

COMMONWEALTH OF PENNSYLVANIA



PENNSYLVANIA TURNPIKE COMMISSION

DRAWINGS FOR

CONTRACT NO. T-228.54S001-3-02

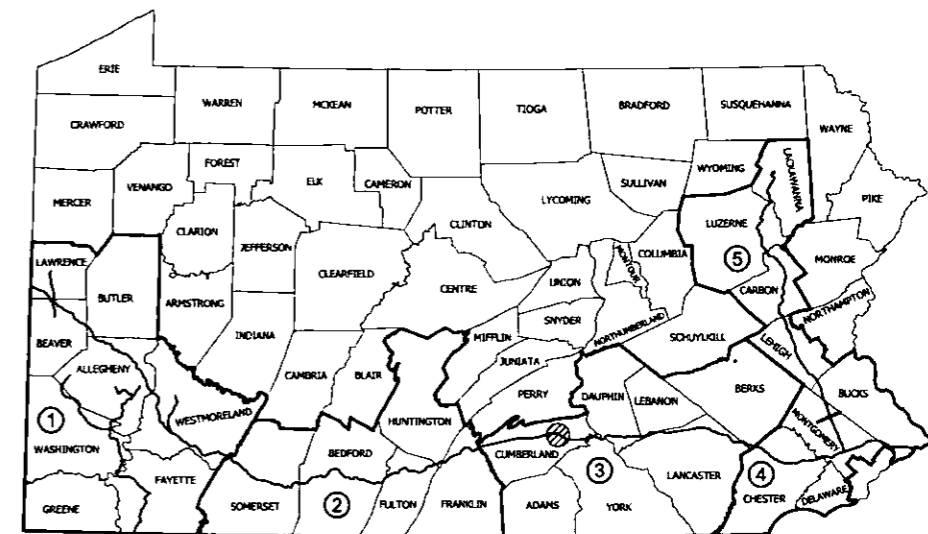
REPLACEMENT OF BRIDGE NO. EB-103

AT

MILEPOST 228.54

IN

CUMBERLAND COUNTY



PROJECT LOCATION

DISTRICT	COUNTY	TOWNSHIP / BOROUGH	SECTION	SHEETS
3	CUMBERLAND	MIDDLESEX TOWNSHIP		315

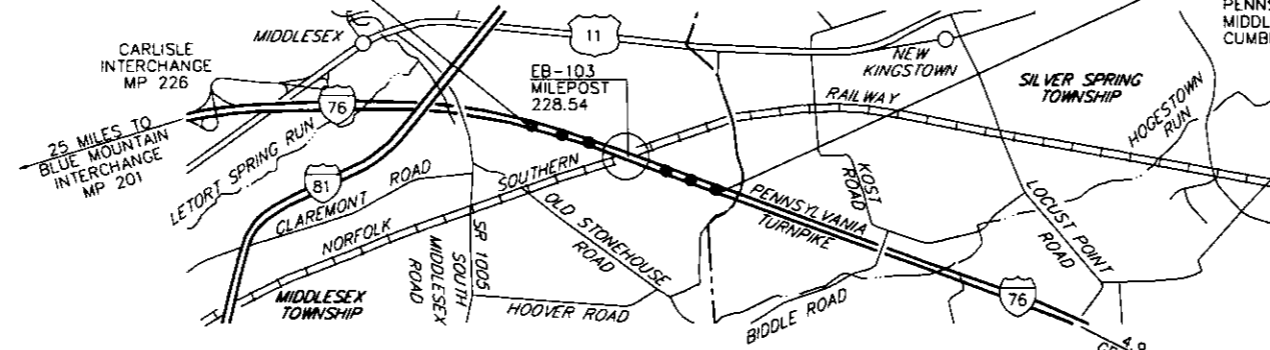
RECEIVED

JUL 14 2016

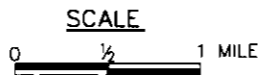
PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU



LIMIT OF WORK
STA. 82+50.00
MILEPOST 228.00
PENNSYLVANIA TURNPIKE (I-76)
MIDDLESEX TOWNSHIP
CUMBERLAND COUNTY



LIMIT OF WORK
STA. 139+80.00
MILEPOST 229.08
PENNSYLVANIA TURNPIKE (I-76)
MIDDLESEX TOWNSHIP
CUMBERLAND COUNTY



LEGEND

- PROJECT LOCATION
- US ROUTE
- INTERSTATE HIGHWAY
- STATE & MUNICIPAL ROAD
- TOWNSHIP LINE
- RAILROAD

PUC DOCKET NUMBER A-2015-247-3398

DESIGN DESIGNATION
HIGHWAY CLASSIFICATION - RURAL INTERSTATE

DESIGN SPEED	-	75 MPH	A.D.T. (2016)	-	11,577 (EB)
PAVEMENT WIDTH	-	2-12 FT LANES		-	10,824 (WB)
FUTURE LANE	-	12 FT	A.D.T. (2036)	-	15,592 (EB)
SHOULDER WIDTH	-	12 FT		-	14,578 (WB)
MEDIAN WIDTH	-	26 FT	T	-	25
			NSRR TRAIN COUNT	-	4 PER 24 HR

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: RD001.dgn
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

DATE
DATE

CHIEF ENGINEER
PENNSYLVANIA TURNPIKE
COMMISSION

APPROVED: _____ DATE

CHIEF ENGINEER, PENNSYLVANIA TURNPIKE COMMISSION

RECOMMENDED: _____ DATE

SECRETARY TREASURER, PENNSYLVANIA TURNPIKE COMMISSION

COMMISSION APPROVAL

DATE: 7/12/2016

LIST OF CONTRACT DRAWINGS

SHEET	DESCRIPTION
1	TITLE SHEET
2	INDEX SHEET AND LIST OF CONTRACT DRAWINGS
3	GENERAL NOTES
4	REFERENCE CIRCLE AND BENCHMARK INFORMATION
5-6	ROADWAY TYPICAL SECTIONS
7-12	MISCELLANEOUS DETAILS
13-14	SUMMARY OF ITEMS
15-23	TABULATION OF ROADWAY ITEMS
24-29	TABULATION OF DRAINAGE ITEMS
30-31	TABULATION OF TRAFFIC CONTROL ITEMS
32-33	TABULATION OF SIGNING AND PAVEMENT MARKING ITEMS
34-37	TABULATION OF EROSION AND SEDIMENT POLLUTION CONTROL ITEMS
38-46	ROADWAY PLAN SHEETS
47-55	ROADWAY PROFILE SHEETS
56-78	TRAFFIC CONTROL PLAN
79-87	SIGNING AND PAVEMENT MARKING PLAN
88-129	EROSION AND SEDIMENT POLLUTION CONTROL PLAN
130-145	POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN
146-246	STRUCTURE PLANS - EB-103
247-315	CROSS SECTIONS

FOR INFORMATION ONLY

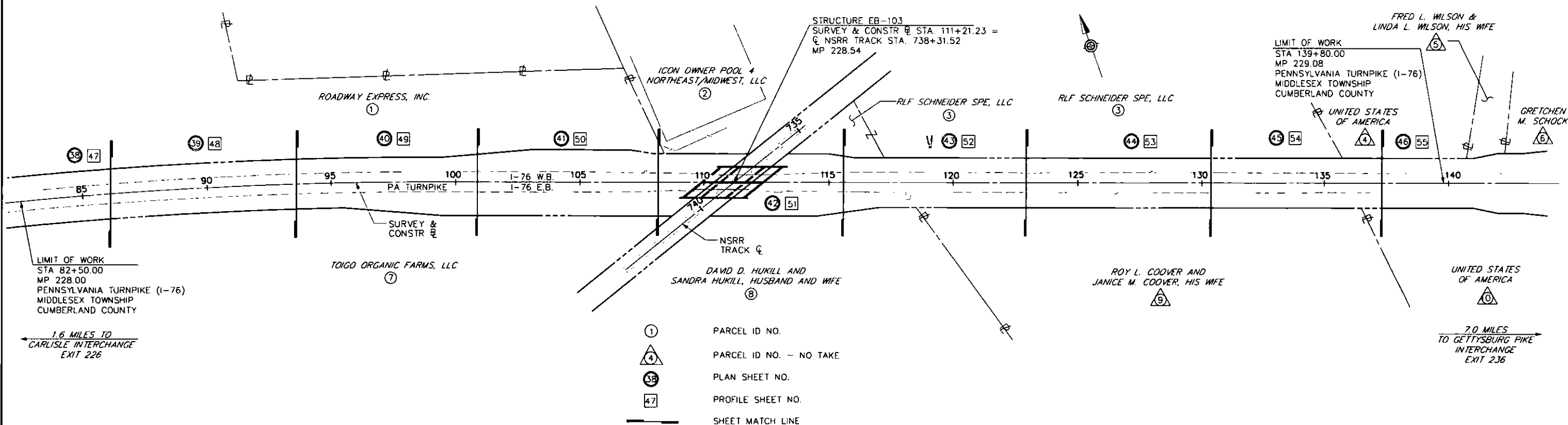
SHEET	DESCRIPTION
1-29	EXISTING BRIDGE PLANS

PENNSYLVANIA TURNPIKE COMMISSION STANDARD DRAWINGS

STANDARD DRAWING NUMBER	DATE	DESCRIPTION	DRAWINGS
PTS-100	JAN, 2015	WIDENED EMBANKMENT DETAILS	1-2 OF 2
PTS-111	OCT, 2011	RECESSED BRIDGE APPROACH SLAB	1 OF 1
PTS-112	JAN, 2015	LOCATION OF JOINT SEALING, PAVEMENT MARKINGS AND SNAP	1 OF 1
PTS-121	OCT, 2011	MEDIAN INLET CONSTRUCTION & REPLACEMENT	1-2 OF 2
PTS-122	OCT, 2011	CAPPING OF MEDIAN INLETS	1 OF 1
PTS-124	OCT, 2011	STANDARD DRAINAGE DETAILS	1-4 OF 4
PTS-125	OCT, 2011	INLET PLACEMENT	1 OF 1
PTS-130	OCT, 2011	TYPE 2-5 GUIDE RAIL INSTALLATION	1-2, 5 OF 5
PTS-140	OCT, 2011	CONCRETE MEDIAN BARRIER & CONCRETE GLARE SCREEN (TRANSITION SECTIONS)	1-2 OF 3
PTS-192	JAN, 2015	SONIC NAP ALERT PATTERN (SNAP)	1 OF 1
PTS-700	FEB, 2016	FLOWABLE BACKFILL AT STRUCTURES	1 OF 1
PTS-710	OCT, 2007	BRIDGE DECK TEMPORARY BARRIER	1 OF 1
PTS-900	DEC, 2015	CONSTRUCTION, MAINTENANCE AND PROTECTION OF TRAFFIC	1,3,4,7,10 OF 13
PTS-910	DEC, 2015	CONSTRUCTION SHORT TERM, MAINTENANCE AND PROTECTION OF TRAFFIC	1,4 OF 9
PTS-960	MAR, 2016	CONSTRUCTION AND MAINTENANCE, MAINTENANCE AND PROTECTION OF TRAFFIC	3-5 OF 5
PTS-980	DEC, 2015	CONSTRUCTION AND MAINTENANCE, MISCELLANEOUS DETAILS	1,16-18 OF 18

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS

STANDARD DRAWING NUMBER	DATE	DESCRIPTION
RC-10M	JUNE, 2010	CLASSIFICATION OF EARTHWORK
RC-11M	JUNE, 2010	CLASSIFICATION OF EARTHWORK FOR STRUCTURES
RC-12M	JUNE, 2010	BACKFILL AT STRUCTURES
RC-13M	JUNE, 2010	PAY LIMIT OF SUBBASE
RC-28M	JUNE, 2013	OVERLAY TRANSITIONS AND PAVING NOTCHES
RC-30M	JUNE, 2010	SUBSURFACE DRAINS
RC-31M	JUNE, 2010	ENDWALLS
RC-32M	JUNE, 2010	SLOPE PIPE FITTINGS, PIPE CONNECTORS AND CONCRETE COLLAR FOR PIPE EXTENSION
RC-33M	JUNE, 2010	END SECTIONS FOR PIPE CULVERTS
RC-39M	JUNE, 2010	STANDARD MANHOLES
RC-40M	JUNE, 2010	SLOPE PROTECTION
RC-45M	JUNE, 2010	INLET TOPS, GRATES AND FRAME
RC-46M	JUNE, 2010	INLET BOXES
RC-50M	JUNE, 2010	GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS
RC-52M	JUNE, 2010	TYPE 2 STRONG POST GUIDE RAIL
RC-59M	JUNE, 2010	CONCRETE GLARE SCREEN
RC-60M	JUNE, 2010	RIGHT-OF-WAY FENCE
RC-61M	JUNE, 2010	RIGHT-OF-WAY GATES AND REMOVABLE FENCE SECTIONS
RC-70M	JUNE, 2010	PERIMETER CONTROL DEVICES
RC-72M	JUNE, 2010	INLET AND OUTLET PROTECTION
RC-73M	JUNE, 2010	CHANNEL AND SLOPE PROTECTION
RC-77M	JUNE, 2010	ROCK CONSTRUCTION ENTRANCE
TC-8600	JUNE, 2013	PAVEMENT MARKINGS
TC-8604	JUNE, 2013	DELINEATION
BC-721M	OCT, 2010	ELECTRICAL DETAILS
BC-732M	OCT, 2010	PERMANENT METAL DECK FORMS
BC-734M	OCT, 2010	ANCHOR SYSTEMS
BC-735M	OCT, 2010	WALL CONSTR. & EXP. JOINT DETAILS
BC-736M	MAY, 2012	REINFORCEMENT BAR FABRICATION DETAILS
BC-739M	MAY, 2012	BRIDGE BARRIER TO GUIDE RAIL TRANSITION
BC-751M	NOV, 2014	BRIDGE DRAINAGE
BC-752M	NOV, 2014	CONCRETE DECK SLAB DETAILS
BC-753M	NOV, 2013	STEEL GIRDER DETAILS
BC-754M	OCT, 2010	STEEL DIAPHRAGMS FOR STEEL BEAM/GIRDER STRUCTURES
BC-755M	NOV, 2013	BEARINGS
BC-757M	NOV, 2013	STEEL PILE TIP REINFORCEMENTS & SPLICES
BC-767M	NOV, 2013	NEOPRENE STRIP SEAL DAM FOR PRESTRESSED CONCRETE & STEEL I-BEAM BRIDGES
BC-781M	MAY, 2012	RANDOM STONE SLOPE WALL
BC-788M	NOV, 2014	TYPICAL WATERPROOFING AND EXPANSION DETAILS
BC-798M	NOV, 2013	MECHANICAL CONNECTION DETAILS



DATE: 7/12/2016

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PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



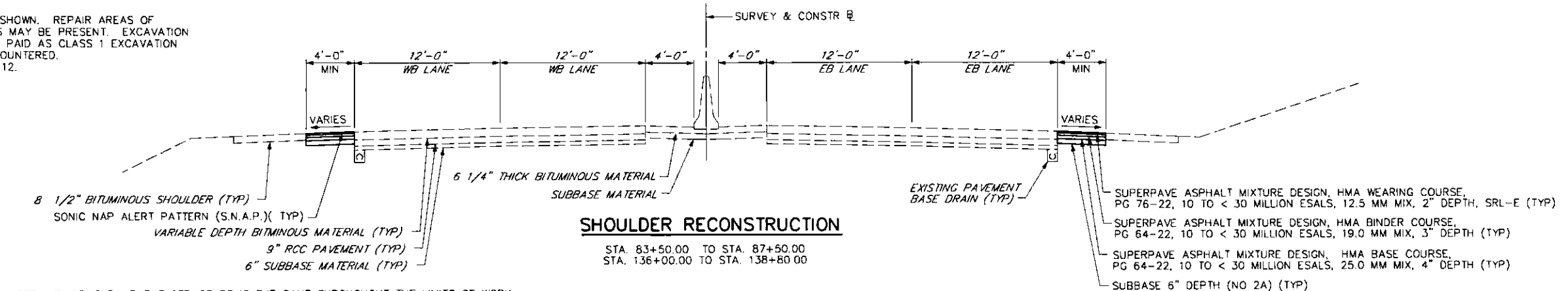
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WBS NO. T-228.54S001-3-02
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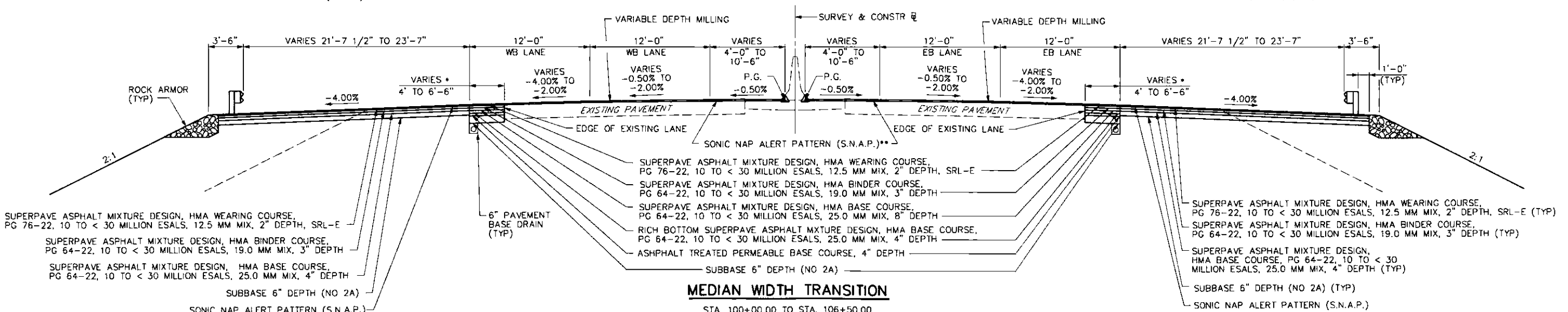
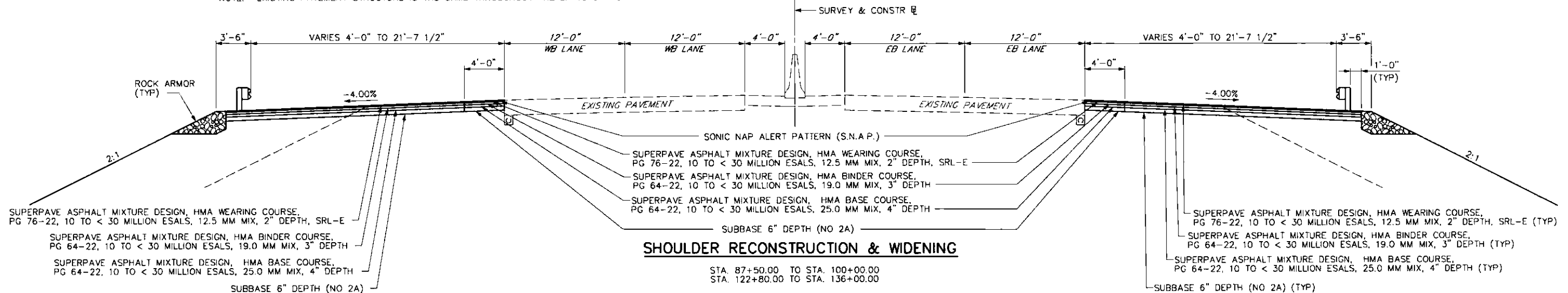
REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

LIST OF CONTRACT DRAWINGS AND INDEX MAP	
DRAWING: 1 OF 1	SHEET: 2 OF 315

NOTE:
 1. ORIGINAL PAVEMENT CONSTRUCTION SHOWN. REPAIR AREAS OF FULL-DEPTH BITUMINOUS MATERIALS MAY BE PRESENT. EXCAVATION OF EXISTING ROADWAY TEMPLATE IS PAID AS CLASS 1 EXCAVATION REGARDLESS OF THE MATERIAL ENCOUNTERED.
 2. FOR BENCHING DETAILS, SEE SHEET 12.



NOTE: EXISTING PAVEMENT STRUCTURE IS THE SAME THROUGHOUT THE LIMITS OF WORK.



* FULL DEPTH LANE RECONSTRUCTION VARIES 4'-0" TO 6'-6". WIDEN WITH EDGE OF PROPOSED LANE AS REQUIRED.
 ** SEE SIGNING AND PAVEMENT MARKING PLAN FOR SONIC NAP ALERT PATTERN (S.N.A.P.) LOCATION AND DETAILS.

DATE: 7/12/2016

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 THE PENNSYLVANIA
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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

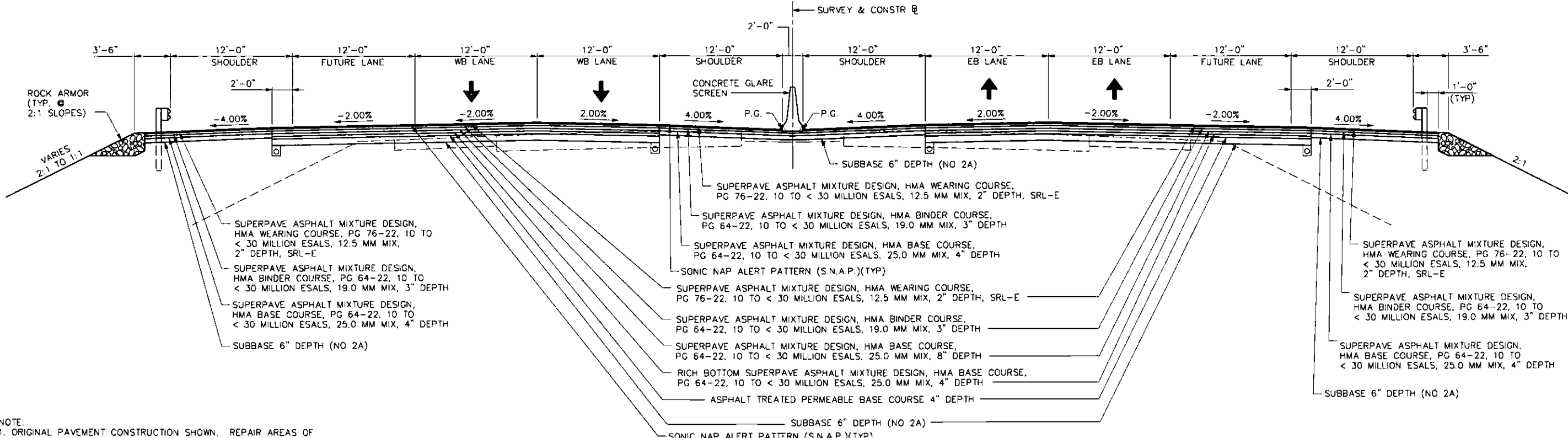
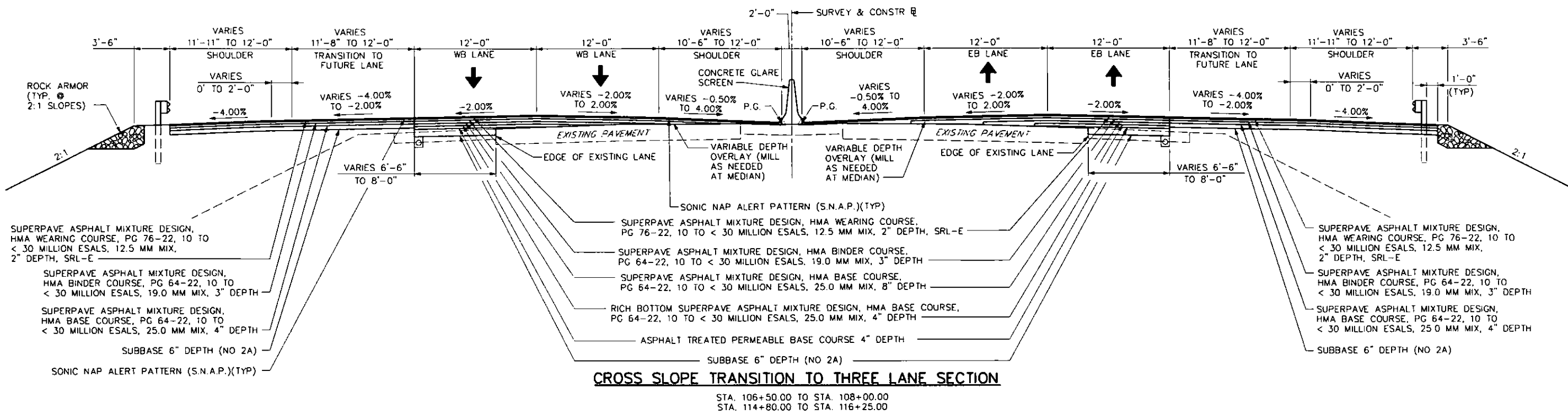
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**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 1 OF 2
 SHEET: 5 OF 315



NOTE:
 1. ORIGINAL PAVEMENT CONSTRUCTION SHOWN. REPAIR AREAS OF FULL-DEPTH BITUMINOUS MATERIALS MAY BE PRESENT. EXCAVATION OF EXISTING ROADWAY TEMPLATE IS PAID AS CLASS 1 EXCAVATION REGARDLESS OF THE MATERIAL ENCOUNTERED.
 2. FOR BENCHING DETAILS, SEE SHEET 12

DATE: 7/12/2016

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 MECHANICSBURG, PA 17050

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T-228.54S001-3-02

NETWORK NUMBER: 7003982
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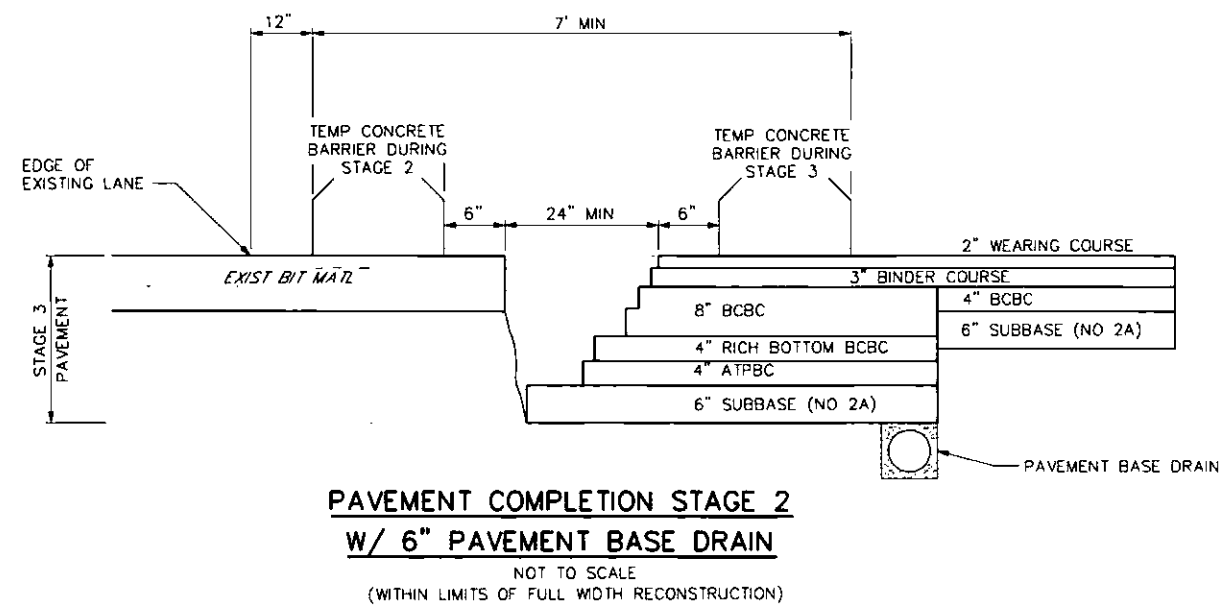
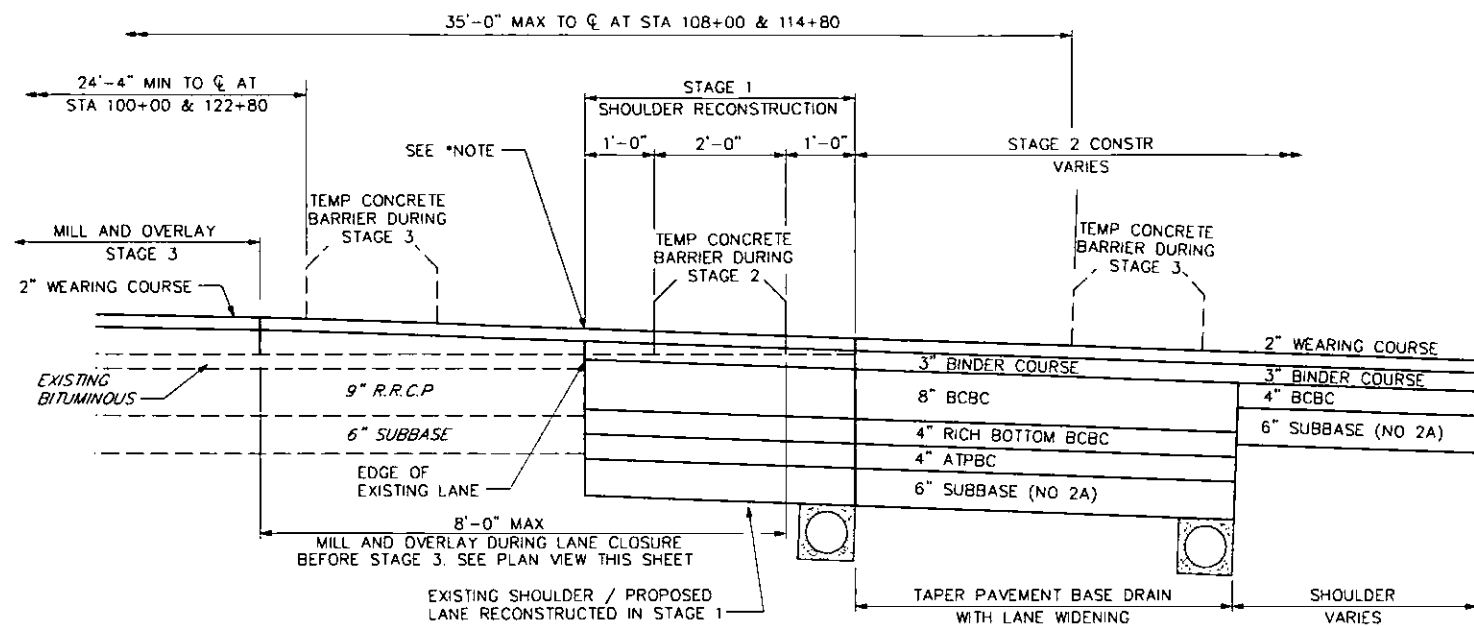
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**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

TYPICAL SECTIONS

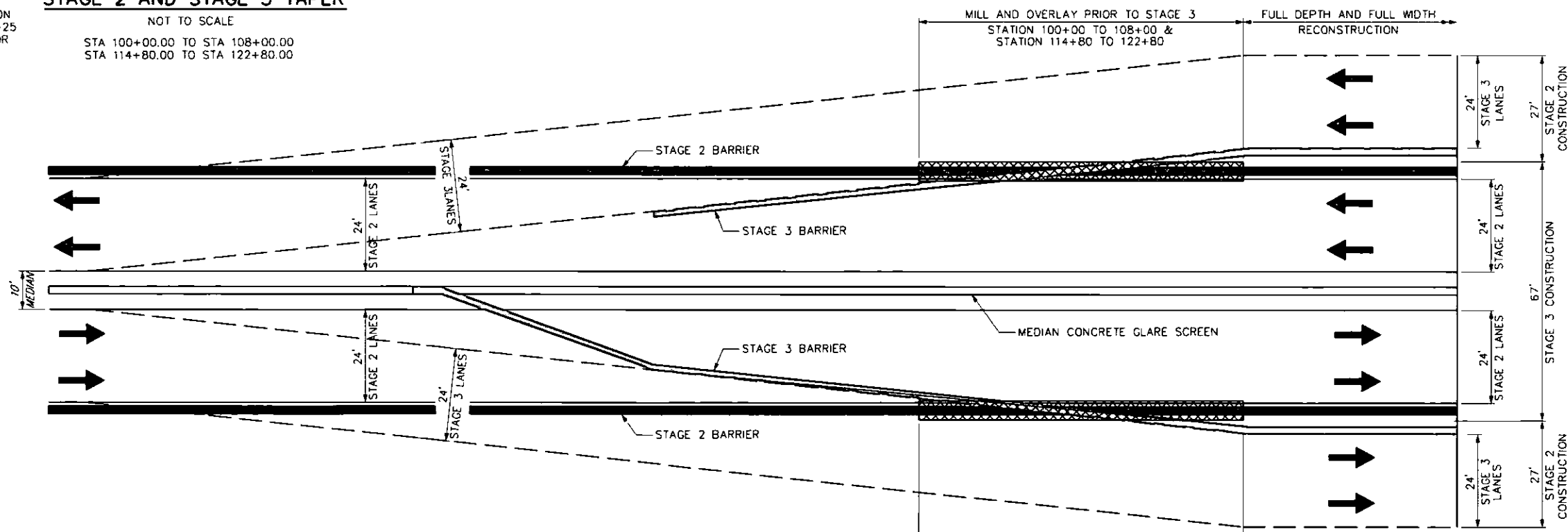
DRAWING: 2 OF 2
 SHEET: 6 OF 315



PAVEMENT AND BARRIER LOCATION BETWEEN STAGE 2 AND STAGE 3 TAPER

*NOTE CROSS SLOPE TRANSITION TO FULL WIDTH SECTION BEGINS AT STA 106+50 AND ENDS AT STA 116+25 SEE TYPICAL SECTIONS AND CROSS SECTIONS FOR ADDITIONAL DETAIL.

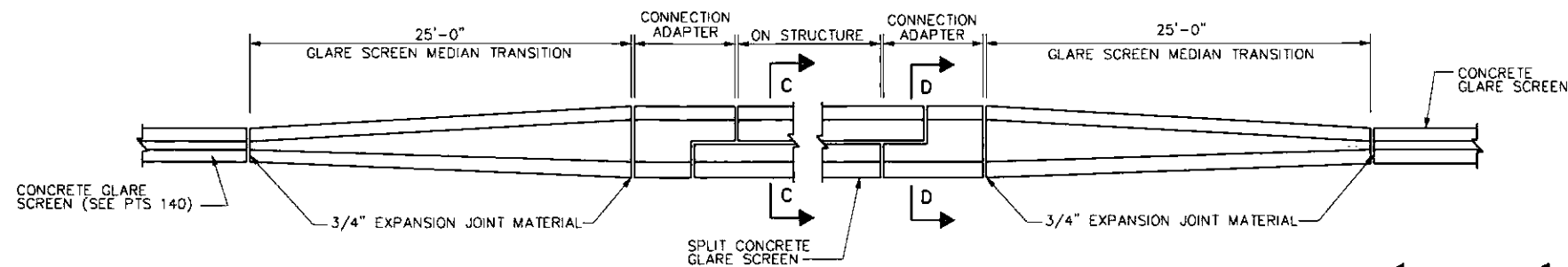
NOT TO SCALE
STA 100+00.00 TO STA 108+00.00
STA 114+80.00 TO STA 122+80.00



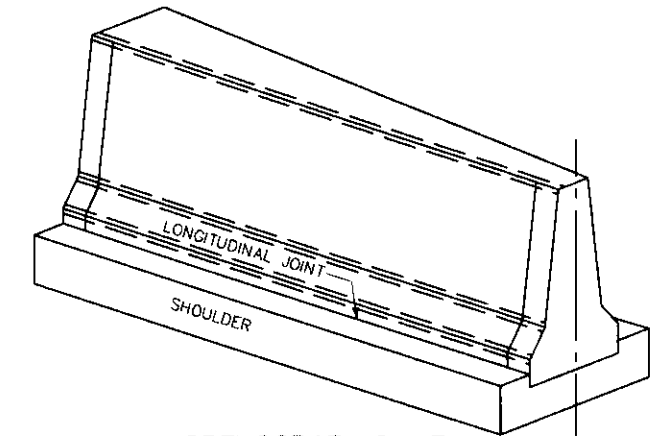
PAVEMENT AND BARRIER LOCATION BETWEEN STAGE 2 AND STAGE 3 TAPER

MILL AND OVERLAY PRIOR TO STAGE 3 STATION 100+00 TO 108+00 & STATION 114+80 TO 122+80
FULL DEPTH AND FULL WIDTH RECONSTRUCTION

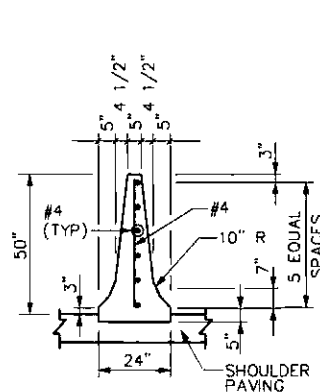
DATE: 7/12/2018	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		<table border="1"> <tr><td>NO.</td><td>REVISIONS</td><td>DATE</td><td>APPR.</td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>	NO.	REVISIONS	DATE	APPR.													WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	DETAILS
	NO.			REVISIONS	DATE	APPR.																
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	NETWORK NUMBER: 7003982 FILE NAME: RDdt01.dgn DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP																				
SCALE: NOT TO SCALE				DRAWING: 1 OF 5		SHEET: 7 OF 315																



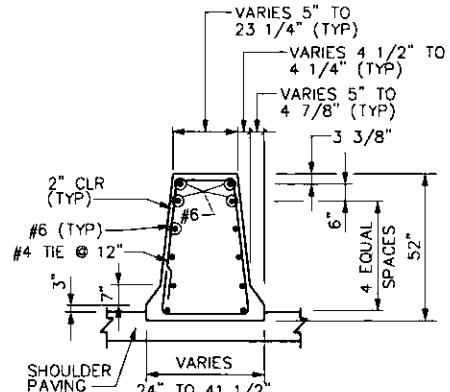
**CONCRETE GLARE SCREEN MEDIAN
TRANSITION TO SPLIT GLARE SCREEN**



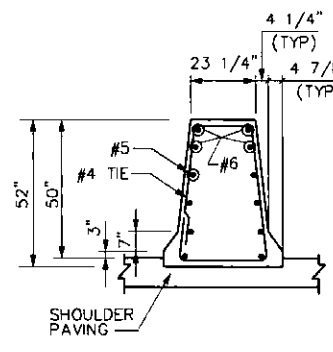
ORTHOGRAPHIC VIEW



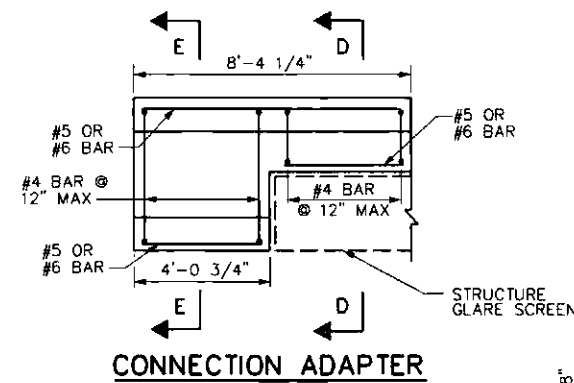
SECTION A-A



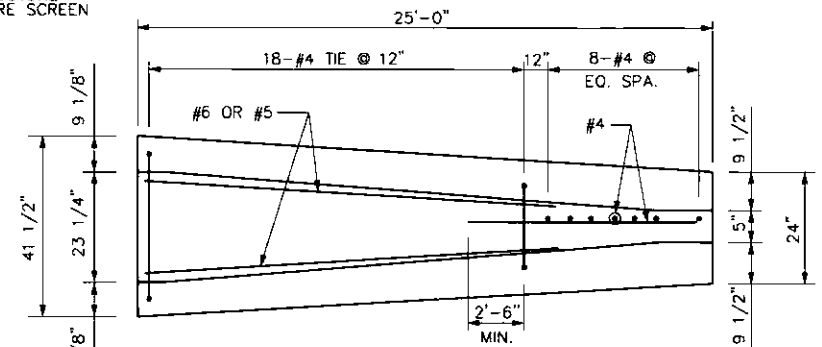
SECTION B-B



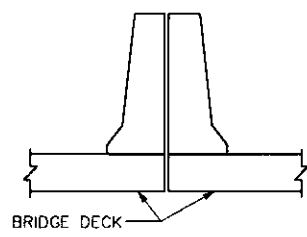
SECTION E-E



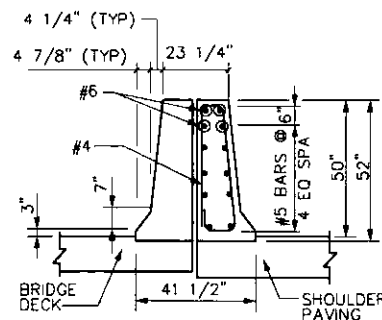
CONNECTION ADAPTER



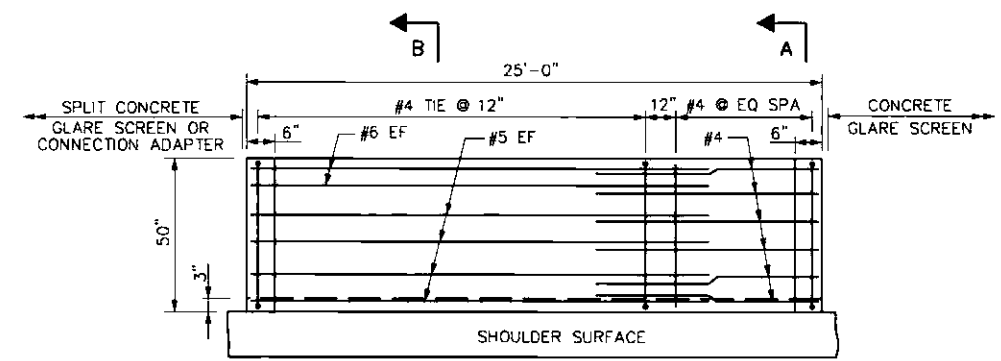
PLAN



SECTION C-C



SECTION D-D



**ELEVATION
GLARE SCREEN MEDIAN TRANSITION**

NOTES

1. PROVIDE EPOXY COATED REINFORCEMENT MEETING THE REQUIREMENTS OF SECTION 709.
2. ROUND ALL EDGES WITH A RADIUS OF 1" UNLESS SHOWN OTHERWISE.
3. ADAPTER SECTIONS ARE INCIDENTAL TO CONCRETE GLARE SCREEN MEDIAN TRANSITION TO SPLIT GLARE SCREEN.

DATE: 7/12/2016

PREPARED BY:
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100 STERLING PARKWAY, SUITE 108
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PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: RDdt02.dgn
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103

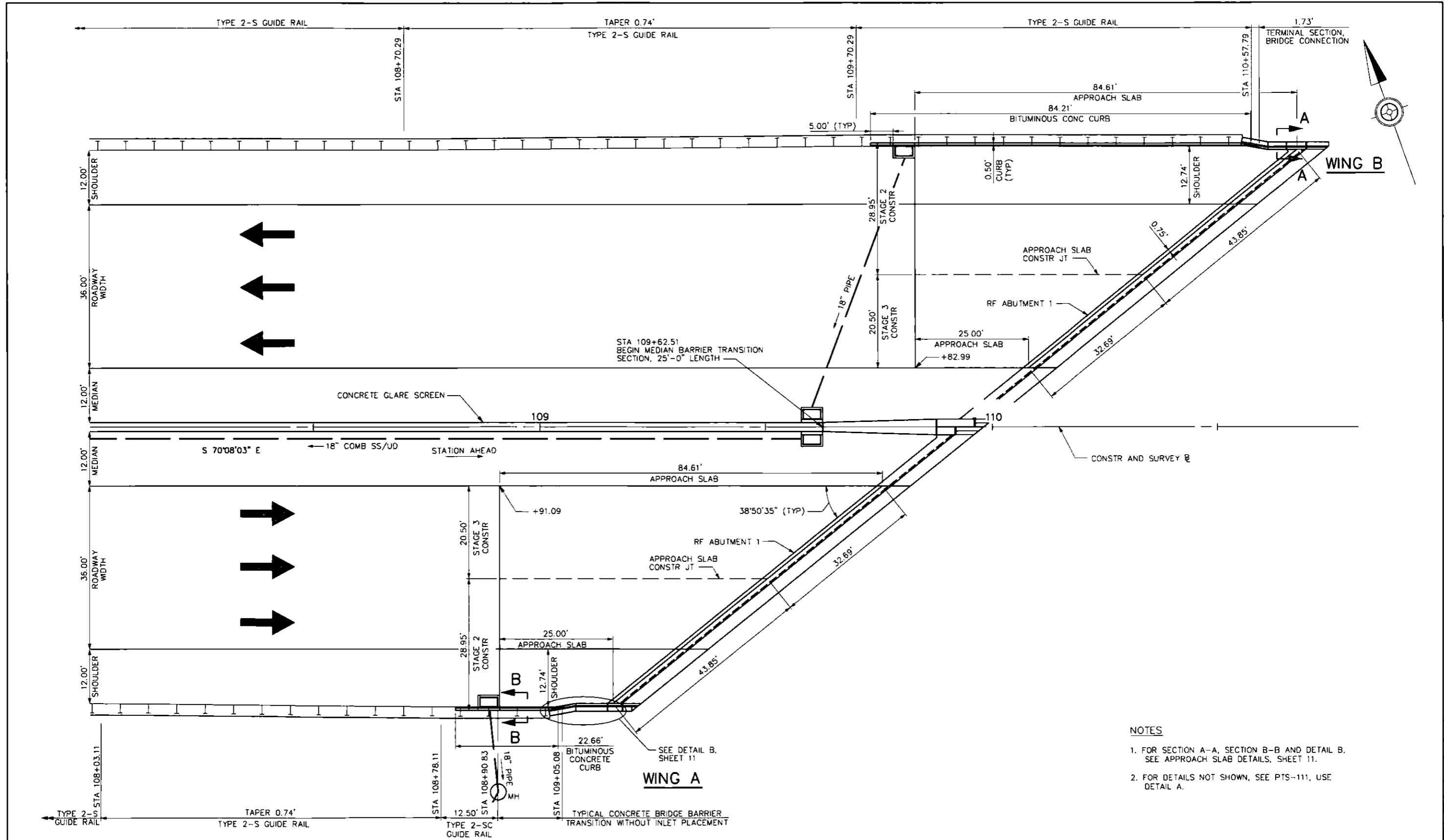
SCALE: NOT TO SCALE

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**CONCRETE GLARE SCREEN
TRANSITION DETAILS**

DRAWING: 2 OF 5
SHEET: 8 OF 315



- NOTES**
1. FOR SECTION A-A, SECTION B-B AND DETAIL B. SEE APPROACH SLAB DETAILS, SHEET 11.
 2. FOR DETAILS NOT SHOWN, SEE PTS-111, USE DETAIL A.

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
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NO.	REVISIONS	DATE	APPR.

WBS NO.
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NETWORK NUMBER: 7003982
 FILE NAME: RDd103.dgn
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 STRUCTURE NUMBER: EB-103

SCALE: 0 10 20 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

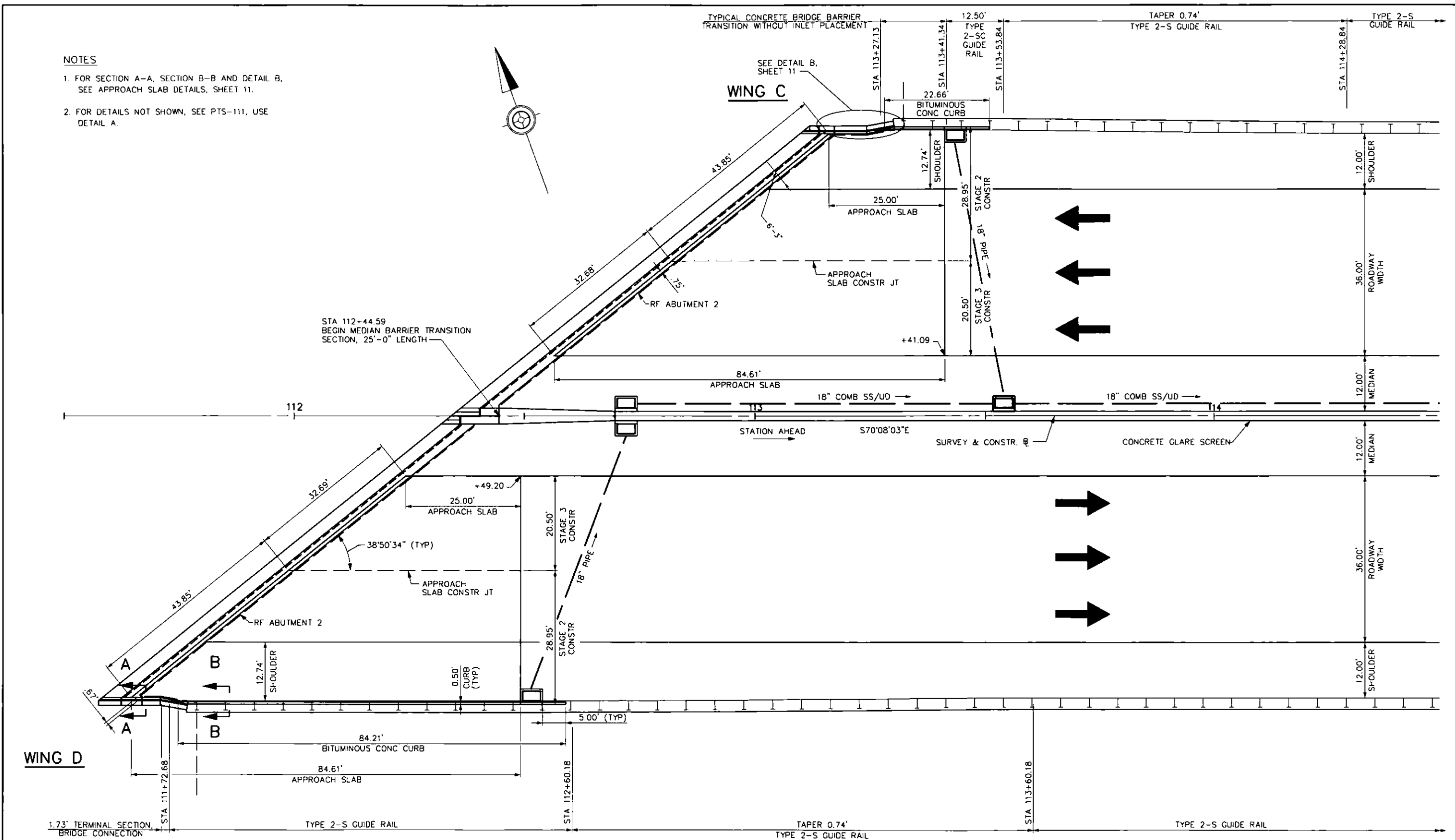
DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**RECESSED BRIDGE APPROACH SLAB, CURB,
 & GUIDE RAIL DETAILS
 ABUTMENT 1**

DRAWING: 3 OF 5
 SHEET: 9 OF 315

NOTES

1. FOR SECTION A-A, SECTION B-B AND DETAIL B, SEE APPROACH SLAB DETAILS, SHEET 11.
2. FOR DETAILS NOT SHOWN, SEE PTS-111, USE DETAIL A.



DATE: 7/12/2016

PREPARED BY:
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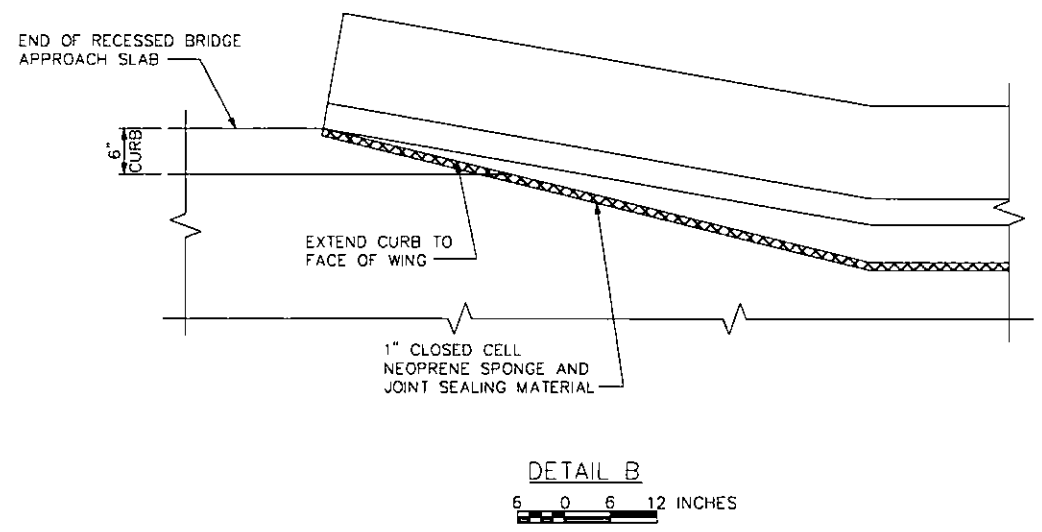
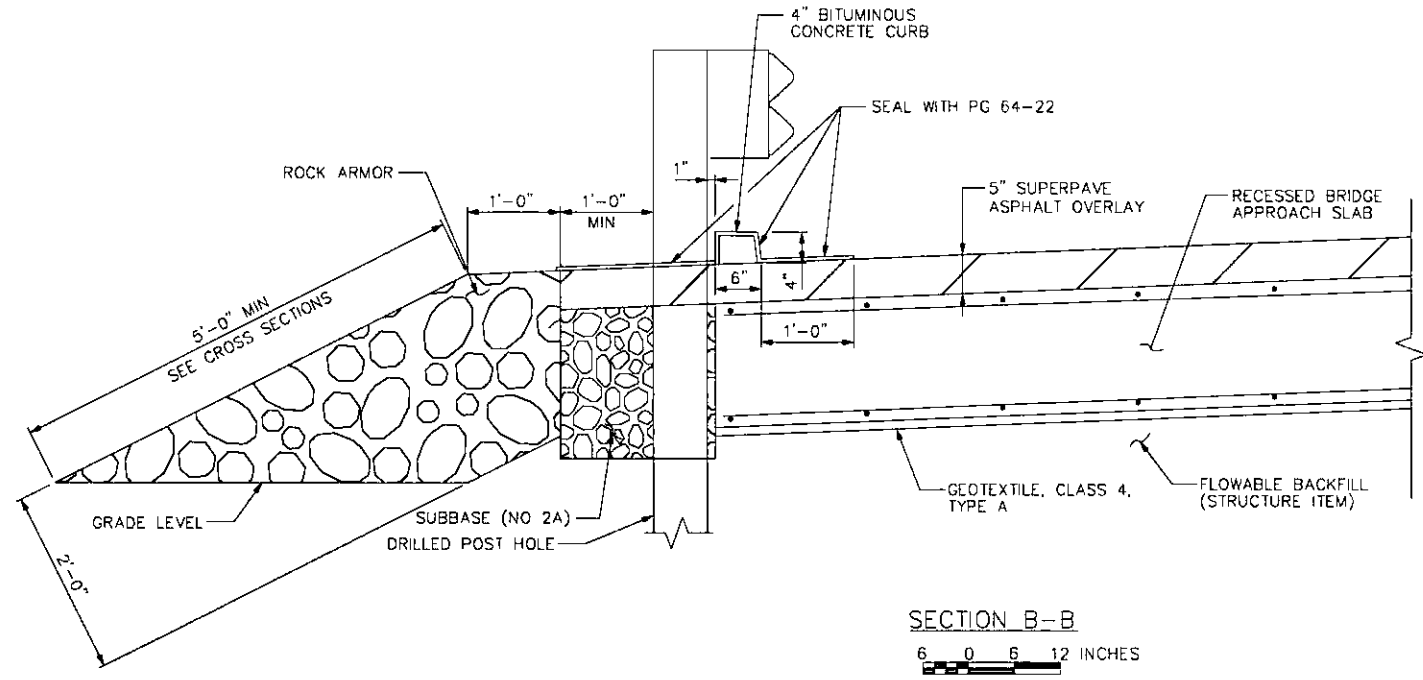
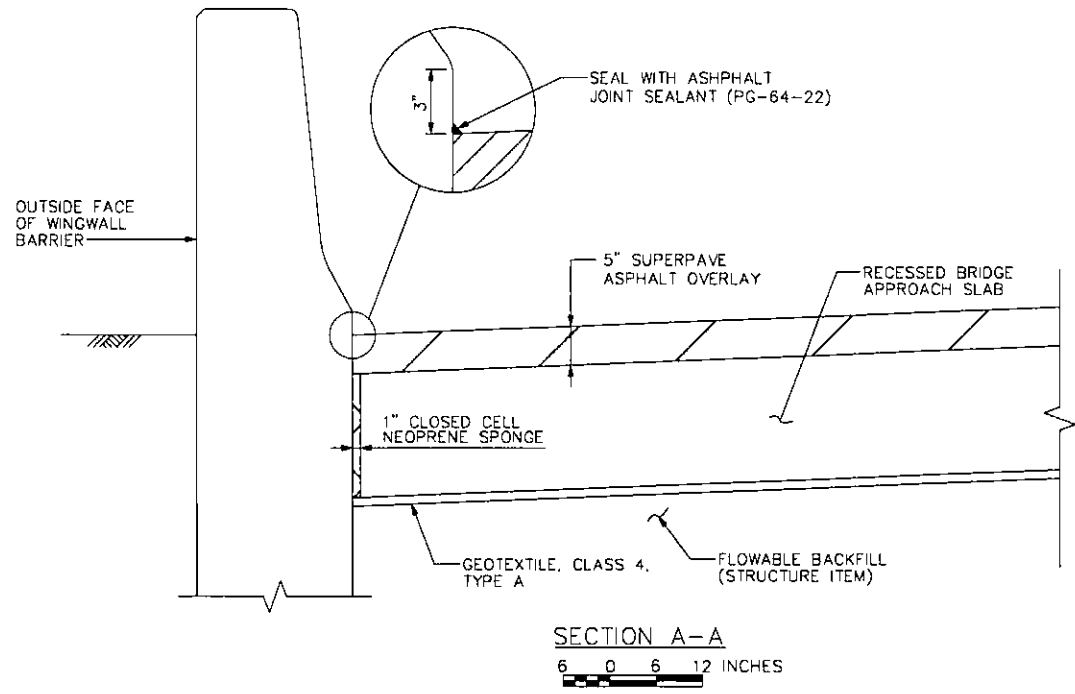


NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: RDd104.dgn
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103
SCALE: 0 10 20 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**RECESSED BRIDGE APPROACH SLAB, CURB,
& GUIDE RAIL DETAILS
ABUTMENT 2**
DRAWING: 4 OF 5
SHEET: 10 OF 315



NOTES
 1. SEE SHEETS 9 & 10 FOR APPROACH SLAB PLAN VIEWS.

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
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WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982

FILE NAME: RDd105.dgn

DRAWING TYPE: 1A

STRUCTURE NUMBER: EB-103

SCALE: AS NOTED

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

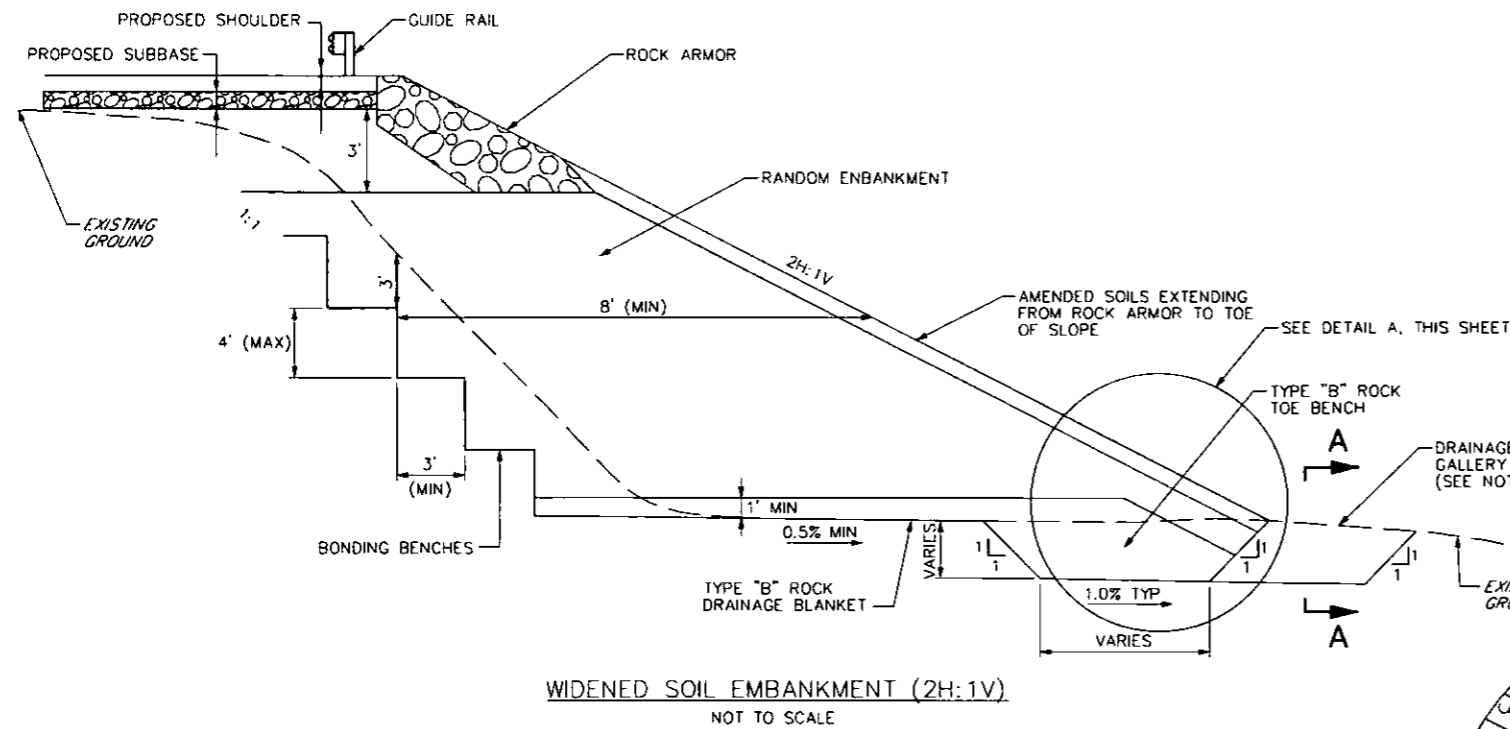
DISTRICT: 3 COUNTY: CUMBERLAND

TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

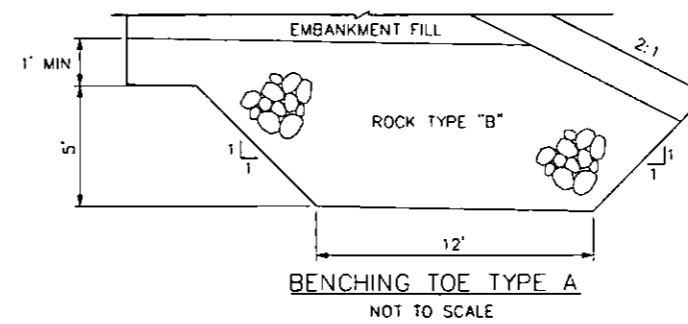
**RECESSED BRIDGE APPROACH SLAB
 DETAILS**

DRAWING: 5 OF 5

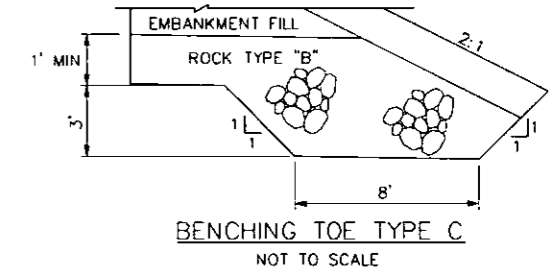
SHEET: 11 OF 315



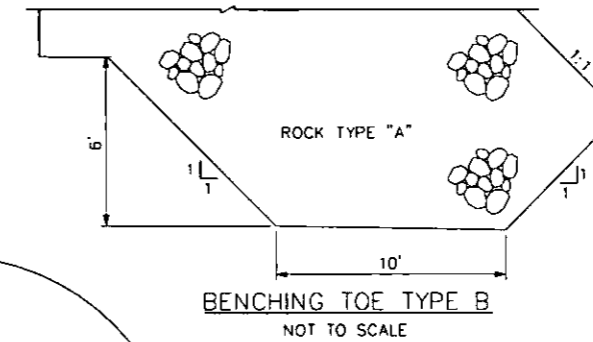
WIDENED SOIL EMBANKMENT (2H:1V)
NOT TO SCALE



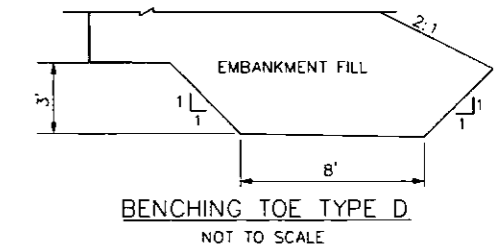
BENCHING TOE TYPE A
NOT TO SCALE



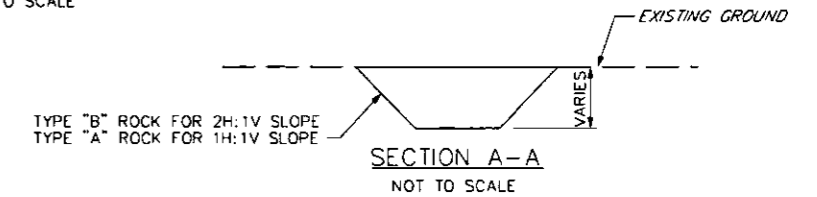
BENCHING TOE TYPE C
NOT TO SCALE



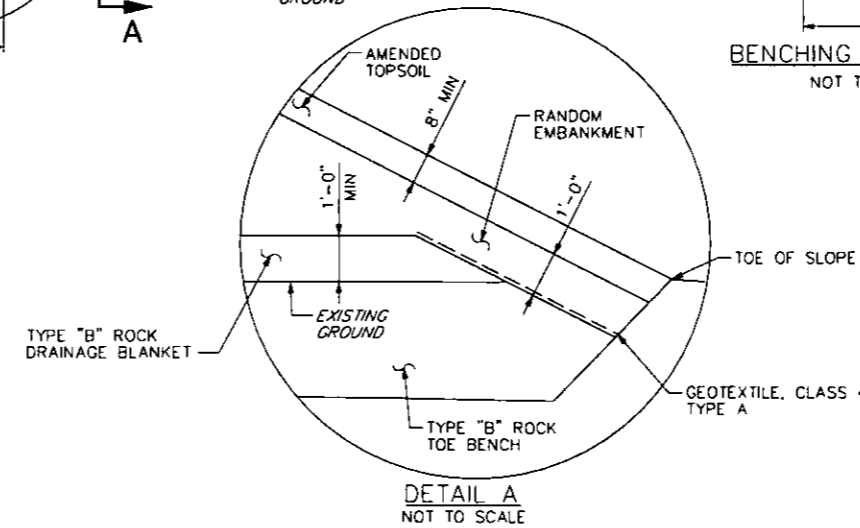
BENCHING TOE TYPE B
NOT TO SCALE



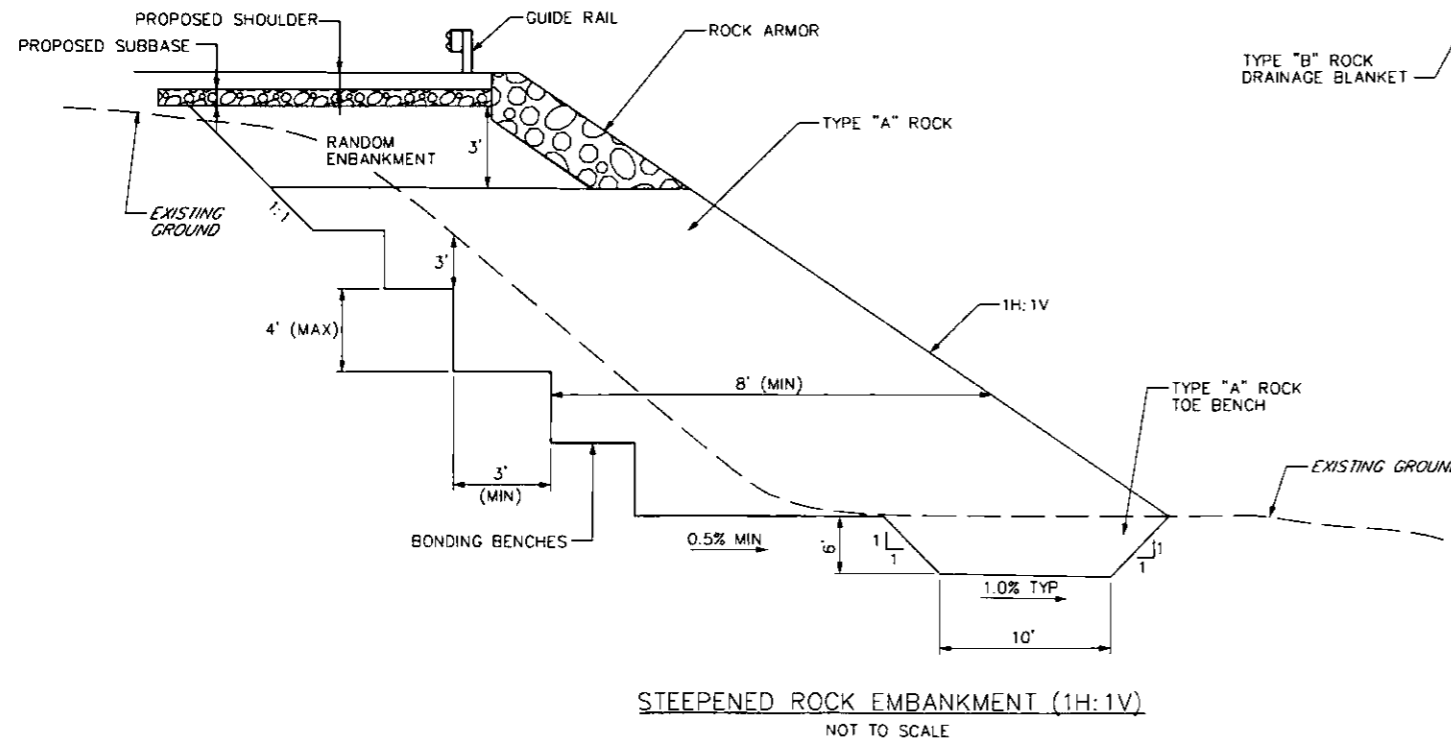
BENCHING TOE TYPE D
NOT TO SCALE



SECTION A-A
NOT TO SCALE



DETAIL A
NOT TO SCALE



STEEPENED ROCK EMBANKMENT (1H:1V)
NOT TO SCALE

NOTES:

- EXCAVATE TOE BENCH AND DRAINAGE GALLERY EITHER AS INDICATED ON THE TABLE ABOVE OR TO COMPETENT SOIL AS DIRECTED BY THE COMMISSION'S GEOTECHNICAL REPRESENTATIVE AND AS SHOWN ON THE PLAN DRAWINGS AND CROSS SECTIONS.
- ROCK DRAINAGE BENCH WILL BE PLACED A MAXIMUM OF 1 FOOT ABOVE TOE OF SLOPE, AS SHOWN ON THE CROSS SECTIONS AND/OR AS DIRECTED BY THE COMMISSION'S GEOTECHNICAL REPRESENTATIVE.
- ROCK MAY BE ELIMINATED FROM THE TOE BENCH WHEN THE HEIGHT OF FILL IS LESS THAN 10 FEET.
- LOCATE DRAINAGE GALLERIES AT LOW POINTS OR 300 FEET CENTER TO CENTER, WHERE RIGHT-OF-WAY IS AVAILABLE. DAYLIGHT ON EXISTING SLOPE WHENEVER POSSIBLE.
- WASTE ANY UNSUITABLE MATERIAL IN ACCORDANCE WITH SECTION 105.14.
- PLACE THE TOP 3 FEET OF NEW EMBANKMENT IN LAYERS NOT EXCEEDING AN 8" LIFT AT 100% COMPACTION ACCORDING TO SECTION 206.3 (B). DO NOT PLACE MATERIAL THAT WILL IMPEDE GUIDE RAIL INSTALLATION.
- PLACE ROCK ARMOR ON ALL FILL SLOPES STEEPER THAN 1.5H:1V IN ACCORDANCE WITH PTS-124. EXTEND ROCK ARMOR TO THE TOP OF ROCK EMBANKMENT.

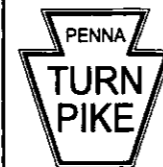
EMBANKMENT TOE BENCH TYPES				
BENCHING TOE TYPE	EMBANKMENT	MIN TOE BENCH DEPTH	MIN TOE BENCH WIDTH	TOE BACKFILL MATERIAL
A	H > 15 FT	5 FT	12 FT	ROCK TYPE "B"
B	1:1 SLOPES	6 FT	10 FT	ROCK TYPE "A"
C	10 < H ≤ 15 FT	3 FT	8 FT	ROCK TYPE "B"
D	H ≤ 10 FT	3 FT	8 FT	EMBANKMENT FILL

BENCHING TOE TYPE	EMBANKMENT HEIGHT (H)	EMBANKMENT HEIGHT LOCATIONS	
		STATIONS	
A	H > 15 FT	96+00 TO 115+00	RT
		98+00 TO 116+00	LT
		124+00 TO 126+00	RT
		124+50 TO 126+00	LT
C	10 < H ≤ 15 FT	94+50 TO 98+00	LT
		94+50 TO 96+00	RT
		115+00 TO 116+00	RT
		116+00 TO 117+00	LT
		123+00 TO 124+00	RT
		126+00 TO 127+50	LT & RT
D	H ≤ 10 FT	94+00 TO 94+50	LT & RT
		116+00 TO 117+00	RT
		117+00 TO 117+50	LT

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: RDct06.dgn
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103
SCALE: AS NOTED

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

BENCHING AND EMBANKMENT
DETAILS


DRAWING: 6 OF 6
SHEET: 12 OF 315

ITEM NO	QTY	UNIT	DESCRIPTION	REF	TAB ON SHEET
2201-0001	—	LS	CLEARING AND GRUBBING	CS	NO TAB
2203-0001	46,097	CY	CLASS 1 EXCAVATION	CS	15-23
2203-0004	2,170	CY	CLASS 1B EXCAVATION	CS	15-23
2203-0010	4,816	CY	CLASS 1A EXCAVATION, UNDERCUTTING (BACKFILLING WITH ROCK, TYPE B)	SP	15-23
2203-0011	451	CY	CLASS 1A EXCAVATION, UNDERCUTTING (BACKFILLING WITH NO. 2A COARSE AGGREGATE)	SP	15-23
2203-2101	—	LS	TEMPORARY SHORING	SP	151-152
2204-0001	1,207	CY	CLASS 2 EXCAVATION	CS	24-29
2204-0100	11,807	CY	CLASS 3 EXCAVATION	CS	151-152
2204-0150	52	CY	CLASS 4 EXCAVATION	CS	24-29
0205-0100	21,859	CY	FOREIGN BORROW EXCAVATION	408	15-23
2205-0275	8,297	CY	SELECTED BORROW EXCAVATION ROCK, TYPE A	CS	15-23
2205-0276	15,872	CY	SELECTED BORROW EXCAVATION ROCK, TYPE B	CS	15-23
3208-0001	100	HOUR	SPECIAL ROLLING	SP	NO TAB
0212-0002	351	SY	GEOTEXTILE, CLASS 2, TYPE A	408	24-29
0212-0014	3,259	SY	GEOTEXTILE, CLASS 4, TYPE A	408	15-23, 151-152
0212-0015	9,030	SY	GEOTEXTILE, CLASS 4, TYPE B	408	15-23
2220-0020	1,877	CY	FLOWABLE BACKFILL, TYPE C	CS	151-152
2309-0637	6,392	TON	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG 64-22, 10 TO < 30 MILLION ESALS, 25.0 MM MIX	CS	15-23
2309-1637	929	TON	RICH BOTTOM SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG 64-22, 10 TO < 30 MILLION ESALS, 25.0 MM MIX	CS	15-23
2350-0121	7,902	TON	SUBBASE (NO. 2A)	CS	15-23
0360-0002	929	TON	ASPHALT TREATED PERMEABLE BASE COURSE	408	15-23
2409-0761	2,830	TON	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA WEARING COURSE, PG 76-22, 10 TO < 30 MILLION ESALS, 12.5 MM MIX, SRL-E	CS	15-23
2409-6670	4,243	TON	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BINDER COURSE, PG 64-22, 10 TO < 30 MILLION ESALS, 19 MM MIX	CS	15-23
2491-0070	9,897	SY	MILLING OF BITUMINOUS PAVEMENT SURFACE, VARIABLE DEPTH	CS	15-23
2499-1000	—	PDA	PAYMENT ADJUSTMENT FOR ASPHALT MATERIALS	SP	NO TAB

ITEM NO	QTY	UNIT	DESCRIPTION	REF	TAB ON SHEET
4505-0002	1,200	SY	RECESSED BRIDGE APPROACH SLAB	SP	15-23
EITHER: 2601-0393	277	LF	18" THERMOPLASTIC PIPE, GROUP V, 7'-2.5' FILL	CS P-1	24-29
OR: 2601-9653	277	LF	18" CORRUGATED GALVANIZED STEEL PIPE, TYPE I, POLYMER COATED, (2 2/3" X 1/2" CORRUGATIONS), 16 GAGE	CS P-1	24-29
EITHER: 2601-0400	287	LF	18" THERMOPLASTIC PIPE, GROUP VI, 15'-2' FILL	CS P-2	24-29
OR: 2601-7014	287	LF	18" REINFORCED CONCRETE PIPE, TYPE A, 15' - 2' FILL	CS P-2	24-29
2601-5901	782	LF	CLEANING EXISTING PIPE CULVERTS, DIAMETERS UP TO AND INCLUDING 36"	CS	24-29
2601-5902	133	LF	CLEANING EXISTING PIPE CULVERTS, DIAMETERS OVER 36"	CS	24-29
0601-7008	57	LF	15" REINFORCED CONCRETE PIPE, TYPE A, 20' - 1.5' FILL	408	24-29
2601-7014	64	LF	18" REINFORCED CONCRETE PIPE, TYPE A, 15' - 2' FILL	CS	24-29
2601-7027	74	LF	24" REINFORCED CONCRETE PIPE, TYPE A, 10' - 2' FILL	CS	24-29
2601-7066	47	LF	42" REINFORCED CONCRETE PIPE, TYPE A, 15' - 2' FILL	CS	24-29
2604-0313	654	LF	18" PERFORATED THERMOPLASTIC PIPE, GROUP IP, 15'-1.5' FILL	CS	24-29
2605-0012	8	EACH	TYPE M INLET, STANDARD BOX, HEIGHT <= 10', CONDITION 2BC	CS	24-29
2605-0016	1	EACH	TYPE M INLET, STANDARD BOX, HEIGHT <= 10', CONDITION 2AB	CS	24-29
2605-1480	1	EACH	MANHOLE	CS	24-29
2605-2620	2	EACH	TYPE D-W ENDWALL	CS	24-29
2605-3010	1	EACH	TYPE M DOUBLE INLET, HEIGHT <= 10', CONDITION 1BC	CS	24-29
2605-3020	5	EACH	TYPE M DOUBLE INLET, HEIGHT <= 10', CONDITION 2BC	CS	24-29
0608-0001	—	LS	MOBILIZATION	408	NO TAB
2609-0003	—	LS	INSPECTOR'S FIELD OFFICE AND INSPECTION FACILITIES, TYPE B	CS	NO TAB
2610-7002	7,288	LF	6" PAVEMENT BASE DRAIN	CS	24-29
2615-0022	672	LF	6" SUBSURFACE DRAIN OUTLETS	CS	24-29
2615-0040	3	EACH	SUBSURFACE DRAIN OUTLET ENDWALL	CS	24-29
2615-0110	14	EACH	DIRECT CONNECTIONS	CS	24-29
2616-1202	2	EACH	CONCRETE END SECTIONS FOR 18" PIPE	CS	24-29
2616-1204	1	EACH	CONCRETE END SECTIONS FOR 24" PIPE	CS	24-29
2616-9050	4	EACH	PLUG EXISTING PIPE	SP	24-29
0620-0010	2	EACH	TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION WITHOUT INLET PLACEMENT	408	15-23
2620-0402	2	EACH	TERMINAL SECTION, BRIDGE CONNECTION	CS	15-23
2620-0503	7,097	LF	REMOVE EXISTING GUIDE RAIL	CS	15-23, 30-31

ITEM NO	QTY	UNIT	DESCRIPTION	REF	TAB ON SHEET
2620-0862	6	EACH	TYPE 2-S POST ANCHORAGE	CS	15-23
2620-1075	8,062.5	LF	TYPE 2-S GUIDE RAIL	CS	15-23, 30-31
2620-1100	25	LF	TYPE 2-SC GUIDE RAIL	CS	15-23
2620-1256	1	EACH	VEHICLE ATTENUATING TERMINAL END TREATMENT (V.A.T.E.T.), TYPE II, TEST LEVEL 3 (ENERGY ABSORBING TERMINALS, TANGENT)	CS	15-23
2620-2000	1,344	EACH	DRILLED POST HOLES	CS	15-23, 30-31
2622-0001	709	LF	CONCRETE GLARE SCREEN	CS	15-23
4622-0001	2	EACH	CONCRETE GLARE SCREEN MEDIAN TRANSITION TO SPLIT GLARE SCREEN	SP	15-23
2622-0010	775	LF	REMOVE CONCRETE GLARE SCREEN	CS	15-23
2622-0025	72	LF	REMOVE AND STORE CONCRETE GLARE SCREEN	CS	30-31
2622-0035	72	LF	RESET AND INSTALL CONCRETE GLARE SCREEN	CS	30-31
2624-0100	4,120	LF	RIGHT-OF-WAY FENCE, TYPE 2	CS	15-23
2624-0301	8	EACH	END POSTS FOR TYPE 2 RIGHT-OF-WAY FENCE	CS	15-23
2624-0401	14	EACH	CORNER POSTS FOR TYPE 2 RIGHT-OF-WAY FENCE	CS	15-23
2624-0501	1	EACH	PULL POSTS FOR TYPE 2 RIGHT-OF-WAY FENCE	CS	15-23
2627-0001	9,048	LF	TEMPORARY CONCRETE BARRIER	CS	30-31
2627-0014	2	EACH	TEMPORARY TRANSITION SECTION, GLARE SCREEN TO BARRIER	CS	30-31
2627-0021	504	LF	TEMPORARY CONCRETE BARRIER, STRUCTURE MOUNTED	CS	30-31
2628-0001	5,652	LF	RESET TEMPORARY CONCRETE BARRIER	CS	30-31
2636-0001	216	LF	BITUMINOUS CONCRETE CURB	CS	15-23
2660-0031	13,807	EACH	SONIC NAP ALERT PATTERN (S.N.A.P.)	CS	32-33
2667-0001	4	CY	CEMENT CONCRETE PAVING FOR STREAM BEDS AND PAVED APRONS	CS	24-29
0675-0001	682	CY	RANDOM STONE SLOPE WALL	408	151-152
0680-0121	100	SY	MEMBRANE WATERPROOFING SYSTEM INSTALLED ON OTHER SURFACES	408	151-152
2686-0010	—	LS	CONSTRUCTION SURVEYING, TYPE A	CS	NO TAB

REF LEGEND
408 PER PUBLICATION 408/2016
CS PER COMMISSION SPEC
SP PER SPECIAL PROVISION
P- PIPE DESIGN NO.


PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	SUMMARY OF ITEMS
		NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 1A STRUCTURE NUMBER:		
DISTRICT: 3 COUNTY: CUMBERLAND		SCALE: NONE	DRAWING: 1 OF 2 SHEET: 13 OF 315	
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		NO. REVISIONS DATE APPR.		

ITEM NO	QTY	UNIT	DESCRIPTION	REF	TAB ON SHEET
2686-0050	---	LS	CONSTRUCTION SURVEYING, TYPE D	CS	NO TAB
2696-0200	---	PDA	REPAIR OF TEMPORARY IMPACT ATTENUATING DEVICE	CS	NO TAB
2696-0610	2	EACH	TEMPORARY IMPACT ATTENUATING DEVICE, TYPE V (STANDARD), TEST LEVEL 3	CS	30-31
0703-0022	216	CY	NO. 8 COARSE AGGREGATE	408	151-152
0703-0025	350	CY	NO. 57 COARSE AGGREGATE	408	24-29, 151-152
4802-0001	12,810	CY	TOPSOIL FURNISHED AND PLACED	SP	34-37
2804-0013	1,112	LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA D	CS	34-37
2804-0014	104	LB	SEEDING - FORMULA E	CS	34-37
2804-0102	280	LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA BT-1	CS	34-37
2805-0022	35	TON	MULCHING - STRAW	CS	34-37
2806-0051	30,560	SY	EROSION CONTROL MULCH BLANKET	CS	34-37
0810-0050	---	LS	SELECTIVE TREE REMOVAL	408	NO TAB
2845-0001	---	PDA	EROSION AND SEDIMENTATION CONTROL DURING CONSTRUCTION	CS	NO TAB
4849-0002	4	EACH	ROCK CONSTRUCTION ENTRANCE WITH WASH RACK	SP	34-37
2850-0022	58.6	SY	ROCK LINING, CLASS R-4	CS	24-29
0850-0031	199	CY	ROCK, CLASS R-3	408	24-29
2850-0040	5,900	LF	ROCK ARMOR	SP	15-23
0851-0003	48.98	SY	ROCK APRON	408	34-37
0854-0002	19	EACH	TEMPORARY SLOPE PIPE	408	34-37
2858-0010	12	EACH	SEDIMENT FILTER BAG	SP	34-37
2860-0003	42	EACH	INLET FILTER BAG FOR TYPE M OR TYPE S INLET	CS	34-37
2861-0001	193	CY	CLEANING SEDIMENTATION STRUCTURES	CS	34-37
2865-0005	8	EACH	ROCK FILTER OUTLETS	CS	34-37
0867-0012	4,562	LF	COMPOST FILTER SOCK, 12" DIAMETER	CS	34-37
0867-0022	5,372	LF	COMPOST FILTER SOCK, 24" DIAMETER	CS	34-37
4867-0024	8	EACH	COMPOST FILTER SOCK WASHOUT	SP	34-37
2901-0001	---	LS	MAINTENANCE AND PROTECTION OF TRAFFIC	SP	NO TAB
2901-0202	8	EACH	CONSTRUCTION LIGHTING	SP	NO TAB
2901-0203	2	EACH	ARROW PANEL	CS	NO TAB
2901-0500	2	EACH	PORTABLE CHANGEABLE MESSAGE SIGNS	CS	NO TAB


ITEM NO	QTY	UNIT	DESCRIPTION	REF	TAB ON SHEET
2901-0501	2	EACH	SHADOW VEHICLE WITH TRUCK MOUNTED ATTENUATOR (TMA)	CS	NO TAB
3910-5260	280	LF	4" CONDUIT IN STRUCTURE	SP	151-152
2931-1001	16	EACH	RELOCATION OF POST MOUNTED SIGNS, TYPE B	SP	32-33
2932-0001	32	SF	POST MOUNTED SIGNS, TYPE C	CS	32-33
2962-1000	21,960	LF	4" WHITE WATERBORNE PAVEMENT MARKINGS	CS	30-31
2962-1001	9,048	LF	6" WHITE WATERBORNE PAVEMENT MARKINGS	CS	30-31
2962-1004	1,980	LF	24" WHITE WATERBORNE PAVEMENT MARKINGS	CS	32-33
2962-1005	3,000	LF	4" YELLOW WATERBORNE PAVEMENT MARKINGS	CS	30-31
2962-1006	6,156	LF	6" YELLOW WATERBORNE PAVEMENT MARKINGS	CS	30-31
2963-0002	40,160	LF	PAVEMENT MARKING REMOVAL	CS	30-31
2964-0005	15,230	LF	6" WHITE HIGHLY REFLECTORIZED EPOXY PAVEMENT MARKINGS	CS	32-33
2964-0006	11,060	LF	6" YELLOW HIGHLY REFLECTORIZED EPOXY PAVEMENT MARKINGS	CS	32-33
2001-0001	283	CY	CLASS AA CEMENT CONCRETE	CS	151-152
2001-0010	1,899	CY	CLASS A CEMENT CONCRETE	CS	151-152
2001-0611	422	LF	6" STRUCTURE FOUNDATION DRAIN	CS	151-152
2001-0700	355	SY	GEOCOMPOSITE DRAIN	SP	151-152
2001-0730	3,223	CY	SELECTED BORROW EXCAVATION, STRUCTURE BACKFILL	CS	151-152
2001-0801	---	LS	ANTIGRAFFITI COATING - WHITE	SP	151-152
2001-0802	---	LS	ANTIGRAFFITI COATING - PIGMENTED	SP	151-152
2001-0960	911	CY	CLASS AAAP CEMENT CONCRETE	CS	151-152
1002-0053	529,397	LB	REINFORCEMENT BARS, EPOXY COATED	408	151-152
1002-0152	2,148	EACH	MECHANICAL SPLICE SYSTEM FOR NO. 5 REINFORCEMENT BARS, EPOXY COATED	408	151-152
1002-0153	16	EACH	MECHANICAL SPLICE SYSTEM FOR NO. 6 REINFORCEMENT BARS, EPOXY COATED	408	151-152
1002-0154	88	EACH	MECHANICAL SPLICE SYSTEM FOR NO. 7 REINFORCEMENT BARS, EPOXY COATED	408	151-152
1002-0155	100	EACH	MECHANICAL SPLICE SYSTEM FOR NO. 8 REINFORCEMENT BARS, EPOXY COATED	408	151-152
1002-0156	100	EACH	MECHANICAL SPLICE SYSTEM FOR NO. 9 REINFORCEMENT BARS, EPOXY COATED	408	151-152
2018-0001	---	LS	REMOVAL OF BRIDGE NO. EB-103, MP 228.54	SP	151-152
1026-0015	418	LF	NEOPRENE STRIP SEAL DAM, (3" MOVEMENT)	408	151-152
3050-0085	33	EACH	LAMINATED NEOPRENE BEARING PADS, 12" X 15" X 3.09"	SP	151-152
3050-0086	33	EACH	LAMINATED NEOPRENE BEARING PADS, 16" X 18" X 3.09"	SP	151-152
1056-0100	1,153,357	LB	FABRICATED STRUCTURAL STEEL	408	151-152
1056-0470	20,304	EACH	SHEAR CONNECTORS	408	151-152

ITEM NO	QTY	UNIT	DESCRIPTION	REF	TAB ON SHEET
2090-0300	475	LF	CANTILEVERED COMBINATION WORK PLATFORMS AND PROTECTION SHIELDS	SP	151-152
2090-2000	38,869	SF	UNDERDECK PROTECTION SHIELDS	SP	151-152
4000-0001	---	LS	TEMPORARY RAILROAD CROSSING	SP	NO TAB
4000-0027	---	LS	REMOVE AND DISPOSE EXISTING HAR, SIGN AND EQUIPMENT	SP	NO TAB
4000-0070	---	PDA	PRICE ADJUSTMENT FOR STEEL COST FLUCTUATIONS	SP	NO TAB
4000-0099	---	LS	MOBILIZATION AND DEMOBILIZATION FOR MICROPILES	SP	151-152
4000-0100	---	PDA	SINKHOLE TREATMENT IN SOIL	SP	NO TAB
4000-0800	6	EACH	SUMP PIT	SP	34-37
4000-1101	11,095	LF	MICROPILES, 9.625" OD X 0.545"	SP	151-152
4000-1102	8	EACH	MICROPILES STATIC PROOF LOAD TEST	SP	151-152
4000-1103	4	EACH	MICROPILES STATIC VERIFICATION LOAD TEST	SP	151-152
4000-7004	---	LS	MAINTENANCE AND PROTECTION OF RAILROAD TRAFFIC	SP	NO TAB


REF LEGEND
408 PER PUBLICATION 408/2016
CS PER COMMISSION SPEC
SP PER SPECIAL PROVISION
P- PIPE DESIGN NO. _

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	SUMMARY OF ITEMS
		NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 1A STRUCTURE NUMBER:		
NO. REVISIONS DATE APPR.		SCALE: NONE	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 2 OF 2 SHEET: 14 OF 315

CLASS 1 EXCAVATION	CLASS 1B EXCAVATION	CLASS 1A EXCAVATION, UNDERCUTTING (BACKFILLING WITH ROCK, TYPE B)	CLASS 1A EXCAVATION, UNDERCUTTING (BACKFILLING WITH NO. 2A COARSE AGGREGATE)	FOREIGN BORROW EXCAVATION	SELECTED BORROW EXCAVATION ROCK, TYPE A	SELECTED BORROW EXCAVATION ROCK, TYPE B	GEOTEXTILE, CLASS 4, TYPE A	GEOTEXTILE, CLASS 4, TYPE B	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG 64-22, 10 TO < 30 MILLION ESALS, 25.0 MM MIX	RICH BOTTOM SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG 64-22, 10 TO < 30 MILLION ESALS, 25.0 MM MIX	SUBBASE (NO. 2A)	REMARKS	SIDE	STATION
2203	2203	2203	2203	0205	2205	2205	0212	0212	2309	2309	2350	ITEM NUMBER		
0001	0004	0010	0011	0100	0275	0276	0014	0015	0637	1637	0121	UNIT		
CY	CY	CY	CY	CY	CY	CY	SY	SY	TON	TON	TON			
		4,816	451	21,859				9,030				CLASS 1A EXCAVATION AS DIRECTED		FOR ENTIRE PROJECT
	299								154		222	STAGE 1 - SHOULDER REPLACEMENT	EB	83+50.00 TO 100+00.00
	314								154		223	STAGE 1 - SHOULDER REPLACEMENT	WB	83+50.00 TO 100+00.00
	261								122	61	88	STAGE 1 - SHOULDER REPLACEMENT - FULL DEPTH	EB	100+00.00 TO 106+50.00
	257								122	61	88	STAGE 1 - SHOULDER REPLACEMENT - FULL DEPTH	WB	100+00.00 TO 106+50.00
	224								122	61	88	STAGE 1 - SHOULDER REPLACEMENT - FULL DEPTH	EB	116+25.00 TO 122+80.00
	216								122	61	88	STAGE 1 - SHOULDER REPLACEMENT - FULL DEPTH	WB	116+25.00 TO 122+80.00
	300								149		216	STAGE 1 - SHOULDER REPLACEMENT	EB	122+80.00 TO 138+80.00
	299								149		216	STAGE 1 - SHOULDER REPLACEMENT	WB	122+80.00 TO 138+80.00
									916		1,326	STAGE 2 - SHOULDER DEPTH PAVEMENT	EB	83+50.00 TO 108+02.00
									917		1,327	STAGE 2 - SHOULDER DEPTH PAVEMENT	WB	83+50.00 TO 110+57.00
14,392					6,011	900						STAGE 2 - EXCAVATION FOR BENCHING, TYPE B ROCK FOR TOE BENCH AND DRAINAGE GALLERY	EB	87+00.00 TO 111+00.00
15,265				8,297	4,590	750						STAGE 2 - EXCAVATION FOR BENCHING, TYPE B ROCK FOR TOE BENCH AND DRAINAGE GALLERY; TYPE A STEEPENED ROCK EMBANKMENT	WB	87+00.00 TO 111+00.00
												STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	WB	90+49.00 TO 110+58.00
												STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	EB	91+75.00 TO 109+05.00
												STAGE 2 - RIGHT-OF-WAY FENCE	EB	92+42.00 TO 109+28.00
												STAGE 2 - RIGHT-OF-WAY FENCE	WB	99+58.00 TO 111+81.00
									140	70	102	STAGE 2 - FULL DEPTH PAVEMENT	EB	104+00.00 TO 108+91.00
									205	103	148	STAGE 2 - FULL DEPTH PAVEMENT	WB	104+00.00 TO 109+83.00
												STAGE 2 - BRIDGE APPROACH SLAB AND BITUMINOUS CURB	EB	108+81.32 TO 109+30.99
												STAGE 2 - BRIDGE APPROACH SLAB AND BITUMINOUS CURB	WB	109+73.21 TO 110+67.59
29,657	2,170	4,816	451	21,859	8,297	10,601	1,650	9,030	3,272	417	4,132	SUBTOTALS - COLUMN A		

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF ROADWAY ITEMS
		NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103		
NO. REVISIONS DATE APPR.		SCALE: NONE	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 1 OF 9 SHEET: 15 OF 315

ASPHALT TREATED PERMEABLE BASE COURSE															REMARKS	SIDE	STATION
SUPERPAVE ASPHALT MIXTURE DESIGN - HMA WEARING COURSE, PG 78-22, 10 TO < 30 MILLION ESALS, 12.5 MM MIX, SRL-E																	
SUPERPAVE ASPHALT MIXTURE DESIGN - HMA WEARING COURSE, PG 84-22, 10 TO < 30 MILLION ESALS, 19 MM MIX															ITEM NUMBER	UNIT	
MILLING OF BITUMINOUS PAVEMENT SURFACE, VARIABLE DEPTH																	
RECESSED BRIDGE APPROACH SLAB															CLASS 1A EXCAVATION AS DIRECTED	FOR ENTIRE PROJECT	
TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION WITHOUT INLET PLACEMENT																	
TERMINAL SECTION, BRIDGE CONNECTION															2620	EACH	
REMOVE EXISTING GUIDE RAIL																	
TYPE 2-S POST ANCHORAGE															2620	EACH	
TYPE 2-S GUIDE RAIL																	
TYPE 2-SC GUIDE RAIL															2620	LF	
0360	2409	2409		2491	4505	0620		2620		2620		2620		2620			
0002	0761	6670		0070	0002	0010		0402		0503		0862		1075		1100	
TON	TON	TON		SY	SY	EACH		EACH		LF		EACH		LF		LF	
		119															
		120															
61		47															
61		47															
61		47															
61		47															
		116															
		116															
	587	712															
	587	712															
								1		1,603		1		2,000			
								1		1,766				1,675		12.5	
70	36	55															
103	53	80															
					131												
					219												
417	1,263	2,218			360			1		1				3,369		1	
															SUBTOTALS - COLUMN B		

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF ROADWAY ITEMS
		NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103		
DISTRICT: 3 COUNTY: CUMBERLAND		SCALE: NONE		DRAWING: 2 OF 9
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP				SHEET: 16 OF 315

2620	2620	2622		4622	2622		2624		2624		2624		2624		2636		2850	REMARKS	SIDE	STATION
1256	2000	0001		0001	0010		0100		0301		0401		0501		0001		0040	ITEM NUMBER		
EACH	EACH	LF		EACH	LF		LF		EACH		EACH		EACH		LF		LF	UNIT		
																		CLASS 1A EXCAVATION AS DIRECTED		FOR ENTIRE PROJECT
																		STAGE 1 - SHOULDER REPLACEMENT	EB	83+50.00 TO 100+00.00
																		STAGE 1 - SHOULDER REPLACEMENT	WB	83+50.00 TO 100+00.00
																		STAGE 1 - SHOULDER REPLACEMENT - FULL DEPTH	EB	100+00.00 TO 106+50.00
																		STAGE 1 - SHOULDER REPLACEMENT - FULL DEPTH	WB	100+00.00 TO 106+50.00
																		STAGE 1 - SHOULDER REPLACEMENT - FULL DEPTH	EB	116+25.00 TO 122+80.00
																		STAGE 1 - SHOULDER REPLACEMENT - FULL DEPTH	WB	116+25.00 TO 122+80.00
																		STAGE 1 - SHOULDER REPLACEMENT	EB	122+80.00 TO 138+80.00
																		STAGE 1 - SHOULDER REPLACEMENT	WB	122+80.00 TO 138+80.00
																		STAGE 2 - SHOULDER DEPTH PAVEMENT	EB	83+50.00 TO 108+02.00
																		STAGE 2 - SHOULDER DEPTH PAVEMENT	WB	83+50.00 TO 110+57.00
																1,500		STAGE 2 - EXCAVATION FOR BENCHING; TYPE B ROCK FOR TOE BENCH AND DRAINAGE GALLERY	EB	87+00.00 TO 111+00.00
																1,900		STAGE 2 - EXCAVATION FOR BENCHING; TYPE B ROCK FOR TOE BENCH AND DRAINAGE GALLERY; TYPE A STEEPENED ROCK EMBANKMENT	WB	87+00.00 TO 111+00.00
	330																	STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	WB	90+49.00 TO 110+58.00
1	280																	STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	EB	91+75.00 TO 109+05.00
							1,490		2		3		1					STAGE 2 - RIGHT-OF-WAY FENCE	EB	92+42.00 TO 109+28.00
							1,375		2		5							STAGE 2 - RIGHT-OF-WAY FENCE	WB	99+58.00 TO 111+81.00
																		STAGE 2 - FULL DEPTH PAVEMENT	EB	104+00.00 TO 108+91.00
																		STAGE 2 - FULL DEPTH PAVEMENT	WB	104+00.00 TO 109+83.00
															23			STAGE 2 - BRIDGE APPROACH SLAB AND BITUMINOUS CURB	EB	108+81.32 TO 109+30.99
															85			STAGE 2 - BRIDGE APPROACH SLAB AND BITUMINOUS CURB	WB	109+73.21 TO 110+87.59
1	610						2,885		4		8		1		108		3,400	SUBTOTALS - COLUMN C		

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103

SCALE: NONE


REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP


TABULATION OF ROADWAY ITEMS

DRAWING: 3 OF 9
SHEET: 17 OF 315

CLASS 1 EXCAVATION	CLASS 1B EXCAVATION	CLASS 1A EXCAVATION, UNDERCUTTING (BACKFILLING WITH ROCK, TYPE B)	CLASS 1A EXCAVATION, UNDERCUTTING (BACKFILLING WITH NO. 2A COARSE AGGREGATE)	FOREIGN BORROW EXCAVATION	SELECTED BORROW EXCAVATION	SELECTED BORROW EXCAVATION ROCK, TYPE A	SELECTED BORROW EXCAVATION ROCK, TYPE B	GEOTEXTILE, CLASS 4, TYPE A	GEOTEXTILE, CLASS 4, TYPE B	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG 64-22, 10 TO < 30 MILLION ESALS, 25.0 MM MIX	RICH BOTTOM SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG 64-22, 10 TO < 30 MILLION ESALS, 25.0 MM MIX	SUBBASE (NO. 2A)	REMARKS	SIDE	STATION
2203	2203	2203	2203	0205	2205	2205	0212	0212	2309	2309	2350	ITEM NUMBER			
0001	0004	0010	0011	0100	0275	0276	0014	0015	0637	1637	0121	UNIT			
CY	CY	CY	CY	CY	CY	CY	SY	SY	TON	TON	TON				
													STAGE 2 - RIGHT-OF-WAY FENCE	EB	110+28.00 TO 117+12.00
7.794						3.107	600						STAGE 2 - EXCAVATION FOR BENCHING; TYPE B ROCK FOR TOE BENCH AND DRAINAGE GALLERY	EB	111+50.00 TO 134+50.00
7.017						2.164	650						STAGE 2 - EXCAVATION FOR BENCHING; TYPE B ROCK FOR TOE BENCH AND DRAINAGE GALLERY	WB	111+50.00 TO 134+50.00
													STAGE 2 - BRIDGE APPROACH SLAB AND BITUMINOUS CURB	EB	111+64.63 TO 112+58.97
													STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	EB	111+73.00 TO 118+29.00
										933	1.350		STAGE 2 - SHOULDER DEPTH PAVEMENT	EB	111+75.00 TO 138+80.00
										259	129	187	STAGE 2 - FULL DEPTH PAVEMENT	EB	112+40.00 TO 119+00.00
													STAGE 2 - RIGHT-OF-WAY FENCE	WB	112+75.00 TO 115+92.00
													STAGE 2 - BRIDGE APPROACH SLAB AND BITUMINOUS CURB	WB	112+81.95 TO 113+50.87
													STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	WB	113+27.00 TO 121+00.00
										904	1.307		STAGE 2 - SHOULDER DEPTH PAVEMENT	WB	113+30.00 TO 138+80.00
										164	82	118	STAGE 2 - FULL DEPTH PAVEMENT	WB	113+41.00 TO 119+00.00
													STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	EB	118+29.00 TO 131+43.00
													STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	WB	123+00.00 TO 132+50.00
													STAGE 3 - MILLING OF EXISTING PAVEMENT	EB	100+00.00 TO 108+00.00
													STAGE 3 - MILLING OF EXISTING PAVEMENT	WB	100+00.00 TO 108+00.00
													STAGE 3 - GLARE SCREEN REMOVAL AND INSTALLATION	MED	105+90.50 TO 109+87.50
910										371	128	351	STAGE 3 - EXCAVATION AND FULL DEPTH PAVEMENT	EB&WB	108+00.00 TO 110+34.00
													STAGE 3 - BRIDGE APPROACH SLAB	EB	108+91.09 TO 109+75.70
													STAGE 3 - BRIDGE APPROACH SLAB	WB	109+82.99 TO 110+34.44
													STAGE 3 - BRIDGE APPROACH SLAB	EB	111+98.74 TO 112+49.20
15,721						5,271	1,250			2,631	339	3,313	SUBTOTALS - COLUMN A		

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE	APPR.	WBS NO. T-228.54S001-3-02 NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF ROADWAY ITEMS		
		SCALE: NONE								
		DISTRICT: 3 COUNTY: CUMBERLAND								
		TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP								
		DRAWING: 4 OF 9								
SHEET: 18 OF 315										

0360	2409	2409	2491	4505	0620	2620	2620	2620	2620	2620	2620	2620	2620	2620	ITEM NUMBER	REMARKS	SIDE	STATION
0002	0761	6670	0070	0002	0010	0402	0503	0862	1075	1100			UNIT					
TON	TON	TON	SY	SY	EACH	EACH	LF	EACH	LF	LF								
															STAGE 2 - RIGHT-OF-WAY FENCE	EB	110+28.00 TO 117+12.00	
															STAGE 2 - EXCAVATION FOR BENCHING; TYPE B ROCK FOR TOE BENCH AND DRAINAGE GALLERY	EB	111+50.00 TO 134+50.00	
															STAGE 2 - EXCAVATION FOR BENCHING; TYPE B ROCK FOR TOE BENCH AND DRAINAGE GALLERY	WB	111+50.00 TO 134+50.00	
				219											STAGE 2 - BRIDGE APPROACH SLAB AND BITUMINOUS CURB	EB	111+64.63 TO 112+58.97	
						1	468	1	650						STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	EB	111+73.00 TO 118+29.00	
	592	725													STAGE 2 - SHOULDER DEPTH PAVEMENT	EB	111+75.00 TO 138+80.00	
129	67	100													STAGE 2 - FULL DEPTH PAVEMENT	EB	112+40.00 TO 119+00.00	
															STAGE 2 - RIGHT-OF-WAY FENCE	WB	112+75.00 TO 115+92.00	
					131										STAGE 2 - BRIDGE APPROACH SLAB AND BITUMINOUS CURB	WB	112+81.95 TO 113+50.87	
						1	618	1	737.5	12.5					STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	WB	113+27.00 TO 121+00.00	
	577	702													STAGE 2 - SHOULDER DEPTH PAVEMENT	WB	113+30.00 TO 138+80.00	
82	42	64													STAGE 2 - FULL DEPTH PAVEMENT	WB	113+41.00 TO 119+00.00	
							1,096	2	1,287.5						STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	EB	118+29.00 TO 131+43.00	
							971	1	1,137.5						STAGE 2 - GUIDE RAIL REMOVAL AND INSTALLATION	WB	123+00.00 TO 132+50.00	
			2,490												STAGE 3 - MILLING OF EXISTING PAVEMENT	EB	100+00.00 TO 108+00.00	
			2,469												STAGE 3 - MILLING OF EXISTING PAVEMENT	WB	100+00.00 TO 108+00.00	
															STAGE 3 - GLARE SCREEN REMOVAL AND INSTALLATION	MED	105+90.50 TO 109+87.50	
128	125	188													STAGE 3 - EXCAVATION AND FULL DEPTH PAVEMENT	EB&WB	108+00.00 TO 110+34.00	
					164										STAGE 3 - BRIDGE APPROACH SLAB	EB	108+91.09 TO 109+75.70	
					86										STAGE 3 - BRIDGE APPROACH SLAB	WB	109+82.99 TO 110+34.44	
					86										STAGE 3 - BRIDGE APPROACH SLAB	EB	111+98.74 TO 112+49.20	
338	1,403	1,779	4,959	686	1	1	3,153	5	3,812.5	12.5			SUBTOTALS - COLUMN B					

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF ROADWAY ITEMS			
		NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103					
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	NO.	REVISIONS	DATE	APPR.	SCALE: NONE	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 5 OF 9 SHEET: 19 OF 315

CLASS 1 EXCAVATION	CLASS 1B EXCAVATION	CLASS 1A EXCAVATION, UNDERCUTTING (BACKFILLING WITH ROCK, TYPE B)	CLASS 1A EXCAVATION, UNDERCUTTING (BACKFILLING WITH NO. 2A COARSE AGGREGATE)	FOREIGN BORROW EXCAVATION	SELECTED BORROW EXCAVATION	SELECTED BORROW EXCAVATION ROCK, TYPE A	SELECTED BORROW EXCAVATION ROCK, TYPE B	GEOTEXTILE, CLASS 4, TYPE A	GEOTEXTILE, CLASS 4, TYPE B	SUPPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG 64-22, 10 TO < 30 MILLION ESALS, 25.0 MM MIX	RICH BOTTOM SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG 64-22, 10 TO < 30 MILLION ESALS, 25.0 MM MIX	SUBBASE (NO. 2A)	REMARKS	SIDE	STATION
2203	2203	2203	2203	0205	2205	2205	0212	0212	2309	2309	2350	ITEM NUMBER			
0001	0004	0010	0011	0100	0275	0276	0014	0015	0637	1637	0121	UNIT			
CY	CY	CY	CY	CY	CY	CY	SY	SY	TON	TON	TON				
719									489	173	457	STAGE 3 - EXCAVATION AND FULL DEPTH PAVEMENT	EB&WB	112+00.00 TO 114+80.00	
												STAGE 3 - GLARE SCREEN REMOVAL AND INSTALLATION	MED	112+44.59 TO 116+05.67	
												STAGE 3 - BRIDGE APPROACH SLAB	WB	112+56.49 TO 113+41.09	
												STAGE 3 - MILLING OF EXISTING PAVEMENT	EB	114+80.00 TO 122+80.00	
												STAGE 3 - MILLING OF EXISTING PAVEMENT	WB	114+80.00 TO 122+80.00	
29,657	2,170	4,816	451	21,859	8,297	10,601	1,650	9,030	3,272	417	4,132	SUBTOTALS: DRAWING 1 OF 9			
15,721						5,271	1,250		2,631	339	3,313	SUBTOTALS: DRAWING 4 OF 9			
719									489	173	457	SUBTOTALS: DRAWING 7 OF 9			
46,097	2,170	4,816	451	21,859	8,297	16,872	2,900	9,030	6,392	929	7,902	GRAND TOTAL - COLUMN A			

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE: NONE

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls
 DRAWING TYPE: 1A
 STRUCTURE NUMBER: EB-103

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54

TABULATION OF ROADWAY ITEMS

DRAWING: 7 OF 9
 SHEET: 21 OF 315

0360	2409	2409		2491	4505		0620		2620		2620		2620		2620		2620	REMARKS	SIDE	STATION
0002	0761	6670		0070	0002		0010		0402		0503		0862		1075		1100	ITEM NUMBER		
TON	TON	TON		SY	SY		EACH		EACH		LF		EACH		LF		LF	UNIT		
173	164	246																STAGE 3 - EXCAVATION AND FULL DEPTH PAVEMENT	EB&WB	112+00.00 TO 114+80.00
																		STAGE 3 - GLARE SCREEN REMOVAL AND INSTALLATION	MED	112+44.59 TO 116+05.67
					164													STAGE 3 - BRIDGE APPROACH SLAB	WB	112+56.49 TO 113+41.09
				2,507														STAGE 3 - MILLING OF EXISTING PAVEMENT	EB	114+80.00 TO 122+80.00
				2,431														STAGE 3 - MILLING OF EXISTING PAVEMENT	WB	114+80.00 TO 122+80.00
417	1,263	2,218			350		1		1		3,369		1		3,675		12.5	SUBTOTALS: DRAWING 2 OF 9		
339	1,403	1,779		4,959	686		1		1		3,153		5		3,812.5		12.5	SUBTOTALS: DRAWING 5 OF 9		
173	164	246		4,938	164													SUBTOTALS: DRAWING 8 OF 9		
929	2,830	4,243		9,897	1,200		2		2		6,622		6		7,487.5		25	GRAND TOTAL - COLUMN B		

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103
SCALE: NONE

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

TABULATION OF ROADWAY ITEMS

DRAWING: 8 OF 9
SHEET: 22 OF 315

VEHICLE ATTENUATING TERMINAL END TREATMENT (V.A.T.E.T.), TYPE II TEST LEVEL 3 (ENERGY ABSORBING)															REMARKS	SIDE	STATION
2620	2620	2622	4622	2622	2624	2624	2624	2624	2624	2636	2850	ITEM NUMBER	UNIT				
1256	2000	0001	0001	0010	0100	0301	0401	0501	0001	0040							
EACH	EACH	LF	EACH	LF	LF	EACH	EACH	EACH	LF	LF							
		336	1	375									STAGE 3 - EXCAVATION AND FULL DEPTH PAVEMENT	EB&WB	112+00.00 TO 114+80.00		
													STAGE 3 - GLARE SCREEN REMOVAL AND INSTALLATION	MED	112+44.59 TO 116+05.67		
													STAGE 3 - BRIDGE APPROACH SLAB	WB	112+56.49 TO 113+41.09		
													STAGE 3 - MILLING OF EXISTING PAVEMENT	EB	114+80.00 TO 122+80.00		
													STAGE 3 - MILLING OF EXISTING PAVEMENT	WB	114+80.00 TO 122+80.00		
1	610				2,865	4	8	1	108	3,400			SUBTOTALS: DRAWING 3 OF 9				
	640	373	1	400	1,255	4	6		108	2,500			SUBTOTALS: DRAWING 6 OF 9				
		336	1	375									SUBTOTALS: DRAWING 9 OF 9				
1	1,250	709	2	775	4,120	8	14	1	216	5,900			GRAND TOTAL - COLUMN C				

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103
SCALE: NONE

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

TABULATION OF ROADWAY ITEMS
DRAWING: 9 OF 9
SHEET: 23 OF 315

CLASS 2 EXCAVATION	CLASS 4 EXCAVATION	GEOTEXTILE, CLASS 2, TYPE A	PIPE DESIGN NO. 1	PIPE DESIGN NO. 2	CLEANING EXISTING PIPE CULVERTS, DIAMETERS UP TO AND INCLUDING 36"	CLEANING EXISTING PIPE CULVERTS, DIAMETERS OVER 36"	15" REINFORCED CONCRETE PIPE, TYPE A, 20' - 1.5' FILL	18" REINFORCED CONCRETE PIPE, TYPE A, 15' - 2' FILL	24" REINFORCED CONCRETE PIPE, TYPE A, 15' - 2' FILL	42" REINFORCED CONCRETE PIPE, TYPE A, 10' - 2' FILL	18" PERFORATED THERMOPLASTIC PIPE, GROUP IP, 15:1.5' FILL	TYPE M INLET, STANDARD BOX, HEIGHT 4'-10", CONDITION 2BC	TYPE M INLET, STANDARD BOX, HEIGHT 4'-10", CONDITION 2AB	MANHOLE	REMARKS	SIDE	STATION
2204	2204	0212			2601	2601	0601	2601	2801	2601	2804	2605	2605	2605	ITEM NUMBER		
0001	0150	0002			5901	5902	7008	7014	7027	7066	0313	0012	0016	1480	UNIT		
CY	CY	SY	LF	LF	LF	LF	LF	LF	LF	LF	LF	EACH	EACH	EACH			
															CONNECT TO EXISTING INLETS AT STA 87+00 +/-	EB&WB	86+96.00 TO 92+50.00
					134										CLEAN EXISTING PIPE	EB&WB	90+08.00 TO 90+72.00
333		39													SWALE WITH CHECK DAMS	EB	90+18.00 TO 93+50.00
	7		26		34		8					1			REMOVE EXISTING INLET AND EXTEND EXISTING PIPE. INSTALL NEW INLET AND SLOPE PIPE.	EB	94+50.00
					67			48							CLEAN EXISTING PIPE. EXTEND TO PROPOSED TOE OF SLOPE	EB&WB	96+20.00 TO 96+80.00
	11		52		41		12					1			REMOVE EXISTING INLET AND EXTEND EXISTING PIPE. INSTALL NEW INLET AND SLOPE PIPE. PLUG EXISTING 6" CMP.	EB&WB	98+50.00
															SPACE OUTLETS AT 300' MAX WHERE CONDITIONS PERMIT. DIRECT CONNECT EASTBOUND POB WHERE POSSIBLE	EB&WB	99+70.00 TO 108+00.00
53		68													SWALE WITH CHECK DAMS	EB	101+65.00 TO 104+80.00
					160				74						CLEAN EXISTING PIPE. EXTEND TO PROPOSED TOE OF SLOPE	EB&WB	102+01.00 TO 102+99.00
	15		61		32		16					1			REMOVE EXISTING INLET AND EXTEND EXISTING PIPE. INSTALL NEW INLET AND SLOPE PIPE.	EB	102+50.00
	19		57		34		21								REMOVE EXISTING INLET AND EXTEND EXISTING PIPE. INSTALL NEW INLET AND SLOPE PIPE.	EB	106+00.00
											347				MEDIAN DRAINAGE: COMBINATION STORM SEWER AND UNDERDRAIN	MED	106+00.00 TO 109+60.13
															OUTLET INSIDE SHOULDER PBD TO INLET; OUTLET OUTSIDE SHOULDER PBD TO FILL SLOPE	EB	107+87.00 TO 108+91.27
															OUTLET INSIDE SHOULDER PBD TO INLET; OUTLET OUTSIDE SHOULDER PBD TO FILL SLOPE	WB	107+87.00 TO 109+83.17
49		16													SWALE WITH CHECK DAMS	WB	108+00.00 TO 111+00.00
					170			16							CLEAN EXISTING PIPE. EXTEND INLET TO PROPOSED TOE OF SLOPE.	EB&WB	108+12.00 TO 108+91.00
			21	47								1		1	DRAINAGE FROM PROPOSED INLET AND EXISTING PIPE TO MANHOLE. OUTLET BEYOND TOE OF SLOPE	EB	108+69.00 TO 108+92.00
															OUTLET FOR STRUCTURE FOUNDATION DRAIN	EB	109+00.00
				60								1			DRAINAGE FROM SHOULDER INLET TO MEDIAN	WB	109+60.13 TO 109+80.78
															OUTLET FOR STRUCTURE FOUNDATION DRAIN	WB	110+53.00
															OUTLET FOR STRUCTURE FOUNDATION DRAIN	EB	111+78.00
435	52	123	217		107	672	57	64	74		347	5		1	SUBTOTALS - COLUMN A		

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103

SCALE: NONE


**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP


TABULATION OF DRAINAGE ITEMS

DRAWING 1 OF 6
SHEET: 24 OF 315


TYPE D-W ENDWALL	TYPE M DOUBLE INLET, HEIGHT 4"= 10', CONDITION 1BC	TYPE M DOUBLE INLET, HEIGHT 4"= 10', CONDITION 2BC	6" PAVEMENT BASE DRAIN	6" SUBSURFACE DRAIN OUTLETS	SUBSURFACE DRAIN OUTLET ENDWALL	DIRECT CONNECTIONS	CONCRETE END SECTIONS FOR 18" PIPE	CONCRETE END SECTIONS FOR 24" PIPE	PLUG EXISTING PIPE	CEMENT CONCRETE PAVING FOR STREAM BEDS AND APRONS	NO. 57 COARSE AGGREGATE	ROCK LINING, CLASS R-4	ROCK, CLASS R-3	REMARKS	SIDE	STATION
2605	2605	2605	2610	2615	2615	2615	2616	2616	2616	2667	0703	2850	0850	ITEM NUMBER		
2620	3010	3020	7002	0022	0040	0110	1202	1204	9050	0001	0025	0022	0031	UNIT		
EACH	EACH	EACH	LF	LF	EACH	EACH	EACH	EACH	EACH	CY	CY	SY	CY			
			1,100			4								CONNECT TO EXISTING INLETS AT STA 87+00 +/-	EB&WB	86+96.00 TO 92+50.00
														CLEAN EXISTING PIPE	EB&WB	90+08.00 TO 90+72.00
											4		17	SWALE WITH CHECK DAMS	EB	90+18.00 TO 93+50.00
												6.7		REMOVE EXISTING INLET AND EXTEND EXISTING PIPE. INSTALL NEW INLET AND SLOPE PIPE.	EB	94+50.00
							1							CLEAN EXISTING PIPE. EXTEND TO PROPOSED TOE OF SLOPE	EB&WB	96+20.00 TO 96+80.00
									1			6.7		REMOVE EXISTING INLET AND EXTEND EXISTING PIPE. INSTALL NEW INLET AND SLOPE PIPE. PLUG EXISTING 6" CMP.	EB&WB	98+50.00
			1,600	180		2								SPACE OUTLETS AT 300' MAX WHERE CONDITIONS PERMIT. DIRECT CONNECT EASTBOUND PDB WHERE POSSIBLE	EB&WB	99+70.00 TO 108+00.00
											7		31	SWALE WITH CHECK DAMS	EB	101+65.00 TO 104+80.00
								1						CLEAN EXISTING PIPE. EXTEND TO PROPOSED TOE OF SLOPE	EB&WB	102+01.00 TO 102+99.00
												6.7		REMOVE EXISTING INLET AND EXTEND EXISTING PIPE. INSTALL NEW INLET AND SLOPE PIPE.	EB	102+50.00
												6.7		REMOVE EXISTING INLET AND EXTEND EXISTING PIPE. INSTALL NEW INLET AND SLOPE PIPE.	EB	106+00.00
		3											130	MEDIAN DRAINAGE; COMBINATION STORM SEWER AND UNDERDRAIN	MED	106+00.00 TO 109+60.13
			182	46		1								OUTLET INSIDE SHOULDER PBD TO INLET; OUTLET OUTSIDE SHOULDER PBD TO FILL SLOPE	EB	107+87.00 TO 108+91.27
			366	41		1								OUTLET INSIDE SHOULDER PBD TO INLET; OUTLET OUTSIDE SHOULDER PBD TO FILL SLOPE	WB	107+87.00 TO 109+83.17
											2		7	SWALE WITH CHECK DAMS	WB	108+00.00 TO 111+00.00
							1					3.4		CLEAN EXISTING PIPE. EXTEND INLET TO PROPOSED TOE OF SLOPE.	EB&WB	108+12.00 TO 108+91.00
												6.7		DRAINAGE FROM PROPOSED INLET AND EXISTING PIPE TO MANHOLE. OUTLET BEYOND TOE OF SLOPE	EB	108+69.00 TO 108+92.00
				22										OUTLET FOR STRUCTURE FOUNDATION DRAIN	EB	109+00.00
														DRAINAGE FROM SHOULDER INLET TO MEDIAN	WB	109+60.13 TO 109+80.78
				15										OUTLET FOR STRUCTURE FOUNDATION DRAIN	WB	110+53.00
				22										OUTLET FOR STRUCTURE FOUNDATION DRAIN	EB	111+78.00
		3	3,248	326		8	2	1	1		143	36.9	66	SUBTOTALS - COLUMN B		

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	NO.	REVISIONS	DATE	APPR.	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF DRAINAGE ITEMS
						NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		


CLASS 2 EXCAVATION	CLASS 4 EXCAVATION	GEOTEXTILE, CLASS 2, TYPE A	PIPE DESIGN NO. 1	PIPE DESIGN NO. 2	CLEANING EXISTING PIPE CULVERTS, DIAMETERS UP TO AND INCLUDING 36"	CLEANING EXISTING PIPE CULVERTS, DIAMETERS UP TO 15' REINFORCED CONCRETE PIPE, TYPE A, 20' - 1.5' FILL	18" REINFORCED CONCRETE PIPE, TYPE A, 15' - 2' FILL	24" REINFORCED CONCRETE PIPE, TYPE A, 15' - 2' FILL	42" REINFORCED CONCRETE PIPE, TYPE A, 15' - 2' FILL	18" PERFORATED THERMOPLASTIC PIPE, TYPE A, 15' - 1.5' FILL	TYPE M INLET, STANDARD BOX, HEIGHT -4' 10", CONDITION 28C	TYPE M INLET, STANDARD BOX, HEIGHT -4' 10", CONDITION 28B	MANHOLE	REMARKS	SIDE	STATION				
2204	Z204	0212			2601	2601	0601		2601	2601	2601	2604		2605	2605		2605	ITEM NUMBER		
0001	0150	0002			5901	5902	7008		7014	7027	7066	0313		0012	0016		1480	UNIT		
CY	CY	SY	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF		EACH	EACH		EACH			
																		OUTLET INSIDE SHOULDER PBD TO INLET, OUTLET OUTSIDE SHOULDER PBD TO FILL SLOPE	EB	112+49.02 TO 114+93.00
				60										1				DRAINAGE FROM SHOULDER INLET TO MEDIAN	EB	112+51.40 TO 112+72.06
										307					1			MEDIAN DRAINAGE; COMBINATION STORM SEWER AND UNDERDRAIN	MED	112+72.06 TO 115+93.30
																		PLUG EXISTING 18" RCP	EB&WB	112+79.00 TO 113+19.00
																		OUTLET FOR STRUCTURE FOUNDATION DRAIN	WB	113+31.00
																		OUTLET INSIDE SHOULDER PBD TO INLET, OUTLET OUTSIDE SHOULDER PBD TO FILL SLOPE	WB	113+40.91 TO 114+80.00
				57										1				DRAINAGE FROM SHOULDER INLET TO MEDIAN	WB	113+43.30 TO 113+54.01
178		12																SWALE WITH CHECK DAMS	EB	114+48.00 TO 117+70.00
																		SPACE OUTLETS AT 300' MAX WHERE CONDITIONS PERMIT	EB&WB	114+80.00 TO 123+10.00
																		PLUG EXISTING 18" RCP	WB	115+86.00 TO 115+94.00
																		PLUG EXISTING 18" RCP	EB	115+93.00 TO 116+25.00
			24	63														DRAINAGE FROM MEDIAN INLETS TO SLOPE PIPE	EB	115+93.30
376		35																SWALE WITH CHECK DAMS	EB	123+00.00 TO 124+55.00
						55												CLEAN EXISTING PIPE	WB	123+20.00
								133			47							CLEAN EXISTING PIPE, EXTEND PIPE AND INSTALL TYPE D-W ENDWALLS	EB&WB	124+55.00 TO 125+43.00
72		90																SWALE WITH CHECK DAMS	EB	124+70.00 TO 130+00.00
146		91																SWALE WITH CHECK DAMS	WB	125+40.00 TO 130+25.00
			36											1				INSTALL NEW INLET AND SLOPE PIPE.	WB	126+79.00
						55												CLEAN EXISTING PIPE	WB	130+39.00
																		CONNECT TO EXISTING INLETS AT STA 134+00 +/- AND STA 136+00 +/-	EB&WB	131+25.00 TO 136+05.00
772		228	60		180	110	133				47	307		3	1			SUBTOTALS - COLUMN A		

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO.	T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF DRAINAGE ITEMS		
		NETWORK NUMBER:	7003982				
		FILE NAME:	EB-103_PTC_Tab Wizard 3.3.xls				
		DRAWING TYPE:	1A				
		STRUCTURE NUMBER:	EB-103				
NO.	REVISIONS	DATE	APPR.	SCALE: NONE	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 3 OF 6
					TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 26 OF 315	

TYPE D-W ENDWALL	TYPE M DOUBLE INLET, HEIGHT $\leq 10'$, CONDITION 1BC	TYPE M DOUBLE INLET, HEIGHT $\leq 10'$, CONDITION 2BC	6" PAVEMENT BASE DRAIN	6" SUBSURFACE DRAIN OUTLET'S	SUBSURFACE DRAIN OUTLET ENDWALL	DIRECT CONNECTIONS	CONCRETE END SECTIONS FOR 18" PIPE	CONCRETE END SECTIONS FOR 24" PIPE	PLUG EXISTING PIPE	CEMENT CONCRETE PAVING FOR STREAM BEDS AND APRONS	NO. 57 COARSE AGGREGATE	ROCK LINING, CLASS R-4	ROCK, CLASS R-3	REMARKS	SIDE	STATION
2605	2605	2605	2610	2615	2615	2615	2616	2616	2616	2667	0703	2850	0850	ITEM NUMBER		
2620	3010	3020	7002	0022	0040	0110	1202	1204	9050	0001	0025	0022	0031	UNIT		
EACH	EACH	EACH	LF	LF	EACH	EACH	EACH	EACH	EACH	CY	CY	SY	CY			
			462	47		1								OUTLET INSIDE SHOULDER PBD TO INLET; OUTLET OUTSIDE SHOULDER PBD TO FILL SLOPE	EB	112+48.02 TO 114+93.00
														DRAINAGE FROM SHOULDER INLET TO MEDIAN	EB	112+51.40 TO 112+72.06
	1	2												MEDIAN DRAINAGE; COMBINATION STORM SEWER AND UNDERDRAIN	MED	112+72.06 TO 115+93.30
									1					PLUG EXISTING 18" RCP	EB&WB	112+79.00 TO 113+19.00
				22										OUTLET FOR STRUCTURE FOUNDATION DRAIN	WB	113+31.00
			278	47		1								OUTLET INSIDE SHOULDER PBD TO INLET; OUTLET OUTSIDE SHOULDER PBD TO FILL SLOPE	WB	113+40.91 TO 114+80.00
														DRAINAGE FROM SHOULDER INLET TO MEDIAN	WB	113+43.30 TO 113+54.01
											2		4	SWALE WITH CHECK DAMS	EB	114+46.00 TO 117+70.00
			2,350	230	3									SPACE OUTLETS AT 300' MAX WHERE CONDITIONS PERMIT	EB&WB	114+80.00 TO 123+10.00
									1					PLUG EXISTING 18" RCP	WB	115+86.00 TO 115+94.00
									1					PLUG EXISTING 18" RCP	EB	115+93.00 TO 116+25.00
														DRAINAGE FROM MEDIAN INLETS TO SLOPE PIPE	EB	115+93.30
											4		29	SWALE WITH CHECK DAMS	EB	123+00.00 TO 124+55.00
														CLEAN EXISTING PIPE	WB	123+20.00
2										4		15		CLEAN EXISTING PIPE. EXTEND PIPE AND INSTALL TYPE D-W ENDWALLS	EB&WB	124+55.00 TO 125+43.00
											10		58	SWALE WITH CHECK DAMS	EB	124+70.00 TO 130+00.00
											11		53	SWALE WITH CHECK DAMS	WB	125+40.00 TO 130+25.00
												6.7		INSTALL NEW INLET AND SLOPE PIPE.	WB	126+79.00
														CLEAN EXISTING PIPE	WB	130+39.00
			950			4								CONNECT TO EXISTING INLETS AT STA 134+00 +/- AND STA 136+00 +/-.	EB&WB	131+25.00 TO 136+05.00
2	1	2	4,040	348	3	6			3	4	147	21.7	144	SUBTOTALS - COLUMN B		

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF DRAINAGE ITEMS
		NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103		
		SCALE: NONE		
		DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		
NO. REVISIONS DATE APPR.			DRAWING: 4 OF 6 SHEET: 27 OF 315	

REMOVE EXISTING GUIDE RAIL	TYPE 2-S GUIDE RAIL	DRILLED POST HOLES	REMOVE AND STORE CONCRETE GLARE SCREEN	RESET AND INSTALL CONCRETE GLARE SCREEN	TEMPORARY CONCRETE BARRIER	TEMPORARY TRANSITION SECTION, GLARE SCREEN TO BARRIER	RESET TEMPORARY CONCRETE BARRIER, STRUCTURE MOUNTED	TEMPORARY IMPACT ATTENUATING DEVICE, TYPE 3 (STANDARD), TEST LEVEL 3	4" WHITE WATERBORNE PAVEMENT MARKINGS	6" WHITE WATERBORNE PAVEMENT MARKINGS	4" YELLOW WATERBORNE PAVEMENT MARKINGS	6" YELLOW WATERBORNE PAVEMENT MARKINGS	PAVEMENT MARKING REMOVAL	REMARKS	SIDE	STATION		
ITEM NUMBER	UNIT																	
2620	2620	2620	2622	2622	2627	2627	2627	2628	2696	2962	2962	2962	2962	2963				
0503	1075	2000	0025	0035	0001	0014	0021	0001	0610	1000	1001	1005	1006	0002				
LF	LF	EACH	LF	LF	LF	EACH	LF	LF	EACH	LF	LF	LF	LF	LF				
										430						STAGE 2 - EDGE LINE MARKING AT CONSTRUCTION ACCESS	WB	85+20.00 TO 89+50.00
					2,436				1		2,436					STAGE 2 - TEMPORARY CONCRETE BARRIER W/ PAVEMENT MARKINGS	EB	85+20.00 TO 109+79.00
					2,100						2,100					STAGE 2 - TEMPORARY CONCRETE BARRIER W/ PAVEMENT MARKINGS	WB	89+50.00 TO 110+42.00
					2,052						2,052					STAGE 2 - TEMPORARY CONCRETE BARRIER W/ PAVEMENT MARKINGS	EB	111+80.00 TO 132+32.00
					2,460				1		2,460					STAGE 2 - TEMPORARY CONCRETE BARRIER W/ PAVEMENT MARKINGS	WB	112+46.00 TO 137+30.00
275	275	45														STAGE 2 - TEMPORARY GUIDE RAIL (TO BE REMOVED AFTER STAGE 3)	EB	117+52.00 TO 120+23.00
300	300	49														STAGE 2 - TEMPORARY GUIDE RAIL (TO BE REMOVED AFTER STAGE 3)	WB	120+00.00 TO 123+00.00
										430						STAGE 2 - EDGE LINE MARKING AT CONSTRUCTION ACCESS	EB	132+32.00 TO 136+54.00
												3,000		3,000		STAGE 3 - SOLID YELLOW INSIDE EDGE LINES	EB&WB	83+50.00 TO 99+00.00
												6,600		6,600		STAGE 3 - REMOVE CONFLICTING STAGE 2 PAVEMENT MARKINGS	EB&WB	83+50.00 TO 108+00.00
										4,900				4,900		STAGE 3 - SOLID WHITE LANE LINES IN LANE SHIFTS	EB&WB	83+50.00 TO 108+00.00
										11,050				11,050		STAGE 3 - SOLID WHITE EDGE LINES	EB&WB	83+50.00 TO 138+80.00
			36	36		1		1,620					1,620			STAGE 3 - RESET TEMPORARY CONCRETE BARRIER W/ PAVEMENT MARKINGS	EB	93+30.00 TO 109+48.00
								1,140					1,140			STAGE 3 - RESET TEMPORARY CONCRETE BARRIER W/ PAVEMENT MARKINGS	WB	99+00.00 TO 110+34.00
										340				340		STAGE 3 - BROKEN WHITE LANE LINES (10' LENGTH, 30' SPACING)	EB&WB	108+00.00 TO 114+80.00
							252						252			STAGE 3 - STRUCTURE MOUNTED BARRIER ON BRIDGE	EB	109+48.00 TO 112+00.00
							252						252			STAGE 3 - STRUCTURE MOUNTED BARRIER ON BRIDGE	WB	110+34.00 TO 112+86.00
								1,200					1,200			STAGE 3 - RESET TEMPORARY CONCRETE BARRIER W/ PAVEMENT MARKINGS	EB	112+00.00 TO 124+00.00
			36	36		1		1,692					1,692			STAGE 3 - RESET TEMPORARY CONCRETE BARRIER W/ PAVEMENT MARKINGS	WB	112+86.00 TO 129+75.00
										4,800				4,800		STAGE 3 - SOLID WHITE LANE LINES IN LANE SHIFTS	EB&WB	114+80.00 TO 138+80.00
													6,500			STAGE 3 - REMOVE CONFLICTING STAGE 2 PAVEMENT MARKINGS	EB&WB	122+80.00 TO 138+80.00
676	676	94	72	72	9,048	2	504	5,652	2	21,960	9,048	3,000	6,156	37,200	SUBTOTALS			

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF TRAFFIC CONTROL ITEMS
		NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 4A STRUCTURE NUMBER: EB-103		
NO. REVISIONS DATE APPR.		SCALE: NONE	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 1 OF 2 SHEET: 30 OF 315

REMOVE EXISTING GUIDE RAIL	TYPE 2-S GUIDE RAIL	DRILLED POST HOLES	REMOVE AND STORE CONCRETE GLARE SCREEN	RESET AND INSTALL CONCRETE GLARE SCREEN	TEMPORARY CONCRETE BARRIER	TEMPORARY TRANSITION SECTION, GLARE SCREEN TO BARRIER	TEMPORARY CONCRETE BARRIER, STRUCTURE MOUNTED	RESET TEMPORARY CONCRETE BARRIER	TEMPORARY IMPACT ATTENUATING DEVICE, TYPE V (STANDARD), TEST LEVEL 3	4' WHITE WATERBORNE PAVEMENT MARKINGS	6' WHITE WATERBORNE PAVEMENT MARKINGS	4' YELLOW WATERBORNE PAVEMENT MARKINGS	6' YELLOW WATERBORNE PAVEMENT MARKINGS	PAVEMENT MARKING REMOVAL	REMARKS	SIDE	STATION
2620	2620	2620	2622	2622	2627	2627	2627	2628	2696	2962	2962	2962	2962	2963	ITEM NUMBER		
0503	1075	2000	0025	0035	0001	0014	0021	0001	0610	1000	1001	1005	1006	0002	UNIT		
LF	LF	EACH	LF	LF	LF	EACH	LF	LF	EACH	LF	LF	LF	LF	LF			
														2,960	STAGE 3 - SOLID YELLOW INSIDE EDGE LINES	EB&WB	124+00.00 TO 138+80.00
575	575	94	72	72	9,048	2	504	5,652	2	21,960	9,048	3,000	6,156	37,200	SUBTOTALS: DRAWING 1 OF 2		
														2,960	SUBTOTALS: DRAWING 2 OF 2		
575	575	94	72	72	9,048	2	504	5,652	2	21,960	9,048	3,000	6,156	40,160	GRAND TOTAL		

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
NETWORK NUMBER: 7003962
FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls
DRAWING TYPE: 4A
STRUCTURE NUMBER: EB-103
SCALE: NONE

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

TABULATION OF TRAFFIC CONTROL ITEMS
DRAWING: 2 OF 2
SHEET: 31 OF 315

SONIC MAP ALERT PATTERN (S.N.A.P.)

