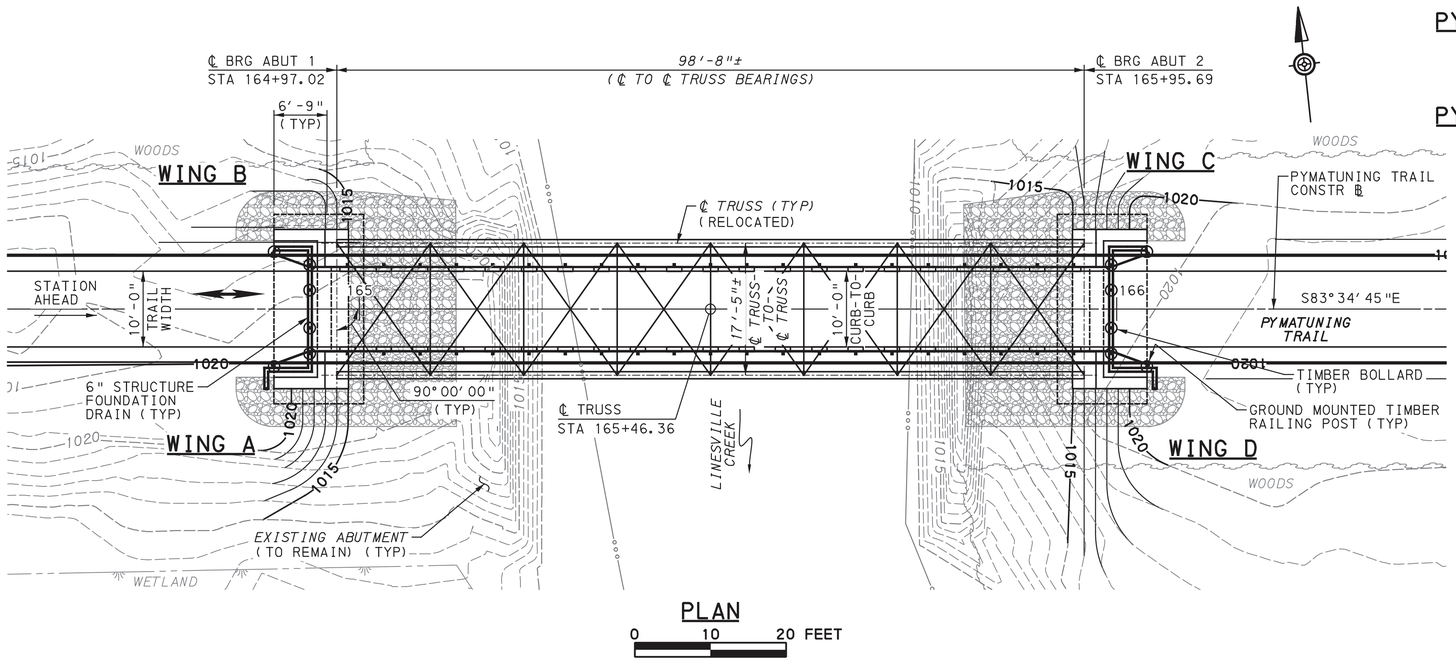
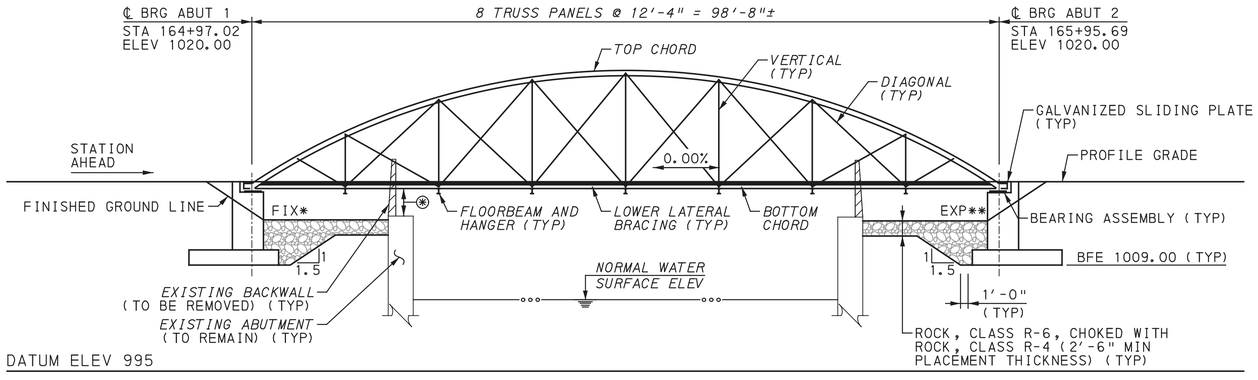


PLAN

0 10 20 FEET



ELEVATION

(PEDESTRIAN RAILING AND BOLLARDS NOT SHOWN FOR CLARITY)

0 10 20 FEET

* STEEL SOLE PLATE & MASONRY PLATE (TRUSS)

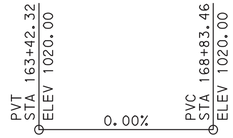
** BRONZE SLIDING PLATE (TRUSS)

Ⓜ MINIMUM VERTICAL CLEARANCE (TYP):
REQUIRED = 3'-6"
PROVIDED = 3'-6"

HORIZONTAL CURVE DATA
PYMATUNING TRAIL CONSTR ℄

TANGENT ALIGNMENT
S83°34'45"E

VERTICAL CURVE DATA
PYMATUNING TRAIL CONSTR ℄



EXISTING & PROPOSED HYDRAULIC DATA

EXISTING ABUTMENT BEARING SEAT: 1015.48± (MAX FROM SURVEY)
PROPOSED ABUTMENT 1 TRUSS BEARING SEAT (FIX): 1018.60
PROPOSED ABUTMENT 1 STRINGER BEARING SEAT (FIX): 1018.98
PROPOSED ABUTMENT 2 TRUSS BEARING SEAT (EXP): 1018.54
PROPOSED ABUTMENT 2 STRINGER BEARING SEAT (EXP): 1018.98
RAISE IN LOW CHORD: 3'-0"±
DETAILED HYDRAULIC DATA IS NOT PROVIDED DUE TO RAISE IN LOW CHORD AND INCREASE IN SPAN LENGTH IN PROPOSED CONDITION.

GEOTECHNICAL DATA

FOOTING TYPE: SPREAD FOOTING
SCOUR PROTECTION: EXISTING RAILROAD ABUTMENTS TO REMAIN
ALLOWABLE BEARING PRESSURE: 2 TSF (AS DIRECTED)
BFE: 1009.00 (4'-0" MIN BELOW FINISHED GROUNDLINE FOR FROST PROTECTION)

LEGEND

▨	=	REMOVE EXISTING STRUCTURE TO EXISTING BEARING SEAT
▩	=	ROCK, CLASS R-6 CHOKED WITH ROCK, CLASS R-4
⟷	=	DIRECTION OF PEDESTRIAN TRAFFIC
—1020—	=	EXISTING CONTOUR
—1020—	=	PROPOSED CONTOUR
ABUT	=	ABUTMENT
BRG	=	BEARING
BFE	=	BOTTOM OF FOOTING ELEVATION
CIP	=	CAST-IN-PLACE
℄	=	CENTERLINE
CONSTR	=	CONSTRUCTION
ELEV	=	ELEVATION
EXIST	=	EXISTING
EXP	=	EXPANSION
FIX	=	FIXED
MAX	=	MAXIMUM
MIN	=	MINIMUM
O/C	=	ON-CENTER
PG	=	PROFILE GRADE
SPA	=	SPACING
STA	=	STATION
TYP	=	TYPICAL

INDEX OF SHEETS

NOTES:

- FOR GENERAL NOTES AND RATINGS, SEE SHEET 2.
- FOR TYPICAL SECTION, SEE SHEET 3.
- FOR SCOPE OF REHABILITATION, SEE SHEETS 4 AND 5.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
BRANDON JAMES NEWPHER
PE085663

REG. PROF. ENGINEER
07/23/2020

PREPARED BY:

McCORMICK TAYLOR, INC.
1000 OMEGA DRIVE
SUITE 1550
PITTSBURGH, PA 15205

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

GENERAL PLAN & ELEVATION

RECOMMENDED 7/27/2020
Mark A. Nicholson, P.E. Digitally signed by Mark A. Nicholson, P.E. Date: 2020.07.27 09:55:42 -04'00'
DISTRICT BRIDGE ENGINEER

SHEET 1 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

GENERAL NOTES

DESIGN SPECIFICATIONS:

1. AASHTO, STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 15TH EDITION, 1992, AND INTERIM SPECIFICATIONS 1993 AND 1994 AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, AUGUST 1993 EDITION (INCLUDING JANUARY 1994 AND AUGUST 1995 REVISIONS).
2. AASHTO, LRFD GUIDE SPECIFICATION FOR THE DESIGN OF PEDESTRIAN BRIDGES, 2009.
3. TRUSS DESIGN IS IN ACCORDANCE WITH THE SERVICE LOAD DESIGN METHOD (ALLOWABLE STRESS DESIGN).
4. FLOORBEAM AND STRINGER DESIGN IS IN ACCORDANCE WITH THE LOAD FACTOR DESIGN METHOD.
5. DESIGN SPECIFICATIONS FOR SUBSTRUCTURE UNITS, SELF LUBRICATED BRONZE BEARINGS, TIMBER DECKING & TIMBER RAILING ARE IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 2014, AND AS SUPPLEMENTED BY DESIGN MANUAL PART 4.

DESIGN LOADS:

6. LIVE LOAD: 90 PSF PEDESTRIAN LOADING.

   SINGLE LANE H-3 TRUCK LOADING (EMERGENCY AND MAINTENANCE ACCESS)

   EQUESTRIAN LOAD = 1 KIP POINT LOAD (DECK ONLY)
7. DEAD LOADS: MAXIMUM DENSITY OF 50 PCF FOR TIMBER RAILING & DECKING. NO FUTURE WEARING SURFACE IS CONSIDERED. NO WEARING SURFACE IS PERMITTED.

GENERAL NOTES:

8. PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408/2020, AASHTO/AWS D1.5M/D1.5:2015 - BRIDGE WELDING CODE (USE AASHTO/AWS D1.1/D1.1M:2015 FOR WELDING NOT CONVERED IN AASHTO/AWS D1.5M/D1.5:2015), AND CONTRACT SPECIAL PROVISIONS.
9. SUPERSTRUCTURE DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68°F.
10. ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.
11. FOR THE PURPOSES OF THIS PLAN "IN KIND" IS DEFINED AS MATCHING SIZE, SPACING, SHAPE, AND CONSTRUCTION SUCH THAT THE REPLACEMENT MATERIAL IS AESTHETICALLY THE SAME AS THE EXISTING MATERIAL.
12. VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.
13. SHOP DRAWINGS MUST INDICATE THE VERIFIED EXISTING DIMENSIONS RELATING TO THE EFFECTED WORK BEFORE SHOP DRAWINGS CAN BE APPROVED.
14. CONSIDER EXISTING BRIDGE CONDITION (CLOSED BRIDGE) AND VERIFY PROPOSED CONSTRUCTION LOADINGS DO NOT EXCEED STRUCTURAL CAPACITY PRIOR TO PLACING EQUIPMENT ON THE BRIDGE. DO NOT EXCEED LOAD CARRYING CAPACITY OF THE STRUCTURE AND DO NOT CAUSE OVERSTRESS OR PERMANENT DEFORMATION TO ANY BRIDGE MEMBERS DUE TO CONSTRUCTION LOADS ON BRIDGE STRUCTURE.
15. AT THE EXISTING SITE (NORTHWEST HARDWOODS / MESSERALL ROAD), LOOKING STATIONS AHEAD "RIGHT TRUSS" IS UPSTREAM & "LEFT TRUSS" IS DOWNSTREAM. AT THE PROPOSED SITE (PYMATUNING TRAIL CONSTR ℄), LOOKING STATIONS AHEAD "RIGHT TRUSS" IS DOWNSTREAM & "LEFT TRUSS" IS UPSTREAM.

DEMOLITION, REPAIRS, AND MODIFICATION:

16. REMOVE ALL EXISTING STEEL TRUSS MEMBERS, THAT ARE TO REMAIN, FROM THE TRUSS, MARK FOR ITS LOCATION IN THE TRUSS, SHIP TO THE SHOP TO BE CLEANED, PACK RUST REMOVED, REPAIRED AS INDICATED AND DIRECTED BY THE ENGINEER, AND REPAINTED. AFTER REPAIRS AND PAINTING ARE COMPLETED, MEMBERS ARE TO BE SHIPPED TO FINAL BRIDGE LOCATION AND RE-ASSEMBLED IN THE ORIGINAL MEMBER LOCATION IN THE TRUSS.
17. THE EXISTING BRIDGE STRUCTURE MEMBERS MAY CONTAIN LEAD PAINT AND OTHER TOXIC MATERIALS. HANDLE AND DISPOSE OF BRIDGE WASTE MATERIAL IN ACCORDANCE WITH SPECIAL PROVISION SECTION 1072.
18. REPAIR ANY DAMAGE OR REPLACE ANY DAMAGED MATERIALS TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.
19. UPON DISASSEMBLY AND BLAST CLEANING OF THE TRUSS, MAKE AVAILABLE FOR INSPECTION BY THE DEPARTMENT EACH COMPONENT TO BE RETAINED TO ENSURE THAT SIGNIFICANT ADDITIONAL DETERIORATION HAS NOT OCCURRED FROM THE TIME OF THE LAST INSPECTION.
20. THE ENGINEER RESERVES THE RIGHT TO CHANGE THE NATURE AND LIMITS OF THE WORK TO ENSURE A SATISFACTORY REPAIR.
21. WELDING IS NOT PERMITTED ON ANY PORTION OF THE EXISTING BRIDGE MEMBERS.
22. PROVIDE ALL TEMPORARY BRACING/SUPPORT REQUIRED DURING DISASSEMBLY AND REASSEMBLY OF TRUSS. SEE SPECIAL PROVISIONS.
23. EXISTING STRUCTURE GEOMETRY AND DIMENSIONS ARE FROM FIELD SURVEY.
24. FIELD VERIFY DIMENSIONS OF EXISTING BRIDGE COMPONENTS AND COMPONENTS TO BE REPLACED TO ENSURE PROPER FIT AND PLUMB AND SQUARE ERECTION OF THE PROPOSED CONSTRUCTION, AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

UTILITIES:

25. COORDINATE, LOCATE, AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH PUBLICATION 408, SECTION 105.06 AND 107.12.

UTILITIES (CONTINUED):

26. VERIFY AND LOCATE ALL EXISTING UTILITIES PRIOR TO STARTING WORK, AND CONDUCT OPERATIONS IN A MANNER WHICH ENSURES THAT THE UTILITIES WILL NOT BE DISTURBED OR ENDANGERED AND ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO UTILITIES DURING CONSTRUCTION. THE DEPARTMENT DOES NOT ASSUME RESPONSIBILITY FOR REIMBURSEMENT OR RELOCATION DESIGN WORK OR LIABILITY FOR ACCURACY OF TYPE, SIZE, AND LOCATION OF ANY UTILITY.

CONCRETE:

27. USE CLASS A CEMENT CONCRETE FOR THE ABUTMENTS AND BACKWALLS.
28. A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT, IF APPROVED BY THE DISTRICT BRIDGE ENGINEER.
29. PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A615/A615M, A996/A996M, OR A706/A706M. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED. GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS-SECTIONAL AREA, IF APPROVED BY THE CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL A996/A996M REINFORCEMENT BARS IN BRIDGE PIERS, ABUTMENTS, SHEAR BLOCKS, BEAMS, FOOTINGS, PILES, BARRIERS OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.
30. ALL REINFORCEMENT BARS ARE TO BE EPOXY COATED.
31. WELDING OF REINFORCING STEEL BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.
32. RAKE FINISH ALL HORIZONTAL CONSTRUCTION JOINTS EXCEPT AS NOTED.
33. CHAMFER ALL EXPOSED CONCRETE EDGES 1 INCH X 1 INCH, EXCEPT AS NOTED.
34. PROVIDE 2" COVER ON REINFORCEMENT BARS, EXCEPT AS NOTED.
35. GALVANIZED REINFORCING STEEL BARS MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL BARS AT NO ADDITIONAL COST TO THE DEPARTMENT.
36. PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 408/2020, SECTION 1001.3(K)9.

STRUCTURAL STEEL:

37. PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M270 (ASTM-A709) GRADE 50 DESIGNATION EXCEPT WHERE NOTED OTHERWISE.
38. PROVIDE PINS IN ACCORDANCE WITH AASHTO M102 (ASTM-A668) CLASS F OR GREATER.
39. PROVIDE STEEL RODS CONFORMING TO ASTM A527, GRADE 50.
40. ALL ANCHOR BOLTS ARE TO BE GALVANIZED AND CONFORM TO ASTM F1554 GRADE 55 MINIMUM.
41. ALL FASTENERS TO BE REPLACED ARE TO BE REPLACED IN KIND MATCHING THE ORIGINAL FASTENER TYPE, REPLACEMENT RIVETS TO BE NEW RIVETS MATCHING DIAMETER OF EXISTING RIVETS, AND REPLACEMENT BOLTS TO BE NEW BOLTS MATCHING DIAMETER OF EXISTING BOLTS.
42. ALL BOLT ASSEMBLIES ARE TO BE ASTM F3125, GRADE A325 BOLTS.
43. REAMING OF FIELD SPLICES AS REQUIRED TO BE COMPLETED IN THE FABRICATION SHOP.
44. PROVIDE FINISH PAINT COLOR IN ACCORDANCE WITH FEDERAL STANDARD 595B COLOR 30032 (BROWN) TO BE APPLIED TO FLOORBEAMS, LOWER LATERAL BRACING, DIAGONALS, VERTICALS, BOTTOM CHORD, STRINGERS, AND DIAPHRAGMS. PROVIDE FEDERAL STANDARD 595B COLOR 35048 (BLUE) TO BE APPLIED TO ALL OTHER BRIDGE MEMBERS INCLUDING THE TOP CHORD, EXISTING BEARINGS, PINS, UPPER LATERAL BRACING, AND UPPER LATERAL STRUTS.

TIMBER:

45. ALL TIMBER MEMBERS ARE TO BE SOLID SAWN, SELECT STRUCTURAL, SOUTHERN YELLOW PINE TIMBERS OR A TIMBER SPECIES WITH STRUCTURAL CAPACITY EQUIVALENT OR GREATER.
46. PROVIDE TIMBER WITH MINIMUM MECHANICAL PROPERTIES OF Eo=1600KSI, Fbo=1.5KSI, Fvo=0.175KSI, AND Fcpo=0.565KSI.
47. FOLLOWING FABRICATION, TREAT ALL SOLID SAWN TIMBER COMPONENTS IN ACCORDANCE WITH AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) STANDARDS AND THE CONTRACT SPECIFICATIONS.
48. FIELD CUTTING IS NOT PERMITTED UNLESS APPROVED BY THE ENGINEER.
49. WHEN FIELD CUTTING ALL SOLID SAWN TIMBER, TREAT CUT SURFACES OF MEMBERS IN ACCORDANCE WITH AWPA STANDARD M4-84.
50. ALL TIMBER DIMENSIONS SHOWN ARE ACTUAL, UNLESS NOTED OTHERWISE.
51. CUT ALL TIMBERS ACCURATELY, AND FRAME TO A CLOSE FIT, TO PROVIDE FOR EVEN BEARING OF JOINTS OVER THE ENTIRE CONTACT SURFACE. MAKE JOINTS WITHOUT SHIMMING, UNLESS NOTED OTHERWISE.
52. PROVIDE TIMBER HARDWARE MEETING REQUIREMENTS OF ASTM A307, INCIDENTAL TO ITEM NO. 9000-0003 TIMBER DECK AND RAILING. WASHERS MAY BE CAST IRON OR MALLEABLE IRON.

