



Benjamin C. Dunlap, Jr., Esquire bdunlapjr@nssh.com (717) 236-3010, Ext. 121

June 13, 2022

Via Electronic Filing

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
400 North Street
Harrisburg, PA 17120

**RE: Repair Plans for Washington Street Bridge (DOT #510521Y) in the Borough of
Swissvale, Allegheny County
Docket No. _____**

Dear Secretary Chiavetta:

I am writing on behalf of our client, Norfolk Southern Railway Company (“Norfolk Southern”). Norfolk Southern has maintenance responsibility for the bridge substructure and superstructure of the above-mentioned crossing pursuant to a 1944 Commission Order.

A recent Pennsylvania Department of Transportation (“PennDOT”) inspection report identified certain Priority 1 defects. Norfolk Southern has therefore developed the attached plans to address the identified deficiencies. The plans are being submitted to the Commission for review and approval and to the interested parties on the attached service list for review and comment. Please note that Norfolk Southern has been coordinating with the Port Authority of Allegheny County and the Borough of Swissvale in developing these plans.

The scope of work is:

- 108 SF of pavement & brick removal and full-depth concrete repair over the busway and NS tracks
- 850 SF of loose concrete & debris removal over the busway from the underside of the deck
- Shoring of south girder in 4 locations (both sides of pier 1 and at mid-span between NS and the busway)

- Repair south girder over the pier column by adding 5/8" web repair plates and 1.25" x 20" bottom flange plates
- Repair south girder web between NS and busway by adding 1/2" x 22.25" web repair plates to both sides of the web
- Repair north girder web by welding 1/2" x 12" x 1'-1" web repair plate

The girder repairs will change the cross section of the girders at those locations. Additionally, installation of shoring between NS and the busway will change the load path of the bridge.

As these repairs are being performed to address Priority 1 deficiencies, Norfolk Southern would appreciate the Commission's approval as soon as possible. Please contact me if you have any questions.

Sincerely yours,



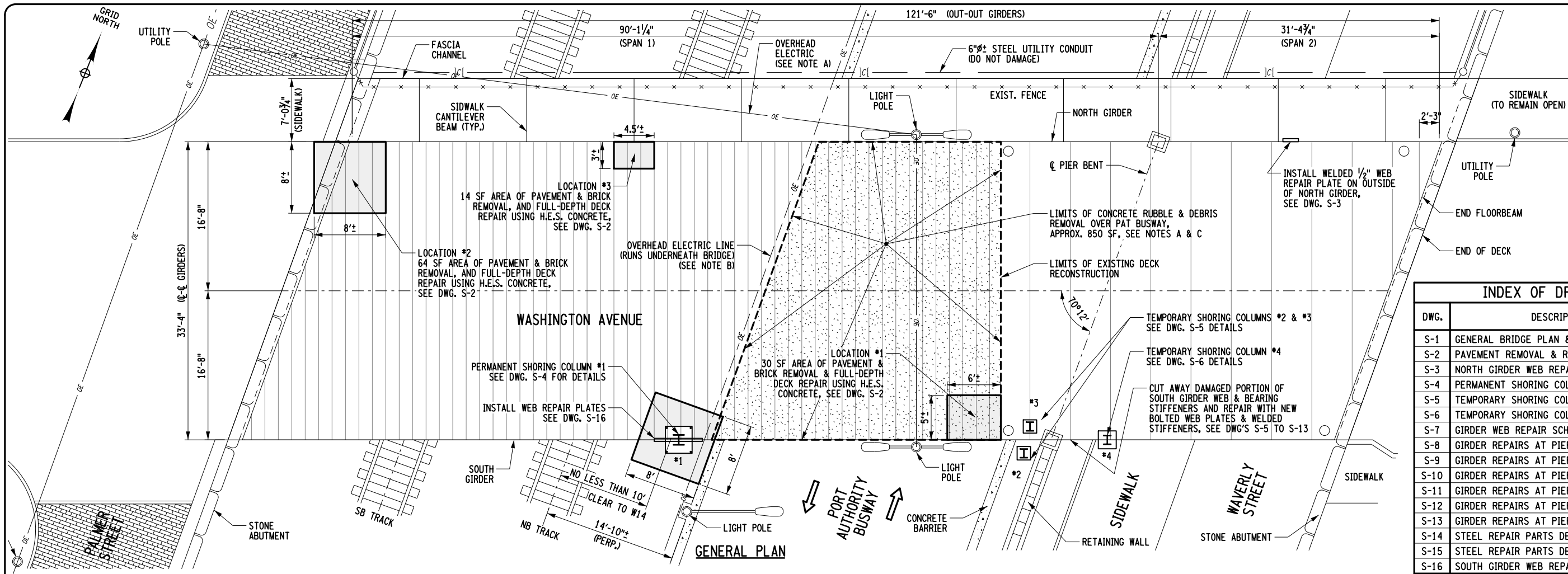
Benjamin C. Dunlap, Jr.

BCDjr/law

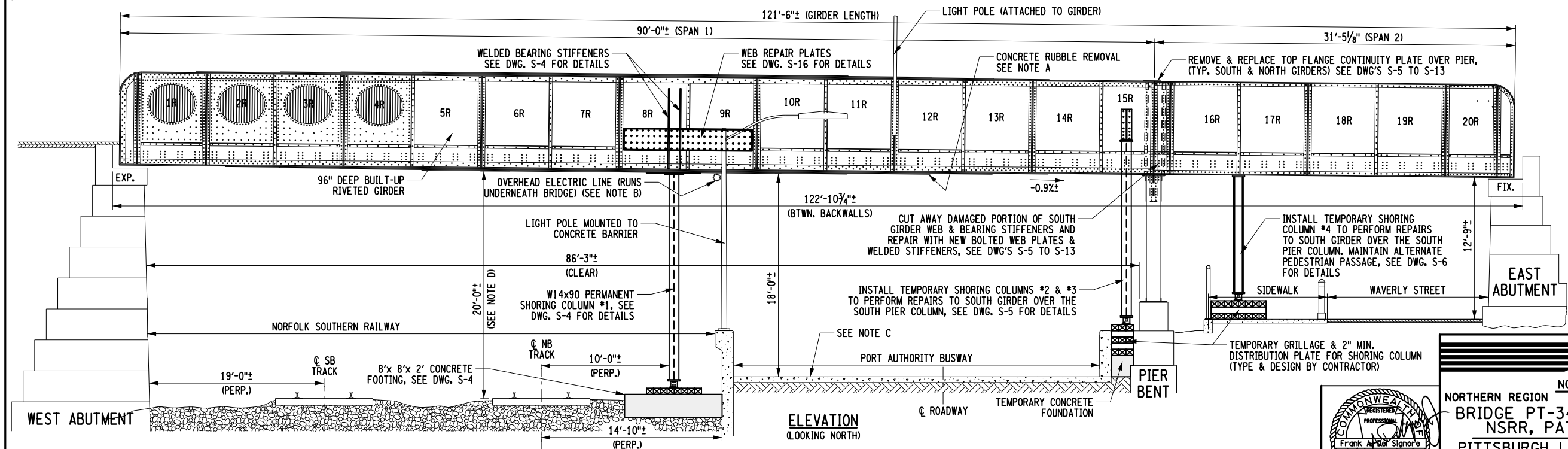
Enclosures

cc: Christopher P. Cawley (via email)
Julianne Freeman, Esquire (via email)
All Parties on Attached Service List

FILE NAME = \\chc\11\com\proj\N\Projects\BNY\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-1.dgn
 DATE/TIME = 5/25/2022 11:19:19 AM
 USER = 1719



INDEX OF DRAWINGS		
DWG.	DESCRIPTION	SHT. NO.
S-1	GENERAL BRIDGE PLAN & ELEVATION	1
S-2	PAVEMENT REMOVAL & REPLACEMENT DETAILS	2
S-3	NORTH GIRDER WEB REPAIR DETAILS	3
S-4	PERMANENT SHORING COLUMN #1 DETAILS	4
S-5	TEMPORARY SHORING COLUMNS #2 & #3 DTL'S	5
S-6	TEMPORARY SHORING COLUMN #4 DETAILS	6
S-7	GIRDER WEB REPAIR SCHEMATIC	7
S-8	GIRDER REPAIRS AT PIER - REMOVAL DETAILS	8
S-9	GIRDER REPAIRS AT PIER - REMOVAL SECTIONS	9
S-10	GIRDER REPAIRS AT PIER - REPAIR SECTIONS	10
S-11	GIRDER REPAIRS AT PIER - REPAIR DETAILS	11
S-12	GIRDER REPAIRS AT PIER - REPAIR SECTIONS	12
S-13	GIRDER REPAIRS AT PIER - REPAIR SECTIONS	13
S-14	STEEL REPAIR PARTS DETAILS	14
S-15	STEEL REPAIR PARTS DETAILS	15
S-16	SOUTH GIRDER WEB REPAIR PLATE (BAYS 8R & 9R)	16



- PRIORITY 1 REPAIR WORK**
1. REMOVE LOOSE CONCRETE, RUBBLE & BRICKS FROM BELOW DECK - ABOVE PAT BUSWAY
 2. FULL-DEPTH PAVEMENT REMOVAL & REPLACEMENT WITH HES CONCRETE (3 LOCATIONS)
 3. SPAN 2, NORTH GIRDER. INSTALL WEB REPAIR PLATE (1 LOCATION ONLY)
 4. TEMPORARY OR PERMANENT SHORING OF SOUTH GIRDER IN SPAN 1 & SPAN 2 (4 LOCATIONS)
 5. SOUTH GIRDER WEB & STIFFENER REPAIRS OVER PIER COLUMN
 6. SPAN 1, SOUTH GIRDER WEB REPAIR IN BAYS 8R & 9R (1 LOCATION ONLY)

NOTE A:
 DURING ONE OR TWO NIGHT-TIME CLOSURES OF THE PAT BUSWAY, THE CONTRACTOR SHALL SOUND THE ENTIRE AREA OF ORIGINAL CONCRETE OVER THE PAT BUSWAY, WHICH IS APPROXIMATELY 850 SF. REMOVE ANY LOOSE SPALLED OR VERY DELAMINATED OR CRUMBLING CONCRETE ENCASEMENT. DO NOT REMOVE ANY SOLID CONCRETE, OR ANY OF THE ENCASEMENT THAT IS UNLIKELY TO FALL. AVOID VIBRATING LOOSE ANY EXPOSED BRICKS ABOVE, THAT ARE NOT READY TO FALL.

NOTE B:
 THE CONTRACTOR IS HEREBY ADVISED OF THE OVERHEAD ELECTRIC LINES THAT RUN NORTH-SOUTH UNDER THE BRIDGE, DIRECTLY OVER THE CONCRETE BARRIER FOR THE PAT BUSWAY. THESE ELECTRIC LINES APPEAR TO SERVICE THE LIGHT POLES FOR THE BUSWAY LIGHTING AND ARE ATTACHED TO THE BRIDGE ON AT LEAST 2 LOCATIONS. STAY CLEAR OF THOSE LINES.

NOTE C:
 THE CONTRACTOR SHALL NOT DROP ANY CONCRETE, BRICK OR ASPHALT ONTO THE BUSWAY OR TRACK BELOW. OVER THE BUSWAY, THE CONTRACTOR SHALL CATCH ALL FALLING DEBRIS IN HIS MANLIFTS, SCISSORS LIFT OR OTHER WORK PLATFORM.

NO SOUNDING OR ENCASEMENT REMOVAL IS REQUIRED ON NS PROPERTY TO THE WEST OF THE BUSWAY.

NOTE A:
 DURING ONE OR TWO NIGHT-TIME CLOSURES OF THE PAT BUSWAY, THE CONTRACTOR SHALL SOUND THE ENTIRE AREA OF ORIGINAL CONCRETE OVER THE PAT BUSWAY, WHICH IS APPROXIMATELY 850 SF. REMOVE ANY LOOSE SPALLED OR VERY DELAMINATED OR CRUMBLING CONCRETE ENCASEMENT. DO NOT REMOVE ANY SOLID CONCRETE, OR ANY OF THE ENCASEMENT THAT IS UNLIKELY TO FALL. AVOID VIBRATING LOOSE ANY EXPOSED BRICKS ABOVE, THAT ARE NOT READY TO FALL.

NOTE B:
 THE CONTRACTOR IS HEREBY ADVISED OF THE OVERHEAD ELECTRIC LINES THAT RUN NORTH-SOUTH UNDER THE BRIDGE, DIRECTLY OVER THE CONCRETE BARRIER FOR THE PAT BUSWAY. THESE ELECTRIC LINES APPEAR TO SERVICE THE LIGHT POLES FOR THE BUSWAY LIGHTING AND ARE ATTACHED TO THE BRIDGE ON AT LEAST 2 LOCATIONS. STAY CLEAR OF THOSE LINES.

NOTE C:
 THE CONTRACTOR SHALL NOT DROP ANY CONCRETE, BRICK OR ASPHALT ONTO THE BUSWAY OR TRACK BELOW. OVER THE BUSWAY, THE CONTRACTOR SHALL CATCH ALL FALLING DEBRIS IN HIS MANLIFTS, SCISSORS LIFT OR OTHER WORK PLATFORM.

PRIORITY 1 REPAIRS - MAY 2022

NORFOLK SOUTHERN RAILWAY

NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA

PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.

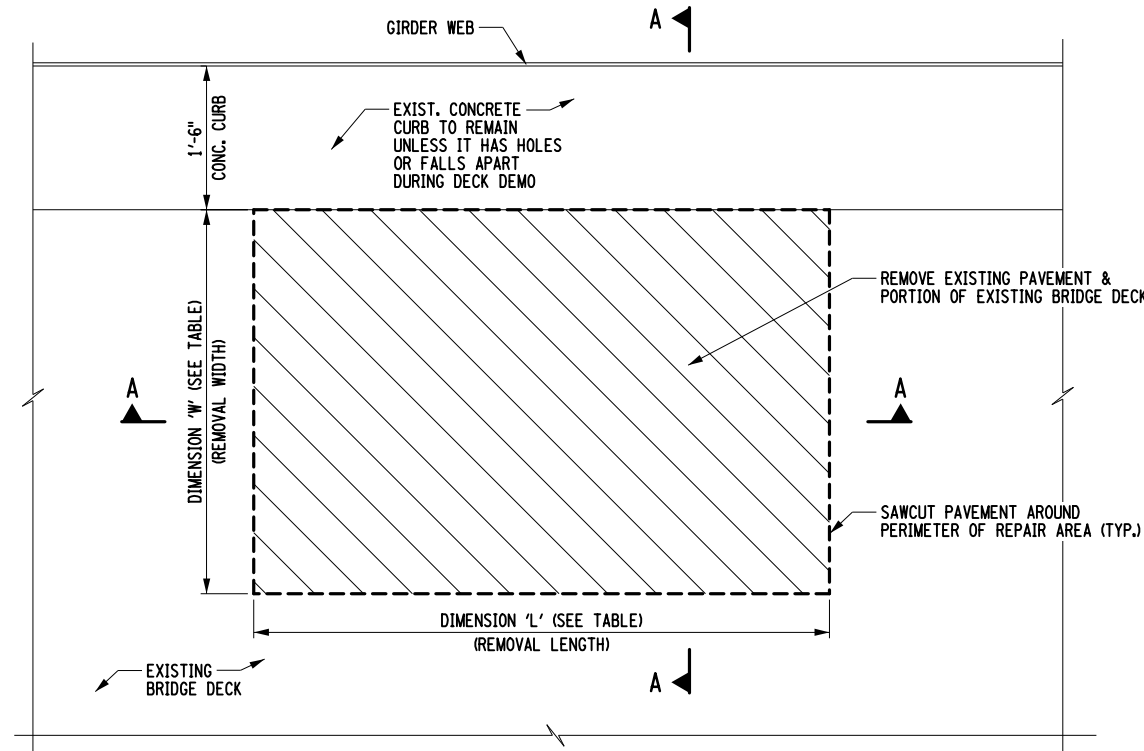
DRAWING TITLE: **GENERAL BRIDGE PLAN & ELEVATION** DWG. **S-1**

DGN SS VAL SEC MAP MILE POST PT 344.91
 CHK GH FILE BROOXXXXX DATE MAY 2022

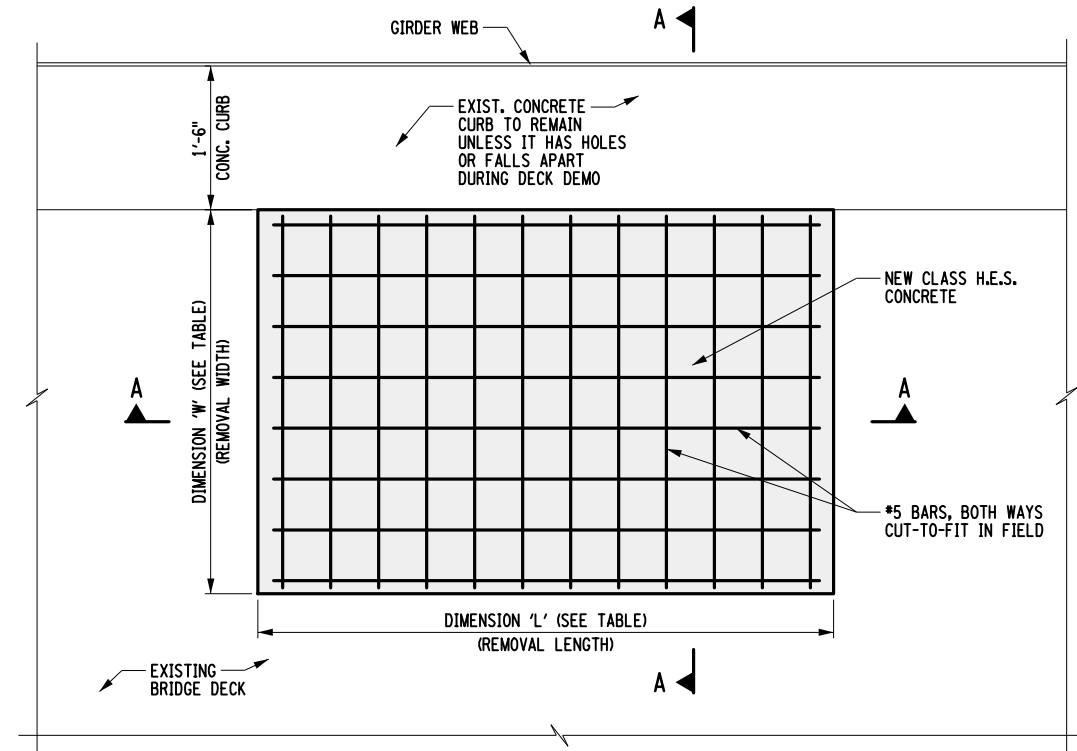
SHEET NUMBER 1 OF 16 DRAWING NUMBER PT-344.91-2020

2200 Main Plaza Tower
 Buffalo, NY 14202-3722
 Main: (716) 847-6310
 www.chacompanies.com

FILE NAME = \\cha-1\proj\Projects\BNY\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-2.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



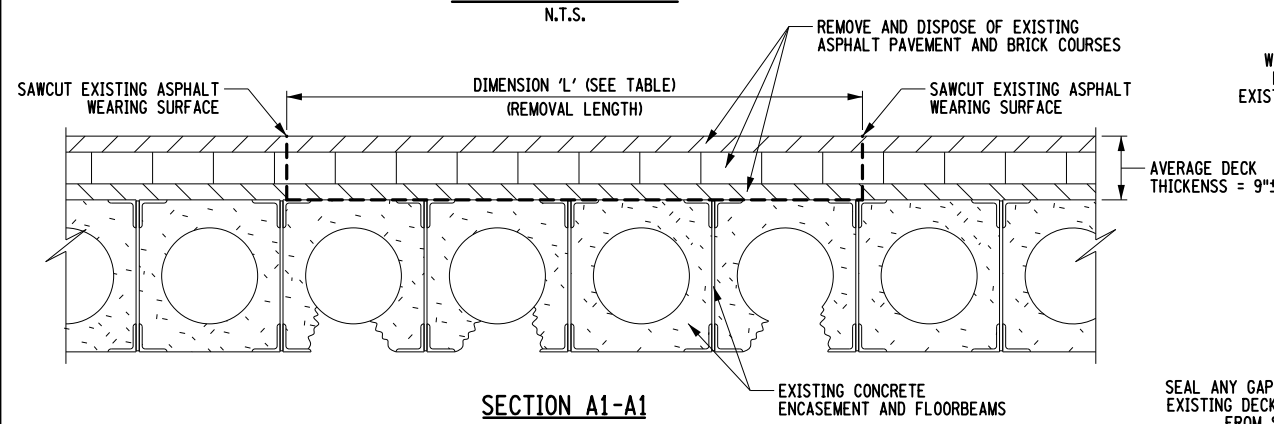
DECK REMOVAL PLAN
N.T.S.



