE COMPLETE BEFORE THE BEGINNING OF THE SCHOOL YEAR ON AUGUST 26, 2019.

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ADDENDUMS / REVISIONS

NOT TO SCALE

**STRUCTURE MAINTENANCE
 CONTRACT,
 BRIDGE 3-151, FY19**

CONTRACT	BRIDGE NO.	BR 3-151
T201807601	DESIGNED BY:	JWS
COUNTY	CHECKED BY:	DEF
SUSSEX		

NOTES

SHEET NO.	3
TOTAL SHTS.	14

LOAD RATING SUMMARY (BRIDGE 3-151)

DESIGN VEHICLE	RATING FACTOR	RATING WEIGHT (TON)	CONTROLLING MEMBER	CONTROLLING POINT	LOAD EFFECT
HL-93 TRUCK (INVENTORY)	0.97	N/A	SPAN 3: GIRDER	106	FLANGE STRESS
HL-93 TANDEM (INVENTORY)	0.88	N/A	SPAN 3: INTERIOR FLOORBEAM	105	FLEXURE
HS-20 (INVENTORY)	1.08	38.71	SPAN 3: INTERIOR STRINGER	105	FLEXURE
HL-93 TRUCK (OPERATING)	1.26	N/A	SPAN 3: GIRDER	106	FLANGE STRESS
HL-93 TANDEM (OPERATING)	1.14	N/A	SPAN 3: INTERIOR FLOORBEAM	105	FLEXURE
HS-20 (OPERATING)	1.39	50.19	SPAN 3: INTERIOR STRINGER	105	FLEXURE
DE S220 (LEGAL)	1.97	39.50	SPAN 3: GIRDER	106	FLANGE STRESS
DE S335 (LEGAL)	1.11	38.88	SPAN 3: GIRDER	106	FLANGE STRESS
DE S437 (LEGAL)	1.05	38.64	SPAN 3: GIRDER	106	FLANGE STRESS
DE T330 (LEGAL)	1.73	51.77	SPAN 3: GIRDER	106	FLANGE STRESS
DE T435 (LEGAL)	1.47	51.49	SPAN 3: GIRDER	106	FLANGE STRESS
DE T540 (LEGAL)	1.35	53.95	SPAN 3: GIRDER	106	FLANGE STRESS

INDEX OF BRIDGE SHEETS

SHEET NO.	TITLE
4	INDEX OF DRAWINGS, LOAD RATINGS AND QUANTITIES
5	BRIDGE PLAN AND ELEVATION
6	FRAMING PLAN - SPAN 3
7	FLOORBEAM RETROFIT DETAILS
8	WEB PLATE REPAIR DETAILS - 1
9	WEB PLATE REPAIR DETAILS - 2
10	TRUNNION TIE PLATE REPAIR DETAIL & MISC. REPAIR DETAILS
TOTAL BRIDGE SHEETS: 7	

BRIDGE QUANTITIES

ITEM NO.	ITEM TITLE	UNIT	QUANTITY
211000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1
615001	STEEL STRUCTURES	LS	1
615004	REPLACING STEEL RIVETS/BOLTS	EACH	8
615006	STEEL STRUCTURE REPAIR	LS	1
615007	WELDING REPAIR	LF	4
616000	CLEANING AND PAINTING EXISTING STEEL	LS	1
616003	TESTING AND DISPOSAL OF EXISTING HAZARDOUS STEEL COATING	LS	1
621507	TIMBER SIDEWALK (COMPOSITE)	SF	584

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ADDENDUMS / REVISIONS

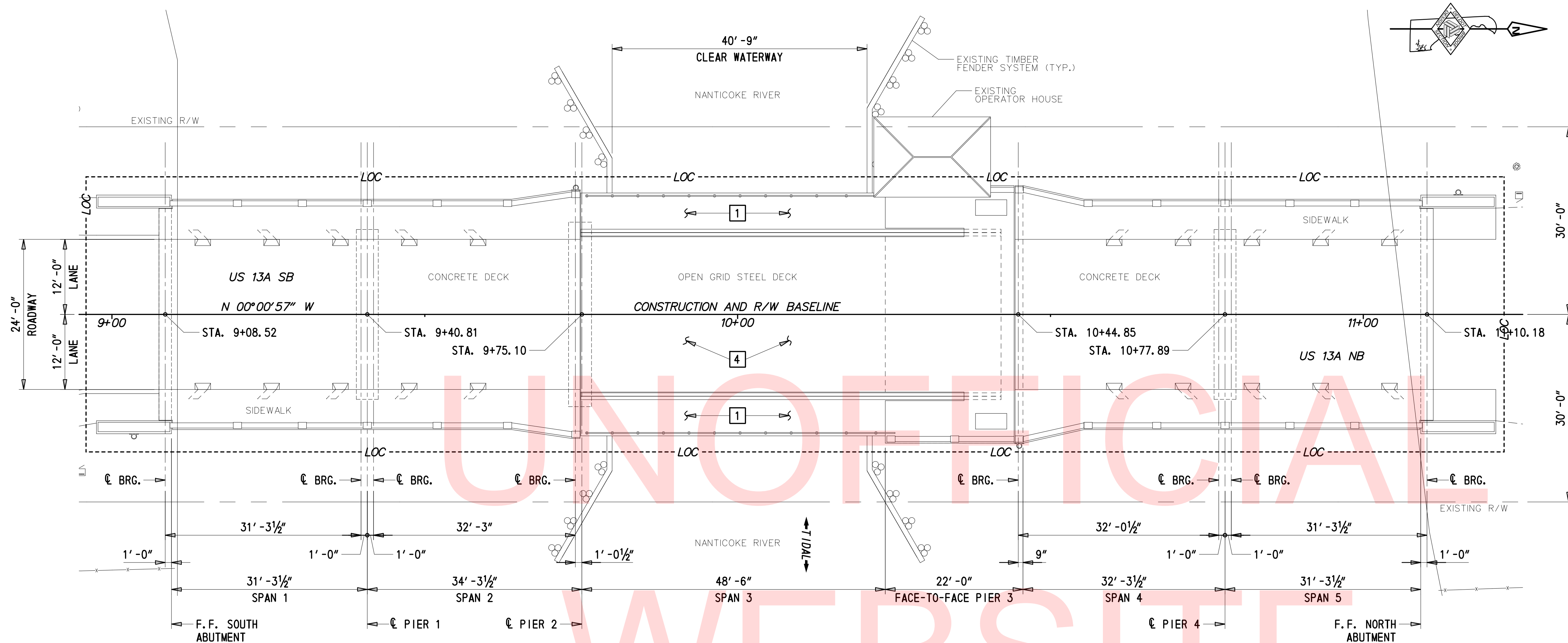
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**STRUCTURE MAINTENANCE
CONTRACT,
BRIDGE 3-151, FY19**

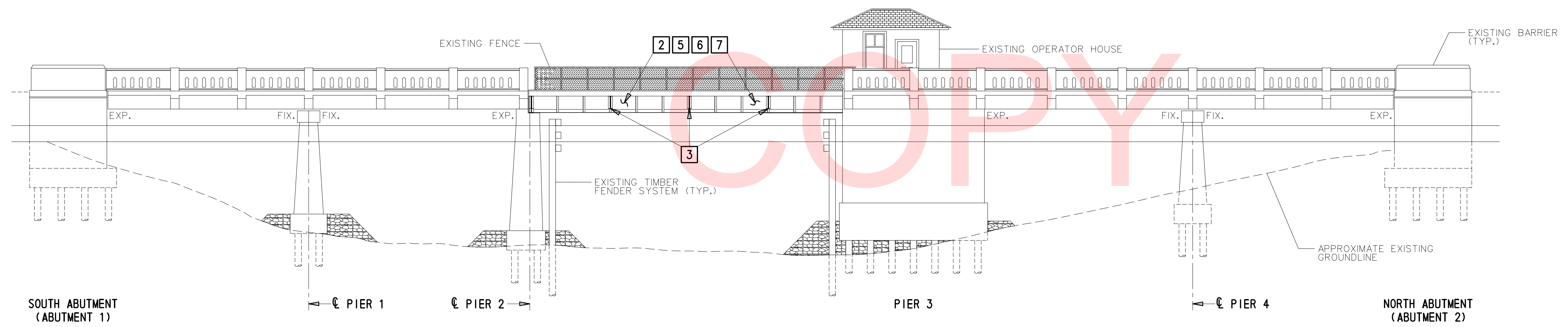
CONTRACT	BRIDGE NO.	BR 3-151
T201807601	DESIGNED BY:	JWS
COUNTY	CHECKED BY:	DEF
SUSSEX		

**INDEX OF DRAWINGS,
LOAD RATINGS
AND QUANTITIES**

SHEET NO.	4
TOTAL SHTS.	14

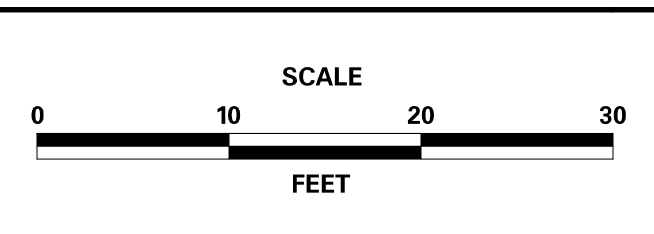


- REPAIRS:**
- 1 REMOVE AND REPLACE EXISTING WOOD SIDEWALK STRINGERS AND WOOD SIDEWALK PLANKING. ABANDONED BOLT HOLES TO BE FILLED WITH HS BOLTS. REMOVAL TO BE PAID UNDER ITEM NO. 211000. FURNISH AND PLACEMENT OF NEW COMPOSITE SIDEWALK PLANKING TO BE PAID UNDER ITEM NO. 621507. SIDEWALK STRINGERS AND BOLTS TO BE PAID UNDER ITEM NO. 615001.
 - 2 CLEAN AND PAINT ENTIRE STEEL BASCULE GIRDERS (INCLUDING TOP AND BOTTOM FLANGES, WEB AND FLOORBEAM CONNECTIONS), ALL FACES OF THE BASCULE RACK SUPPORTS AND TRUNNION SUPPORT TOWERS, STEEL SIDEWALK BRACKETS, SIDEWALK STRINGERS, AND SIDEWALK PEDESTRIAN RAILING IN SPAN 3. CAULK ALONG ALL BUILT-UP PORTIONS OF THE BASCULE GIRDERS AND CONNECTIONS TO GIRDERS. (MECHANICAL EQUIPMENT AND GEARING IN BASCULE PIT IS NOT TO BE PAINTED.) TOP FLANGE OF SIDEWALK BRACKETS SHALL BE CLEANED AND PAINTED AFTER REMOVAL OF EXISTING SIDEWALK PLANKING AND STRINGERS, BUT PRIOR TO PLACEMENT OF NEW SIDEWALK. CLEANING AND PAINTING TO BE PAID UNDER ITEM NO. 616000. TESTING AND DISPOSAL TO BE PAID UNDER ITEM NO. 616003. CAULKING SHALL BE INCIDENTAL TO ITEM NO. 616000.
 - 3 PERFORM FLOORBEAM RETROFIT ON FLOORBEAMS 2 THROUGH 4. FLOORBEAM RETROFIT TO BE PAID UNDER ITEM NO. 615001.
 - 4 REPLACE RIVETS WITH SECTION LOSS IN THE STEEL BASCULE GIRDERS TO THE LIMITS SHOWN IN THESE PLANS. REPLACING STEEL RIVETS TO BE PAID UNDER ITEM NO. 615004.
 - 5 PERFORM WEB PLATE REPAIR AND TRUNNION TIE PLATE REPAIR AT THE LOCATIONS SHOWN IN THESE PLANS. REPAIRS TO BE PAID UNDER ITEM NO. 615006.
 - 6 PERFORM CRACK REPAIRS AT THE LOCATIONS SHOWN IN THESE PLANS. CRACK REPAIRS TO BE PAID UNDER ITEM NO. 615006.
 - 7 PERFORM WELD REPAIRS AT THE LOCATIONS SHOWN IN THESE PLANS. WELD REPAIRS TO BE PAID UNDER ITEM NO. 615007.



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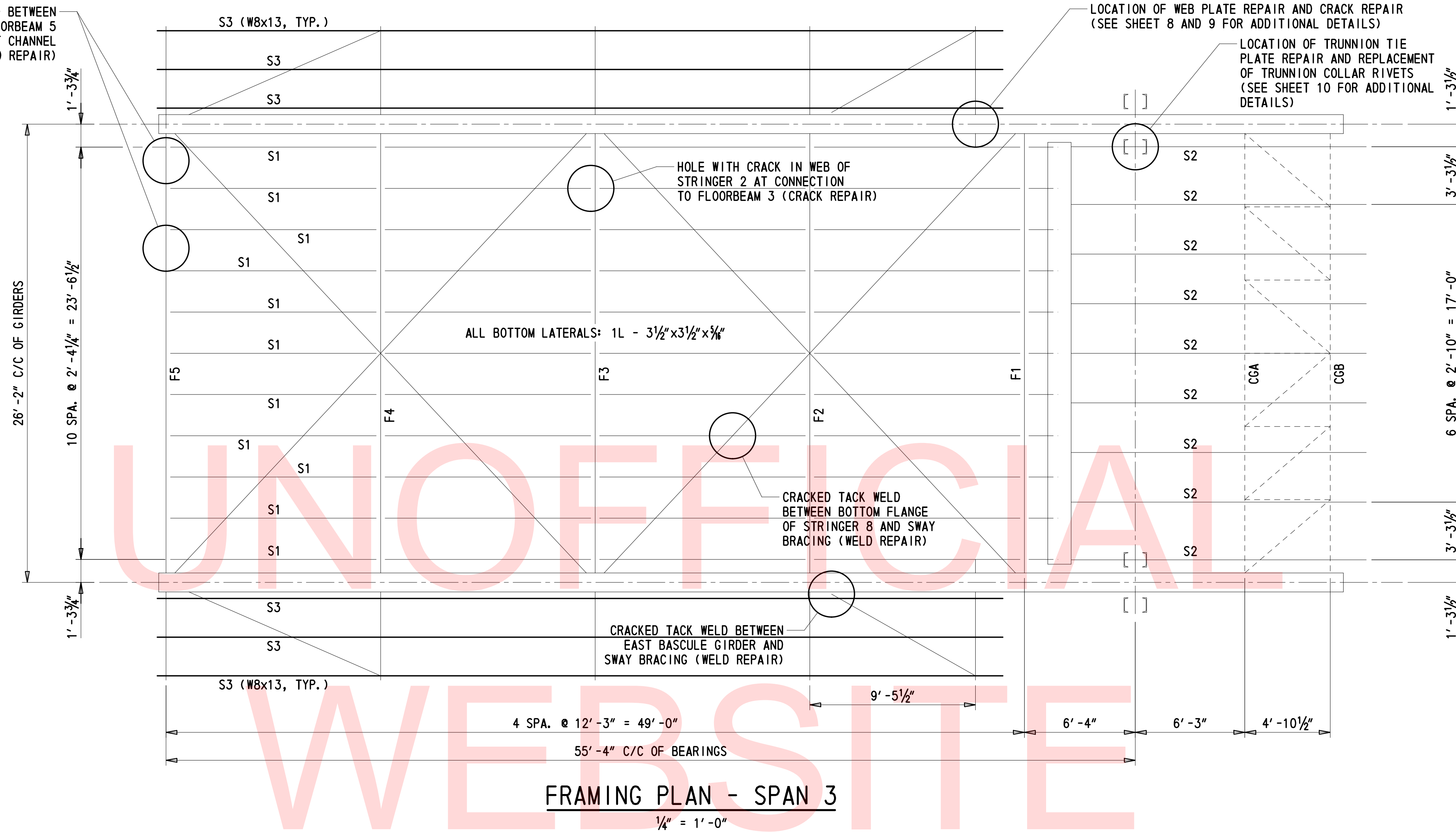