TIMBER (CONTINUED):

53. GALVANIZE ALL TIMBER CONNECTION HARDWARE, EXCEPT MALLEABLE IRON WASHERS, AS SPECIFIED IN PUBLICATION 408/2020, SECTION 1105.02(S).
54. WHEN INSTALLING LAG SCREWS OR BOLTS INTO TREATED TIMBER, APPLY CUNAP COAT (COPPER NAPHTHENATE LIQUID) TO LAG SCREWS BEFORE INSTALLATION.
55. INSERT THE THREADED PORTION OF THE LAG SCREW OR BOLT IN ITS LEAD HOLE BY TURNING WITH A WRENCH, NOT BY DRIVING WITH A HAMMER OR USING A DRILL.

EXISTING BRIDGE INFORMATION:

56. DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE MADE AVAILABLE BY THE DEPARTMENT OR ITS AUTHORIZED AGENTS AS POSITIVE REPRESENTATION OF ANY OF THE CONDITIONS THAT WILL BE ENCOUNTERED IN THE FIELD.
57. THE INFORMATION SHOWN FOR THE EXISTING BRIDGE IS NOT TO BE CONSIDERED A BASIS FOR COMPUTATION OF THE UNIT PRICES USED FOR BIDDING PURPOSES. THERE IS NO EXPRESSED OR IMPLIED AGREEMENT THAT INFORMATION IS CORRECTLY SHOWN. THE BIDDER IS NOT TO RELY ON THIS INFORMATION, BUT IS TO ASSUME THE POSSIBILITY THAT CONDITIONS AFFECTING THE COST OR QUANTITIES OF WORK PERFORMED MAY DIFFER FROM THOSE INDICATED.

FOUNDATION NOTES:

58. BE RESPONSIBLE FOR THE STABILITY OF ALL EXCAVATED SLOPES. PERFORM ALL EXCAVATIONS IN ACCORDANCE WITH OSHA REQUIREMENTS.
59. BE RESPONSIBLE FOR CONTROLLING WATER FLOW DURING CONSTRUCTION WITH CONVENTIONAL DITCHING, SUMPS AND PUMPING OPERATIONS, AND DIRECTING THE FLOW AROUND THE SITE, TO LESS CRITICAL AREAS OR TO DESIGNATED STORMWATER MANAGMENT FACILITIES. TO THE EXTENT POSSIBLE AND PRACTICAL, SHEET FLOW IN UPAVED AREAS DURING (AND AFTER) CONSTRUCTION SHALL BE AVOIDED. DO NOT DISCHARGE INTO KNOWN SINKHOLE FEATURES OR CLOSED DEPRESSIONS.
60. FOUNDATION EXCAVATIONS ARE TO BE INSPECTED AND APPROVED BY THE REPRESENTATIVE. A MINIMUM OF 48 HOURS OF NOTICE SHALL BE PROVIDED TO THE REPRESENTATIVE.
61. BLASTING IS NOT PERMITTED FOR THE FOUNDATION EXCAVATION.

LIVE LOAD RATINGS (FACTOR)

	MEMBER	PED LL	H-3
INVENTORY RATING (IR)	TRUSS (L2-U1)	0.84	
	FLOORBEAM	0.74	1.71
	STRINGER	2.70	3.12
OPERATING RATING (OR)	TRUSS (L2-U1)	1.14	
	FLOORBEAM	1.23	2.85
	STRINGER	4.50	5.20

LIVE LOAD RATING NOTES:

- ALL RATINGS ARE ACCEPTABLE AT THE OPERATING LEVEL.
- RATINGS DETERMINED BY SERVICE LOAD DESIGN METHOD (ALLOWABLE STRESS DESIGN) FOR TRUSS.
- TRUSS MEMBER RATING SUMMARY BASED ON OUTPUT FROM STAAD PRO MODEL.
- TRUSS CAPACITY GOVERNED BY DIAGONALS (L2-U1) FOR ALL RATINGS.
- TRUSS RATING GOVERNED BY PEDESTRIAN LIVE LOAD.
- RATINGS DETERMINED BY LOAD FACTOR DESIGN METHOD FOR FLOORBEAMS AND STRINGERS.
- FLOOBEAM AND STRINGER RATINGS SUMMARY BASED ON OUTPUT FROM PENNDOT'S BRIDGE ANALYSIS AND RATING (BAR7) PROGRAM, VERSION 7.15.0.0.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BRANDON JAMES NEWPHER
ENGINEER
PE085663

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

GENERAL NOTES & RATINGS

RECOMMENDED 7/27/2020

SHEET 2 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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TABULATION OF BRIDGE BID ITEMS AND APPROXIMATE QUANTITIES

ITEM NUMBER	ITEM		QUANTITY	UNIT	ABUT 1	ABUT 2	SUPERSTR
0204-0100	CLASS 3 EXCAVATION		759	CY	312	447	
0205-0292	STRUCTURE BACKFILL		457	CY	188	269	
0205-0285	SELECTED BORROW EXCAVATION, COARSE AGGREGATE, NO. 57	(1)	8	CY	4	4	
0680-0121	MEMBRANE WATERPROOFING SYSTEM INSTALLED ON OTHER SURFACES		20	SY	10	10	
1001-0611	6 INCH STRUCTURE FOUNDATION DRAIN	(2)	60	LF	30	30	
1001-1120	CLASS A CEMENT CONCRETE		108	CY	54	54	
1002-0053	REINFORCEMENT BARS, EPOXY COATED		6950	LB	3475	3475	
1050-0040	FABRICATED STRUCTURAL STEEL, GALVANIZED	(3)	1699	LB			1699
1050-0080	PLAIN NEOPRENE BEARING PAD		12	EA	6	6	
1072-0100	CONTAINMENT	(+)	1	LS			
1072-0200	WASTE MANAGEMENT	(+)	1	LS			
1072-0300	WORKER HEALTH AND SAFETY	(+)	1	LS			
4205-0266	SELECTED BORROW EXCAVATION ROCK, CLASS R-6 CHOKED WITH ROCK, CLASS R-4	(+)	155	CY	78	77	
5018-0050	REMOVAL OF PORTION OF EXISTING BRIDGE (PYMATUNING TRAIL)	(+)	———	LS			
5018-0051	REMOVAL OF PORTION OF EXISTING BRIDGE (MESSERALL ROAD)	(+)	———	LS			
5050-0020	FABRICATED STRUCTURAL STEEL, TRUSS MEMBER REPLACEMENT	(+)(4)	10792	LB			10792
5050-0100	UNFORSEEN FABRICATED STRUCTURAL STEEL REPAIRS	(+)	12500	DOLLA			12500
5050-0110	FABRICATED STRUCTURAL STEEL, TRUSS MEMBER REPAIRS	(+)(5)	611	LB			611
5070-0200	PAINTING EXISTING STRUCTURAL STEEL USING INORGANIC ZINC COATING SYSTEM	(+)(6)	———	LS			
9000-0001	REPLACE BOLTS AND DETERIORATED RIVETS	(+)	2756	EA			2756
9000-0002	REMOVE, DISMANTLE, AND REASSEMBLE EXISTING TRUSS	(+)	———	LS			
9000-0003	TIMBER DECK AND RAILING	(+)(7)	———	LS			
9000-0004	HEAT STRAIGHTENING REPAIR	(+)	2	EA			2
9000-0005	REPAIR BUILDER'S PLAQUE	(+)	———	LS			
9000-0006	REPLICATE BUILDER'S PLAQUE	(+)	———	LS			
9000-0007	RELOCATION OF PRIVATE ELECTRIC LINE	(+)	———	LS			

(+) SEE SPECIAL PROVISIONS.

(1) GEOTEXTILE, CLASS 1 IS INCIDENTAL TO SELECTED BORROW EXCAVATION, COARSE AGGREGATE, NO. 57.

(2) INCLUDES 20 FT OF 6" PVC PIPE (SCHEDULE 40) TO OUTLET TO SLOPE.

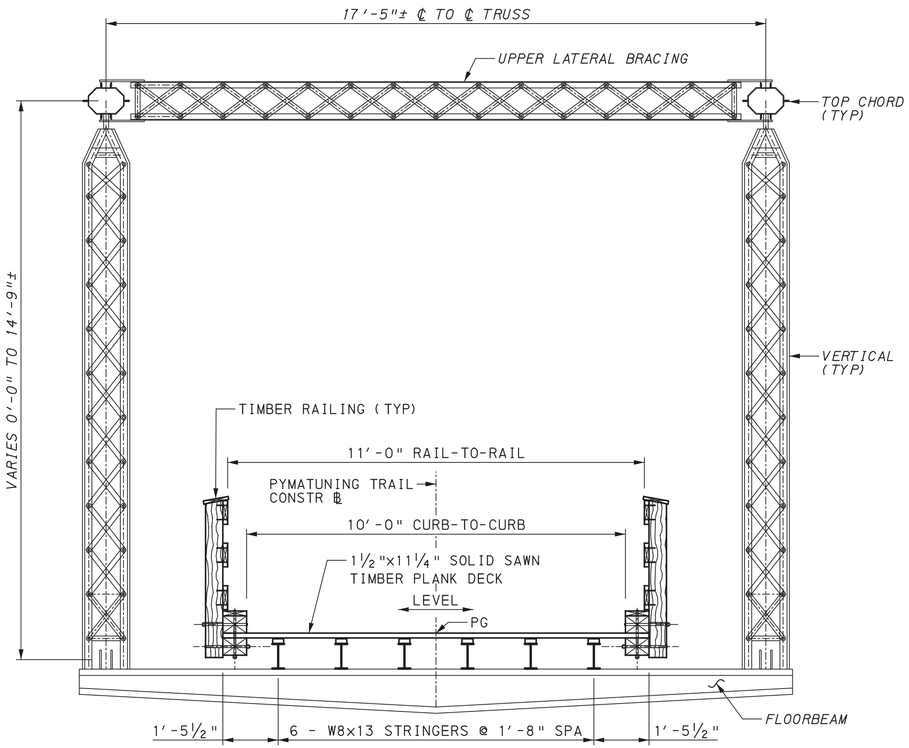
(3) INCLUDES APPROXIMATELY:
- 52 LB FOR TRUSS ANCHOR BOLTS
- 49 LB FOR STRINGER ANCHOR BOLTS
- 769 LB FOR TRUSS SOLE PLATES
- 599 LB FOR TRUSS MASONRY PLATES
- 230 LB FOR ABUTMENT EXPANSION PLATES (INCIDENTAL FASTENERS)

(4) INCLUDES APPROXIMATELY:
- 10644 LB FOR STRINGERS, DIAPHRAGMS, STRINGER/FLOORBEAM CONNECTIONS, DIAPHRAGM CONNECTIONS, AND STRINGER SOLE PLATES.
- 80 LB FOR BRONZE BEARING PLATES
- 50 LB FOR PINS
- 8 LB FOR SWAY BRACING CONNECTION
- 10 LB FOR FLOORBEAM HANGER BLOCK

(5) INCLUDES APPROXIMATELY:
- 112 LB FOR TOP CHORD SPLICE PLATES
- 92 LB FOR TOP CHORD PLATE REPAIRS
- 115 LB FOR TOP CHORD PANEL REPLACEMENTS
- 270 LB FOR BOTTOM CHORD SPLICE PLATES
- 22 LB FOR FLOORBEAM WEB REPAIR

(6) INCLUDES APPROXIMATELY 3,000 SF CLEANING, PACK RUST REMOVAL & PAINTING.

(7) INCLUDES 3260 BF AND ALL NECESSARY HARDWARE (BOLTS, WASHERS AND SCREWS) FOR INSTALLATION.



TYPICAL SECTION

1 0 1 2 FEET

NOTES:

- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES AND RATINGS, SEE SHEET 2.
- FOR SCOPE OF REHABILITATION, SEE SHEETS 4 AND 5.
- FOR STAKE-OUT PLAN, SEE SHEET 8.
- FOR DECK PLAN, SEE SHEET 21.
- FOR RAILING PLAN, SEE SHEET 22.
- FOR RAILING DETAILS, SEE SHEET 23.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — BRANDON JAMES NEWPHER — PE085663

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

QUANTITIES & TYPICAL SECTION

RECOMMENDED 7/27/2020

SHEET 3 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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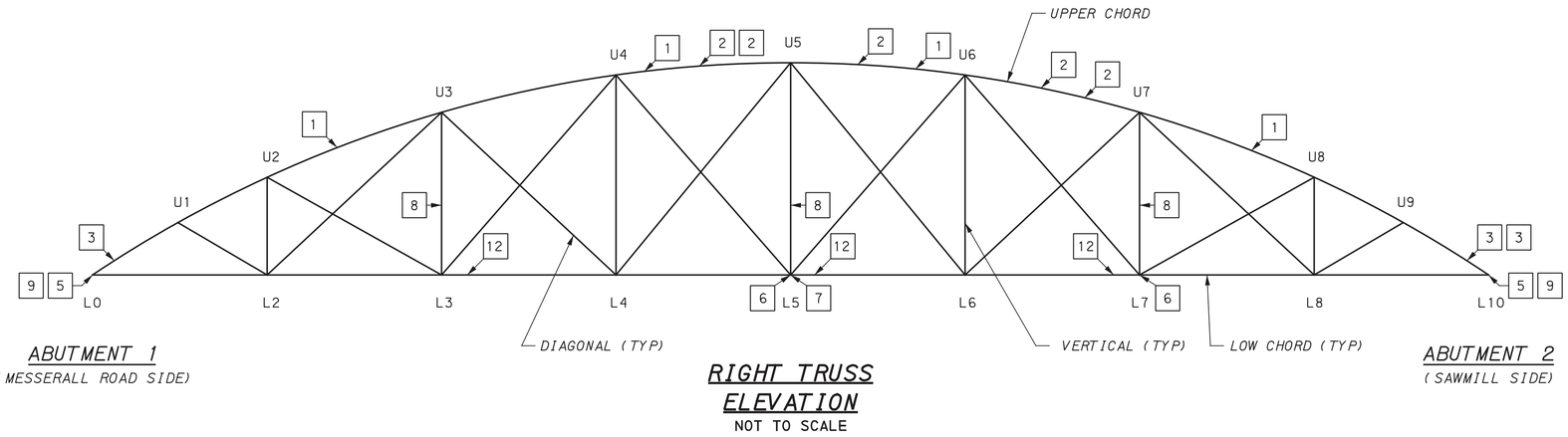
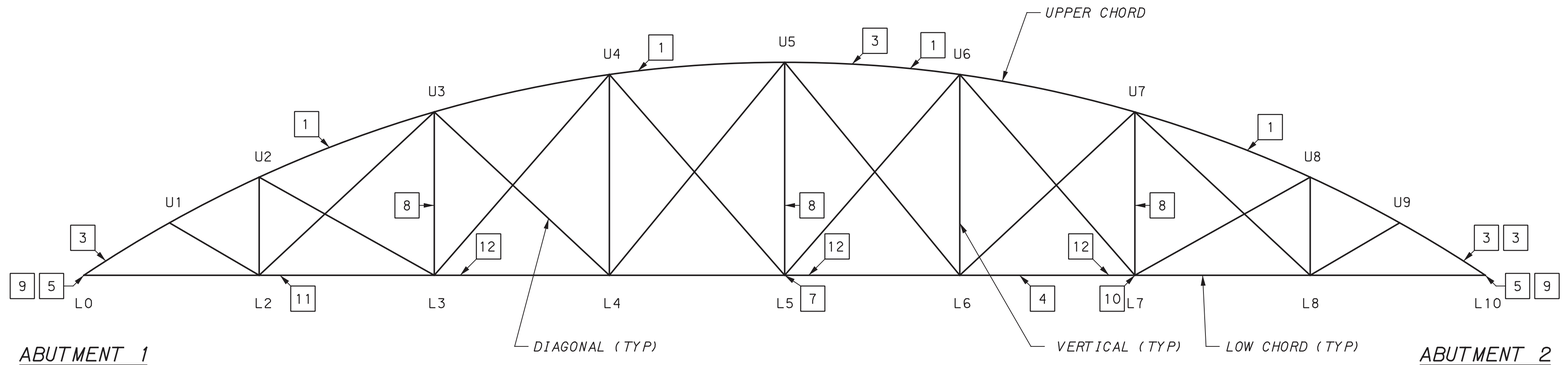


ABUTMENT 1
(MESSERALL ROAD SIDE)

ABUTMENT 2
(SAWMILL SIDE)

RIGHT TRUSS ELEVATION
NOT TO SCALE



ABUTMENT 1
(MESSERALL ROAD SIDE)

ABUTMENT 2
(SAWMILL SIDE)

LEFT TRUSS ELEVATION
NOT TO SCALE

PRELIMINARY LIST OF REPAIRS & REPLACEMENTS

REPAIR #	DESCRIPTION
1	REPLACE TOP CHORD SPLICE PLATES
2	PLATE REPAIR TOP CHORD PANEL
3	PARTIALLY REPLACE TOP CHORD PANEL
4	REMOVE UTILITY ATTACHMENT (GRIND SMOOTH)
5	ADD NEW BEARING TO SUPPORT EXISTING BEARINGS
6	REPLACE BOLTS IN PREVIOUS REPAIR
7	REPLACE SWAY BRACE CONNECTION PLATE AT FLOORBEAM
8	REMOVE PIPE RAILING U-BOLTS
9	REPLACE PIN AT BEARING
10	REPLACE FLOORBEAM HANGER BLOCK
11	GRIND SMOOTH EYEBAR CORNER DELAMINATION
12	REPLACE BOTTOM CHORD SPLICE PLATES

REPAIRS NOT SHOWN:
- REMOVE EXISTING PIPE RAILING FULL LENGTH OF BOTH TRUSSES.
- REPLACE ALL BOLTS AND LOOSE RIVETS IN TOP CHORD WITH HOT DRIVEN RIVETS.
- REPLACE ANY BOLTS OR RIVETS REMOVED DURING DISASSEMBLY WITH MATCHING DIAMETER RIVETS OR BOLTS, UNLESS NOTED OTHERWISE.