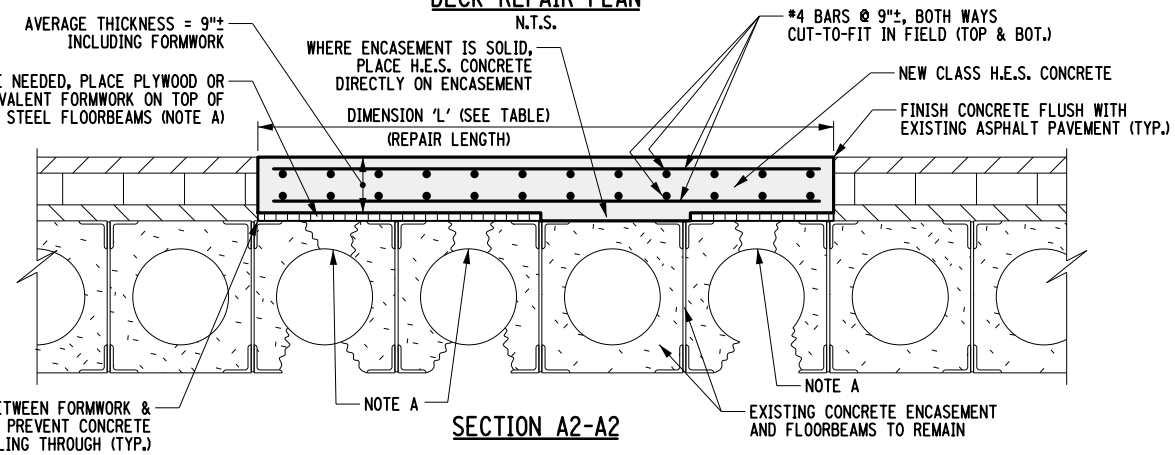
DECK REPAIR PLAN
N.T.S.

CONCRETE REPAIR TABLE			
REPAIR LOCATION	DIMENSION	APPROX. CONCRETE VOLUME	APPROX. REQ'D REINFORCEMENT
1	'L' LENGTH	30 SF (0.83 CY)	#4 STRAIGHT BARS - 160 LF 107 LB.
	'W' WIDTH		
2	'L' LENGTH	64 SF (1.8 CY)	#4 STRAIGHT BARS - 340 LF 227 LB.
	'W' WIDTH		
3	'L' LENGTH	13.5 SF (0.4 CY)	#4 STRAIGHT BARS - 72 LF 48 LB.
	'W' WIDTH		
TOTAL AREA=		107.5 SF±	
TOTAL REINF.=			382 LB

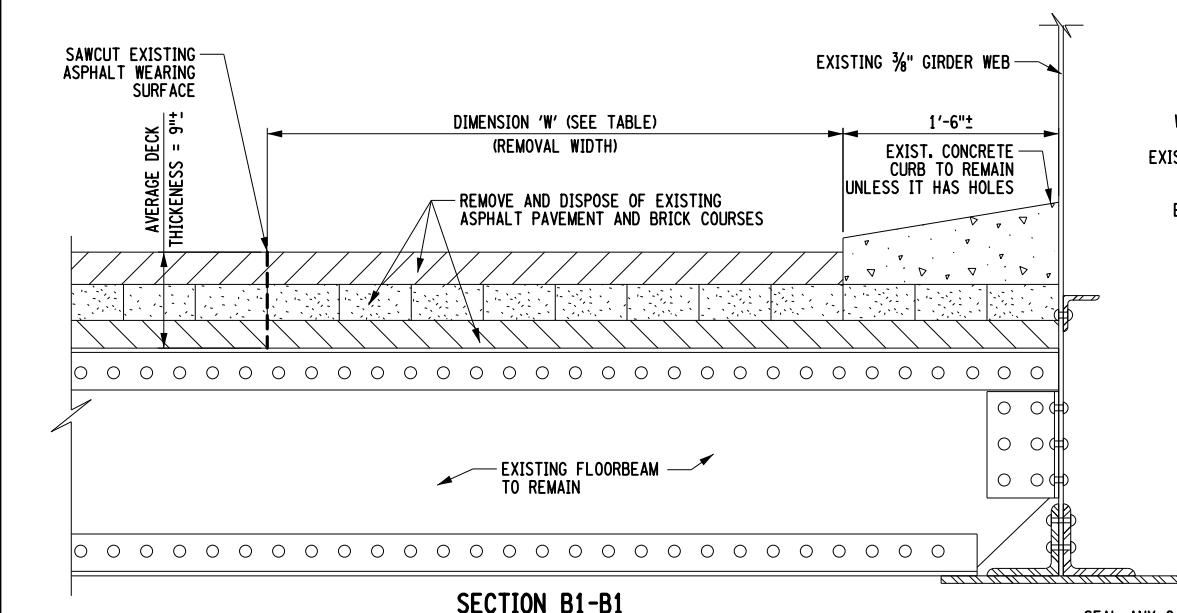
SEE DECK PLAN ON DWG. S-1 FOR DECK REPAIR LOCATIONS



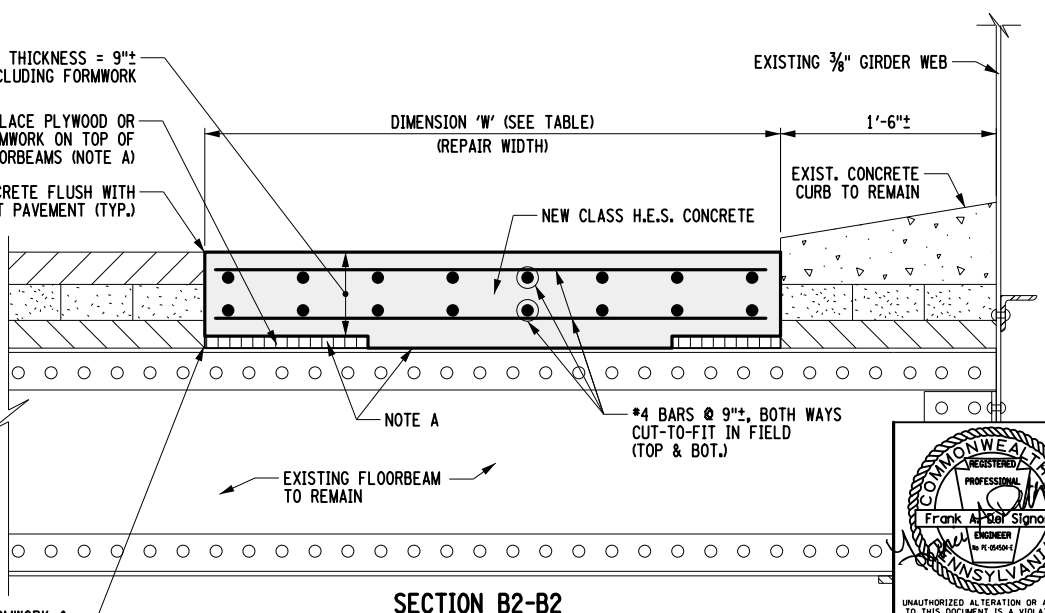
SECTION A1-A1



SECTION A2-A2



SECTION B1-B1

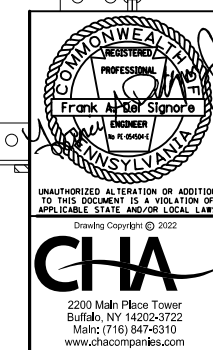


SECTION B2-B2

NOTE A: PLYWOOD FORMS ARE NOT NECESSARY WHERE ENCASEMENT IS SOLID. USE PLYWOOD FORMS ONLY WHERE CONCRETE WILL SPILL INTO & FILL THE VOIDS IN ENCASUREMENT. IF THERE IS NO HOLE THRU THE TOP OF THE ENCASUREMENT, OMIT THE PLYWOOD FORMS.

SEAL ANY GAPS BETWEEN FORMWORK & EXISTING DECK TO PREVENT CONCRETE FROM SPILLING THROUGH (TYP.)

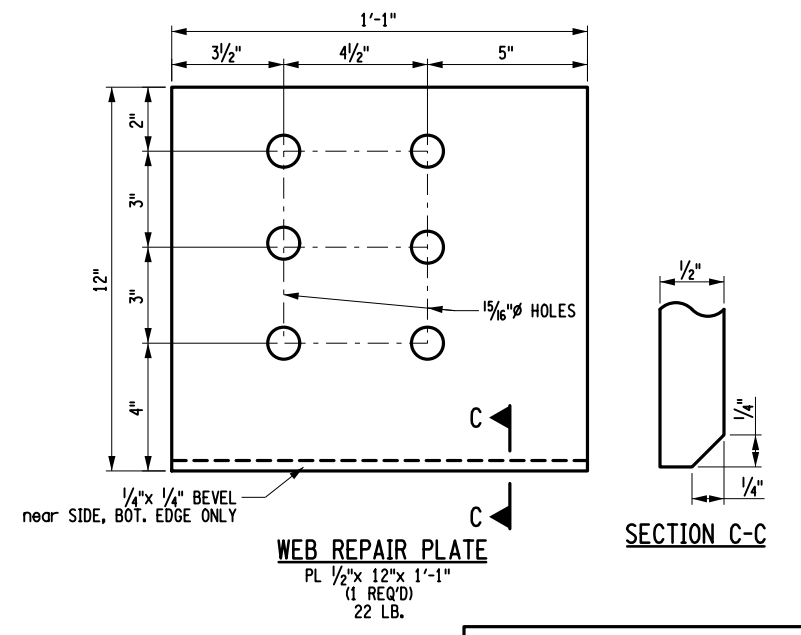
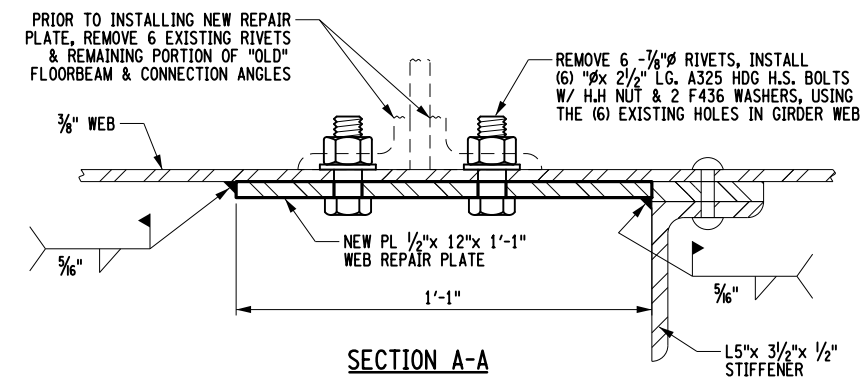
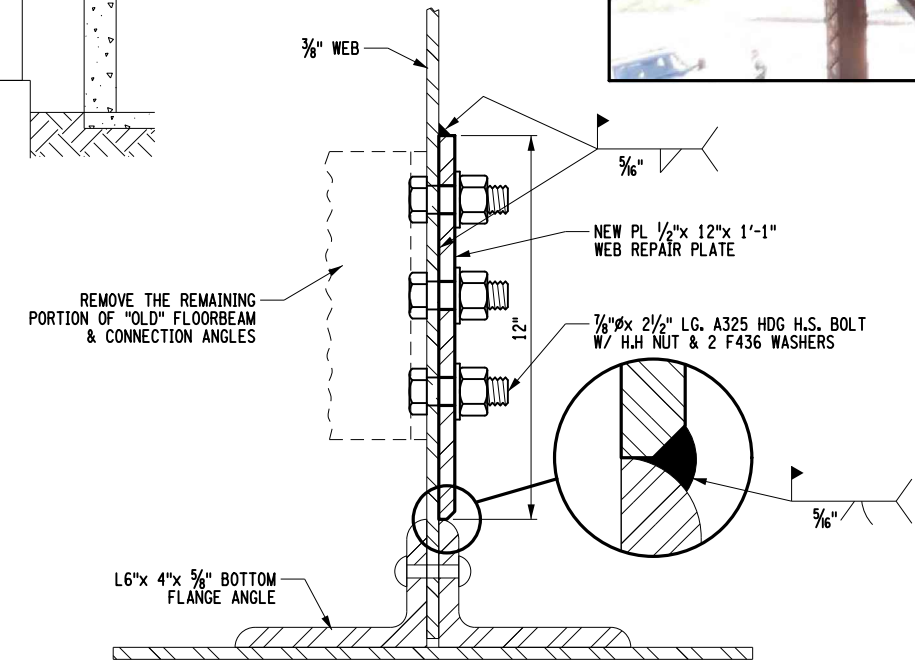
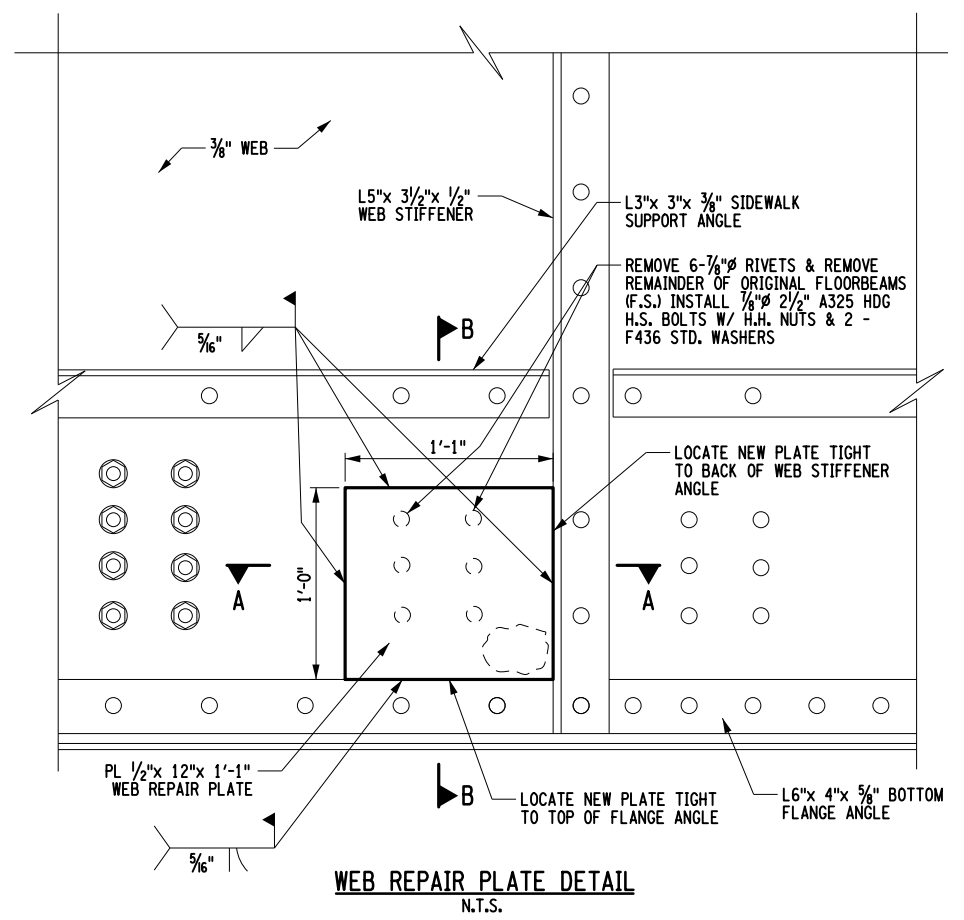
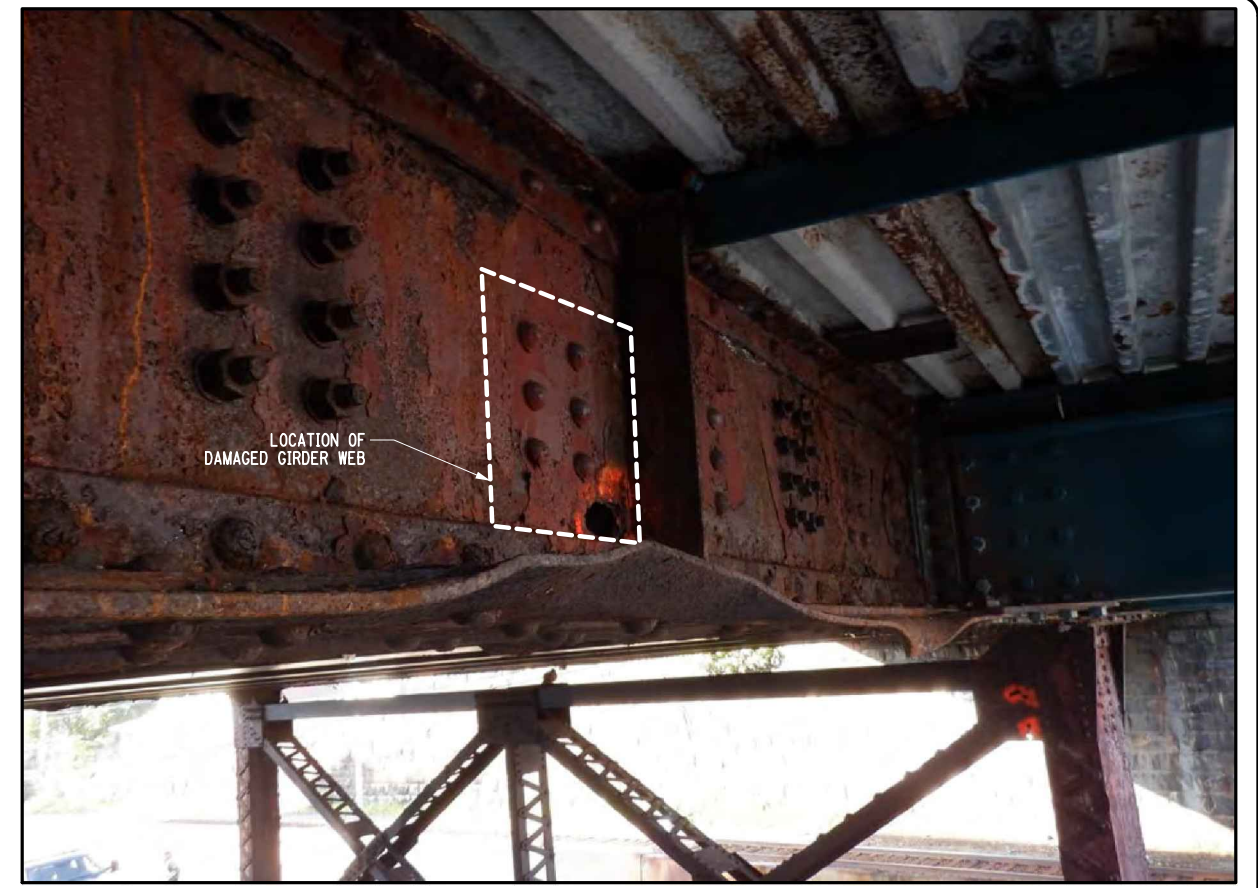
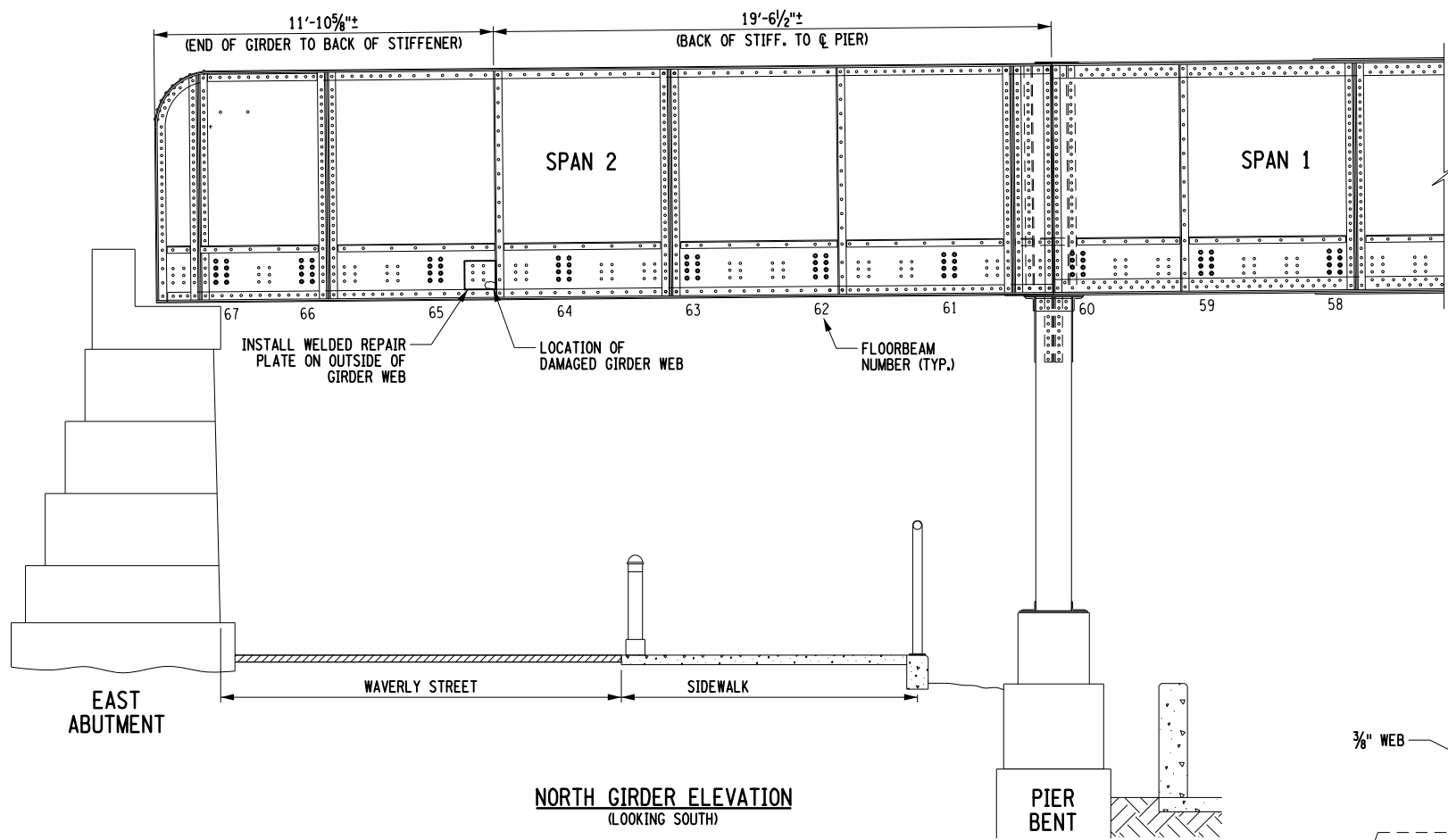
ITEM 2