CONTRACT T201807601	BRIDGE NO. BR 3-151
COUNTY SUSSEX	DESIGNED BY: JWS
	CHECKED BY: DEF

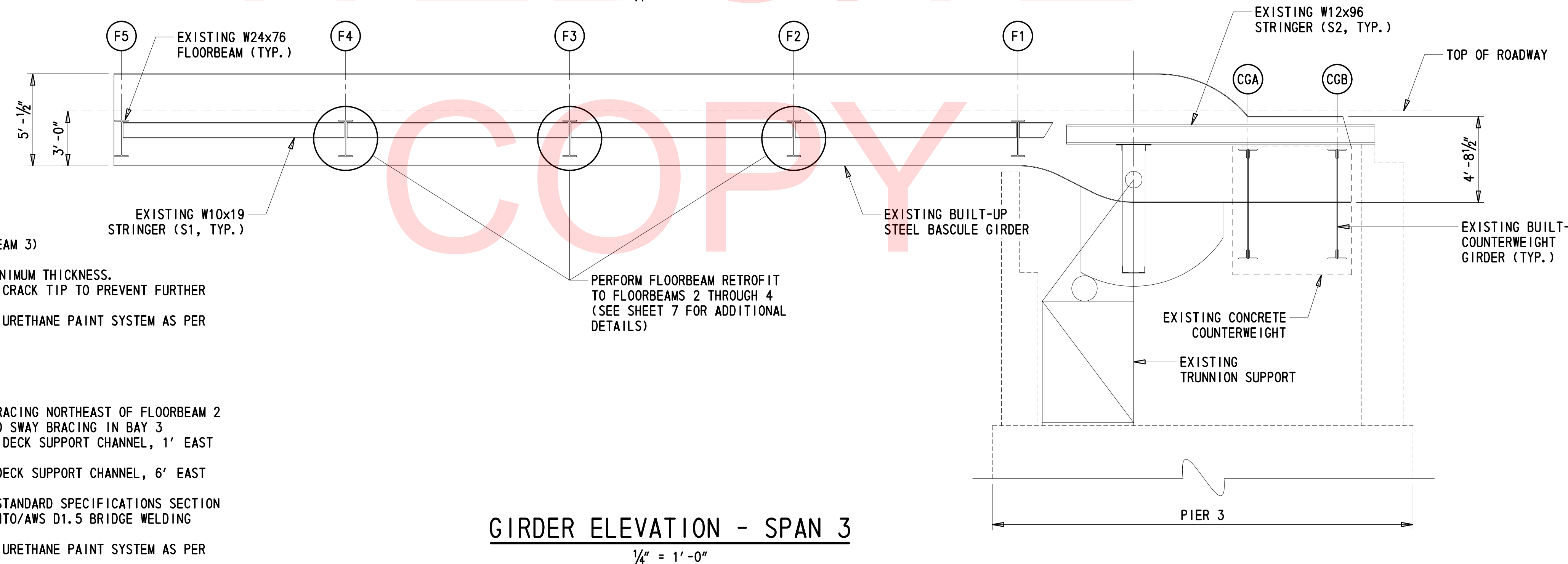
CRACKED TACK WELD BETWEEN TOP FLANGE OF FLOORBEAM 5 AND DECK SUPPORT CHANNEL (WELD REPAIR)

LOCATION OF WEB PLATE REPAIR AND CRACK REPAIR (SEE SHEET 8 AND 9 FOR ADDITIONAL DETAILS)

LOCATION OF TRUNNION TIE PLATE REPAIR AND REPLACEMENT OF TRUNNION COLLAR RIVETS (SEE SHEET 10 FOR ADDITIONAL DETAILS)



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NOTES FOR CRACK REPAIR LOCATIONS:

1. LOCATIONS OF CRACK REPAIRS ARE AS FOLLOWS:
 - WEB OF STRINGER 2 (AT CONNECTION SOUTH OF FLOORBEAM 3)
 - WEB OF WEST GIRDER (AT WEB PLATE REPAIR LOCATION)
2. IF EXISTING STEEL IS KNIFE-EDGED, GRIND EDGE TO 3/8" MINIMUM THICKNESS.
3. IF EXISTING CRACK IS NOTED, DRILL 1" DIAMETER HOLE AT CRACK TIP TO PREVENT FURTHER PROPOGATION.
4. TOUCH UP PAINT IN THE REPAIR AREA WITH MOISTURE CURED URETHANE PAINT SYSTEM AS PER DELDOT STANDARD SPECIFICATIONS SECTION 616.

NOTES FOR WELD REPAIR LOCATIONS:

1. LOCATIONS OF WELD REPAIRS ARE AS FOLLOWS:
 - TACK WELD BETWEEN EAST BASCULE GIRDER AND SWAY BRACING NORTHEAST OF FLOORBEAM 2
 - TACK WELD BETWEEN BOTTOM FLANGE OF STRINGER 8 AND SWAY BRACING IN BAY 3
 - TACK WELD BETWEEN TOP FLANGE OF FLOORBEAM 5 AND DECK SUPPORT CHANNEL, 1' EAST OF WEST CURB LINE
 - TACK WELD BETWEEN TOP FLANGE OF FLOORBEAM 5 AND DECK SUPPORT CHANNEL, 6' EAST OF WEST CURB LINE
2. WELD REPAIRS SHALL BE DONE IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATIONS SECTION 615 USING AN ACCEPTABLE REPAIR METHOD PROVIDED IN AASHTO/AWS D1.5 BRIDGE WELDING CODE AND APPROVED BY THE ENGINEER.
3. TOUCH UP PAINT IN THE REPAIR AREA WITH MOISTURE CURED URETHANE PAINT SYSTEM AS PER DELDOT STANDARD SPECIFICATIONS SECTION 616.

GIRDER ELEVATION - SPAN 3
1/4" = 1'-0"

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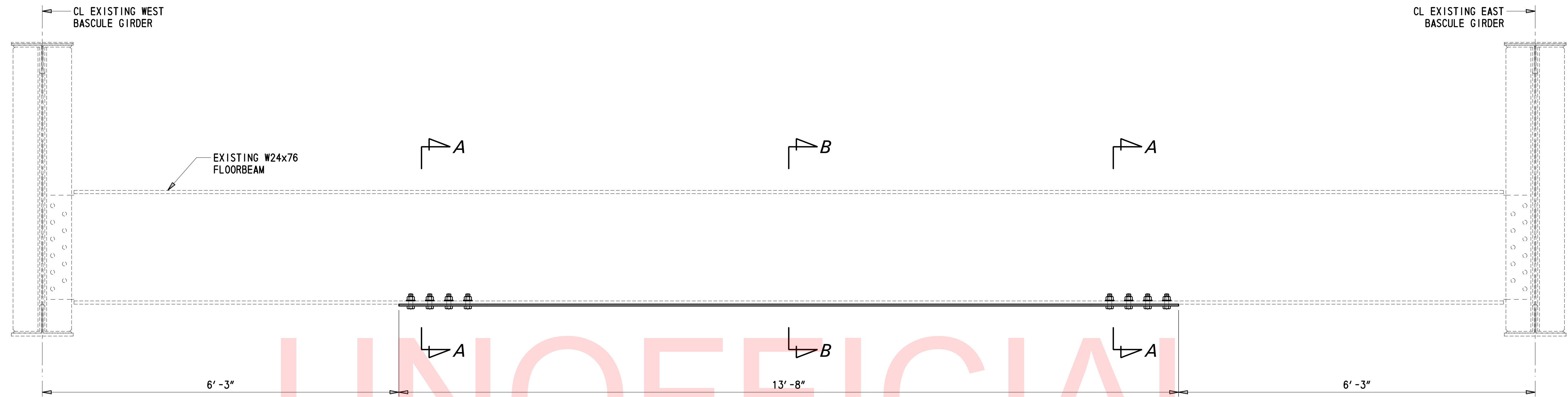
ADDENDUMS / REVISIONS

SCALE AS NOTED

STRUCTURE MAINTENANCE CONTRACT, BRIDGE 3-151, FY19

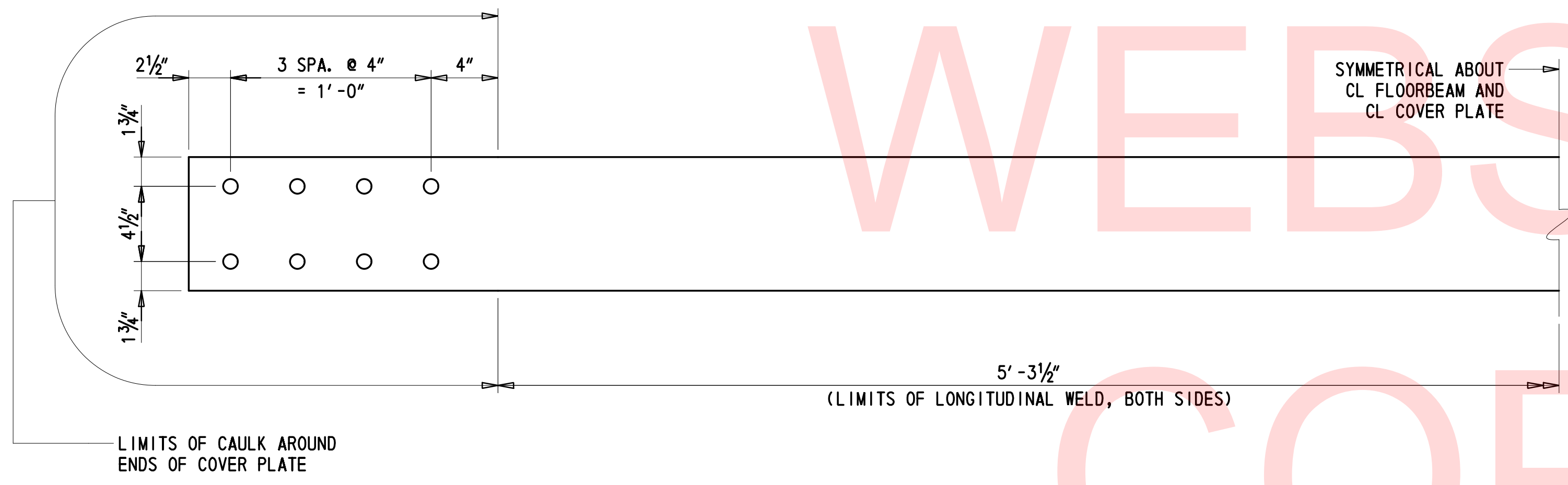
CONTRACT T201807601	BRIDGE NO. BR 3-151
COUNTY SUSSEX	DESIGNED BY: JWS
	CHECKED BY: DEF

FRAMING PLAN - SPAN 3	SHEET NO. 6
	TOTAL SHTS. 14



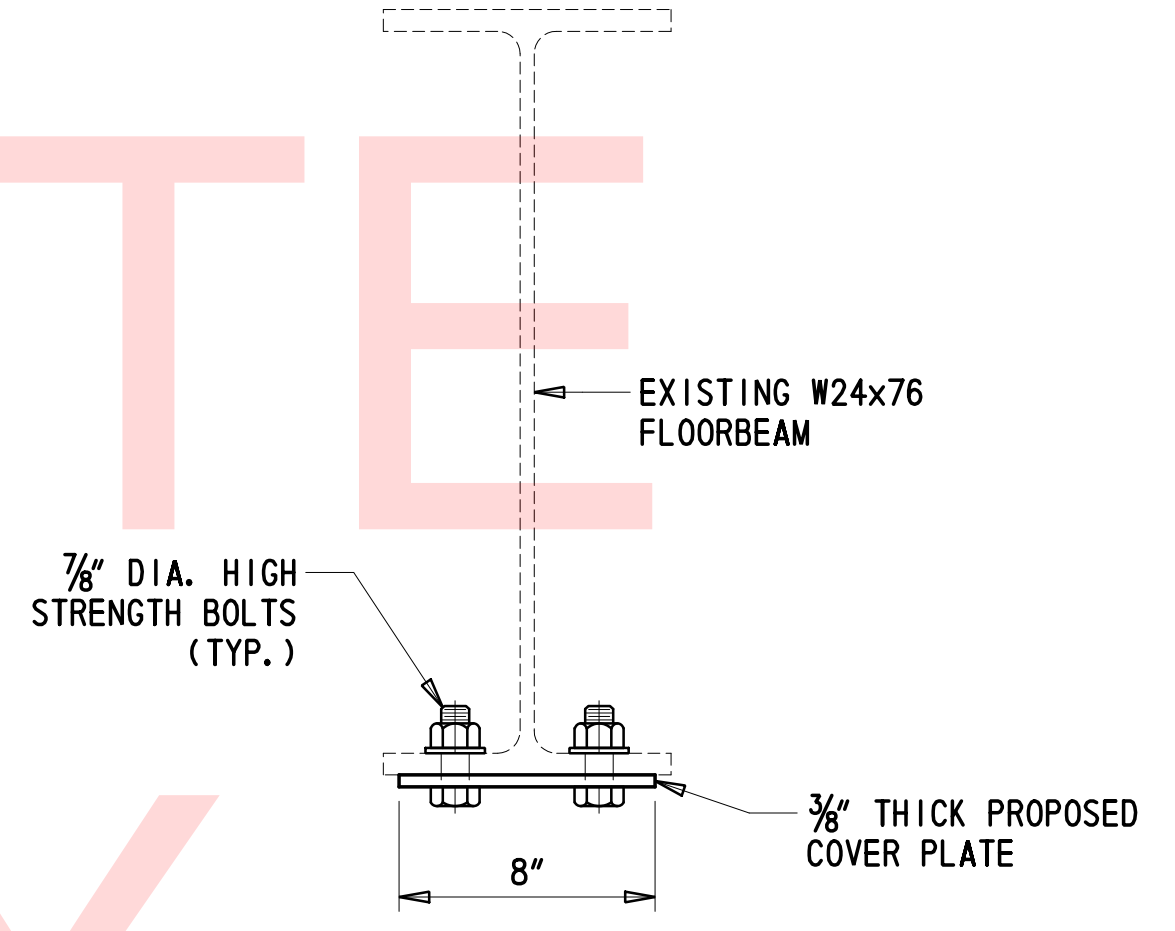
FLOORBEAM RETROFIT - ELEVATION

1" = 1'-0"