RELOCATION OF POST MOUNTED SIGNS, TYPE B


POST MOUNTED SIGNS, TYPE C

24" WHITE WATERBORNE PAVEMENT MARKINGS


6" WHITE HIGHLY REFLECTORIZED EPOXY PAVEMENT MARKINGS

6" YELLOW HIGHLY REFLECTORIZED EPOXY PAVEMENT MARKINGS


2660	2931	2932	2962	2964	2964	REMARKS	SIDE	STATION
0031	1001	0001	1004	0005	0006			
EACH	EACH	SF	LF	LF	LF	ITEM NUMBER		
						UNIT		
2,595						S.N.A.P.'S IN OUTSIDE SHOULDER	EB	83+50.00 TO 109+44.00
2,690						S.N.A.P.'S IN OUTSIDE SHOULDER	WB	83+50.00 TO 110+36.00
				2,080		BROKEN WHITE	EB	83+50.00 TO 138+80.00
				5,535	5,530	EDGE LINES	EB	83+50.00 TO 138+80.00
				2,080		BROKEN WHITE	WB	83+50.00 TO 138+80.00
				5,535	5,530	EDGE LINES	WB	83+50.00 TO 138+80.00
	2					D10-3A, 12"X60" (MP 228.2)	EB&WB	93+18.00
				990		HATCHING IN SHOULDER	EB	97+40.00 TO 126+40.00
				990		HATCHING IN SHOULDER	WB	97+40.00 TO 126+40.00
	2					D10-3A, 12"X60" (MP 228.3)	EB&WB	98+46.00
	2					D10-3A, 12"X60" (MP 228.4)	EB&WB	103+74.00
575						S.N.A.P.'S IN MEDIAN	EB	104+00.00 TO 109+74.00
610						S.N.A.P.'S IN MEDIAN	WB	104+00.00 TO 110+06.00
		16				WB-13, 48"X48"	EB	105+50.00
	2					D10-3A, 12"X60" (MP 228.5)	EB&WB	109+02.00
3,475						S.N.A.P.'S IN OUTSIDE SHOULDER	EB	111+96.00 TO 138+00.00
650						S.N.A.P.'S IN MEDIAN	EB	112+26.00 TO 116+75.00
2,592						S.N.A.P.'S IN OUTSIDE SHOULDER	WB	112+58.00 TO 138+80.00
620						S.N.A.P.'S IN MEDIAN	WB	112+88.00 TO 118+75.00
	2					D10-3A, 12"X60" (MP 228.6)	EB&WB	114+30.00
		16				WB-13, 48"X48"	WB	117+00.00
13,807	10	32	1,980	15,230	11,060	SUBTOTALS		

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF SIGNING AND PAVEMENT MARKING ITEMS
		NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103		
		SCALE: NONE		
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	NO. REVISIONS DATE APPR.	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING 1 OF 2 SHEET: 32 OF 315	

SONIC MAP ALERT PATTERN (S.M.A.P.)	RELOCATION OF POST MOUNTED SIGNS, TYPE B	POST MOUNTED SIGNS, TYPE C	24" WHITE WATERBORNE PAVEMENT MARKINGS	6" WHITE HIGHLY REFLECTORIZED EPOXY PAVEMENT MARKINGS	6" YELLOW HIGHLY REFLECTORIZED EPOXY PAVEMENT MARKINGS															REMARKS	SIDE	STATION	
2660	2931	2932	2962	2964	2964															ITEM NUMBER			
0031	1001	0001	1004	0005	0006															UNIT			
EACH	EACH	SF	LF	LF	LF																		
	2																			D10-3A, 12"X60" (MP 228.7)	EB&WB	119+58.00	
	2																			D10-3A, 12"X60" (MP 228.8)	EB&WB	124+86.00	
	2																			D10-3A, 12"X60" (MP 228.9)	EB&WB	130+14.00	
13,807	10	32	1,980	15,230	11,060															SUBTOTALS: DRAWING 1 OF 2			
	6																				SUBTOTALS: DRAWING 2 OF 2		
13,807	16	32	1,980	15,230	11,060																GRAND TOTAL		

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE	APPR.	WBS NO. T-228.54S001-3-02 NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF SIGNING AND PAVEMENT MARKING ITEMS	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 2 OF 2 SHEET: 33 OF 315
						SCALE: NONE				

TOPSOIL FURNISHED AND PLACED	SEEDING AND SOIL SUPPLEMENTS - FORMULA D	SEEDING - FORMULA E	SEEDING AND SOIL SUPPLEMENTS - FORMULA BT-1	MULCHING - STRAW	EROSION CONTROL MULCH BLANKET	ROCK CONSTRUCTION ENTRANCE WITH WASH RACK	ROCK APRON	TEMPORARY SLOPE PIPE	REMARKS	SIDE	STATION
4802	2804	2804	2804	2805	2806	4849	0851	0854	ITEM NUMBER		
0001	0013	0014	0102	0022	0051	0002	0003	0002	UNIT		
CY	LB	LB	LB	TON	SY	EACH	SY	EACH			
12,810	1,112	104	280	35				19			FOR ENTIRE PROJECT
							2.83			STAGE 2	EB 90+09.00
						1				STAGE 2	WB 90+25.00
										STAGE 2 - ROCK FILTER	EB 90+75.00
							2.13			STAGE 2	EB 91+91.00
							2.83			STAGE 2	EB 94+55.00
							2.83			STAGE 2	EB 98+45.00
					9,269					STAGE 2	EB 101+43.00
							2.83			STAGE 2	EB 101+94.00
										STAGE 2 - ROCK FILTER	EB 101+97.00
							2.83			STAGE 2	EB 102+51.00
										STAGE 2 - ROCK FILTER	WB 102+83.00
										STAGE 2 - ROCK FILTER	WB 102+99.00
							2.83			STAGE 2	WB 103+03.00
					9,061					STAGE 2	WB 103+47.00
							2.83			STAGE 2	EB 106+01.00
							2.83			STAGE 2 - ROCK FILTER	WB 108+21.00
										STAGE 2 - ROCK FILTER	WB 108+31.00
							1.68			STAGE 2	EB 108+62.00
							1.33			STAGE 2	EB 108+63.00
							1.56			STAGE 2	WB 109+84.00
12,810	1,112	104	280	36	18,330	1	29.34	19	SUBTOTALS - COLUMN A		

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF EROSION AND SEDIMENT POLLUTION CONTROL ITEMS
		NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103		
NO. REVISIONS DATE APPR.		SCALE: NONE	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 1 OF 4 SHEET: 34 OF 315

TOPSOIL FURNISHED AND PLACED	SEEDING AND SOIL SUPPLEMENTS - FORMULA D	SEEDING - FORMULA E	SEEDING AND SOIL SUPPLEMENTS - FORMULA BT-1	MULCHING - STRAW	EROSION CONTROL MULCH BLANKET	ROCK CONSTRUCTION ENTRANCE WITH WASH RACK	ROCK APRON	TEMPORARY SLOPE PIPE	REMARKS	SIDE	STATION
4802	2804	2804	2804	2805	2806	4849	0851	0854	ITEM NUMBER		
0001	0013	0014	0102	0022	0051	0002	0003	0002	UNT		
CY	LB	LB	LB	TON	SY	EACH	SY	EACH			
							1.33		STAGE 2	EB	112+51.00
							1.33		STAGE 2	WB	113+31.00
									STAGE 2 - ROCK FILTER	EB	114+44.00
					7.062				STAGE 2	EB	119+13.00
							2.83		STAGE 2	WB	119+59.00
					5,168				STAGE 2	WB	121+85.00
							2.83		STAGE 2	WB	123+20.00
							2.83		STAGE 2	EB	124+50.00
									STAGE 2 - ROCK FILTER	EB	124+65.00
							2.83		STAGE 2	WB	125+49.00
							2.83		STAGE 2	WB	126+80.00
							2.83		STAGE 2	WB	129+69.00
									STAGE 2	EB	131+25.00
									STAGE 3	WB	108+25.00
									STAGE 3	EB	114+55.00
12,810	1,112	104	280	35	18,330	1	29.34	19	SUBTOTALS: DRAWING 1 OF 4		
							12,230	3	19.64	SUBTOTALS: DRAWING 3 OF 4	
12,810	1,112	104	280	35	30,560	4	48.98	19	GRAND TOTAL - COLUMN A		

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls
 DRAWING TYPE: 1A
 STRUCTURE NUMBER: EB-103

SCALE: NONE

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TABULATION OF EROSION AND SEDIMENT
 POLLUTION CONTROL ITEMS**

DRAWING: 3 OF 4
 SHEET: 36 OF 315

SEDIMENT FILTER BAG	INLET FILTER BAG FOR TYPE M OR TYPE S INLET	CLEANING SEDIMENTATION STRUCTURES	ROCK FILTER OUTLETS	COMPOST FILTER SOCK, 12" DIAMETER	COMPOST FILTER SOCK, 24" DIAMETER	COMPOST FILTER SOCK WASHOUT	SUMP PIT	REMARKS	SIDE	STATION
2858	2860	2861	2865	0867	0867	4867	4000			
0010	0003	0001	0005	0012	0022	0024	0800	ITEM NUMBER		
EACH	EACH	CY	EACH	LF	LF	EACH	EACH	UNIT		
								STAGE 2	EB	112+51.00
								STAGE 2	WB	113+31.00
			1					STAGE 2 - ROCK FILTER	EB	114+44.00
								STAGE 2	EB	119+13.00
								STAGE 2	WB	119+59.00
								STAGE 2	WB	121+85.00
								STAGE 2	WB	123+20.00
								STAGE 2	EB	124+50.00
			1					STAGE 2 - ROCK FILTER	EB	124+65.00
								STAGE 2	WB	125+49.00
								STAGE 2	WB	126+80.00
								STAGE 2	WB	129+89.00
								STAGE 2	EB	131+25.00
								STAGE 3	WB	108+25.00
								STAGE 3	EB	114+55.00
12	42	193	6	4,562	5,372	8	6	SUBTOTALS: DRAWING 2 OF 4		
			2					SUBTOTALS: DRAWING 4 OF 4		
12	42	193	8	4,562	5,372	8	6	GRAND TOTAL - COLUMN B		

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls
 DRAWING TYPE: 1A
 STRUCTURE NUMBER: EB-103

SCALE: NONE

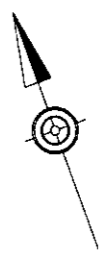
**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

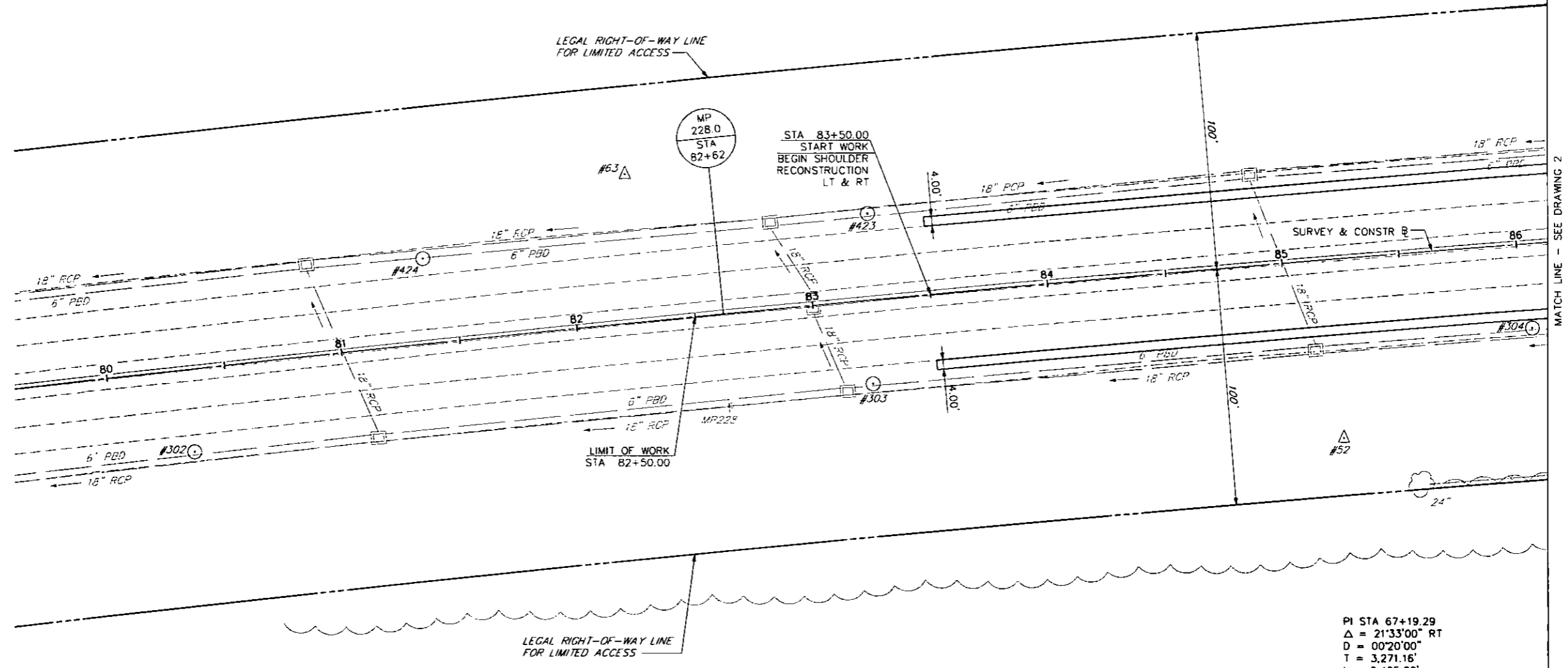
**TABULATION OF EROSION AND SEDIMENT
 POLLUTION CONTROL ITEMS**

DRAWING: 4 OF 4
 SHEET: 37 OF 315

VERTICAL ALIGNMENT
 PVI 83+75.00
 VC = 750.00'
 G1 = 0.51%
 G2 = 2.00%





ROADWAY EXPRESS, INC.
 ①



TOIGO ORGANIC FARMS, LLC
 ⑦

PI STA 67+19.29
 $\Delta = 21'33''00''$ RT
 $D = 00'20''00''$
 $T = 3,271.16'$
 $L = 6,465.00'$
 $R = 17,188.75'$
 $E = 308.50'$
 $SE = NC$
 PC STA 34+48.13
 PT STA 99+13.13

MATCH LINE - SEE DRAWING 2

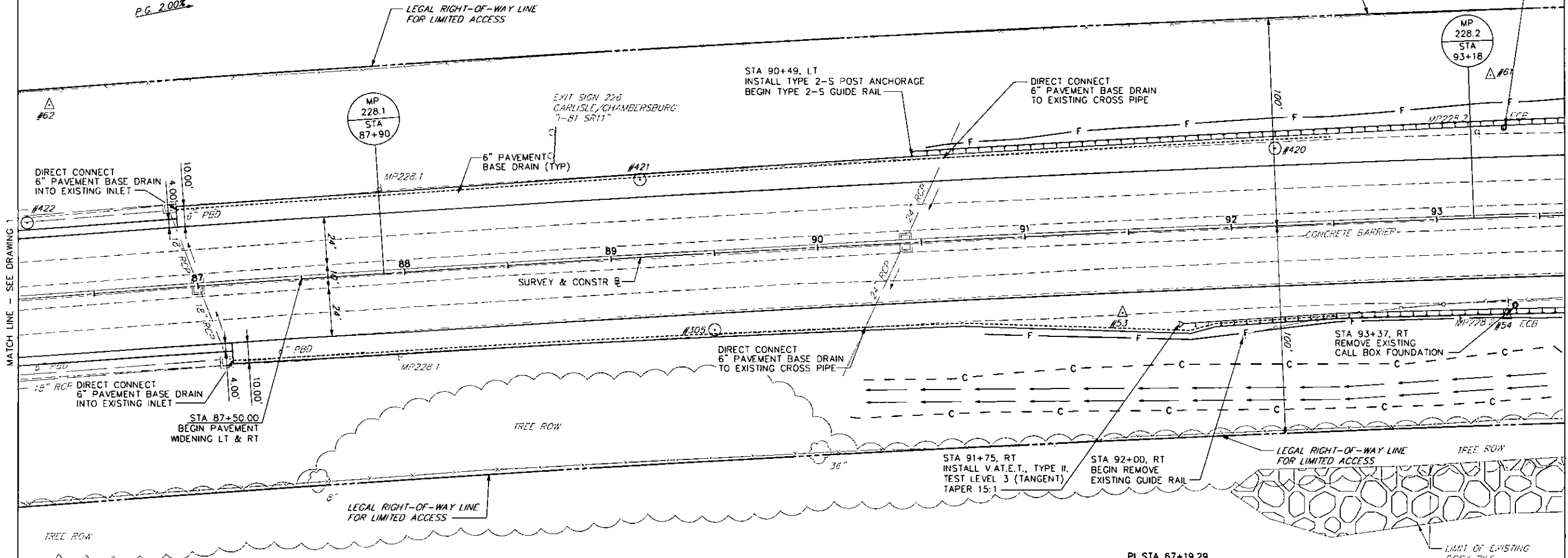
DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	ROADWAY PLAN STATION 82+50 TO STATION 86+00
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION					NETWORK NUMBER: 7003982 FILE NAME: RDP01.dgn DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103		
				NO.	REVISIONS	DATE	APPR.	SCALE: 25 0 25 FEET 

VERTICAL ALIGNMENT
 PVI 83+75.00
 VC = 750.00'
 G1 = 0.51%
 G2 = 2.00%
 P.G. 2.00%

ROADWAY EXPRESS, INC.
 ①

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

STA 93+34, LT
 REMOVE EXISTING
 CALL BOX FOUNDATION



LEGEND
 ——— VEGETATED SWALE WITH CHECK DAMS
 - - - - - 6" PAVEMENT BASE DRAIN

PI STA 67+19.29
 $\Delta = 21'33''00''$ RT
 $D = 00'20''00''$
 $T = 3,271.16'$
 $L = 6,465.00'$
 $R = 17,188.75'$
 $E = 308.50'$
 $SE = NC$
 $PC STA 34+48.13$
 $PT STA 99+13.13$

TOIGO ORGANIC FARMS, LLC
 ⑦

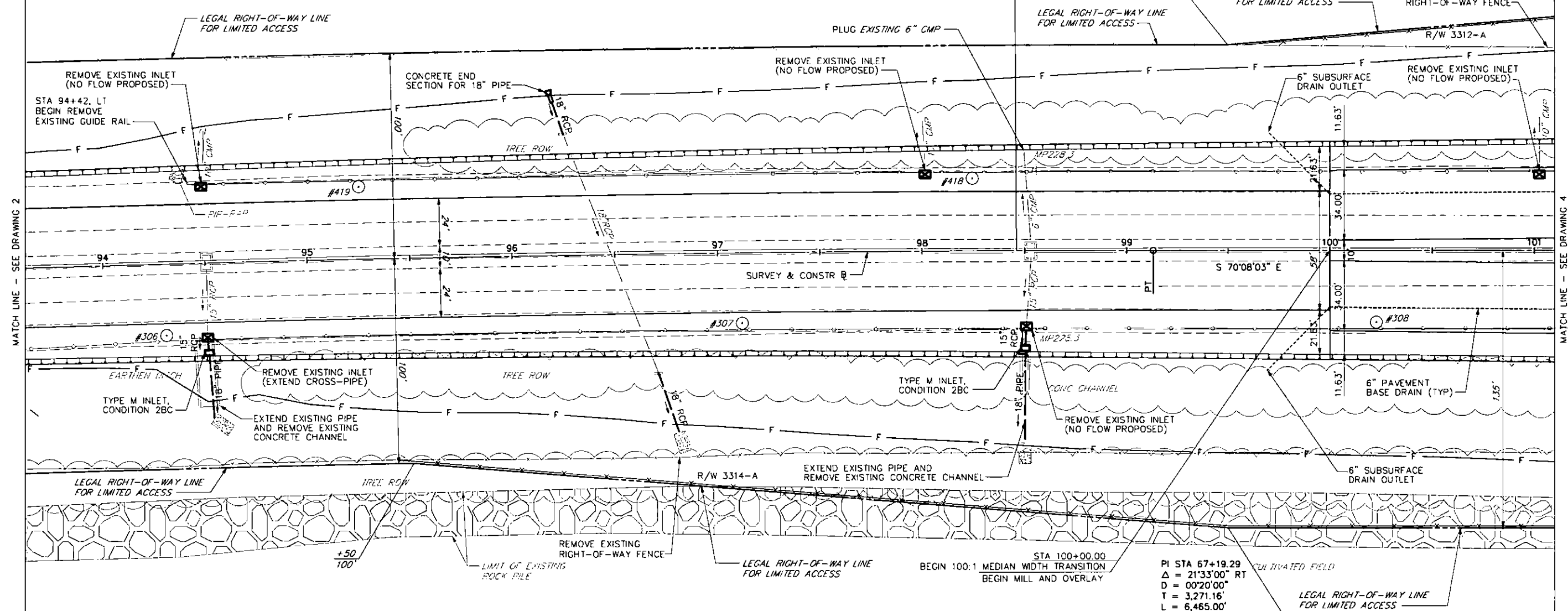
DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		NO.	REVISIONS	DATE	APPR.	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	ROADWAY PLAN STATION 86+00 TO STATION 93+50
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE	APPR.	NETWORK NUMBER: 7003982 FILE NAME: RDP102.dgn DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103		

SCALE: 25 0 25 FEET

PP# 176.33/5.32574
BM1

ROADWAY EXPRESS, INC.
①

MP
228.3
STA
98+46



MATCH LINE - SEE DRAWING 2

MATCH LINE - SEE DRAWING 4

LEGEND

----- 6" PAVEMENT BASE DRAIN

PI STA 67+19.29
 $\Delta = 21'33''00''$ RT
 $D = 00'20''00''$
 $T = 3,271.16'$
 $L = 6,465.00'$
 $R = 17,188.75'$
 $E = 308.50'$
 $SE = NC$
 $PC STA 34+48.13$
 $PT STA 99+13.13$

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
 NETWORK NUMBER: 7003982
 FILE NAME: RDpl03.dgn
 DRAWING TYPE: 1A
 STRUCTURE NUMBER: EB-103
 SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

**ROADWAY PLAN
STATION 93+50 TO STATION 101+00**

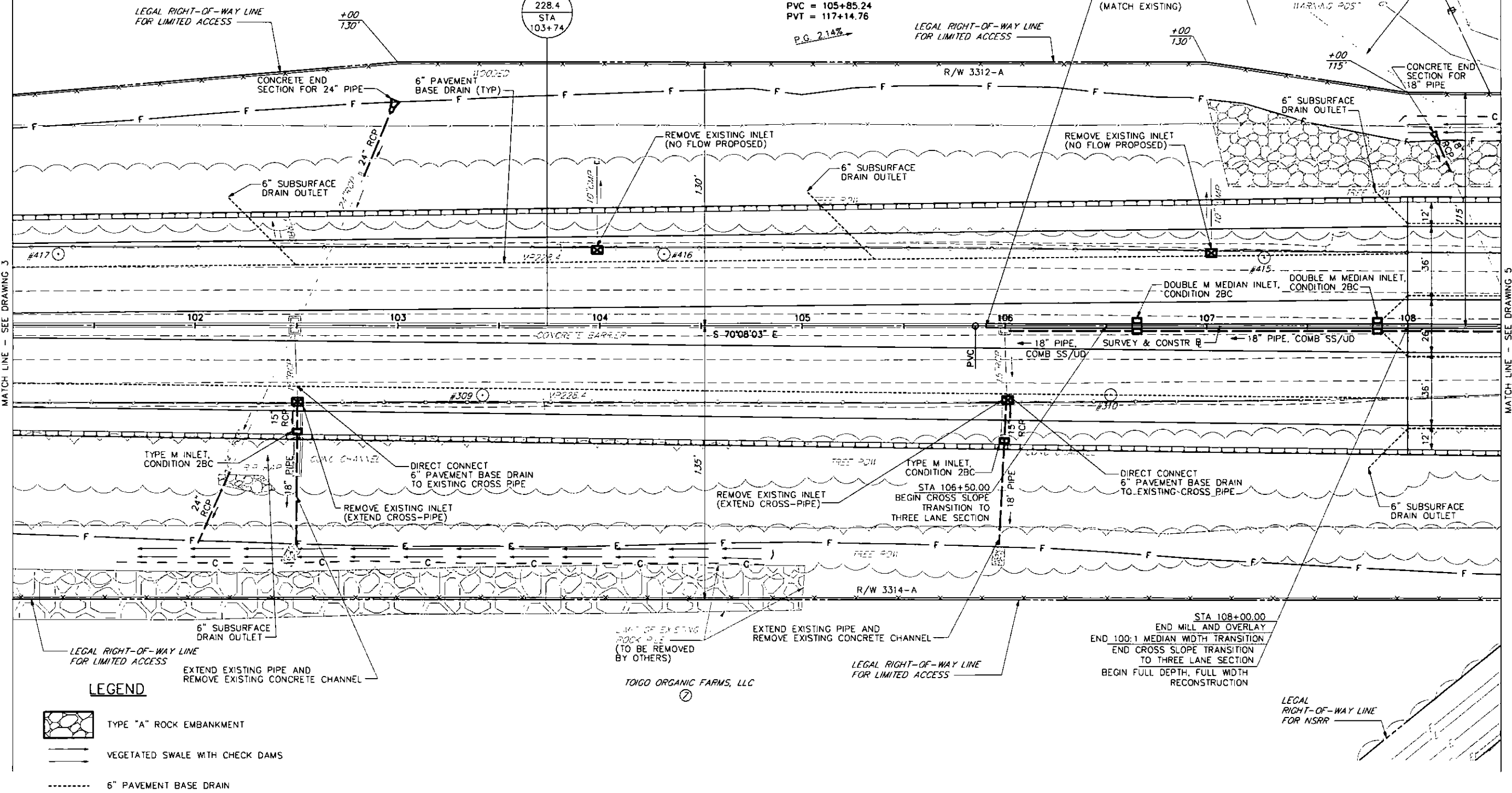
DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 3 OF 9
 SHEET: 40 OF 315

VERTICAL ALIGNMENT
 PVI 111+50.00
 ELEV 500.76'
 VC = 1129.51'
 MO = -5.12'
 SSD = 820.17'
 G1 = 2.14%
 G2 = -1.48%
 PVC = 105+85.24
 PVT = 117+14.76

ROADWAY EXPRESS, INC.

50' EASEMENT FOR
 MIDSTREAM ENERGY GROUP
 NATURAL GAS LINE
 NATURAL GAS
 HAZARDOUS POS



LEGEND

- TYPE "A" ROCK EMBANKMENT
- VEGETATED SWALE WITH CHECK DAMS
- 6" PAVEMENT BASE DRAIN

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



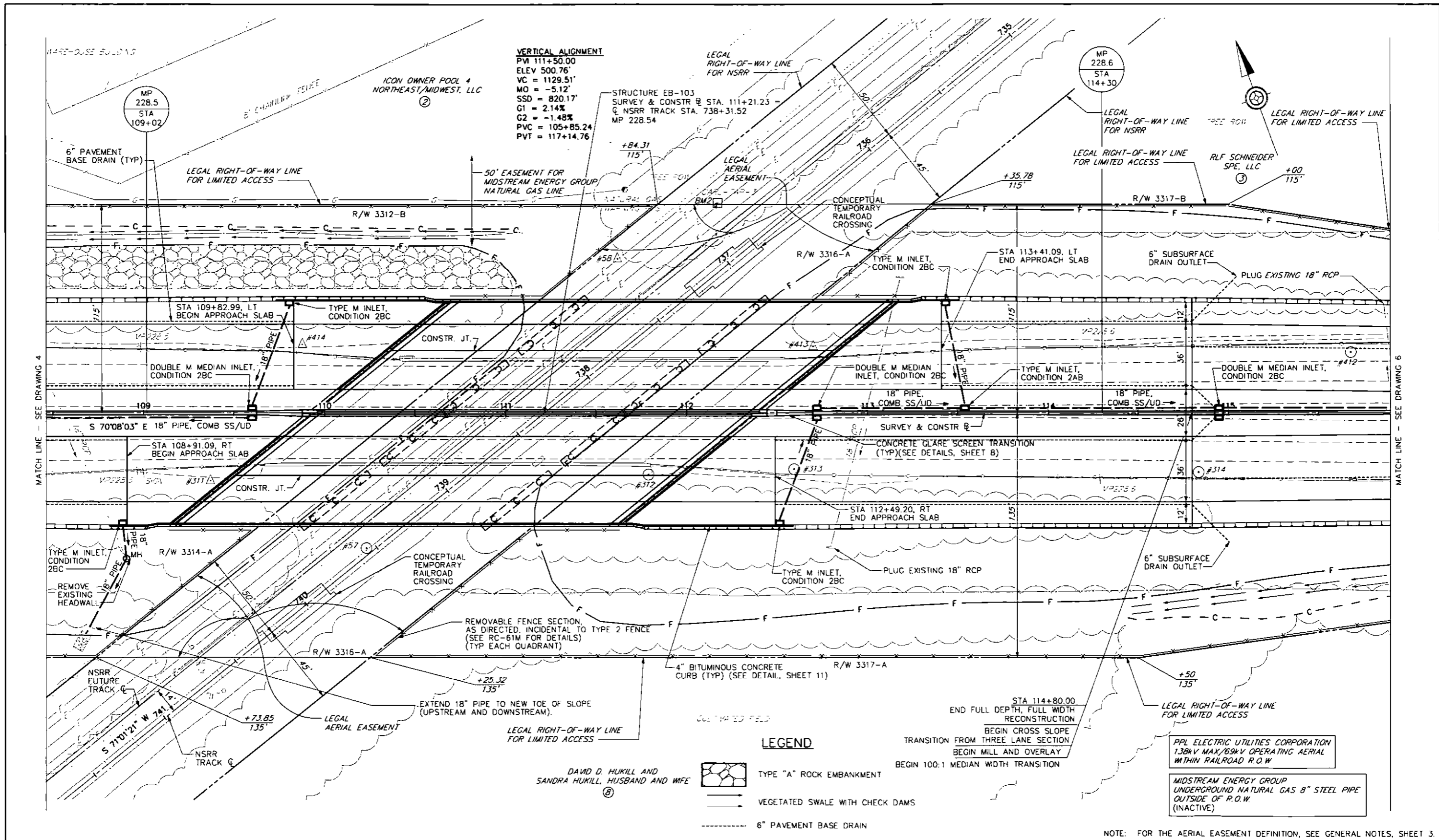
WBS NO. T-228.54S001-3-02			
NETWORK NUMBER: 7003982			
FILE NAME: RDpl04.dgn			
DRAWING TYPE: 1A			
STRUCTURE NUMBER: EB-103			
SCALE: 25	0 25 FEET		
NO.	REVISIONS	DATE	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ROADWAY PLAN
 STATION 101+00 TO STATION 108+00**

DRAWING: 4 OF 9
 SHEET: 41 OF 315



DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: RDpl05.dgn
 DRAWING TYPE: 1A
 STRUCTURE NUMBER: EB-103

SCALE: 25 0 25 FEET

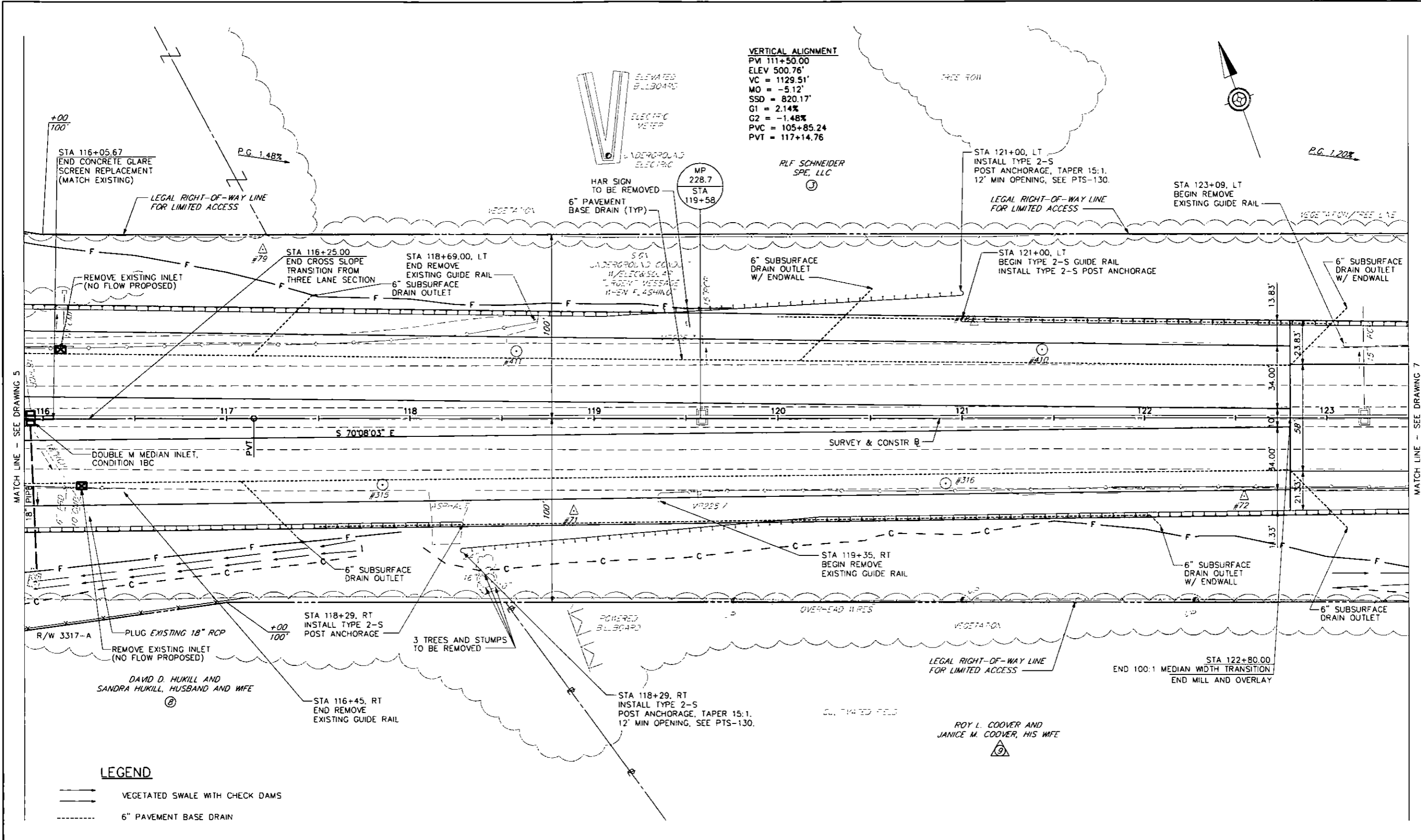
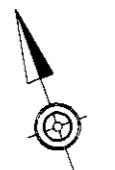
**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ROADWAY PLAN
 STATION 108+00 TO STATION 115+50**

DRAWING: 5 OF 9
 SHEET: 42 OF 315

VERTICAL ALIGNMENT
 PVI 111+50.00
 ELEV 500.76'
 VC = 1129.51'
 MO = -5.12'
 SSD = 820.17'
 G1 = 2.14%
 G2 = -1.48%
 PVC = 105+85.24
 PVT = 117+14.76



LEGEND

- VEGETATED SWALE WITH CHECK DAMS
- 6" PAVEMENT BASE DRAIN

DATE: 7/12/2018

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: RDp106.dgn
 DRAWING TYPE: 1A
 STRUCTURE NUMBER: EB-103

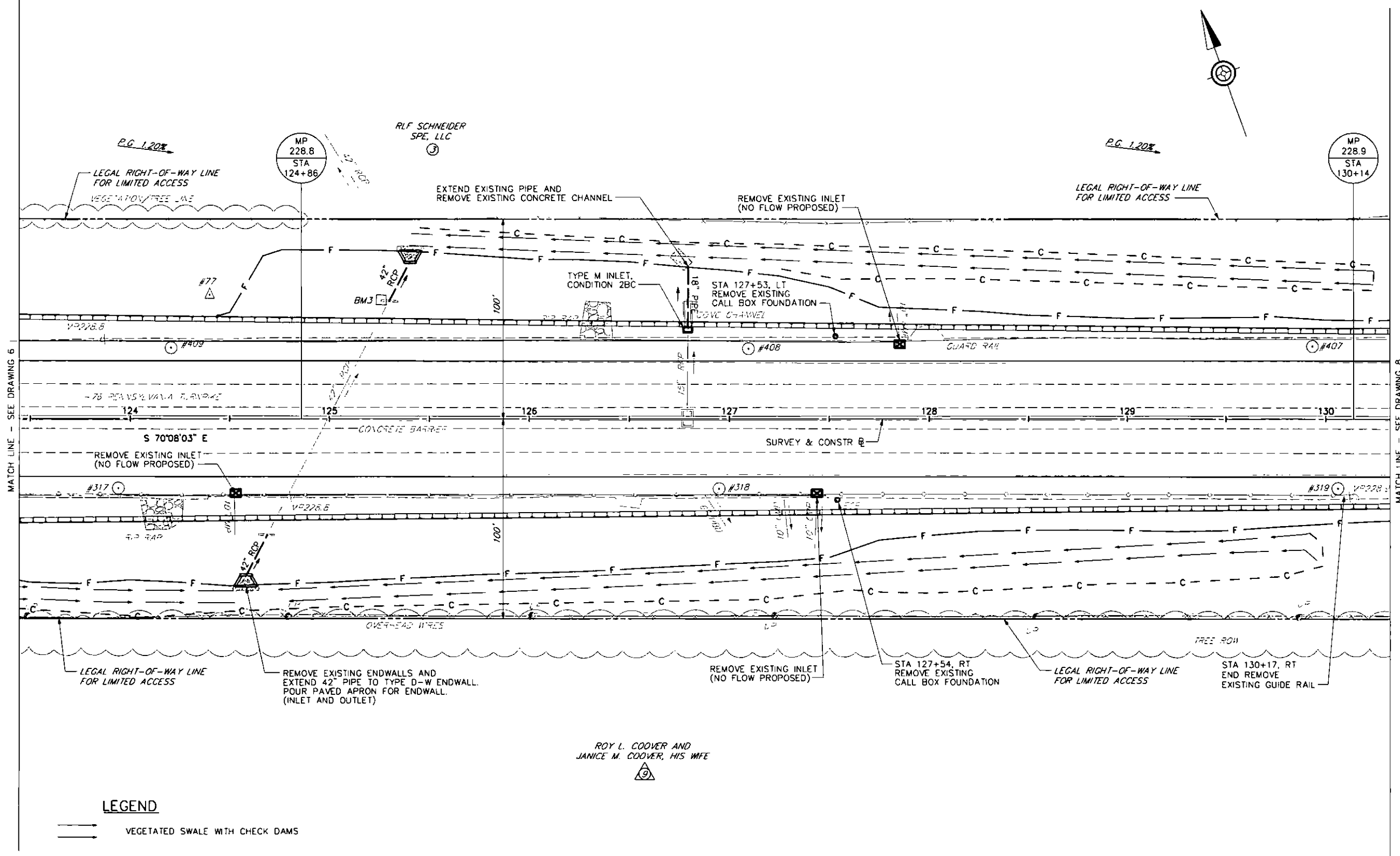
SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ROADWAY PLAN
 STATION 115+50 TO STATION 123+00**

DRAWING: 6 OF 9
 SHEET: 43 OF 315



LEGEND

— VEGETATED SWALE WITH CHECK DAMS

ROY L. COOVER AND
JANICE M. COOVER, HIS WIFE

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



WBS NO. T-228.54S001-3-02	
NETWORK NUMBER: 7003982	
FILE NAME: RDp107.dgn	
DRAWING TYPE: 1A	
STRUCTURE NUMBER: EB-103	
SCALE: 25 0 25 FEET	
NO.	REVISIONS
	DATE
	APPR.

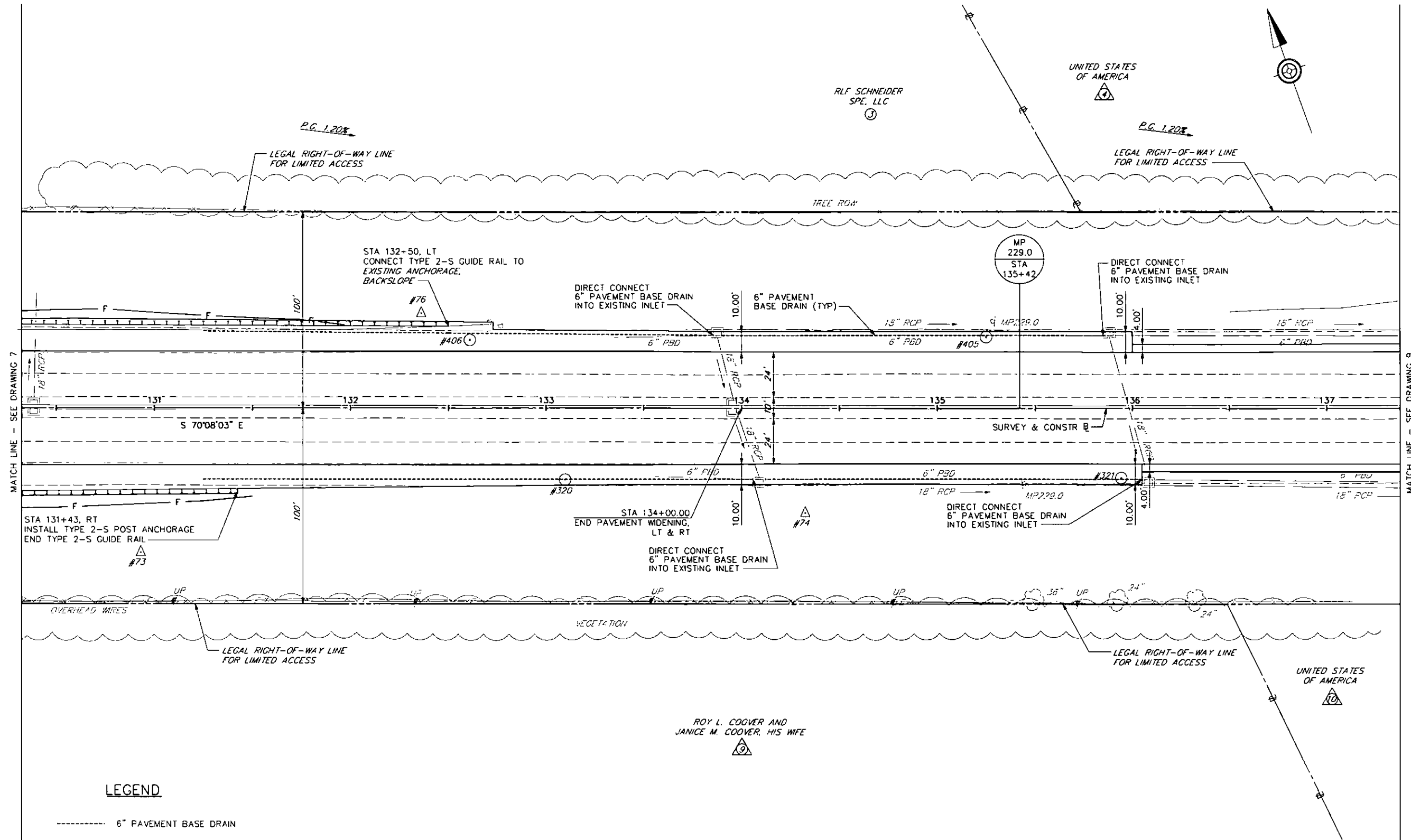
**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ROADWAY PLAN
STATION 123+00 TO STATION 130+00**

DRAWING: 7 OF 9
SHEET: 44 OF 315

DATE: 7/12/2016



LEGEND
 ----- 6" PAVEMENT BASE DRAIN

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: RDpl08.dgn
 DRAWING TYPE: 1A
 STRUCTURE NUMBER: EB-103

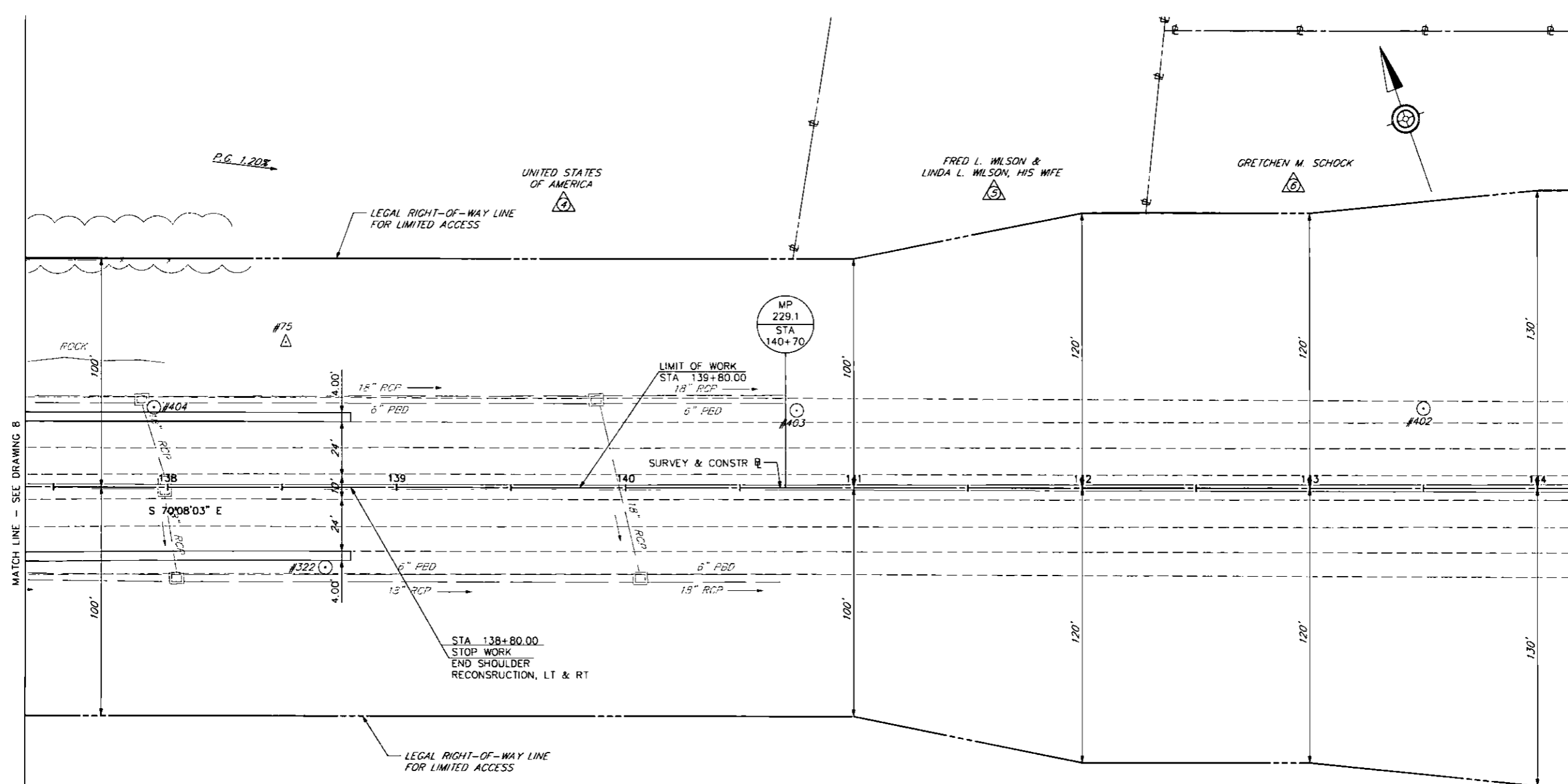
SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ROADWAY PLAN
 STATION 130+00 TO STATION 137+00**

DRAWING: 8 OF 9
 SHEET: 45 OF 315



MATCH LINE - SEE DRAWING B

P.G. 1,208

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: RDpl09.dgn
 DRAWING TYPE: 1A
 STRUCTURE NUMBER: EB-103

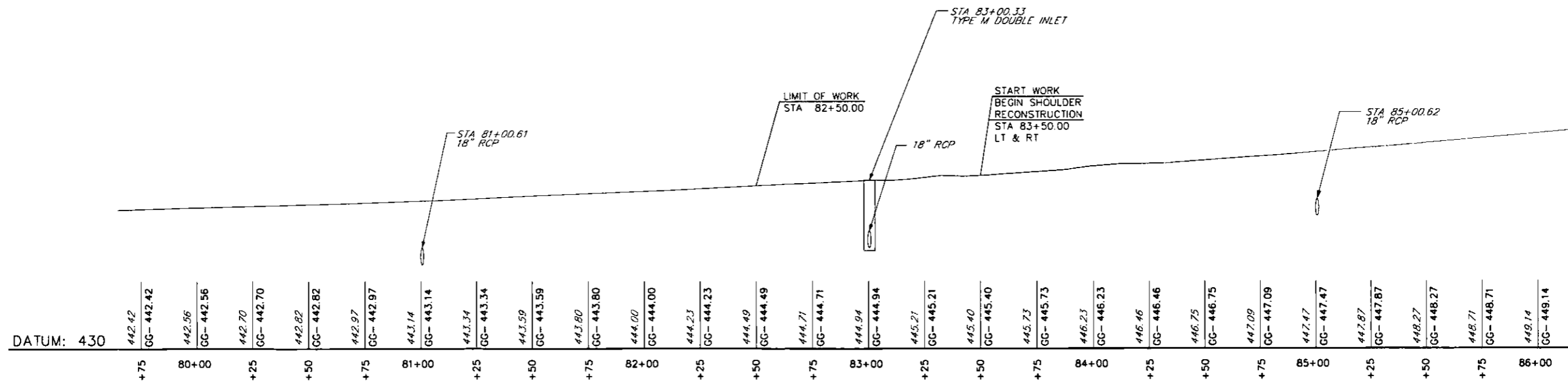
SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

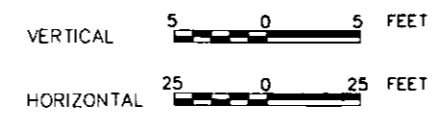
DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ROADWAY PLAN
 STATION 137+00 TO STATION 139+80**

DRAWING: 9 OF 9
 SHEET: 46 OF 315



DATUM: 430



MATCH LINE - SEE DRAWING 2

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: RDpr01.dgn
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103

SCALE: AS NOTED

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ROADWAY PROFILE
STATION 82+50 TO STATION 86+00**

DRAWING: 1 OF 9
SHEET: 47 OF 315

DATE: 7/12/2016

--

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 MECHANICSBURG, PA 17050

PREPARED FOR:
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NO.	REVISIONS	DATE	APPR.

WBS NO. **T-228.54S001-3-02**

NETWORK NUMBER: 7003982

FILE NAME: RDP03.dgn

DRAWING TYPE: 1A

STRUCTURE NUMBER: EB-103

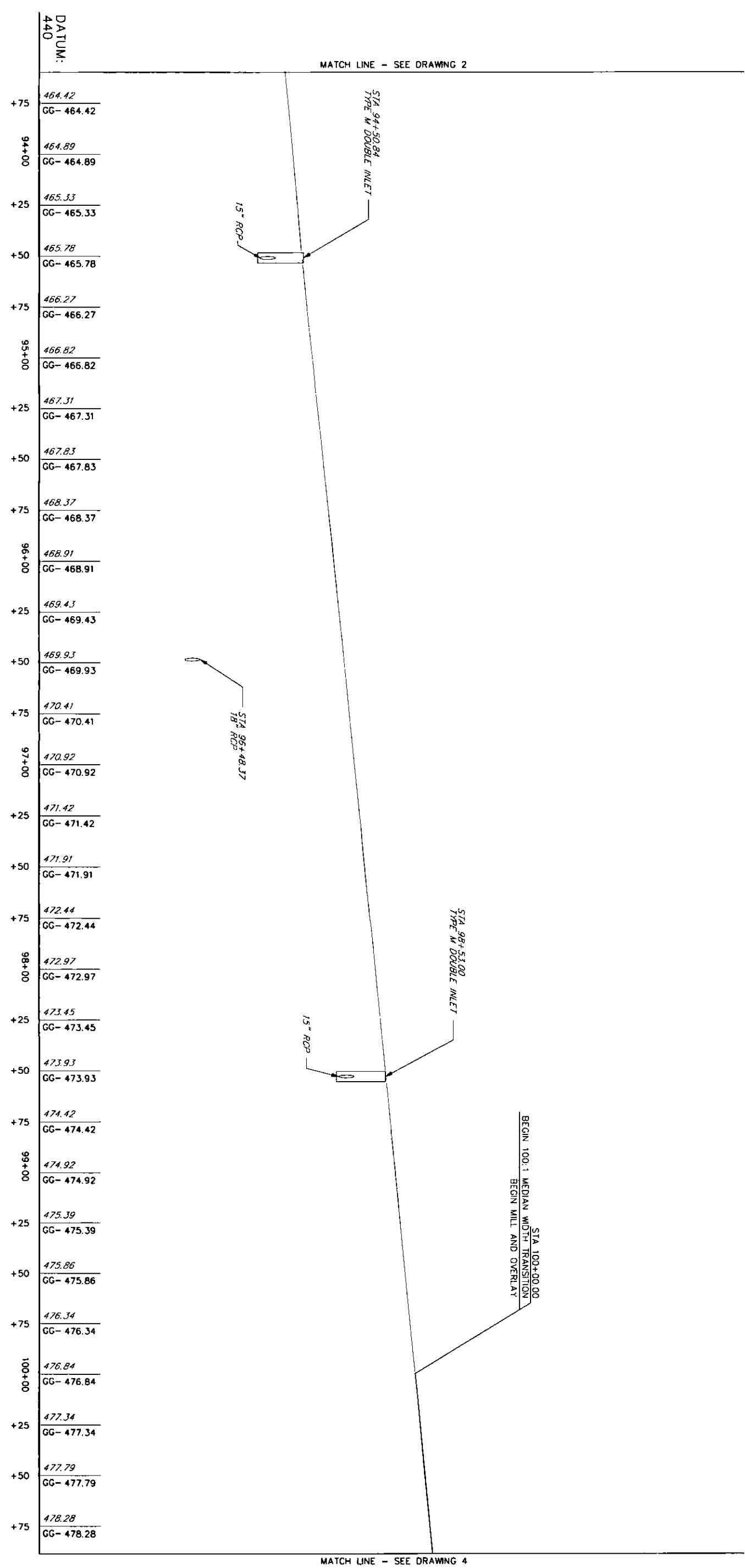
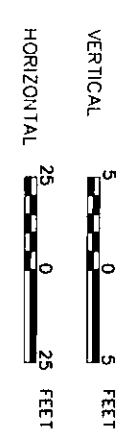
SCALE: AS NOTED

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CLAMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ROADWAY PROFILE
 STATION 93+50 TO STATION 101+00**

DRAWING: 3 OF 9
 SHEET: 49 OF 315



MATCH LINE - SEE DRAWING 2

MATCH LINE - SEE DRAWING 4

STA 94+50.84
 TYPE M DOUBLE INLET

15" RCP

STA 96+48.37
 18" RCP

STA 98+53.00
 TYPE M DOUBLE INLET

15" RCP

STA 100+00.00
 BEGIN 100:1 MEDIAN WIDTH TRANSITION
 BEGIN MILL AND OVERLAY

PM 111+50.00
 ELEV 500.76'
 VC = 1129.51'
 MD = -5.12'
 SSD = 820.17'

STA 108+00 00
 END MILL AND OVERLAY
 END 100:1 MEDIAN WIDTH TRANSITION
 END CROSS SLOPE TRANSITION
 TO THREE LANE SECTION
 BEGIN FULL DEPTH, FULL WIDTH
 RECONSTRUCTION

STA 106+50.00
 BEGIN CROSS SLOPE
 TRANSITION TO
 THREE LANE SECTION

STA 102+48.95
 TYPE M DOUBLE INLET

STA 106+00.00
 TYPE M DOUBLE INLET TO REMAIN
 GR = 488.95
 INV OUT = 484.08

STA 107+85.00
 DOUBLE M INLET,
 CONDITION 2BC
 GR 492.29
 INV IN = 487.45
 INV OUT = 487.41

STA 106+65.00
 DOUBLE M INLET,
 CONDITION 2BC
 GR 490.25
 INV IN = 485.82
 INV OUT = 485.37

2.14%

1.25%

1.35%

15" RCP TO REMAIN

PVC

18" PIPE COMB SS/UD

18" PIPE COMB SS/UD

488.64
G-488.65

MATCH LINE - SEE DRAWING 3

MATCH LINE - SEE DRAWING 5

DATUM:
440

478.76 GG-478.76	479.23 GG-479.23	479.73 GG-479.73	480.25 GG-480.25	480.76 GG-480.76	481.27 GG-481.27	481.80 GG-481.80	482.33 GG-482.33	482.85 GG-482.85	483.37 GG-483.37	483.88 GG-483.88	484.38 GG-484.38	484.87 GG-484.87	485.37 GG-485.37	485.86 GG-485.86	486.35 GG-486.35	486.87 GG-486.87	487.40 GG-487.40	487.91 GG-487.89	488.43 G-488.43	488.95 G-488.96	489.44 G-489.48	490.01 G-489.97	490.54 G-490.44	491.03 G-490.90	491.55 G-491.33	492.04 G-491.75	492.45 G-492.14	492.86 G-492.51
101+00	+25	+50	+75	102+00	+25	+50	+75	103+00	+25	+50	+75	104+00	+25	+50	+75	105+00	+25	+50	+75	106+00	+25	+50	+75	107+00	+25	+50	+75	108+00

VERTICAL 5 0 5 FEET

HORIZONTAL 25 0 25 FEET

DATE: 7/12/2016

PREPARED BY:
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 100 STERLING PARKWAY, SUITE 108
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 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

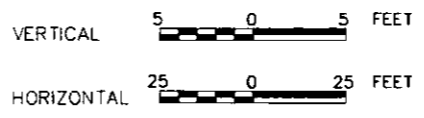
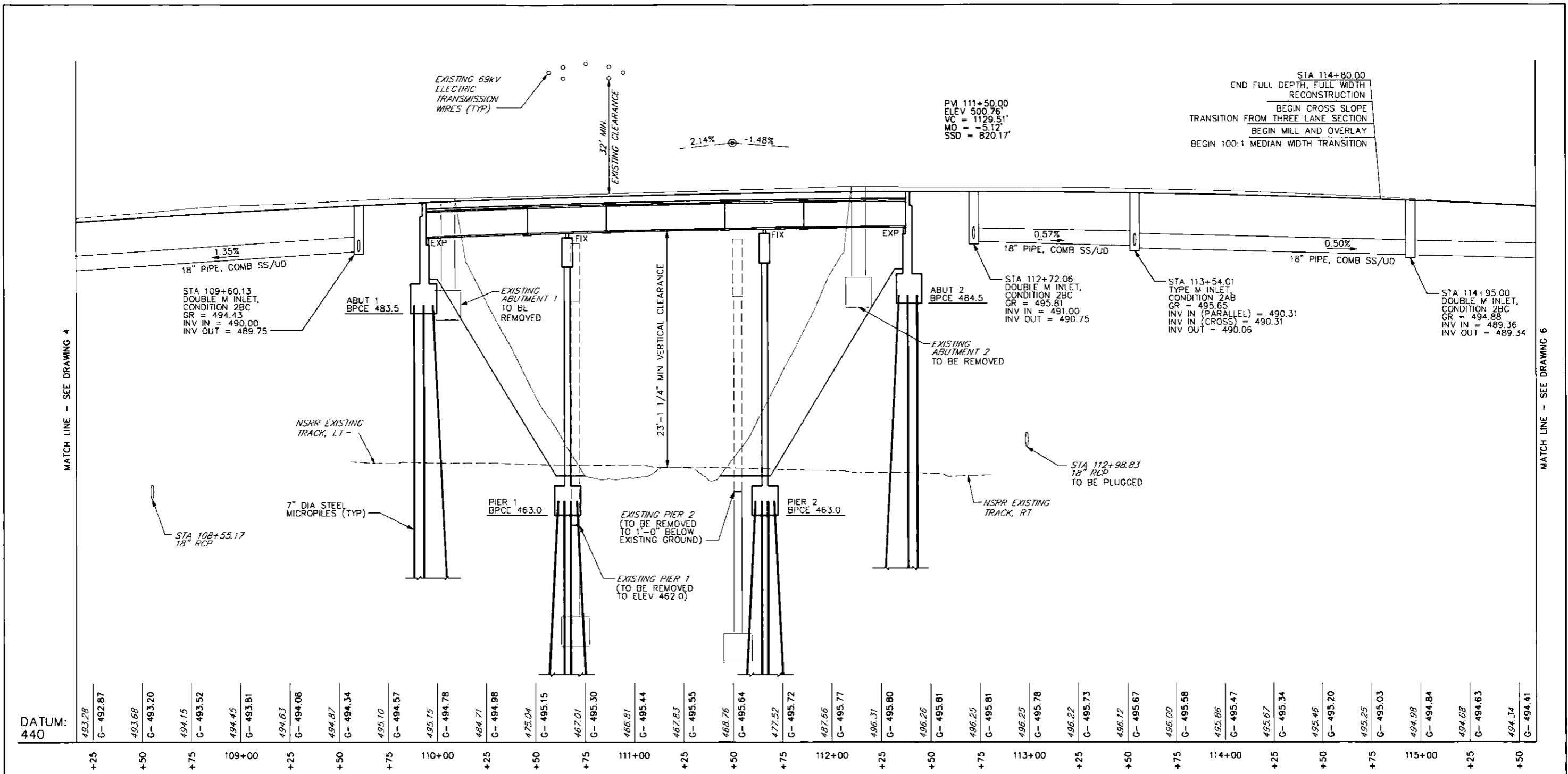
WBS NO.
T-228.54S001-3-02
 NETWORK NUMBER: 7003982
 FILE NAME: RDpr04.dgn
 DRAWING TYPE: 1A
 STRUCTURE NUMBER: EB-103

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

 DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ROADWAY PROFILE
 STATION 101+00 TO STATION 108+00**

 DRAWING: 4 OF 9
 SHEET: 50 OF 315



DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	ROADWAY PROFILE STATION 108+00 TO STATION 115+00			
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NETWORK NUMBER: 7003982 FILE NAME: RDpr05.dgn DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103			DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 5 OF 9 SHEET: 51 OF 315	
	NO.		REVISIONS			DATE	APPR.	SCALE: AS NOTED

STA 116+25.00
END CROSS SLOPE
TRANSITION FROM THREE LANE SECTION

PVI 111+50.00
ELEV 500.76'
VC = 1129.51'
MG = -5.12'
SSD = 820.17'

0.50%

18" PIPE
COMB SS/UD

STA 115+93.30
DOUBLE M INLET,
CONDITION 1BC
GR = 493.96
INV IN = 488.86
INV OUT = 488.61

STA 116+06.93
18" RCP
TO BE PLUGGED

PVT -1.48%

STA 119+58.81
TYPE M DOUBLE INLET

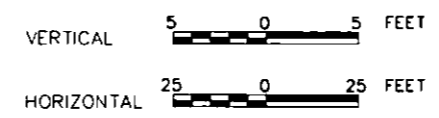
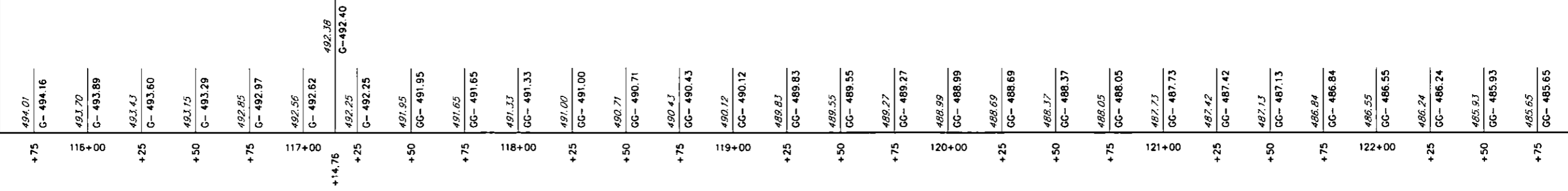
15" RCP

STA 122+80.00
END 100:1 MEDIAN WIDTH TRANSITION
END MILL AND OVERLAY

MATCH LINE - SEE DRAWING 5

MATCH LINE - SEE DRAWING 7

DATUM:
440



DATE: 7/12/2016

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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: RDpr06.dgn
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103

SCALE: AS NOTED

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ROADWAY PROFILE
STATION 115+50 TO STATION 123+00**

DRAWING: 6 OF 9
SHEET: 52 OF 315

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
 NETWORK NUMBER: 7003982
 FILE NAME: RDP07.dgn
 DRAWING TYPE: 1A
 STRUCTURE NUMBER: EB-103
 SCALE: AS NOTED

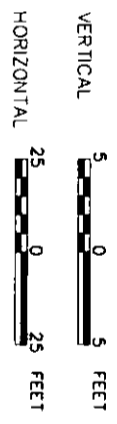
REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54

ROADWAY PROFILE
 STATION 123+00 TO STATION 130+00

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

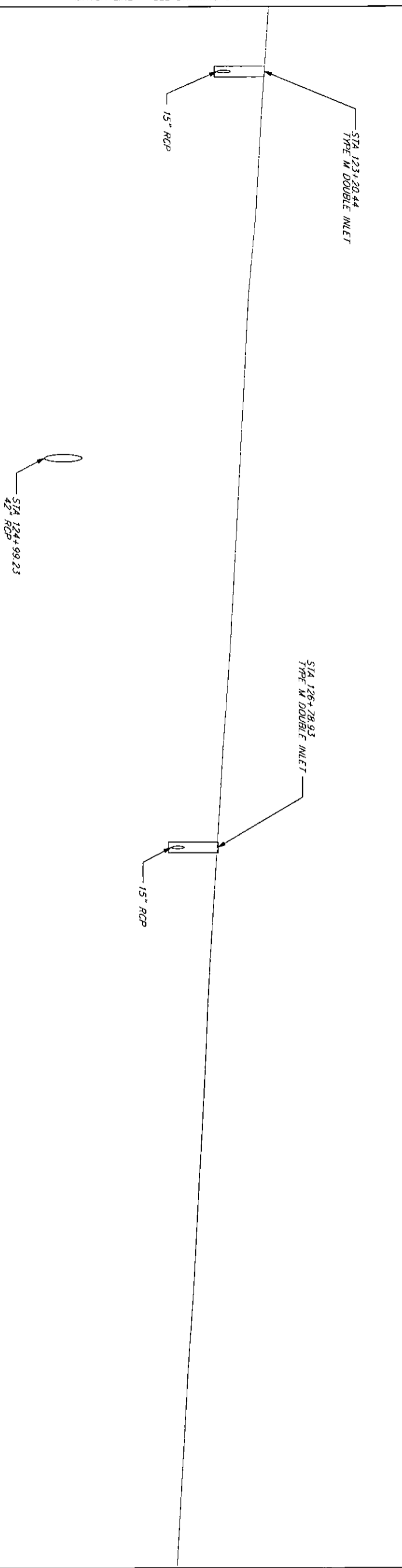
DRAWING: 7 OF 9
 SHEET: 53 OF 315

STATION	ELEVATION	DESCRIPTION
123+00	485.33	GG- 485.33
+25	485.01	GG- 485.01
+50	484.71	GG- 484.71
+75	484.42	GG- 484.42
124+00	484.03	GG- 484.03
+25	483.60	GG- 483.60
+50	483.32	GG- 483.32
+75	483.08	GG- 483.08
125+00	482.80	GG- 482.80
+25	482.55	GG- 482.55
+50	482.28	GG- 482.28
+75	481.99	GG- 481.99
126+00	481.68	GG- 481.68
+25	481.30	GG- 481.30
+50	480.98	GG- 480.98
+75	480.67	GG- 480.67
127+00	480.35	GG- 480.35
+25	480.03	GG- 480.03
+50	479.77	GG- 479.77
+75	479.56	GG- 479.56
128+00	479.31	GG- 479.31
+25	479.04	GG- 479.04
+50	478.77	GG- 478.77
+75	478.51	GG- 478.51
129+00	478.19	GG- 478.19
+25	477.86	GG- 477.86
+50	477.58	GG- 477.58
+75	477.30	GG- 477.30
130+00	477.01	GG- 477.01



MATCH LINE - SEE DRAWING 6

MATCH LINE - SEE DRAWING 8



MATCH LINE - SEE DRAWING 7

MATCH LINE - SEE DRAWING 9

STA 130+38.53
TYPE M DOUBLE INLET

STA 133+95.42
TYPE M DOUBLE INLET

STA 134+00.00
END PAVEMENT WIDENING,
LT & RT

18" RCP

18" RCP

STA 135+98.16
18" RCP

DATUM:
440

476.72	476.44	476.17	475.90	475.61	475.30	475.00	474.72	474.43	474.10	473.79	473.49	473.18	472.86	472.55	472.22	471.89	471.57	471.26	470.98	470.77	470.49	470.17	469.88	469.60	469.31	469.02				
GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-	GG-				
476.72	476.44	476.17	131+00	475.61	475.30	475.00	132+00	474.72	474.43	474.10	133+00	473.79	473.49	473.18	134+00	472.86	472.55	472.22	135+00	471.89	471.57	471.26	470.98	470.77	136+00	469.88	469.60	469.31	469.02	
+25	+50	+75		+25	+50	+75		+25	+50	+75		+25	+50	+75		+25	+50	+75		+25	+50	+75		+25	+50	+75		+25	+50	+75

VERTICAL 5 0 5 FEET

HORIZONTAL 25 0 25 FEET

DATE: 7/12/2016

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TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: RDpr08.dgn
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103
SCALE: AS NOTED

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

ROADWAY PROFILE STATION 130+00 TO STATION 137+00	
DRAWING: 8 OF 9	SHEET: 54 OF 315

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
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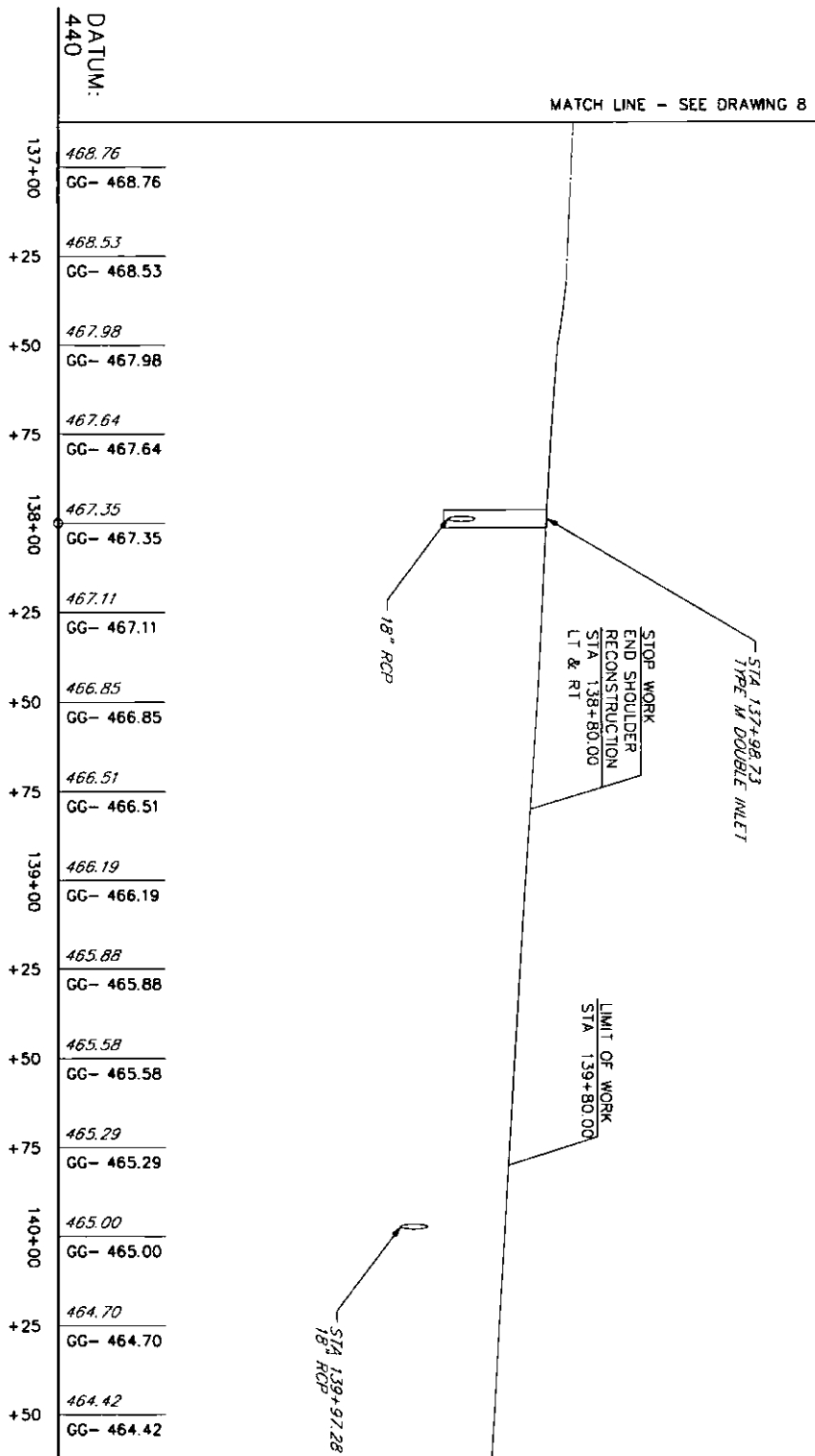
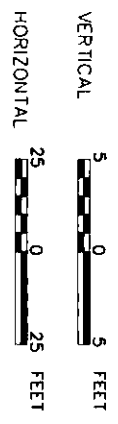


NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
 NETWORK NUMBER: 7003982
 FILE NAME: RDP09.dgn
 DRAWING TYPE: 1A
 STRUCTURE NUMBER: EB-103
 SCALE: AS NOTED

REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54

ROADWAY PROFILE
 STATION 137+00 TO STATION 139+80



MATCH LINE - SEE DRAWING 8

DATUM:
440

137+00	468.76	GG- 468.76
+25	468.53	GG- 468.53
+50	467.98	GG- 467.98
+75	467.64	GG- 467.64
138+00	467.35	GG- 467.35
+25	467.11	GG- 467.11
+50	466.85	GG- 466.85
+75	466.51	GG- 466.51
139+00	466.19	GG- 466.19
+25	465.88	GG- 465.88
+50	465.58	GG- 465.58
+75	465.29	GG- 465.29
140+00	465.00	GG- 465.00
+25	464.70	GG- 464.70
+50	464.42	GG- 464.42

GENERAL NOTES FOR MAINTENANCE AND PROTECTION OF TRAFFIC

- THIS WORK CONSISTS OF THE MAINTENANCE OF TRAFFIC AND PROTECTION OF THE TRAVELING PUBLIC APPROACHING THE CONSTRUCTION AREA AND WITHIN THE LIMITS OF CONSTRUCTION.
- THE CONTRACTOR IS CAUTIONED THAT OTHER COMMISSION CONTRACTOR(S) AND/OR COMMISSION MAINTENANCE PERSONNEL MAY BE WORKING ADJACENT TO THE WORK AREA(S) DURING PORTIONS OF THIS CONTRACT PERIOD. THE REPRESENTATIVE WILL SPECIFY THE WORKING SEQUENCE OF THE CONTRACTS IN ORDER TO FACILITATE COORDINATED TRAFFIC CONTROL OPERATIONS.
- FURNISH, ERECT, PLACE AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES AND MAINTAIN TRAFFIC DURING HOURS OF CONSTRUCTION AND AT ALL OTHER TIMES IN ACCORDANCE WITH THE METHODS INDICATED ON THESE DRAWINGS AND:
 - SPECIAL PROVISIONS OF THE CONTRACT.
 - PENNSYLVANIA TURNPIKE COMMISSION STANDARD DRAWINGS.
 - PENNDOT PUBLICATION 212, OFFICIAL TRAFFIC CONTROL DEVICES.
 - PENNDOT PUBLICATION 408, SPECIFICATIONS, 2016.
 - PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION.
 - PENNDOT PUBLICATION 111M, TRAFFIC CONTROL PAVEMENT MARKINGS & SIGNING STANDARDS - TC-8600 & TC-8700 SERIES.
 - PENNDOT PUBLICATION 236, HANDBOOK OF APPROVED SIGNS
 - PENNDOT PUBLICATION 35, APPROVED CONSTRUCTION MATERIALS (BULLETIN 15).
- IMMEDIATELY UPON COMPLETION OF WORK, ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED BY THE CONTRACTOR AND REMAIN THE CONTRACTOR'S PROPERTY UNLESS OTHERWISE SPECIFIED IN THE SPECIAL PROVISIONS OF THE CONTRACT. THE PENNSYLVANIA TURNPIKE COMMISSION WILL REMOVE ANY TRAFFIC CONTROL DEVICES ERECTED BY PENNSYLVANIA TURNPIKE COMMISSION PERSONNEL.
- HAVE ALL TRAFFIC CONTROL DEVICES IN PLACE FOR INSPECTION BY THE REPRESENTATIVE BEFORE WORK BEGINS.
- REMOVE EXISTING WARNING, REGULATORY, GUIDE, AND DIRECTIONAL SIGNS AS REQUIRED TO ACCOMMODATE CONSTRUCTION OPERATIONS. DO NOT REMOVE STOP OR YIELD SIGNS UNLESS AN ALTERNATIVE TYPE OF TRAFFIC CONTROL IS PROVIDED, SUCH AS FLAGGERS, TEMPORARY TRAFFIC SIGNALS, ETC. CONTINUE THE ALTERNATE TRAFFIC CONTROL UNTIL THE STOP OR YIELD SIGNS ARE REPLACED. STAKE OR MARK SIGN LOCATIONS OR LOCATE SIGNS ON CONSTRUCTION DRAWINGS BEFORE REMOVING ANY SIGNS. MARK SIGNS WITH THE MILEPOST OR STATION OF ITS EXISTING LOCATION, WITH THE EXCEPTION OF STOP OR YIELD SIGNS AS HEREIN NOTED. REINSTALL EXISTING WARNING, REGULATORY, GUIDE, AND DIRECTION SIGNS AT APPROPRIATE LOCATIONS AS SOON AS OPERATIONS THAT INTERFERE WITH THE SIGNS ARE COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR SIGNS OR SUPPORTS DAMAGED OR LOST.
- COVER EXISTING SIGNS AND TRAFFIC CONTROL SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN (TCP) OR THAT DO NOT APPLY TO EXISTING CONDITIONS. COVER ENTIRE SIGN WITH ANY APPROVED MATERIAL, BURLAP OR SIMILAR OPEN MESH MATERIALS ARE UNACCEPTABLE. STABILIZE AND FASTEN THIS MATERIAL TO THE SIGN WITH EITHER PLASTIC OR WOOD TO PREVENT ANY MOVEMENT. DO NOT APPLY TAPE TO THE FACE OF THE SIGN. DO NOT DEFACE OR DAMAGE THE SIGN FACE USING THIS PROCEDURE. MAINTAIN SIGN COVER RETAINERS IN GOOD CONDITION. REMOVE SIGNS NOT REQUIRED OR NOT USED FOR A PERIOD OF TWO WEEKS. STORE SIGNS OFF THE TURNPIKE RIGHT-OF-WAY UNTIL REQUIRED ON THE PROJECT.
- INSTALL AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES THAT ARE IN NEW CONDITION THROUGHOUT THE DURATION OF THE PROJECT. ANY DAMAGE INCURRED WILL BE IMMEDIATELY REPAIRED OR REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE REPRESENTATIVE.
- THESE PLANS ARE NOT INTENDED TO RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY AS SPECIFIED IN SECTION 901.3(A). THE STANDARDS PRESCRIBED ARE MINIMUM AND ADDITIONAL MEASURES MAY BE NEEDED IF PROBLEMS ARE ENCOUNTERED DURING THE CONTRACT. CONSTANTLY REVIEW THIS PLAN FOR ADEQUACY AND RECOMMEND CHANGES FOR THE REPRESENTATIVE'S APPROVAL WHEN INADEQUACIES ARE DISCOVERED.

GENERAL NOTES FOR MAINTENANCE AND PROTECTION OF TRAFFIC (CON'T)

- MAINTAIN CONSTANT SURVEILLANCE OF THE TRAFFIC CONTROL OPERATION AND REPLACE OR CORRECT ANY MISSING, DAMAGED, INEFFECTIVE, OR MISALIGNED EQUIPMENT TO THE SATISFACTION OF THE REPRESENTATIVE.
- USE PENNDOT APPROVED VERTICAL PANELS WITH SELF-BALLASTING BASES FOR CHANNELIZING DEVICES. THE ENTIRE FACE OF THE VERTICAL PANEL VISIBLE TO TRAFFIC IS TO BE REFLECTORIZED WITH PENNDOT APPROVED REFLECTORIZED MATERIAL. REMOVE CHANNELIZING DEVICES FROM THE ROADWAY DURING NON-WORKING HOURS. AS DIRECTED BY THE REPRESENTATIVE, CHANNELIZING DEVICES MAY BE TEMPORARILY RELOCATED TO THE MINIMUM OFFSET TO ALLOW WORK TO BE PERFORMED. THE CHANNELIZING DEVICES MUST REMAIN BETWEEN TRAFFIC AND THE WORK ZONE. RELOCATE CHANNELIZING DEVICES TO ORIGINAL POSITION AS WORK PROGRESSES.
- PROVIDE SIGNS WITH PENNDOT APPROVED TYPE XI REFLECTORIZED MATERIAL. DO NOT USE METAL OR WOOD SIGNS IN MEDIAN.
- POST MOUNT ALL LONG TERM ADVANCE SIGNING UNLESS OTHERWISE NOTED OR AS DIRECTED BY THE REPRESENTATIVE.
- SIGN LOCATIONS AND DISTANCES MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- ALL TRAFFIC CONTROL SIGNS AND DEVICES MUST COMPLY WITH THE MOST CURRENT NCHRP 350 CRITERIA.
- REMOVE ALL CONFLICTING PAVEMENT MARKINGS PER SECTION 963 AND AS APPROVED BY THE REPRESENTATIVE. REPLACE PAVEMENT MARKINGS UPON COMPLETION OF THE PROJECT.
- PROVIDE ALL REQUIRED TEMPORARY MARKINGS AS SHOWN ON THE DRAWINGS AND AS DIRECTED BY THE REPRESENTATIVE. REMOVE ALL TEMPORARY PAVEMENT MARKINGS WHEN THEY ARE NO LONGER REQUIRED AND AS DIRECTED BY THE REPRESENTATIVE BY METHODS THAT WILL CAUSE THE LEAST DAMAGE TO PAVEMENT STRUCTURE OR PAVEMENT SURFACE.
- COORDINATE A PRESS RELEASE WITH A PENNSYLVANIA TURNPIKE COMMISSION REPRESENTATIVE AT LEAST FOUR (4) WEEKS PRIOR TO THE START OF WORK AND / OR THE START OF A NEW CONSTRUCTION STAGE.
- PROVIDE FLAGGERS AS REQUIRED TO DIRECT AND CONTROL TRAFFIC AT ANY CONSTRUCTION VEHICLE ENTRANCE TO WORK AREAS FROM ANY PUBLIC ROADWAY.

DRAWING INDEX	
DESCRIPTION	DRAWING
GENERAL NOTES	1
DETAILS	2
TYPICAL SECTIONS	3-5
STAGE 2 PLAN SHEETS	6-14
STAGE 3 PLAN SHEETS	15-23

TABULATION OF TRAFFIC CONTROL DEVICES (INCLUDED IN ITEM 2901-0001) FOR INFORMATION ONLY

STD NO	DESCRIPTION	EB-103			
		STAGE 1	STAGE 2	STAGE 3	TOTAL
**G20-2	END ROAD WORK	2	REUSE	REUSE	2
G20-5AP	WORK ZONE	10	REUSE	REUSE	10
MPT-21	NO CALLBOX NEXT XX MILES	-	2	REUSE	2
MPT-31	NO SHOULDER NEXT XX MILES	-	-	2	2
MPT-33	CAUTION NEW TRAFFIC PATTERN NEXT XX MILES	2	REUSE	REUSE	2
R2-1	SPEED LIMIT	12	REUSE	REUSE	12
R4-1	DO NOT PASS	2	-	-	2
R4-1A	NO PASSING ZONE AHEAD	4	-	-	4
W1-4BL	TWO LANE LEFT REVERSE CURVE	-	-	8	8
W4-2R	PAVEMENT WIDTH TRANSITION - RIGHT LANE ENDS	4	-	-	4
W5-5	LANES SHIFT (1500 FT)	-	-	4	4
W16-103P	DISTANCE AHEAD PLAQUE	2	-	8	8
W20-1	ROAD WORK	8	REUSE	REUSE	8
W20-5R	RIGHT LANE CLOSED (2500 FT)	4	-	-	4
W20-5R	RIGHT LANE CLOSED (1500 FT)	4	-	-	4
W21-5BR	RIGHT SHOULDER CLOSED (1000 FT)	-	4	4	4
W30-1-1	500 FT (PANEL)	-	-	4	4
W30-1-2	1000 FT (PANEL)	4	-	REUSE	4
W30-1-5	1 MILE (PANEL)	4	REUSE	REUSE	4
W30-1-6	AHEAD (2 MILES) (PANEL)	4	REUSE	REUSE	4

**ESTABLISH END ROAD WORK AND SPEED LIMIT SIGNING AS INDICATED IN NOTE 27, PTS-900, SHEET 1 OF 13.

NOTE:
SEE PTS-900, SHEET 7 OF 13 FOR STAGE 1 SIGNING
SEE PTS-900, SHEET 10 OF 13 FOR STAGE 2 SIGNING
SEE PTS-900, SHEET 3 OF 13 FOR STAGE 3 SIGNING

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE: NO SCALE
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WBS NO.
T-228.54S001-3-02

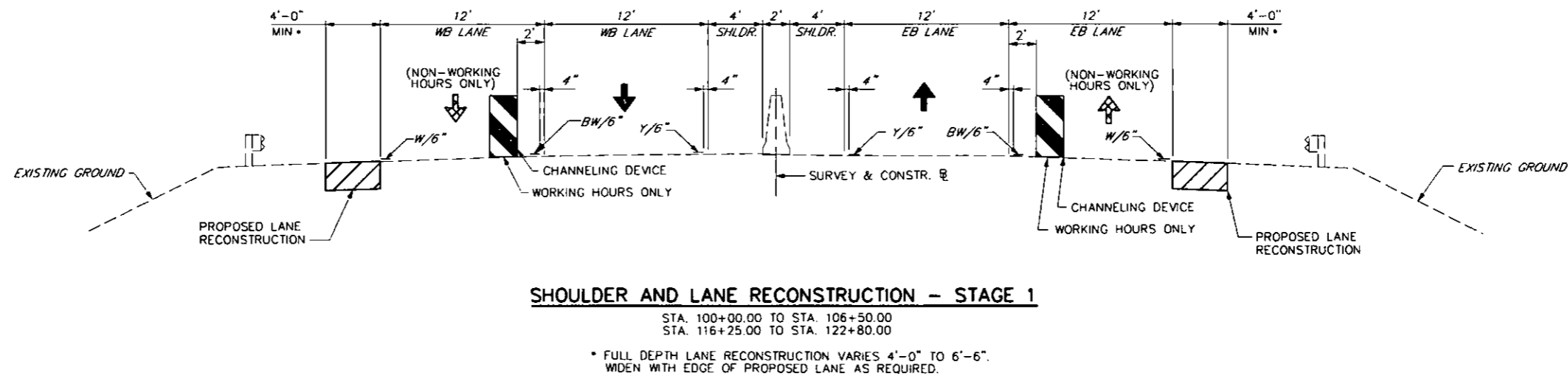
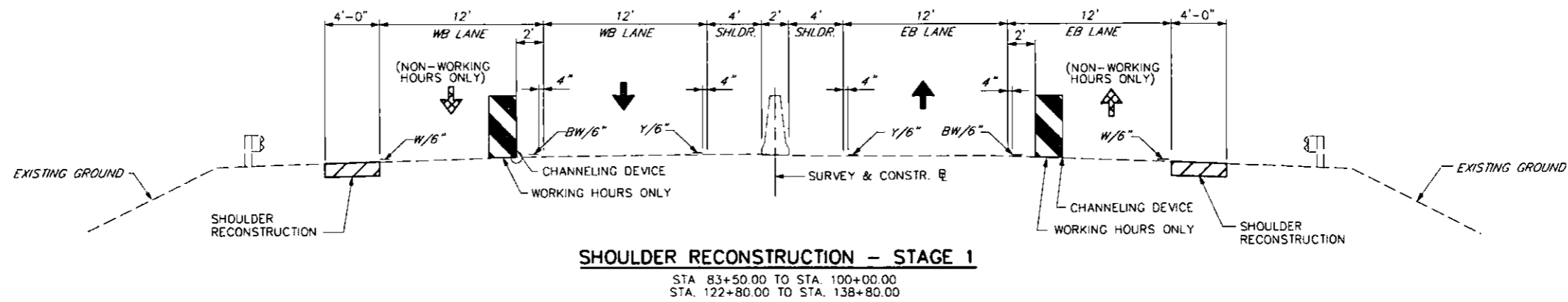
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FILE NAME: TCgn01.dgn
DRAWING TYPE: 4A
STRUCTURE NUMBER: EB-103

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

TRAFFIC CONTROL PLAN GENERAL NOTES

DRAWING: 1 OF 23
SHEET: 56 OF 315



LEGEND

- CONSTRUCTION TO BE DONE THIS STAGE
- TRAFFIC FLOW/LANE, NON-WORKING HOURS ONLY
- TRAFFIC FLOW/LANE
- EXISTING CONCRETE GLARE SCREEN
- CHANNELING DEVICE

NOTES

1. SEE PTS-900, SHEET 7 OF 11 FOR ADVANCED SIGNING REQUIREMENTS FOR A SINGLE LANE TRAFFIC PATTERN.
2. WEARING COURSE TO BE PLACED AT THE END OF STAGE 2 WORK. PROVIDE PAVEMENT WEDGE FROM PROPOSED BINDER TO EXISTING WEARING COURSE AS NECESSARY IN STAGE 1.

PAVEMENT MARKINGS

- BW/6" EXISTING BROKEN WHITE PAVEMENT MARKING 6" WIDE
- W/6" EXISTING SOLID WHITE PAVEMENT MARKING 6" WIDE
- Y/6" EXISTING SOLID YELLOW PAVEMENT MARKING 6" WIDE

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION

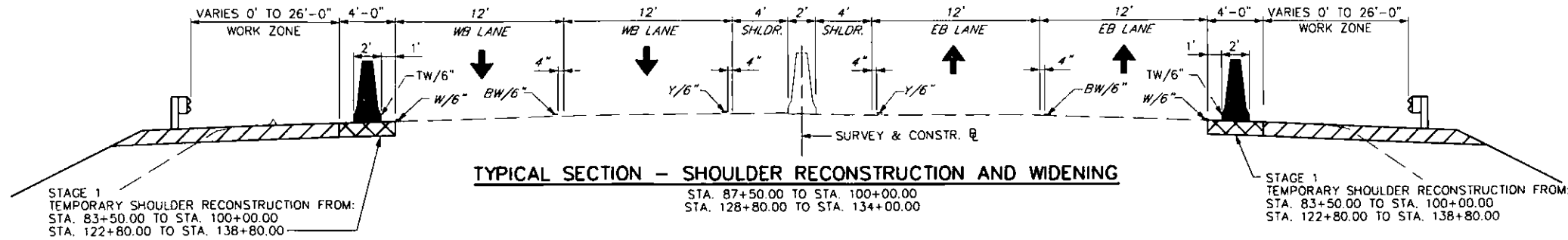


NO.	REVISIONS	DATE	APPR.

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SCALE: 0 5 10 FEET

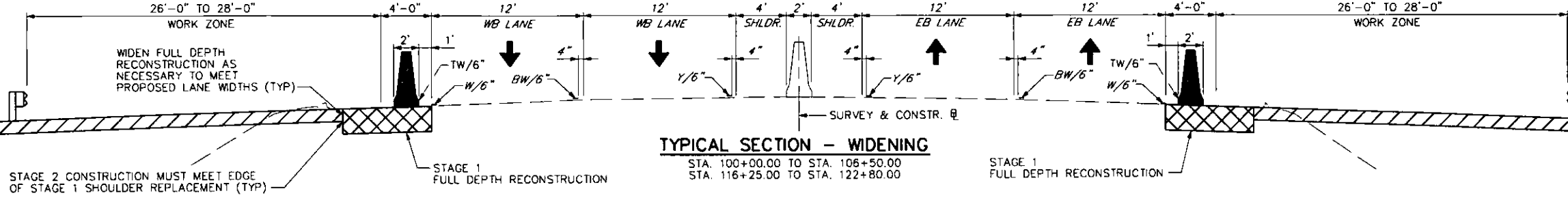
REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

TRAFFIC CONTROL PLAN STAGE 1 TYPICAL SECTIONS	
DRAWING: 3 OF 23	SHEET: 58 OF 315



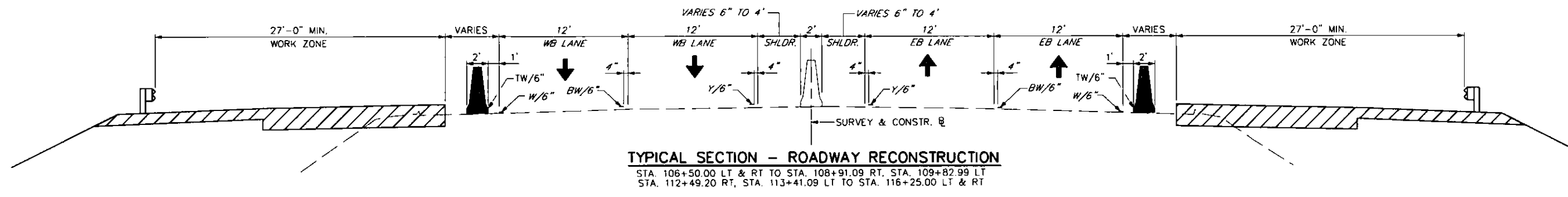
TYPICAL SECTION - SHOULDER RECONSTRUCTION AND WIDENING

STA. 87+50.00 TO STA. 100+00.00
STA. 128+80.00 TO STA. 134+00.00



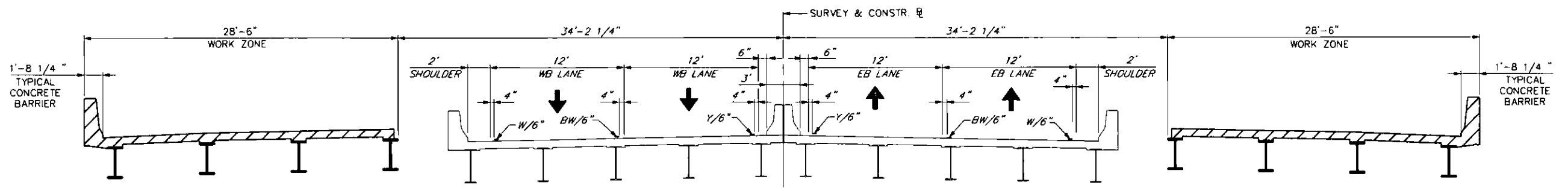
TYPICAL SECTION - WIDENING

STA. 100+00.00 TO STA. 106+50.00
STA. 116+25.00 TO STA. 122+80.00



TYPICAL SECTION - ROADWAY RECONSTRUCTION

STA. 106+50.00 LT & RT TO STA. 108+91.09 RT, STA. 109+82.99 LT
STA. 112+49.20 RT, STA. 113+41.09 LT TO STA. 116+25.00 LT & RT



TYPICAL SECTION - BRIDGE RECONSTRUCTION

STA. 109+91.31 TO STA. 112+40.88

LEGEND

- CONSTRUCTION TO BE COMPLETED THIS STAGE
- CONSTRUCTION COMPLETED PREVIOUS STAGE
- TRAFFIC FLOW/LANE
- TEMPORARY CONCRETE BARRIER
- EXISTING CONCRETE GLARE SCREEN/BARRIER

PAVEMENT MARKINGS

- TW/6" TEMPORARY SOLID WHITE PAVEMENT MARKING, 6" WIDE, ON TEMP BARRIER
- BW/6" EXISTING BROKEN WHITE PAVEMENT MARKING, 6" WIDE
- W/6" EXISTING SOLID WHITE PAVEMENT MARKING, 6" WIDE
- Y/6" EXISTING SOLID YELLOW PAVEMENT MARKING, 6" WIDE

* TO BE CONSTRUCTED IN STAGE 1 USING SINGLE LANE HOURS

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

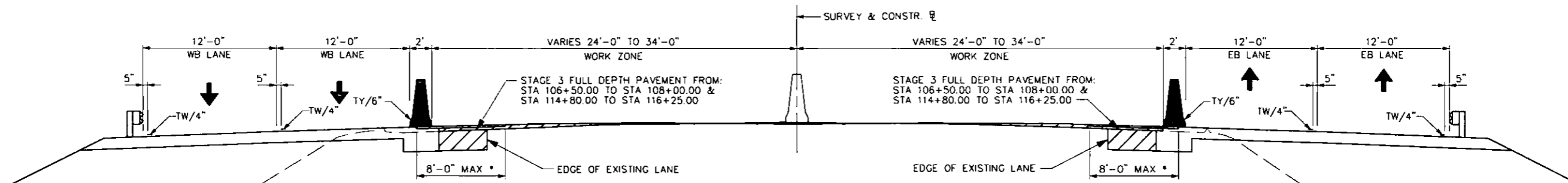


NO.	REVISIONS	DATE	APPR.

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STRUCTURE NUMBER: EB-103
SCALE: 0 5 10 FEET

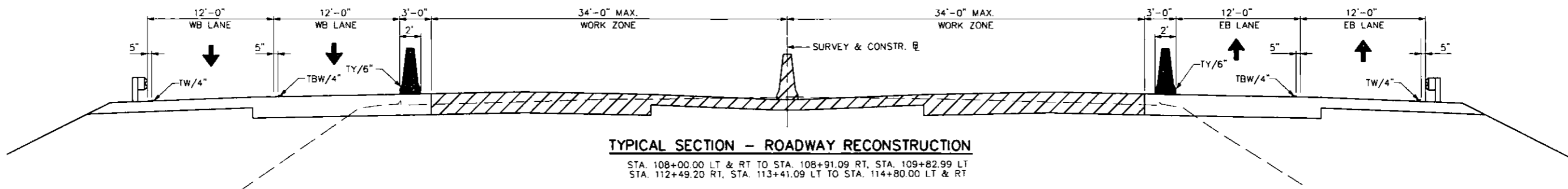
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DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

TRAFFIC CONTROL PLAN STAGE 2 TYPICAL SECTIONS	
DRAWING: 4 OF 23	SHEET: 59 OF 315



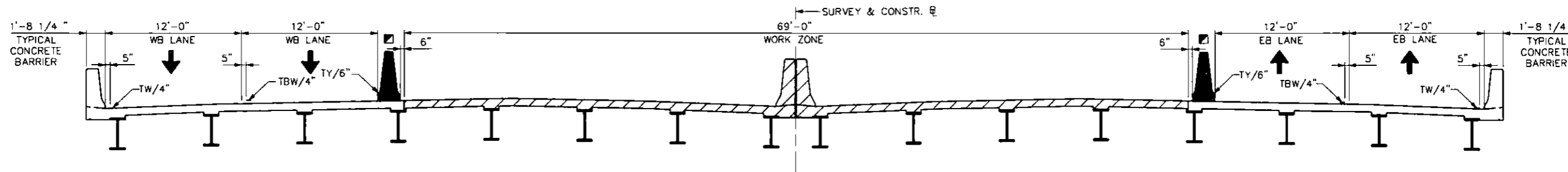
TYPICAL SECTION - ROADWAY CROSS SLOPE & SHOULDER WIDTH TRANSITIONS

STA. 100+00.00 TO STA. 108+00.00
 STA. 114+80.00 TO STA. 122+80.00
 * MILL AND OVERLAY REQUIRED IN AREAS OF BARRIER OVERLAP PRIOR TO SHIFTING TRAFFIC FOR STAGE 3. USE SINGLE LANE CLOSURE AS NECESSARY.



TYPICAL SECTION - ROADWAY RECONSTRUCTION

STA. 108+00.00 LT & RT TO STA. 108+91.09 RT, STA. 109+82.99 LT
 STA. 112+49.20 RT, STA. 113+41.09 LT TO STA. 114+80.00 LT & RT



TYPICAL SECTION - BRIDGE RECONSTRUCTION

STA. 109+91.31 TO STA. 112+40.88

LEGEND

- CONSTRUCTION TO BE COMPLETED THIS STAGE
- CONSTRUCTION COMPLETED PREVIOUS STAGES
- TRAFFIC FLOW/LANE
- TEMPORARY CONCRETE BARRIER, STRUCTURE MOUNTED
- TEMPORARY CONCRETE BARRIER
- EXISTING CONCRETE GLARE SCREEN

PAVEMENT MARKINGS

- TBW/4" TEMPORARY BROKEN WHITE PAVEMENT MARKING, 4" WIDE
- TW/4" TEMPORARY SOLID WHITE PAVEMENT MARKING, 4" WIDE
- TY/6" TEMPORARY SOLID YELLOW PAVEMENT MARKING, 6" WIDE, ON TEMP BARRIER

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



WBS NO. T-228.54S001-3-02			
NETWORK NUMBER: 7003982			
FILE NAME: TCts03.dgn			
DRAWING TYPE: 4A			
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NO.	REVISIONS	DATE	APPR.

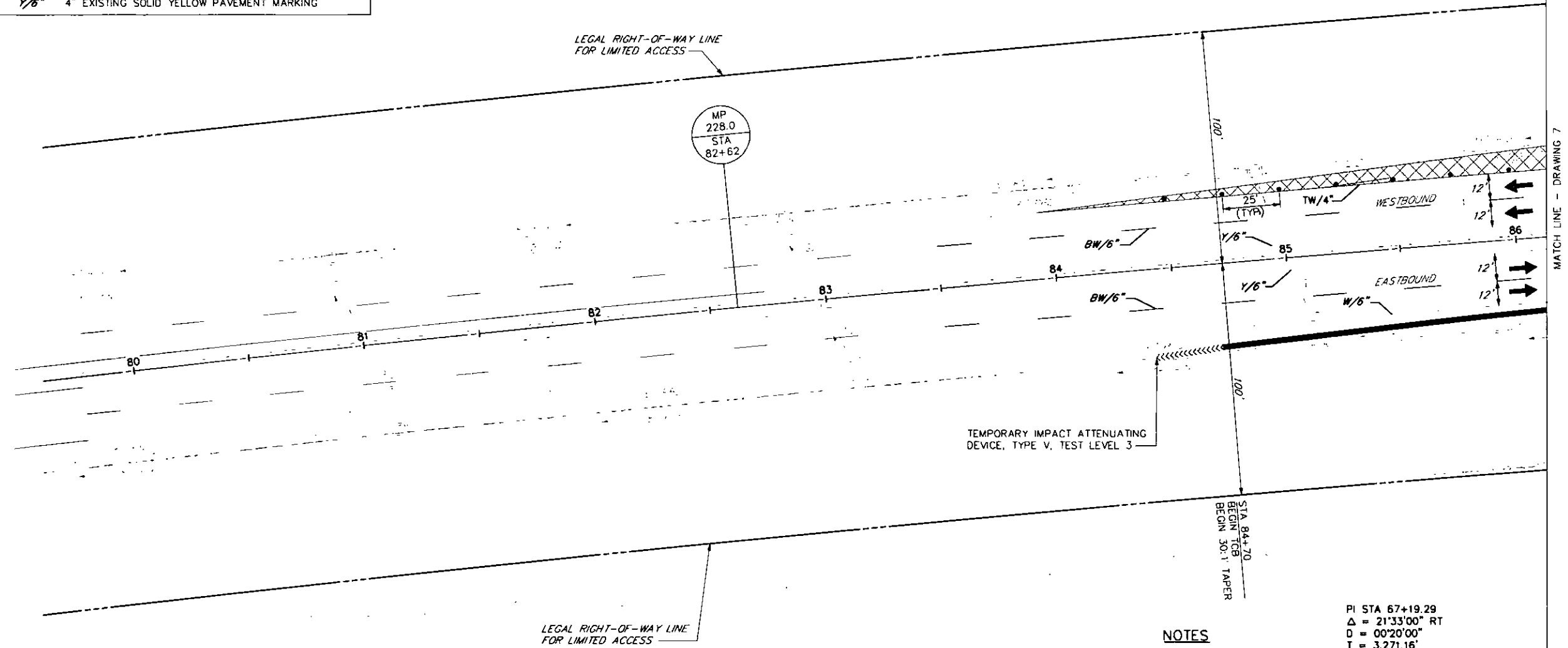
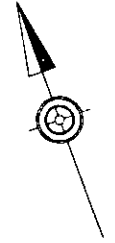
REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

TRAFFIC CONTROL PLAN
 STAGE 3 TYPICAL SECTIONS

DRAWING: 5 OF 23
 SHEET: 60 OF 315

LEGEND	
	TEMPORARY CONCRETE BARRIER
	CONCEPTUAL CONSTRUCTION ACCESS
	TRAFFIC FLOW
	CHANNELIZING DEVICE
	TEMPORARY IMPACT ATTENUATOR, TYPE V
	6" EXISTING BROKEN WHITE PAVEMENT MARKING
	4" TEMPORARY SOLID WHITE PAVEMENT MARKING
	6" EXISTING SOLID WHITE PAVEMENT MARKING
	4" EXISTING SOLID YELLOW PAVEMENT MARKING



NOTES

SEE PTS-900, SHEET 10 OF 13 FOR SIGNING REQUIREMENTS FOR STATIONARY SHOULDER CLOSURE WITH TEMPORARY CONCRETE BARRIER

PI STA 67+19.29
 $\Delta = 21'33''00''$ RT
 $D = 00'20''00''$
 $T = 3,271.16'$
 $L = 6,465.00'$
 $R = 17,188.75'$
 $E = 308.50'$
 $SE = NC$
 $PC STA 34+48.13$
 $PT STA 99+13.13$

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
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 STRUCTURE NUMBER: EB-103

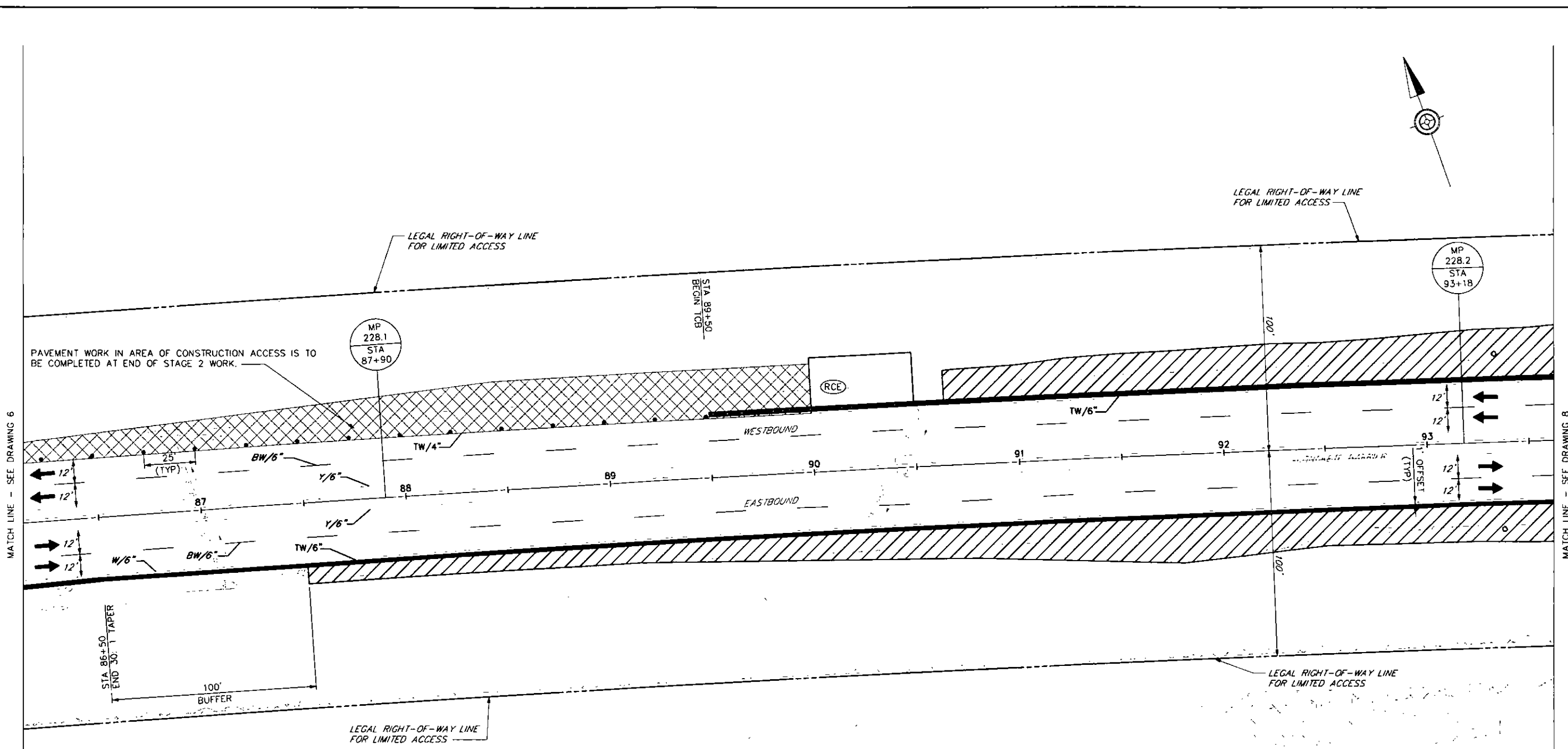
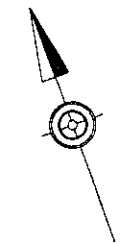
SCALE: 0 25 50 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TRAFFIC CONTROL PLAN
 PLAN SHEET
 STAGE 2**

DRAWING: 6 OF 23
 SHEET: 61 OF 315



PAVEMENT WORK IN AREA OF CONSTRUCTION ACCESS IS TO BE COMPLETED AT END OF STAGE 2 WORK.

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

LEGEND	
	TEMPORARY CONCRETE BARRIER
	WORK AREA
	CONCEPTUAL CONSTRUCTION ACCESS
	TRAFFIC FLOW
	CHANNELIZING DEVICE
	SIGN
	6" EXISTING BROKEN WHITE PAVEMENT MARKING
	6" EXISTING SOLID WHITE PAVEMENT MARKING
	6" EXISTING SOLID YELLOW PAVEMENT MARKING
	4" TEMPORARY SOLID WHITE PAVEMENT MARKING
	6" TEMPORARY SOLID WHITE PAVEMENT MARKING
	ROCK CONSTRUCTION ENTRANCE

PI STA 67+19.29
 $\Delta = 21'33''00''$ RT
 $D = 00'20''00''$
 $T = 3,271.16'$
 $L = 6,465.00'$
 $R = 17,188.75'$
 $E = 308.50'$
 $SE = NC$
 PC STA 34+48.13
 PT STA 99+13.13

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
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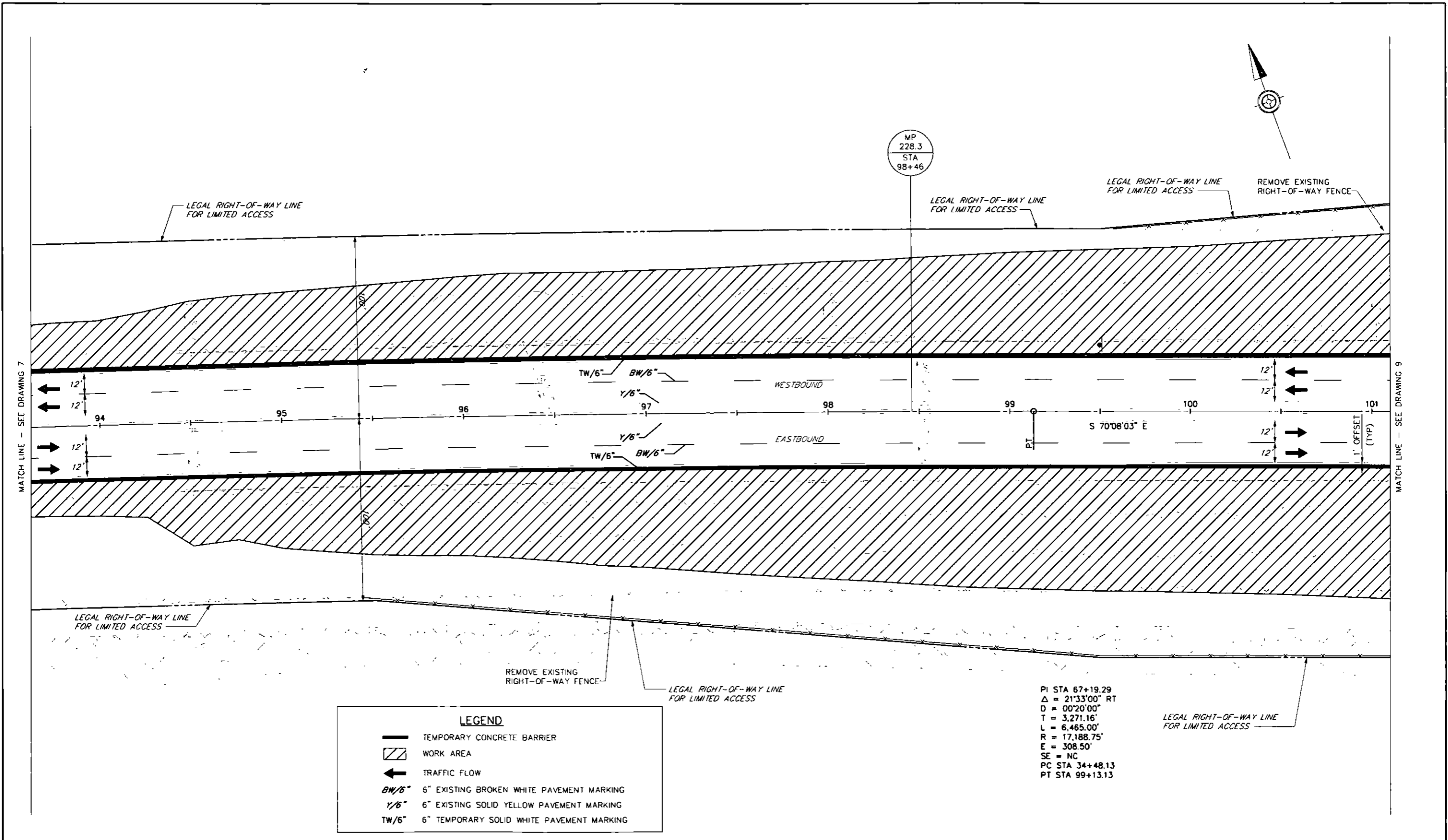
SCALE: 0 25 50 FEET

REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

TRAFFIC CONTROL PLAN
 PLAN SHEET
 STAGE 2

DRAWING: 7 OF 23
 SHEET: 62 OF 315

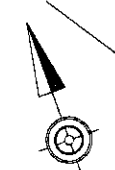


LEGEND

	TEMPORARY CONCRETE BARRIER
	WORK AREA
	TRAFFIC FLOW
	6" EXISTING BROKEN WHITE PAVEMENT MARKING
	6" EXISTING SOLID YELLOW PAVEMENT MARKING
	6" TEMPORARY SOLID WHITE PAVEMENT MARKING

PI STA 67+19.29
 $\Delta = 21^{\circ}33'00''$ RT
 $D = 00^{\circ}20'00''$
 $T = 3,271.16'$
 $L = 6,465.00'$
 $R = 17,188.75'$
 $E = 308.50'$
 $SE = NC$
 PC STA 34+48.13
 PT STA 99+13.13

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050				WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TRAFFIC CONTROL PLAN PLAN SHEET STAGE 2
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION				NETWORK NUMBER: 7003982 FILE NAME: TCpl0203.dgn DRAWING TYPE: 4A STRUCTURE NUMBER: EB-103		
			NO.	REVISIONS	DATE	APPR.	SCALE: 0 25 50 FEET



50' EASEMENT FOR
MIDSTREAM ENERGY GROUP
NATURAL GAS LINE

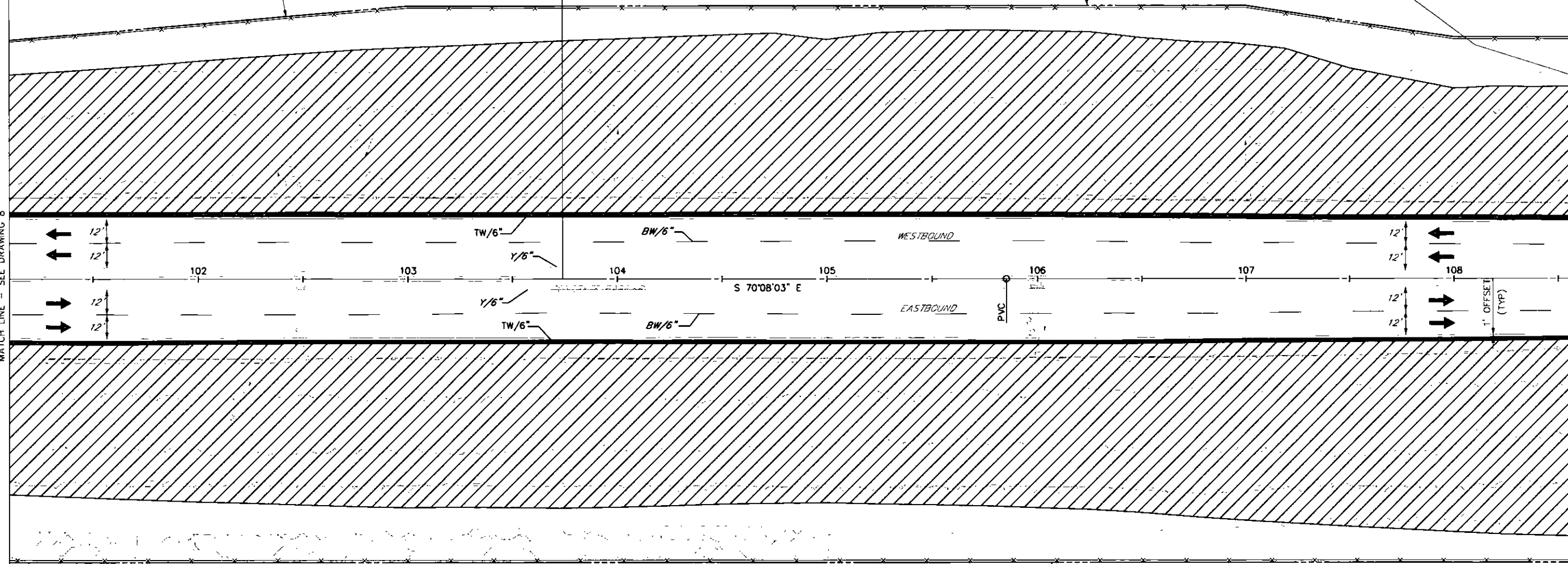
LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

MP
228.4
STA
103+74

MATCH LINE - SEE DRAWING B

MATCH LINE - SEE DRAWING 10



LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

LEGAL
RIGHT-OF-WAY LINE
FOR NSRR

LEGEND	
	TEMPORARY CONCRETE BARRIER
	WORK AREA
	TRAFFIC FLOW
	6" EXISTING BROKEN WHITE PAVEMENT MARKING
	6" EXISTING SOLID YELLOW PAVEMENT MARKING
	6" TEMPORARY SOLID WHITE PAVEMENT MARKING

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: TCpl0204.dgn
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STRUCTURE NUMBER: EB-103

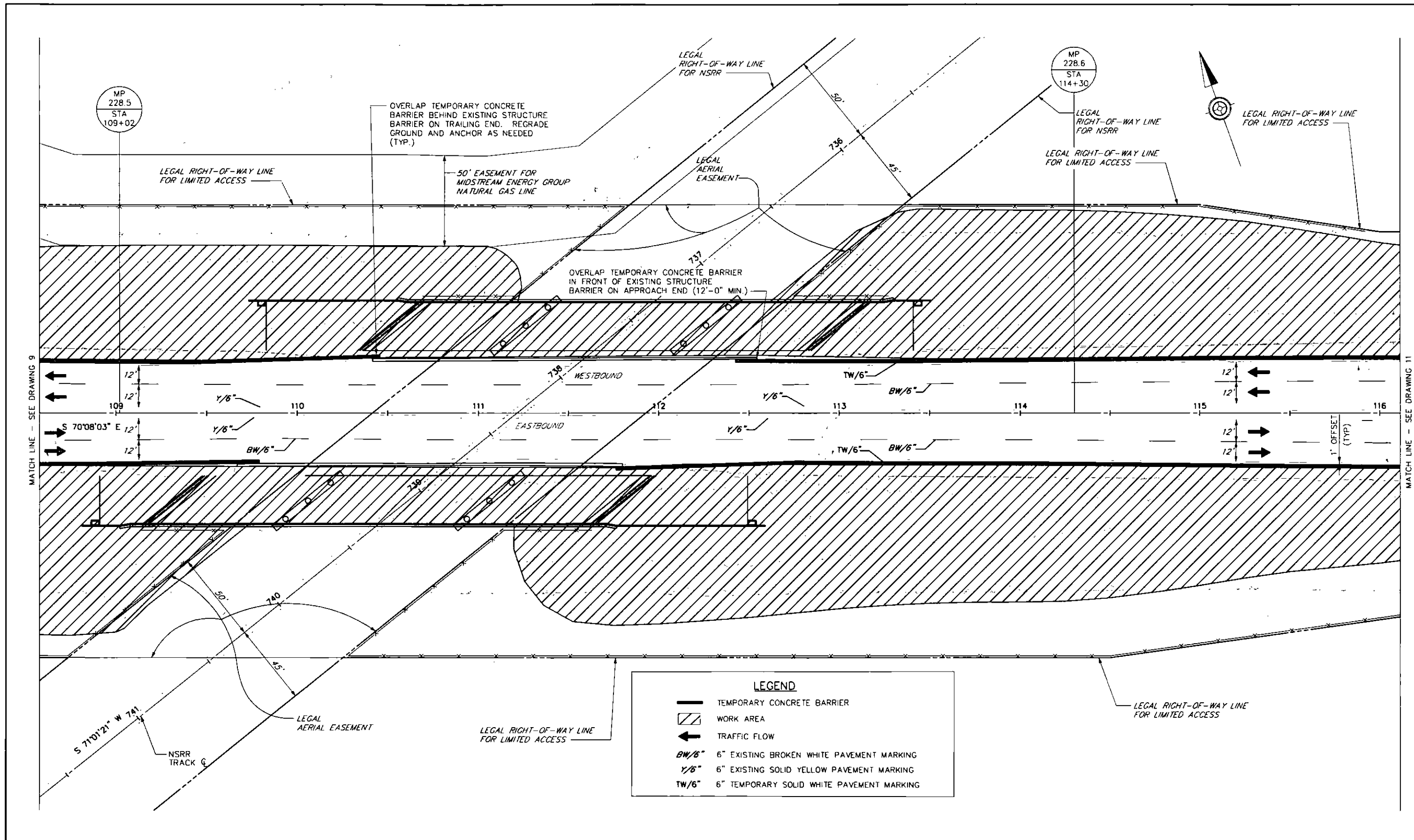
SCALE: 0 25 50 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TRAFFIC CONTROL PLAN
PLAN SHEET
STAGE 2**

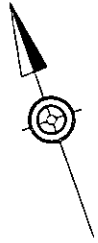
DRAWING: 9 OF 23
SHEET: 64 OF 315



LEGEND

- TEMPORARY CONCRETE BARRIER
- WORK AREA
- TRAFFIC FLOW
- 6" EXISTING BROKEN WHITE PAVEMENT MARKING
- 6" EXISTING SOLID YELLOW PAVEMENT MARKING
- 6" TEMPORARY SOLID WHITE PAVEMENT MARKING

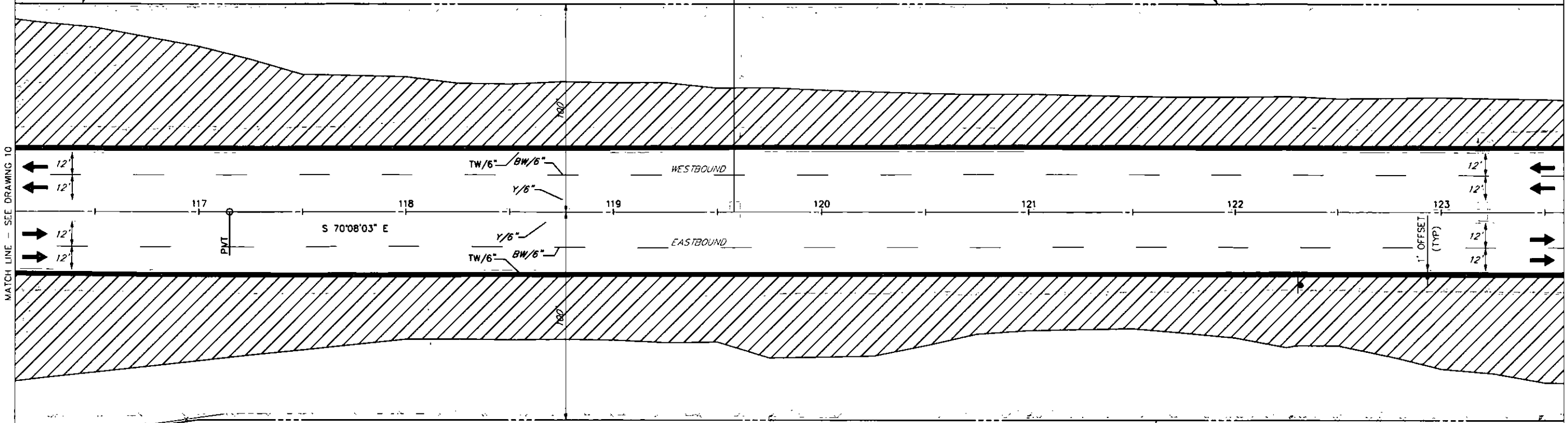
DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TRAFFIC CONTROL PLAN PLAN SHEET STAGE 2					
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">NO.</td> <td style="width: 40%;">REVISIONS</td> <td style="width: 15%;">DATE</td> <td style="width: 10%;">APPR.</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	REVISIONS	DATE			APPR.				
NO.	REVISIONS	DATE	APPR.										



MP
228.7
STA
119+58

LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS



LEGEND	
	TEMPORARY CONCRETE BARRIER
	WORK AREA
	TRAFFIC FLOW
	6" EXISTING BROKEN WHITE PAVEMENT MARKING
	6" EXISTING SOLID YELLOW PAVEMENT MARKING
	6" TEMPORARY SOLID WHITE PAVEMENT MARKING

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: TCpl0206.dgn
DRAWING TYPE: 4A
STRUCTURE NUMBER: EB-103

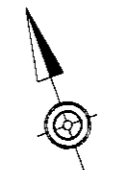
SCALE: 0 25 50 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TRAFFIC CONTROL PLAN
PLAN SHEET
STAGE 2**

DRAWING: 11 OF 23
SHEET: 66 OF 315



MP
228.8
STA
124+86

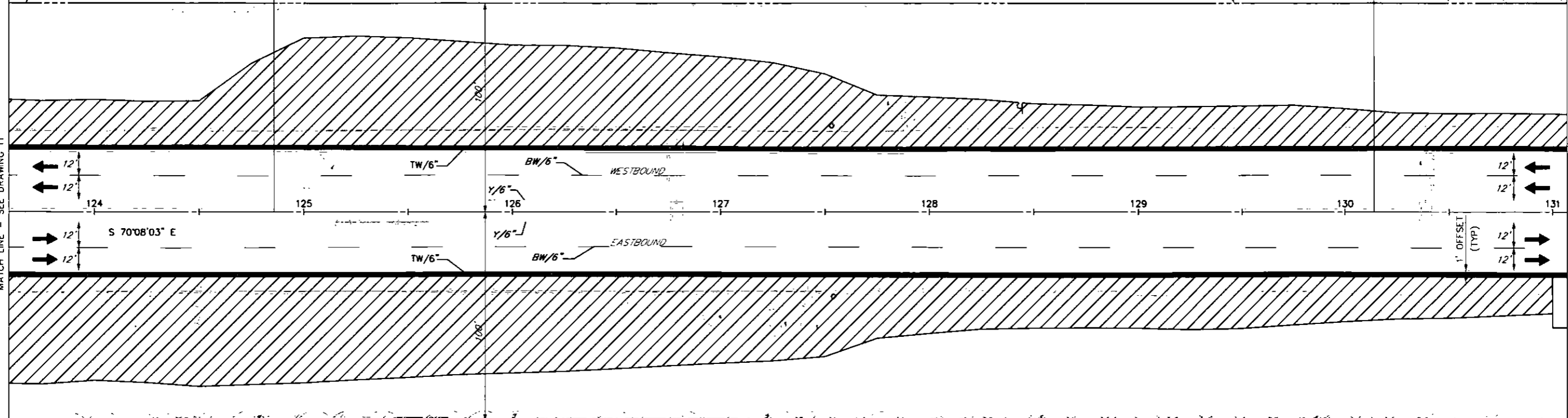
MP
228.9
STA
130+14

LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

MATCH LINE - SEE DRAWING 11

MATCH LINE - SEE DRAWING 13



LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

LEGEND	
	TEMPORARY CONCRETE BARRIER
	WORK AREA
	TRAFFIC FLOW
	6" EXISTING BROKEN WHITE PAVEMENT MARKING
	6" EXISTING SOLID YELLOW PAVEMENT MARKING
	6" TEMPORARY SOLID WHITE PAVEMENT MARKING

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
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DRAWING TYPE: 4A
STRUCTURE NUMBER: EB-103

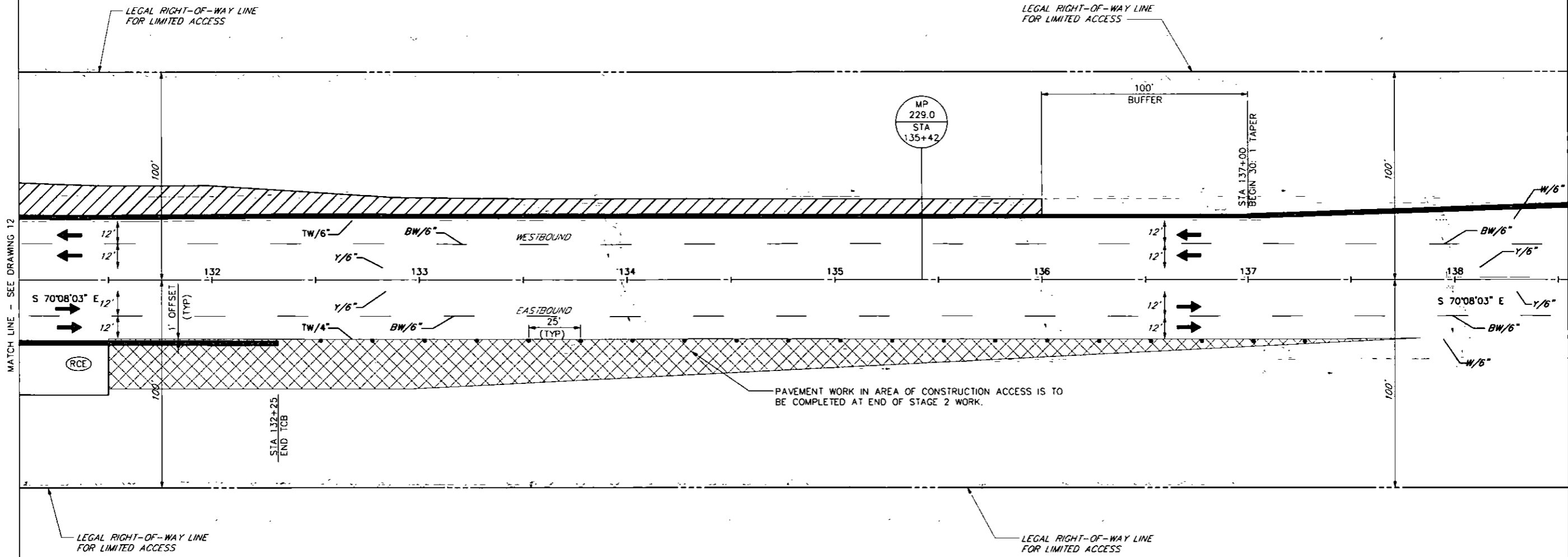
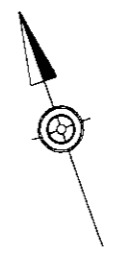
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**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TRAFFIC CONTROL PLAN
PLAN SHEET
STAGE 2**

DRAWING: 12 OF 23
SHEET: 67 OF 315

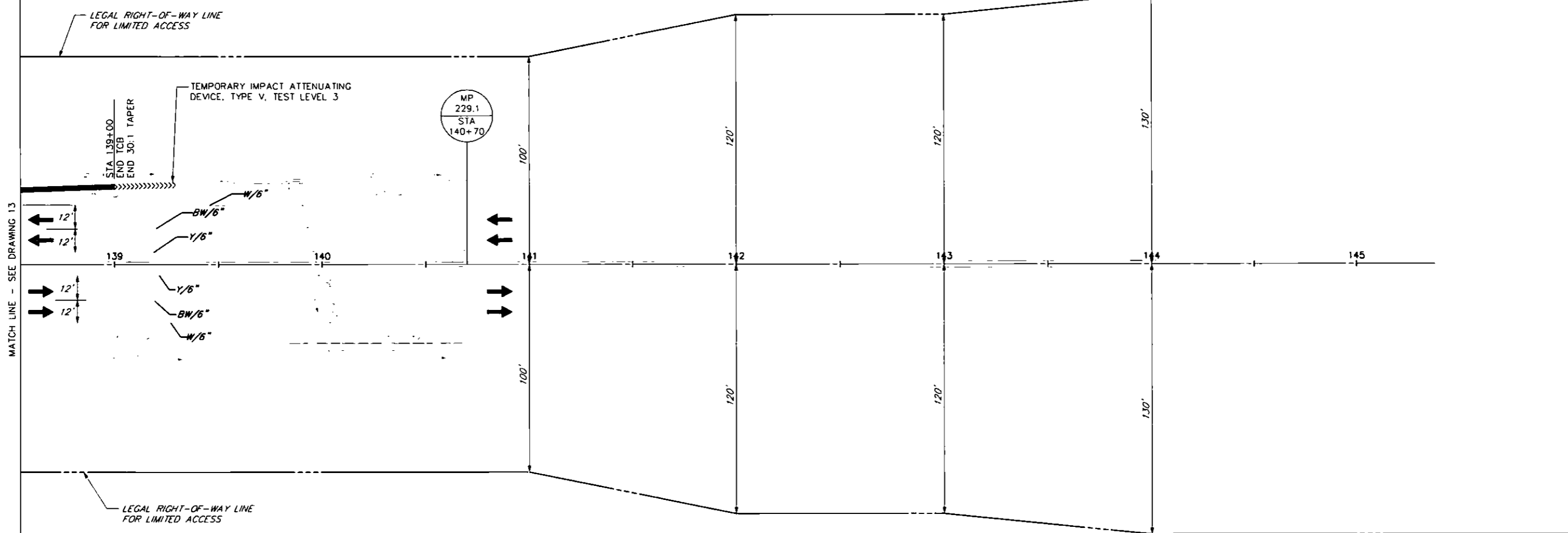
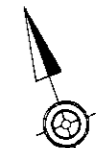


PAVEMENT WORK IN AREA OF CONSTRUCTION ACCESS IS TO BE COMPLETED AT END OF STAGE 2 WORK.