PRIORITY 1 REPAIRS - MAY 2022

NORFOLK SOUTHERN
 NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS
 OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.
 DRAWING TITLE: FULL DEPTH PAVEMENT REMOVAL & REPLACEMENT DETAILS DWG. S-2
 DGN SS VAL SEC MAP MILE POST PT 344.91
 CHK GH FILE BROOXXXXX DATE MAY 2022
 SHEET NUMBER 2 OF 16 DRAWING NUMBER PT-344.91-2020

FILE NAME = \\chc\1\proj\Projects\BNY\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-3.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



ITEM 3

REGISTERED PROFESSIONAL ENGINEER
 Frank A. Del Signore
 No. 95041
 PENNSYLVANIA

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS.
 Drawing Copyright © 2022

CHA
 2200 Main Plaza Tower
 Buffalo, NY 14203-3722
 Main: (716) 847-6310
 www.chacompanies.com

PRIORITY 1 REPAIRS - MAY 2022

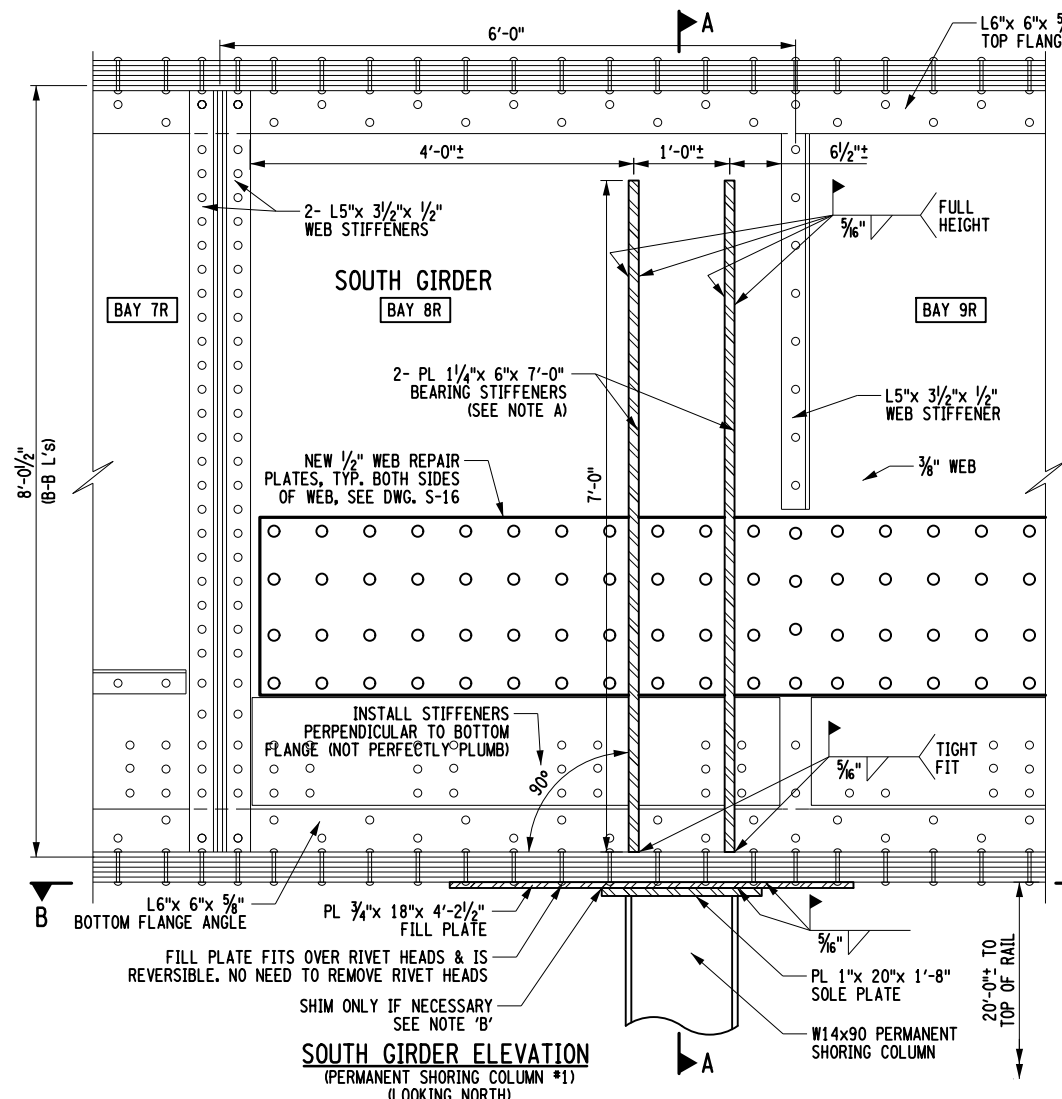
NORFOLK SOUTHERN

NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS

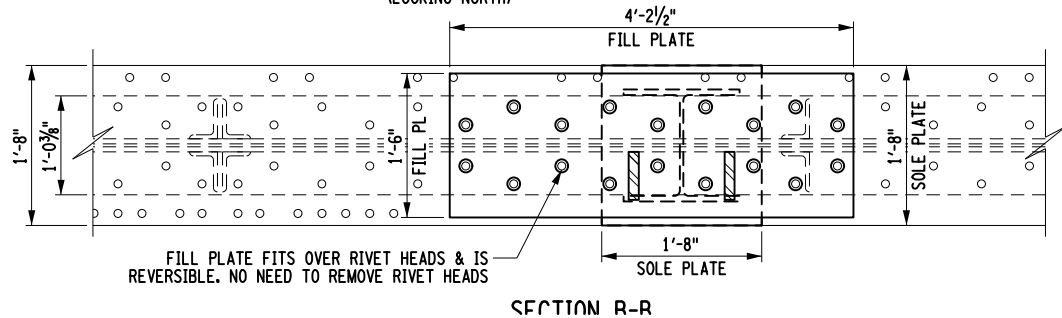
OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.
 DRAWING TITLE: NORTH GIRDER WEB REPAIR DETAILS DWG. S-3

DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE BROOXXXX	DATE	MAY 2022	
SHEET NUMBER 3 OF 16		DRAWING NUMBER PT-344.91-2020		

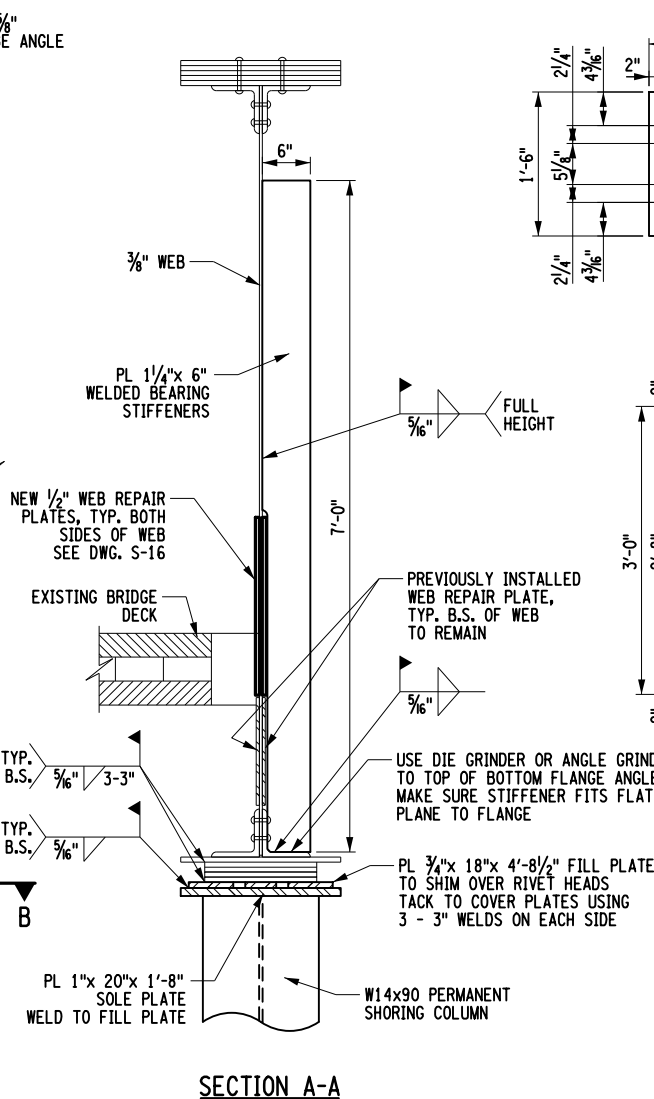
FILE NAME = \\chc\1\proj\Projects\BNSF\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-4.dgn
 DATE/TIME USER = 5/25/2022 1719



SOUTH GIRDER ELEVATION
(PERMANENT SHORING COLUMN #1)
(LOOKING NORTH)



SECTION R-R



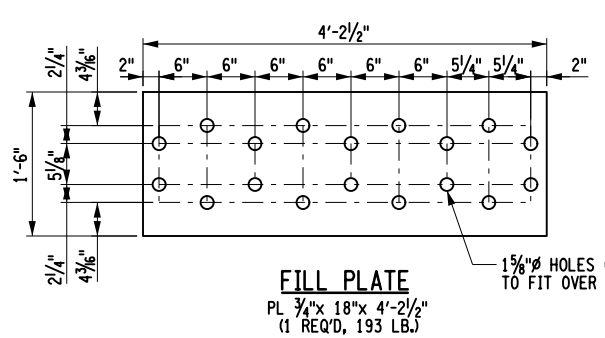
SECTION A-A

NOTE 'A':
THE EXISTING GIRDER IS AT A -0.9% SLOPE (WEST TO EAST) INSTALL NEW STIFFENERS PERPENDICULAR TO BOTTOM FLANGE AND THEREFORE THEY WILL NOT BE PLUMB.

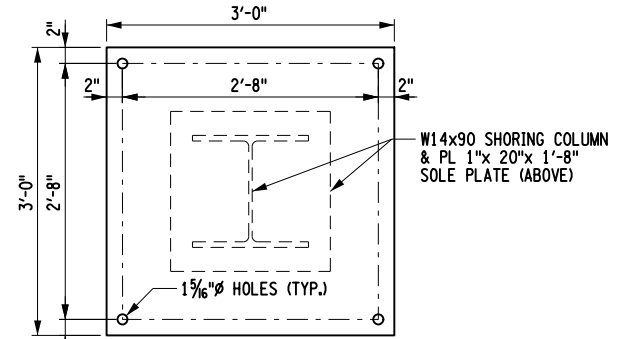
NOTE 'B':
INSTALL NEW SHORING COLUMN PLUMB. INSTALL STEEL SHIM PLATE BETWEEN SOLE PLATE & FILL PLATE ONLY IF & AS NECESSARY TO ENSURE THERE WILL BE NO GAPS.

ALL STEEL A709 GR. 50 KSI
 ALL CONC. CLASS A; f'c = 4,000 PSD
 PAINT: NONE

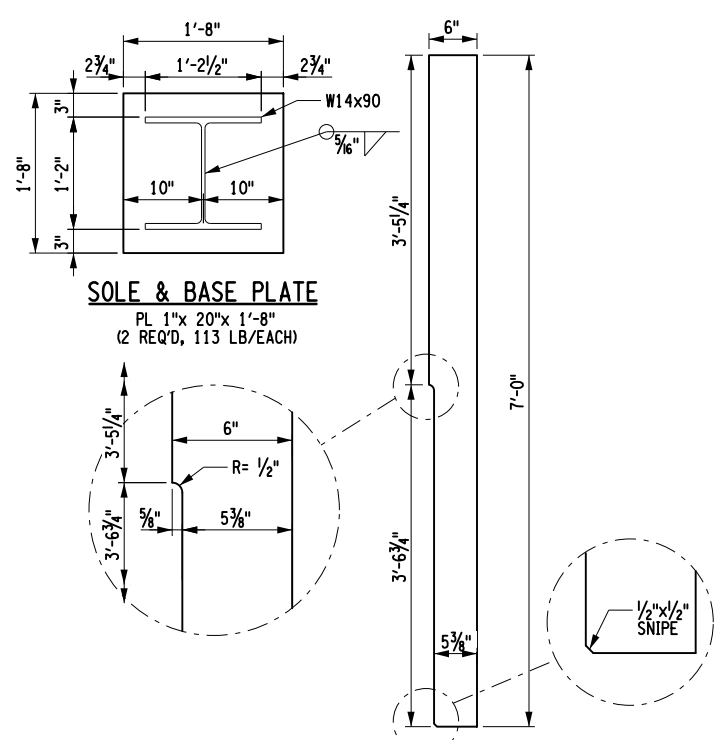
APPROX. COLUMN HEIGHT:
 20'-2" - INCL. BASE PL & SOLE PL (2,062 LB)



FILL PLATE
PL 1 3/4" x 18" x 4'-2 1/2"
(1 REQ'D, 193 LB.)

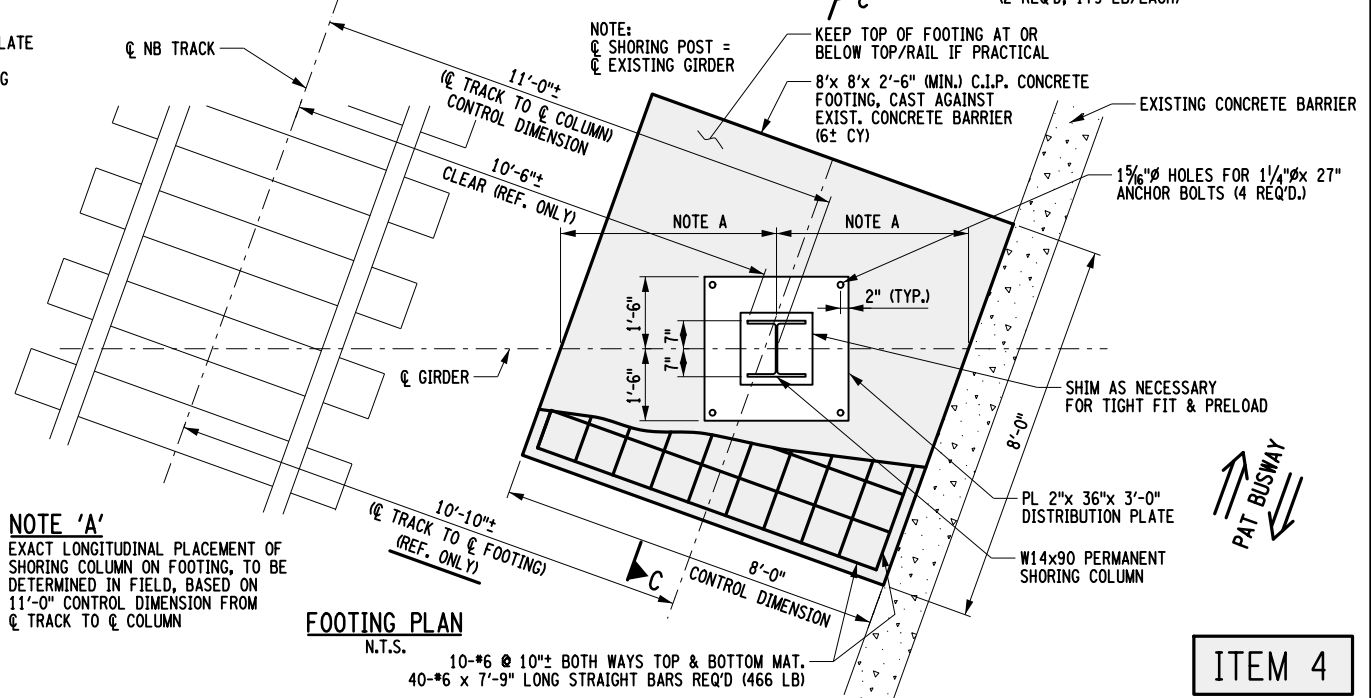


DISTRIBUTION PLATE
PL 2" x 36" x 3'-0"
(1 REQ'D, 735 LB)



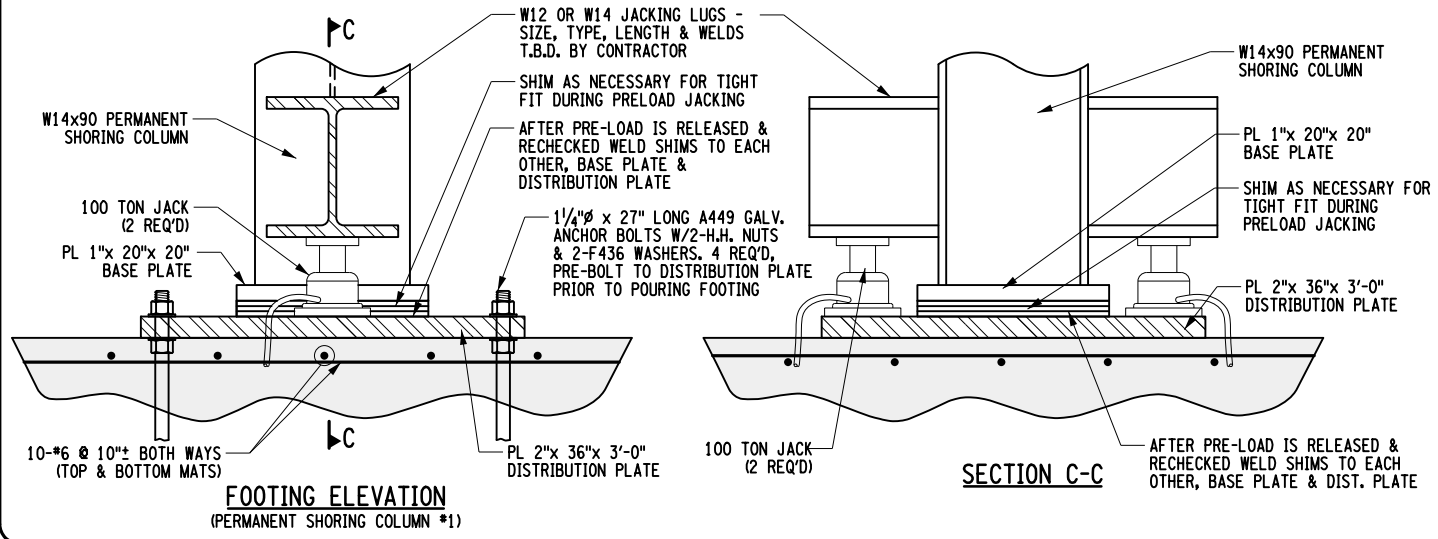
SOLE & BASE PLATE
PL 1" x 20" x 1'-8"
(2 REQ'D, 113 LB/EACH)

STIFFENER PLATE
PL 1 1/4" x 6" x 7'-0"
(2 REQ'D, 179 LB/EACH)



FOOTING PLAN
N.T.S.

NOTE 'A'
EXACT LONGITUDINAL PLACEMENT OF SHORING COLUMN ON FOOTING, TO BE DETERMINED IN FIELD, BASED ON 11'-0" CONTROL DIMENSION FROM CL TRACK TO CL COLUMN



FOOTING ELEVATION
(PERMANENT SHORING COLUMN #1)

SECTION C-C

SHORING PROCEDURE:

1. INSTALL WEB REPAIR PLATE ON SOUTH GIRDER IN BAYS 8R & 9R (SEE DWG. S-16).
2. LOCATE THE CENTER OF THE PROPOSED FOUNDATION BASED ON DIMENSIONS SHOWN.
3. LOCATE CENTER OF NEW SHORING POST BASED ON CL OF GIRDER COINCIDING WITH 11'-0" OFFSET TO CL OF NB TRACK
4. VERIFY WITH RAILROAD & PAT IF ANY UTILITIES RUN ALONG THE TRACK SIDE OF THE BUSWAY RETAINING WALL.
5. EXCAVATE FOR NEW FOUNDATION (2 FEET DEEP).
6. PLUMB UPWARD TO GIRDER AND LOCATE POSITION OF NEW SHORING POST ON GIRDER.
7. INSTALL NEW FILL PLATE OVER BOTTOM RIVETS & WELD FILL TO BOTTOM COVER PLATE.
8. INSTALL SHORING COLUMN IN CORRECT POSITION AND WELD SOLE PLATE TO FILL PLATE SO THAT POST HANGS FROM GIRDER.
9. STRIP PAINT AND WELD 2 NEW BEARING STIFFENERS.
10. FORM & TIE REBAR FOR FOOTING.
11. INSTALL 2" DISTRIBUTION PLATE JUST 1/2" TO 3/4" BELOW BOTTOM OF BASE PLATE, PRE-INSTALL 4 ANCHOR BOLTS.
12. POUR CONCRETE FOOTING, UP TO AND UP ALONG SIDES OF DISTRIBUTION PLATE, ENSURING FULL BEARING.
13. USING 2 - 100 TON JACKS & CALIBRATED GAUGE, PRE-LOAD COLUMN TO 120 KIPS.
14. SHIM BETWEEN BASE PLATE & DISTRIBUTION PLATE FOR TIGHT FIT.
15. WELD SHIMS TOGETHER, WELD SHIMS TO BASE PLATE AND DISTRIBUTION PLATE.
16. RELEASE JACKING PRESSURE AND REMOVE JACKS.

ITEM 4

PRIORITY 1 REPAIRS - MAY 2022

NORFOLK SOUTHERN

NORTHERN REGION
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA

PITTSBURGH DIV.

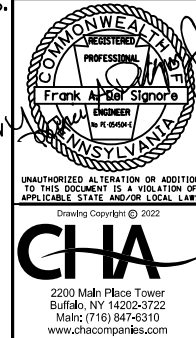
PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES
 ATLANTA, GA.