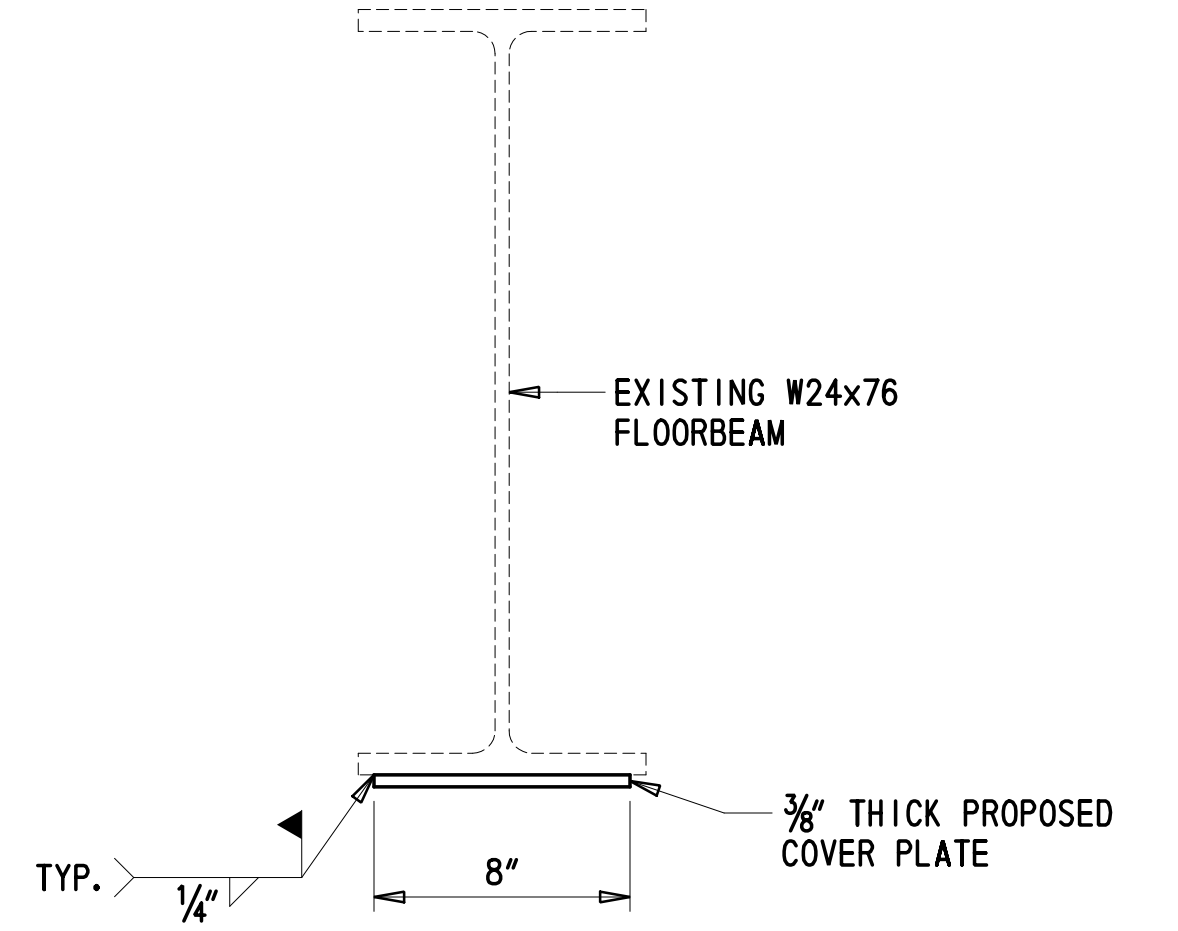
FLOORBEAM RETROFIT - PLAN

2" = 1'-0"



SECTION A-A

2" = 1'-0"



SECTION B-B

2" = 1'-0"

NOTES FOR FLOORBEAM RETROFIT REPAIR:

- FLOORBEAM RETROFIT REPAIR APPLIES TO FLOORBEAMS 2 THROUGH 4.
- ALL WORK SHALL CONFORM TO SECTION 615 OF THE DELDOT STANDARD SPECIFICATIONS.
- ALL NEW STEEL PLATES SHALL CONFORM TO ASTM A709, GRADE 50.
- ALL BOLTS SHALL BE 7/8" HIGH STRENGTH BOLTS IN ACCORDANCE WITH ASTM A325 TYPE 1. A HARDENED WASHER SHALL BE INSTALLED UNDERNEATH BOTH THE HEAD AND THE NUT AND SHALL BE IN CONFORMANCE WITH ASTM F436. NUTS SHALL BE IN CONFORMANCE WITH ASTM A563. BOLTS LENGTHS TO BE DETERMINED BY THE CONTRACTOR.
- ALL BOLT HOLES SHALL BE 3/16". FIELD DRILLED HOLES SHALL BE GROUND OR REAMED SMOOTH TO REMOVE ROUGH EDGES OR SURFACES.
- ALL EXISTING MATERIAL IN CONTACT WITH NEW MATERIAL SHALL BE CLEANED IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATIONS SECTION 616. PRIME ALL MATING SURFACES & EXPOSED STEEL PRIOR TO THE INSTALLATION OF NEW COMPONENTS. AFTER INSTALLATION, AN APPROVED MOISTURE-CURED URETHANE COATING CONFORMING TO SECTION 616 SHALL BE APPLIED TO THE REPAIRED AREA WITH A TOP COATING MATCHING THE EXISTING GIRDER COLOR.
- EDGES OF NEW PLATES SHALL BE CAULKED TO THE LIMITS INDICATED IN THE PLANS.
- EXISTING GIRDERS MAY CONTAIN LEAD-BASED PAINT. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTAINING AND DISPOSING OF THE MATERIALS PROPERLY IN ACCORDANCE WITH THE DELDOT STANDARD SPECIFICATIONS.

RECOMMENDED SEQUENCE OF CONSTRUCTION FOR FLOORBEAM RETROFIT REPAIR:

- PRIOR TO STARTING WORK, VERIFY DIMENSIONS OF EXISTING STEEL FOR PROPER FIT OF ALL COMPONENTS.
- DRILL HOLES IN BOTTOM FLANGE OF FLOORBEAMS THAT ARE TO BE RETROFITTED.
- BLAST CLEAN FAYING SURFACE TO REMOVE LOOSE DIRT, RUST, AND DEBRIS. PRIME ALL MATING SURFACES AND EXPOSED STEEL.
- BOLT NEW STEEL COVER PLATE ON FLOORBEAMS.
- WELD INTERFACE OF FLOORBEAM BOTTOM FLANGE AND COVER PLATE TO THE LIMITS INDICATED IN THE PLANS.
- CAULK REMAINING EDGES OF NEW COVER PLATE.
- APPLY URETHANE COATING AND TOP COAT TO BOTTOM FLANGE OF FLOORBEAM AND COVER PLATE.

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ADDENDUMS / REVISIONS

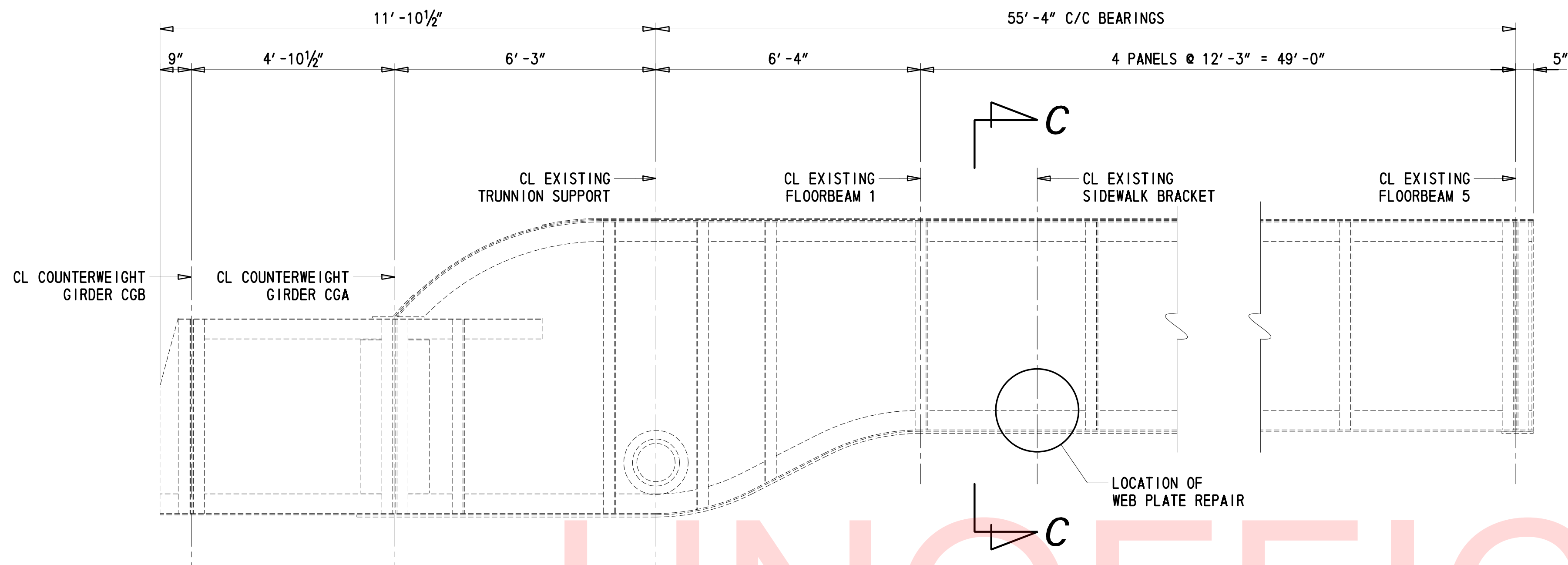
SCALE AS NOTED

STRUCTURE MAINTENANCE CONTRACT, BRIDGE 3-151, FY19

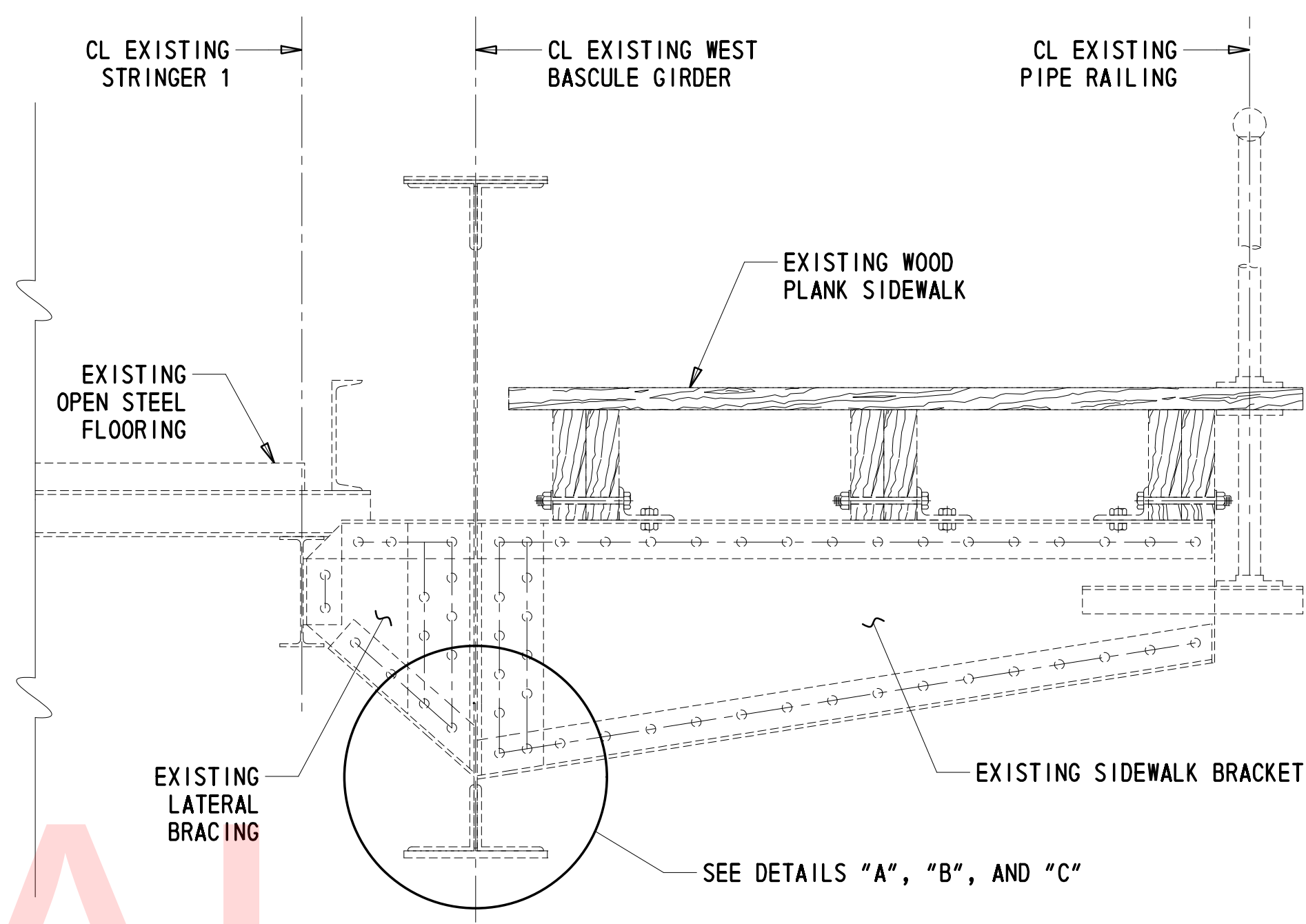
CONTRACT	BRIDGE NO.	BR 3-151
T201807601	DESIGNED BY:	JWS
COUNTY	CHECKED BY:	DEF
SUSSEX		