LEGEND:
[#] REPAIR OR REPLACEMENT IDENTIFICATION NUMBER

NOTES:
- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES AND RATINGS, SEE SHEET 2.
- FOR TYPICAL SECTION, SEE SHEET 3.
- FOR ADDITIONAL SCOPE OF REHABILITATION INFORMATION, SEE SHEET 5.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BRANDON JAMES NEWPHER
ENGINEER
PE085663

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

SCOPE OF REHABILITATION - 1

RECOMMENDED 7/27/2020

SHEET 4 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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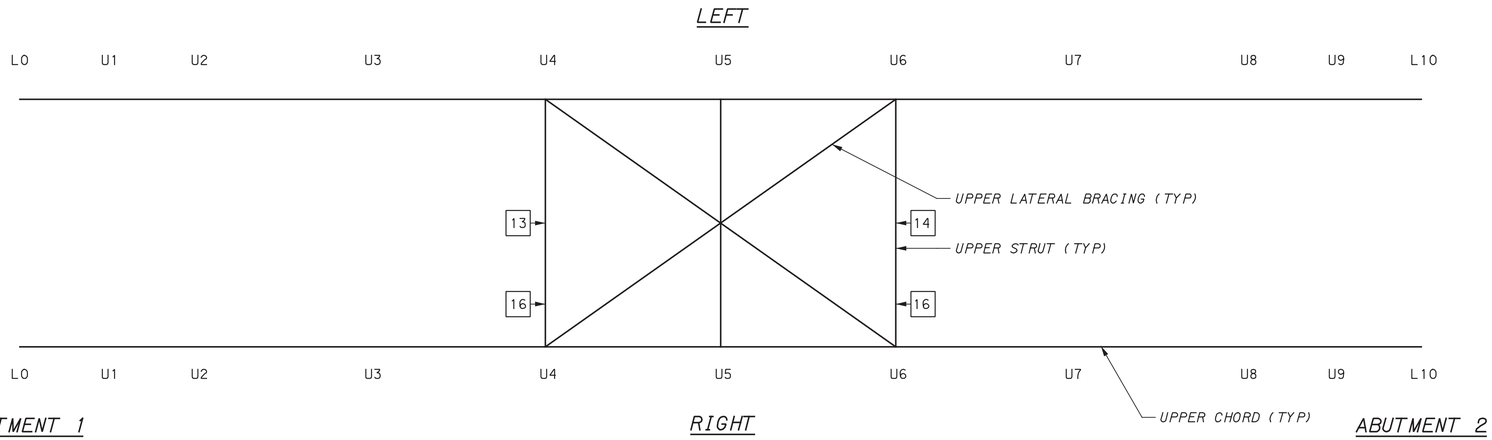
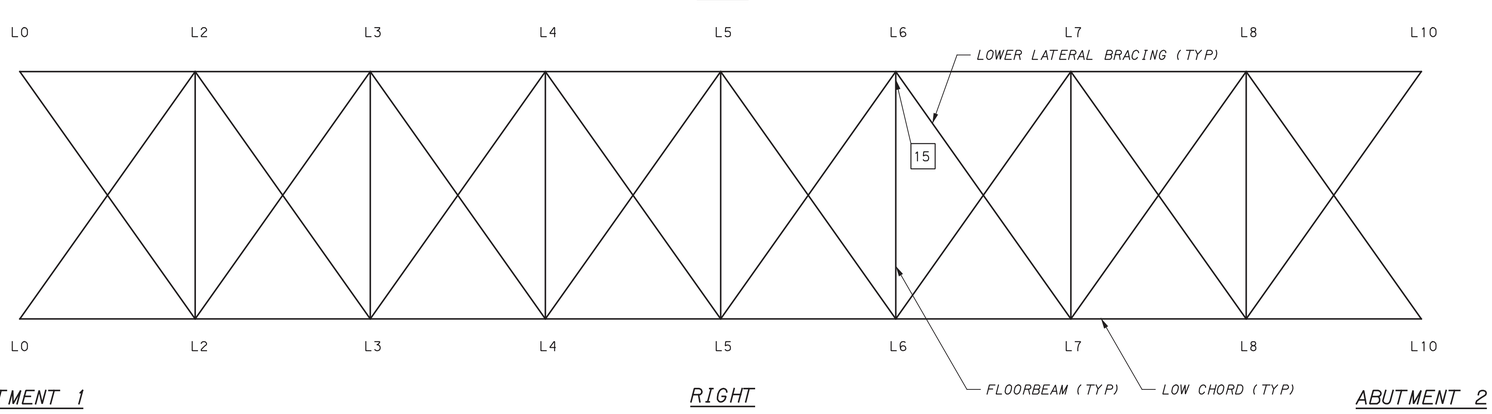
\\ENGDAT1\Projects\5943_PA_PennDOTPC_E0399\14_Pymatuning_Trail_Phase_1\300_CADD\Plan_Set\Structure\02-Final Design\Pym_Trail_Truss - STR04-SCOPE-1.dgn



UPPER LATERAL BRACING - PLAN

NOT TO SCALE



LOWER LATERAL BRACING - PLAN

NOT TO SCALE

PRELIMINARY LIST OF REPAIRS & REPLACEMENTS

REPAIR #	DESCRIPTION
13	MOUNT PIECES OF BUILDER'S PLAQUE TO PLATE
14	REPLICATE EXISTING BUILDER'S PLAQUE
15	PLATE REPAIR FLOORBEAM WEB
16	STRAIGHTEN MEMBER *

LEGEND:

[#] REPAIR OR REPLACEMENT IDENTIFICATION NUMBER

* HEAT STRAIGHTENING OF HISTORIC METAL ACCEPTABLE DUE TO NON-PRIMARY MEMBER

NOTES:

- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES AND RATINGS, SEE SHEET 2.
- FOR TYPICAL SECTION, SEE SHEET 3.
- FOR ADDITIONAL SCOPE OF REHABILITATION INFORMATION, SEE SHEET 4.

Mark	Description	By	Chk'd.	Recm'd.	Date
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SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

SCOPE OF REHABILITATION - 2

RECOMMENDED 7/27/2020

SHEET 5 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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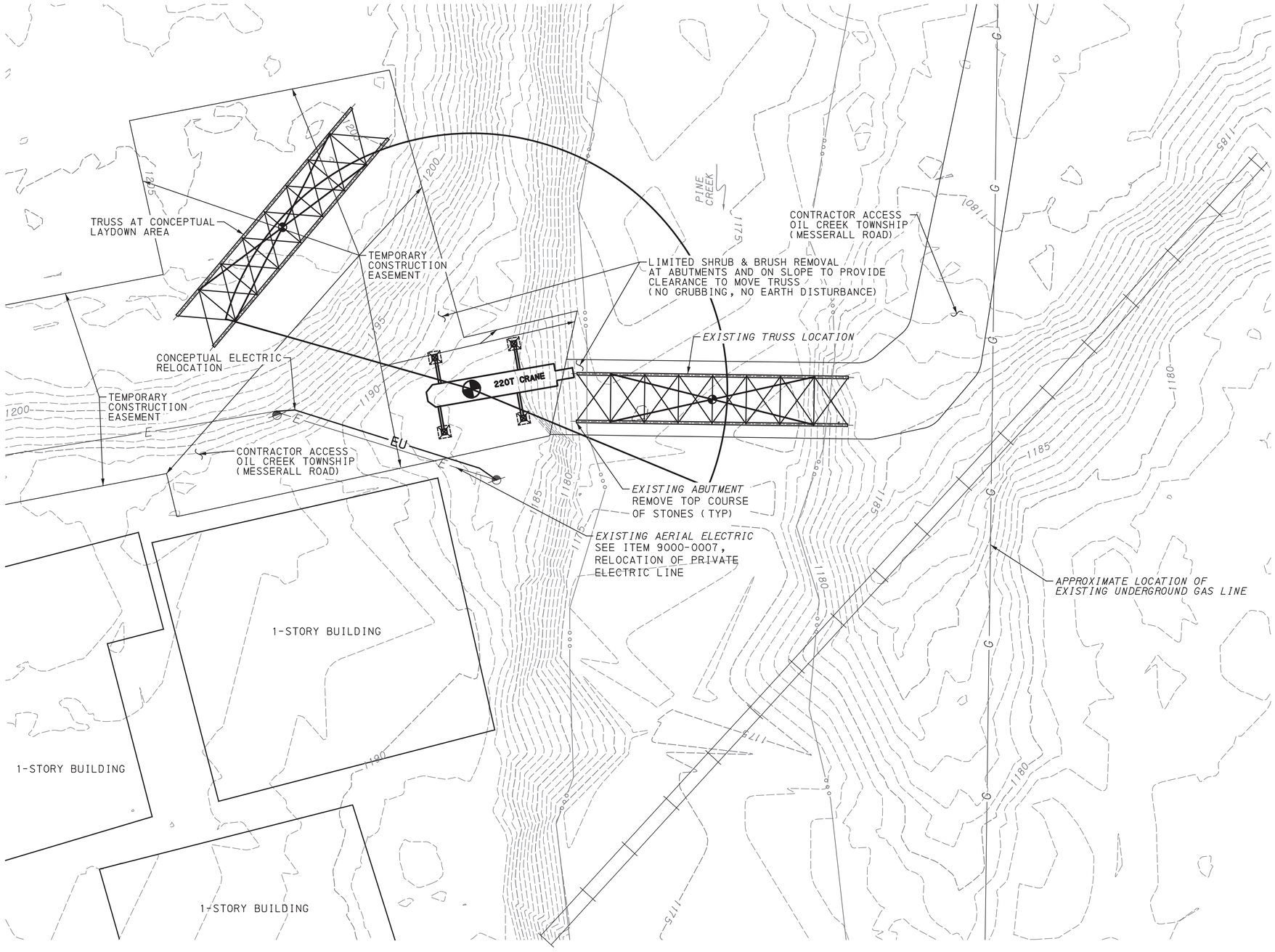

CONCEPTUAL REMOVAL PLAN (MESSERALL ROAD SITE)

20 0 20 40 FEET

CRANE INFORMATION

CRANE: 220 TON MOBILE CRANE
MAXIMUM PICK WEIGHT: 33.3 KIPS
MAXIMUM PICK RADIUS: 91.0' (TRUSS AT CONCEPTUAL LAYDOWN AREA)
MAXIMUM SAFE WEIGHT: 44.1 KIPS
MAXIMUM SAFE RADIUS: 93.0'

LEGEND

- PICK POINT
- TEMPORARY CRIBBING / CRANE MAT LOCATION

NOTES:

- FOR GENERAL NOTES, SEE SHEET 2.
- FOR CONCEPTUAL ERECTION PLAN, SEE SHEET 7.

Mark	Description	By	Chk'd.	Recm'd.	Date
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PYMATUNING STATE PARK

PYMATUNING TRAIL OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

CONCEPTUAL REMOVAL PLAN

RECOMMENDED 7/27/2020

SHEET 6 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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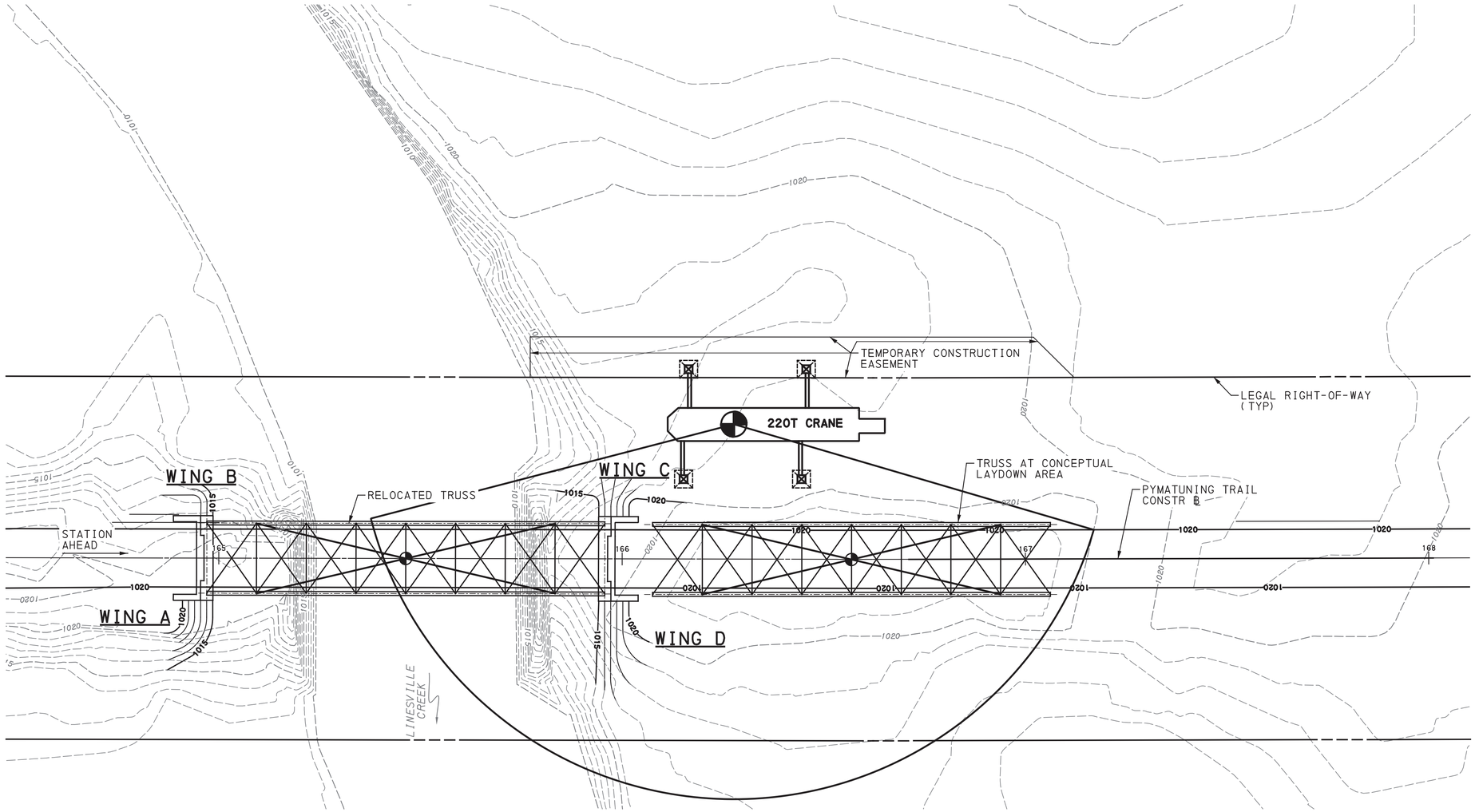

CRANE INFORMATION

CRANE: 220 TON MOBILE CRANE
MAXIMUM PICK WEIGHT: 33.3 KIPS
MAXIMUM PICK RADIUS: 81.0' (TRUSS ON SPAN)
MAXIMUM SAFE WEIGHT: 44.1 KIPS
MAXIMUM SAFE RADIUS: 93.0'

CONCEPTUAL ERECTION PLAN (PYMATUNING TRAIL SITE)

15 0 15 30 FEET

LEGEND

- PICK POINT
- TEMPORARY CRIBBING / CRANE MAT LOCATION

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.
- FOR TYPICAL SECTION, SEE SHEET 3.

Mark	Description	By	Chk'd.	Recm'd.	Date
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CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

CONCEPTUAL ERECTION PLAN

RECOMMENDED 7/27/2020

SHEET 7 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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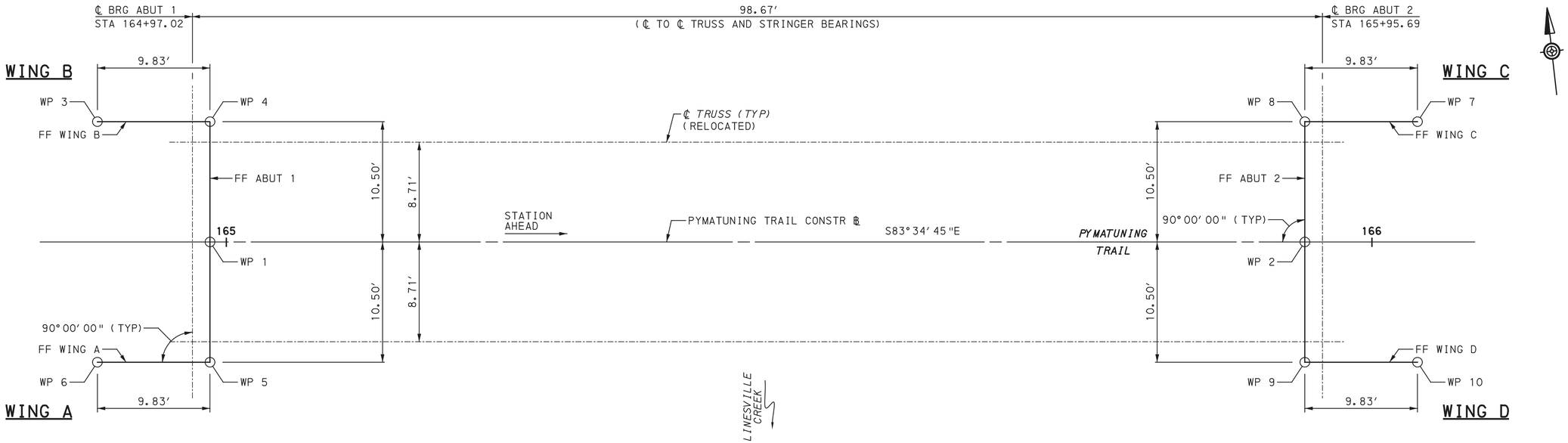

PLAN

5 0 5 10 FEET

WORK POINT COORDINATES

WORK POINT	STATION	OFFSET	NORTHING	EASTING
1	164+98.57	0.00	551962.6942	1239235.3281
2	165+94.15	0.00	551952.0055	1239330.3085
3	164+88.74	10.50 LT	551974.2279	1239226.7307
4	164+98.57	10.50 LT	551973.1283	1239236.5023
5	164+98.57	10.50 RT	551952.2600	1239234.1539
6	164+88.74	10.50 RT	551953.3597	1239224.3822
7	166+03.98	10.50 LT	551961.3399	1239341.2544
8	165+94.15	10.50 LT	551962.4396	1239331.4828
9	165+94.15	10.50 RT	551941.5713	1239329.1343
10	166+03.98	10.50 RT	551940.4717	1239338.9059

- FOUR PLACE COORDINATES ARE FOR COMPUTATIONAL PURPOSES AND DO NOT IMPLY A PRECISION BEYOND TWO PLACES.
- STATIONS & OFFSETS ARE MEASURED FROM PYMATUNING TRAIL CONSTR ℄.

NOTES:

- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES AND RATINGS, SEE SHEET 2.
- FOR QUANTITIES AND TYPICAL SECTION, SEE SHEET 3.
- FOR SCOPE OF REHABILITATION, SEE SHEETS 4 AND 5.
- FOR ABUTMENT PLAN AND ELEVATION, SEE SHEET 11.