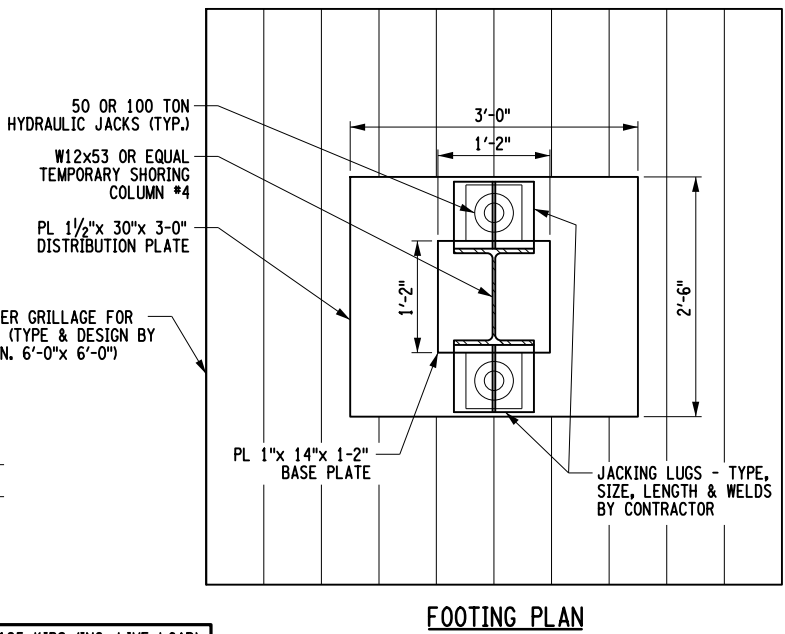
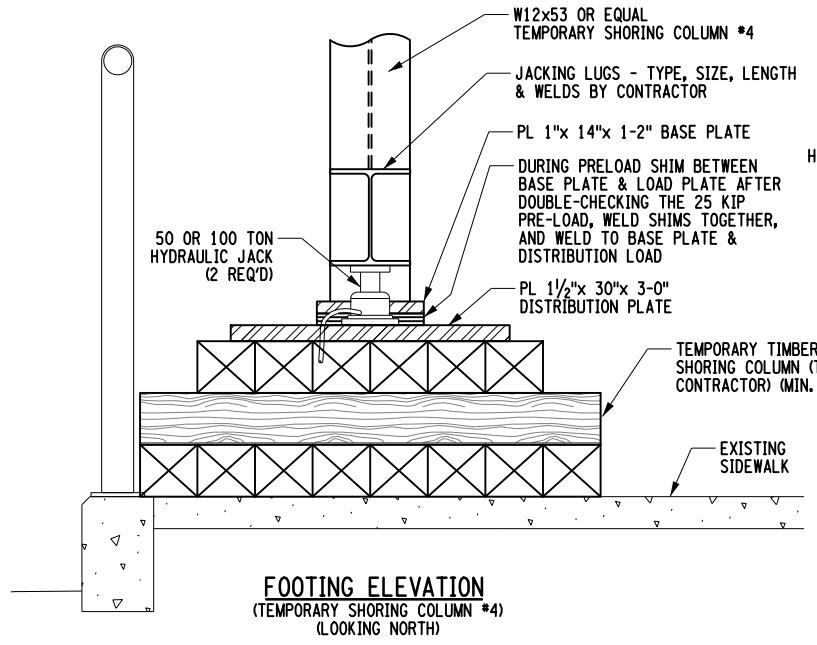
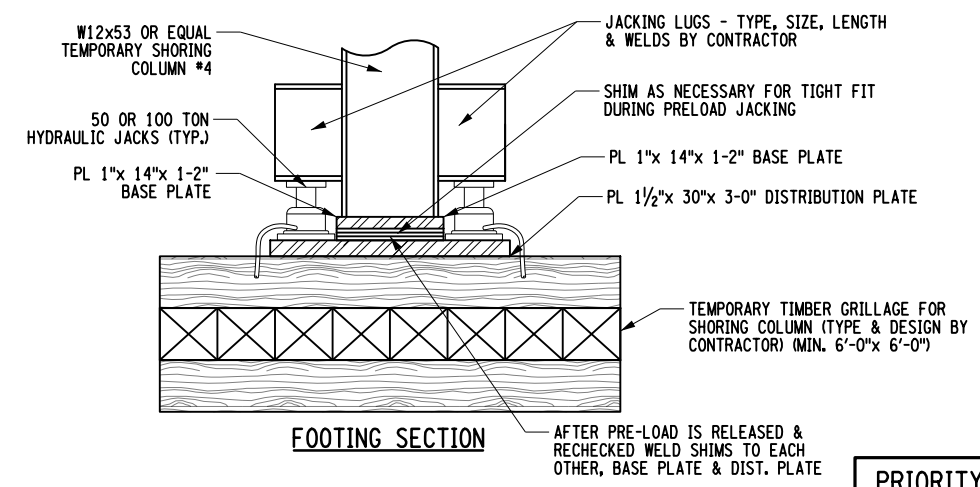
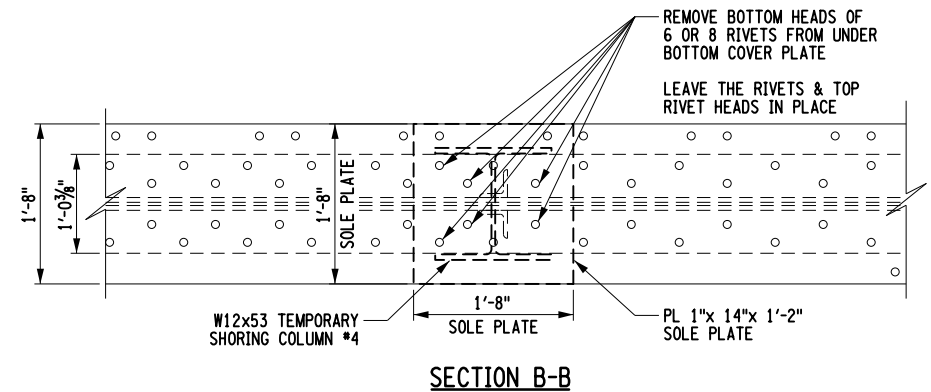
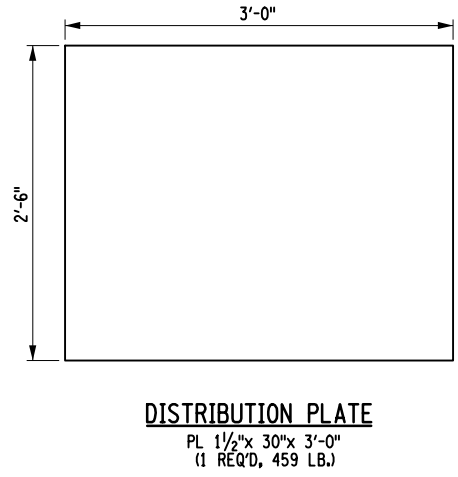
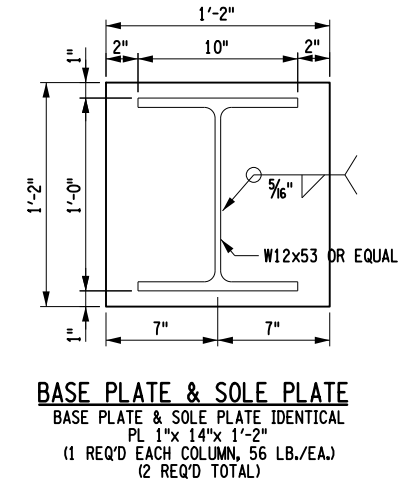
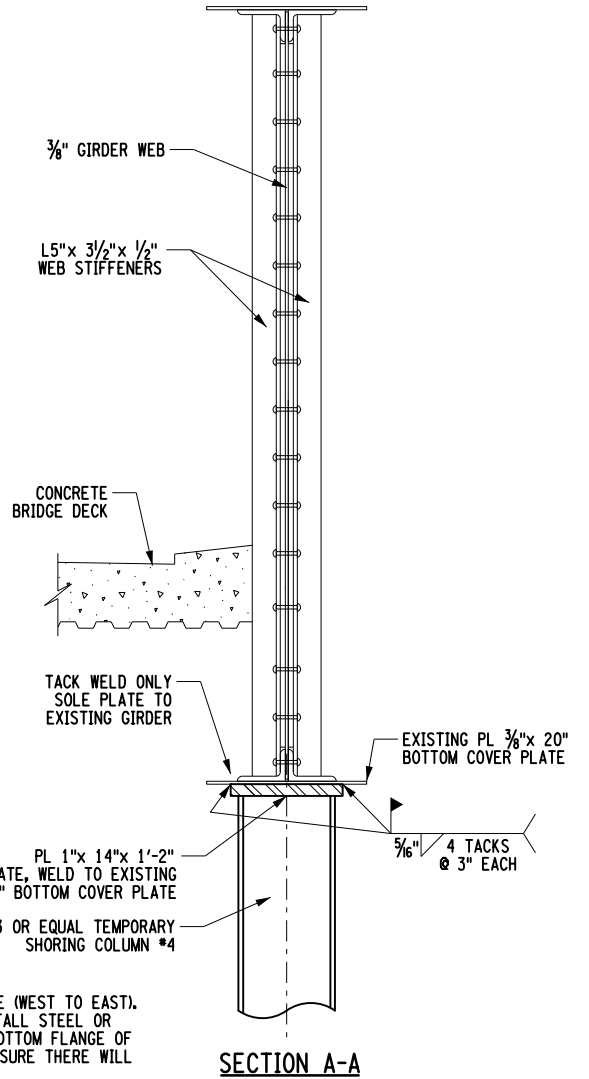
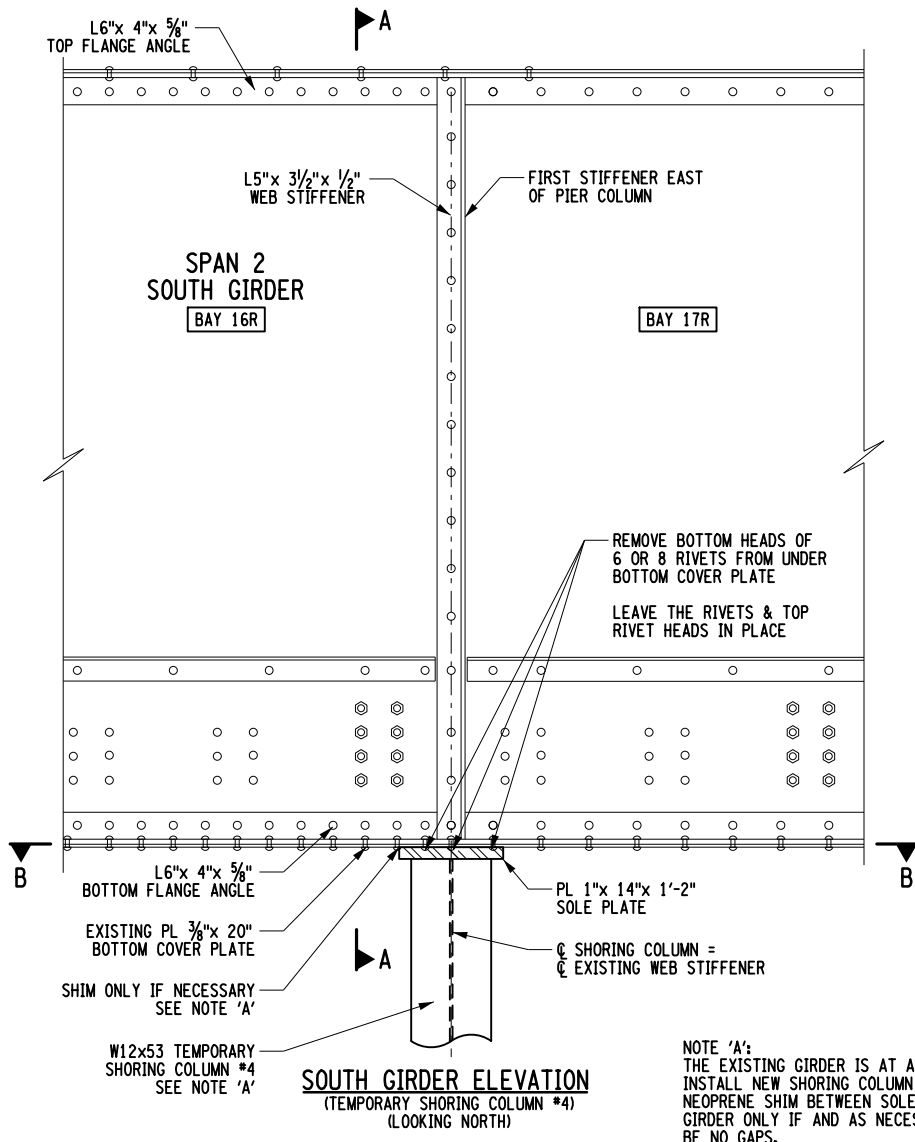
DRAWING TITLE: **PERMANENT SHORING COLUMN #1 DETAILS**

DWG. S-4

DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE BROOXXXX	DATE	MAY 2022	
SHEET NUMBER 4 OF 16		DRAWING NUMBER PT-344.91-2020		

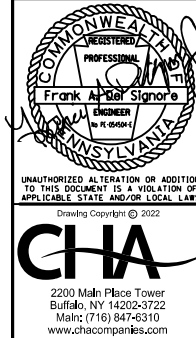


FILE NAME = \\cha-11e.com\proj\Projects\BNY\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-6.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



MAXIMUM SHORING LOAD: 125 KIPS (INC. LIVE LOAD)
 JACKING PRELOAD: 25 KIPS

ITEM 4



PRIORITY 1 REPAIRS - MAY 2022

NORFOLK SOUTHERN

NORFOLK SOUTHERN RAILWAY

NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA

PRIORITY 1 REPAIRS

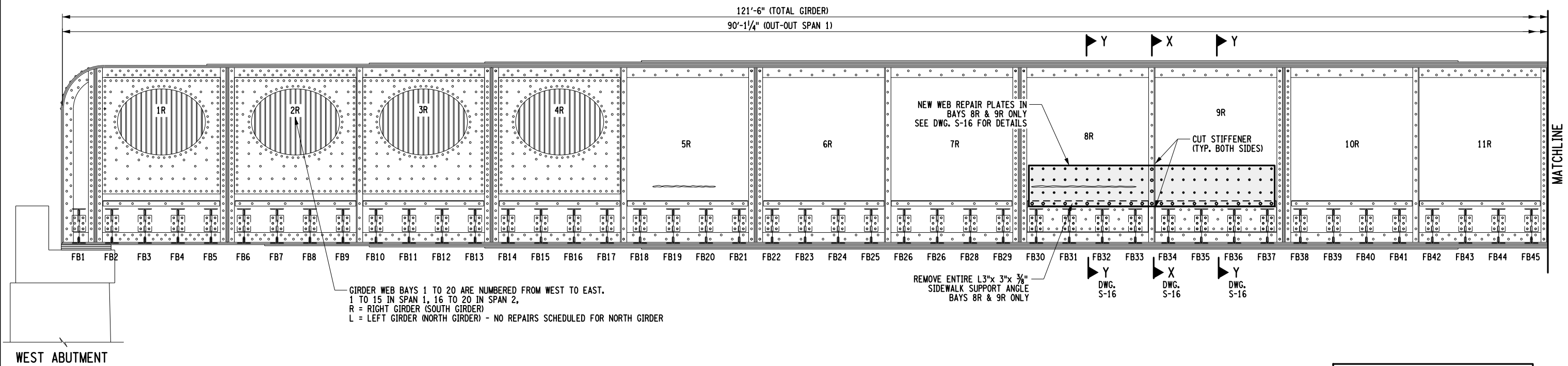
OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.

DRAWING TITLE: PERMANENT SHORING COLUMN #4 DWG. S-6

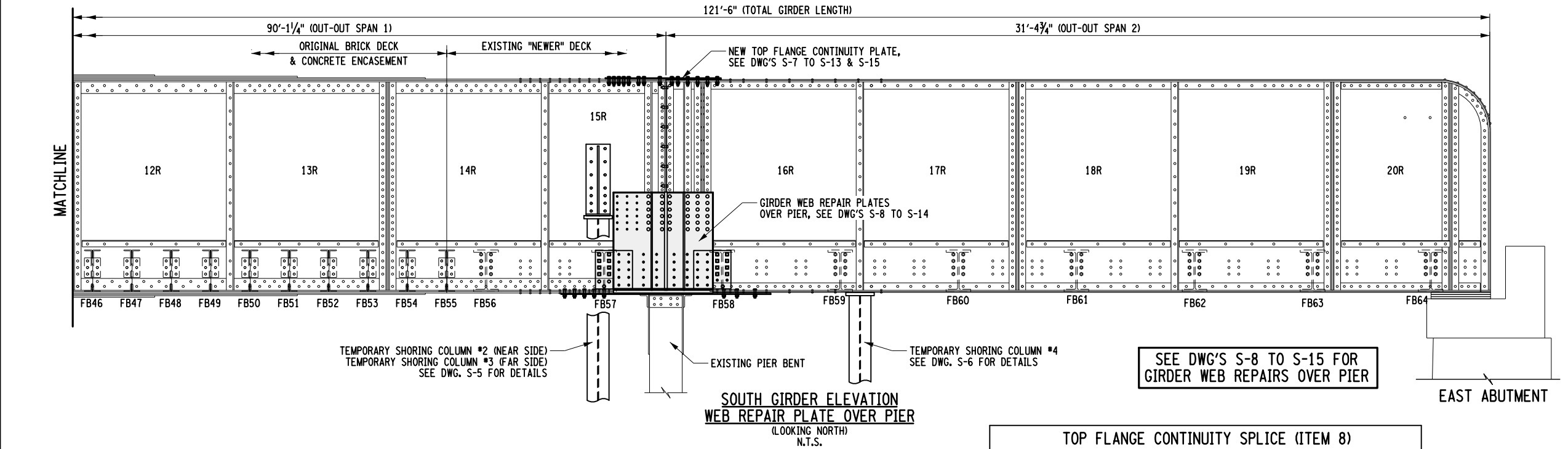
DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE BROOXXXXX	DATE	MAY 2022	
SHEET NUMBER 6 OF 16		DRAWING NUMBER PT-344.91-2020		



FILE NAME = \\cha-11e.com\proj\Projects\BNSF\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale-S-7.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



GIRDER WEB BAYS 1 TO 20 ARE NUMBERED FROM WEST TO EAST.
 1 TO 15 IN SPAN 1, 16 TO 20 IN SPAN 2,
 R = RIGHT GIRDER (SOUTH GIRDER)
 L = LEFT GIRDER (NORTH GIRDER) - NO REPAIRS SCHEDULED FOR NORTH GIRDER



LEGEND	
○	EXISTING RIVET TO REMAIN
⊗	EXISTING FLOORBEAM CONNECTION BOLT TO REMAIN
○	REMOVE EXISTING RIVET & REPLACE WITH 1/8" A325 H.S. BOLT
□	REMOVE EXISTING CONNECTION BOLT & REPLACE WITH 1/8" A325 H.S. BOLT
●	NEW HOLE LOCATION, PRE-DRILL IN NEW PLATE, FIELD DRILL 1 5/16" HOLE IN EXISTING GIRDER WEB. INSTALL 1/8" A325 H.S. BOLTS W/ HEAVY HEX NUT & 2 STD. HARDENED WASHERS
◆	NEW HOLE LOCATION, PRE-DRILL IN NEW FB CONN. ANGLE, FIELD DRILL 1 5/16" HOLE IN EXISTING GIRDER WEB. INSTALL 1/8" A325 H.S. BOLTS W/ HEAVY HEX NUT & 2 STD. HARDENED WASHERS

SEE DWG'S S-8 TO S-15 FOR GIRDER WEB REPAIRS OVER PIER

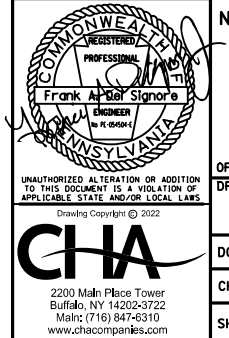
TOP FLANGE CONTINUITY SPLICE (ITEM 8)				
PRE-DRILL HOLES INTO NEW PLATE	PLATE MK.	REPAIR PLATES & FILLS	STEEL WEIGHTS	TOTAL WEIGHT
29	P12	2 - PL 5/8" x 14" x 4'-5"	131.5 LB./EA.	263 LB.
13	FP13	2 - PL 1/4" x 14" x 2'-1 1/4" (FILL)	35.7 LB./EA.	72 LB.
42	TOTAL			335 LB.

GIRDER WEB REPAIR SUMMARY TABLE - AT PIER											
PANEL	REMOVAL OF EXISTING RIVETS (ABOVE DECK)	REMOVAL OF OUTSIDE RIVET HEADS (AT DECK)	REMOVAL OF EXISTING RIVETS (BELOW DECK)	REMOVAL OF EXISTING FB CONN. BOLTS (BELOW DECK)	REMOVAL OF EXISTING RIVETS (FROM PIER COLUMN CAP)	FIELD DRILL HOLES IN EXISTING GIRDER	PRE-DRILL HOLES INTO NEW PLATE	PLATE MK.	REPAIR PLATES & FILLS	STEEL WEIGHTS	TOTAL WEIGHT
15R/16R	* 44	** 13	* 38	16	16	18 (IN P1) 14 (IN P8)	94	P1	1 - PL 5/8" x 45 1/2" x 3'-8 1/8"	213.8 LB./EA.	214 LB.
							40	P2	1 - PL 3/8" x 18 1/4" x 3'-9 1/2"	94.5 LB./EA.	95 LB.
							-	P3	1 - PL 1 1/4" x 20" x 3'-9 1/2"	322.7 LB./EA.	323 LB.
							21	P4	1 - PL 1/2" x 17" x 17 1/2"	42.2 LB./EA.	42 LB.
							21	P5	1 - PL 1/2" x 17" x 17 1/2"	42.2 LB./EA.	42 LB.
							4	FP6	1 - PL 5/8" x 8" x 1'-0 1/2" (FILL)	17.7 LB./EA.	18 LB.
							6	FP7	1 - PL 5/8" x 8" x 1'-2 3/8" (FILL)	20.7 LB./EA.	21 LB.
							20 / 14 F.D.	P8	1 - PL 5/8" x 21" x 8'-0"	357.4 LB./EA.	357 LB.
							14	FP9	1 - PL 1/4" x 12 3/8" x 2'-2 1/4" (FILL)	23.0 LB./EA.	23 LB.
							-	P10	2 - PL 1" x 8" x 3'-8 7/8"	101.8 LB./EA.	204 LB.
							-	P11	1 - PL 1 1/2" x 8" x 3'-8 7/8"	152.7 LB./EA.	153 LB.
							168 BOLTS	TOTAL			1,492 LB.