LEGEND	
	TEMPORARY CONCRETE BARRIER
	WORK AREA
	CONCEPTUAL CONSTRUCTION ACCESS
	TRAFFIC FLOW
	CHANNELIZING DEVICE
	SIGN
	TEMPORARY IMPACT ATTENUATOR, TYPE V
	BW/6" 6" EXISTING BROKEN WHITE PAVEMENT MARKING
	W/6" 6" EXISTING SOLID WHITE PAVEMENT MARKING
	Y/6" 6" EXISTING SOLID YELLOW PAVEMENT MARKING
	TW/4" 4" TEMPORARY SOLID WHITE PAVEMENT MARKING
	TW/6" 6" TEMPORARY SOLID WHITE PAVEMENT MARKING
	(RCE) ROCK CONSTRUCTION ENTRANCE

NOTES
 SEE PTS-900, SHEET 10 OF 13 FOR SIGNING REQUIREMENTS FOR STATIONARY SHOULDER CLOSURE WITH TEMPORARY CONCRETE BARRIER

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		<table border="1"> <thead> <tr> <th>NO.</th> <th>REVISIONS</th> <th>DATE</th> <th>APPR.</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	REVISIONS	DATE	APPR.					WBS NO. T-228.545001-3-02 NETWORK NUMBER: 7003982 FILE NAME: TCpl0208.dgn DRAWING TYPE: 4A STRUCTURE NUMBER: EB-103	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54 DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	TRAFFIC CONTROL PLAN PLAN SHEET STAGE 2 DRAWING: 13 OF 23 SHEET: 68 OF 315
	NO.			REVISIONS	DATE	APPR.								
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	SCALE: 0 25 50 FEET													



MATCH LINE - SEE DRAWING 13

LEGEND	
	TRAFFIC FLOW
	6" EXISTING BROKEN WHITE PAVEMENT MARKING
	6" EXISTING SOLID WHITE PAVEMENT MARKING
	6" EXISTING SOLID YELLOW PAVEMENT MARKING

NOTES
 SEE PTS-900, SHEET 10 OF 13
 FOR SIGNING REQUIREMENTS
 FOR STATIONARY SHOULDER
 CLOSURE WITH TEMPORARY
 CONCRETE BARRIER

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: TCpl0209.dgn
DRAWING TYPE: 4A
STRUCTURE NUMBER: EB-103
SCALE: 0 25 50 FEET

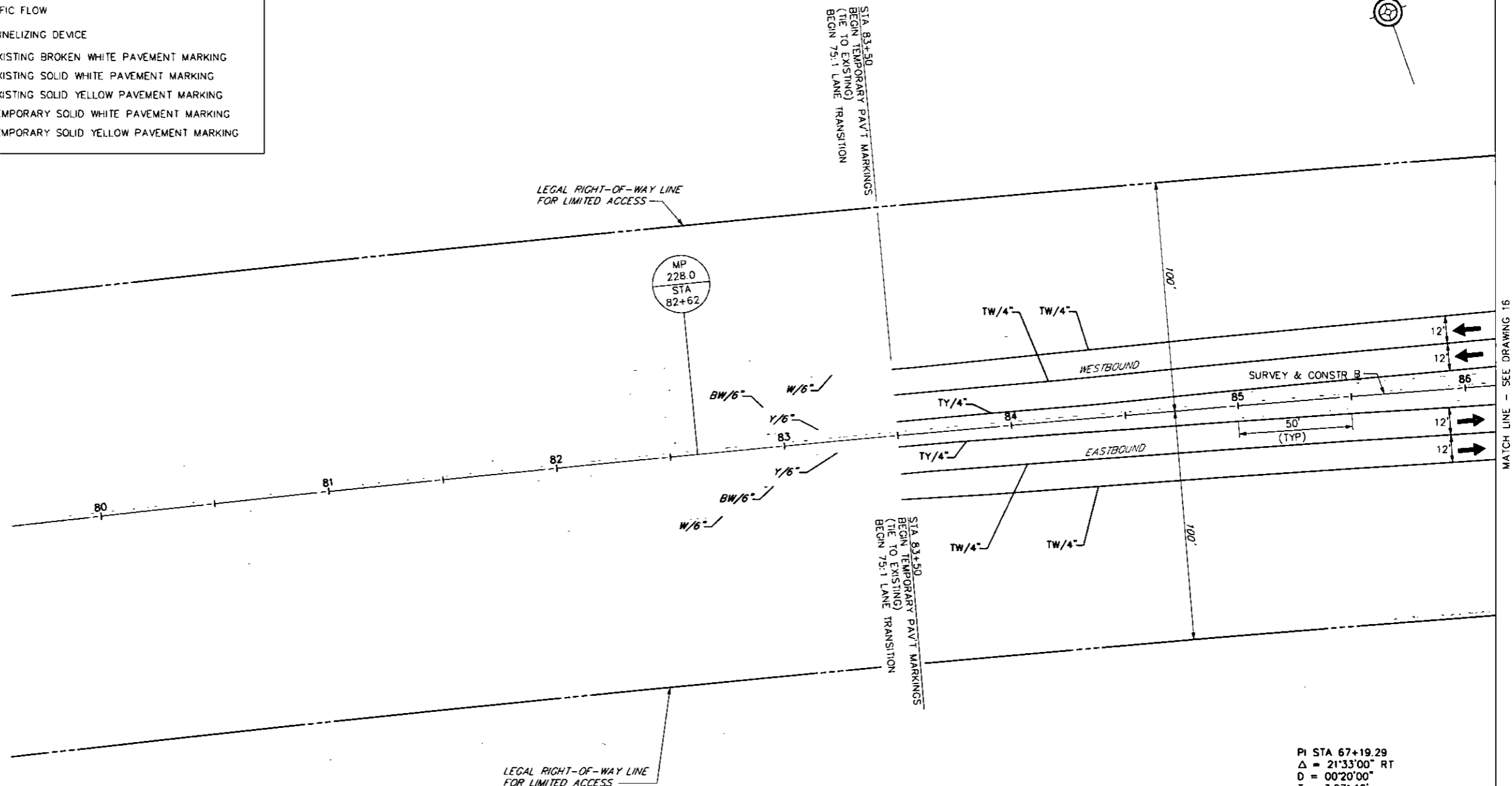
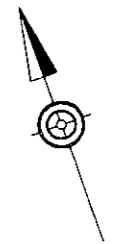
**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TRAFFIC CONTROL PLAN
 PLAN SHEET
 STAGE 2**

DRAWING: 14 OF 23
 SHEET: 69 OF 315

LEGEND	
←	TRAFFIC FLOW
●	CHANNELIZING DEVICE
BW/6"	6" EXISTING BROKEN WHITE PAVEMENT MARKING
W/6"	6" EXISTING SOLID WHITE PAVEMENT MARKING
Y/6"	6" EXISTING SOLID YELLOW PAVEMENT MARKING
TW/4"	4" TEMPORARY SOLID WHITE PAVEMENT MARKING
TY/4"	4" TEMPORARY SOLID YELLOW PAVEMENT MARKING



PI STA 67+19.29
 $\Delta = 21^{\circ}33'00''$ RT
 D = 00'20"00"
 T = 3,271.16'
 L = 6,465.00'
 R = 17,188.75'
 E = 308.50'
 SE = NC
 PC STA 34+48.13
 PT STA 99+13.13

NOTES
 SEE PTS-900, SHEET 3 OF 13
 FOR SIGNING REQUIREMENTS
 FOR TWO LANE SHIFT (W > 2.5 FT)

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

 PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION

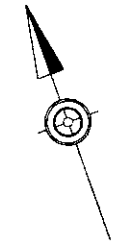


NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
 NETWORK NUMBER: 7003982
 FILE NAME: TCpl0301.dgn
 DRAWING TYPE: 4A
 STRUCTURE NUMBER: EB-103
 SCALE: 0 25 50 FEET

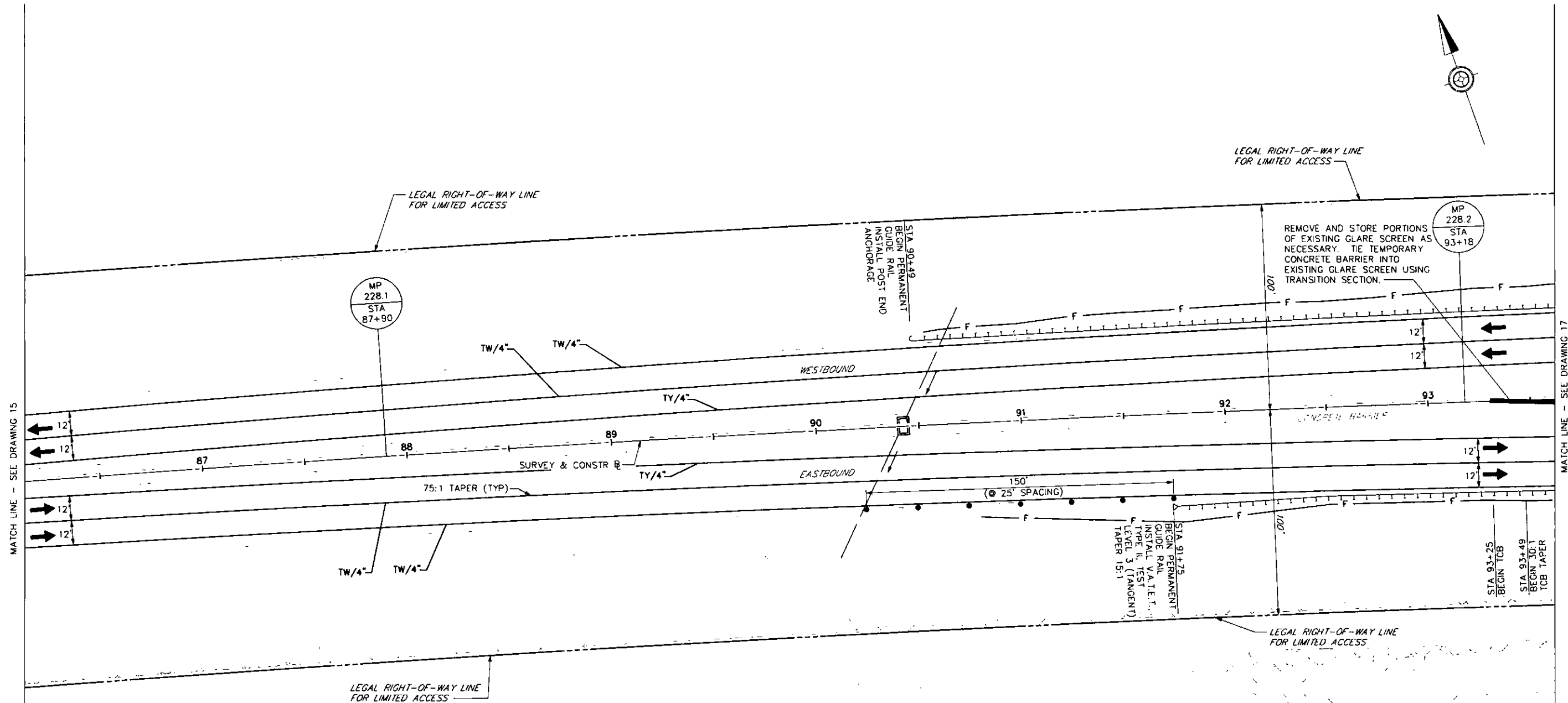
**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**
 DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TRAFFIC CONTROL PLAN
 PLAN SHEET
 STAGE 3**
 DRAWING: 15 OF 23
 SHEET: 70 OF 315



MATCH LINE - SEE DRAWING 15

MATCH LINE - SEE DRAWING 17



LEGEND

	TEMPORARY CONCRETE BARRIER
	TRAFFIC FLOW
	CHANNELIZING DEVICE
TW/4"	4" TEMPORARY SOLID WHITE PAVEMENT MARKING
TY/4"	4" TEMPORARY SOLID YELLOW PAVEMENT MARKING

PI STA 67+19.29
 $\Delta = 21'33''00''$ RT
 $D = 00'20''00''$
 $T = 3,271.16'$
 $L = 6,465.00'$
 $R = 17,188.75'$
 $E = 308.50'$
 $SE = NC$
 PC STA 34+48.13
 PT STA 99+13.13

NOTES
 SEE PTS-900, SHEET 3 OF 13
 FOR SIGNING REQUIREMENTS
 FOR TWO LANE SHIFT (W > 2.5 FT)

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
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 TURNPIKE COMMISSION



				WBS NO. T-228.54S001-3-02	
				NETWORK NUMBER: 7003982	
				FILE NAME: TCpl0302.dgn	
				DRAWING TYPE: 4A	
				STRUCTURE NUMBER: EB-103	
NO.	REVISIONS	DATE	APPR.	SCALE:	0 25 50 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

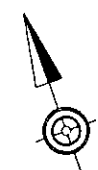
**TRAFFIC CONTROL PLAN
 PLAN SHEET
 STAGE 3**

DRAWING: 16 OF 23
 SHEET: 71 OF 315

LEGEND

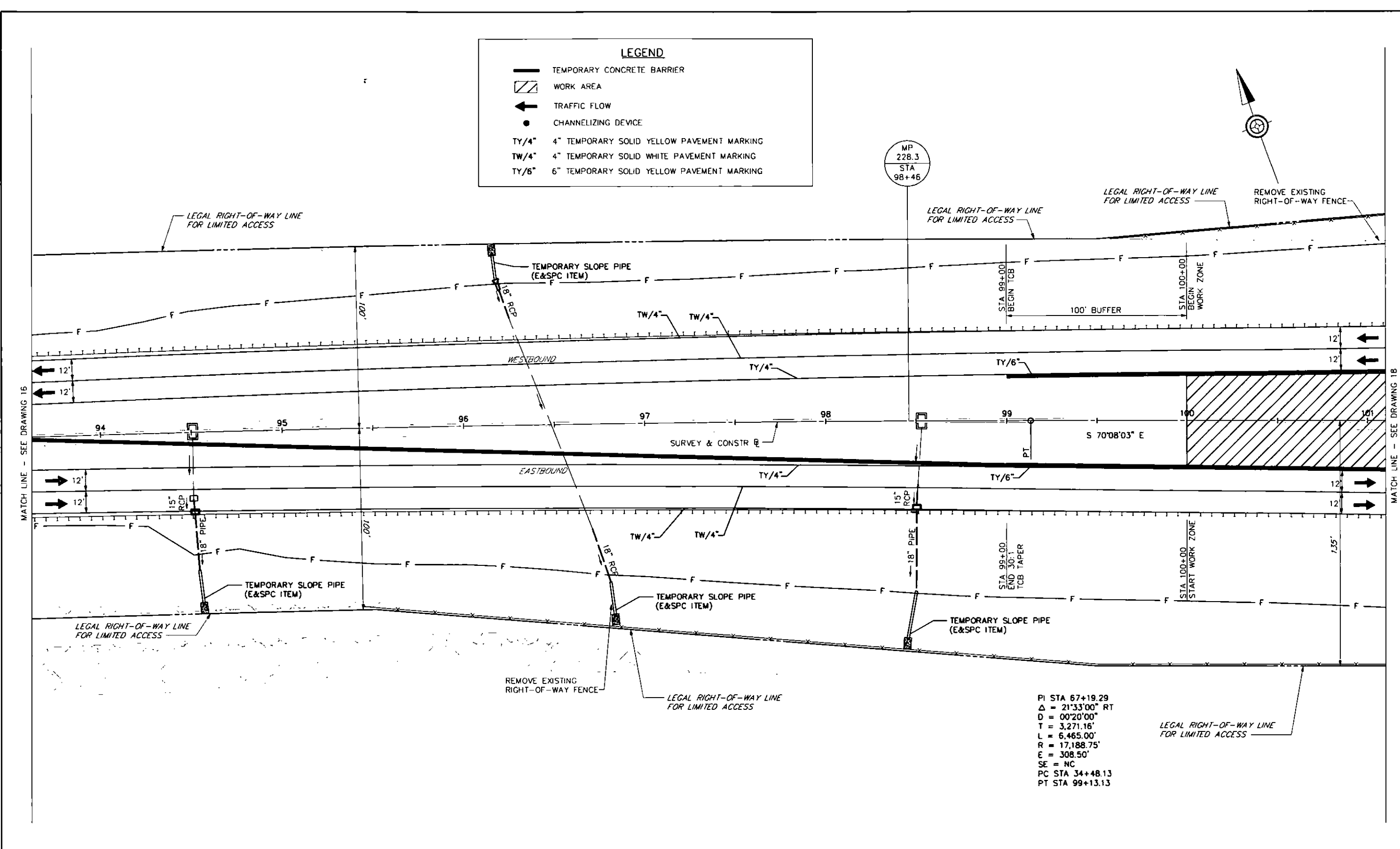
- TEMPORARY CONCRETE BARRIER
- ▨ WORK AREA
- ← TRAFFIC FLOW
- CHANNELIZING DEVICE
- TY/4" 4" TEMPORARY SOLID YELLOW PAVEMENT MARKING
- TW/4" 4" TEMPORARY SOLID WHITE PAVEMENT MARKING
- TY/6" 6" TEMPORARY SOLID YELLOW PAVEMENT MARKING

MP
228.3
STA
98+46



MATCH LINE - SEE DRAWING 16

MATCH LINE - SEE DRAWING 18



PI STA 67+19.29
 $\Delta = 21'33''00''$ RT
 $D = 00'20''00''$
 $T = 3,271.16'$
 $L = 6,465.00'$
 $R = 17,188.75'$
 $E = 308.50'$
 $SE = NC$
 PC STA 34+48.13
 PT STA 99+13.13

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: TCpl0303.dgn
 DRAWING TYPE: 4A
 STRUCTURE NUMBER: EB-103

SCALE: 0 25 50 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TRAFFIC CONTROL PLAN
 PLAN SHEET
 STAGE 3**

DRAWING: 17 OF 23
 SHEET: 72 OF 315

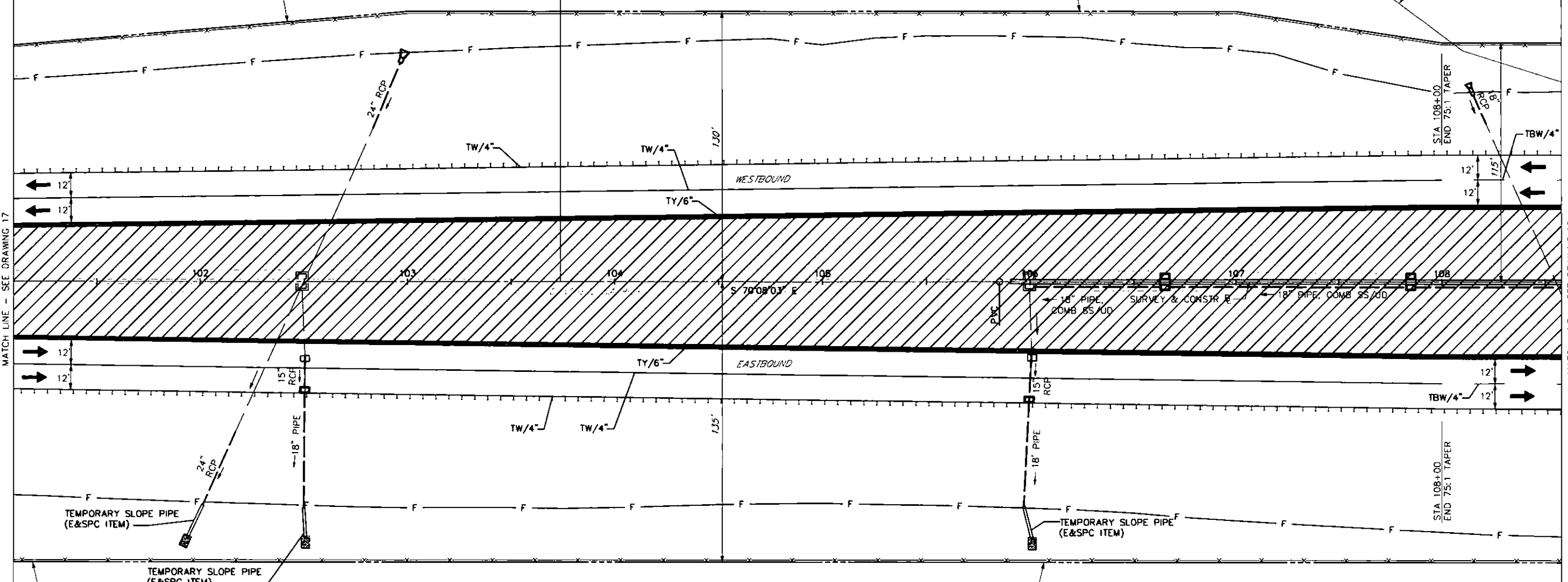


50' EASEMENT FOR MIDSTREAM ENERGY GROUP NATURAL GAS LINE
MIDSTREAM ENERGY GROUP
NATURAL GAS
TAPPING POST

MP
228.4
STA
103+74

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS



MATCH LINE - SEE DRAWING 17

MATCH LINE - SEE DRAWING 19

LEGEND

- TEMPORARY CONCRETE BARRIER
- WORK AREA
- TRAFFIC FLOW
- TBW/4" 4" TEMPORARY BROKEN WHITE PAVEMENT MARKING
- TW/4" 4" TEMPORARY SOLID WHITE PAVEMENT MARKING
- TY/6" 6" TEMPORARY SOLID YELLOW PAVEMENT MARKING

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE FOR NSRR

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

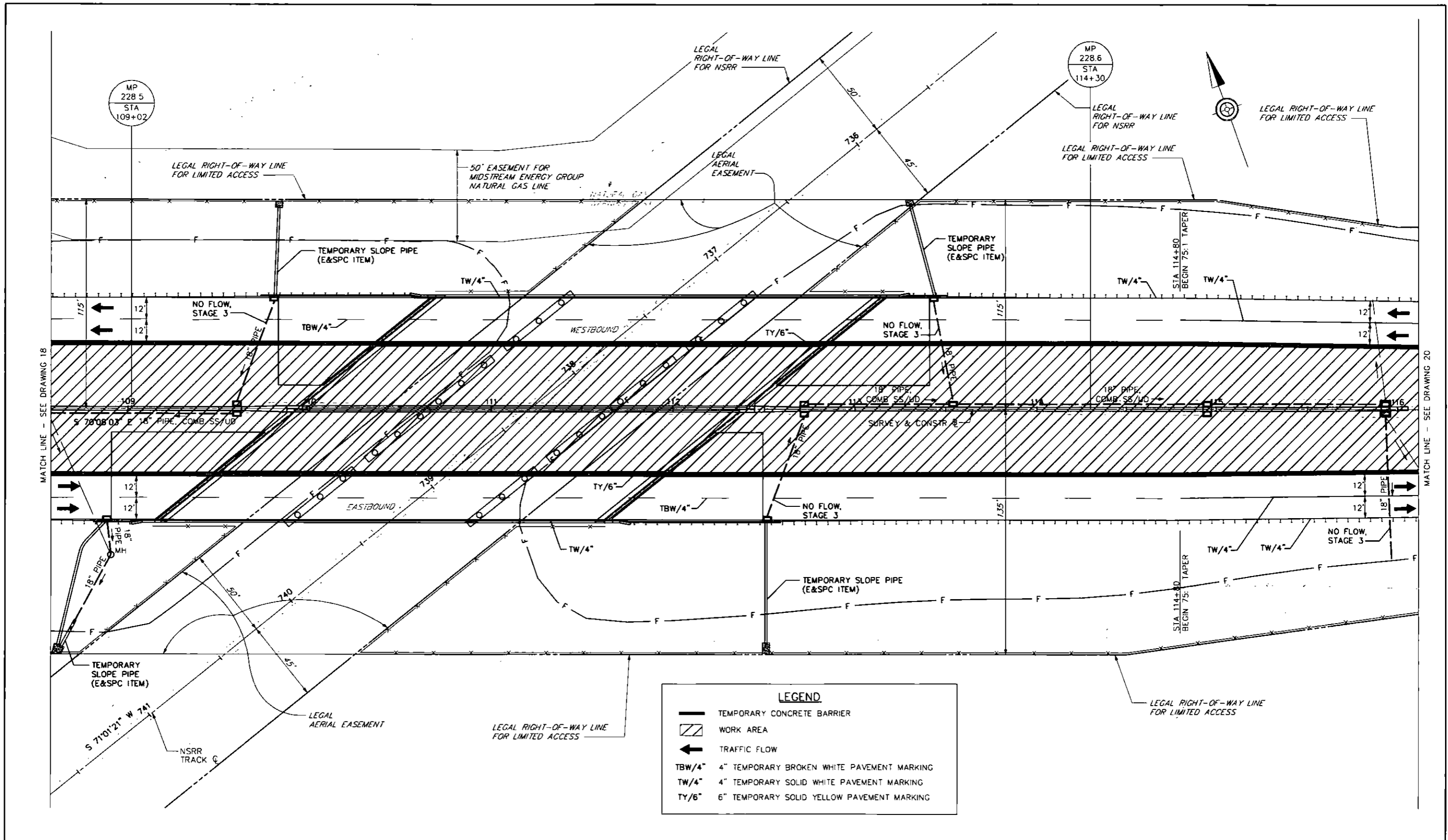


NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: TCpl0304.dgn
DRAWING TYPE: 4A
STRUCTURE NUMBER: EB-103
SCALE: 0 25 50 FEET

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

TRAFFIC CONTROL PLAN PLAN SHEET STAGE 3	
DRAWING: 18 OF 23	SHEET: 73 OF 315



LEGEND

- TEMPORARY CONCRETE BARRIER
- WORK AREA
- TRAFFIC FLOW
- TBW/4" 4" TEMPORARY BROKEN WHITE PAVEMENT MARKING
- TW/4" 4" TEMPORARY SOLID WHITE PAVEMENT MARKING
- TY/6" 6" TEMPORARY SOLID YELLOW PAVEMENT MARKING

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
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DRAWING TYPE: 4A
STRUCTURE NUMBER: EB-103

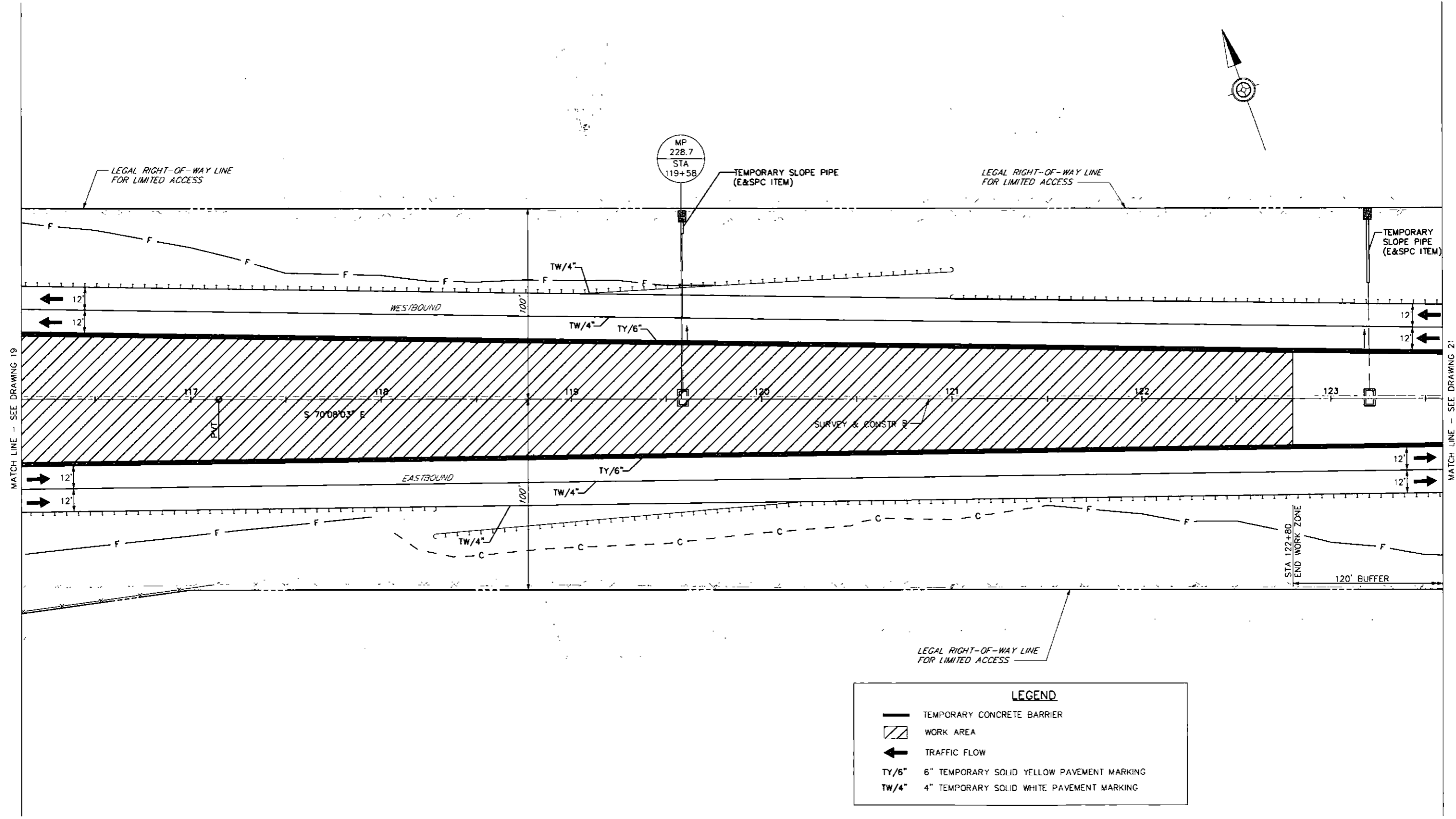
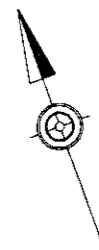
SCALE: 0 25 50 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TRAFFIC CONTROL PLAN
PLAN SHEET
STAGE 3**

DRAWING: 19 OF 23
SHEET: 74 OF 315



LEGEND	
	TEMPORARY CONCRETE BARRIER
	WORK AREA
	TRAFFIC FLOW
	TY/6" 6" TEMPORARY SOLID YELLOW PAVEMENT MARKING
	TW/4" 4" TEMPORARY SOLID WHITE PAVEMENT MARKING

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
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 STRUCTURE NUMBER: EB-103

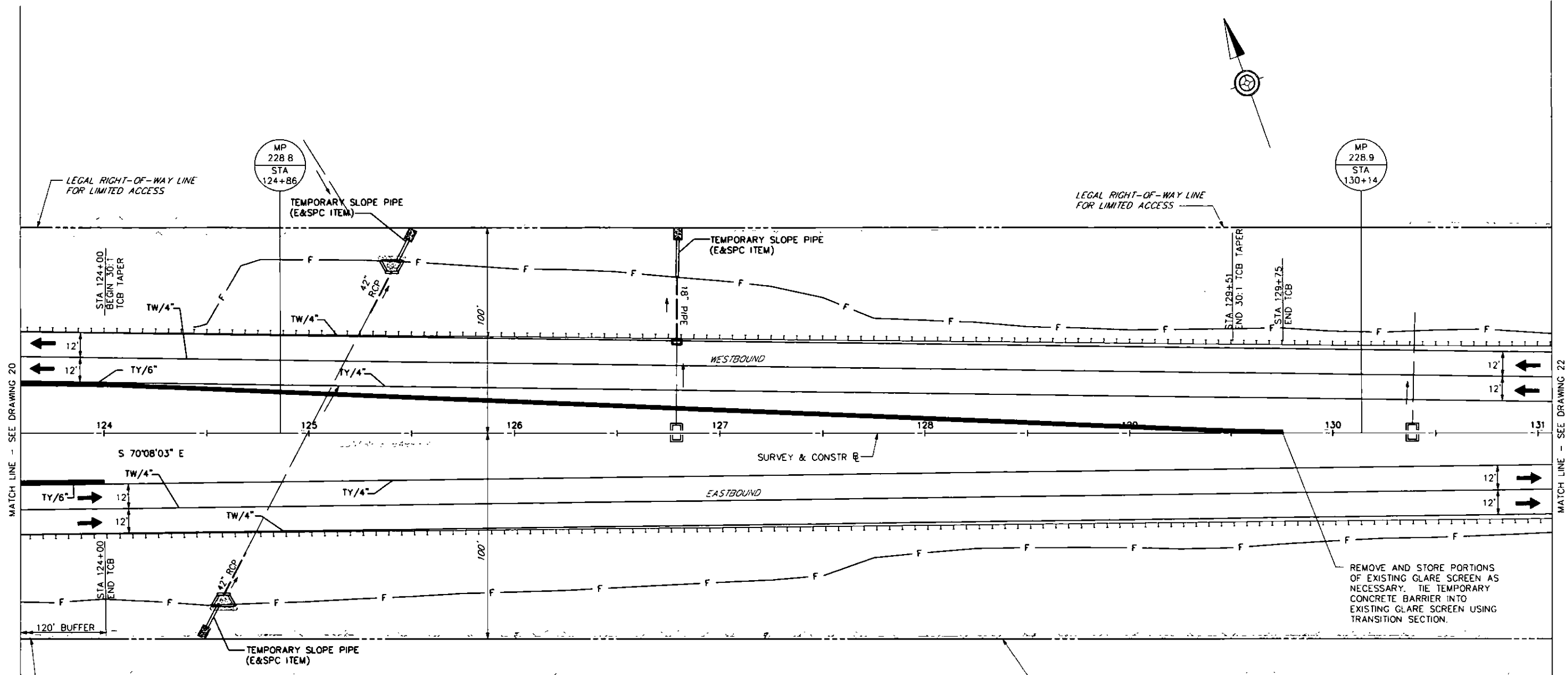
SCALE: 0 25 50 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TRAFFIC CONTROL PLAN
 PLAN SHEET
 STAGE 3**

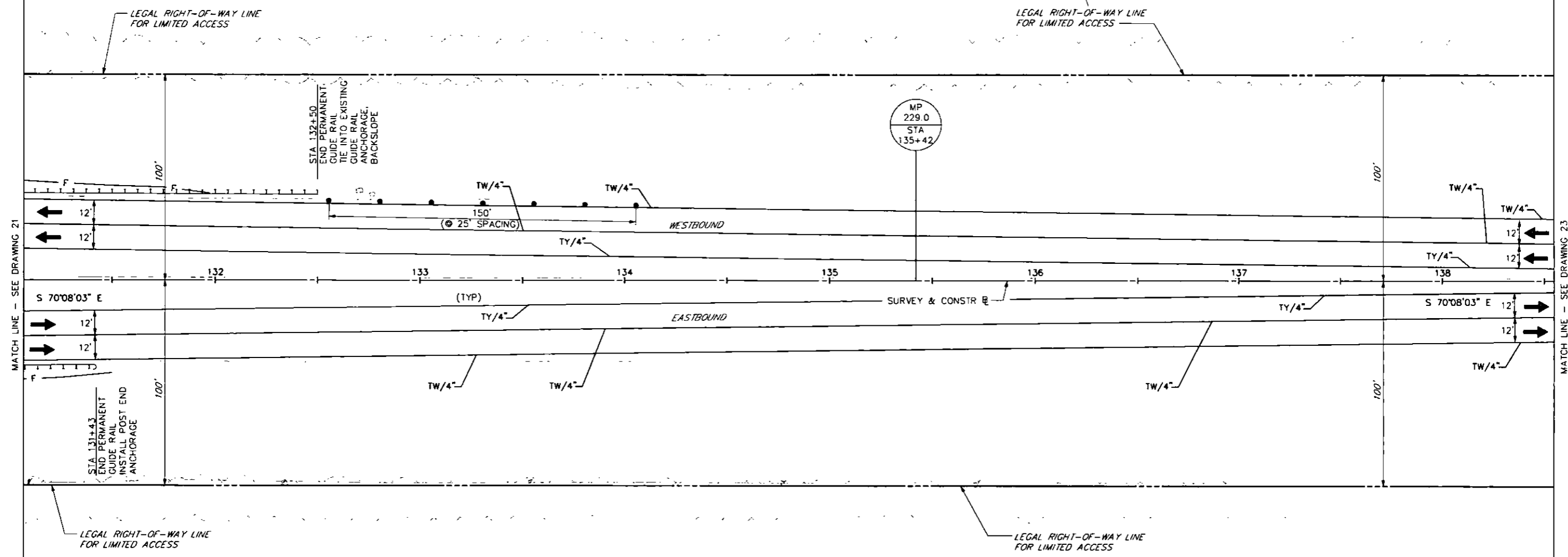
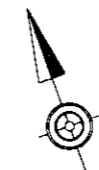
DRAWING: 20 OF 23
 SHEET: 75 OF 315



LEGEND	
	TEMPORARY CONCRETE BARRIER
	TRAFFIC FLOW
	CHANNELIZING DEVICE
TY/6"	6" TEMPORARY SOLID YELLOW PAVEMENT MARKING
TW/4"	4" TEMPORARY SOLID WHITE PAVEMENT MARKING
TY/4"	4" TEMPORARY SOLID YELLOW PAVEMENT MARKING

REMOVE AND STORE PORTIONS OF EXISTING GLARE SCREEN AS NECESSARY. TIE TEMPORARY CONCRETE BARRIER INTO EXISTING GLARE SCREEN USING TRANSITION SECTION.

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TRAFFIC CONTROL PLAN PLAN SHEET STAGE 3
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NETWORK NUMBER: 7003982 FILE NAME: TCpl0307.dgn DRAWING TYPE: 4A STRUCTURE NUMBER: EB-103		
			SCALE: 0 25 50 FEET		
			NO. REVISIONS DATE APPR.		



MATCH LINE - SEE DRAWING 21

MATCH LINE - SEE DRAWING 23

LEGEND	
	TRAFFIC FLOW
	CHANNELIZING DEVICE
TY/6"	6" TEMPORARY SOLID YELLOW PAVEMENT MARKING
TW/4"	4" TEMPORARY SOLID WHITE PAVEMENT MARKING

NOTES
 SEE PTS-900, SHEET 3 OF 13
 FOR SIGNING REQUIREMENTS
 FOR TWO LANE SHIFT (W > 2.5 FT)

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION

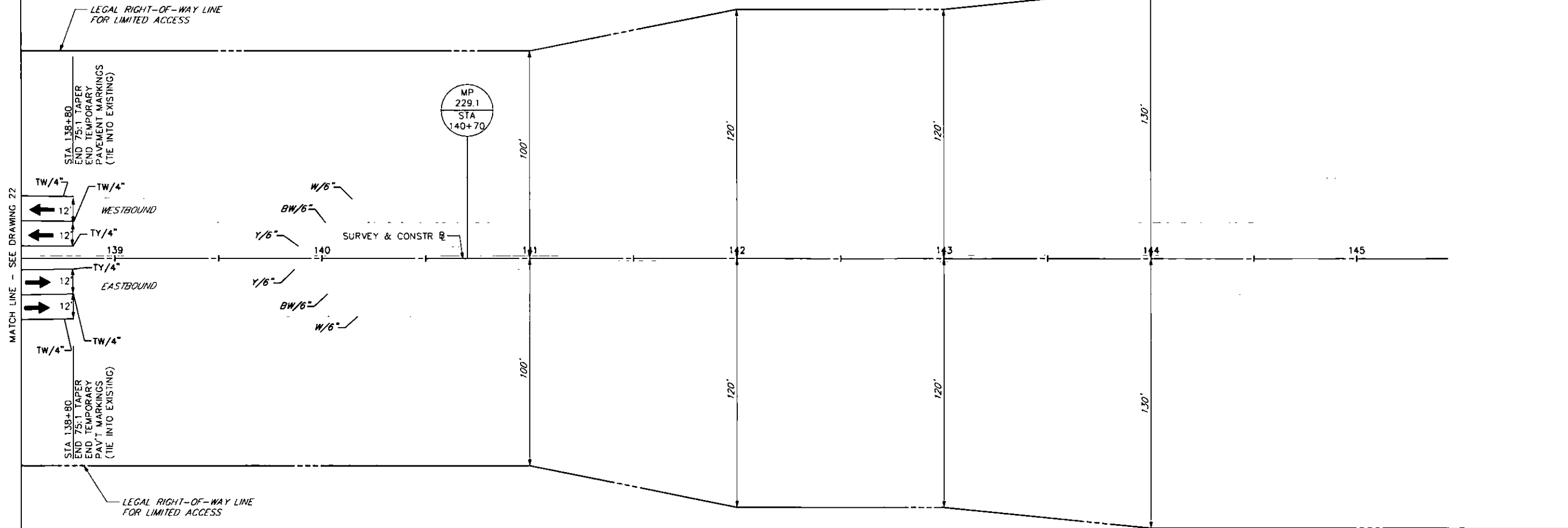
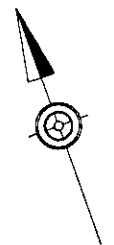


NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: TCpl0308.dgn
DRAWING TYPE: 4A
STRUCTURE NUMBER: EB-103
SCALE: 0 25 50 FEET

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

TRAFFIC CONTROL PLAN PLAN SHEET STAGE 3	
DRAWING: 22	OF 23
SHEET: 77	OF 315



LEGEND

	TRAFFIC FLOW
	CHANNELIZING DEVICE
TY/4"	4" TEMPORARY SOLID YELLOW PAVEMENT MARKING
TW/4"	4" TEMPORARY SOLID WHITE PAVEMENT MARKING
BW/6"	6" EXISTING BROKEN SOLID WHITE PAVEMENT MARKING
W/6"	6" EXISTING SOLID WHITE PAVEMENT MARKING
Y/6"	6" EXISTING SOLID WHITE PAVEMENT MARKING

NOTES
 SEE PTS-900, SHEET 3 OF 13
 FOR SIGNING REQUIREMENTS
 FOR TWO LANE SHIFT (W > 2.5 FT)

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: TCpl0309.dgn
 DRAWING TYPE: 4A
 STRUCTURE NUMBER: EB-103

SCALE: 0 25 50 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

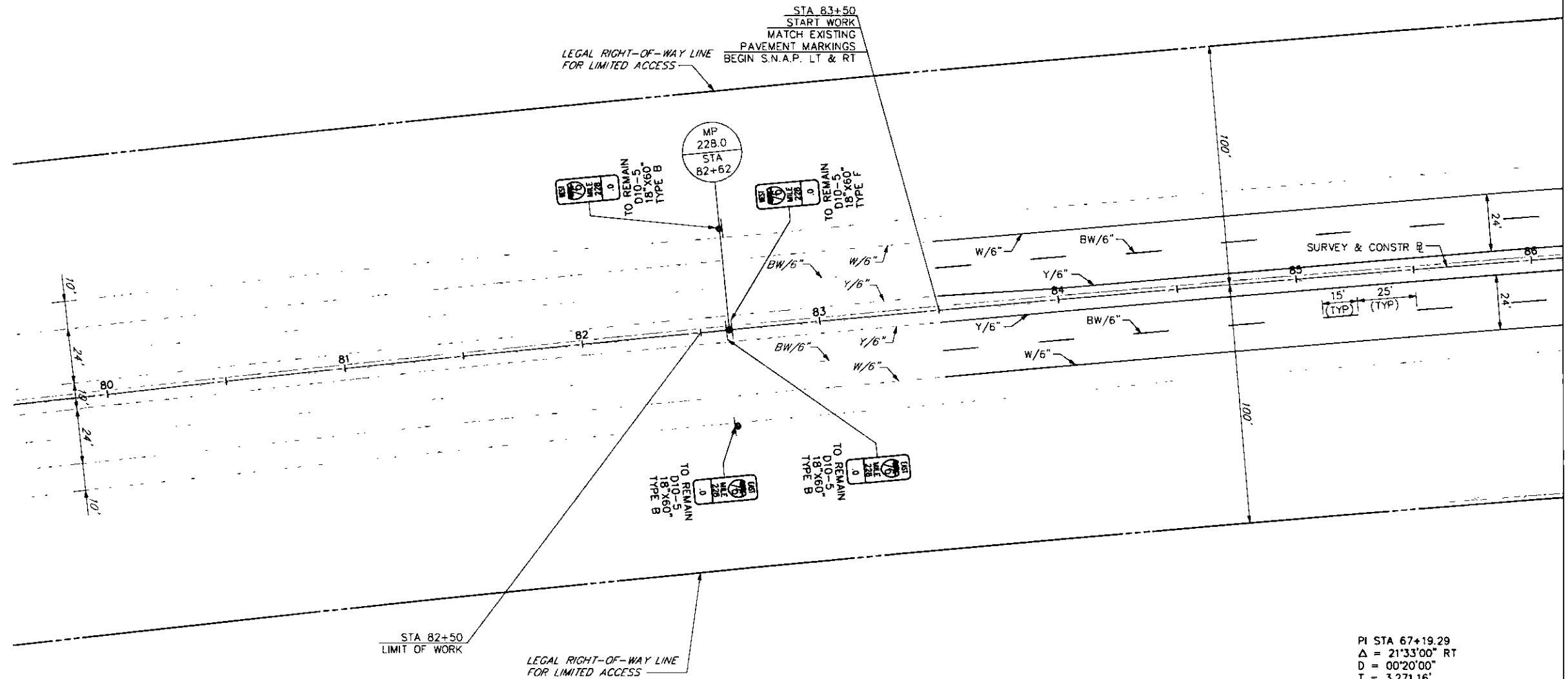
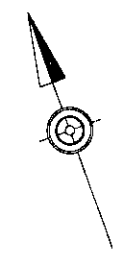
DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TRAFFIC CONTROL PLAN
 PLAN SHEET
 STAGE 3**

DRAWING: 23 OF 23
 SHEET: 78 OF 315

PAVEMENT MARKINGS

- BW/6" 6" EXISTING BROKEN WHITE PAVEMENT MARKING
- Y/6" 6" EXISTING SOLID YELLOW PAVEMENT MARKING
- W/6" 6" EXISTING SOLID WHITE PAVEMENT MARKING
- BW/6" BROKEN WHITE LINE / WIDTH
- Y/6" SOLID YELLOW LINE / WIDTH
- W/6" SOLID WHITE LINE / WIDTH



NOTES

1. SEE PTS-112 AND PTS-980 FOR LINE STRIPING DETAILS.
2. THE REPRESENTATIVE WILL APPROVE THE EXACT LOCATIONS OF THE PAVEMENT MARKINGS PRIOR TO INSTALLATION.

PI STA 67+19.29
 $\Delta = 21'33''00''$ RT
 $D = 00'20''00''$
 $T = 3,271.16'$
 $L = 6,465.00'$
 $R = 17,188.75'$
 $E = 308.50'$
 $SE = NC$
 PC STA 34+48.13
 PT STA 99+13.13

MATCH LINE - SEE DRAWING 2

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
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NO.	REVISIONS	DATE	APPR.

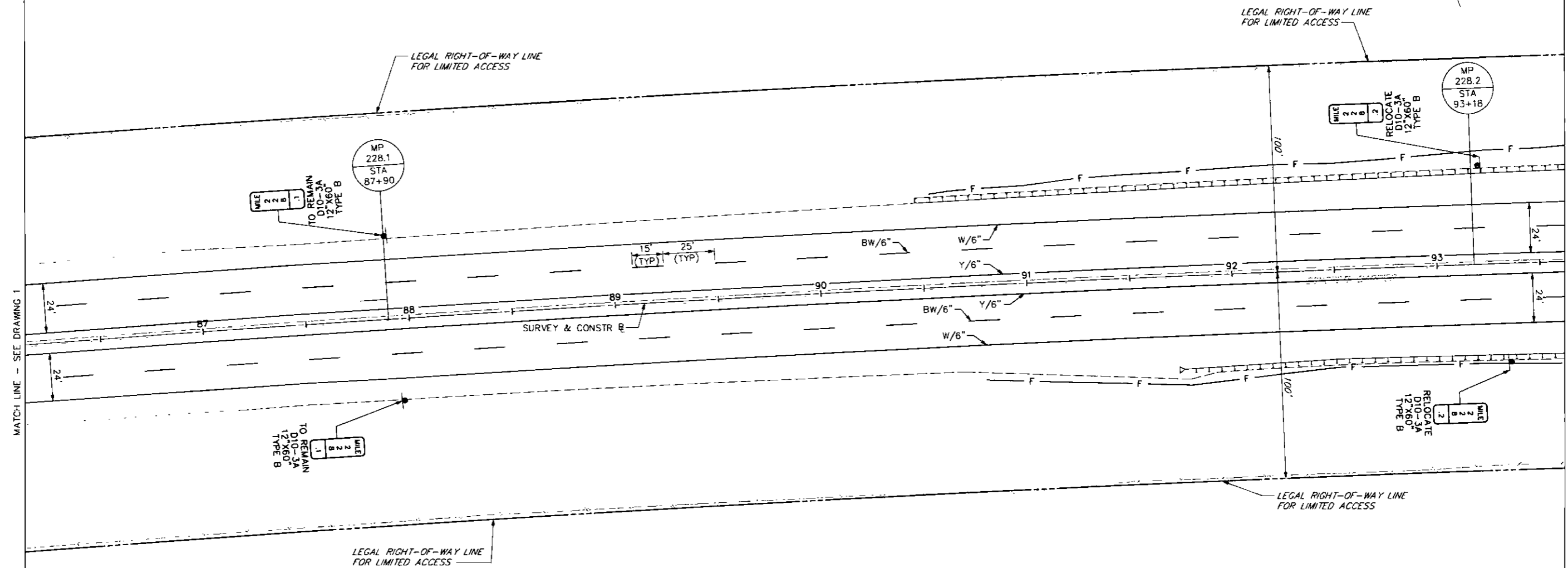
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NETWORK NUMBER: 7003982
FILE NAME: Smp101.dgn
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103
SCALE: 25 0 25 FEET

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

SIGNING AND PAVEMENT MARKING PLAN STATION 82+50 TO STATION 86+00	
DRAWING: 1 OF 9	SHEET: 79 OF 315

PAVEMENT MARKINGS

- BW/6" BROKEN WHITE LINE / WIDTH
- Y/6" SOLID YELLOW LINE / WIDTH
- W/6" SOLID WHITE LINE / WIDTH



NOTES

1. SEE PTS-112 AND PTS-980 FOR LINE STRIPING DETAILS.
2. THE REPRESENTATIVE WILL APPROVE THE EXACT LOCATIONS OF THE PAVEMENT MARKINGS PRIOR TO INSTALLATION.

PI STA 67+19.29
 $\Delta = 21^{\circ}33'00''$ RT
 $D = 00^{\circ}20'00''$
 $T = 3,271.16'$
 $L = 6,465.00'$
 $R = 17,188.75'$
 $E = 308.50'$
 $SE = NC$
 PC STA 34+48.13
 PT STA 99+13.13

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION

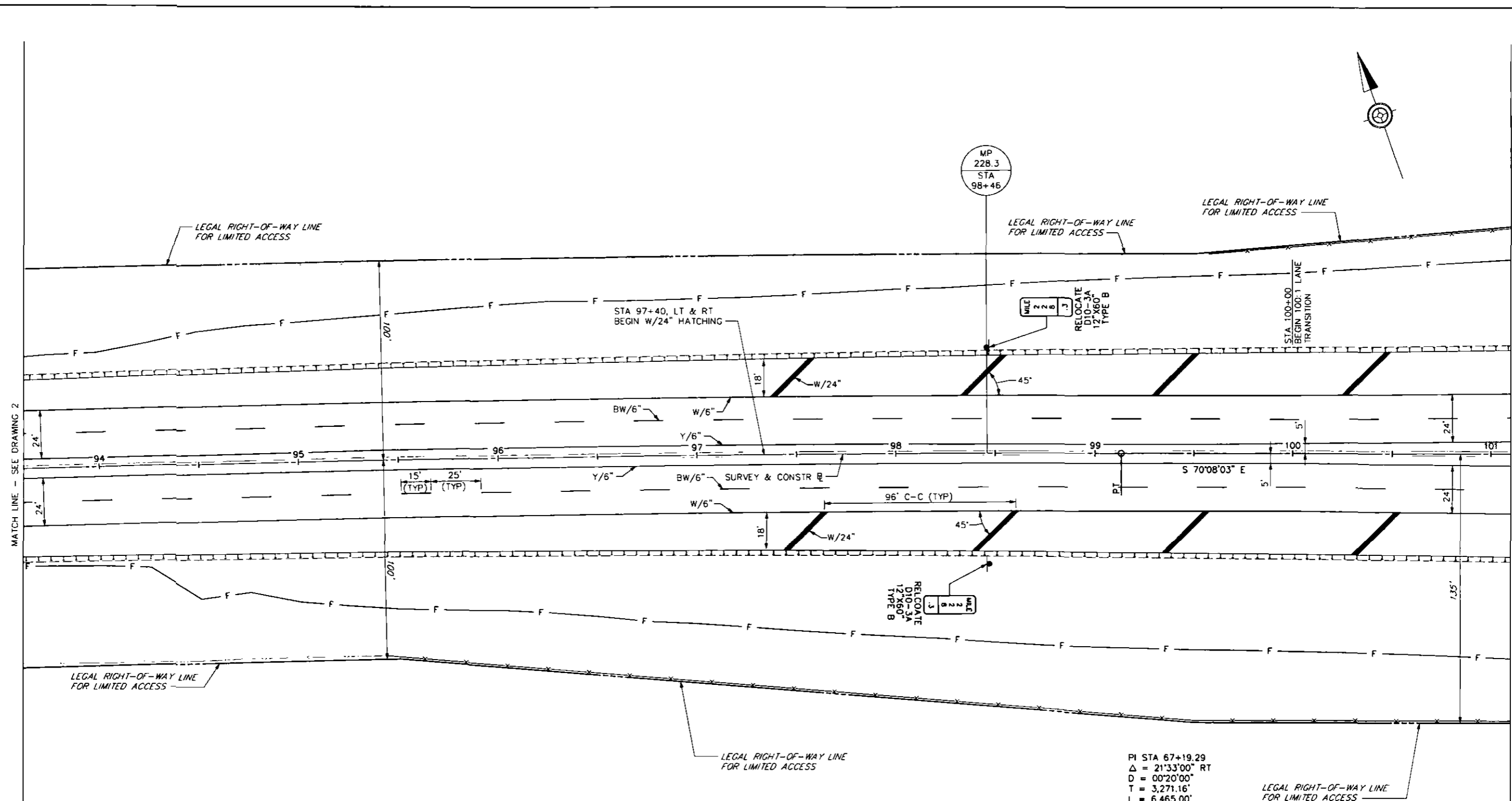
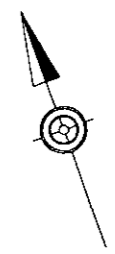


NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: Smp102.dgn
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103
SCALE: 25 0 25 FEET

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

SIGNING AND PAVEMENT MARKING PLAN STATION 86+00 TO STATION 93+50	
DRAWING: 2 OF 9	SHEET: 80 OF 315



PAVEMENT MARKINGS

- BW/6" BROKEN WHITE LINE / WIDTH
- Y/6" SOLID YELLOW LINE / WIDTH
- W/6" SOLID WHITE LINE / WIDTH

NOTES

1. SEE PTS-112 AND PTS-980 FOR LINE STRIPING DETAILS.
2. THE REPRESENTATIVE WILL APPROVE THE EXACT LOCATIONS OF THE PAVEMENT MARKINGS PRIOR TO INSTALLATION.

PI STA 67+19.29
 $\Delta = 21^{\circ}33'00''$ RT
 $D = 00^{\circ}20'00''$
 $T = 3,271.16'$
 $L = 6,465.00'$
 $R = 17,188.75'$
 $E = 308.50'$
 $SE = NC$
 PC STA 34+48.13
 PT STA 99+13.13

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

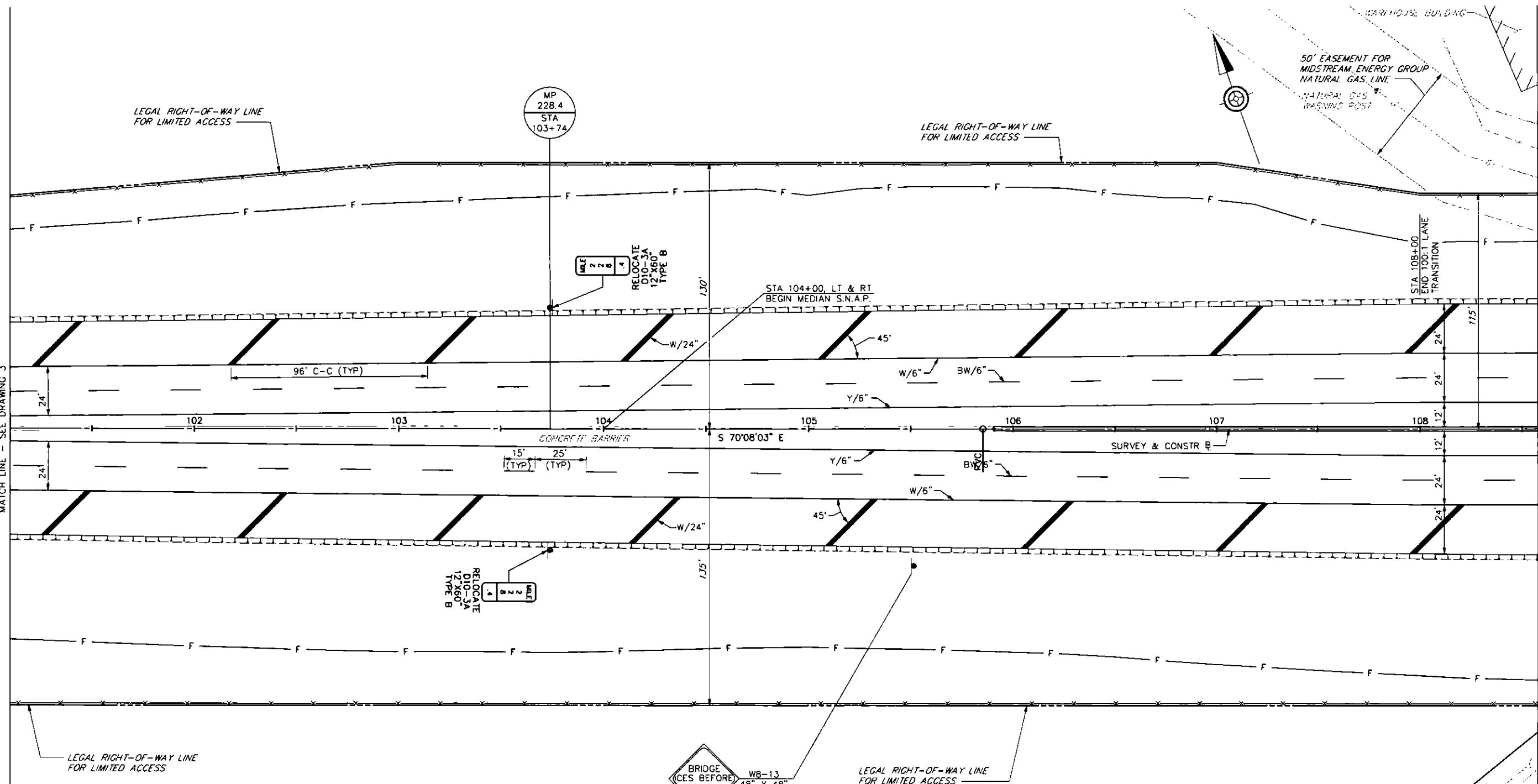
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NETWORK NUMBER: 7003982
FILE NAME: Smp103.dgn
DRAWING TYPE: 1A
STRUCTURE NUMBER: EB-103
SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

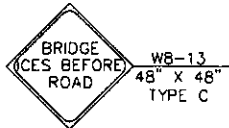
**SIGNING AND PAVEMENT MARKING PLAN
 STATION 93+50 TO STATION 101+00**

DRAWING: 3 OF 9
 SHEET: 81 OF 315



PAVEMENT MARKINGS

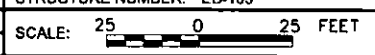
BW/6" BROKEN WHITE LINE / WIDTH
 Y/6" SOLID YELLOW LINE / WIDTH
 W/6" SOLID WHITE LINE / WIDTH

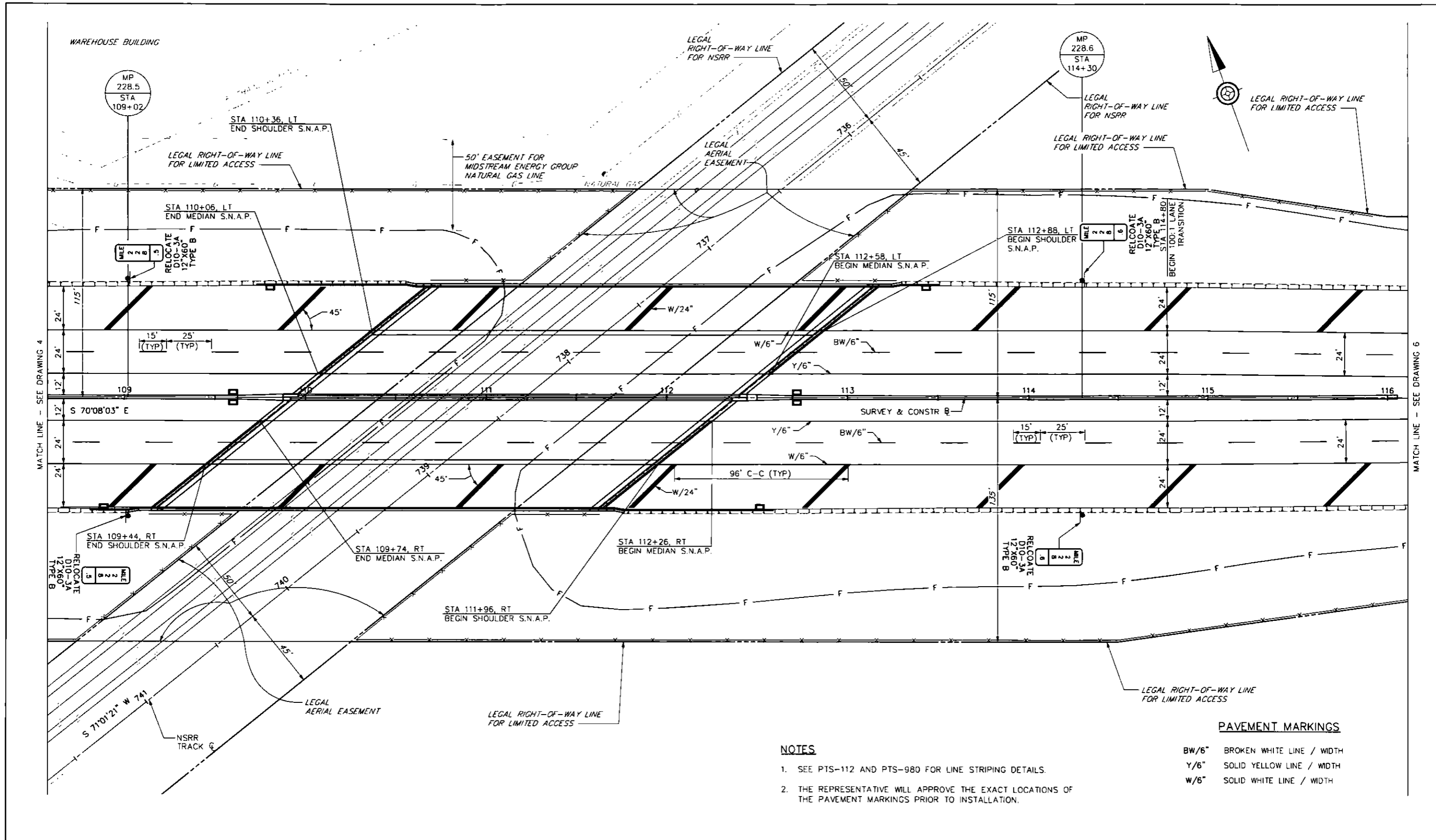


NOTES

- SEE PTS-112 AND PTS-980 FOR LINE STRIPING DETAILS.
- THE REPRESENTATIVE WILL APPROVE THE EXACT LOCATIONS OF THE PAVEMENT MARKINGS PRIOR TO INSTALLATION.

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		<table border="1"> <tr> <th>NO.</th> <th>REVISIONS</th> <th>DATE</th> <th>APPR.</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	REVISIONS	DATE	APPR.					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	SIGNING AND PAVEMENT MARKING PLAN STATION 101+00 TO STATION 108+50
				NO.	REVISIONS	DATE	APPR.							
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	NETWORK NUMBER: 7003982 FILE NAME: SMpl04.dgn DRAWING TYPE: 1A STRUCTURE NUMBER: EB-103	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 4 OF 9 SHEET: 82 OF 315											





NOTES

- SEE PTS-112 AND PTS-980 FOR LINE STRIPING DETAILS.
- THE REPRESENTATIVE WILL APPROVE THE EXACT LOCATIONS OF THE PAVEMENT MARKINGS PRIOR TO INSTALLATION.

PAVEMENT MARKINGS

- BW/6" BROKEN WHITE LINE / WIDTH
- Y/6" SOLID YELLOW LINE / WIDTH
- w/6" SOLID WHITE LINE / WIDTH

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



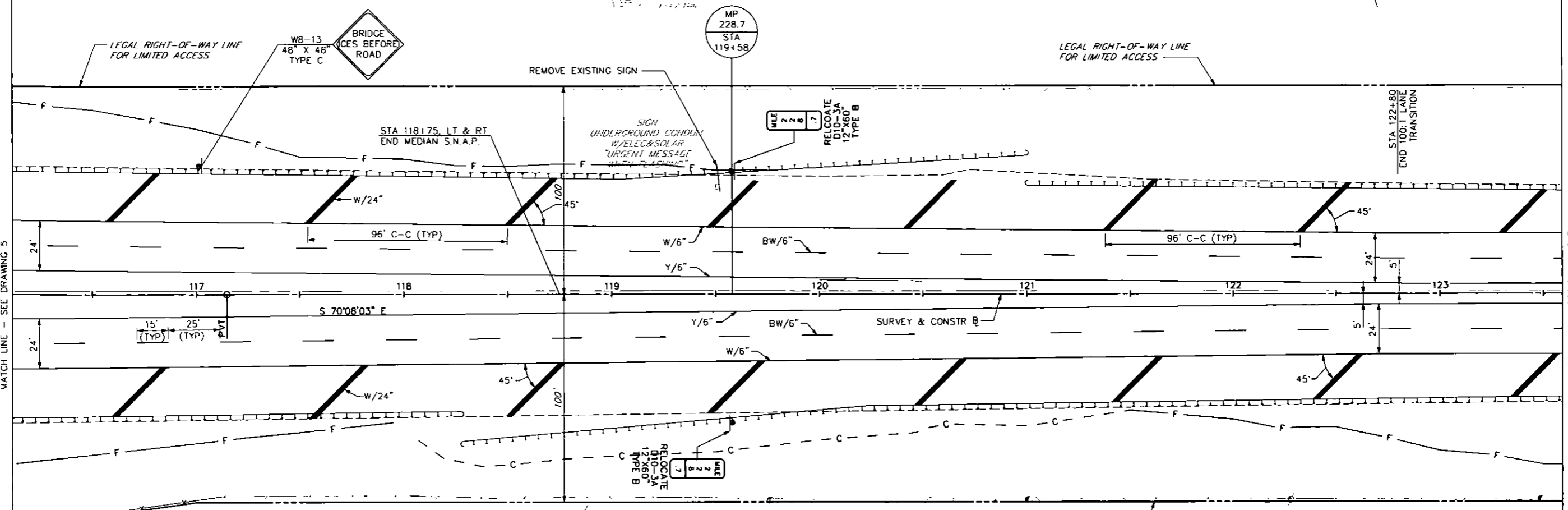
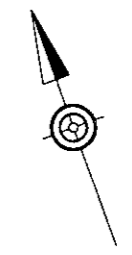
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FILE NAME: SMpl05.dgn			
DRAWING TYPE: 1A			
STRUCTURE NUMBER: EB-103			
SCALE: 25	0	25	FEET
NO.	REVISIONS	DATE	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**SIGNING AND PAVEMENT MARKING PLAN
STATION 108+50 TO STATION 116+00**

DRAWING: 5 OF 9
SHEET: 83 OF 315



PAVEMENT MARKINGS

- BW/6" BROKEN WHITE LINE / WIDTH
- Y/6" SOLID YELLOW LINE / WIDTH
- W/6" SOLID WHITE LINE / WIDTH

NOTES

1. SEE PTS-112 AND PTS-980 FOR LINE STRIPING DETAILS.
2. THE REPRESENTATIVE WILL APPROVE THE EXACT LOCATIONS OF THE PAVEMENT MARKINGS PRIOR TO INSTALLATION.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



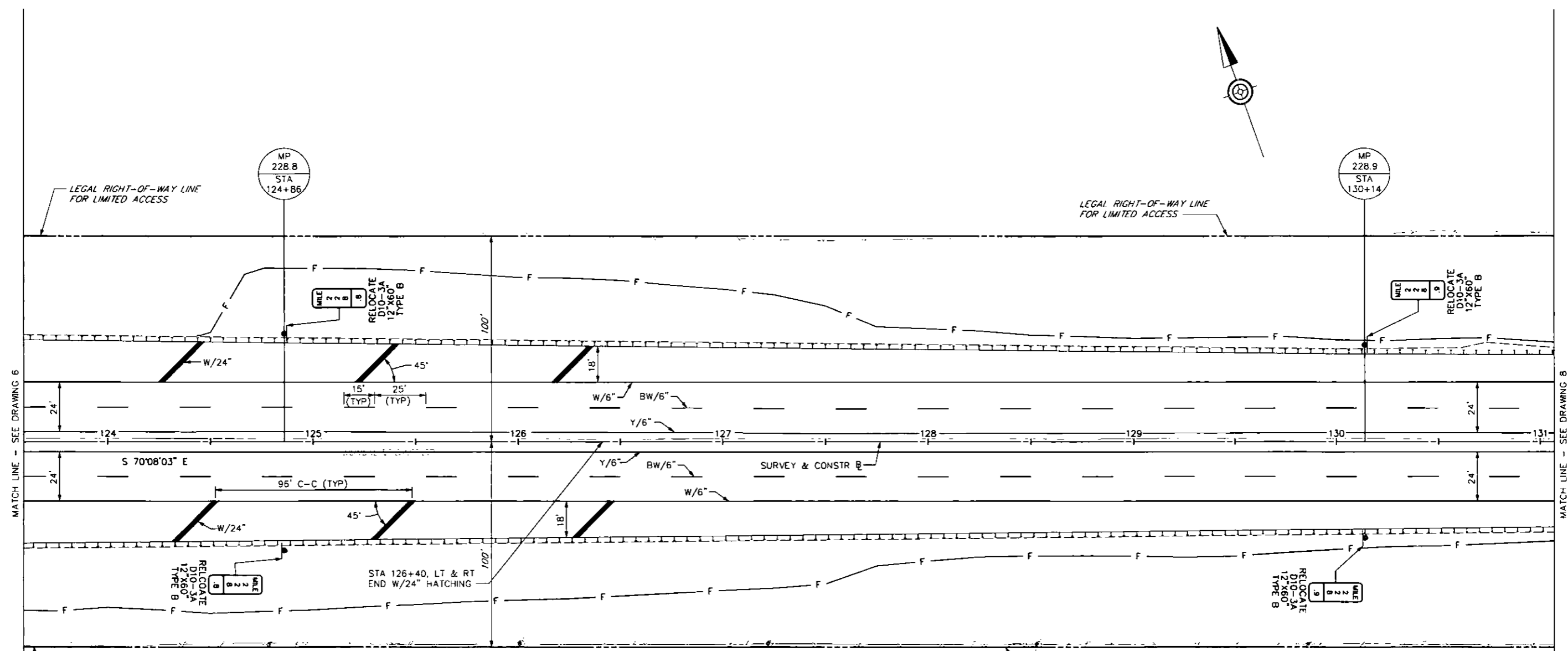
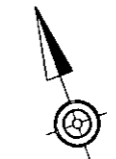
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NO.	REVISIONS	DATE	APPR.		

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**SIGNING AND PAVEMENT MARKING PLAN
STATION 116+00 TO STATION 123+50**

DRAWING: 6 OF 9
SHEET: 84 OF 315



LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

PAVEMENT MARKINGS

- BW/6" BROKEN WHITE LINE / WIDTH
- Y/6" SOLID YELLOW LINE / WIDTH
- W/6" SOLID WHITE LINE / WIDTH

NOTES

1. SEE PTS-112 AND PTS-980 FOR LINE STRIPING DETAILS.
2. THE REPRESENTATIVE WILL APPROVE THE EXACT LOCATIONS OF THE PAVEMENT MARKINGS PRIOR TO INSTALLATION.

DATE: 7/12/2016

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MECHANICSBURG, PA 17050

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THE PENNSYLVANIA
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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
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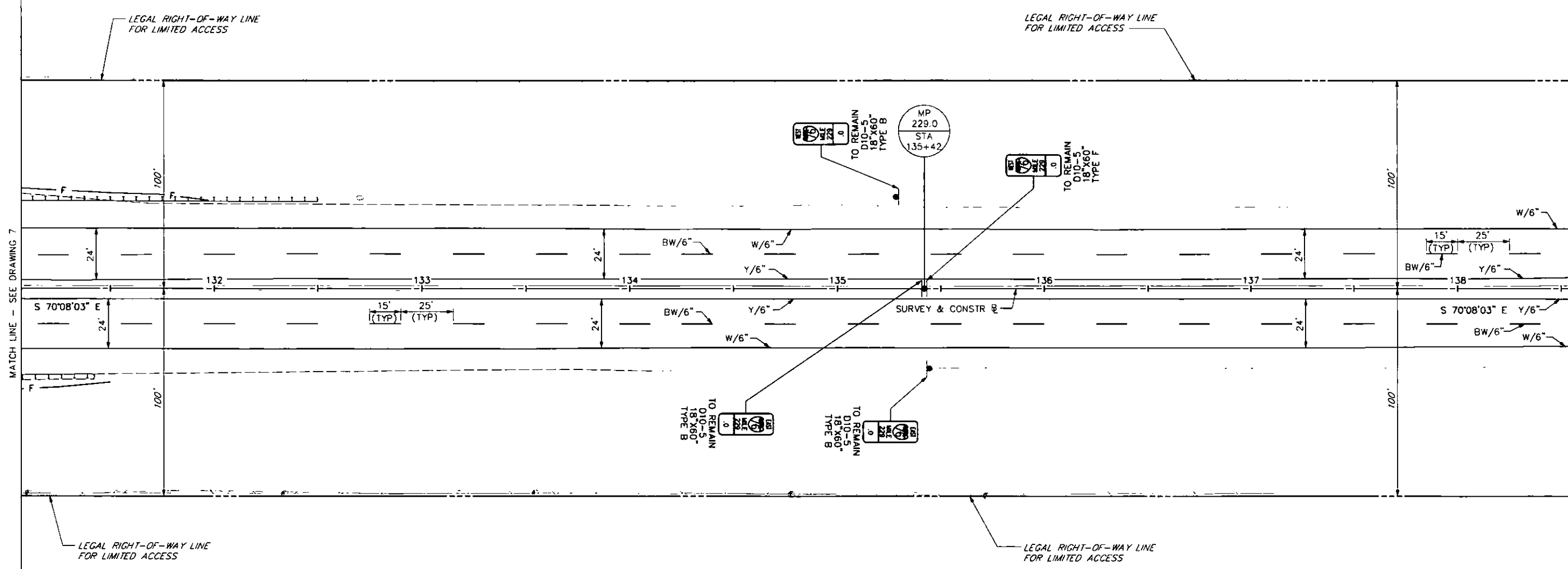
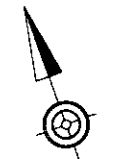
SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**SIGNING AND PAVEMENT MARKING PLAN
STATION 123+50 TO STATION 131+00**

DRAWING: 7 OF 9
SHEET: 85 OF 315



PAVEMENT MARKINGS

- BW/6" BROKEN WHITE LINE / WIDTH
- Y/6" SOLID YELLOW LINE / WIDTH
- W/6" SOLID WHITE LINE / WIDTH

NOTES

1. SEE PTS-112 AND PTS-980 FOR LINE STRIPING DETAILS.
2. THE REPRESENTATIVE WILL APPROVE THE EXACT LOCATIONS OF THE PAVEMENT MARKINGS PRIOR TO INSTALLATION.

DATE: 7/12/2016

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MECHANICSBURG, PA 17050

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TURNPIKE COMMISSION



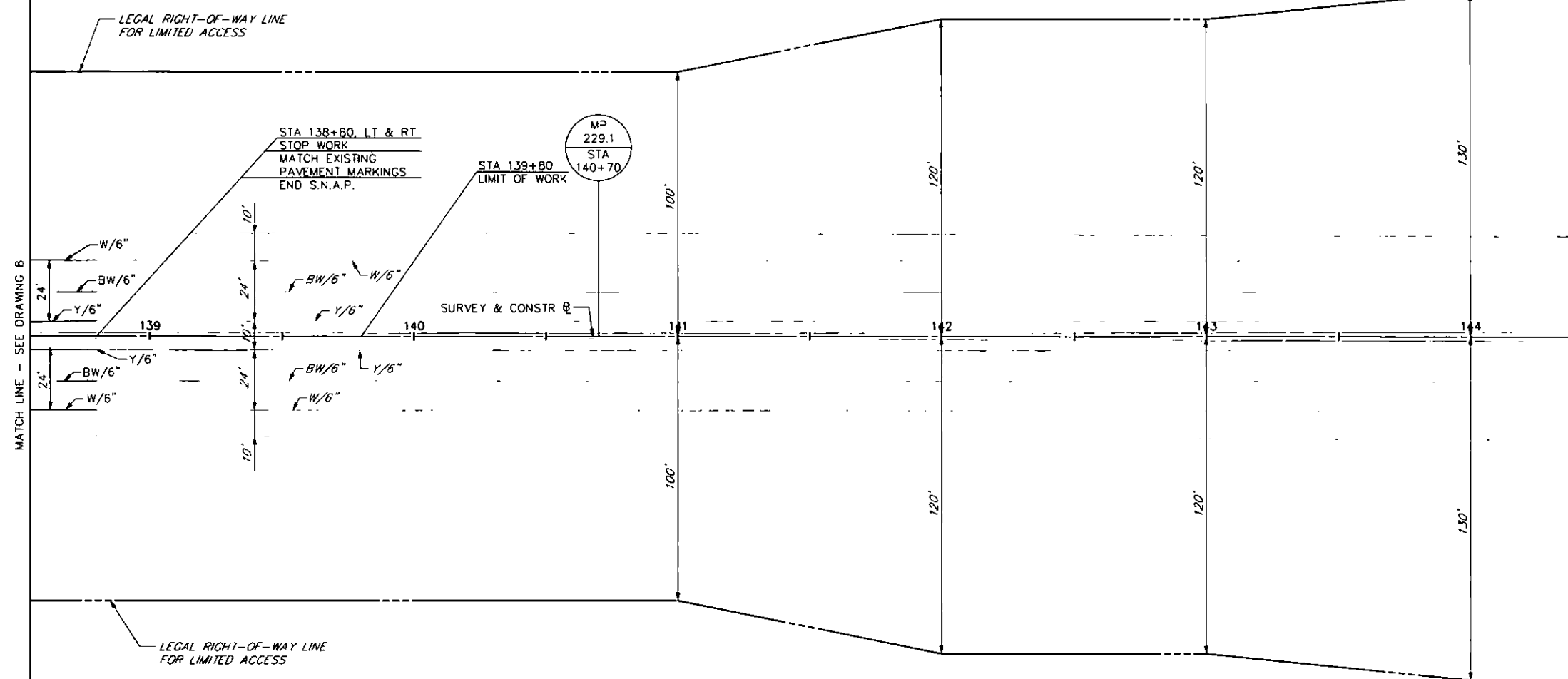
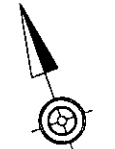
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STRUCTURE NUMBER: EB-103	
SCALE: 25 0 25 FEET	
NO.	REVISIONS
	DATE
	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**SIGNING AND PAVEMENT MARKING PLAN
STATION 131+00 TO STATION 138+50**

DRAWING: 8 OF 9
SHEET: 86 OF 315



PAVEMENT MARKINGS

- BW/6" 6" EXISTING BROKEN WHITE PAVEMENT MARKING
- Y/6" 6" EXISTING SOLID YELLOW PAVEMENT MARKING
- W/6" 6" EXISTING SOLID WHITE PAVEMENT MARKING
- BW/6" BROKEN WHITE LINE / WIDTH
- Y/6" SOLID YELLOW LINE / WIDTH
- W/6" SOLID WHITE LINE / WIDTH

NOTES

1. SEE PTS-112 AND PTS-980 FOR LINE STRIPING DETAILS.
2. THE REPRESENTATIVE WILL APPROVE THE EXACT LOCATIONS OF THE PAVEMENT MARKINGS PRIOR TO INSTALLATION.

DATE: 7/12/2016

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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: SMpl09.dgn
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 STRUCTURE NUMBER: EB-103

SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**SIGNING AND PAVEMENT MARKING PLAN
 STATION 138+50 TO STATION 139+80**

DRAWING: 9 OF 9
 SHEET: 87 OF 315

EROSION AND SEDIMENT POLLUTION CONTROL GENERAL NOTES

STANDARD CONTROL PROCEDURES

THE PURPOSE OF THIS PLAN IS TO PROVIDE EFFECTIVE EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PROCEDURES TO MINIMIZE EROSION UNDER NORMAL CONDITIONS AND SHALL BE CONSTRUED IN WHOLE OR IN PART TO BE ADEQUATE FOR SOIL STABILIZATION DURING CONSTRUCTION.

A COPY OF THE APPROVED DRAWINGS (BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY. IF THE EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

A LOG SHOWING DATES THAT EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES (BMPs) TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION.

IF UNFORESEEN CONDITIONS ARE ENCOUNTERED, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE COMMISSION (PTC) IN ACCORDANCE WITH SECTION 110.02.

TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.

AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.

ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION AND CONSTRUCTION MATERIAL/WASTES.

CHANNELS HAVING RIPRAP, RENO MATTRESS OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.

UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL.

ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.

FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS (SUCH AS SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS) THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.

FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.

SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.

SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED OR SWEEPED INTO ANY ROADSIDE DITCH, STORM SEWER OR SURFACE WATER.

SPRINKLE OR APPLY DUST SUPPRESSOR OR OTHERWISE KEEP DUST WITHIN TOLERABLE LIMITS AT THE PROJECT SITE.

ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.

CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.

AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES (6 TO 12 INCHES ON COMPACTED SOILS) PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.

APPLY PERMANENT SEEDING AND SOIL SUPPLEMENTS OR SOD TO ALL EXPOSED AREAS IMMEDIATELY AFTER FINAL GRADING. APPLY MULCH AS REQUIRED OR AS DIRECTED UNTIL SEEDING IS ESTABLISHED AND STABILIZED.

ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDING AREAS WITHIN 50 FEET OF A SURFACE WATER OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THE PLAN DRAWINGS.

STANDARD CONTROL PROCEDURES (CONTINUED)

FAILURE TO CORRECTLY INSTALL EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE COMMISSION (PTC) AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) SHALL COMPLY WITH THE REQUIREMENTS OF THE PENNSYLVANIA CODE, TITLE 25, ENVIRONMENTAL PROTECTION, PART I, SUBPART C, ARTICLE II, CHAPTER 102, EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC). IN THE EVENT OF CONFLICT BETWEEN THESE REQUIREMENTS AND POLLUTION CONTROL LAWS, RULES OR REGULATIONS OF OTHER FEDERAL, STATE OR LOCAL AGENCIES, THE MORE RESTRICTIVE LAWS, RULES OR REGULATIONS APPLY.

BEST MANAGEMENT PRACTICES (BMPs)

EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) BEST MANAGEMENT PRACTICES (BMPs) REQUIRED FOR THE PROJECT PERMIT AREA ARE AS FOLLOWS:

- ITEM NUMBER 2201-0001: CLEARING & GRUBBING
- ITEM NUMBER 4802-0001: TOPSOIL FURNISHED & PLACED
- ITEM NUMBER 2804-0013: SEEDING & SOIL SUPPLEMENTS - FORMULA D
- ITEM NUMBER 2804-0014: SEEDING - FORMULA E
- ITEM NUMBER 2804-0102: SEEDING & SOIL SUPPLEMENTS - FORMULA BT-1
- ITEM NUMBER 2805-0022: MULCHING - STRAW
- ITEM NUMBER 2806-0051: EROSION CONTROL MULCH BLANKET
- ITEM NUMBER 2845-0001: EROSION & SEDIMENTATION CONTROL DURING CONSTRUCTION
- ITEM NUMBER 4849-0002: ROCK CONSTRUCTION ENTRANCE WITH WASH RACK
- ITEM NUMBER 0851-0003: ROCK APRON
- ITEM NUMBER 4000-0800: SUMP PIT
- ITEM NUMBER 0854-0002: TEMPORARY SLOPE PIPE
- ITEM NUMBER 2858-0010: SEDIMENT FILTER BAG
- ITEM NUMBER 2860-0003: INLET FILTER BAG FOR TYPE M OR TYPE S INLET
- ITEM NUMBER 2865-0005: ROCK FILTER OUTLETS
- ITEM NUMBER 2861-0001: CLEANING SEDIMENTATION STRUCTURES
- ITEM NUMBER 0867-0012: COMPOST FILTER SOCK, 12" DIAMETER
- ITEM NUMBER 0867-0022: COMPOST FILTER SOCK, 24" DIAMETER
- ITEM NUMBER 4867-0024: COMPOST FILTER SOCK WASHOUT
- ITEM NUMBER 4000-0001: TEMPORARY RAILROAD CROSSING

RECYCLING / DISPOSAL OF MATERIALS

ANTICIPATED CONSTRUCTION WASTES FOR THE PROJECT PERMIT INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- CONCRETE / ASPHALT
- STEEL / ALUMINUM / OTHER METALS
- WOOD / VINYL / PLASTICS / OTHER TYPICAL CONSTRUCTION MATERIALS

ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S (PADEP'S) SOLID WASTE MANAGEMENT REGULATIONS AT THE PENNSYLVANIA CODE, TITLE 25, CHAPTERS 260.1 ET SEQ., 271.1 AND 287.1 ET SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE PROJECT SITE.

RECYCLING / DISPOSAL OF MATERIALS (CONTINUED)

ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PLAN APPROVED BY THE CUMBERLAND COUNTY CONSERVATION DISTRICT OR THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) AND FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING AND SUBMITTING AN EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PLAN FOR OFF-SITE BORROW AND/OR WASTE AREAS AS PER SECTION 105.14 AND SECTION 845. SUBMIT THE PLAN TO THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) FOR APPROVAL. PROVIDE A COPY OF THE APPROVAL TO THE COMMISSION (PTC) PRIOR TO COMMENCING WORK.

SITE STABILIZATION

IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUB-AREA OF THE PROJECT, THE CONTRACTOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN ONE(1) YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN ONE (1) YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.

PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING OR OTHER MOVEMENTS.

EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) BMP APPROVED BY THE CUMBERLAND COUNTY CONSERVATION DISTRICT.

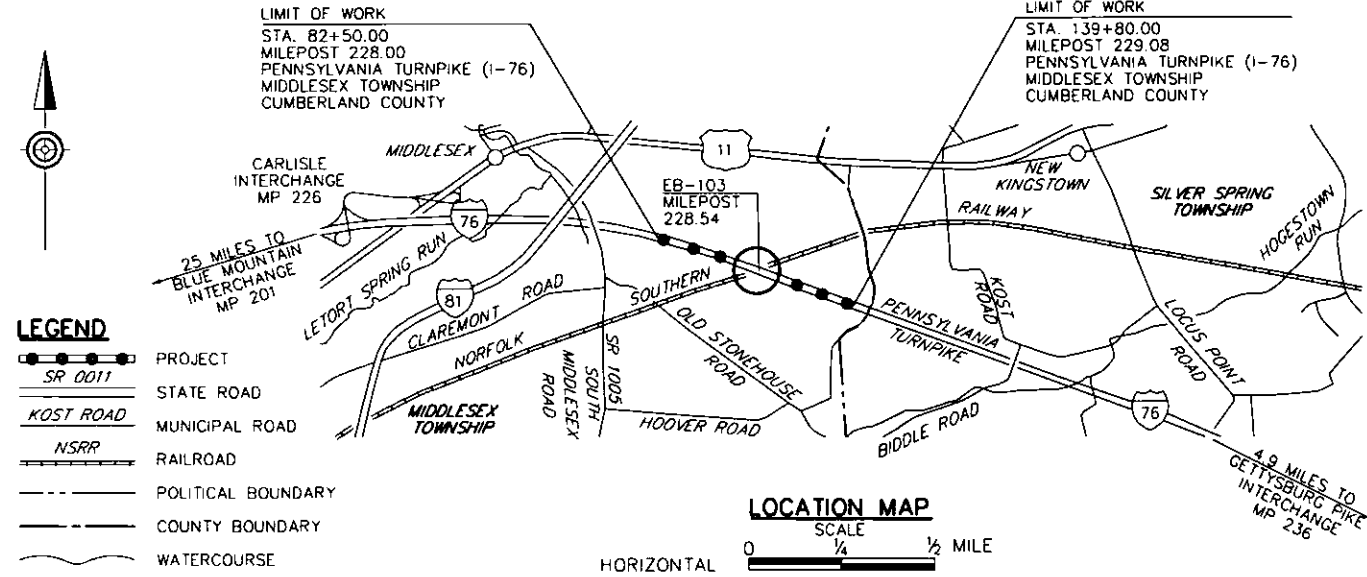
UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY IN A SPECIAL PROTECTION WATERSHED, THAT PORTION OF THE PROJECT SITE TRIBUTARY TO THE SPECIAL PROTECTION WATERS MUST BE STABILIZED IMMEDIATELY.

AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT CONTROL (E&SPC) BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) BMPs.

AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID RE-VEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

RECEIVING WATERS DESIGNATIONS

THE PROJECT AREA IS LOCATED ALONG THE DIVIDING LINE OF THREE SUB-WATERSHEDS WHICH DISCHARGES TO THE SUSQUEHANNA RIVER BASIN. THE MAJORITY OF THE PROJECT AREA DRAINS TO THE LETORT SPRING RUN. LETORT SPRING RUN IS CLASSIFIED AS A HIGH QUALITY (HQ) WATERSHED AND A COLD WATER FISHERY (CWF) STREAM UNDER TITLE 25, ENVIRONMENTAL PROTECTION, CHAPTER 93, WATER QUALITY STANDARDS. IT HAS BEEN CLASSIFIED BY THE PENNSYLVANIA FISH & BOAT COMMISSION (PFBC) AS A CLASS A WILD TROUT STREAM. A PORTION OF THE PROJECT AREA DRAINS TO AN UNNAMED TRIBUTARY OF THE CONODOQUINET CREEK WHICH IS CLASSIFIED AS A WARM WATER FISHERY (WWF). A SMALL PORTION OF THE PROJECT AREA DRAINS TO HOGESTOWN RUN WHICH IS CLASSIFIED AS A COLD WATER FISHERY (CWF). ALL THREE WATERSHEDS ARE PART OF THE CUMBERLAND COUNTY ACT 167 PLAN DATED SEPTEMBER 2010.



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89	MAINTENANCE PROGRAM
90	SEEDING AND SOIL SUPPLEMENTS & SOIL CLASSIFICATION AND LIMITATIONS
91	PROJECT IMPACTS & EARTH DISTURBANCE SEQUENCE
92-101	DETAILS
102	INDEX MAP
103-111	PLANS (PHASE 1)
112-120	PLANS (PHASE 2)
121-129	PLANS (PHASE 3)

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050



PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

NO.	REVISIONS	DATE	APPR.	SCALE:
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WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: ESgn01.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIMENT POLLUTION CONTROL
GENERAL NOTES & LOCATION MAP**

DRAWING: 1 OF 1
SHEET: 88 OF 315

EROSION AND SEDIMENT POLLUTION CONTROL GENERAL NOTES

MAINTENANCE PROGRAM

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND DISPOSAL OF EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) DEVICES. PERFORM THESE ACTIVITIES IN ACCORDANCE WITH SPECIFICATIONS AND SPECIAL PROVISIONS AS APPLICABLE UNTIL THE SITE IS STABILIZED.

ALL TEMPORARY MUST BE PROPERLY MAINTAINED AS REQUIRED AND AFTER STORM EVENTS, INCLUDING INSPECTION, MAINTENANCE AND REPAIR. IF TEMPORARY BMPS DO NOT FUNCTION AS INTENDED, REPLACEMENT OR MODIFICATION OF THOSE BMPS INSTALLED MAY BE REQUIRED.

ALL PERMANENT EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) DEVICES (BMPs) MUST BE PROPERLY MAINTAINED ANNUALLY AND WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (GREATER THAN 1 INCH RAINFALL DEPTH), INCLUDING REGULAR INSPECTION, ROUTINE MAINTENANCE AND REPAIR AS REQUIRED. IF PERMANENT BMPS DO NOT FUNCTION AS INTENDED, REPLACEMENT OR MODIFICATION OF THOSE BMPs INSTALLED MAY BE REQUIRED.

WRITTEN DOCUMENTATION FOR INSPECTIONS, MAINTENANCE AND REPAIRS SPECIFIED SHALL BE PROVIDED FOR ALL EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) DEVICES.

1. CLEARING AND GRUBBING

ITEM NUMBER: 2201-0001
 BMP TYPE: STABILIZATION
 INSPECTION: INSPECT PRIOR TO THE START OF GRADING OPERATIONS IN THE PROJECT AREA AND AS DIRECTED.
 MAINTENANCE: MAINTAIN CLEARING AND GRUBBING THROUGHOUT DURATION OF PROJECT AND AS DIRECTED.
 REPAIR: REMOVE ANY VEGETATION, ORGANIC MATERIAL AND/OR DEBRIS WITHIN THE LEGAL RIGHT-OF-WAY. CHIP, BURN OR DISPOSE OF BRUSH AND DEBRIS ACCORDINGLY.

2. TOPSOIL FURNISHED AND PLACED

ITEM NUMBER: 4802-0001
 BMP TYPE: STABILIZATION
 INSPECTION: INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL THE SITE IS STABILIZED.
 MAINTENANCE: REMOVE STONES AND OTHER FOREIGN MATERIAL 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE AND SATISFACTORILY DISPOSE OF UNSUITABLE AND SURPLUS MATERIAL.
 REPAIR: REPLACE TOPSOIL AS SPECIFIED FOR ANY FURTHER EXCAVATION AND REDRESSING OF A PREVIOUSLY COMPLETED SLOPE.

3. SEEDING AND MULCHING

ITEM NUMBER: 2804-0013 / 2804-0014 / 2804-0102 / 0805-0022
 BMP TYPE: STABILIZATION
 INSPECTION: INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL THE SITE IS STABILIZED.
 MAINTENANCE: MAINTAIN GRASS AND LEGUME GROUND COVER AREAS AND MULCHED AREAS UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE WITHIN THE GRADING LIMITS. CONTROL ANY NOXIOUS WEED GROWTH WITHIN THE RIGHT-OF-WAY BY APPROVED HERBICIDE SPRAYING AND/OR CUTTING.
 REPAIR: REPLACE SEEDING, SOIL SUPPLEMENTS AND MULCH AS SPECIFIED FOR ANY FURTHER EXCAVATION AND REDRESSING OF A PREVIOUSLY COMPLETED SLOPE. REAPPLY MULCH MATERIALS, WHICH BECOME DISLODGED OR LOST DUE TO WIND, RAIN OR OTHER CAUSES, AT INITIAL OR MODIFIED RATES, IMMEDIATELY.

4. EROSION CONTROL MULCH BLANKET (ECMB)

ITEM NUMBER: 2806-0051
 BMP TYPE: STABILIZATION
 INSPECTION: INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT
 MAINTENANCE: MAINTAIN BLANKET UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA.
 REPAIR: RESTORE OR REPLACE ANY DAMAGED OR DISPLACED SECTION WITHIN FOUR (4) CALENDAR DAYS OF INSPECTION.

5. EROSION AND SEDIMENTATION CONTROL DURING CONSTRUCTION

ITEM NUMBER: 2845-0001
 BMP TYPE: GENERAL
 INSPECTION: INSPECT AS DIRECTED DURING CONSTRUCTION AND AFTER EACH RUNOFF EVENT UNTIL THE SITE IS STABILIZED.
 MAINTENANCE: PROVIDE WATER POLLUTION CONTROL MEASURES TO PREVENT OR ABATE UNFORESEEN POLLUTION OF SURFACE WATER AND GROUNDWATER RESOURCES
 REPAIR: REPAIR OR REPLACE ANY CONTROL MEASURES AS DIRECTED.

MAINTENANCE PROGRAM (CONTINUED)

6. ROCK CONSTRUCTION ENTRANCE WITH WASH RACK (RCE-WR)

ITEM NUMBER: 4849-0002
 BMP TYPE: GENERAL
 INSPECTION: INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL THE SITE IS STABILIZED
 MAINTENANCE: ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY.
 REPAIR: THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. REPAIR DAMAGED WASH RACK PRIOR TO FURTHER USE.

7. ROCK APRON (RA)

ITEM NUMBER: 0851-0003
 BMP TYPE: OUTLET PROTECTION
 INSPECTION: INSPECT AFTER EACH RUNOFF EVENT UNTIL THE SITE IS STABILIZED.
 MAINTENANCE: TERMINAL WIDTH OF APRON SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS. CLEAN OUT SEDIMENT AND DEBRIS FROM APRON AS REQUIRED.
 REPAIR: REPLACE ANY DISPLACED RIPRAP WITHIN THE APRON IMMEDIATELY.

8. SUMP PIT (SP)

ITEM NUMBER: 4000-0800
 BMP TYPE: GENERAL
 INSPECTION: INSPECT DAILY AND PRIOR TO THE START OF PUMPING.
 MAINTENANCE: REMOVE SEDIMENT WHEN ACCUMULATION REACHES THE ASSOCIATED CLEANOUT HEIGHT OR WHEN FLOW RATE IS REDUCED.
 REPAIR: REPAIR OR REPLACE PUMP AND/OR HOSES AS NEEDED. CEASE PUMPING OPERATIONS UNTIL ALL MAINTENANCE PROBLEMS ARE RESOLVED.

9. TEMPORARY SLOPE PIPE (TSP)

ITEM NUMBER: 0854-0002
 BMP TYPE: RUNOFF CONVEYENCE
 INSPECTION: INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL THE SITE IS STABILIZED.
 MAINTENANCE: REMOVE ACCUMULATED SEDIMENT FROM THE INLET IMMEDIATELY.
 REPAIR: REPLACE ANY DAMAGED PIPE SECTION WITHIN 24 HOURS OF INSPECTION. REPAIR ANY LEAKING CONNECTIONS IMMEDIATELY.

10. SEDIMENT FILTER BAG (SFB)

ITEM NUMBER: 2858-0010
 BMP TYPE: GENERAL
 INSPECTION: INSPECT DAILY AND PRIOR TO THE START OF PUMPING.
 MAINTENANCE: REPLACE FILTER BAGS WHEN ACCUMULATION REACHES 50% CAPACITY OR WHEN FLOW RATE IS REDUCED.
 REPAIR: REPAIR OR REPLACE PUMP AND/OR HOSES AS NEEDED. CEASE PUMPING OPERATIONS UNTIL ALL MAINTENANCE PROBLEMS ARE RESOLVED.

11. ROCK FILTER OUTLETS (RF)

ITEM NUMBER: 2865-0005
 BMP TYPE: SEDIMENT FILTER
 INSPECTION: INSPECT AFTER EACH RUNOFF EVENT UNTIL THE SITE IS STABILIZED.
 MAINTENANCE: REMOVE SEDIMENT WHEN ACCUMULATION REACHES 1/3 EXPOSED HEIGHT OF THE FILTER.
 REPAIR: REPAIR ANY CLOGGED OR DAMAGED SECTION IMMEDIATELY WITH ADDITIONAL AGGREGATE.

12. INLET FILTER BAG (IFB)

ITEM NUMBER: 2860-0003
 BMP TYPE: INLET PROTECTION
 INSPECTION: INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL THE SITE IS STABILIZED.
 MAINTENANCE: EMPTY AND RINSE OR REPLACE FILTER BAGS WHEN ACCUMULATION REACHES 50% CAPACITY OR WHEN FLOW RATE IS REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET.
 REPAIR: REPLACE ANY CLOGGED OR DAMAGED FILTER BAG IMMEDIATELY. A SUPPLY OF BAGS SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.

MAINTENANCE PROGRAM (CONTINUED)

13. CLEANING SEDIMENT STRUCTURES

ITEM NUMBER: 2861-0001
 BMP TYPE: GENERAL
 INSPECTION: INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL THE SITE IS STABILIZED.
 MAINTENANCE: REMOVE SEDIMENT WHEN ACCUMULATION REACHES THE ASSOCIATED CLEANOUT HEIGHT. MAINTAIN OR REPLACE CLEANOUT STAKE AS REQUIRED, AS INDICATED OR AS DIRECTED.
 REPAIR: REPAIR OR REPLACE ANY SEDIMENT STRUCTURE FACILITY AS DIRECTED.

14. VEGETATED CHANNEL WITH CHECK DAMS

ITEM NUMBER: PAID AS 0212-0150, 0703-0025, AND 0850-0031 (DRAINAGE ITEMS)
 BMP TYPE: RUNOFF CONVEYENCE
 INSPECTION: INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL THE SITE IS STABILIZED.
 MAINTENANCE: CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CLEAN CHANNEL WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. REMOVE SEDIMENT WHEN ACCUMULATION REACHES 1/3 EXPOSED HEIGHT OF THE FILTER.
 REPAIR: REPAIR OR REPLACE ANY DAMAGED CHANNEL LINING WITHIN 48 HOURS OF INSPECTION. REPAIR ANY CLOGGED OR DAMAGED CHECK DAM SECTION IMMEDIATELY WITH ADDITIONAL AGGREGATE.

15. COMPOST FILTER SOCK (CFS)

ITEM NUMBER: 0867-0012 / 0867-0022
 BMP TYPE: SEDIMENT BARRIER
 INSPECTION: INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL THE SITE IS STABILIZED.
 MAINTENANCE: REMOVE SEDIMENT WHEN ACCUMULATION REACHES 1/3 EXPOSED HEIGHT OF THE BARRIER.
 REPAIR: REPLACE ANY DAMAGED SECTION WITHIN 24 HOURS OF INSPECTION ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

16. COMPOST FILTER SOCK WASHOUT (CFSW)

ITEM NUMBER: 4867-0024
 BMP TYPE: GENERAL
 INSPECTION: INSPECT DAILY AND PRIOR TO EACH USE.
 MAINTENANCE: REMOVE SEDIMENT WHEN ACCUMULATION REACHES 75% CAPACITY OF THE WASHOUT.
 REPAIR: DEACTIVATED AND REPAIR OR REPLACE DAMAGED OR LEAKING WASHOUTS IMMEDIATELY.

17. TEMPORARY RAILROAD CROSSING (TRRC)

ITEM NUMBER: 4800-0001
 BMP TYPE: GENERAL
 INSPECTION: INSPECT DAILY UNTIL NO LONGER NEEDED OR AS DIRECTED.
 MAINTENANCE: REMOVE SEDIMENT DEPOSITS ON THE CROSSING WITHIN 24 HOURS OF THE INSPECTION.
 REPAIR: REPAIR DAMAGED CROSSING WITHIN 24 HOURS OF INSPECTION AND PRIOR TO ANY SUBSEQUENT USE.

18. TEMPORARY CONSTRUCTION ACCESS (TCA)

ITEM NUMBER: TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT
 BMP TYPE: IN-CHANNEL
 INSPECTION: INSPECT DAILY UNTIL NO LONGER NEEDED OR AS DIRECTED.
 MAINTENANCE: REMOVE SEDIMENT DEPOSITS ON THE ACCESS WITHIN 24 HOURS OF THE INSPECTION.
 REPAIR: REPAIR DAMAGED ACCESS WITHIN 24 HOURS OF INSPECTION AND PRIOR TO ANY SUBSEQUENT USE.

DATE: 7/12/2016

PREPARED BY:
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PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE:

WBS NO.
T-228.54S001-3-02
 NETWORK NUMBER: 7003982
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 DRAWING TYPE: 1V
 STRUCTURE NUMBER: EB-103

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

**EROSION & SEDIEMENT POLLUTION CONTROL
 MAINTENANCE PROGRAM**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 1 OF 1
 SHEET: 89 OF 315

SEEDING & SOIL SUPPLEMENTS

FORMULA	SPECIES	% BY MASS	MINIMUM %		MAXIMUM % WEED SEED	SEEDING RATE LBS PER 1000 SY	TOTAL RATE LBS PER 1000 SY
			PURITY	GERMINATION			
FORMULA BT-1	CREeping RED FESCUE (FESTUCA RUBRA)	65	97	85	0.10	27.5	42.0 TOTAL
	BIRDSFOOT TREFoil (LOTUS CORNICULATUS)	15	92	80	0.10	6.5	
	PERENNIAL RYEGrASS MIXTURE (LOLIUM PERENNE)	10	98	90	0.15	4.0	
	REDTOP (AGROSTIS ALBA)	10	92	85	0.20	4.0	
FORMULA D	TALL FESCUE (FESTUCA ARUNDINACEA VAR. KENTUCKY 31)	60	96	85	0.10	30.0	50.0 TOTAL
	CREeping RED FESCUE OR CHEWINGS FESCUE	30	97	85	0.10	15.0	
	ANNUAL RYEGrASS (LOLIUM MUTIFLORUM)	10	95	90	0.10	5.0	
FORMULA E	ANNUAL RYEGrASS (LOLIUM MUTIFLORUM)	100	95	90	0.10	10.0	10.0 TOTAL

SEEDING MEASURES

ALL DISTURBED SOIL AREAS NOT BEING PAVED WITH BITUMINOUS MATERIALS MUST BE SEEDED AND MULCHED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS AND THE SPECIFICATIONS:

- FORMULA BT-1: USED FOR SLOPES GREATER THAN 3:1 WHERE MOWING IS NOT ANTICIPATED OR DESIRED.
- FORMULA D: NORMALLY USED IN DRAINAGE CHANNELS OR SWALES REQUIRING PERMANENT SEEDING. ALSO USED ON MOST HIGHWAY SLOPE AREAS WHERE MOWING MAY OR MAY NOT BE DESIGNATED.
- FORMULA E: DISTURBED AREAS NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED DURING CONSTRUCTION.

SPREAD SEEDS WHERE INDICATED AND AT THE RATES SPECIFIED IN THE SEEDING AND SOIL SUPPLEMENTS TABLE. SPREAD SEEDS WITHIN THE FOLLOWING DATES OR AS OTHERWISE INDICATED OR DIRECTED.

- FORMULA BT-1: MARCH 15 TO JUNE 1
AUGUST 1 TO SEPTEMBER 15
- FORMULA D: MARCH 15 TO JUNE 1
AUGUST 1 TO OCTOBER 15
- FORMULA E: MARCH 15 TO OCTOBER 15

EXTEND SEEDING DATES WHERE PROJECT CONDITIONS WARRANT. APPLY FULL TREATMENT OR APPLY ONLY 50% OF THE PERMANENT SEEDING AND SOIL SUPPLEMENTS AND APPLY THE REMAINING 50% WITHIN THE NEXT SEEDING DATES, AS DIRECTED IN WRITING BY THE REPRESENTATIVE.

USE TILLAGE AND SOIL SUPPLEMENTS BEFORE PERMANENT SEEDING ON TOPSOILED AREAS, WHERE TEMPORARY SEEDING OR MULCHING HAS BEEN APPLIED. THE CONTRACTOR MAY APPLY PERMANENT SEED AND/OR SOIL SUPPLEMENTS WITHOUT TILLING ON UNTOPSOILED AREAS, WHERE TEMPORARY SEEDING OR MULCHING HAS BEEN APPLIED.

GRADE THE AREAS TO BE COVERED BY TOPSOIL. USING ACCEPTABLE METHODS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE PLACING TOPSOIL. REMOVE STONES AND OTHER FOREIGN MATERIAL 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE AND SATISFACTORILY DISPOSE OF UNSUITABLE AND SURPLUS MATERIAL. PLACE TOPSOIL ON THE PREPARED AREAS AND, UNLESS OTHERWISE INDICATED, SPREAD AND COMPACT TO A 4 INCH UNIFORM DEPTH +/- 1 1/2 INCHES. COMPACT WITH A ROLLER HAVING A WEIGHT NOT OVER 120 POUNDS PER FOOT WIDTH OF ROLLER OR BY OTHER ACCEPTABLE METHODS, AS DIRECTED. REMOVE OVERDEPTH TOPSOIL, UNLESS OTHERWISE AGREED UPON IN WRITING BY THE REPRESENTATIVE. DO NOT PLACE TOPSOIL IN A WET OR FROZEN CONDITION.

STABILIZE ALL DISTURBED AREAS IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUB-AREA OF THE PROJECT. DURING NON-GERMINATING MONTHS, APPLY MULCH OR PROTECTIVE BLANKETING AS DESCRIBED IN THE PLAN. STABILIZE AREAS NOT AT FINISHED GRADE THAT WILL BE RE-ACTIVATED WITHIN ONE (1) YEAR IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. STABILIZE THOSE AREAS THAT WILL NOT BE REACTIVATED WITHIN ONE (1) YEAR IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS. AREAS MULCHED DURING NON-GERMINATING PERIODS MUST BE LIMED, FERTILIZED, SEEDED AND MULCHED WITHIN TEN (10) DAYS OF THE ENDING OF THOSE PERIODS.

THE CONTRACTOR WILL MAINTAIN ALL SEEDED AREAS UNTIL FINAL INSPECTION AND ACCEPTANCE OF ALL WORK IN THE CONTRACT. ANY RE-SEEDING OR RE-GRADING MUST BE AT THE DEPARTMENT'S EXPENSE. ANY AREAS WHICH FAIL TO SHOW A UNIFORM STAND OR FAIL TO GERMINATE, FOR ANY REASON, MUST BE RE-SEEDED WITH THE ORIGINAL MIXTURE. SUCH RE-SEEDING MUST BE MAINTAINED UNTIL FINAL ACCEPTANCE OF THE WORK.

SOIL SUPPLEMENTS

BLEND THE INITIAL SOIL SUPPLEMENTS INTO THE SOIL AT LEAST 2 INCHES, ON TOPSOILED AREAS, BY RAKING, DISKING, HARROWING OR BY ANOTHER ACCEPTABLE METHOD. THE BLENDING OF THE SUPPLEMENTS INTO THE SOIL MAY BE PERFORMED DURING TILAGE OPERATIONS.

APPLY SLOW-RELEASE NITROGEN FERTILIZER TO THE SURFACE OF FORMULA B, D, L AND W SEEDED AREAS BEFORE PROJECT COMPLETION (IF APPLICABLE). DO NOT APPLY SLOW-RELEASE NITROGEN FERTILIZER SUPPLEMENT TO FORMULA C SEEDED AREAS (IF APPLICABLE).

SOIL SUPPLEMENTS (CONTINUED)

SOIL SUPPLEMENTS OF THE TYPE SPECIFIED BELOW WILL BE APPLIED AT THE FOLLOWING APPLICATION RATES, UNLESS OTHERWISE INDICATED:

- PULVERIZED AGRICULTURAL LIMESTONE: 800 LBS PER 1,000 SY
- 10-20-20 ANALYSIS COMMERCIAL FERTILIZER: 140 LBS PER 1,000 SY
- 38-0-0 UREA FORM FERTILIZER: 50 LBS PER 1,000 SY
OR
- 32-0-0 TO 38-0-0 SULFUR COATED AREA FERTILIZER: 59 LBS TO 50 LBS PER 1,000 SY AS DIRECTED
OR
- 31-0-0 IBDU FERTILIZER: 61 LBS PER 1,000 SY

UNIFORMLY APPLY SUPPLEMENTS TO THE AREAS TO BE SEEDED, EXCEPT AREAS TO BE SEEDED WITH FORMULA E.

PLACE MULCH, OF THE TYPE INDICATED, IMMEDIATELY AFTER SEEDING OR WITHIN 48 HOURS AFTER SEEDING IS COMPLETED. UNLESS OTHERWISE INDICATED, PLACE ONLY STRAW OR WOOD FIBER OVER TOPSOILED AREAS. USE HAY, STRAW OR WOOD FIBER IN OTHER AREAS, AS INDICATED OR SPECIFIED.

SOIL SUPPLEMENTS (CONTINUED)

PLACE HAY OR STRAW UNIFORMLY, IN A CONTINUOUS BLANKET, AT A MINIMUM RATE OF 1,200 POUNDS PER 1,000 SQUARE YARDS OR AS OTHERWISE INDICATED. IF DIRECTED, INCREASE THE RATE OF APPLICATION, DEPENDING UPON THE MATERIAL USED, SEASON, SOIL CONDITIONS OR METHOD OF APPLICATION. AN ACCEPTABLE MECHANICAL BLOWER MAY BE USED TO APPLY MULCH. DO NOT USE MACHINES THAT CUT MULCH INTO SHORT PIECES.

UTILIZE ANY OF THE FOLLOWING TO ANCHOR STRAW AND HAY MULCH:

- TACKIFIERS (POLYMERIC OR GUM): TACKIFIERS MIXED AND APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAY BE USED TO TACK MULCH.
- SYNTHETIC BINDERS (CHEMICAL BINDERS): BINDERS MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES.
- HYDROMULCH (SHREDDED PAPER OR WOOD FIBER): SHREDDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5% WOOD FIBER HYDROMULCH MAY BE APPLIED ON STEEPER SLOPES PROVIDED A TACKIFIER IS USED. THE APPLICATION RATE FOR ANY HYDROMULCH SHOULD BE 2,000 LBS PER ACRE AT A MINIMUM.

STRAW AND HAY MULCH SHOULD BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN.

GEOLOGIC FORMATIONS / SOIL POLLUTION CONCERNS

THE PROJECT IS LOCATED IN A KARST TOPOGRAPHY WHICH MAY LEAD TO THE DEVELOPMENT OF SINKHOLES. A DEVELOPED SINKHOLE MAY EXACERBATE POLLUTION CONCERNS, ESPECIALLY DURING CONSTRUCTION WHEN NO PERMANENT WATER QUALITY BMP'S HAVE BEEN INSTALLED. SINCE POLLUTED RUN-OFF HAS THE POTENTIAL TO ENTER GROUNDWATER PRIOR TO TREATMENT, SEE THE EROSION & SEDIMENT POLLUTION CONTROL (E&SPC) DETAILS FOR INSTRUCTIONS AND DETAILS FOR PROPER SINKHOLE MANAGEMENT AND MITIGATION.

SOIL CLASSIFICATION

SYMBOL	DESCRIPTION	SLOPE	SURFACE RUNOFF	ERODIBILITY	PERMEABILITY	WATER TABLE DEPTH	DEPTH TO BEDROCK
DuA/DuB	DUFFIELD SILT LOAM	0-8%	WELL DRAINED	SLIGHT TO MODERATE	MODERATE	> 80"	60" - 80"
EdB/EdD	EDOM SILTY CLAY LOAM	3-25%	WELL DRAINED	MODERATE TO SEVERE	MODERATE	> 80"	40" - 72"
HoB/HoC HoD/HoE	HAGERSTOWN SILT LOAM	0-15%	WELL DRAINED	SLIGHT TO SEVERE	MODERATE	> 80"	43" - 98"
HuA	HUNTINGTON SILT LOAM	0-5%	WELL DRAINED	MODERATE	MODERATELY HIGH	> 80"	> 80"
NeB/NeC NhB	NESHAMINY GRAVELLY SILT LOAM	0-15%	WELL DRAINED	MODERATE TO SEVERE	MODERATELY HIGH	60" - 72"	48" - 72"
Wa	WARNERS SILT LOAM	0-3%	VERY POORLY DRAINED	SLIGHT	MODERATELY SLOW	0"	> 80"

BASED ON THE SCOPE OF THE PROJECT, LIMITATIONS ASSOCIATED WITH THE EXISTING SOIL TYPES ARE LISTED IN THE SOIL LIMITATIONS TABLE.

SOIL LIMITATIONS

SYMBOL	SOIL SERIES	DESCRIPTION	SLOPE	EROSION & SEDIMENT			WATER CONTROL		STRUCTURE		
				CUTBANKS CAVE	EASILY ERODIBLE	LOW STRENGTH/LANDSIDE POTENTIAL	DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE	FLOODING	PONDING	FROST ACTION	CORROSION TO CONCRETE
Du	DUFFIELD		0-8%	X	X	X			X	C	S
Ed	EDOM		3-25%	X	X	X		X	X		S
Ho/Hc	HAGERSTOWN		0-15%	X	X	X	X		X		S
Hu	HUNTINGTON		0-5%	X		X	X	X	X	C	
Ne/Nh	NESHAMINY		0-15%	X		X	X		X	C	S
Wa	WARNERS		0-3%		X	X	X	X	X		S
CONSTRUCTION TECHNIQUES/SPECIAL CONSIDERATIONS TO SOIL LIMITATIONS				2:1 MAXIMUM CUTBANK SLOPES & ECMB FOR SLOPES 3:1 & GREATER			PROVIDE SEDIMENT FILTER BAG		USE CONCRETE CONSISTENT WITH SPECIFICATIONS		

DATE: 7/12/2016

PREPARED BY:
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MECHANICSBURG, PA 17050



PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: ESgn03.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

**EROSION & SEDIEMENT POLLUTION CONTROL
SEEDING AND SOIL SUPPLEMENTS &
SOIL CLASSIFICATION AND LIMITATIONS**

DISTRICT: 3 COUNTY: CUMBERLAND DRAWING: 1 OF 1
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP SHEET: 90 OF 315

TOTAL PROJECT WATERCOURSE / STREAM IMPACT

NO WATERCOURSES OR STREAMS ARE PRESENT WITHIN THE AREA OF POTENTIAL IMPACT

TOTAL PROJECT DELINEATED WETLAND IMPACT

NO WETLANDS ARE PRESENT WITHIN THE AREA OF POTENTIAL IMPACT

PRE-CONSTRUCTION COORDINATION

AT LEAST SEVEN (7) DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES (INCLUDING CLEARING AND GRUBBING), THE CONTRACTOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PLAN PREPARER, THE POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN PREPARER (IF APPLICABLE), THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN (IF APPLICABLE) AND A REPRESENTATIVE FROM THE CUMBERLAND COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING.

THE FOLLOWING ARE THE CONTACTS FOR THE STATE DEPARTMENTS, STATE COMMISSIONS AND LOCAL AGENCIES INVOLVED WITH THE PROJECT:

- PENNSYLVANIA TURNPIKE COMMISSION (PTC) CENTRAL OFFICE
P.O. BOX 67676, HARRISBURG, PA 17106-7676, P: 717.939.9551
- PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) SOUTHCENTRAL REGIONAL OFFICE
909 ELMERTON AVENUE, HARRISBURG, PA 17110-8200, P: 717.705.4700 (BUSINESS HOURS)
- CUMBERLAND COUNTY CONSERVATION DISTRICT (CCCD) OFFICE
310 ALLEN ROAD, SUITE 301, CARLISLE, PA 17013, P: 717.240.7812

AT LEAST THREE (3) WORKING DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1.800.242.1776 FOR EXISTING UNDERGROUND UTILITY LOCATIONS. THE FOLLOWING ARE THE SERIAL NUMBERS FOR THE MUNICIPALITIES INVOLVED:

- MIDDLESEX TOWNSHIP - 2013-3450116

UPON INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT POLLUTION CONTROL BMPS AND AT LEAST THREE (3) DAYS PRIOR TO PROCEEDING WITH THE ON-SITE BULK EARTH DISTURBANCE ACTIVITIES, THE CONTRACTOR SHALL PROVIDE NOTIFICATION TO THE CUMBERLAND COUNTY CONSERVATION DISTRICT.

CONSTRUCTION RESTRICTIONS

NO CONSTRUCTION RESTRICTIONS WITHIN THE PROJECT AREA ARE REQUIRED OR ANTICIPATED FOR THE DURATION OF THE PROJECT.

EARTH DISTURBANCE SEQUENCE

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. DEVIATION FROM THE FOLLOWING SEQUENCE, INCLUDING REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED EROSION AND SEDIMENT CONTROL (E&SPC) PLAN, MUST BE APPROVED IN WRITING FROM THE CUMBERLAND COUNTY CONSERVATION DISTRICT OR BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) PRIOR TO IMPLEMENTATION.

THE DRAINAGE AREAS OF INDIVIDUAL EROSION & SEDIMENT POLLUTION CONTROL (E&SPC) BMPS SHALL ACHIEVE A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER PRIOR TO REMOVAL OF THE BMP.

EARTH DISTURBANCE - PHASE 1

CLEARING, GRUBBING AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) BMPS SPECIFIED BY THE CONSTRUCTION SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED.

THE ANTICIPATED STAGING AREAS FOR JOB TRAILER, MATERIALS STORAGE AREAS AND EQUIPMENT WILL BE ACCOMMODATED WITHIN THE CLOSED PORTION OF THE ROADWAY ON EACH APPROACH. EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PLANS FOR AREAS OUTSIDE OF THE PERMIT AREA SHOWN ON THE PLANS SHALL BE APPROVED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) PRIOR TO THE INITIATION OF WORK IN THIS NON-PERMITTED AREA.

AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.

- INSTALL TRAFFIC CONTROL DEVICES ASSOCIATED WITH THE STAGE 1 CONSTRUCTION TRAFFIC CONTROL PLAN INCLUDING TEMPORARY TRAFFIC SIGNAGE.
- DELINEATE ALL LIMITS OF DISTURBED AREAS AND TOPSOIL STOCKPILE AREAS IN THE FIELD. INSTALL SEDIMENT FILTER BAGS, SUMP PITS (IN CONJUNCTION WITH THE SEDIMENT FILTER BAGS), COMPOST FILTER SOCKS, COMPOST FILTER SOCK WASHOUTS AND ROCK FILTERS OF THE TYPE INDICATED ON THE PLANS. PERFORM GENERAL SITE CLEARING AND GRUBBING.
- CONSTRUCT ROCK CONSTRUCTION ENTRANCES (RCE) FOR STAGE 1 CONSTRUCTION AS INDICATED ON THE PLANS AT STATION 90+10.00 LT AND STATION 131+40.00 RT.
- REMOVE EXISTING ASPHALT CURBING ALONG SHOULDER EDGE AS INDICATED ON THE PLANS.
- INSTALL STAGE 1 CONSTRUCTION TEMPORARY SLOPE PIPES AND CONVEYANCE PIPES AS INDICATED ON THE PLANS.
- INSTALL THE FOLLOWING PERMANENT STORM SEWER SECTIONS:
 - SEGMENT A400 EXTENSION
 - SEGMENT 600 EXTENSION
 - SEGMENT 1100 EXTENSION
- CONSTRUCT TEMPORARY CONSTRUCTION ACCESS AS INDICATED ON THE PLANS.
- CONSTRUCT PROPOSED SHOULDER PAVEMENT WORK UTILIZING STONE SLOPE STABILIZATION WHERE NECESSARY FOR STAGE 1 CONSTRUCTION.

TOTAL PROJECT EARTH DISTURBANCE

EARTH DISTURBANCE DESIGNATION(S)	BRIDGE REPLACEMENT	
	AREA (SF)	AREA (ACRES)
TOTAL COMBINED EARTH DISTURBANCE	861,225	19.771

EARTH DISTURBANCE SEQUENCE (CONTINUED)

EARTH DISTURBANCE - PHASE 2

- INSPECT, MAINTAIN AND/OR REPAIR ANY REMAINING EROSION & SEDIMENT POLLUTION CONTROL (E&SPC) DEVICES FROM STAGE 1 CONSTRUCTION.
- INSTALL TRAFFIC CONTROL DEVICES ASSOCIATED WITH THE STAGE 2 CONSTRUCTION TRAFFIC CONTROL PLAN INCLUDING TEMPORARY TRAFFIC SIGNAGE.
- REMOVE AND RESET ROCK FILTERS OF THE TYPE INDICATED ON THE PLANS.
- ADJUST TEMPORARY SLOPE PIPES AS INDICATED ON THE PLANS.

BRIDGE WIDENING CONSTRUCTION

- REMOVE PORTIONS OF EXISTING BRIDGE SUPERSTRUCTURE, EXISTING NEAR AND FAR ABUTMENTS, PIERS AND WINGWALLS FOR STAGE 2 CONSTRUCTION. DEWATER ALL DISTURBED AREAS AS REQUIRED.
- REMOVE EXISTING CURB, INLETS, PIPES AND CONCRETE CHANNELS AS INDICATED ON THE PLANS
- CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE NEAR AND FAR ABUTMENT FOOTINGS, STEMS AND WINGWALLS FOR STAGE 2 CONSTRUCTION. CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE PIER FOOTINGS, STEMS AND CAPS FOR STAGE 2 CONSTRUCTION. PLACE PROPOSED BEARINGS AND BEAMS FOR STAGE 2 CONSTRUCTION. CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE SUPERSTRUCTURE FOR STAGE 2 CONSTRUCTION.

ROADWAY WIDENING CONSTRUCTION

- CONSTRUCT WEST AND EAST APPROACH ROADWAY EMBANKMENTS FOR STAGE 2 CONSTRUCTION FROM STATION 83+50.00 TO STATION 109+91.31 AND STATION 112+40.88 TO STATION 138+80.00, RESPECTIVELY.
- AS FILL EMBANKMENT COMMENCES FOR EACH EMBANKMENT SEGMENT, INSTALL PROPOSED INLETS AND PIPES FOR STAGE 2 CONSTRUCTION. DURING IMPLEMENTATION OF EACH STORMWATER SYSTEM:
 - INSTALL INLET PROTECTION AT ALL INLETS AS INDICATED ON THE PLANS.
 - REMOVE AND RESET ROCK FILTERS OF THE TYPE INDICATED ON THE PLANS.
 - ADJUST TEMPORARY SLOPE PIPES AS INDICATED ON THE PLANS.
- CONSTRUCT PAVEMENT SECTIONS AND INSTALL GUIDE RAIL AS SHOWN ON THE PLANS. (AT THIS POINT, THE CONTRACTOR MAY PROCEED TO PHASE 3 EARTH DISTURBANCE, WHILE COMPLETING THE REMAINDER OF EMBANKMENT WORK ON PHASE 2 EARTH DISTURBANCE).
- FOR LAWN AREAS NOT RECEIVING AMENDED SOILS, REPLACE TOPSOIL, APPLY SEEDING AND SOIL SUPPLEMENTS AND APPLY MULCH AS INDICATED ON THE PLANS. INSTALL EROSION CONTROL MULCH BLANKET ON ALL SLOPES STEEPER THAN OR EQUAL TO 3:1.
- CONSTRUCT AMENDED TOPSOIL INSTALLATION AND VEGETATED CHANNELS WITH CHECK DAMS AS INDICATED IN THE POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN SEQUENCE. AMENDED TOPSOIL INSTALLATION IS A CRITICAL STAGE OF POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) BMP IMPLEMENTATION. FOR BMP AREAS AND DRAINAGE AREAS TO BMP'S, PROCEED WITH TEMPORARY CONTROLS REMOVAL (ROADWAY WIDENING CONSTRUCTION SEQUENCE 7-9) PRIOR TO FINALIZING CONSTRUCTION.
- CLEAN OUT AND REMOVE SEDIMENT FROM BEHIND ROCK FILTERS. REMOVE ROCK FILTERS.
- REMOVE TEMPORARY CONSTRUCTION ACCESSES AND ROCK CONSTRUCTION ENTRANCES (RCE) FOR STAGE 1 AND STAGE 2 CONSTRUCTION.
- REMOVE COMPOST FILTER SOCKS AROUND TOPSOIL STOCKPILE AREAS AS INDICATED ON THE PLANS. THE SOCKS MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
- REMOVE STAKES WITHIN THE COMPOST FILTER SOCKS. THE SOCKS MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

EARTH DISTURBANCE - PHASE 3

- INSPECT, MAINTAIN AND/OR REPAIR ANY REMAINING EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) DEVICES FROM STAGE 2 CONSTRUCTION.
- INSTALL TRAFFIC CONTROL DEVICES ASSOCIATED WITH THE STAGE 3 CONSTRUCTION TRAFFIC CONTROL PLAN INCLUDING TEMPORARY TRAFFIC SIGNAGE.
- CONSTRUCT ROCK CONSTRUCTION ENTRANCES (RCE) FOR STAGE 3 CONSTRUCTION AS INDICATED ON THE PLANS AT STATION 107+20.00 RT AND STATION 115+15.00 LT.
- REMOVE EXISTING BRIDGE SUPERSTRUCTURE, EXISTING NEAR AND FAR ABUTMENTS, PIERS AND WINGWALLS FOR STAGE 3 CONSTRUCTION. DEWATER ALL DISTURBED AREAS AS REQUIRED.
- INSTALL PROPOSED INLETS AND PIPES FOR STAGE 3 CONSTRUCTION. INSTALL INLET PROTECTION AT ALL INLETS AS INDICATED ON THE PLANS.
- CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE NEAR AND FAR ABUTMENT FOOTINGS, STEMS AND WINGWALLS FOR STAGE 3 CONSTRUCTION. CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE PIER FOOTINGS, STEMS AND CAPS FOR STAGE 3 CONSTRUCTION. PLACE PROPOSED BEARINGS AND BEAMS FOR STAGE 3 CONSTRUCTION. CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE SUPERSTRUCTURE FOR STAGE 3 CONSTRUCTION.
- REMOVE ROCK CONSTRUCTION ENTRANCES (RCE) FOR STAGE 3 CONSTRUCTION.
- CONSTRUCT PAVEMENT SECTIONS AND INSTALL GUIDE RAIL AS SHOWN ON THE PLANS.
- REPLACE TOPSOIL, APPLY SEEDING AND SOIL SUPPLEMENTS AND APPLY MULCH AS INDICATED ON THE PLANS. INSTALL EROSION CONTROL MULCH BLANKET ON ALL SLOPES STEEPER THAN OR EQUAL TO 3:1.
- INSTALL SIGNING AND PAVEMENT MARKINGS.
- REMOVE TRAFFIC CONTROL DEVICES ASSOCIATED WITH STAGE 3 CONSTRUCTION INCLUDING TEMPORARY TRAFFIC SIGNAGE
- REMOVE STAKES WITHIN THE COMPOST FILTER SOCKS. THE SOCKS MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

EARTH DISTURBANCE SEQUENCE (CONTINUED)

AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED AND RELEASED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP), TEMPORARY EROSION AND SEDIMENT CONTROL (E&SPC) BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) BMPS.

AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS MUST BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID RE-VEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS SHOULD BE DONE ONLY DURING THE GERMINATING SEASON.

UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE COMMISSION (PTC) SHALL CONTACT THE CUMBERLAND COUNTY CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION PRIOR TO THE REMOVAL OF THE BMPS.

PERMIT ACTIVITIES

THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, MAINTENANCE AND DISPOSAL OF ALL EROSION AND SEDIMENT POLLUTION CONTROLS (E&SPC) AND RELATED ITEMS INCLUDED WITHIN THE APPLICABLE PERMITS.

UNDER NO CONDITION SHALL THE SURFACE OF ERODIBLE EARTH MATERIAL EXPOSED AT ONE TIME BY CLEARING AND GRUBBING, EXCAVATION, BORROW OR EMBANKMENT WITHIN THE RIGHT-OF-WAY EXCEED 1 ACRE (43,560 SQUARE FEET) WITHOUT PRIOR APPROVAL BY THE REPRESENTATIVE. A SECTION IS NOT CONSIDERED A PART OF THIS SURFACE AREA ONCE STABILIZATION MEASURES (EITHER TEMPORARY OR PERMANENT) ARE ESTABLISHED.

PERMIT REVISIONS ARE REQUIRED WHEN THE CONTRACTOR PROPOSES TO CHANGE OR MODIFY EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) MEASURES AND/OR FACILITIES FROM THOSE ORIGINALLY APPROVED IN THE PERMITTED EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PLAN. ALL REVISIONS MUST BE SUBMITTED IN WRITING TO THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) BY THE CONTRACTOR, INCLUDING A COPY TO THE CUMBERLAND COUNTY CONSERVATION DISTRICT AND THE COMMISSION (PTC).

ALL REVISIONS MUST HAVE APPROVAL FROM THE REGIONAL OFFICE OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) PRIOR TO IMPLEMENTING ANY CHANGES.

ANTIDEGRADATION IMPACTS

THE PROJECT IS LOCATED IN A HIGH QUALITY (HQ) WATERSHED. AN ANTIDEGRADATION ANALYSIS IS REQUIRED.

EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PLAN NON-DISCHARGE ALTERNATIVES

THE FOLLOWING ENVIRONMENTALLY SOUND NON-DISCHARGE BMPs HAVE BEEN INCORPORATED INTO THE EROSION AND SEDIMENT CONTROL POLLUTION (E&SPC) PLAN:

- LIMITED DISTURBED AREA:** LIMITATIONS OF THE DISTURBANCE AREA HAVE BEEN IMPLEMENTED BY MAINTAINING WORK IN PREVIOUSLY DEVELOPED AREAS AND USING CONSTRUCTED STEEP SLOPES FOR THE PROPOSED ROADWAY EMBANKMENT.
- LIMITING DISTURBANCE EXTENT AND DURATION:** LIMITATIONS OF THE DISTURBANCE EXTENT AND DURATION HAVE BEEN IMPLEMENTED BY INCORPORATING A MULTI-PHASED APPROACH TO CONSTRUCTION FOR THE PROJECT. EACH CONSTRUCTION STAGE/PHASE INCLUDES ONLY A PORTION OF THE OVERALL PROJECT EARTH DISTURBANCE. THE PRIMARY PURPOSE FOR STAGED PHASED CONSTRUCTION IS THE CONTINUED MAINTENANCE OF TRAFFIC. THEREFORE, LIMITED CHANGES OR FURTHER REDUCTIONS THROUGH STAGING/PHASING ARE AVAILABLE IF NEEDED.

THE FOLLOWING NON-DISCHARGE BMPs WERE CONSIDERED BUT WERE UNABLE TO BE INCORPORATED INTO THE EROSION AND SEDIMENT CONTROL POLLUTION (E&SPC) PLAN:

- ALTERNATIVE SITING:** THE MAIN OBJECTIVE OF THE PROJECT IS THE REPLACEMENT OF THE EXISTING STRUCTURE. THEREFORE, ALTERNATIVE SITING (LOCATION, CONFIGURATION, DISCHARGE LOCATION) IS NOT A PRACTICAL OPTION FOR THE PROJECT.
- RIPARIAN / RIPARIAN FOREST BUFFERS:** THERE ARE NO RIPARIAN OR RIPARIAN FOREST AREAS WITHIN THE PROJECT LOCATION TO BE CONSIDERED FOR BUFFER IMPLEMENTATION.

ANTIDEGRADATION BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT) ALTERNATIVES

INCORPORATING NON-DISCHARGE ALTERNATIVE BMP'S ALONE DOES NOT COMPLETELY ELIMINATE THE CHANGE IN RATE, VOLUME OR QUALITY DURING AND AFTER CONSTRUCTION. THEREFORE, ANTIDEGRADATION BEST AVAILABLE COMBINATION OF TECHNOLOGIES (ABACT) HAVE BEEN IMPLEMENTED FOR THE PROJECT.

THE EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PLAN HAS INCORPORATED ABACT APPROVED DEVICES IN ITS IMPLEMENTATION AND ADDITIONALLY INCLUDES IMMEDIATE STABILIZATION OVER A SIGNIFICANT PORTION OF DISTURBED AREA. ALL CHANNELS, COLLECTORS AND DIVERSIONS ARE PROPOSED TO BE LINED WITH PERMANENT VEGETATION, ROCK, GEOTEXTILE OR OTHER APPROVED NON-EROSIVE MATERIALS.

INCORPORATING THE NON-DISCHARGE BMPs AND ABACT TECHNOLOGIES FOR THE EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PLAN, ELIMINATES THE CHANGE IN RATE, VOLUME AND QUALITY DURING CONSTRUCTION. ANTIDEGRADATION ANALYSIS IS COMPLETE.

THERMAL IMPACTS

THERMAL IMPACTS HAVE BEEN MINIMIZED BY REDUCING THE LIMITS OF EARTH DISTURBANCE AND LIMITING THE EXTENT AND DURATION OF THE DISTURBANCE. THE CONTRACTOR SHALL PROCEED IN ACCORDANCE WITH THE EARTH DISTURBANCE SEQUENCE AS DESIGNED. DEVIATION FROM THE DESIGNED SEQUENCE, INCLUDING REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PLAN, MUST BE APPROVED IN WRITING FROM THE CUMBERLAND COUNTY CONSERVATION DISTRICT OR BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) PRIOR TO IMPLEMENTATION.