FLOORBEAM RETROFIT DETAILS

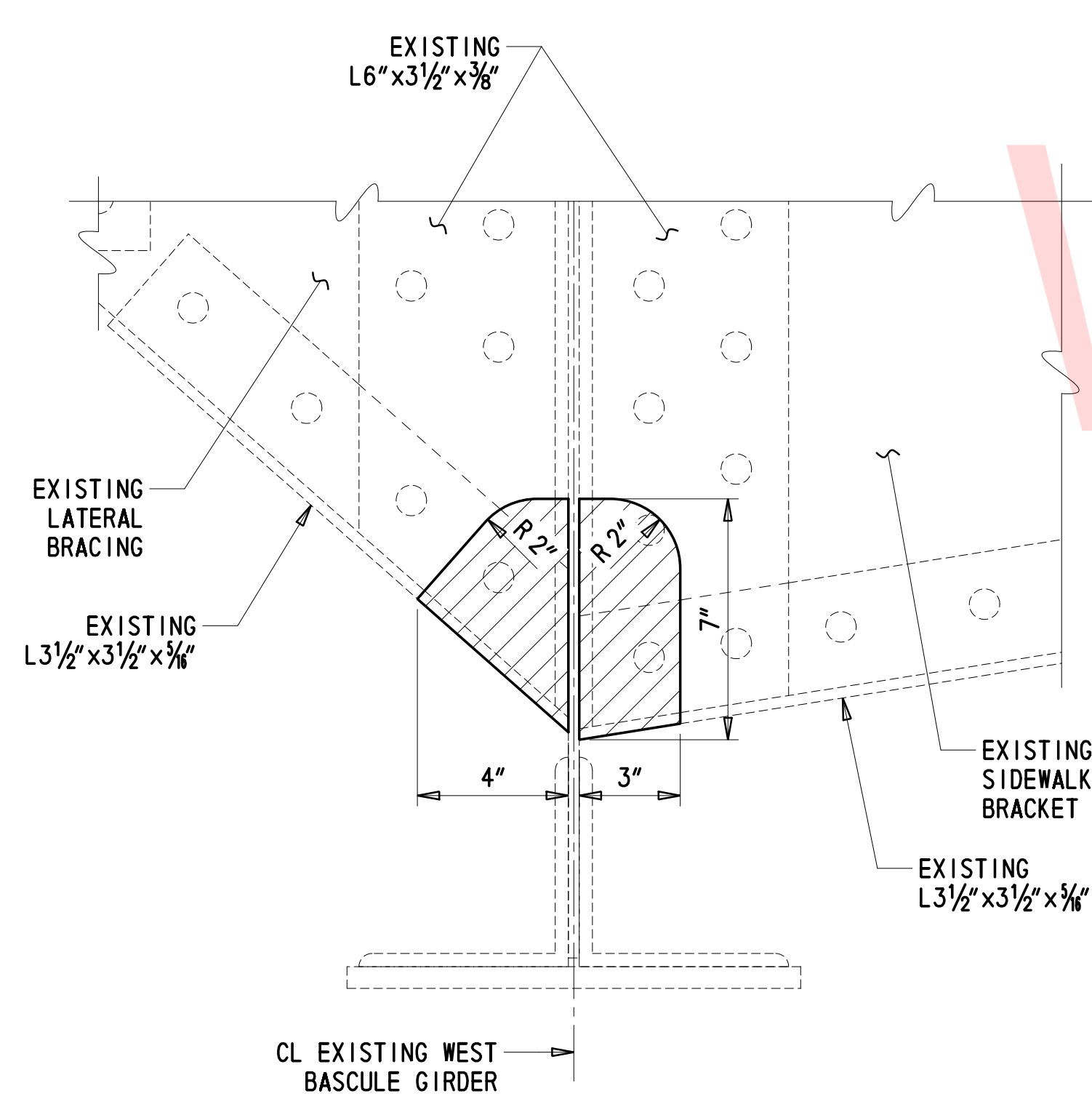
SHEET NO.	7
TOTAL SHTS.	14



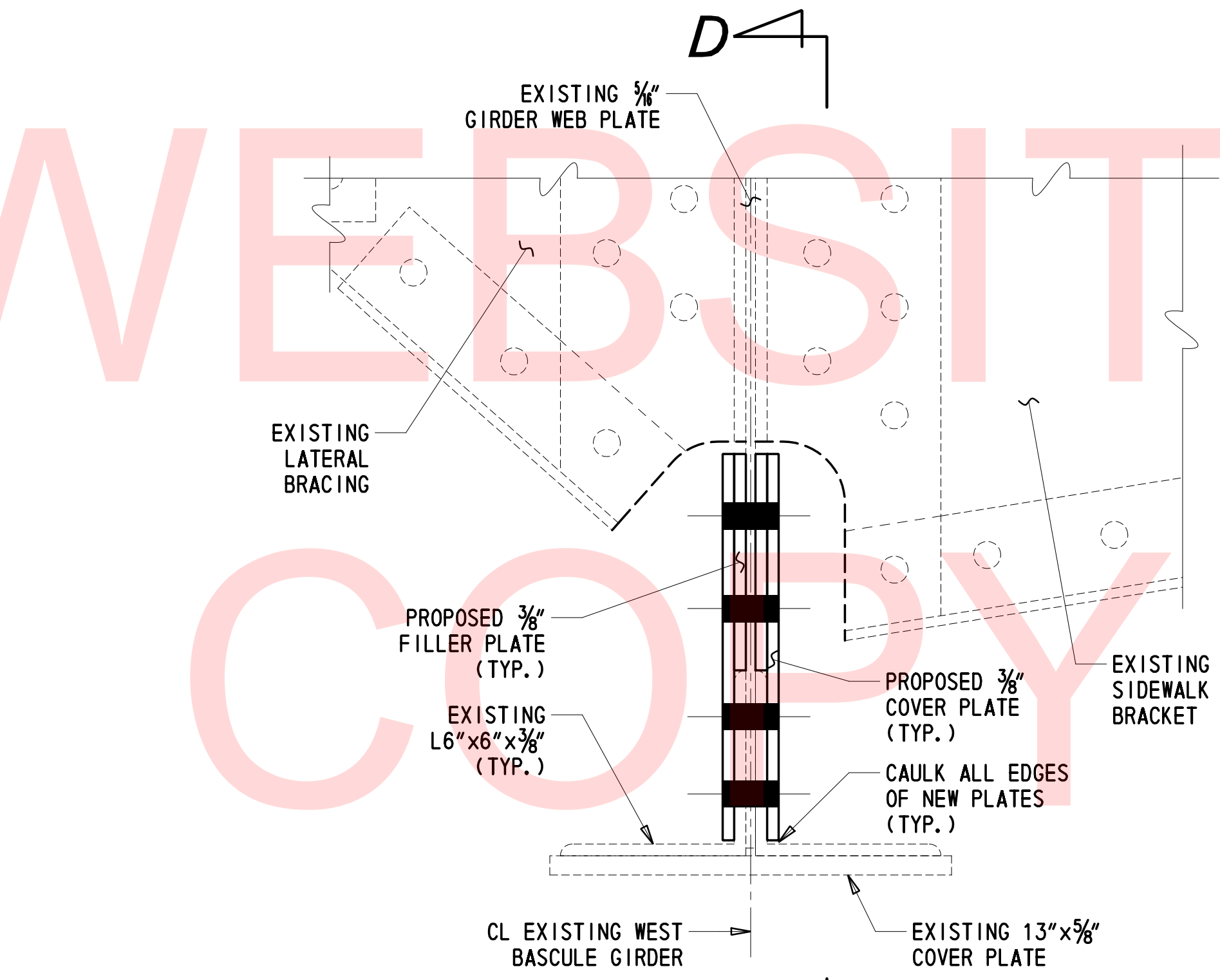
WEST BASCULE GIRDER ELEVATION (OUTSIDE FACE)
 $\frac{1}{2}'' = 1'-0''$



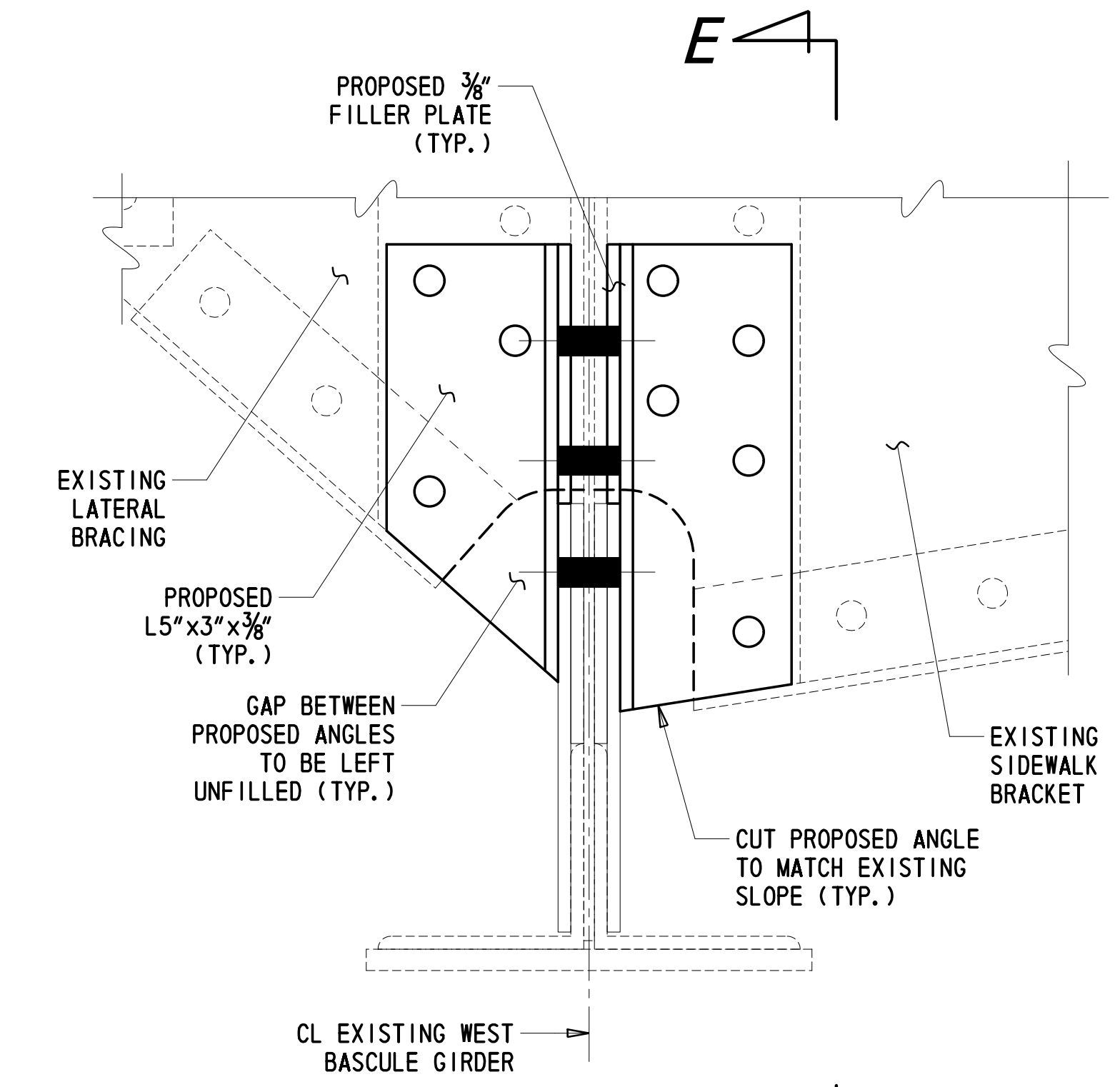
SECTION C-C
 $1'' = 1'-0''$



DETAIL A
 $3'' = 1'-0''$



DETAIL B
 $3'' = 1'-0''$



DETAIL C
 $3'' = 1'-0''$



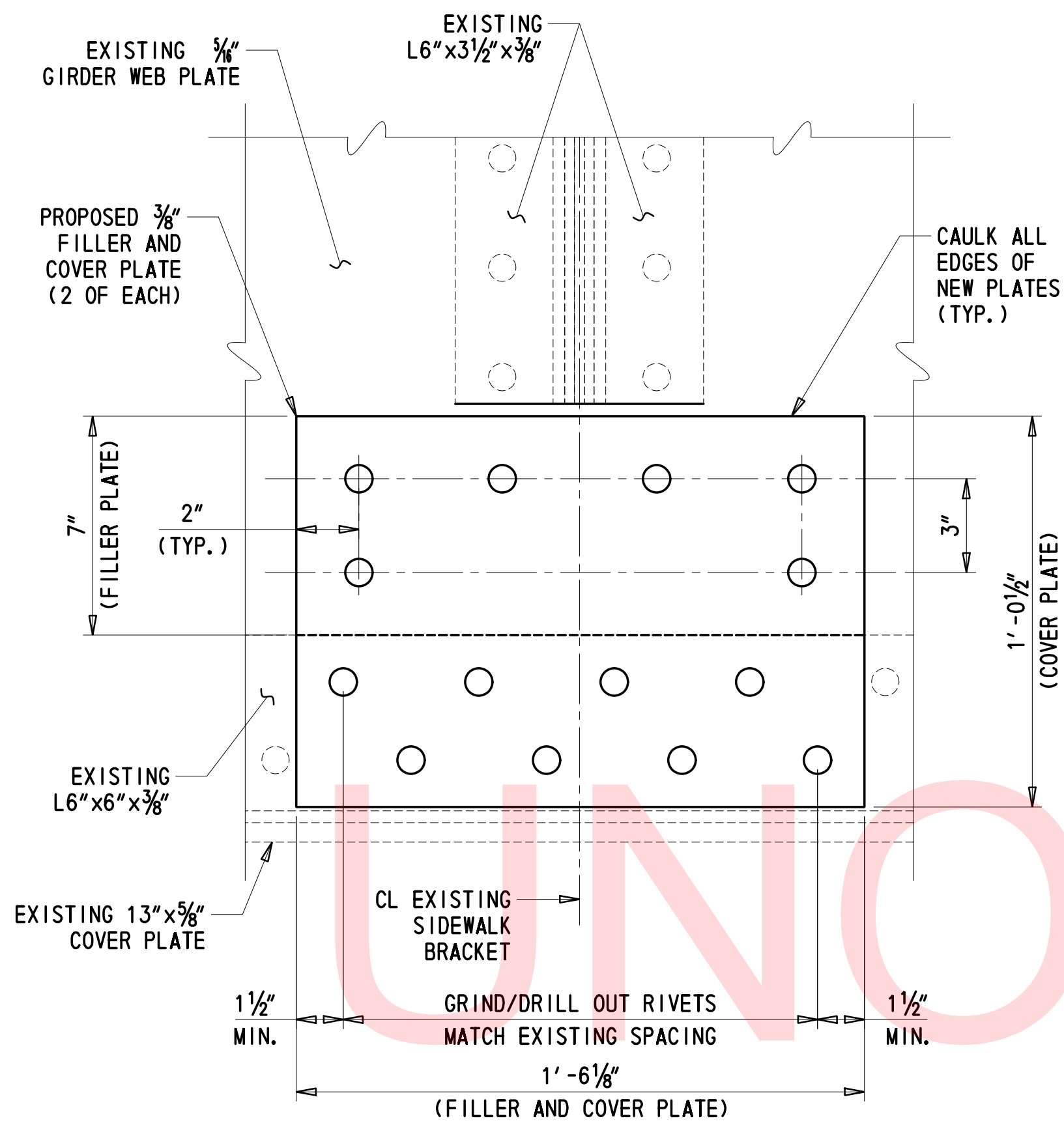
- CROSS REFERENCE NOTES:
1. FOR SECTION VIEWS, SEE SHEET 9.
 2. FOR REPAIR NOTES AND RECOMMENDED SEQUENCE OF CONSTRUCTION FOR WEB PLATE REPAIR, SEE SHEET 9.

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ADDENDUMS / REVISIONS

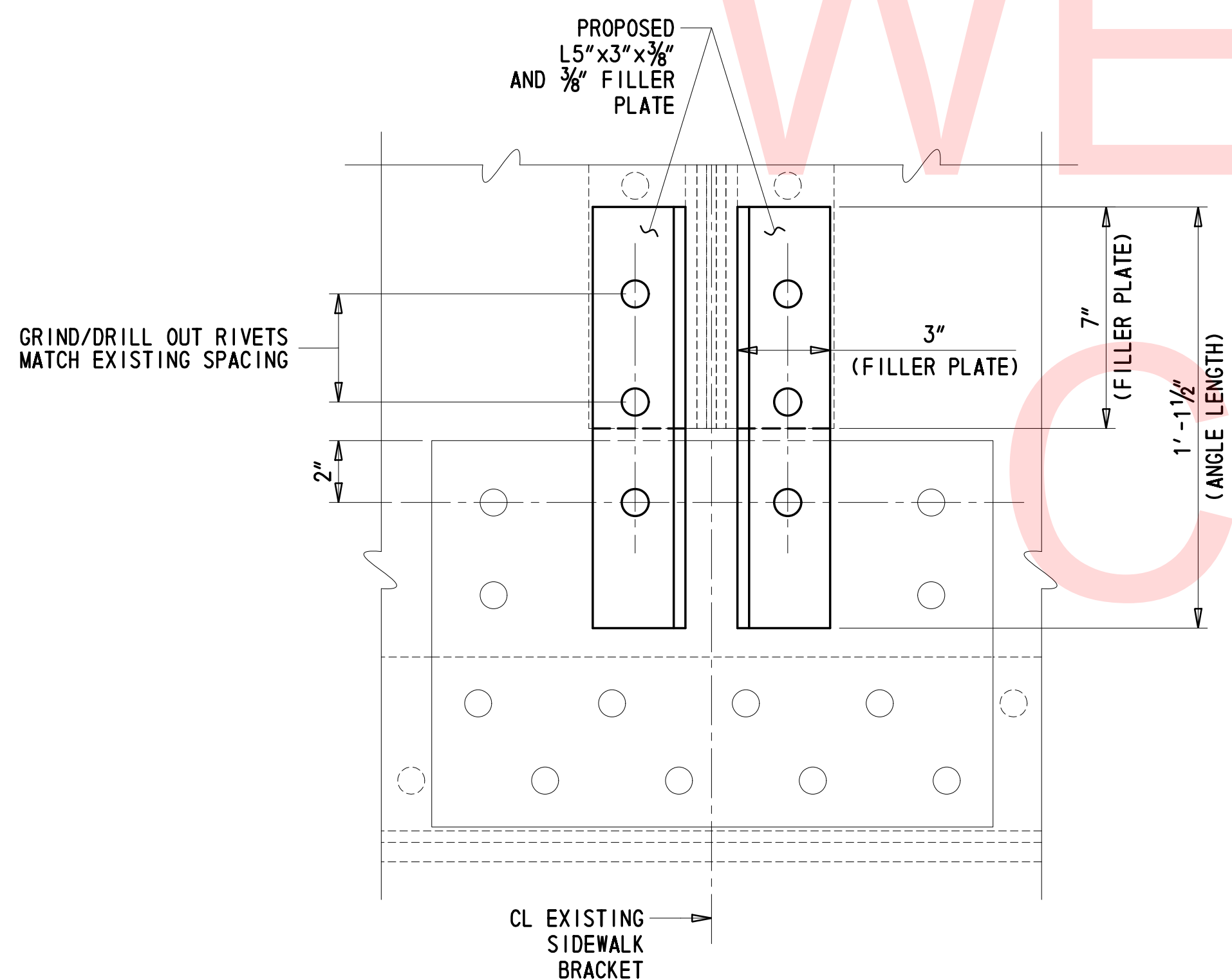
CONTRACT T201807601	BRIDGE NO. DESIGNED BY: JWS	BR 3-151
COUNTY SUSSEX	CHECKED BY: DEF	