* INCLUDES RIVETS IN HORIZONTAL LEGS OF GIRDER TOP & BOTTOM FLANGE AND COVER PLATES. EXCLUDES RIVETS IN GIRDER WEB & STIFFENERS THAT GET "CUT OUT" AND NEED NOT BE REMOVED

** THESE ARE RIVETS THAT CANNOT BE REMOVED BECAUSE OF THE NEWER DECK. REMOVE "OUTSIDE" RIVET HEAD AND GRIND RIVET SHANK FLUSH WITH GIRDER WEB.

ITEM 5



PRIORITY 1 REPAIRS - MAY 2022

NS NORFOLK SOUTHERN

NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS

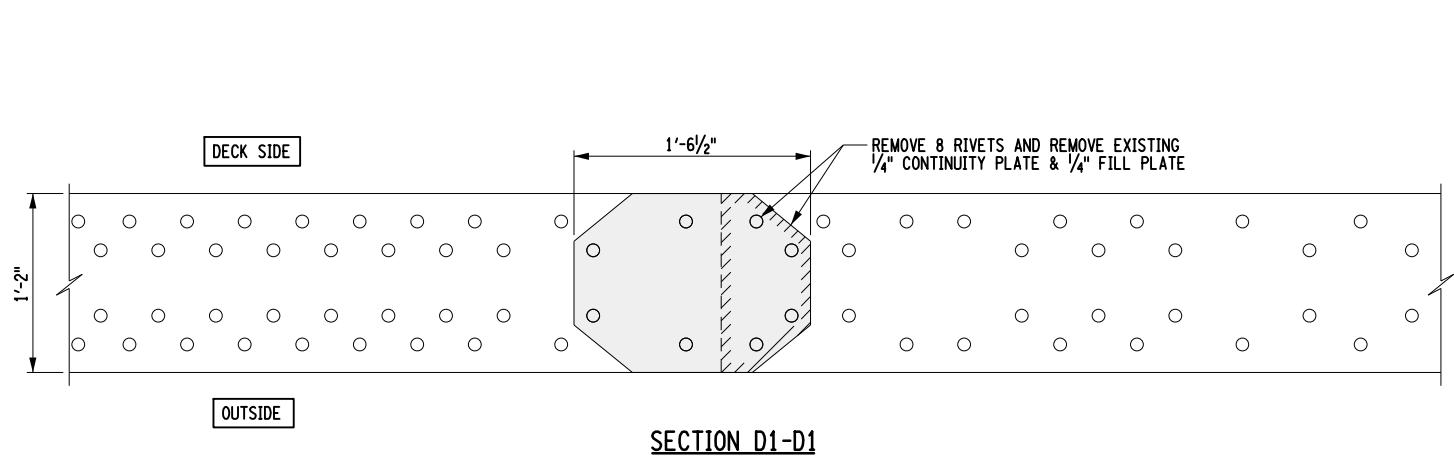
OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.

DRAWING TITLE: SOUTH GIRDER WEB REPAIR SCHEMATIC S-7

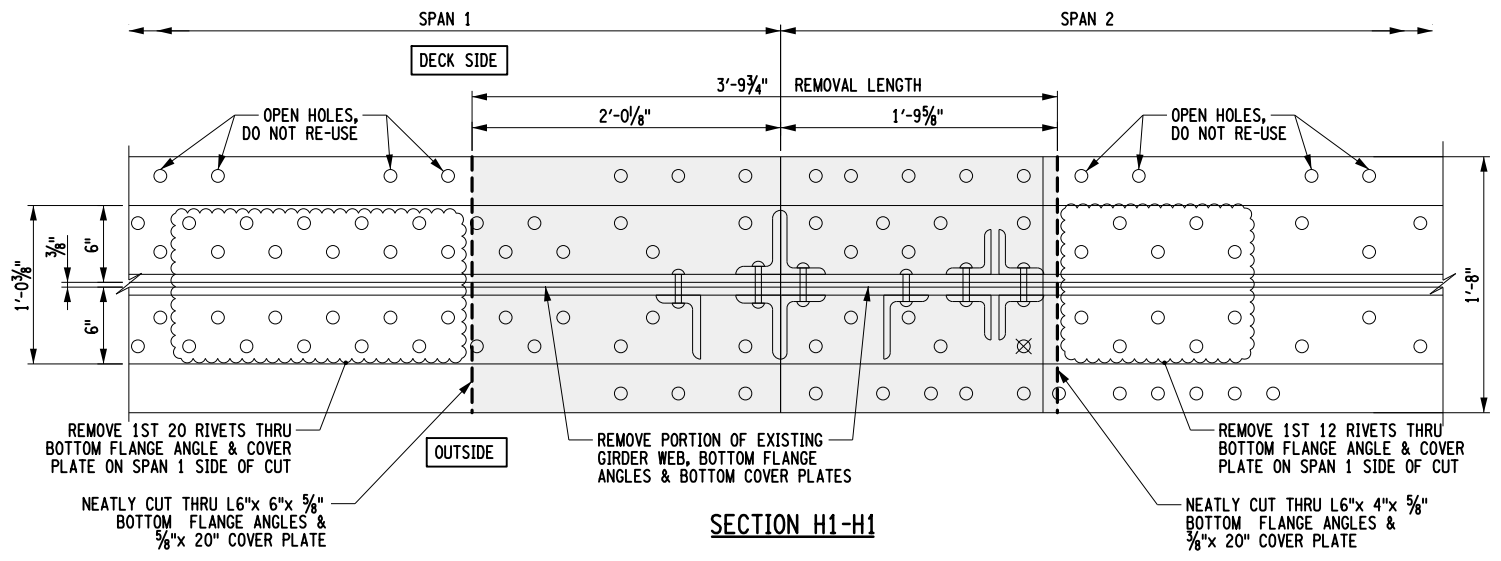
DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE BROOXXXXX	DATE	MAY 2022	
SHEET NUMBER 7 OF 16		DRAWING NUMBER PT-344.91-2020		



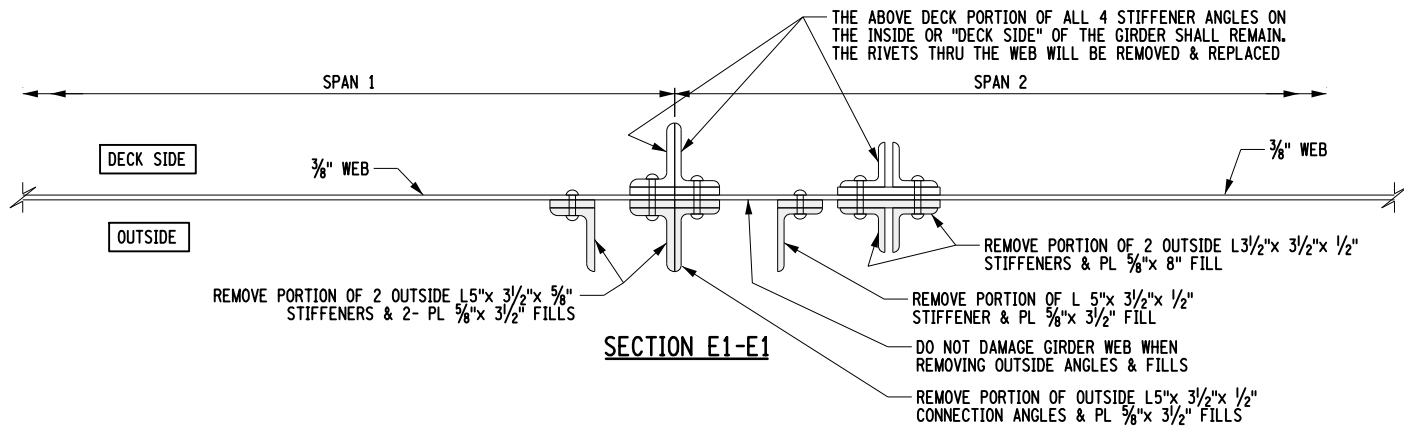
FILE NAME = \\chc\1\proj\Projects\BNY\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-9.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



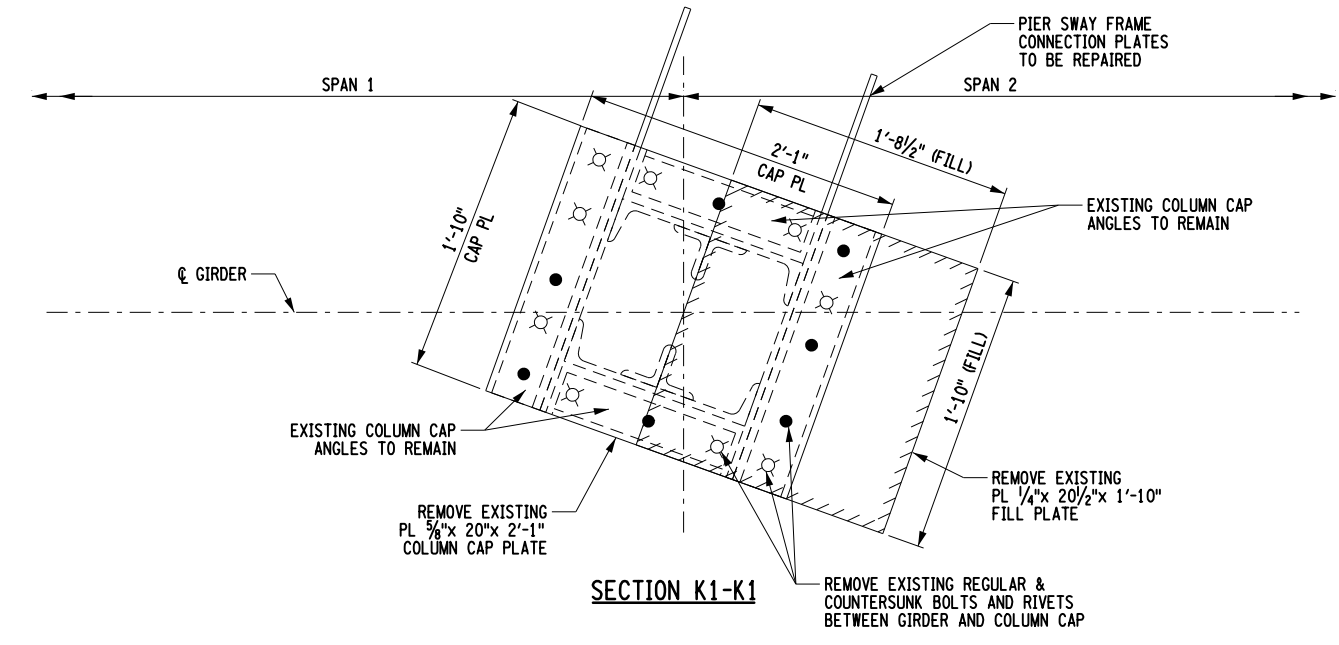
SECTION D1-D1



SECTION H1-H1

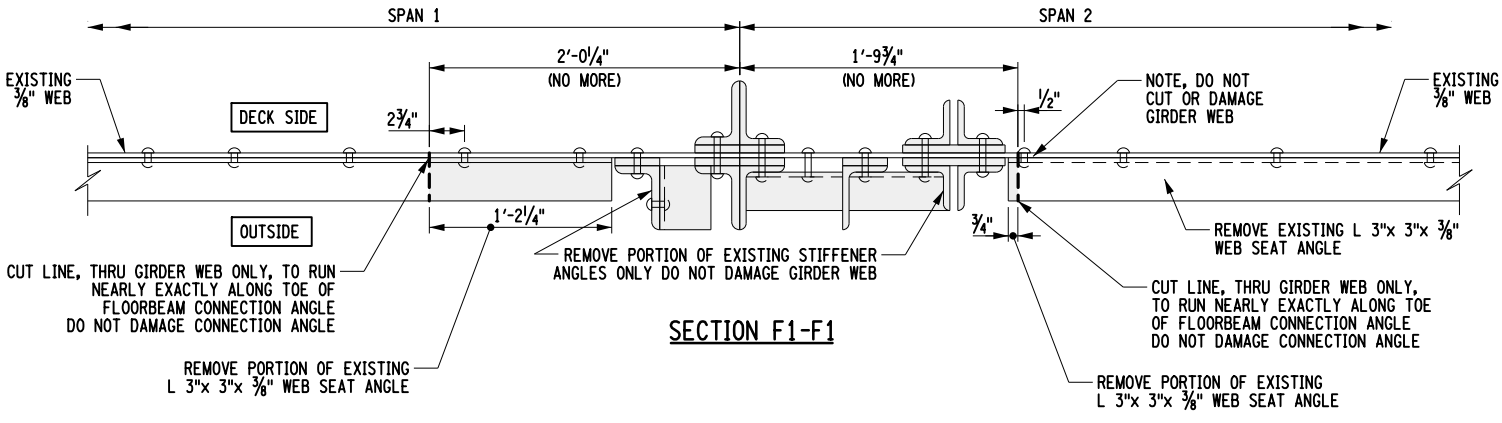


SECTION E1-E1

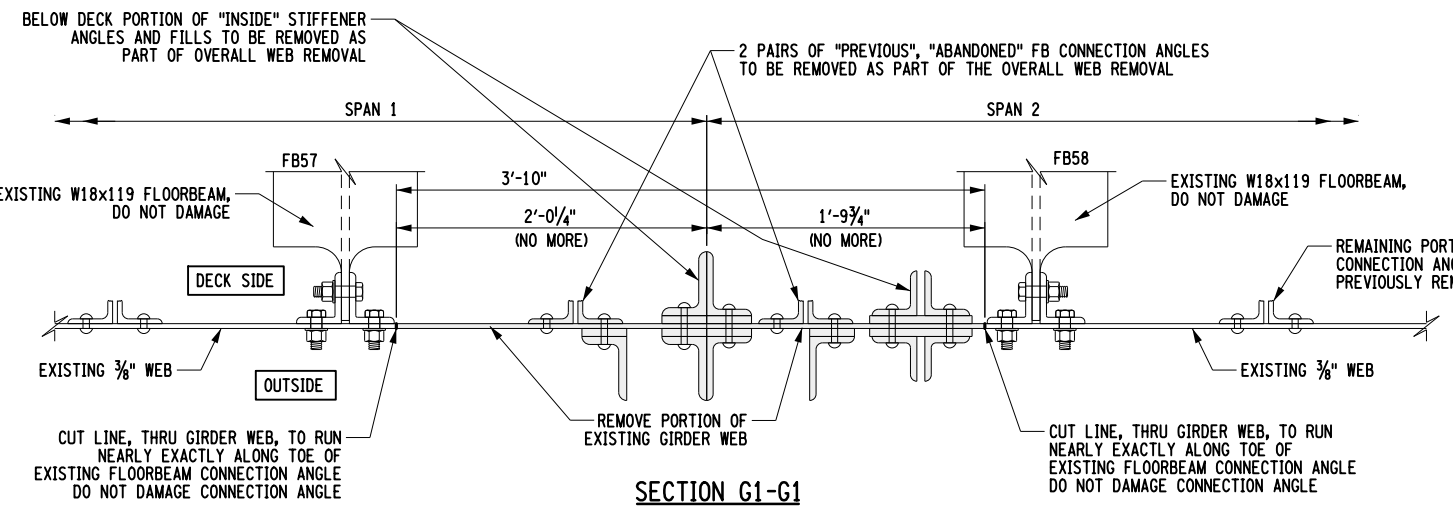


SECTION K1-K1

NOTE: CONNECTION ANGLES BELOW CAP PLATE (SHOWN DASHED) ARE TO REMAIN



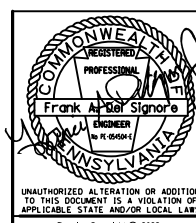
SECTION F1-F1



SECTION G1-G1

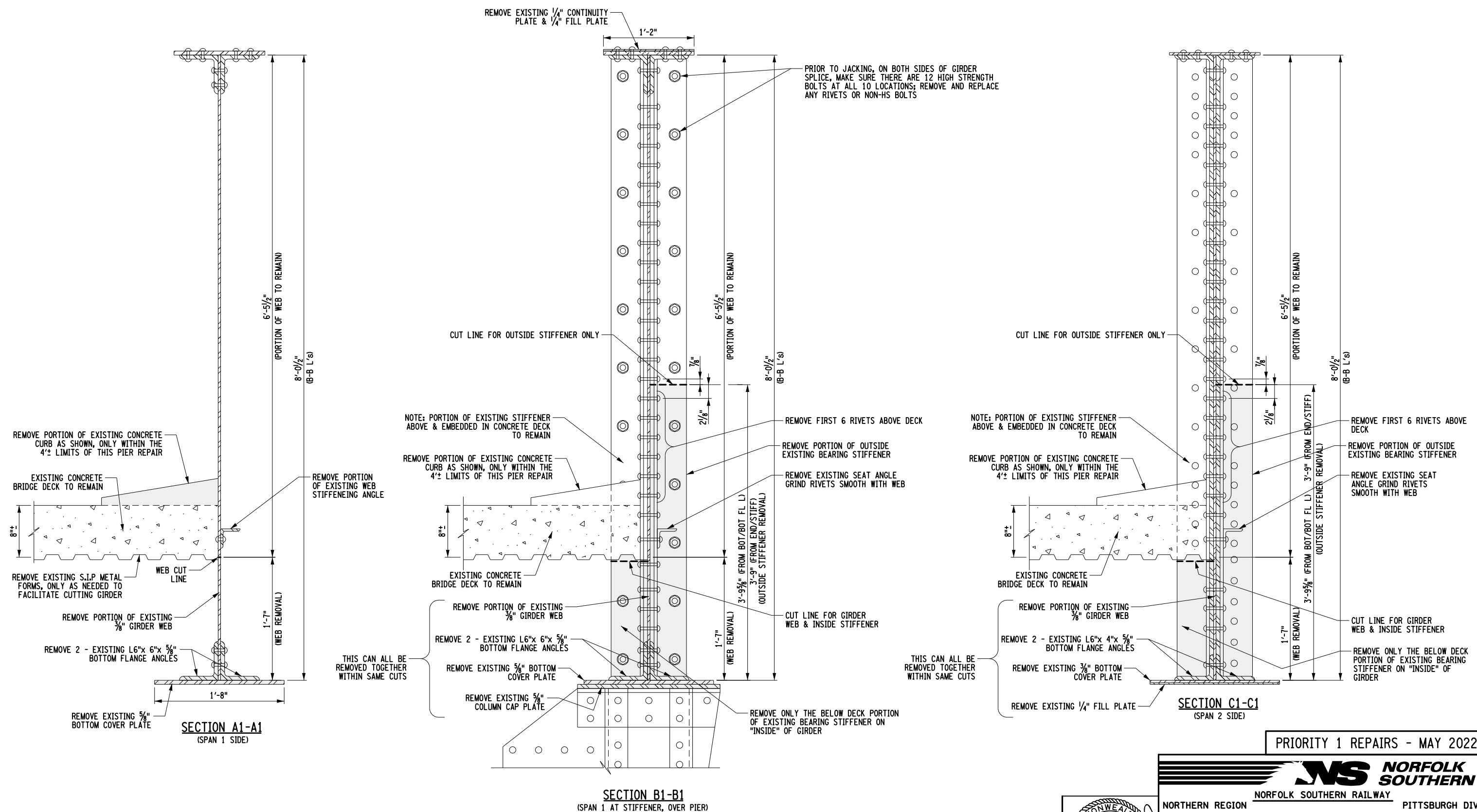
ITEM 5

PRIORITY 1 REPAIRS - MAY 2022

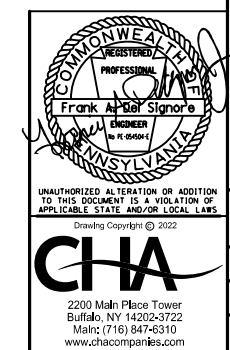


		NORFOLK SOUTHERN RAILWAY	
		NORTHERN REGION	PITTSBURGH DIV.
BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.			
PITTSBURGH LINE SWISSVALE BOROUGH, PA			
PRIORITY 1 REPAIRS			
OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES		ATLANTA, GA.	
DRAWING TITLE:		DWG.	
GIRDER REPAIRS AT PIER		S-9	
EXISTING REMOVAL SECTIONS			
DGN SS	VAL SEC	MAP	MILE POST PT 344.91
CHK GH	FILE BROOXXXXX	DATE MAY 2022	
SHEET NUMBER 9 OF 16		DRAWING NUMBER PT-344.91-2020	

FILE NAME = \\cha-11e.com\proj\Projects\BNSF\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-10.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



ITEM 5



PRIORITY 1 REPAIRS - MAY 2022

NS NORFOLK SOUTHERN

NORFOLK SOUTHERN RAILWAY

NORTHERN REGION PITTSBURGH DIV.