PREPARED BY:
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100 STERLING PARKWAY, SUITE 108
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PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



WBS NO.
T-228.54S001-3-02

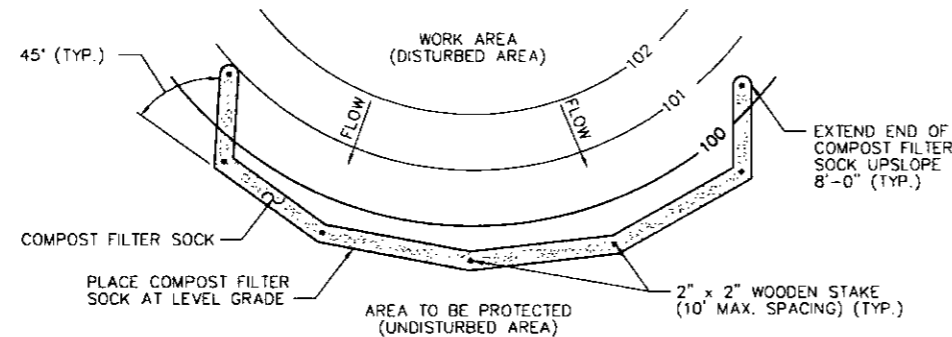
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STRUCTURE NUMBER: EB-103

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

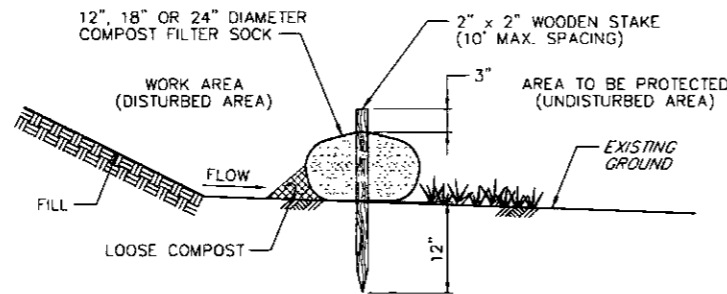
EROSION & SEDIEMNT POLLUTION CONTROL
PROJECT IMPACTS &
EARTH DISTURBANCE SEQUENCE

DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 1 OF 1
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 91 OF 315	

NO.	REVISIONS	DATE	APPR.	SCALE:



PLAN VIEW



SECTION VIEW

COMPOST FILTER SOCK

NO SCALE

ITEM 0867-0012 / ITEM 0867-0022

- NOTES: 1. REMOVE DEPOSITS WHEN SEDIMENT ACCUMULATION IS ONE-HALF OF THE EXPOSED COMPOST FILTER SOCK.
 2. PLACE COMPOST FILTER SOCK ON LEVEL GRADE. EXTEND BOTH ENDS OF THE COMPOST FILTER SOCK AT LEAST 8'-0" UPSLOPE AT 45 DEGREES TO THE MAIN ALIGNMENT.
 3. REPLACE BIODEGRADABLE FILTER SOCK AFTER 6 MONTHS; PHOTODEGRADABLE AFTER 12 MONTHS.
 4. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

COMPOST FILTER SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTODEGRADABLE	PHOTODEGRADABLE	BIODEGRADABLE	PHOTODEGRADABLE	PHOTODEGRADABLE
SOCK DIAMETERS	12"/18"	12"/18"/24"/32"	12"/18"/24"/32"	12"/18"/24"/32"	12"/18"/24"/32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH	---	26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% @ 1,000 HRS.	23% @ 1,000 HRS.	---	100% @ 1,000 HRS.	100% @ 1,000 HRS.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS

COMPOST FILTER SOCK DATA & LOCATIONS

FILTER SOCK	STAGES			ROAD	12" FILTER SOCK		LENGTH (FT)
	1	2	3		STATION	OFFSET	
CFS-01	X	X			89+51	73' LT	100.00
CFS-02	X	X	X		90+07	58' RT	45.00
CFS-03	X	X	X		90+18	95' LT	205.00
CFS-04	X	X			90+75	53' RT	100.00
CFS-05	X	X	X		92+34	98' RT	435.00
CFS-06	X	X	X		92+58	95' LT	270.00
CFS-44	X	X	X		115+35	113' RT	60.00
CFS-45	X	X	X		115+80	103' RT	40.00
CFS-47	X	X	X		116+18	84' RT	40.00
CFS-49	X	X	X		116+46	106' RT	120.00
CFS-50	X	X	X		116+65	79' RT	60.00
CFS-51	X	X	X		116+97	98' LT	55.00
CFS-52	X	X	X		117+22	73' RT	60.00
CFS-53	X	X	X		117+67	98' RT	120.00
CFS-54	X	X	X		117+78	67' RT	60.00
CFS-55	X	X	X		118+39	98' LT	235.00
CFS-56	X	X	X		118+84	98' RT	120.00
CFS-57	X	X	X		119+42	58' RT	227.00
CFS-58	X	X	X		120+01	98' RT	120.00
CFS-59	X	X	X		120+89	98' LT	255.00
CFS-60	X	X	X	PTC EB-103	121+03	55' RT	100.00
CFS-61	X	X	X		121+18	98' RT	120.00
CFS-62	X	X	X		121+90	70' RT	90.00
CFS-63	X	X	X		122+35	98' RT	120.00
CFS-64	X	X	X		122+41	98' LT	55.00
CFS-65	X	X	X		122+73	75' RT	90.00
CFS-66	X	X	X		122+93	98' LT	55.00
CFS-67	X	X	X		123+46	98' LT	55.00
CFS-74	X	X			126+58	66' LT	100.00
CFS-76	X	X	X		127+68	98' RT	55.00
CFS-77	X	X	X		128+20	98' RT	55.00
CFS-78	X	X	X		128+65	98' LT	225.00
CFS-79	X	X	X		128+72	98' RT	55.00
CFS-80	X	X	X		129+24	98' RT	55.00
CFS-81	X	X	X		129+76	98' RT	55.00
CFS-82	X	X	X		130+11	58' LT	90.00
CFS-83	X	X	X		130+28	98' RT	55.00
CFS-84	X	X	X		130+77	55' LT	75.00
CFS-85	X	X	X		131+20	98' RT	135.00
CFS-86	X	X	X		131+57	49' LT	95.00
CFS-87	X	X			131+97	73' RT	100.00
TOTAL COMPOST FILTER SOCK LENGTH (FT)							4,562.00

COMPOST FILTER SOCK DATA & LOCATIONS

FILTER SOCK	STAGES			ROAD	24" FILTER SOCK		LENGTH (FT)
	1	2	3		STATION	OFFSET	
CFS-07	X	X	X		95+65	99' RT	211.00
CFS-08	X	X	X		96+25	97' LT	340.00
CFS-09	X	X	X		97+38	117' RT	161.00
CFS-10	X	X	X		98+62	99' LT	120.00
CFS-11	X	X	X		100+11	99' LT	185.00
CFS-12	X	X	X		100+21	128' RT	340.00
CFS-13	X	X	X		102+00	116' LT	205.00
CFS-14	X	X	X		102+22	131' RT	55.00
CFS-15	X	X	X		103+16	129' RT	120.00
CFS-16	X	X	X		103+92	124' LT	185.00
CFS-17	X	X	X		104+26	129' RT	105.00
CFS-18	X	X	X		105+06	129' LT	50.00
CFS-19	X	X	X		105+36	129' RT	121.00
CFS-20	X	X	X		105+91	129' LT	125.00
CFS-21	X	X	X		106+75	125' LT	55.00
CFS-22	X	X	X		107+33	133' RT	260.00
CFS-23	X	X	X		107+36	120' LT	65.00
CFS-24	X	X	X		107+91	114' LT	45.00
CFS-25	X	X	X		108+95	134' RT	55.00
CFS-26	X	X	X		109+07	114' LT	150.00
CFS-27	X	X	X	PTC EB-103	110+13	57' RT	116.00
CFS-28	X	X	X		110+14	114' LT	60.00
CFS-29	X	X	X	PTC EB-103	110+69	75' RT	121.00
CFS-30	X	X	X		110+79	114' LT	75.00
CFS-31	X	X	X		110+82	3' RT	72.00
CFS-32	X	X	X		110+91	133' LT	165.00
CFS-33	X	X	X		111+41	107' LT	55.00
CFS-34	X	X	X		111+48	3' LT	72.00
CFS-35	X	X	X		111+48	51' LT	75.00
CFS-36	X	X	X		112+10	133' RT	80.00
CFS-37	X	X	X		112+04	43' LT	71.00
CFS-38	X	X	X		112+80	133' RT	55.00
CFS-39	X	X	X		112+98	109' LT	60.00
CFS-40	X	X	X		113+78	133' RT	147.00
CFS-41	X	X	X		114+18	113' LT	165.00
CFS-42	X	X	X		114+79	126' RT	60.00
CFS-43	X	X	X		115+29	109' LT	60.00
CFS-46	X	X	X		115+85	100' LT	60.00
CFS-48	X	X	X		116+45	98' LT	55.00
CFS-68	X	X	X		123+75	98' RT	145.00
CFS-69	X	X	X		123+98	98' LT	55.00
CFS-70	X	X	X		124+50	98' LT	55.00
CFS-71	X	X	X		125+12	98' LT	75.00
CFS-72	X	X	X		126+01	98' RT	285.00
CFS-73	X	X	X		126+14	98' LT	125.00
CFS-75	X	X	X		127+11	98' LT	55.00
TOTAL COMPOST FILTER SOCK LENGTH (FT)							5,372.00

DATE: 7/12/2016

PREPARED BY:
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PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

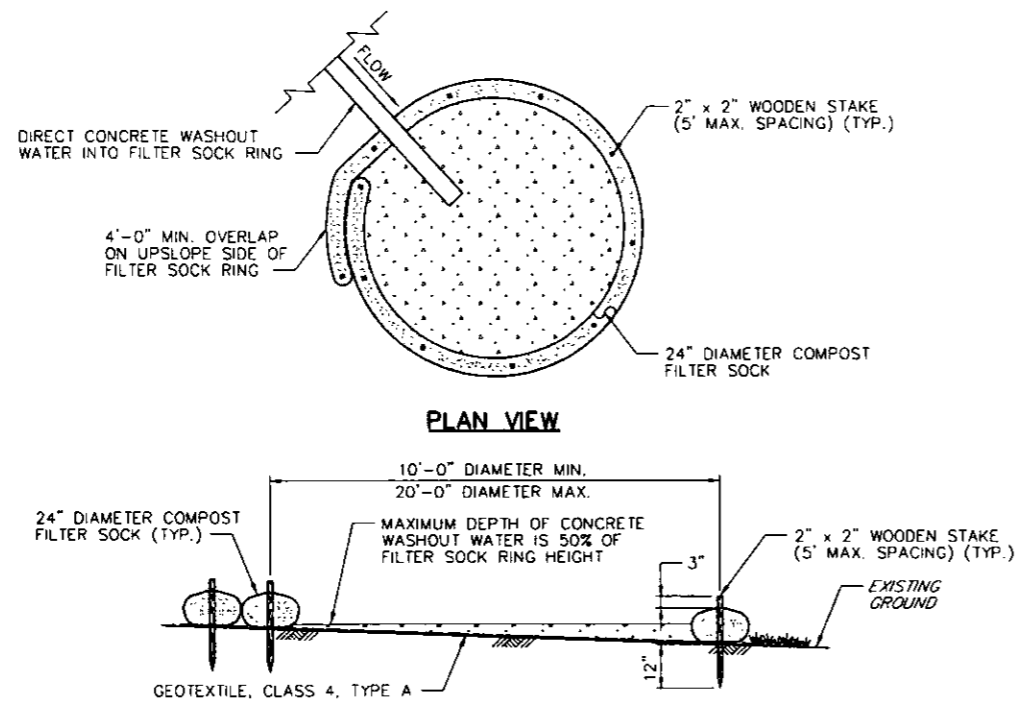


NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: ESd01.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103
SCALE:

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

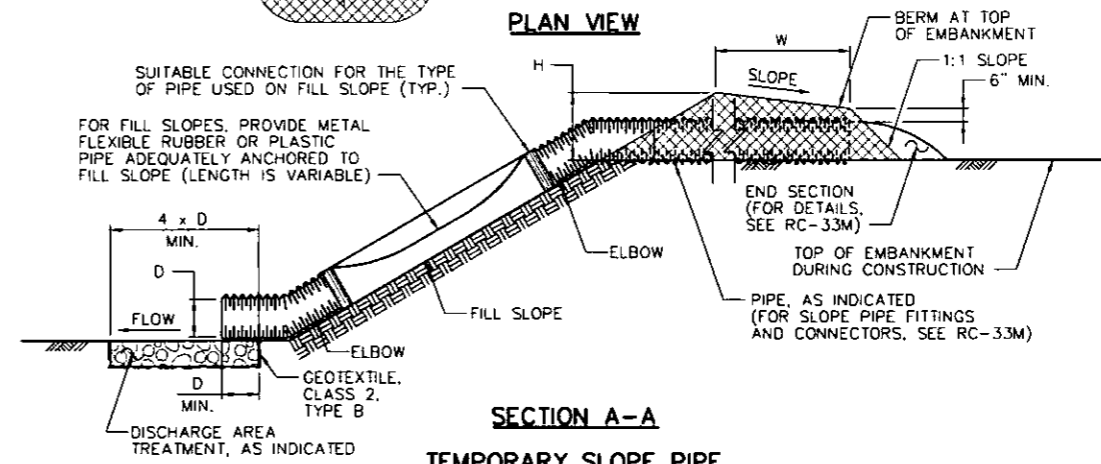
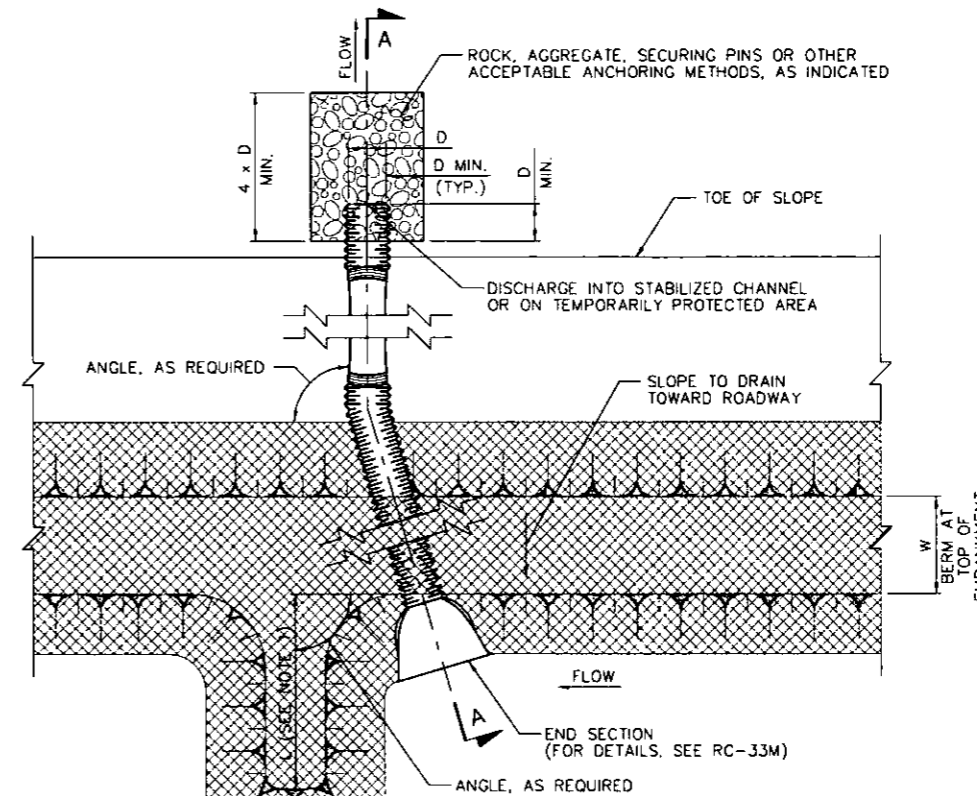
EROSION & SEDIMENT POLLUTION CONTROL DETAILS	
DRAWING: 1 OF 10	SHEET: 92 OF 315



SECTION VIEW
COMPOST FILTER SOCK WASHOUT
 NO SCALE
 ITEM 4867-0024

- NOTES:
1. INSTALL COMPOST FILTER SOCK WASHOUT ON FLAT OR LEVEL GRADE FOR OPTIMUM PERFORMANCE. DO NOT INSTALL COMPOST FILTER SOCK WASHOUT WITHIN 50 FEET OF RECEIVING WATERS OR DESIGNATED WETLANDS.
 2. COMPOST SOCKS SHOULD BE STAKED IN THE MANNER RECOMMENDED BY THE MANUFACTURER AROUND PERIMETER OF THE GEOTEXTILE SO AS TO FORM A RING WITH THE ENDS OF THE FILTER SOCK LOCATED AT THE UPSLOPE CORNER. CARE MUST BE TAKEN TO ENSURE CONTINUOUS CONTACT OF THE SOCK WITH THE GEOTEXTILE AT ALL LOCATIONS.
 3. WHERE NECESSARY, SOCKS MAY BE STACKED AND STAKED SO AS TO FORM A TRIANGULAR CROSS-SECTION.
 4. ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
 5. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.
 6. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

COMPOST STANDARDS			
MATERIAL CHARACTERISTICS	MATERIAL SPECIFICATIONS	MATERIAL CHARACTERISTICS	MATERIAL SPECIFICATIONS
ORGANIC MATERIAL CONTENT	25% - 100% (DRY WEIGHT BASIS)	MOISTURE CONTENT	30% - 60%
ORGANIC PORTION	FIBROUS & ELOGATED	PARTICLE SIZE	30% - 50% PASS THROUGH #10 SIEVE
pH	5.5 - 8.5	SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM



SECTION A-A
TEMPORARY SLOPE PIPE
 NO SCALE
 ITEM 0854-0002

- NOTES:
1. PROVIDE LENGTH OF TRANSVERSE BERM (L) REQUIRED TO CONTAIN SURFACE DRAINAGE AND TO DIRECT INTO TEMPORARY SLOPE DRAIN. THE TRANSVERSE BERM WILL NOT BE REQUIRED WHERE THE DRAIN IS LOCATED AT A LOW POINT.
 2. MAINTAIN SLOPE PIPES AT ALL TIMES AS INDICATED IN PUBLICATION 408, SECTION 854. CLEAN OR REPAIR ALL CLOGGED OR LEAKING PIPES AS NECESSARY. REPLACE ALL INLETS AND OUTLETS AS NECESSARY. REMOVE ACCUMULATED SEDIMENT FROM THE ENTRANCE OR EXIT OF EACH SLOPE PIPE AND DISPOSE OF IN AN APPROVED MANNER.
 3. INSPECT TEMPORARY SLOPE PIPES ONCE A WEEK AND AFTER EACH STORM EVENT THAT PRODUCES RUNOFF.
 4. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
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 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

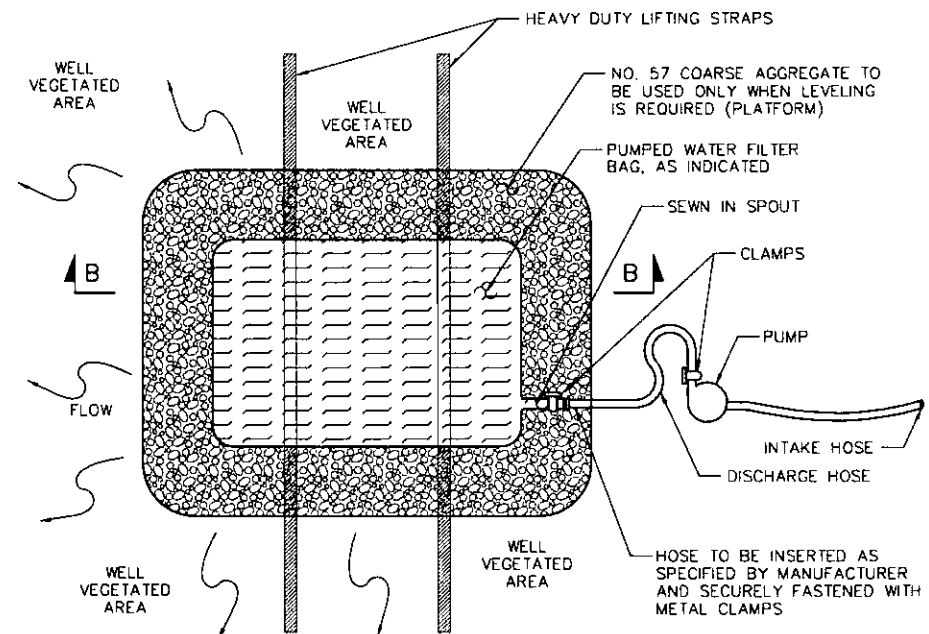
WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: ESdt02.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103
SCALE:

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

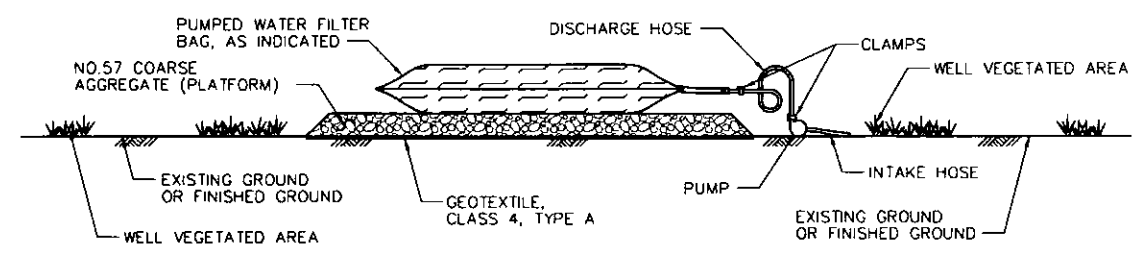
**EROSION & SEDIMENT POLLUTION CONTROL
 DETAILS**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 2 OF 10
 SHEET: 93 OF 315



PLAN VIEW

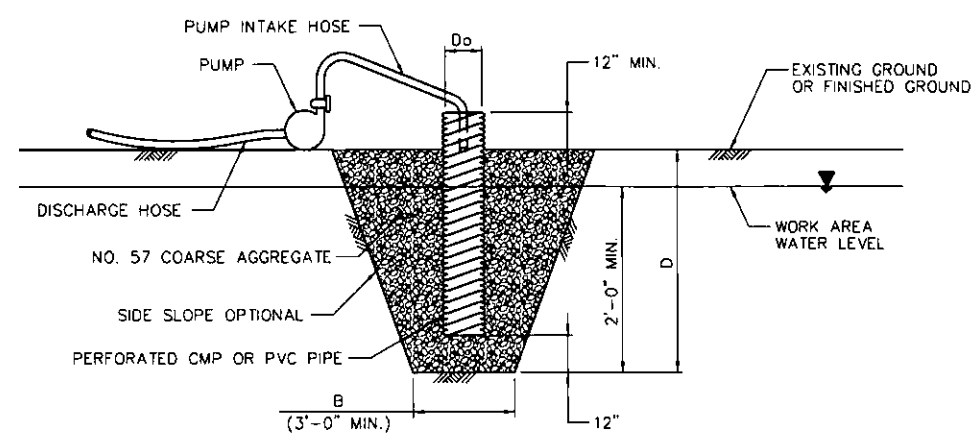


SECTION B-B

SEDIMENT FILTER BAG DETAIL (ON LEVELING AGGREGATE)

NO SCALE
ITEM 2858-0010

- LOCATE BAG IN LEVEL AREAS (LESS THAN 5% GRADE). WHEN LEVEL AREAS ARE NOT AVAILABLE, PLACE AASHTO NO. 57 COARSE AGGREGATE TO LEVEL THE BAG.
- LOCATE BAG IN A WELL VEGETATED AREA. DISCHARGE ONTO A STABLE, EROSION RESISTANT AREA. WHEN VEGETATED AREA IS NOT AVAILABLE, PROVIDE A GEOTEXTILE (CLASS 4, TYPE A) LINED FLOW PATH TO A STABLE EROSION RESISTANT RECEIVING WATER COURSE OR A WELL VEGETATED AREA.
- LOCATE BAG IN AN AREA ACCESSIBLE BY EQUIPMENT FOR MAINTENANCE AND REMOVAL PURPOSES.
- FOR SPECIAL PROTECTION WATERSHEDS, PLACE COMPOST FILTER SOCK AROUND THE BAG FOR ADDITIONAL SEDIMENTATION PROTECTION.
- DO NOT INSERT MORE THAN ONE HOSE INTO A BAG.
- THE PUMPING RATE SHALL NOT EXCEED 50% OF THE MAXIMUM FLOW RATE SPECIFIED FOR THE BAG.
- REPLACE THE BAG WHEN 50% OF THE SEDIMENT CAPACITY HAS BEEN FILLED AND/OR WHEN THERE IS A FAILURE. THE ADDITIONAL BAGS WILL BE PAID AS EACH.
- REMOVE AND PROPERLY DISPOSE OF THE PUMPED WATER FILTER BAGS. RESTORE THE AREA IN ACCORDANCE WITH THE SPECIFICATIONS IN PUBLICATION 40B. DO NOT CUT FILTER BAG OR DISTRIBUTE AND SEED SEDIMENT.
- DO NOT PERMIT DISCHARGE FROM BAG TO DRAIN BACK INTO WORK OR ACCESS AREAS OF THE PROJECT.
- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



SUMP PIT DETAIL

NO SCALE
ITEM 4000-0800

- LOCATE SUMP AT LOW POINT IN WORK AREA AND OUTSIDE OF CONSTRUCTION ACTIVITY. WHEREVER RUNOFF FROM A WORK AREA FLOWS DIRECTLY TO THE SUMP AREA, A FILTER BAG SHALL BE ATTACHED AT THE DISCHARGE POINT UNLESS PUMPING TO A SEDIMENT BASIN OR SEDIMENT TRAP.
- MINIMUM DIAMETER OF PIT BOTTOM SHALL BE 24 INCHES LARGER THAN PIPE DIAMETER. MINIMUM DEPTH OF PIT SHALL BE 24 INCHES BELOW WATER LEVEL IN WORK AREA (INCLUDING THE AASHTO NO. 57 COURSE AGGREGATE). A 12 INCH TO 24 INCH DIAMETER PERFORATED CMP OR PVC PIPE SHALL BE SET ON 12 INCHES OF CLEAN AASHTO NO. 57 COURSE AGGREGATE.
- VOID SPACE AROUND PIPE SHALL BE FILLED WITH NO. 57 COURSE AGGREGATE. PIPE TO EXTEND 12 INCHES MINIMUM ABOVE TOP OF STONE AND/OR WATER BEING PUMPED FROM WORK AREA.
- SET PUMP INTAKE INSIDE STANDPIPE.
- DISCHARGE FROM PUMP SHALL BE TO A STABLE AREA BELOW DISTURBANCES FROM THE WORK ZONE.
- SUMP PIT MAY BE USED IN CONJUNCTION WITH FILTER BAG WHERE ADDITIONAL FILTERING IS NEEDED.
- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

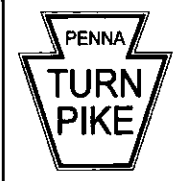
SUMP PIT DATA & LOCATIONS

SUMP PIT	STAGES			ROAD	STATION	OFFSET	WORK AREA WATER LEVEL ELEVATION	B (FT)	D (FT)	D _o (FT)	COURSE AGGREGATE
	1	2	3								
SP-01		X		PTC EB-103	110+11.00	53.00' RT.	463.00	3.00	3.50	1.00	NO. 57
SP-02			X		110+37.00	32.00' RT.	463.00	3.00	3.50	1.00	NO. 57
SP-03		X			111+02.00	44.00' RT.	463.00	3.00	3.50	1.00	NO. 57
SP-04		X			111+29.00	42.00' LT.	463.00	3.00	3.50	1.00	NO. 57
SP-05			X		111+68.00	9.00' LT.	463.00	3.00	3.50	1.00	NO. 57
SP-06		X			112+21.00	52.00' LT.	463.00	3.00	3.50	1.00	NO. 57

DATE: 7/12/2016

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PREPARED FOR:
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TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: ESdt03.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

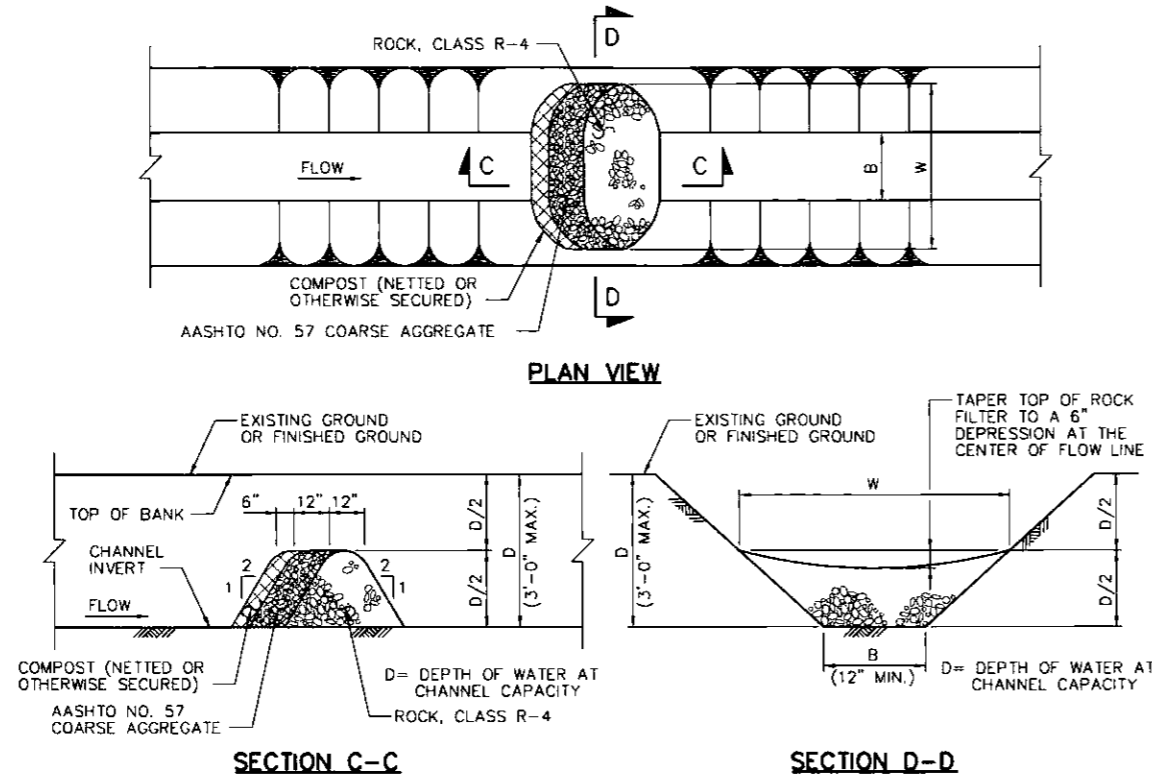
**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

**EROSION & SEDIMENT POLLUTION CONTROL
DETAILS**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

SCALE:

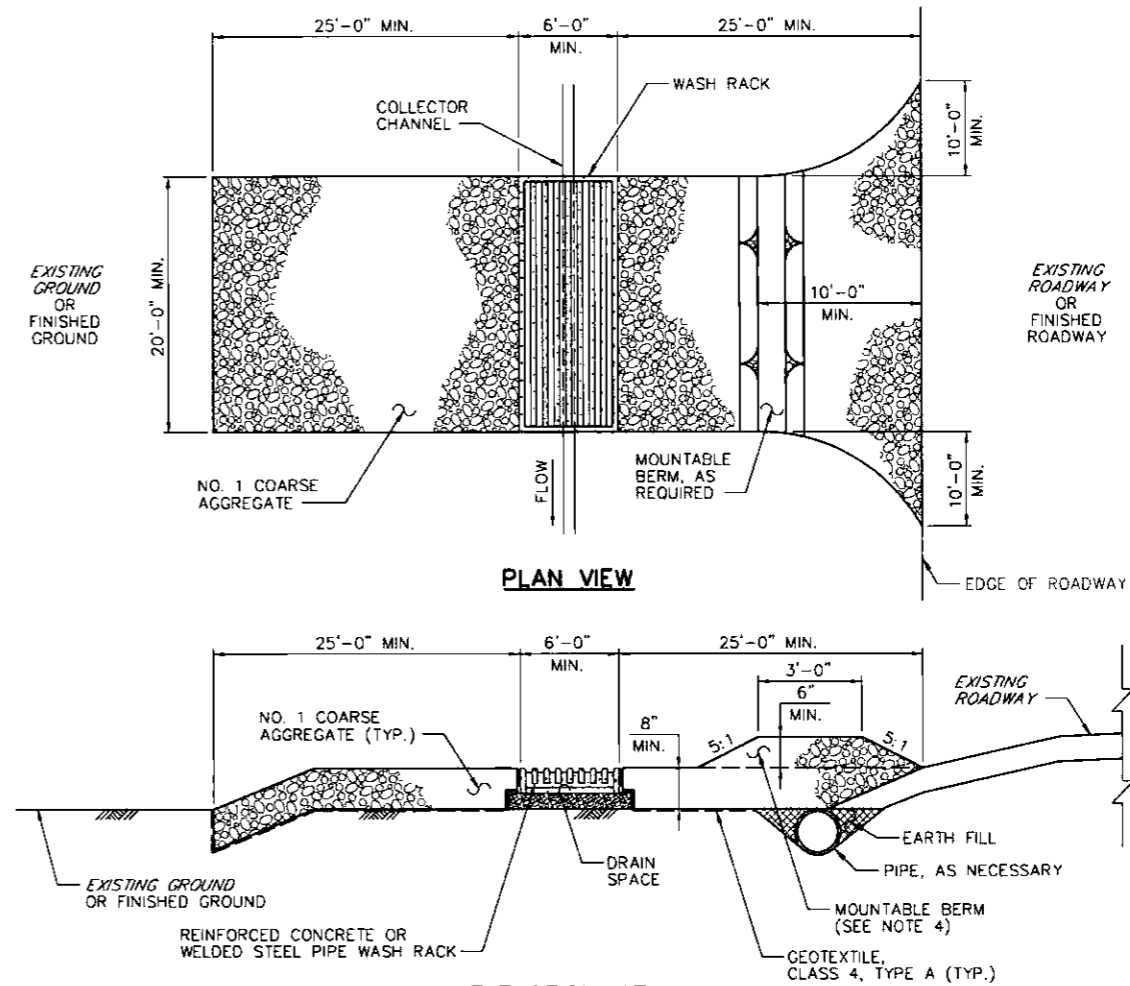
DRAWING: 3 OF 10
SHEET: 94 OF 315



ROCK FILTER DETAIL

NO SCALE
ITEM 2865-0005

- NOTES: 1. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE-HALF THE HEIGHT OF THE ROCK BARRIER. REPLACE CLOGGED FILTER STONE. REMOVE AND DISPOSE OF SEDIMENT IN AN APPROVED MANNER.
2. FOR SPECIAL PROTECTION WATERSHEDS, LAYER AND ANCHOR 6 INCHES OF COMPOST ON THE UPGRADIENT SIDE FOR ADDITIONAL SEDIMENTATION PROTECTION.
3. PROVIDE GEOTEXTILE MATERIAL ALONG ALL INTERFACE AREAS WITH GROUND CONTACT.



ROCK CONSTRUCTION ENTRANCE WITH WASH RACK DETAIL

NO SCALE
ITEM 4849-0002

- NOTES: 1. INSPECT THE ENTRANCE DAILY. REMOVE ALL SEDIMENT DEPOSITED ON THE PUBLIC ROADWAYS AND RETURN TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAY WILL NOT BE PERMITTED.
2. MAINTAIN THE SPECIFIED ROCK CONSTRUCTION ENTRANCE THICKNESS. PLACE ADDITIONAL ROCK WHENEVER ROCK BECOMES CLOGGED WITH SEDIMENT.
3. MAINTAIN STOCKPILE OF AASHTO NO.1 COARSE AGGREGATE.
4. CONSTRUCT A MOUNTABLE BERM ONLY WHEN 6" MINIMUM COVER CANNOT BE PROVIDED OVER THE PIPE.
5. SATISFACTORILY REMOVE MATERIALS AS PER SPECIFICATION IN PUBLICATION 408, SECTION 849 WHEN ROCK CONSTRUCTION ENTRANCE IS NO LONGER NEEDED.
6. PROVIDE GEOTEXTILE MATERIAL MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 735. FURNISH AND INSTALL IN ACCORDANCE WITH PUBLICATION 408, SECTION 212. PROVIDE GEOTEXTILE ALONG ALL INTERFACE AREAS WITH GROUND CONTACT.
7. CONSTRUCT ROCK CONSTRUCTION ENTRANCE WITHIN THE RIGHT-OF-WAY OR EASEMENT AREAS. ENTRANCE MAY BE CONSTRUCTED ON A SKEW IF ADEQUATE PULL OUT SIGHT DISTANCE IS AVAILABLE.
8. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

ROCK FILTER DATA & LOCATIONS												
ROCK FILTER	STAGES			ROAD	STATION	OFFSET (± OUTLET)	TOP OF SWALE ELEVATION	B (FT)	D (FT)	W (FT)	COURSE AGGREGATE	RIPRAP R-SIZE
	1	2	3									
RF-01	X	X		PTC EB-103	90+75	64' RT	453.00	16.00	4.00	25.00	NO 57	R-4 ROCK
RF-02		X			101+97	112' RT	457.00	4.00	3.00	15.00	NO. 57	R-4 ROCK
RF-03	X				102+83	79' LT	460.00	16.00	4.00	25.00	NO. 57	R-4 ROCK
RF-04		X			102+99	111' LT	458.00	16.00	4.00	25.00	NO. 57	R-4 ROCK
RF-05		X	X		108+13	104' LT	465.50	16.00	3.00	25.00	NO. 57	R-4 ROCK
RF-06	X				108+21	81' LT	467.75	16.00	4.00	25.00	NO. 57	R-4 ROCK
RF-07		X			114+44	109' RT	476.50	4.00	3.00	15.00	NO. 57	R-4 ROCK
RF-08	X				124+65	65' RT	466.75	16.00	4.00	25.00	NO. 57	R-4 ROCK

DATE: 7/12/2016

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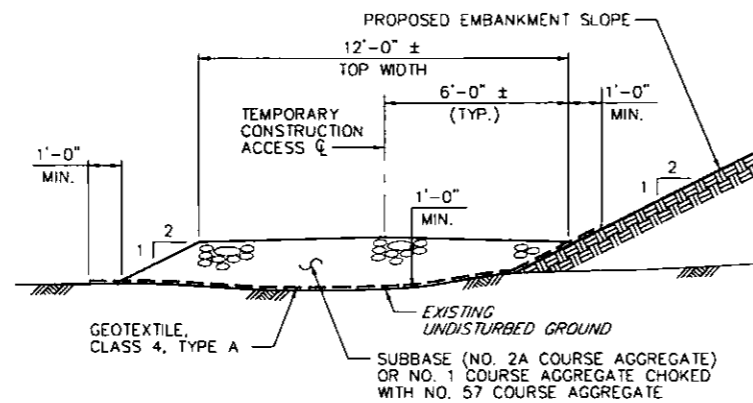


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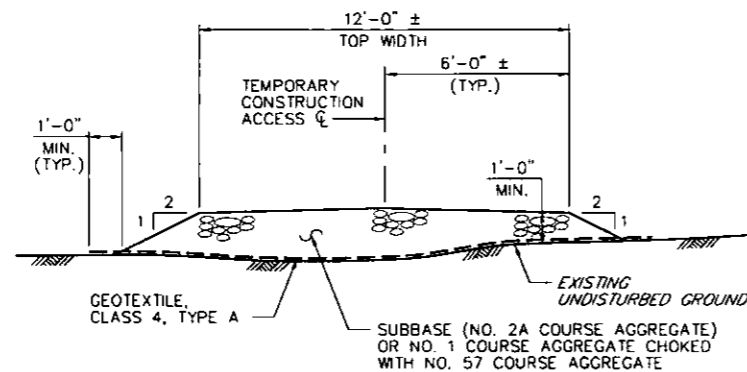
WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: ESdt04.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103
SCALE:

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

EROSION & SEDIMENT POLLUTION CONTROL DETAILS	
DRAWING: 4 OF 10	SHEET: 95 OF 315



ACCESS (IN CUT) TYPICAL SECTION VIEW

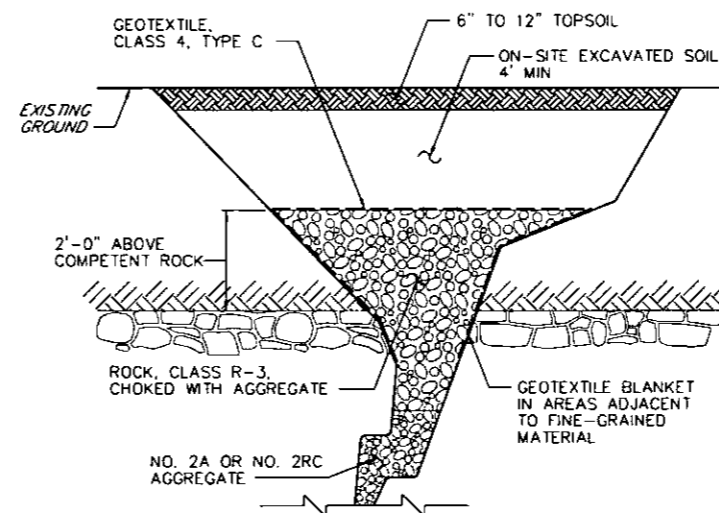


ACCESS (IN FILL) TYPICAL SECTION VIEW

TEMPORARY CONSTRUCTION ACCESS DETAIL

NO SCALE
(INCIDENTAL TO PROJECT)

- NOTES: 1. PLACE SUBBASE (NO. 2A COARSE AGGREGATE) OR NO. 57 COARSE AGGREGATE ON GEOTEXTILE TO AVOID PUNCTURE OF GEOTEXTILE.
2. APPROACH ROADWAY SHALL NOT BE STEEPER THAN 5:1
3. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.



SINKHOLE TREATMENT IN SOIL

NO SCALE

MITIGATION SEQUENCE NOTES

1. IMMEDIATELY UPON OPENING OF SINKHOLE, REDIRECT SURFACE DRAINAGE AWAY FROM SINKHOLE TO PREVENT FURTHER DAMAGE.
2. CONTACT GEOTECHNICAL ENGINEER FOR A FIELD INSPECTION.
3. OSHA REGULATIONS MUST BE FOLLOWED AT ALL TIMES DURING EXCAVATION.
4. LOOSE MATERIAL SHALL BE EXCAVATED FROM THE SINKHOLE AND EXPOSE SOLUTION VOIDS IF POSSIBLE.
5. ENLARGE EXISTING SINKHOLE IF NECESSARY TO ALLOW FOR INSTALLATION OF FILTER MATERIALS.
6. STONE USED FOR THE "BRIDGE" AND FILTERS SHALL HAVE A MODERATELY HARD ROCK STRENGTH AND BE RESISTANT TO ABRASION AND DEGRADATION. SHALE AND SIMILARLY SOFT AND/OR NON-DURABLE ROCK ARE NOT ACCEPTABLE.
7. TOPSOIL SHALL BE A MINIMUM OF 6" THICK. GRADE FOR POSITIVE DRAINAGE AWAY FROM SINKHOLE AREA.
8. DISPOSAL OF ALL POLLUTANT LADEN SOIL WHICH OCCURRED PRIOR TO THE SINKHOLE TREATMENT SHALL BE DISPOSED OF AS DESCRIBED PER RECYCLING / DISPOSAL OF MATERIALS NOTES.

DATE: 7/12/2016

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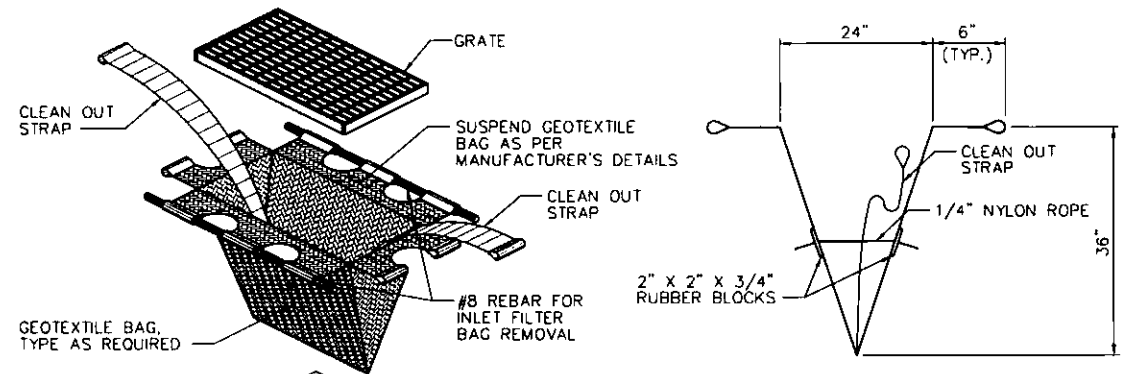


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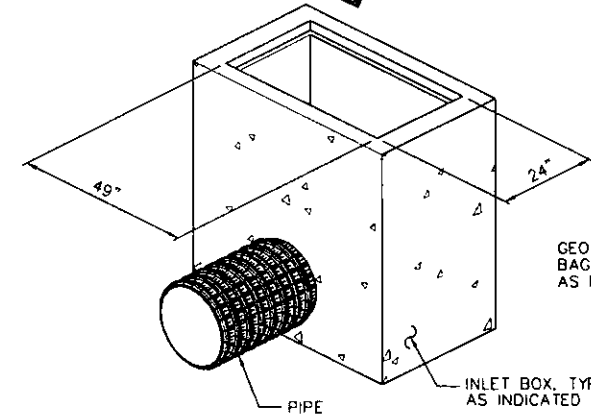
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NETWORK NUMBER: 7003982
FILE NAME: ESd105.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103
SCALE:

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

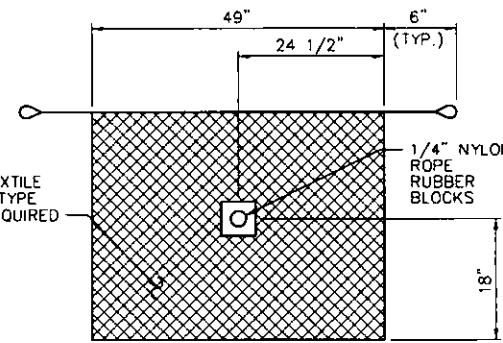
EROSION & SEDIMENT POLLUTION CONTROL DETAILS	
DRAWING: 5 OF 10	SHEET: 96 OF 315



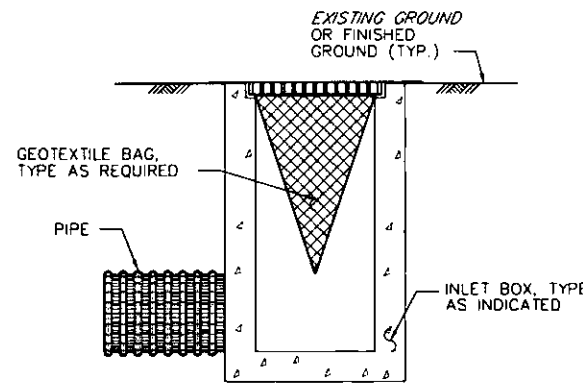
INLET FILTER BAG SIDE VIEW



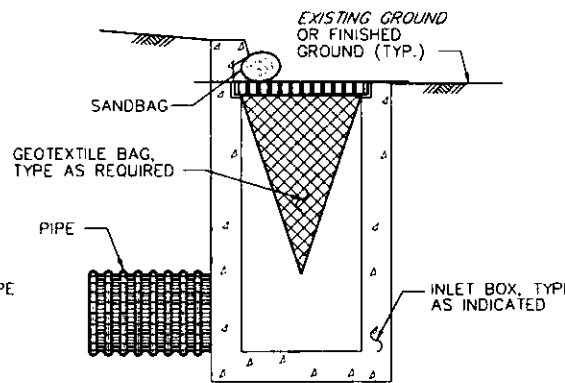
ISOMETRIC VIEW



INLET FILTER BAG FRONT VIEW



TYPE M OR TYPE S SECTION VIEW



TYPE C SECTION VIEW

INLET FILTER BAG INSTALLATION

NO SCALE
ITEM 2860-0003

- NOTES:
1. INSPECT INLET FILTER BAG AFTER EACH RUNOFF EVENT MAINTAIN AS REQUIRED TO ENSURE PROPER FUNCTIONING OF THE BAG.
 2. REMOVE ACCUMULATED SEDIMENT/DEBRIS WHEN THE INLET FILTER REACHES ONE-HALF MAXIMUM CAPACITY.
 3. REPLACE FILTER BAG IF RIPPED OR TORN.
 4. PROVIDE DOWN GRADIENT BERM AS INDICATED. DO NOT USE IN SAG/SUMP CONDITIONS.
 5. USE SANDBAGS AT TYPE C INLET CURB OPENINGS TO PREVENT BYPASS FLOW.
 6. REMOVE AND PROPERLY DISPOSE OF INLET FILTER BAG WHEN NO LONGER NEEDED.
 7. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

INLET BAG	STAGES			ROAD	STATION	OFFSET (± OUTLET)	INLET TYPE	INLET PROTECTION	TEMPORARY DIVERSION
	1	2	3						
IFB-01			X	PTC EB-103	87+00.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-02			X		87+00.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-03			X		90+42.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-04			X		90+42.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-05			X		94+51.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-06			X		94+51.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-07	X				94+50.00	44.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-08	X				98+50.00	47.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-09			X		98+53.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-10			X		98+53.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-11			X		102+49.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-12			X		102+49.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-13	X				102+50.00	52.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-14	X				106+00.00	57.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-15			X		106+00.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-16			X		106+00.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-17			X		106+50.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-18			X		106+50.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-19	X				108+87.00	60.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-20			X		109+62.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-21			X		109+62.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-22	X				109+81.00	60.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-23	X				112+50.00	60.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-24			X		112+70.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-25			X		112+70.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-26	X				113+44.00	60.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-27			X		113+54.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-28			X		115+93.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-29			X		115+93.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-30			X		119+59.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-31			X		119+59.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-32			X		123+20.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-33			X		123+20.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-34	X				126+75.00	45.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-35			X		126+79.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-36			X		126+79.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-37			X		130+39.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-38			X		130+39.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-39			X		133+95.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-40			X		133+95.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A
IFB-41			X		137+99.00	3.00' LT.	TYPE M INLET	FILTER BAG	N/A
IFB-42			X		137+99.00	3.00' RT.	TYPE M INLET	FILTER BAG	N/A

DATE: 7/12/2016

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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: ESd006.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

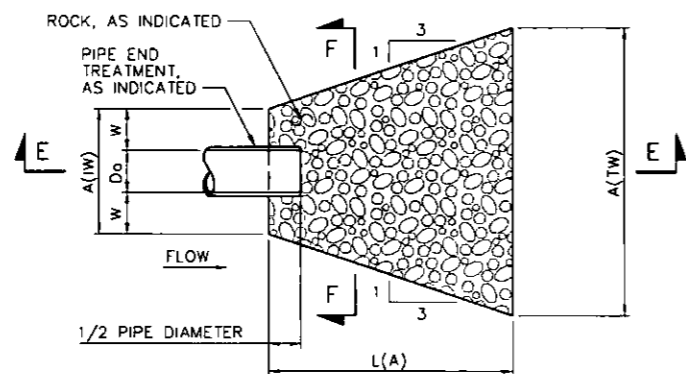
SCALE:

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

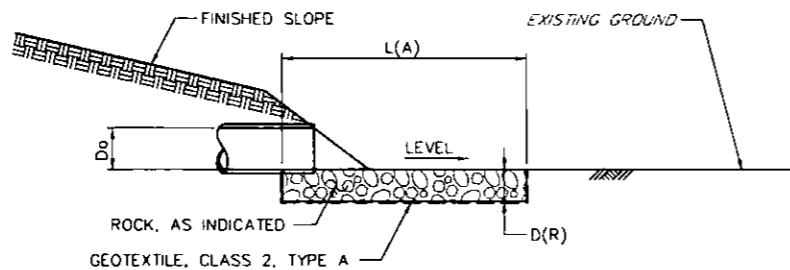
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIEMENT POLLUTION CONTROL
DETAILS**

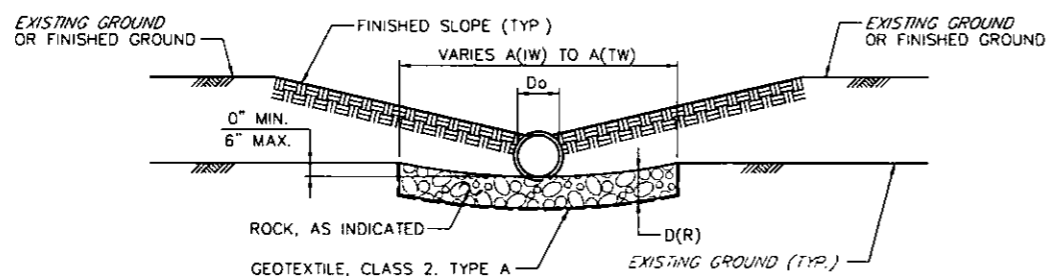
DRAWING: 6 OF 10
SHEET: 97 OF 315



PLAN VIEW



SECTION E-E



SECTION F-F

ROCK APRON OUTLET PROTECTION DETAIL (FLAT AREA)

NO SCALE
ITEM 0851-0003

- NOTES: 1. SLOPE SHOULD BE LEVEL OR AS CLOSE TO LEVEL AS REASONABLY POSSIBLE BASED ON SITE CONDITIONS.
2. PROVIDE GEOTEXTILE MATERIAL ALONG ALL INTERFACE AREAS WITH GROUND CONTACT
3. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

ROCK APRON OUTLET PROTECTION DATA & LOCATIONS

OUTLET	STAGES			ROAD	STATION	OFFSET (± OUTLET)	PIPE	TAILWATER CONDITION	Q (CFS)	V (FPS)	RIPRAP R-SIZE	D(R) (FT)	L(A) (FT)	A(TW) (FT)
	1	2	3											
EP-01	X	X	X	PTC EB-103	90+09	63' RT	24" RCP	MINIMUM	17.84	8.69	R-6 ROCK	2.50	6.00	4.25
TSP-01	X				91+91	97' LT	24" CMP	MINIMUM	17.87	6.74	R-6 ROCK	2.50	6.00	3.00
TSP-02	X	X	X		94+55	95' RT	18" CMP	MINIMUM	0.29	3.48	R-6 ROCK	2.50	6.00	4.25
TSP-03	X	X	X		98+45	120' RT	18" CMP	MINIMUM	0.22	2.83	R-6 ROCK	2.50	6.00	4.25
TSP-04	X	X			101+94	123' RT	18" CMP	MINIMUM	8.57	7.19	R-6 ROCK	2.50	6.00	4.25
TSP-05	X	X	X		102+51	123' RT	18" CMP	MINIMUM	0.08	1.37	R-6 ROCK	2.50	6.00	4.25
TSP-06	X				103+03	124' LT	18" CMP	MINIMUM	1.36	5.46	R-6 ROCK	2.50	6.00	4.25
TSP-07	X	X	X		106+01	124' RT	18" CMP	MINIMUM	4.05	7.66	R-6 ROCK	2.50	6.00	4.25
TSP-08	X		X		108+21	109' LT	18" CMP	MINIMUM	1.07	2.90	R-6 ROCK	2.50	6.00	4.25
TSP-09		X			108+62	131' RT	18" CMP	MINIMUM	2.05	10.96	R-6 ROCK	2.50	5.00	5.33
TSP-10	X	X	X		108+63	131' RT	18" CMP	MINIMUM	2.03	8.24	R-6 ROCK	2.50	5.00	5.33
TSP-11		X			109+84	112' LT	18" CMP	MINIMUM	1.19	10.55	R-6 ROCK	2.50	3.33	4.25
TSP-12		X			112+51	129' RT	18" CMP	MINIMUM	0.71	5.43	R-6 ROCK	2.50	6.00	4.25
TSP-13		X			113+31	113' LT	18" CMP	MINIMUM	0.24	5.45	R-6 ROCK	2.50	3.00	4.25
TSP-14			X		115+96	87' RT	18" CMP	MINIMUM	1.87	1.60	R-6 ROCK	2.50	10.00	6.00
TSP-15	X	X			119+59	93' LT	18" CMP	MINIMUM	0.10	3.09	R-6 ROCK	2.50	6.00	4.25
TSP-16	X	X			123+20	95' LT	18" CMP	MINIMUM	0.09	3.64	R-6 ROCK	2.50	6.00	4.25
TSP-17	X	X	X		124+50	95' RT	3x18" CMP	MINIMUM	59.83	9.11	R-6 ROCK	2.50	6.00	4.25
TSP-18	X	X	X		125+49	95' LT	42" CMP	MINIMUM	59.06	11.28	R-6 ROCK	2.50	6.00	4.25
TSP-19	X	X	X		126+80	95' LT	18" CMP	MINIMUM	0.11	1.56	R-6 ROCK	2.50	6.00	4.25
TSP-20	X			129+69	95' LT	18" CMP	MINIMUM	1.36	3.98	R-6 ROCK	2.50	6.00	4.25	

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
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MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

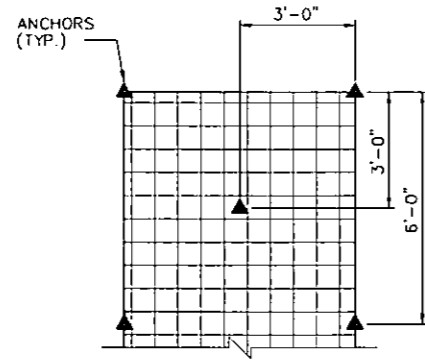


NO.	REVISIONS	DATE	APPR.

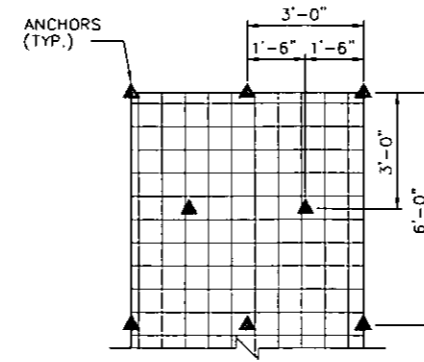
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T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: ESdt07.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103
SCALE:

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

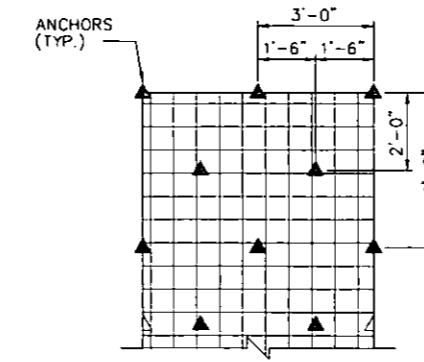
EROSION & SEDIMENT POLLUTION CONTROL
DETAILS
DRAWING: 7 OF 10
SHEET: 98 OF 315



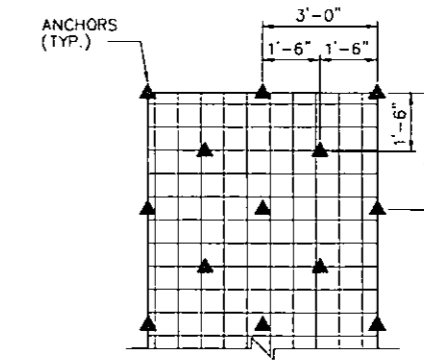
**ANCHOR PATTERN FOR SLOPES
FLATTER THAN 3:1
(LESS THAN 3:1)**
PLACE 1 ANCHOR/SY



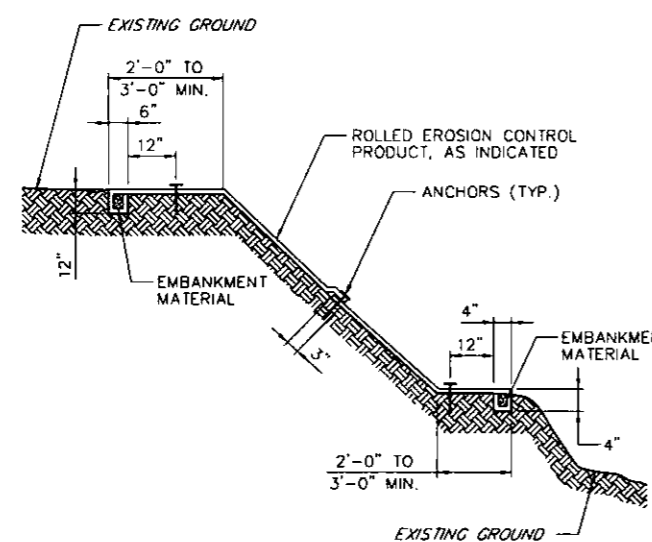
**ANCHOR PATTERN FOR SLOPES
BETWEEN 3:1 AND 2:1
(INCLUDING 3:1)**
PLACE 1 1/2 ANCHORS/SY



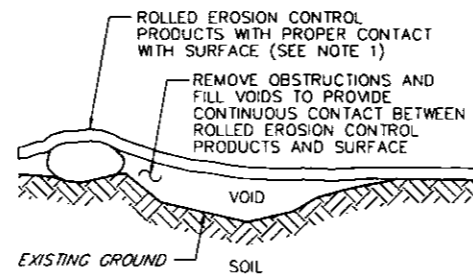
**ANCHOR PATTERN FOR SLOPES
BETWEEN 2:1 AND 1:1
(INCLUDING 2:1)**
PLACE 2 ANCHORS/SY



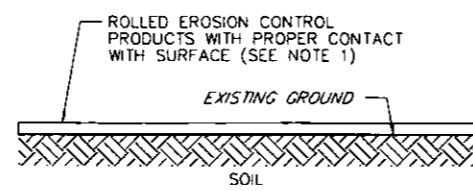
**ANCHOR PATTERN FOR SLOPES
GREATER THAN 1:1
(INCLUDING 1:1)**
PLACE 2 1/2 ANCHORS/SY



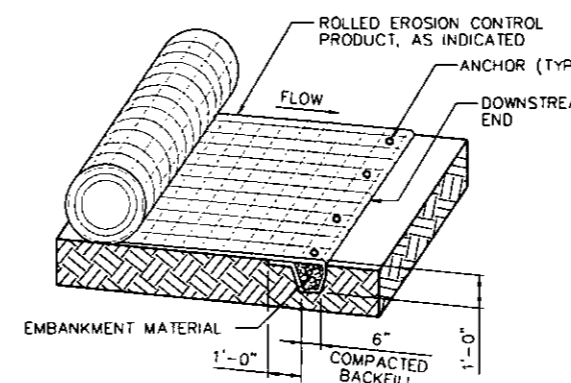
TYPICAL SLOPE CROSS-SECTION



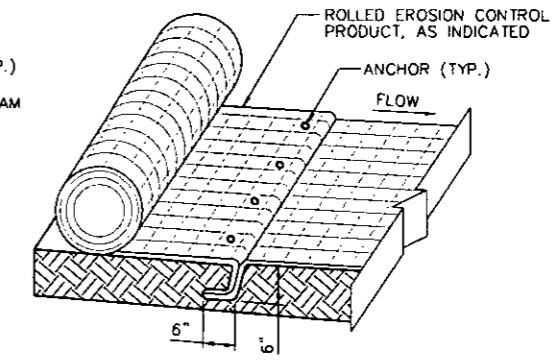
**FIGURE 1
LACK OF CONTINUOUS CONTACT**



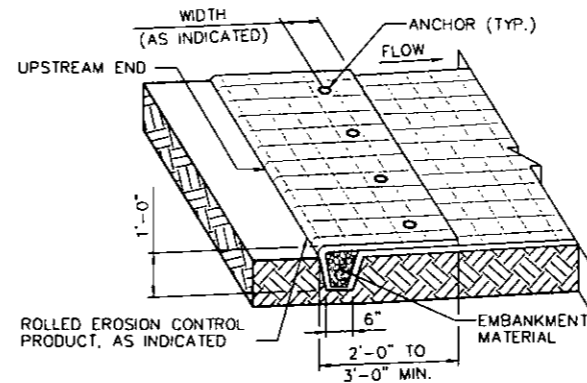
**FIGURE 2
CONTINUOUS CONTACT**



INITIAL ANCHOR TRENCH
SEE INSTALLATION NOTE 1



INTERMITTENT CHECK SLOT
SEE INSTALLATION NOTE 2



TERMINAL ANCHOR TRENCH
SEE INSTALLATION NOTES 3 & 4

INSTALLATION NOTES

- EXCAVATE INITIAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO PREVENT UNDERMINING OF THE ROLLED EROSION CONTROL PRODUCTS.
- EXCAVATE INTERMITTENT CHECK SLOT 6" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL AT 25'-0" TO 30'-0" ALONG THE LENGTH OF THE ROLLED EROSION CONTROL PRODUCTS TO PREVENT LOOSE SOIL FROM BEING TRANSPORTED DOWNSTREAM BENEATH THE ROLLED EROSION CONTROL PRODUCTS.
- EXCAVATE TERMINAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO ENSURE WATER FLOW TRANSITIONS SMOOTHLY ONTO THE ROLLED EROSION CONTROL PRODUCTS WITHOUT SEPARATION FROM THE SOIL.
- EXTEND ROLLED EROSION CONTROL PRODUCTS 2'-0" TO 3'-0" ABOVE THE CREST OF CHANNEL SIDE WHENEVER POSSIBLE.

EROSION CONTROL MULCH BLANKET INSTALLATION
NO SCALE

- NOTES:
- MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
 - SLOPE SURFACE SHALL BE SMOOTH AND FREE OF ROCKS, LUMPS OF DIRT, GRASS AND STICKS. ESTABLISH AND MAINTAIN CONTINUOUS CONTACT BETWEEN THE ROLLED EROSION CONTROL PRODUCTS AND THE SOIL.
 - PROVIDE ANCHORING DEVICES IN ACCORDANCE WITH PUBLICATION 408, SECTION 806.2(d).
 - EROSION CONTROL BLANKET SHALL BE FROM A MANUFACTURER LISTED IN PENNDOT BULLETIN 15, SECTION 806.2.
 - ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

EROSION CONTROL MULCH BLANKET DETAIL

NO SCALE
ITEM 2806-0051

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE:

WBS NO.
T-228.54S001-3-02

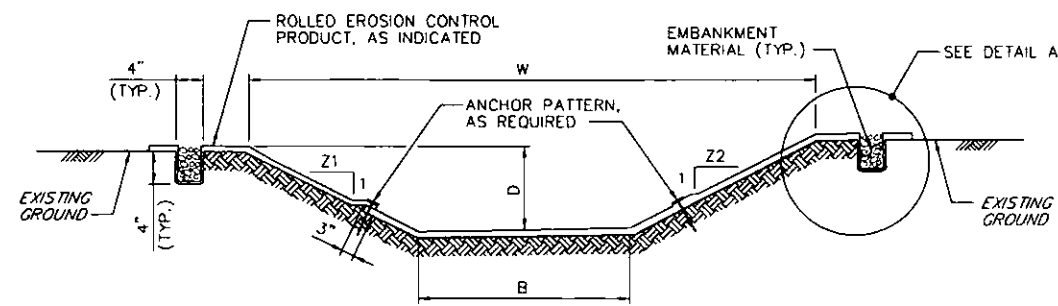
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FILE NAME: ESdt08.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

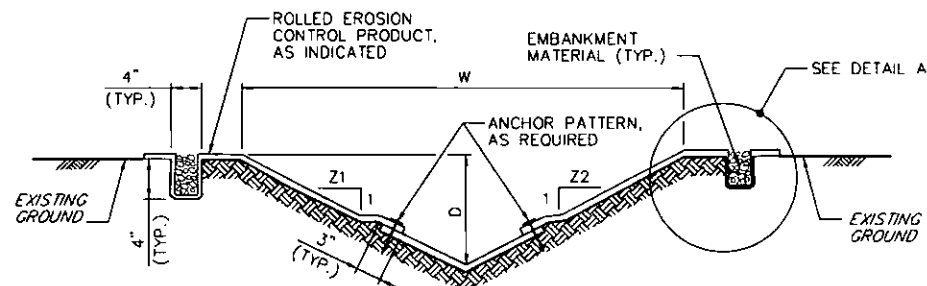
**EROSION & SEDIMENT POLLUTION CONTROL
DETAILS**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

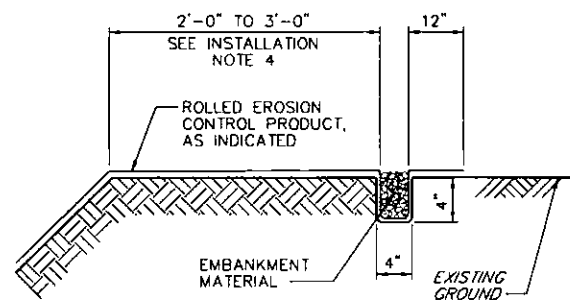
DRAWING: 8 OF 10
SHEET: 99 OF 315



TYPICAL TRAPEZOIDAL CHANNEL SECTION
SEE INSTALLATION NOTE 1



TYPICAL V-DITCH SECTION
SEE INSTALLATION NOTE 1



DETAIL A
SEE INSTALLATION NOTE 4

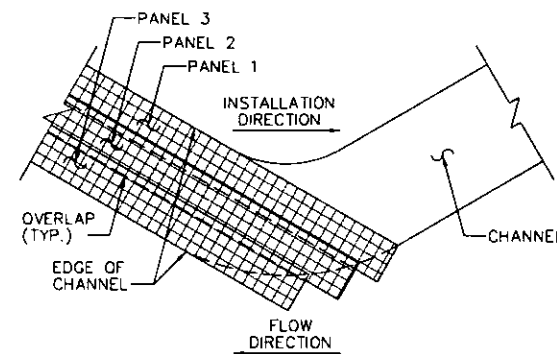
EROSION CONTROL MULCH BLANKET CHANNEL DETAIL

NO SCALE
ITEM 2806-0051

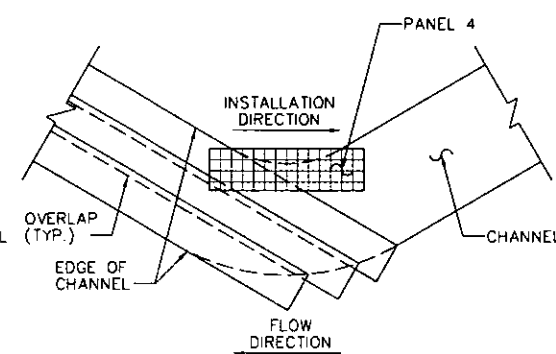
- NOTES:
1. MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
 2. SLOPE SURFACE SHALL BE SMOOTH AND FREE OF ROCKS, LUMPS OF DIRT, GRASS AND STICKS. ESTABLISH AND MAINTAIN CONTINUOUS CONTACT BETWEEN THE ROLLED EROSION CONTROL PRODUCTS AND THE SOIL.
 3. PROVIDE ANCHORING DEVICES IN ACCORDANCE WITH PUBLICATION 408, SECTION 806.2(d).
 4. EROSION CONTROL BLANKET SHALL BE FROM A MANUFACTURER LISTED IN PENNDOT BULLETIN 15, SECTION 806.2.
 5. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

INSTALLATION NOTES

1. EXCAVATE INITIAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO PREVENT UNDERMINING OF THE ROLLED EROSION CONTROL PRODUCTS.
2. EXCAVATE INTERMITTENT CHECK SLOT 6" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL AT 25'-0" TO 30'-0" ALONG THE LENGTH OF THE ROLLED EROSION CONTROL PRODUCTS TO PREVENT LOOSE SOIL FROM BEING TRANSPORTED DOWNSTREAM BENEATH THE ROLLED EROSION CONTROL PRODUCTS.
3. EXCAVATE TERMINAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO ENSURE WATER FLOW TRANSITIONS SMOOTHLY ONTO THE ROLLED EROSION CONTROL PRODUCTS WITHOUT SEPARATION FROM THE SOIL.
4. EXTEND ROLLED EROSION CONTROL PRODUCTS 2'-0" TO 3'-0" ABOVE THE CREST OF CHANNEL SIDE WHENEVER POSSIBLE.



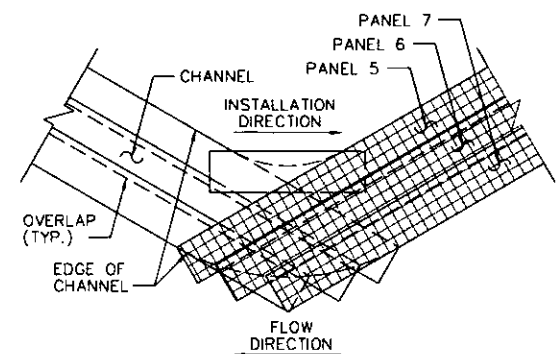
DOWNSTREAM CHANNEL
PANELS 1, 2 & 3



CHANNEL BEND
PANEL 4

CHANNEL BEND NOTES

1. INSTALL ROLLED EROSION CONTROL PRODUCTS IN STRAIGHT SECTIONS AROUND CHANNEL BEND TO AVOID CURLING OF MAT EDGES. INSTALL ROLLED EROSION CONTROL PRODUCTS STARTING WITH PANEL #1.
2. ESTABLISH AND MAINTAIN CONTINUOUS CONTACT BETWEEN THE ROLLED EROSION CONTROL PRODUCTS AND SOIL SURFACE.
3. INSTALL ROLLED EROSION CONTROL PRODUCTS AS INDICATED.
4. TERMINATE PANELS AT CHANNEL EDGE OR AS DIRECTED BY THE REPRESENTATIVE.



UPSTREAM CHANNEL
PANELS 5, 6 & 7

EROSION CONTROL MULCH BLANKET CHANNEL BEND INSTALLATION
NO SCALE

CHANNEL DATA & LOCATIONS

CHANNEL	STAGES			ROAD	STATIONS	B (FT)	D (FT)	W (FT)	Z1	Z2	TEMPORARY LINING	PERMANENT LINING
	1	2	3									
1.1		X	X	PTC EB-103	93+50.00 TO 90+19.00	6.000	1.833	17.000	3.00	3.00	ECMB	GRASS LINED
2.1		X	X		104+80.00 TO 102+00.00	4.000	1.833	15.000	3.00	3.00	ECMB	GRASS LINED
3.1		X	X		111+00.00 TO 108+10.00	4.000	1.833	15.000	3.00	3.00	ECMB	GRASS LINED
4.1		X	X		117+56.00 TO 114+46.00	4.000	1.833	15.000	3.00	3.00	ECMB	GRASS LINED
5.1		X	X		123+04.00 TO 124+54.00	6.000	2.250	19.500	3.00	3.00	ECMB	GRASS LINED
6.1		X	X		129+88.00 TO 126+64.00	6.000	2.250	19.500	3.00	3.00	ECMB	GRASS LINED
6.2		X	X		126+64.00 TO 124+64.00	6.000	2.250	19.500	3.00	3.00	ECMB	GRASS LINED
7.1		X	X		130+21.00 TO 127+79.00	6.000	2.000	18.000	3.00	3.00	ECMB	GRASS LINED
7.2		X	X		127+79.00 TO 126+80.00	6.000	2.000	18.000	3.00	3.00	ECMB	GRASS LINED
7.3			X		126+80.00 TO 125+46.00	6.000	2.000	18.000	3.00	3.00	ECMB	GRASS LINED

DATE: 7/12/2016

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**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIEMENT POLLUTION CONTROL
DETAILS**
DRAWING: 9 OF 10
SHEET: 100 OF 315

BEST MANAGEMENT PRACTICES (BMP) SPECIFICATION

BEST MANAGEMENT PRACTICE (BMP)

VEGETATED SWALE (STRUCTURAL BMP 6.4.8)

VEGETATION

SEE EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) GENERAL NOTES FOR SEEDING SPECIFICATIONS.

SOIL

TO ENCOURAGE FILTRATION AND HEALTHY PLANT GROWTH, GRADING AND TOPSOIL PLACEMENT SHALL BE PER THE AMENDED TOPSOIL SPECIFICATION.

CHECK DAMS

SHALL CONFORM TO PENNDOT PUBLICATION 408 SPECIFICATIONS FOR R-4 RIPRAP.

INSTALLATION

THE INDIVIDUAL BMP INSTALLATION SEQUENCE FOR THE PROJECT IS AS FOLLOWS:

- BEGIN VEGETATED SWALE CONSTRUCTION ONLY WHEN THE UPGRADIENT TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) MEASURES ARE IN PLACE. UNLIKE STANDARD SWALE INSTALLATIONS WHERE THE SWALES ARE INSTALLED EARLY ON IN THE PROCESS TO ASSIST IN CONVEYANCE DURING CONSTRUCTION, THIS PROJECT'S SWALES ARE TO BE INSTALLED NEAR THE END OF THE CONSTRUCTION SEQUENCE AND ALTERNATE TEMPORARY MEASURES ARE PROPOSED FOR INITIAL CONSTRUCTION (TEMPORARY STABILIZATION / FILTER SOCKS ETC. PER THE E&SPC PLAN).
- ROUGH GRADE THE VEGETATED SWALE AND INSTALL TOPSOIL LAYER AND SURFACE TREATMENT PER AMENDED TOPSOIL SPECIFICATIONS
- CONSTRUCT CHECK DAMS. ONLY SMALL EQUIPMENT AND TRACKED VEHICLES ARE PERMITTED IN THE VICINITY OF THE SWALE DURING MATERIAL DELIVERY AND CONSTRUCTION TO AVOID COMPACTION.
- SEED VEGETATE AND INSTALL PROTECTIVE LINING AS PER EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PLANS
- UPON ESTABLISHED VEGETATION, REMOVE UPSTREAM EROSION AND SEDIMENTATION POLLUTION CONTROL (E&SPC) MEASURES.
- CRITICAL STAGES OF BMP INSTALLATION INCLUDE THE FOLLOWING:
 - INSPECTOR SHALL RECEIVE A COPY OF THE MATERIALS CERTIFICATION THAT MEETS THE SPECIFICATION OF THE PLAN.
 - INSPECTOR SHALL BE ONSITE DURING PLACEMENT OF STONE AND TOPSOIL SECTIONS TO CONFIRM INSTALLATION MATCHES DETAIL AS REQUIRED.

INSPECTION SCHEDULE

WHILE VEGETATION IS BEING ESTABLISHED BI-WEEKLY, INSPECTION SHALL OCCUR FOR THREE (3) MONTHS. WARRANTY FOR THE PLANTINGS SHALL BE PROVIDED BY THE CONTRACTOR DURING THE THREE (3) MONTH PLANT ESTABLISHMENT PERIOD. CHECK DAMS, TOPSOIL AND VEGETATED AREAS SHALL BE INSPECTED AT THE BEGINNING AND END OF EACH GROWING SEASON (PREFERABLY IN MARCH AND SEPTEMBER).

THE BMP WILL BE CONSIDERED TO HAVE FAILED IF THE PONDING OF WATER REMAINS FOR GREATER THAN 72 HOURS (3 DAYS) BEYOND THE END OF THE MOST RECENT RAIN EVENT. SEE MAINTENANCE AND REPLACEMENT FOR DIRECTIONS IF FAILURE OCCURS.

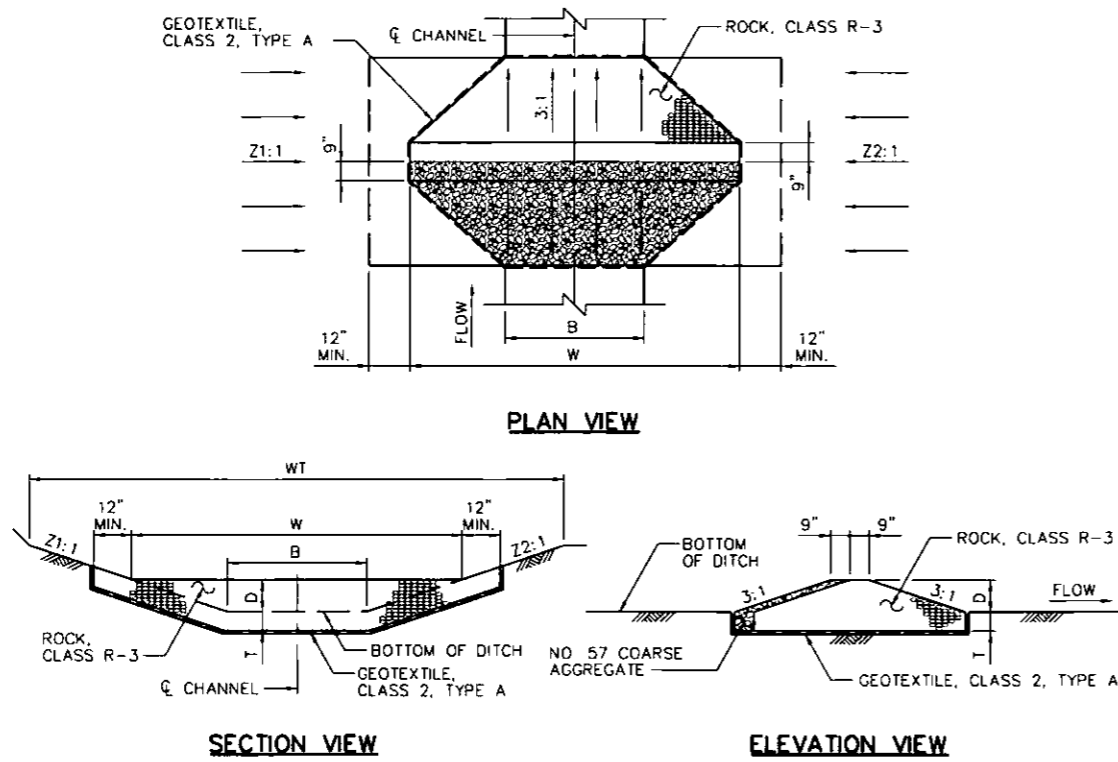
DIRECTIONS FOR LONG TERM MAINTENANCE AND REPLACEMENT

REMOVE LITTER SEDIMENT AND DEBRIS ACCUMULATION IN SWALE. ALL MATERIAL REMOVED FROM SITE SHALL BE DISPOSED OF IN A PROPER MANNER.

INSPECT VEGETATION AND DEVELOPMENT OF RILLS OR GULLIES ON SIDE SLOPES AND CHANNEL BOTTOM. FOR DAMAGED AREAS, REPAIR SOIL ZONE AND SEEDING PER THE AMENDED TOPSOIL INSTALLATION SPECIFICATION. IMMEDIATELY PLACE COMPOST FILTER SOCK SEGMENTS UPSTREAM AND DOWNSTREAM OF DAMAGED ZONE. UPON NEW ESTABLISHMENT OF VEGETATION, REMOVE TEMPORARY CONTROLS.

INSPECT CHECK DAMS FOR SEDIMENT ACCUMULATION AND CHANNEL BOTTOM FOR POOLS OF STANDING WATER. FOR STANDING WATER BETWEEN CHECK DAMS, REMOVE AND REPLACE CHECK DAMS PER THE CHECK DAM INSTALLATION INSTRUCTIONS. FOR STANDING WATER AT POINTS ALONG ENTIRE BMP, REMOVE CHECK DAMS ALONG ENTIRE BMP AND REINSTALL CHANNEL PER THE SEQUENCE OF INSTALLATION.

DURING EXTENDED DRY PERIODS, WATER AS NECESSARY.



VEGETATED SWALE WITH CHECK DAM DETAIL

NO SCALE
PAID AS ITEM NUMBERS 0212-0150, 0703-0025, 0850-0031 (DRAINAGE ITEMS)

NOTES: CONSTRUCT THE VEGETATED CHANNEL WITH CHECK DAMS IN ACCORDANCE WITH PENNSYLVANIA STORMWATER BEST MANAGEMENT PRACTICES MANUAL, DECEMBER 2006, SECTION 6.4.8, VEGETATED SWALES:

- BEGIN VEGETATED SWALE CONSTRUCTION ONLY WHEN THE UPGRADIENT TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE. VEGETATED SWALES SHOULD BE CONSTRUCTED AND STABILIZED EARLY IN THE CONSTRUCTION SCHEDULE, PREFERABLY BEFORE MASS EARTHWORK AND PAVING INCREASE THE RATE AND VOLUME OF RUNOFF. (EROSION AND SEDIMENT CONTROL METHODS SHALL ADHERE TO THE APPROVED EROSION AND SEDIMENT POLLUTION CONTROL PLAN DATED AUGUST 12, 2009.)
- ROUGH GRADE THE VEGETATED SWALE. EQUIPMENT SHALL AVOID EXCESSIVE AND/OR LAND DISTURBANCE. EXCAVATING EQUIPMENT SHOULD OPERATE FROM THE SIDE OF THE SWALE AND NEVER ON THE BOTTOM. IF EXCAVATION LEADS TO SUBSTANTIAL COMPACTION OF THE SUBGRADE (WHERE AN INFILTRATION TRENCH IS NOT PROPOSED), 18 INCHES SHALL BE REMOVED AND REPLACED WITH A BLEND OF TOPSOIL AND SAND TO PROMOTE INFILTRATION AND BIOLOGICAL GROWTH. AT THE VERY LEAST, TOPSOIL SHALL BE THOROUGHLY DEEP PLOWED INTO THE SUBGRADE IN ORDER TO PENETRATE THE COMPACTED ZONE AND PROMOTE AERATION AND THE FORMATION OF MACROPORES. FOLLOWING THIS, THE AREA SHOULD BE DISKED PRIOR TO FINAL GRADING OF TOPSOIL. ANY WORK TASKS CAUSED BY SUBSTANTIAL COMPACTION OF THE SUBGRADE ARE AT THE CONTRACTOR'S EXPENSE.
- CONSTRUCT CHECK DAMS.
- FINE GRADE THE VEGETATED SWALE. ACCURATE GRADING IS CRUCIAL FOR SWALES. EVEN THE SMALLEST NONCONFORMITIES MAY COMPROMISE FLOW CONDITIONS.
- SEED AND VEGETATE PER APPROVED PLANS. PLANT THE SWALE AT A TIME OF THE YEAR WHEN SUCCESSFUL ESTABLISHMENT WITHOUT IRRIGATION IS MOST LIKELY. HOWEVER, TEMPORARY IRRIGATION MAY BE NEEDED IN PERIODS OF LITTLE RAIN OR DROUGHT. VEGETATION SHOULD BE ESTABLISHED AS SOON AS POSSIBLE TO PREVENT EROSION AND SCOUR.
- ONCE ALL TRIBUTARY AREAS ARE SUFFICIENTLY STABILIZED, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS. IT IS VERY IMPORTANT THAT THE SWALE BE STABILIZED BEFORE RECEIVING UPLAND STORMWATER FLOW.
- IF A VEGETATED SWALE IS USED FOR RUNOFF CONVEYANCE DURING CONSTRUCTION, IT SHOULD BE REGRADED AND RESEEDED IMMEDIATELY AFTER CONSTRUCTION AND STABILIZATION HAS OCCURRED. ANY DAMAGED AREAS SHOULD BE FULLY RESTORED TO ENSURE FUTURE FUNCTIONALITY OF THE SWALE.
- TEMPORARY LINING SHALL CONFORM TO SECTION 806.2. THE TEMPORARY LINING SHALL NOT HAVE AN UNVEGETATED SHEAR STRESS AND VELOCITY OF 1.75 PSF AND 6.00 FPS, RESPECTIVELY.

SWALE	STAGES			ROAD	STATION	OFFSET (± CHANNEL)	B (FT)	D (FT)	W (FT)	WT (FT)	Z1	Z2	T (FT)	SWALE SLOPE (%)	CHECK DAMS		LENGTH (FT)
	1	2	3												NUMBER	SPACING (FT)	
1.1		X	X	PTC EB-103	91+85.00	79.00' RT.	6.00	0.50	9.00	17.00	3.00	3.00	0.50	0.86	6	63.00	330.00
2.1		X	X		103+39.00	112.00' RT.	4.00	0.50	7.00	15.00	3.00	3.00	0.50	2.20	13	23.00	280.00
3.1		X	X		109+50.00	101.00' LT.	4.00	0.50	7.00	15.00	3.00	3.00	0.50	0.50	3	100.00	300.00
4.1		X	X		116+01.00	90.00' RT.	4.00	0.33	6.00	15.00	3.00	3.00	0.50	3.75	37	9.00	312.00
5.1		X	X		123+79.00	89.00' RT.	6.00	1.00	12.00	19.50	3.00	3.00	0.50	2.00	3	50.00	150.00
6.1		X	X		128+26.00	71.00' RT.	6.00	0.75	10.50	19.50	3.00	3.00	0.50	1.80	8	41.00	325.00
6.2		X	X		125+65.00	85.00' RT.	6.00	0.75	10.50	19.50	3.00	3.00	0.50	0.50	2	150.00	200.00
7.1		X	X		129+00.00	76.00' LT.	6.00	0.67	10.00	18.00	3.00	3.00	0.50	0.50	4	134.00	242.00
7.2		X	X		127+30.00	82.00' LT.	6.00	0.67	10.00	18.00	3.00	3.00	0.50	4.00	6	16.75	100.00
7.3			X		126+13.00	87.00' LT.	6.00	0.67	10.00	18.00	3.00	3.00	0.50	0.50	1	134.00	134.00

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

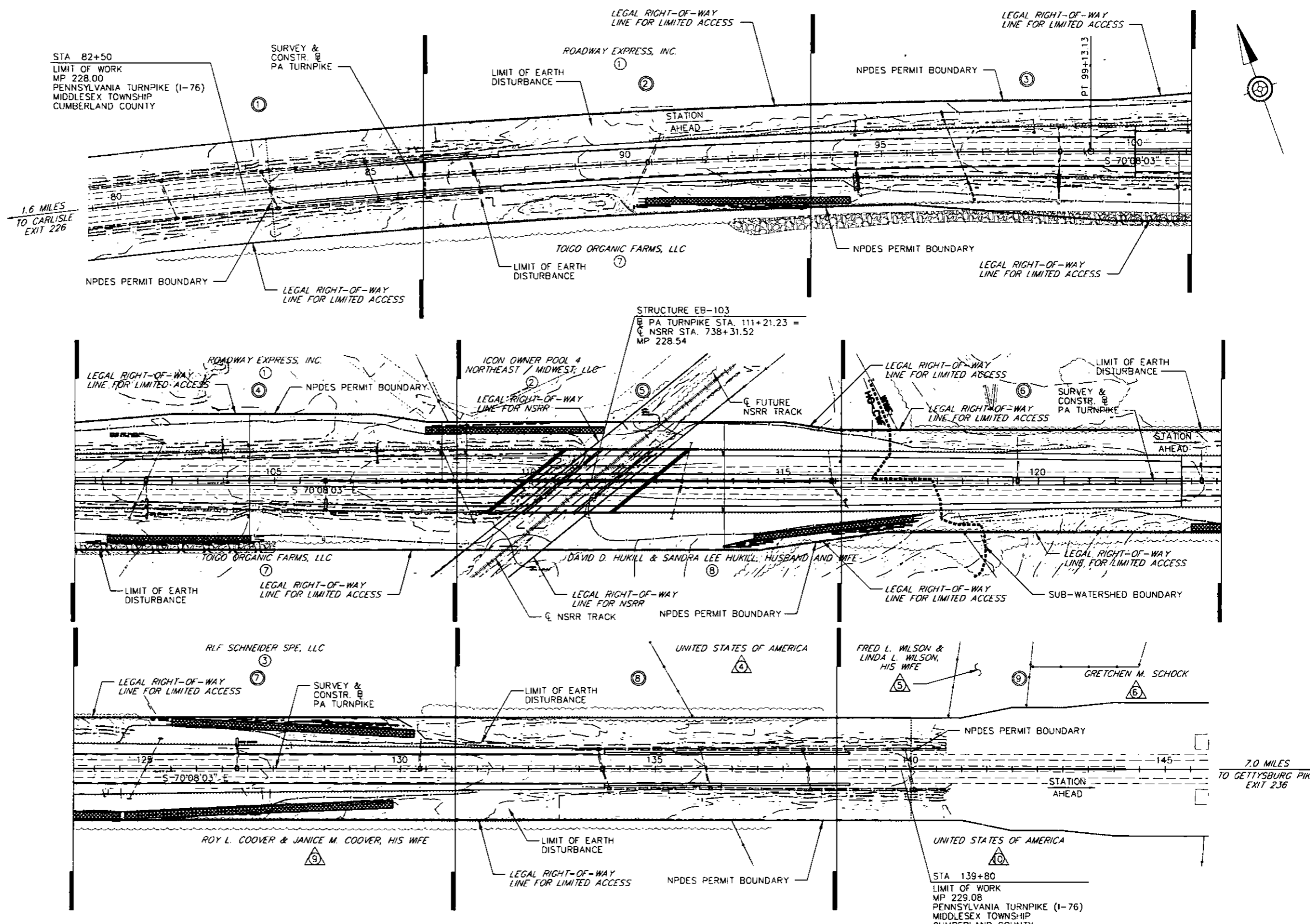
WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: ESdt10.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103
SCALE:

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

EROSION & SEDIEMENT POLLUTION CONTROL DETAILS	
DRAWING: 10 OF 10	SHEET: 101 OF 315

LEGEND

- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- PARCEL ID NUMBER
- PARCEL ID NUMBER (NO TAKE)
- PLAN DRAWING NUMBER



1.6 MILES
TO CARLISLE
EXIT 226

7.0 MILES
TO GETTYSBURG PIKE
EXIT 236

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
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TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

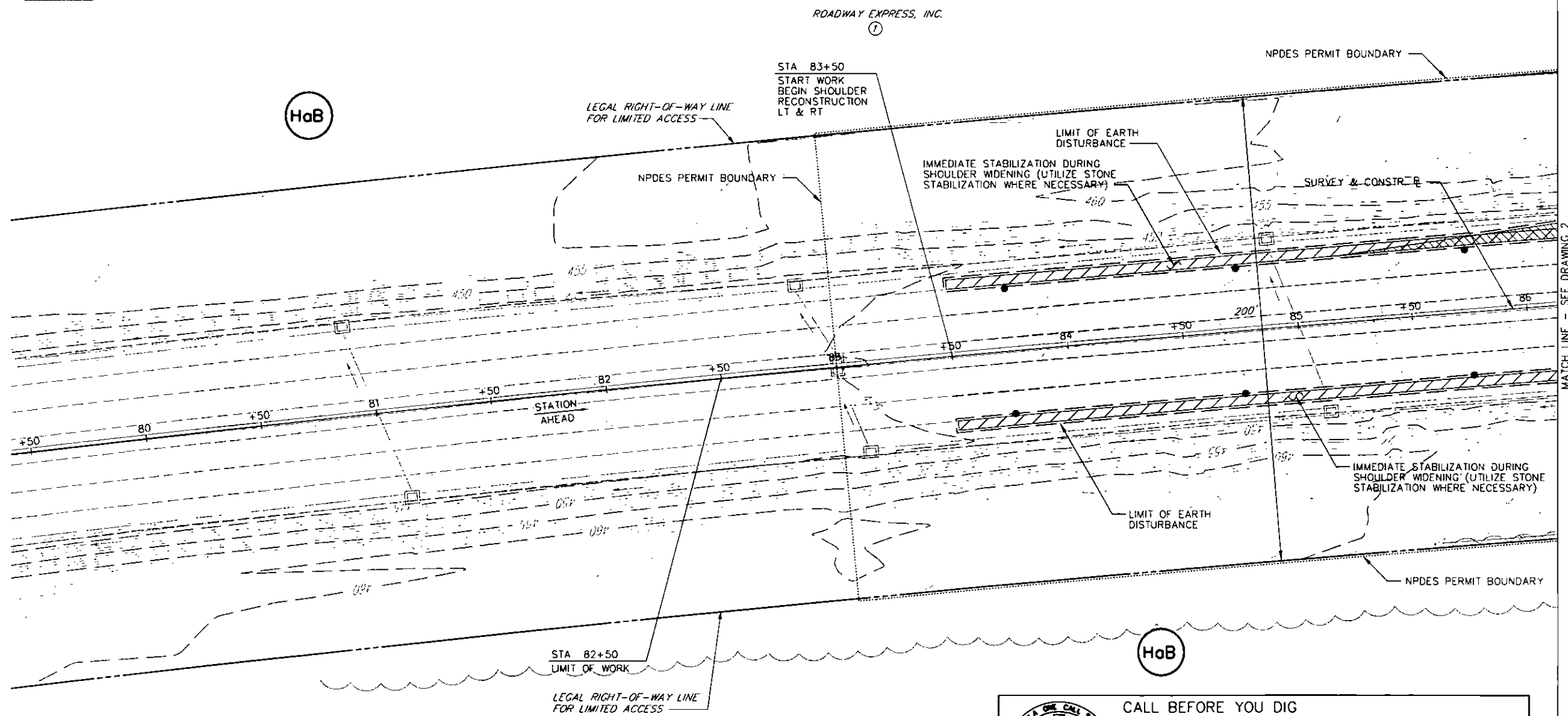
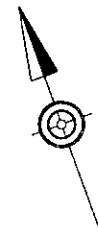
WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: ESld01.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103
SCALE: 100 0 100 FEET

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

EROSION & SEDIMENT POLLUTION CONTROL PLAN SHEET INDEX MAP	
DRAWING: 1 OF 1	SHEET: 102 OF 315


LEGEND

- CFS-12 COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24 COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- ROCK FILTER
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- CUT LIMIT
- FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL




NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.

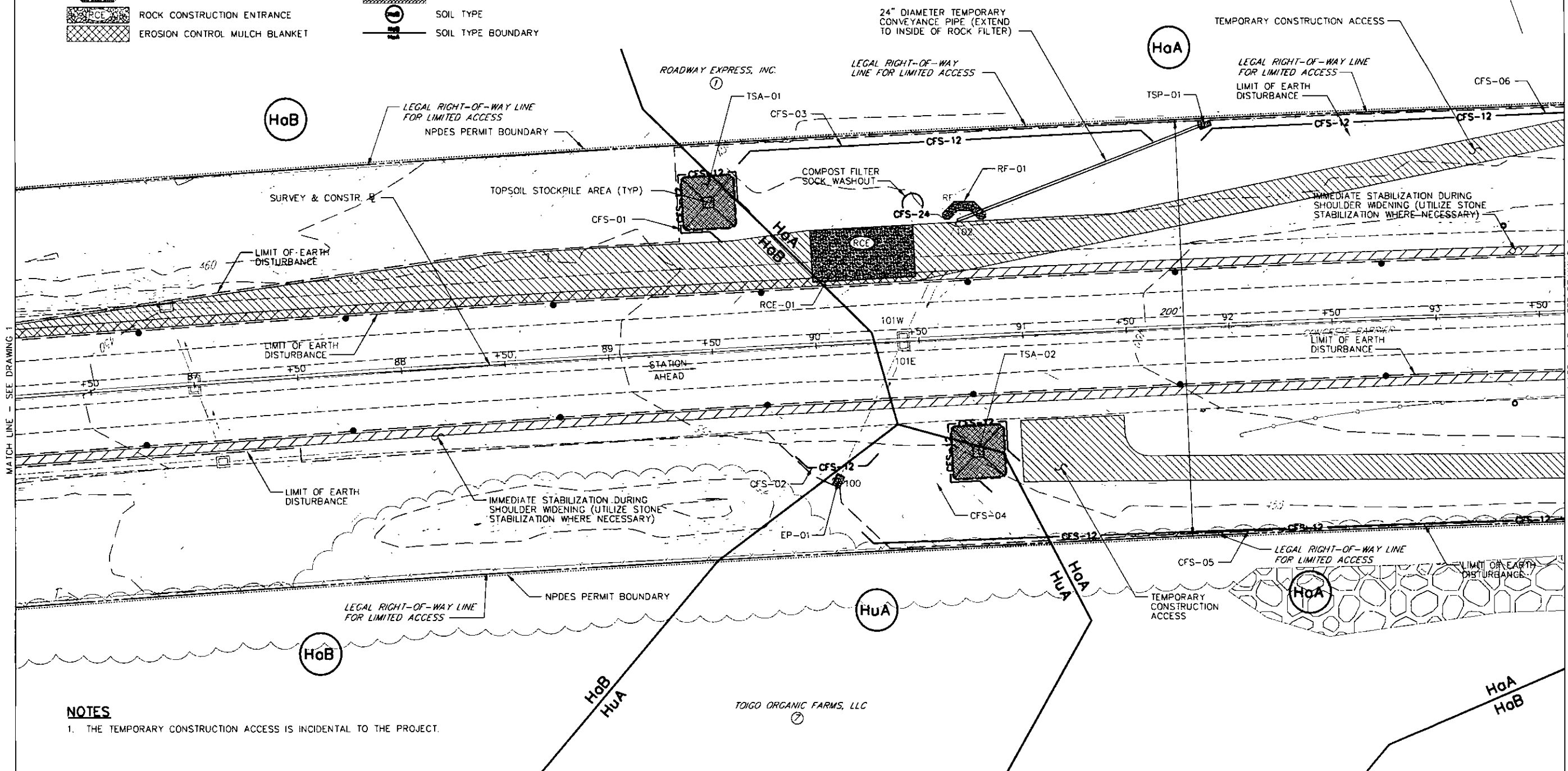


CALL BEFORE YOU DIG
 PENNSYLVANIA LAW REQUIRES THREE (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND TEN (10) WORKING DAYS IN DESIGN STAGE
 PENNSYLVANIA ONE CALL SYSTEM, INC.
 PHONE NUMBER: 1.800.242.1776
 SERIAL NUMBER: 20161121934
 MUNICIPALITY: MIDDLESEX TOWNSHIP

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	EROSION & SEDIEMENT POLLUTION CONTROL PLAN SHEET STAGE 1
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION					NETWORK NUMBER: 7003982 FILE NAME: ESpl0101.dgn DRAWING TYPE: 1V STRUCTURE NUMBER: EB-103		
			NO.	REVISIONS	DATE	APPR.	SCALE: 25 0 25 FEET	

LEGEND

- CFS-12 COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24 COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- P DIVERSION PUMP
- PWPFB PUMPED WATER FILTER BAG
- SP SUMP PIT
- RF ROCK FILTER
- RCE ROCK CONSTRUCTION ENTRANCE
- ECMB EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- C CUT LIMIT
- F FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: ESpl0102.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

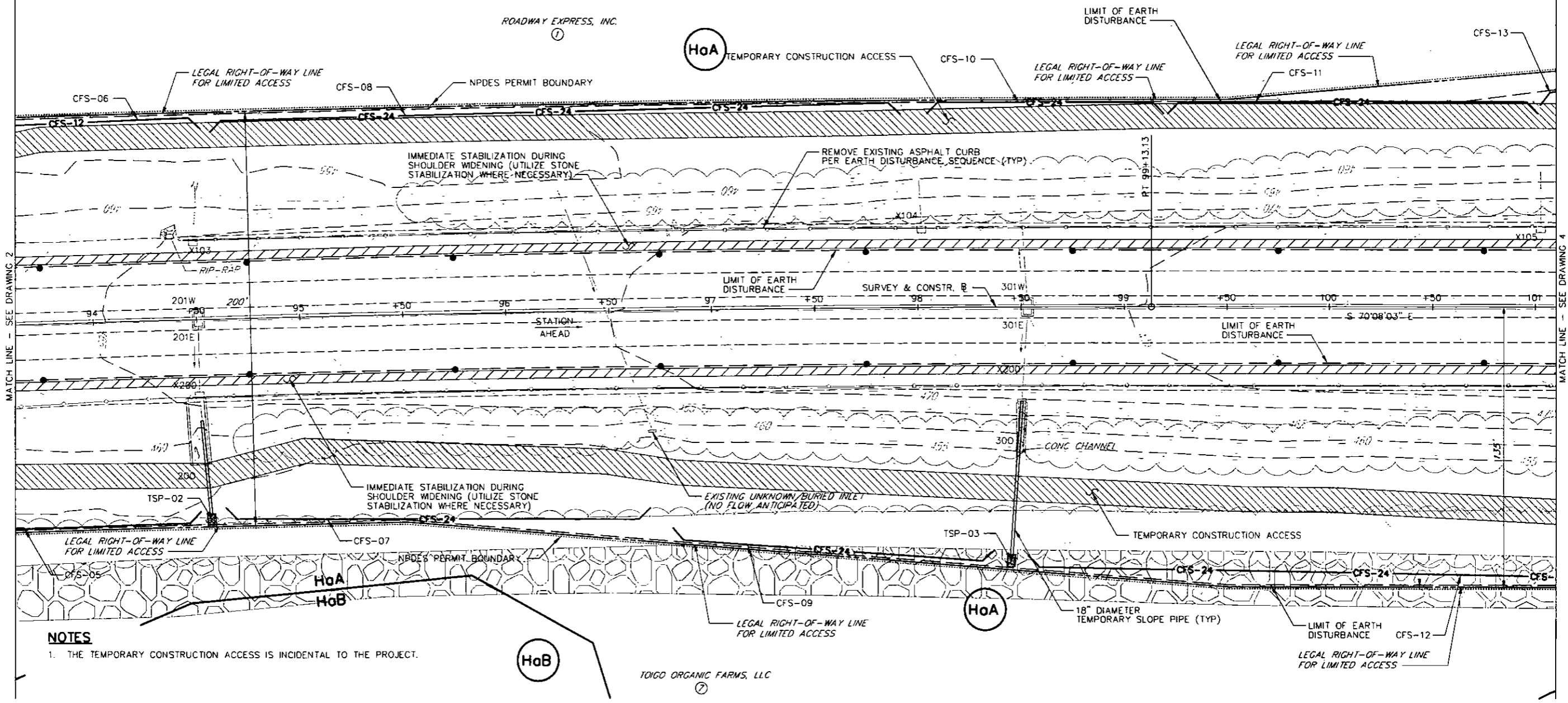
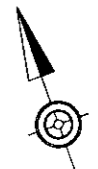
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIEMENT POLLUTION CONTROL
PLAN SHEET
STAGE 1**

DRAWING: 2 OF 9
SHEET: 104 OF 315

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- P DIVERSION PUMP
- PWPFB PUMPED WATER FILTER BAG
- SP SUMP PIT
- RF ROCK FILTER
- RCE ROCK CONSTRUCTION ENTRANCE
- EM EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
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- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- C - CUT LIMIT
- F - FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: ESpl0103.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

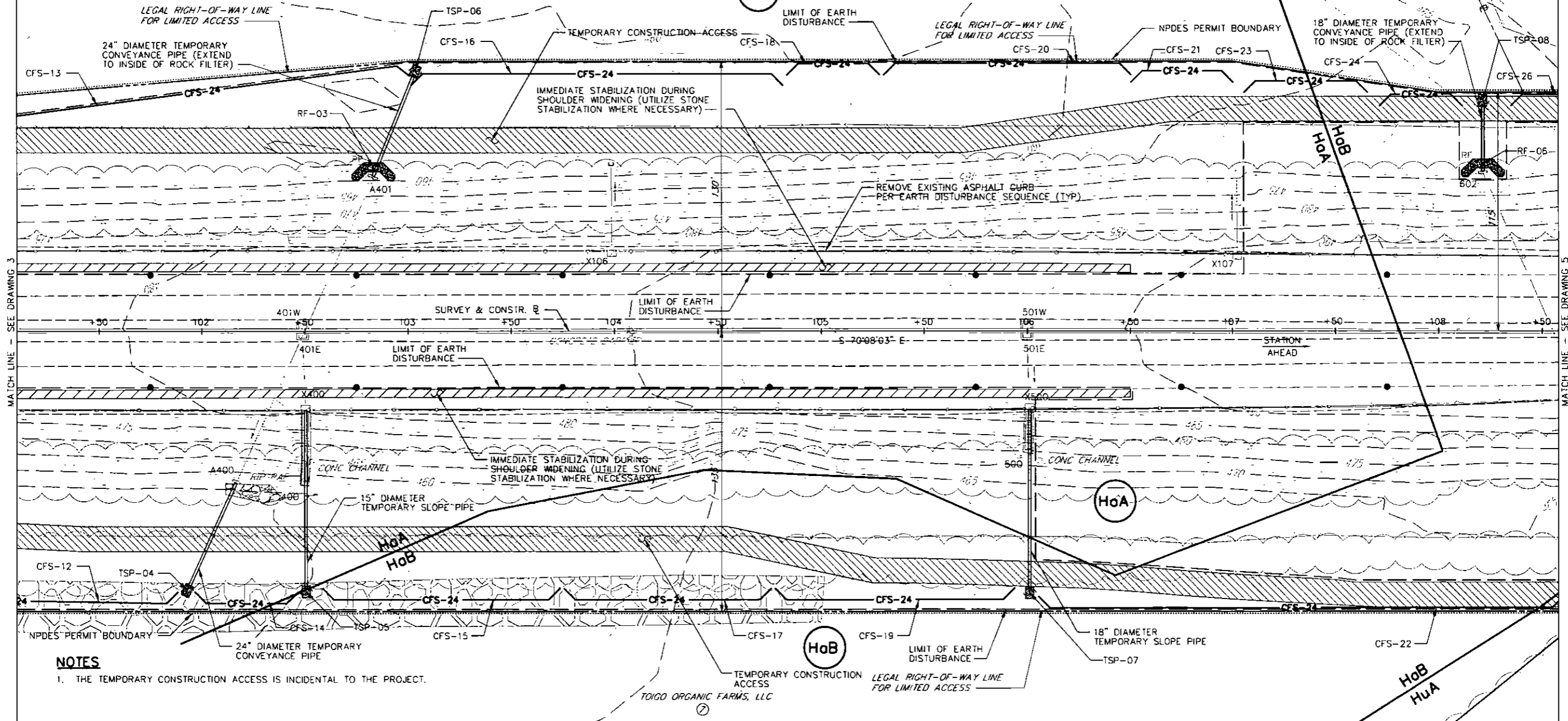
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIEMENT POLLUTION CONTROL
PLAN SHEET
STAGE 1**

DRAWING: 3 OF 9
SHEET: 105 OF 315

LEGEND

- CFS-12** — COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24** — COMPOST FILTER SOCK (24" HEIGHT)
- IFB** — INLET FILTER BAG
- DP** — DIVERSION PUMP
- PWF** — PUMPED WATER FILTER BAG
- SP** — SUMP PIT
- RF** — ROCK FILTER
- RCE** — ROCK CONSTRUCTION ENTRANCE
- ECMB** — EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- C — CUT LIMIT
- F — FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



WBS NO. T-228.54S001-3-02			
NETWORK NUMBER: 7003982			
FILE NAME: ESpl0104.dgn			
DRAWING TYPE: 1V			
STRUCTURE NUMBER: EB-103			
SCALE: 25 0 25 FEET			
NO.	REVISIONS	DATE	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

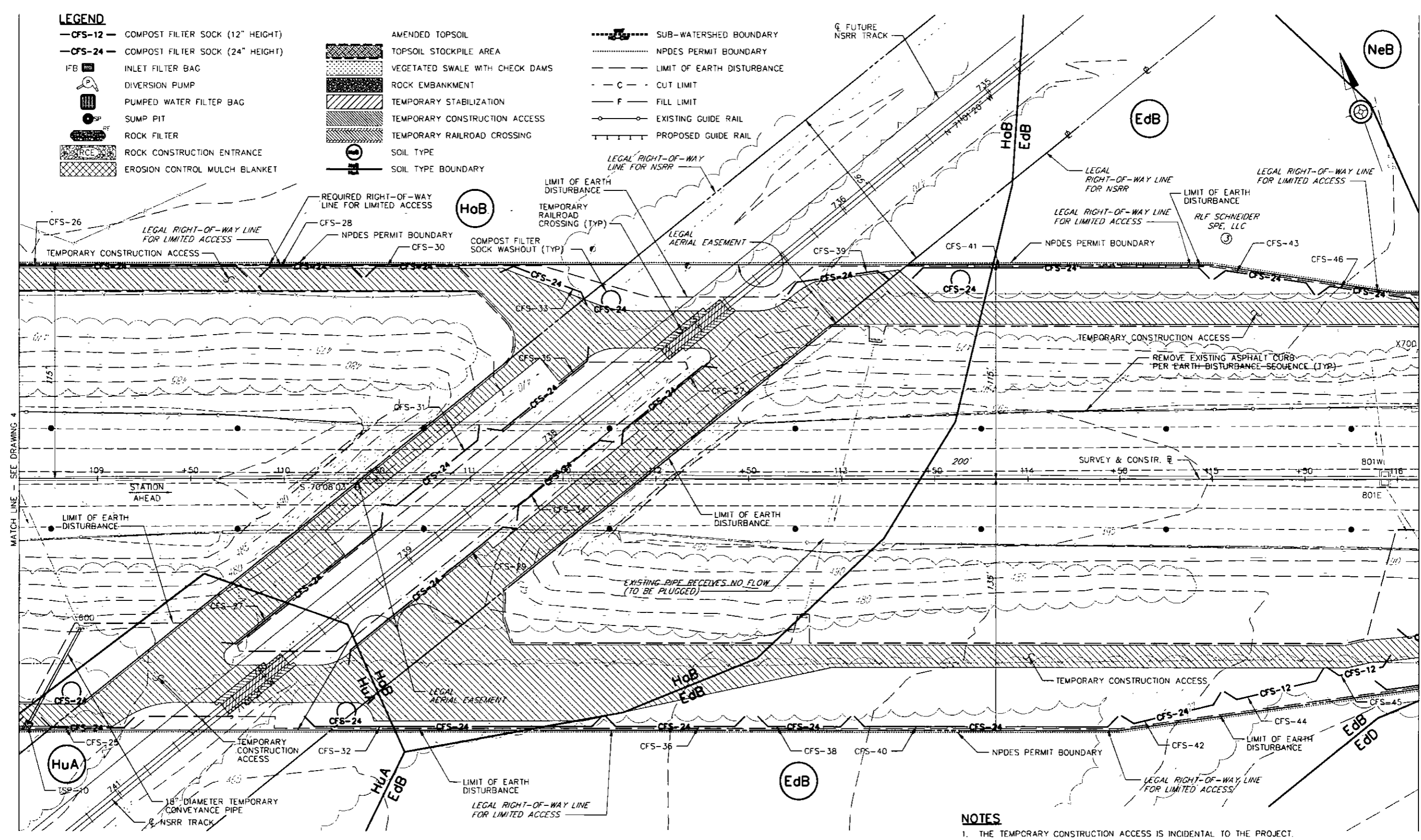
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIMENT POLLUTION CONTROL
PLAN SHEET
STAGE 1**

DRAWING: 4 OF 9
SHEET: 106 OF 315

LEGEND

- CFS-12— COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24— COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- ROCK FILTER
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- - - C - - CUT LIMIT
- - - F - - FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

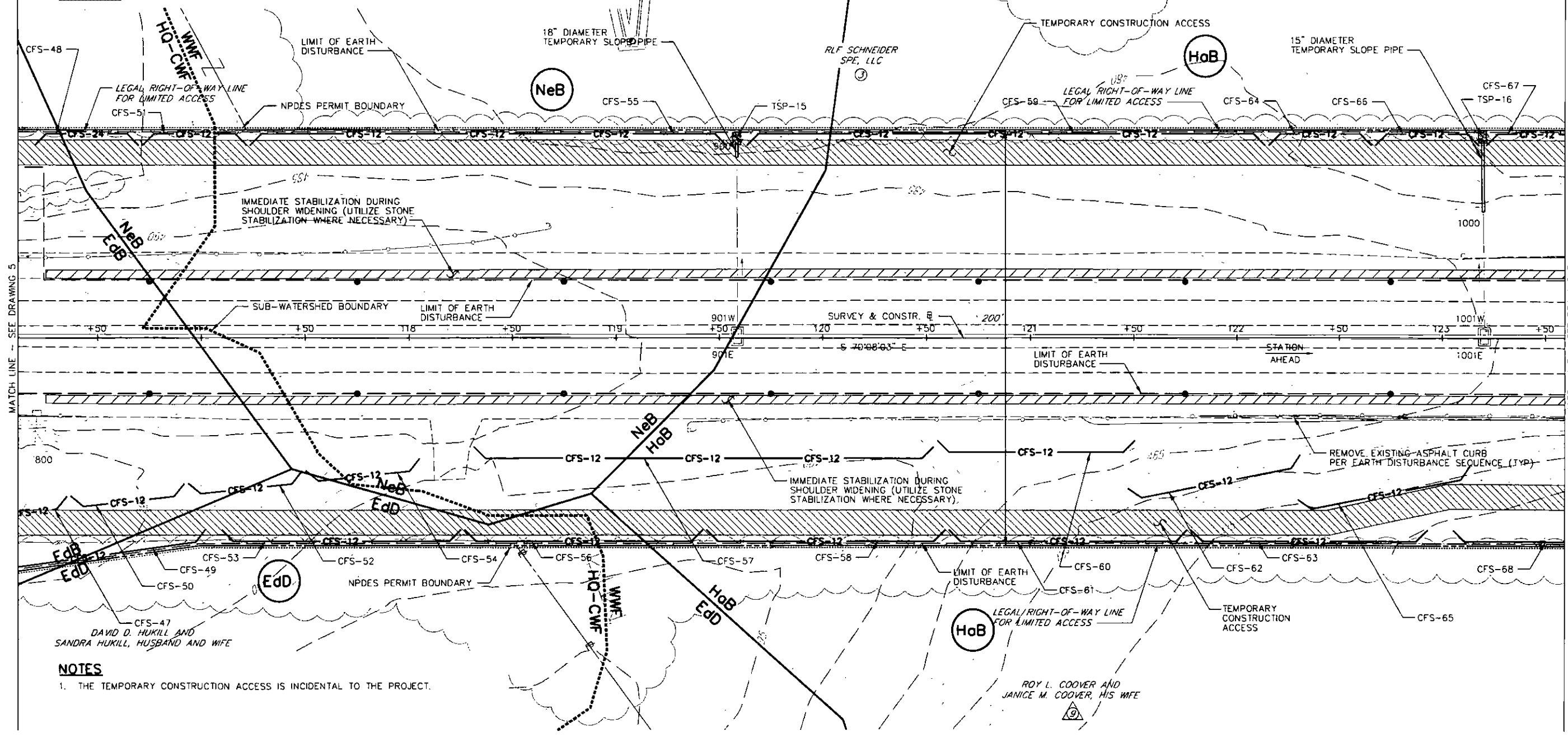
1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050																	
		PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	WBS NO. T-228.54S001-3-02	NETWORK NUMBER: 7003982 FILE NAME: ESpl0105.dgn DRAWING TYPE: 1V STRUCTURE NUMBER: EB-103	SCALE: 25 0 25 FEET	DISTRICT: 3 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	COUNTY: CUMBERLAND	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	EROSION & SEDIEMENT POLLUTION CONTROL PLAN SHEET STAGE 1	DRAWING: 5 OF 9 SHEET: 107 OF 315							
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NO.	REVISIONS	DATE	APPR.														

DATE: 7/12/2016

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- SP SUMP PIT
- RF ROCK FILTER
- RCE ROCK CONSTRUCTION ENTRANCE
- ECM EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
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- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
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- LIMIT OF EARTH DISTURBANCE
- C - CUT LIMIT
- F - FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.

DATE: 7/12/2016

PREPARED BY:
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100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982

FILE NAME: ESpl0106.dgn

DRAWING TYPE: 1V

STRUCTURE NUMBER: EB-103

SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND

TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

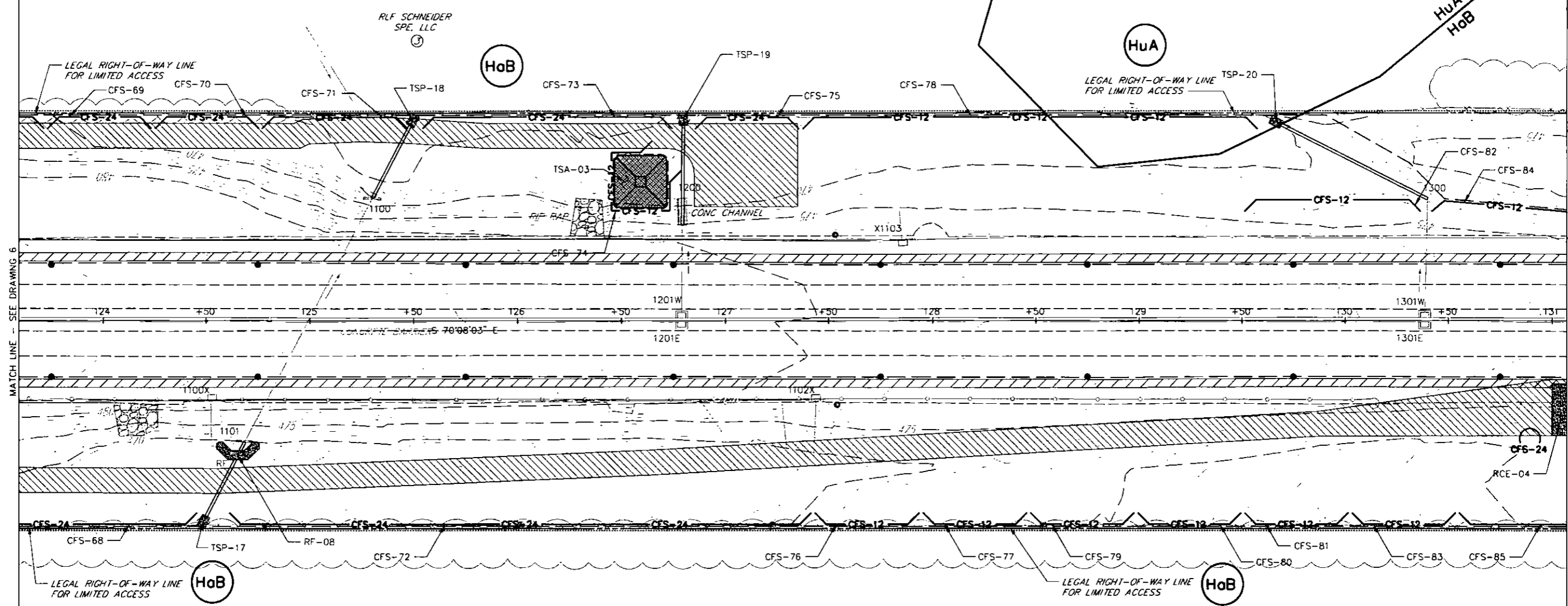
**EROSION & SEDIMENT POLLUTION CONTROL
PLAN SHEET
STAGE 1**

DRAWING: 6 OF 9

SHEET: 108 OF 315

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- RF ROCK FILTER
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
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- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- C CUT LIMIT
- F FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.

ROY L. COOVER AND
JANICE M. COOVER, HIS WIFE

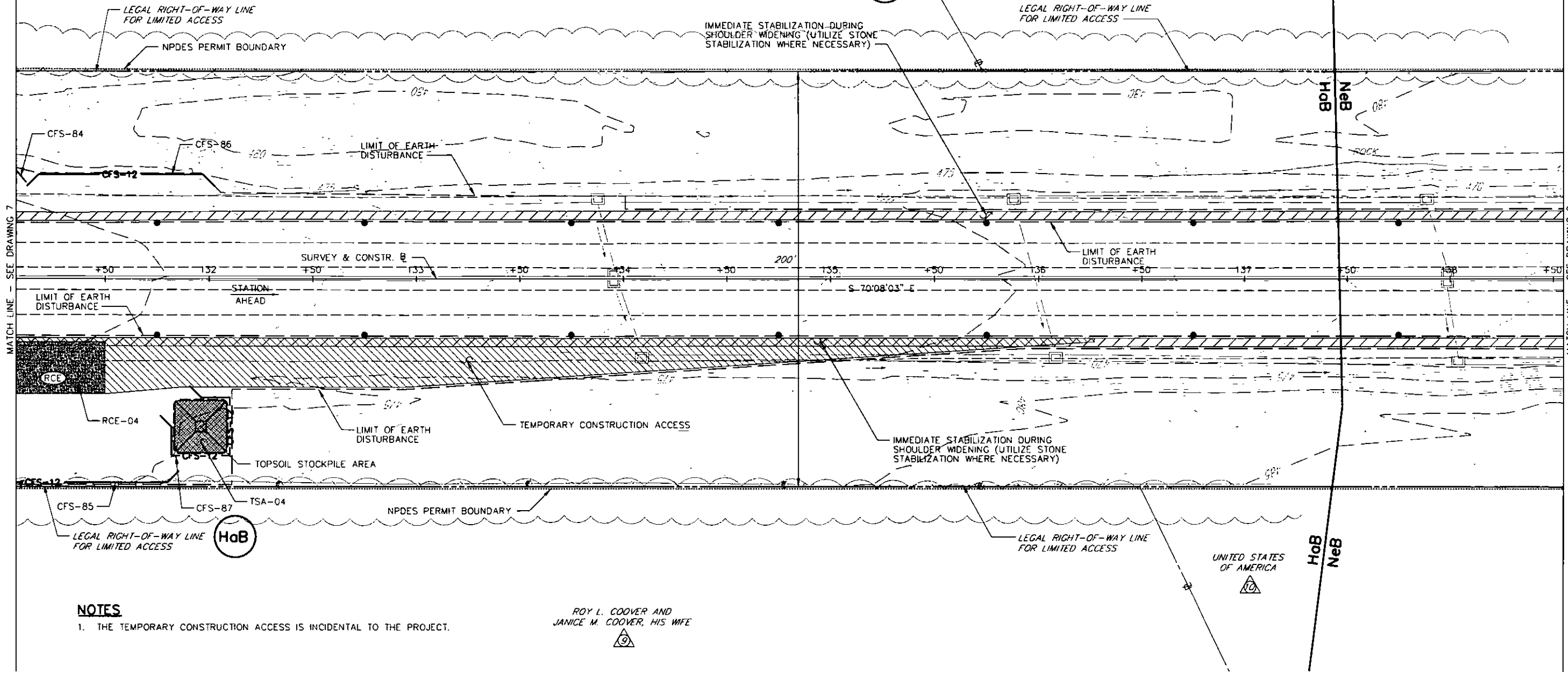
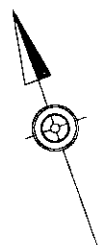


PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	EROSION & SEDIEMENT POLLUTION CONTROL PLAN SHEET STAGE 1		
					NETWORK NUMBER: 7003982 FILE NAME: ESpl0107.dgn DRAWING TYPE: 1V STRUCTURE NUMBER: EB-103				
					SCALE: 25 0 25 FEET 			DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 7 OF 9 SHEET: 109 OF 315
		NO.	REVISIONS	DATE	APPR.				

DATE: 7/12/2016

LEGEND

- CFS-12— COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24— COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SP SUMP PIT
- RF ROCK FILTER
- RCE ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
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- LIMIT OF EARTH DISTURBANCE
- - - C - - CUT LIMIT
- F — FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.

ROY L. COOVER AND
JANICE M. COOVER, HIS WIFE



DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



				WBS NO. T-228.54S001-3-02	
				NETWORK NUMBER: 7003982	
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				STRUCTURE NUMBER: EB-103	
				SCALE: 25 0 25 FEET	
NO.	REVISIONS	DATE	APPR.		

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

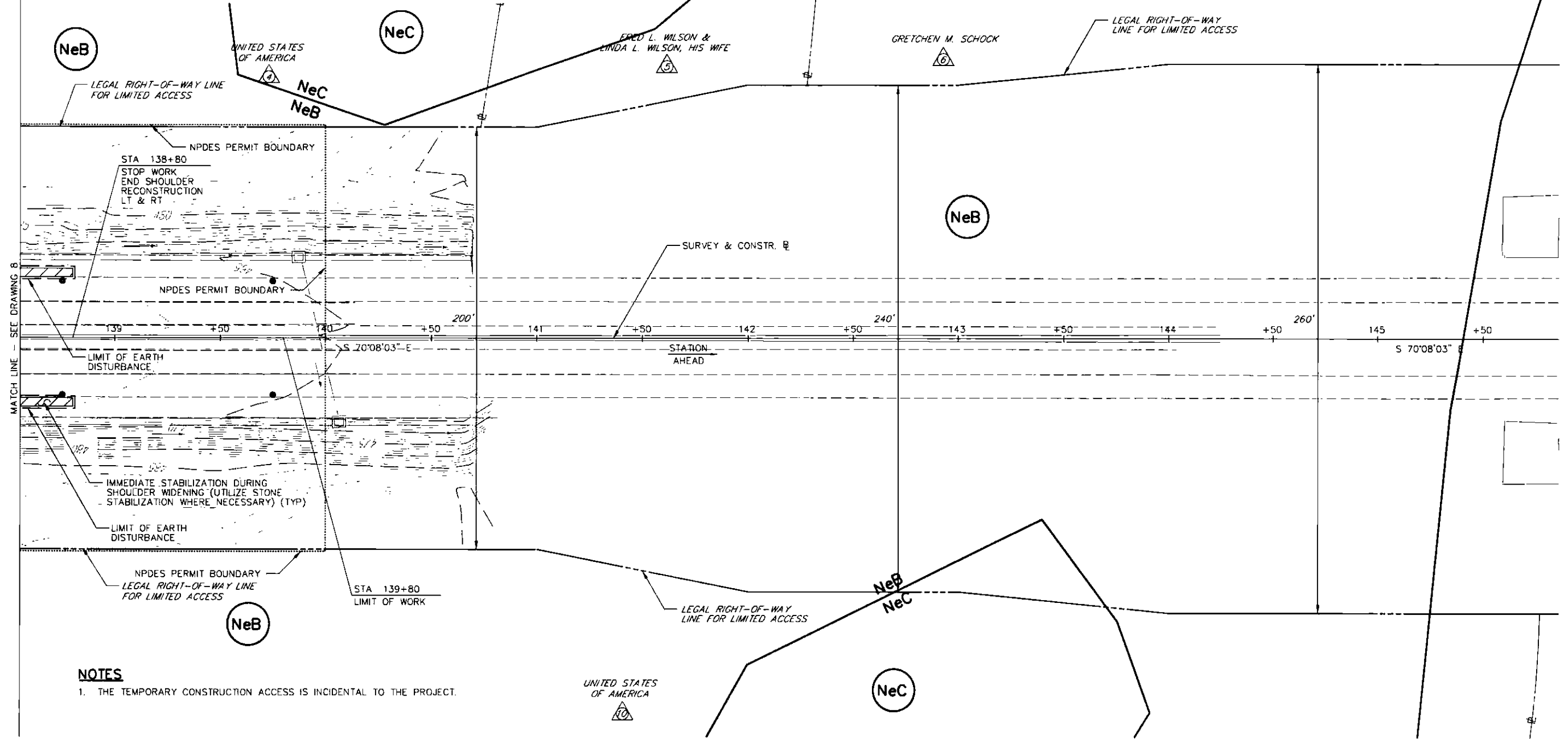
**EROSION & SEDIMENT POLLUTION CONTROL
PLAN SHEET
STAGE 1**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 8 OF 9
SHEET: 110 OF 315

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- ROCK FILTER
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
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- SOIL TYPE
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- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- C - CUT LIMIT
- F - FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
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TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: ESpl0109.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

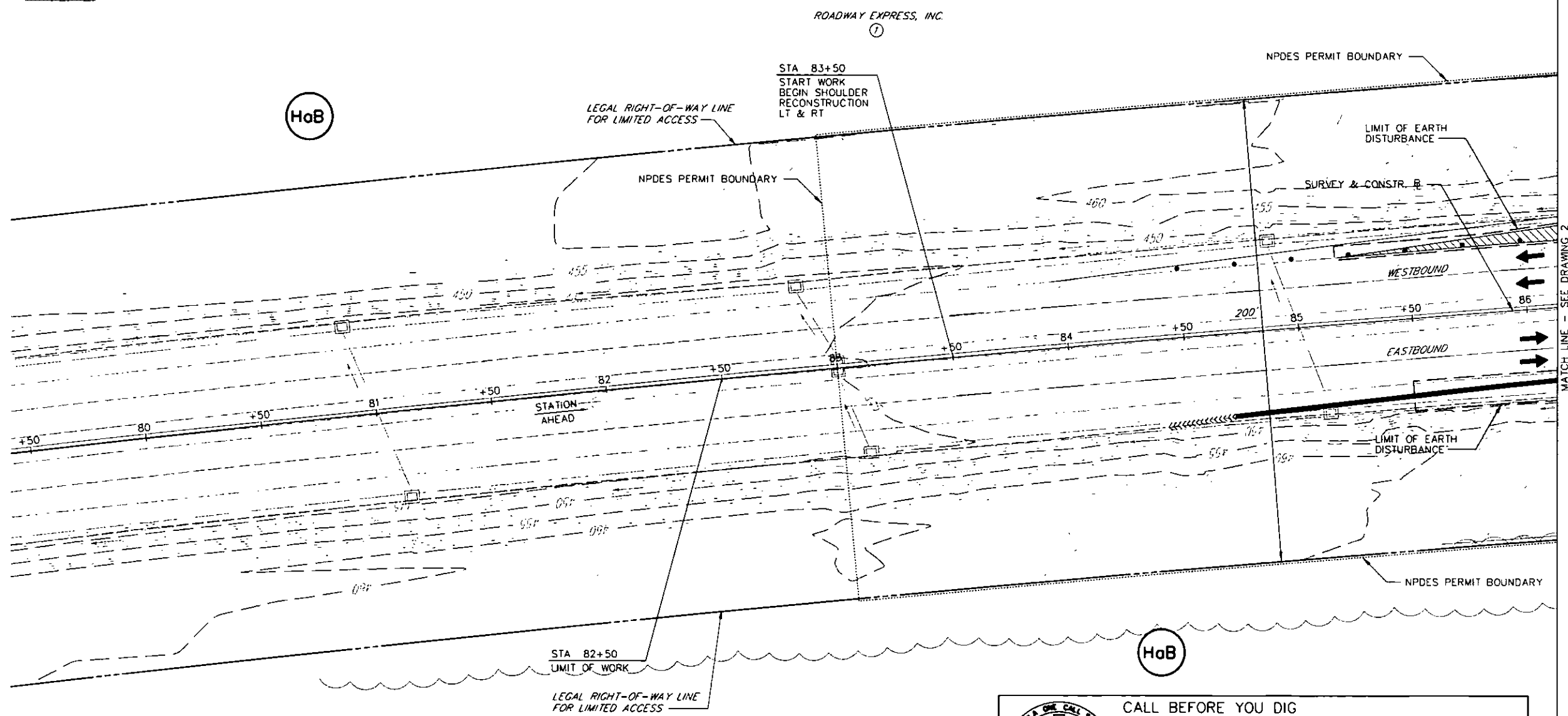
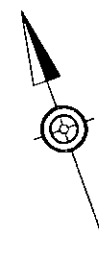
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIMENT POLLUTION CONTROL
PLAN SHEET
STAGE 1**

DRAWING: 9 OF 9
SHEET: 111 OF 315

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- ROCK FILTER
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- CUT LIMIT
- FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.



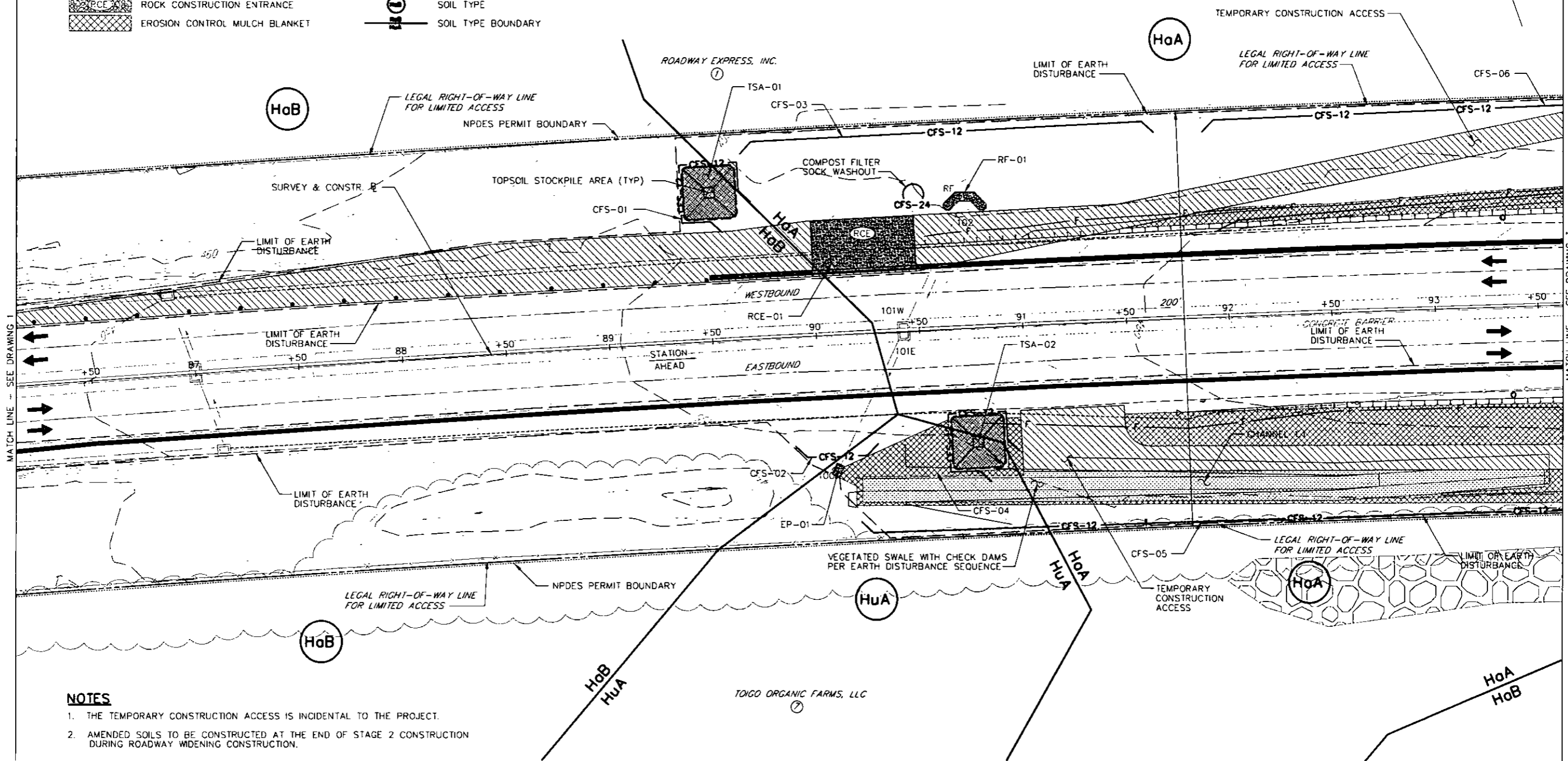
CALL BEFORE YOU DIG
 PENNSYLVANIA LAW REQUIRES THREE (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND TEN (10) WORKING DAYS IN DESIGN STAGE
 PENNSYLVANIA ONE CALL SYSTEM, INC.
 PHONE NUMBER: 1.800.242.1776
 SERIAL NUMBER: 20161121934
 MUNICIPALITY: MIDDLESEX TOWNSHIP

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	EROSION & SEDIEMENT POLLUTION CONTROL PLAN SHEET STAGE 2								
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION					NETWORK NUMBER: 7003982 FILE NAME: ESpl0201.dgn DRAWING TYPE: 1V STRUCTURE NUMBER: EB-103	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 1 OF 9 SHEET: 112 OF 315								
		SCALE: 25 0 25 FEET	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">NO.</th> <th style="width: 40%;">REVISIONS</th> <th style="width: 15%;">DATE</th> <th style="width: 40%;">APPR.</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		NO.	REVISIONS	DATE	APPR.							
NO.	REVISIONS	DATE	APPR.												