Mark	Description	By	Chk'd.	Recm'd.	Date

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CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

STAKE-OUT PLAN

RECOMMENDED 7/27/2020

SHEET 8 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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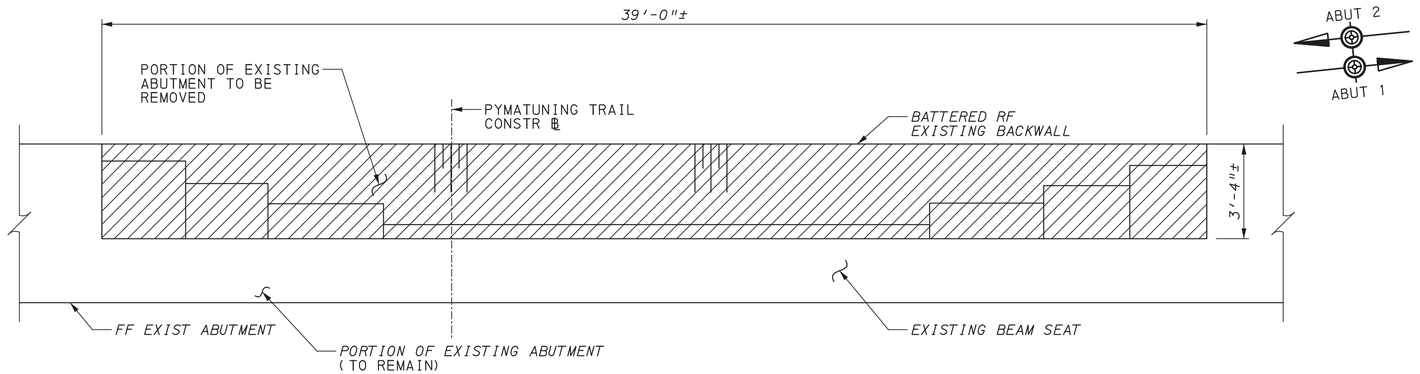
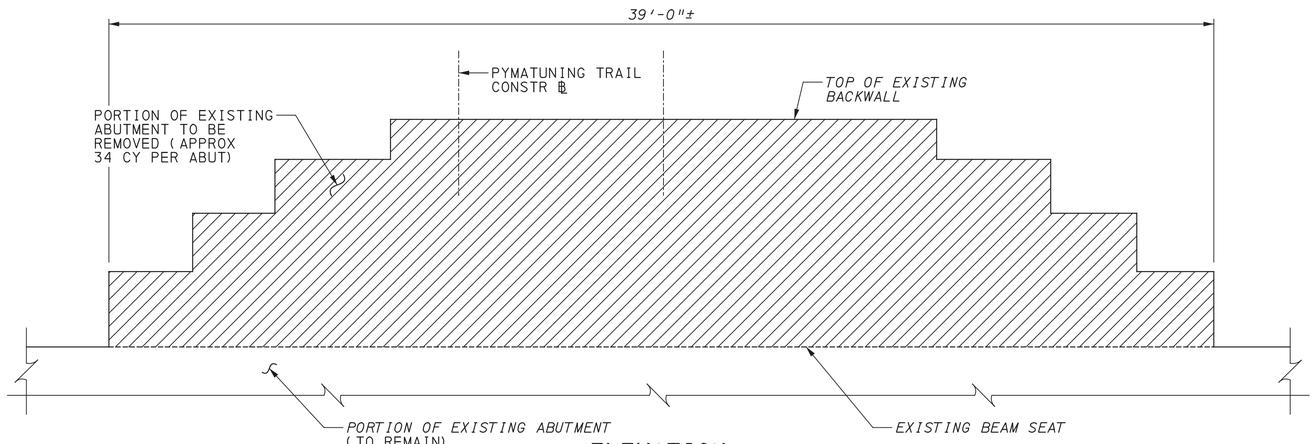


PLAN

(ABUTMENT 2 SHOWN, ABUTMENT 1 SIMILAR)

1 0 1 2 3 FEET

DENOTES PORTION OF EXISTING ABUTMENT TO BE REMOVED

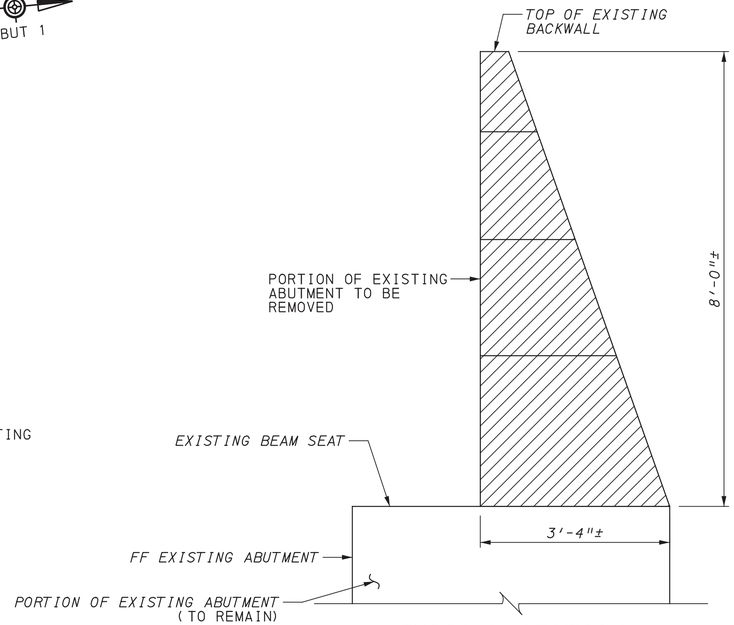


ELEVATION

LOOKING STATIONS AHEAD

(ABUTMENT 2 SHOWN, ABUTMENT 1 SIMILAR)

1 0 1 2 3 FEET



TYPICAL SECTION

(ABUTMENT 2 SHOWN, ABUTMENT 1 SIMILAR)

1 0 1 2 FEET

NOTES:

- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.

Mark	Description	By	Chk'd.	Recm'd.	Date
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OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

EXISTING ABUTMENT REMOVAL DETAILS

RECOMMENDED 7/27/2020

SHEET 9 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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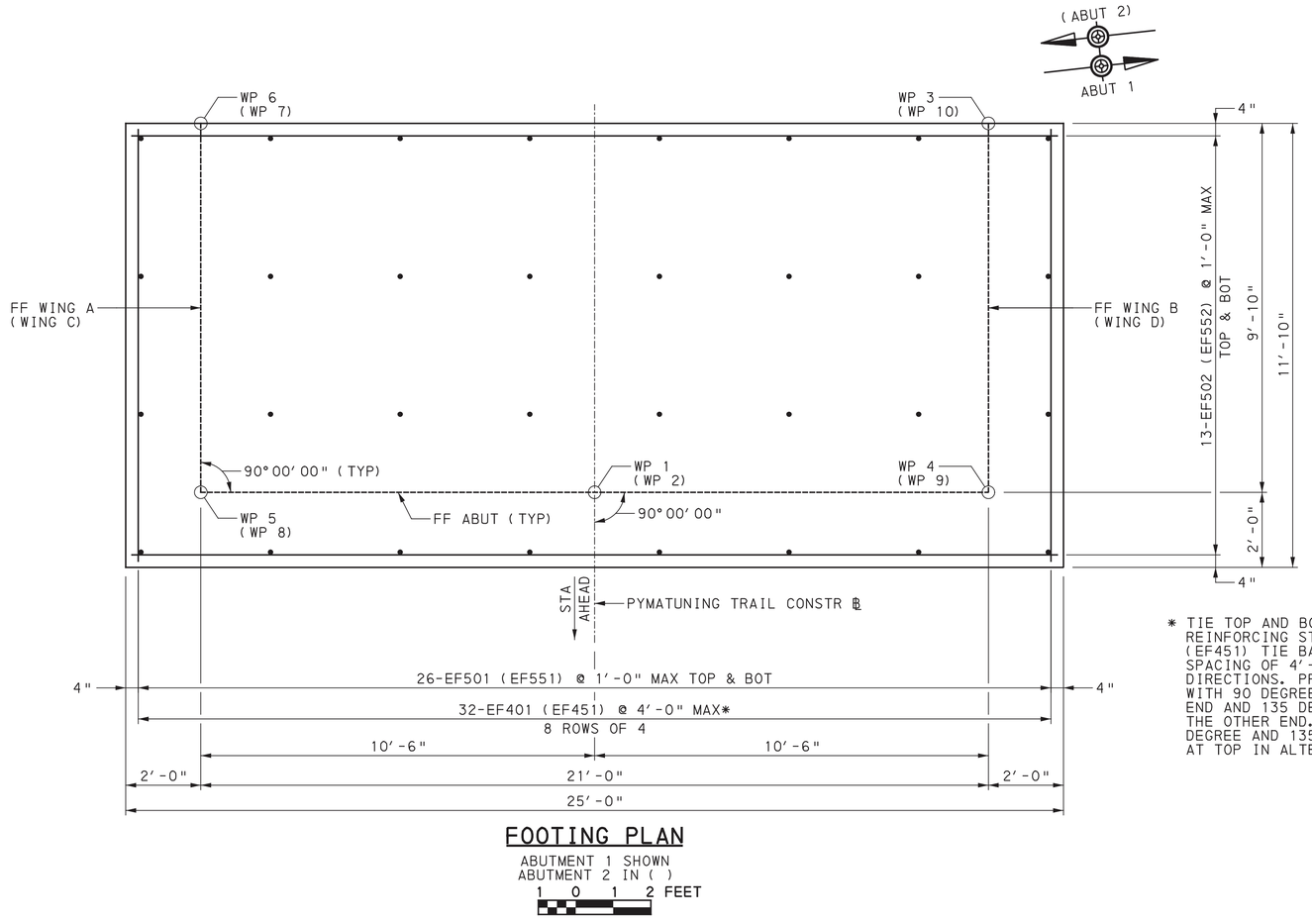
BEARING RESISTANCE

LOCATION	LIMIT STATE	LOAD CASE	STAGE	A UNIFORM FACTORED BEARING PRESSURE (ksf)	B FACTORED BEARING RESISTANCE (ksf)	B/A PERFORMANCE RATIO	LAYER 1 (30.0 FEET)* UNDRAINED SHEAR STRENGTH (ksf)	MASS UNIT DENSITY (lb/ft³)	SATURATED UNIT DENSITY (lb/ft³)	COHESION (ksf)	EFFECTIVE FRICTION ANGLE (°)	BEARING CAPACITY PHI	SLIDING PHI FACTOR	ELASTIC MODULUS (ksf)
ABUTMENTS 1 & 2	STR-IP	MAX	FIN	2.30	4.41	1.919	N/A	110.0	120.0	N/A	32.0	0.45	0.80	245.0
WINGALLS A, B, C & D	STR-I	MAX	FIN	1.74	4.86	2.794	N/A	110.0	120.0	N/A	32.0	0.45	0.80	245.0

* SOIL PARAMETERS USED IN FOUNDATION ANALYSIS PROVIDED FOR INFORMATION ONLY. GEOTECHNICAL INFORMATION ESTABLISHED WITHOUT BORING INFORMATION TO PROVIDE ALLOWABLE BEARING PRESSURE OF 2 TSF AT STR-I LOAD CASE.

SLIDING

LOCATION	LIMIT STATE	LOAD CASE	STAGE	A FACTORED HORIZONTAL FORCE (Kip)	B FACTORED SLIDING RESISTANCE (Kip)	B/A PERFORMANCE RATIO
ABUTMENTS 1 & 2	STR-III	MIN	FIN	4.39	5.37	1.222
WINGALLS A, B, C & D	STR-III	MIN	FIN	3.46	4.98	1.441



FOOTING PLAN

ABUTMENT 1 SHOWN
ABUTMENT 2 IN ( )

1 0 1 2 FEET

* TIE TOP AND BOTTOM MATS OF REINFORCING STEEL WITH EF401 (EF451) TIE BARS AT A MAXIMUM SPACING OF 4′-0" IN BOTH DIRECTIONS. PROVIDE TIE BARS WITH 90 DEGREE HOOK AT ONE END AND 135 DEGREE HOOK AT THE OTHER END. ALTERNATE 90 DEGREE AND 135 DEGREE HOOKS AT TOP IN ALTERNATE TIES.

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.
- FOR STAKE-OUT-PLAN, SEE SHEET 8.
- WORK THIS SHEET WITH SHEETS 11 THRU 14.

Mark	Description	By	Chk'd.	Recm'd.	Date
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CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

ABUTMENT FOOTING PLAN

RECOMMENDED 7/27/2020

SHEET 10 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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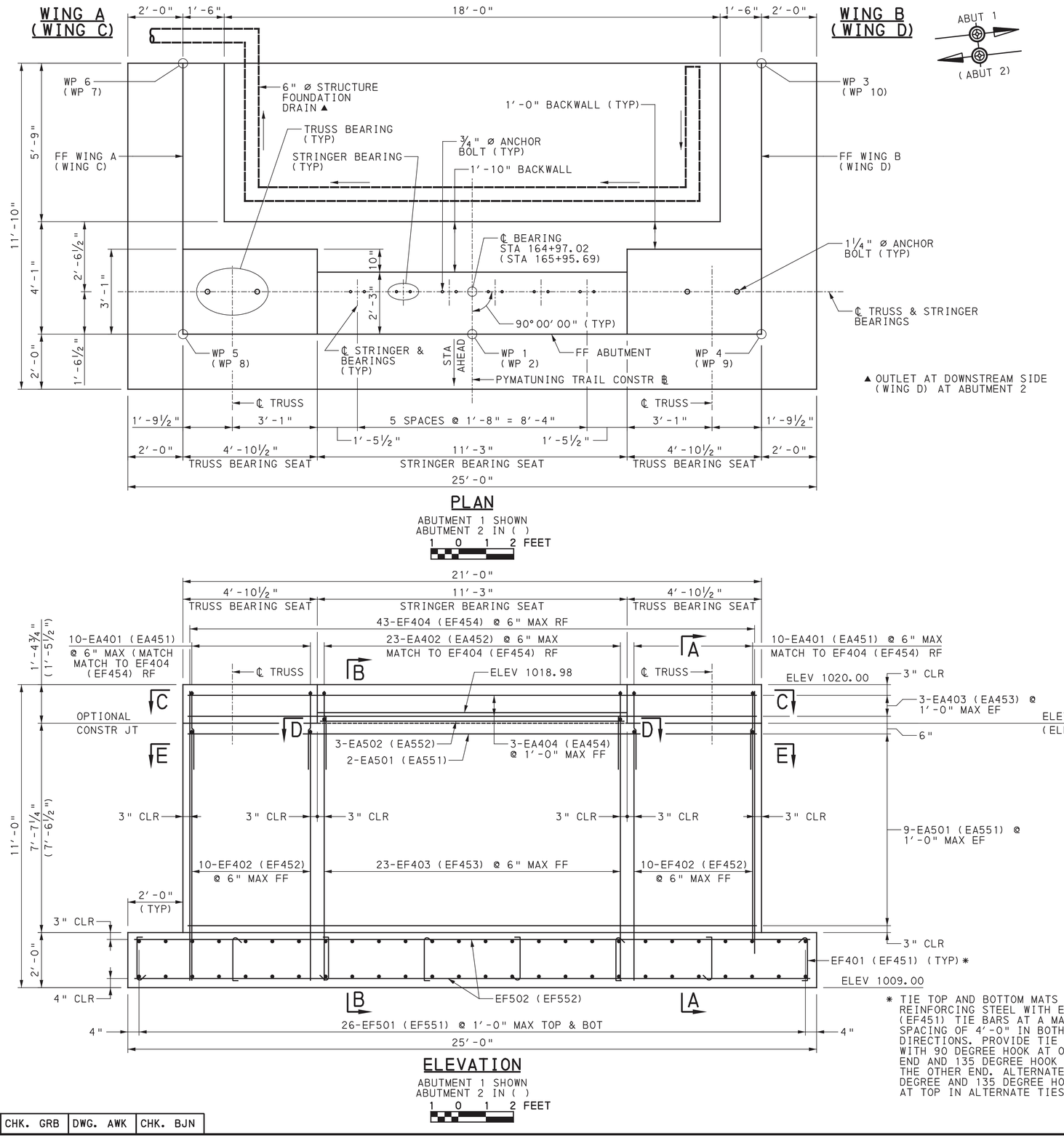


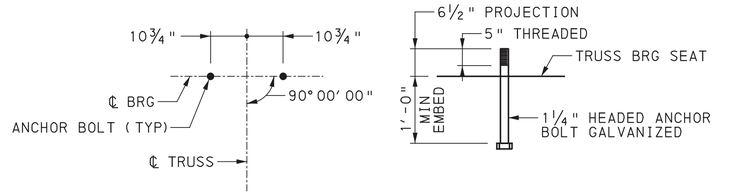
PLAN

ABUTMENT 1 SHOWN
ABUTMENT 2 IN ( )
1 0 1 2 FEET

ELEVATION

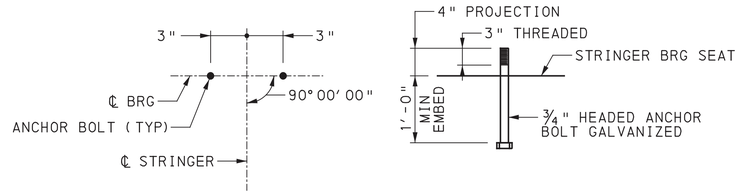
ABUTMENT 1 SHOWN
ABUTMENT 2 IN ( )
1 0 1 2 FEET

* TIE TOP AND BOTTOM MATS OF REINFORCING STEEL WITH EF401 (EF451) TIE BARS AT A MAXIMUM SPACING OF 4′-0" IN BOTH DIRECTIONS. PROVIDE TIE BARS WITH 90 DEGREE HOOK AT ONE END AND 135 DEGREE HOOK AT THE OTHER END. ALTERNATE 90 DEGREE AND 135 DEGREE HOOKS AT TOP IN ALTERNATE TIES.



ANCHOR BOLT LAYOUT - TRUSS

NOT TO SCALE



ANCHOR BOLT LAYOUT - STRINGER

NOT TO SCALE

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.
- FOR STAKE-OUT-PLAN, SEE SHEET 8.
- WORK THIS SHEET WITH SHEETS 10 AND 12 THRU 14.
- FOR TRUSS AND STRINGER BEARING DETAILS, SEE SHEET 19.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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PE085663

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

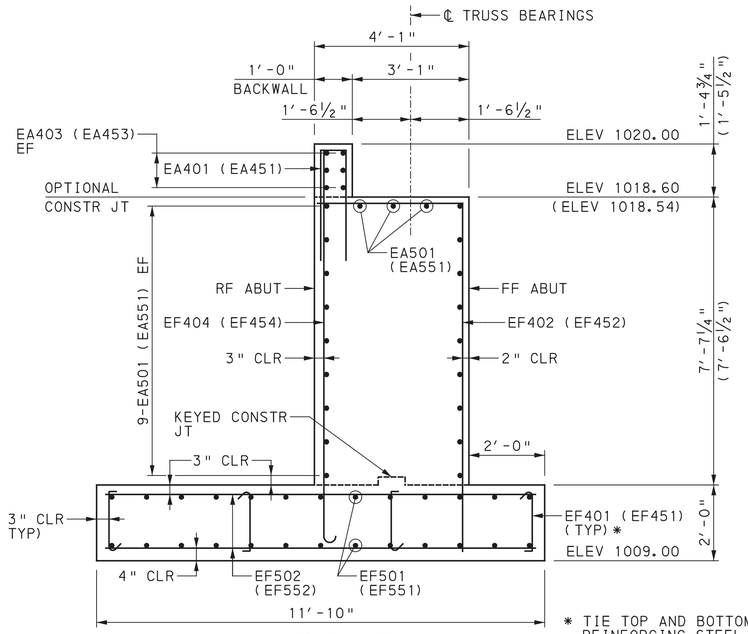
SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

ABUTMENT PLAN & ELEVATION

RECOMMENDED 7/27/2020

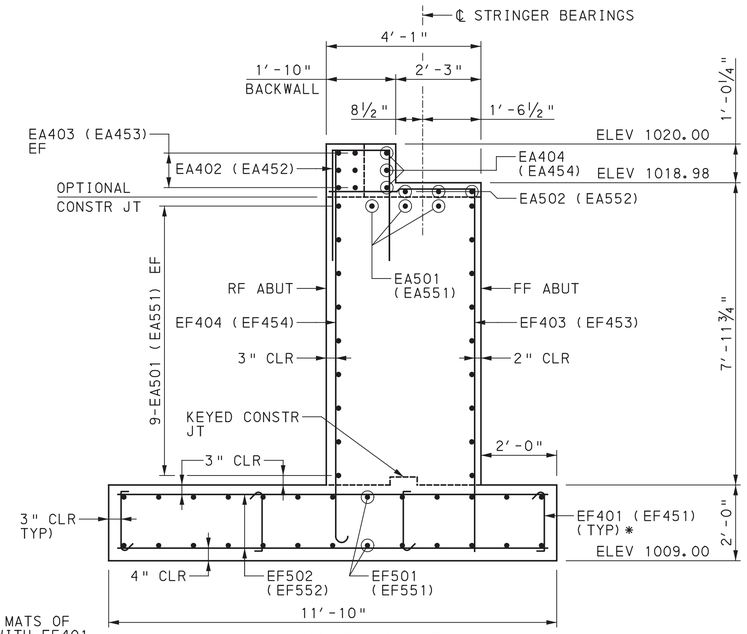
SHEET 11 OF 24

S-39532



SECTION A-A

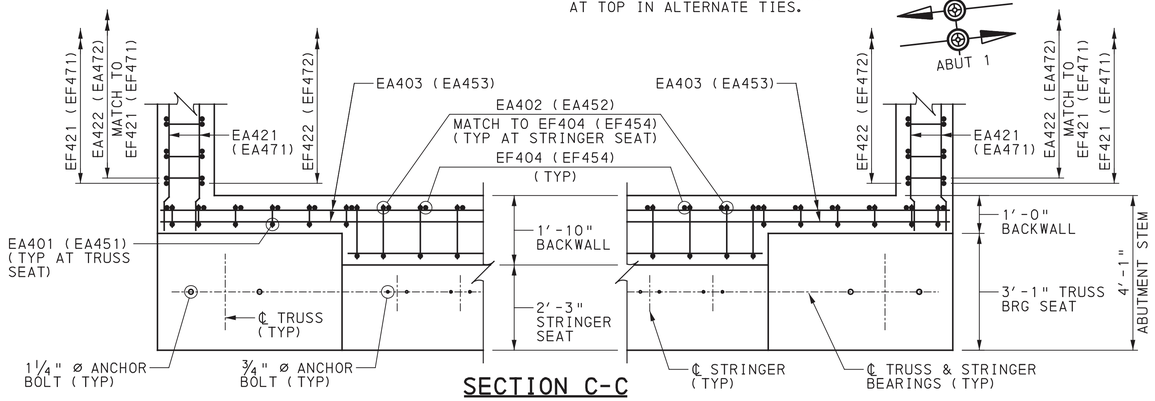
ABUTMENT 1 SHOWN
ABUTMENT 2 IN ( )
1 0 1 2 FEET



SECTION B-B

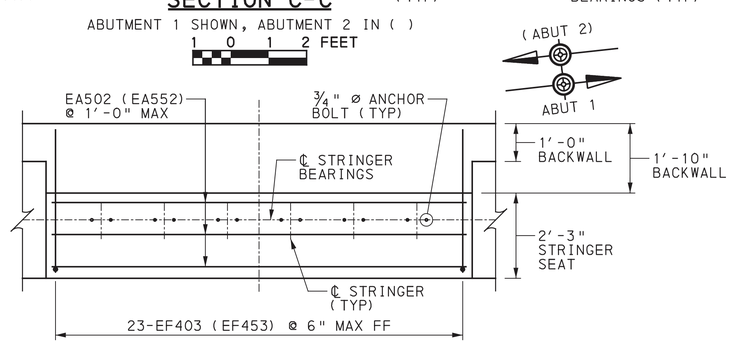
ABUTMENT 1 SHOWN
ABUTMENT 2 IN ( )
1 0 1 2 FEET

* TIE TOP AND BOTTOM MATS OF REINFORCING STEEL WITH EF401 (EF451) TIE BARS AT A MAXIMUM SPACING OF 4′-0" IN BOTH DIRECTIONS. PROVIDE TIE BARS WITH 90 DEGREE HOOK AT ONE END AND 135 DEGREE HOOK AT THE OTHER END. ALTERNATE 90 DEGREE AND 135 DEGREE HOOKS AT TOP IN ALTERNATE TIES.