BRIDGE PT-344.91 WASHINGTON AVE. OVER
NSRR, PAT BUSWAY & WAVERLY ST.

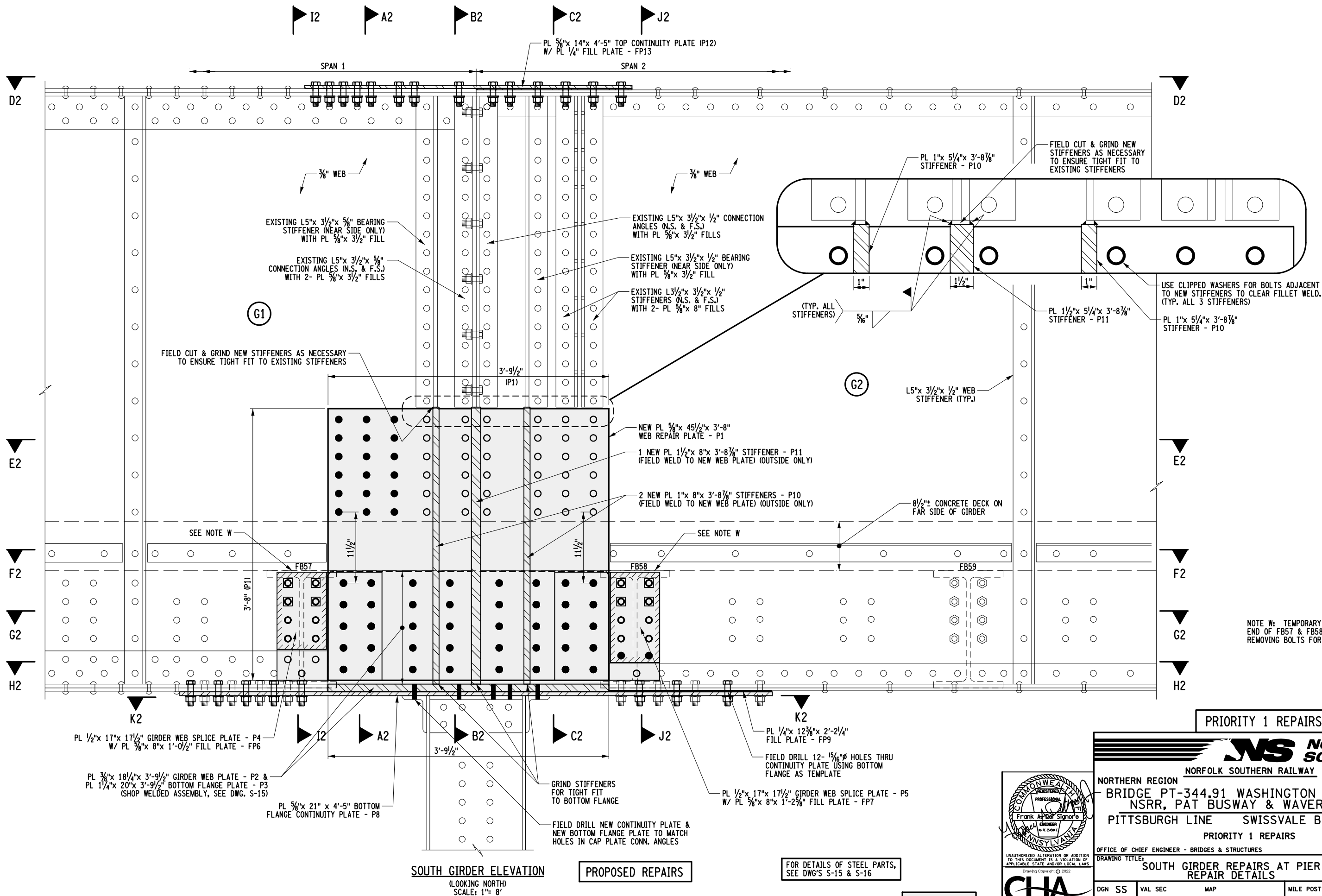
PITTSBURGH LINE SWISSVALE BOROUGH, PA

PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.

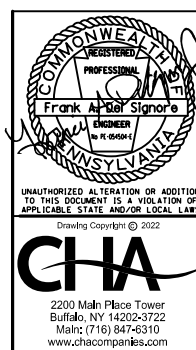
DRAWING TITLE:		DWG.
GIRDER REPAIRS AT PIER EXISTING REMOVAL DETAILS		S-10
DGN SS	VAL SEC	MAP
CHK GH	FILE	BROOXXXXX
SHEET NUMBER		DRAWING NUMBER
10 OF 16		PT 344.91
		DATE
		MAY 2022
		PT 344.91-2020

FILE NAME = \\chc-11e.com\proj\Projects\BNY\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-11.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



NOTE W: TEMPORARY SUPPORT SOUTH END OF FB57 & FB58 PRIOR TO REMOVING BOLTS FOR SPLICE PLATES

PRIORITY 1 REPAIRS - MAY 2022



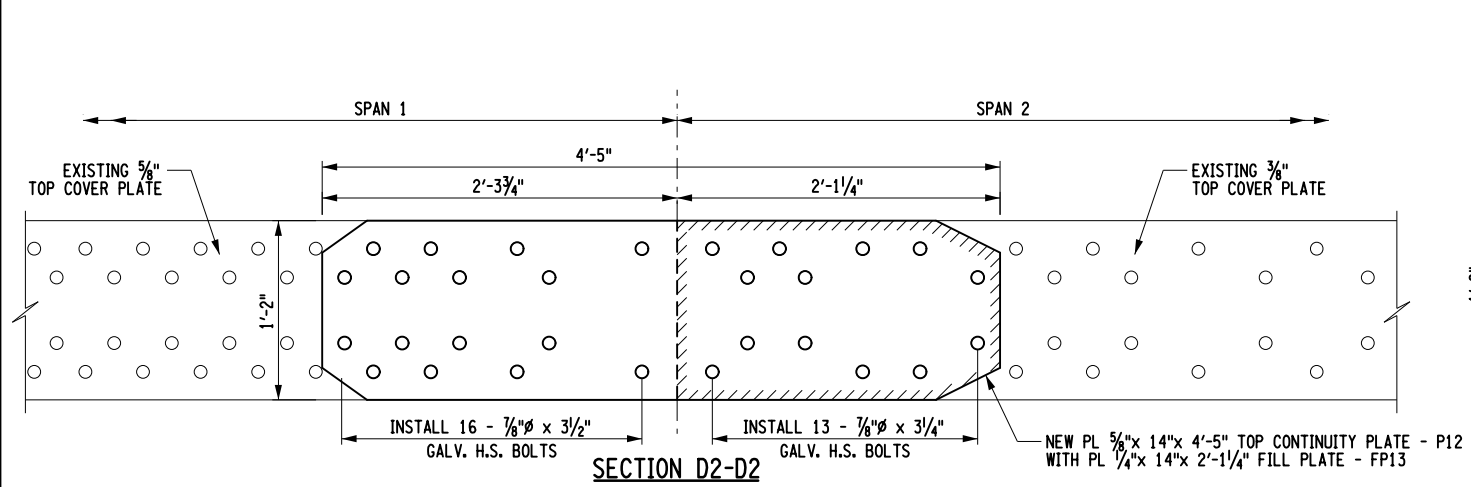
NORFOLK SOUTHERN
 NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER
 NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS
 OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.
 DRAWING TITLE: SOUTH GIRDER REPAIRS AT PIER
 REPAIR DETAILS
 DGN SS VAL SEC MAP MILE POST PT 344.91
 CHK GH FILE BROOXXXXX DATE MAY 2022
 SHEET NUMBER 11 OF 16 DRAWING NUMBER PT-344.91-2020
 S-11

FOR DETAILS OF STEEL PARTS, SEE DWG'S S-15 & S-16

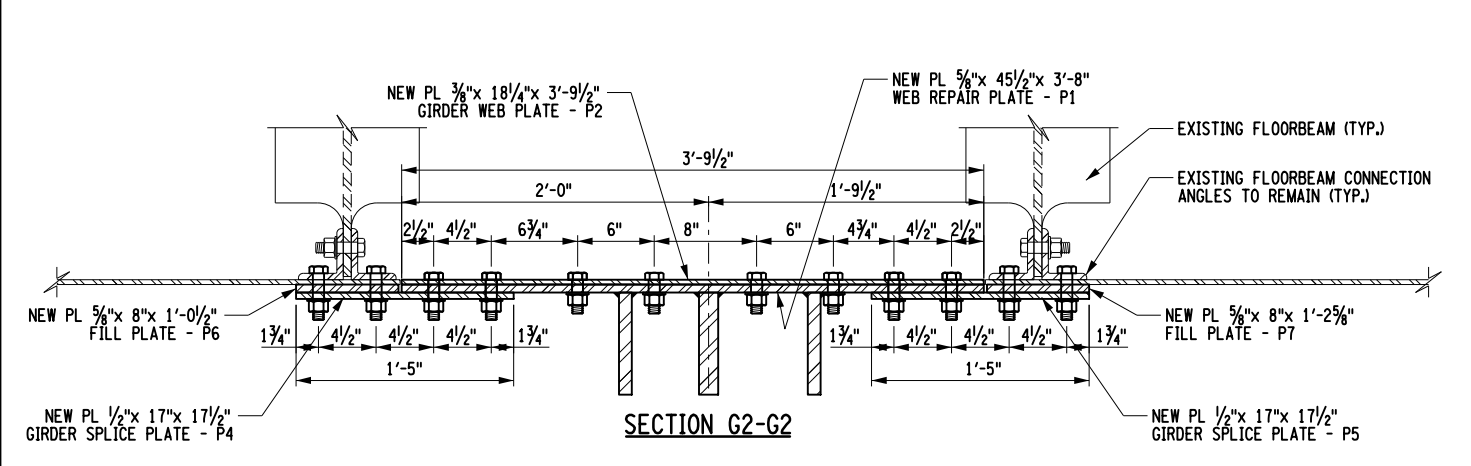
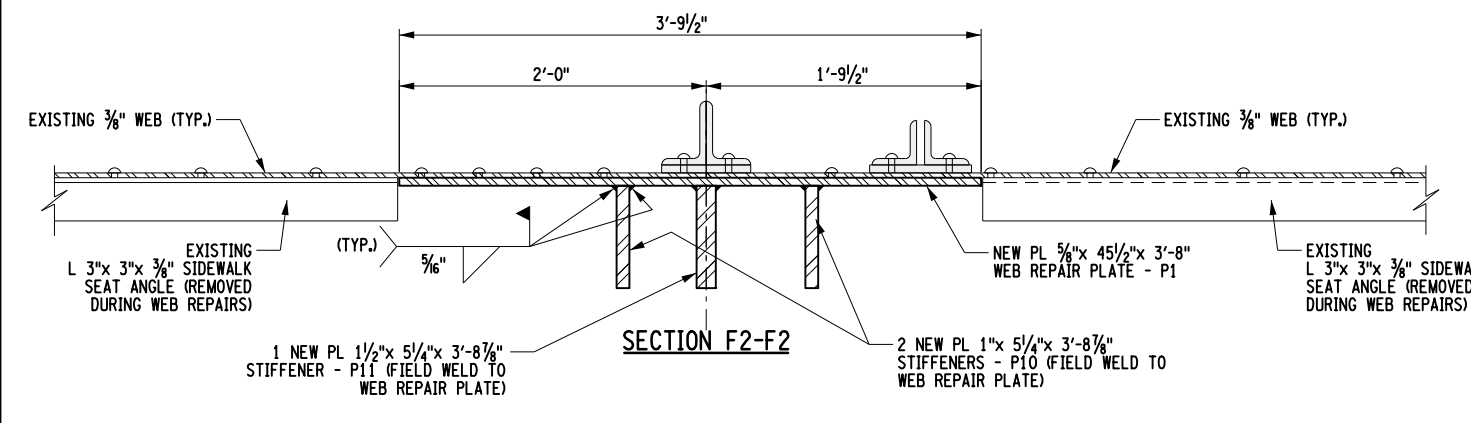
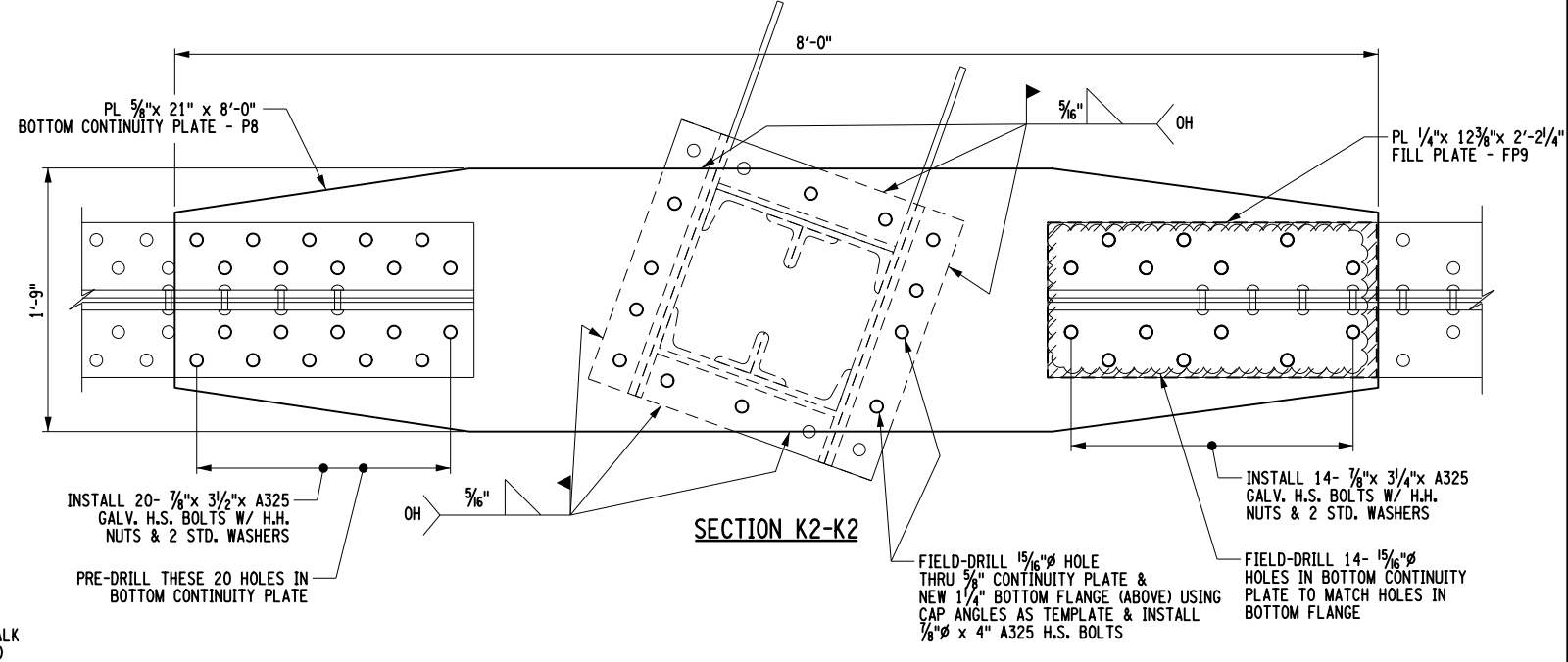
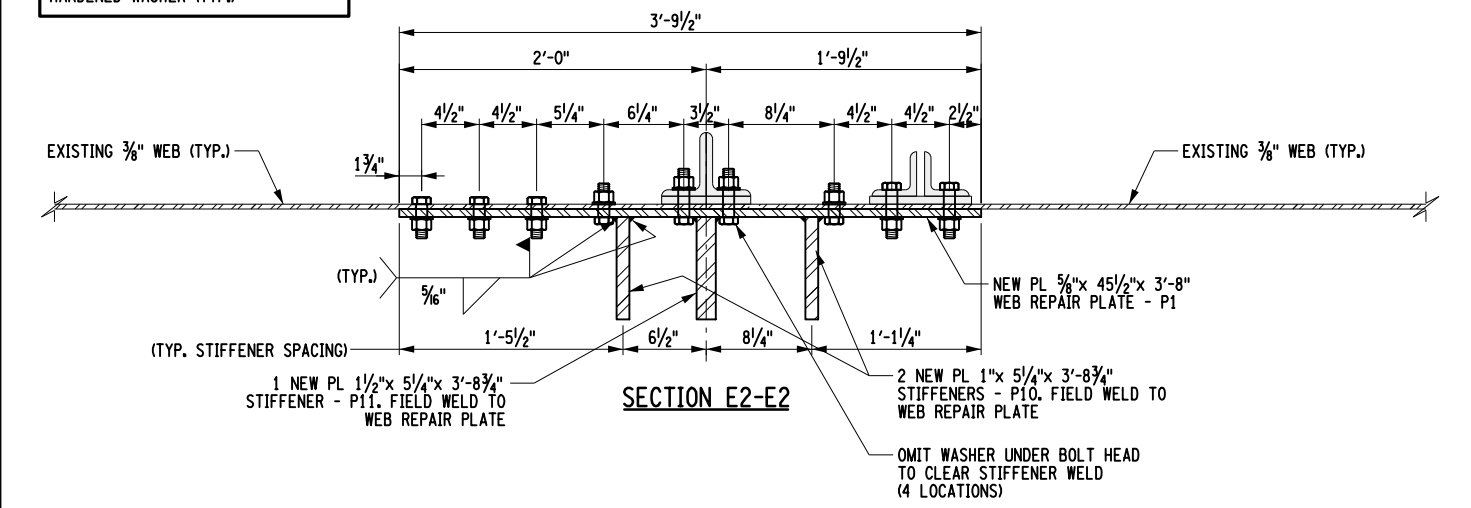
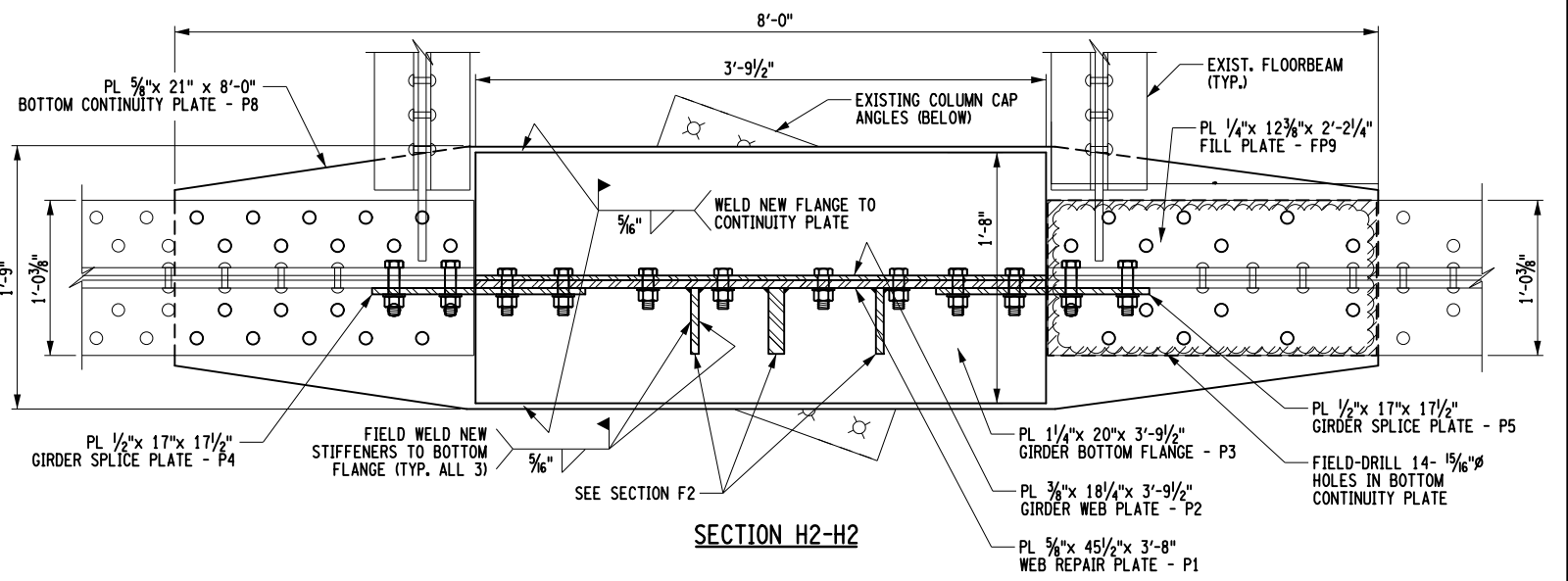
ITEM 5



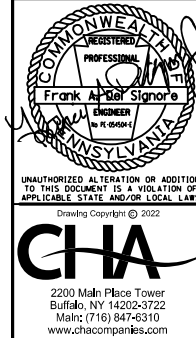
FILE NAME = \\chc\1\proj\Projects\BNSF\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-12.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



ALL BOLTS TO BE 7/8" A325 H.S. BOLT W/ HEAVY HEX NUT & STD. HARDENED WASHER (TYP.)