DATE: 7/12/2016

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- RF ROCK FILTER
- RCE ROCK CONSTRUCTION ENTRANCE
- EMULSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- C CUT LIMIT
- F FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: ESpl0202.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

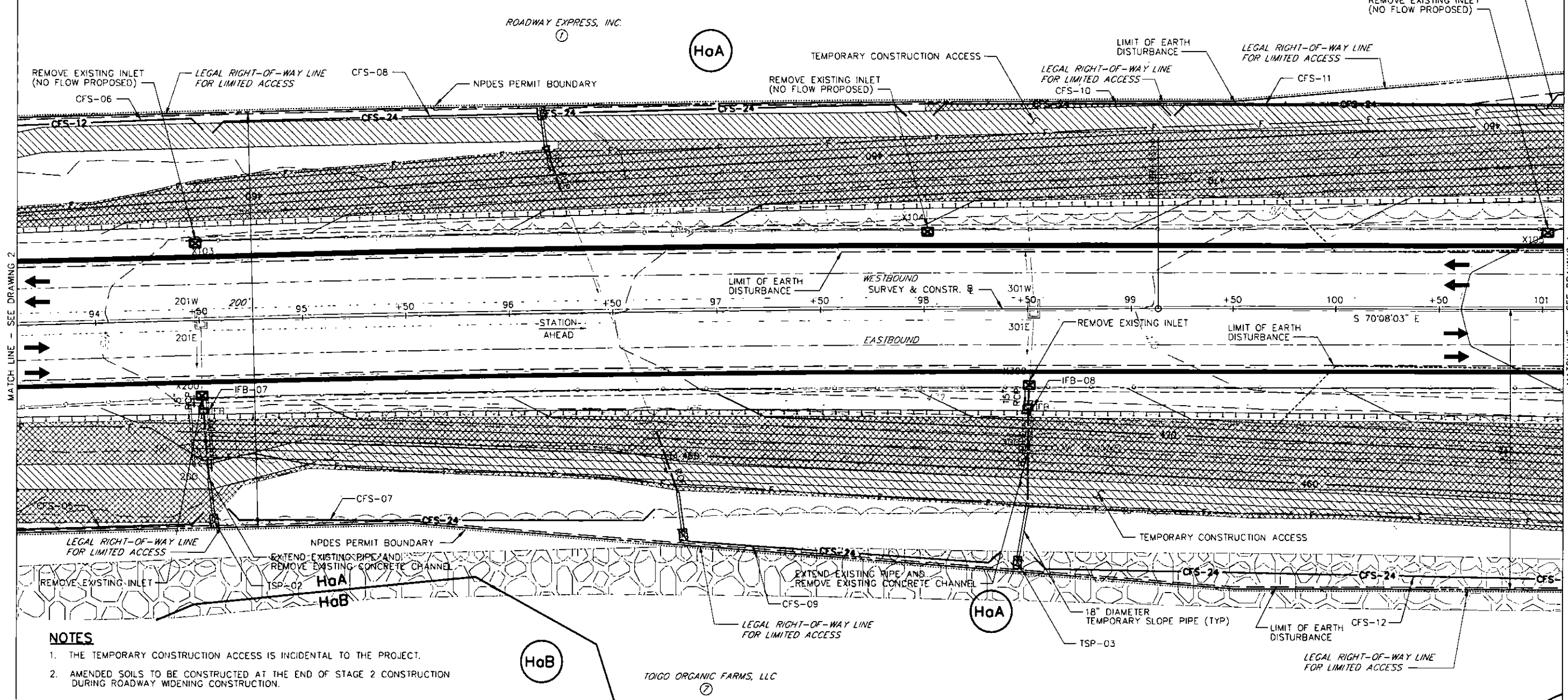
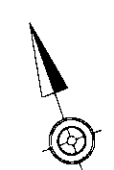
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIEMENT POLLUTION CONTROL
PLAN SHEET
STAGE 2**

DRAWING: 2 OF 9
SHEET: 113 OF 315

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- ROCK FILTER
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- CUT LIMIT
- FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.				REVISIONS				DATE				APPR.			
WBS NO. T-228.54S001-3-02 NETWORK NUMBER: 7003982 FILE NAME: ESpl0203.dgn DRAWING TYPE: 1V STRUCTURE NUMBER: EB-103 SCALE: 25 0 25 FEET															

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

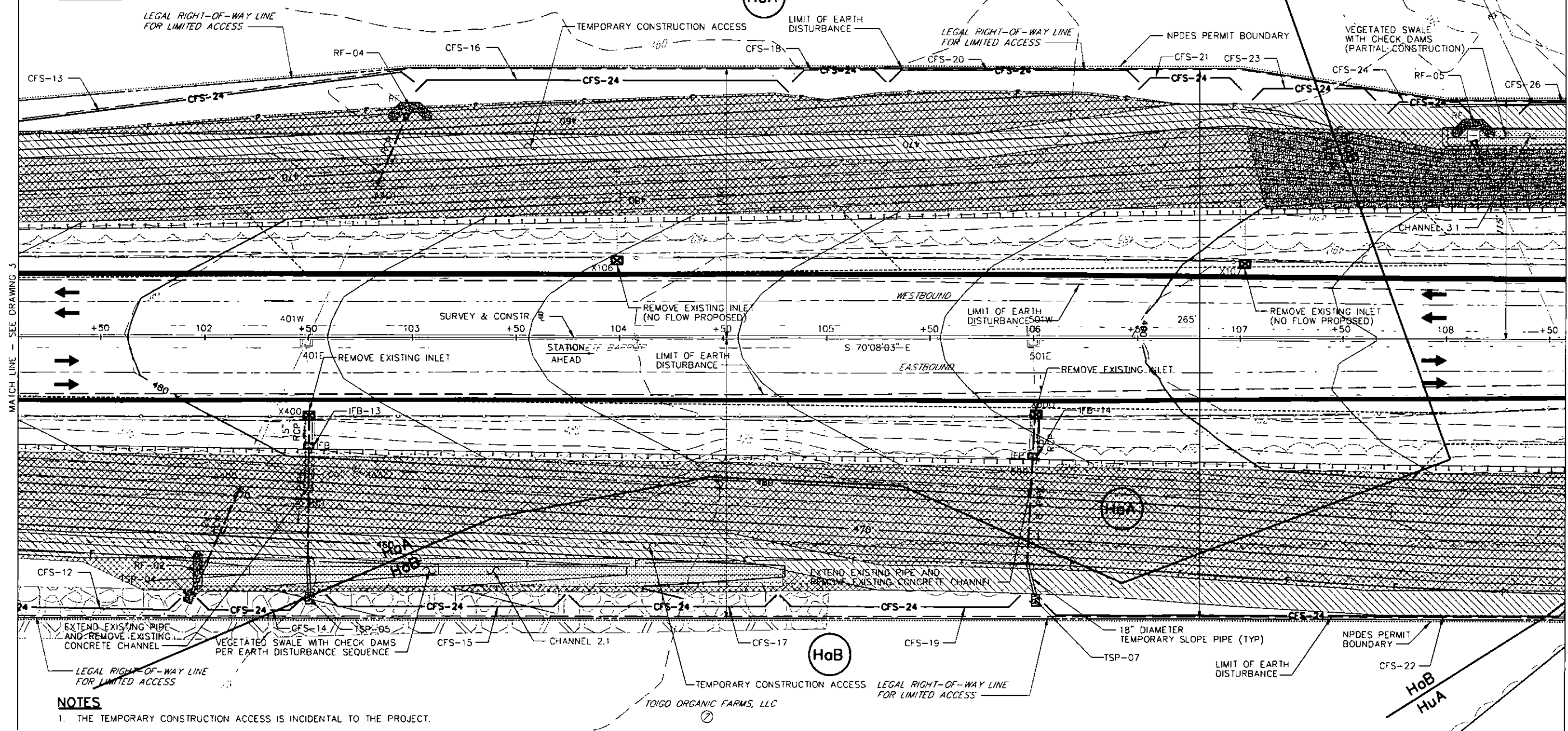
**EROSION & SEDIMENT POLLUTION CONTROL
PLAN SHEET
STAGE 2**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 3 OF 9
SHEET: 114 OF 315

LEGEND

- CFS-12— COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24— COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- ROCK FILTER
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- - - C - - CUT LIMIT
- - - F - - FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: ESpl0204.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

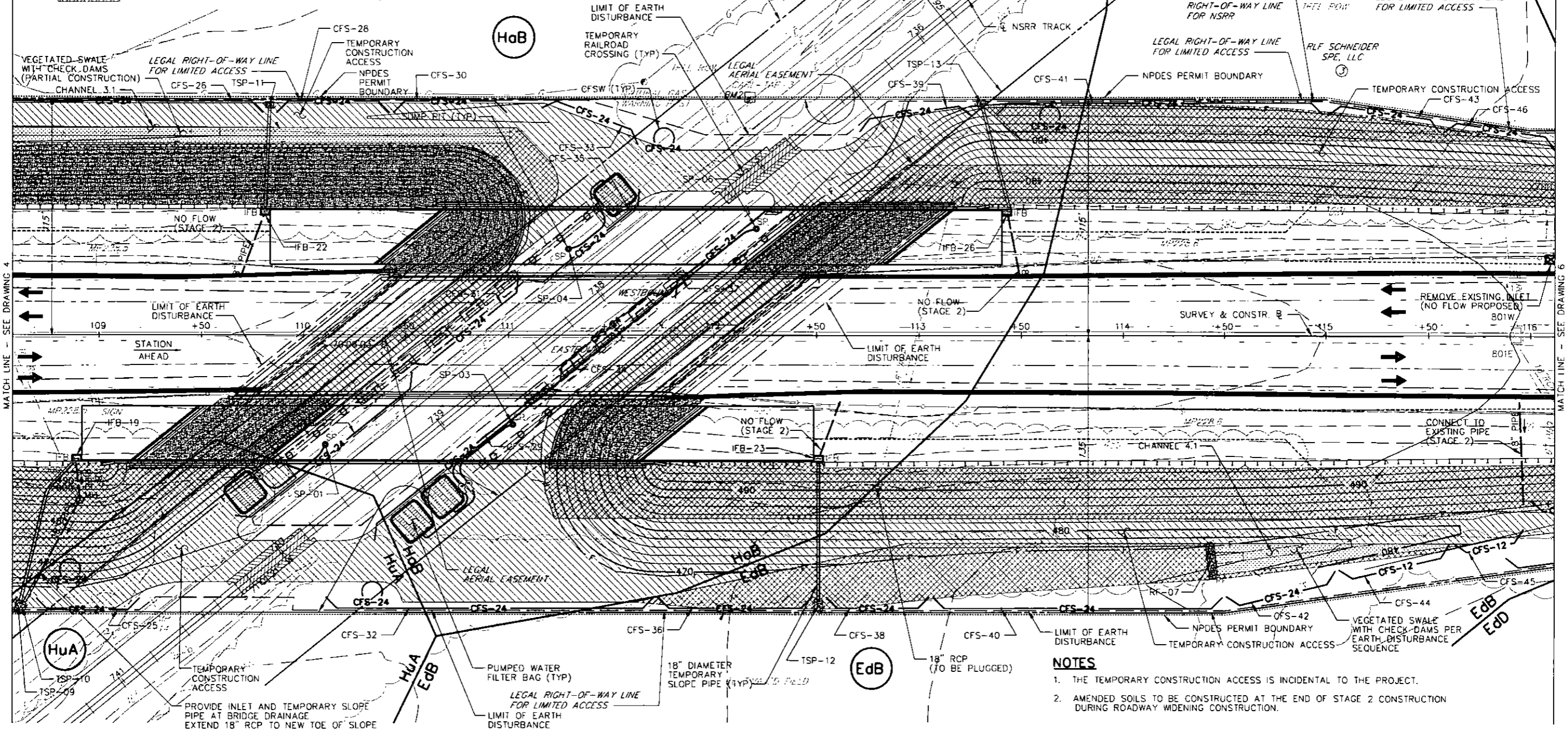
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIMENT POLLUTION CONTROL
PLAN SHEET
STAGE 2**

DRAWING: 4 OF 9
SHEET: 115 OF 315

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SP SUMP PIT
- RF ROCK FILTER
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- C CUT LIMIT
- F FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



WBS NO. T-228.54S001-3-02	
NETWORK NUMBER: 7003982	
FILE NAME: ESpl0205.dgn	
DRAWING TYPE: 1V	
STRUCTURE NUMBER: EB-103	
SCALE: 25	0 25 FEET
NO.	REVISIONS
	DATE
	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

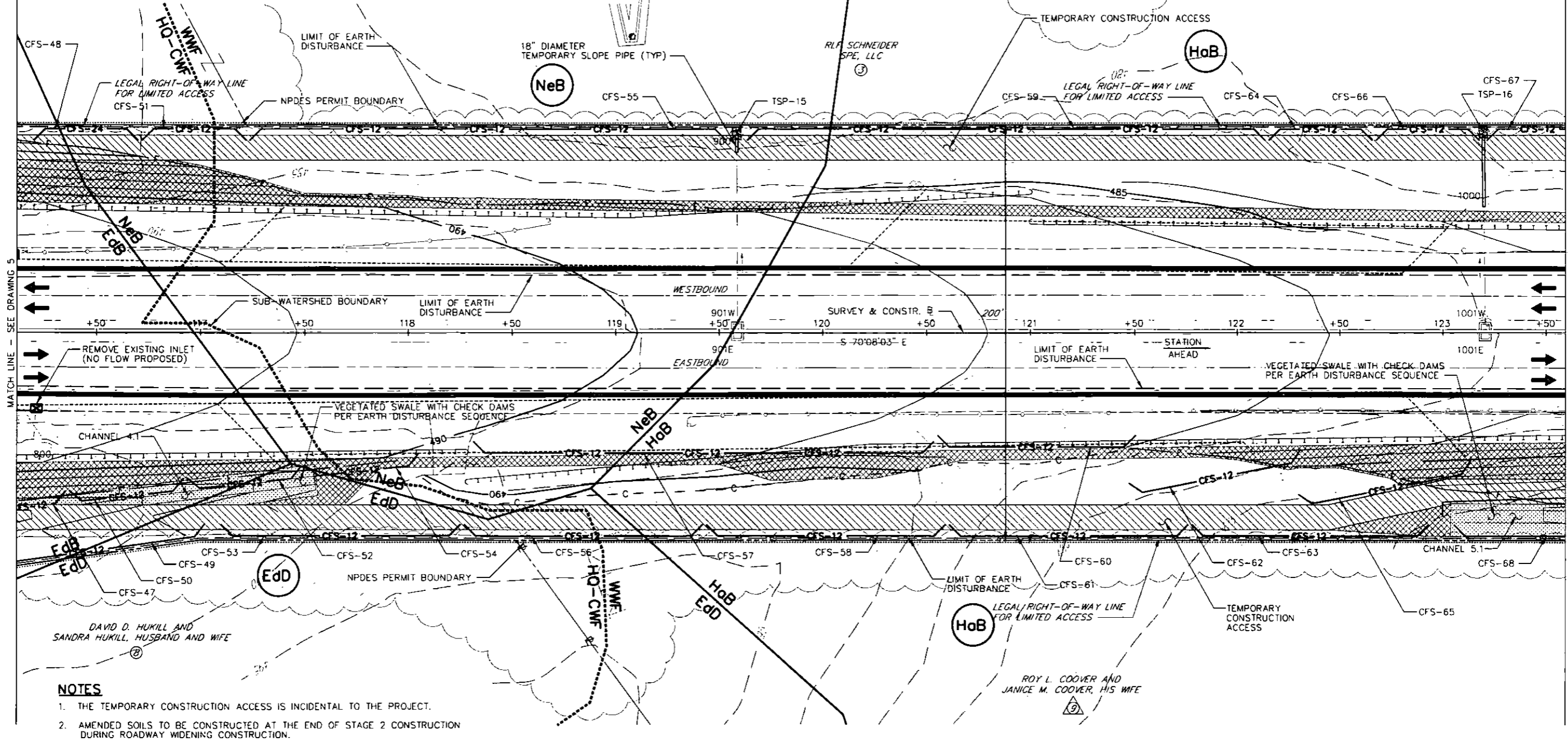
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIEMENT POLLUTION CONTROL
PLAN SHEET
STAGE 2**

DRAWING: 5 OF 9
SHEET: 116 OF 315

LEGEND

- CFS-12— COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24— COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- ROCK FILTER
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- - - C - - CUT LIMIT
- F — FILL LIMIT
- ○ ○ EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: ESpl0206.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

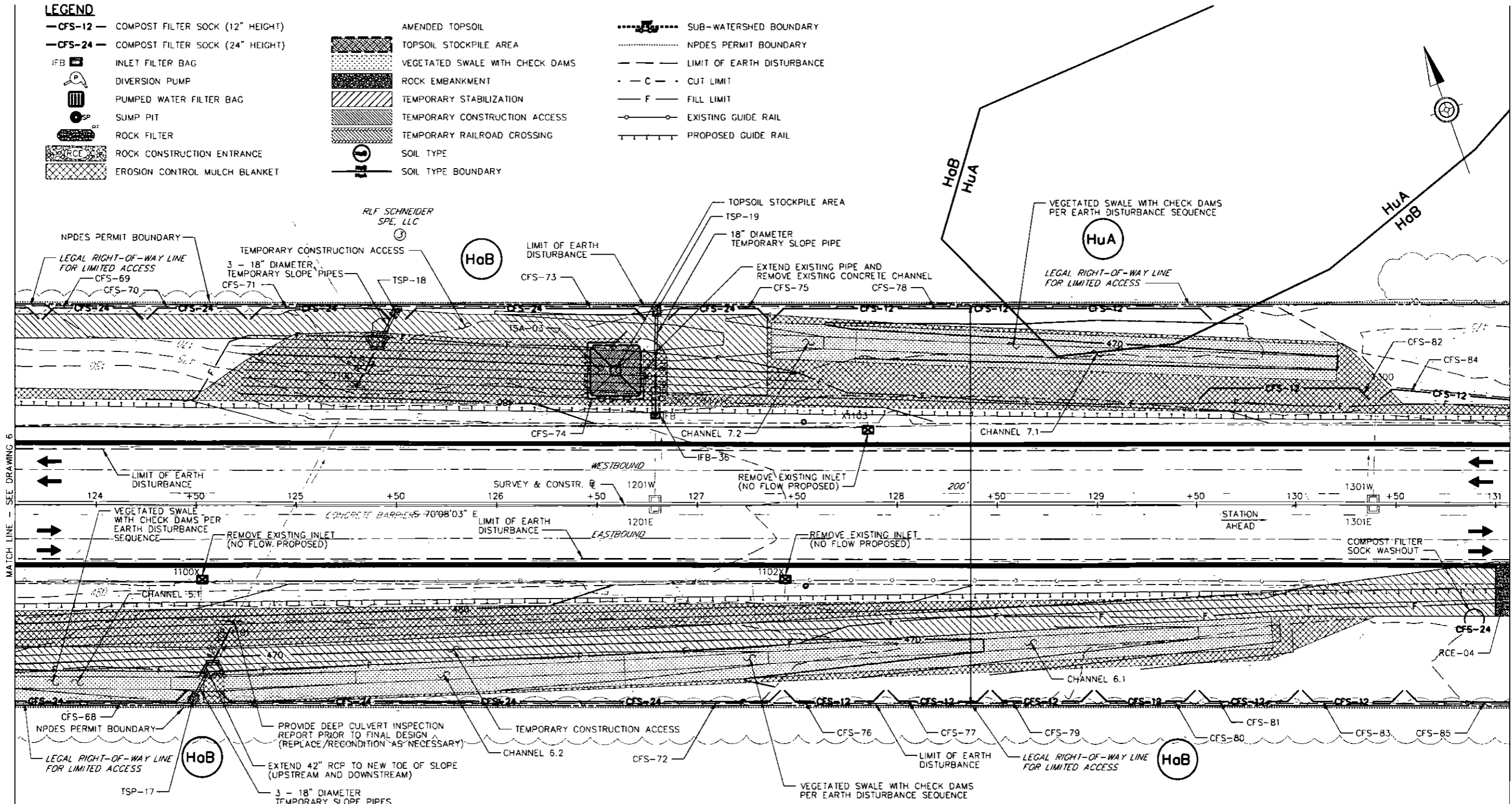
DISTRICT: 3 | COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIEMENT POLLUTION CONTROL
PLAN SHEET
STAGE 2**

DRAWING: 6 OF 9
SHEET: 117 OF 315

LEGEND

- CFS-12 - COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24 - COMPOST FILTER SOCK (24" HEIGHT)
- IFB - INLET FILTER BAG
- DP - DIVERSION PUMP
- PWF - PUMPED WATER FILTER BAG
- SP - SUMP PIT
- RF - ROCK FILTER
- RCE - ROCK CONSTRUCTION ENTRANCE
- EM - EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- - - C - - CUT LIMIT
- - - F - - FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.

ROY L. COOVER AND
JANICE M. COOVER, HIS WIFE

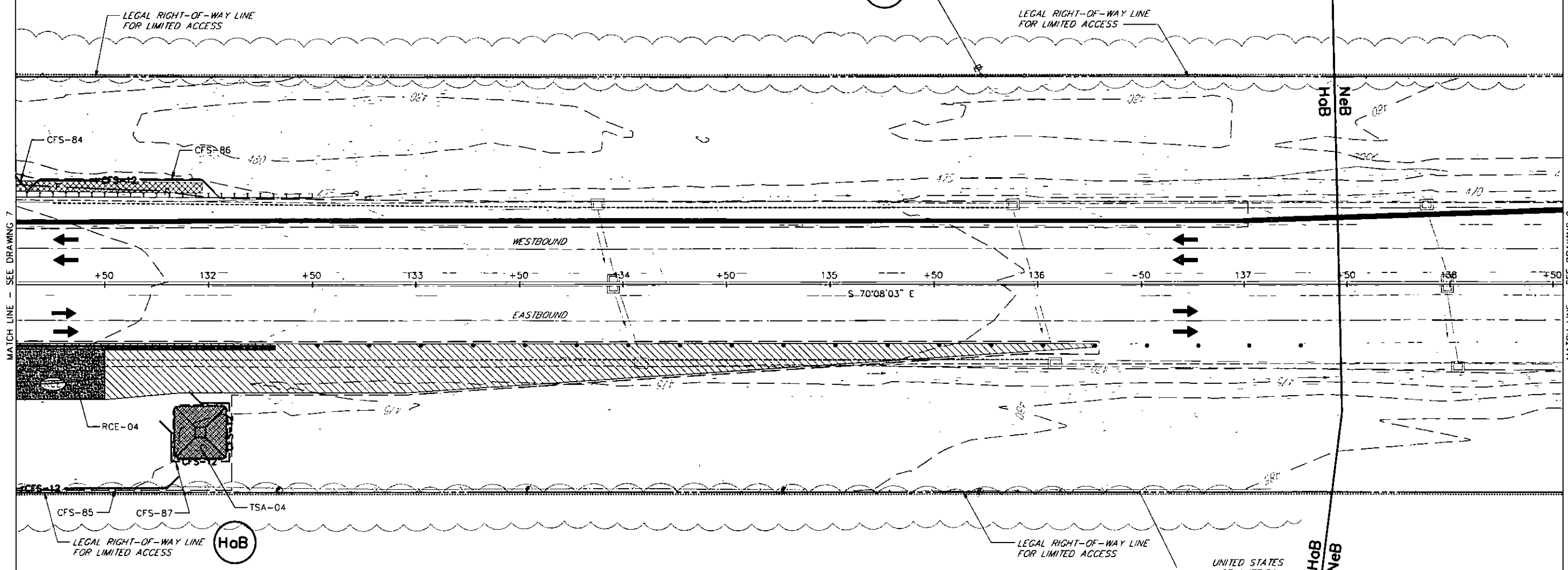
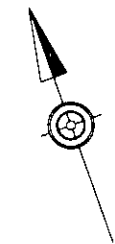


PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	EROSION & SEDIMENT POLLUTION CONTROL PLAN SHEET STAGE 2						
		NETWORK NUMBER: 7003982 FILE NAME: ESpl0207.dgn DRAWING TYPE: IV STRUCTURE NUMBER: EB-103								
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		SCALE: 25 0 25 FEET	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 7 OF 9 SHEET: 118 OF 315						
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">NO.</th> <th style="width: 40%;">REVISIONS</th> <th style="width: 15%;">DATE</th> <th style="width: 40%;">APPR.</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	REVISIONS	DATE	APPR.				
NO.	REVISIONS	DATE	APPR.							

DATE: 7/12/2016

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- RF ROCK FILTER
- RCE ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- C - CUT LIMIT
- F - FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.

ROY L. COOVER AND
JANICE M. COOVER, HIS WIFE

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	EROSION & SEDIEMENT POLLUTION CONTROL PLAN SHEET STAGE 2	
					NETWORK NUMBER: 7003982 FILE NAME: ESpl0208.dgn DRAWING TYPE: 1V STRUCTURE NUMBER: EB-103			DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE	APPR.	SCALE: 25 0 25 FEET 		

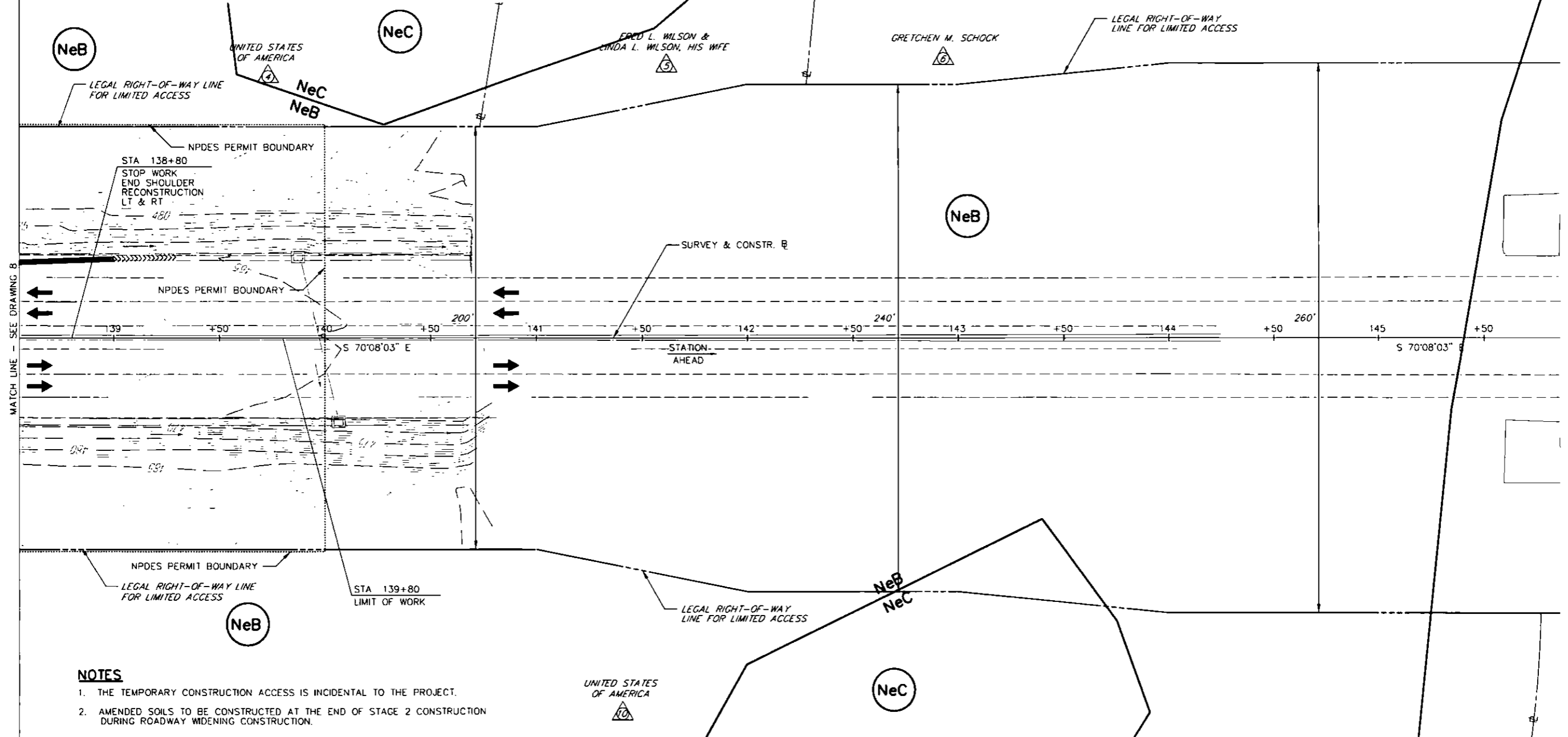
DATE: 7/12/2016

MATCH LINE - SEE DRAWING 7

MATCH LINE - SEE DRAWING 9

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- SP SUMP PIT
- RF ROCK FILTER
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- C - CUT LIMIT
- F - FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



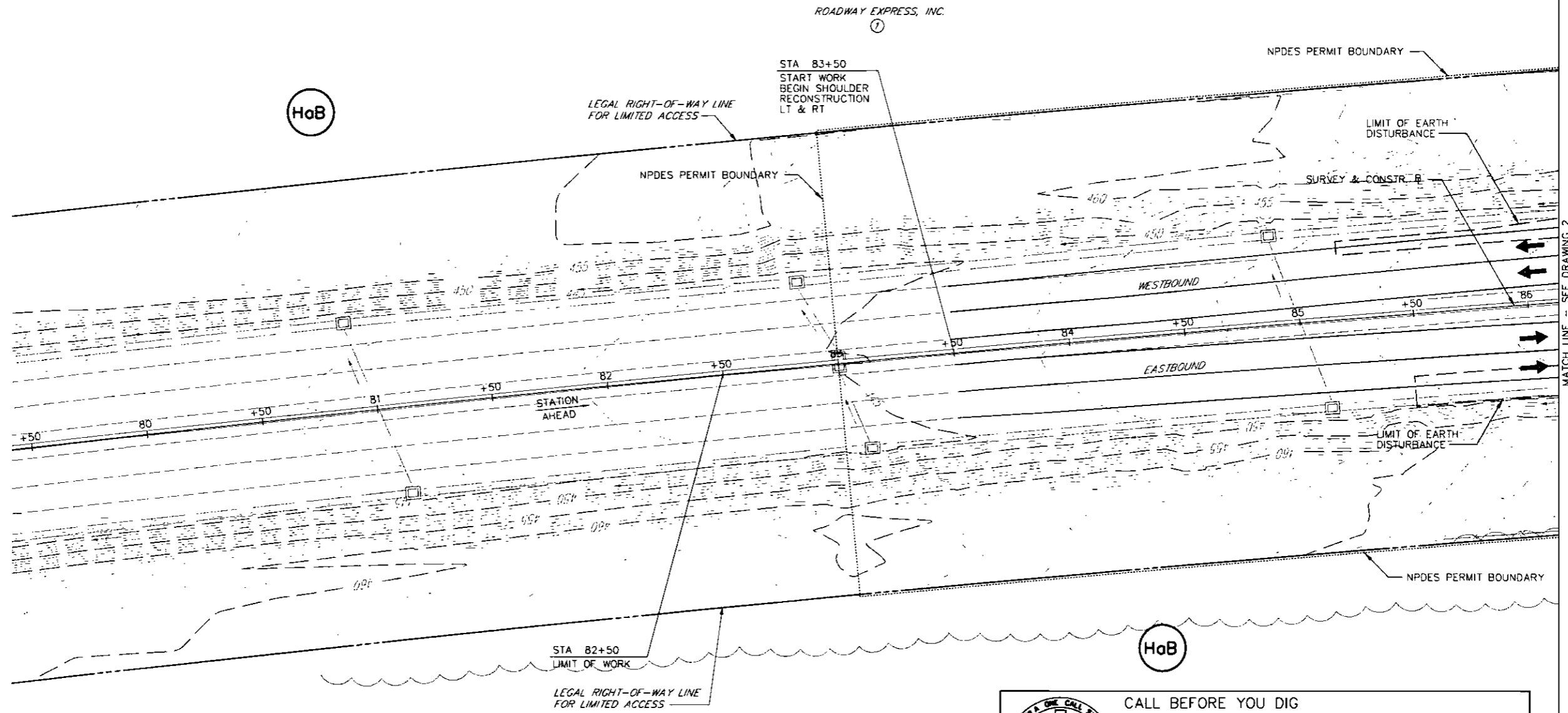
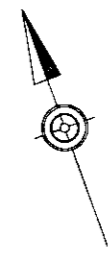
NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	EROSION & SEDIEMENT POLLUTION CONTROL PLAN SHEET STAGE 2													
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">NO.</th> <th style="width: 40%;">REVISIONS</th> <th style="width: 15%;">DATE</th> <th style="width: 40%;">APPR.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	REVISIONS	DATE			APPR.												
NO.	REVISIONS	DATE	APPR.																		

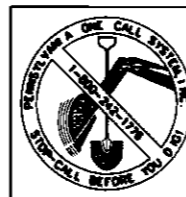
LEGEND

CFS-12 COMPOST FILTER SOCK (12" HEIGHT)	AMENDED TOPSOIL	SUB-WATERSHED BOUNDARY
CFS-24 COMPOST FILTER SOCK (24" HEIGHT)	TOPSOIL STOCKPILE AREA	NPDES PERMIT BOUNDARY
IFB INLET FILTER BAG	VEGETATED SWALE WITH CHECK DAMS	LIMIT OF EARTH DISTURBANCE
DIVERSION PUMP	ROCK EMBANKMENT	- - C - - CUT LIMIT
PUMPED WATER FILTER BAG	TEMPORARY STABILIZATION	- - F - - FILL LIMIT
SUMP PIT	TEMPORARY CONSTRUCTION ACCESS	EXISTING GUIDE RAIL
RF ROCK FILTER	TEMPORARY RAILROAD CROSSING	PROPOSED GUIDE RAIL
RCE ROCK CONSTRUCTION ENTRANCE	SOIL TYPE	
ECMB EROSION CONTROL MULCH BLANKET	SOIL TYPE BOUNDARY	



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.



CALL BEFORE YOU DIG
 PENNSYLVANIA LAW REQUIRES THREE (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND TEN (10) WORKING DAYS IN DESIGN STAGE
 PENNSYLVANIA ONE CALL SYSTEM, INC.
 PHONE NUMBER: 1.800.242.1776
 SERIAL NUMBER: 20161121934
 MUNICIPALITY: MIDDLESEX TOWNSHIP

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

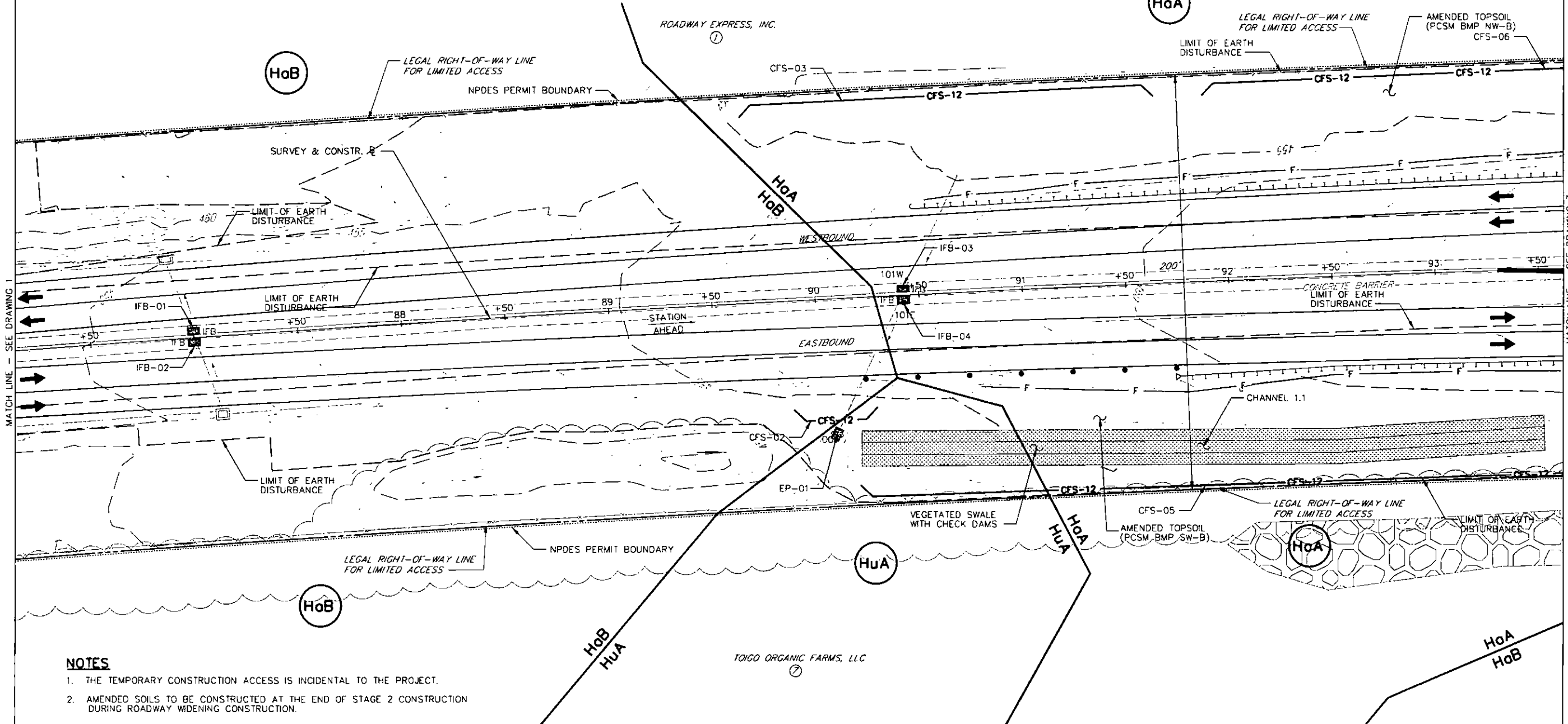
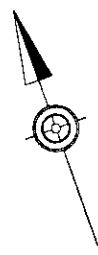
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NETWORK NUMBER: 7003982
FILE NAME: ESpt0301.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103
SCALE: 25 0 25 FEET

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

EROSION & SEDIEMENT POLLUTION CONTROL PLAN SHEET STAGE 3	
DRAWING:	1 OF 9
SHEET:	121 OF 315

LEGEND

- | | | | | | |
|------------|----------------------------------|--|---------------------------------|---------------|----------------------------|
| — CFS-12 — | COMPOST FILTER SOCK (12" HEIGHT) | | AMENDED TOPSOIL | | SUB-WATERSHED BOUNDARY |
| — CFS-24 — | COMPOST FILTER SOCK (24" HEIGHT) | | TOPSOIL STOCKPILE AREA | | NPDES PERMIT BOUNDARY |
| IFB | INLET FILTER BAG | | VEGETATED SWALE WITH CHECK DAMS | | LIMIT OF EARTH DISTURBANCE |
| | DIVERSION PUMP | | ROCK EMBANKMENT | - - - C - - - | CUT LIMIT |
| | PUMPED WATER FILTER BAG | | TEMPORARY STABILIZATION | — F — | FILL LIMIT |
| | SUMP PIT | | TEMPORARY CONSTRUCTION ACCESS | | EXISTING GUIDE RAIL |
| | ROCK FILTER | | TEMPORARY RAILROAD CROSSING | | PROPOSED GUIDE RAIL |
| | ROCK CONSTRUCTION ENTRANCE | | SOIL TYPE | | |
| | EROSION CONTROL MULCH BLANKET | | SOIL TYPE BOUNDARY | | |



NOTES

1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: ESpl0302.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

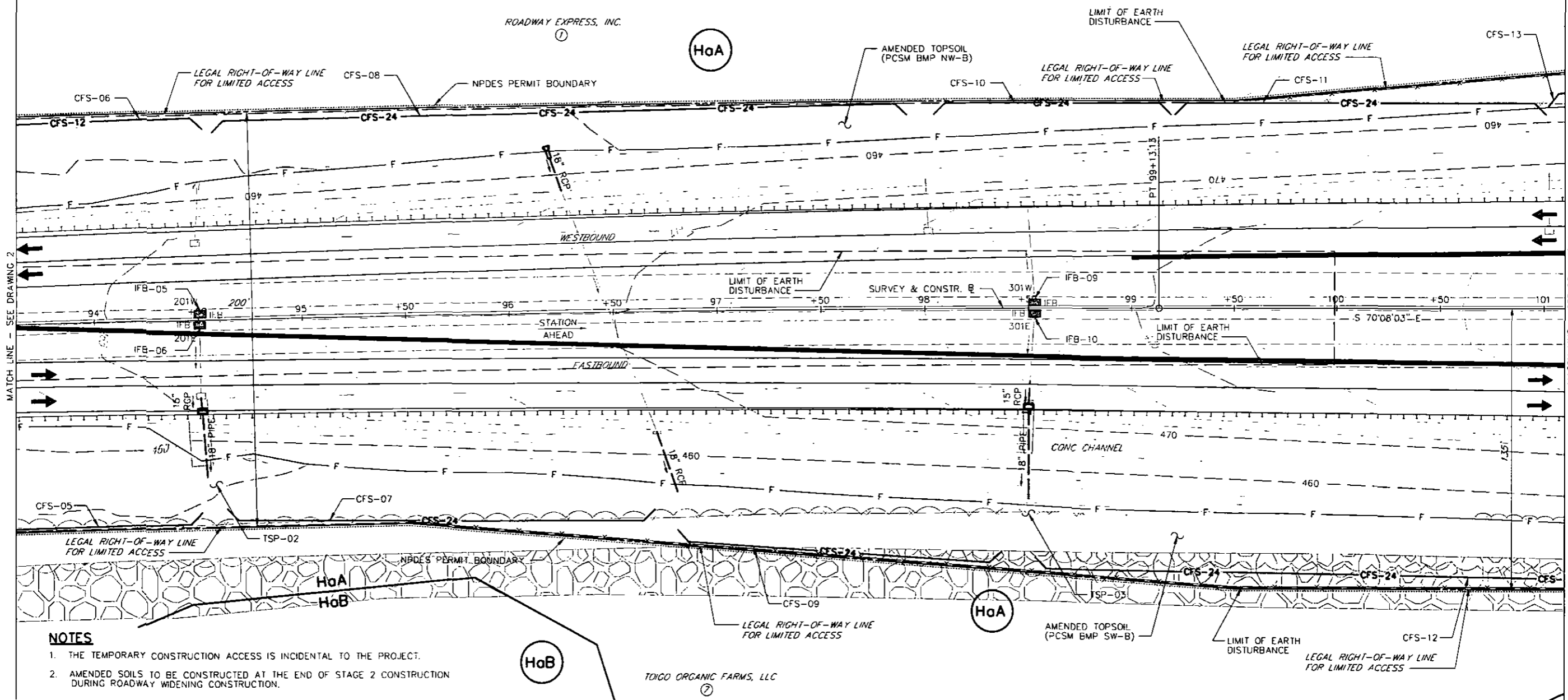
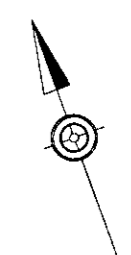
**EROSION & SEDIEMENT POLLUTION CONTROL
PLAN SHEET
STAGE 3**

DRAWING: 2 OF 9
SHEET: 122 OF 315

DATE: 7/12/2016

LEGEND

- | | | | | |
|----------|----------------------------------|---------------------------------|-----------|----------------------------|
| —CFS-12— | COMPOST FILTER SOCK (12" HEIGHT) | AMENDED TOPSOIL | ----- | SUB-WATERSHED BOUNDARY |
| —CFS-24— | COMPOST FILTER SOCK (24" HEIGHT) | TOPSOIL STOCKPILE AREA | ----- | NPDES PERMIT BOUNDARY |
| IFB | INLET FILTER BAG | VEGETATED SWALE WITH CHECK DAMS | ----- | LIMIT OF EARTH DISTURBANCE |
| | DIVERSION PUMP | ROCK EMBANKMENT | - - C - - | CUT LIMIT |
| | PUMPED WATER FILTER BAG | TEMPORARY STABILIZATION | — F — | FILL LIMIT |
| | SUMP PIT | TEMPORARY CONSTRUCTION ACCESS | ○—○—○ | EXISTING GUIDE RAIL |
| | ROCK FILTER | TEMPORARY RAILROAD CROSSING | —+—+—+— | PROPOSED GUIDE RAIL |
| | ROCK CONSTRUCTION ENTRANCE | SOIL TYPE | | |
| | EROSION CONTROL MULCH BLANKET | SOIL TYPE BOUNDARY | | |



NOTES

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DATE: 7/12/2016

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MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



				WBS NO. T-228.54S001-3-02
				NETWORK NUMBER: 7003982
				FILE NAME: ESpl0303.dgn
				DRAWING TYPE: 1V
				STRUCTURE NUMBER: EB-103
				SCALE: 25 0 25 FEET
NO.	REVISIONS	DATE	APPR.	

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

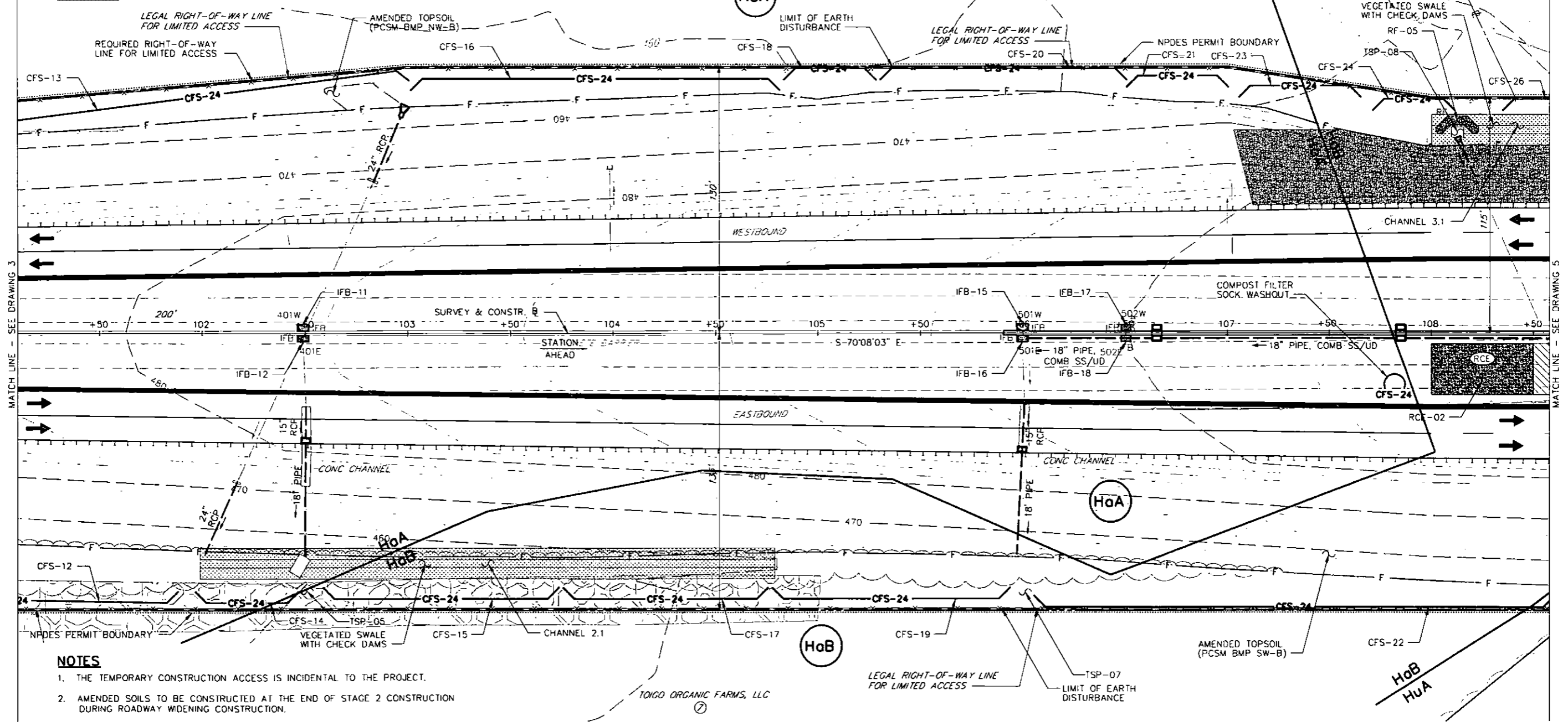
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIMENT POLLUTION CONTROL
PLAN SHEET
STAGE 3**

DRAWING: 3 OF 9
SHEET: 123 OF 315

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- P DIVERSION PUMP
- PWPFB PUMPED WATER FILTER BAG
- SP SUMP PIT
- RF ROCK FILTER
- RCE ROCK CONSTRUCTION ENTRANCE
- EMB EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- C CUT LIMIT
- F FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL



NOTES

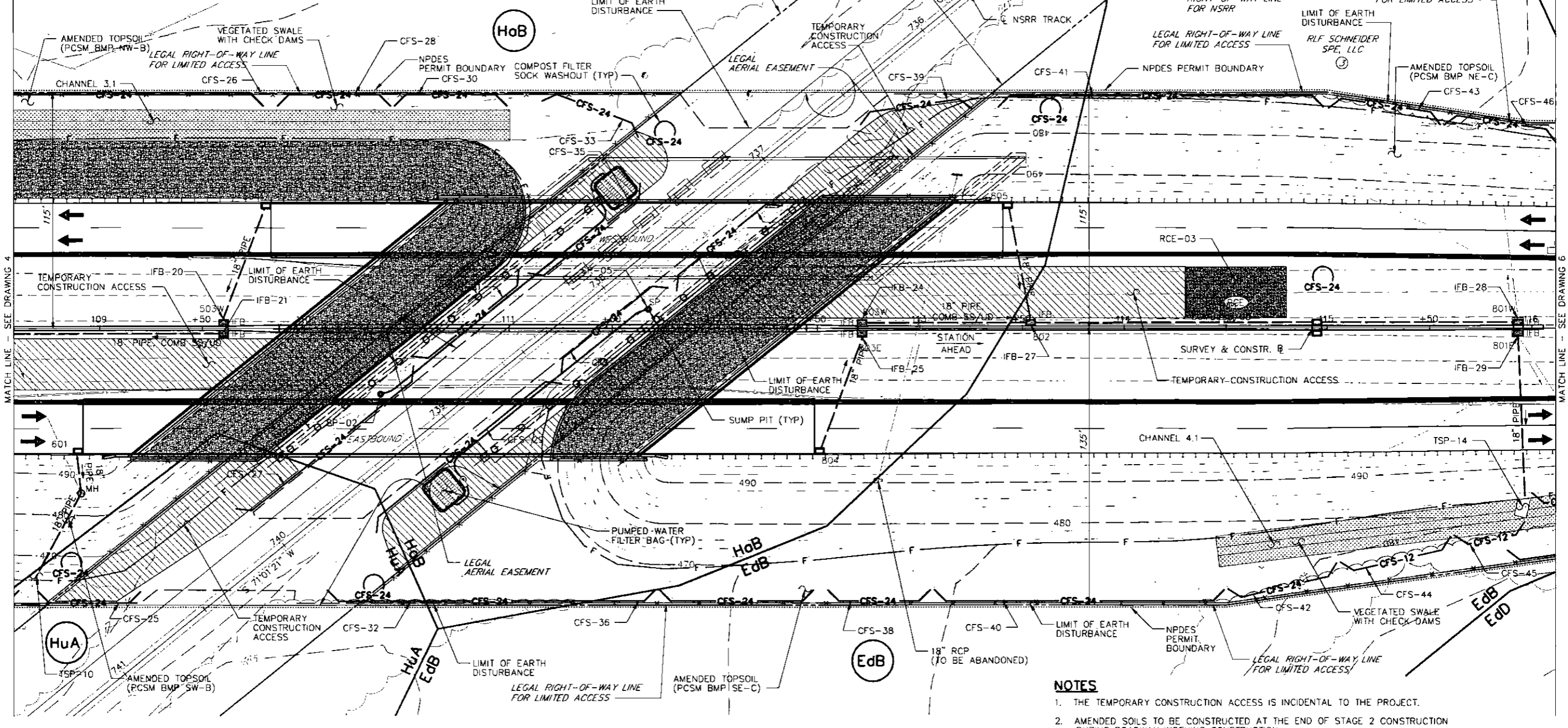
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PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	EROSION & SEDIEMENT POLLUTION CONTROL PLAN SHEET STAGE 3
		NETWORK NUMBER: 7003982 FILE NAME: ESpl0304.dgn DRAWING TYPE: 1V STRUCTURE NUMBER: EB-103	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 4 OF 9 SHEET: 124 OF 315			
		SCALE: 25 0 25 FEET					
		NO.	REVISIONS	DATE	APPR.		

DATE: 7/12/2016

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- RF ROCK FILTER
- RCE ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
- SOIL TYPE BOUNDARY
- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- C CUT LIMIT
- F FILL LIMIT
- EXISTING GUIDE RAIL
- PROPOSED GUIDE RAIL

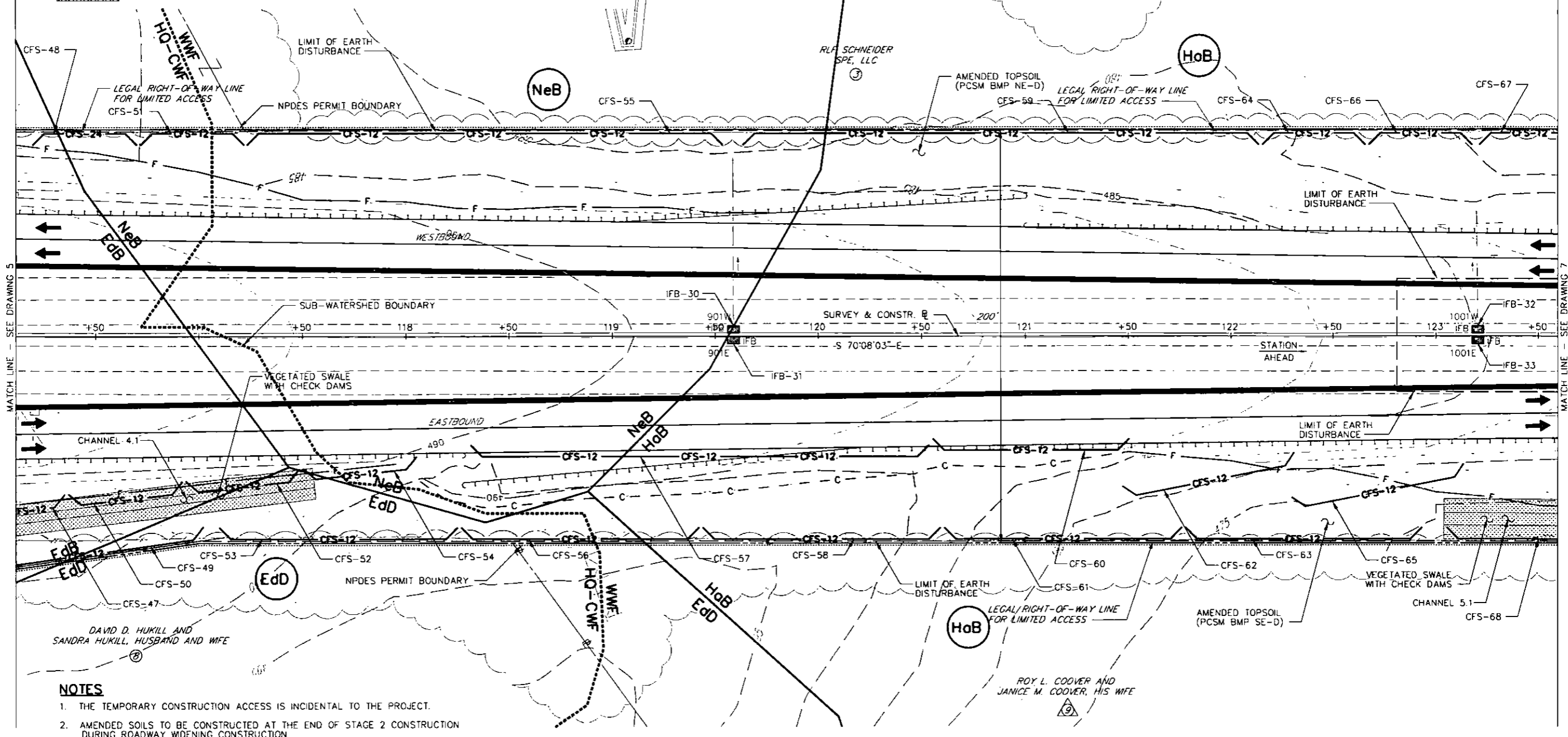


- NOTES**
1. THE TEMPORARY CONSTRUCTION ACCESS IS INCIDENTAL TO THE PROJECT.
 2. AMENDED SOILS TO BE CONSTRUCTED AT THE END OF STAGE 2 CONSTRUCTION DURING ROADWAY WIDENING CONSTRUCTION.

<p>DATE: 7/12/2016</p>	<p>PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050</p> <p>PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION</p>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>REVISIONS</th> <th>DATE</th> <th>APPR.</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	REVISIONS	DATE	APPR.					<p>WBS NO. T-228.54S001-3-02</p> <p>NETWORK NUMBER: 7003982</p> <p>FILE NAME: ESpl0305.dgn</p> <p>DRAWING TYPE: IV</p> <p>STRUCTURE NUMBER: EB-103</p> <p>SCALE: 25 0 25 FEET</p>	<p>REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54</p>	<p>EROSION & SEDIMENT POLLUTION CONTROL PLAN SHEET STAGE 3</p>
NO.	REVISIONS	DATE	APPR.											
			<p>DISTRICT: 3 COUNTY: CUMBERLAND</p> <p>TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP</p>		<p>DRAWING: 5 OF 9</p> <p>SHEET: 125 OF 315</p>									

LEGEND

- CFS-12 COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24 COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- P DIVERSION PUMP
- PWPFB PUMPED WATER FILTER BAG
- SP SUMP PIT
- RF ROCK FILTER
- RCE ROCK CONSTRUCTION ENTRANCE
- ECMB EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- VSWCD VEGETATED SWALE WITH CHECK DAMS
- RE ROCK EMBANKMENT
- TS TEMPORARY STABILIZATION
- TCA TEMPORARY CONSTRUCTION ACCESS
- TRC TEMPORARY RAILROAD CROSSING
- S SOIL TYPE
- SB SOIL TYPE BOUNDARY
- SWB SUB-WATERSHED BOUNDARY
- NPD NPDES PERMIT BOUNDARY
- LED LIMIT OF EARTH DISTURBANCE
- C CUT LIMIT
- F FILL LIMIT
- EGR EXISTING GUIDE RAIL
- PGR PROPOSED GUIDE RAIL



NOTES

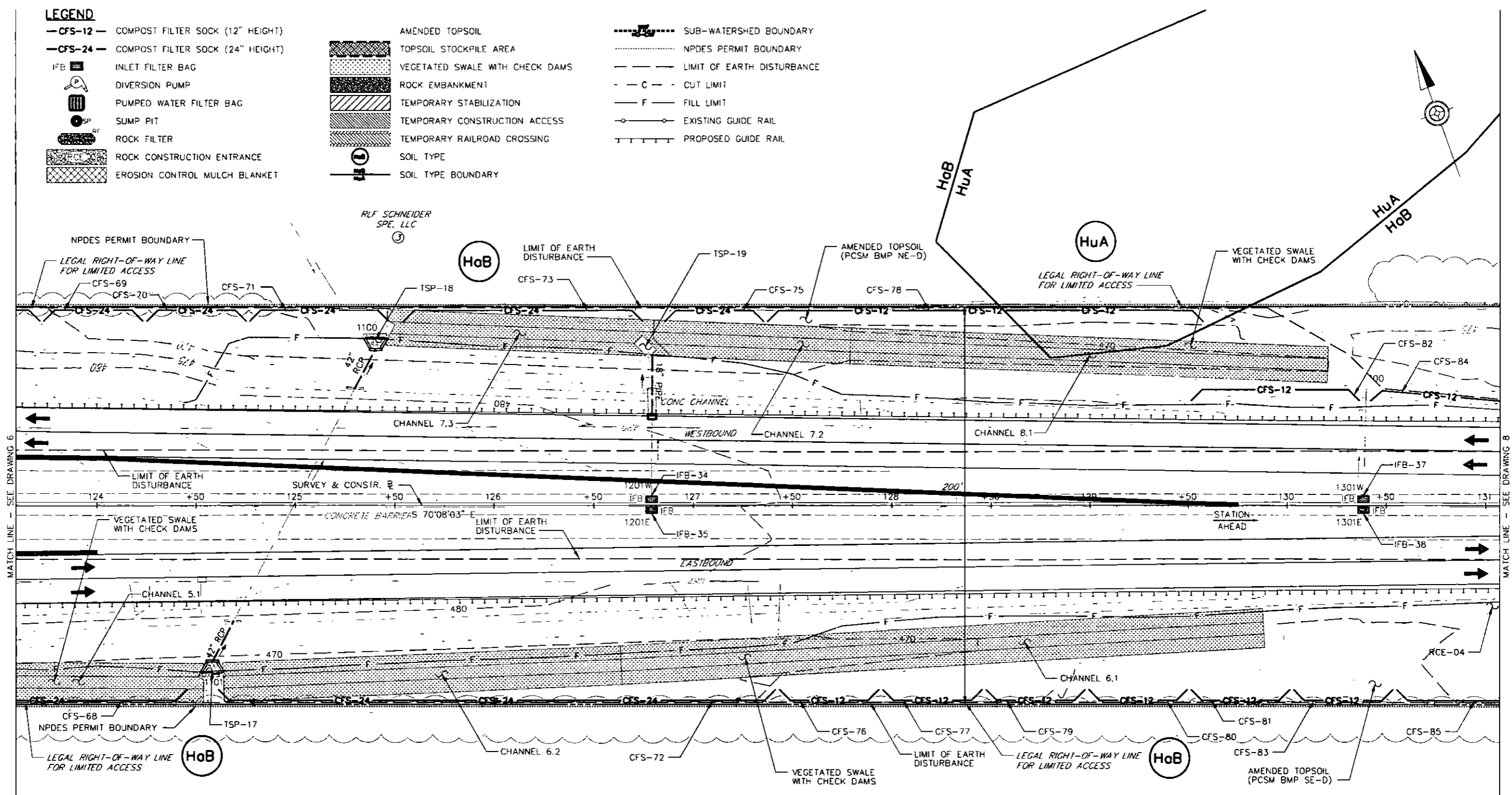
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PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	EROSION & SEDIEMENT POLLUTION CONTROL PLAN SHEET STAGE 3
		NO.	REVISIONS	DATE	APPR.		

DATE: 7/12/2016

LEGEND

- CFS-12- COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24- COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- ROCK FILTER
- ROCK CONSTRUCTION ENTRANCE
- EROSION CONTROL MULCH BLANKET
- AMENDED TOPSOIL
- TOPSOIL STOCKPILE AREA
- VEGETATED SWALE WITH CHECK DAMS
- ROCK EMBANKMENT
- TEMPORARY STABILIZATION
- TEMPORARY CONSTRUCTION ACCESS
- TEMPORARY RAILROAD CROSSING
- SOIL TYPE
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- NPDES PERMIT BOUNDARY
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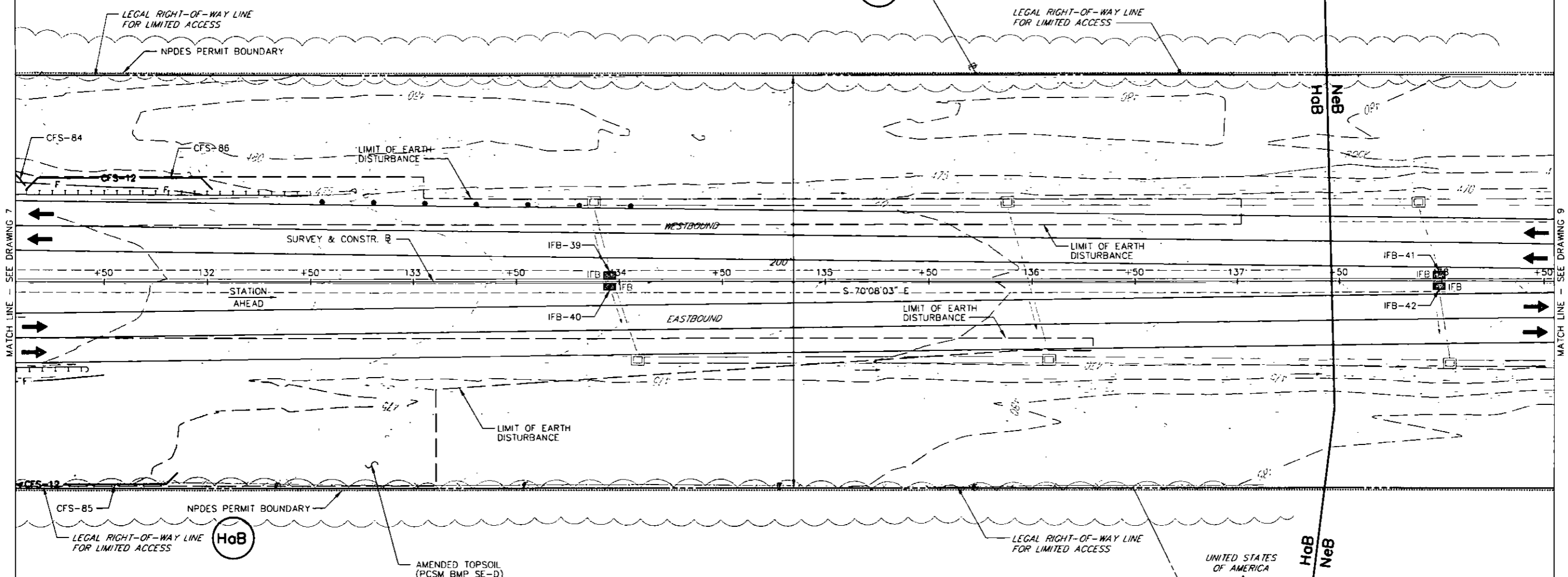
ROY L. COOVER AND
JANICE M. COOVER, HIS WIFE



DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	EROSION & SEDIMENT POLLUTION CONTROL PLAN SHEET STAGE 3
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE	APPR.		

LEGEND

- CFS-12 COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24 COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
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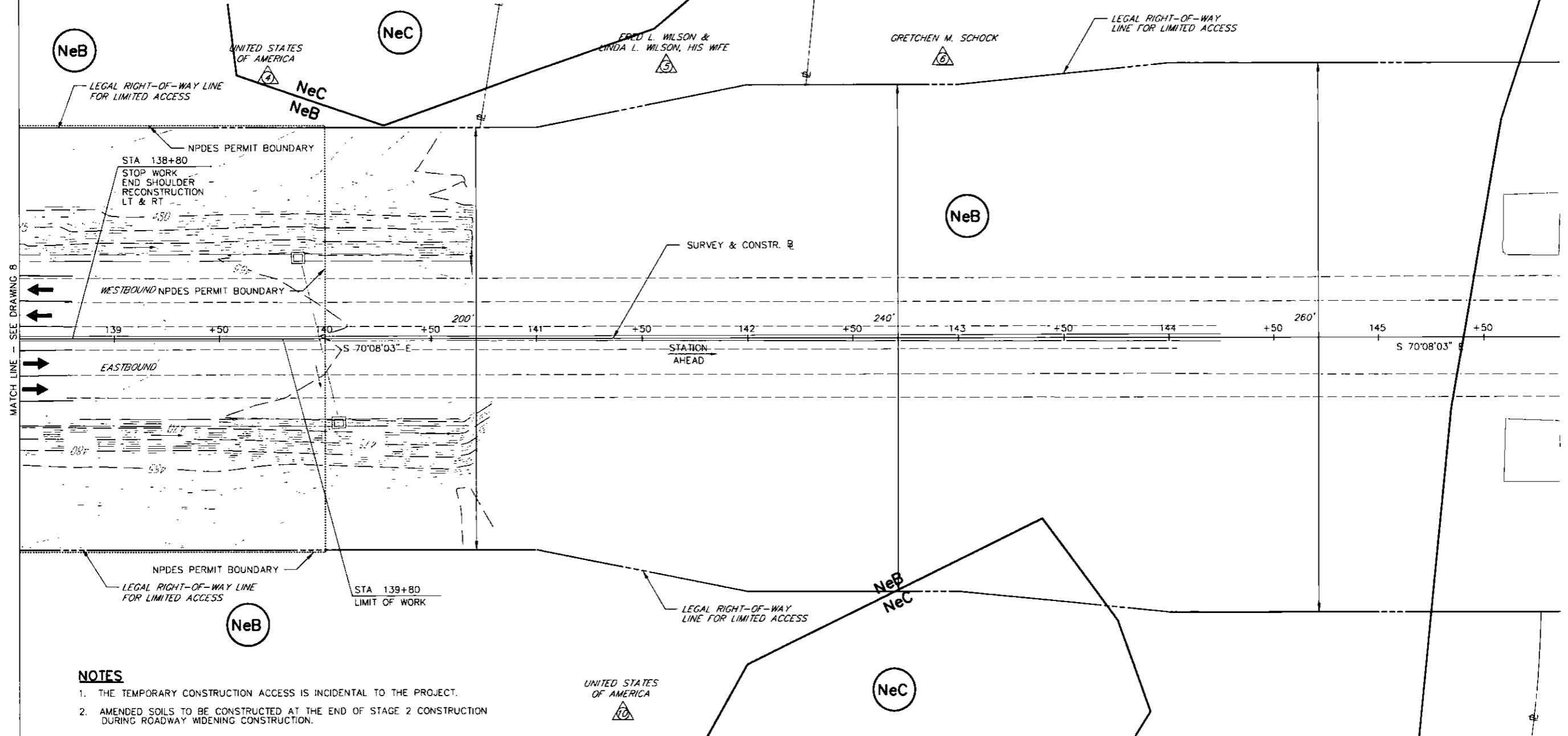
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					NETWORK NUMBER: 7003982 FILE NAME: ESpl0308.dgn DRAWING TYPE: 1V STRUCTURE NUMBER: EB-103		
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION				SCALE: 25 0 25 FEET			
		NO. REVISIONS DATE APPR.					

DATE: 7/12/2016

LEGEND

- CFS-12— COMPOST FILTER SOCK (12" HEIGHT)
- CFS-24— COMPOST FILTER SOCK (24" HEIGHT)
- IFB INLET FILTER BAG
- DIVERSION PUMP
- PUMPED WATER FILTER BAG
- SUMP PIT
- SP SUMP PIT
- RF ROCK FILTER
- RCRCE ROCK CONSTRUCTION ENTRANCE
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- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- - - C - - CUT LIMIT
- F — FILL LIMIT
- ○ ○ EXISTING GUIDE RAIL
- + — PROPOSED GUIDE RAIL



NOTES

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DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: ESpl0309.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EROSION & SEDIMENT POLLUTION CONTROL
PLAN SHEET
STAGE 3**

DRAWING: 9 OF 9
SHEET: 129 OF 315

GENERAL NOTES

PROJECT DESCRIPTION

THE PURPOSE OF THIS NARRATIVE IS TO DEVELOP THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN NEEDED FOR THE REPLACEMENT OF THE PTC BRIDGE LOCATED AT MILE POST 228.54 IN MIDDLESEX TOWNSHIP, CUMBERLAND COUNTY, PA.

THE PROJECT INCORPORATES DEMOLITION AND REPLACEMENT OF THE EXISTING BRIDGE OVER NORFOLK SOUTHERN RAILWAY. THE PROPOSED REPLACEMENT BRIDGE WILL INCORPORATE A WIDER BRIDGE CROSSING AND TAPERED PAVEMENT RETURNS TO THE CURRENT TURNPIKE ROADWAY WIDTH AND PROPOSES AN INCREASE IN IMPERVIOUS COVERAGE.

THE PROJECT AREA IS BORDERED BY INDUSTRIAL WAREHOUSING TO THE NORTH AND AGRICULTURAL FIELDS TO THE SOUTH IN MIDDLESEX TOWNSHIP. THE PROJECT LAND USE HAS BEEN TRANSPORTATION FOR THE PAST 50 YEARS.

THE PROJECT AREA IS LOCATED WITHIN THE SUSQUEHANNA RIVER REGIONAL WATERSHED AND DRAINS TO THE CONODOQUINET CREEK WATERSHED. THE PROJECT IS LOCATED ALONG THE DIVIDING LINE OF THREE SUBWATERSHEDS. THE MAJORITY OF THE SITE DRAINS TO THE LETORT SPRING RUN. THE LETORT SPRING RUN IS CLASSIFIED AS A HIGH QUALITY COLD WATER FISHERY (HO-CWF) UNDER TITLE 25, ENVIRONMENTAL PROTECTION, CHAPTER 93, WATER QUALITY STANDARDS. A PORTION OF THE SITE DRAINS TO AN UNNAMED TRIBUTARY OF THE CONODOQUINET CREEK WHICH IS CLASSIFIED AS A WARM WATER FISHERY (WWF). FINALLY, A SMALL PORTION OF THE SITE DRAINS TO HOGESTOWN RUN WHICH IS CLASSIFIED AS A COLD WATER FISHERY (CWF). ALL THREE SUB-WATERSHEDS ARE PART OF THE CUMBERLAND COUNTY ACT 167 PLAN DATED SEPTEMBER 2010.

STORMWATER MANAGEMENT CONCEPTS

THIS PROJECT HAS BEEN DESIGNED TO MEET THE REGULATIONS OF 25 PA. CODE CHAPTER 102.8(G)(2) AND (3). THE PROJECT WAS ALSO EVALUATED PER THE CUMBERLAND COUNTY ACT 167 PLAN AND THE MIDDLESEX TOWNSHIP STORMWATER MANAGEMENT ORDINANCE #6-2011.

THE DESIGN STORM PRECIPITATION DEPTH ESTIMATES HAVE BEEN OBTAINED FROM THE PRECIPITATION FREQUENCY ATLAS OF THE UNITED STATES, ATLAS 14 VOLUME 2. U.S. DEPARTMENT OF COMMERCE, NOAA NATIONAL WEATHER SERVICE HYDRO METEOROLOGICAL DESIGN STUDIES CENTER, SILVER SPRING MARYLAND, 20910.

HYDROLOGY COMPUTATIONS FOR PEAK FLOW ARE PERFORMED USING THE NRCS SOIL COVER COMPLEX METHOD. THE SOFTWARE PROGRAM HYDRAFLOW HYDROGRAPHS HAS BEEN USED TO DEVELOP THE DETAILED SMALL SUBWATERSHED BASIS WHICH INCORPORATES TR-55 & TR-20 METHODOLOGY IN THE DEVELOPMENT OF THE HYDROGRAPHS.

RUNOFF CHARACTERISTICS OF OFF-SITE AREAS THAT DRAIN THROUGH THE PROPOSED LIMIT OF DISTURBANCE ARE BASED ON ACTUAL EXISTING CONDITIONS.

HYDROLOGY COMPUTATIONS FOR PEAK FLOW ATTENUATION HAVE BEEN COMPLETED FOR THE 2, 10, 25, 50 & 100 YEAR STORM EVENTS.

VOLUME CONTROL CALCULATIONS ARE PROVIDED BASED ON THE DESIGN STORM METHOD.

DUE TO THE LINEAR NATURE OF THE PROJECT, THERE ARE SEVERAL POINTS OF INTEREST ALONG THE PROJECT AREA. INDIVIDUAL PRE TO POST DEVELOPMENT FLOW RATES AND VOLUMES ARE CALCULATED TO EACH OF THESE POIS TO GUARANTEE NO INCREASE IN PEAK RATE OR VOLUME AT EACH DISCHARGE. THE FOLLOWING IS A SUMMARY OF THE POINTS OF INTEREST:

POI DESCRIPTION

POI A: ROADWAY DRAINAGE AT WESTERN PROJECT LIMIT

POI B: AGRICULTURAL FIELD DRAINAGE SW OF PROJECT

POI C: GRAVEL CHANNEL ALONG RAIL SOUTH OF CROSSING.

POI D: DRAINAGE TO OFFSITE BASIN (SCHNEIDER NAT.)

POI E: ROADWAY DRAINAGE AT EASTERN PROJECT LIMIT

POINTS OF INTEREST (B, C & E) DISCHARGE OFF-SITE AND WILL INCLUDE STRUCTURAL AND NON-STRUCTURAL BMPS IN THE PROPOSED CONDITION IN ORDER TO REDUCE THE PEAK FLOW. POIS A & E ARE WITHIN THE LIMITS OF DISTURBANCE BUT DISCHARGE CONTINUES ALONG TURNPIKE RIGHT OF WAY. THESE ARE RELATIVELY SMALL AREAS WITH NO CHANGE FROM PRE TO POST DEVELOPMENT FLOW.

RECYCLING / DISPOSAL OF MATERIALS

ANTICIPATED PCSM WASTES FOR THE PROJECT PERMIT INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

- GRASS CLIPPINGS
- SEDIMENT LADEN GRAVEL AND SOILS
- HOUSEHOLD TRASH AND DEBRIS (PAPER, GLASS BOTTLES, ETC.)
- CONTAMINATED SOILS

ALL MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND COMPOSTED, RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S (PADEP'S) SOLID WASTE MANAGEMENT REGULATIONS AT THE PENNSYLVANIA CODE, TITLE 25, CHAPTERS 260.1 ET SEQ., 271.1 AND 287.1 ET. SEQ. NO MATERIALS OR WASTES SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE PROJECT SITE.

GEOLOGIC FORMATIONS / SOIL POLLUTION CONCERNS

KARST GEOLOGY MAY LEAD TO THE DEVELOPMENT OF SINKHOLES AND UN TREATED STORMWATER FLOW TO GROUNDWATER. SEE ASSOCIATED SINKHOLE TREATMENT DETAIL & NOTES FOR PROPER HANDLING (DETAIL SHEET 2).

EARTH DISTURBANCE - PHASE 1

CLEARING, GRUBBING AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) BMPS SPECIFIED BY THE CONSTRUCTION SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED.

THE ANTICIPATED STAGING AREAS FOR JOB TRAILER, MATERIALS STORAGE AREAS AND EQUIPMENT WILL BE ACCOMMODATED WITHIN THE CLOSED PORTION OF THE ROADWAY ON EACH APPROACH. EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) PLANS FOR AREAS OUTSIDE OF THE PERMIT AREA SHOWN ON THE PLANS SHALL BE APPROVED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) PRIOR TO THE INITIATION OF WORK IN THIS NON-PERMITTED AREA.

AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.

1. INSTALL TRAFFIC CONTROL DEVICES ASSOCIATED WITH THE STAGE 1 CONSTRUCTION TRAFFIC CONTROL PLAN INCLUDING TEMPORARY TRAFFIC SIGNAGE.
2. DELINEATE ALL LIMITS OF DISTURBED AREAS AND TOPSOIL STOCKPILE AREAS IN THE FIELD. INSTALL PUMPED WATER FILTER BAGS, SUMP PITS (IN CONJUNCTION WITH THE PUMPED WATER FILTER BAGS), COMPOST FILTER SOCKS, COMPOST FILTER SOCK WASHOUTS AND ROCK FILTERS OF THE TYPE INDICATED ON THE PLANS. PERFORM GENERAL SITE CLEARING AND GRUBBING.
3. CONSTRUCT ROCK CONSTRUCTION ENTRANCES (RCE) FOR STAGE 1 CONSTRUCTION AS INDICATED ON THE PLANS AT STATION 90+10.00 LT AND STATION 131+40.00 RT.
4. REMOVE EXISTING ASPHALT CURBING ALONG SHOULDER EDGE AS INDICATED ON THE PLANS.
5. INSTALL STAGE 1 CONSTRUCTION TEMPORARY SLOPE PIPES AND CONVEYANCE PIPES AS INDICATED ON THE PLANS.
6. INSTALL THE FOLLOWING PERMANENT STORM SEWER SECTIONS:
 - SEGMENT A400 EXTENSION
 - SEGMENT 600 EXTENSION
 - SEGMENT 1100 EXTENSION
7. CONSTRUCT TEMPORARY CONSTRUCTION ACCESS AS INDICATED ON THE PLANS.
8. CONSTRUCT PROPOSED SHOULDER PAVEMENT WORK UTILIZING STONE SLOPE STABILIZATION WHERE NECESSARY FOR STAGE 1 CONSTRUCTION.

EARTH DISTURBANCE - PHASE 2

1. INSPECT, MAINTAIN AND/OR REPAIR ANY REMAINING EROSION & SEDIMENT POLLUTION CONTROL (E&SPC) DEVICES FROM STAGE 1 CONSTRUCTION.
2. INSTALL TRAFFIC CONTROL DEVICES ASSOCIATED WITH THE STAGE 2 CONSTRUCTION TRAFFIC CONTROL PLAN INCLUDING TEMPORARY TRAFFIC SIGNAGE.
3. REMOVE AND RESET ROCK FILTERS OF THE TYPE INDICATED ON THE PLANS
4. ADJUST TEMPORARY SLOPE PIPES AS INDICATED ON THE PLANS.

BRIDGE WIDENING CONSTRUCTION

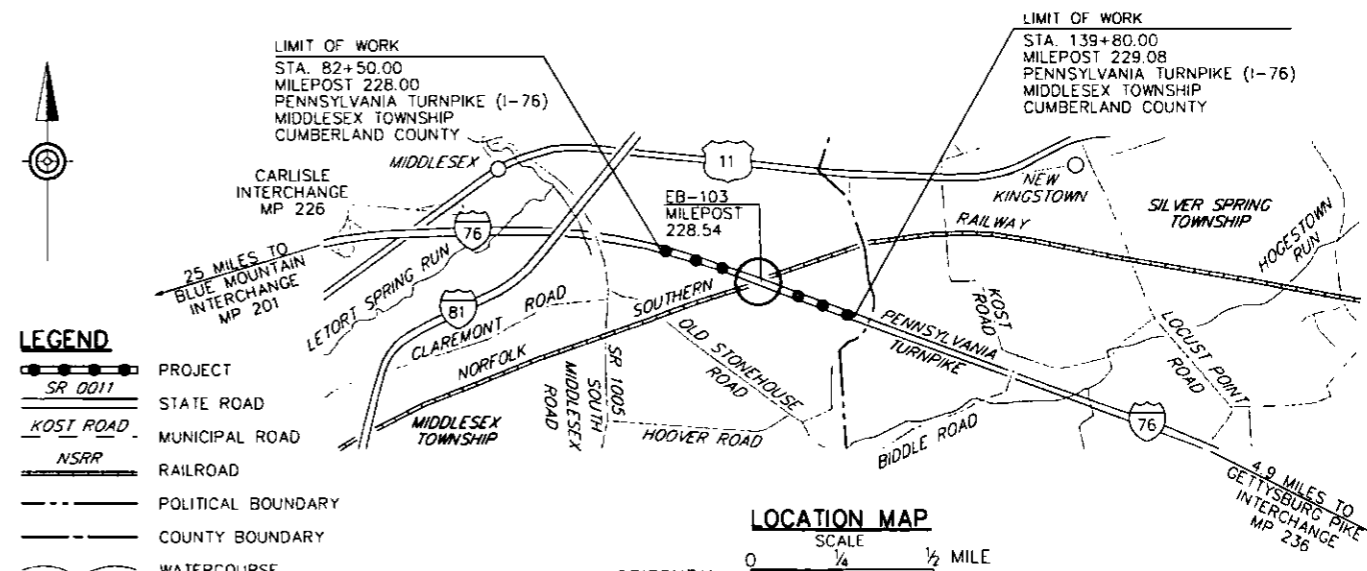
1. REMOVE PORTIONS OF EXISTING BRIDGE SUPERSTRUCTURE, EXISTING NEAR AND FAR ABUTMENTS, PIERS AND WINGWALLS FOR STAGE 2 CONSTRUCTION. DEWATER ALL DISTURBED AREAS AS REQUIRED.
2. REMOVE EXISTING CURB, INLETS, PIPES AND CONCRETE CHANNELS AS INDICATED ON THE PLANS.
3. CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE NEAR AND FAR ABUTMENT FOOTINGS, STEMS AND WINGWALLS FOR STAGE 2 CONSTRUCTION. CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE PIER FOOTINGS, STEMS AND CAPS FOR STAGE 2 CONSTRUCTION. PLACE PROPOSED BEARINGS AND BEAMS FOR STAGE 2 CONSTRUCTION. CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE SUPERSTRUCTURE FOR STAGE 2 CONSTRUCTION.

ROADWAY WIDENING CONSTRUCTION

1. CONSTRUCT WEST AND EAST APPROACH ROADWAY EMBANKMENTS FOR STAGE 2 CONSTRUCTION FROM STATION 83+50.00 TO STATION 109+91.31 AND STATION 112+40.88 TO STATION 138+80.00, RESPECTIVELY.
2. AS FILL EMBANKMENT COMMENCES FOR EACH EMBANKMENT SEGMENT, INSTALL PROPOSED INLETS AND PIPES FOR STAGE 2 CONSTRUCTION. DURING IMPLEMENTATION OF EACH STORMWATER SYSTEM:
 - 2.1 INSTALL INLET PROTECTION AT ALL INLETS AS INDICATED ON THE PLANS.
 - 2.2 REMOVE AND RESET ROCK FILTERS OF THE TYPE INDICATED ON THE PLANS
 - 2.3 ADJUST TEMPORARY SLOPE PIPES AS INDICATED ON THE PLANS.
3. CONSTRUCT PAVEMENT SECTIONS AND INSTALL GUIDE RAIL AS SHOWN ON THE PLANS (AT THIS POINT, THE CONTRACTOR MAY PROCEED TO PHASE 3 EARTH DISTURBANCE, WHILE COMPLETING THE REMAINDER OF EMBANKMENT WORK ON PHASE 2 EARTH DISTURBANCE).
4. FOR LAWN AREAS NOT RECEIVING AMENDED SOILS, REPLACE TOPSOIL, APPLY SEEDING AND SOIL SUPPLEMENTS AND APPLY MULCH AS INDICATED ON THE PLANS. INSTALL EROSION CONTROL MULCH BLANKET ON ALL SLOPES STEEPER THAN OR EQUAL TO 3:1.
5. CONSTRUCT AMENDED TOPSOIL INSTALLATION AND VEGETATED CHANNELS WITH CHECK DAMS AS INDICATED IN THE POST CONSTRUCTION STORMWATER MANAGEMENT (PSCM) PLAN SEQUENCE. FOR BMP AREAS AND DRAINAGE AREAS TO BMP'S, PROCEED WITH TEMPORARY CONTROLS REMOVAL (ROADWAY WIDENING CONSTRUCTION SEQUENCE 7-9) PRIOR TO FINALIZING CONSTRUCTION.
6. CLEAN OUT AND REMOVE SEDIMENT FROM BEHIND ROCK FILTERS REMOVE ROCK FILTERS.
7. REMOVE TEMPORARY CONSTRUCTION ACCESSES AND ROCK CONSTRUCTION ENTRANCES (RCE) FOR STAGE 1 AND STAGE 2 CONSTRUCTION.
8. REMOVE COMPOST FILTER SOCKS AROUND TOPSOIL STOCKPILE AREAS AS INDICATED ON THE PLANS. THE SOCKS MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
9. REMOVE STAKES WITHIN THE COMPOST FILTER SOCKS. THE SOCKS MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

EARTH DISTURBANCE - PHASE 3

1. INSPECT, MAINTAIN AND/OR REPAIR ANY REMAINING EROSION AND SEDIMENT POLLUTION CONTROL (E&SPC) DEVICES FROM STAGE 2 CONSTRUCTION.
2. INSTALL TRAFFIC CONTROL DEVICES ASSOCIATED WITH THE STAGE 3 CONSTRUCTION TRAFFIC CONTROL PLAN INCLUDING TEMPORARY TRAFFIC SIGNAGE.
3. CONSTRUCT ROCK CONSTRUCTION ENTRANCES (RCE) FOR STAGE 3 CONSTRUCTION AS INDICATED ON THE PLANS AT STATION 107+20.00 RT AND STATION 115+15.00 LT.
4. REMOVE EXISTING BRIDGE SUPERSTRUCTURE, EXISTING NEAR AND FAR ABUTMENTS, PIERS AND WINGWALLS FOR STAGE 3 CONSTRUCTION. DEWATER ALL DISTURBED AREAS AS REQUIRED.
5. INSTALL PROPOSED INLETS AND PIPES FOR STAGE 3 CONSTRUCTION. INSTALL INLET PROTECTION AT ALL INLETS AS INDICATED ON THE PLANS.
6. CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE NEAR AND FAR ABUTMENT FOOTINGS, STEMS AND WINGWALLS FOR STAGE 3 CONSTRUCTION. CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE PIER FOOTINGS, STEMS AND CAPS FOR STAGE 3 CONSTRUCTION. PLACE PROPOSED BEARINGS AND BEAMS FOR STAGE 3 CONSTRUCTION. CONSTRUCT PROPOSED CAST-IN-PLACE CONCRETE SUPERSTRUCTURE FOR STAGE 3 CONSTRUCTION.
7. REMOVE ROCK CONSTRUCTION ENTRANCES (RCE) FOR STAGE 3 CONSTRUCTION.
8. CONSTRUCT PAVEMENT SECTIONS AND INSTALL GUIDE RAIL AS SHOWN ON THE PLANS.
9. REPLACE TOPSOIL, APPLY SEEDING AND SOIL SUPPLEMENTS AND APPLY MULCH AS INDICATED ON THE PLANS. INSTALL EROSION CONTROL MULCH BLANKET ON ALL SLOPES STEEPER THAN OR EQUAL TO 3:1.
10. INSTALL SIGNING AND PAVEMENT MARKINGS.
11. REMOVE TRAFFIC CONTROL DEVICES ASSOCIATED WITH STAGE 3 CONSTRUCTION INCLUDING TEMPORARY TRAFFIC SIGNAGE.
12. REMOVE STAKES WITHIN THE COMPOST FILTER SOCKS. THE SOCKS MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.



DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		NO.	REVISIONS	DATE	APPR.	SCALE:	WBS NO. T-228.54S001-3-02 NETWORK NUMBER: 7003982 FILE NAME: SWMgn01.dgn DRAWING TYPE: 1V STRUCTURE NUMBER: EB-103	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN GENERAL NOTES		
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION						DISTRICT: 3				COUNTY: CUMBERLAND	DRAWING: 1 OF 2
							TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP					SHEET: 130 OF 315

SEEDING & SOIL SUPPLEMENTS							
FORMULA	SPECIES	% BY MASS	MINIMUM %		MAXIMUM % WEED SEED	SEEDING RATE LBS PER 1000 SY	TOTAL RATE LBS PER 1000 SY
			PURITY	GERMINATION			
FORMULA BT-1	CREeping RED FESCUE (FESTUCA RUBRA)	65	97	85	0.10	27.5	42.0 TOTAL
	BIRDSFOOT TREFOIL (LOTUS CORNICULATUS)	15	92	80	0.10	6.5	
	PERENNIAL RYEGRASS MIXTURE (LOLIUM PERENNE)	10	98	90	0.15	4.0	
	REDTOP (AGROSTIS ALBA)	10	92	85	0.20	4.0	
FORMULA D	TALL FESCUE (FESTUCA ARUNDINACEA VAR. KENTUCKY 31)	60	96	85	0.10	30.0	50.0 TOTAL
	CREeping RED FESCUE OR CHEWINGS FESCUE	30	97	85	0.10	15.0	
	ANNUAL RYEGRASS (LOLIUM MUTIFLORUM)	10	95	90	0.10	5.0	
FORMULA E	ANNUAL RYEGRASS (LOLIUM MUTIFLORUM)	100	95	90	0.10	10.0	10.0 TOTAL

SEEDING MEASURES

ALL DISTURBED SOIL AREAS NOT BEING PAVED WITH BITUMINOUS MATERIALS MUST BE SEEDED AND MULCHED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS AND THE PENNDOT PUBLICATION 408, SPECIFICATIONS:

- FORMULA BT-1: USED FOR SLOPES GREATER THAN 3:1 WHERE MOWING IS NOT ANTICIPATED OR DESIRED.
- FORMULA D: NORMALLY USED IN DRAINAGE CHANNELS OR SWALES REQUIRING PERMANENT SEEDING. ALSO USED ON MOST HIGHWAY SLOPE AREAS WHERE MOWING MAY OR MAY NOT BE DESIGNATED.
- FORMULA E: DISTURBED AREAS NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED DURING CONSTRUCTION.

SPREAD SEEDS WHERE INDICATED AND AT THE RATES SPECIFIED IN THE SEEDING AND SOIL SUPPLEMENTS TABLE. SPREAD SEEDS WITHIN THE FOLLOWING DATES OR AS OTHERWISE INDICATED OR DIRECTED.

- FORMULA BT-1: MARCH 15 TO JUNE 1
AUGUST 1 TO SEPTEMBER 15
- FORMULA D: MARCH 15 TO JUNE 1
AUGUST 1 TO OCTOBER 15
- FORMULA E: MARCH 15 TO OCTOBER 15

EXTEND SEEDING DATES WHERE PROJECT CONDITIONS WARRANT. APPLY FULL TREATMENT OR APPLY ONLY 50% OF THE PERMANENT SEEDING AND SOIL SUPPLEMENTS AND APPLY THE REMAINING 50% WITHIN THE NEXT SEEDING DATES, AS DIRECTED IN WRITING BY THE ENGINEER.

USE TILLAGE AND SOIL SUPPLEMENTS BEFORE PERMANENT SEEDING ON TOPSOILED AREAS, WHERE TEMPORARY SEEDING OR MULCHING HAS BEEN APPLIED. THE CONTRACTOR MAY APPLY PERMANENT SEED AND/OR SOIL SUPPLEMENTS WITHOUT TILLING ON UNTOPSOILED AREAS, WHERE TEMPORARY SEEDING OR MULCHING HAS BEEN APPLIED.

GRADE THE AREAS TO BE COVERED BY TOPSOIL. USING ACCEPTABLE METHODS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE PLACING TOPSOIL. REMOVE STONES AND OTHER FOREIGN MATERIAL 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE AND SATISFACTORILY DISPOSE OF UNSUITABLE AND SURPLUS MATERIAL. PLACE TOPSOIL ON THE PREPARED AREAS AND, UNLESS OTHERWISE INDICATED, SPREAD AND COMPACT TO A 4 INCH UNIFORM DEPTH +/- 1 1/2 INCHES. COMPACT WITH A ROLLER HAVING A WEIGHT NOT OVER 120 POUNDS PER FOOT WIDTH OF ROLLER OR BY OTHER ACCEPTABLE METHODS, AS DIRECTED. REMOVE OVERDEPTH TOPSOIL, UNLESS OTHERWISE AGREED UPON IN WRITING BY THE ENGINEER. DO NOT PLACE TOPSOIL IN A WET OR FROZEN CONDITION.

STABILIZE ALL DISTURBED AREAS IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUB-AREA OF THE PROJECT. DURING NON-GERMINATING MONTHS, APPLY MULCH OR PROTECTIVE BLANKETING AS DESCRIBED IN THE PLAN. STABILIZE AREAS NOT AT FINISHED GRADE THAT WILL BE RE-ACTIVATED WITHIN ONE (1) YEAR IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. STABILIZE THOSE AREAS THAT WILL NOT BE REACTIVATED WITHIN ONE (1) YEAR IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS. AREAS MULCHED DURING NON-GERMINATING PERIODS MUST BE LIMED, FERTILIZED, SEEDED AND MULCHED WITHIN TEN (10) DAYS OF THE ENDING OF THOSE PERIODS.

THE CONTRACTOR WILL MAINTAIN ALL SEEDED AREAS UNTIL FINAL INSPECTION AND ACCEPTANCE OF ALL WORK IN THE CONTRACT. ANY RE-SEEDING OR RE-GRADING MUST BE AT THE DEPARTMENT'S EXPENSE. ANY AREAS WHICH FAIL TO SHOW A UNIFORM STAND OR FAIL TO GERMINATE, FOR ANY REASON, MUST BE RE-SEEDED WITH THE ORIGINAL MIXTURE. SUCH RE-SEEDING MUST BE MAINTAINED UNTIL FINAL ACCEPTANCE OF THE WORK.

SOIL SUPPLEMENTS

BLEND THE INITIAL SOIL SUPPLEMENTS INTO THE SOIL AT LEAST 2 INCHES, ON TOPSOILED AREAS, BY RAKING, DISKING, HARROWING OR BY ANOTHER ACCEPTABLE METHOD. THE BLENDING OF THE SUPPLEMENTS INTO THE SOIL MAY BE PERFORMED DURING TILAGE OPERATIONS.

APPLY SLOW-RELEASE NITROGEN FERTILIZER TO THE SURFACE OF FORMULA B, D, L AND W SEEDED AREAS BEFORE PROJECT COMPLETION (IF APPLICABLE). DO NOT APPLY SLOW-RELEASE NITROGEN FERTILIZER SUPPLEMENT TO FORMULA C SEEDED AREAS (IF APPLICABLE).

SOIL SUPPLEMENTS (CONTINUED)

SOIL SUPPLEMENTS OF THE TYPE SPECIFIED BELOW WILL BE APPLIED AT THE FOLLOWING APPLICATION RATES, UNLESS OTHERWISE INDICATED:

- PULVERIZED AGRICULTURAL LIMESTONE: 800 LBS PER 1,000 SY
- 10-20-20 ANALYSIS COMMERCIAL FERTILIZER: 140 LBS PER 1,000 SY
- 38-0-0 UREAFORM FERTILIZER: 50 LBS PER 1,000 SY OR
- 32-0-0 TO 38-0-0 SULFUR COATED AREA FERTILIZER: 59 LBS TO 50 LBS PER 1,000 SY AS DIRECTED OR
- 31-0-0 IBDU FERTILIZER: 61 LBS PER 1,000 SY

UNIFORMLY APPLY SUPPLEMENTS TO THE AREAS TO BE SEEDED, EXCEPT AREAS TO BE SEEDED WITH FORMULA E.

PLACE MULCH, OF THE TYPE INDICATED, IMMEDIATELY AFTER SEEDING OR WITHIN 48 HOURS AFTER SEEDING IS COMPLETED. UNLESS OTHERWISE INDICATED, PLACE ONLY STRAW OR WOOD FIBER OVER TOPSOILED AREAS. USE HAY, STRAW OR WOOD FIBER IN OTHER AREAS, AS INDICATED OR SPECIFIED.

SOIL SUPPLEMENTS (CONTINUED)

PLACE HAY OR STRAW UNIFORMLY, IN A CONTINUOUS BLANKET, AT A MINIMUM RATE OF 1,200 POUNDS PER 1,000 SQUARE YARDS OR AS OTHERWISE INDICATED. IF DIRECTED, INCREASE THE RATE OF APPLICATION, DEPENDING UPON THE MATERIAL USED, SEASON, SOIL CONDITIONS OR METHOD OF APPLICATION. AN ACCEPTABLE MECHANICAL BLOWER MAY BE USED TO APPLY MULCH. DO NOT USE MACHINES THAT CUT MULCH INTO SHORT PIECES.

UTILIZE ANY OF THE FOLLOWING TO ANCHOR STRAW AND HAY MULCH:

- TACKIFIERS (POLYMERIC OR GUM): TACKIFIERS MIXED AND APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAY BE USED TO TACK MULCH.
- SYNTHETIC BINDERS (CHEMICAL BINDERS): BINDERS MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES.
- HYDROMULCH (SHREDDED PAPER OR WOOD FIBER): SHREDDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5% WOOD FIBER HYDROMULCH MAY BE APPLIED ON STEEPER SLOPES PROVIDED A TACKIFIER IS USED. THE APPLICATION RATE FOR ANY HYDROMULCH SHOULD BE 2,000 LBS PER ACRE AT A MINIMUM.

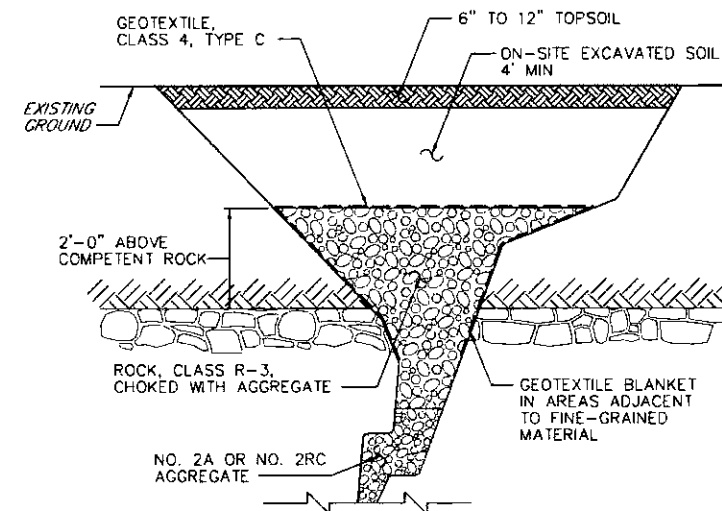
STRAW AND HAY MULCH SHOULD BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN.

GEOLOGIC FORMATIONS / SOIL POLLUTION CONCERNS

THE PROJECT IS LOCATED IN A KARST TOPOGRAPHY WHICH MAY LEAD TO THE DEVELOPMENT OF SINKHOLES. A DEVELOPED SINKHOLE MAY EXACERBATE POLLUTION CONCERNS, ESPECIALLY DURING CONSTRUCTION WHEN NO PERMANENT WATER QUALITY BMP'S HAVE BEEN INSTALLED, SINCE POLLUTED RUN-OFF HAS THE POTENTIAL TO ENTER GROUNDWATER PRIOR TO TREATMENT. SEE THE EROSION & SEDIMENT POLLUTION CONTROL (E&SPC) DETAILS FOR INSTRUCTIONS AND DETAILS FOR PROPER SINKHOLE MANAGEMENT AND MITIGATION.

MITIGATION SEQUENCE NOTES

- IMMEDIATELY UPON OPENING OF SINKHOLE, REDIRECT SURFACE DRAINAGE AWAY FROM SINKHOLE TO PREVENT FURTHER DAMAGE.
- CONTACT GEOTECHNICAL ENGINEER FOR A FIELD INSPECTION.
- OSHA REGULATIONS MUST BE FOLLOWED AT ALL TIMES DURING EXCAVATION.
- LOOSE MATERIAL SHALL BE EXCAVATED FROM THE SINKHOLE AND EXPOSE SOLUTION VOIDS IF POSSIBLE.
- ENLARGE EXISTING SINKHOLE IF NECESSARY TO ALLOW FOR INSTALLATION OF FILTER MATERIALS.
- STONE USED FOR THE "BRIDGE" AND FILTERS SHALL HAVE A MODERATELY HARD ROCK STRENGTH AND BE RESISTANT TO ABRASION AND DEGRADATION. SHALE AND SIMILARLY SOFT AND/OR NON-DURABLE ROCK ARE NOT ACCEPTABLE.
- TOPSOIL SHALL BE A MINIMUM OF 6" THICK. GRADE FOR POSITIVE DRAINAGE AWAY FROM SINKHOLE AREA.
- DISPOSAL OF ALL POLLUTANT LADEN SOIL WHICH OCCURRED PRIOR TO THE SINKHOLE TREATMENT SHALL BE DISPOSED OF AS DESCRIBED PER RECYCLING / DISPOSAL OF MATERIALS NOTES.



SINKHOLE TREATMENT IN SOIL

NO SCALE

DATE: 7/12/2016

PREPARED BY:
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PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: SWMgn02.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

POST CONSTRUCTION
STORMWATER MANAGEMENT PLAN
SEEDING AND SOIL SUPPLEMENTS

DRAWING: 2 OF 2
SHEET: 131 OF 315

STRUCTURAL BMP 6.4.8 VEGETATED SWALE

SPECIFICATIONS:

VEGETATION:

A. SEE SEEDING & SOIL SUPPLEMENTS TABLE FOR PERMANENT SEEDING SPECIFICATIONS.

SOIL:

A. TO ENCOURAGE FILTRATION AND HEALTHY PLANT GROWTH, GRADING AND TOPSOIL PLACEMENT SHALL BE PER THE AMENDED TOPSOIL SPECIFICATION.

CHECK DAMS:

A. SHALL CONSIST OF PENNDOT PUB 408. SPECIFICATION FOR R-4 RIPRAP.

SEQUENCE OF INSTALLATION FOR INDIVIDUAL BMP:

- A. BEGIN VEGETATED SWALE CONSTRUCTION ONLY WHEN THE UPGRADIENT TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE. UNLIKE STANDARD SWALE INSTALLATIONS WHERE THE SWALES ARE INSTALLED EARLY ON IN THE PROCESS TO ASSIST IN CONVEYANCE DURING CONSTRUCTION, THIS PROJECT'S SWALES ARE TO BE INSTALLED NEAR THE END OF THE CONSTRUCTION SEQUENCE AND ALTERNATE TEMPORARY MEASURES ARE PROPOSED FOR INITIAL CONSTRUCTION.
- B. CONSTRUCTION TIMING OF EACH INDIVIDUAL SWALE SHALL BE COORDINATED WITH AMENDED TOPSOIL CONSTRUCTION FOR EACH BRIDGE QUADRANT. THE SWALES CLOSEST TO THE BRIDGE STRUCTURE SHALL BE CONSTRUCTED FIRST, MOVING IN AN OUTWARD DIRECTION TOWARD THE ACCESS POINTS AT THE OUTSIDE LIMITS OF CONSTRUCTION. SWALE CONSTRUCTION SHALL BE IN CONJUNCTION WITH THE PLACEMENT OF THE AMENDED TOPSOIL, TO AVOID THE POTENTIAL FOR COMPACTION TO OCCUR, BY EQUIPMENT AND MATERIALS FOLLOWING A PATH.
- C. TEMPORARY E&SPC CONTROL MEASURES LOCATED WITHIN THE PROPOSED VEGETATED CHANNEL AREA SHALL BE REMOVED PRIOR TO CONSTRUCTION OF PERMANENT VEGETATED CHANNEL.
- D. ROUGH GRADE THE VEGETATED SWALE & INSTALL TOPSOIL LAYER AND SURFACE TREATMENT PER AMENDED TOPSOIL SPECIFICATIONS.
- E. CONSTRUCT CHECK DAMS. ONLY SMALL EQUIPMENT AND TRACKED VEHICLES ARE PERMITTED IN THE SWALE DURING MATERIAL DELIVERY AND CONSTRUCTION TO AVOID COMPACTION.
- F. SEED, VEGETATE AND INSTALL PROTECTIVE LINING.
- G. UPON ESTABLISHED VEGETATION REMOVE UPSTREAM EROSION AND SEDIMENTATION CONTROLS. WHILE VEGETATION IS BEING ESTABLISHED BI-WEEKLY INSPECTION SHALL OCCUR FOR 3 MONTHS. WARRANTY FOR THE PLANTINGS SHALL BE PROVIDED BY THE CONTRACTOR DURING THE 3 MONTH PLANT ESTABLISHMENT PERIOD.

H. CRITICAL STAGES OF BMP INSTALLATION INCLUDE: INSPECTOR SHALL RECEIVE A COPY OF THE MATERIALS CERTIFICATION THAT MEETS THE SPECIFICATION OF THE PLAN. INSPECTOR SHALL BE ONSITE DURING PLACEMENT OF STONE AND TOPSOIL SECTIONS TO CONFIRM INSTALLATION MATCHES DETAIL AS REQUIRED.

DIRECTIONS FOR PROTECTION OF BMP AFTER INSTALLATION:

- A. THE BMP'S HAVE BEEN LOCATED IN AN AREA INACCESSIBLE BY THE PUBLIC, AS THE BMP'S ARE BORDERED BY GUIDERAIL TOWARD THE INTERIOR ROADWAY OF THE SITE, AND RIGHT OF WAY FENCING AT THE EXTERIOR OF THE SITE.
- B. A SET OF PCSM PLANS SHALL BE POSTED AT THE MAINTENANCE FACILITY RESPONSIBLE FOR THE PROJECT AREA.
- C. MAINTENANCE CREWS ACCESSING THE BMP'S SHALL PROCEED ON LIGHT DUTY VEHICLES (I.E. GOLF CARTS AND RIDING MOWERS) LARGER VEHICLES SHALL BE TRACKED. WHERE ACCESS OF LARGER VEHICLES IS NECESSARY FOR MAINTENANCE OF OTHER TURNPIKE FACILITIES, ANY DAMAGED BMP'S SHALL BE REPAIRED PER THE OWNERSHIP OPERATION AND MAINTENANCE INSTRUCTIONS.

INSPECTION FREQUENCY:

A. INSPECTIONS SHALL BE PERFORMED TWICE ANNUALLY, AT THE BEGINNING AND ENDING OF EACH GROWING SEASON, PREFERABLY IN THE MONTHS OF MARCH & SEPTEMBER.

INSPECTION SCHEDULE:

- A. PERFORM A WALKTHROUGH OF THE PERIMETER OF EACH BMP. MAKE NOTES FOR ANY OF THE FOLLOWING ENCOUNTERED. FOR EASE OF REFERENCE DURING REPAIRS AND MAINTENANCE INDICATE MILE MARKER STATION AND OFFSET FROM BACK OF GUIDERAIL:
 - LITTER SEDIMENT AND DEBRIS ACCUMULATED IN THE SWALE.
 - BARREN OR SPARSELY VEGETATED AREAS.
 - DEVELOPMENT OF RILLS AND GULLIES ON SIDE SLOPES AND CHANNEL BOTTOM.
 - INSPECT CHECK DAM FOR SEDIMENT ACCUMULATION.
 - INSPECT CHANNEL BOTTOM FOR POOLS OF ACCUMULATED WATER, NOTE IF STANDING WATER IS WITHIN A SINGLE CHECK DAM, OR THROUGHOUT THE CHANNEL.
 - NOTE IF THE BMP HAS FAILED. THE BMP WILL BE CONSIDERED TO HAVE FAILED IF THE PONDING OF WATER REMAINS FOR GREATER THAN 72 HOURS (3 DAYS) BEYOND THE END OF THE MOST RECENT RAIN EVENT.
- B. NOTE THE PRIOR INSPECTION REPORT INDICATIONS OF NECESSARY REPAIRS AND MAINTENANCE AND CONFIRM THE ITEMS HAVE BEEN COMPLETED.
- C. UPON COMPLETION OF FIELD INSPECTION PREPARE A WRITTEN REPORT DOCUMENTING THE INSPECTION DATE, ANY NOTES FROM THE WALKTHROUGH, CONFIRMATION OF PAST SCHEDULED REPAIRS AND ROUTINE MAINTENANCE AND ANY ADDITIONAL REPAIRS NECESSARY.

ROUTINE MAINTENANCE:

- A. CHECK DAMS AREA SHALL BE MOWED A MINIMUM OF TWICE ANNUALLY. LARGE TRACTORS WITH MOWER ATTACHMENTS SHALL NOT BE USED IN THE AMENDED SOILS AREAS, DUE TO CONCERNS REGARDING COMPACTION OF THE SOIL.
- B. CLIPPINGS FROM THE MOWING OF THE CHANNELS SHALL BE COLLECTED AND PROPERLY DISPOSED OF AT A COMPOST FACILITY PER THE RECYCLING AND DISPOSAL OF MATERIALS.
- C. TWICE ANNUALLY THE SITE SHALL BE CLEARED OF TRASH AND DEBRIS.
- D. TURNPIKE MAINTENANCE CREWS SHALL KEEP AN ANNUAL MAINTENANCE LOG, INDICATING THE ABOVE ITEMS HAVE BEEN COMPLETED, FOR REVIEW DURING BI-ANNUAL INSPECTIONS ABOVE.

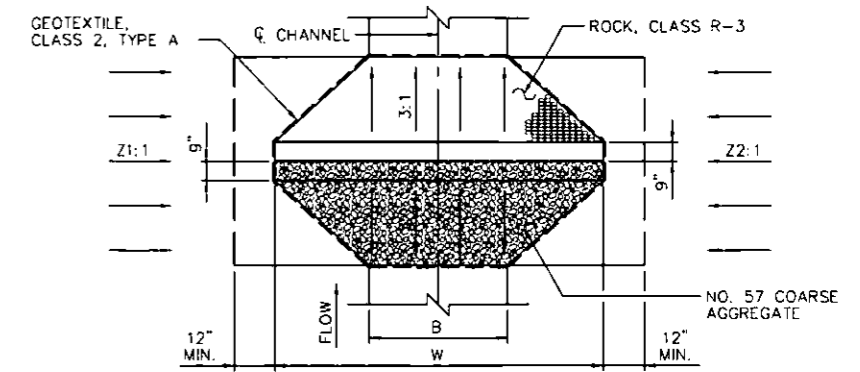
REPAIR AND REPLACEMENT:

ACCESS/STAGING AND STOCKPILE NOTE: ALL VEGETATED SWALES ARE LOCATED WITHIN AMENDED TOPSOIL AREAS. FOR ACCESS, STAGING AND STOCKPILE OF MATERIALS REFER TO DIRECTIONS WITHIN THE AMENDED SOILS BMP SPECIFICATIONS.

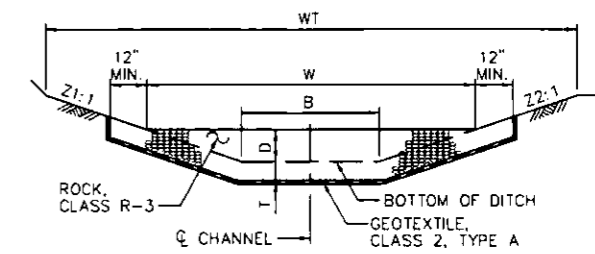
- A. BARE OR SPARSE (< 30% VEGETATED) GROUND COVER
 - 1. SPREAD SEED AS SPECIFIED FOR TYPE AND RATE IN THE PERMANENT SEEDING TABLE USING A HANDHELD OR WALK BEHIND BROADCAST SEEDER. PROVIDE STRAW OR OTHER MOISTURE CONTROL FOR AREAS NOT GROUNDED BY EROSION CONTROL MATTING.
 - 2. PROVIDE EROSION CONTROL MATTING PER DETAIL.
 - 3. INSPECT BI WEEKLY AND WATER AS NEEDED, FOR 3 MONTHS. (WATER TRUCK SHALL REMAIN ON THE VEHICULAR SIDE OF THE GUIDE RAIL, WITH AN ADEQUATE HOSE TO EXTEND TO TREATMENT AREA.
- B. RILLS & GULLIES IN SIDE SLOPES AND CHANNEL BOTTOM.
 - 1. REPAIR SOIL ZONE AND SEEDING PER THE AMENDED TOPSOIL INSTALLATION REPAIR.
 - 2. IMMEDIATELY PLACE COMPOST FILTER SOCK SEGMENTS UPSTREAM AND DOWNSTREAM OF DAMAGED ZONE. UPON NEW ESTABLISHMENT OF VEGETATION, REMOVE TEMPORARY CONTROLS.
- C. ACCUMULATED SEDIMENT AT CHECK DAM
 - 1. REMOVE AND REPLACE INDIVIDUAL CHECK DAMS PER THE CHECK DAM INSTALLATIONS INSTRUCTION AND DETAILS.
- D. BMP FAILURE:
 - 1. REMOVE CHECKDAMS ALONG ENTIRE CHANNEL AND RECONSTRUCT PER THE SEQUENCE OF INSTALLATION.

ACCESS:

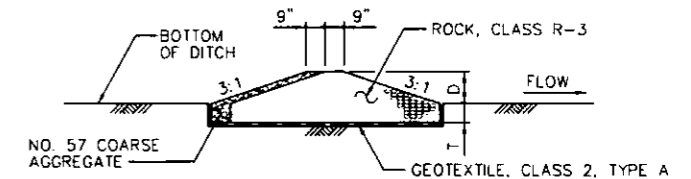
- A. ACCESS TO THE BMP'S SHALL BE FROM THE TURNPIKE MAINLINE. VEHICLES SHALL BE PROPERLY IDENTIFIED WITH CONSTRUCTION FLASHING LIGHTS TURNED ON THROUGHOUT. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE ACCESS POINTS.
 - FOR BMP'S LOCATED IN NORTHWEST QUADRANT - VEHICLES SHALL PARK AT WESTBOUND MILE POINT 228.1
 - FOR BMP'S LOCATED IN SOUTHWEST QUADRANT - VEHICLES SHALL PARK AT EASTBOUND MILE POINT 228.1
 - FOR BMP'S LOCATED IN NORTHEAST QUADRANT - VEHICLES SHALL PARK AT WESTBOUND MILE POINT 229.0
 - FOR BMP'S LOCATED IN SOUTHEAST QUADRANT - VEHICLES SHALL PARK AT EASTBOUND MILE POINT 229.0
- B. FROM THE VEHICLE PARKING, PROCEED TO INDIVIDUAL BMP'S USING EQUIPMENT/VEHICLES AS DESCRIBED UNDER "PROTECTION OF BMP'S AFTER INSTALLATION".



PLAN VIEW



SECTION VIEW



ELEVATION VIEW

VEGETATED SWALE WITH CHECK DAM DETAIL

NO SCALE

- NOTES: 1. CONSTRUCT THE VEGETATED CHANNEL WITH CHECK DAMS IN ACCORDANCE WITH PENNSYLVANIA STORMWATER BEST MANAGEMENT PRACTICES MANUAL, DECEMBER 2006, SECTION 6.4.8, VEGETATED SWALES;
2. TEMPORARY LINING SHALL CONFORM TO SECTION 806.2. THE TEMPORARY LINING SHALL NOT HAVE AN UNVEGETATED SHEAR STRESS AND VELOCITY OF 1.75 PSF AND 6.00 FPS, RESPECTIVELY.

VEGETATED SWALE WITH CHECK DAM DATA & LOCATIONS

VEGETATED SWALE	ROAD	STATION	OFFSET (€ CHANNEL)	B (FT)	D (FT)	W (FT)	WT (FT)	SWALE SLOPE (%)	Z1	Z2	T (FT)	NUMBER OF DAMS	DAM SPACING (FT)	LENGTH (FT)
1.1	PTC EB 103	91+85.00	79.00' RT.	6.00	0.50	9.00	17.00	0.86	3.00	3.00	0.50	6	63.00	330.00
2.1		103+39.00	112.00' RT.	4.00	0.50	7.00	15.00	2.20	3.00	3.00	0.50	13	23.00	280.00
3.1		109+50.00	101.00' LT.	4.00	0.50	7.00	15.00	0.50	3.00	3.00	0.50	3	100.00	300.00
4.1		116+08.00	89.00' RT.	4.00	0.33	6.00	15.00	3.75	3.00	3.00	0.50	37	9.00	326.00
5.1		123+79.00	89.00' RT.	6.00	1.00	12.00	19.50	2.00	3.00	3.00	0.50	3	50.00	150.00
6.1		128+26.00	71.00' RT.	6.00	0.75	10.50	19.50	1.80	3.00	3.00	0.50	8	41.00	325.00
6.2		125+65.00	85.00' RT.	6.00	0.75	10.50	19.50	0.50	3.00	3.00	0.50	2	150.00	200.00
7.1		129+00.00	76.00' LT.	6.00	0.67	10.00	18.00	0.50	3.00	3.00	0.50	4	134.00	242.00
7.2		127+30.00	82.00' LT.	6.00	0.67	10.00	18.00	4.00	3.00	3.00	0.50	6	16.75	100.00
7.3		126+13.00	87.00' LT.	6.00	0.67	10.00	18.00	0.50	3.00	3.00	0.50	1	134.00	134.00

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN DETAILS
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NETWORK NUMBER: 7003982		
			FILE NAME: SWMd101.dgn		
			DRAWING TYPE: 1V		
			STRUCTURE NUMBER: EB-103		
			SCALE:	DISTRICT: 3	COUNTY: CUMBERLAND
				TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 1 OF 4
					SHEET: 132 OF 315

STRUCTURAL BMP 6.7.3 SOIL AMENDMENTSPECIFICATIONS:SCOPE:

- A. THIS SPECIFICATION COVERS THE USE OF COMPOST FOR SOIL AMENDMENT AND THE MECHANICAL RESTORATION OF COMPACTED, ERODED AND UN-VEGETATED SOILS. SOIL AMENDMENT AND RESTORATION IS NECESSARY WHERE EXISTING SOIL HAS BEEN DEEMED UNHEALTHY IN ORDER TO RESTORE SOIL STRUCTURE AND FUNCTION, INCREASE INFILTRATION POTENTIAL AND SUPPORT HEALTHY VEGETATIVE COMMUNITIES.
- B. SOIL AMENDMENT PREVENTS AND CONTROLS EROSION BY ENHANCING THE SOIL SURFACE TO PREVENT THE INITIAL DETACHMENT AND TRANSPORT OF SOIL PARTICLES.
- C. METHOD OF SOIL AMENDMENT INSTALLATION IS DEPENDENT ON THE SURFACE CONDITION OF THE FINAL PROJECT GRADING.
- D. FOR AREAS LOCATED IN DISTURBED AREAS THAT MAINTAIN THE EXISTING CONTOURS (+OR- 6"), SOIL AMENDMENT INSTALLATION SHALL BE BY "COMPOST SOIL AMENDMENT RESTORATION" SPECIFICATION.
- E. FOR AREAS LOCATED IN EMBANKMENT FILL SLOPES, SOIL AMENDMENT INSTALLATION SHALL BE BY "SUB-SOILING TO RELIEVE COMPACTION METHODOLOGY." UPON COMPLETION OF EMBANKMENT CONSTRUCTION TO 6" BELOW FINAL GRADE, CONTRACTOR SHALL TREAT THE EMBANKMENT SURFACE PER "SUBSOILING TO RELIEVE COMPACTION METHOD. UPON COMPLETION THE FINAL 6" SURFACE LAYER OF TOPSOIL PLACEMENT SHALL BE APPLIED. THE FINAL LAYER OF TOPSOIL SHALL BE MIXED WITH COMPOST AT A 2:1 RATE PRIOR TO PLACEMENT.

COMPOST MATERIALS:

- A. COMPOST PRODUCTS SPECIFIED FOR USE IN THIS APPLICATION ARE DESCRIBED IN TABLE 1.
- B. ONLY COMPOST PRODUCTS THAT MEET ALL APPLICABLE STATE AND FEDERAL REGULATIONS PERTAINING TO ITS PRODUCTION AND DISTRIBUTION MAY BE USED IN THIS APPLICATION. APPROVED COMPOST PRODUCTS MUST MEET RELATED STATE AND FEDERAL CHEMICAL CONTAMINANT (E.G., HEAVY METALS, PESTICIDES, ETC.) AND PATHOGEN LIMIT STANDARDS PERTAINING TO THE FEEDSTOCKS (SOURCE MATERIALS) IN WHICH IT IS DERIVED.
- C. COMPOST SHALL BE CERTIFIED BY THE U.S. COMPOSTING COUNCIL'S SEAL OF TESTING (STA) PROGRAM (WWW.COMPOSTINGCOUNCIL.ORG).

SUB-SOILING TO RELIEVE COMPACTION:

- A. BEFORE THE TIME THE COMPOST IS PLACED AND PREFERABLY WHEN EXCAVATION IS COMPLETED, THE SUBSOIL SHALL BE IN A LOOSE, FRIABLE CONDITION TO A DEPTH OF 20 INCHES BELOW FINAL TOPSOIL GRADE AND THERE SHALL BE NO EROSION RILLS OR WASHOUTS IN THE SUBSOIL SURFACE EXCEEDING 3 INCHES IN DEPTH.
- B. TO ACHIEVE THIS CONDITION, SUBSOILING, RIPPING, OR SCARIFICATION OF THE SUBSOIL WILL BE REQUIRED AS DIRECTED BY THE OWNER'S REPRESENTATIVE, WHEREVER THE SUBSOIL HAS BEEN COMPACTED BY EQUIPMENT OPERATION OR HAS BECOME DRIED OUT AND CRUSTED, AND WHERE NECESSARY TO OBLITERATE EROSION RILLS.
- C. SUBSOILED AREAS SHALL BE LOOSENED TO LESS THAN 1400 KPA (200 PSI) TO A DEPTH OF 20 INCHES BELOW FINAL TOPSOIL GRADE. WHEN DIRECTED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL VERIFY THAT THE SUBSOILING WORK CONFORMS TO THE SPECIFIED DEPTH.
- D. SUB-SOILING SHALL FORM A TWO-DIRECTIONAL GRID. CHANNELS SHALL BE CREATED BY A COMMERCIALY AVAILABLE, MULTI-SHANKED, PARALLELOGRAM IMPLEMENT (SOLID-SHANK RIPPER). THE EQUIPMENT SHALL BE CAPABLE OF EXERTING A PENETRATION FORCE NECESSARY FOR THE SITE.
- E. EXCEPTIONS TO SUB-SOILING INCLUDE AREAS WITHIN THE DRIP LINE OF ANY EXISTING TREES, OVER UTILITY INSTALLATIONS WITHIN 30 INCHES OF THE SURFACE, WHERE TRENCHING/DRAINAGE LINES ARE INSTALLED, WHERE COMPACTION IS BY DESIGN (ABUTMENTS, FOOTINGS, OR IN SLOPES), AND ON INACCESSIBLE SLOPES, AS APPROVED BY THE OWNER'S REPRESENTATIVE. IN CASES WHERE EXCEPTIONS OCCUR, THE CONTRACTOR SHALL OBSERVE A MINIMUM SETBACK OF 20 FEET OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

COMPOST SOIL AMENDMENT INSTALLATION:

- A. SPREAD 2-3 INCHES OF APPROVED COMPOST ON SOIL. TILL ADDED SOIL INTO EXISTING SOIL WITH A ROTARY TILLER THAT IS SET TO A DEPTH OF 6 INCHES. ADD ADDITIONAL COMPOST TO BRING THE AREA UP TO GRADE.

- B. IMMEDIATELY STABILIZE FINAL SURFACE WITH SEEDING/PLANTINGS AS INDICATED IN THE PCSM DETAILS

SEQUENCE OF INSTALLATION FOR INDIVIDUAL BMP:

- A. ALL CONSTRUCTION SHOULD BE COMPLETED AND STABILIZED BEFORE BEGINNING SOIL RESTORATION. ONLY THAT WORK WHICH CAN BE STABILIZED ON THE SAME DAY SHALL BE PERFORMED. CONSTRUCTION SHALL PROCEED IN STAGES DIVIDED BY BRIDGE QUADRANT, WITH WORK STARTING AT THE AREAS CLOSEST TO THE BRIDGE STRUCTURE AND MOVING IN AN OUTWARD DIRECTION TOWARD THE ACCESS POINTS AT THE OUTSIDE LIMITS OF CONSTRUCTION.
- B. REMOVE ANY TEMPORARY MATTING AND PLANT COVER THAT WAS APPLIED AS TEMPORARY GROUND COVER FOR STABILIZATION.
- C. FOR AREAS ON STEEP SLOPES AND WHERE COMPACTION IS BY DESIGN - SPREAD 2-3 INCHES OF APPROVED COMPOST ON EXISTING SOIL. TILL ADDED SOIL INTO EXISTING SOIL WITH A ROTARY TILLER THAT IS SET TO A DEPTH OF 6 INCHES. ADD ADDITIONAL APPROVED COMPOST TO BRING THE AREA UP TO GRADE.
- D. FOR AREAS ON COMPACTED EXISTING GRADE - PREPARE GRADE AS DESCRIBED IN "SUBSOILING TO RELIEVE COMPACTION" IMMEDIATELY PLACE 6" LAYER OF TOPSOIL/COMPOST MIX.
- E. IMMEDIATELY STABILIZE FINAL SURFACE WITH SEEDING/PLANTINGS AND EROSION CONTROL MATTING AS PROVIDED.

SPECIFICATIONS (CONTINUED):SEQUENCE OF INSTALLATION FOR INDIVIDUAL BMP (CONTINUED):

- F. DURING REMOVAL OF ANY TEMPORARY E&S CONTROLS WHICH HAVE REMAINED IN PLACE UNTIL THE END OF THE PROJECT, CARE SHOULD BE TAKEN TO AVOID WORK IN THE AMENDED SOIL AREAS. AMENDED SOILS SHALL BE INSPECTED AND REPAIRED AS NEEDED PER THE OWNERSHIP, OPERATIONS AND MAINTENANCE NOTES, FOLLOWING COMPLETION OF THE E&S SEQUENCE PHASE II.
- G. **CRITICAL STAGES OF BMP INSTALLATION INCLUDE: AT TIME OF INSTALLATION OF AMENDED TOPSOIL INSPECTOR SHALL BE ONSITE TO VERIFY PLACEMENT AND PROCESS. INSPECTOR SHALL ALSO RECEIVE CERTIFICATION OF MATERIALS EQUAL TO SPECIFICATION PROVIDED. PROTECTION SHALL BE PROVIDED FOR INFILTRATION BMPS UNTIL DRAINAGE AREAS ARE COMPLETELY STABILIZED (NO INFILTRATION BMPS PROPOSED).**

DIRECTIONS FOR PROTECTION OF BMP AFTER INSTALLATION:

- A. THE BMP'S HAVE BEEN LOCATED IN AN AREA INACCESSIBLE BY THE PUBLIC, AS THE BMP'S ARE BORDERED BY GUIDERAIL TOWARD THE INTERIOR ROADWAY OF THE SITE, AND RIGHT OF WAY FENCING AT THE EXTERIOR OF THE SITE.
- B. A SET OF PCSM PLANS SHALL BE POSTED AT THE MAINTENANCE FACILITY RESPONSIBLE FOR THE PROJECT AREA.
- C. MAINTENANCE CREWS ACCESSING THE BMP'S SHALL PROCEED ON LIGHT DUTY VEHICLES (I.E. GOLF CARTS AND RIDING MOWERS) LARGER VEHICLES SHALL BE TRACKED. WHERE ACCESS OF LARGER VEHICLES IS NECESSARY FOR MAINTENANCE OF OTHER TURNPIKE FACILITIES, ANY DAMAGED BMP'S SHALL BE REPAIRED PER THE OWNERSHIP OPERATION AND MAINTENANCE INSTRUCTIONS

INSPECTION FREQUENCY:

- A. INSPECTIONS SHALL BE PERFORMED TWICE ANNUALLY, AT THE BEGINNING AND ENDING OF EACH GROWING SEASON, PREFERABLY IN THE MONTHS OF MARCH & SEPTEMBER.

INSPECTION SCHEDULE:

- A. PERFORM A WALKTHROUGH OF THE PERIMETER OF EACH BMP. MAKE NOTES FOR ANY OF THE FOLLOWING ENCOUNTERED. FOR EASE OF REFERENCE DURING REPAIRS AND MAINTENANCE INDICATE MILE MARKER STATION AND OFFSET FROM BACK OF GUIDERAIL:
 - TIRE RUTTING OR OTHER UNEVEN SURFACE INDICATING COMPACTION.
 - BARREN OR SPARSELY VEGETATED AREAS.
 - SLOUGHING OF SLOPES OR ENCRACEMENT OF ROCK ARMORING OR ROAD DEBRIS ONTO AMENDED SOILS AREA.
 - TRASH OR OTHER DEBRIS OR POLLUTANTS.
- B. NOTE THE PRIOR INSPECTION REPORT INDICATIONS OF NECESSARY REPAIRS AND MAINTENANCE AND CONFIRM THE ITEMS HAVE BEEN COMPLETED.
- C. UPON COMPLETION OF FIELD INSPECTION PREPARE A WRITTEN REPORT DOCUMENTING THE INSPECTION DATE, ANY NOTES FROM THE WALKTHROUGH, CONFIRMATION OF PAST SCHEDULED REPAIRS AND ROUTINE MAINTENANCE AND ANY ADDITIONAL REPAIRS NECESSARY.

ROUTINE MAINTENANCE:

- A. AMENDED SOILS AREA SHALL BE MOWED A MINIMUM OF TWICE ANNUALLY. LARGE TRACTORS WITH MOWER ATTACHMENTS SHALL NOT BE USED IN THE AMENDED SOILS AREAS, DUE TO CONCERNS REGARDING COMPACTION OF THE SOIL.
- B. ANNUALLY BETWEEN THE MONTHS OF AUGUST AND NOVEMBER CORE AERATION OF THE AMENDED SOILS AREA SHALL BE PROVIDED.
- C. TWICE ANNUALLY THE SITE SHALL BE CLEARED OF TRASH AND DEBRIS
- D. TURNPIKE MAINTENANCE CREWS SHALL KEEP AN ANNUAL MAINTENANCE LOG, INDICATING THE ABOVE ITEMS HAVE BEEN COMPLETED, FOR REVIEW DURING BI-ANNUAL INSPECTIONS ABOVE.

REPAIR AND REPLACEMENT:

- A. BARE OR SPARSE (< 30% VEGETATED) GROUND COVER
 1. SPREAD SEED AS SPECIFIED FOR TYPE AND RATE IN THE PERMANENT SEEDING TABLE USING A HANDHELD OR WALK BEHIND BROADCAST SEEDER. PROVIDE STRAW OR OTHER MOISTURE CONTROL FOR AREAS NOT GROUNDED BY EROSION CONTROL MATTING.
 2. FOR AREAS LOCATED ON STEEP SLOPES, PROVIDE EROSION CONTROL MATTING PER DETAIL.
 3. INSPECT BI-WEEKLY AND WATER AS NEEDED. FOR 3 MONTHS (WATER TRUCK SHALL REMAIN ON THE VEHICULAR SIDE OF THE GUIDE RAIL, WITH AN ADEQUATE HOSE TO EXTEND TO TREATMENT AREA.
- B. MINOR COMPACTION (COMPACTED AREAS < 3" RUTTED COVERING LESS THAN 1000 SF)
 1. PERFORM CORE AERATION OF RUTTED AREA.
 2. SMOOTH OUT RUTTED AREA USING SPREAD COMPOST. OVERSEED AREA.
- C. CONTAMINATED SOILS / SLOPE FAILURE / MAJOR COMPACTION (COMPACTED AREAS >3" DEEP AND OVER 1000 SF)
 1. SET UP A STAGING AND STORAGE ZONE OUTSIDE OF THE AMENDED SOILS AREA FOR STOCKPILING OF ALL NECESSARY MATERIALS.
 2. USING LIGHTWEIGHT TRACKED VEHICLES ONLY, EXCAVATE A MINIMUM OF 20" BELOW EXISTING GRADE.
 3. CONSTRUCT AMENDED SOILS PER THE CONSTRUCTION SEQUENCE AND SPECIFICATIONS INDICATED IN THIS PLAN.
 4. UPON COMPLETION OF WORK, PATH USED TO ACCESS THE AMENDED SOILS SHALL BE INSPECTED FOR MINOR COMPACTION, AND REPAIRED PER THE MINOR COMPACTION SPECIFICATIONS ABOVE.

COMPOST SPECIFICATION		
PARAMETER	RANGE	TESTING METHOD
pH	5.0 - 8.5	TMECC 4.11-A
SOLUBLE SALT CONCENTRATION	< 10 dS/m	TMECC 4.10-A
MOISTURE	30-60% WET WEIGHT BASIS	SMEWW 2540B
ORGANIC MATTER	30-65% WET WEIGHT BASIS	TMECC 5.07-A
PARTICLE SIZE	98% PASS THROUGH 3/4" SCREEN OR SMALLER	TMECC 2.02-B
STABILITY (CARBON DIOXIDE EVOLUTION RATE)	>80% RELATIVE TO POSITIVE CONTROL	TMECC 5.08-B
MATURITY (SEED EMERGENCE AND SEEDLING VIGOR)	>80% RELATIVE TO POSITIVE CONTROL	TMECC 5.05-A
PHYSICAL CONTAMINANTS (MAN MADE INERTS)	<1% DRY WEIGHT BASIS	TMECC 3.08-A
CHEMICAL CONTAMINANTS	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR § 503.13, TABLES 1 AND 3 LEVELS:	
ARSENIC	< 41 ppm	TMECC 4.06-AS
CADMIUM	< 39 ppm	TMECC 4.06-CD
COPPER	< 1,500 ppm	TMECC 4.05-CU
LEAD	< 300 ppm	TMECC 4.06-PB
MERCURY	< 17 ppm	TMECC 4.06-HG
MOLYBDENUM	< 75 ppm	TMECC 4.05-MO
NICKEL	< 420 ppm	TMECC 4.06-NI
SELENIUM	< 100 ppm	TMECC 4.06-SE
ZINC	< 2,800 ppm	TMECC 4.06-ZN
BIOLOGICAL CONTAMINANTS (PATHOGENS)	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR § 503.32 (a) LEVELS:	
FECAL COLIFORM	< 1,000 MPN PER GRAM, DRY WEIGHT BASIS	TMECC 7.01
SALMONELLA	< 3 MPN PER 4 GRAMS, DRY WEIGHT BASIS	TMECC 7.02

ACCESS:

- A. ACCESS TO THE BMP'S SHALL BE FROM THE TURNPIKE MAINLINE. VEHICLES SHALL BE PROPERLY IDENTIFIED WITH CONSTRUCTION FLASHING LIGHTS TURNED ON THROUGHOUT. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE ACCESS POINTS.
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- B. FROM THE VEHICLE PARKING, PROCEED TO INDIVIDUAL BMP'S USING EQUIPMENT/VEHICLES AS DESCRIBED UNDER "PROTECTION OF BMP'S AFTER INSTALLATION".

DATE: 7/12/2016

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PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE:

WBS NO.
T-228.54S001-3-02

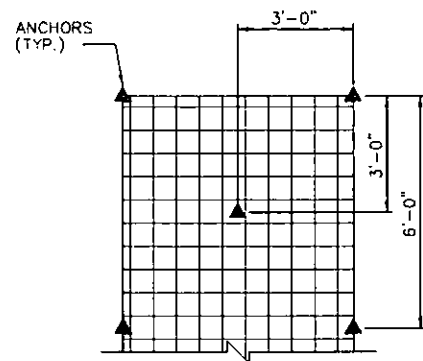
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DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

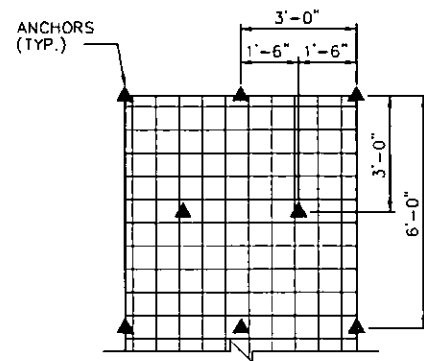
**POST CONSTRUCTION
STORMWATER MANAGEMENT PLAN DETAILS**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

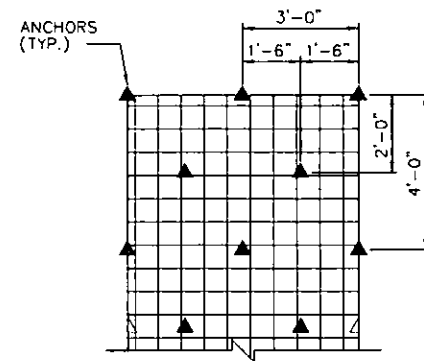
DRAWING: 2 OF 4
SHEET: 133 OF 315



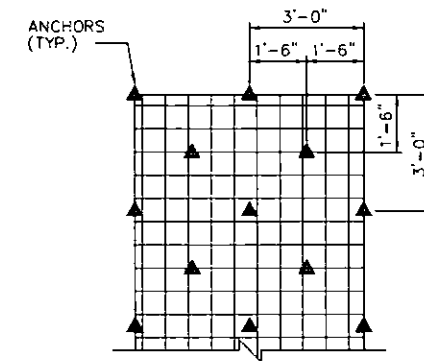
**ANCHOR PATTERN FOR SLOPES
FLATTER THAN 3:1
(LESS THAN 3:1)**
PLACE 1 ANCHOR/SY



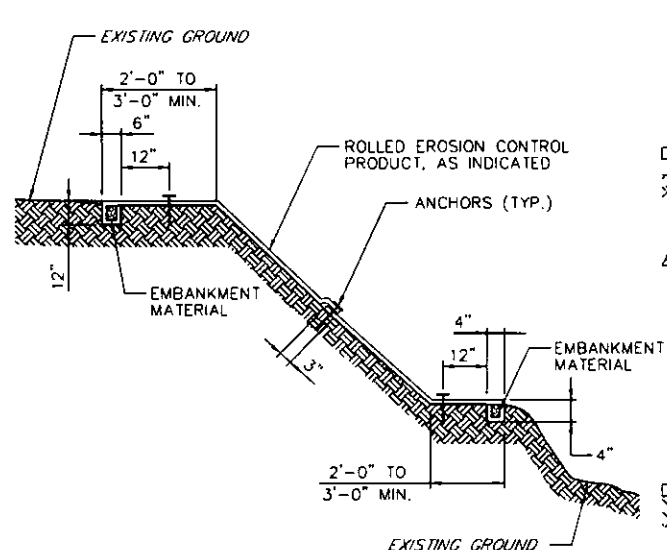
**ANCHOR PATTERN FOR SLOPES
BETWEEN 3:1 AND 2:1
(INCLUDING 3:1)**
PLACE 1 ANCHOR/SY



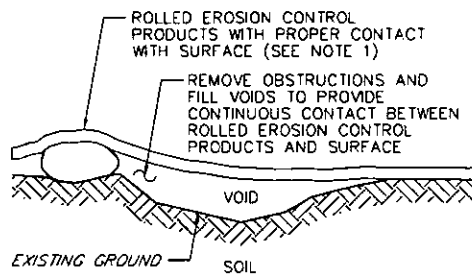
**ANCHOR PATTERN FOR SLOPES
BETWEEN 2:1 AND 1:1
(INCLUDING 2:1)**
PLACE 2 ANCHORS/SY



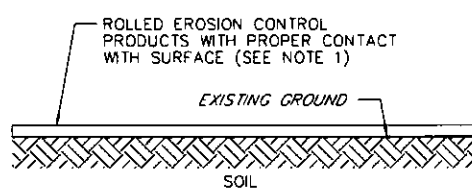
**ANCHOR PATTERN FOR SLOPES
GREATER THAN 1:1
(INCLUDING 1:1)**
PLACE 2 ANCHORS/SY



TYPICAL SLOPE CROSS-SECTION



**FIGURE 1
LACK OF CONTINUOUS CONTACT**

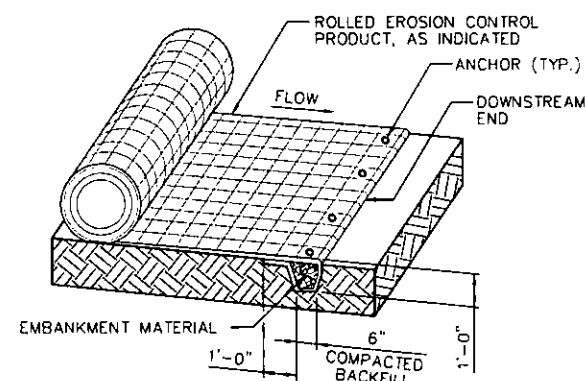


**FIGURE 2
CONTINUOUS CONTACT**

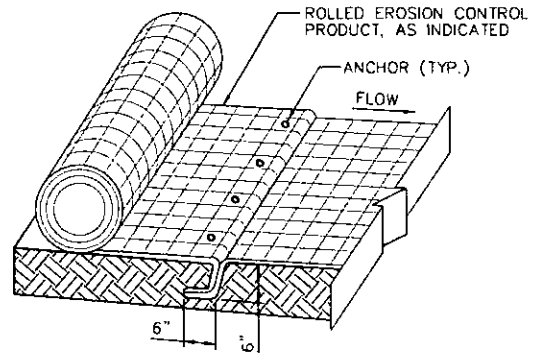
EROSION CONTROL MULCH BLANKET DETAIL

NO SCALE
ITEM 2806-0051

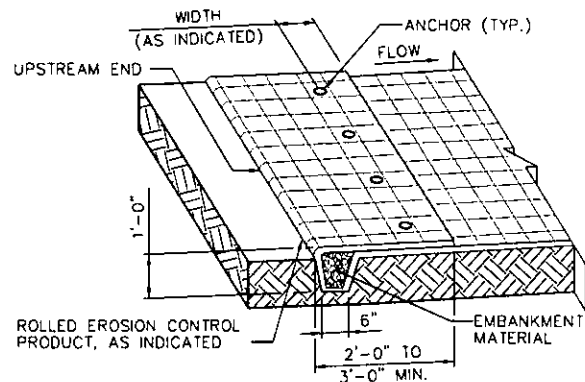
- NOTES: 1. MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
2. SLOPE SURFACE SHALL BE SMOOTH AND FREE OF ROCKS, LUMPS OF DIRT, GRASS AND STICKS. ESTABLISH AND MAINTAIN CONTINUOUS CONTACT BETWEEN THE ROLLED EROSION CONTROL PRODUCTS AND THE SOIL.
3. PROVIDE ANCHORING DEVICES IN ACCORDANCE WITH PUBLICATION 40B, SECTION 806.2(d).
4. EROSION CONTROL BLANKET SHALL BE FROM A MANUFACTURER LISTED IN PENNDOT BULLETIN 15, SECTION 806.2.
5. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



INITIAL ANCHOR TRENCH
SEE INSTALLATION NOTE 1



INTERMITTENT CHECK SLOT
SEE INSTALLATION NOTE 2



TERMINAL ANCHOR TRENCH
SEE INSTALLATION NOTES 3 & 4

EROSION CONTROL MULCH BLANKET INSTALLATION

NO SCALE

INSTALLATION NOTES

- EXCAVATE INITIAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO PREVENT UNDERMINING OF THE ROLLED EROSION CONTROL PRODUCTS.
- EXCAVATE INTERMITTENT CHECK SLOT 6" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL AT 25'-0" TO 30'-0" ALONG THE LENGTH OF THE ROLLED EROSION CONTROL PRODUCTS TO PREVENT LOOSE SOIL FROM BEING TRANSPORTED DOWNSTREAM BENEATH THE ROLLED EROSION CONTROL PRODUCTS.
- EXCAVATE TERMINAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO ENSURE WATER FLOW TRANSITIONS SMOOTHLY ONTO THE ROLLED EROSION CONTROL PRODUCTS WITHOUT SEPARATION FROM THE SOIL.
- EXTEND ROLLED EROSION CONTROL PRODUCTS 2'-0" TO 3'-0" ABOVE THE CREST OF CHANNEL SIDE WHENEVER POSSIBLE.