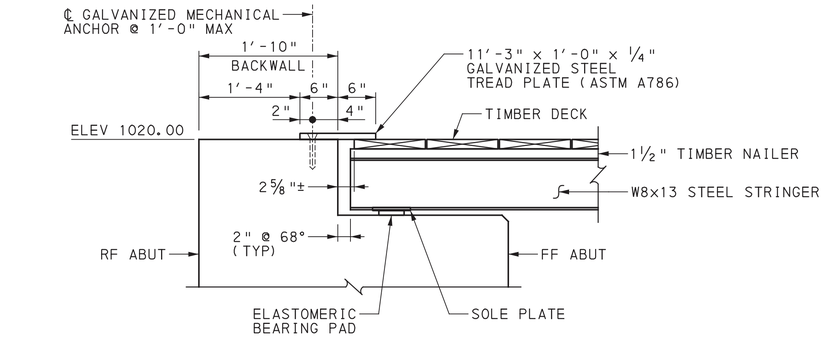
SECTION C-C

ABUTMENT 1 SHOWN, ABUTMENT 2 IN ( )
1 0 1 2 FEET



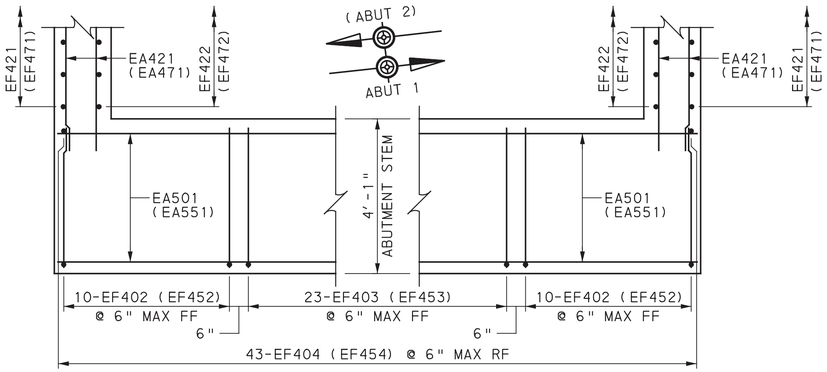
SECTION D-D

ABUTMENT 1 SHOWN, ABUTMENT 2 IN ( )
1 0 1 2 FEET



STRINGER BEAM SEAT DETAIL - ABUTMENT

1 0 1 2 FEET



SECTION E-E

ABUTMENT 1 SHOWN
ABUTMENT 2 IN ( )
1 0 1 2 FEET

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.
- WORK THIS SHEET WITH SHEETS 10, 11, 13 AND 14.
- FOR TRUSS AND STRINGER BEARING DETAILS, SEE SHEET 19.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

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REGISTERED PROFESSIONAL
BRANDON JAMES NEWPHER
ENGINEER
PE085663

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

ABUTMENT DETAILS - 1

RECOMMENDED 7/27/2020

SHEET 12 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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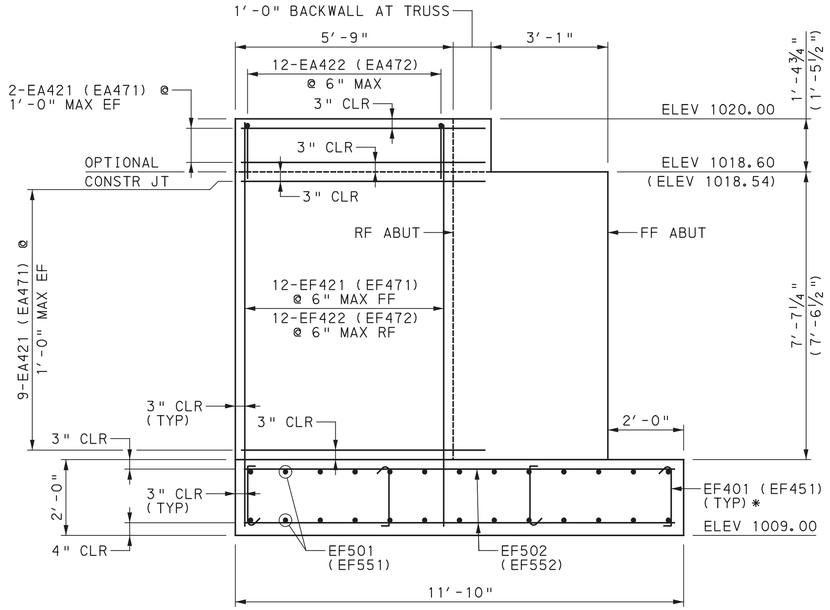
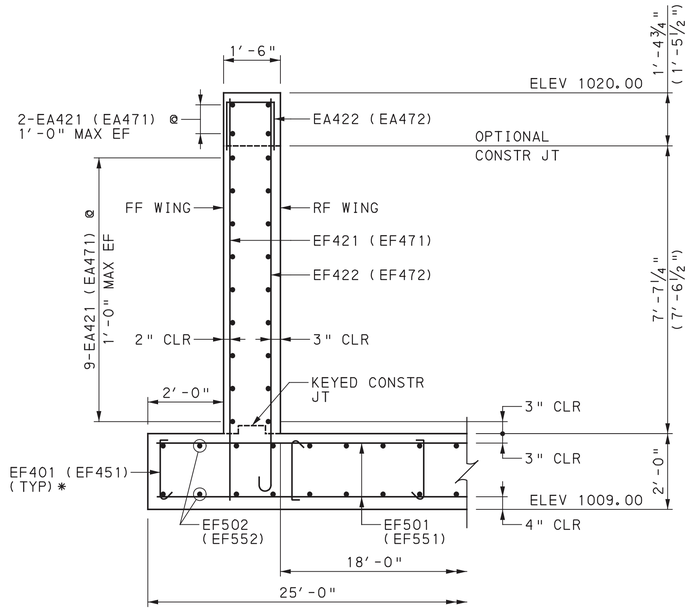


WINGWALL - ELEVATION

WINGWALL A SHOWN, WINGWALL B OPPOSITE HAND
WINGWALLS C AND D SIMILAR, SHOWN IN ( )

1 0 1 2 FEET



WINGWALL - TYPICAL SECTION

WINGWALL A SHOWN, WINGWALL B OPPOSITE HAND
WINGWALLS C AND D SIMILAR, SHOWN IN ( )

1 0 1 2 FEET

* TIE TOP AND BOTTOM MATS OF REINFORCING STEEL WITH EF401 (EF451) TIE BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. PROVIDE TIE BARS WITH 90 DEGREE HOOK AT ONE END AND 135 DEGREE HOOK AT THE OTHER END. ALTERNATE 90 DEGREE AND 135 DEGREE HOOKS AT TOP IN ALTERNATE TIES.

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.
- WORK THIS SHEET WITH SHEETS 10 THRU 12 AND 14.
- FOR TRUSS AND STRINGER BEARING DETAILS, SEE SHEET 19.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

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ENGINEER
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CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

ABUTMENT DETAILS - 2

RECOMMENDED 7/27/2020

SHEET 13 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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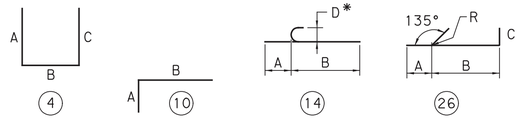
\\ENGDAT1\Projects\5943_PA_PennDOTPC_E03995\14_Pymatuning_Trail_Phase_1\300_CADDYPlan_Set\Structure\02-Final Design\Pym_Trail_Truss - STR13-ABUT DET-2.dgn

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	REMARKS
ABUTMENT 1 FOOTING										
EF401	4	32	2′-2"	26	4½"	1′-5"	4½"			R = 1¼"
EF402	4	20	12′-9"	10	3′-8"	9′-1"				
EF403	4	23	13′-2"	10	3′-8"	9′-6"				
EF404	4	43	10′-11"	14	6"	10′-5"				
EF421	4	24	10′-5"	STR						
EF422	4	24	10′-11"	14	6"	10′-5"				
EF501	5	52	11′-6"	STR						
EF502	5	26	24′-8"	STR						
ABUTMENT 1 STEM										
EA401	4	20	7′-6"	4	3′-5½"	7"	3′-5½"			
EA402	4	23	7′-5"	4	3′-0"	1′-5"	3′-0"			
EA403	4	6	20′-8"	STR						
EA404	4	3	10′-11"	STR						
EA501	5	21	20′-8"	STR						
EA502	5	3	10′-11"	STR						
WINGWALLS A & B										
EA421	4	44	6′-5"	STR						
EA422	4	24	7′-1"	4	3′-0"	1′-1"	3′-0"			
ABUTMENT 2 FOOTING										
EF451	4	32	2′-2"	26	4½"	1′-5"	4½"			R = 1¼"
EF452	4	20	12′-8½"	10	3′-8"	9′-0½"				
EF453	4	23	13′-2"	10	3′-8"	9′-6"				
EF454	4	43	10′-11"	14	6"	10′-5"				
EF471	4	24	10′-5"	STR						
EF472	4	24	10′-11"	14	6"	10′-5"				
EF551	5	52	11′-6"	STR						
EF552	5	26	24′-8"	STR						
ABUTMENT 2 STEM										
EA451	4	20	7′-6"	4	3′-5½"	7"	3′-5½"			
EA452	4	23	7′-5"	4	3′-0"	1′-5"	3′-0"			
EA453	4	6	20′-8"	STR						
EA454	4	3	10′-11"	STR						
EA551	5	21	20′-8"	STR						
EA552	5	3	10′-11"	STR						
WINGWALLS C & D										
EA471	4	44	6′-5"	STR						
EA472	4	24	7′-1"	4	3′-0"	1′-1"	3′-0"			



- E PREFIX DENOTES EPOXY COATED BARS.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.
- "*" DIMENSION ON 180° HOOKS ARE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE USED.
- DO NOT USE RAIL STEEL A 996/A 996M REINFORCEMENT BARS IN BRIDGE PIERS, ABUTMENTS, SHEAR BLOCKS, BEAMS, FOOTINGS, PILES, BARRIERS OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BRANDON JAMES NEWPHER
ENGINEER
PE085663

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

SUBSTRUCTURE REINFORCEMENT BAR SCHEDULE

RECOMMENDED 7/27/2020

SHEET 14 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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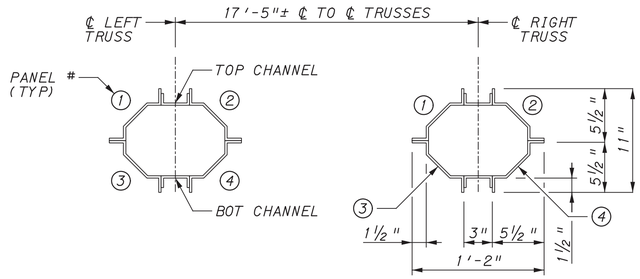
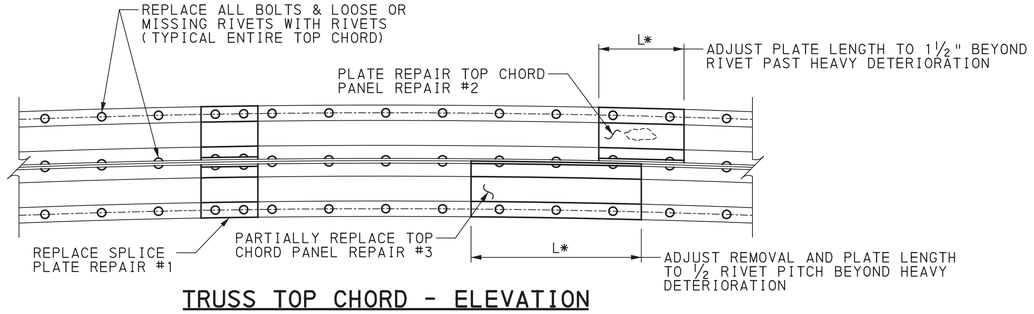


NOTES: ALL PANELS MADE OF BENT ¼" THICK PLATE.
ALL DIMSNEIONS ±.
FIELD VERIFY ALL DIMENSIONS PRIOR TO SHOP DRAWING SUBMISSION.

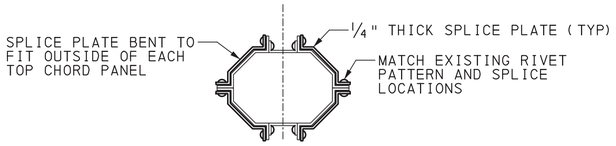
TRUSS TOP CHORD - TYPICAL SECTION

1 0 1 FOOT



TRUSS TOP CHORD - ELEVATION

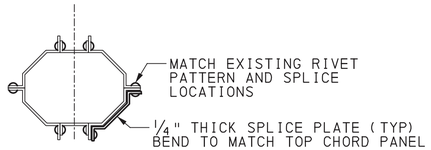
1 0 1 FOOT



TOP CHORD SPLICE - TYPICAL SECTION

REPAIR #1

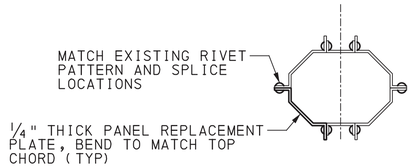
1 0 1 FOOT



TOP CHORD PLATING REPAIR

REPAIR #2

1 0 1 FOOT



TOP CHORD PANEL REPLACEMENT

REPAIR #3

1 0 1 FOOT

PLATE REPAIRS - ESTIMATED SCOPE OF WORK*

TRUSS	JOINT ID	REPAIR ID #	ANTICIPATED REPAIRS	PANEL #	PLATE L*	PLATE W*	STEEL (LBS)
RIGHT	U2 - U3	1	REPLACE 4 - TOP CHORD SPLICE PLATES	1 - 4	5"	9"	14
RIGHT	U4 - U5	1	REPLACE 4 - TOP CHORD SPLICE PLATES	1 - 4	5"	9"	14
RIGHT	U5 - U6	1	REPLACE 4 - TOP CHORD SPLICE PLATES	1 - 4	5"	9"	14
RIGHT	U7 - U8	1	REPLACE 4 - TOP CHORD SPLICE PLATES	1 - 4	5"	9"	14
RIGHT	U4 - U5	2	PLATE REPAIR TOP CHORD PANEL	4	21"	9"	15
RIGHT	U4 - U5	2	PLATE REPAIR TOP CHORD PANEL**	3	27"	9"	19
RIGHT	U5 - U6	2	PLATE REPAIR TOP CHORD PANEL	4	39"	9"	28
RIGHT	U6 - U7	2	PLATE REPAIR TOP CHORD PANEL	3	21"	9"	15
RIGHT	U6 - U7	2	PLATE REPAIR TOP CHORD PANEL	3	21"	9"	15
RIGHT	L0 - U1	3	PARTIALLY REPLACE TOP CHORD PANEL	3	15"	9"	11
RIGHT	U9 - L10	3	PARTIALLY REPLACE TOP CHORD PANEL	3	15"	9"	11
RIGHT	U9 - L10	3	PARTIALLY REPLACE TOP CHORD PANEL	4	15"	9"	11
LEFT	U2 - U3	1	REPLACE 4 - TOP CHORD SPLICE PLATES	1 - 4	5"	9"	14
LEFT	U4 - U5	1	REPLACE 4 - TOP CHORD SPLICE PLATES	1 - 4	5"	9"	14
LEFT	U5 - U6	1	REPLACE 4 - TOP CHORD SPLICE PLATES	1 - 4	5"	9"	14
LEFT	U7 - U8	1	REPLACE 4 - TOP CHORD SPLICE PLATES	1 - 4	5"	9"	14
LEFT	L0 - U1	3	PARTIALLY REPLACE TOP CHORD PANEL	4	15"	9"	11
LEFT	U5 - U6	3	PARTIALLY REPLACE TOP CHORD PANEL	3	69"	9"	49
LEFT	U9 - L10	3	PARTIALLY REPLACE TOP CHORD PANEL	3	15"	9"	11
LEFT	U9 - L10	3	PARTIALLY REPLACE TOP CHORD PANEL	4	15"	9"	11

* FINAL SCOPE OF REPAIRS, SIZE OF PLATES, NUMBERS OF PLATES AND ADDITIONAL REPAIRS NOT SHOWN TO BE DETERMINED AFTER POST BLASTING INSPECTION.
** IF NECESSARY TIE-PLATE REPAIR INTO SPLICE PLATE AS SINGLE PLATE REPAIR.