ITEM 5



PRIORITY 1 REPAIRS - MAY 2022

NS NORFOLK SOUTHERN

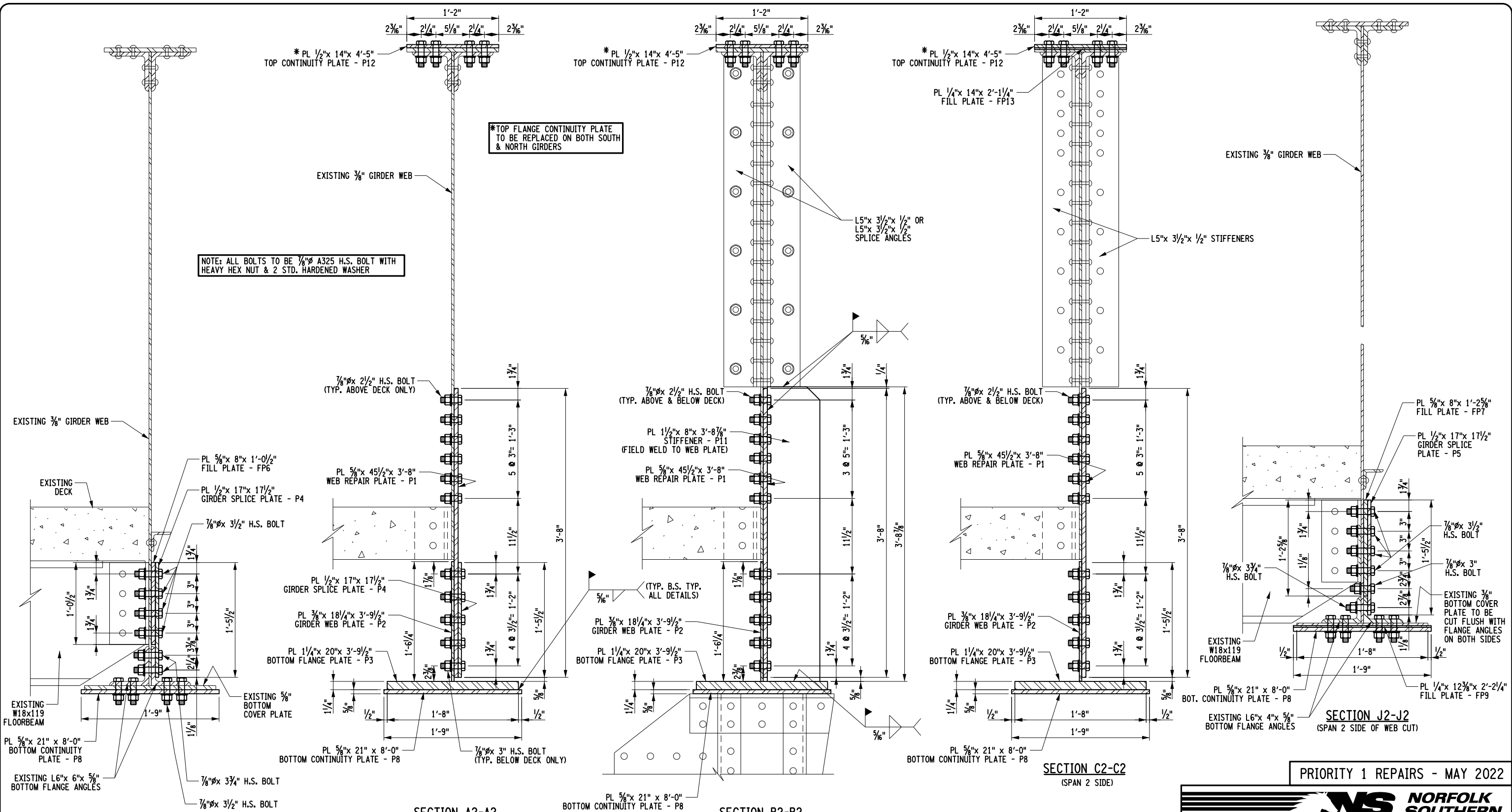
NORFOLK SOUTHERN RAILWAY

NORTHERN REGION
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.
 DRAWING TITLE: SOUTH GIRDER REPAIRS AT PIER PROPOSED REPAIR SECTIONS DWG. S-12

DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE BROOXXXXX	DATE	MAY 2022	
SHEET NUMBER 12 OF 16		DRAWING NUMBER PT-344.91-2020		

FILE NAME = \\cha-11e.com\proj\Projects\BNY11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-13.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



NOTE: ALL BOLTS TO BE 7/8" A325 H.S. BOLT WITH HEAVY HEX NUT & 2 STD. HARDENED WASHER

*TOP FLANGE CONTINUITY PLATE TO BE REPLACED ON BOTH SOUTH & NORTH GIRDERS

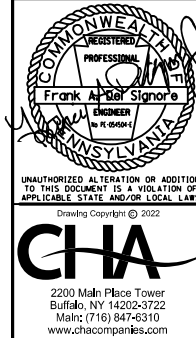
SECTION I2-I2
(SPAN 1 SIDE OF WEB CUT)

SECTION A2-A2
(SPAN 1 SIDE)

SECTION B2-B2

SECTION C2-C2
(SPAN 2 SIDE)

PRIORITY 1 REPAIRS - MAY 2022

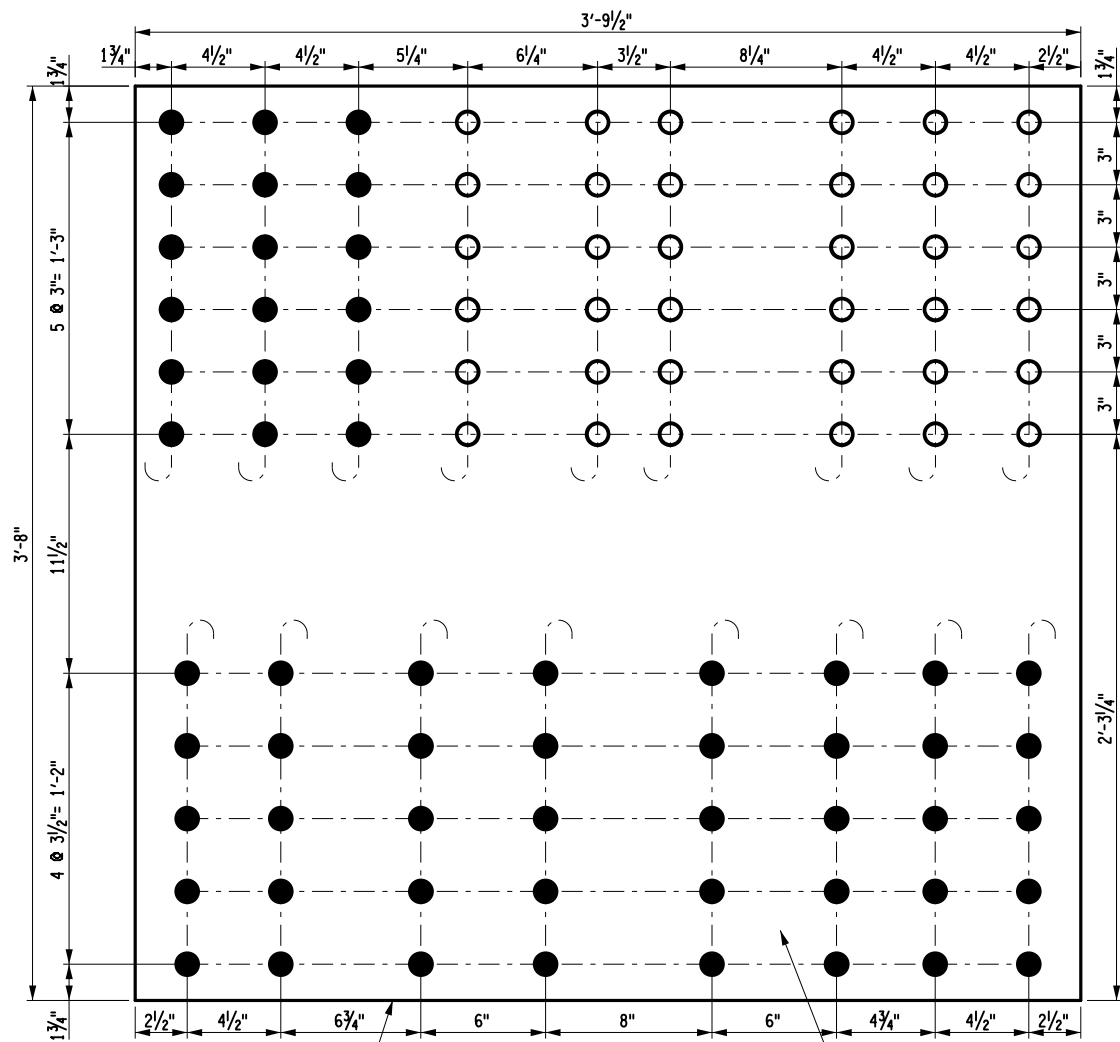


NORFOLK SOUTHERN
 NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH DIV. PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS
 OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.
 DRAWING TITLE: SOUTH GIRDER REPAIRS AT PIER PROPOSED REPAIR SECTIONS
 DWG. S-13
 DGN SS VAL SEC MAP MILE POST PT 344.91
 CHK GH FILE BROOXXXXX DATE MAY 2022
 SHEET NUMBER 13 OF 16 DRAWING NUMBER PT-344.91-2020

ITEM 5



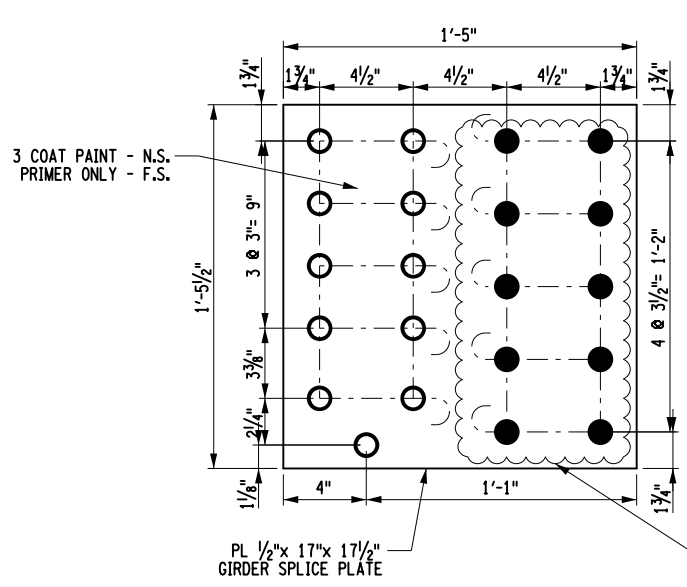
FILE NAME = \\chc\11e.com\proj\N\Projects\BNY\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-14.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



PL 5/8" x 45 1/2" x 3'-8"
WEB REPAIR PLATE

WEB REPAIR PLATE - P1
(1 REQ'D)

3 COAT PAINT - N.S.
PRIMER ONLY - F.S.

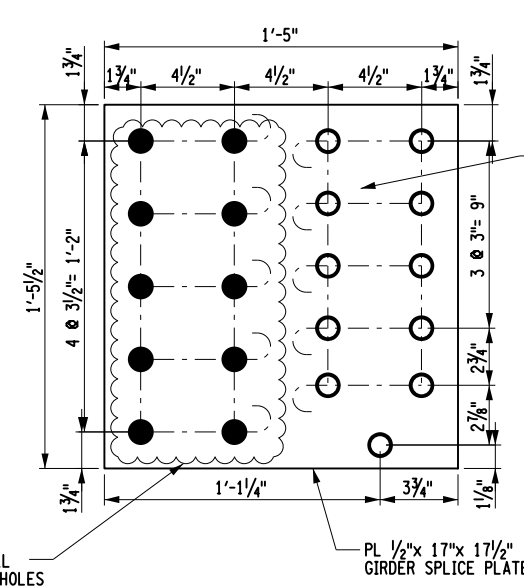


3 COAT PAINT - N.S.
PRIMER ONLY - F.S.

PL 1/2" x 17" x 17 1/2"
GIRDER SPLICE PLATE

GIRDER SPLICE PLATE - P4
(1 REQ'D)

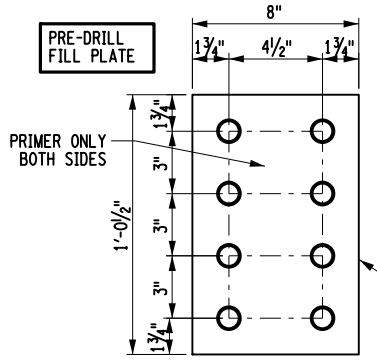
FIELD DRILL
THESE 10 HOLES



3 COAT PAINT - N.S.
PRIMER ONLY - F.S.

PL 1/2" x 17" x 17 1/2"
GIRDER SPLICE PLATE

GIRDER SPLICE PLATE - P5
(1 REQ'D)

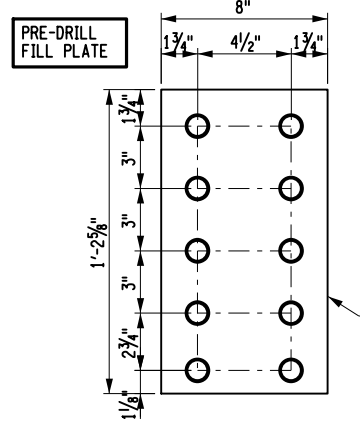


PRE-DRILL
FILL PLATE

PRIMER ONLY
BOTH SIDES

PL 5/8" x 8" x 1'-0 1/2"
FILL PLATE

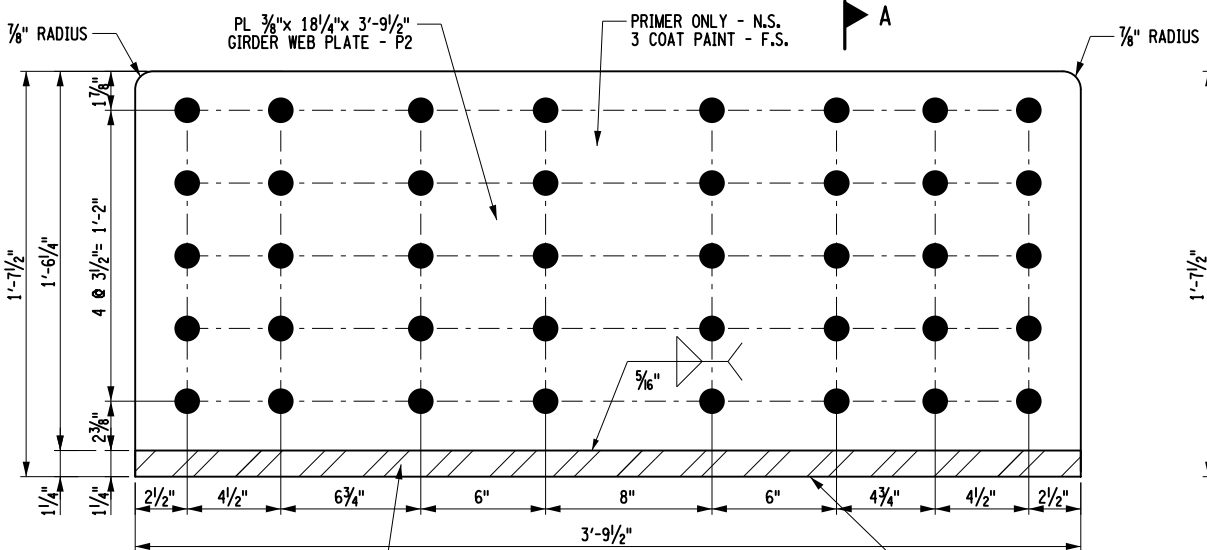
FILL PLATE - FP6
(1 REQ'D)



PRE-DRILL
FILL PLATE

PL 5/8" x 8" x 1'-2 5/8"
FILL PLATE

FILL PLATE - FP7
(1 REQ'D)



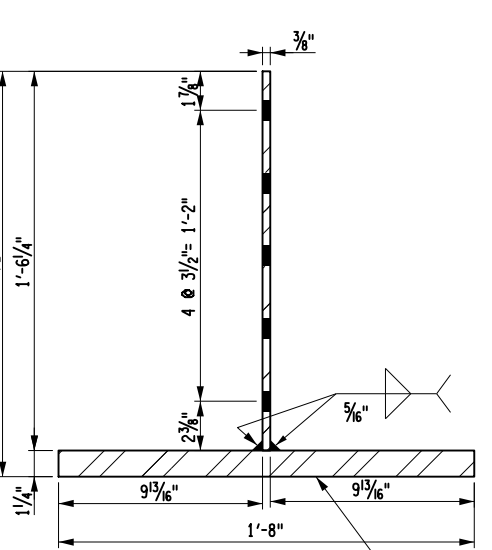
PL 3/8" x 18 1/2" x 3'-9 1/2"
GIRDER WEB PLATE - P2

PRIMER ONLY - N.S.
3 COAT PAINT - F.S.

PL 1 1/4" x 20" x 3'-9 1/2"
BOTTOM FLANGE PLATE - P3

NEW GIRDER SEGMENT - P2 & P3
(1 REQ'D)

PRIMER ONLY - BOTTOM
3 COAT PAINT - TOP & 4 EDGES



SECTION A-A

ALL HOLES IN BOTTOM
FLANGE TO BE FIELD DRILLED

LEGEND

- EXISTING RIVET HOLE, SHOP DRILL NEW PLATE
- NEW HOLE LOCATION, SHOP DRILL NEW PLATE, FIELD DRILL EXISTING GIRDER WEB USING NEW PLATE AS A TEMPLATE

SURFACE PREP: SSPC-SP10
 ALL STEEL: ASTM A709 - 50 ksi
 ALL HOLES: 15/16" Ø
 ALL BOLTS: 3/8" Ø A325 H.D.G. W/ H.H. NUTS & 2 F436 WASHERS
 PAINT: AS NOTED

ITEM 5

CHIA
 2200 Main Place Tower
 Buffalo, NY 14202-3722
 Main: (716) 847-6310
 www.chiacompanies.com

PRIORITY 1 REPAIRS - MAY 2022

NORFOLK SOUTHERN

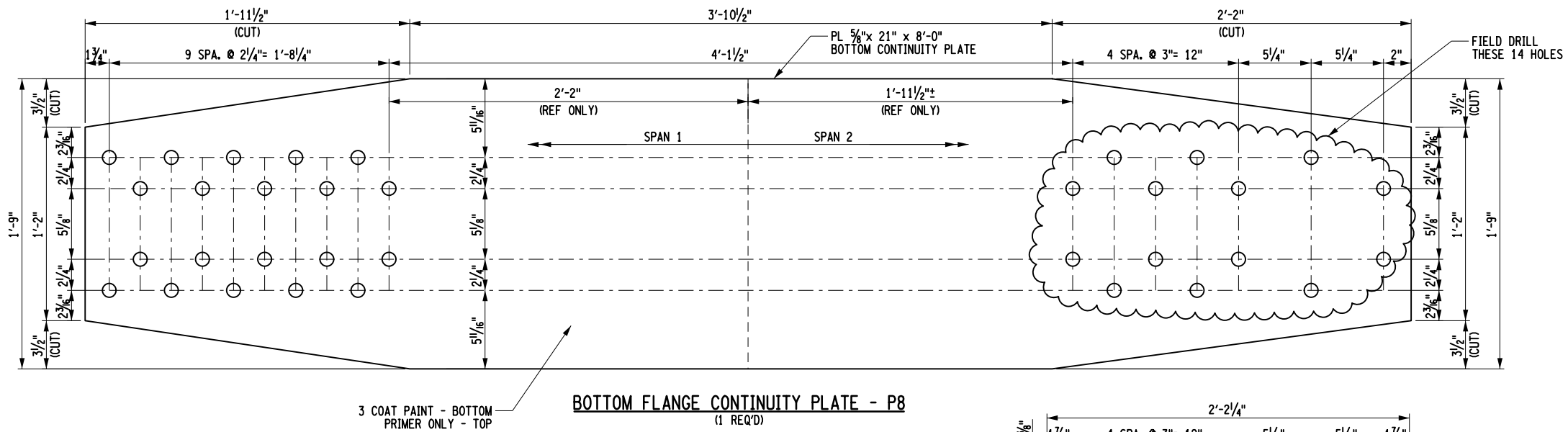
NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES
 ATLANTA, GA.