DATE: 7/12/2016

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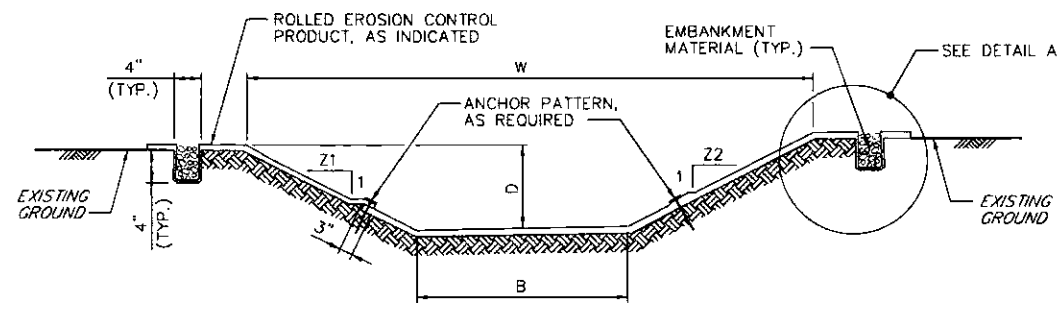
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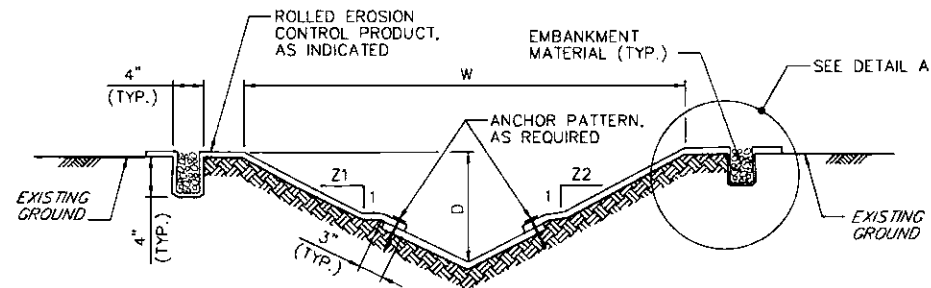
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TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**POST CONSTRUCTION
STORMWATER MANAGEMENT PLAN DETAILS**

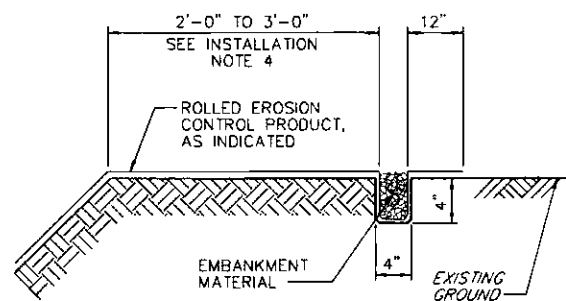
DRAWING: 3 OF 4
SHEET: 134 OF 315



TYPICAL TRAPEZOIDAL CHANNEL SECTION
SEE INSTALLATION NOTE 1



TYPICAL V-DITCH SECTION
SEE INSTALLATION NOTE 1



DETAIL A

SEE INSTALLATION NOTE 4

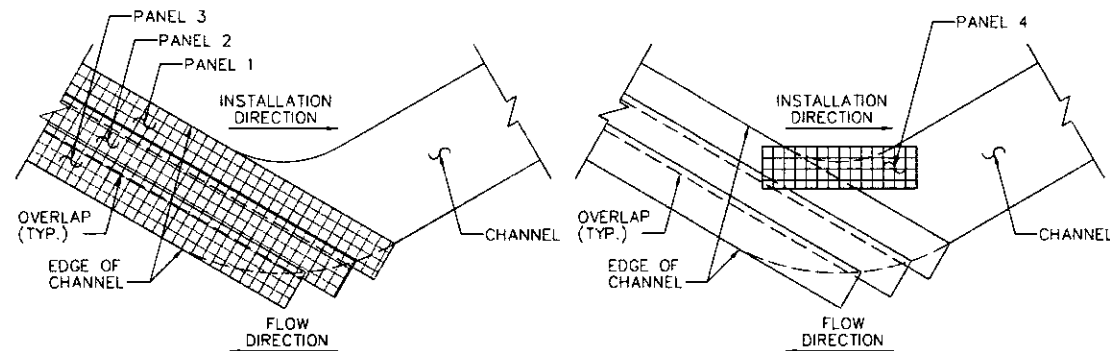
EROSION CONTROL MULCH BLANKET CHANNEL DETAIL

NO SCALE
ITEM 2806-0051

- NOTES:
1. MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
 2. SLOPE SURFACE SHALL BE SMOOTH AND FREE OF ROCKS, LUMPS OF DIRT, GRASS AND STICKS. ESTABLISH AND MAINTAIN CONTINUOUS CONTACT BETWEEN THE ROLLED EROSION CONTROL PRODUCTS AND THE SOIL.
 3. PROVIDE ANCHORING DEVICES IN ACCORDANCE WITH PUBLICATION 408, SECTION 806 2(d).
 4. EROSION CONTROL BLANKET SHALL BE FROM A MANUFACTURER LISTED IN PENNDOT BULLETIN 15, SECTION 806 2.
 5. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

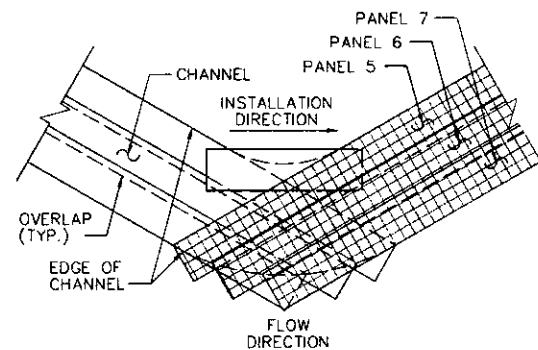
INSTALLATION NOTES

1. EXCAVATE INITIAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO PREVENT UNDERMINING OF THE ROLLED EROSION CONTROL PRODUCTS.
2. EXCAVATE INTERMITTENT CHECK SLOT 6" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL AT 25'-0" TO 30'-0" ALONG THE LENGTH OF THE ROLLED EROSION CONTROL PRODUCTS TO PREVENT LOOSE SOIL FROM BEING TRANSPORTED DOWNSTREAM BENEATH THE ROLLED EROSION CONTROL PRODUCTS.
3. EXCAVATE TERMINAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO ENSURE WATER FLOW TRANSITIONS SMOOTHLY ONTO THE ROLLED EROSION CONTROL PRODUCTS WITHOUT SEPARATION FROM THE SOIL.
4. EXTEND ROLLED EROSION CONTROL PRODUCTS 2'-0" TO 3'-0" ABOVE THE CREST OF CHANNEL SIDE WHENEVER POSSIBLE.



DOWNSTREAM CHANNEL
PANELS 1, 2 & 3

CHANNEL BEND
PANEL 4



UPSTREAM CHANNEL
PANELS 5, 6 & 7

CHANNEL BEND NOTES

1. INSTALL ROLLED EROSION CONTROL PRODUCTS IN STRAIGHT SECTIONS AROUND CHANNEL BEND TO AVOID CURLING OF MAT EDGES. INSTALL ROLLED EROSION CONTROL PRODUCTS STARTING WITH PANEL #1.
2. ESTABLISH AND MAINTAIN CONTINUOUS CONTACT BETWEEN THE ROLLED EROSION CONTROL PRODUCTS AND SOIL SURFACE.
3. INSTALL ROLLED EROSION CONTROL PRODUCTS AS INDICATED.
4. TERMINATE PANELS AT CHANNEL EDGE OR AS DIRECTED BY THE REPRESENTATIVE.

EROSION CONTROL MULCH BLANKET CHANNEL BEND INSTALLATION
NO SCALE

CHANNEL DATA & LOCATIONS												
CHANNEL	STAGES			ROAD	STATIONS	B (FT)	D (FT)	W (FT)	Z1	Z2	TEMPORARY LINING	PERMANENT LINING
	1	2	3									
1.1		X	X	PTC EB-103	93+50.00 TO 90+19.00	6.000	1.833	17.000	3.00	3.00	ECMB	GRASS LINED
2.1		X	X		104+80.00 TO 102+00.00	4.000	1.833	15.000	3.00	3.00	ECMB	GRASS LINED
3.1		X	X		111+00.00 TO 108+10.00	4.000	1.833	15.000	3.00	3.00	ECMB	GRASS LINED
4.1		X	X		117+56.00 TO 114+46.00	4.000	1.833	15.000	3.00	3.00	ECMB	GRASS LINED
5.1		X	X		123+04.00 TO 124+54.00	6.000	2.250	19.500	3.00	3.00	ECMB	GRASS LINED
6.1		X	X		129+88.00 TO 126+64.00	6.000	2.250	19.500	3.00	3.00	ECMB	GRASS LINED
6.2		X	X		126+64.00 TO 124+64.00	6.000	2.250	19.500	3.00	3.00	ECMB	GRASS LINED
7.1		X	X		130+21.00 TO 127+79.00	6.000	2.000	18.000	3.00	3.00	ECMB	GRASS LINED
7.2		X	X		127+79.00 TO 126+80.00	6.000	2.000	18.000	3.00	3.00	ECMB	GRASS LINED
7.3			X		126+80.00 TO 125+46.00	6.000	2.000	18.000	3.00	3.00	ECMB	GRASS LINED

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

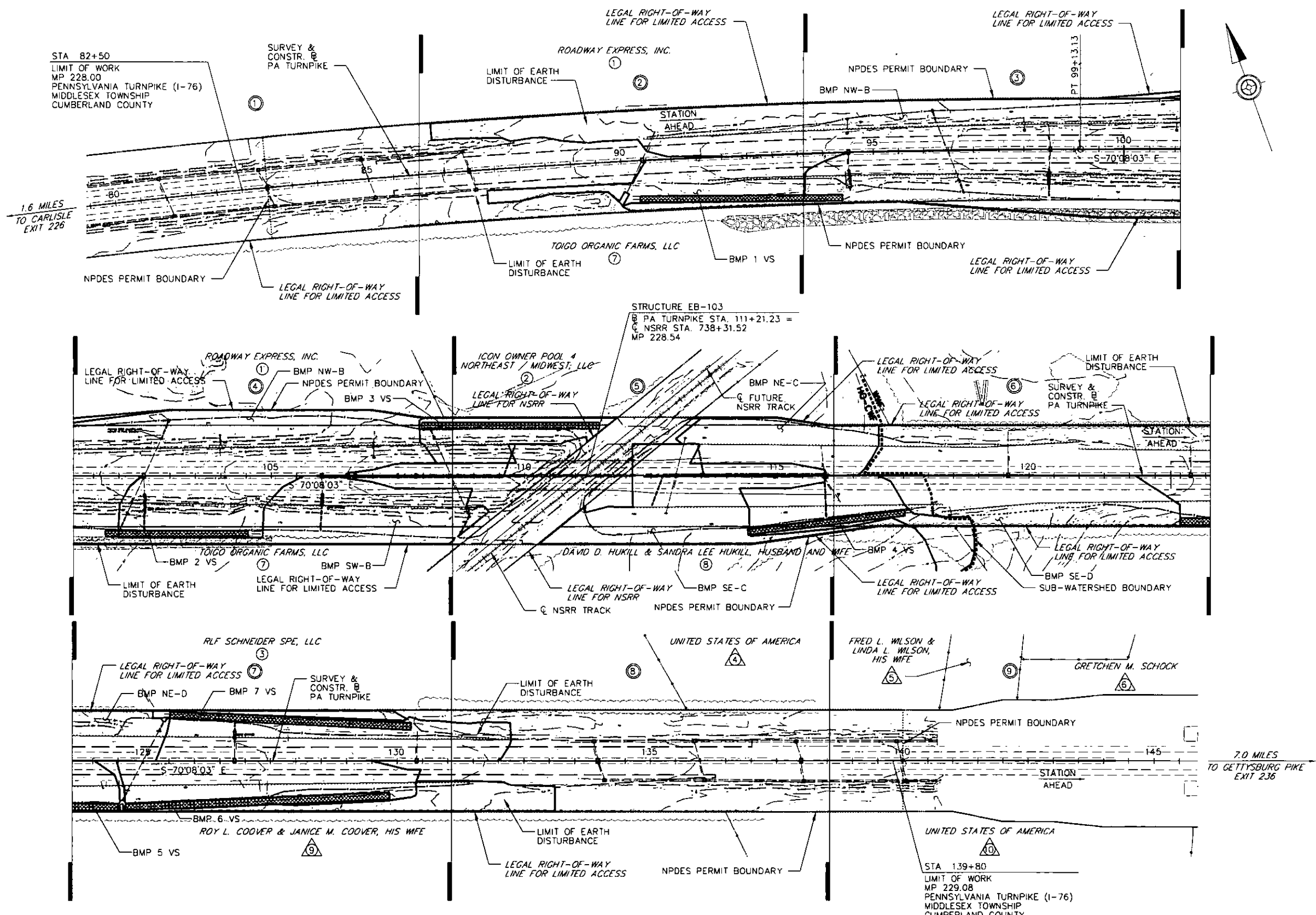
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T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: SWMdt04.dgn
DRAWING TYPE: 1V
STRUCTURE NUMBER: EB-103
SCALE:

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

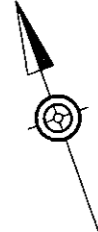
**POST CONSTRUCTION
STORMWATER MANAGEMENT PLAN DETAILS**
DRAWING: 4 OF 4
SHEET: 135 OF 315

LEGEND

- SUB-WATERSHED BOUNDARY
- NPDES PERMIT BOUNDARY
- LIMIT OF EARTH DISTURBANCE
- PARCEL ID NUMBER
- PARCEL ID NUMBER (NO TAKE)
- PLAN DRAWING NUMBER
- BMP DRAINAGE AREA BOUNDARY
- VEGETATED CHANNEL
- AMENDED TOPSOIL



<p>DATE: 7/12/2016</p>	<p>PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050</p> <p>PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION</p>					<p>WBS NO. T-228.54S001-3-02</p> <p>NETWORK NUMBER: 7003982 FILE NAME: SWMid01.dgn DRAWING TYPE: 1V STRUCTURE NUMBER: EB-103</p>	<p>REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54</p>	<p>POST CONSTRUCTION STORMWATER MANAGEMENT PLAN INDEX MAP</p>												
						<p>SCALE:</p>	<p>DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP</p>	<p>DRAWING: 1 OF 1 SHEET: 136 OF 315</p>												
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NO.	REVISIONS	DATE	APPR.																	



ROADWAY EXPRESS, INC.
①

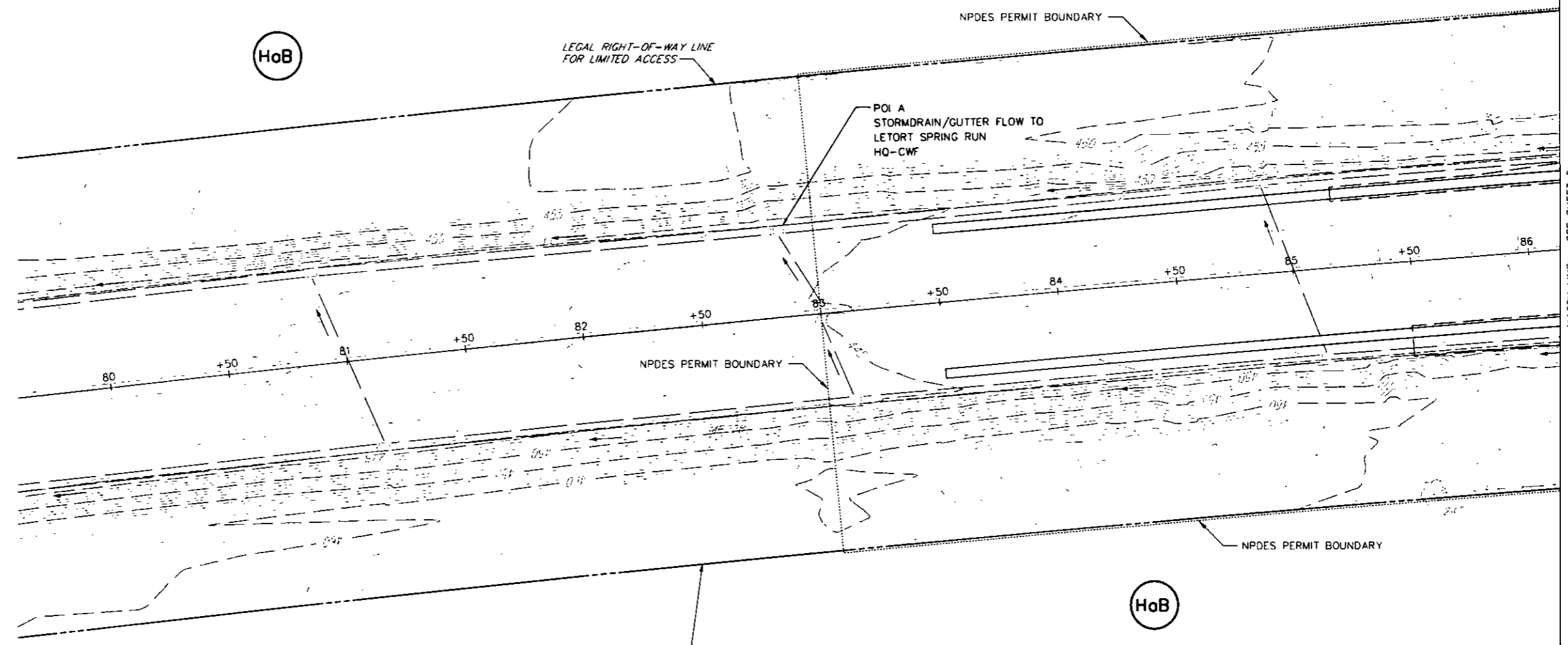
HoB

LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

NPDES PERMIT BOUNDARY

POI A
STORMDRAIN/GUTTER FLOW TO
LETORT SPRING RUN
HQ-CWF

MATCH LINE - SEE SHEET 2



LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

TOIGO ORGANIC FARMS, LLC
②

HoB

LEGEND

- BMP DRAINAGE AREA LINE
- LIMIT OF EARTH DISTURBANCE
- VEGETATED SWALE WITH CHECK DAMS
- AMENDED TOPSOIL
- SUB-WATERSHED DRAINAGE AREA DIVIDE

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050



PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

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WBS NO.
T-228.54S001-3-02

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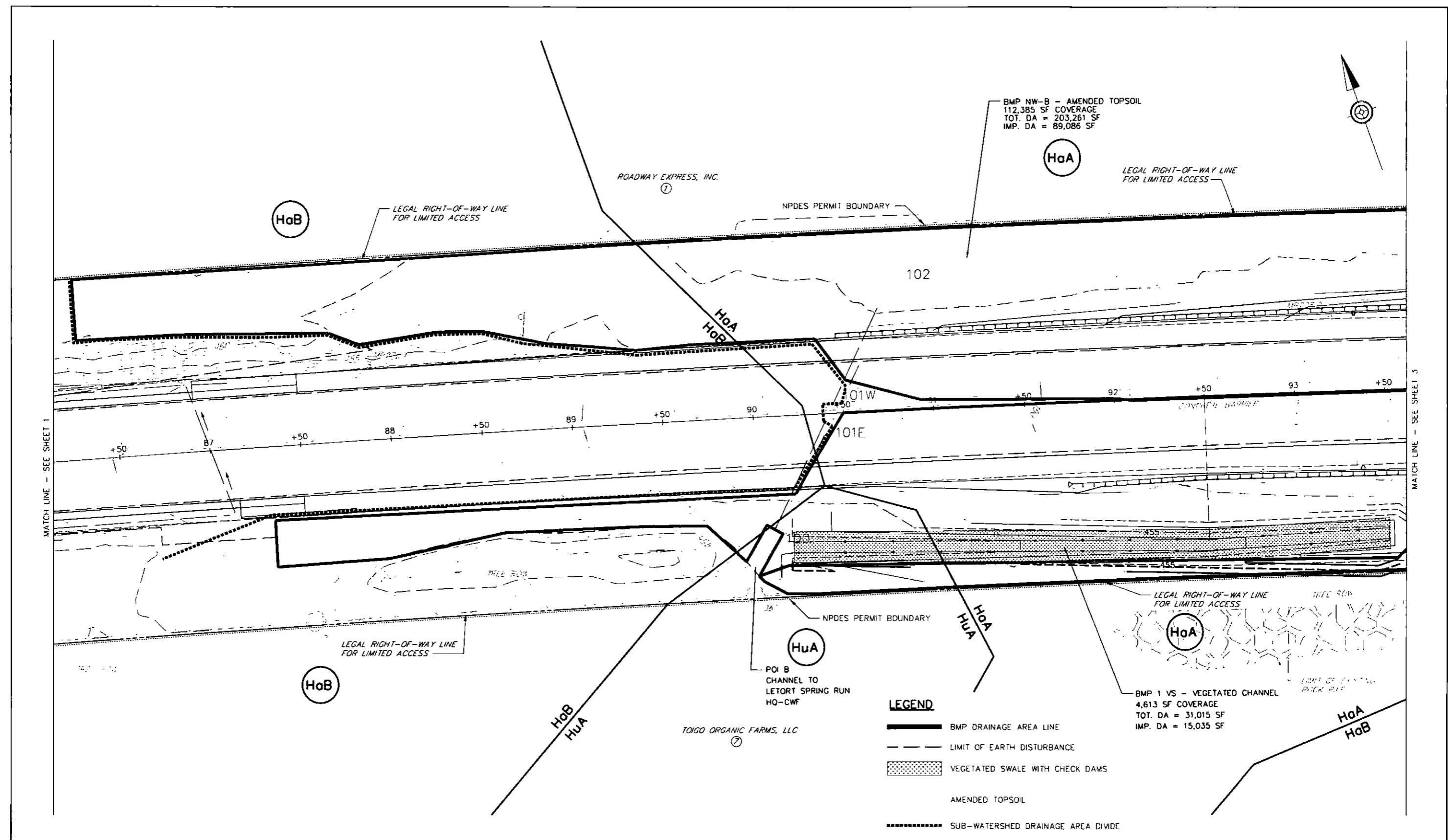
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**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**STORMWATER MANGEMENT
PLAN SHEET**

DRAWING: 1 OF 9
SHEET: 137 OF 315



BMP NW-B - AMENDED TOPSOIL
 112,385 SF COVERAGE
 TOT. DA = 203,261 SF
 IMP. DA = 89,086 SF

LEGAL RIGHT-OF-WAY LINE
 FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE
 FOR LIMITED ACCESS

MATCH LINE - SEE SHEET 1

MATCH LINE - SEE SHEET 3

LEGEND

- BMP DRAINAGE AREA LINE
- LIMIT OF EARTH DISTURBANCE
- VEGETATED SWALE WITH CHECK DAMS
- AMENDED TOPSOIL
- SUB-WATERSHED DRAINAGE AREA DIVIDE

LEGAL RIGHT-OF-WAY LINE
 FOR LIMITED ACCESS

BMP 1 VS - VEGETATED CHANNEL
 4,613 SF COVERAGE
 TOT. DA = 31,015 SF
 IMP. DA = 15,035 SF

POI B
 CHANNEL TO
 LETORT SPRING RUN
 HQ-CWF

LEGAL RIGHT-OF-WAY LINE
 FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE
 FOR LIMITED ACCESS

DATE: 7/12/2016

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 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA. 17050

PREPARED FOR:
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 TURNPIKE COMMISSION



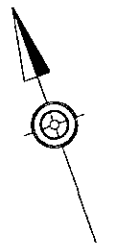
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**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**STORMWATER MANEMENT
 PLAN SHEET**

DRAWING: 2 OF 9
 SHEET: 138 OF 315



ROADWAY EXPRESS, INC.
①

BMP NW-B - AMENDED TOPSOIL (CONTINUED)
112,385 SF COVERAGE
TOT. DA = 203,261 SF
IMP. DA = 89,086 SF

HoA

NPDES PERMIT BOUNDARY

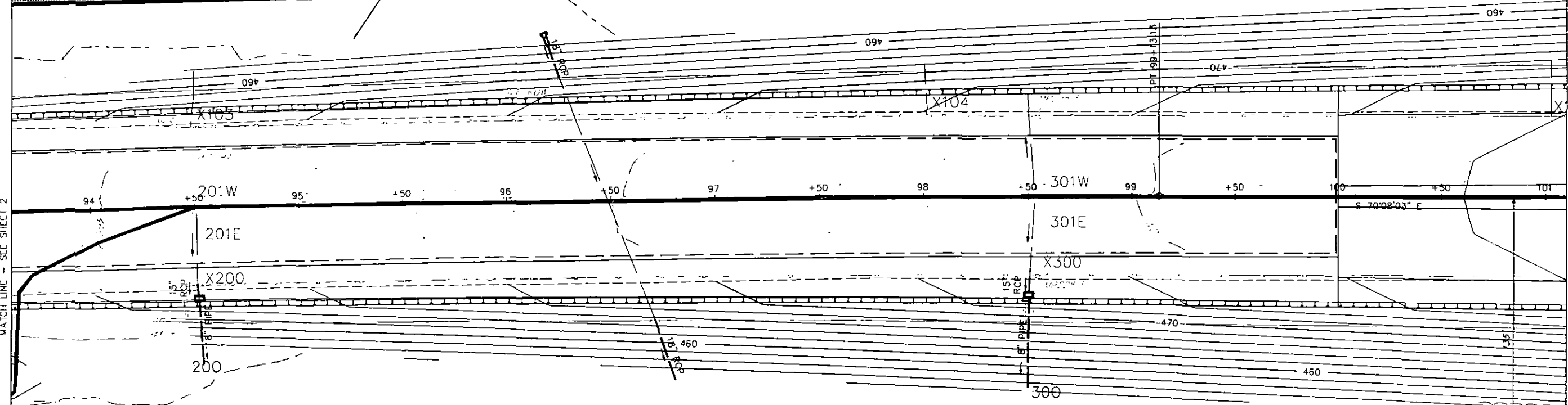
LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

MATCH LINE - SEE SHEET 2

MATCH LINE - SEE SHEET 4



LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

NPDES PERMIT BOUNDARY

HoA
HoB

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

HoA

BMP SW-B - AMENDED TOPSOIL (CONTINUED)
119,715 SF COVERAGE
TOT. DA = 186,701 SF
IMP. DA = 61,848 SF

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS

LEGEND

- BMP DRAINAGE AREA LINE
- LIMIT OF EARTH DISTURBANCE
- VEGETATED SWALE WITH CHECK DAMS
- AMENDED TOPSOIL
- SUB-WATERSHED DRAINAGE AREA DIVIDE

HoB

TOIGO ORGANIC FARMS, LLC
②

DATE: 7/12/2016

PREPARED BY:
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WBS NO.
T-228.54S001-3-02

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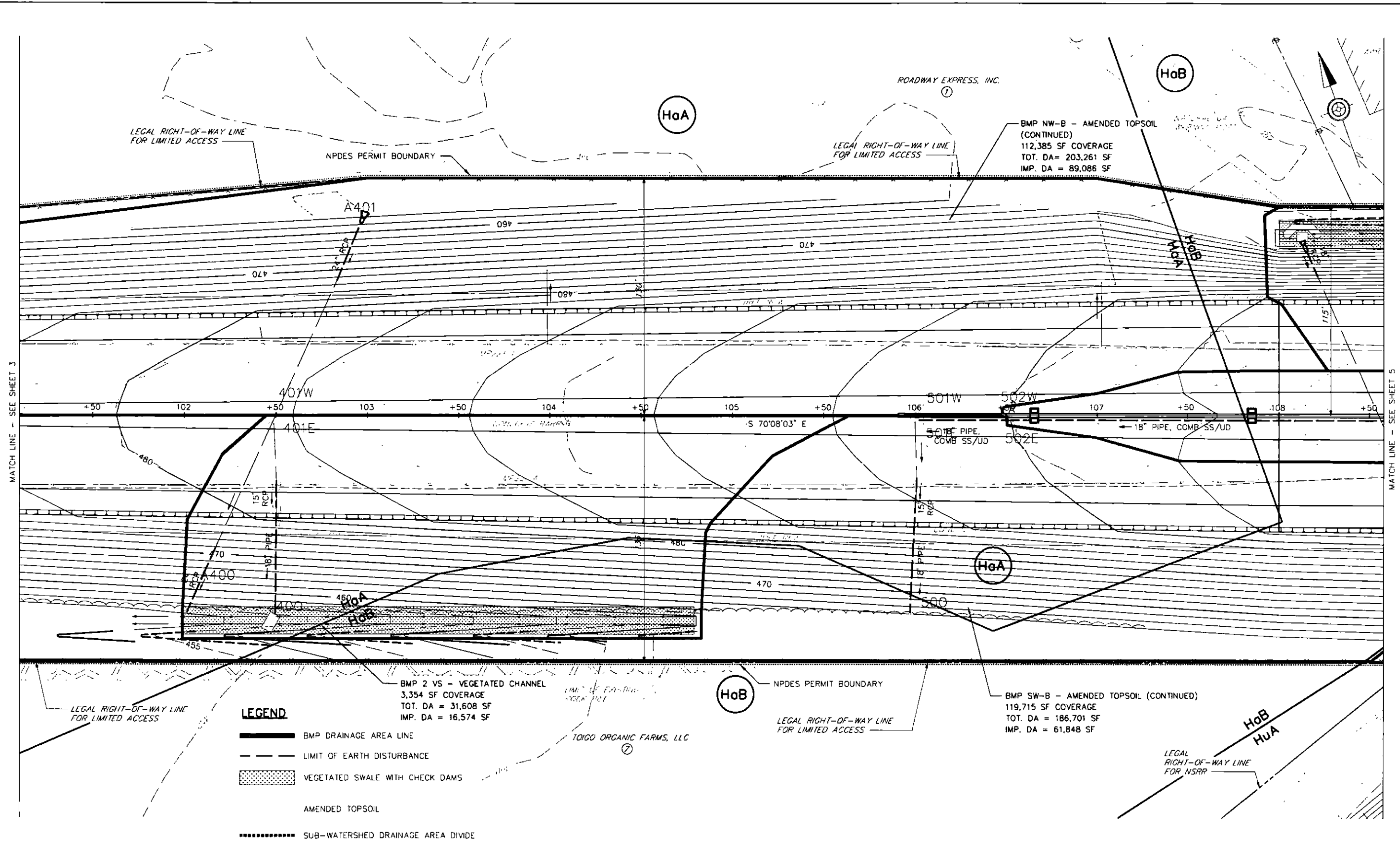
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**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**STORMWATER MANAGEMENT
PLAN SHEET**

DRAWING: 3 OF 9
SHEET: 139 OF 315



- LEGEND**
- BMP DRAINAGE AREA LINE
 - LIMIT OF EARTH DISTURBANCE
 - VEGETATED SWALE WITH CHECK DAMS
 - AMENDED TOPSOIL
 - SUB-WATERSHED DRAINAGE AREA DIVIDE

BMP 2 VS - VEGETATED CHANNEL
 3,354 SF COVERAGE
 TOT. DA = 31,608 SF
 IMP. DA = 16,574 SF

BMP SW-B - AMENDED TOPSOIL (CONTINUED)
 119,715 SF COVERAGE
 TOT. DA = 186,701 SF
 IMP. DA = 61,848 SF

BMP NW-B - AMENDED TOPSOIL (CONTINUED)
 112,385 SF COVERAGE
 TOT. DA = 203,261 SF
 IMP. DA = 89,086 SF

DATE: 7/12/2016

PREPARED BY:
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 MECHANICSBURG, PA 17050

PREPARED FOR:
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WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
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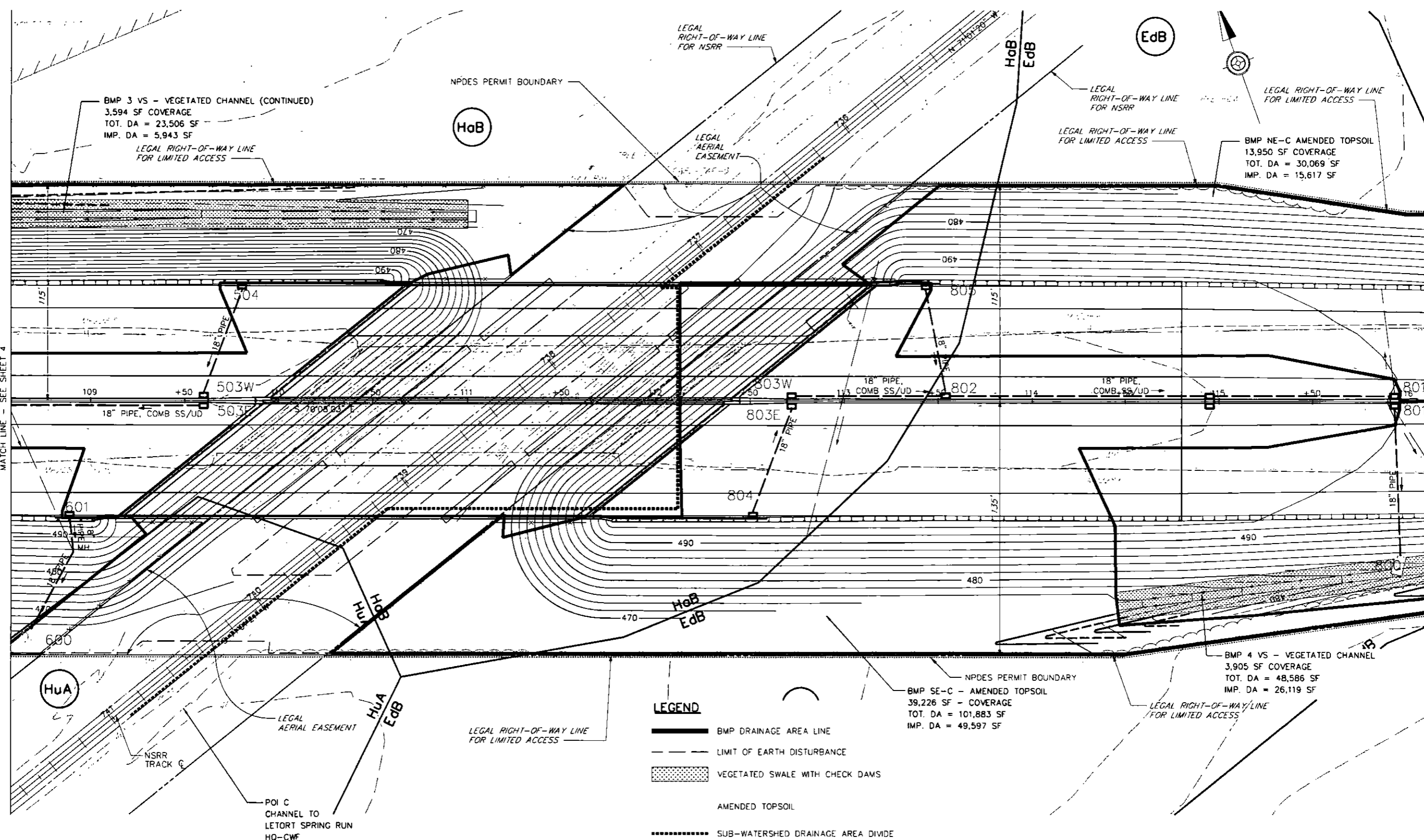
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**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**STORMWATER MANAGEMENT
 PLAN SHEET**

DRAWING: 4 OF 9
 SHEET: 140 OF 315



MATCH LINE - SEE SHEET 4

MATCH LINE - SEE SHEET 6

LEGEND

- BMP DRAINAGE AREA LINE
- LIMIT OF EARTH DISTURBANCE
- VEGETATED SWALE WITH CHECK DAMS
- AMENDED TOPSOIL
- SUB-WATERSHED DRAINAGE AREA DIVIDE

HuA

HoB

EdB

DATE: 7/12/2016

PREPARED BY:
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MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



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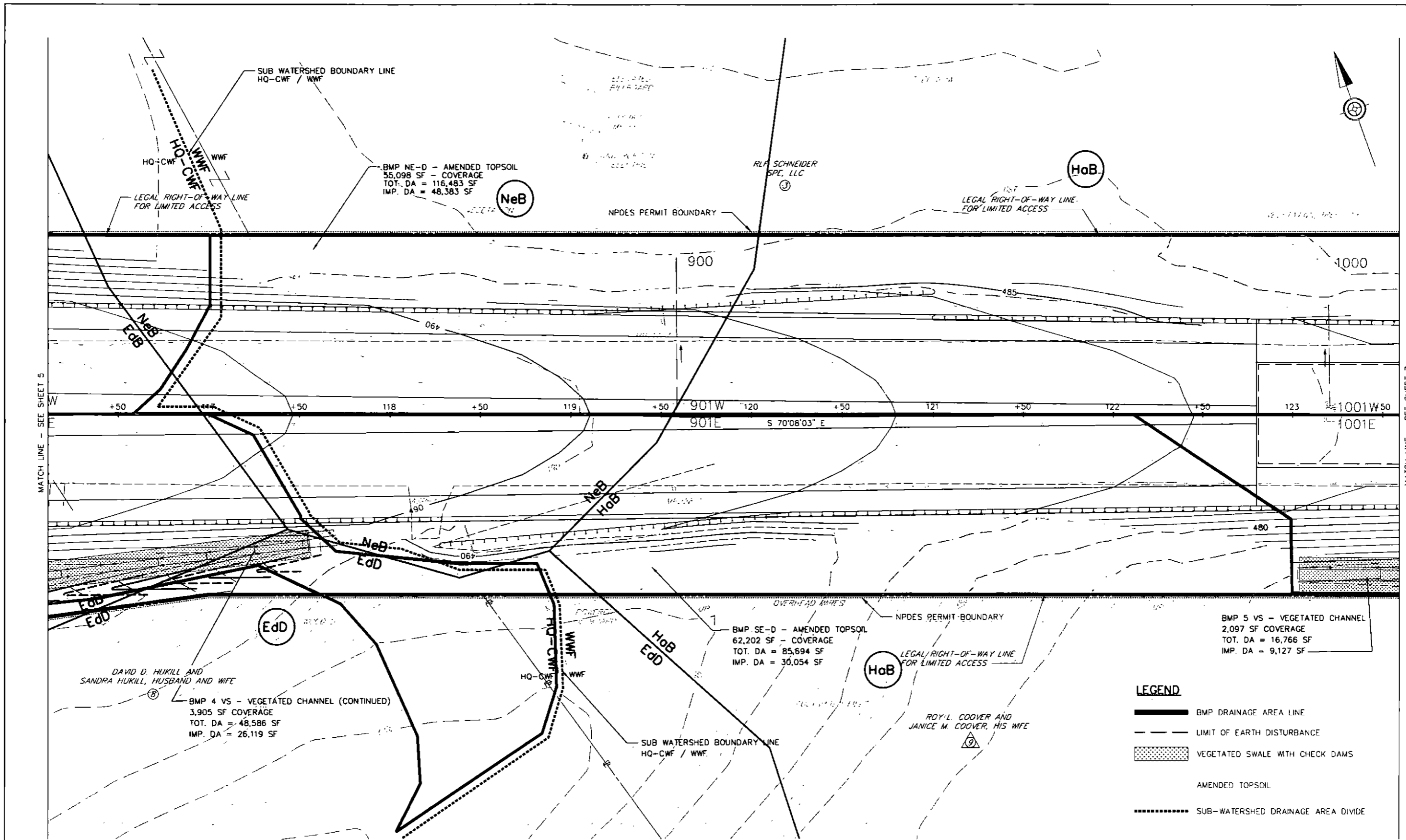
SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**STORMWATER MANAGEMENT
PLAN SHEET**

DRAWING: 5 OF 9
SHEET: 141 OF 315



DATE: 7/12/2016

PREPARED BY:
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PREPARED FOR:
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NETWORK NUMBER: 7003982
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SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

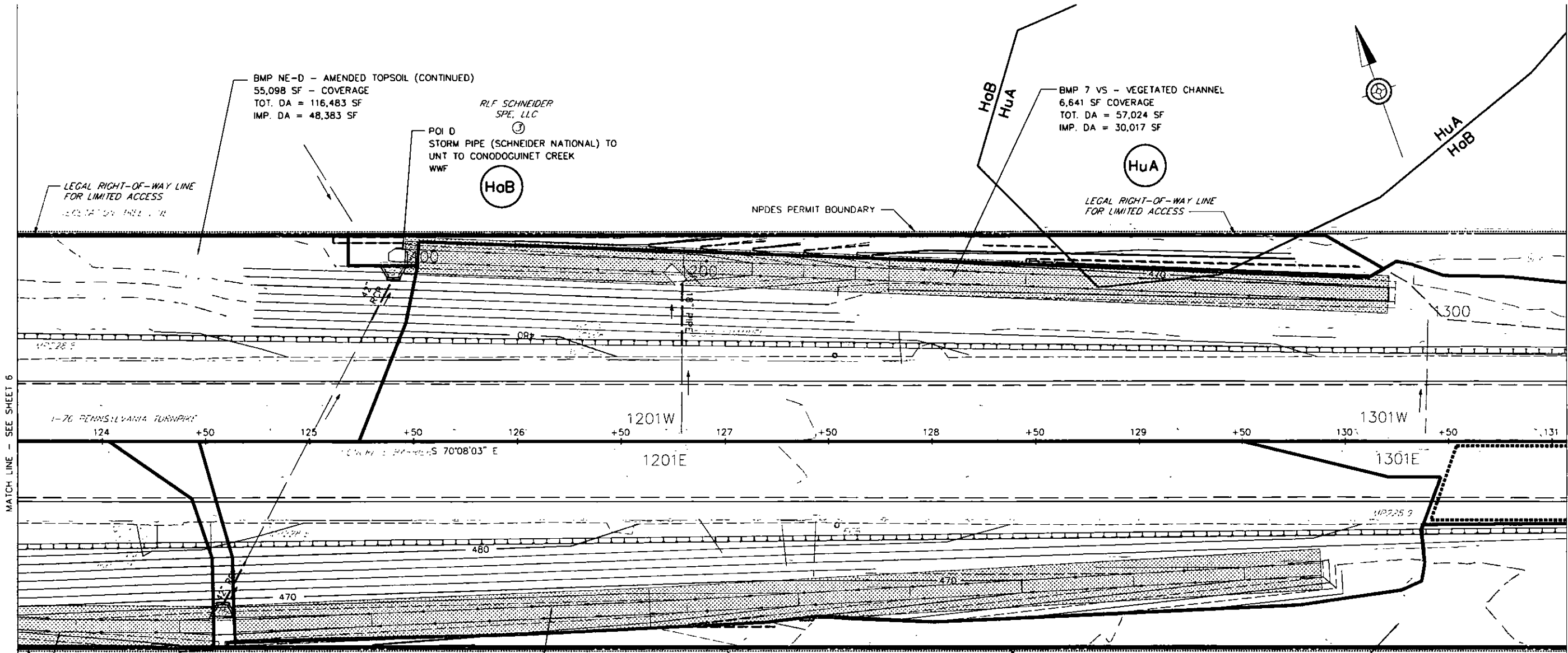
DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**STORMWATER MANAGEMENT
 PLAN SHEET**

DRAWING: 6 OF 9
 SHEET: 142 OF 315

MATCH LINE - SEE SHEET 5

MATCH LINE - SEE SHEET 7



BMP NE-D - AMENDED TOPSOIL (CONTINUED)
 55,098 SF - COVERAGE
 TOT. DA = 116,483 SF
 IMP. DA = 48,383 SF

RLF SCHNEIDER
 SPE, LLC

POI D
 STORM PIPE (SCHNEIDER NATIONAL) TO
 UNT TO CONODOGUINET CREEK
 WWF

HoB

BMP 7 VS - VEGETATED CHANNEL
 6,641 SF COVERAGE
 TOT. DA = 57,024 SF
 IMP. DA = 30,017 SF

HuA

LEGAL RIGHT-OF-WAY LINE
 FOR LIMITED ACCESS

LEGAL RIGHT-OF-WAY LINE
 FOR LIMITED ACCESS

NPDES PERMIT BOUNDARY

1-76 PENNSYLVANIA TURNPIKE

1201W

1201E

1301W

1301E

1101
 HoB

LEGAL RIGHT-OF-WAY LINE
 FOR LIMITED ACCESS

BMP 6 VS - VEGETATED CHANNEL
 7,340 SF COVERAGE
 TOT. DA = 47,504 SF
 IMP. DA = 23,715 SF

ROY L. COOVER AND
 JANICE M. COOVER, HIS WIFE

9

LEGAL RIGHT-OF-WAY LINE
 FOR LIMITED ACCESS

HoB

BMP SE-D - AMENDED TOPSOIL (CONTINUED)
 62,202 SF - COVERAGE
 TOT. DA = 85,694 SF
 IMP. DA = 30,054 SF

LEGEND

- BMP DRAINAGE AREA LINE
- LIMIT OF EARTH DISTURBANCE
- VEGETATED SWALE WITH CHECK DAMS
- AMENDED TOPSOIL
- SUB-WATERSHED DRAINAGE AREA DIVIDE

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
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 MECHANICSBURG, PA 17050

PREPARED FOR:
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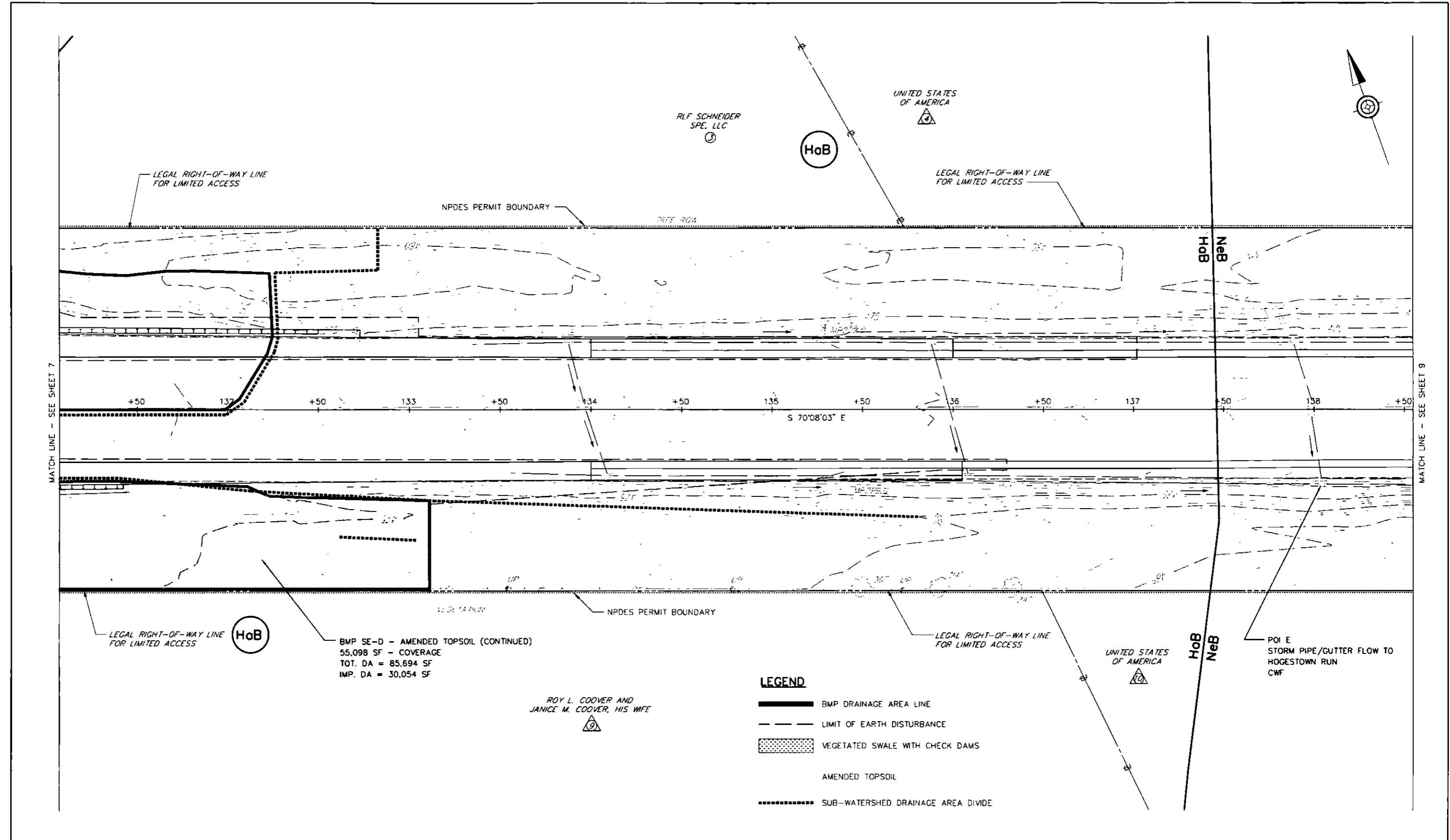
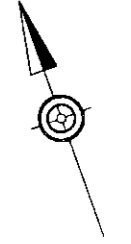
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REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

STORMWATER MANAGEMENT
 PLAN SHEET

DRAWING: 7 OF 9
 SHEET: 143 OF 315



RLF SCHNEIDER
SPE, LLC
③

HoB

UNITED STATES
OF AMERICA
④

LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

NPDES PERMIT BOUNDARY

LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

HoB
NeB

+50

137

+50

133

+50

134

+50

135

+50

36

+50

137

+50

138

+50

S 70°08'03" E

MATCH LINE - SEE SHEET 7

MATCH LINE - SEE SHEET 9

LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

HoB

BMP SE-D - AMENDED TOPSOIL (CONTINUED)
55,098 SF - COVERAGE
TOT. DA = 85,694 SF
IMP. DA = 30,054 SF

ROY L. COOVER AND
JANICE M. COOVER, HIS WIFE
⑨

NPDES PERMIT BOUNDARY






LEGAL RIGHT-OF-WAY LINE
FOR LIMITED ACCESS

UNITED STATES
OF AMERICA
⑩

HoB
NeB

POI E
STORM PIPE/GUTTER FLOW TO
HOGESTOWN RUN
CWF

LEGEND

-  BMP DRAINAGE AREA LINE
-  LIMIT OF EARTH DISTURBANCE
-  VEGETATED SWALE WITH CHECK DAMS
-  AMENDED TOPSOIL
-  SUB-WATERSHED DRAINAGE AREA DIVIDE

DATE: 7/12/2016

PREPARED BY:
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MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

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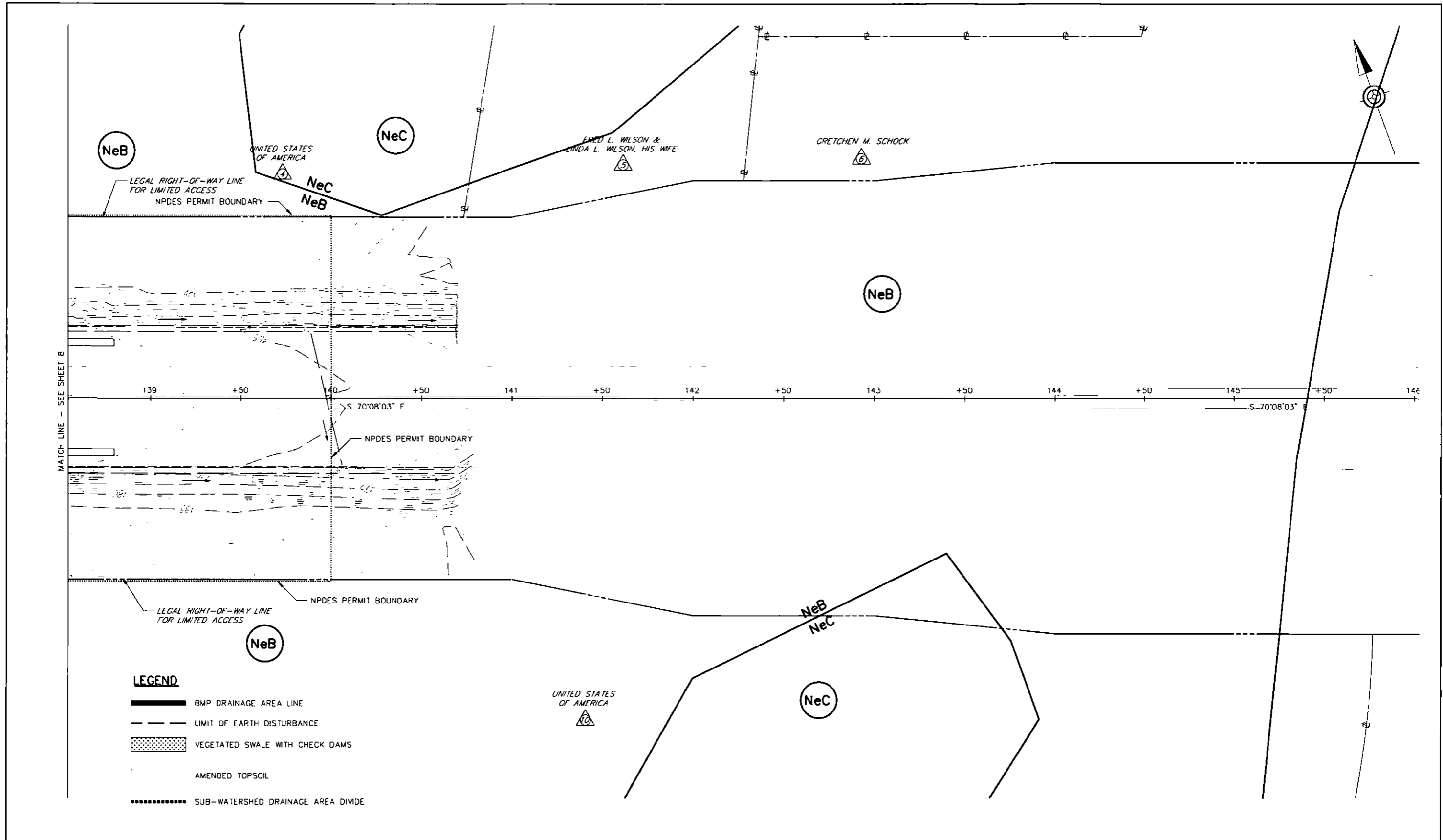
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**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**






DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**STORMWATER MANAGEMENT
PLAN SHEET**

DRAWING: 8 OF 9
SHEET: 144 OF 315



LEGEND

-  BMP DRAINAGE AREA LINE
-  LIMIT OF EARTH DISTURBANCE
-  VEGETATED SWALE WITH CHECK DAMS
-  AMENDED TOPSOIL
-  SUB-WATERSHED DRAINAGE AREA DIVIDE

DATE: 7/12/2016

PREPARED BY:
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SCALE: 25 0 25 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**STORMWATER MANAGEMENT
 PLAN SHEET**

DRAWING: 9 OF 9
 SHEET: 145 OF 315

EXISTING RAILROAD
VERTICAL PROFILE

-0.49%
STA 734+00.00 STA 744+00.00

EXISTING RAILROAD
HORIZONTAL PROFILE

TANGENT
S71°01'21"W

PA TURNPIKE
VERTICAL PROFILE

+2.14% -1.48%

PVI STA 111+50.00
ELEV = 500.76
VC = 1129.51'
MO = -5.12'
PVC STA 105+85.24
PVT STA 117+14.76

PA TURNPIKE
HORIZONTAL PROFILE

TANGENT
S70°08'03"E

EXISTING STRUCTURE DATA

TYPE: 3-SPAN CONTINUOUS COMPOSITE STEEL I-BEAM BRIDGE
SPAN LENGTH: 59'-4", 82'-4", 59'-4"
UNDERCLEARANCE: 23'-3", 82'-4", 59'-4"
LATERAL CLEARANCE: 17'-3"
SKEW: 38°50'34.80"
BRIDGE WIDTH: 26'-6" (CURB-TO-CURB EACH BOUND)
LIVE LOADING: PHL-93 OR P-82
YEAR BUILT: 1949

PROPOSED STRUCTURE DATA

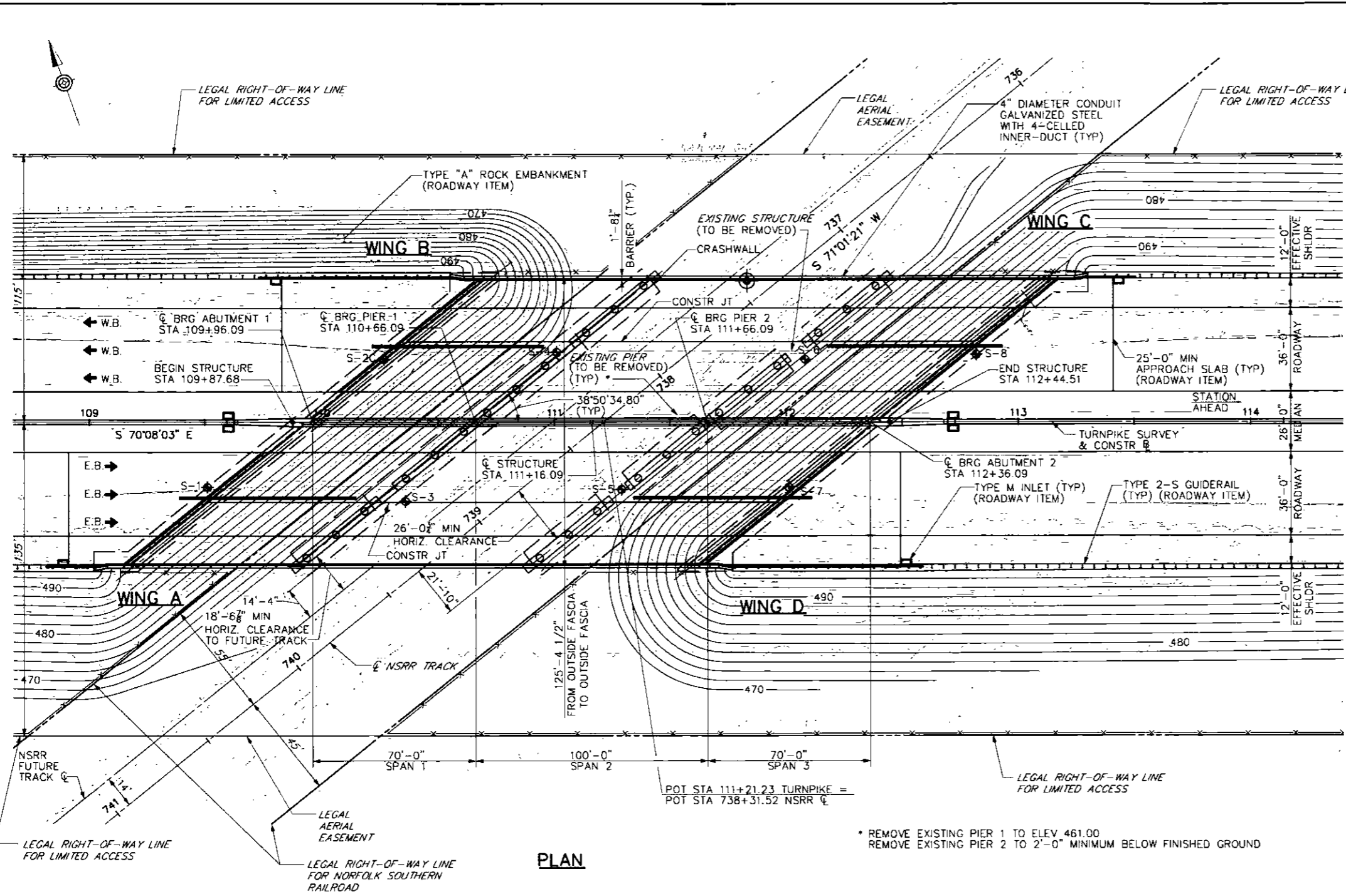
TYPE: 3-SPAN CONTINUOUS COMPOSITE STEEL MULTI-GIRDER BRIDGE
SPAN LENGTH: 70'-0", 100'-0", 70'-0"
UNDERCLEARANCE: 23'-1 1/2", 100'-0", 70'-0"
LATERAL CLEARANCE: 26'-0 3/4" TO C TRACK
18'-6 7/8" TO C FUTURE TRACK
SKEW: 38°50'34.80"
BRIDGE WIDTH: 125'-4 1/2" (OUT-TO-OUT)
LIVE LOADING: PHL-93 OR P-82 (204 KIP PERMIT LOAD)

LEGEND

- ⊙ POINT OF MINIMUM VERTICAL CLEARANCE
- ◆ CORE BORING LOCATION
- EXISTING GUIDERAIL
- PROPOSED GUIDERAIL
- EXISTING GAS LINE
- ➔ TRAFFIC DIRECTION
- 485- EXISTING CONTOURS
- 485- PROPOSED CONTOURS
- TEMPORARY SHORING (ACTUAL LENGTH & LOCATION MAY VARY BASED ON CONTRACTOR'S DESIGN)

NOTES

1. FOR ELEVATION, SEE DRAWING 3.
2. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
3. FOR CONSTRUCTION STAGING AND TYPICAL SECTION, SEE DRAWINGS 9 AND 10.
4. MINIMUM ALLOWABLE TEMPORARY CLEARANCES TO BE PROVIDED DURING CONSTRUCTION:
13'-0" HORIZONTAL FROM C TRACK
22'-0" VERTICAL FROM TOP OF HIGHEST RAIL



PLAN

* REMOVE EXISTING PIER 1 TO ELEV 461.00
REMOVE EXISTING PIER 2 TO 2'-0" MINIMUM BELOW FINISHED GROUND

TOP OF RAIL ELEVATIONS

STATION	ELEVATION
737+00	468.88
737+50	468.80
738+00	468.58
738+50	468.46
739+00	468.09

WINGWALL LENGTHS

WING A	13'-0"
WING B	10'-0"
WING C	13'-0"
WING D	10'-0"

CORE BORING LOCATIONS

BORING NUMBER	STATION	OFFSET
S-1	109+51.00	28' RT
S-2C	110+27.00	27' LT
S-3	110+36.00	34' RT
S-4	111+01.00	30' LT
S-5	111+29.00	29' RT
S-6	112+08.00	27' LT
S-7	112+01.00	28' RT
S-8	112+82.00	29' LT

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050



PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STpl01.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: 25 0 25 FEET

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

TURNPIKE MAINLINE
STA 111+16.09
OVER NORFOLK SOUTHERN RAILROAD
3 - SPAN CONT COMP STEEL MULTI GIRDER BRIDGE
GENERAL PLAN
DRAWING: 1 OF 101
SHEET: 146 OF 315

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CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	06/01/10
RECESSED BRIDGE APPROACH SLAB	PTS-111	10/2011
FLOWABLE BACKFILL AT STRUCTURES	PTS-700	02/05/16
BRIDGE DECK TEMPORARY BARRIER	PTS-710	10/31/07
PERMANENT CONCRETE GLARE SCREEN AND CONCRETE MEDIAN BARRIER, STRUCTURE MOUNTED - F-SHAPE	PTS-715	10/31/07
ELECTRICAL DETAILS	BC-721M	10/26/10
PERMANENT METAL DECK FORMS	BC-732M	10/26/10
ANCHOR SYSTEMS	BC-734M	10/26/10
WALL CONSTR. & EXP. JOINT DETAILS	BC-735M	10/26/10
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	05/18/12
BRIDGE BARRIER TO GUIDE RAIL TRANSITION	BC-739M	05/18/12
BRIDGE DRAINAGE	BC-751M	11/21/14
CONCRETE DECK SLAB DETAILS	BC-752M	11/21/14
STEEL GIRDER DETAILS	BC-753M	11/26/13
STEEL DIAPHRAGMS FOR STEEL BEAM/GIRDER STRUCTURES (STRAIGHT GIRDERS ONLY)	BC-754M	10/26/10
BEARINGS	BC-755M	11/26/13
STEEL PILE TIP REINFORCEMENTS & SPLICES	BC-757M	11/26/13
NEOPRENE STRIP SEAL DAM FOR PRESTRESSED CONCRETE & STEEL I-BEAM BRIDGES	BC-767M	11/26/13
RANDOM STONE SLOPE WALL	BC-781M	05/18/12
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	11/21/14
DESCRIPTION	DWG. NO.	APP. DATE
SUPPLEMENTAL DRAWINGS		

DATE: 7/12/2016

PREPARED BY:
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MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



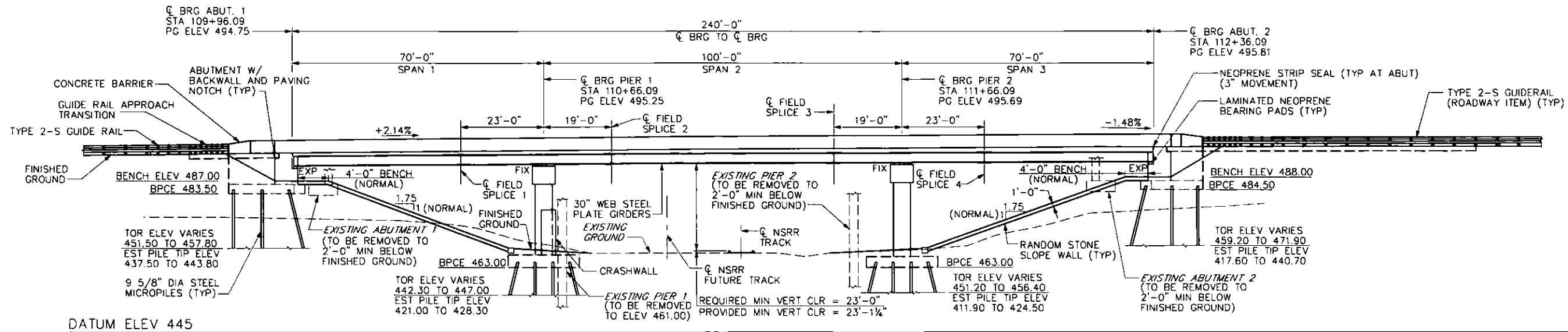
NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.545001-3-02	
NETWORK NUMBER: 7003982	
FILE NAME: STd01.dgn	
DRAWING TYPE: 2G	
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SCALE: NO SCALE	

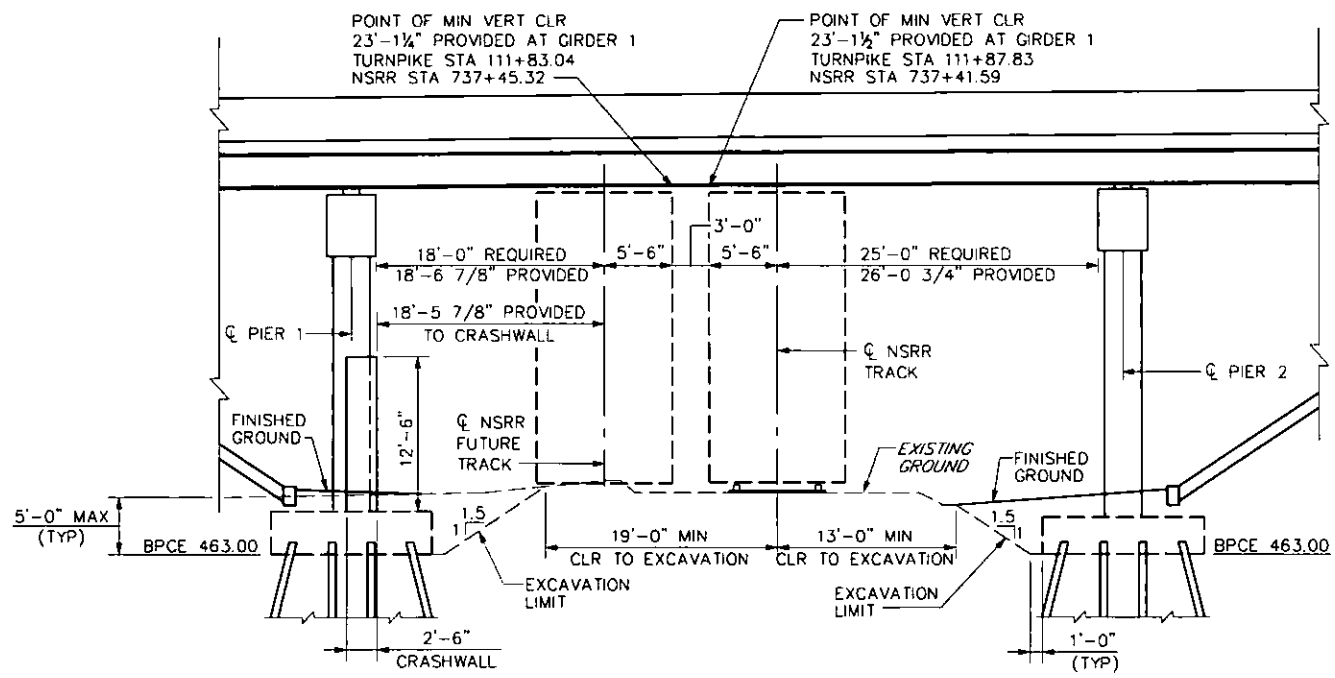
**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

INDEX OF DRAWINGS

DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 2 OF 101
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 147 OF 315



ELEVATION
15 0 15 FEET



DATUM ELEV 445

CLEARANCE ENVELOPE
(PERPENDICULAR TO BRG TRACKS)
5 0 5 FEET

NOTES
1. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		NO.	REVISIONS	DATE	APPR.	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	ELEVATION
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE	APPR.	SCALE: AS NOTED		

DESIGN SPECIFICATIONS

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SEVENTH EDITION 2014 AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, STRUCTURES APRIL 2015 EDITION.

LIVE LOAD DISTRIBUTION TO GIRDERS IS BASED UPON DM-4 DISTRIBUTION FACTOR METHOD.

DESIGN IS IN ACCORDANCE WITH THE LRFD METHOD.

DESIGN LIVE LOADS

PHL-93 OR P-82 (204K PERMIT LOAD).

FATIGUE DESIGN IS BASED ON ADTT OF 3898 (2036) (ONE DIRECTIONAL).

DEAD LOADS

INCLUDES SURFACE AREA DENSITY OF 0.030 KSF FOR FUTURE WEARING SURFACE ON THE DECK SLAB.

INCLUDES A SURFACE AREA DENSITY OF 0.015 KSF FOR PERMANENT METAL DECK FORMS WHICH TAKES INTO ACCOUNT THE WEIGHT OF THE FORM, PLUS THE WEIGHT OF THE CONCRETE IN THE VALLEYS OF THE FORMS.

GENERAL

PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408/2016, AASHTO/AWS/D1.5M/D1.5: 2008 BRIDGE WELDING CODE AND CONTRACT SPECIAL PROVISIONS. (USE AASHTO/AWS/D1.1/D1.1M:2008 FOR WELDING NOT COVERED IN AASHTO/AWS/D1.5M/D1.5:2008).

PROVIDE 2 IN. CONCRETE COVER ON REINFORCEMENT BARS, EXCEPT AS NOTED.

USE CLASS AAAP CEMENT CONCRETE IN DECK SLAB.

USE CLASS AA CEMENT CONCRETE IN BARRIERS, ABUTMENT BACKWALLS, CHEEKWALLS AND U-WINGS ABOVE BRIDGE SEAT CONSTRUCTION JOINT.

USE CLASS A CEMENT CONCRETE IN PIERS, ABUTMENTS BELOW BRIDGE SEAT, WINGWALLS AND FOOTINGS.

A HIGHER CLASS OF CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS OF CONCRETE AT NO ADDITIONAL COST TO THE COMMISSION.

PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A 615/A 615M, A 996/A 996M OR A 706/A 706M. 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 REPRESENTATIVE. DO NOT USE RAIL STEEL A 996 REINFORCEMENT BARS IN BRIDGE PIERS, ABUTMENTS, FOOTINGS, BARRIERS OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.

USE EPOXY-COATED REINFORCEMENT BARS EVERYWHERE UNLESS NOTED OTHERWISE.

GALVANIZED REINFORCING STEEL BARS MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL BARS AT NO ADDITIONAL COST TO THE COMMISSION.

RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS INDICATED.

SITE CLASS IS NOT CLASS E.

USE RETARDER ADMIXTURE CONFORMING TO PUBLICATION 408 IN THE CONCRETE DECK SLAB

CONSTRUCT DECK SLAB TRANSVERSE CONSTRUCTION JOINTS PARALLEL TO BRIDGE CENTERLINE OF BEARINGS.

ABUTMENT BACKWALLS MAY BE PLACED UP TO A CONSTRUCTION JOINT BELOW THE LEVEL OF THE BOTTOM OF DECK SLAB PRIOR TO CONSTRUCTION OF THE DECK.

PLACE CHEEKWALL AND BACKWALL CONCRETE AFTER BEAMS ARE SET IN POSITION.

CHAMFER EXPOSED CONCRETE EDGES 1 IN. BY 1 IN., EXCEPT AS NOTED.

ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.

THE COORDINATES AND DISTANCES SHOWN ON THIS PLAN ARE PENNSYLVANIA TURNPIKE COMMISSION PROJECT GRID COORDINATES AND DISTANCES EXPRESSED IN US SURVEY FEET DERIVED FROM NAD 83(2011) PENNSYLVANIA STATE PLANE (SOUTH ZONE) COORDINATES.

TO CONVERT PENNSYLVANIA TURNPIKE COMMISSION PROJECT GRID INVERSE LENGTHS/DISTANCES TO PENNSYLVANIA STATE PLANE NAD 83 INVERSE LENGTHS/DISTANCES BY THE PROJECT'S COMBINED FACTOR OF 0.999967262.

A REVERSE OF THE PROCEDURE - DIVIDING NAD83 VALUES BY THE PROJECT'S COMBINED FACTOR 0.999967262 - TRANSFORMS NAD83 PENNSYLVANIA STATE PLANE INVERSE LENGTHS/DISTANCES TO PENNSYLVANIA TURNPIKE COMMISSION PROJECT INVERSE LENGTHS/DISTANCES.

THE VERTICAL CONTROL IS BASED ON NAVD 1988 DATUM.

USE PERMANENT METAL DECK FORMS TO CONSTRUCT THE INTERIOR PORTION OF THE DECK SLAB. USE REMOVABLE FORMS TO CONSTRUCT THE DECK SLAB OVERHANGS. NOTE THAT THE BOTTOM FACE OF THE DECK SLAB OVERHANGS SHALL BE CONSTRUCTED LEVEL. THE CONTRACTOR SHALL SUBMIT FORMING PLANS AND SUPPORTING CALCULATIONS FOR THE OVERHANG TO THE REPRESENTATIVE FOR APPROVAL PRIOR TO ERECTING FORMWORK.

DECK SLAB THICKNESS INCLUDES A 1/2" INTEGRAL WEARING SURFACE.

SUPERSTRUCTURE DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68°F.

SPREAD FOOTINGS MAY BE ORDERED BY THE ENGINEER TO BE AT ANY ELEVATION OR OF ANY DIMENSIONS NECESSARY TO PROVIDE A PROPER FOUNDATION.

PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS IN ACCORDANCE WITH STANDARD DRAWING BC-736M, UNLESS OTHERWISE INDICATED.

APPLY WHITE ANTI-GRAFFITI COATING TO TOP AND INSIDE FACES OF BARRIERS.

APPLY PIGMENTED ANTI-GRAFFITI COATING TO EXPOSED SURFACES OF PIERS, CRASHWALL, ABUTMENTS, INSIDE AND FRONT FACES OF CHEEKWALLS, EXPOSED SURFACES OF WINGWALLS, OUTSIDE FACE OF BARRIERS, AND EXPOSED EDGES OF THE DECK OVERHANG INCLUDING THE UNDERSIDE OF DECK BACK TO THE FASCIA GIRDERS; APPLY TO TWO(2) FEET BELOW FINISHED GROUND.

GIRDER WEBS SHALL BE PLUMB UNDER THE FULL DEAD LOAD EXISTING AT THE END OF CONSTRUCTION.

SUPPORT DECK SLAB OVERHANG FORMS FROM THE BOTTOM FLANGE OF THE FASCIA GIRDER, UNLESS THE GIRDER WEB IS ADEQUATELY SUPPORTED TO PREVENT BUCKLING DUE TO LOADS FROM WEB-BEARING FORM SUPPORTS.

STRUCTURAL STEEL

PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M270, GRADE 50W (ASTM A709, GRADE 50W) DESIGNATION, EXCEPT WHEN NOTED OTHERWISE.

IF GIRDERS CANNOT BE SHIPPED IN THE LENGTHS SHOWN ON THE PLANS, FIELD SPLICE(S) WILL BE PERMITTED AT THE REQUEST OF THE CONTRACTOR, BUT NO COMPENSATION WILL BE ALLOWED FOR THE SPLICES.

IF GIRDERS CAN BE FABRICATED IN LENGTHS LONGER THAN THE SECTIONS SHOWN ON THE PLANS BY ELIMINATING FIELD SPLICES, FIELD SPLICES(S) MAY BE OMITTED AT THE REQUEST OF THE CONTRACTOR. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR SECURING A HAULING PERMIT. APPROVAL FOR ELIMINATION OF A FIELD SPLICE AT THE SHOP DRAWING STAGE DOES NOT OBLIGATE THE COMMISSION TO ISSUE A HAULING PERMIT.

DO NOT USE FORM SUPPORT SYSTEMS THAT WILL CAUSE UNACCEPTABLE OVERSTRESS OR DEFORMATION TO PERMANENT BRIDGE MEMBERS.

ALL FASTENERS ARE 7/8 IN. DIAMETER HS BOLTS, EXCEPT AS NOTED.

REAM SUBDRILLED OR SUBPUNCHED HOLES FOR FIELD SPLICES IN THE FABRICATION SHOP.

PREPARE BEARING AREAS AS SPECIFIED IN SECTION 1001.3(k)9

DO NOT MAKE WELDS BY MANUAL SHIELDED METAL ARC PROCESS FOR PRIMARY GIRDER WELDS, SUCH AS FLANGE-TO-WEB WELDS OR FOR SHOP SPLICES OF WEBS AND FLANGES.

DO NOT WELD PERMANENT METAL DECK FORMS OR OTHER ATTACHMENTS TO GIRDER TOP FLANGES IN TENSION AREAS. (TENSION AREAS OF TOP FLANGES ARE DESIGNATED ON THE PLANS.) THREADED STUDS FOR THE SUPPORT OF THE OVERHANG DECK FORMING BRACKET IS PERMITTED PROVIDED THE THREADED STUD IS ATTACHED WITH THE SAME WELDING PROCESSING AS THE SHEAR STUDS.

WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.

PROVIDE WELDED STUD SHEAR CONNECTORS MANUFACTURED FROM STEEL CONFORMING TO ASTM A108.

SET ANCHOR BOLTS TO TEMPLATE OR IN PREFORMED HOLES. DO NOT DRILL UNLESS SPECIFICALLY INDICATED ON PLANS. FILL THE PREFORMED HOLES WITH NON-SHRINK GROUT. FILL THE CLEARANCE BETWEEN ANCHOR BOLTS AND HOLES IN MASONRY PLATES WITH APPROVED NON-HARDENING CAULKING COMPOUND CONFORMING TO SECTION 705.8.

PAINT STRUCTURAL STEEL IN ACCORDANCE WITH SECTION 1060.

STABILITY OF PARTIAL GIRDERS AND COMPLETE GIRDERS IS TO BE MAINTAINED BY THE CONTRACTOR DURING ERECTION, UNTIL ALL GIRDERS AND DIAPHRAGMS ARE IN-PLACE AND ALL BOLTS ARE PROPERLY INSTALLED. ERECTION LOADS INCLUDING SELF-WEIGHT OF THE STEEL MEMBERS, WIND LOADING AND CONSTRUCTION LIVE LOAD EFFECTS ARE TO BE EVALUATED BY THE CONTRACTOR FOR STABILITY, STRESSES AND DEFLECTIONS ON THE STEEL MEMBERS DURING ANY STAGE OF ERECTION.

AN ALTERNATE SLAB PLACEMENT SEQUENCE MAY BE PERMITTED AT THE REQUEST OF THE CONTRACTOR. SUBMIT FOR REVIEW AND APPROVAL TO THE COMMISSION A REVISED SLAB PLACEMENT SEQUENCE WITH SUPPORT CALCULATIONS AND COMPUTER STRESS ANALYSIS. SATISFY THE REQUIREMENTS OF THE ORIGINAL SLAB PLACEMENT SEQUENCE. OBTAIN WRITTEN APPROVAL PRIOR TO THE USE OF THE REVISED SLAB PLACEMENT SEQUENCE AND/OR CAMBER VALUES. NO COMPENSATION WILL BE ALLOWED FOR THE DEVELOPMENT AND APPROVAL OF THE REVISED SLAB PLACEMENT SEQUENCE AND CAMBER VALUES. THE COMMISSION WILL BE THE SOLE JUDGE OF THE ACCEPTABILITY OF THE REVISED SLAB PLACEMENT SEQUENCE AND CAMBER VALUES.

PERFORM CHARPY V-NOTCH TESTS ON ALL DIAPHRAGMS, CONNECTING PLATES, STIFFENERS, SPLICE MATERIAL, PLATE GIRDER WEBS AND PLATE GIRDER TENSION FLANGES AS SPECIFIED IN SECTION 1105.02(e)5

TEMPORARY SUPPORT BENTS, IF REQUIRED TO SUPPORT THE GIRDERS DURING DEMOLITION/ERECTION, MUST BE A MINIMUM OF 15'-0" FROM CENTERLINE OF TRACK.

ANY MODIFICATION IN THE SPLICE LOCATIONS FROM THOSE DEPICTED IN THE PLANS MUST BE SENT TO NORFOLK SOUTHERN FOR REVIEW AND APPROVAL.

FIELD WELDING NOTES

WELDING SPECIFICATIONS: AASHTQ/AWS D1.5M/D1.5 (2008) BRIDGE WELDING CODE CONSISTENT WITH SECTION 1105.03(m). DO NOT FIELD-WELD ON ANY PART OF THE EXISTING BRIDGE, EXCEPT WHERE SHOWN ON THE DRAWINGS, WITHOUT PRIOR APPROVAL OF THE REPRESENTATIVE.

MAKE TACK WELDS WITH THE SAME TYPE OF ELECTRODE AND INCORPORATE IN THE FINAL WELD. NO OTHER TACK WELDING WILL BE PERMITTED.

DO NOT WELD WHEN SURFACES TO BE WELDED ARE MOIST OR EXPOSED TO RAIN, SNOW, OR WIND, OR WHEN WELDERS ARE EXPOSED TO INCLEMENT CONDITIONS THAT WILL ADVERSELY AFFECT THE QUALITY OF WORK.

DO NOT WELD OR BURN WHEN THE TEMPERATURE IS BELOW 0° F. PREHEAT AND MAINTAIN THE TEMPERATURE OF THE METAL TO AT LEAST 70° F WHEN THE TEMPERATURE OF THE METAL IS BETWEEN 0° F AND 32° F DURING WELDING OR BURNING.

PREHEAT THE STEEL TO THE SPECIFIED MINIMUM TEMPERATURE FOR A DISTANCE EQUAL TO THE THICKNESS OF THE PART BEING WELDED, BUT NOT LESS THAN 3 IN. IN ALL DIRECTIONS FROM THE POINT OF WELDING.

PRIOR TO PLACING THE WELD, THOROUGHLY CLEAN ALL PORTIONS OF NEW AND EXISTING SURFACES TO RECEIVE WELDS OF ALL FOREIGN MATTER, INCLUDING PAINT FILM, FOR A DISTANCE OF 2 IN. FROM EACH SIDE OF THE OUTSIDE LINES OF THE WELD.

TEST COMPLETED WELDS USING VISUAL AND NONDESTRUCTIVE METHODS IN ACCORDANCE WITH AASHTQ/AWS D1.5M/D1.5 BRIDGE WELDING CODE CHAPTER 6.

SHOP DRAWINGS

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE STEEL MEMBERS. NO STEEL MEMBER FABRICATION SHALL BEGIN UNTIL WRITTEN APPROVAL OF THE SHOP DRAWINGS IS RECEIVED FROM THE REPRESENTATIVE. APPROVAL SHALL NOT RELIEVE THE PRODUCER OF RESPONSIBILITY FOR ACHIEVING THE DESIRED RESULTS. AS A MINIMUM, THE FOLLOWING INFORMATION SHALL BE INCLUDED IN THE SHOP DRAWING SUBMITTAL:

- MANUFACTURER'S NAME AND PLANT LOCATION
- ESTIMATED FABRICATION SCHEDULE
- A COPY OF THE MANUFACTURER'S INSTALLATION SCHEDULE
- THE NAME AND TELEPHONE NUMBER OF THE MANUFACTURER'S QUALIFIED REPRESENTATIVE WHO WILL PROVIDE ON-SITE TECHNICAL ASSISTANCE FOR PROPER INSTALLATION OF STEEL MEMBERS
- GENERAL CONTRACTOR'S STAMP TO INDICATE THE CONTRACTOR HAS REVIEWED THE DRAWINGS

FABRICATION AND ERECTION

THE SECTIONS SHALL BE STORED IN SUCH A MANNER TO PREVENT DAMAGE. THE SECTIONS SHALL BE SUBSTANTIALLY FREE OF DAMAGE.

ALL MEMBERS SHALL BE ASSEMBLED AND HANDLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE CONTRACT DOCUMENTS. IN THE EVENT OF A CONFLICT BETWEEN THE MANUFACTURER'S INSTRUCTIONS AND THE CONTRACT DOCUMENTS, THE REPRESENTATIVE WILL DECIDE WHICH COURSE TO FOLLOW. DURING ERECTION, ANY MEMBERS DAMAGED BEYOND REPAIR SHALL BE REMOVED AND REPLACED WITH APPROVED UNITS AT NO ADDITIONAL COST TO THE COMMISSION. THE FABRICATOR SHALL BE FULLY RESPONSIBLE FOR THE DESIGN OF THE LIFTING DEVICES, WHICH SHALL BE ADEQUATE FOR THE SAFETY FACTORS REQUIRED BY THE ERECTION PROCEDURE TO BE SUBMITTED FOR APPROVAL BY THE COMMISSION.

EACH SECTION SHALL BE CLEARLY MARKED BY WATERPROOF PAINT. THE FOLLOWING INFORMATION SHALL BE SHOWN ON THE INSIDE SURFACE OF THE VERTICAL LEG OF THE SECTION:

- SECTION LOCATION
- DATE OF MANUFACTURING
- NAME OR TRADEMARK OF THE MANUFACTURER

DIMENSIONS OF STEEL MEMBERS SHALL BE AS PRESCRIBED IN THE PLANS.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050



PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STgn01.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: NO SCALE

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

GENERAL NOTES - 1

DRAWING: 4	OF 101
SHEET: 149	OF 315

UTILITIES

COORDINATE, LOCATE AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH SECTIONS 105.06 AND 107.12 AND THE SPECIAL PROVISIONS.

COORDINATE THE REQUIREMENTS FOR PROTECTION AND/OR RELOCATION OF UTILITIES WITH THE UTILITY OWNER PRIOR TO STARTING WORK. VERIFY LOCATION OF UNDERGROUND PIPES AND CULVERTS PRIOR TO STARTING WORK. 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 COMMISSION DOES NOT ASSUME RESPONSIBILITY FOR REIMBURSEMENT, PARTICIPATION IN DESIGN AND/OR REVISIONS, OR LIABILITY FOR ACCURACY OF TYPE, SIZE AND LOCATION OF ANY UTILITY.

FOUNDATION NOTES

CONSTRUCT MICROPILES FOR ALL ABUTMENTS, WINGWALLS AND PIERS IN ACCORDANCE WITH THE SPECIAL PROVISION MICROPILES 4000-0010 AND IN ACCORDANCE WITH DM-4 SECTION 10.9.1.9P.

CASING SHALL BE ADVANCED THROUGH ROCK TO THE BOTTOM OF THE BOND ZONE. ONCE THE BOTTOM OF THE BOND ZONE IS CONFIRMED, CASING SHALL BE LIFTED TO THE FINAL CONFIGURATION TO ALLOW GROUT/ROCK CONTACT AT THE BOND ZONE.

SOME LOSS OF GROUT DUE TO MINOR JOINTS OR THIN VOIDS IN BEDROCK WITHIN THE BOND ZONE IS POSSIBLE. IF THE GROUT TAKE IN THE BOND ZONE EXCEEDS 150 PERCENT OF THE CALCULATED VOLUME AT ANY STAGE, GROUTING OPERATIONS SHALL BE CEASED. AFTER THE GROUT HAS HARDENED, DRILLING SHALL BE RESUMED, EXTENDED THROUGH THE HARDENED GROUT AND CONTINUED DEEPER THAN THE PREVIOUS BOND ZONE.

USE SULFATE CORROSION RESISTANT CONCRETE WITH TYPE II CEMENT (MAXIMUM WATER CEMENT RATIO OF 0.45).

THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF ALL EXCAVATED SLOPES. PERFORM ALL EXCAVATIONS IN ACCORDANCE WITH CURRENT OSHA REQUIREMENTS AND OTHER APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

THE CONTRACTOR SHALL DIRECT SURFACE RUNOFF AWAY FROM THE EXCAVATION.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT DEWATERING SO THAT ALL EXCAVATIONS ARE DRY ENOUGH TO BE INSPECTED BY A REPRESENTATIVE OF THE COMMISSION AT NO ADDITIONAL COST TO THE COMMISSION.

IF A SINKHOLE OPENS IN SOIL DURING CONSTRUCTION AT A SUBSTRUCTURE LOCATION, REPAIR THE AREA IN ACCORDANCE WITH SPECIAL PROVISION, 'SINKHOLE TREATMENT IN SOIL'.

REMOVE THE EXISTING SUBSTRUCTURES A MINIMUM OF 2 FEET BELOW FINISHED GROUND OR AS SHOWN ON THE GENERAL PLAN AND ELEVATION IN ACCORDANCE WITH SECTION 101B.

BACKFILL ANY OVEREXCAVATION WITH NO. 8 COARSE AGGREGATE.

COMPLETELY REMOVE ANY EXISTING PILES WHICH INTERFERE WITH THE CONSTRUCTION OF THE PROPOSED FOUNDATIONS AT THE ABUTMENTS AND WINGWALLS IN ACCORDANCE WITH SECTION 101B. EXTRACT PILES IN ACCORDANCE WITH SPECIAL PROVISIONS AT THE DIRECTION OF THE REPRESENTATIVE.

MICROPILE NOTES

EACH INDIVIDUAL PILE BOND ZONE MUST CONTAIN AN ACCUMULATION OF MINIMUM 11.0 FT OF ROCK.

NO ONE SOIL SEAM IN EXCESS OF 6 INCHES WILL BE ACCEPTABLE. IF THE ATTEMPTED BOND LENGTH HAS VOIDS OR FRACTURES/WEAK ZONE THAT SUM LESS THAN 6 INCHES IN LENGTH, THE BOND ZONE SHALL EXTEND AN ADDITIONAL 1 FT.

IF VOIDS OR FRACTURES/WEAK ZONES SUM MORE THAN 6 INCHES, CONTINUE THE DRILLING UNTIL THE CRITERIA ABOVE IS SATISFIED.

THE BOTTOM OF THE MICROPILE CASING (TOP OF BOND ZONE) SHALL EXTEND A MINIMUM OF 3 FEET BELOW TOP OF BEDROCK OR ANY ZONES OF SOFT BEDROCK OR VOIDS BELOW TOP OF ROCK.

TEMPORARY SHORING

TEMPORARY SHORING IS REQUIRED TO ALLOW THE CONSTRUCTION OF THE PROPOSED FOUNDATIONS FOR THE PROTECTION OF ADJACENT ROADWAYS AND EXISTING BRIDGE SUBSTRUCTURE FOUNDATIONS. DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISION 2203-2101.

THE CONTRACTOR SHALL USE THE FOLLOWING PARAMETERS FOR THE DESIGN OF THE TEMPORARY SHORING:

- EFFECTIVE ANGLE OF FRICTION = 25°
- MOIST UNIT WEIGHT OF SOIL = 120 PCF
- SATURATED UNIT WEIGHT OF SOIL = 125 PCF
- EFFECTIVE COHESION = 0 PSF
- GROUNDWATER ELEVATION = TOP OF BEDROCK
- UNDRAINED SHEAR STRENGTH OF COHESIVE SOIL = N/A, DRAINED BEHAVIOR CONTROLS
- SHEAR STRENGTH OF ROCK MASS = 4 KSF

EXISTING STRUCTURE PLANS

DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN DRAWINGS OR MADE AVAILABLE BY THE COMMISSION OR ITS AUTHORIZED AGENTS AS POSITIVE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT WILL BE ENCOUNTERED IN THE FIELD.

THE INFORMATION SHOWN ON THE EXISTING BRIDGE PLANS IS NOT PART OF THE PLANS, PROPOSAL OR CONTRACT AND IS NOT TO BE CONSIDERED A BASIS FOR COMPUTATION OR UNIT PRICES 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 COST AND/OR QUANTITIES OF WORK TO BE PERFORMED MAY DIFFER FROM THOSE INDICATED.

REFERENCE DRAWINGS ARE EB-103.

BRIDGE LOAD RATINGS (WITH FUTURE WEARING SURFACE)

3--SPAN CONTINUOUS COMPOSITE STEEL PLATE GIRDER, 30" WEB DEPTH							
LIVE LOAD TYPE		H20	HS20	ML-80	TK-527	PHL-93	P-82
INVENTORY RATING (IR)	SPAN NUMBER	2	2	1	1	1	---
	CRITICAL MEMBER	G7/G10	G7/G10	G7/G10	G7/G10	G7/G10	---
	DISTRIBUTION FACTOR	0.689	0.689	0.707	0.707	0.707	---
	LOCATION (FT) (2)	0.00	0.00	67.00	67.00	70.00	---
	LIMIT STATE	STR-I	STR-I	STR-I	STR-I	STR-I	---
RATING FACTOR	2.05M	2.05 M	2.37 M	2.25 M	1.18 M	---	
OPERATING RATING (OR)	SPAN NUMBER	2	2	1	1	1	1
	CRITICAL MEMBER	G7/G10	G7/G10	G7/G10	G7/G10	G7/G10	G7/G10
	DISTRIBUTION FACTOR	0.689	0.689	0.707	0.707	0.707	0.707
	LOCATION (FT) (2)	0.00	0.00	67.00	67.00	70.00	67.00
	LIMIT STATE	STR-II	STR-II	STR-II	STR-II	STR-IA	STR-II
RATING FACTOR	2.66 M	2.66 M	3.08 M	2.92 M	1.53 M	1.51 M	
CRITICAL MEMBER		G7 & G10					
MAXIMUM FACTORED FLEXURAL RESISTNACE (K-FT)		6,047.5					
LOCATION (FT)		SPAN 2, 50.00					
MAXIMUM FACTORED SHEAR RESISTANCE (K)		761.25					
LOCATION (FT)		SPAN 2, 0.00					

BRIDGE LOAD RATINGS (WITHOUT FUTURE WEARING SURFACE)

3--SPAN CONTINUOUS COMPOSITE STEEL PLATE GIRDER, 30" WEB DEPTH							
LIVE LOAD TYPE		H20	HS20	ML-80	TK-527	PHL-93	P-82
INVENTORY RATING (IR)	SPAN NUMBER	1	1	1	1	1	---
	CRITICAL MEMBER	G7/G10	G7/G10	G7/G10	G7/G10	G7/G10	---
	DISTRIBUTION FACTOR	0.707	0.707	0.707	0.707	0.707	---
	LOCATION (FT) (2)	70.00	70.00	67.00	67.00	70.00	---
	LIMIT STATE	STR-I	STR-I	STR-I	STR-I	STR-I	---
RATING FACTOR	2.26M	2.26 M	2.58 M	2.45 M	1.29 M	---	
OPERATING RATING (OR)	SPAN NUMBER	1	1	1	1	1	1
	CRITICAL MEMBER	G7/G10	G7/G10	G7/G10	G7/G10	G7/G10	G7/G10
	DISTRIBUTION FACTOR	0.707	0.707	0.707	0.707	0.707	0.707
	LOCATION (FT) (2)	70.00	70.00	67.00	67.00	70.00	67.00
	LIMIT STATE	STR-II	STR-II	STR-II	STR-II	STR-IA	STR-II
RATING FACTOR	2.93 M	2.93 M	3.35 M	3.17 M	1.67 M	1.64 M	
CRITICAL MEMBER		G7 & G10					
MAXIMUM FACTORED FLEXURAL RESISTNACE (K-FT)		6,047.5					
LOCATION (FT)		SPAN 2, 50.00					
MAXIMUM FACTORED SHEAR RESISTANCE (K)		761.25					
LOCATION (FT)		SPAN 2, 0.00					

BRIDGE LOAD RATING NOTES

- "M" AND "S" DENOTE THAT MOMENT OR SHEAR CONTROLS THE RATING FACTOR, RESPECTIVELY.
- LOCATION MEASURED FROM CL BRG OF REFERENCED SPAN.
- RATINGS DETERMINED USING DM-4 LIVE LOAD DISTRIBUTION FACTORS
- RATINGS WERE OBTAINED FROM CONTINUOUS SPAN ANALYSIS USING PENNDOT'S LRFD STEEL GIRDER DESIGN AND RATING PROGRAM, VERSION 2.3.0.0.
- FOR PLATE GIRDER PROPERTIES, SEE DRAWING 63.
- ML-80=PENNSYLVANIA MAXIMUM LEGAL LOAD
- P-82=PENNSYLVANIA PERMIT LOAD
- TK-527=PENNSYLVANIA HEAVY DUMP TRUCK LOAD

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STgn02.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

SCALE: NO SCALE

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**


GENERAL NOTES - 2

DISTRICT: 3 COUNTY: CUMBERLAND DRAWING: 5 OF 101
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP SHEET: 150 OF 315

TABULATION OF STRUCTURE BID ITEMS AND APPROXIMATE QUANTITIES													
QUANTITY	ITEM NUMBER UNIT	(INFORM) QUANTITY	DESCRIPTION	ABUT 1 STAGE 2	ABUT 1 STAGE 3	ABUT 2 STAGE 2	ABUT 2 STAGE 3	PIER 1 STAGE 2	PIER 1 STAGE 3	PIER 2 STAGE 2	PIER 2 STAGE 3	SUPERSTR STAGE 2	SUPERSTR STAGE 3
LS	2203 2101 LS	(4)	TEMPORARY SHORING										
11,807	2204 0100 CY		CLASS 3 EXCAVATION	727	1,638	919	1,812	1,039	2,022	1,331	2,319		
359	0212 0014 SY		GEOTEXTILE, CLASS 4, TYPE A	90	88	92	89						
1,877	2220 0020 CY		FLOWABLE BACKFILL, TYPE C	199	772	196	710						
682	0675 0001 CY		RANDOM STONE SLOPE WALL	157	180	161	184						
100	0680 0121 SY		MEMBRANE WATERPROOFING SYSTEM INSTALLED ON OTHER SURFACES	25	25	25	25						
216	0703 0022 CY		NO. 8 COARSE AGGREGATE	72		38			106				
60	0703 0025 CY		NO. 57 COARSE AGGREGATE	15	15	15	15						
280	3910 5260 LF	(4)	4" CONDUIT IN STRUCTURE									280	
283	2001 0001 CY		CLASS AA CEMENT CONCRETE	28	33	28	30					76	88
1,899	2001 0010 CY		CLASS A CEMENT CONCRETE	191	183	192	184	314	403	219	213		
422	2001 0611 LF		6" STRUCTURE FOUNDATION DRAIN	111	100	111	100						
355	2001 0700 SY	(4)	GEOCOMPOSITE DRAIN	88	88	90	89						
3,223	2001 0730 CY		SELECTED BORROW EXCAVATION, STRUCTURE BACKFILL					474	987	646	1,116		
LS	2001 0801 LS	(1)(4)	ANTIGRAFFITI COATING - WHITE										
LS	2001 0802 LS	(2)(4)	ANTIGRAFFITI COATING - PIGMENTED										
911	2001 0960 CY	(3)	CLASS AAAP CEMENT CONCRETE									416	495
529,397	1002 0053 LB		REINFORCEMENT BARS, EPOXY COATED	15,098	12,972	15,451	13,276	64,396	82,009	35,974	34,056	115,503	140,662
2,148	1002 0152 EACH		MECHANICAL SPLICE SYSTEM FOR NO. 5 REINFORCEMENT BARS, EPOXY COATED	130		132						1,886	
16	1002 0153 EACH		MECHANICAL SPLICE SYSTEM FOR NO. 6 REINFORCEMENT BARS, EPOXY COATED									16	
88	1002 0154 EACH		MECHANICAL SPLICE SYSTEM FOR NO. 7 REINFORCEMENT BARS, EPOXY COATED					88					
100	1002 0155 EACH		MECHANICAL SPLICE SYSTEM FOR NO. 8 REINFORCEMENT BARS, EPOXY COATED					100					
100	1002 0156 EACH		MECHANICAL SPLICE SYSTEM FOR NO. 9 REINFORCEMENT BARS, EPOXY COATED					100					
LS	2018 0001 LS	(4)	REMOVAL OF BRIDGE NO. EB-103, MP 228.54										
418	1026 0015 LF		NEOPRENE STRIP SEAL DAM, (3" MOVEMENT)	94	115	94	115						


NOTES:

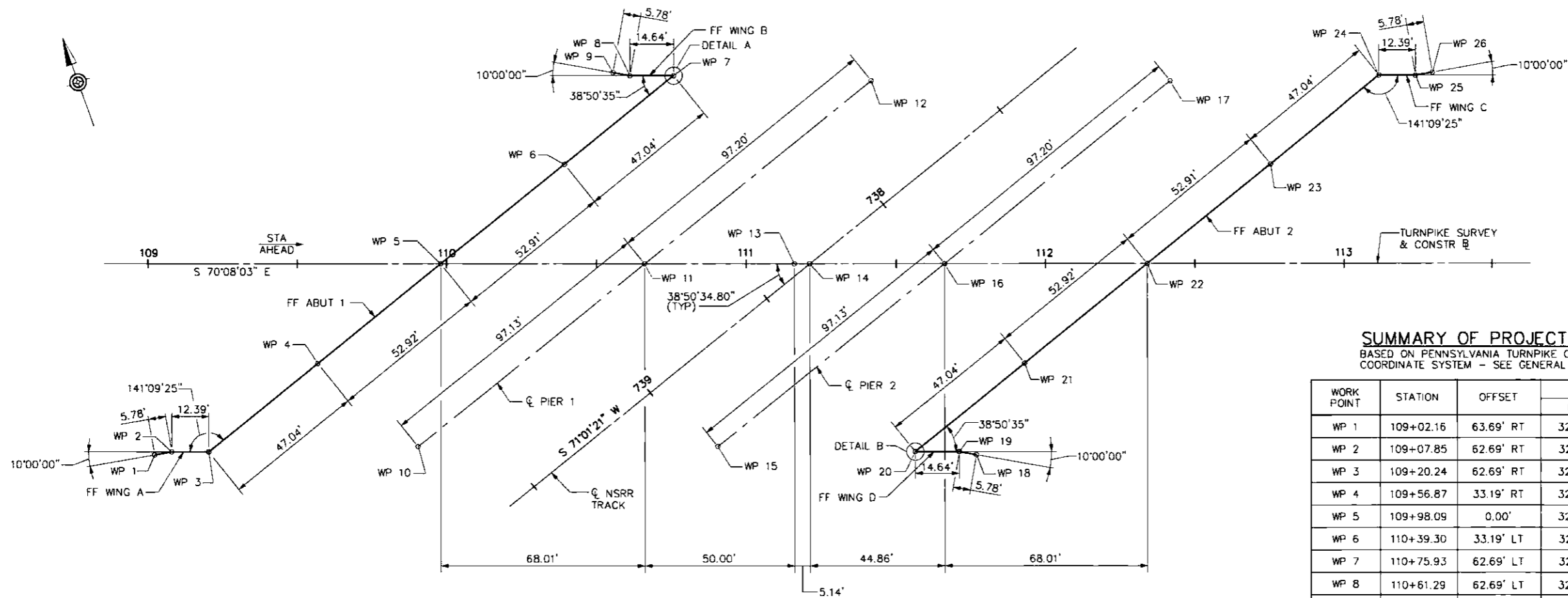
- INCLUDES 2,553 SF PER COAT EB AND 2,553 SF PER COAT WB
- INCLUDES 7,782 SF PER COAT EB AND 7,839 SF PER COAT WB
- INCLUDES CLASS AAAP CEMENT CONCRETE IN DECK SLAB AND THE FOLLOWING ADDITIONAL VOLUME TO ACCOUNT FOR STAY-IN-PLACE TROUGHS:
 - (A) 15 CY EB STAGE 2
 - (B) 20 CY EB STAGE 3
 - (C) 15 CY WB STAGE 2
 - (D) 20 CY WB STAGE 3
- SEE SPECIAL PROVISIONS
- INCLUDES THE FOLLOWING MICROPILE LENGTHS FOR STATIC LOAD TEST:
 - ABUTMENT 1, STAGE 2 = 47.0'
 - ABUTMENT 1, STAGE 3 = 41.0'
 - ABUTMENT 2, STAGE 2 = 68.0'
 - ABUTMENT 2, STAGE 3 = 45.0'
 - PIER 1, STAGE 2 = 36.0'
 - PIER 1, STAGE 3 = 43.0'
 - PIER 2, STAGE 2 = 40.0'
 - PIER 2, STAGE 3 = 53.0'

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF STRUCTURE ITEMS
		NETWORK NUMBER: 7003982 FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls DRAWING TYPE: 2G STRUCTURE NUMBER: EB-103		
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		SCALE: NONE	DISTRICT: 3 COUNTY: CUMBERLAND	DRAWING: 6 OF 101
		NO. REVISIONS DATE APPR.	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 151 OF 315

TABULATION OF STRUCTURE BID ITEMS AND APPROXIMATE QUANTITIES													
QUANTITY	ITEM NUMBER	(INFORM) QUANTITY	DESCRIPTION	ABUT 1 STAGE 2	ABUT 1 STAGE 3	ABUT 2 STAGE 2	ABUT 2 STAGE 3	PIER 1 STAGE 2	PIER 1 STAGE 3	PIER 2 STAGE 2	PIER 2 STAGE 3	SUPERSTR STAGE 2	SUPERSTR STAGE 3
33	3050 0085 EACH	(4)	LAMINATED NEOPRENE BEARING PADS, 12" X 15" X 3.09"	9	8	8	8						
33	3050 0086 EACH	(4)	LAMINATED NEOPRENE BEARING PADS, 16" X 18" X 3.09"					9	8	8	8		
1,153,357	1056 0100 LB		FABRICATED STRUCTURAL STEEL									571,561	581,796
20,304	1056 0470 EACH		SHEAR CONNECTORS									10,152	10,152
475	2090 0300 LF	(4)	CANTILEVERED COMBINATION WORK PLATFORMS AND PROTECTION SHIELDS									475	
38,869	2090 2000 SF	(4)	UNDERDECK PROTECTION SHIELDS									11,858	27,011
LS	4000 0099 LS	(4)	MOBILIZATION AND DEMOBILIZATION FOR MICROPILES										
11,095	4000 1101 LF	(4) (5)	MICROPILES, 9.625" OD X 0.545"	1,122	807	1,443	1,033	1,443	1,908	1,669	1,670		
8	4000 1102 EACH	(4)	MICROPILES STATIC PROOF LOAD TEST	1	1	1	1	1	1	1	1		
4	4000 1103 EACH	(4)	MICROPILES STATIC VERIFICATION LOAD TEST	1		1		1		1			

- NOTES:
1. INCLUDES 2,553 SF PER COAT EB AND 2,553 SF PER COAT WB
 2. INCLUDES 7,782 SF PER COAT EB AND 7,839 SF PER COAT WB
 3. INCLUDES CLASS AAAP CEMENT CONCRETE IN DECK SLAB AND THE FOLLOWING ADDITIONAL VOLUME TO ACCOUNT FOR STAY-IN-PLACE TROUGHS:
 - (A) 15 CY EB STAGE 2
 - (B) 20 CY EB STAGE 3
 - (C) 15 CY WB STAGE 2
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 4. SEE SPECIAL PROVISIONS
 5. INCLUDES THE FOLLOWING MICROPILE LENGTHS FOR STATIC LOAD TEST:
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 - ABUTMENT 2, STAGE 2 = 68.0'
 - ABUTMENT 2, STAGE 3 = 45.0'
 - PIER 1, STAGE 2 = 36.0'
 - PIER 1, STAGE 3 = 43.0'
 - PIER 2, STAGE 2 = 40.0'
 - PIER 2, STAGE 3 = 53.0'

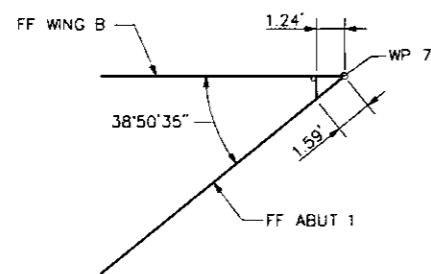
PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	TABULATION OF STRUCTURE ITEMS
		NETWORK NUMBER: 7003982		
		FILE NAME: EB-103_PTC_Tab Wizard 3.3.xls		
		DRAWING TYPE: 2G STRUCTURE NUMBER: EB-103		
PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		SCALE: NONE	DISTRICT: 3 COUNTY: CUMBERLAND	DRAWING: 7 OF 101 SHEET: 152 OF 315
		NO. REVISIONS DATE APPR.	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	



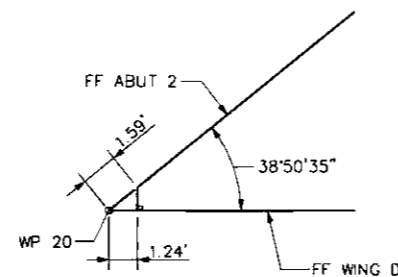
SUMMARY OF PROJECT COORDINATES
 BASED ON PENNSYLVANIA TURNPIKE COMMISSION PROJECT GRID
 COORDINATE SYSTEM - SEE GENERAL NOTES

WORK POINT	STATION	OFFSET	COORDINATES	
			NORTHING	EASTING
WP 1	109+02.16	63.69' RT	325225.2045	2145770.8951
WP 2	109+07.85	62.69' RT	325224.2145	2145776.5873
WP 3	109+20.24	62.69' RT	325220.0053	2145788.2369
WP 4	109+56.87	33.19' RT	325235.3007	2145832.7158
WP 5	109+98.09	0.00'	325252.5082	2145882.7552
WP 6	110+39.30	33.19' LT	325269.7153	2145932.7930
WP 7	110+75.93	62.69' LT	325285.0107	2145977.2719
WP 8	110+61.29	62.69' LT	325289.9860	2145963.5023
WP 9	110+55.60	63.69' LT	325292.8631	2145958.4920
WP 10	109+90.44	60.92' RT	325197.8111	2145854.8605
WP 11	110+66.09	0.00'	325229.3981	2145946.7151
WP 12	111+41.80	60.96' LT	325261.0054	2146038.6288
WP 13	111+16.09	0.00'	325212.4082	2145993.7365
WP 14	111+21.23	0.00'	325210.6612	2145998.5716
WP 15	110+90.44	60.92' RT	325163.8291	2145948.9096
WP 16	111+66.09	0.00'	325195.4161	2146040.7642
WP 17	112+41.80	60.96' LT	325227.0234	2146132.6778
WP 18	111+76.58	63.69' RT	325131.9505	2146028.9859
WP 19	111+70.89	62.69' RT	325134.8277	2146023.9755
WP 20	111+56.25	62.69' RT	325139.8029	2146010.2059
WP 21	111+92.89	33.19' RT	325155.0983	2146054.6847
WP 22	112+34.10	0.00'	325172.3059	2146104.7241
WP 23	112+75.31	33.19' LT	325189.5129	2146154.7620
WP 24	113+11.95	62.69' LT	325204.8084	2146199.2409
WP 25	113+24.33	62.69' LT	325200.5991	2146210.8905
WP 26	113+30.02	63.69' LT	325199.6091	2146216.5828

NOTE: FOUR DECIMAL PLACE COORDINATES ARE FOR COMPUTATIONAL PURPOSES ONLY. THEY DO NOT IMPLY A PRECISION BEYOND 2 DECIMAL PLACES.



DETAIL A
NOT TO SCALE



DETAIL B
NOT TO SCALE

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
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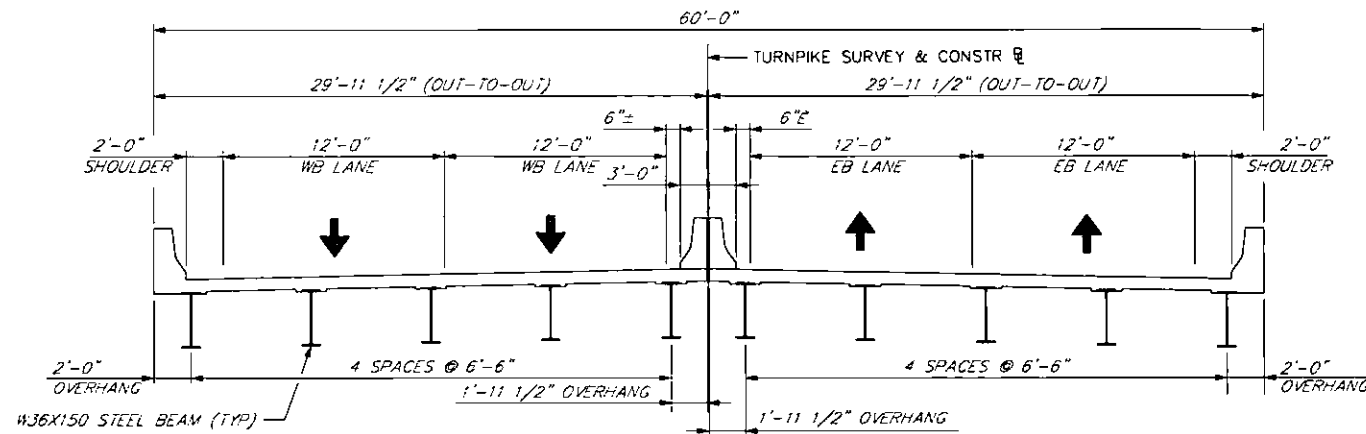
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**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

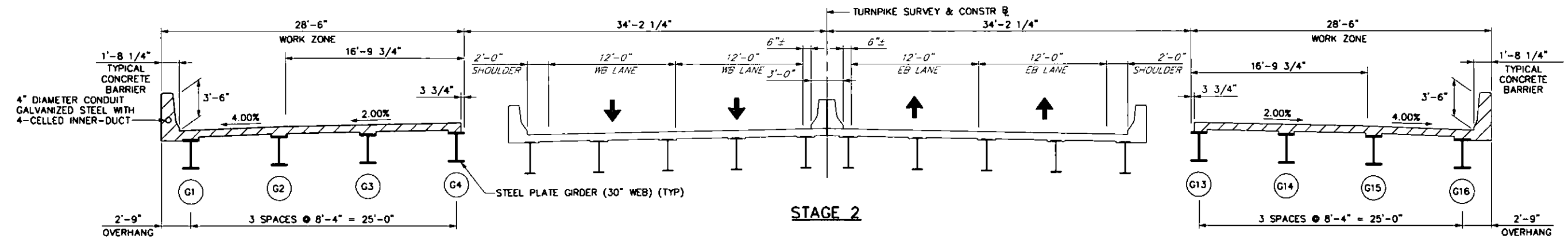
DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

STAKE-OUT PLAN

DRAWING: 8 OF 101
 SHEET: 153 OF 315



EXISTING TYPICAL SECTION



STAGE 2

NOTES

1. FOR STAGE 3A, STAGE 3B AND FINAL PROPOSED SECTION, SEE DRAWING 10.

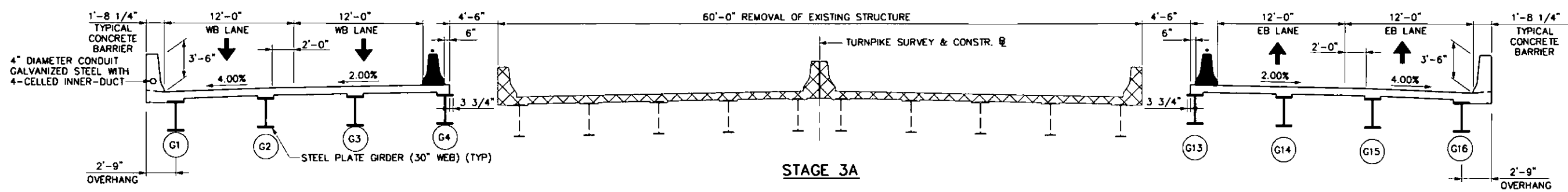
CONSTRUCTION STAGING

- STAGE 2:
1. INSTALL TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM FROM BACK OF ABUTMENTS TO END OF CONSTRUCTION LIMITS.
 2. CONSTRUCT PORTION OF ABUTMENTS AND PIERS TO REQUIRED LIMITS FOR CONSTRUCTION OF THE SUPERSTRUCTURE SHOWN.
 3. PLACE NEW GIRDERS 1-4 AND 13-16.
 4. CONSTRUCT DECK AND TYPICAL CONCRETE BARRIER TO THE LIMITS SHOWN.

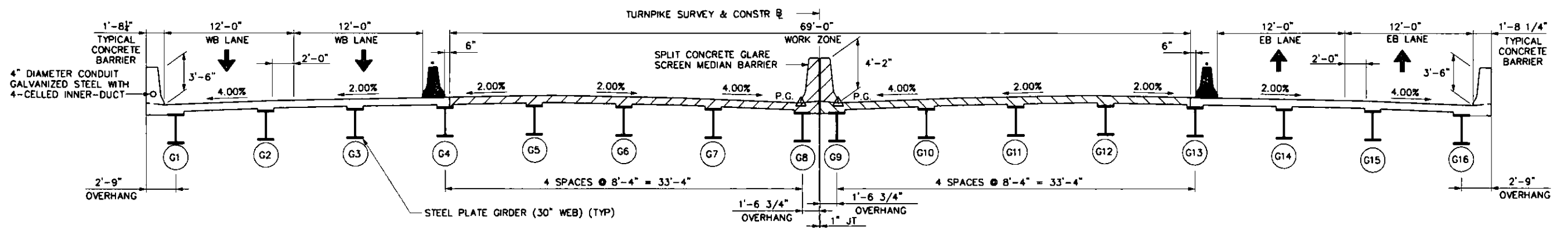
LEGEND

PROPOSED CONSTRUCTION

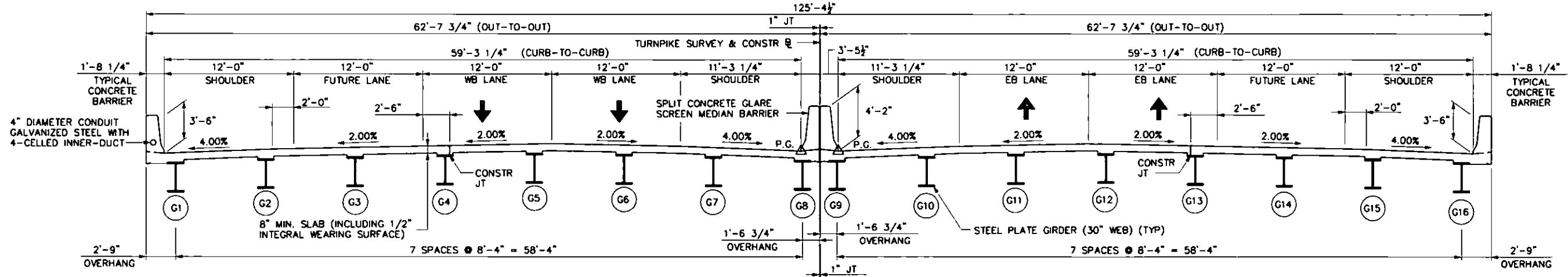
DATE: 7/12/2016		PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	CONSTRUCTION STAGING - 1		
		PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION	NETWORK NUMBER: 7003982 FILE NAME: ST1s01.dgn DRAWING TYPE: 2G STRUCTURE NUMBER: EB-103			DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 9 OF 101 SHEET: 154 OF 315
		SCALE: FEET	NO. REVISIONS DATE APPR.				



STAGE 3A



STAGE 3B



PROPOSED TYPICAL SECTION

CONSTRUCTION STAGING

- STAGE 3A:
1. PLACE TEMPORARY CONCRETE BARRIER ON NEW PORTIONS OF WESTBOUND AND EASTBOUND BRIDGES AS SHOWN.
 2. SHIFT TRAFFIC TO THE NEW PORTIONS OF THE BRIDGES AND MAINTAIN TWO LANES (12'-0") OF TRAFFIC IN EACH DIRECTION AS SHOWN.
 3. REMOVE EXISTING STRUCTURE TO A MINIMUM OF 1' BELOW THE BOTTOM OF FOOTING ELEVATION OR AS REQUIRED TO PLACE THE NEW FOUNDATION.
- STAGE 3B:
1. CONSTRUCT REMAINING PORTION OF ABUTMENTS AND PIERS.
 2. PLACE NEW GIRDERS 5-8 AND 9-12.
 3. CONSTRUCT DECK AND SPLIT CONCRETE GLARE SCREEN MEDIAN BARRIER ON NEW PORTION OF BRIDGE.
 4. REMOVE TEMPORARY CONCRETE BARRIERS AND REPAIR DECK AS REQUIRED.
 5. SHIFT TRAFFIC TO THE FINAL CONFIGURATION.

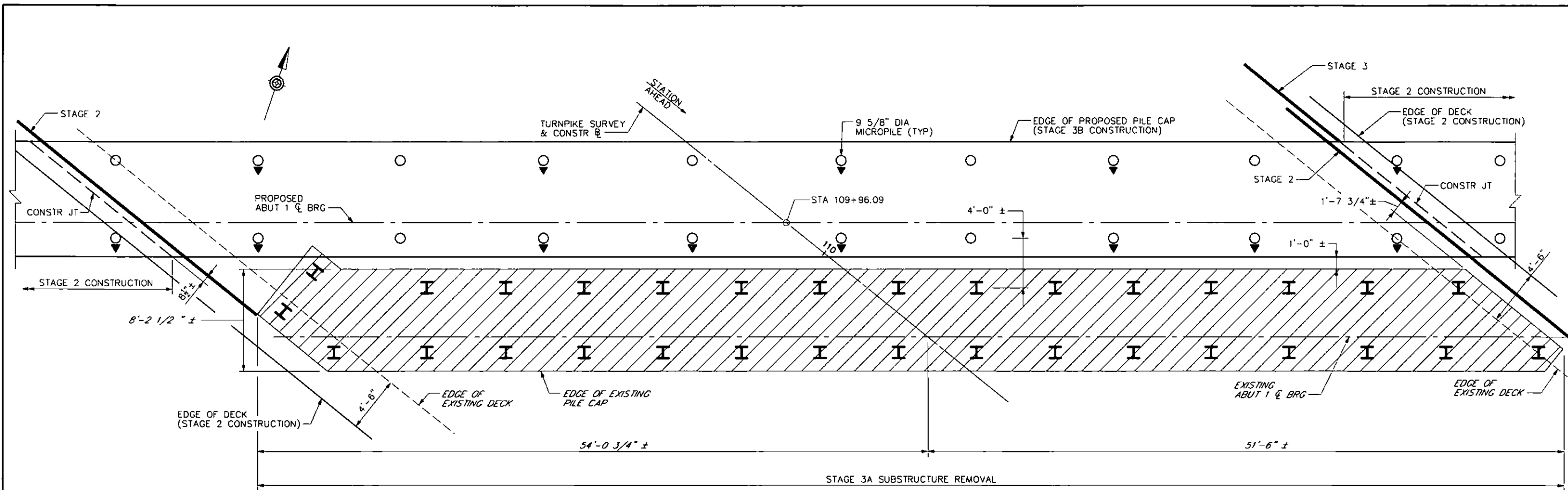
NOTES

1. FOR EXISTING SECTION AND STAGE 2, SEE DRAWING 9.
2. FOR ADDITIONAL TEMPORARY CONCRETE BARRIER DETAILS, SEE PTS-710.

LEGEND

- TEMPORARY CONCRETE BARRIER, STRUCTURE MOUNTED
- EXISTING STRUCTURE TO BE REMOVED
- PROPOSED CONSTRUCTION

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050					WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	CONSTRUCTION STAGING - 2		
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION									
			NO.	REVISIONS	DATE	APPR.	SCALE:	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 10 OF 101
								TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 155 OF 315



EXISTING ABUTMENT 1 REMOVAL PLAN

LEGEND

I

PILES TO BE CUT OFF 2'-0" MINIMUM BELOW FINISHED GROUND



EXISTING SUBSTRUCTURE REMOVAL LIMITS



TEMPORARY SHORING (ACTUAL LENGTH AND LOCATION MAY VARY BASED ON CONTRACTOR'S DESIGN)



VERTICAL MICROPILE



MICROPILE BATTERED 4 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW

NOTES

1. PROPOSED BOTTOM OF PILE CAP ELEVATION = 483.50
2. VERIFY LOCATION OF EXISTING PILES IN FIELD.
3. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
4. FOR CONSTRUCTION STAGING, SEE DRAWINGS 9 AND 10.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
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MECHANICSBURG, PA 17050

PREPARED FOR:
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TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STrem01.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

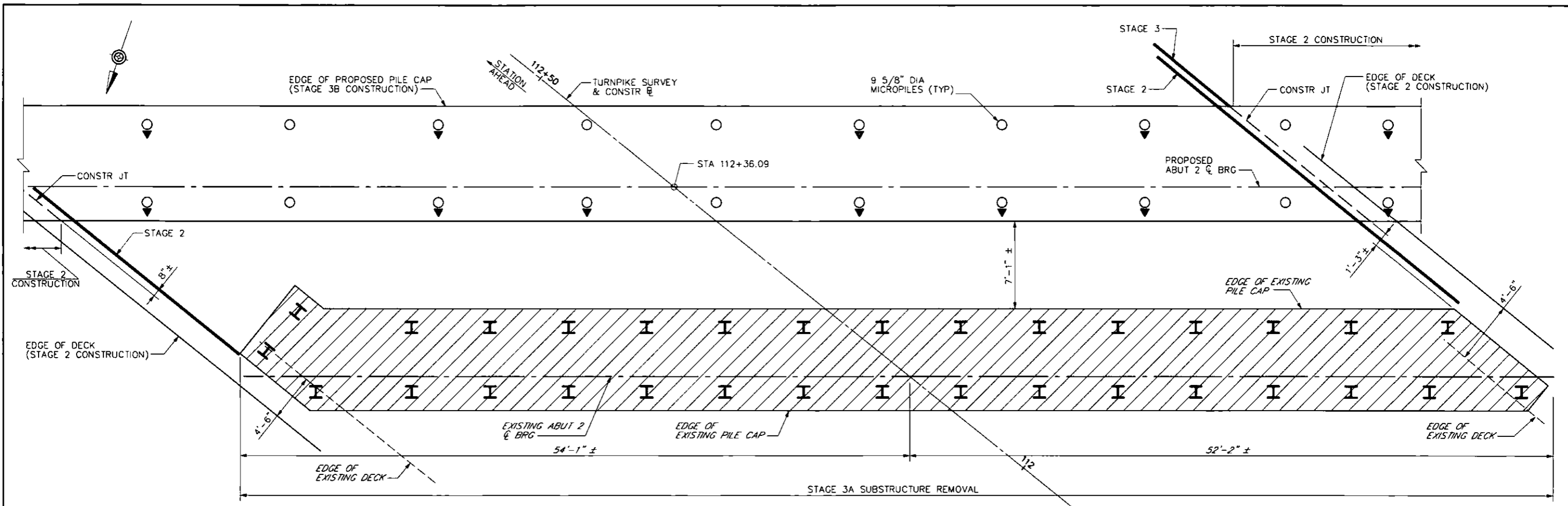
SCALE: 1 0 2 4 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**





DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

EXISTING ABUTMENT 1 REMOVAL PLAN

DRAWING: 11 OF 101
SHEET: 156 OF 315



LEGEND

- I** PILES TO BE CUT OFF 2'-0" MINIMUM BELOW FINISHED GROUND
-  EXISTING SUBSTRUCTURE REMOVAL LIMITS
-  TEMPORARY SHORING (ACTUAL LENGTH AND LOCATION MAY VARY BASED ON CONTRACTOR'S DESIGN)
-  VERTICAL MICROPILE
-  MICROPILE BATTERED 4 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW

NOTES

1. PROPOSED BOTTOM OF PILE CAP ELEVATION = 484.50
2. VERIFY LOCATION OF EXISTING PILES IN FIELD.
3. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
4. FOR CONSTRUCTION STAGING, SEE DRAWINGS 9 AND 10.

EXISTING ABUTMENT 2 REMOVAL PLAN

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
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MECHANICSBURG, PA 17050

PREPARED FOR:
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WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982

FILE NAME: STrem02.dgn

DRAWING TYPE: 2G

STRUCTURE NUMBER: EB-103

SCALE: 1 0 2 4 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

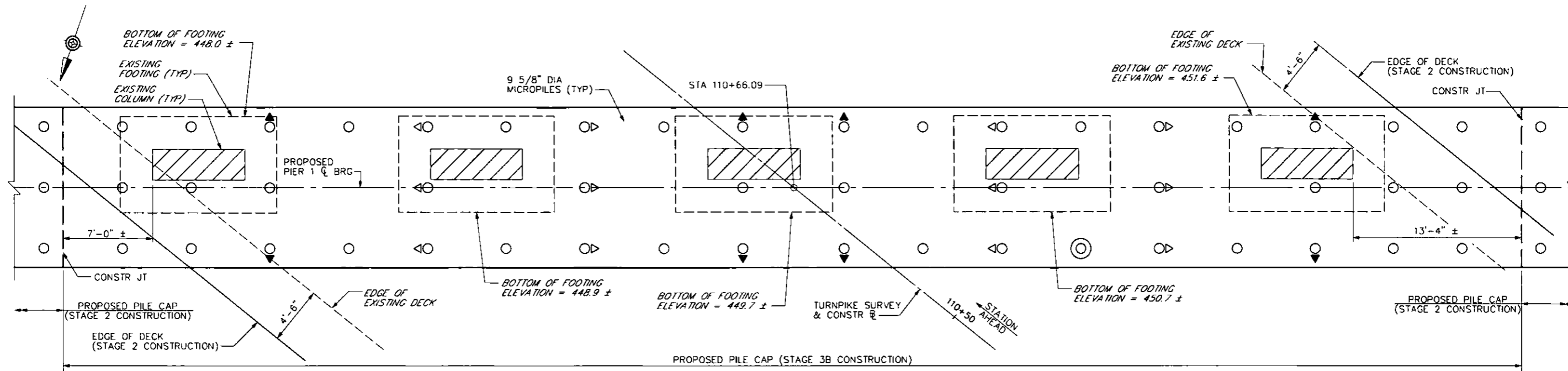
DISTRICT: 3 COUNTY: CUMBERLAND

TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

EXISTING ABUTMENT 2 REMOVAL PLAN






DRAWING: 12 OF 101

SHEET: 157 OF 315



EXISTING PIER 1 REMOVAL PLAN

LEGEND

-  EXISTING PIER TO BE REMOVED TO ELEVATION 461.00 (STAGE 3A CONSTRUCTION)
-  VERTICAL MICROPILE
-  MICROPILE BATTERED 4 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW
-  MICROPILE BATTERED AT 12 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW
-  TEST MICROPILE

NOTES

1. PROPOSED PIER COLUMNS NOT SHOWN FOR CLARITY.
2. PROPOSED BOTTOM OF PILE CAP ELEVATION = 463.00
3. DRILL PROPOSED MICROPILES THROUGH EXISTING FOOTINGS WHERE CONFLICTING.
4. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
5. FOR CONSTRUCTION STAGING PLANS, SEE DRAWINGS 9 AND 10.

DATE: 7/12/2018

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
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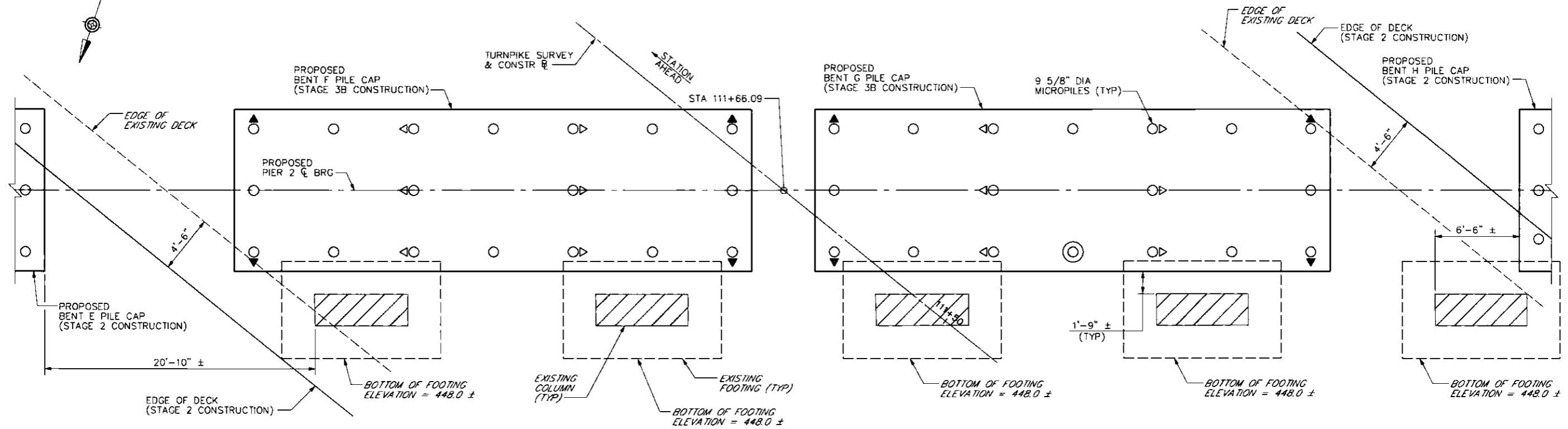


NO.	REVISIONS	DATE	APPR.






WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STrem03.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: 1 0 2 4 FEET

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

EXISTING PIER 1 REMOVAL PLAN	
DRAWING: 13 OF 101	SHEET: 158 OF 315



LEGEND

-  EXISTING PIER TO BE REMOVED TO 2'-0" MINIMUM BELOW FINISHED GROUND (STAGE 3A CONSTRUCTION)
-  VERTICAL MICROPILE
-  MICROPILE BATTERED 4 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW
-  MICROPILE BATTERED AT 12 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW
-  TEST MICROPILE

NOTES

1. PROPOSED PIER COLUMNS NOT SHOWN FOR CLARITY.
2. PROPOSED BOTTOM OF PILE CAP ELEVATION = 463.00
3. DRILL PROPOSED MICROPILES THROUGH EXISTING FOOTINGS WHERE CONFLICTING.
4. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
5. FOR CONSTRUCTION STAGING PLANS, SEE DRAWINGS 9 AND 10.

EXISTING PIER 2 REMOVAL PLAN

DATE: 7/12/2016

PREPARED BY:
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MECHANICSBURG, PA 17050

PREPARED FOR:
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NETWORK NUMBER: 7003982
FILE NAME: STrem04.dgn
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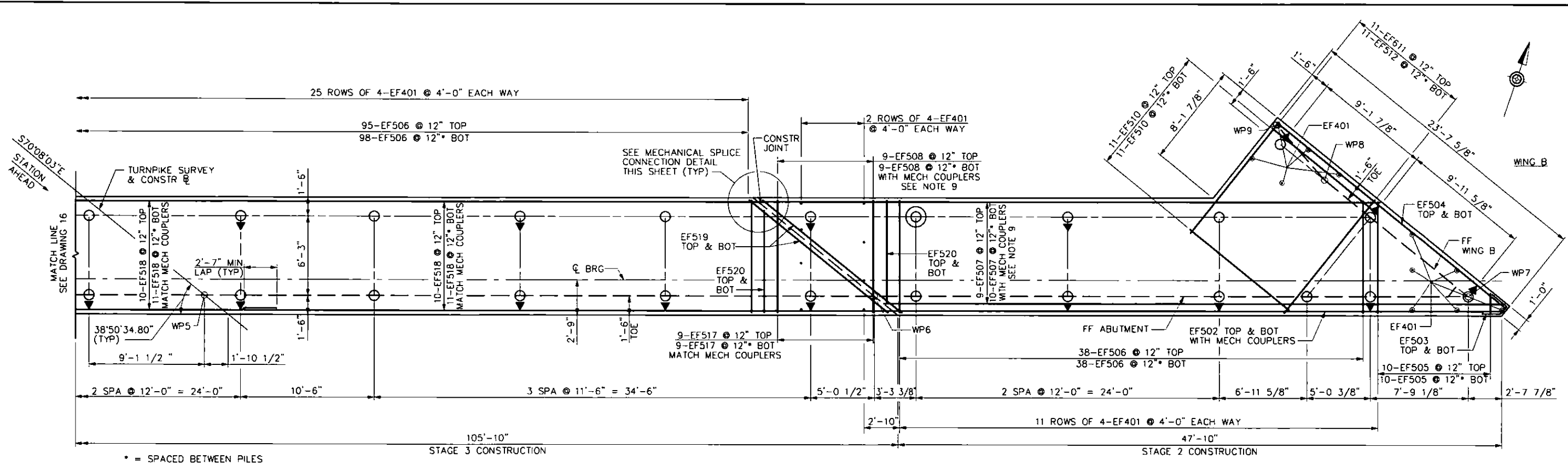
SCALE: 1 0 2 4 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

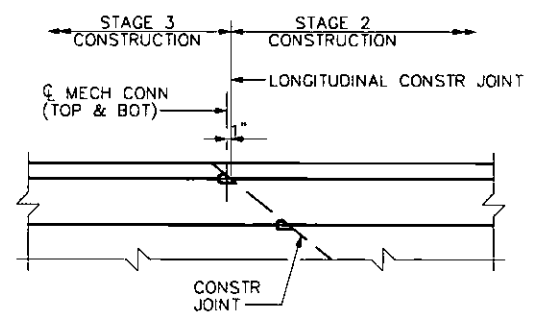
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

EXISTING PIER 2 REMOVAL PLAN

DRAWING: 14 OF 101
SHEET: 159 OF 315



ABUTMENT 1 WESTBOUND FOOTING PLAN & PILE LAYOUT



MECHANICAL SPLICE CONNECTION DETAIL
 NOT TO SCALE
 NOTE: WESTBOUND SHOWN; EASTBOUND SIMILAR

- LEGEND**
- DENOTES VERTICAL PILE (9 5/8" DIA MICROPILE)
 - ◓ DENOTES PILE BATTERED 4 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW (9 5/8" DIA MICROPILE)
 - ⊙ DENOTES TEST PILE (9 5/8" DIA MICROPILE)

STRUCTURE	PILE LOADING			
	ABUTMENT 1		WINGWALL B	
TYPE OF LOAD	AXIAL K/PILE	LATERAL K/PILE GROUP	AXIAL K/PILE	LATERAL K/PILE GROUP
FACTORED LOAD	211.53	6.75	153.75	6.83
LIMIT STATE	STR-I	STR-I	EXT-II	EXT-II
STAGE	FINAL	FINAL	FINAL	FINAL
MIN / MAX	MAX	MAX	MAX	MAX
FACTORED RESISTANCE	300.00	7.58	300.00	6.93

- NOTES**
1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
 2. FOR ABUTMENT 1 FOOTING PLAN - EASTBOUND, SEE DRAWING 16.
 3. FOR ABUTMENT 1 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 17.
 4. FOR ABUTMENT 1 TYPICAL SECTION AND TYPICAL MICROPILE DETAIL, SEE DRAWING 19.
 5. FOR WINGWALL B, SEE DRAWING 23.
 6. FOR ABUTMENT 1 WESTBOUND REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 24 AND 25.
 7. PERFORM PROOF TESTS TO 1.5 X DL AND VERIFICATION TESTS TO 2.0 X DL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. DL IS DEFINED AS THE "UNFACTORED LOAD" AND IS EQUAL TO 200 KIPS (300 KIPS/1.5).
 8. TIE TOP AND BOTTOM MATS OF REINFORCING STEEL WITH EF401 AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES.
 9. MECHANICAL SPLICING IS REQUIRED FOR REBARS AT THE CONSTRUCTION JOINT, AS PER MECHANICAL SPLICE CONNECTION DETAIL THIS SHEET.

DATE: 7/12/2016

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: STa101.dgn
 DRAWING TYPE: 2G
 STRUCTURE NUMBER: EB-103

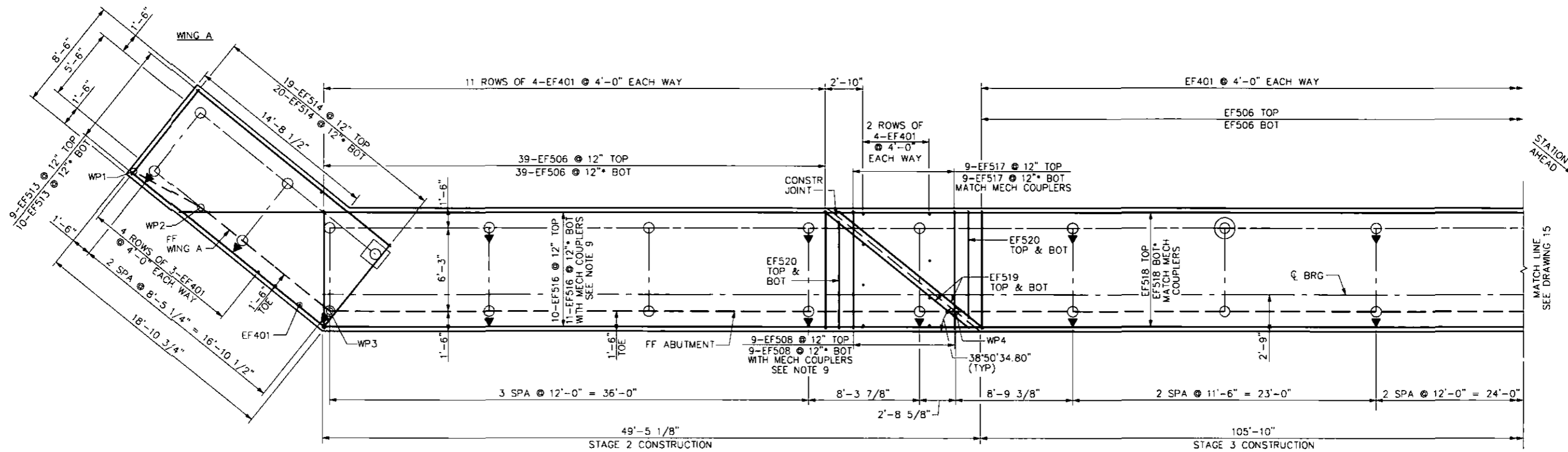
SCALE: 2 0 2 4 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ABUTMENT 1
 FOOTING PLAN - WESTBOUND**

DRAWING: 15 OF 101
 SHEET: 160 OF 315



* = SPACED BETWEEN PILES

ABUTMENT 1 EASTBOUND FOOTING PLAN & PILE LAYOUT

LEGEND

- DENOTES VERTICAL PILE (9 5/8" DIA MICROPILE)
- ◐ DENOTES PILE BATTERED 4 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW (9 5/8" DIA MICROPILE)
- ⊙ DENOTES TEST PILE (9 5/8" DIA MICROPILE)
- DENOTES SACRIFICIAL PILE (9 5/8" DIA MICROPILE)

PILE LOADING

STRUCTURE	WINGWALL A	
	AXIAL K/PILE	LATERAL K/PILE GROUP
FACTORED LOAD	158.42	5.98
LIMIT STATE	EXT-II	EXT-II
STAGE	FINAL	FINAL
MIN / MAX	MAX	MAX
FACTORED RESISTANCE	300.00	6.06

NOTES

1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
2. FOR ABUTMENT 1 FOOTING PLAN - WESTBOUND, SEE DRAWING 15.
3. FOR ABUTMENT 1 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 18.
4. FOR ABUTMENT 1 TYPICAL SECTION AND TYPICAL MICROPILE DETAIL, SEE DRAWING 19.
5. FOR WINGWALL A, SEE DRAWING 22.
6. FOR ABUTMENT 1 EASTBOUND REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 24 AND 25.
7. PERFORM PROOF TESTS TO 1.5 X DL AND VERIFICATION TESTS TO 2.0 X DL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. DL IS DEFINED AS THE "UNFACTORED LOAD" AND IS EQUAL TO 200 KIPS (300 KIPS/1.5).
8. TIE TOP AND BOTTOM MATS OF REINFORCING STEEL WITH EF401 AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES.
9. MECHANICAL SPLICING IS REQUIRED FOR REBARS AT THE CONSTRUCTION JOINT, AS PER MECHANICAL SPLICE CONNECTION DETAIL ON DRAWING 15.