NOTES:

- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES AND RATINGS, SEE SHEET 2.
- FOR QUANTITIES & TYPICAL SECTION, SEE SHEET 3.
- FOR SCOPE OF REHABILITATION, SEE SHEETS 4 & 5.
- WORK THIS SHEET WITH SHEETS 16 THRU 20.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
BRANDON JAMES NEWPHER
PE085663

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

TRUSS REPAIRS - 1

RECOMMENDED 7/27/2020

SHEET 15 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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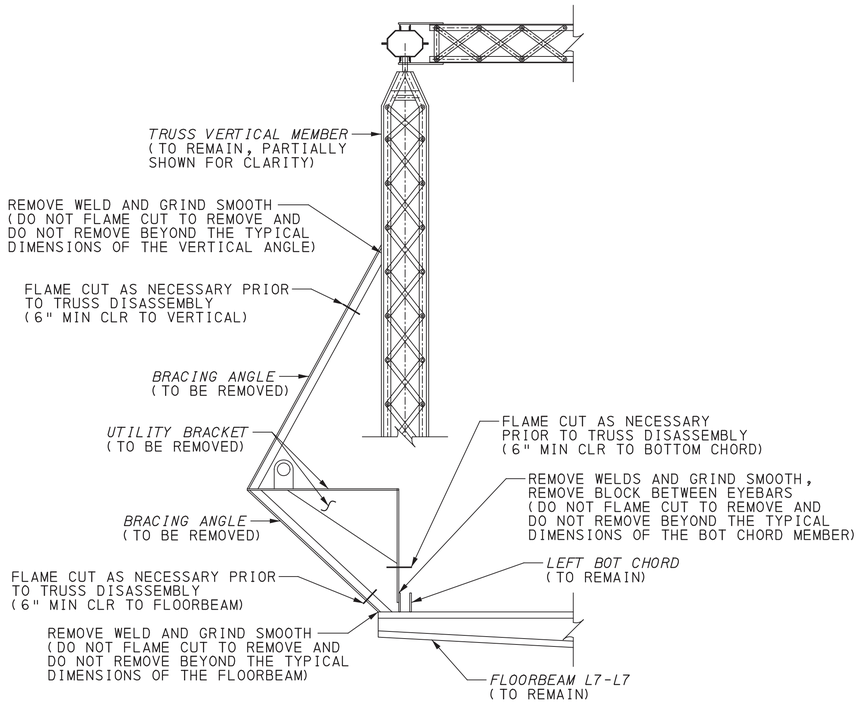
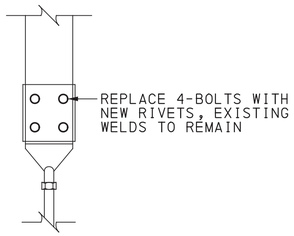


REMOVE UTILITY BRACKET

REPAIR #4

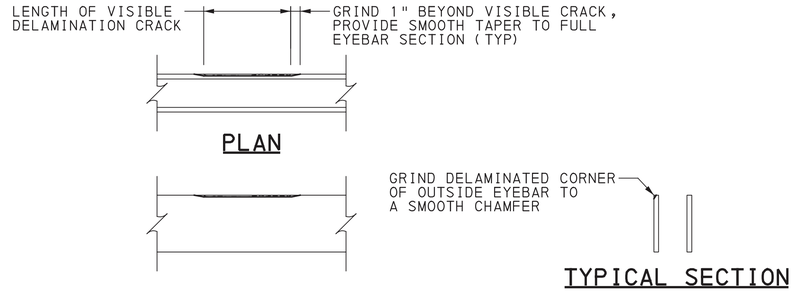
1 0 1 2 FEET



BOLT REPLACEMENT DETAIL

REPAIR #6

1 0 1 FOOT



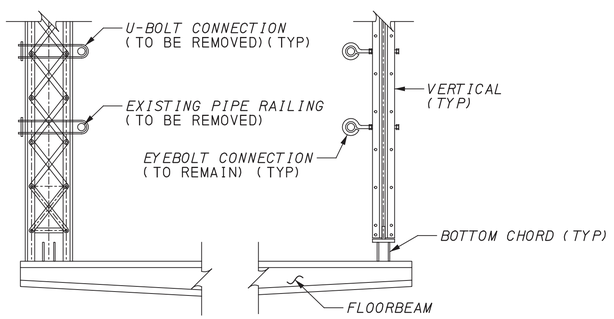
GRIND BOTTOM CHORD DELAMINATION

REPAIR #11

1 0 1 FOOT

PLATE REPAIRS - ESTIMATED SCOPE OF WORK*						
TRUSS	JOINT ID	REPAIR ID #	ANTICIPATED REPAIRS	PLATE L*	PLATE W*	STEEL (LBS)
RIGHT	L3	12	REPLACE 4 - BOT CHORD SPLICE PLATES	2'-0"	6"	45
RIGHT	L5	12	REPLACE 4 - BOT CHORD SPLICE PLATES	2'-0"	6"	45
RIGHT	L7	12	REPLACE 4 - BOT CHORD SPLICE PLATES	2'-0"	6"	45
LEFT	L3	12	REPLACE 4 - BOT CHORD SPLICE PLATES	2'-0"	6"	45
LEFT	L5	12	REPLACE 4 - BOT CHORD SPLICE PLATES	2'-0"	6"	45
LEFT	L7	12	REPLACE 4 - BOT CHORD SPLICE PLATES	2'-0"	6"	45

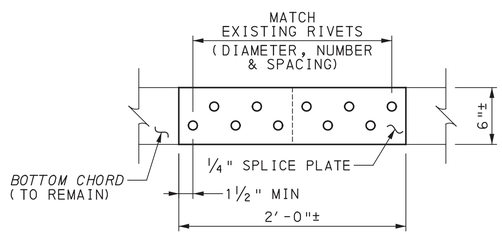
* FINAL SCOPE OF REPAIRS, SIZE OF PLATES, AND ADDITIONAL REPAIRS NOT SHOWN ARE TO BE DETERMINED AFTER POST BLASTING INSPECTION.



RAILING REMOVAL DETAIL

REPAIR #8

1 0 1 2 FEET



BOTTOM CHORD SPLICES

REPAIR #12

1 0 1 FOOT

NOTES:

- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES AND RATINGS, SEE SHEET 2.
- FOR QUANTITIES & TYPICAL SECTION, SEE SHEET 3.
- FOR SCOPE OF REHABILITATION, SEE SHEETS 4 & 5.
- WORK THIS SHEET WITH SHEETS 15 AND 17 THRU 20.

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REGISTERED PROFESSIONAL
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SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

TRUSS REPAIRS - 2

RECOMMENDED 7/27/2020

SHEET 16 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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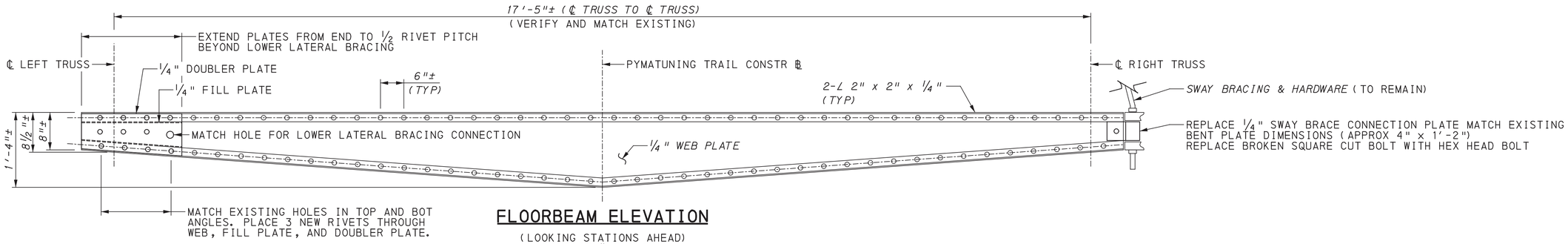


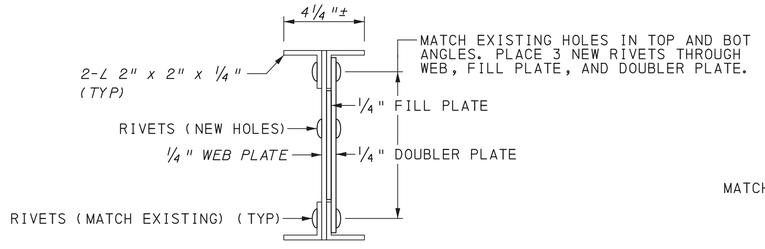
FLOORBEAM ELEVATION

(LOOKING STATIONS AHEAD)
REPAIR # 7 & 15
(STRINGERS, DECK AND LOWER LATERAL BRACING NOT SHOWN FOR CLARITY)

1 0 1 2 FEET

FLOORBEAM - ESTIMATED SCOPE OF WORK*		
JOINT ID	ANTICIPATED REPAIRS	STEEL (LBS)
L2 - L2	CLEAN & PAINT	-
L3 - L3	CLEAN & PAINT	-
L4 - L4	CLEAN & PAINT	-
L5 - L5	REPAIR #7, REPLACE SWAY BRACE CONNECTION PLATES	8
L6 - L6	REPAIR #15 LEFT, DOUBLER PLATE WEB REPAIR	22
L7 - L7	REPAIR #10 LEFT, REPLACE HANGER BLOCK	10
L8 - L8	CLEAN & PAINT	-

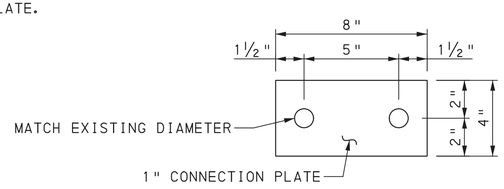
* FINAL SCOPE OF REPAIRS TO BE DETERMINED AFTER POST BLASTING INSPECTION. ADDITIONAL SCOPE OF WORK TO BE LIMITED TO COVER PLATE REPAIRS TO THE EXISTING FLANGES AND WEB.



FLOORBEAM TYPICAL SECTION

REPAIR # 15

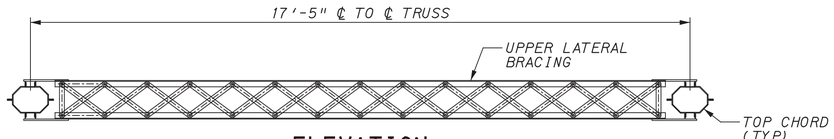
6 0 6 INCHES



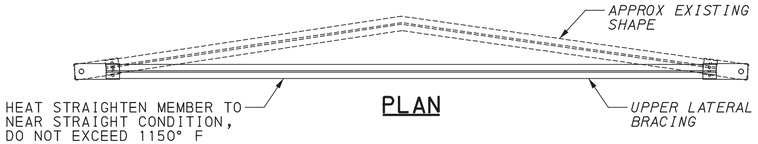
FLOORBEAM HANGER BLOCK

REPAIR # 10
ALL DIMENSIONS ARE ± (VERIFY AND MATCH EXISTING)

6 0 6 INCHES



ELEVATION

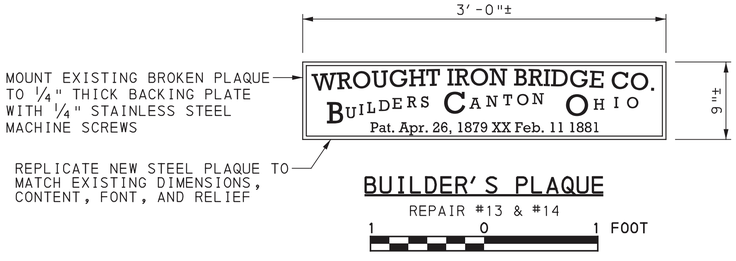


PLAN

UPPER LATERAL BRACING

REPAIR #16

1 0 1 2 FEET



BUILDER'S PLAQUE

REPAIR #13 & #14

1 0 1 FOOT

NOTES:

- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.
- FOR QUANTITIES AND TYPICAL SECTION, SEE SHEET 3.
- FOR SCOPE OF REHABILITATION, SEE SHEETS 4 AND 5.
- WORK THIS SHEET WITH SHEETS 15, 16 AND 18 THRU 20.

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SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

FLOORBEAM REPAIR DETAILS

RECOMMENDED 7/27/2020

SHEET 17 OF 24

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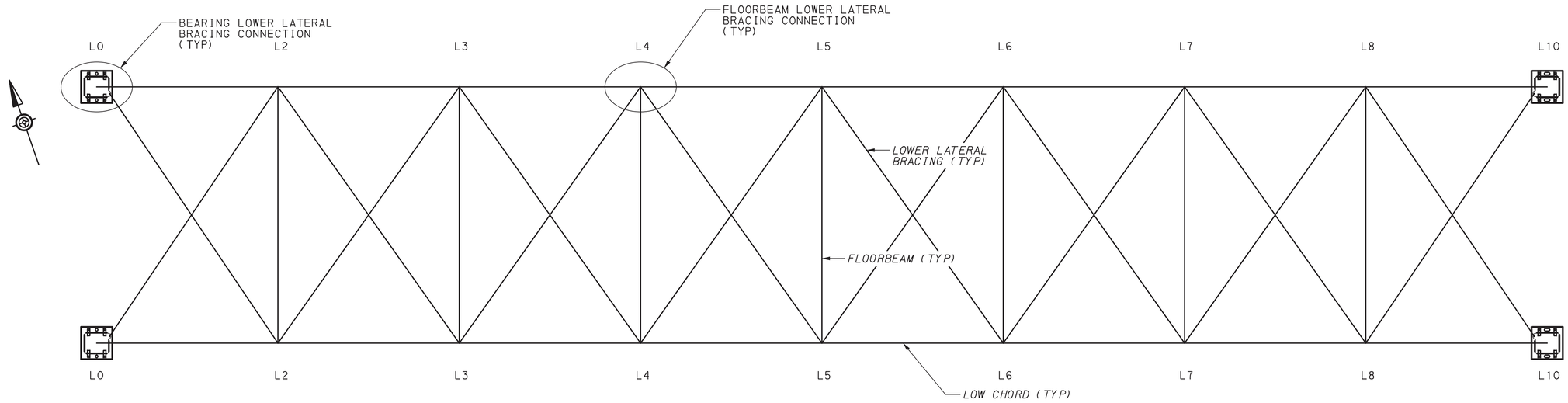
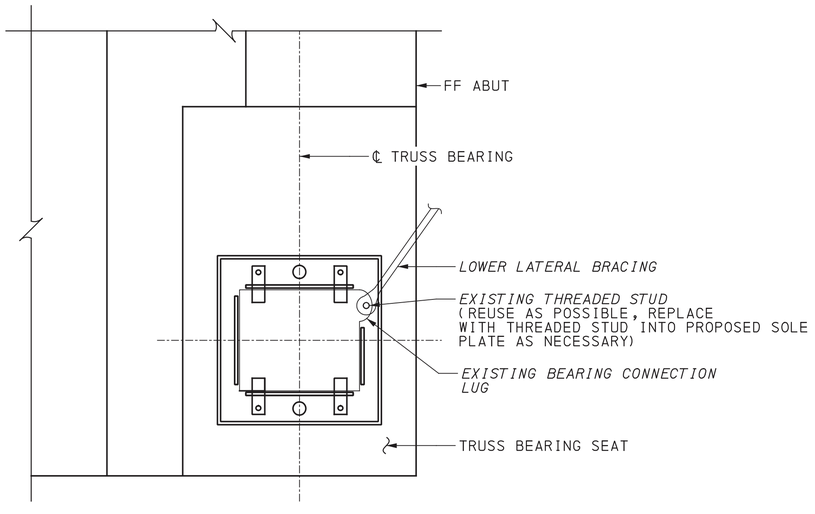


LOWER LATERAL BRACING - PLAN

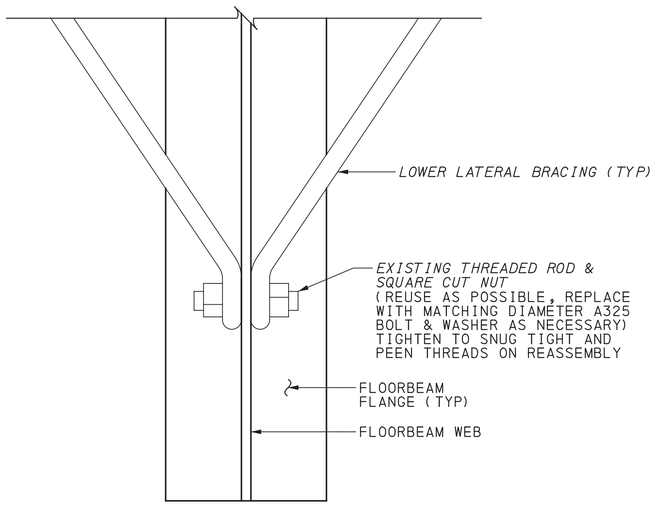
NOT TO SCALE

NOTE: ALL MEMBERS TO REMAIN NO REPLACEMENTS ANTICIPATED, PLAN PROVIDED FOR INFORMATION ONLY



BEARING CONNECTION DETAIL

1 0 1 2 FEET



FLOORBEAM CONNECTION DETAIL

NOT TO SCALE

NOTES:

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- FOR GENERAL NOTES, SEE SHEET 2.
- FOR QUANTITIES AND TYPICAL SECTION, SEE SHEET 3.
- FOR SCOPE OF REHABILITATION, SEE SHEETS 4 AND 5.
- WORK THIS SHEET WITH SHEETS 15 THRU 17, 19 AND 20.

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SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

LOWER LATERAL BRACING DETAILS

RECOMMENDED 7/27/2020

SHEET 18 OF 24

S-39532

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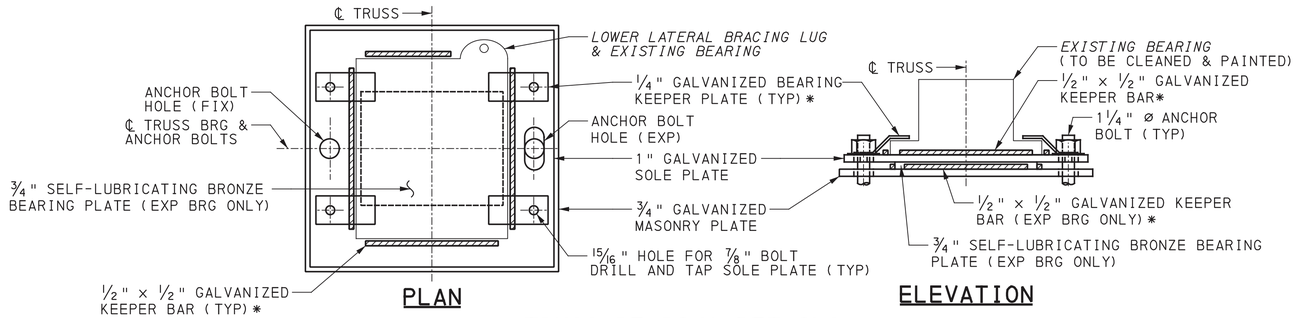
8/19/2020 2:46:48 PM bn
\\ENGDAT1\Projects\5943_PA_PennDOTPC_E03995\14_Pymatuning_Trail_Phase_1\300_CADDPlan_Set\Structure\02-Final Design\Pym_Trail_Truss - STR18-BRACING.dgn



TRUSS BEARING DETAILS

(LEFT TRUSS SHOWN, RIGHT TRUSS SIMILAR BUT OPPOSITE HAND)

1 0 1 FOOT

PLAIN ELASTOMERIC BEARING DETAILS

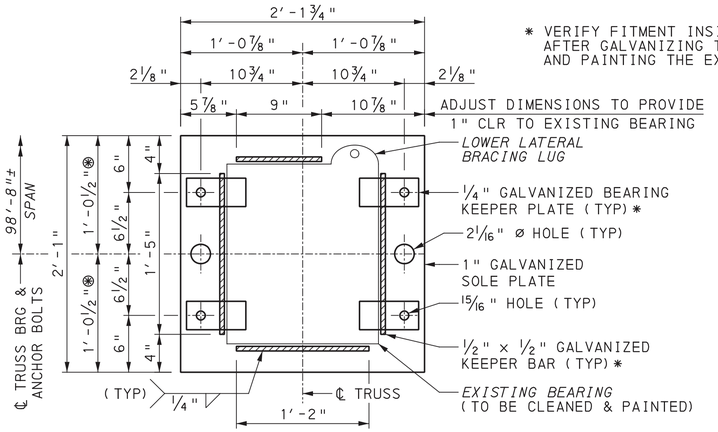
STRINGER LOCATION	TYPE	WIDTH (IN)	LENGTH (IN)	THICKNESS (IN)	TOTAL BEARINGS PER LOCATION	DESIGN STRINGER REACTIONS (KIPS)			
						MAX DL	MIN DL	MAX LL	MIN LL
ABUTMENT 1 L0	EXP	4.00	4.00	0.75	6	0.31	0.14	1.53	0.00
ABUTMENT 2 L10	EXP	4.00	4.00	0.75	6	0.31	0.14	1.53	0.00

PIN DIMENSION TABLE **

JOINT ID	DIAMETER**	LENGTH**	NUMBER	STEEL (LBS)
L0	2"	1'-2"	2	25
L10	2"	1'-2"	2	25

REPLACE PINS AT BEARING LOCATIONS, REPAIR #9

** DIMENSION OF PINS TO BE FIELD VERIFIED. FIELD VERIFIED DIMENSIONS TO BE INDICATED ON SHOP DRAWINGS. ALL PINS AND PIN NUTS TO BE PLACED TO MATCH EXISTING PIN DIAMETERS, LENGTHS AND NUT SIZES.