SHEET NO. 8
TOTAL SHTS. 14



SECTION D-D

3" = 1'-0"



SECTION E-E

3" = 1'-0"

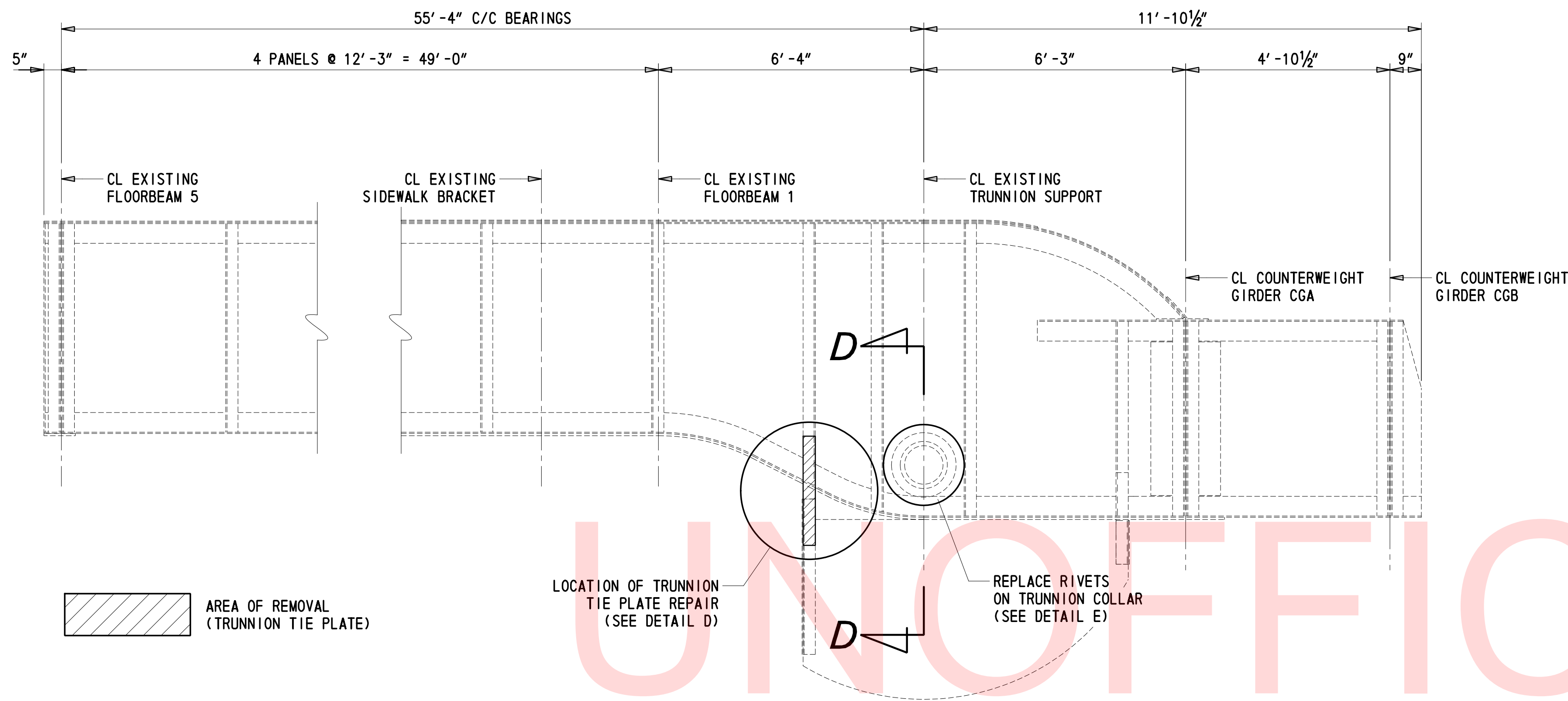
NOTES FOR WEB PLATE REPAIR:

1. WEB PLATE REPAIR APPLIES TO WEST GIRDER AT THE SIDEWALK SUPPORT BETWEEN FLOORBEAM 1 AND 2.
2. ALL WORK SHALL CONFORM TO SECTION 615 OF THE DELDOT STANDARD SPECIFICATIONS.
3. ALL NEW STEEL PLATES SHALL CONFORM TO ASTM A709, GRADE 36.
4. ALL BOLTS SHALL BE 7/8" HIGH STRENGTH BOLTS IN ACCORDANCE WITH ASTM A325 TYPE 1. A HARDENED WASHER SHALL BE INSTALLED UNDERNEATH BOTH THE HEAD AND THE NUT AND SHALL BE IN CONFORMANCE WITH ASTM F436. NUTS SHALL BE IN CONFORMANCE WITH ASTM A563. BOLTS LENGTHS TO BE DETERMINED BY THE CONTRACTOR.
5. ALL BOLT HOLES SHALL BE 1/4". FIELD DRILLED HOLES SHALL BE GROUND OR REAMED SMOOTH TO REMOVE ROUGH EDGES OR SURFACES.
6. ALL EXISTING MATERIAL IN CONTACT WITH NEW MATERIAL SHALL BE CLEANED IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATIONS SECTION 616. THIS INCLUDES BOTH SIDES OF THE WEB PLATE. PRIME ALL MATING SURFACES & EXPOSED STEEL PRIOR TO THE INSTALLATION OF NEW COMPONENTS. AFTER INSTALLATION, AN APPROVED MOISTURE-CURED URETHANE COATING CONFORMING TO SECTION 616 SHALL BE APPLIED TO THE REPAIRED AREA WITH A TOP COATING MATCHING THE EXISTING GIRDER COLOR.
7. IF EXISTING STEEL IS KNIFE-EDGED, GRIND EDGE TO 3/16" MINIMUM THICKNESS.
8. IF EXISTING CRACK IS NOTED, DRILL 1" DIAMETER HOLE AT CRACK TIP TO PREVENT FURTHER PROPOGATION.
9. THE AREAS OF SECTION LOSS AND PITTING SHALL BE FILLED WITH AN APPROVED METAL REINFORCED EPOXY FILLER JUST PRIOR TO INSTALLING NEW STEEL PLATES AND NEW FABRICATED SECTIONS.
10. PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION, AND CONSTRUCTION, THE CONTRACTOR SHALL CHECK THE ACCURACY OF THE DIMENSIONS OF THE EXISTING FASCIA GIRDER. IF THESE DIMENSIONS DO NOT AGREE WITH THOSE SHOWN ON THE DRAWINGS OR OTHER EXISTING DRAWINGS, THE CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS TO THE DIMENSIONS SHOWN ON THE PLANS TO ENSURE THAT CONSTRUCTION OF THE NEW COMPONENTS WILL PROPERLY FIT ONTO THE BASCULE GIRDER, AT NO ADDITIONAL COST TO THE DEPARTMENT.
11. ALL EDGES OF NEW PLATES SHALL BE CAULKED AS INDICATED IN DETAILS.
12. EXISTING GIRDERS MAY CONTAIN LEAD-BASED PAINT. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTAINING AND DISPOSING OF THE MATERIALS PROPERLY IN ACCORDANCE WITH THE DELDOT STANDARD SPECIFICATIONS.

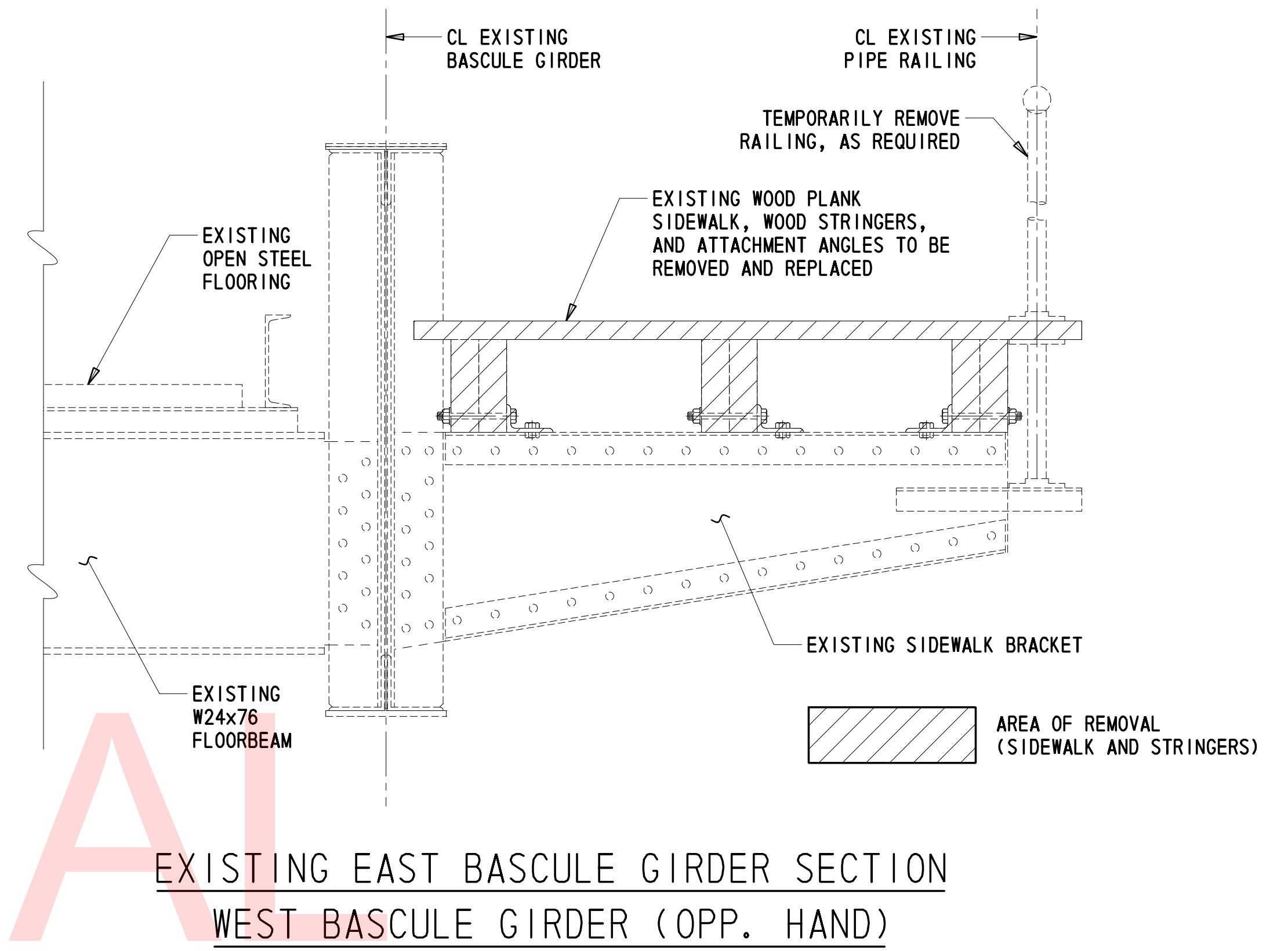
RECOMMENDED SEQUENCE OF CONSTRUCTION FOR WEB PLATE REPAIR:

1. PRIOR TO STARTING WORK, VERIFY DIMENSIONS OF EXISTING STEEL FOR PROPER FIT OF ALL COMPONENTS.
2. REMOVE PORTION OF EXISTING SIDEWALK BRACKET AND LATERAL BRACING AS SHOWN IN DETAIL "A".
3. BLAST CLEAN REPAIR AREAS TO REMOVE LOOSE DIRT, RUST, AND DEBRIS. PRIME ALL MATING SURFACES AND EXPOSED STEEL.
4. FILL ALL AREAS OF SECTION LOSS AND PITTING IN THE REPAIR AREA ACCORDING TO MANUFACTURERS INSTRUCTIONS WITH ONE OF THE FOLLOWING EPOXY GEL REPAIR PRODUCTS OR APPROVED EQUIVALENT: DEVCON PLASTIC STEEL PUTTY (A), BELZONA 1111 OR BELZONA 1121.
5. INSTALL NEW STEEL COMPONENTS ON EXISTING GIRDER AND APPLY URETHANE COATING AND TOP COAT. CAULK EDGES OF NEW PLATES.

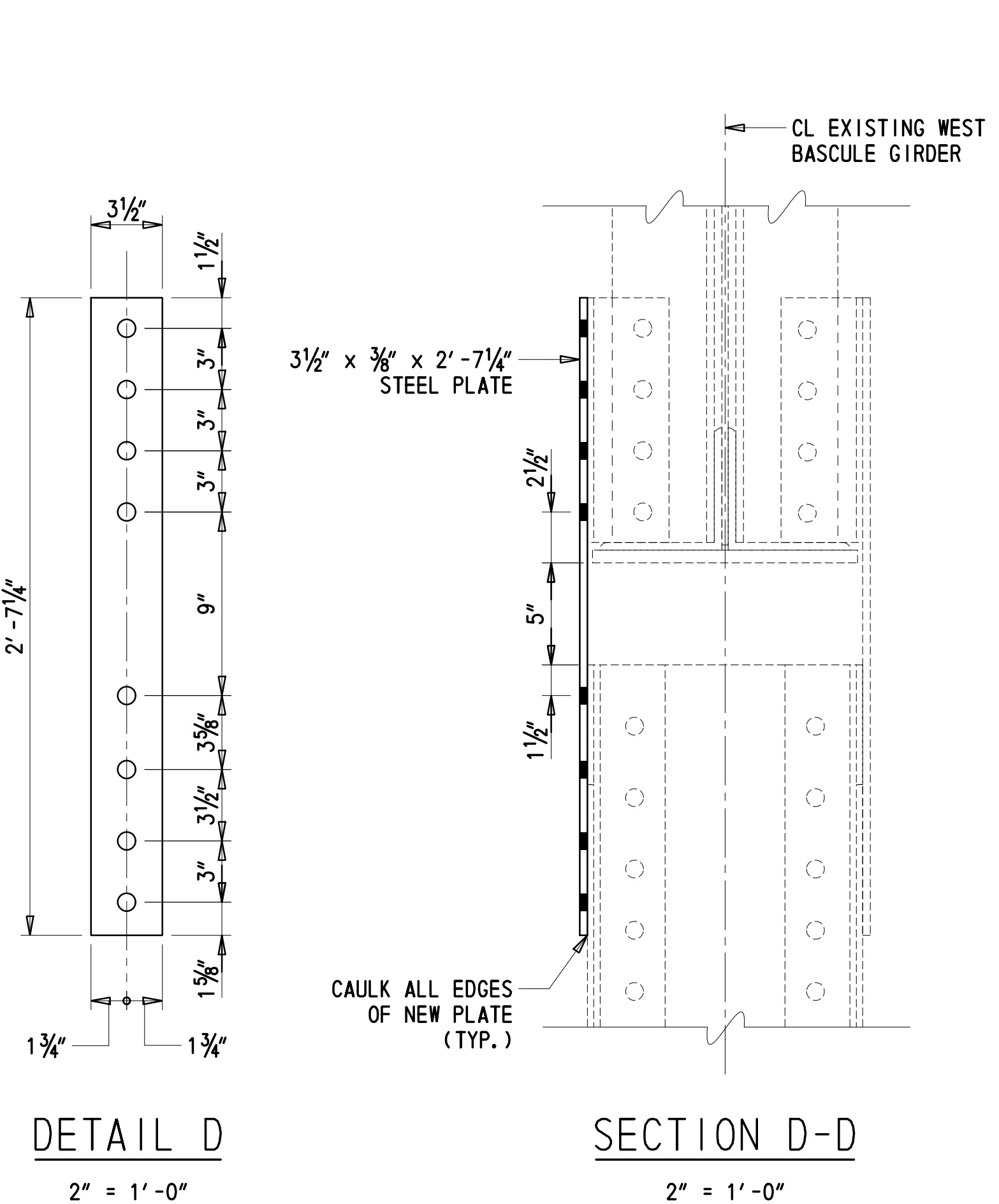
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WEST BASCULE GIRDER ELEVATION (INSIDE FACE)