DATE: 7/12/2018

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STa102.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

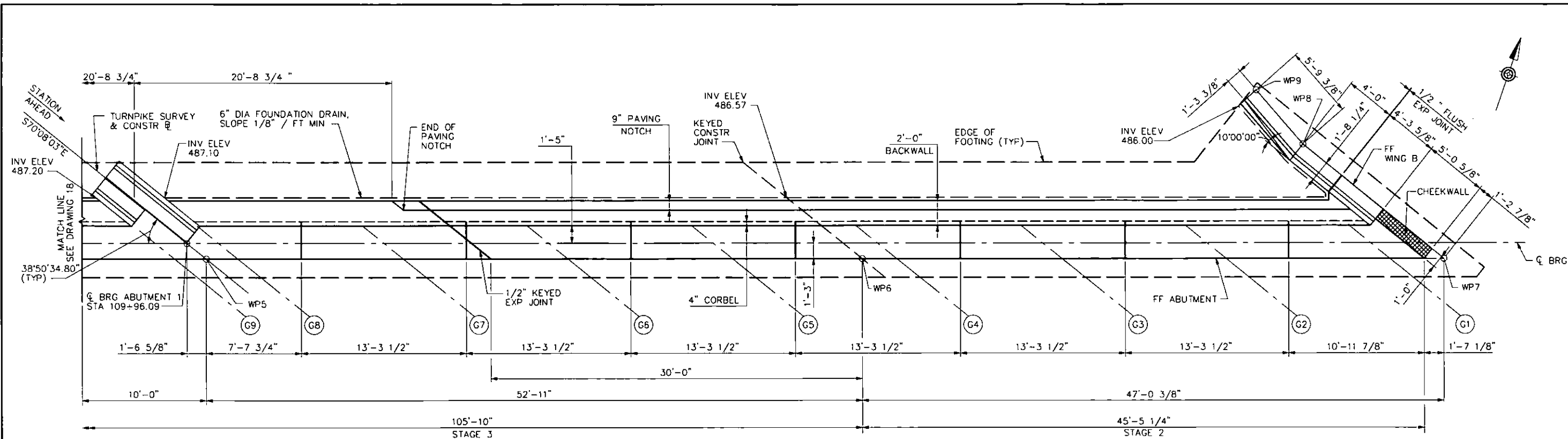
SCALE: 2 0 2 4 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

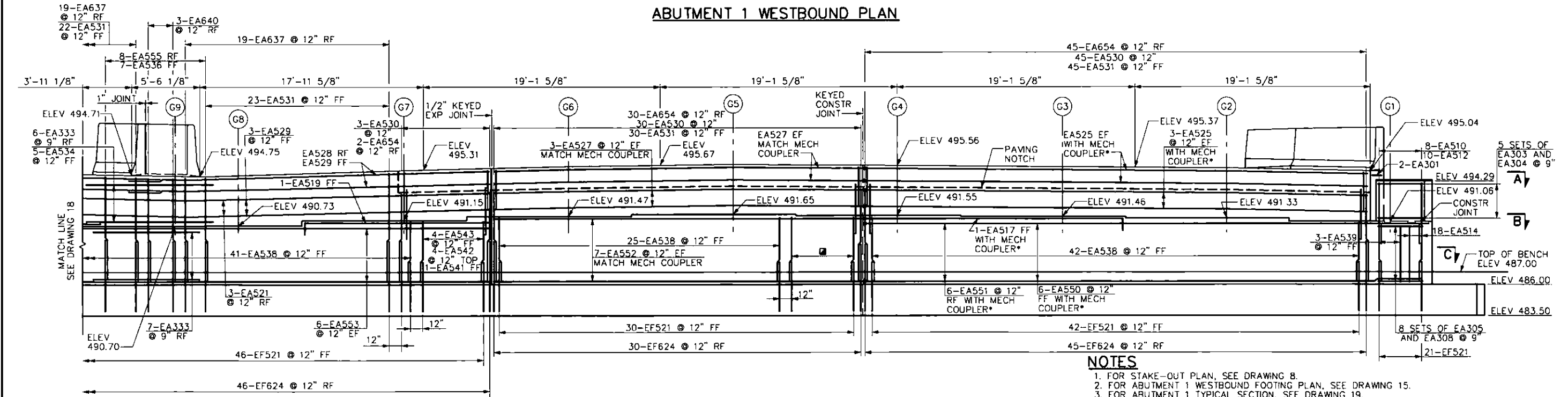
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ABUTMENT 1
FOOTING PLAN - EASTBOUND**

DRAWING: 16 OF 101
SHEET: 161 OF 315



ABUTMENT 1 WESTBOUND PLAN



ABUTMENT 1 WESTBOUND ELEVATION

- NOTES**
1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
 2. FOR ABUTMENT 1 WESTBOUND FOOTING PLAN, SEE DRAWING 15.
 3. FOR ABUTMENT 1 TYPICAL SECTION, SEE DRAWING 19.
 4. FOR ABUTMENT 1 SECTIONS, SEE DRAWING 20.
 5. FOR ABUTMENT 1 CONCRETE MEDIAN BARRIER DETAILS, SEE DRAWING 21.
 6. FOR ABUTMENT STEM REINFORCEMENT AT CONSTRUCTION JOINT, SEE DETAIL ON DRAWING 21.
 7. FOR WINGWALL B, SEE DRAWING 23.
 8. FOR ABUTMENT 1 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 24.
 9. FOR ABUTMENT 1 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 25.
 10. FOR TYPICAL ANCHOR BOLT LAYOUT, SEE DRAWING 69.
 11. MECHANICAL SPlicing IS REQUIRED FOR REBARS AT THE CONSTRUCTION JOINT, AS PER MECHANICAL SPlicing CONNECTION DETAIL ON DRAWING 15.

- LEGEND**
- = 1-EA541 FF (STAGE 3)
 - = 4-EA557 @ 12" FF (STAGE 3) MATCH MECH COUPLER
 - = 4-EA558 @ 12" (STAGE 2) TOP WITH MECH COUPLER
 - = 1-EA559 TOP (STAGE 2)
 - = SEE NOTE 11

NOTE: PILES NOT SHOWN FOR CLARITY

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

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WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STA103.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

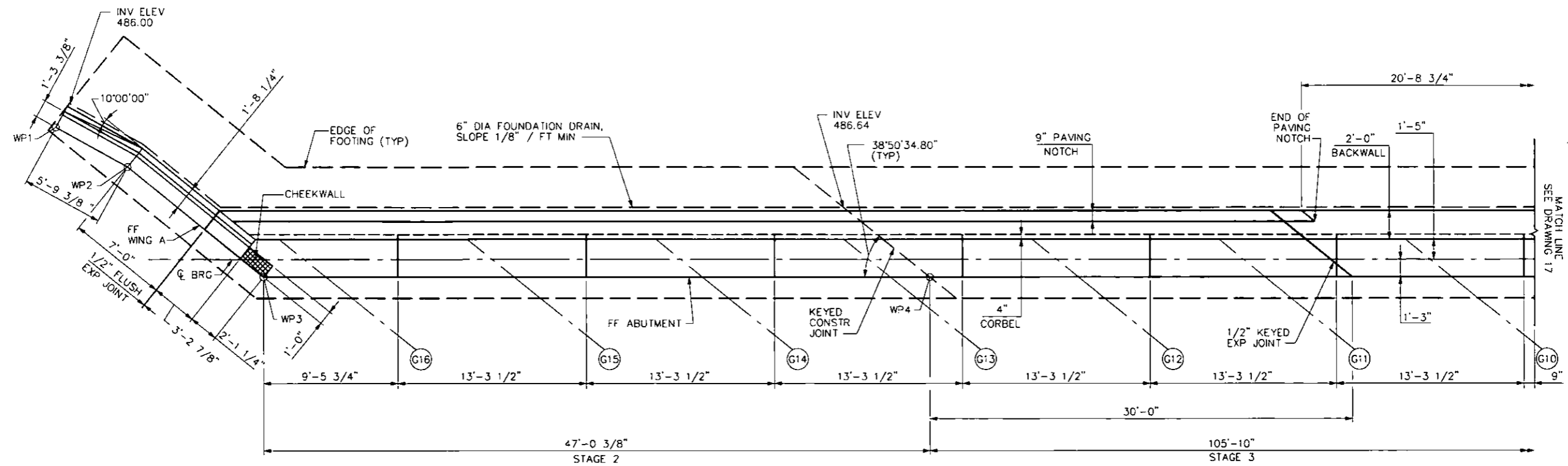
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**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

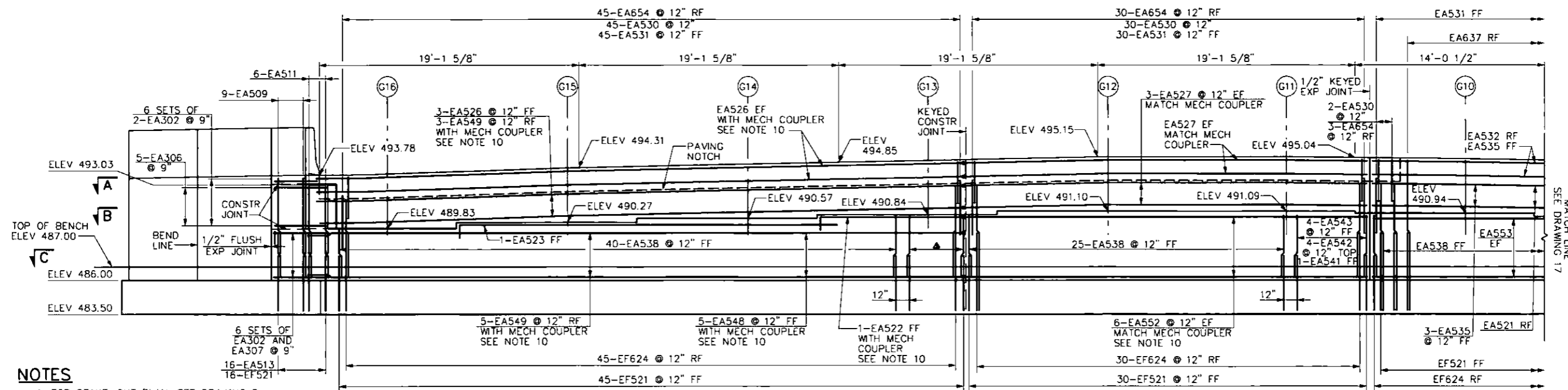
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ABUTMENT 1
PLAN AND ELEVATION - WESTBOUND**

DRAWING: 17 OF 101
SHEET: 162 OF 315



ABUTMENT 1 EASTBOUND PLAN



ABUTMENT 1 EASTBOUND ELEVATION

NOTES

1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
2. FOR ABUTMENT 1 EASTBOUND FOOTING PLAN, SEE DRAWING 16.
3. FOR ABUTMENT 1 TYPICAL SECTION, SEE DRAWING 19.
4. FOR ABUTMENT 1 SECTIONS, SEE DRAWING 20.
5. FOR ABUTMENT STEM REINFORCEMENT AT CONSTRUCTION JOINT, SEE DETAIL ON DRAWING 21.
6. FOR WINGWALL A, SEE DRAWING 22.
7. FOR ABUTMENT 1 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 24.
8. FOR ABUTMENT 1 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 25.
9. FOR TYPICAL ANCHOR BOLT LAYOUT, SEE DRAWING 69.
10. MECHANICAL SPlicing IS REQUIRED FOR REBARS AT THE CONSTRUCTION JOINT, AS PER MECHANICAL SPlicing CONNECTION DETAIL ON DRAWING 15.

NOTE: PILES NOT SHOWN FOR CLARITY

LEGEND

- ▲ = 1-EA541 FF (STAGE 2)
- = 4-EA560 @ 12" FF (STAGE 2) WITH MECH COUPLER
- = 4-EA561 @ 12" (STAGE 3) TOP MATCH MECH COUPLER
- = 1-EA559 TOP (STAGE 3)

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STa104.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

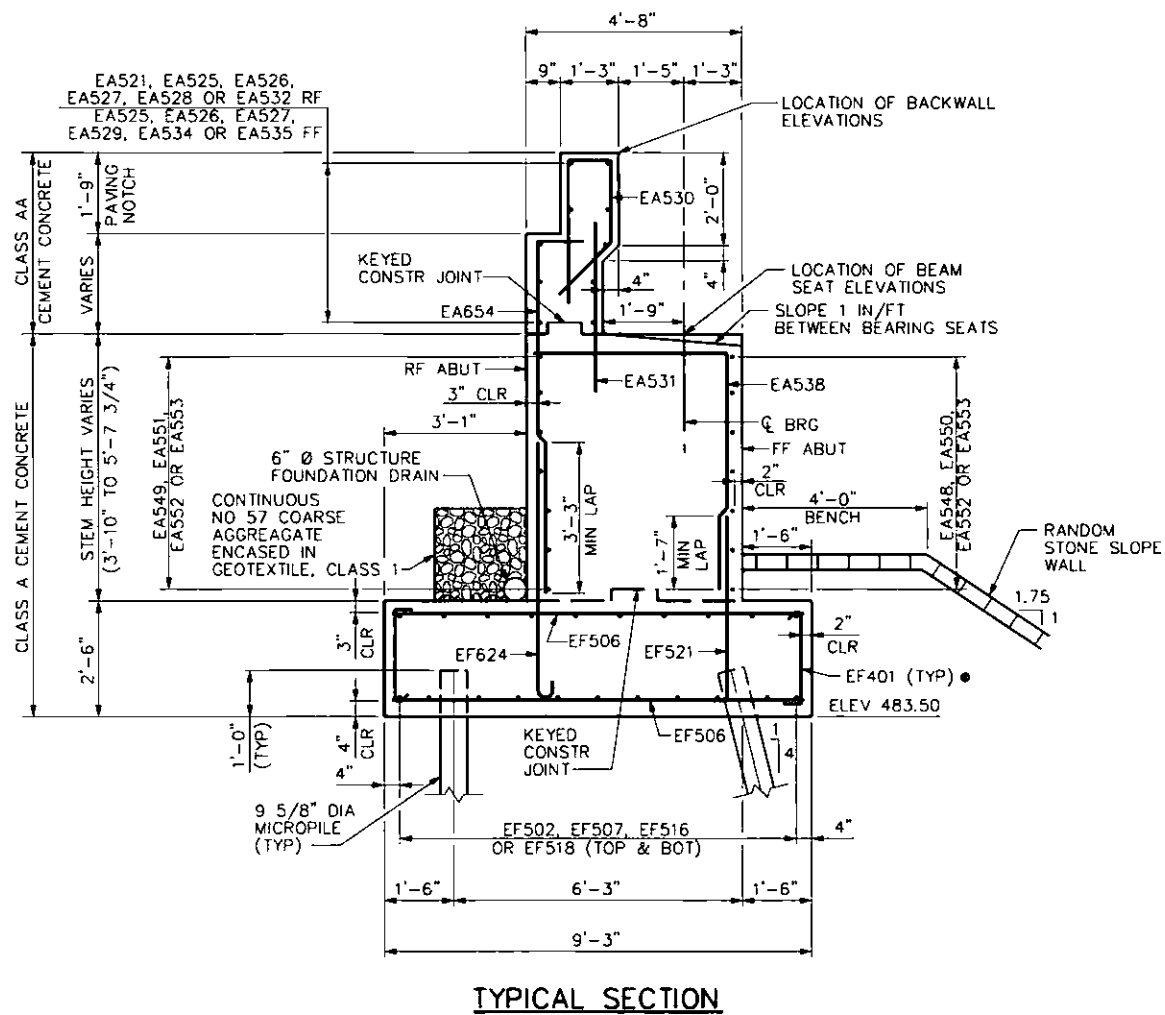
SCALE: 2 0 2 4 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ABUTMENT 1
PLAN AND ELEVATION - EASTBOUND**

DRAWING: 18 OF 101
SHEET: 163 OF 315



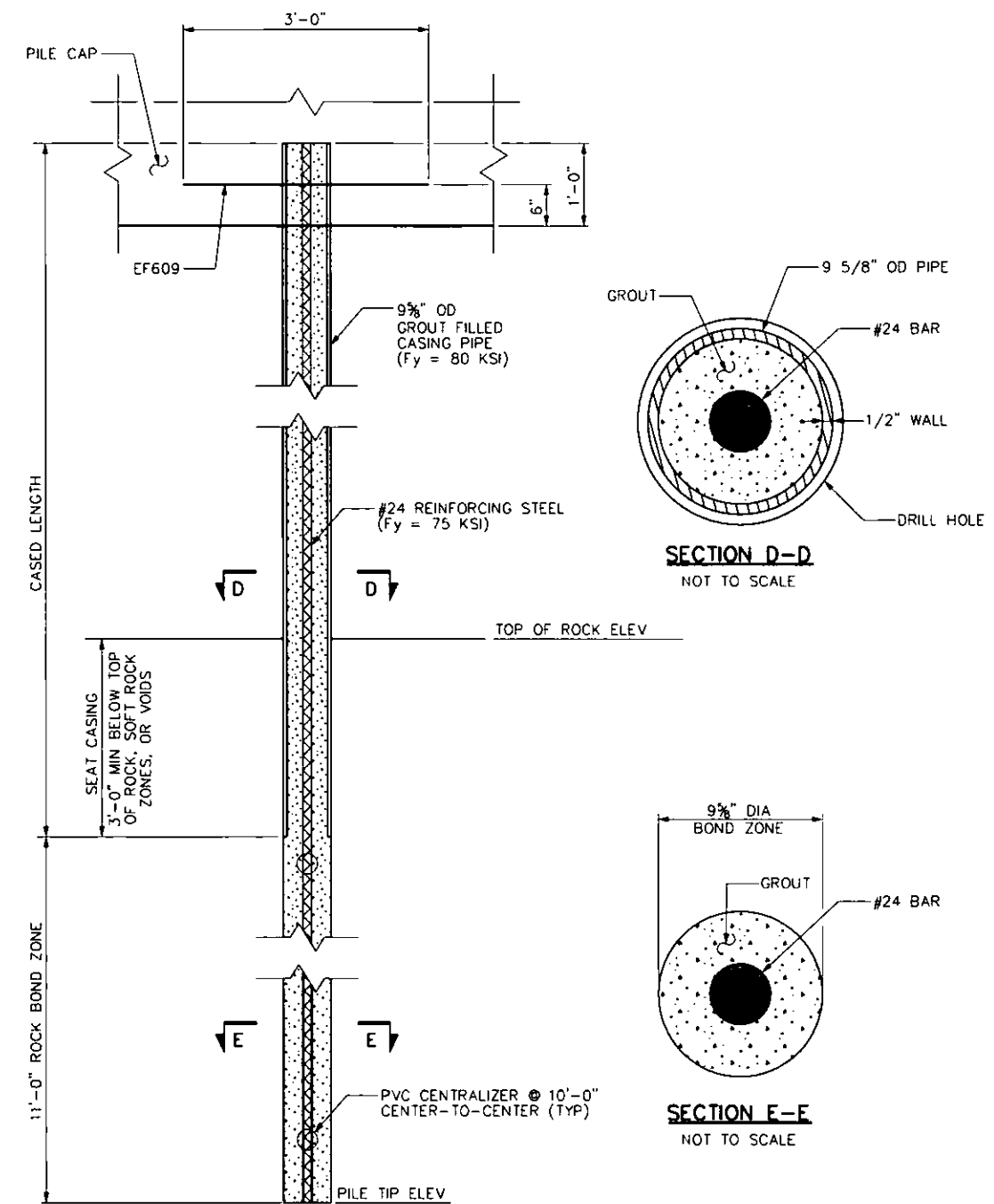
TYPICAL SECTION

LEGEND

- TIE TOP & BOTTOM MATS OF REINFORCING STEEL WITH EF401 BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOK AT TOP IN ALTERNATING TIES.

NOTES

1. FOR ABUTMENT 1 WESTBOUND FOOTING PLAN, SEE DRAWING 15.
2. FOR ABUTMENT 1 EASTBOUND FOOTING PLAN, SEE DRAWING 16.
3. FOR ABUTMENT 1 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 17.
4. FOR ABUTMENT 1 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 18.
5. FOR ABUTMENT 1 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 24.
6. FOR ABUTMENT 1 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 25.



TYPICAL MICROPILE DETAIL

NOT TO SCALE

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
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TURNPIKE COMMISSION

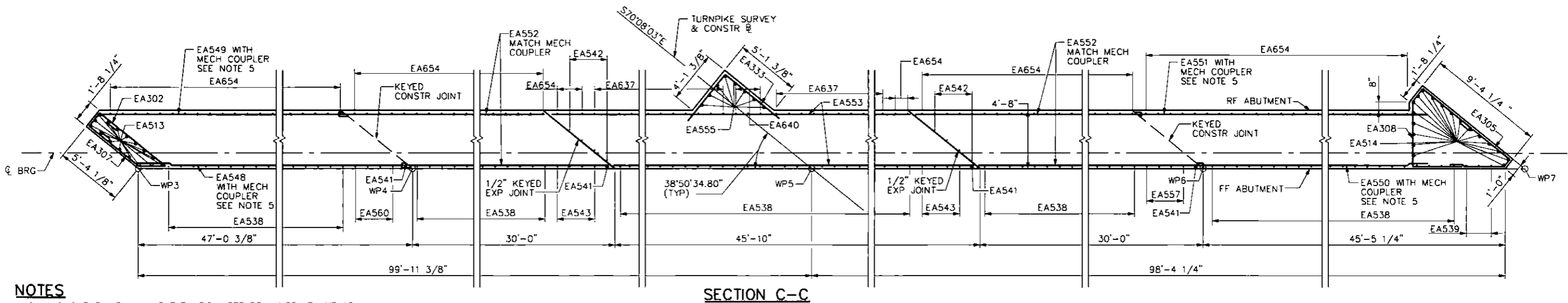
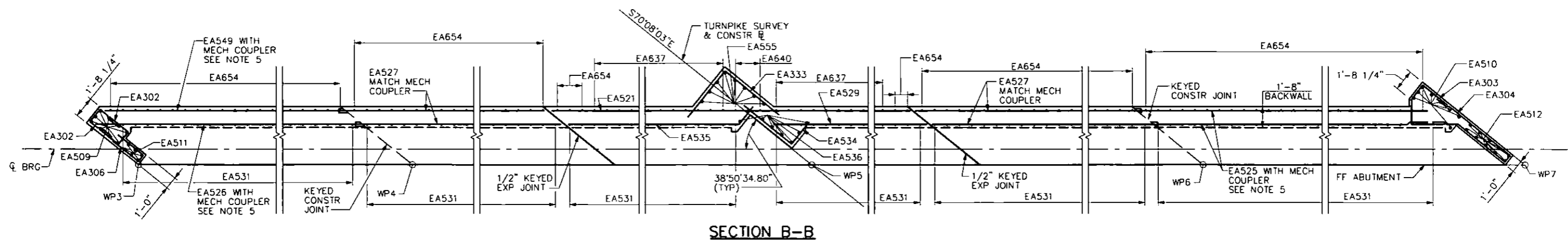
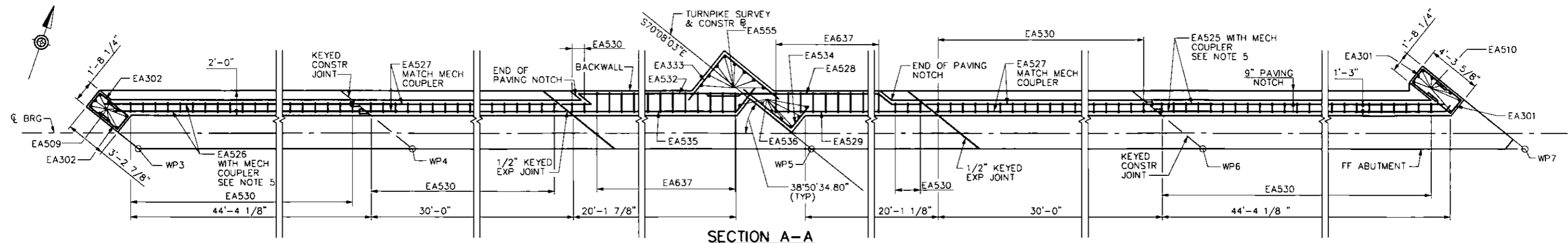


NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STA105.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: 1" = 0' 1" 2 FEET

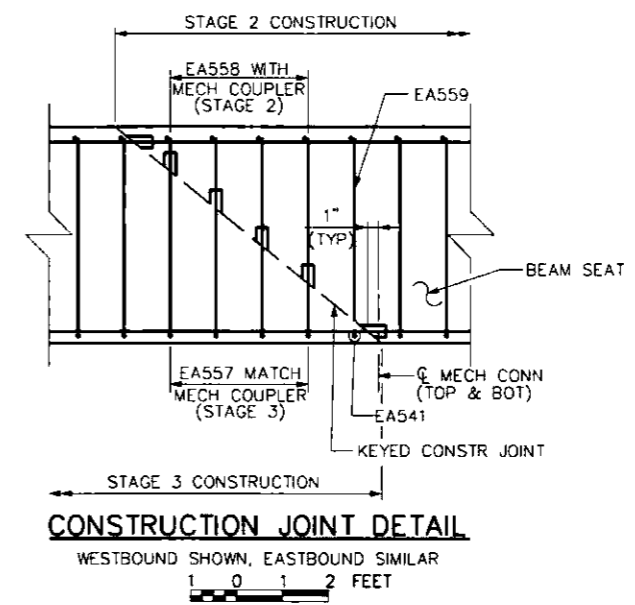
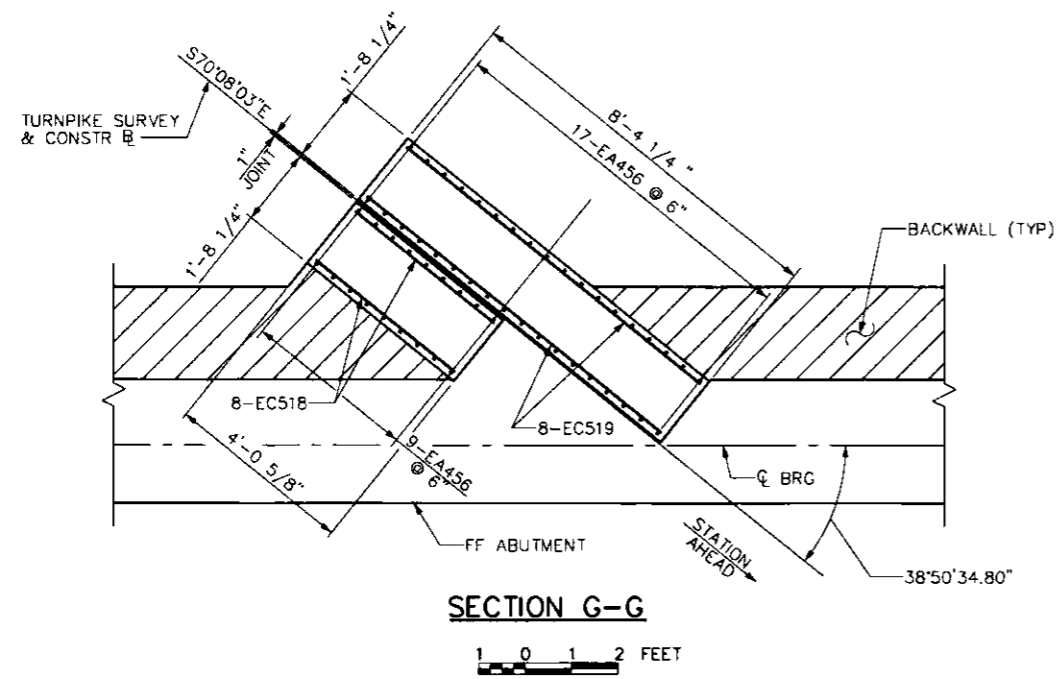
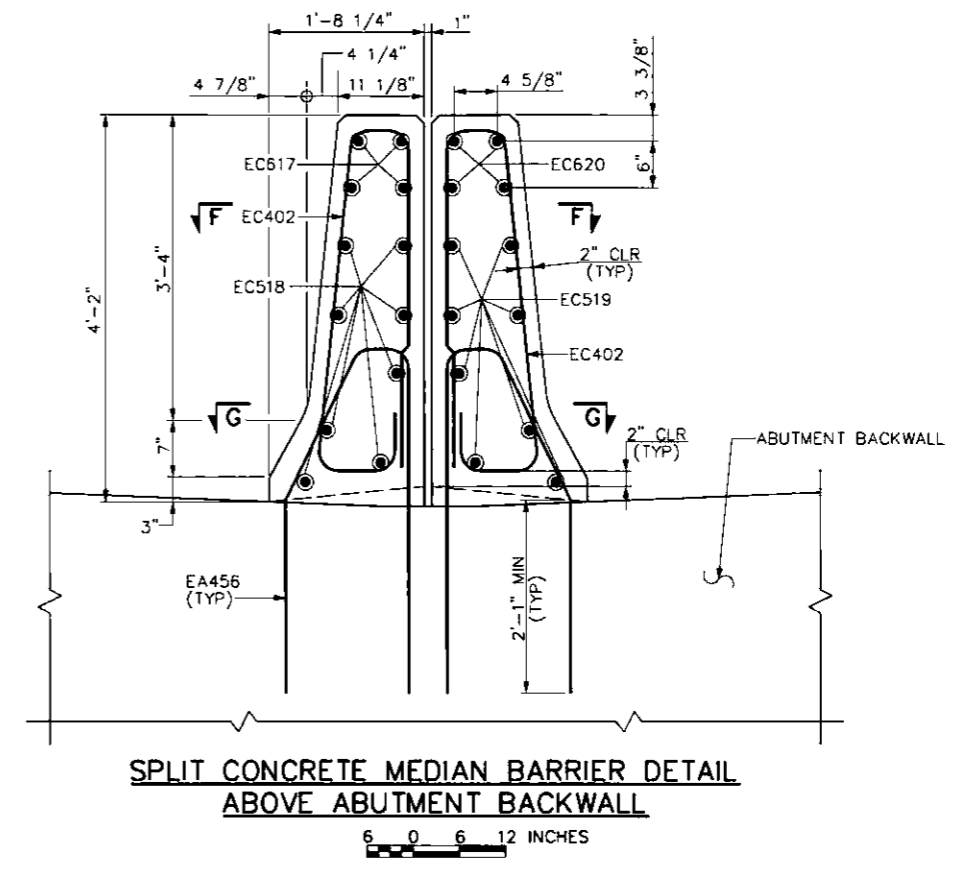
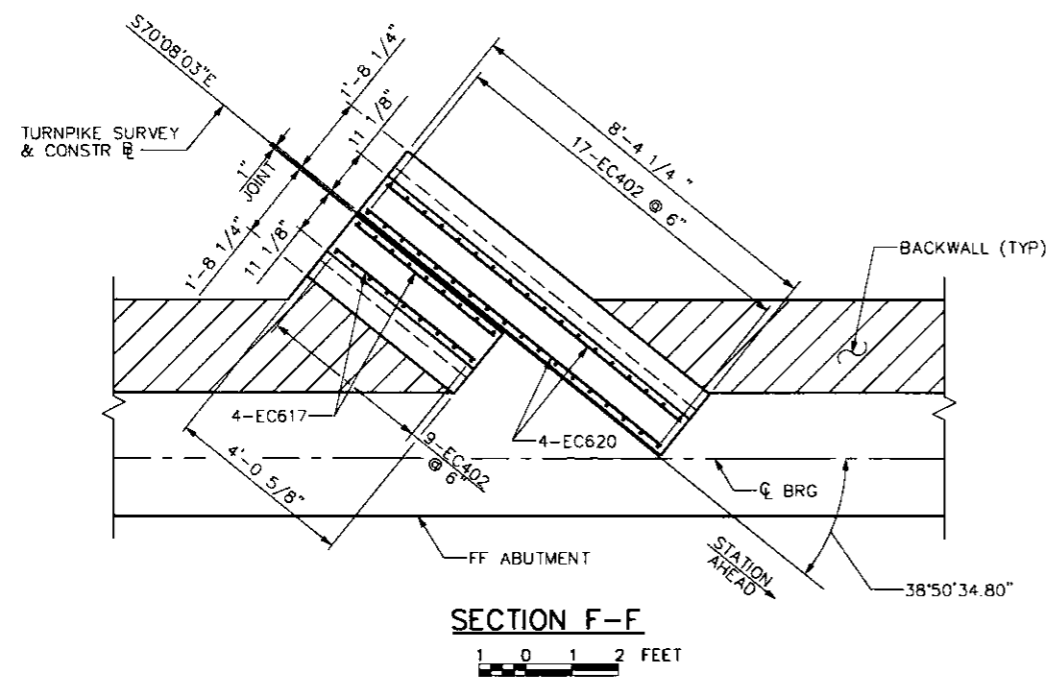
REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

ABUTMENT 1 TYPICAL SECTION	
DRAWING: 19 OF 101	SHEET: 164 OF 315



- NOTES**
1. FOR ABUTMENT 1 PLAN AND ELEVATION, SEE DRAWINGS 17 AND 18.
 2. FOR ABUTMENT 1 WINGWALL A, SEE DRAWING 22.
 3. FOR ABUTMENT 1 WINGWALL B, SEE DRAWING 23.
 4. FOR ABUTMENT 1 REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 24 AND 25.
 5. MECHANICAL SPlicing IS REQUIRED FOR REBARS AT THE CONSTRUCTION JOINT, AS PER THE CONSTRUCTION JOINT DETAIL SHOWN ON DRAWING 21.

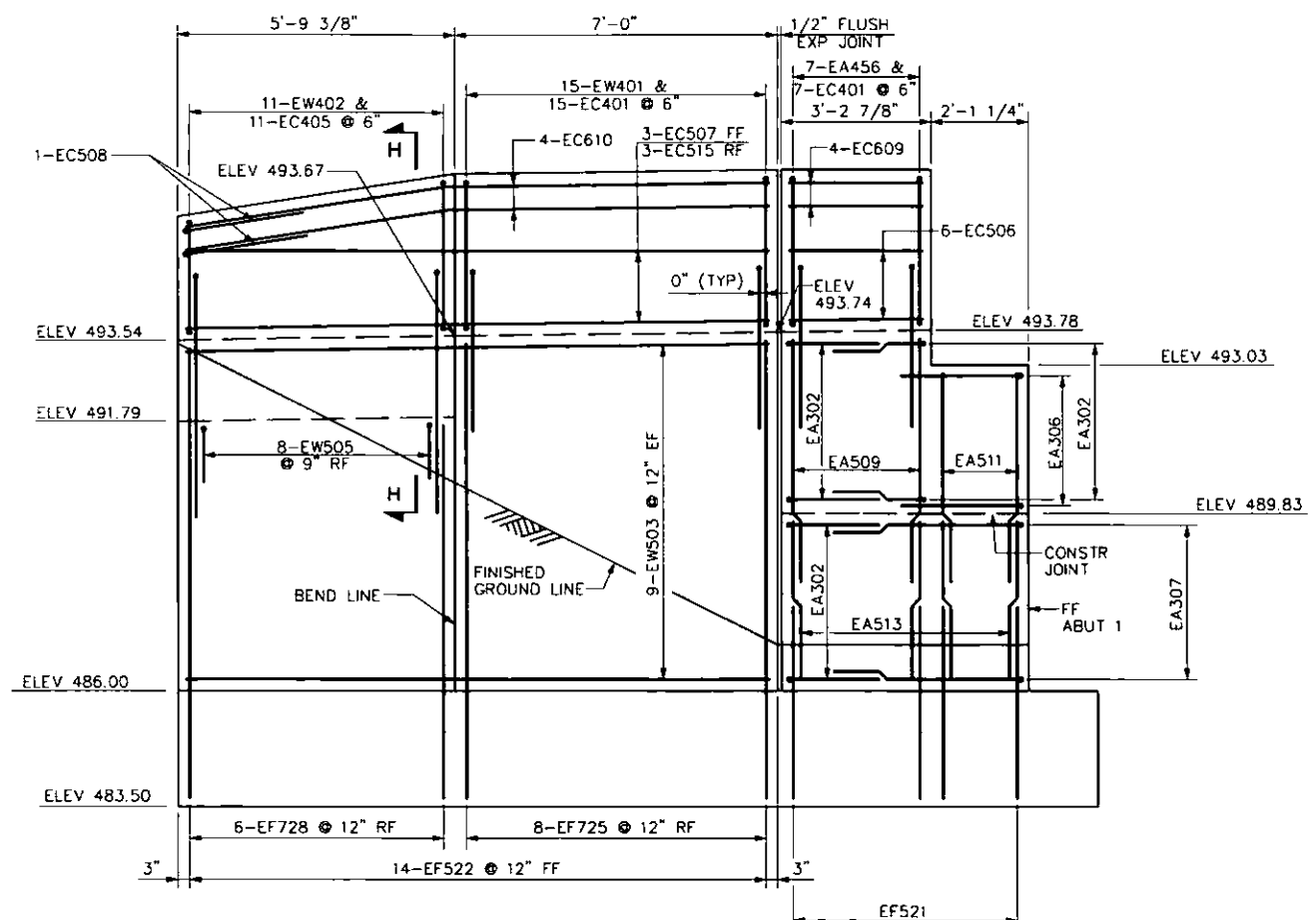
DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	ABUTMENT 1 SECTIONS
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NETWORK NUMBER: 7003982		
			FILE NAME: STa106.dgn		
			DRAWING TYPE: 2G		
			STRUCTURE NUMBER: EB-103		
	SCALE: 2 0 2 4 FEET	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 20 OF 101	
		TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 165 OF 315	



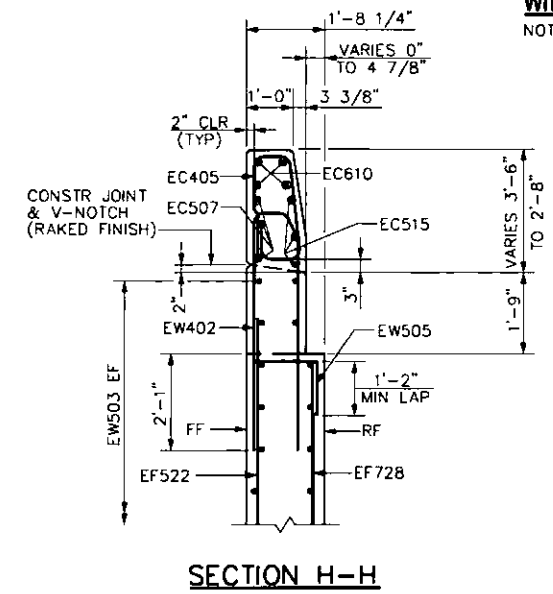
- NOTES**
1. FOR ABUTMENT 1 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 17.
 2. FOR ABUTMENT 1 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 18.
 3. FOR ABUTMENT 1 TYPICAL SECTION, SEE DRAWING 19.
 4. FOR ABUTMENT 1 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 25.

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		NO.	REVISIONS	DATE	APPR.	SCALE: AS NOTED	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	ABUTMENT 1 CONCRETE MEDIAN BARRIER DETAILS	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 21 OF 101
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE	APPR.	SCALE: AS NOTED			TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 166 OF 315	

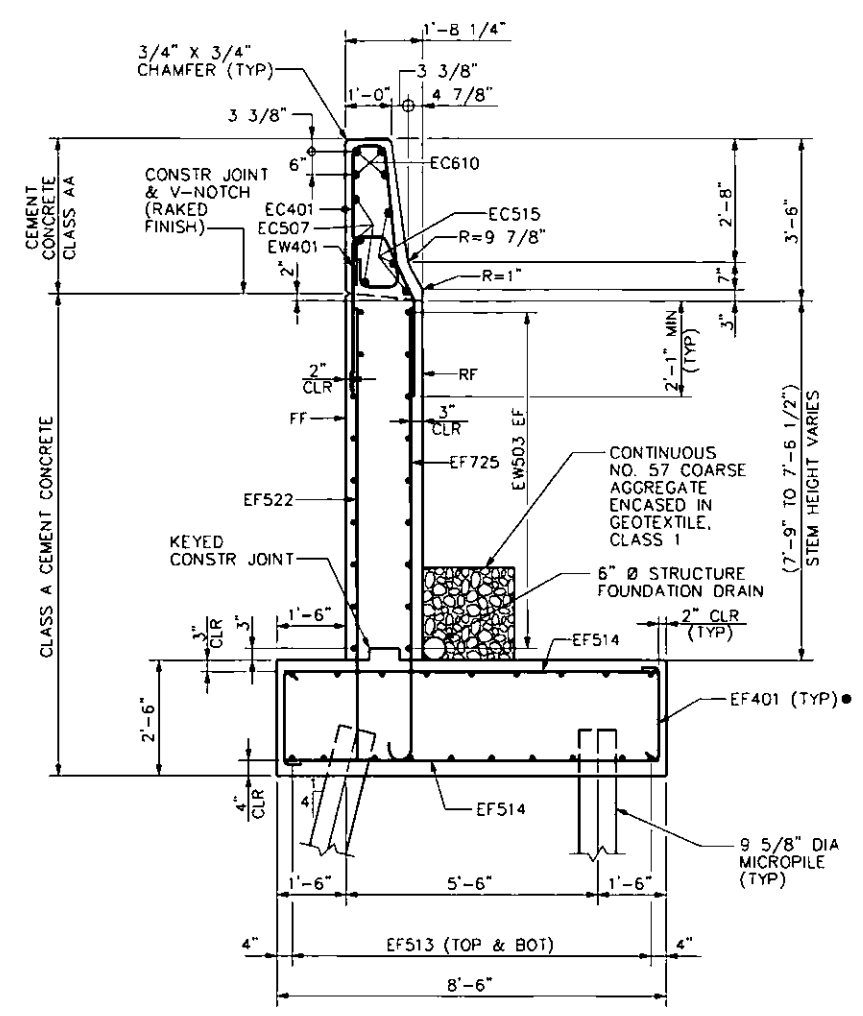
DATE: 7/12/2016



WINGWALL A ELEVATION
NOTE: PILES NOT SHOWN FOR CLARITY



SECTION H-H



WINGWALL A TYPICAL SECTION

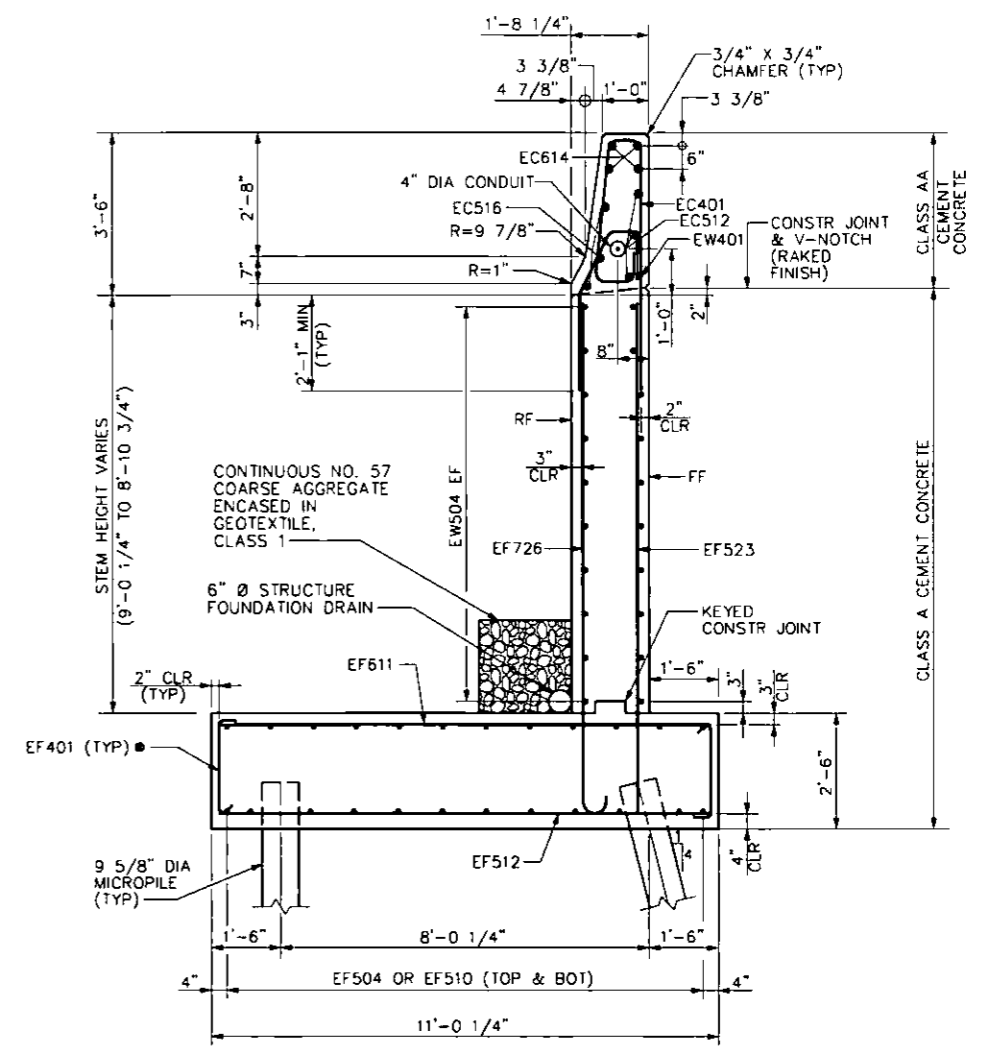
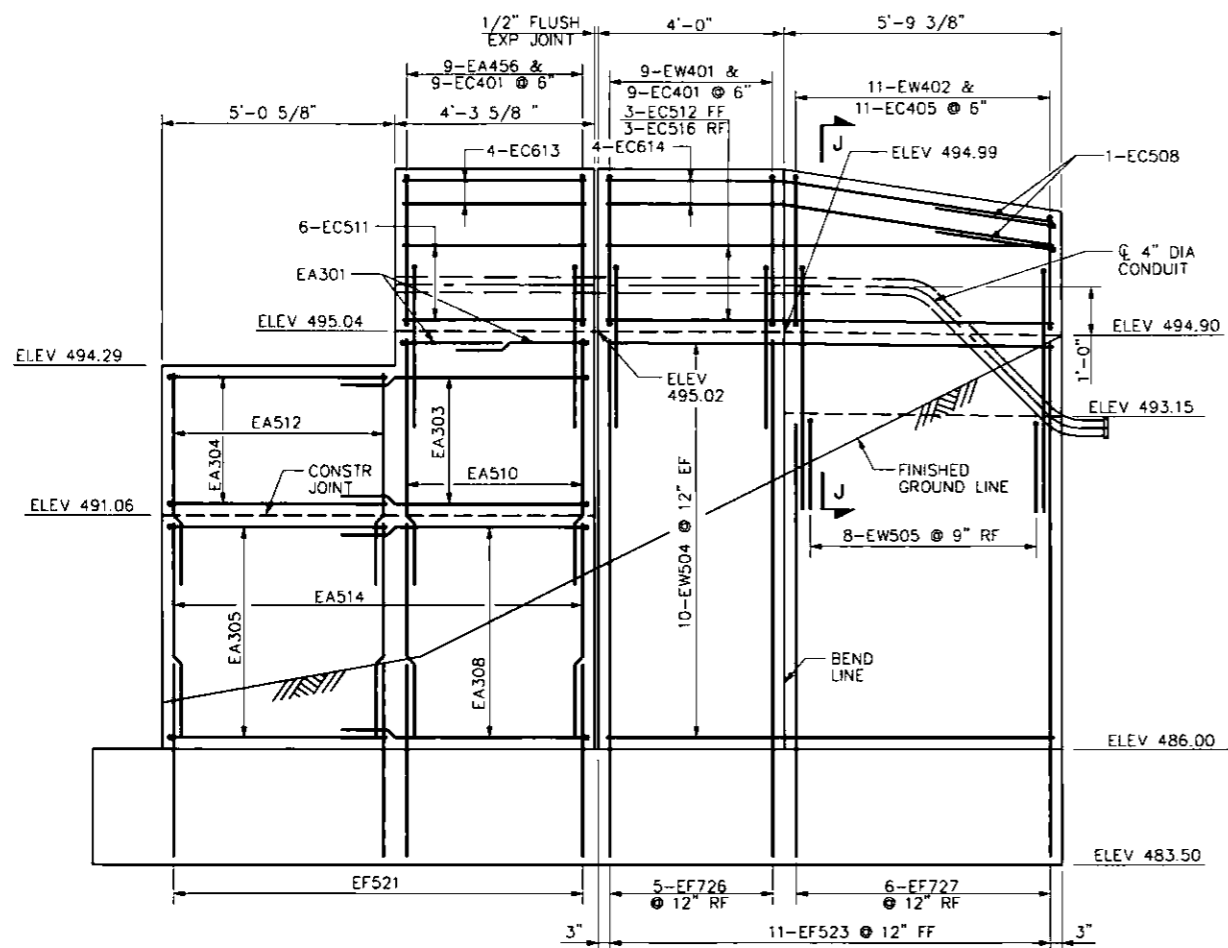
LEGEND

- TIE TOP & BOTTOM MATS OF REINFORCING STEEL WITH EF401 BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOK AT TOP IN ALTERNATING TIES.

NOTES

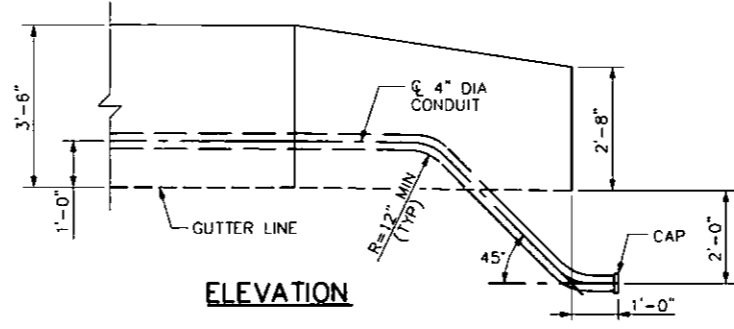
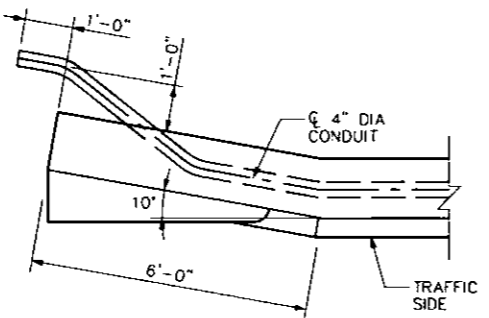
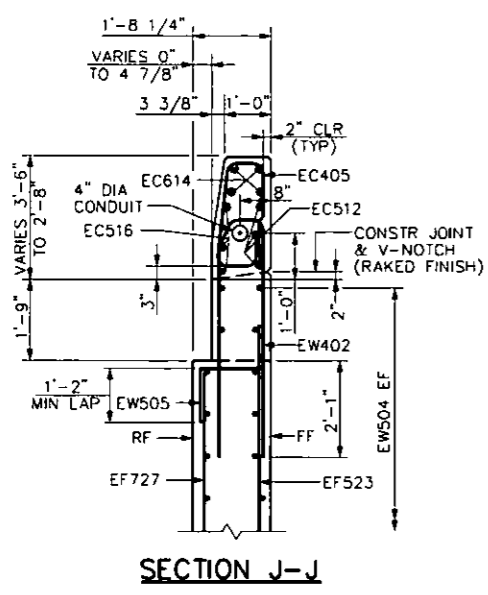
1. FOR ABUTMENT 1 EASTBOUND FOOTING PLAN, SEE DRAWING 16.
2. FOR ABUTMENT 1 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 18.
3. FOR ABUTMENT 1 SECTIONS, SEE DRAWING 20.
4. FOR ABUTMENT 1 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 24.

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		NO.	REVISIONS	DATE	APPR.	SCALE: 1" = 0' 1" 2 FEET	WBS NO. T-228.54S001-3-02 NETWORK NUMBER: 7003982 FILE NAME: STa108.dgn DRAWING TYPE: 2G STRUCTURE NUMBER: EB-103	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	WINGWALL A DETAILS
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION									
									TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 167 OF 315



WINGWALL B ELEVATION
(PILES NOT SHOWN FOR CLARITY)

WINGWALL B TYPICAL SECTION



CONDUIT DETAILS AT ENDS OF BRIDGE
(BARRIER REINFORCING BARS NOT SHOWN FOR CLARITY)

LEGEND

- TIE TOP & BOTTOM MATS OF REINFORCING STEEL WITH EF401 BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOK AT TOP IN ALTERNATING TIES.

NOTES

1. FOR ABUTMENT 1 WESTBOUND FOOTING PLAN, SEE DRAWING 15.
2. FOR ABUTMENT 1 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 17.
3. FOR ABUTMENT 1 SECTIONS, SEE DRAWING 20.
4. FOR ABUTMENT 1 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 24.

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		NO.	REVISIONS	DATE	APPR.	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	WINGWALL B DETAILS
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION						NETWORK NUMBER: 7003982 FILE NAME: STa109.dgn DRAWING TYPE: 2G STRUCTURE NUMBER: EB-103		

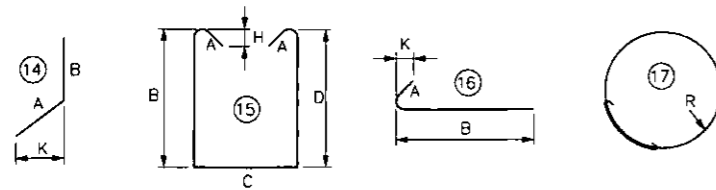
ABUTMENT 1 REINFORCEMENT BAR SCHEDULE - STAGE 2 EASTBOUND

ABUTMENT 1 REINFORCEMENT BAR SCHEDULE - STAGE 2 WESTBOUND

Main reinforcement bar schedule table with columns for MARK, SIZE, LENGTH, NO., TYPE, A, B, C, D, E, G, H, R, REMARKS for both eastbound and westbound abutments.

NOTES

1. FOR ABUTMENT 1 REINFORCEMENT BAR SCHEDULE FOR STAGE 2 WESTBOUND FOOTING, SEE DRAWING 25.



REINFORCEMENT NOTES

- "E" IN BAR MARK DENOTES EPOXY-COATED BARS.
• ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
• FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
• FIGURES IN CIRCLES SHOW TYPES.

FILE: 728-CN DGN
DATE: 02/19/2008
DRAWN BY: JAW/ST

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050
PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



Table with columns: NO., REVISIONS, DATE, APPR.

WBS NO.
T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STa110.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: NONE

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

ABUTMENT 1
REINFORCEMENT BAR SCHEDULE STAGE 2

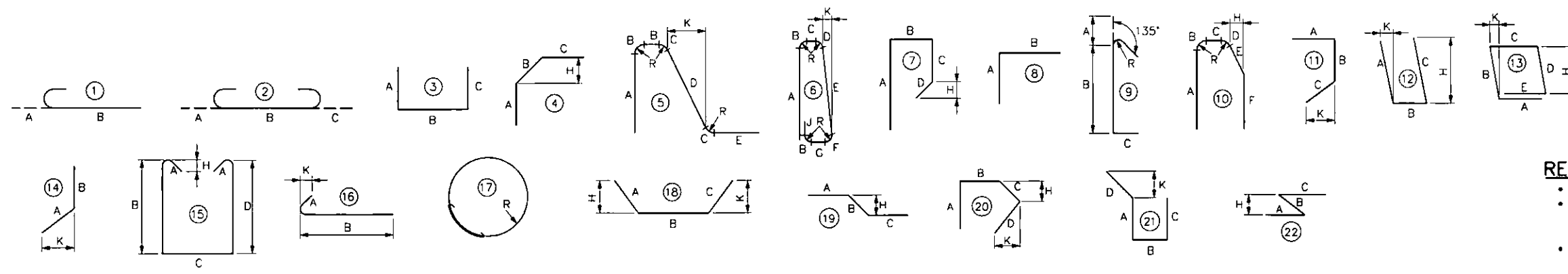
DISTRICT: 3 COUNTY: CUMBERLAND DRAWING: 24 OF 101
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP SHEET: 169 OF 315

ABUTMENT 1 REINFORCEMENT BAR SCHEDULE - STAGE 2 WESTBOUND FOOTING

MARK	SIZE	LENGTH	NO	TYPE	A	B	C	D	E	G	H	R	REMARKS
EF401	4	2'-8"	60	9	4½"	1'-11"	4½"					1"	
EF502	5	48'-0"	2	STR									PROVIDE MECH COUPLER @ ONE END
EF503	5	3'-11"	2	11	1'-7"	9"	1'-7"						K = 1'-2½"
EF504	5	23'-4"	2	STR									
EF505	5	8'-10" TO 1'-7"	20	STR									VARY 2 EA BY 9½"
EF506	5	8'-11"	76	STR									
EF507	5	49'-2"	19	STR									PROVIDE MECH COUPLER @ ONE END
EF508	5	1'-3" TO 7'-9"	18	STR									PROVIDE MECH COUPLER @ ONE END; VARY 2 EA BY 9½"
EF609	6	3'-0"	12	STR									
EF510	5	11'-7"	22	STR									
EF611	6	10'-9"	11	STR									
EF512	5	10'-9"	11	STR									
EF519	5	14'-5"	2	STR									
EF520	5	8'-5"	2	STR									
EF521	5	5'-7"	63	STR									
EF523	5	10'-11"	11	STR									
EF624	6	7'-11"	45	1	8"	7'-3"							
EF726	7	11'-9"	5	1	10"	10'-11"							
EF727	7	10'-0"	6	1	10"	9'-2"							

ABUTMENT 1 REINFORCEMENT BAR SCHEDULE - STAGE 3

MARK	SIZE	LENGTH	NO	TYPE	A	B	C	D	E	G	H	R	REMARKS
EA519	5	15'-10"	1	8	1'-2"	14'-8"							
EA521	5	45'-4"	3	STR									
EA527	5	29'-8"	20	STR									MATCH MECHANICAL COUPLER @ ONE END
EA528	5	25'-3"	2	19	2'-3"	1'-3"	21'-9"				9"		
EA529	5	20'-2"	5	STR									
EA530	5	7'-4"	65	7	3'-1"	11"	1'-9"	1'-7"			1'-1½"		
EA531	5	3'-11"	105	STR									
EA532	5	25'-3"	2	22	2'-3"	1'-3"	21'-9"				9"		
EA333	3	10'-4"	13	8	4'-8"	5'-8"							
EA534	5	8'-0"	5	8	2'-8"	5'-4"							
EA535	5	23'-3"	5	14	20'-10"	2'-5"							
EA536	5	5'-3"	7	STR									
EA637	6	11'-11"	38	7	7'-0"	1'-7"	1'-9"	1'-7"			1'-1½"		
EA538	5	7'-10"	91	8	3'-6"	4'-4"							
EA640	6	7'-0"	3	STR									
EA541	5	3'-6"	3	STR									
EA542	5	5'-0" TO 2'-7"	8	8	1'-6"	3'-6" TO 1'-1"							VARY 'B' 2 EA BY 9½"
EA543	5	7'-0" TO 4'-7"	8	8	3'-6"	3'-6" TO 1'-1"							VARY 'B' 2 EA BY 9½"
EA552	5	29'-8"	26	STR									MATCH MECH COUPLER @ ONE END
EA553	5	45'-4"	12	STR									
EA654	6	7'-7"	65	8	5'-9"	1'-10"							
EA555	5	8'-3"	8	STR									
EA456	4	7'-7½"	26	10	3'-3"	4"	4"	2½"	1'-4½"		7½"	2"	F = 2'-1"
EA557	5	7'-0" TO 4'-7"	4	8	3'-6"	3'-6" TO 1'-1"							VARY 'B' EA BY 9½"; MATCH MECH COUPLER @ ONE END
EA559	5	4'-1"	1	STR									
EA561	5	10" TO 3'-3"	4	STR									VARY EA BY 9½"; MATCH MECH COUPLER @ ONE END
EC402	4	9'-3½"	26	6	3'-5½"	4"	2½"	3½"	3'-3½"	6½"		2"	F = 4½"; J = 5"; K = 4½"
EC617	6	3'-8"	4	STR									
EC518	5	3'-8"	8	STR									
EC519	5	8'-0"	8	STR									
EC620	6	8'-0"	4	STR									
FOOTING													
EF401	4	2'-8"	106	9	4½"	1'-11"	4½"					1"	
EF506	5	8'-11"	193	STR									
EF609	6	3'-0"	18	STR									
EF517	5	1'-2" TO 7'-8"	36	STR									VARY 4 EA BY 9½"; MATCH MECH COUPLER @ ONE END
EF518	5	54'-3"	42	STR									MATCH MECH COUPLER @ ONE END
EF519	5	14'-5"	4	STR									
EF520	5	8'-5"	4	STR									
EF521	5	5'-7"	106	STR									
EF624	6	7'-11"	106	1	8"	7'-3"							



REINFORCEMENT NOTES

- "E" IN BAR MARK DENOTES EPOXY-COATED BARS.
- ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.

PREPARED BY:
 WHITNEY, BAILEY, COX & MAGNANI, LLC
 100 STERLING PARKWAY, SUITE 108
 MECHANICSBURG, PA 17050

PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: STa111.dgn
 DRAWING TYPE: 2G
 STRUCTURE NUMBER: EB-103

SCALE: NONE

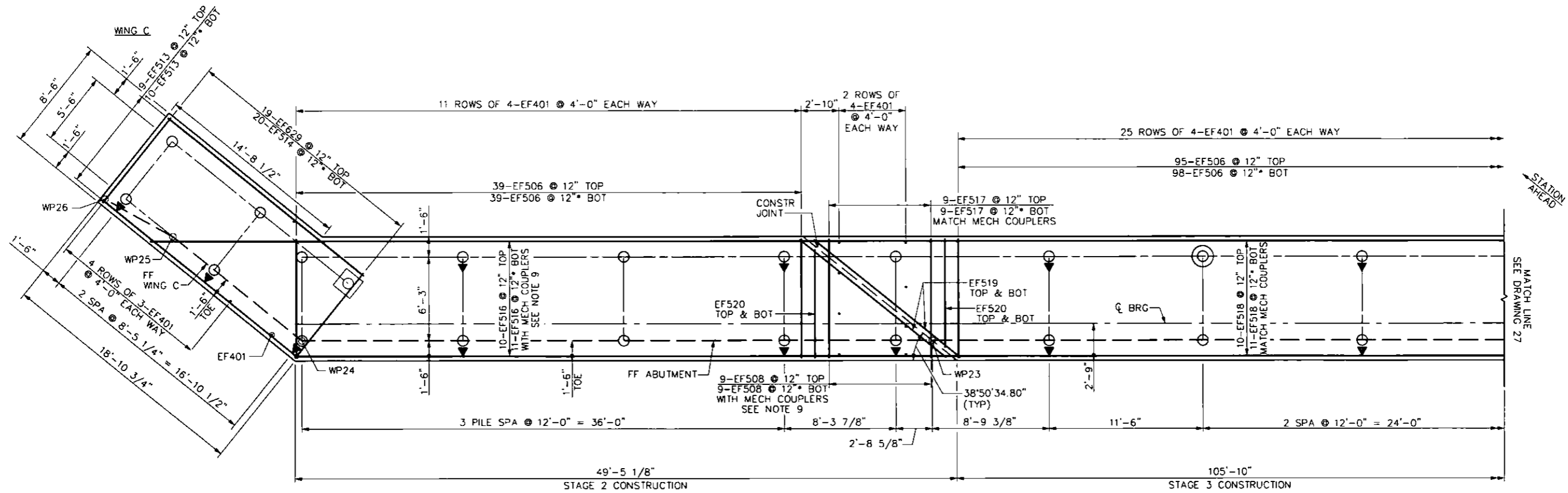
**REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ABUTMENT 1
 REINFORCEMENT BAR SCHEDULE STAGE 3**

DRAWING: 25 OF 101
 SHEET: 170 OF 315

FILE: 72B-ON DGN
 DATE: 02/18/2008
 DATE: 7/26/2008 ST



ABUTMENT 2 WESTBOUND FOOTING PLAN & PILE LAYOUT

LEGEND

- DENOTES VERTICAL PILE (9 5/8" DIA MICROPILE)
 - ◐ DENOTES PILE BATTERED 4 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW (9 5/8" DIA MICROPILE)
 - ⊙ DENOTES TEST PILE (9 5/8" DIA MICROPILE)
 - ◌ DENOTES SACRIFICIAL PILE (9 5/8" DIA MICROPILE)
- = SPACED BETWEEN PILES

STRUCTURE	ABUTMENT 2		WINGWALL C	
	AXIAL K/PILE	LATERAL K/PILE GROUP	AXIAL K/PILE	LATERAL K/PILE GROUP
FACTORED LOAD	205.61	6.59	161.46	6.47
LIMIT STATE	STR-I	STR-I	EXT-II	EXT-II
STAGE	FINAL	FINAL	FINAL	FINAL
MIN / MAX	MAX	MAX	MAX	MAX
FACTORED RESISTANCE	300.00	7.58	300.00	6.47

NOTES

1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
2. FOR TYPICAL MICROPILE DETAIL, SEE DRAWING 19.
3. FOR ABUTMENT 2 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 28.
4. FOR ABUTMENT 2 TYPICAL SECTION, SEE DRAWING 30.
5. FOR WINGWALL C, SEE DRAWING 33.
6. FOR ABUTMENT 2 WESTBOUND REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 35 AND 36.
7. PERFORM PROOF TESTS TO 1.5 X DL, AND VERIFICATION TESTS TO 2.0 X DL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. DL IS DEFINED AS THE "UNFACTORED LOAD" AND IS EQUAL TO 200 KIPS (300 KIPS/1.5)
8. TIE TOP AND BOTTOM MATS OF REINFORCING STEEL WITH EF401 AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES.
9. MECHANICAL SPLICING IS REQUIRED AT REBARS AT THE CONSTRUCTION JOINT, AS PER MECHANICAL SPLICE CONNECTION DETAIL ON DRAWING 15.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STa201.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

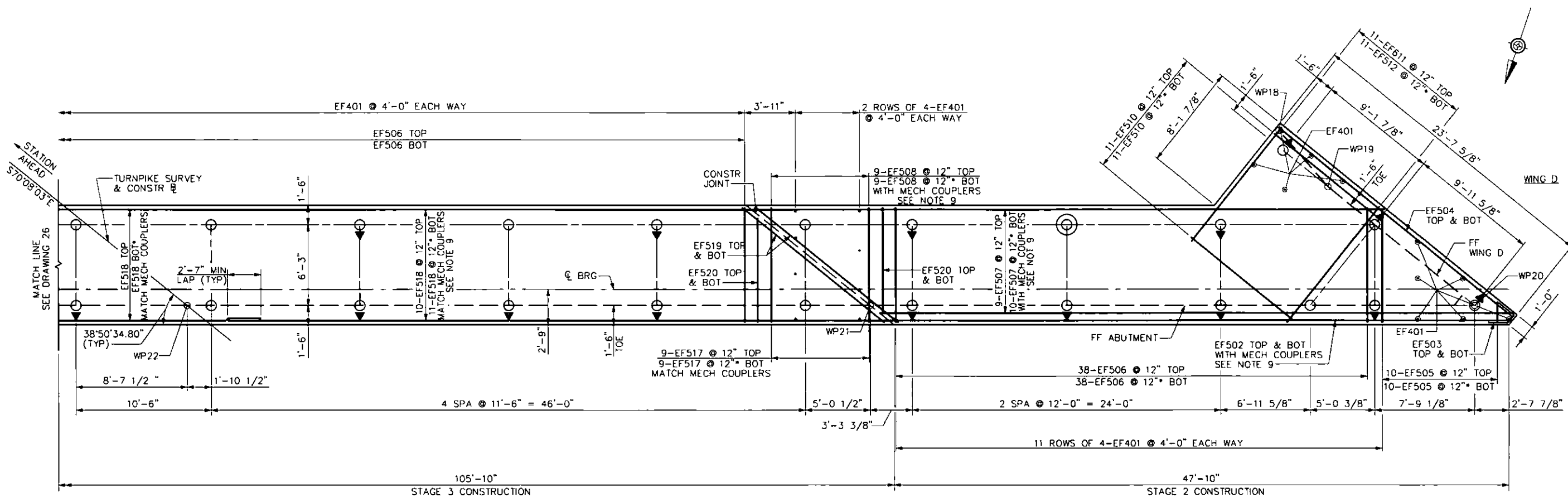
SCALE: 2 0 2 4 FEET

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

ABUTMENT 2
FOOTING PLAN - WESTBOUND

DRAWING: 26 OF 101
SHEET: 171 OF 315



ABUTMENT 2 EASTBOUND FOOTING PLAN & PILE LAYOUT

LEGEND

- DENOTES VERTICAL PILE (9 5/8" DIA MICROPILE)
- ◐ DENOTES PILE BATTERED 4 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW (9 5/8" DIA MICROPILE)
- ⊙ DENOTES TEST PILE (9 5/8" DIA MICROPILE)

PILE LOADING		
STRUCTURE	WINGWALL D	
	AXIAL K/PILE	LATERAL K/PILE GROUP
FACTORED LOAD	152.55	6.47
LIMIT STATE	EXT-II	EXT-II
STAGE	FINAL	FINAL
MIN / MAX	MAX	MAX
FACTORED RESISTANCE	300.00	6.61

NOTES

1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
2. FOR TYPICAL MICROPILE DETAIL, SEE DRAWING 19.
3. FOR ABUTMENT 2 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 29.
4. FOR ABUTMENT 2 TYPICAL SECTION, SEE DRAWING 30.
5. FOR WINGWALL D, SEE DRAWING 34.
6. FOR ABUTMENT 2 EASTBOUND REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 35 AND 36.
7. PERFORM PROOF TESTS TO 1.5 X DL, AND VERIFICATION TESTS TO 2.0 X DL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. DL IS DEFINED AS THE "UNFACTORED LOAD" AND IS EQUAL TO 200 KIPS (300 KIPS/1.5).
8. TIE TOP AND BOTTOM MATS OF REINFORCING STEEL WITH EF401 AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES.
9. MECHANICAL SPLICING IS REQUIRED FOR REBARS AT THE CONSTRUCTION JOINT, AS PER MECHANICAL SPLICE CONNECTION DETAIL ON DRAWING 15.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STa202.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

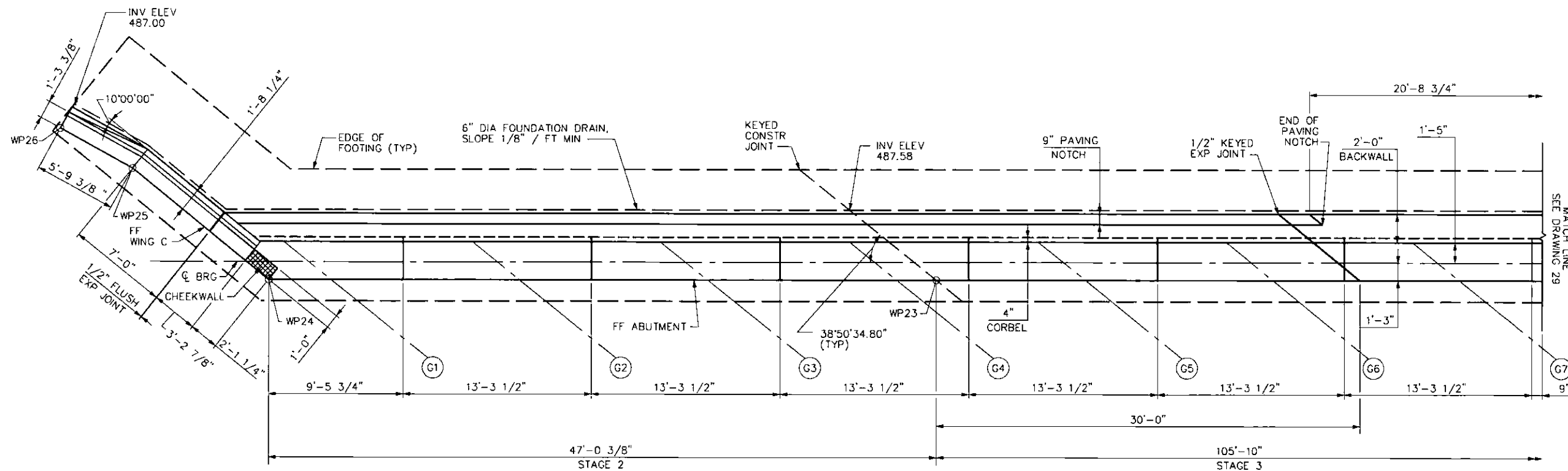
SCALE: 2 0 2 4 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

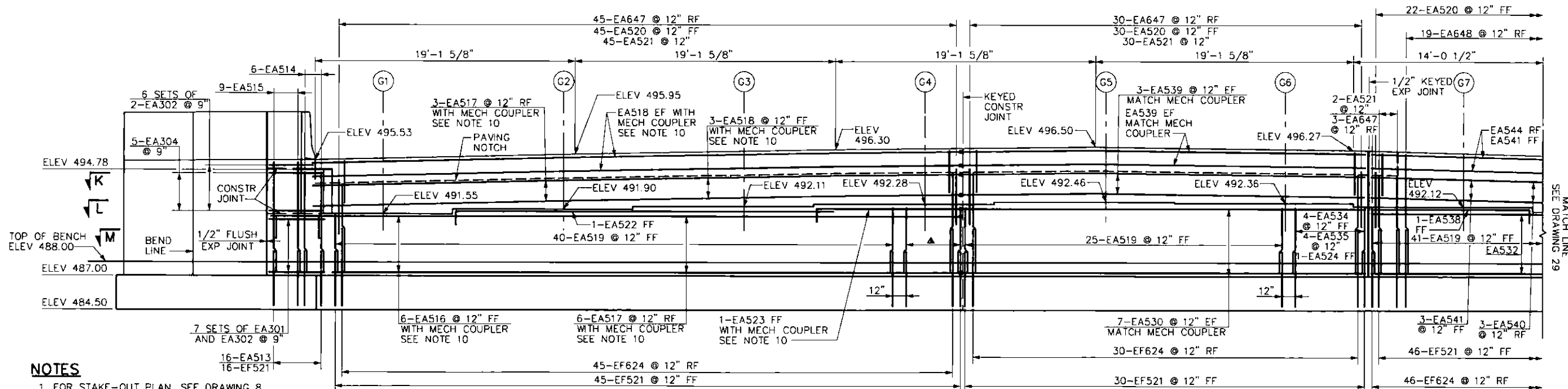
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ABUTMENT 2
FOOTING PLAN - EASTBOUND**

DRAWING: 27 OF 101
SHEET: 172 OF 315



ABUTMENT 2 WESTBOUND PLAN



ABUTMENT 2 WESTBOUND ELEVATION

NOTE: PILES NOT SHOWN FOR CLARITY

LEGEND

- ▲ = 1-EA524 FF (STAGE 2)
- 4-EA550 @ 12" FF (STAGE 2) WITH MECH COUPLER
- 4-EA554 @ 12" TOP (STAGE 3) MATCH MECH COUPLER
- 1-EA557 TOP (STAGE 3)

NOTES

1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
2. FOR ABUTMENT 2 WESTBOUND FOOTING PLAN, SEE DRAWING 26.
3. FOR ABUTMENT 2 TYPICAL SECTION, SEE DRAWING 30.
4. FOR ABUTMENT 2 SECTIONS, SEE DRAWING 31.
5. FOR ABUTMENT STEM REINFORCEMENT AT CONSTRUCTION JOINT, SEE DETAIL ON DRAWING 32.
6. FOR WINGWALL C, SEE DRAWING 33.
7. FOR ABUTMENT 2 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 35.
8. FOR ABUTMENT 2 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 36.
9. FOR TYPICAL ANCHOR BOLT LAYOUT, SEE DRAWING 69.
10. MECHANICAL SPLICING IS REQUIRED FOR REBARS AT THE CONSTRUCTION JOINT, AS PER MECHANICAL SPLICE CONNECTION DETAIL ON DRAWING 15.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STA203.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

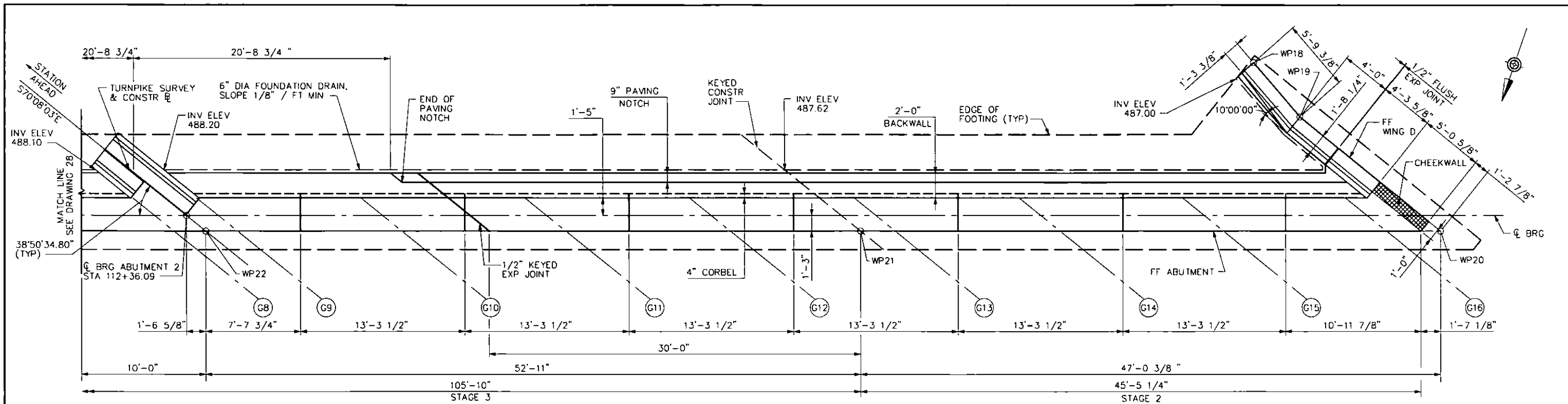
SCALE: 2 0 2 4 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

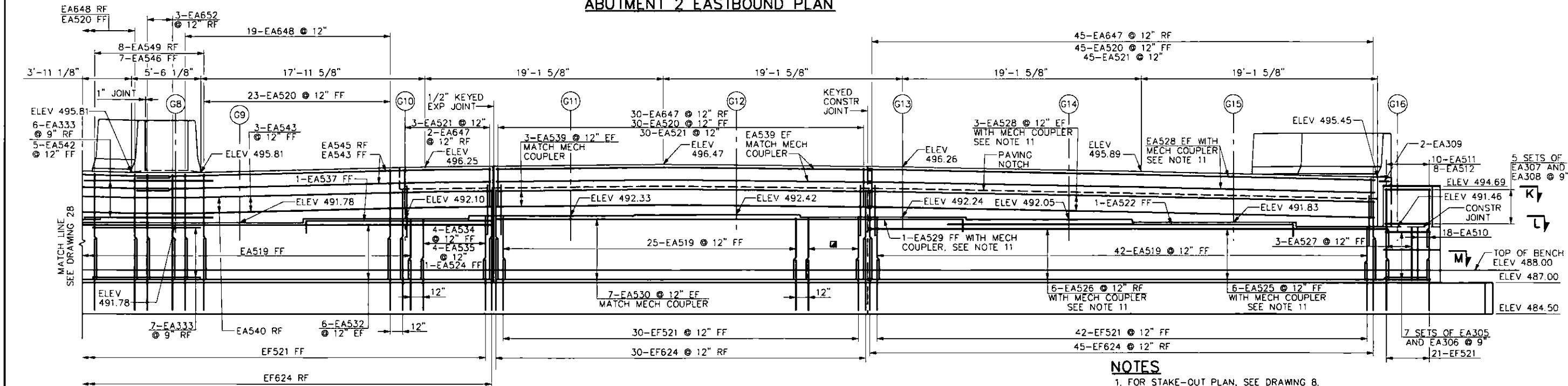
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ABUTMENT 2
PLAN AND ELEVATION - WESTBOUND**

DRAWING: 28 OF 101
SHEET: 173 OF 315



ABUTMENT 2 EASTBOUND PLAN



ABUTMENT 2 EASTBOUND ELEVATION

NOTE: PILES NOT SHOWN FOR CLARITY

LEGEND

- = 1-EA524 FF (STAGE 3)
- = 4-EA553 @ 12" FF (STAGE 3) MATCH MECH COUPLER
- = 4-EA551 @ 12" TOP (STAGE 2) WITH MECH COUPLER
- = 1-EA557 TOP (STAGE 2)

NOTES

1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
2. FOR ABUTMENT 2 EASTBOUND FOOTING PLAN, SEE DRAWING 27.
3. FOR ABUTMENT 2 TYPICAL SECTION, SEE DRAWING 30.
4. FOR ABUTMENT 2 SECTIONS, SEE DRAWING 31.
5. FOR ABUTMENT STEM REINFORCEMENT AT CONSTRUCTION JOINT, SEE DETAIL ON DRAWING 32.
6. FOR ABUTMENT 2 CONCRETE MEDIAN BARRIER DETAILS, SEE DRAWING 32.
7. FOR WINGWALL D, SEE DRAWING 34.
8. FOR ABUTMENT 2 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 35.
9. FOR ABUTMENT 2 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 36.
10. FOR TYPICAL ANCHOR BOLT LAYOUT, SEE DRAWING 69.
11. MECHANICAL SPLICING IS REQUIRED FOR THE REBARS AT THE CONSTRUCTION JOINT, AS PER MECHANICAL SPLICE CONNECTION DETAIL ON DRAWING 15.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
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TURNPIKE COMMISSION



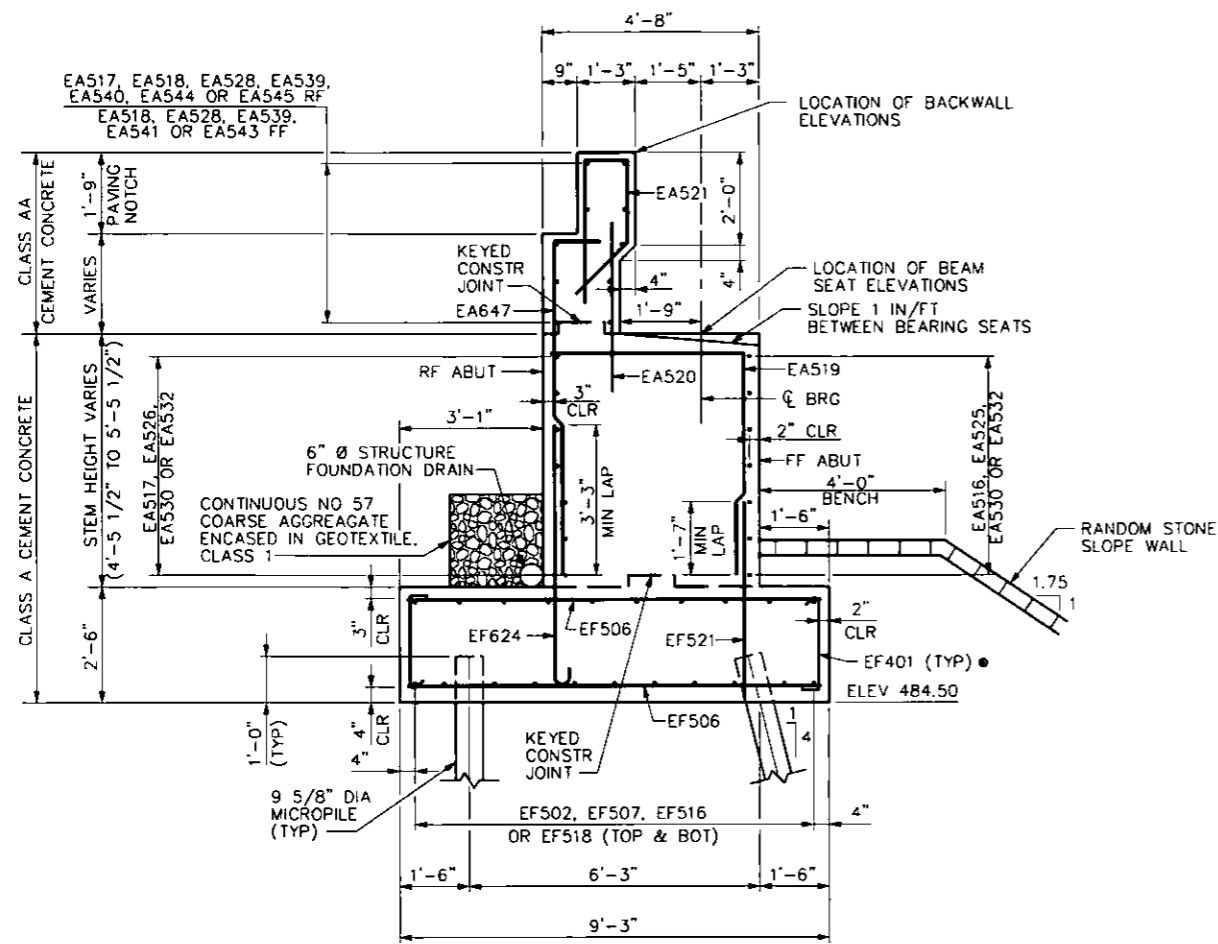
WBS NO. T-228.54S001-3-02			
NETWORK NUMBER: 7003982			
FILE NAME: STA204.dgn			
DRAWING TYPE: 2G			
STRUCTURE NUMBER: EB-103			
NO.	REVISIONS	DATE	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

**ABUTMENT 2
PLAN AND ELEVATION - EASTBOUND**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 29 OF 101
SHEET: 174 OF 315



TYPICAL SECTION

LEGEND

- TIE TOP & BOTTOM MATS OF REINFORCING STEEL WITH EF401 BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOK AT TOP IN ALTERNATING TIES.

NOTES

1. FOR ABUTMENT 2 WESTBOUND FOOTING PLAN, SEE DRAWING 26.
2. FOR ABUTMENT 2 EASTBOUND FOOTING PLAN, SEE DRAWING 27.
3. FOR ABUTMENT 2 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 28.
4. FOR ABUTMENT 2 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 29.
5. FOR ABUTMENT 2 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 35.
6. FOR ABUTMENT 2 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 36.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STa205.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

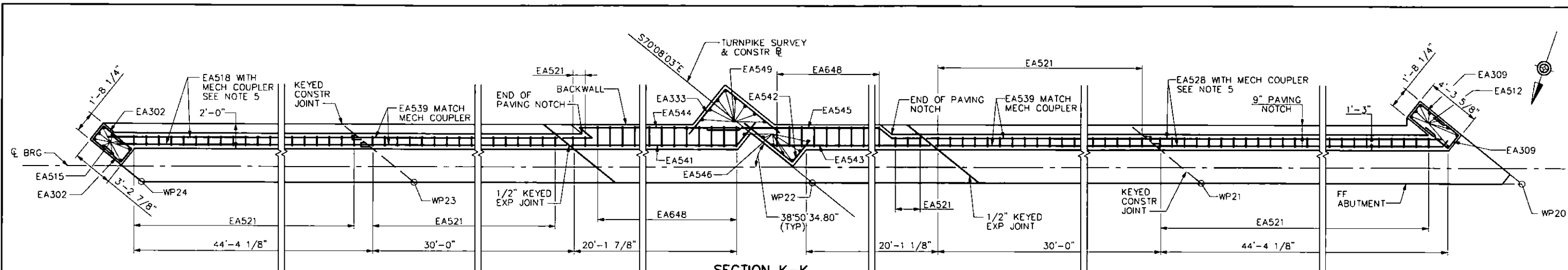
SCALE: 1" = 0' 1" 2 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

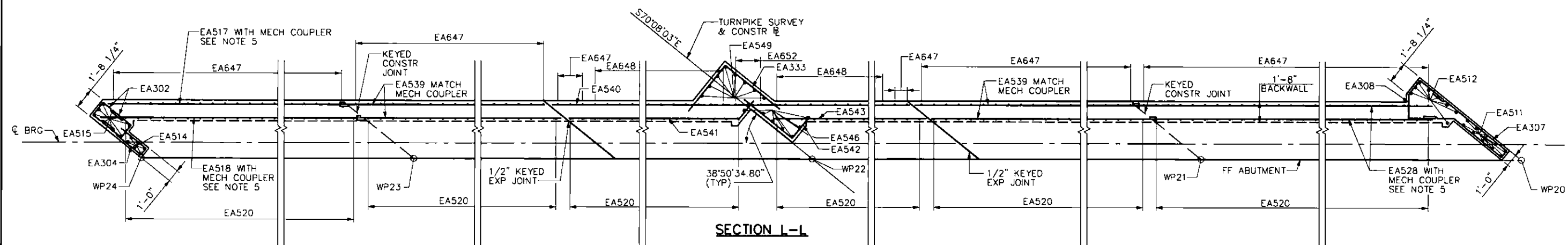
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**ABUTMENT 2
TYPICAL SECTION**

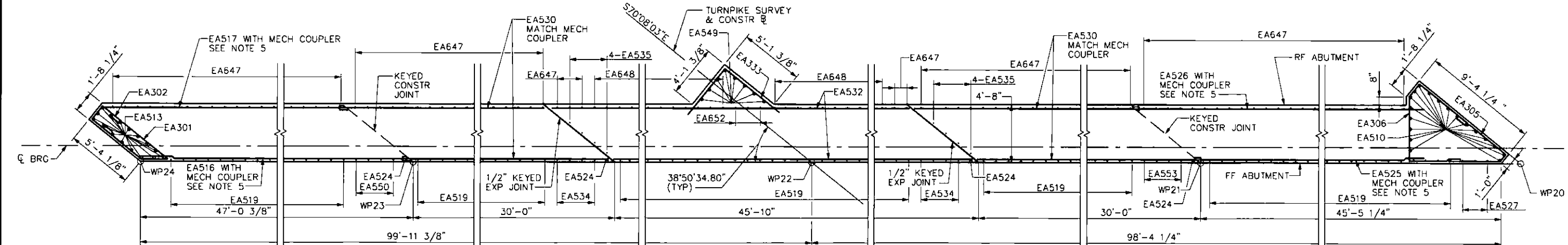
DRAWING: 30 OF 101
SHEET: 175 OF 315



SECTION K-K



SECTION L-L



SECTION M-M

- NOTES**
1. FOR ABUTMENT 2 PLAN AND ELEVATION, SEE DRAWINGS 28 AND 29.
 2. FOR ABUTMENT 2 WINGWALL C, SEE DRAWING 33.
 3. FOR ABUTMENT 2 WINGWALL D, SEE DRAWING 34.
 4. FOR ABUTMENT 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 35 AND 36.
 5. MECHANICAL SPlicing IS REQUIRED FOR REBARS AT THE CONSTRUCTION JOINT, AS PER CONSTRUCTION JOINT DETAIL ON DRAWING 32.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
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TURNPIKE COMMISSION



NO.		REVISIONS		DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STa206.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

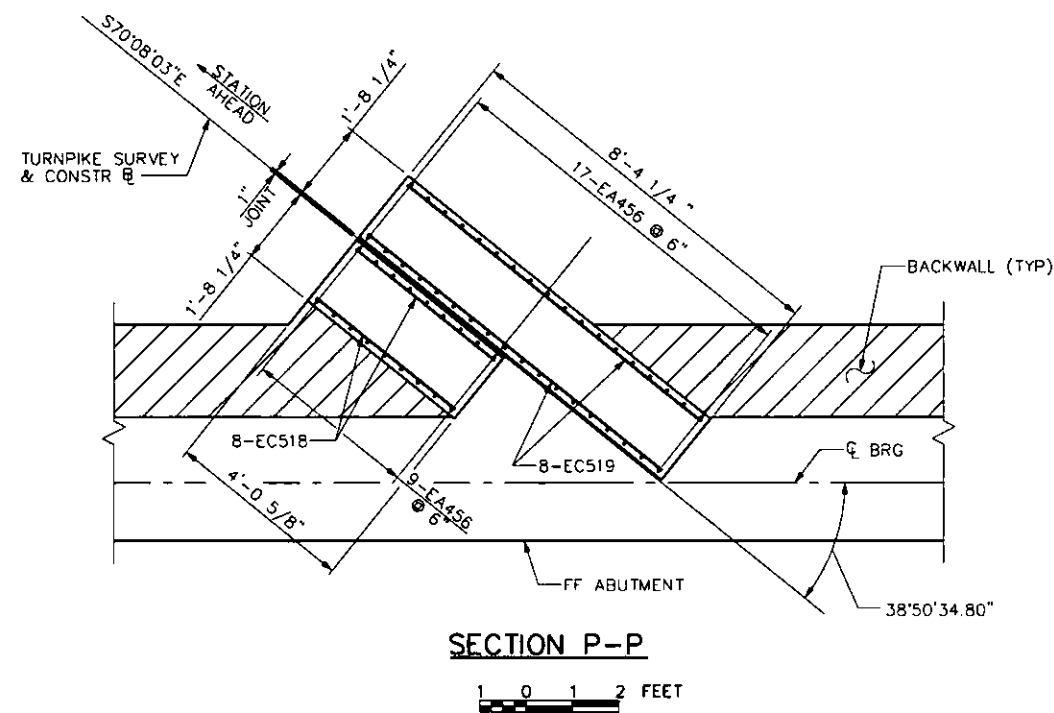
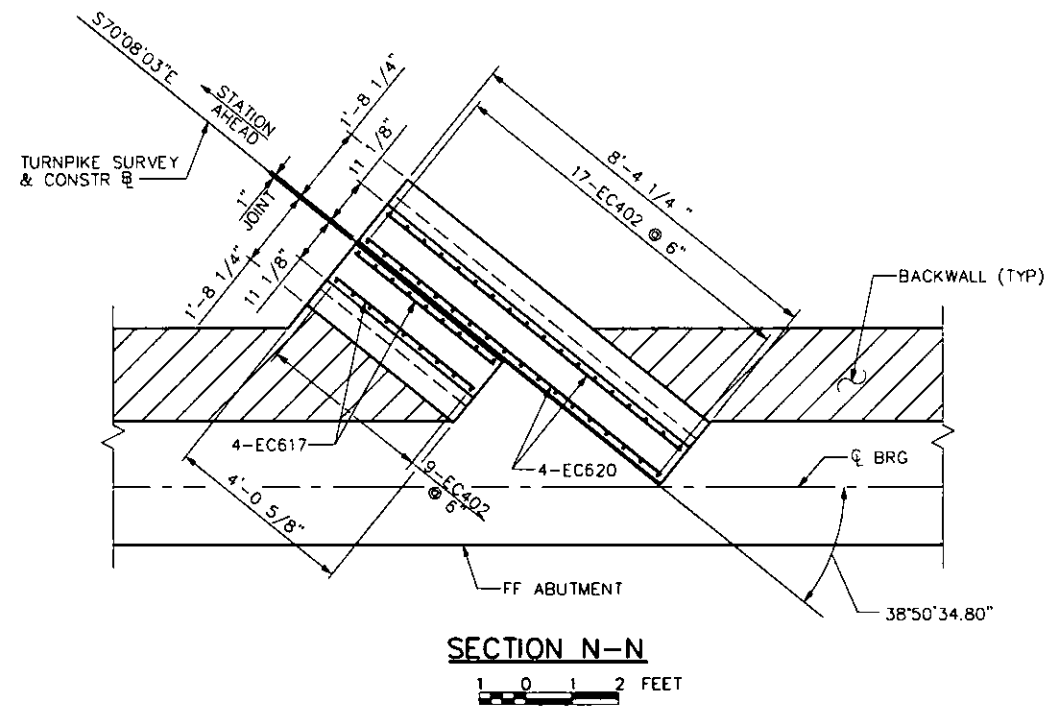
SCALE: 2 0 2 4 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

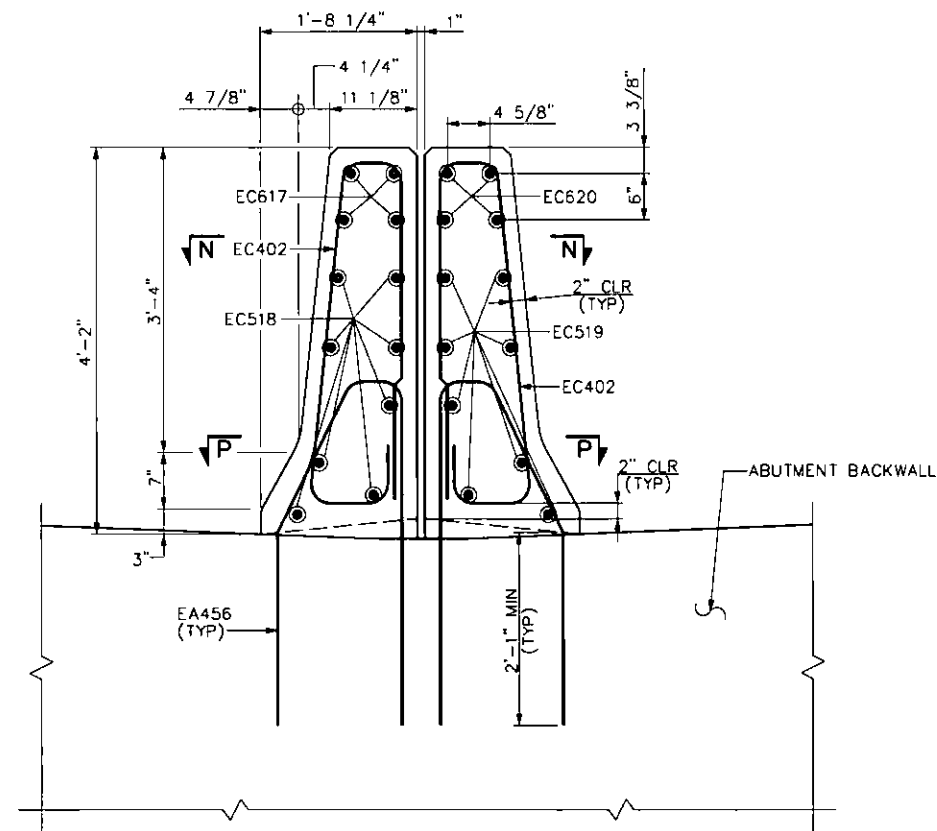
ABUTMENT 2 SECTIONS

DRAWING: 31 OF 101
SHEET: 176 OF 315

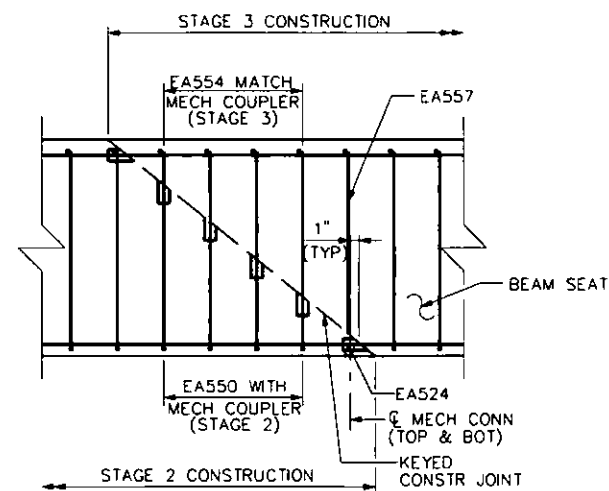
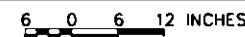


NOTES

1. FOR ABUTMENT 2 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 28.
2. FOR ABUTMENT 2 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 29.
3. FOR ABUTMENT 2 TYPICAL SECTION, SEE DRAWING 30.
4. FOR ABUTMENT 2 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 36.



**SPLIT CONCRETE MEDIAN BARRIER DETAIL
ABOVE ABUTMENT BACKWALL**



CONSTRUCTION JOINT DETAIL

WESTBOUND SHOWN, EASTBOUND SIMILAR



DATE: 7/12/2016

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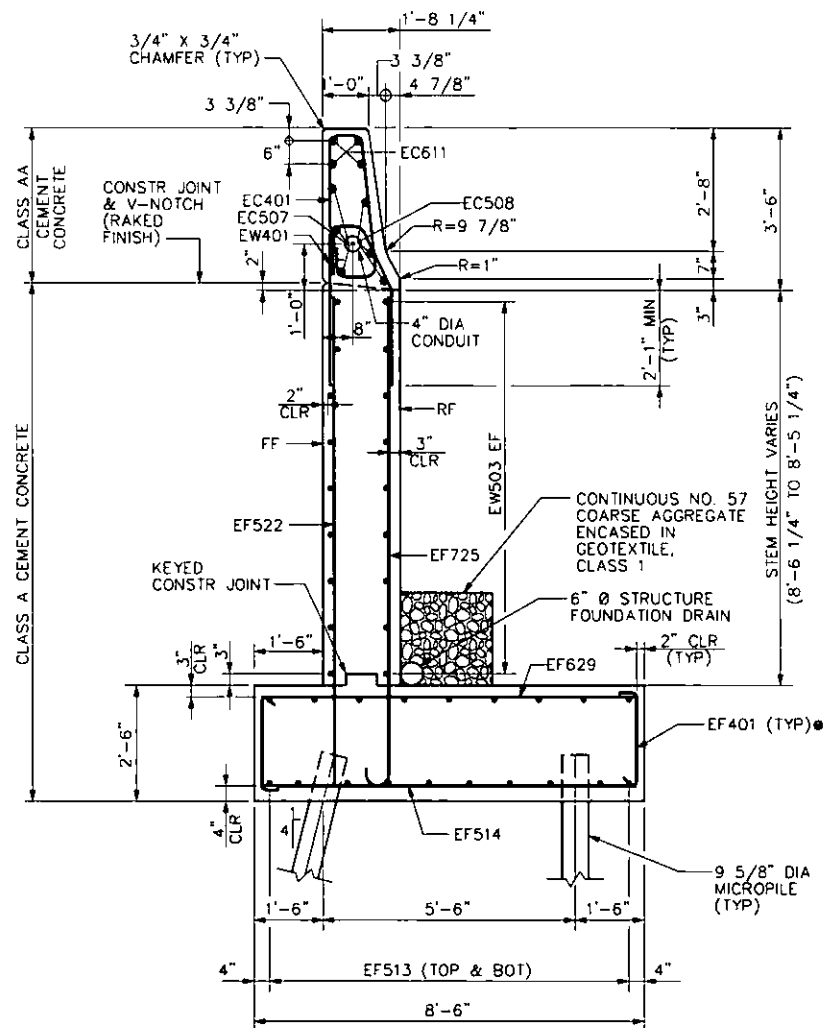
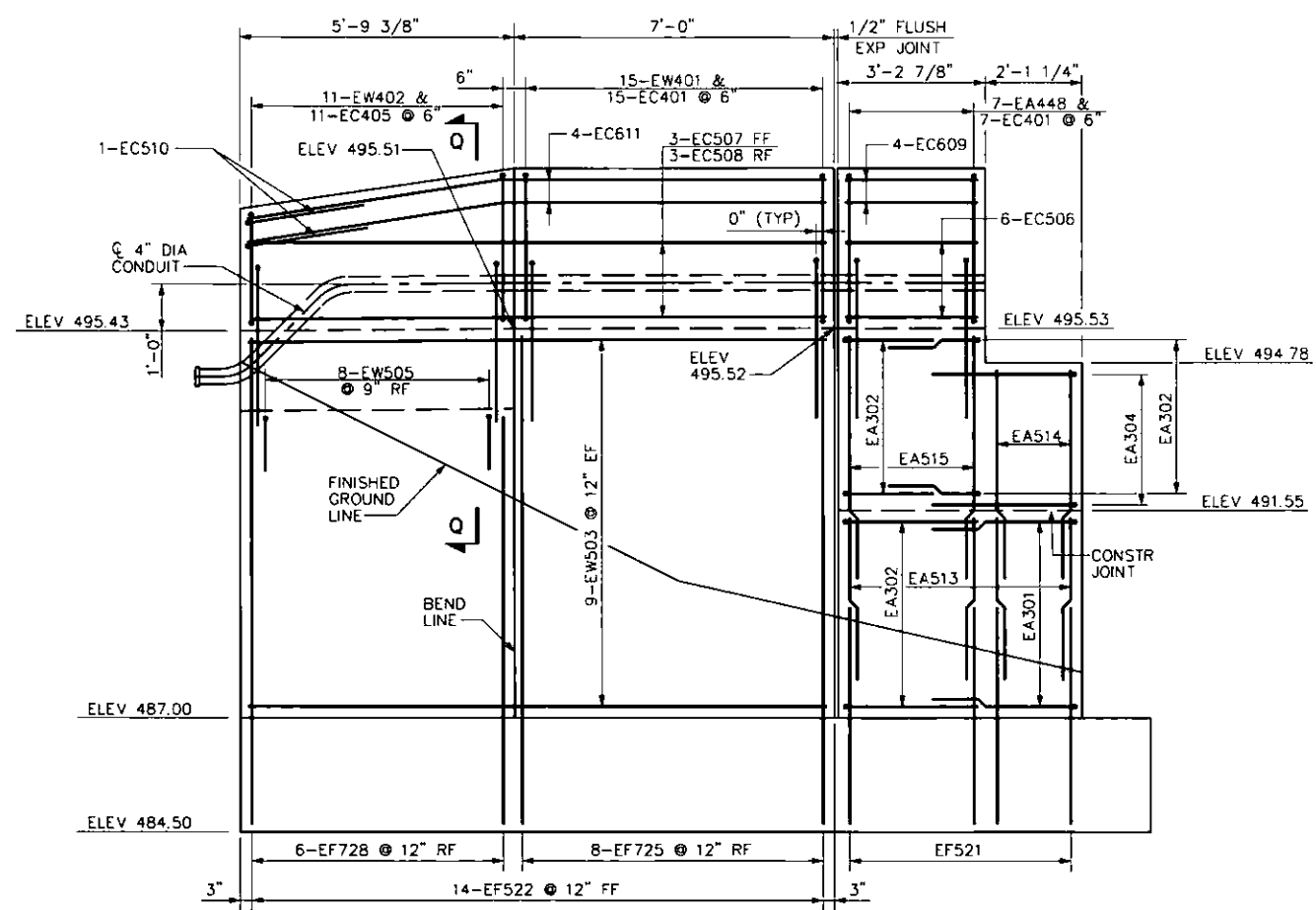


NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STa207.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: AS NOTED

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

ABUTMENT 2 CONCRETE MEDIAN BARRIER DETAILS	
DRAWING: 32 OF 101	SHEET: 177 OF 315



WINGWALL C ELEVATION
NOTE: PILES NOT SHOWN FOR CLARITY

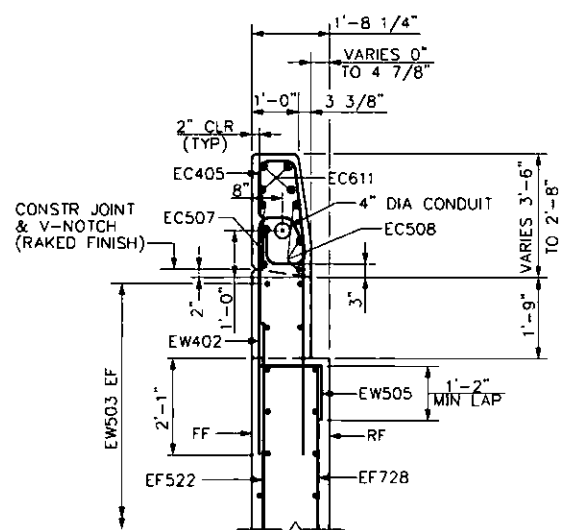
WINGWALL C TYPICAL SECTION

LEGEND

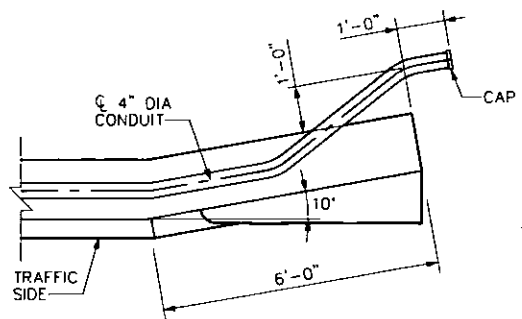
- TIE TOP & BOTTOM MATS OF REINFORCING STEEL WITH EF401 BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOK AT TOP IN ALTERNATING TIES.

NOTES

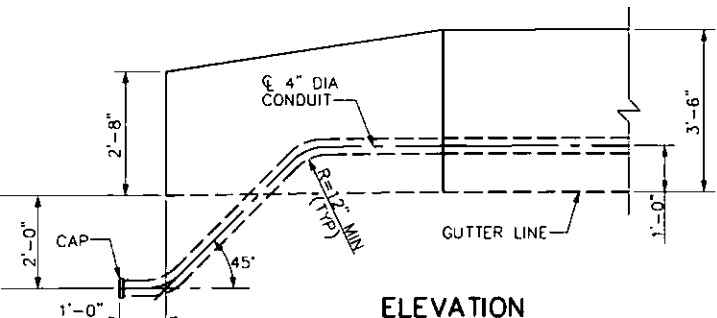
1. FOR ABUTMENT 2 WESTBOUND FOOTING PLAN, SEE DRAWING 26.
2. FOR ABUTMENT 2 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 28.
3. FOR ABUTMENT 2 SECTIONS, SEE DRAWING 31.
4. FOR ABUTMENT 2 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 35.



SECTION Q-Q



PLAN

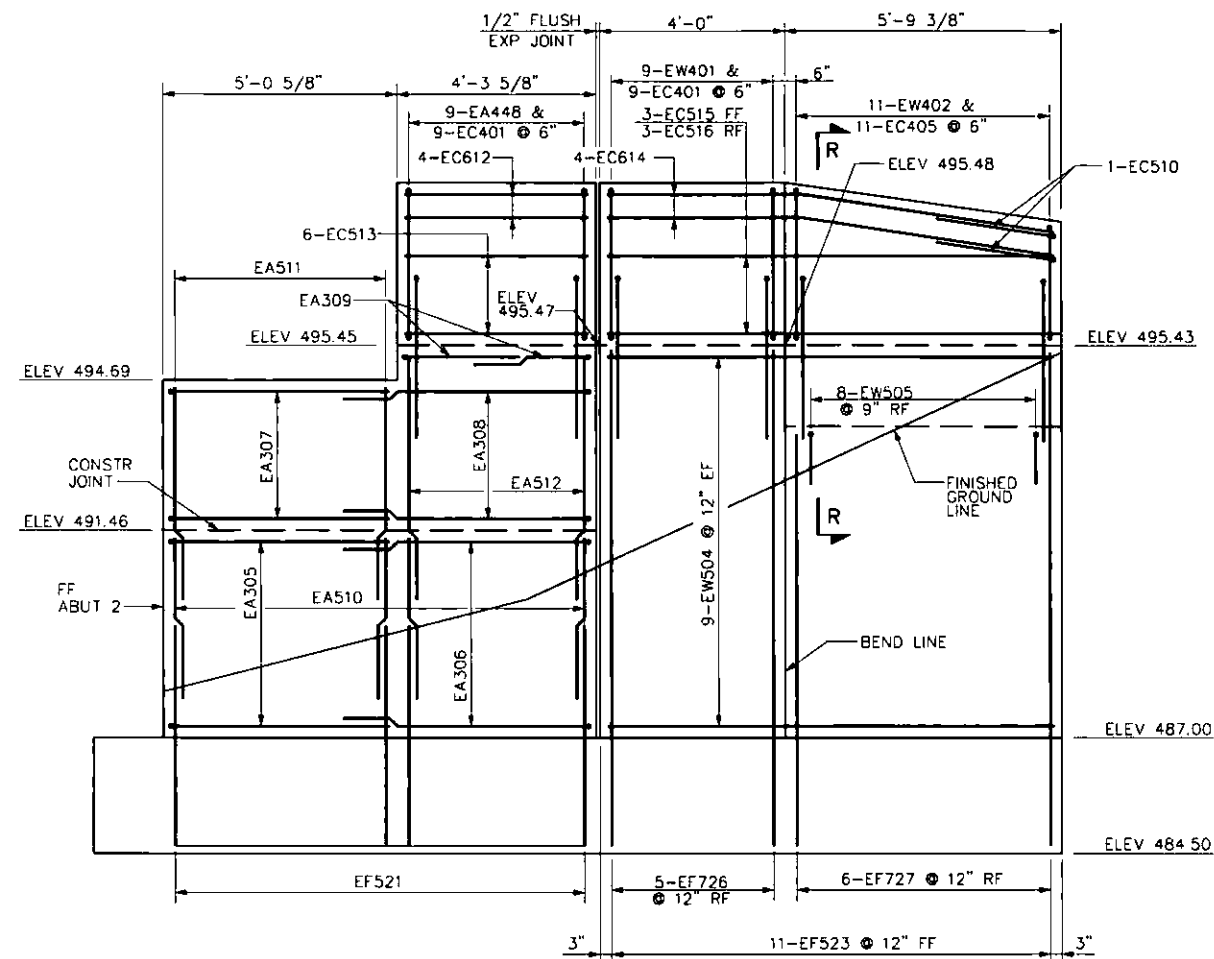


ELEVATION

CONDUIT DETAILS AT ENDS OF BRIDGE

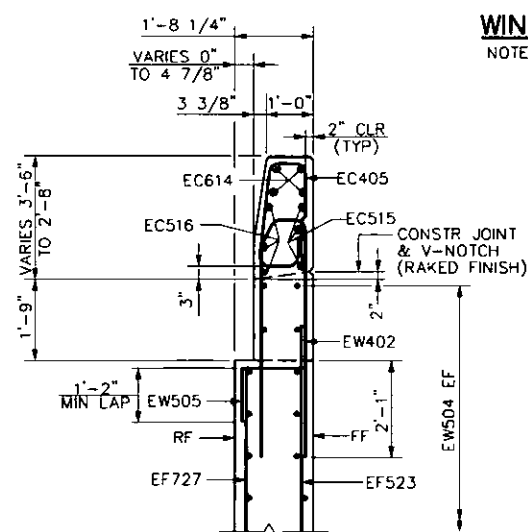
(BARRIER REINFORCING BARS NOT SHOWN FOR CLARITY)

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		NO.	REVISIONS	DATE	APPR.	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	WINGWALL C DETAILS		
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION					NETWORK NUMBER: 7003982	DISTRICT: 3			COUNTY: CUMBERLAND	DRAWING: 33 OF 101
						FILE NAME: STa208.dgn	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP				SHEET: 178 OF 315
						DRAWING TYPE: 2G					
							STRUCTURE NUMBER: EB-103				
							SCALE: 1 0 1 2 FEET				

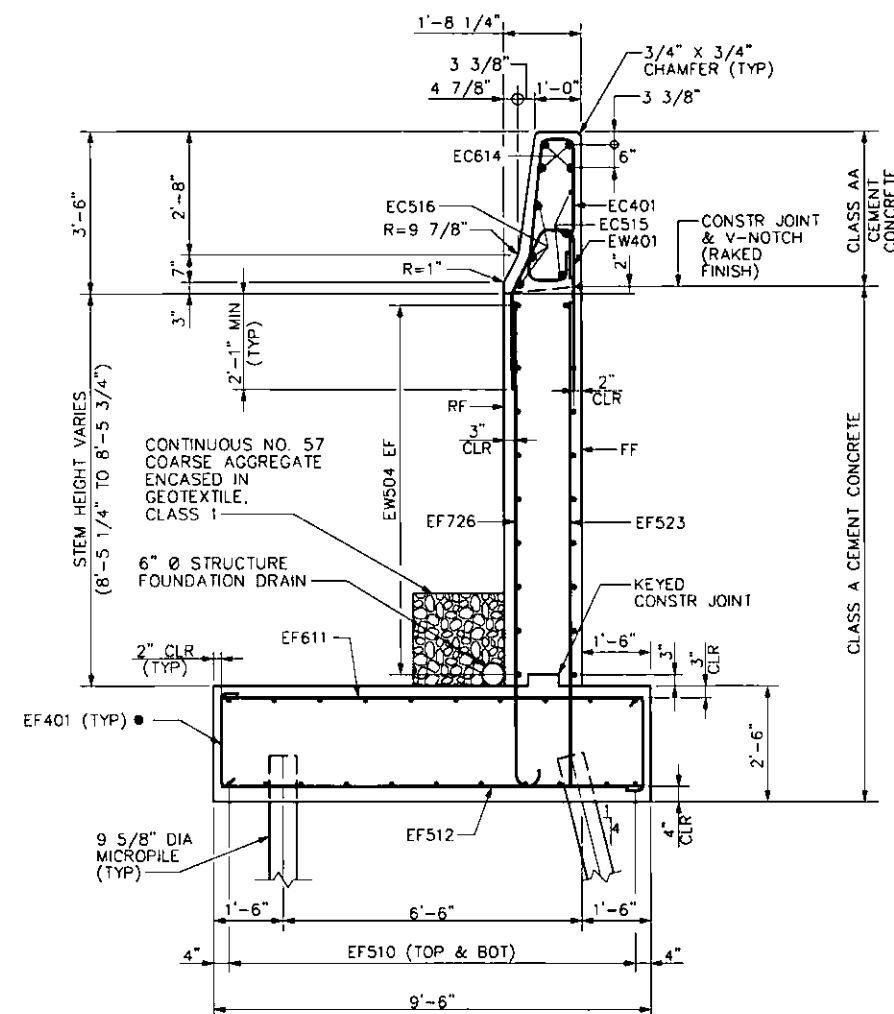


WINGWALL D ELEVATION

NOTE: PILES NOT SHOWN FOR CLARITY



SECTION R-R



WINGWALL D TYPICAL SECTION

LEGEND

- TIE TOP & BOTTOM MATS OF REINFORCING STEEL WITH EF401 BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOK AT TOP IN ALTERNATING TIES.

NOTES

1. FOR ABUTMENT 2 EASTBOUND FOOTING PLAN, SEE DRAWING 27.
2. FOR ABUTMENT 2 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 29.
3. FOR ABUTMENT 2 SECTIONS, SEE DRAWING 31.
4. FOR ABUTMENT 2 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 35.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STa209.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: 1" = 0' 1" 2 FEET

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

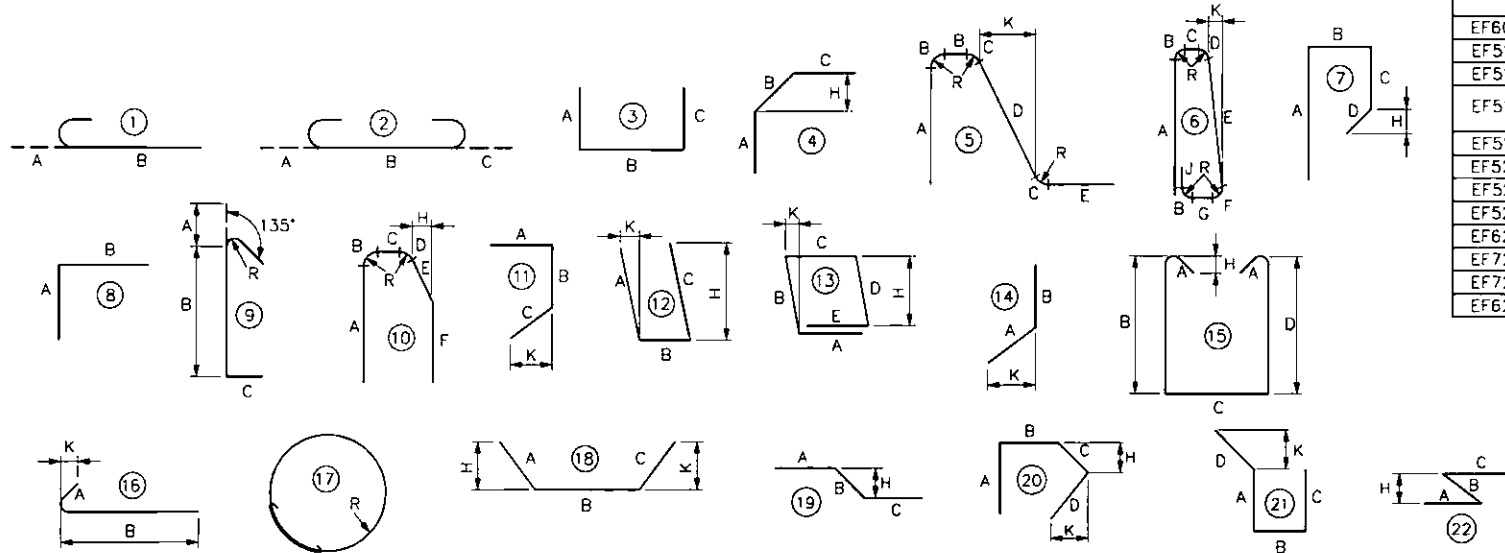
WINGWALL D DETAILS
DRAWING: 34 OF 101
SHEET: 179 OF 315

ABUTMENT 2 REINFORCEMENT BAR SCHEDULE - STAGE 2 EASTBOUND

ABUTMENT 2 REINFORCEMENT BAR SCHEDULE - STAGE 2 WESTBOUND

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	G	H	R	REMARKS
EA305	3	9'-7"	7	11	5'-0"	9"	3'-10"						K = 2'-11"
EA306	3	16'-2"	7	20	5'-0"	1'-5"	5'-1"	4'-8"					K = 2'-11"
EA307	3	14'-3"	5	21	4'-10"	8"	6'-1"	2'-8"					K = 2'-1"
EA308	3	9'-9"	5	20	2'-2"	2'-1"	1'-6"	4'-0"			11 1/2"		K = 2'-6 1/2"
EA309	3	6'-4"	2	3	2'-6"	1'-4"	2'-6"						
EA510	5	3'-6"	18	STR									
EA511	5	4'-7"	10	STR									
EA512	5	5'-4"	8	STR									
EA519	5	8'-5"	42	8	4'-1"	4'-4"							
EA520	5	3'-11"	45	STR									
EA521	5	7'-4"	45	7	3'-1"	11"	1'-9"	1'-7"					
EA522	5	28'-9"	1	8	1'-2"	27'-7"							
EA525	5	45'-0"	6	STR									PROVIDE MECH COUPLER @ ONE END
EA526	5	46'-9"	6	STR									PROVIDE MECH COUPLER @ ONE END
EA527	5	8'-1" TO 6'-9"	3	8	4'-1"	4'-0" TO 2'-8"							VARY 'B' EA BY 'B'
EA528	5	46'-9"	10	STR									PROVIDE MECH COUPLER @ ONE END
EA529	5	9'-1"	1	8	1'-2"	7'-11"							PROVIDE MECH COUPLER @ ONE END
EA647	6	8'-5"	45	8	6'-7"	1'-10"							
EA448	4	7'-7 1/2"	9	10	3'-3"	4"	4"	2 1/2"	1'-4 1/2"		7 1/2"	2"	F = 2'-1"
EA551	5	10" TO 3'-3"	4	STR									VARY 'B' EA BY 9 3/8" PROVIDE MECH COUPLER @ ONE END
EA557	5	4'-1"	1	STR									
EC401	4	8'-0 1/2"	9	6	2'-9 1/2"	4"	3 3/8"	3 3/8"	2'-7 1/2"		6 1/2"	2"	F = 4 1/2", J = 5", K = 3 3/8"
EC612	6	4'-0"	4	STR									
EC513	5	4'-0"	6	STR									
WINGWALL D													
EC401	4	8'-0 1/2"	9	6	2'-9 1/2"	4"	3 3/8"	3 3/8"	2'-7 1/2"		6 1/2"	2"	F = 4 1/2", J = 5", K = 3 3/8"
EC405	4	6'-4 1/2" TO 8'-0 1/2"	11	6	1'-11 1/2" TO 2'-9 1/2"	4"	3 3/8"	3 3/8"	1'-9 3/4" TO 2'-7 1/2"		6 1/2"	2"	VARY 'A' & 'E' 2 EA BY 2"; F = 4 1/2"; J = 5"; K = 2 1/2" TO 3 3/8"; VARY 'K' 2 EA BY 1"
EC510	5	5'-8"	2	3	2'-6"	8"	2'-6"						
EC614	6	9'-6"	4	14	5'-8"	3'-10"							
EC515	5	9'-6"	3	14	5'-8"	3'-10"							
EC516	5	9'-9"	3	14	5'-11"	3'-10"							
EW401	4	7'-7 1/2"	9	10	3'-3"	4"	4"	2 1/2"	1'-4 1/2"		7 1/2"	2"	F = 2'-1"
EW402	4	11'-1 1/2" TO 10'-2 1/2"	11	10	5'-0"	4"	4"	2 1/2"	1'-4 1/2" TO 5 3/8"		7 1/2" TO 2 1/2"	2"	F = 3'-10"; VARY 'E' 2 EA BY 2 1/2"; VARY 'H' 2 EA BY 1"
EW504	5	9'-6"	18	14	5'-8"	3'-10"							
EW505	5	2'-5"	8	8	1'-2"	1'-3"							

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	G	H	R	REMARKS
EA301	3	12'-2"	7	12	4'-2"	2'-2"	5'-10"						K = 3'-3"
EA302	3	5'-4"	19	3	2'-0"	1'-4"	2'-0"						
EA304	3	6'-8"	5	3	3'-0"	8"	3'-0"						
EA513	5	3'-7"	16	STR									
EA514	5	4'-7"	6	STR									
EA515	5	5'-4"	9	STR									
EA516	5	45'-9"	6	STR									PROVIDE MECH COUPLER @ ONE END
EA517	5	45'-8"	9	14	1'-2"	44'-6"							K = 10 1/2"; PROVIDE MECH COUPLER @ ONE END
EA518	5	45'-8"	7	STR									PROVIDE MECH COUPLER @ ONE END
EA519	5	8'-5"	40	8	4'-1"	4'-4"							
EA520	5	3'-11"	45	STR									
EA521	5	7'-4"	45	7	3'-1"	11"	1'-9"	1'-7"					
EA522	5	28'-9"	1	8	1'-2"	27'-7"							
EA523	5	11'-9"	1	8	1'-2"	10'-7"							PROVIDE MECH COUPLER @ ONE END
EA524	5	4'-1"	1	STR									
EA647	6	8'-5"	45	8	6'-7"	1'-10"							
EA448	4	7'-7 1/2"	7	10	3'-3"	4"	4"	2 1/2"	1'-4 1/2"		7 1/2"	2"	F = 2'-1"
EA550	5	7'-7" TO 5'-2"	4	8	4'-1"	3'-6" TO 1'-1"							VARY 'B' EA BY 9 3/8" PROVIDE MECH COUPLER @ ONE END
EC401	4	8'-0 1/2"	7	6	2'-9 1/2"	4"	3 3/8"	3 3/8"	2'-7 1/2"		6 1/2"	2"	F = 4 1/2", J = 5", K = 3 3/8"
EC506	5	2'-11"	6	STR									
EC609	6	2'-11"	4	STR									
WINGWALL C													
EC401	4	8'-0 1/2"	15	5	2'-9 1/2"	4"	3 3/8"	3 3/8"	2'-7 1/2"		6 1/2"	2"	F = 4 1/2", J = 5", K = 3 3/8"
EC405	4	6'-4 1/2" TO 8'-0 1/2"	11	6	1'-11 1/2" TO 2'-9 1/2"	4"	3 3/8"	3 3/8"	1'-9 3/4" TO 2'-7 1/2"		6 1/2"	2"	VARY 'A' & 'E' 2 EA BY 2"; F = 4 1/2"; J = 5"; K = 2 1/2" TO 3 3/8"; VARY 'K' 2 EA BY 1"
EC507	5	12'-6"	3	14	5'-8"	6'-10"							
EC508	5	12'-9"	3	14	5'-11"	6'-10"							
EC510	5	5'-8"	2	3	2'-6"	8"	2'-6"						
EC611	6	12'-6"	4	14	5'-8"	6'-10"							
EW401	4	7'-7 1/2"	15	10	3'-3"	4"	4"	2 1/2"	1'-4 1/2"		7 1/2"	2"	F = 2'-1"
EW402	4	11'-1 1/2" TO 10'-2 1/2"	11	10	5'-0"	4"	4"	2 1/2"	1'-4 1/2" TO 5 3/8"		7 1/2" TO 2 1/2"	2"	F = 3'-10"; VARY 'E' 2 EA BY 2 1/2"; VARY 'H' 2 EA BY 1"
EW503	5	12'-6"	18	14	5'-8"	6'-10"							
EW505	5	2'-5"	8	8	1'-2"	1'-3"							
FOOTING													
EF401	4	2'-8"	62	9	4 1/2"	1'-11"	4 1/2"						R = 1"
EF506	5	8'-11"	78	STR									
EF508	5	1'-3" TO 7'-9"	18	STR									VARY 2 EA BY 9 3/8"; PROVIDE MECH COUPLER @ ONE END
EF609	6	3'-0"	14	STR									
EF513	5	18'-9"	19	STR									
EF514	5	8'-2"	20	STR									
EF516	5	49'-2"	21	STR									PROVIDE MECH COUPLER @ ONE END
EF519	5	14'-5"	2	STR									
EF520	5	8'-5"	2	STR									
EF521	5	5'-7"	61	STR									
EF522	5	9'-7"	14	STR									
EF624	6	7'-11"	45	1	8"	7'-3"							
EF725	7	10'-5"	8	1	10"	9'-7"							
EF728	7	8'-8"	6	1	10"	7'-10"							
EF629	6	8'-2"	19	STR									



REINFORCEMENT NOTES

- "E" IN BAR MARK DENOTES EPOXY-COATED BARS.
- ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.

NOTES

1. FOR ABUTMENT 2 REINFORCEMENT BAR SCHEDULE FOR STAGE 2 EASTBOUND FOOTING, SEE DRAWING 36.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.	
T-228.54S001-3-02	
NETWORK NUMBER: 7003982	
FILE NAME: STa210.dgn	
DRAWING TYPE: 2G	
STRUCTURE NUMBER: EB-103	
SCALE: NONE	

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

ABUTMENT 2
REINFORCEMENT BAR SCHEDULE STAGE 2

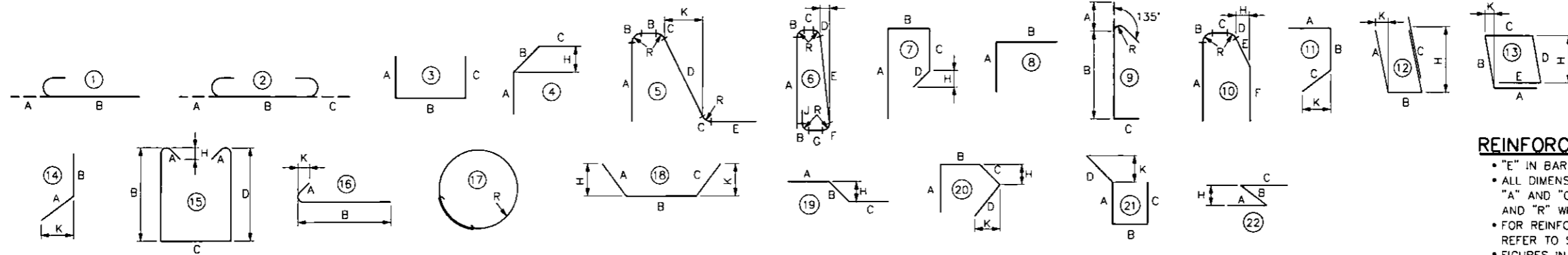
DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 35 OF 101
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 180 OF 315

ABUTMENT 2 REINFORCEMENT BAR SCHEDULE - STAGE 2 EASTBOUND FOOTING

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	G	H	R	REMARKS
EF401	4	2'-8"	60	9	4 1/2"	1'-11"	4 1/2"					1"	
EF502	5	48'-0"	2	STR									PROVIDE MECH COUPLER @ ONE END
EF503	5	3'-11"	2	11	1'-7"	9"	1'-7"						K = 1'-2 1/2"
EF504	5	23'-4"	2	STR									VARY 2 EA BY 9 3/8"
EF505	5	8'-10" TO 1'-7"	20	STR									PROVIDE MECH COUPLER @ ONE END
EF506	5	8'-11"	76	STR									PROVIDE MECH COUPLER @ ONE END
EF507	5	49'-2"	19	STR									PROVIDE MECH COUPLER @ ONE END
EF508	5	1'-3" TO 7'-9"	18	STR									PROVIDE MECH COUPLER @ ONE END; VARY 2 EA BY 9 3/8"
EF609	6	3'-0"	12	STR									
EF510	5	11'-7"	22	STR									
EF611	6	10'-9"	11	STR									
EF512	5	10'-9"	11	STR									
EF519	5	14'-5"	2	STR									
EF520	5	8'-5"	2	STR									
EF521	5	5'-7"	63	STR									
EF523	5	10'-11"	11	STR									
EF624	6	7'-11"	45	1	8"	7'-3"							
EF726	7	11'-9"	5	1	10"	10'-11"							
EF727	7	10'-0"	6	1	10"	9'-2"							

ABUTMENT 2 REINFORCEMENT BAR SCHEDULE - STAGE 3

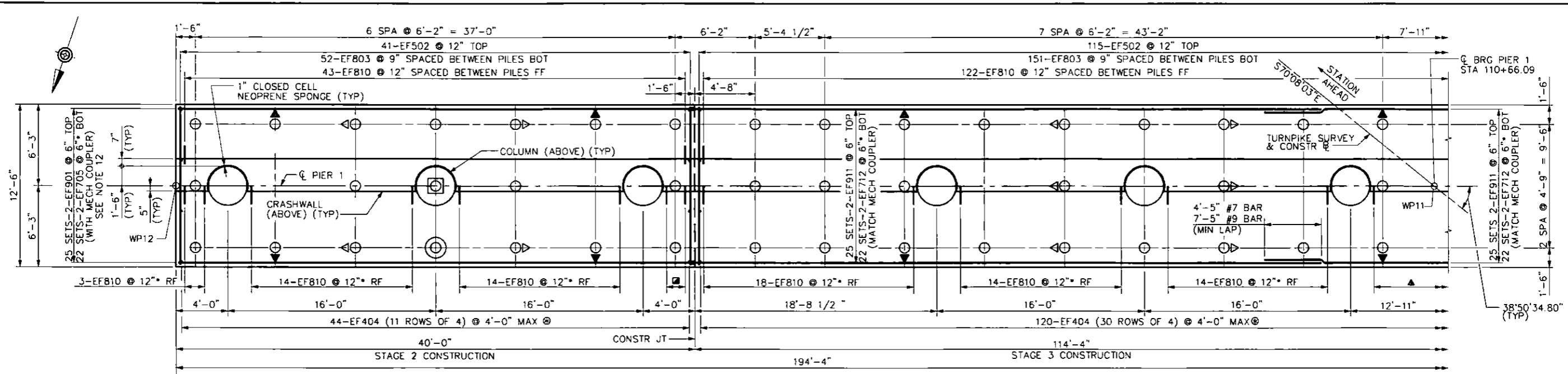
MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	G	H	R	REMARKS
EA519	5	8'-5"	91	8	4'-1"	4'-4"							
EA520	5	3'-11"	105	STR									
EA521	5	7'-4"	65	7	3'-1"	11"	1'-9"	1'-7"			1'-1 1/8"		
EA524	5	4'-1"	3	STR									
EA530	5	29'-8"	28	STR									MATCH MECH COUPLER @ ONE END
EA532	5	45'-4"	12	STR									
EA333	3	10'-4"	13	8	4'-8"	5'-8"							
EA534	5	7'-7" TO 5'-2"	8	8	4'-1"	3'-6" TO 1'-1"							VARY 'B' 2 EA BY 9 3/8"
EA535	5	5'-0" TO 2'-7"	8	8	1'-6"	3'-6" TO 1'-1"							VARY 'B' 2 EA BY 9 3/8"
EA537	5	15'-10"	1	8	1'-2"	14'-8"							
EA538	5	13'-2"	1	8	1'-2"	12'-0"							
EA539	5	29'-8"	20	STR									MATCH MECH COUPLER @ ONE END
EA540	5	45'-4"	3	STR									
EA541	5	23'-3"	5	14	20'-10"	2'-5"							
EA542	5	8'-0"	5	8	2'-8"	5'-4"							
EA543	5	20'-2"	5	STR									
EA544	5	25'-3"	2	22	2'-3"	1'-3"	21'-9"						
EA545	5	25'-3"	2	19	2'-3"	1'-3"	21'-9"				9"		
EA546	5	5'-3"	7	STR							9"		
EA647	6	8'-5"	65	8	6'-7"	1'-10"							
EA648	6	13'-3"	38	7	8'-4"	1'-7"	1'-9"	1'-7"			1'-1 1/8"		
EA549	5	8'-6"	8	STR									
EA652	6	7'-11"	3	STR									
EA553	5	7'-7" TO 5'-2"	4	8	4'-1"	3'-6" TO 1'-1"							VARY 'B' EA BY 9 3/8"; MATCH MECH COUPLER @ ONE END
EA554	5	10" TO 3'-3"	4	STR									VARY EA BY 9 3/8"; MATCH MECH COUPLER @ ONE END
EA456	4	7'-7 1/2"	26	10	3'-3"	4"	4"	2 1/4"	1'-4 1/2"		7 1/2"	2"	F = 2'-1"
EA557	5	4'-1"	1	STR									
EA402	4	9'-3 1/2"	26	6	3'-5 1/2"	4"	2 1/4"	3 3/8"	3'-3 3/4"	6 1/2"		2"	F = 4 1/2"; J = 5"; K = 4 1/2"
EA617	6	3'-8"	4	STR									
EA518	5	3'-8"	8	STR									
EA519	5	8'-0"	8	STR									
EA620	6	8'-0"	4	STR									
FOOTING													
EF401	4	2'-8"	106	9	4 1/2"	1'-11"	4 1/2"					1"	
EF506	5	8'-11"	193	STR									
EF609	6	3'-0"	18	STR									
EF517	5	1'-2" TO 7'-8"	36	STR									VARY 4 EA BY 9 3/8"; MATCH MECH COUPLER @ ONE END
EF518	5	54'-3"	42	STR									MATCH MECH COUPLER @ ONE END
EF519	5	14'-5"	4	STR									
EF520	5	8'-5"	4	STR									
EF521	5	5'-7"	106	STR									
EF624	6	7'-11"	106	1	8"	7'-3"							



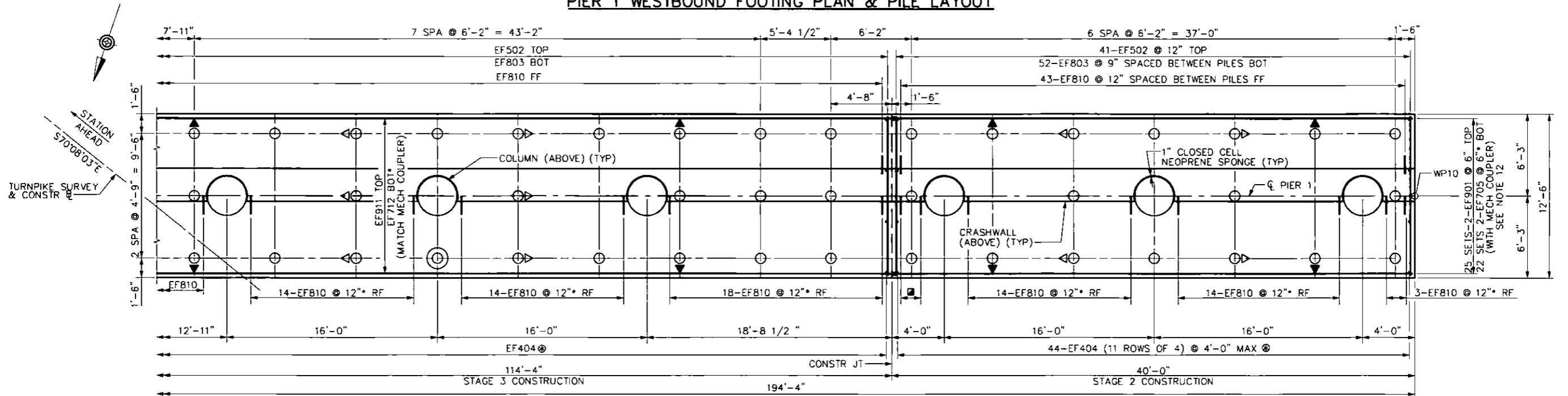
REINFORCEMENT NOTES

- "E" IN BAR MARK DENOTES EPOXY-COATED BARS.
- ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	ABUTMENT 2 REINFORCEMENT BAR SCHEDULE STAGE 3																
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NETWORK NUMBER: 7003982 FILE NAME: STa211.dgn DRAWING TYPE: 2G STRUCTURE NUMBER: EB-103			DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP															
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NO.	REVISIONS	DATE	APPR.																		