DRAWING TITLE: **STEEL PARTS DETAILS** S-14

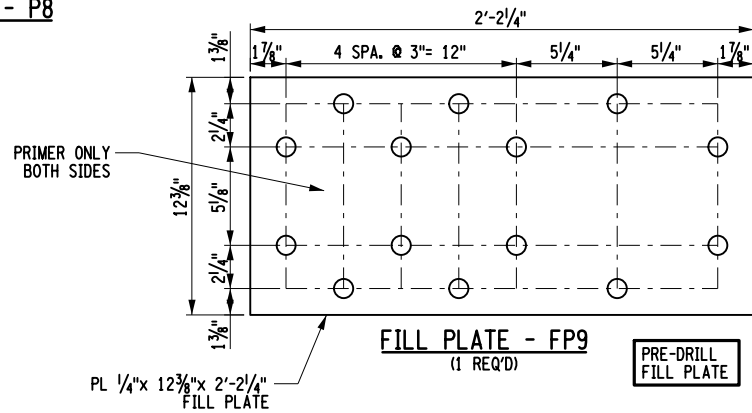
DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE	BROOXXXXX	DATE	MAY 2022
SHEET NUMBER		14 OF 16	DRAWING NUMBER	
			PT-344.91-2020	

FILE NAME = \\cha-11e.com\proj\Projects\BNY\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-15.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



3 COAT PAINT - BOTTOM
PRIMER ONLY - TOP

BOTTOM FLANGE CONTINUITY PLATE - P8
(1 REQ'D)



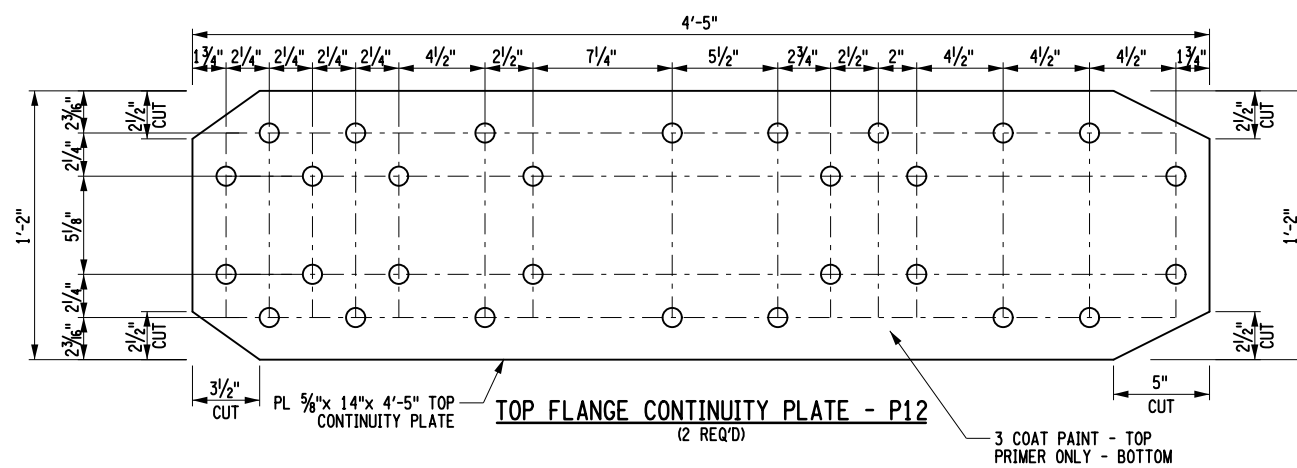
PRIMER ONLY
BOTH SIDES

FILL PLATE - FP9
(1 REQ'D)

PRE-DRILL
FILL PLATE

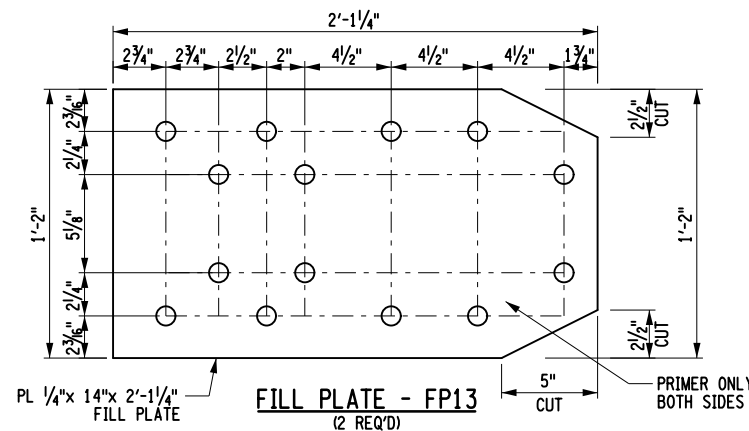
LEGEND	
○	EXISTING RIVET HOLE, SHOP DRILL NEW PLATE
●	NEW HOLE LOCATION, SHOP DRILL NEW PLATE, FIELD DRILL EXISTING GIRDER WEB USING NEW PLATE AS A TEMPLATE

SURFACE PREP: SSPC-SP10
 ALL STEEL: ASTM A709 - 50 ksi
 ALL HOLES: 5/16"
 ALL BOLTS: 3/8" A325 H.D.G. W/ H.H. NUTS & 2 F436 WASHERS
 PAINT: 3-COAT PAINT - NEAR SIDE & PRIMER ONLY - FAR SIDE
 UNLESS NOTED OPPOSITE



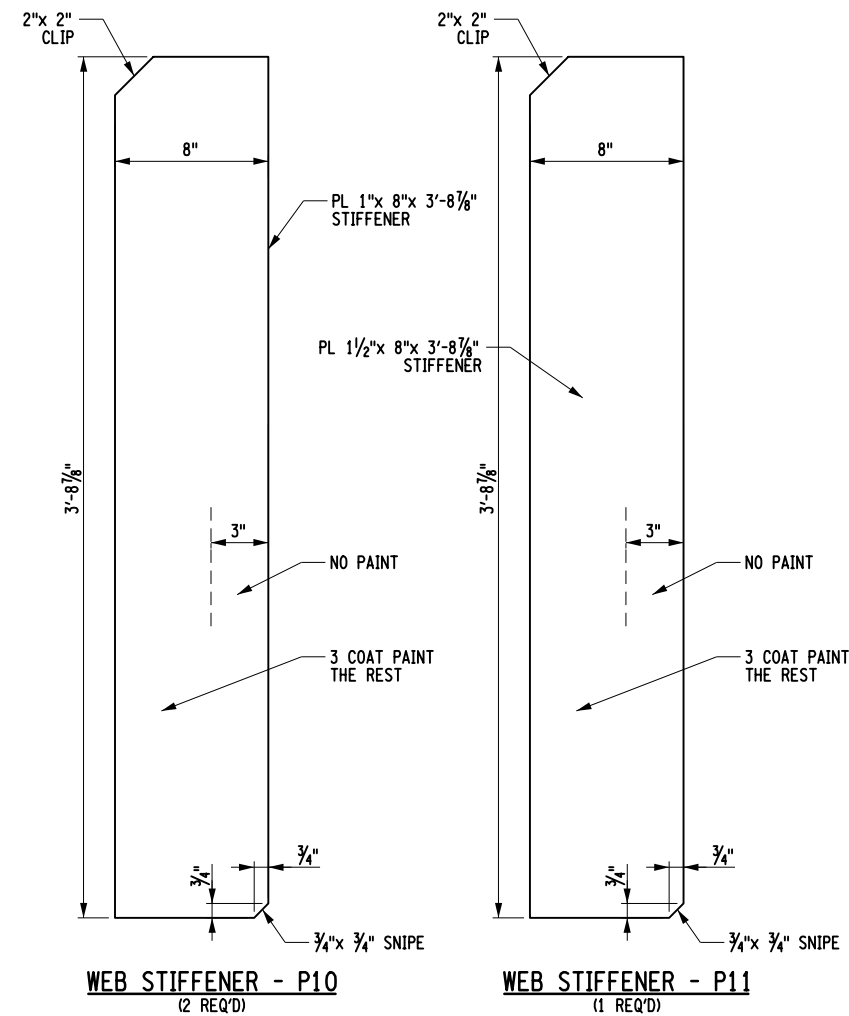
3 COAT PAINT - TOP
PRIMER ONLY - BOTTOM

TOP FLANGE CONTINUITY PLATE - P12
(2 REQ'D)



PRIMER ONLY
BOTH SIDES

FILL PLATE - FP13
(2 REQ'D)

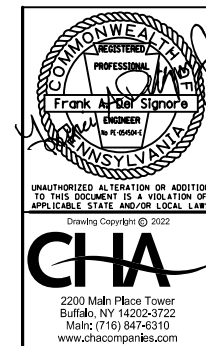


WEB STIFFENER - P10
(2 REQ'D)

WEB STIFFENER - P11
(1 REQ'D)

ITEM 5

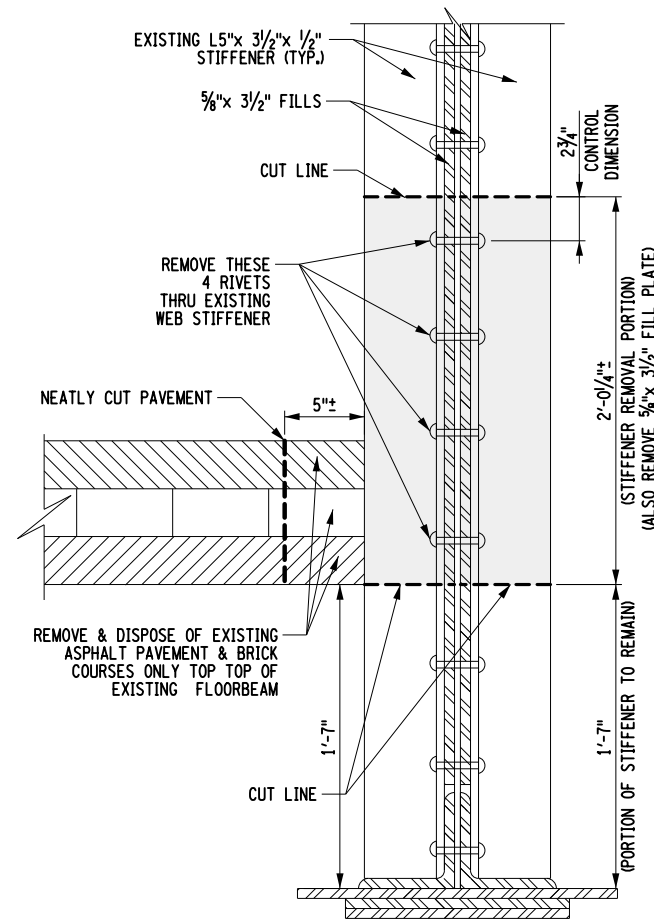
PRIORITY 1 REPAIRS - MAY 2022



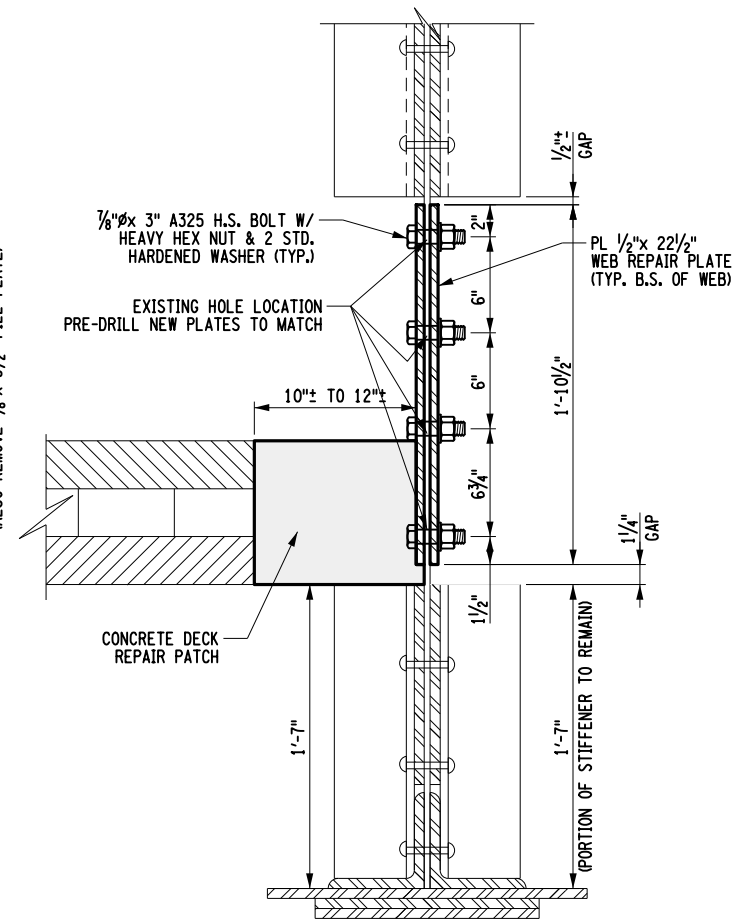
		NORFOLK SOUTHERN RAILWAY	
		NORTHERN REGION	PITTSBURGH DIV.
BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.			
PITTSBURGH LINE SWISSVALE BOROUGH, PA			
PRIORITY 1 REPAIRS			
OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES			ATLANTA, GA.
DRAWING TITLE:			DWG.
STEEL PARTS DETAILS			S-15
DGN SS	VAL SEC	MAP	MILE POST PT 344.91
CHK GH	FILE BROOXXXXX	DATE	MAY 2022
SHEET NUMBER 15 OF 16		DRAWING NUMBER PT-344.91-2020	



FILE NAME = \\cha-11e.com\proj\Projects\BNY11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-16.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



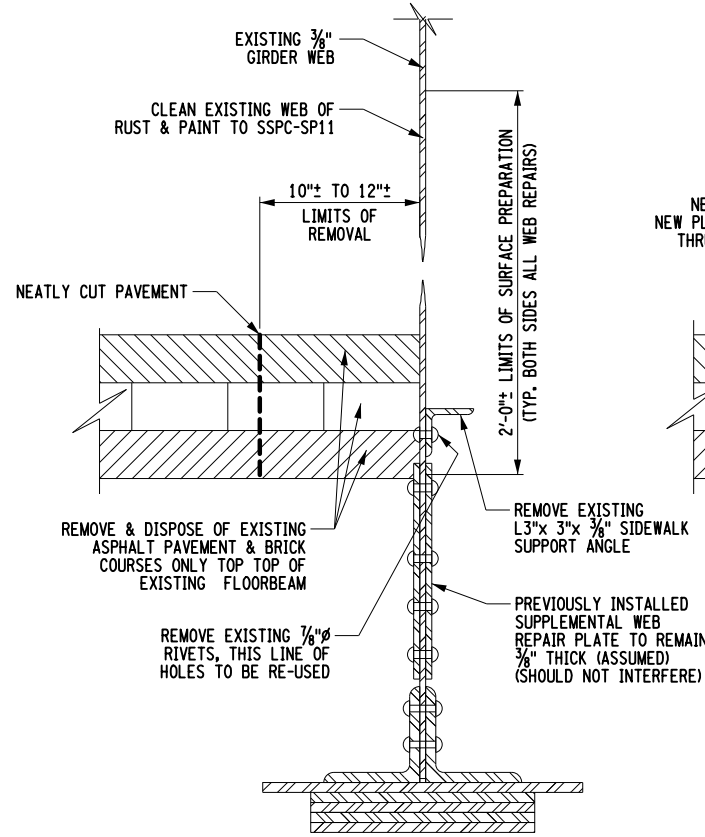
SECTION X1-X1
EXISTING CONDITIONS
 (AT STIFFENER BETWEEN PANELS 8R & 9R)



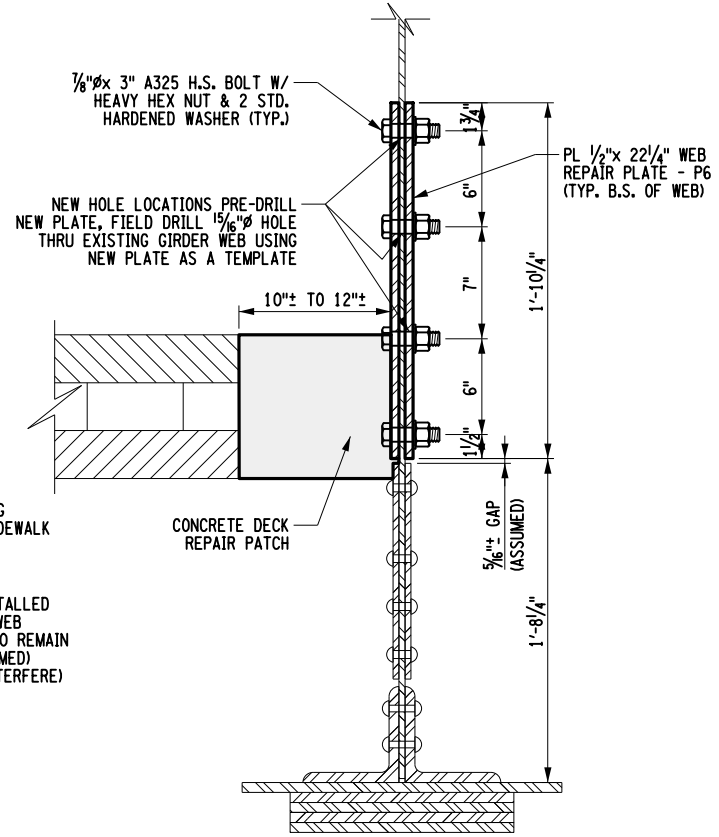
SECTION X2-X2
PROPOSED REPAIR
 (AT STIFFENER BETWEEN PANELS 8R & 9R)

NOTE:
 INSTALL THESE WEB PLATES BEFORE INSTALLING WELDED BEARING STIFFENERS FOR SHORING COLUMN

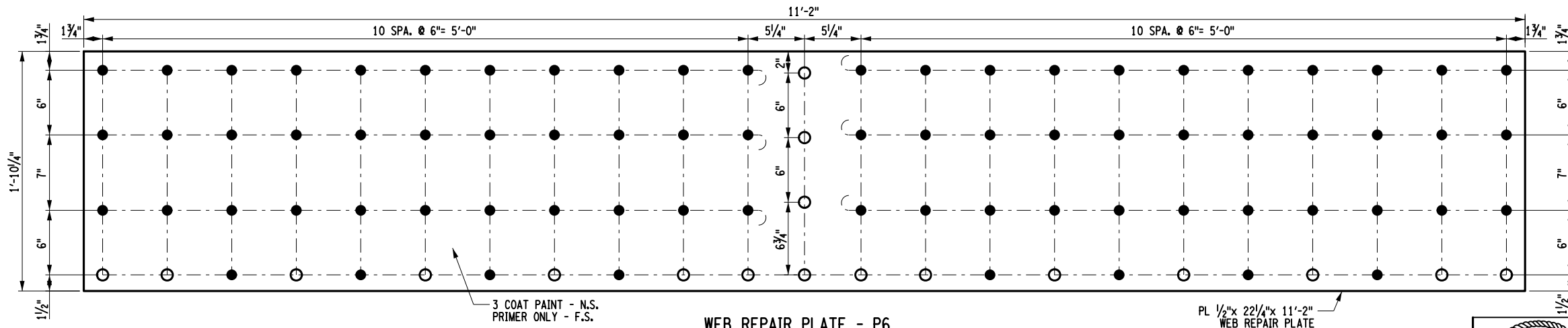
SURFACE PREP: SSPC-SP11 (EXISTING STEEL)
 ALL STEEL ASTM A709 - 50 ksi
 ALL HOLES 1 5/16" Ø
 ALL BOLTS A325 GALVANIZED W/ H.H. NUTS & 2 STD. HARDENED WASHERS



SECTION Y1-Y1
EXISTING CONDITION
 (TYP. FOR PANELS 8R & 9R)



SECTION Y2-Y2
PROPOSED REPAIR
 (TYP. FOR PANELS 8R & 9R)



WEB REPAIR PLATE - P6
 (2 REQ'D) - BOTH SAME PLATE IS REVERSIBLE PRIMER SIDE ON INSIDE

ITEM 6

PRIORITY 1 REPAIRS - MAY 2022

NORFOLK SOUTHERN

NORFOLK SOUTHERN RAILWAY

NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.

DRAWING TITLE: **SOUTH GIRDER WEB REPAIRS AT BAYS 8R & 9R** DWG. **S-16**

DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE	BROOXXXXX	DATE	MAY 2022
SHEET NUMBER		16 OF 16	DRAWING NUMBER	
			PT-344.91-2020	

SURFACE PREP: SSPC-SP10
 ALL STEEL: ASTM A709 - 50 ksi
 ALL HOLES: 1 5/16" Ø
 ALL BOLTS: 3/8" A325 H.D.G. W/ H.H. NUTS & 2 F436 WASHERS
 PAINT: 3-COAT PAINT - NEAR SIDE & PRIMER ONLY - FAR SIDE UNLESS NOTED AS OPPOSITE (P# 4) (SEE NOTE X)

LEGEND

- EXISTING RIVET HOLE, SHOP DRILL NEW PLATE
- NEW HOLE LOCATION, SHOP DRILL NEW PLATE, FIELD DRILL EXISTING GIRDER WEB USING NEW PLATE AS A TEMPLATE

Frank A. Del Signore
 REGISTERED PROFESSIONAL ENGINEER
 No. 05081
 PENNSYLVANIA

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS.

CHA
 2200 Main Plaza Tower
 Buffalo, NY 14202-3722
 Main: (716) 847-6310
 www.chacompanies.com

CERTIFICATE OF SERVICE

I hereby certify that I served one (1) copy of the attached Plans and Letter for Repair Approval in the above-referenced matter, this day, upon the parties listed below via electronic mail as indicated below, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a party):

Eric W. White, Esquire Assistant Counsel
Pennsylvania Department of Transportation
Office of Chief Counsel
P.O. Box 8212
Harrisburg, PA 17105-8212
ewwhite@pa.gov

Thomas A. Ryczek Jr.
District Grade Crossing Administrator
Engineering District 12-0
Department of Transportation
tryczek@pa.gov

Greg Bachy, Borough Manager
Swissvale Borough
7560 Roslyn Street
Pittsburgh, PA 15218
gbachy@swissvaleborough.com

Clyde Wilhelm, Codes
Swissvale Borough
7560 Roslyn Street
Pittsburgh, PA 15218
cwilhelm@swissvalefire.org

Cheryl Moon-Sirianni, P.E.
PennDOT Engineering District 11
45 Thomas Run Road
Bridgeville, PA 15017
csirianni@pa.gov

Jerome Vergenes
Peoples Natural Gas Company
1201 Pitt Street
Pittsburgh, PA 15221
Jerome.p.vergenes@peoples-gas.com

Deborah Barum
Verizon Pennsylvania LLC
1026 Hay Street
Pittsburgh, PA 15221
Deborah.d.delia@verizon.com

Dean Boyers
Verizon Business
400 International Parkway
Richardson, TX 75081
Dean.boyers@verizonbusiness.com

Rich Fitzgerald
Allegheny County Executive
101 County Courthouse
436 Grant Street
Pittsburgh, PA 15219
executive@alleghenycounty.us

Kyle Tessmer
Duquesne Light Company
2825 New Beaver Avenue, Building 6
Pittsburgh, PA 15233
ktessmer@duqlight.com

Vanessa Davis
Wilkesburg Penn Joint Water Authority
2200 Robinson Boulevard
Pittsburgh, PA 15221
vdavis@wpjwa.com

Date: June 13, 2022

/s/Lori Wyman

Lori Wyman