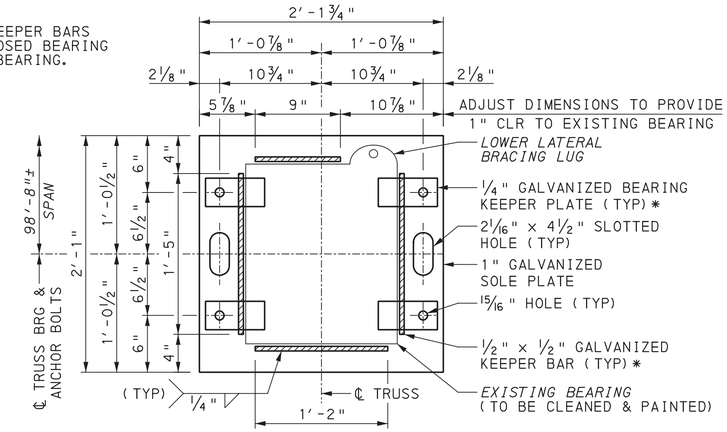


* VERIFY FITMENT INSIDE OF KEEPER BARS AFTER GALVANIZING THE PROPOSED BEARING AND PAINTING THE EXISTING BEARING.

FIXED SOLE PLATE & EXISTING BEARING DETAIL

(2 REQUIRED)

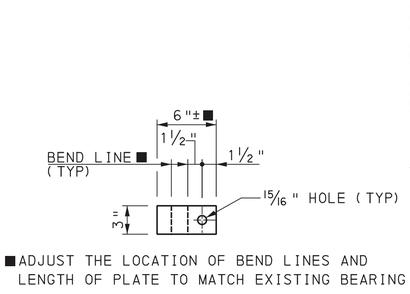
1 0 1 FOOT



EXPANSION SOLE PLATE & EXISTING BEARING DETAIL

(2 REQUIRED)

1 0 1 FOOT

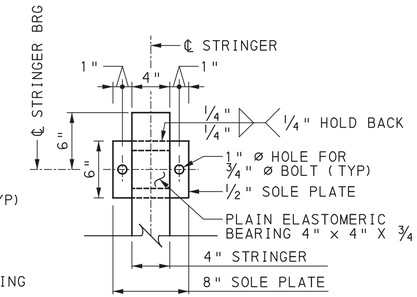


■ ADJUST THE LOCATION OF BEND LINES AND LENGTH OF PLATE TO MATCH EXISTING BEARING

KEEPER PLATE DETAIL

(16 REQUIRED)

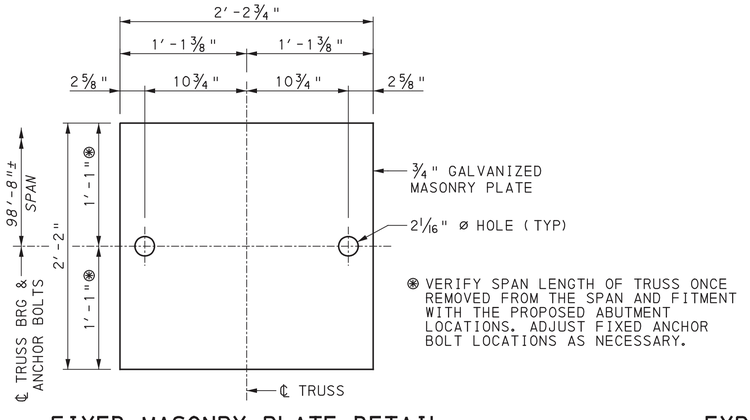
1 0 1 FOOT



STRINGER BEARING DETAIL

(12 REQUIRED)

1 0 1 FOOT

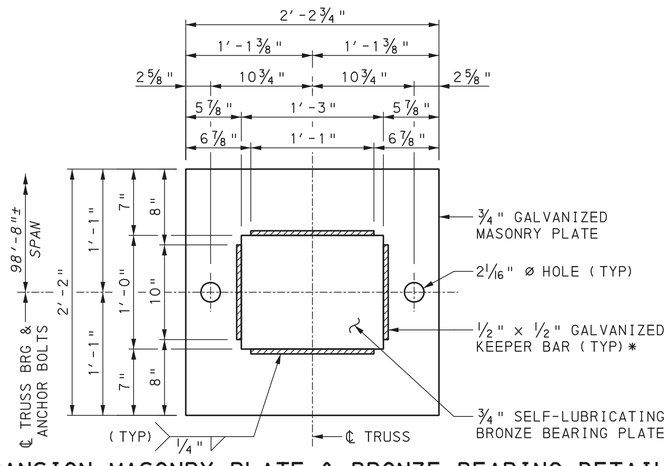


* VERIFY SPAN LENGTH OF TRUSS ONCE REMOVED FROM THE SPAN AND FITMENT WITH THE PROPOSED ABUTMENT LOCATIONS. ADJUST FIXED ANCHOR BOLT LOCATIONS AS NECESSARY.

FIXED MASONRY PLATE DETAIL

(2 REQUIRED)

1 0 1 FOOT



EXPANSION MASONRY PLATE & BRONZE BEARING DETAIL

(2 REQUIRED)

1 0 1 FOOT

NOTES:

- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.
- FOR QUANTITIES & TYPICAL SECTION, SEE SHEET 3.
- FOR SCOPE OF REHABILITATION, SEE SHEETS 4 AND 5.
- FOR ABUTMENT PLAN AND ELEVATION, SEE SHEET 10.
- WORK THIS SHEET WITH SHEETS 15 THRU 18 AND 20.

Mark	Description	By	Chk'd.	Recm'd.	Date

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
BRANDON JAMES NEWPHER
PE085663

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

BEARING DETAILS

RECOMMENDED 7/27/2020

SHEET 19 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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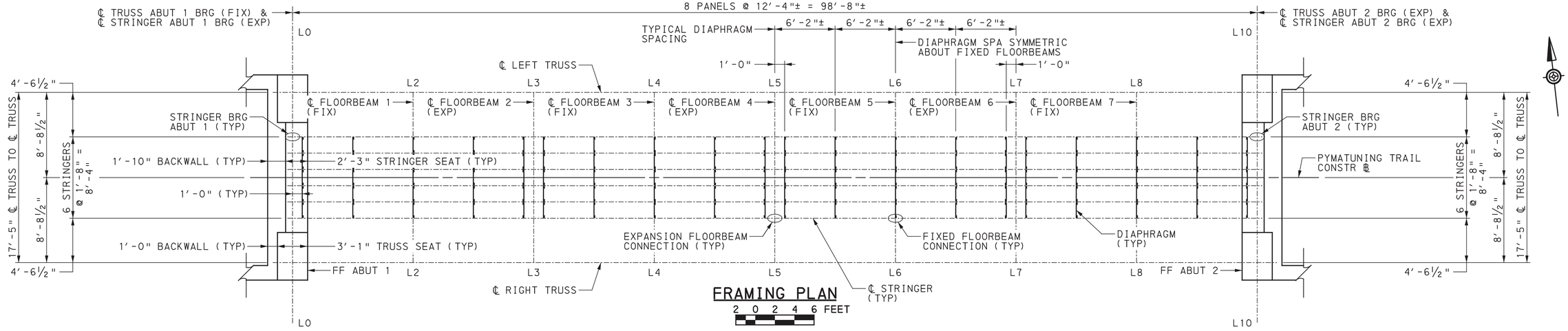
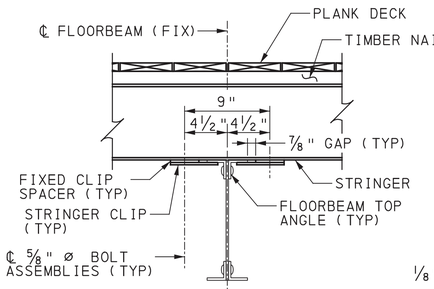
\\ENGDAT1\Projects\5943_PA_PennDOTPC_E03995\14_Pymatuning_Trail_Phase_1\300_CADD\Plan_Set\Structure\02-Final Design\Pym_Trail_Truss - STR19-BEARING.dgn



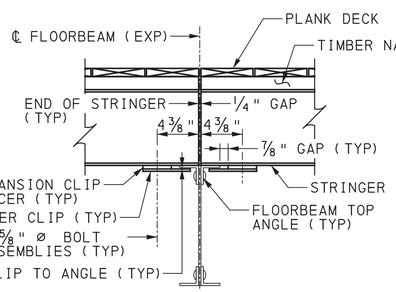
FRAMING PLAN

2 0 2 4 6 FEET



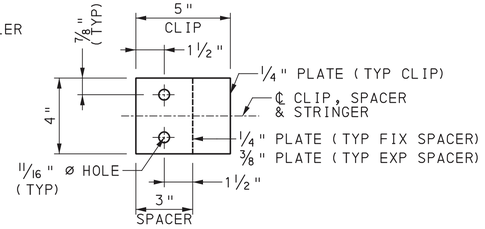
FIX FLOORBEAM CONNECTION

1 0 1 FOOT



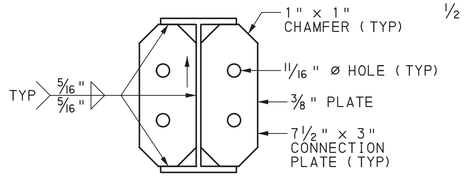
EXP FLOORBEAM CONNECTION

1 0 1 FOOT



STRINGER CLIP & SPACER DETAIL

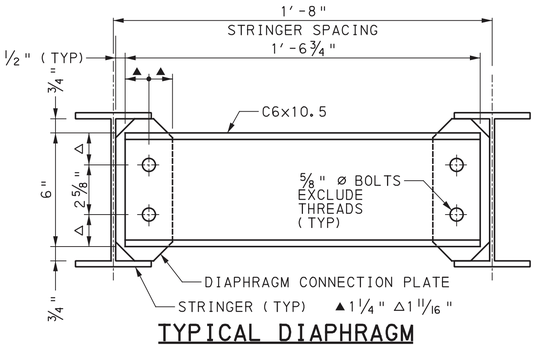
6 0 6 INCHES



WELD IN DIRECTION SHOWN BY ARROW
PLATE PERPENDICULAR TO WEB

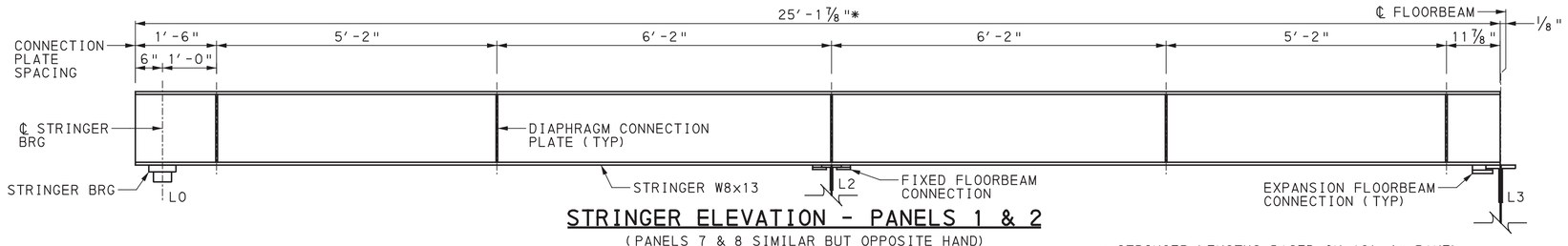
DIAPHRAGM CONNECTION PLATE

6 0 6 INCHES



TYPICAL DIAPHRAGM

6 0 6 INCHES

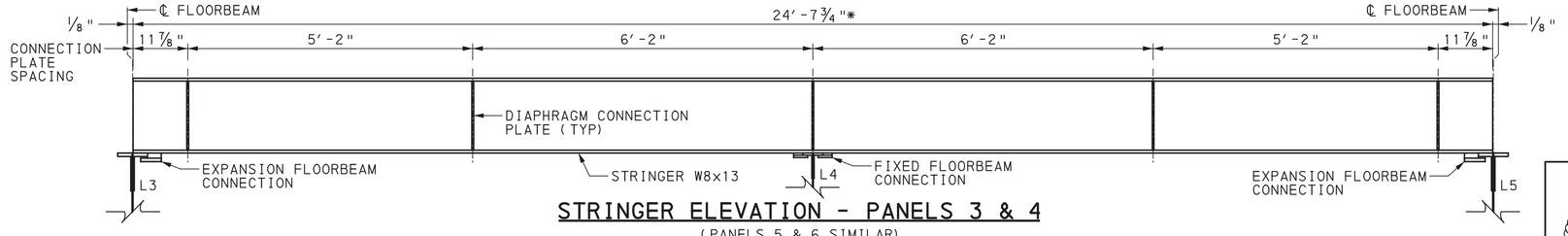


STRINGER ELEVATION - PANELS 1 & 2

(PANELS 7 & 8 SIMILAR BUT OPPOSITE HAND)

1 0 1 2 FEET HORIZONTAL
1 0 1 FOOT VERTICAL

* STRINGER LENGTHS BASED ON 12′-4" PANEL LENGTHS. TO BE FIELD VERIFIED AND ADJUSTED AS NECESSARY (TYP).



STRINGER ELEVATION - PANELS 3 & 4

(PANELS 5 & 6 SIMILAR)

1 0 1 2 FEET HORIZONTAL
1 0 1 FOOT VERTICAL

NOTES:

- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.
- FOR TYPICAL SECTION, SEE SHEET 3.
- FOR SCOPE OF REHABILITATION, SEE SHEETS 4 AND 5.
- FOR DECK PLAN, SEE SHEET 21.
- FOR RAILING PLAN AND ELEVATION, SEE SHEET 22.
- WORK THIS SHEET WITH SHEETS 15 THRU 19.

Mark	Description	By	Chk'd.	Recm'd.	Date
	REVISIONS				

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BRANDON JAMES NEWPHER
ENGINEER
PE085663

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

FRAMING PLAN

RECOMMENDED 7/27/2020

SHEET 20 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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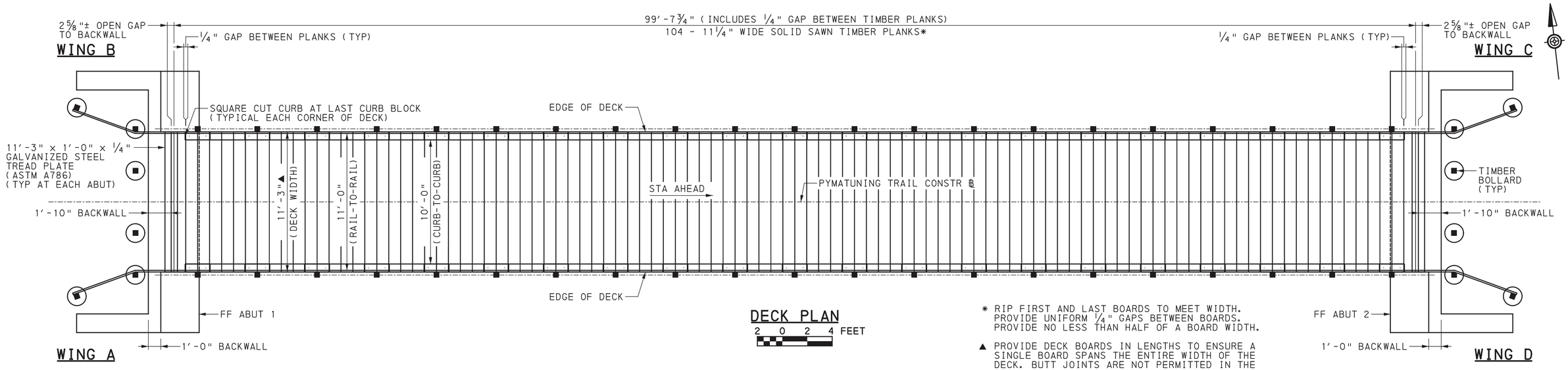
\\ENGDAT1\Projects\5943_PA_PennDOTPC_E03995\14_Pymatuning_Trail_Phase_1\300_CADD\Plan_Set\Structure\02-Final Design\Pym_Trail_Truss - STR20-FRAMING.dgn

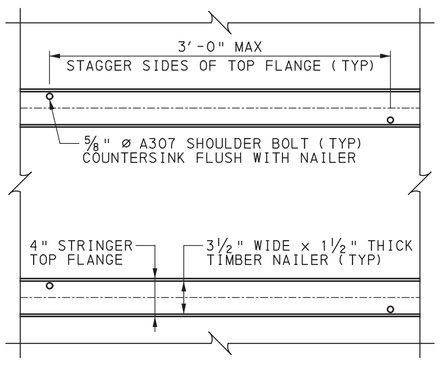


DECK PLAN

2 0 2 4 FEET

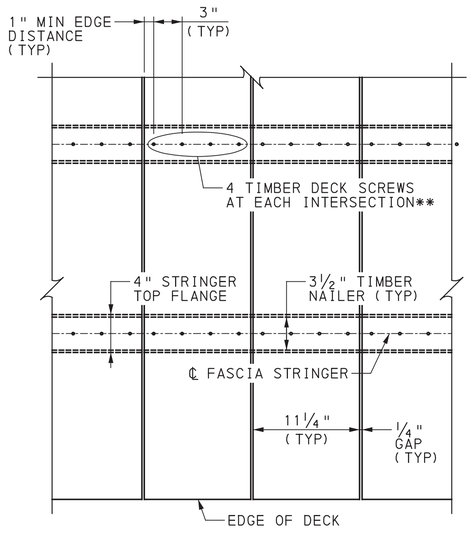
* RIP FIRST AND LAST BOARDS TO MEET WIDTH. PROVIDE UNIFORM 1/4" GAPS BETWEEN BOARDS. PROVIDE NO LESS THAN HALF OF A BOARD WIDTH.

▲ PROVIDE DECK BOARDS IN LENGTHS TO ENSURE A SINGLE BOARD SPANS THE ENTIRE WIDTH OF THE DECK. BUTT JOINTS ARE NOT PERMITTED IN THE DECK.