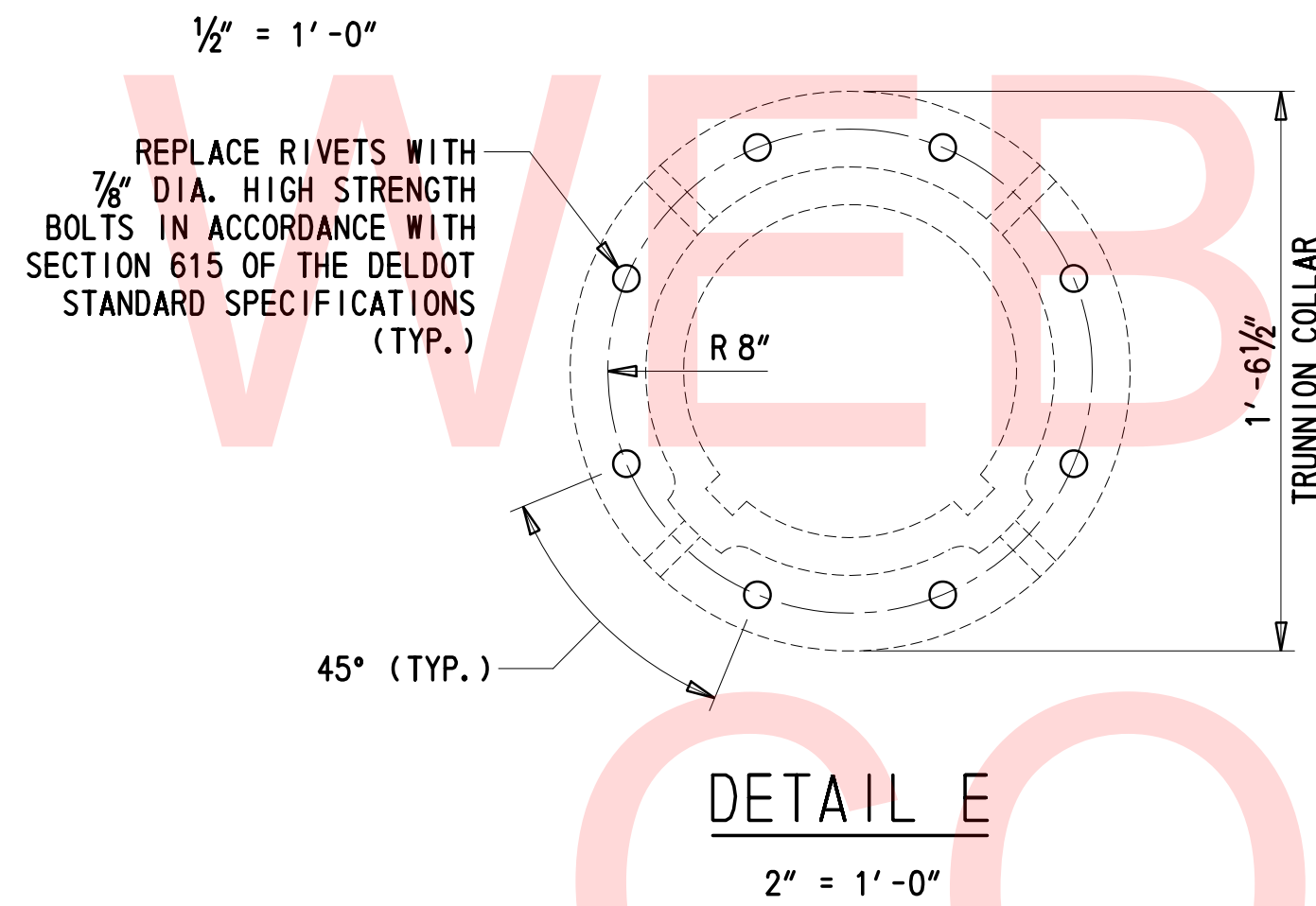


EXISTING EAST BASCULE GIRDER SECTION WEST BASCULE GIRDER (OPP. HAND)

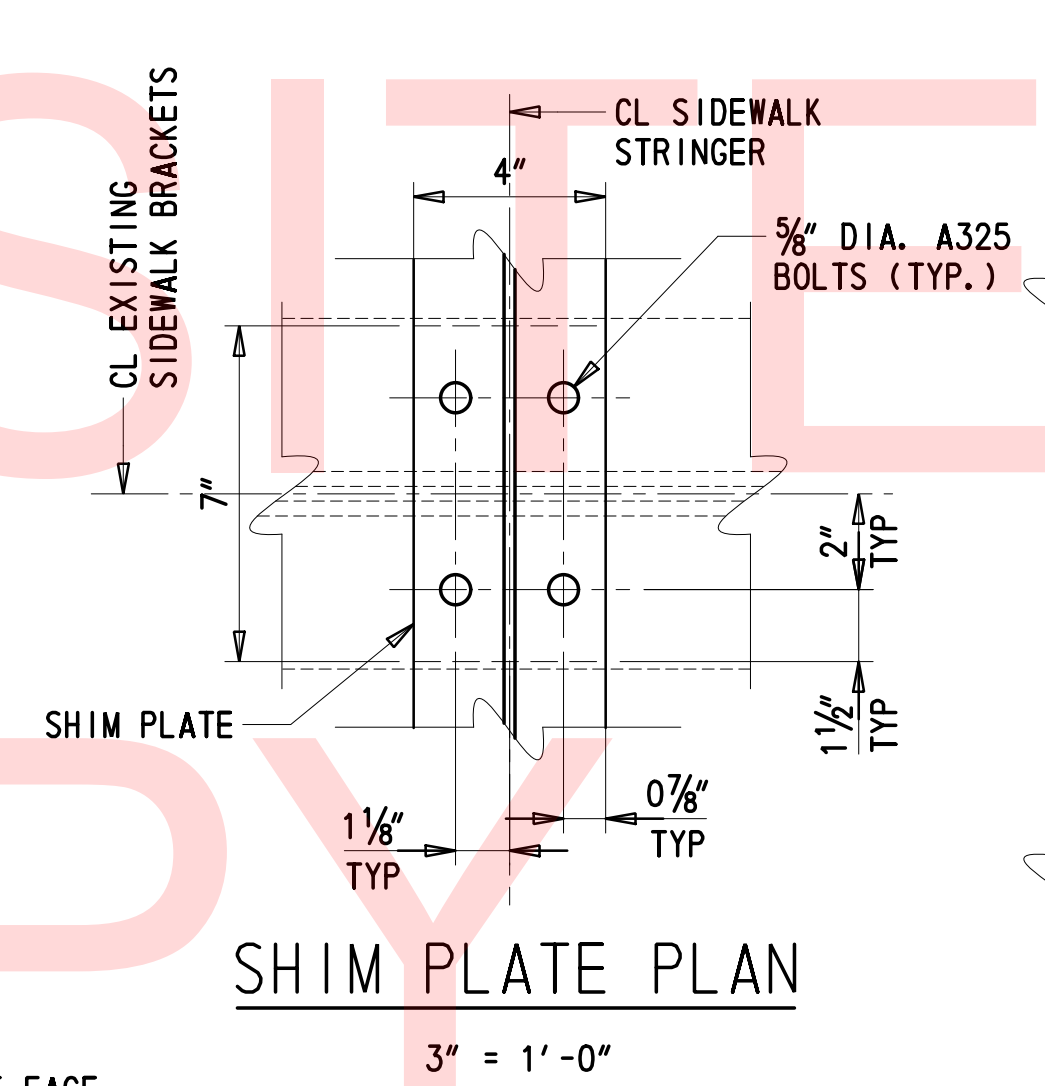


DETAIL D

SECTION D-D



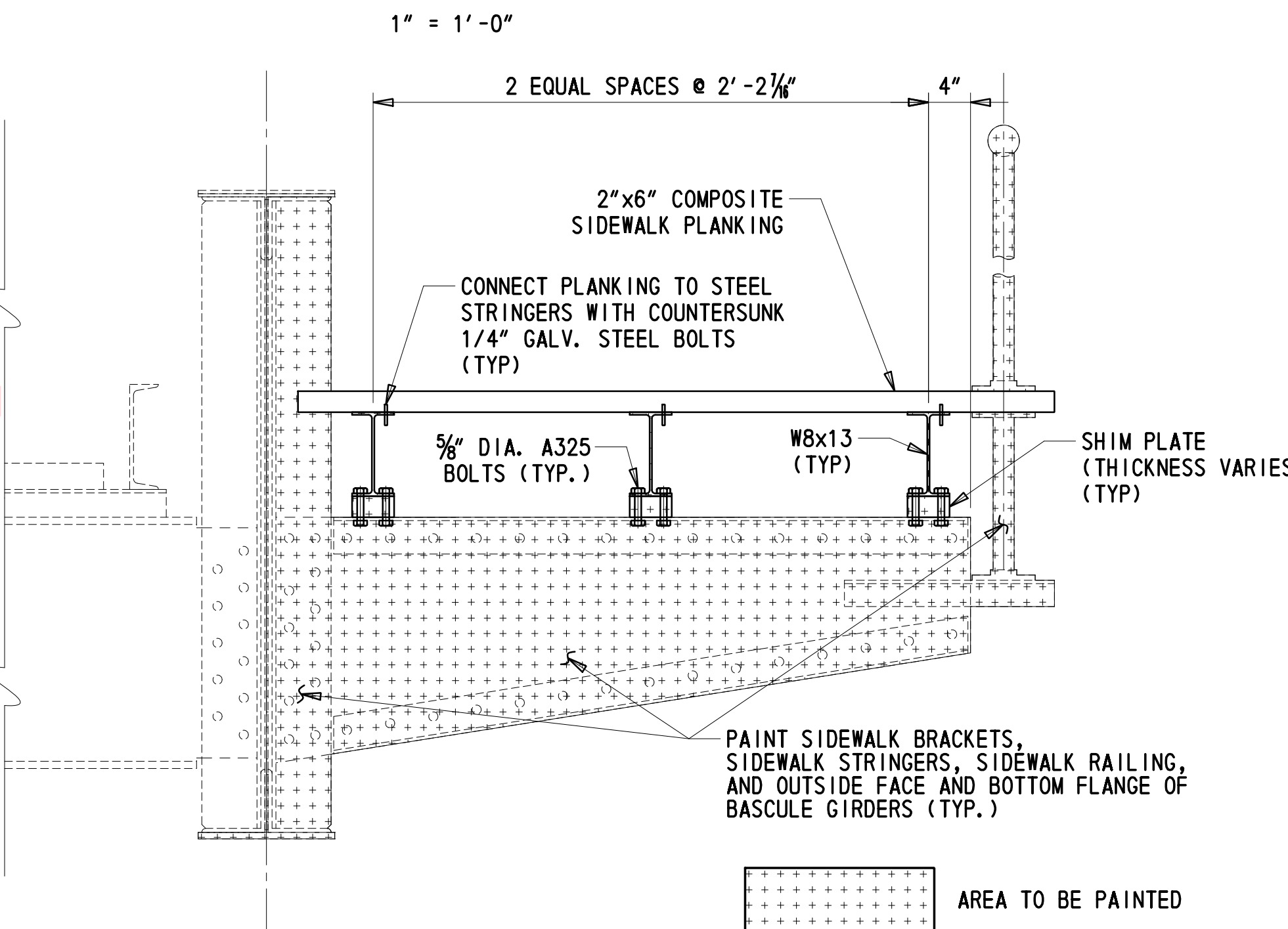
DETAIL E



SHIM PLATE PLAN

NOTES FOR TRUNNION TIE PLATE REPAIR:

1. TRUNNION TIE PLATE REPAIR APPLIES TO WEST BASCULE GIRDER ON THE INSIDE FACE.
2. ALL WORK SHALL CONFORM TO SECTION 615 OF THE DELDOT STANDARD SPECIFICATIONS.
3. ALL NEW STEEL PLATES SHALL CONFORM TO ASTM A709, GRADE 36.
4. ALL BOLTS SHALL BE 7/8" HIGH STRENGTH BOLTS IN ACCORDANCE WITH ASTM A325 TYPE 1. A HARDENED WASHER SHALL BE INSTALLED UNDERNEATH BOTH THE HEAD AND THE NUT AND SHALL BE IN CONFORMANCE WITH ASTM F436. NUTS SHALL BE IN CONFORMANCE WITH ASTM A563. BOLTS LENGTHS TO BE DETERMINED BY THE CONTRACTOR.
5. ALL BOLT HOLES SHALL BE 5/8". FIELD DRILLED HOLES SHALL BE GROUND OR REAMED SMOOTH TO REMOVE ROUGH EDGES OR SURFACES.
6. ALL EXISTING MATERIAL IN CONTACT WITH NEW MATERIAL SHALL BE CLEANED IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATIONS SECTION 616. PRIME ALL MATING SURFACES & EXPOSED STEEL PRIOR TO THE INSTALLATION OF NEW COMPONENTS. AFTER INSTALLATION, AN APPROVED MOISTURE-CURED URETHANE COATING CONFORMING TO SECTION 616 SHALL BE APPLIED TO THE REPAIRED AREA WITH A TOP COATING MATCHING THE EXISTING GIRDER COLOR.
7. PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION, AND CONSTRUCTION, THE CONTRACTOR SHALL CHECK THE ACCURACY OF THE DIMENSIONS OF THE EXISTING TIE PLATE. IF THESE DIMENSIONS DO NOT AGREE WITH THOSE SHOWN ON THE DRAWINGS OR OTHER EXISTING DRAWINGS, THE CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS TO THE DIMENSIONS SHOWN ON THE PLANS TO ENSURE THAT CONSTRUCTION OF THE NEW COMPONENTS WILL PROPERLY FIT ONTO THE BASCULE GIRDER, AT NO ADDITIONAL COST TO THE DEPARTMENT.
8. ALL EDGES OF NEW PLATES SHALL BE CAULKED AS INDICATED IN DETAILS.
9. EXISTING GIRDERS MAY CONTAIN LEAD-BASED PAINT. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTAINING AND DISPOSING OF THE MATERIALS PROPERLY IN ACCORDANCE WITH THE DELDOT STANDARD SPECIFICATIONS.

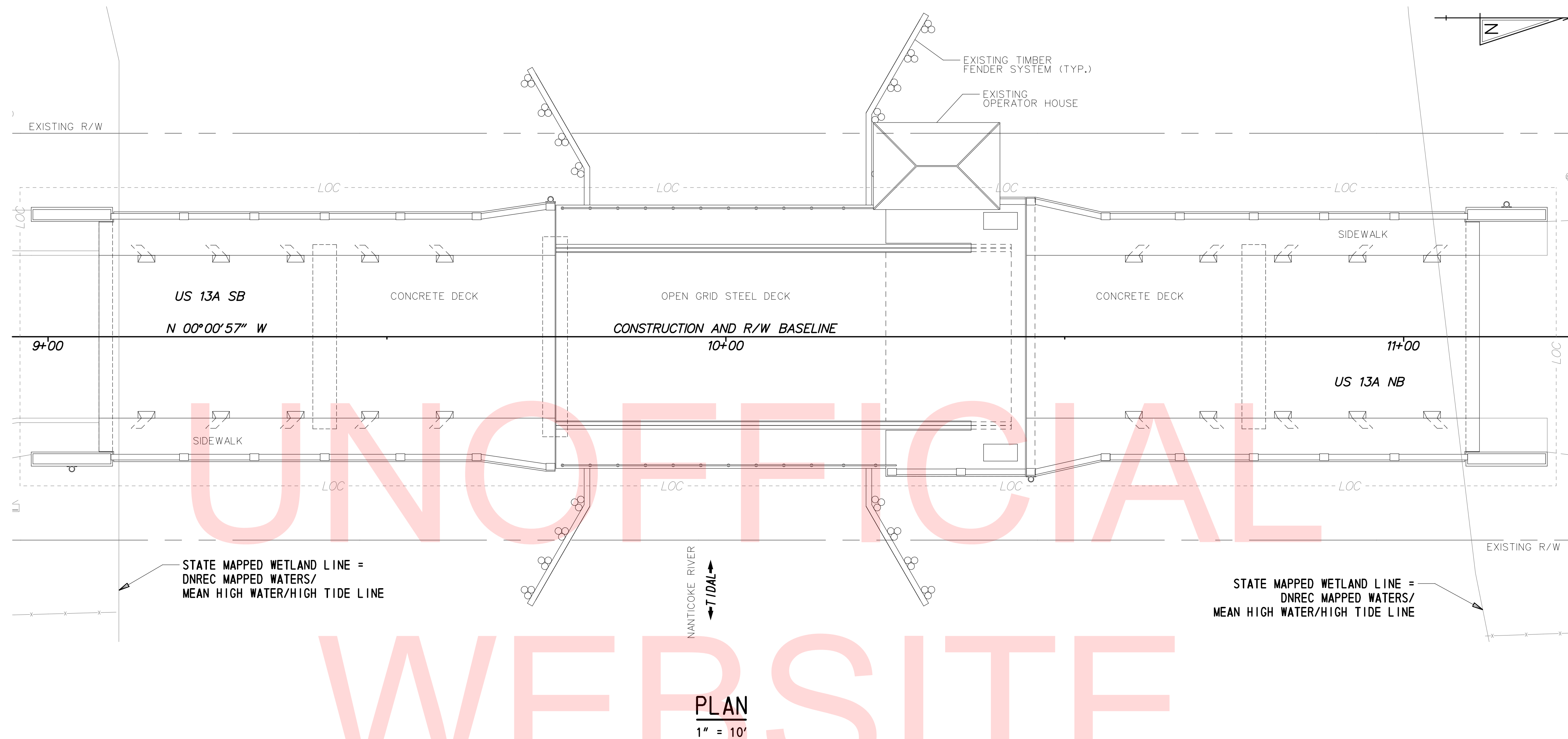


PROPOSED EAST BASCULE GIRDER SECTION WEST BASCULE GIRDER (OPP. HAND)

RECOMMENDED SEQUENCE OF CONSTRUCTION FOR TRUNNION TIE PLATE REPAIR:

1. PRIOR TO STARTING WORK, VERIFY DIMENSIONS OF EXISTING STEEL FOR PROPER FIT OF ALL COMPONENTS.
2. REMOVE EXISTING TRUNNION TIE PLATE AS SHOWN IN WEST BASCULE GIRDER ELEVATION (INSIDE FACE) DETAIL.
3. BLAST CLEAN REPAIR AREAS TO REMOVE LOOSE DIRT, RUST, AND DEBRIS. PRIME ALL MATING SURFACES AND EXPOSED STEEL.
4. INSTALL NEW STEEL PLATE ON BASCULE GIRDER AND APPLY URETHANE COATING AND TOP COAT. CAULK EDGES OF NEW PLATE.

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UNOFFICIAL
WEBSITE

ENVIRONMENTAL COMPLIANCE NOTES

1. GENERAL NOTES:

- A. THE PURPOSE OF THESE SHEETS IS TO IDENTIFY THOSE ITEMS ASSOCIATED WITH ENVIRONMENTAL COMPLIANCE. IMPACT CALCULATIONS ARE FOR THE AGENCY PERMIT REPORTING PURPOSES ONLY AND ARE NOT TO BE USED FOR BIDDING PURPOSES.
- B. IF A DEPARTURE FROM THE APPROVED PLANS (WHICH WOULD AFFECT ANY NATURAL AND/OR CULTURAL RESOURCES) IS NECESSARY, THE ENVIRONMENTAL STUDIES SECTION SHALL BE CONTACTED AT (302)760-2264 TO ALLOW FOR COORDINATION WITH THE APPROPRIATE RESOURCE AGENCIES AND APPROVAL.
- C. USE OF THIS SHEET DOES NOT ALLEVIATE THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL CONDITIONS SET FORTH IN THE ENVIRONMENTAL STATEMENT AND PERMITS.

2. NATURAL RESOURCE ISSUES:

- A. PERMIT REQUIREMENTS/APPROVALS*:
 U.S. ARMY CORPS OF ENGINEERS (COE): NONE
 DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): NONE
 DNREC - WATER QUALITY (WQC) & COASTAL ZONE CONSISTENCY (CZM): NONE
 U.S. COAST GUARD: NOTIFICATION 30 DAY

* THE PERMITS/APPROVALS LISTED ARE THOSE REQUIRED FOR THIS PROJECT. THE ENVIRONMENTAL STUDIES SECTION IS RESPONSIBLE FOR COORDINATING AND/OR OBTAINING THIS APPROVAL.

- B. CONSTRUCTION RESTRICTIONS:
 FISHERIES - MARCH 1 TO JUNE 30
 ENDANGERED SPECIES - NONE
 MIGRATORY BIRDS - NONE

3. CULTURAL RESOURCE ISSUES:

- A. BRIDGE 3-151 IS ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER OF HISTORIC PLACES. DELDOT ENVIRONMENTAL STUDIES MUST BE NOTIFIED AT 302-760-4887 IF THERE ARE ANY PROPOSED CHANGES TO THE PROJECT METHODS, FOOTPRINT, MATERIALS, OR DESIGNS TO ALLOW THE DEPARTMENT TO COORDINATE WITH THE APPROPRIATE RESOURCES AGENCY FOR APPROVAL. IF UNFORESEEN DAMAGE OCCURS TO THE BRIDGE (AS A DIRECT RESULT OF THE UNDERTAKING) DELDOT QUALIFIED STAFF MUST BE CONTACTED IMMEDIATELY TO ENSURE THAT THE DE SHPO, FHWA, AND/OR OTHERS ARE CONSULTED ON WAYS TO REPAIR THE DAMAGE CONSISTENT WITH THE SECRETARY OF THE INTERIOR'S STANDARDS.

4. PROTECTION OF RESOURCES:

- A. NO RESOURCES WILL BE IMPACTED.

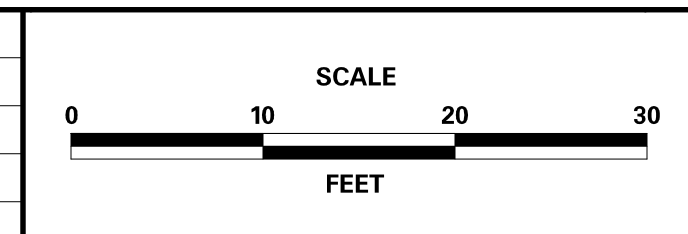
ORIGINAL SHEET PREPARED BY T.Y. LIN INTERNATIONAL ON 08-15-2018. SHEET LAST UPDATED ON 08-25-2018.

NO WETLANDS EXIST WITHIN THE PROJECT LIMITS.

8/27/2018 T:\Dover\Projects\425009.44\600_CADD\05_0fficial\BR_3-151\EC01_BR3-151.dgn



ADDENDUMS / REVISIONS	



**STRUCTURE MAINTENANCE
CONTRACT,
BRIDGE 3-151, FY19**

CONTRACT T201807601	BRIDGE NO.	BR 3-151
COUNTY SUSSEX	DESIGNED BY:	RMB
	CHECKED BY:	DEF

**ENVIRONMENTAL
COMPLIANCE PLAN**

SHEET NO. 11	TOTAL SHTS. 14
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SEQUENCE OF CONSTRUCTION:

PHASE 1:

1. INSTALL MOT DEVICES AND CLOSE US13A (S13) IN ACCORDANCE WITH THE APPROVED DETOUR PLAN.
2. CLOSE THE NORTHBOUND SIDEWALK IN ACCORDANCE WITH THE APPROVED PEDESTRIAN DETOUR PLAN.
3. REMOVE WOOD PLANK SIDEWALK, WOOD SIDEWALK STRINGERS AND ATTACHMENT ANGLES.
4. BLAST CLEAN AND PAINT EAST BASCULE GIRDER, RACK SUPPORT, TRUNNION SUPPORT TOWER, SIDEWALK BRACKETS AND SIDEWALK PEDESTRIAN RAILING. CAULK ALL BUILT-UP PORTIONS OF THE GIRDER AND CONNECTIONS TO THE GIRDER PRIOR TO PAINTING.
5. INSTALL NEW STEEL SIDEWALK STRINGERS AND COMPOSITE SIDEWALK PLANKING.

PHASE 2:

6. RE-OPEN NORTHBOUND SIDEWALK AND CLOSE SOUTHBOUND SIDEWALK IN ACCORDANCE WITH THE APPROVED PEDESTRIAN DETOUR PLAN.
7. REMOVE WOOD PLANK SIDEWALK, WOOD SIDEWALK STRINGERS AND ATTACHMENT ANGLES.
8. PERFORM WEB PLATE REPAIR AND TRUNNION TIE PLATE REPAIR.
9. BLAST CLEAN AND PAINT WEST BASCULE GIRDER, RACK SUPPORT, TRUNNION SUPPORT TOWER, SIDEWALK BRACKETS AND SIDEWALK PEDESTRIAN RAILING. CAULK ALL BUILT-UP PORTIONS OF THE GIRDER AND CONNECTIONS TO THE GIRDER PRIOR TO PAINTING.
10. INSTALL NEW STEEL SIDEWALK STRINGERS AND COMPOSITE SIDEWALK PLANKING.
11. PERFORM FLOORBEAM RETROFIT. CAULK JOINT BETWEEN COVER PLATE AND BOTTOM FLANGE. SPOT PAINT RETROFIT, AS NECESSARY.
12. PERFORM REMAINING CRACK AND WELD REPAIRS, AND REPLACE RIVETS WITH SECTION LOSS AS DIRECTED IN THE PLANS. SPOT PAINT REPAIRED AREAS, AS NECESSARY.
13. UPON COMPLETION OF ALL CONSTRUCTION ACTIVITIES ON BRIDGE 3-151, REMOVE PEDESTRIAN AND VEHICULAR DETOURS AND RETURN TRAFFIC TO NORMAL ROUTE.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. THE SEDIMENT AND STORMWATER MANAGEMENT PLANS HAVE BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. THE SEDIMENT AND STORMWATER MANAGEMENT PLANS ARE VALID FOR A FIVE YEAR PERIOD, BEGINNING ON THE DATE THE STORMWATER ENGINEER SIGNED THE CONSTRUCTION TITLE SHEET. IF THE FINAL ACCEPTANCE OF THE PROJECT IS ANTICIPATED TO EXTEND BEYOND THE FIVE YEARS, THE CONTRACTOR WILL INFORM THE ENGINEER THREE MONTHS PRIOR TO THE EXPIRATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS. THE STORMWATER ENGINEER WILL REVIEW THE CURRENT SEDIMENT AND STORMWATER MANAGEMENT PLAN AND ISSUE AN EXTENSION WITH ANY APPROPRIATE MODIFICATIONS.

EROSION POTENTIAL FOR THIS PROJECT	CONTRACTOR ESC SUPERVISOR REQUIREMENT
(X) INSIGNIFICANT	NONE
() MINOR	CONTRACTOR TRAINING PROGRAM, AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
() MAJOR	CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 6.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.

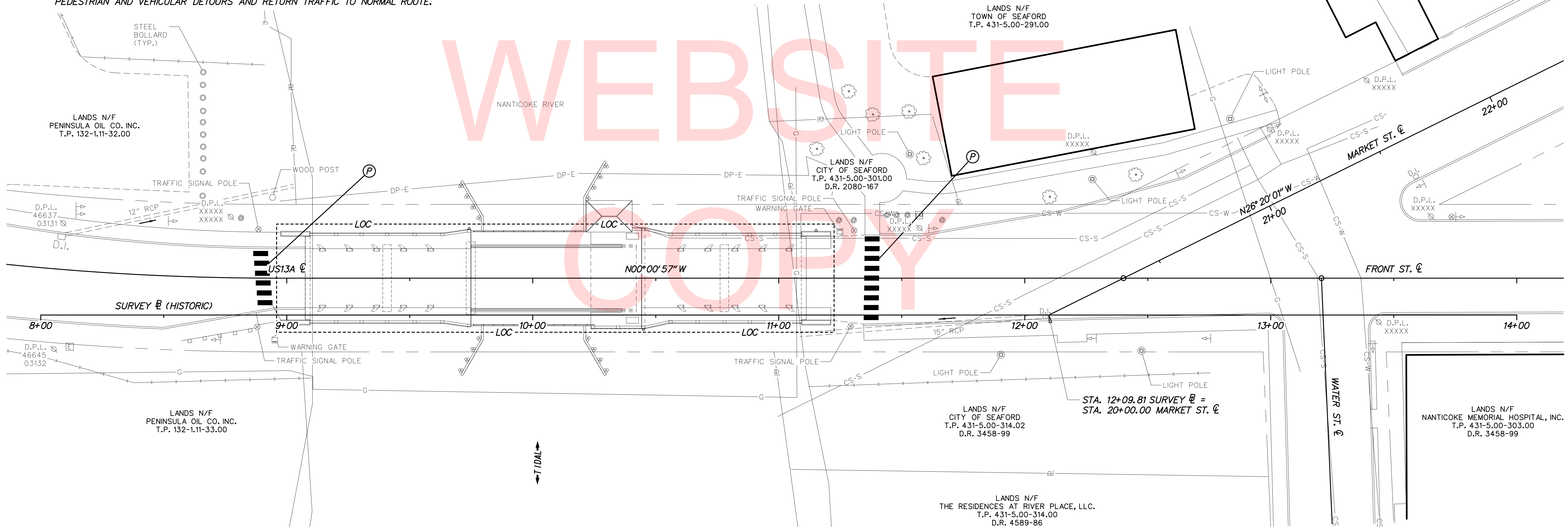
3. THE DISTURBED AREA FOR THIS PROJECT IS 0.0 ACRES.
4. THE ADDITIONAL IMPERVIOUS AREA FOR THIS PROJECT IS 0.0 SQUARE FEET.

TEMPORARY PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
(P)	2' x 6' SOLID WHITE TEMPORARY TAPE PAVEMENT SYMBOL (ITEM 817010)	180 SF

GENERAL MOT NOTES

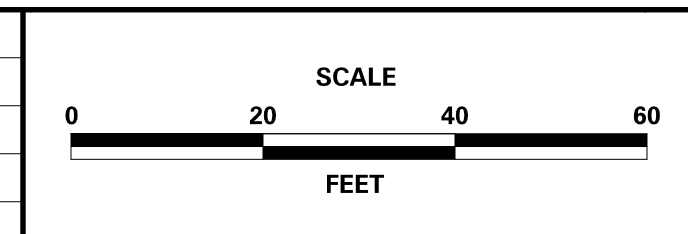
1. AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR REQUIREMENT FOR THIS PROJECT.

(X)	THE CONTRACTOR SHALL NOT BE REQUIRED TO HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT.
()	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT OR ANOTHER ATSSA CERTIFIED MEMBER OF THE CONTRACTOR'S PROJECT STAFF MAY BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM 801000.