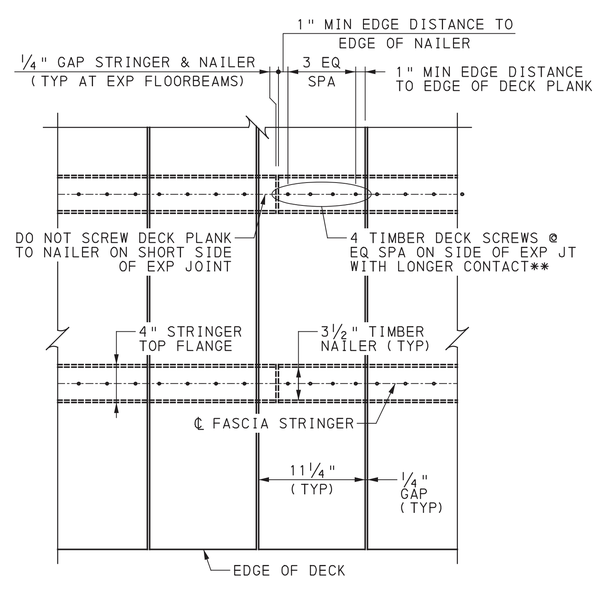
NAILER CONNECTION DETAIL

1 0 1 FOOT



DECK CONNECTION DETAIL - TYPICAL

1 0 1 FOOT



DECK CONNECTION @ EXP JT

1 0 1 FOOT

** PROVIDE #10 SCREWS WITH PROTECTIVE COATING RECOMMENDED FOR USE WITH TREATED LUMBER. ENSURE TIMBER DECK SCREWS DO NOT EXTEND INTO STRINGER TOP FLANGE, USE 2 1/2" MIN LENGTH.

NOTES:

- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.
- FOR QUANTITIES AND TYPICAL SECTION, SEE SHEET 3.
- FOR SCOPE OF REHABILITATION, SEE SHEETS 4 AND 5.
- FOR RAILING PLAN AND ELEVATION, SEE SHEET 22.
- FOR RAILING DETAILS, SEE SHEET 23.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — BRANDON JAMES NEWPHER — PE085663

CRAWFORD COUNTY PYMATUNING STATE PARK

PYMATUNING TRAIL OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

DECK PLAN

RECOMMENDED 7/27/2020

SHEET 21 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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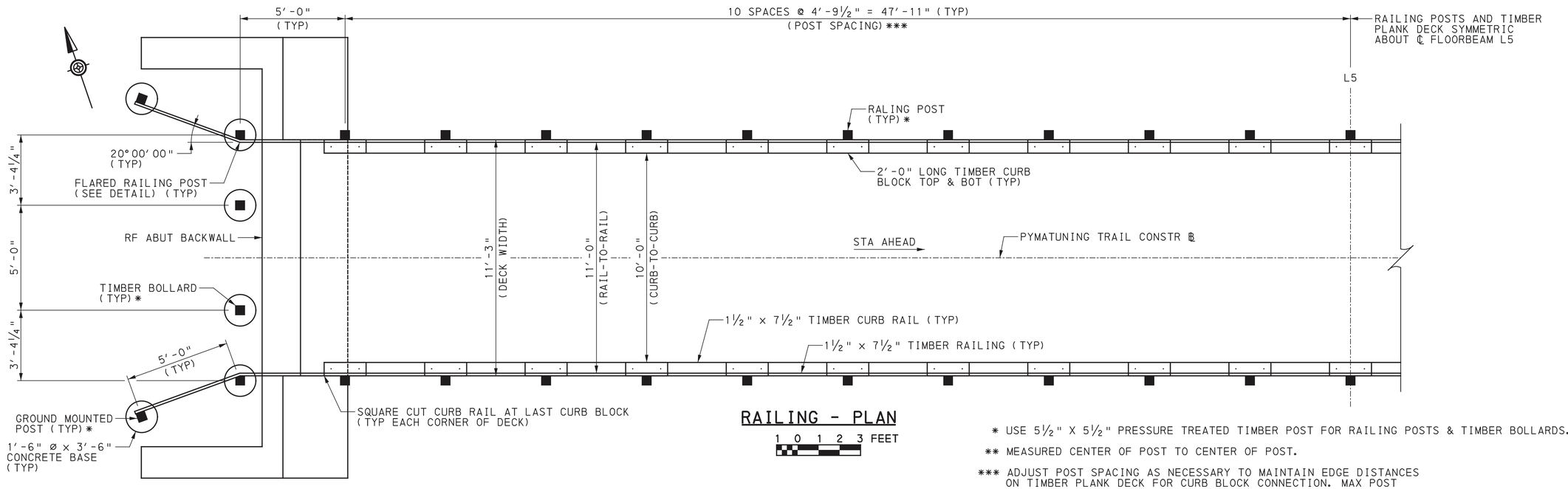


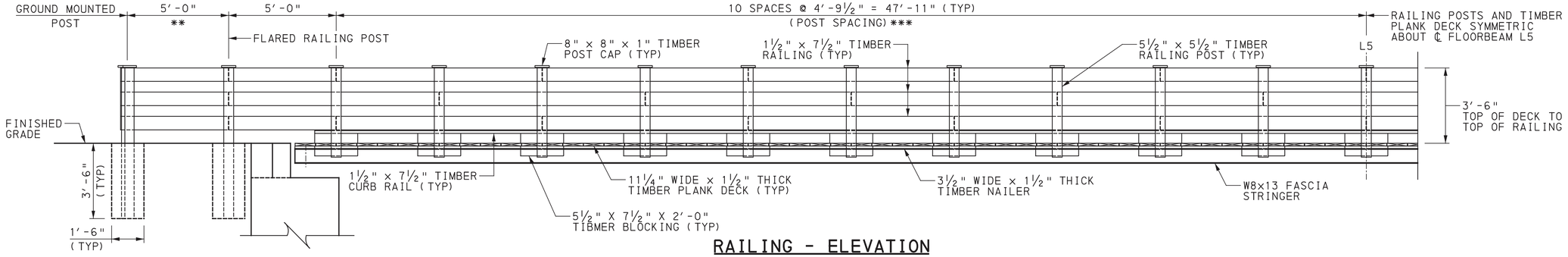
RAILING - PLAN

1 0 1 2 3 FEET

* USE 5½" X 5½" PRESSURE TREATED TIMBER POST FOR RAILING POSTS & TIMBER BOLLARDS.

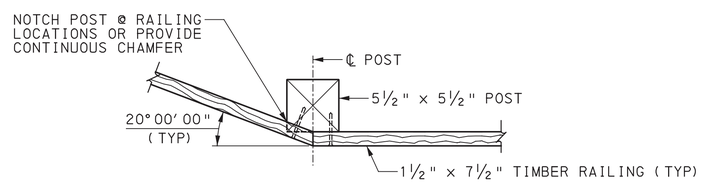
** MEASURED CENTER OF POST TO CENTER OF POST.

*** ADJUST POST SPACING AS NECESSARY TO MAINTAIN EDGE DISTANCES ON TIMBER PLANK DECK FOR CURB BLOCK CONNECTION. MAX POST SPACING = 5′-0".



RAILING - ELEVATION

1 0 1 2 3 FEET



FLARED RAILING POST DETAIL

1 0 1 FOOT

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.
- FOR QUANTITIES AND TYPICAL SECTION, SEE SHEET 3.
- FOR DECK PLAN, SEE SHEET 21.
- FOR ADDITIONAL RAILING DETAILS, SEE SHEET 23.

Mark	Description	By	Chk'd.	Recm'd.	Date
	REVISIONS				

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — BRANDON JAMES NEWPHER — PE085663

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

RAILING PLAN & ELEVATION

RECOMMENDED 7/27/2020

SHEET 22 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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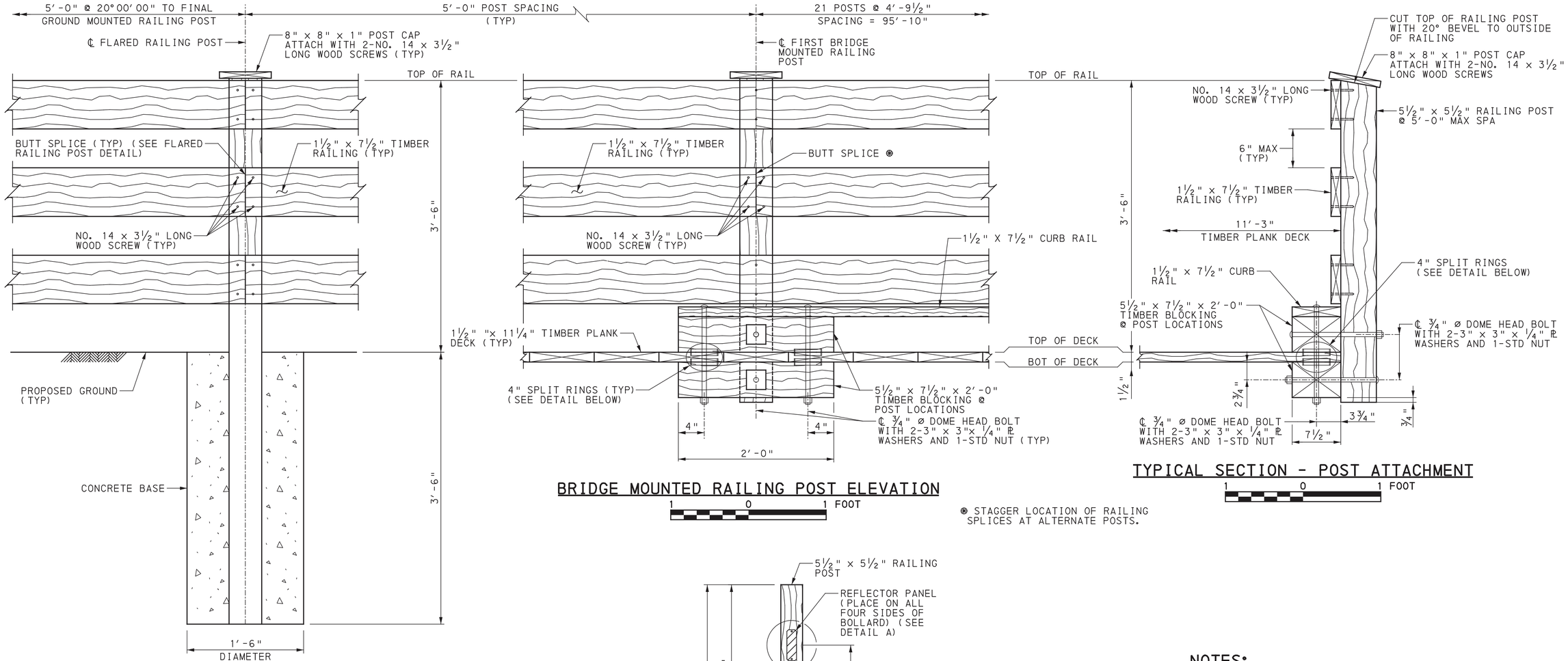


GROUND MOUNTED RAILING POST ELEVATION

1 0 1 FOOT

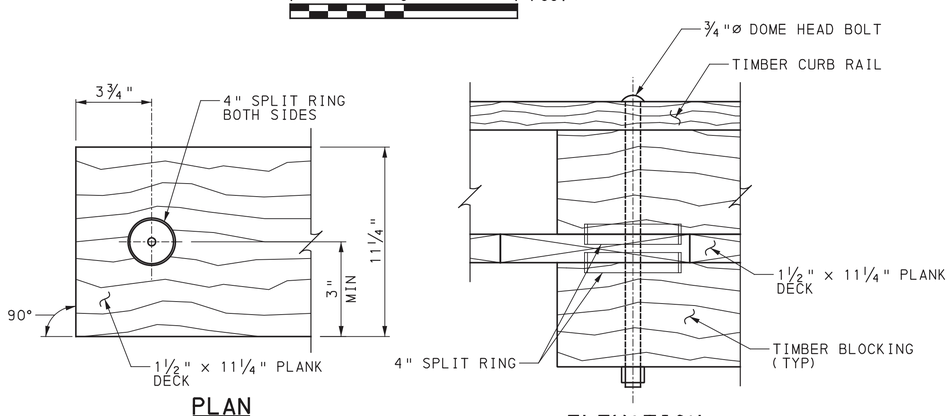
BRIDGE MOUNTED RAILING POST ELEVATION

1 0 1 FOOT

⊛ STAGGER LOCATION OF RAILING SPLICES AT ALTERNATE POSTS.

TYPICAL SECTION - POST ATTACHMENT

1 0 1 FOOT

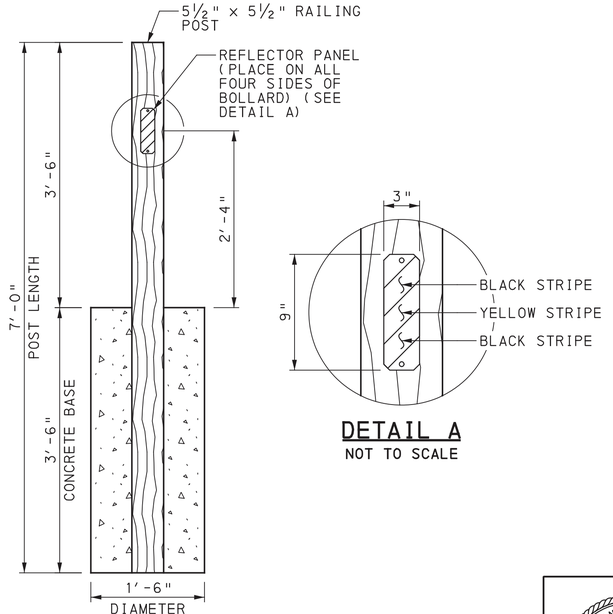


PLAN

ELEVATION

SPLIT RING DETAIL

NOT TO SCALE



TIMBER BOLLARD ELEVATION

NOT TO SCALE

DETAIL A

NOT TO SCALE

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES, SEE SHEET 2.
- FOR QUANTITIES AND TYPICAL SECTION, SEE SHEET 3.
- FOR DECK PLAN, SEE SHEET 21.
- FOR RAILING PLAN & ELEVATION, SEE SHEET 22.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

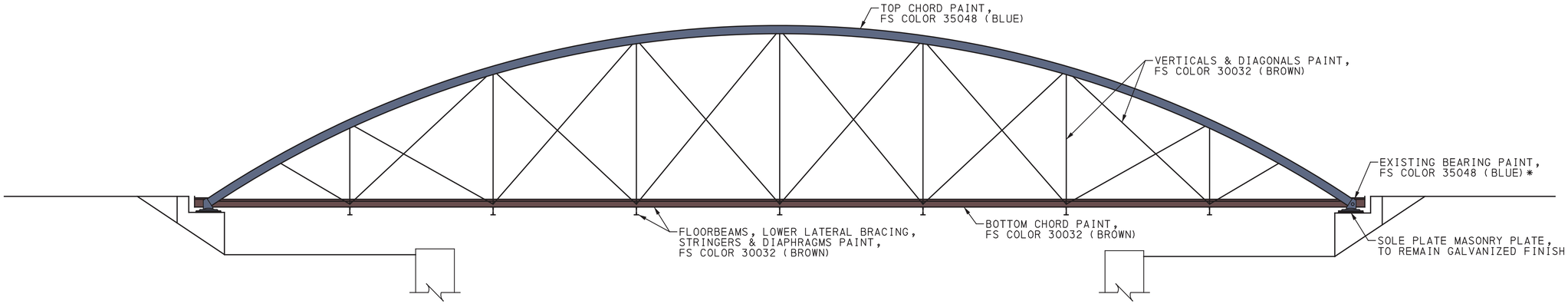
RAILING DETAILS

RECOMMENDED 7/27/2020

SHEET 23 OF 24

S-39532

bn 8/19/2020 2:46:59 PM \\ENGDAT1\Projects\S943_PA_PennDOTPC_E03995\14_Pymatuning_Trail_Phase_1\300_CADD\Plan_Set\Structure\02-Final Design\Pym_Trail_Truss - STR23-RAILING DET.dgn

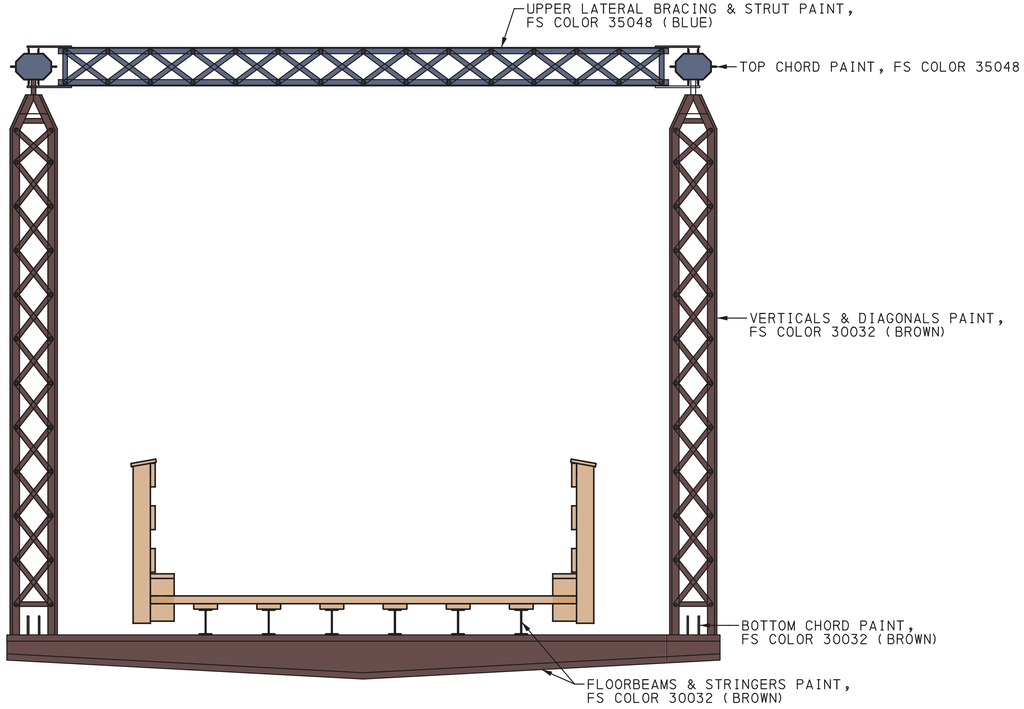


PAINT COLOR ELEVATION

(PEDESTRIAN RAILING AND BOLLARDS NOT SHOWN FOR CLARITY)

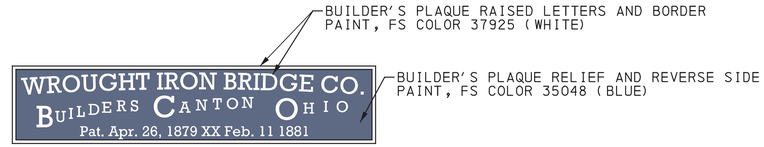
0 10 20 FEET

* DO NOT PAINT OR PRIME INSIDE DIAMETER OF PIN HOLE OR PIN. PROVIDE A REMOVABLE ANTI-CORROSION COATING UNTIL PINS CAN BE INSTALLED. TO BE PAINTED DURING TOUCH-UP PAINTING.



PAINT TYPICAL SECTION

1 0 1 2 FEET



BUILDER'S PLAQUE

1 0 1 FOOT

NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHEET 1.
- FOR GENERAL NOTES AND RATINGS, SEE SHEET 2.
- FOR TYPICAL SECTION, SEE SHEET 3.
- FOR SCOPE OF REHABILITATION, SEE SHEETS 4 AND 5.

Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

CRAWFORD COUNTY
PYMATUNING STATE PARK

PYMATUNING TRAIL
OVER LINESVILLE CREEK

SINGLE-SPAN BOWSTRING TRUSS REHABILITATION

PAINT PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
BRANDON JAMES NEWPHER
ENGINEER
PE085663

RECOMMENDED 7/27/2020

SHEET 24 OF 24

S-39532

DES. SMC	CHK. GRB	DWG. AWK	CHK. BJN

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