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ADDENDUMS / REVISIONS



STRUCTURE MAINTENANCE CONTRACT, BRIDGE 3-151, FY19

CONTRACT	BRIDGE NO.	BR 3-151
T201807601	DESIGNED BY:	JWS
COUNTY	CHECKED BY:	DEF
SUSSEX		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN

SHEET NO.	12
TOTAL SHTS.	14

PORTABLE CHANGEABLE MESSAGE SIGNS

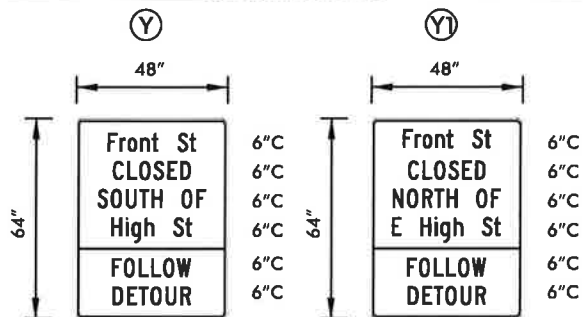
PRIOR TO DETOUR
(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

FRONT ST
BRIDGE
TO CLOSE

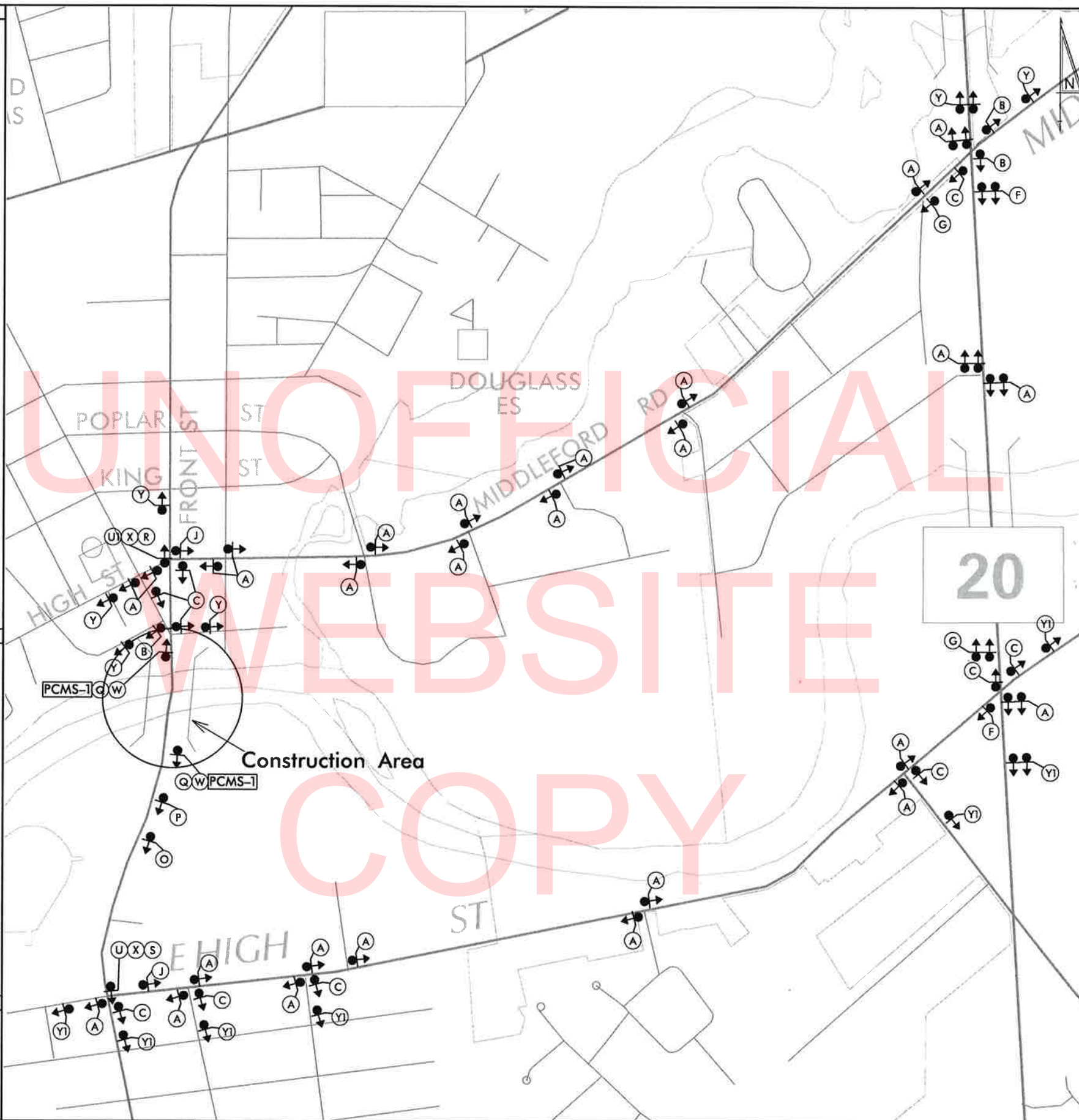
STARTING
XX/XX/XX

SPECIAL SIGNS

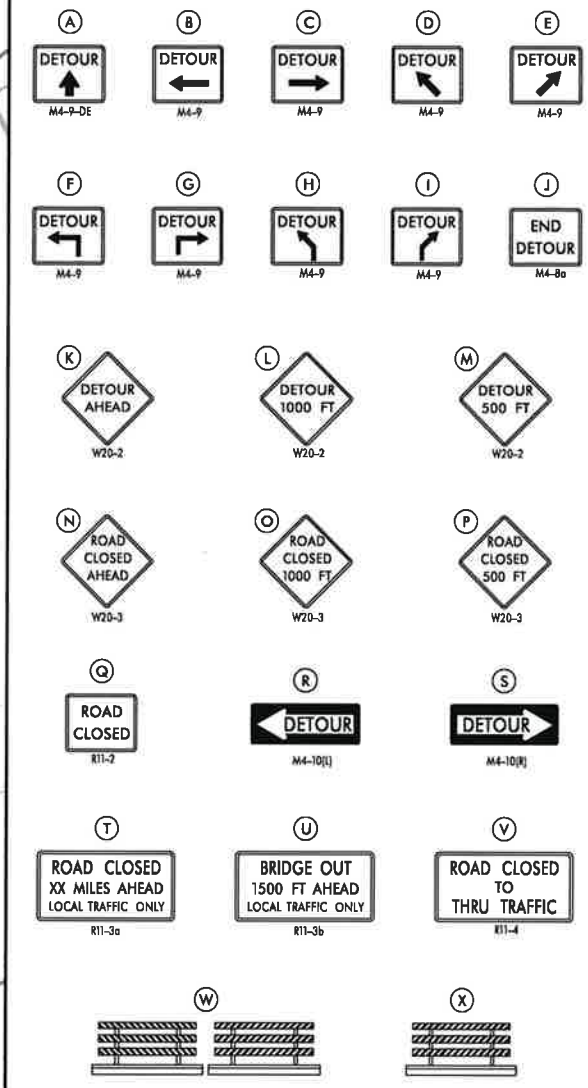


SPECIAL NOTES

ALL SPECIALTY SIGNS TO BE RETROREFLECTIVE ORANGE WITH BLACK BACKGROUND



LEGEND



GENERAL NOTES

- ALL DETOUR SIGNING, INCLUDING TRAILBLAZERS, ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR IN COMPLIANCE WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.)
- THE CONTRACTOR SHALL COMPLY WITH GUIDELINES IN "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD PART 6) FOR BARRICADES AND SIGNS (AS PER LATEST REVISION.)
- DESIGN OF ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FHWA STANDARD HIGHWAY SIGNS BOOK.
- SIZES OF ALL SIGNS SHALL BE IN ACCORDANCE WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.) SIZE OF SIGN SHALL BE BASED ON TYPE OF ROADWAY ON WHICH THE SIGN IS INSTALLED.
- SIGNS NO LONGER IN USE SHALL BE COMPLETELY COVERED WITH NO RETROREFLECTIVE MATERIAL SHOWING, OR SHALL BE REMOVED, AS DIRECTED BY THE ENGINEER.
- FIELD CONDITIONS MAY DICTATE CHANGES AT SOME TIME DURING THE LIFE OF THE CONTRACT. IN THE EVENT OF OMISSIONS OR CORRECTIONS, THE SIGNING PROVISIONS OF "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD) WILL PREVAIL.
- SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHOULD BE CHANGED TO "RAMP", "RR XING", OR "BRIDGE" WHERE APPLICABLE.
- WARNING SIGNS AND DETOUR TRAILBLAZERS SHALL BE MOUNTED ON BREAKAWAY POSTS AND HAVE RETROREFLECTIVE FLUORESCENT ORANGE SHEETING.
- "W" BARRICADES SHALL COMPLETELY RUN THE FULL WIDTH OF THE ROADWAY.
- BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

RECOMMENDED *S/MON/da1* DATE: *8-21-18*

APPROVED CHIEF SAFETY OFFICER *[Signature]* DATE: *8-27-18*

APPROVED TRAFFIC ENGINEER *[Signature]* DATE: *8/27/18*



ADDENDUM / REVISIONS

NOT TO SCALE

BR 3-151 OVER NANTICOKE SEAFORD, DE

CONTRACT T201807601
COUNTY SUSSEX
PERMIT NO. X
DESIGNED BY: SM
CHECKED BY: DEF

VEHICULAR DETOUR PLAN
MARKET ST/FRONT ST BRIDGE

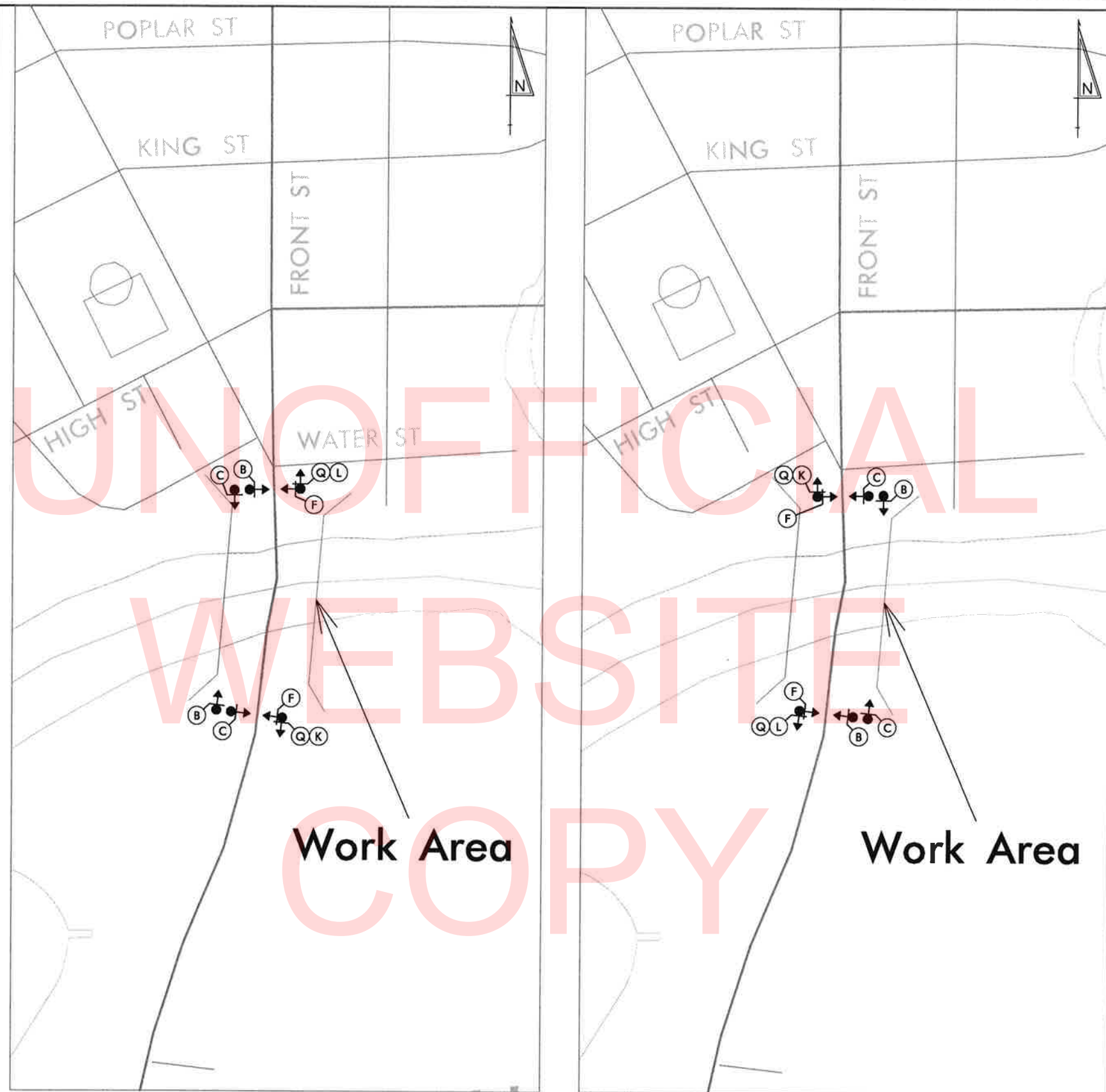
SHEET NO. 13
TOTAL SHTS. 14

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SPECIAL SIGNS

SPECIAL NOTES

1. AT LEAST ONE DIRECTION OF SIDEWALK SHALL BE OPEN TO PEDESTRIANS AT ALL TIMES DURING CONSTRUCTION.
2. FOR LOCATION OF TEMPORARY CROSSWALK MARKINGS, SEE SHEET 12.



PHASE 1

PHASE 2

LEGEND

GENERAL NOTES

1. ALL DETOUR SIGNING, INCLUDING TRAILBLAZERS, ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR IN COMPLIANCE WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.)
2. THE CONTRACTOR SHALL COMPLY WITH GUIDELINES IN "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD PART 6) FOR BARRICADES AND SIGNS (AS PER LATEST REVISION.)
3. DESIGN OF ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FHWA STANDARD HIGHWAY SIGNS BOOK.
4. SIZES OF ALL SIGNS SHALL BE IN ACCORDANCE WITH THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.) SIZE OF SIGN SHALL BE BASED ON TYPE OF ROADWAY ON WHICH THE SIGN IS INSTALLED.
5. SIGNS NO LONGER IN USE SHALL BE COMPLETELY COVERED WITH NO RETROREFLECTIVE MATERIAL SHOWING, OR SHALL BE REMOVED, AS DIRECTED BY THE ENGINEER.
6. FIELD CONDITIONS MAY DICTATE CHANGES AT SOME TIME DURING THE LIFE OF THE CONTRACT. IN THE EVENT OF OMISSIONS OR CORRECTIONS, THE SIGNING PROVISIONS OF "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD) WILL PREVAIL.
7. WARNING SIGNS AND DETOUR TRAILBLAZERS SHALL BE MOUNTED ON BREAKAWAY POSTS AND HAVE RETROREFLECTIVE FLUORESCENT ORANGE SHEETING.
8. "Q" BARRICADE SHALL COMPLETELY RUN THE FULL WIDTH OF SIDEWALK OR PEDESTRIAN PATH.
9. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.
10. PEDESTRIAN DETOUR TRAILBLAZERS NOT ATTACHED TO BARRICADES ARE TO EITHER BE GROUND MOUNTED OR ATTACHED TO AN EXISTING SIGN POST AT THE LOCATION SHOWN ON THE PLAN.

RECOMMENDED *Stephen E. Flannery* DATE: 8/21/2018

RECOMMENDED _____ DATE: _____

RECOMMENDED *EMMANN* DATE: 8-27-18

APPROVED CHIEF SAFETY OFFICER _____ DATE: _____

APPROVED TRAFFIC ENGINEER *M. J. M.* DATE: 8/27/18

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

NOT TO SCALE

BR 3-151 OVER NANTICOKE SEAFORD, DE

CONTRACT	PERMIT NO.	X
T201807601	DESIGNED BY: SM	
COUNTY	CHECKED BY: DEF	
SUSSEX		

PEDESTRIAN DETOUR PLAN MARKET ST/FRONT ST BRIDGE PHASE 1 & PHASE 2

SHEET NO.	14
TOTAL SHTS.	14

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