PIER 1 WESTBOUND FOOTING PLAN & PILE LAYOUT



PIER 1 EASTBOUND FOOTING PLAN & PILE LAYOUT

LEGEND

- DENOTES VERTICAL PILE (9 5/8" DIA MICROPILE)
- ◊ DENOTES PILE BATTERED 4 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW (9 5/8" DIA MICROPILE)
- ◑ DENOTES PILE BATTERED AT 12 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW (9 5/8" DIA MICROPILE)

- ⊙ DENOTES TEST PILE (9 5/8" DIA MICROPILE)
- ⊖ DENOTES SACRIFICIAL PILE (9 5/8" DIA MICROPILE) (BENT A ONLY)
- ⊕ THE TOP & BOTTOM MATS OF REINFORCING STEEL WITH EF404 TIE BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOK AT TOP IN ALTERNATING TIES.
- * = SPACED BETWEEN PILES
- = 3-EF810 @ 12" RF
- ▲ = 12-EF810 @ 12" RF

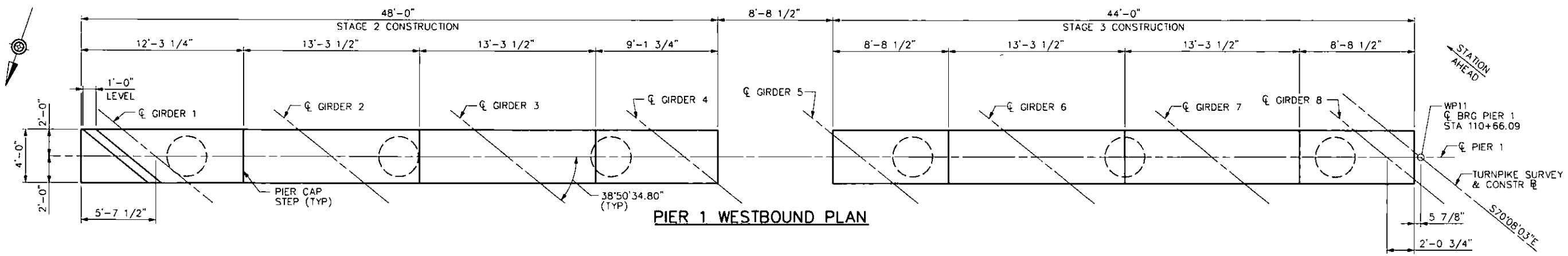
NOTES

1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
2. FOR TYPICAL MICROPILE DETAIL, SEE DRAWING 19.
3. FOR PIER 1 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 38.
4. FOR PIER 1 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 39.
5. FOR PIER 1 SECTIONS AND DETAILS STAGE 2, SEE DRAWING 40.
6. FOR PIER 1 SECTIONS AND DETAILS STAGE 3, SEE DRAWING 41.
7. FOR PIER 1 CRASHWALL PLAN AND ELEVATION WESTBOUND, SEE DRAWING 42.
8. FOR PIER 1 CRASHWALL PLAN AND ELEVATION EASTBOUND, SEE DRAWING 43.
9. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 2, SEE DRAWING 45.
10. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 3, SEE DRAWING 46.
11. PERFORM PROOF TESTS TO 1.5 X DL AND VERIFICATION TESTS TO 2.0 X DL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. DL IS DEFINED AS THE "UNFACTORED LOAD" AND IS EQUAL TO 200 KIPS (300 KIPS/1.5)
12. MECHANICAL SPlicing IS REQUIRED FOR REBARS AT CONSTRUCTION JOINT, AS PER MECHANICAL SPlice CONNECTION DETAIL ON DRAWING 15.

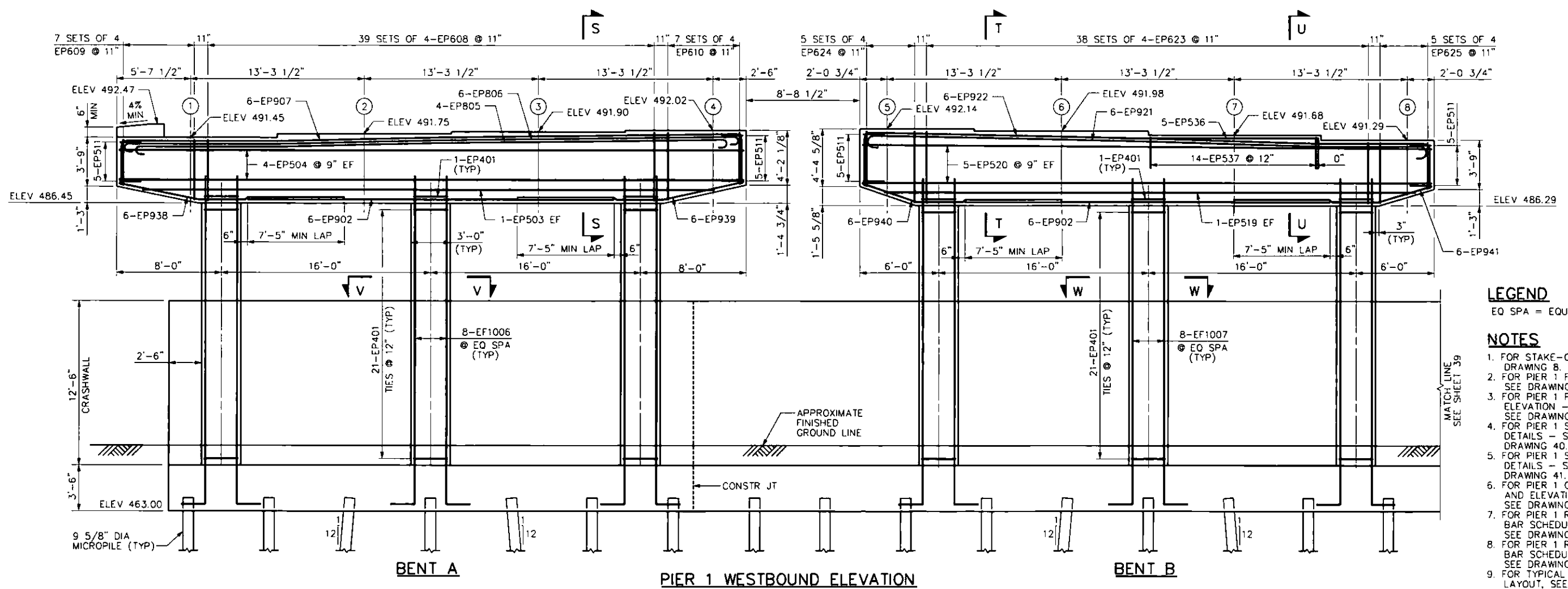
PILE LOADING

STRUCTURE	PIER 1	
	AXIAL K/PILE	LATERAL K/PILE GROUP
FACTORED LOAD	212.10	47.19
LIMIT STATE	STR-I	STR-III
STAGE	TEMP	TEMP
MIN / MAX	MAX	MAX
FACTORED RESISTANCE	300.00	49.83

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	PIER 1 FOOTING PLAN	
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NETWORK NUMBER: 7003982 FILE NAME: STp101_WITH CRASHWALL.dgn DRAWING TYPE: 2G STRUCTURE NUMBER: EB-103			DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP
	NO. REVISIONS DATE APPR.		SCALE: 2 0 2 4 FEET			DRAWING: 37 OF 101 SHEET: 182 OF 315
	PENNA TURNPIKE					



PIER 1 WESTBOUND PLAN



PIER 1 WESTBOUND ELEVATION

- LEGEND**
EQ SPA = EQUAL SPACES
- NOTES**
1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
 2. FOR PIER 1 FOOTING PLAN, SEE DRAWING 37.
 3. FOR PIER 1 PLAN AND ELEVATION - EASTBOUND, SEE DRAWING 39.
 4. FOR PIER 1 SECTIONS AND DETAILS - STAGE 2, SEE DRAWING 40.
 5. FOR PIER 1 SECTIONS AND DETAILS - STAGE 3, SEE DRAWING 41.
 6. FOR PIER 1 CRASHWALL PLAN AND ELEVATION WESTBOUND, SEE DRAWING 42.
 7. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 2, SEE DRAWING 45.
 8. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 3, SEE DRAWING 46.
 9. FOR TYPICAL ANCHOR BOLT LAYOUT, SEE DRAWING 73.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



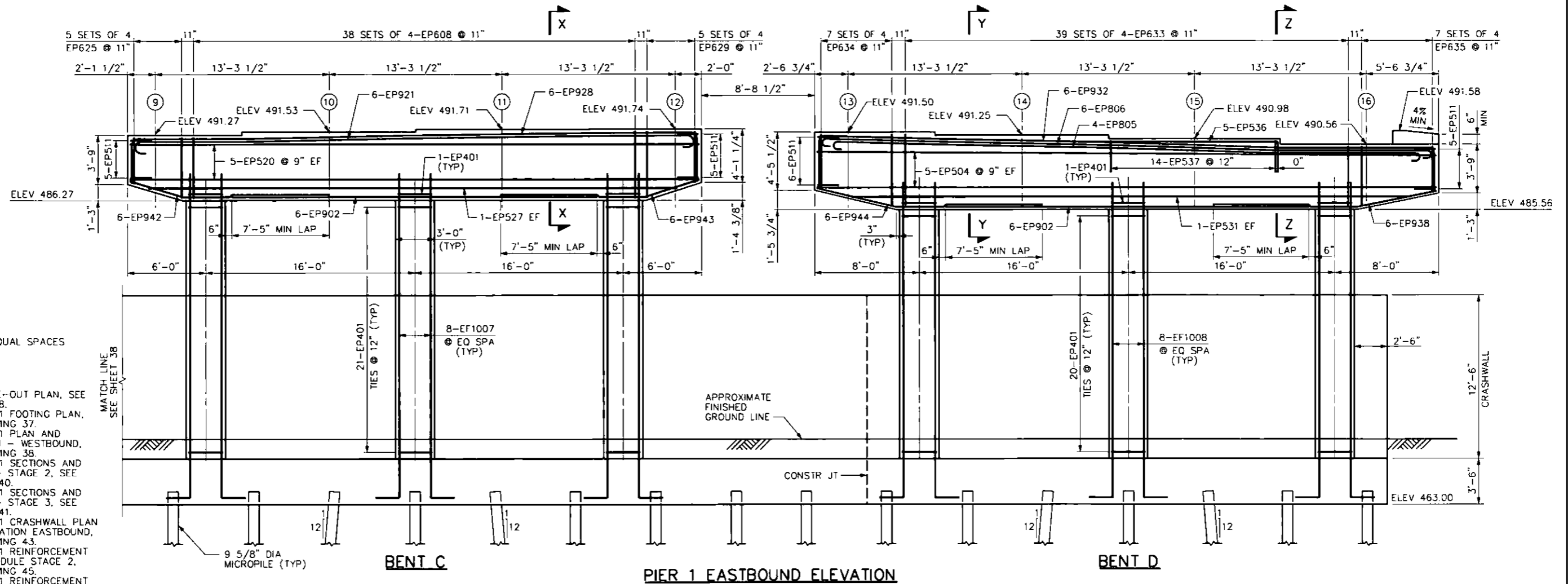
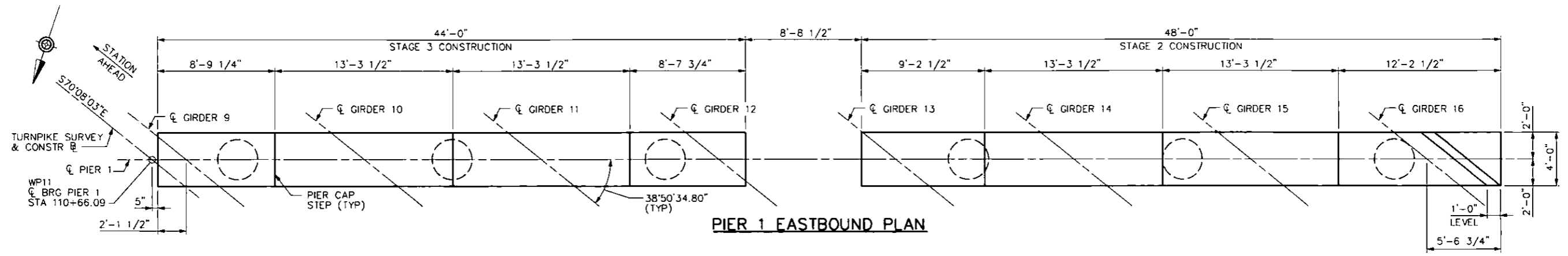
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FILE NAME: STp102_WITH CRASHWALL.dgn			
DRAWING TYPE: 2G			
STRUCTURE NUMBER: EB-103			
SCALE: 2 0 2 4 FEET			
NO.	REVISIONS	DATE	APPR.

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

PIER 1
PLAN AND ELEVATION - WESTBOUND

DRAWING: 38 OF 101
SHEET: 183 OF 315



LEGEND

EQ SPA = EQUAL SPACES

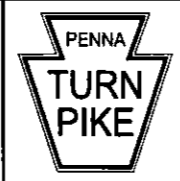
NOTES

1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
2. FOR PIER 1 FOOTING PLAN, SEE DRAWING 37.
3. FOR PIER 1 PLAN AND ELEVATION - WESTBOUND, SEE DRAWING 38.
4. FOR PIER 1 SECTIONS AND DETAILS - STAGE 2, SEE DRAWING 40.
5. FOR PIER 1 SECTIONS AND DETAILS - STAGE 3, SEE DRAWING 41.
6. FOR PIER 1 CRASHWALL PLAN AND ELEVATION EASTBOUND, SEE DRAWING 43.
7. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 2, SEE DRAWING 45.
8. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 3, SEE DRAWING 46.
9. FOR TYPICAL ANCHOR BOLT LAYOUT, SEE DRAWING 73.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

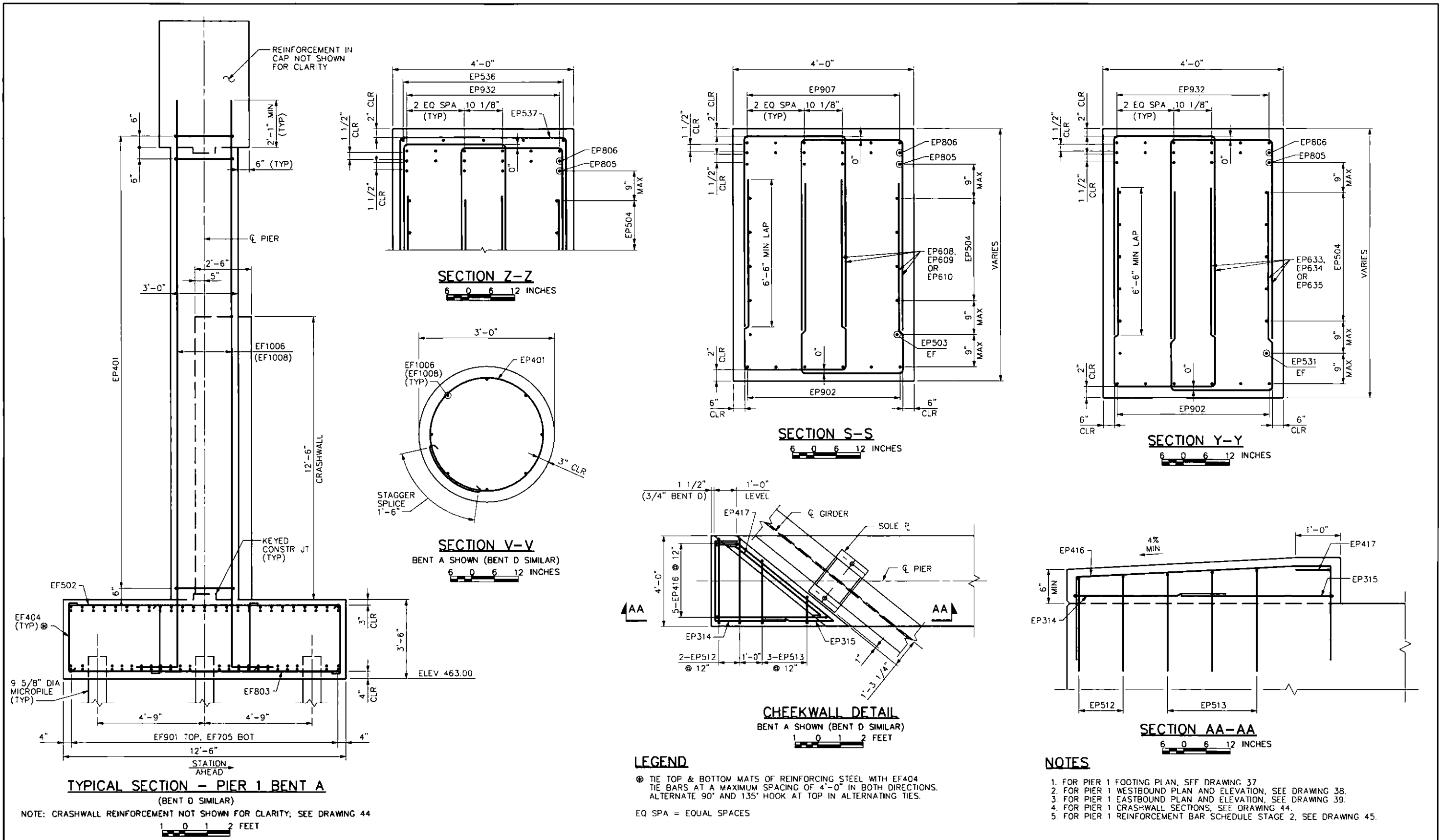
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 FILE NAME: STp103_WITH CRASHWALL.dgn
 DRAWING TYPE: 2G
 STRUCTURE NUMBER: EB-103
 SCALE: 2 0 2 4 FEET

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

PIER 1 PLAN AND ELEVATION - EASTBOUND

DRAWING: 39 OF 101
 SHEET: 184 OF 315



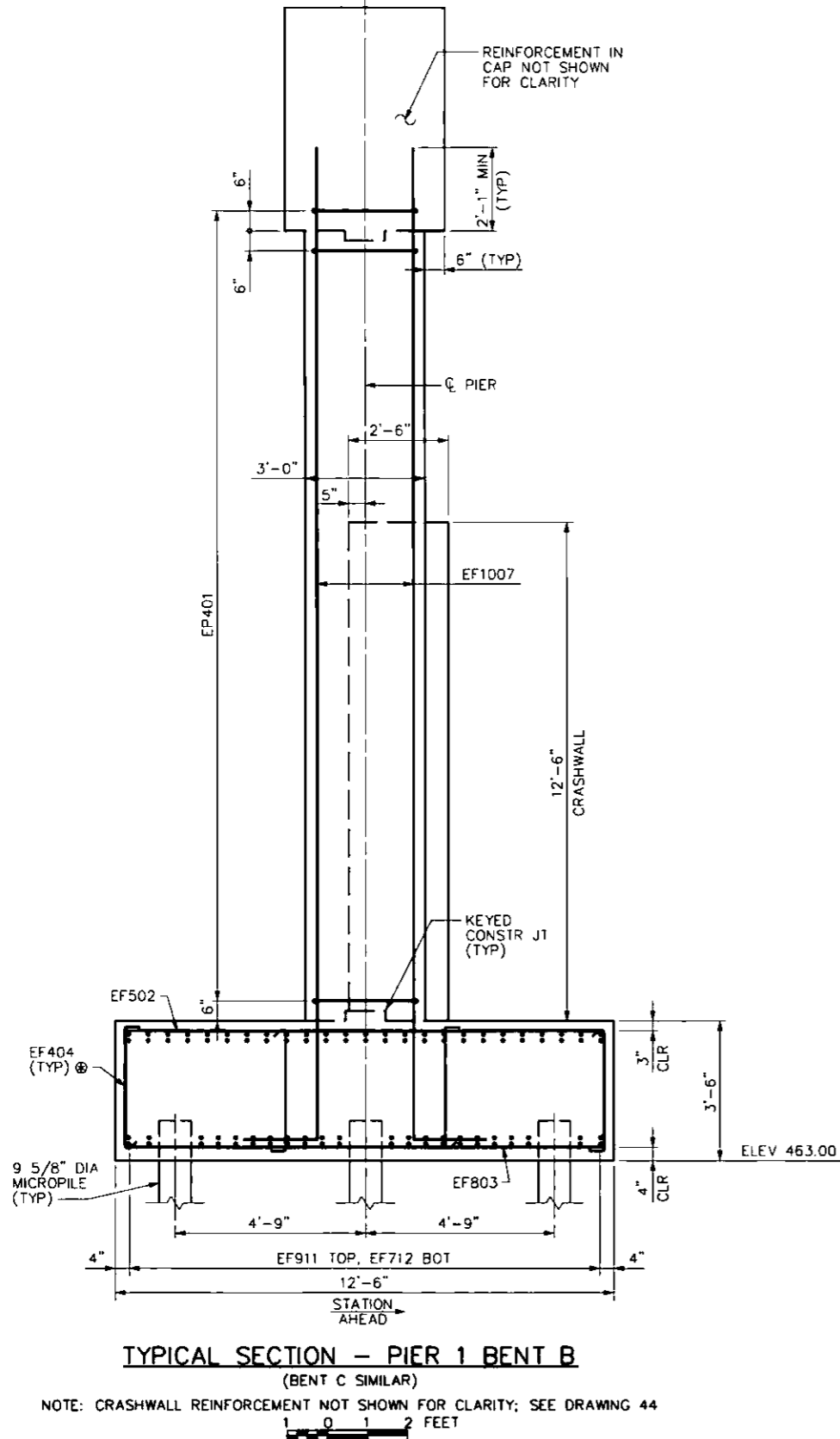
LEGEND

- ⊗ TIE TOP & BOTTOM MATS OF REINFORCING STEEL WITH EF404 TIE BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOK AT TOP IN ALTERNATING TIES.
- EQ SPA = EQUAL SPACES

NOTES

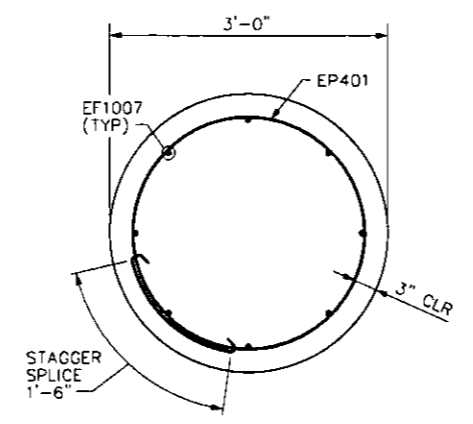
1. FOR PIER 1 FOOTING PLAN, SEE DRAWING 37.
2. FOR PIER 1 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 38.
3. FOR PIER 1 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 39.
4. FOR PIER 1 CRASHWALL SECTIONS, SEE DRAWING 44.
5. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 2, SEE DRAWING 45.

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050				WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	PIER 1 SECTIONS AND DETAILS STAGE 2			
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION				NETWORK NUMBER: 7003982					
				FILE NAME: STp104_WITH CRASHWALL.dgn						
				DRAWING TYPE: 2G						
				STRUCTURE NUMBER: EB-103						
			NO.	REVISIONS	DATE	APPR.	SCALE: AS NOTED	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 40 OF 101
								TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 185 OF 315



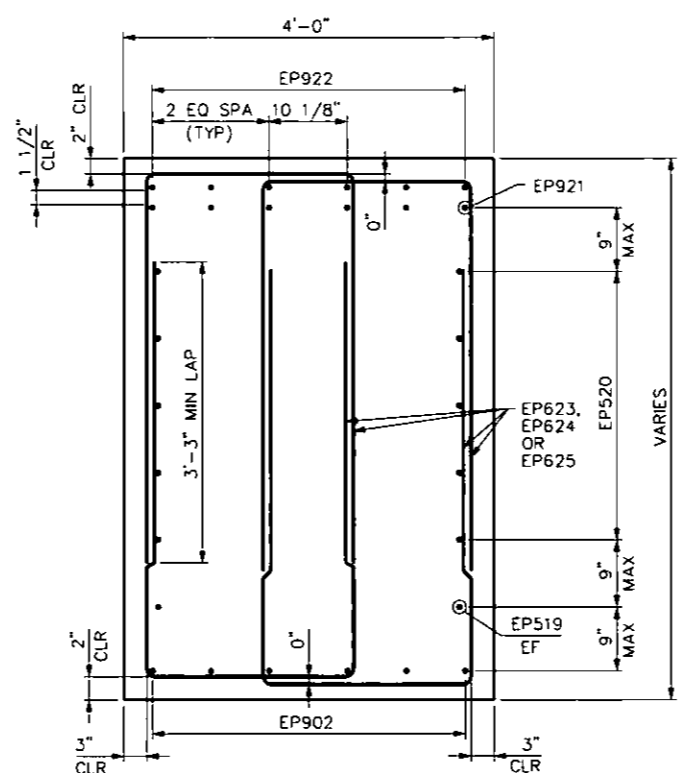
TYPICAL SECTION - PIER 1 BENT B
(BENT C SIMILAR)

NOTE: CRASHWALL REINFORCEMENT NOT SHOWN FOR CLARITY; SEE DRAWING 44



SECTION W-W

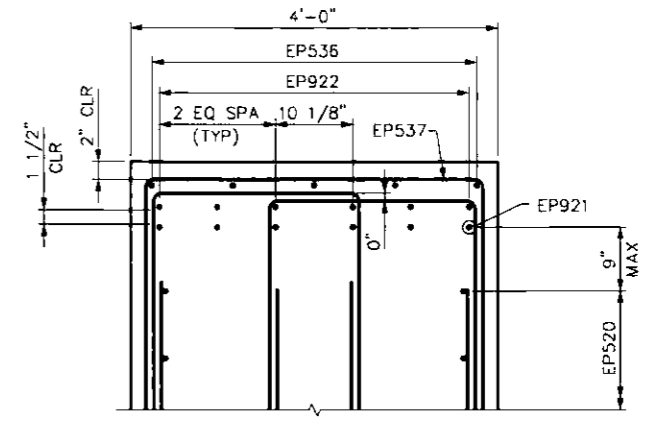
BENT B SHOWN (BENT C SIMILAR)



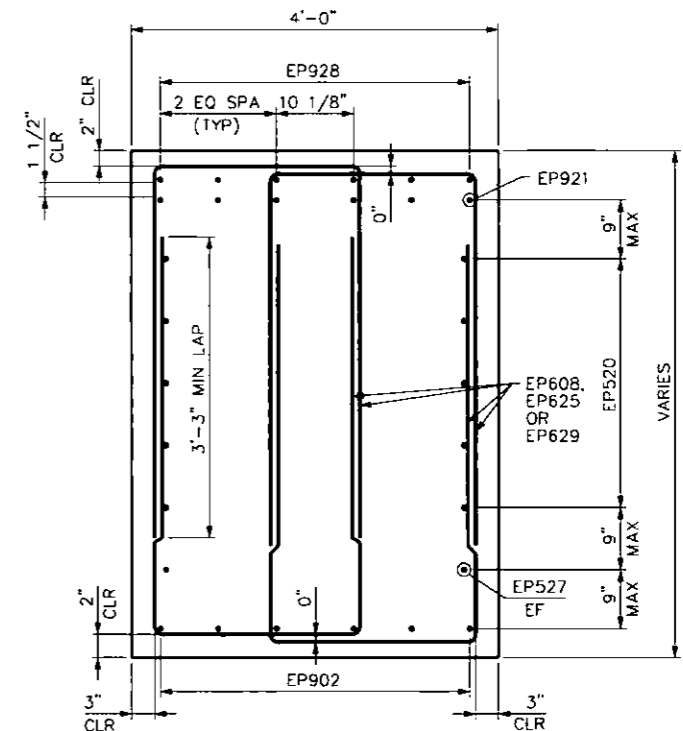
SECTION T-T

LEGEND

- ⊗ TIE TOP & BOTTOM MATS OF REINFORCING STEEL WITH EF404 TIE BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOK AT TOP IN ALTERNATING TIES.
- EQ SPA = EQUAL SPACES



SECTION U-U



SECTION X-X

NOTES

1. FOR PIER 1 FOOTING PLAN, SEE DRAWING 37.
2. FOR PIER 1 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 38.
3. FOR PIER 1 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 39.
4. FOR PIER 1 CRASHWALL SECTIONS, SEE DRAWING 44.
5. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 3, SEE DRAWING 46.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE: AS NOTED

WBS NO.
T-228.54S001-3-02

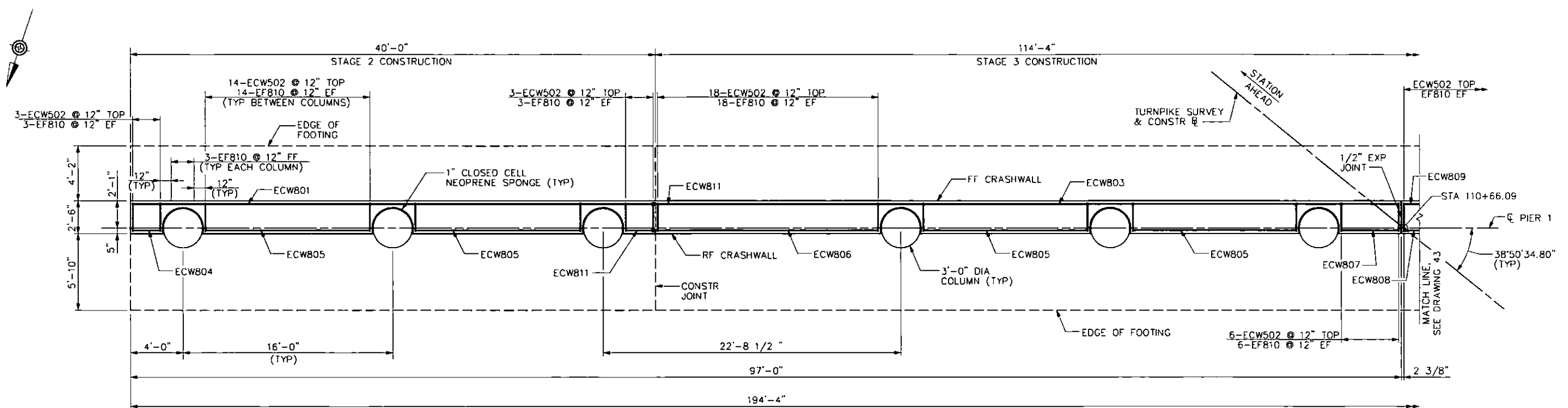
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FILE NAME: STp105_WITH CRASHWALL.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

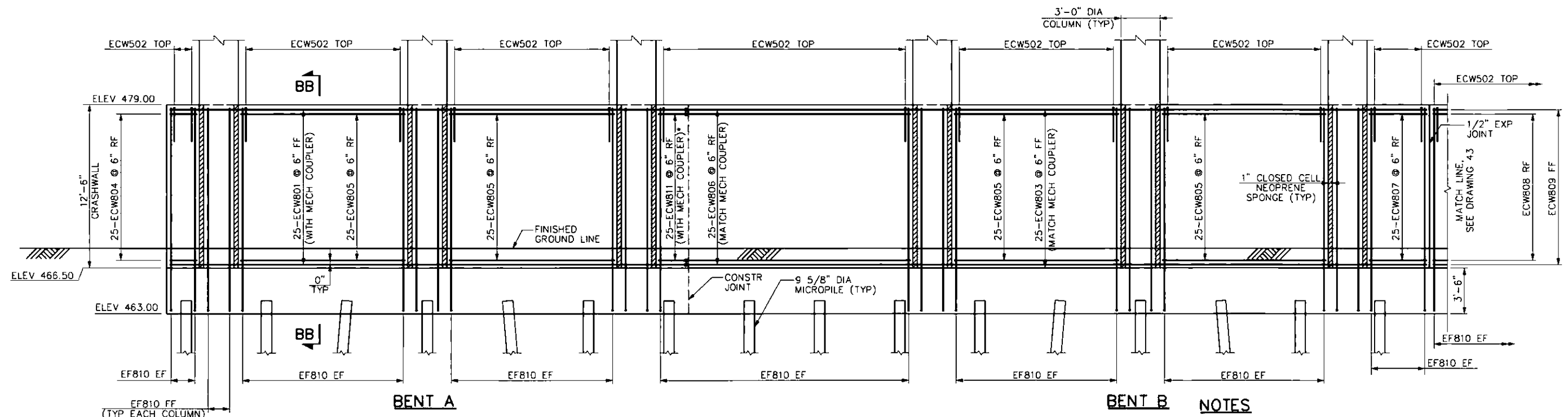
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**PIER 1 SECTIONS AND DETAILS
STAGE 3**

DRAWING: 41 OF 101
SHEET: 186 OF 315



PIER 1 CRASHWALL WESTBOUND PLAN



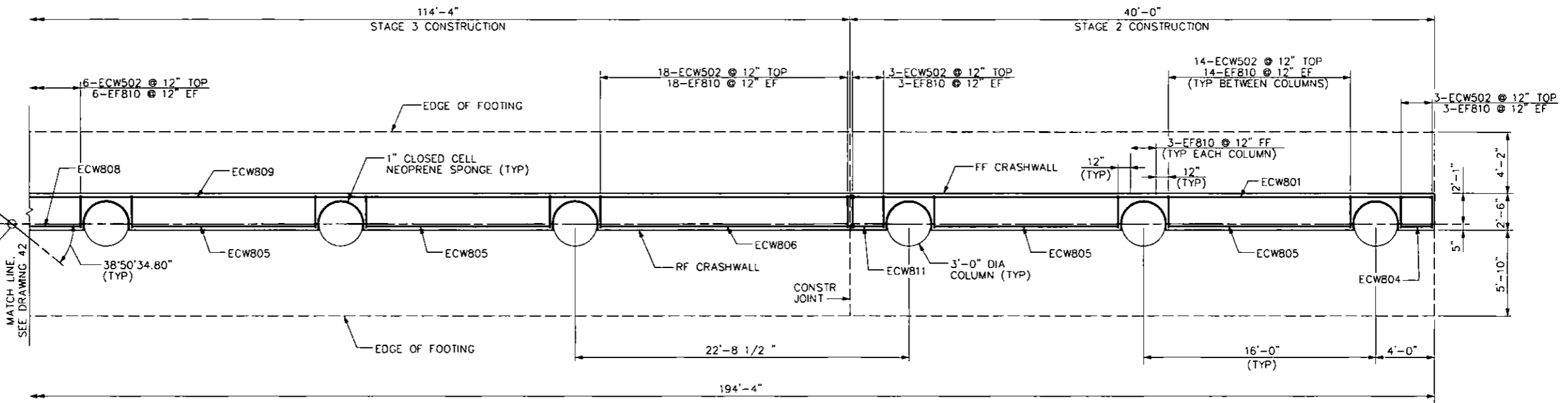
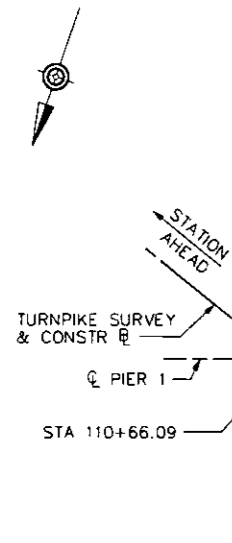
PIER 1 CRASHWALL WESTBOUND ELEVATION

NOTE: COLUMN AND FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY

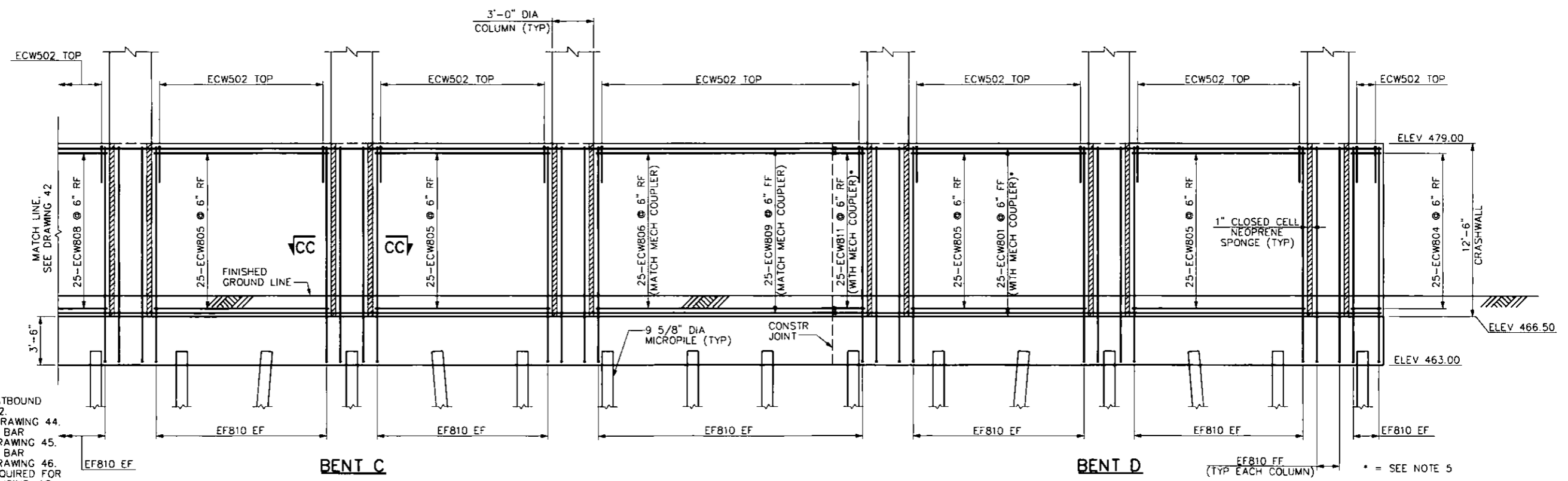
NOTES

1. FOR PIER 1 CRASHWALL EASTBOUND ELEVATION, SEE DRAWING 43.
2. FOR SECTION BB-BB, SEE DRAWING 44.
3. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 2, SEE DRAWING 45.
4. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 3, SEE DRAWING 46.
5. MECHANICAL SPlicing IS REQUIRED FOR REBARS AT CONSTRUCTION JOINT, AS PER MECHANICAL SPLICE CONNECTION DETAIL ON DRAWING 15.

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	PIER 1 CRASHWALL PLAN AND ELEVATION WESTBOUND
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NETWORK NUMBER: 7003982 FILE NAME: STcw01.dgn DRAWING TYPE: 2G STRUCTURE NUMBER: EB-103		
			SCALE: 2 0 2 4 FEET		DRAWING: 42 OF 101
					SHEET: 187 OF 315



PIER 1 CRASHWALL EASTBOUND PLAN



PIER 1 CRASHWALL EASTBOUND ELEVATION
NOTE: COLUMN AND FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY

NOTES

1. FOR PIER 1 CRASHWALL WESTBOUND ELEVATION, SEE DRAWING 42.
2. FOR SECTION CC-CC, SEE DRAWING 44.
3. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 2, SEE DRAWING 45.
4. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 3, SEE DRAWING 46.
5. MECHANICAL SPlicing IS REQUIRED FOR REBARS AT CONSTRUCTION JOINT, AS PER MECHANICAL SPLICE CONNECTION DETAIL ON DRAWING 15.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STcW02.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

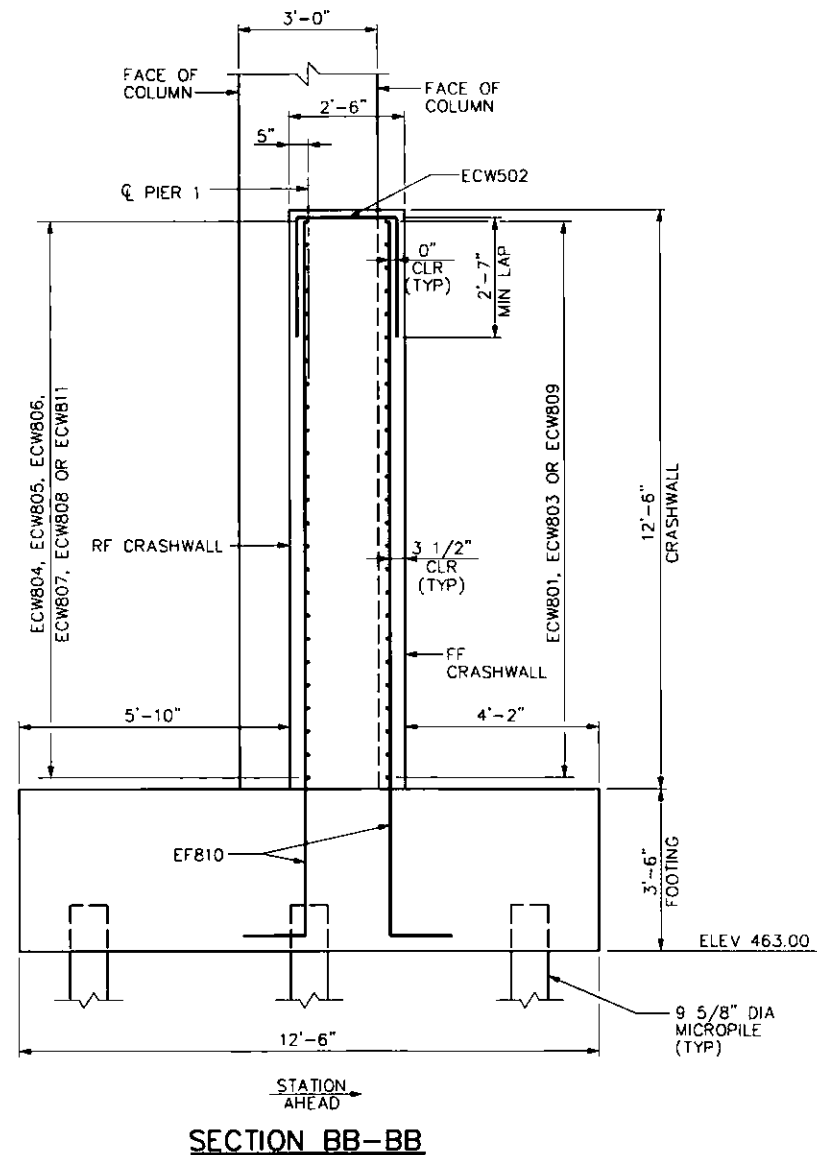
SCALE: 2 0 2 4 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

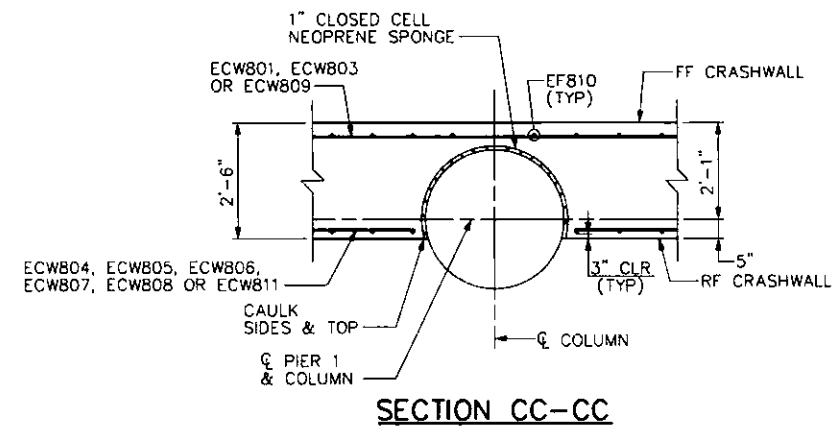
**PIER 1 CRASHWALL PLAN AND ELEVATION
EASTBOUND**

DRAWING: 43 OF 101
SHEET: 188 OF 315



SECTION BB-BB

NOTE: COLUMN AND FOOTING REINFORCEMENT NOT SHOWN FOR CLARITY; SEE DRAWINGS 40 AND 41



SECTION CC-CC

NOTES

1. FOR PIER 1 CRASHWALL PLAN AND ELEVATION WESTBOUND, SEE DRAWING 42.
2. FOR PIER 1 CRASHWALL PLAN AND ELEVATION EASTBOUND, SEE DRAWING 43.
3. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 2, SEE DRAWING 45.
4. FOR PIER 1 REINFORCEMENT BAR SCHEDULE STAGE 3, SEE DRAWING 46.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

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THE PENNSYLVANIA
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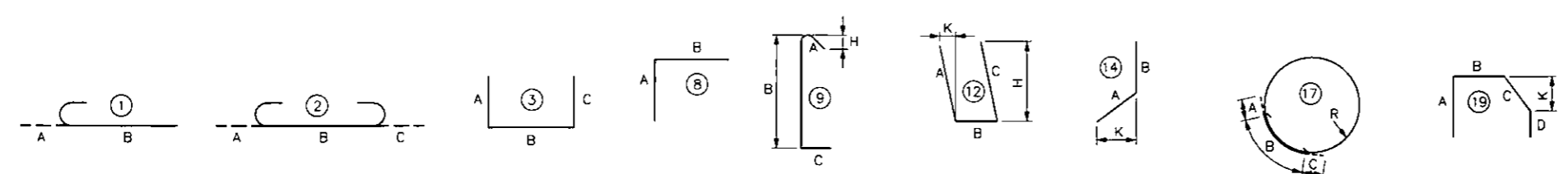
NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STcw03.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: 1" = 0' 1" 2" FEET

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

PIER 1 CRASHWALL SECTIONS	
DRAWING: 44 OF 101	SHEET: 189 OF 315


PIER 1 REINFORCEMENT BAR SCHEDULE - STAGE 2 WESTBOUND													PIER 1 REINFORCEMENT BAR SCHEDULE - STAGE 2 EASTBOUND															
MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	G	H	R	REMARKS	MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	G	H	R	REMARKS	
EF901	9	39'-9"	50	STR									PROVIDE MECH COUPLER @ ONE END	EF901	9	39'-9"	50	STR									PROVIDE MECH COUPLER @ ONE END	
EF502	5	12'-0"	41	STR										EF502	5	12'-0"	41	STR										
EF803	8	12'-0"	52	STR										EF803	8	12'-0"	52	STR										
EF404	4	3'-8"	44	9	4 1/2"	2'-11"	4 1/2"				3"			EF404	4	3'-8"	44	9	4 1/2"	2'-11"	4 1/2"				3"			
EF705	7	40'-7"	44	1	10"	39'-9"							PROVIDE MECH COUPLER @ STRAIGHT END	EF705	8	40'-7"	44	1	10"	39'-6"							PROVIDE MECH COUPLER @ STRAIGHT END	
EF1006	10	27'-1"	24	8	25'-3"	1'-10"								EF1008	10	26'-2"	24	8	24'-4"	1'-10"								
EF609	6	3'-0"	19	STR										EF609	6	3'-0"	18	STR										
EF810	8	16'-10"	77	8	1'-4"	15'-6"								EF810	8	16'-10"	77	8	1'-4"	15'-6"								
BENT A														BENT D														
EP401	4	10'-2"	66	17	4 1/2"	1'-6"	4 1/2"					1'-3"		EP401	4	10'-2"	63	17	4 1/2"	1'-6"	4 1/2"						1'-3"	
EP902	9	28'-0"	6	STR										EP902	9	28'-0"	6	STR										
EP503	5	43'-7"	2	STR										EP504	5	47'-8"	10	STR										
EP504	5	47'-8"	8	STR										EP805	8	47'-6"	4	2	11"	45'-8"	11"							
EP805	8	47'-6"	4	2	11"	45'-8"	11"							EP806	8	48'-8"	6	2	11"	46'-10"	11"							
EP806	8	48'-8"	6	2	11"	46'-10"	11"							EP511	5	6'-8"	11	3	1'-7"	3'-6"	1'-7"							
EP907	9	54'-5"	6	3	3'-4"	47'-4"	3'-9"							EP512	5	7'-10"	2	3	2'-1"	3'-8"	2'-1"							
EP608	6	10'-9 1/2"	156	3	4'-3"	2'-3 1/2"	4'-3"							EP513	5	5'-9 1/2" TO 7'-4 1/2"	3	3	2'-4"	1'-1 1/2" TO 2'-8 1/2"	2'-4"						VARY EACH B BY 9 1/8"	
EP609	6	9'-1 1/8" TO 10'-1 1/8"	28	3	3'-5" TO 3'-11"	2'-3 1/8"	3'-5" TO 3'-11"						VARY 4 EACH A & C BY 1"	EP314	3	7'-8 1/2"	1	3	1'-0"	3'-6 1/2"	3'-2"							
EP610	6	9'-7 1/8" TO 10'-9 1/8"	28	3	3'-8" TO 4'-3"	2'-3 1/8"	3'-8" TO 4'-3"						VARY 4 EACH A & C BY 1 1/8"	EP315	3	9'-10"	1	12	1'-0"	5'-8"	3'-2"					1'-11 1/2"	K = 9 1/8" K = 6" VARY EACH C BY 1'-0 1/2"	
EP511	5	6'-8"	10	3	1'-7"	3'-6"	1'-7"							EP416	4	5'-2 1/2" TO 9'-3 1/2"	5	19	2'-1"	9"	6 1/2" TO 4'-7 1/2"	1'-10"					K = 8 1/2"	
EP512	5	7'-10"	2	3	2'-1"	3'-8"	2'-1"							EP417	4	7'-5"	1	12	11"	5'-7"	11"					6 1/2"	K = 8 1/2"	
EP513	5	5'-9 1/2" TO 7'-4 1/2"	3	3	2'-4"	1'-1 1/2" TO 2'-8 1/2"	2'-4"						VARY EACH B BY 9 1/8"	EP531	5	43'-0"	2	STR										
EP314	3	7'-8 1/2"	1	3	1'-0"	3'-6 1/2"	3'-2"							EP932	9	54'-9"	6	3	4'-1"	47'-4"	3'-4"							
EP315	3	9'-10"	1	12	1'-0"	5'-8"	3'-2"				1'-11 1/2"		K = 9 1/8" K = 6" VARY EACH C BY 1'-0 1/2"	EP633	6	11'-3 1/2"	156	3	4'-6"	2'-3 1/2"	4'-6"							
EP416	4	5'-2 1/2" TO 9'-3 1/2"	5	19	2'-1"	9"	6 1/2" TO 4'-7 1/2"	1'-10"					VARY EACH C BY 1'-0 1/2"	EP634	6	9'-9 1/2" TO 11'-3 1/2"	28	3	3'-9" TO 4'-6"	2'-3 1/2"	3'-9" TO 4'-6"							VARY 4 EACH A & C BY 1 1/2"
EP417	4	7'-5"	1	12	11"	5'-7"	11"				6 1/2"		K = 8 1/2"	EP635	6	9'-1 1/8" TO 10'-3 1/8"	28	3	3'-5" TO 4'-0"	2'-3 1/8"	3'-5" TO 4'-0"							VARY 4 EACH A & C BY 1 1/8"
EP938	9	17'-4 1/2"	6	14	6'-2 1/2"	11'-2"							K = 1'-2 1/2"	EP536	5	17'-9"	5	8	2'-5"	15'-4"								
EP939	9	17'-5"	6	14	6'-3"	11'-2"							K = 1'-4 1/2"	EP537	5	8'-4"	14	3	2'-5"	3'-6"	2'-5"							
CRASHWALL														EP938	9	17'-4 1/2"	6	14	6'-2 1/2"	11'-2"								K = 1'-2 1/2"
ECW801	8	39'-10"	25	STR									PROVIDE MECH COUPLER @ ONE END	EP944	9	17'-5 1/2"	6	14	6'-3 1/2"	11'-2"								K = 1'-5 1/2"
ECW502	5	7'-2"	34	3	2'-7"	2'-0"	2'-7"							CRASHWALL														
ECW804	8	2'-1"	25	STR										ECW801	8	39'-10"	25	STR										PROVIDE MECH COUPLER @ ONE END
ECW805	8	12'-6"	50	STR										ECW502	5	7'-2"	34	3	2'-7"	2'-0"	2'-7"							
ECW811	8	2'-3"	25	STR									PROVIDE MECH COUPLER @ ONE END	ECW804	8	2'-1"	25	STR										
														ECW805	8	12'-6"	50	STR										
														ECW811	8	2'-3"	25	STR										PROVIDE MECH COUPLER @ ONE END



REINFORCEMENT NOTES

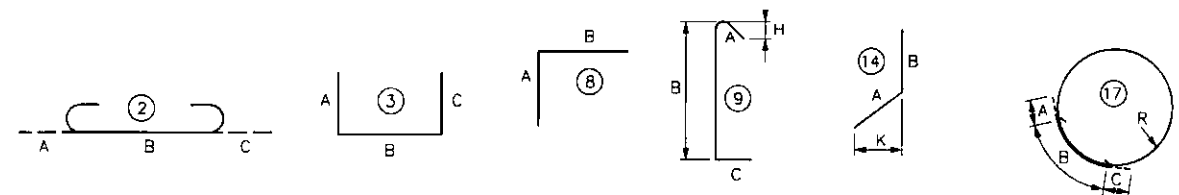
- "E" IN BAR MARK DENOTES EPOXY-COATED BARS.
- ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.

DATE: 7/12/2016

PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050 PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO.	T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP
		NETWORK NUMBER:	7003982		
		FILE NAME:	STp106.dgn		
		DRAWING TYPE:	2G		
		STRUCTURE NUMBER:	EB-103		
NO.	REVISIONS	DATE	APPR.	SCALE: NONE	DRAWING: 45 OF 101 SHEET: 190 OF 315

PIER 1 REINFORCEMENT BAR SCHEDULE - STAGE 3

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	G	H	R	REMARKS
FOOTING													
EF502	5	12'-0"	115	STR									
EF803	8	12'-0"	151	STR									
EF404	4	3'-8"	120	9	4 1/2"	2'-11"	4 1/2"				3"		
EF1007	10	26'-11"	48	8	25'-1"	1'-10"							
EF609	6	3'-0"	48	STR									
EF810	8	16'-10"	226	8	1'-4"	15'-6"							
EF911	9	60'-11"	100	STR									MATCH MECH COUPLER ⊙ ONE END
EF712	7	59'-5"	88	STR									MATCH MECH COUPLER ⊙ ONE END
BENT B													
EP401	4	10'-2"	66	17	4 1/2"	1'-6"	4 1/2"					1'-3"	
EP902	9	28'-0"	6	STR									
EP511	5	6'-8"	10	3	1'-7"	3'-6"	1'-7"						
EP519	5	40'-8"	2	STR									
EP520	5	43'-8"	10	STR									
EP921	9	45'-4"	6	2	1'-3"	42'-10"	1'-3"						
EP922	9	50'-8"	6	3	4'-0"	43'-4"	3'-4"						
EP623	6	11'-1 1/8"	152	3	4'-5"	2'-3 3/8"	4'-5"						
EP624	6	9'-9 1/8" TO 11'-1 1/8"	20	3	3'-9" TO 4'-5"	2'-3 3/8"	3'-9" TO 4'-5"						VARY 4 EACH A & C BY 2"
EP625	6	9'-1 1/8" TO 10'-3 3/8"	20	3	3'-5" TO 4'-0"	2'-3 3/8"	3'-5" TO 4'-0"						VARY 4 EACH A & C BY 1 1/2"
EP536	5	17'-9"	5	8	2'-5"	15'-4"							
EP537	5	8'-4"	14	3	2'-5"	3'-6"	2'-5"						
EP940	9	15'-6 1/2"	6	14	4'-4 1/2"	11'-2"							K = 1'-5"
EP941	9	15'-5 1/2"	6	14	4'-3 1/2"	11'-2"							K = 1'-2 1/2"
BENT C													
EP401	4	10'-2"	66	17	4 1/2"	1'-6"	4 1/2"					1'-3"	
EP902	9	28'-0"	6	STR									
EP608	6	10'-9 1/8"	152	3	4'-3"	2'-3 3/8"	4'-3"						
EP511	5	6'-8"	10	3	1'-7"	3'-6"	1'-7"						
EP520	5	43'-8"	10	STR									
EP921	9	45'-4"	6	2	1'-3"	42'-10"	1'-3"						
EP625	6	9'-1 1/8" TO 10'-3 3/8"	20	3	3'-5" TO 4'-0"	2'-3 3/8"	3'-5" TO 4'-0"						VARY 4 EACH A & C BY 1 1/2"
EP527	5	40'-6"	2	STR									
EP928	9	50'-5"	6	3	3'-4"	43'-4"	3'-9"						
EP629	6	9'-7 1/8" TO 10'-9 1/8"	20	3	3'-8" TO 4'-3"	2'-3 3/8"	3'-8" TO 4'-3"						VARY 4 EACH A & C BY 1 1/2"
EP942	9	15'-5 1/2"	6	14	4'-3 1/2"	11'-2"							K = 1'-2 1/2"
EP943	9	15'-6"	6	14	4'-4"	11'-2"							K = 1'-3 1/8"
CRASHWALL													
ECW502	5	7'-2"	104	3	2'-7"	2'-0"	2'-7"						
ECW803	8	36'-10"	25	STR									MATCH MECH COUPLER ⊙ ONE END
ECW805	8	12'-6"	100	STR									MATCH MECH COUPLER ⊙ ONE END
ECW806	8	16'-11 1/2"	50	STR									MATCH MECH COUPLER ⊙ ONE END
ECW807	8	4'-4 1/2"	25	STR									MATCH MECH COUPLER ⊙ ONE END
ECW808	8	4'-8"	25	STR									MATCH MECH COUPLER ⊙ ONE END
ECW809	8	57'-1 1/2"	25	STR									MATCH MECH COUPLER ⊙ ONE END



REINFORCEMENT NOTES

- "E" IN BAR MARK DENOTES EPOXY-COATED BARS.
- ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.

DATE: 7/12/2016

PREPARED BY:
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100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STp107.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

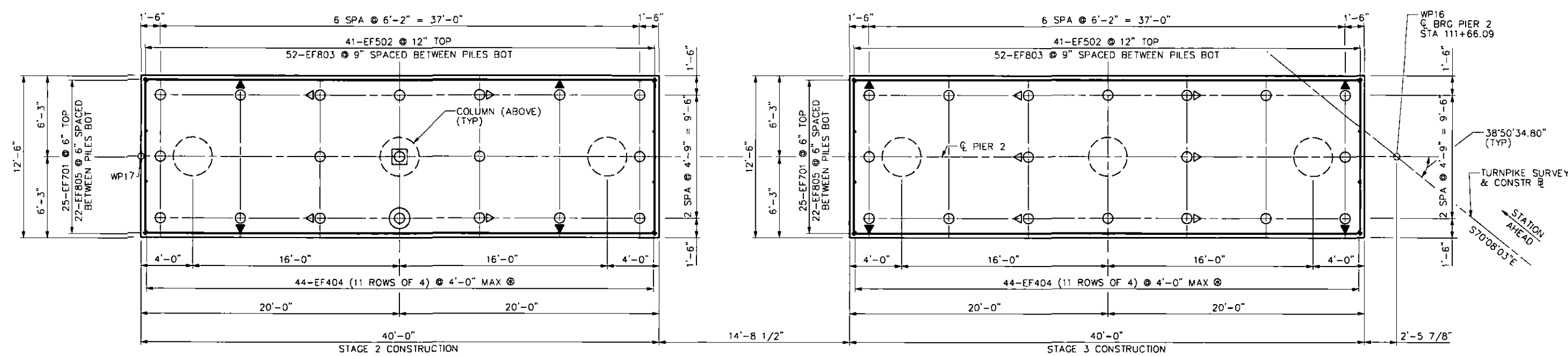
SCALE: NONE

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**PIER 1
REINFORCEMENT BAR SCHEDULE STAGE 3**

DRAWING: 46 OF 101
SHEET: 191 OF 315



PIER 2 WESTBOUND FOOTING PLAN & PILE LAYOUT

LEGEND

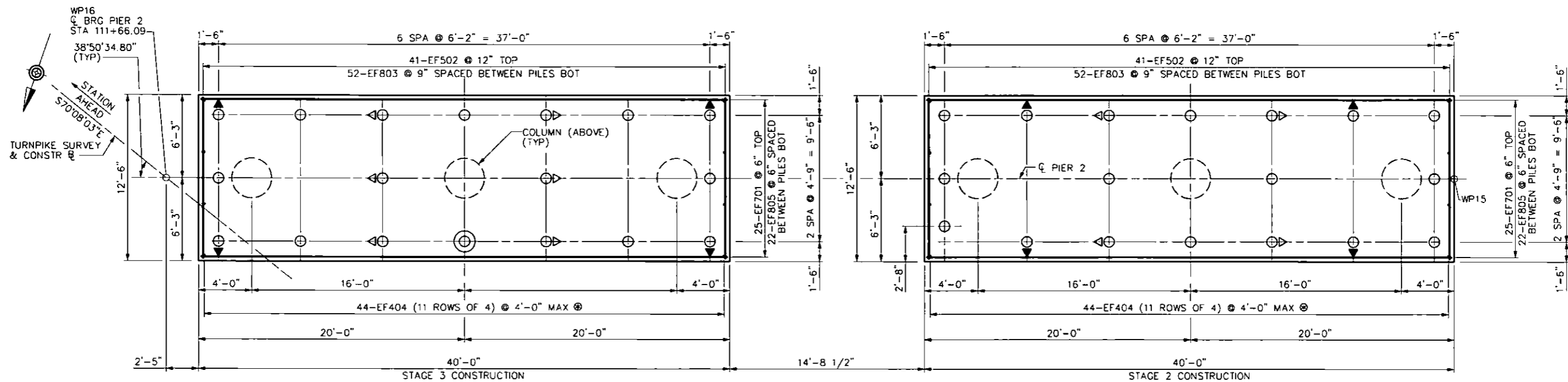
- DENOTES VERTICAL PILE (9 5/8" DIA MICROPILE)
- ⊙ DENOTES TEST PILE (9 5/8" DIA MICROPILE)
- ⊕ DENOTES SACRIFICIAL PILE (9 5/8" DIA MICROPILE) (BENT E ONLY)
- ⊕ DENOTES PILE BATTERED 4 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW (9 5/8" DIA MICROPILE)
- ⊕ DENOTES PILE BATTERED AT 12 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW (9 5/8" DIA MICROPILE)
- ⊕ TIE TOP & BOTTOM MATS OF REINFORCING STEEL WITH EF404 TIE BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOK AT TOP IN ALTERNATING TIES.

STRUCTURE	PILE LOADING			
	BENT E		BENT F	
TYPE OF LOAD	AXIAL K/PILE	LATERAL K/PILE GROUP	AXIAL K/PILE	LATERAL K/PILE GROUP
FACTORED LOAD	210.80	47.32	192.80	50.41
LIMIT STATE	STR-I	STR-III	STR-I	STR-III
STAGE	FINAL	FINAL	FINAL	FINAL
MIN / MAX	MAX	MAX	MAX	MIN
FACTORED RESISTANCE	300.00	49.83	300.00	74.74

NOTES

1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
2. FOR TYPICAL MICROPILE DETAIL, SEE DRAWING 19.
3. FOR PIER 2 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 49.
4. FOR PIER 2 SECTIONS AND DETAILS STAGE 2, SEE DRAWING 51.
5. FOR PIER 2 SECTIONS AND DETAILS STAGE 3, SEE DRAWING 52.
6. FOR PIER 2 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 53.
7. FOR PIER 2 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 54.
8. PERFORM PROOF TESTS TO 1.5 X DL, AND VERIFICATION TESTS TO 2.0 X DL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. DL IS DEFINED AS THE "UNFACTORED LOAD" AND IS EQUAL TO 200 KIPS (300 KIPS/1.5)

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	PIER 2 FOOTING PLAN - WESTBOUND
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NETWORK NUMBER: 7003982		
			FILE NAME: STp201.dgn		
			DRAWING TYPE: 2G		
			STRUCTURE NUMBER: EB-103		
	SCALE: 2 0 2 4 FEET	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 47 OF 101	
		TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 192 OF 315	



BENT G

PIER 2 EASTBOUND FOOTING PLAN & PILE LAYOUT

BENT H

LEGEND

- DENOTES VERTICAL PILE (9 5/8" DIA MICROPILE)
- ⊙ DENOTES TEST PILE (9 5/8" DIA MICROPILE)
- ⊙ DENOTES PILE BATTERED 4 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW (9 5/8" DIA MICROPILE)
- ⊙ DENOTES PILE BATTERED AT 12 VERTICAL TO 1 HORIZONTAL IN DIRECTION OF ARROW (9 5/8" DIA MICROPILE)
- ⊙ DENOTES SACRIFICIAL PILE (9 5/8" DIA MICROPILE)
- ⊗ TIE TOP & BOTTOM MATS OF REINFORCING STEEL WITH EF404 TIE BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. ALTERNATE 90° AND 135° HOOK AT TOP IN ALTERNATING TIES.

PILE LOADING

STRUCTURE	BENT G		BENT H	
	AXIAL K/PILE	LATERAL K/PILE GROUP	AXIAL K/PILE	LATERAL K/PILE GROUP
FACTORED LOAD	197.2	50.37	210.80	47.15
LIMIT STATE	STR-I	STR-III	STR-I	STR-III
STAGE	FINAL	FINAL	FINAL	FINAL
MIN / MAX	MAX	MIN	MAX	MAX
FACTORED RESISTANCE	300.00	74.74	300.00	49.83

NOTES

1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
2. FOR TYPICAL MICROPILE DETAIL, SEE DRAWING 19.
3. FOR PIER 2 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 50.
4. FOR PIER 2 SECTIONS AND DETAILS STAGE 2, SEE DRAWING 51.
5. FOR PIER 2 SECTIONS AND DETAILS STAGE 3, SEE DRAWING 52.
6. FOR PIER 2 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 53.
7. FOR PIER 2 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 54.
8. PERFORM PROOF TESTS TO 1.5 X DL, AND VERIFICATION TESTS TO 2.0 X DL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. DL IS DEFINED AS THE "UNFACTORED LOAD" AND IS EQUAL TO 200 KIPS (300 KIPS/1.5)

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STp202.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

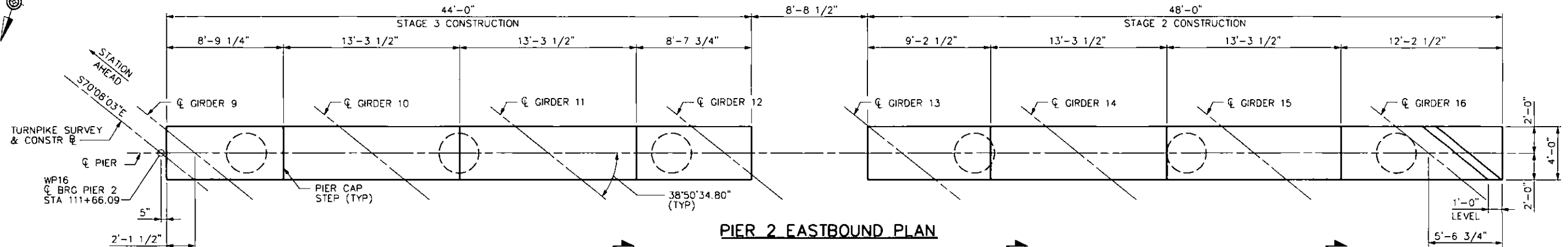
SCALE: 2 0 2 4 FEET

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

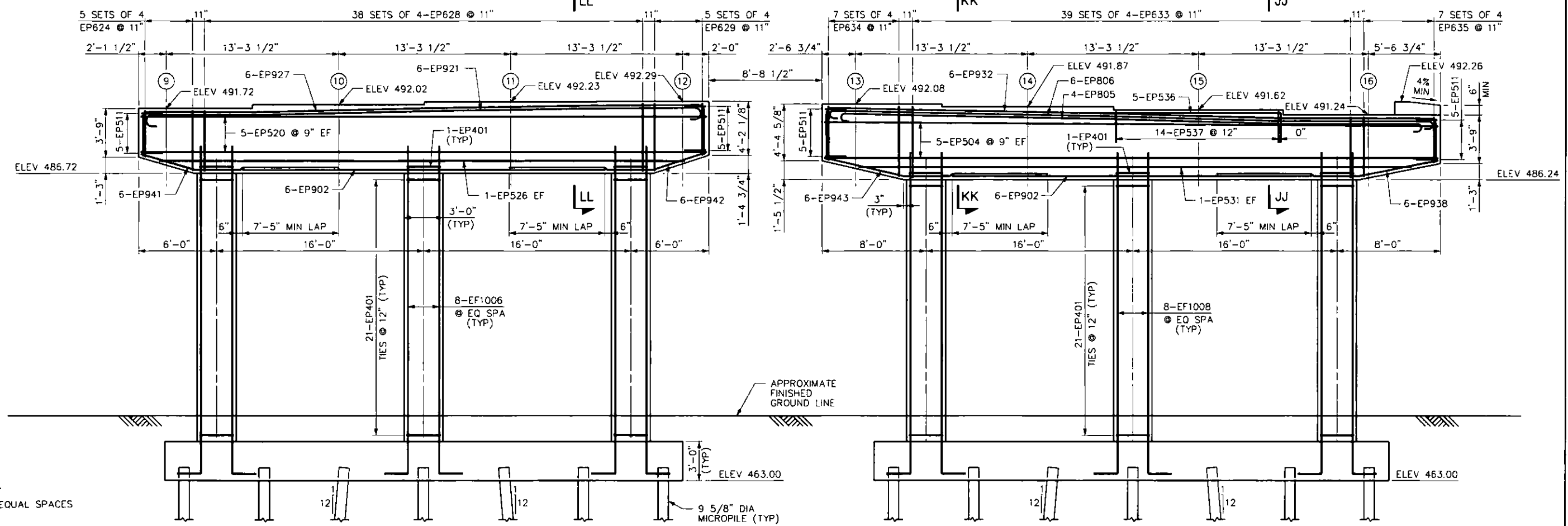
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

PIER 2
FOOTING PLAN - EASTBOUND

DRAWING: 48 OF 101
SHEET: 193 OF 315



PIER 2 EASTBOUND PLAN



PIER 2 EASTBOUND ELEVATION

LEGEND

EO SPA = EQUAL SPACES

NOTES

1. FOR STAKE-OUT PLAN, SEE DRAWING 8.
2. FOR PIER 2 EASTBOUND FOOTING PLAN, SEE DRAWING 48.
3. FOR PIER 2 SECTIONS AND DETAILS STAGE 2, SEE DRAWING 51.
4. FOR PIER 2 SECTIONS AND DETAILS STAGE 3, SEE DRAWING 52.
5. FOR PIER 2 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 53.
6. FOR PIER 2 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 54.
7. FOR TYPICAL ANCHOR BOLT LAYOUT, SEE DRAWING 73.

DATE: 7/12/2016

PREPARED BY:
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MECHANICSBURG, PA 17050

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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STp204.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

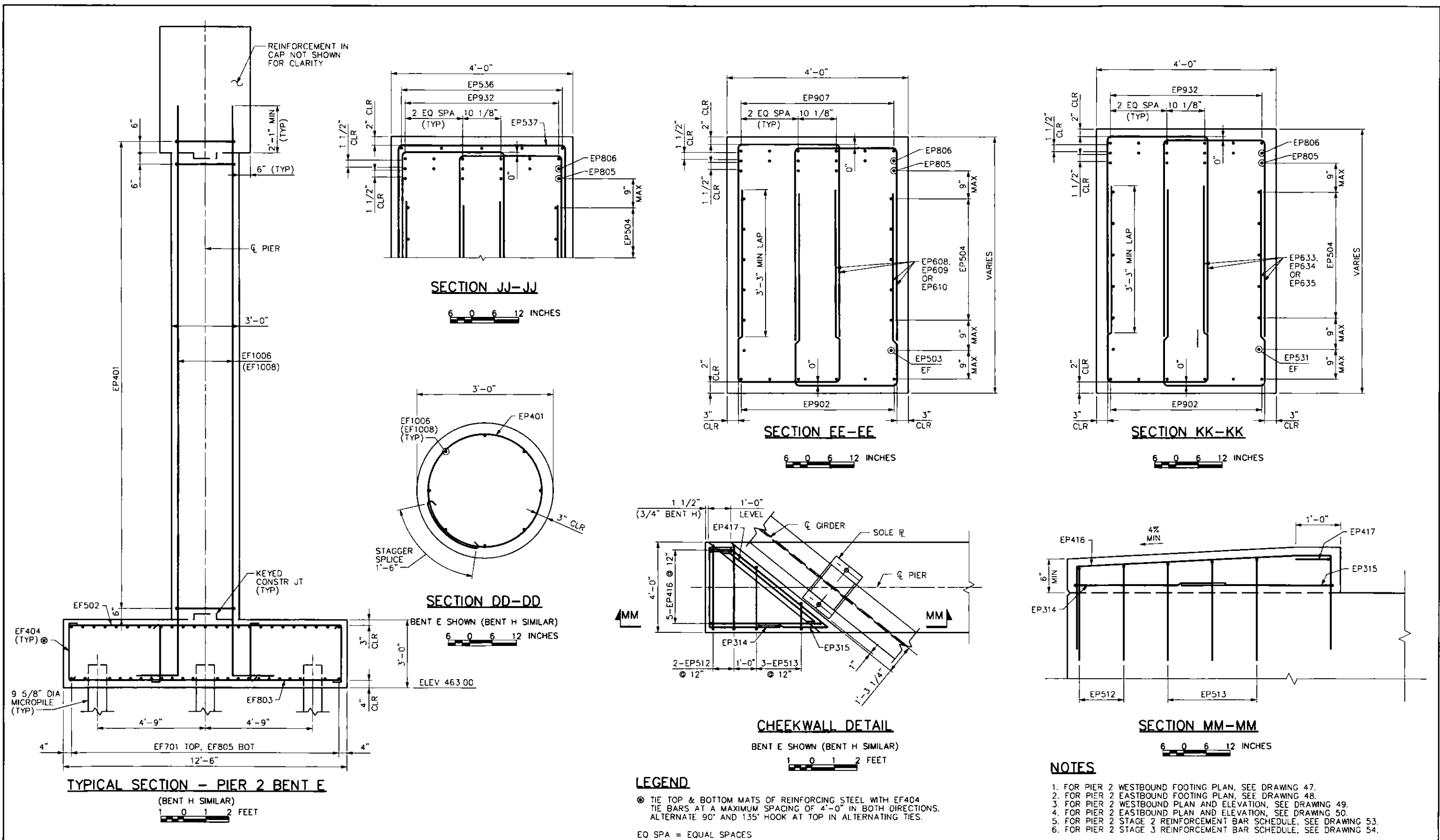
SCALE: 2 0 2 4 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**PIER 2
PLAN AND ELEVATION - EASTBOUND**

DRAWING: 50 OF 101
SHEET: 195 OF 315



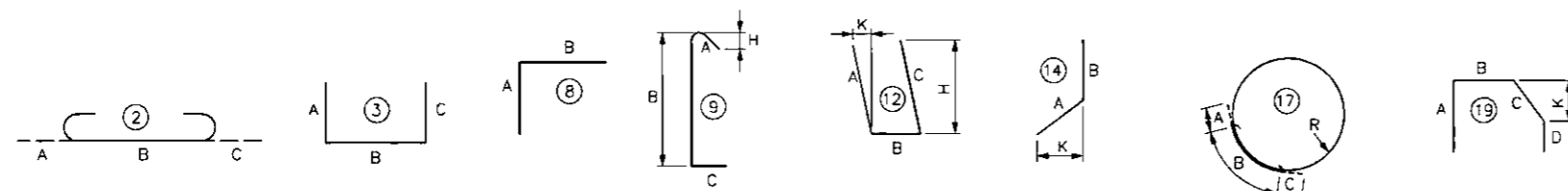
- NOTES**
1. FOR PIER 2 WESTBOUND FOOTING PLAN, SEE DRAWING 47.
 2. FOR PIER 2 EASTBOUND FOOTING PLAN, SEE DRAWING 48.
 3. FOR PIER 2 WESTBOUND PLAN AND ELEVATION, SEE DRAWING 49.
 4. FOR PIER 2 EASTBOUND PLAN AND ELEVATION, SEE DRAWING 50.
 5. FOR PIER 2 STAGE 2 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 53.
 6. FOR PIER 2 STAGE 3 REINFORCEMENT BAR SCHEDULE, SEE DRAWING 54.

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050		WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	PIER 2 SECTIONS AND DETAILS STAGE 2
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NETWORK NUMBER: 7003982 FILE NAME: STp205.dgn DRAWING TYPE: 2G STRUCTURE NUMBER: EB-103		
			SCALE: AS NOTED	DISTRICT: 3	COUNTY: CUMBERLAND
				TOWNSHIP / BOROUGHS: MIDDLESEX TOWNSHIP	DRAWING: 51 OF 101
					SHEET: 196 OF 315

PIER 2 REINFORCEMENT BAR SCHEDULE - STAGE 2 WESTBOUND

PIER 2 REINFORCEMENT BAR SCHEDULE - STAGE 2 EASTBOUND

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	G	H	R	REMARKS	MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	G	H	R	REMARKS
FOOTING														FOOTING													
EF701	7	39'-6"	25	STR										EF701	7	39'-6"	25	STR									
EF502	5	12'-0"	41	STR										EF502	5	12'-0"	41	STR									
EF803	8	12'-0"	52	STR										EF803	8	12'-0"	52	STR									
EF404	4	3'-2"	44	9	4 1/2"	2'-5"	4 1/2"					3"		EF404	4	3'-2"	44	9	4 1/2"	2'-5"	4 1/2"				3"		
EF805	8	41'-4"	22	2	11"	39'-6"	11"							EF805	8	41'-4"	22	2	11"	39'-6"	11"						
EF1006	10	27'-4"	24	8	25'-6"	1'-10"								EF1006	10	27'-4"	24	8	25'-6"	1'-10"							
EF609	6	3'-0"	19	STR										EF609	6	3'-0"	18	STR									
BENT E														BENT H													
EP401	4	10'-2"	66	17	4 1/2"	1'-6"	4 1/2"					1'-3"		EP401	4	10'-2"	66	17	4 1/2"	1'-6"	4 1/2"					1'-3"	
EP902	9	28'-0"	6	STR										EP902	9	28'-0"	6	STR									
EP503	5	42'-9"	2	STR										EP503	5	42'-9"	10	STR									
EP504	5	47'-8"	10	STR										EP504	5	47'-8"	4	2	11"	45'-8"	11"						
EP805	8	47'-6"	4	2	11"	45'-8"	11"							EP805	8	47'-6"	4	2	11"	45'-8"	11"						
EP806	8	48'-8"	6	2	11"	46'-10"	11"							EP806	8	48'-8"	6	2	11"	46'-10"	11"						
EP907	9	54'-6"	6	3	3'-4"	47'-4"	3'-10"							EP907	9	54'-6"	6	3	3'-4"	47'-4"	3'-10"						
EP608	6	10'-11 1/2"	156	3	4'-4"	2'-3 3/8"	4'-4"							EP608	6	10'-11 1/2"	156	3	4'-4"	2'-3 3/8"	4'-4"						
EP609	6	9'-1 1/8" TO 10'-1 1/8"	28	3	3'-5" TO 3'-11"	2'-3 3/8"	3'-5" TO 3'-11"						VARY 4 EACH A & C BY 1"	EP609	6	9'-1 1/8" TO 10'-1 1/8"	28	3	3'-5" TO 3'-11"	2'-3 3/8"	3'-5" TO 3'-11"					VARY 4 EACH A & C BY 1"	
EP610	6	9'-7 3/8" TO 10'-9 3/8"	28	3	3'-8" TO 4'-3"	2'-3 3/8"	3'-8" TO 4'-3"						VARY 4 EACH A & C BY 1 1/2"	EP610	6	9'-7 3/8" TO 10'-9 3/8"	28	3	3'-8" TO 4'-3"	2'-3 3/8"	3'-8" TO 4'-3"					VARY 4 EACH A & C BY 1 1/2"	
EP511	5	6'-8"	10	3	1'-7"	3'-6"	1'-7"							EP511	5	6'-8"	10	3	1'-7"	3'-6"	1'-7"						
EP512	5	7'-10"	2	3	2'-1"	3'-8"	2'-1"							EP512	5	7'-10"	2	3	2'-1"	3'-8"	2'-1"						
EP513	5	5'-9 1/4" TO 7'-4 1/2"	3	3	2'-4"	1'-1 1/4" TO 2'-8 1/2"	2'-4"						VARY EACH B BY 9 5/8"	EP513	5	5'-9 1/4" TO 7'-4 1/2"	3	3	2'-4"	1'-1 1/4" TO 2'-8 1/2"	2'-4"					VARY EACH B BY 9 5/8"	
EP314	3	7'-8 1/2"	1	3	1'-0"	3'-6 1/2"	3'-2"							EP314	3	7'-8 1/2"	1	3	1'-0"	3'-6 1/2"	3'-2"						
EP315	3	9'-10"	1	12	1'-0"	5'-8"	3'-2"				1'-11 1/2"		K = 9 5/8" K = 6"	EP315	3	9'-10"	1	12	1'-0"	5'-8"	3'-2"				1'-11 1/2"	K = 9 5/8" K = 6"	
EP416	4	5'-2 1/2" TO 9'-3 1/2"	5	19	2'-1"	9"	6 1/2" TO 4'-7 1/2"	1'-10"					VARY EACH C BY 1'-0 3/8"	EP416	4	5'-2 1/2" TO 9'-3 1/2"	5	19	2'-1"	9"	6 1/2" TO 4'-7 1/2"	1'-10"				VARY EACH C BY 1'-0 3/8"	
EP417	4	7'-5"	1	12	11"	5'-7"	11"				6 3/8"		K = 8 1/2"	EP417	4	7'-5"	1	12	11"	5'-7"	11"				6 3/8"	K = 8 1/2"	
EP938	9	17'-4 1/2"	6	14	6'-2 1/2"	11'-2"							K = 1'-2 3/8"	EP938	9	17'-4 1/2"	6	14	6'-2 1/2"	11'-2"						K = 1'-2 3/8"	
EP939	9	17'-5 1/2"	6	14	6'-3 1/2"	11'-2"							K = 1'-4 3/8"	EP939	9	17'-5 1/2"	6	14	6'-3 1/2"	11'-2"						K = 1'-5 1/8"	



REINFORCEMENT NOTES

- "E" IN BAR MARK DENOTES EPOXY-COATED BARS.
- ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STp207.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

PIER 2
REINFORCEMENT BAR SCHEDULE STAGE 2

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

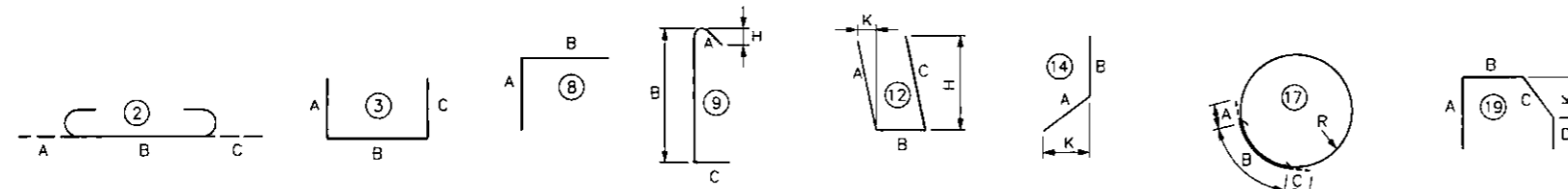
DRAWING: 53 OF 101
SHEET: 198 OF 315

SCALE: NONE

PIER 2 REINFORCEMENT BAR SCHEDULE - STAGE 3 WESTBOUND

PIER 2 REINFORCEMENT BAR SCHEDULE - STAGE 3 EASTBOUND

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	G	H	R	REMARKS	MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	G	H	R	REMARKS		
FOOTING														FOOTING															
EF701	7	39'-6"	25	STR										EF701	7	39'-6"	25	STR											
EF502	5	12'-0"	41	STR										EF502	5	12'-0"	41	STR											
EF803	8	12'-0"	52	STR										EF803	8	12'-0"	52	STR											
EF404	4	3'-2"	44	9	4 1/2"	2'-5"	4 1/2"				3"			EF404	4	3'-2"	44	9	4 1/2"	2'-5"	4 1/2"				3"				
EF805	8	41'-4"	22	2	11"	39'-6"	11"							EF805	8	41'-4"	22	2	11"	39'-6"	11"								
EF1006	10	27'-4"	24	8	25'-6"	1'-10"								EF1006	10	27'-4"	24	8	25'-6"	1'-10"									
EF609	6	3'-0"	18	STR										EF609	6	3'-0"	18	STR											
BENT F														BENT G															
EP401	4	10'-2"	66	17	4 1/2"	1'-6"	4 1/2"					1'-3"		EP401	4	10'-2"	66	17	4 1/2"	1'-6"	4 1/2"					1'-3"			
EP902	9	28'-0"	6	STR										EP902	9	28'-0"	6	STR											
EP608	6	10'-11 1/2"	152	3	4'-4"	2'-3 3/8"	4'-4"							EP511	5	6'-8"	10	3	1'-7"	3'-6"	1'-7"								
EP511	5	6'-8"	10	3	1'-7"	3'-6"	1'-7"							EP520	5	43'-8"	10	STR											
EP519	5	40'-8"	2	STR										EP921	9	45'-4"	6	2	1'-3"	42'-10"	1'-3"								
EP520	5	43'-8"	10	STR										EP624	6	9'-1 1/8" TO 10'-3 3/8"	20	3	3'-5" TO 4'-0"	2'-3 3/8"	3'-5" TO 4'-0"						VARY 4 EACH A & C BY 1 1/2"		
EP921	9	45'-4"	6	2	1'-3"	42'-10"	1'-3"							EP526	5	40'-7"	2	STR											
EP922	9	50'-7"	6	3	3'-11"	43'-4"	3'-4"							EP927	9	50'-6"	6	3	3'-4"	43'-4"	3'-10"								
EP623	6	9'-9 1/8" TO 10'-11 1/8"	20	3	3'-9" TO 4'-4"	2'-3 3/8"	3'-9" TO 4'-4"						VARY 4 EACH A & C BY 1 1/2"	EP628	6	10'-9 1/8"	152	3	4'-3"	2'-3 3/8"	4'-3"								
EP624	6	9'-1 1/8" TO 10'-3 3/8"	20	3	3'-5" TO 4'-0"	2'-3 3/8"	3'-5" TO 4'-0"						VARY 4 EACH A & C BY 1 1/2"	EP629	6	9'-7 1/8" TO 10'-9 1/8"	20	3	3'-8" TO 4'-3"	2'-3 3/8"	3'-8" TO 4'-3"						VARY 4 EACH A & C BY 1 1/2"		
EP536	5	17'-9"	5	8	2'-5"	15'-4"								EP941	9	15'-5 1/2"	6	14	4'-3 1/2"	11'-2"							K = 1'-2 1/2"		
EP537	5	8'-4"	14	3	2'-5"	3'-6"	2'-5"							EP942	9	15'-6"	6	14	4'-4"	11'-2"								K = 1'-4 1/2"	
EP940	9	15'-6 1/2"	6	14	4'-4 1/2"	11'-2"																							
EP941	9	15'-5 1/2"	6	14	4'-3 1/2"	11'-2"																							



REINFORCEMENT NOTES

- "E" IN BAR MARK DENOTES EPOXY-COATED BARS
- ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.

DATE: 7/12/2016

PREPARED BY:
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MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



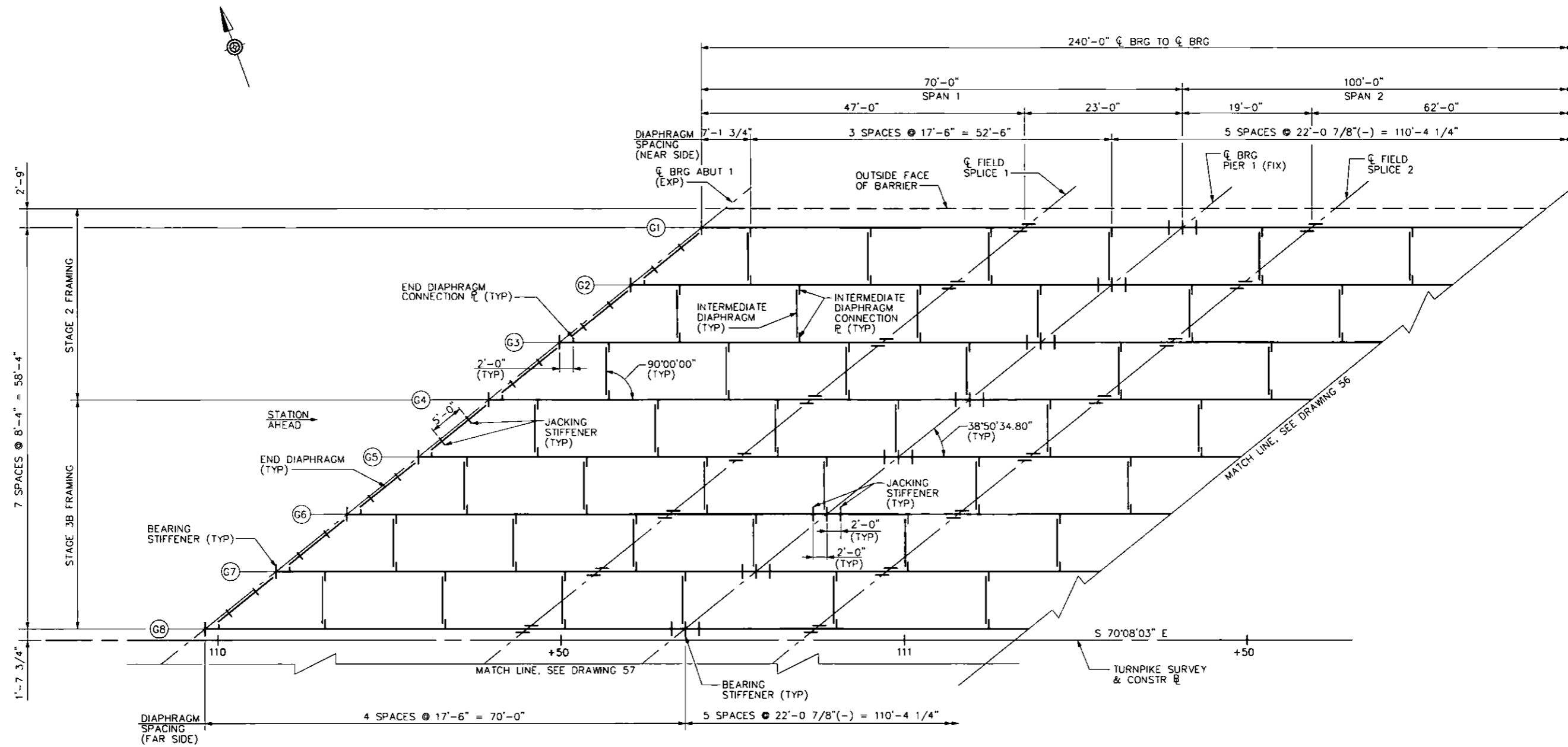
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NETWORK NUMBER: 7003982				
FILE NAME: STp208.dgn				
DRAWING TYPE: 2G				
STRUCTURE NUMBER: EB-103				
SCALE: NONE				

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

PIER 2
REINFORCEMENT BAR SCHEDULE STAGE 3

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 54 OF 101
SHEET: 199 OF 315



FRAMING PLAN - WESTBOUND STRUCTURE

NOTES

1. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
2. FOR WESTBOUND FRAMING PLAN 2, SEE DRAWING 56.
3. FOR EASTBOUND FRAMING PLAN 1, SEE DRAWING 57.
4. FOR EXTERIOR GIRDER ELEVATIONS, SEE DRAWINGS 59 AND 60.
5. FOR INTERIOR GIRDER ELEVATION, SEE DRAWING 61.
6. FOR GIRDER SPLICE, CONNECTION PLATE AND JACKING STIFFENER DETAILS, SEE DRAWING 62.
7. FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE DRAWING 63.
8. FOR CAMBER TABLE FOR GIRDERS 1 THROUGH 8, SEE DRAWING 64.
9. FOR GIRDER REACTIONS AND SECTION PROPERTIES, SEE DRAWING 66.
10. FOR EXPANSION BEARING DETAILS AT ABUTMENT 1, SEE DRAWING 72.
11. FOR FIXED BEARING DETAILS AT PIER 1, SEE DRAWING 73.

DATE: 7/12/2016

PREPARED BY:
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MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

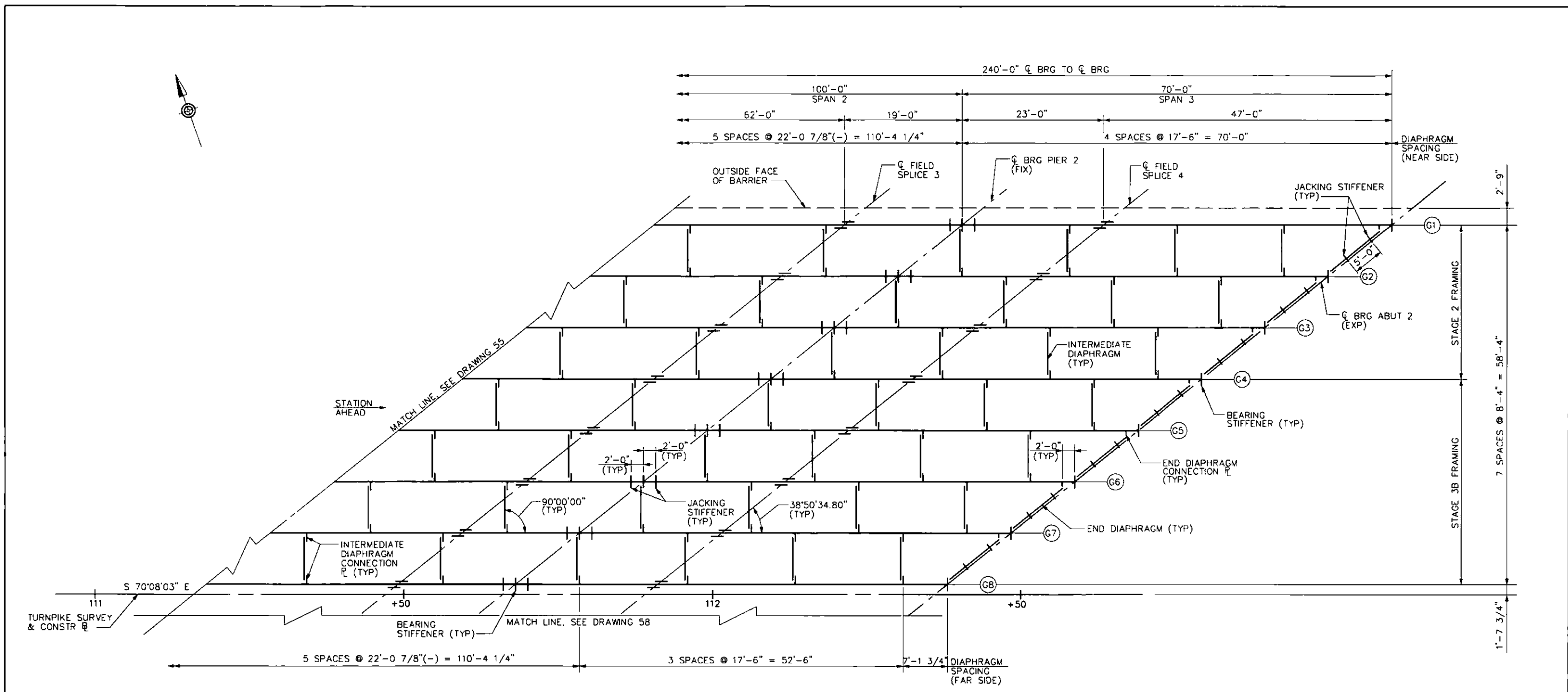


NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STTr01.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: 20 4 8 FEET

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

WESTBOUND FRAMING PLAN - 1	
DRAWING: 55 OF 101	SHEET: 200 OF 315



FRAMING PLAN - WESTBOUND STRUCTURE

NOTES

1. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
2. FOR WESTBOUND FRAMING PLAN 1, SEE DRAWING 55.
3. FOR EASTBOUND FRAMING PLAN 2, SEE DRAWING 58.
4. FOR EXTERIOR GIRDER ELEVATIONS, SEE DRAWINGS 59 AND 60.
5. FOR INTERIOR GIRDER ELEVATION, SEE DRAWING 61.
6. FOR GIRDER SPLICE, CONNECTION PLATE AND JACKING STIFFENER DETAILS, SEE DRAWING 62.
7. FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE DRAWING 63.
8. FOR CAMBER TABLE FOR GIRDERS 1 THROUGH 8, SEE DRAWING 64.
9. FOR GIRDER REACTIONS AND SECTION PROPERTIES, SEE DRAWING 66.
10. FOR EXPANSION BEARING DETAILS AT ABUTMENT 2, SEE DRAWING 72.
11. FOR FIXED BEARING DETAILS AT PIER 2, SEE DRAWING 73.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



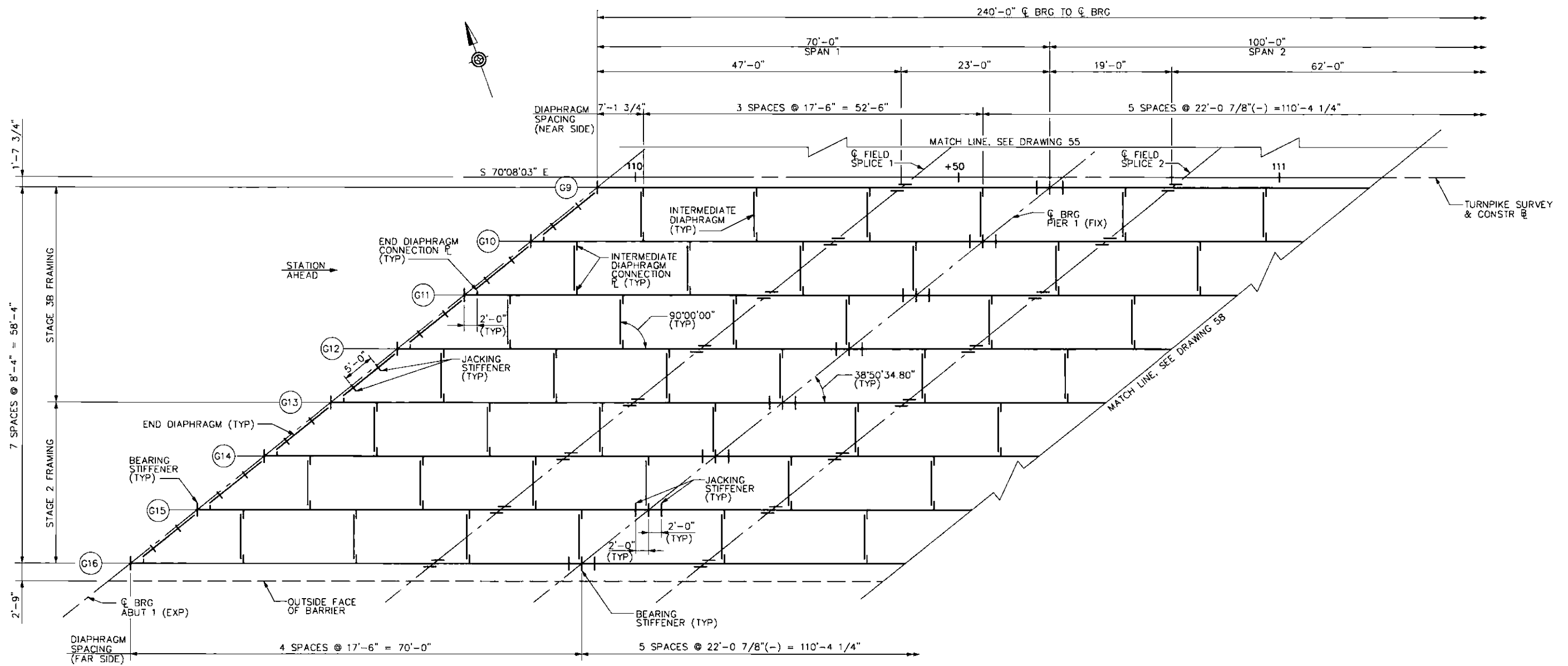
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STRUCTURE NUMBER: EB-103			
SCALE: 2 0 4 8 FEET			
NO.	REVISIONS	DATE	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

WESTBOUND FRAMING PLAN - 2

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 56 OF 101
SHEET: 201 OF 315



FRAMING PLAN - EASTBOUND STRUCTURE

NOTES

1. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
2. FOR WESTBOUND FRAMING PLAN 1, SEE DRAWING 55.
2. FOR EASTBOUND FRAMING PLAN 2, SEE DRAWING 58.
3. FOR EXTERIOR GIRDER ELEVATIONS, SEE DRAWINGS 59 AND 60.
4. FOR INTERIOR GIRDER ELEVATION, SEE DRAWING 61.
5. FOR GIRDER SPLICE, CONNECTION PLATE AND JACKING STIFFENER DETAILS, SEE DRAWING 62.
6. FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE DRAWING 63.
7. FOR CAMBER TABLE FOR GIRDERS 9 THROUGH 16, SEE DRAWING 65.
8. FOR GIRDER REACTIONS AND SECTION PROPERTIES, SEE DRAWING 66.
9. FOR EXPANSION BEARING DETAILS AT ABUTMENT 1, SEE DRAWING 72.
10. FOR FIXED BEARING DETAILS AT PIER 1, SEE DRAWING 73.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

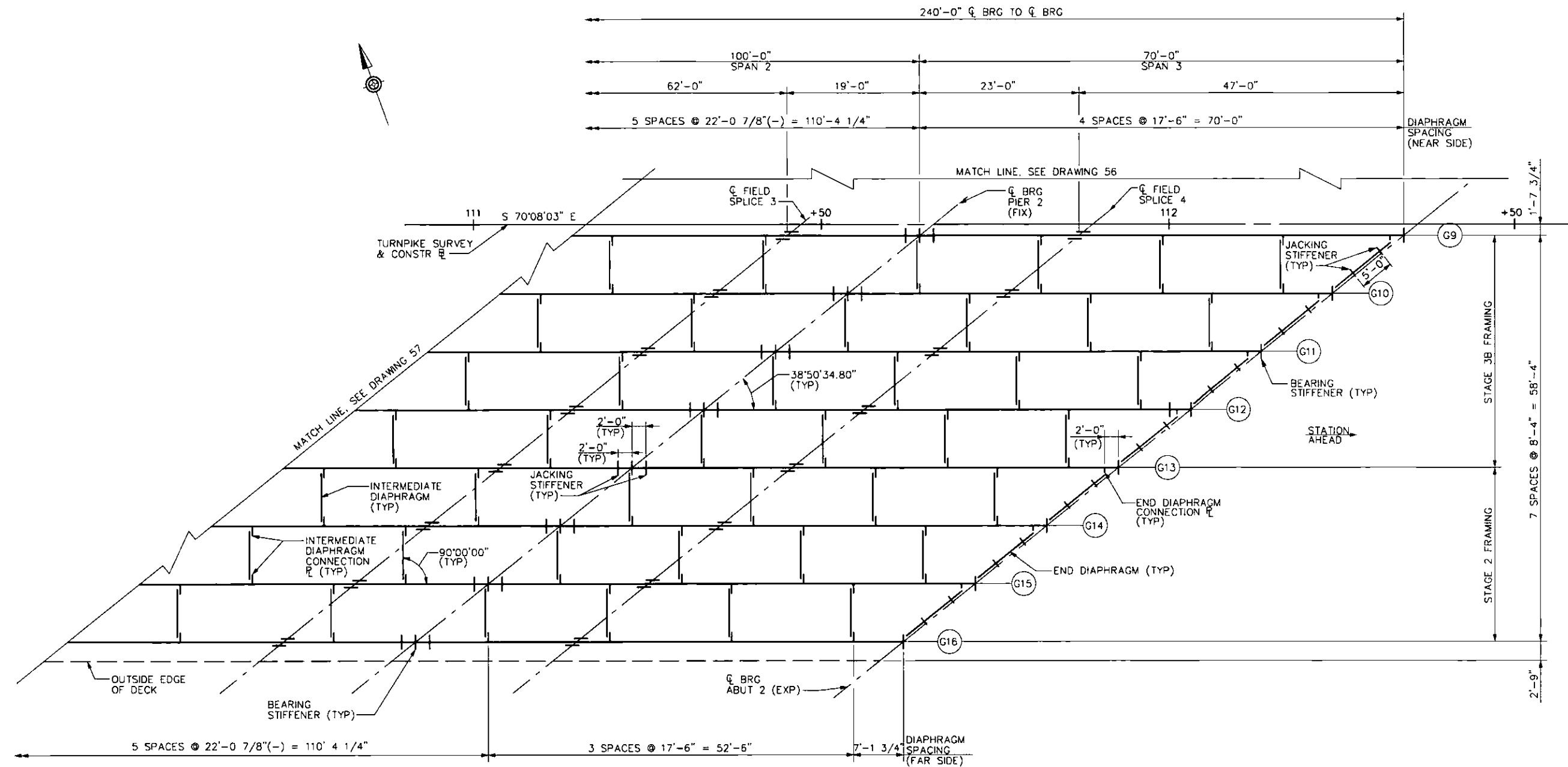


				WBS NO. T-228.54S001-3-02	
				NETWORK NUMBER: 7003982	
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				DRAWING TYPE: 2G	
				STRUCTURE NUMBER: EB-103	
				SCALE: 2 0 4 8 FEET	
NO.	REVISIONS	DATE	APPR.		

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

EASTBOUND FRAMING PLAN - 1


DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 57 OF 101
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 202 OF 315

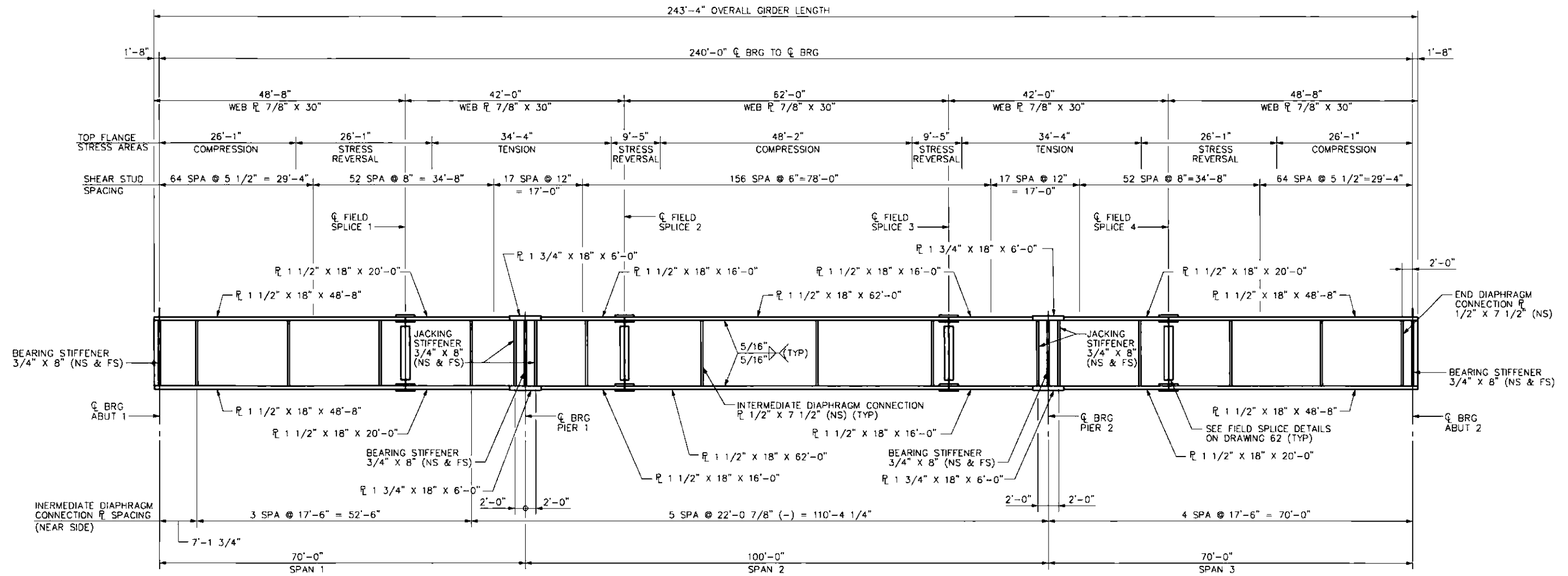


FRAMING PLAN - EASTBOUND STRUCTURE

NOTES

1. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
2. FOR WESTBOUND FRAMING PLAN 2, SEE DRAWING 56.
3. FOR EASTBOUND FRAMING PLAN 1, SEE DRAWING 57.
4. FOR EXTERIOR GIRDER ELEVATIONS, SEE DRAWINGS 59 AND 60.
5. FOR INTERIOR GIRDER ELEVATION, SEE DRAWING 61.
6. FOR GIRDER SPLICE, CONNECTION PLATE AND JACKING STIFFENER DETAILS, SEE DRAWING 62.
7. FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE DRAWING 63.
8. FOR CAMBER TABLE FOR GIRDERS 9 THROUGH 16, SEE DRAWING 65.
9. FOR GIRDER REACTIONS AND SECTION PROPERTIES, SEE DRAWING 66.
10. FOR EXPANSION BEARING DETAILS AT ABUTMENT 2, SEE DRAWING 72.
11. FOR FIXED BEARING DETAILS AT PIER 2, SEE DRAWING 73.

DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050				WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	EASTBOUND FRAMING PLAN - 2
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO. REVISIONS DATE APPR.	NETWORK NUMBER: 7003982 FILE NAME: STfr04.dgn DRAWING TYPE: 2G STRUCTURE NUMBER: EB-103	DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		



EXTERIOR GIRDER ELEVATION
GIRDERS G1 AND G9
NTS

LEGEND

FS = FAR SIDE
NS = NEAR SIDE
SPA = SPACES

NOTES

1. FOR ELEVATION VIEW, SEE DRAWING 3.
2. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
3. FOR CONSTRUCTION STAGING AND TYPICAL SECTION, SEE DRAWINGS 9 AND 10.
4. FOR FRAMING PLAN, SEE DRAWINGS 55 THROUGH 58.
5. FOR G8 AND G16 GIRDER ELEVATION, SEE DRAWING 60.
6. FOR INTERIOR GIRDER ELEVATION, SEE DRAWING 61.
7. FOR GIRDER SPLICE DETAILS, SEE DRAWING 62.
8. FOR BEARING STIFFENER, JACKING STIFFENER AND CONNECTION PLATE DETAILS, SEE DRAWING 62.
9. FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE DRAWING 63.
10. FOR CAMBER TABLES, SEE DRAWINGS 64 AND 65.
11. FOR GIRDER REACTIONS AND SECTION PROPERTIES TABLE, SEE DRAWING 66.
12. FOR BEARING DETAILS, SEE DRAWINGS 72 AND 73.
13. NO WELDING OF STAY-IN-PLACE DECK FORMS TO TOP FLANGE WILL BE ALLOWED IN TENSION AND STRESS REVERSAL AREAS.
14. PERFORM CHARPY V-NOTCH (CVN) TEST ON ALL DIAPHRAGMS, CONNECTING PLATES, SPLICE MATERIAL, PLATE GIRDER WEBS AND PLATE GIRDER FLANGES IN TENSION AND STRESS REVERSAL REGIONS AS SPECIFIED IN PUBLICATION 408 SECTION 1105.02(a)5.
15. WHERE GIRDER MATERIAL IS DESIGNATED (CVN), THE MATERIAL IS TO MEET TOUGHNESS REQUIREMENTS AS SPECIFIED IN THE GENERAL NOTES AND PUBLICATION 408 SECTION 1105.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STst01.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

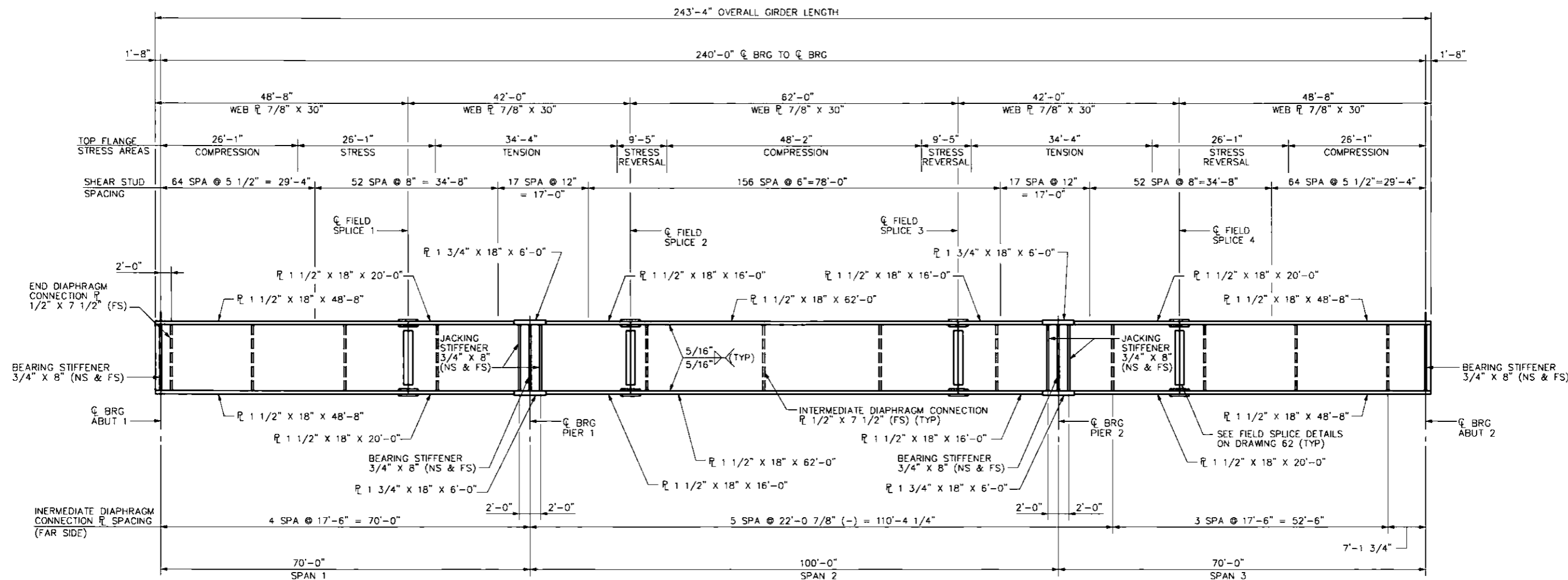
SCALE: AS NOTED

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EXTERIOR GIRDER ELEVATION
(G1 AND G9)**

DRAWING: 59 OF 101
SHEET: 204 OF 315



EXTERIOR GIRDER ELEVATION

GIRDERS G8 AND G16
NTS

LEGEND

FS = FAR SIDE
NS = NEAR SIDE
SPA = SPACES

NOTES

1. FOR ELEVATION VIEW, SEE DRAWING 3.
2. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
3. FOR CONSTRUCTION STAGING AND TYPICAL SECTION, SEE DRAWINGS 9 AND 10.
4. FOR FRAMING PLAN, SEE DRAWINGS 55 THROUGH 58.
5. FOR G1 AND G9 GIRDER ELEVATION, SEE DRAWING 59.
6. FOR INTERIOR GIRDER ELEVATION, SEE DRAWING 61.
7. FOR GIRDER SPLICE DETAILS, SEE DRAWING 62.
8. FOR BEARING STIFFENER, JACKING STIFFENER AND CONNECTION PLATE DETAILS, SEE DRAWING 62.
9. FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE DRAWING 63.
10. FOR CAMBER TABLES, SEE DRAWINGS 64 AND 65.
11. FOR GIRDER REACTIONS AND SECTION PROPERTIES TABLE, SEE DRAWING 66.
12. FOR BEARING DETAILS, SEE DRAWINGS 72 AND 73.
13. NO WELDING OF STAY-IN-PLACE DECK FORMS TO TOP FLANGE WILL BE ALLOWED IN TENSION AND STRESS REVERSAL AREAS.
14. PERFORM CHARPY V-NOTCH (CVN) TEST ON ALL DIAPHRAGMS, CONNECTING PLATES, SPLICE MATERIAL, PLATE GIRDER WEBS AND PLATE GIRDER FLANGES IN TENSION AND STRESS REVERSAL REGIONS AS SPECIFIED IN PUBLICATION 408 SECTION 1105.02(a)5.
15. WHERE GIRDER MATERIAL IS DESIGNATED (CVN), THE MATERIAL IS TO MEET TOUGHNESS REQUIREMENTS AS SPECIFIED IN THE GENERAL NOTES AND PUBLICATION 408 SECTION 1105.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
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MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION

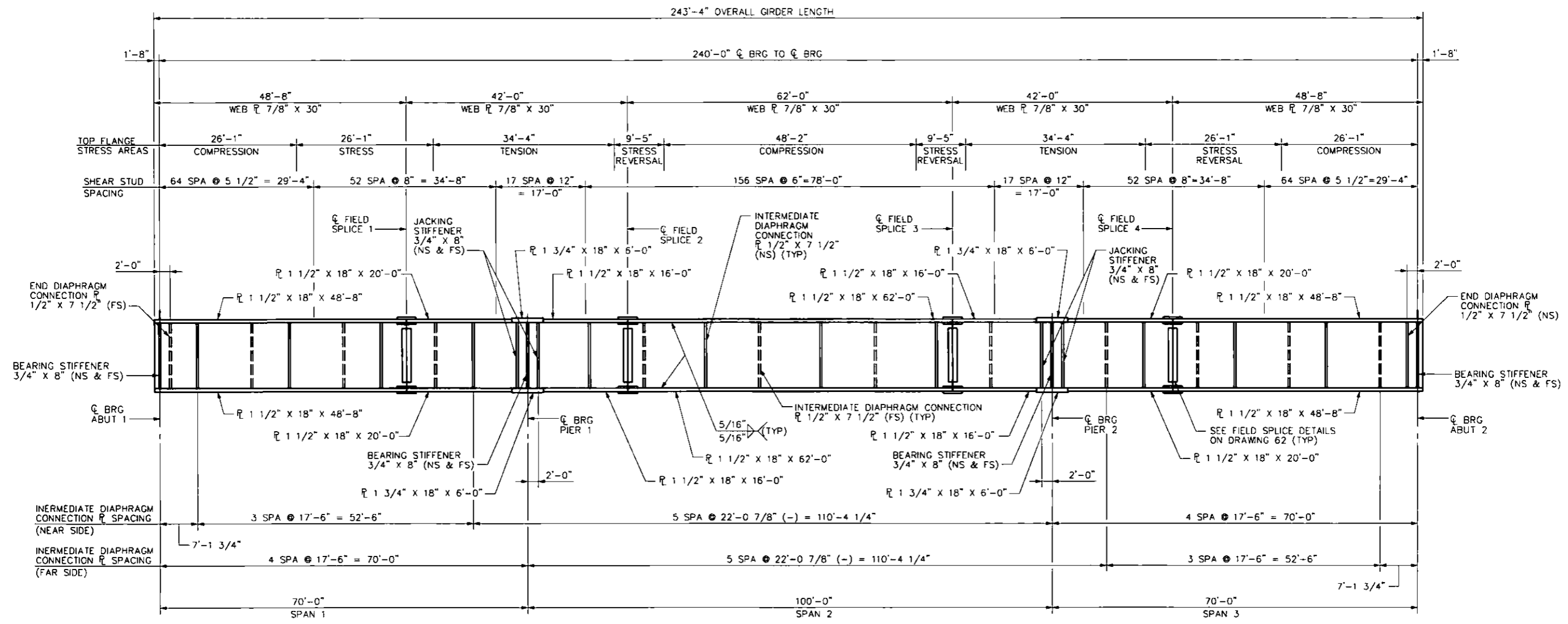


WBS NO. T-228.54S001-3-02	
NETWORK NUMBER: 7003982	
FILE NAME: STst02.dgn	
DRAWING TYPE: 2G	
STRUCTURE NUMBER: EB-103	
SCALE: AS NOTED	
NO.	REVISIONS
	DATE
	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

**EXTERIOR GIRDER ELEVATION
(G8 AND G16)**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP
DRAWING: 60 OF 101
SHEET: 205 OF 315



LEGEND

FS = FAR SIDE
NS = NEAR SIDE
SPA = SPACES

NOTES

1. FOR ELEVATION VIEW, SEE DRAWING 3.
2. FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
3. FOR CONSTRUCTION STAGING AND TYPICAL SECTION, SEE DRAWINGS 9 AND 10.
4. FOR FRAMING PLAN, SEE DRAWINGS 55 THROUGH 58.
5. FOR G1 AND G9 GIRDER ELEVATION, SEE DRAWING 59.
6. FOR G8 AND G16 GIRDER ELEVATION, SEE DRAWING 60.
7. FOR GIRDER SPLICE DETAILS, SEE DRAWING 62.
8. FOR BEARING STIFFENER, JACKING STIFFENER AND CONNECTION PLATE DETAILS, SEE DRAWING 62.
9. FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE DRAWING 63.
10. FOR CAMBER TABLES, SEE DRAWINGS 64 AND 65.
11. FOR GIRDER REACTIONS AND SECTION PROPERTIES TABLE, SEE DRAWING 66.
12. FOR BEARING DETAILS, SEE DRAWINGS 72 AND 73.
13. NO WELDING OF STAY-IN-PLACE DECK FORMS TO TOP FLANGE WILL BE ALLOWED IN TENSION AND STRESS REVERSAL AREAS.
14. PERFORM CHARPY V-NOTCH (CVN) TEST ON ALL DIAPHRAGMS, CONNECTING PLATES, SPLICE MATERIAL, PLATE GIRDER WEBS AND PLATE GIRDER FLANGES IN TENSION AND STRESS REVERSAL REGIONS AS SPECIFIED IN PUBLICATION 408 SECTION 1105.02(a)5.
15. WHERE GIRDER MATERIAL IS DESIGNATED (CVN), THE MATERIAL IS TO MEET TOUGHNESS REQUIREMENTS AS SPECIFIED IN THE GENERAL NOTES AND PUBLICATION 408 SECTION 1105.

DATE: 7/12/2016

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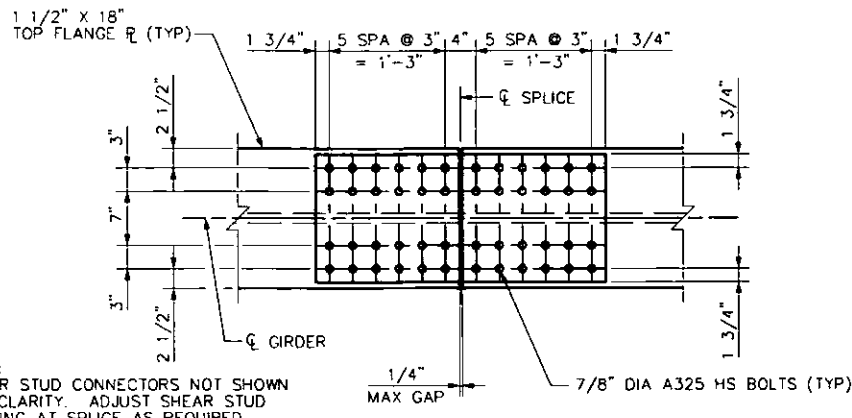
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DRAWING TYPE: 2G	
STRUCTURE NUMBER: EB-103	
SCALE: AS NOTED	
NO.	REVISIONS
	DATE
	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

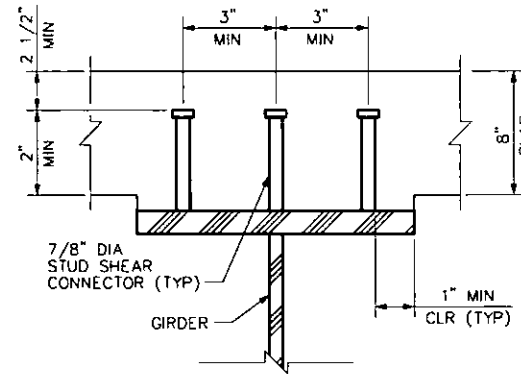
**INTERIOR GIRDER ELEVATION
(G2-G7 AND G10-G15)**

DRAWING: 61 OF 101
SHEET: 206 OF 315



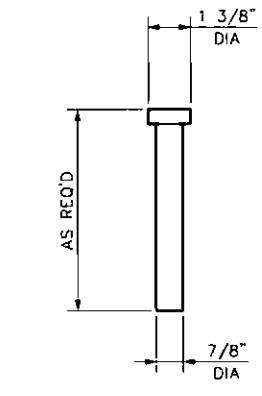
TOP & BOTTOM FLANGE OUTER SPLICE PLAN

TYPICAL ALL GIRDERS
NTS



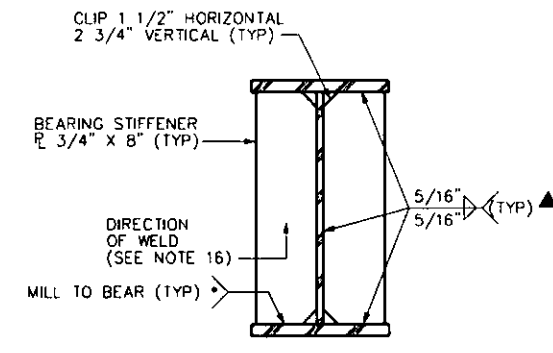
SHEAR CONNECTOR DETAIL

NTS



SHEAR STUD DETAIL

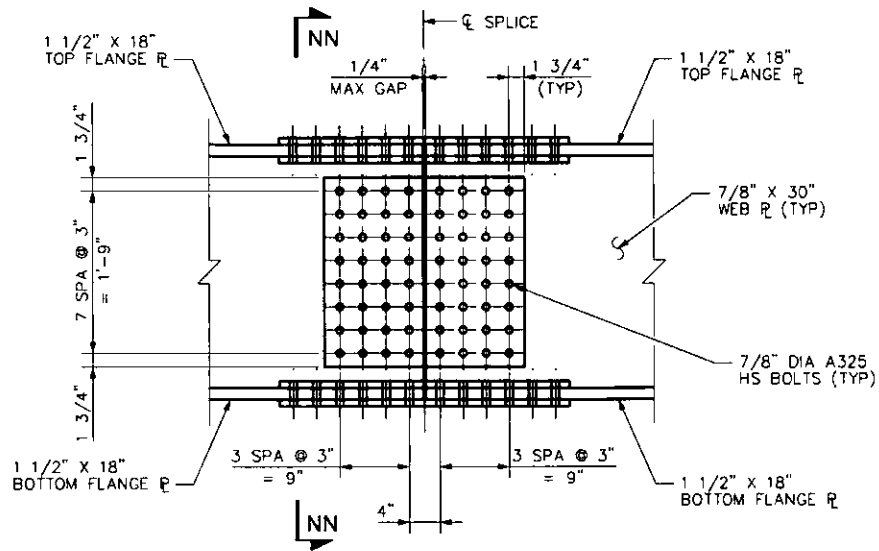
NTS



GIRDER SECTION AT BEARING STIFFENERS

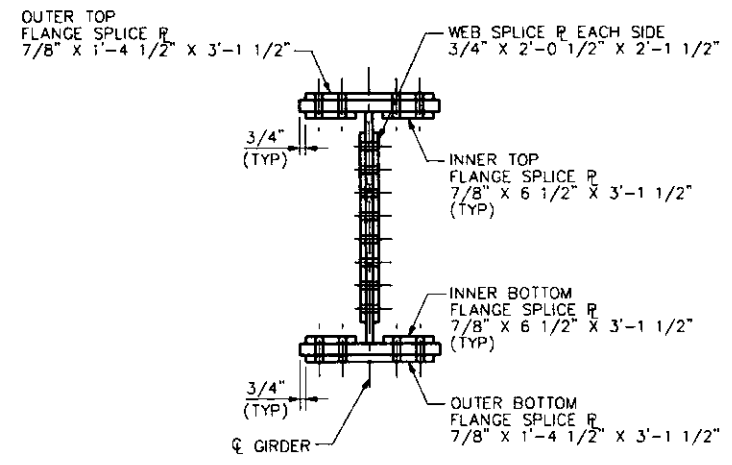
TYPICAL ALL GIRDERS
NTS

NOTE:
SHEAR STUD CONNECTORS NOT SHOWN FOR CLARITY. ADJUST SHEAR STUD SPACING AT SPLICE AS REQUIRED. DO NOT ELIMINATE ANY SHEAR STUDS.



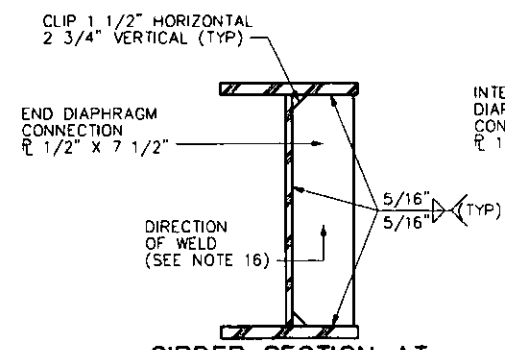
TYPICAL FIELD SPLICE ELEVATION

TYPICAL ALL GIRDERS
NTS



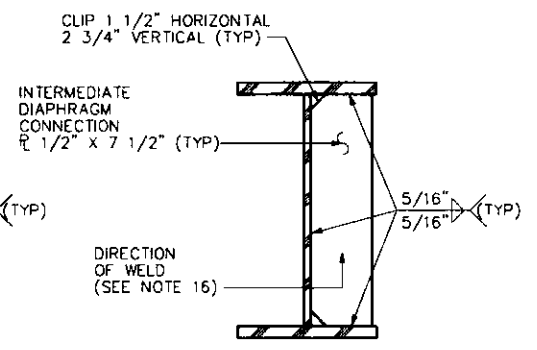
SECTION NN-NN

TYPICAL ALL GIRDERS
NTS



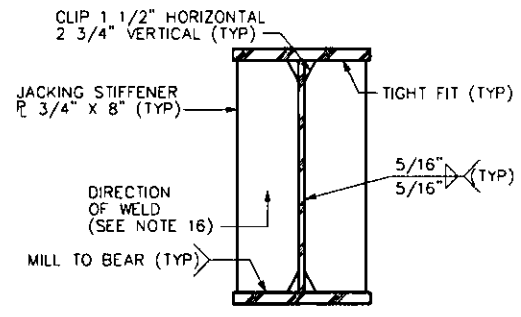
GIRDER SECTION AT END DIAPHRAGM CONNECTION PLATES

TYPICAL ALL GIRDERS
NTS



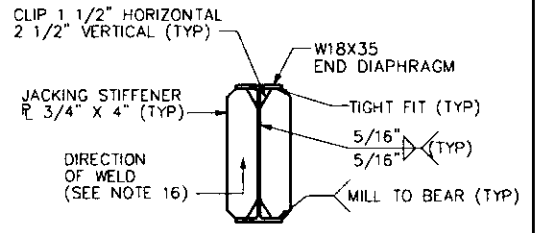
GIRDER SECTION AT INTERMEDIATE DIAPHRAGM CONNECTION PLATES

TYPICAL ALL GIRDERS
NTS
(SEE NOTE 17)



GIRDER SECTION AT JACKING STIFFENERS NEAR PIERS

TYPICAL ALL GIRDERS
NTS



END DIAPHRAGM SECTION AT JACKING STIFFENERS

TYPICAL ALL END DIAPHRAGMS
NTS

LEGEND

- SPA = SPACES
- * = MILL TO BEAR ONLY BEARING STIFFENERS NOT CONNECTED TO DIAPHRAGMS.
- ▲ = AT BOTTOM FLANGE, WELD ONLY BEARING STIFFENERS CONNECTED TO DIAPHRAGMS. TIGHT FIT BEARING STIFFENERS AT TOP FLANGE AT PIER 1 AND PIER 2 WHICH ARE NOT CONNECTED TO DIAPHRAGMS.

NOTES

1. FOR GENERAL NOTES AND ADDITIONAL STEEL NOTES, SEE DRAWINGS 4 AND 5.
2. FOR ADDITIONAL NOTES AND REQUIREMENTS, SEE STANDARD DRAWINGS BC-753M AND BC-754M.
3. FOR FRAMING PLAN, SEE DRAWINGS 55 THROUGH 58.
4. FOR GIRDER ELEVATIONS, SEE DRAWINGS 59 THROUGH 61.
5. FOR DIAPHRAGM DETAILS, SEE DRAWING 63.
6. FOR BEARING DETAILS, SEE DRAWINGS 72 AND 73.
7. ALL BEARING STIFFENERS ARE TO BE PLACED SUCH THAT THEY ARE TRULY VERTICAL AFTER DEAD LOAD IS APPLIED.
8. USE 7/8" DIAMETER A325 HS BOLTS UNLESS NOTED OTHERWISE.
9. ALL HOLES FOR BOLTED FIELD SPLICE CONNECTIONS TO BE 15/16" DIAMETER. THREADS ARE TO BE EXCLUDED FROM THE SHEAR PLANE. THE SURFACE CONDITION SHALL BE CLASS B. SEE SPLICE BOLT THREAD DETAIL THIS SHEET.
10. BOLTED FIELD SPLICE CONNECTIONS DESIGNED WITH CLASS A FAYING SURFACES.
11. PLACE NUTS ON INSIDE FACE OF WEB SPLICE AT FASCIA GIRDERS.
12. STRUCTURAL STEEL FOR GIRDER SPLICE PLATES TO CONFORM TO ASTM A709 GRADE 50 STEEL.
13. ALL DIAPHRAGM MEMBERS, CONNECTION PLATES, BEARING STIFFENERS AND JACKING STIFFENERS SHALL BE ASTM M270 GRADE 50 UNLESS OTHERWISE NOTED.
14. ALL SPLICE MATERIALS, DIAPHRAGMS, STIFFENERS AND CONNECTION PLATES ARE DESIGNATED (CVN). THE MATERIAL IS TO MEET TOUGHNESS REQUIREMENTS AS SPECIFIED IN THE GENERAL NOTES AND PUBLICATION 408 SECTION 1105.
15. THE GIRDERS ARE CONSTRUCTED PARALLEL TO THE BASELINE.
16. DIRECTION OF THE WELD IS NOT APPLICABLE IF STIFFENERS ARE FITTED WITH TACK WELDS.
17. FOR FASCIA GIRDERS ONLY, INTERMEDIATE DIAPHRAGMS, CONNECTIONS PLATES ARE TO BE PLACED ON THE INTERIOR FACE OF GIRDERS ONLY. SEE FRAMING PLAN DRAWINGS 55 TO 58.

SPLICE BOLT THREAD DETAIL

NTS

JACKING LOADS (ALL GIRDERS)		
LOCATION	UNFACTORED DEAD LOAD	UNFACTORED LIVE LOAD
ABUTMENT 1	62 K	68 K
PIER 1	237 K	134 K
PIER 2	237 K	134 K
ABUTMENT 2	62 K	68 K

DATE: 7/12/2016

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PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STst04.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

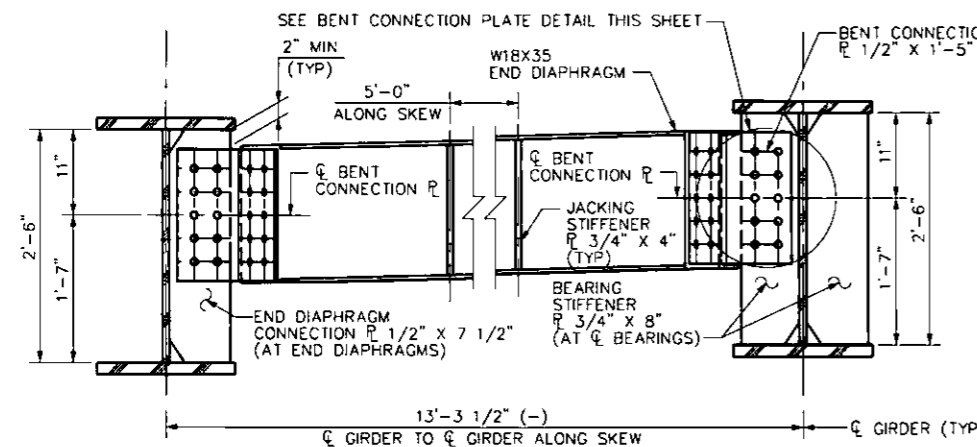
SCALE: AS NOTED

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54

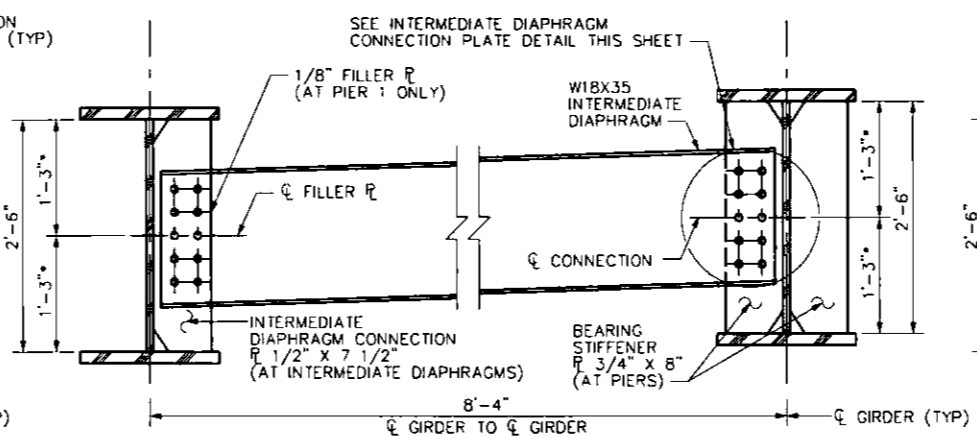
DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

GIRDER SPLICE DETAILS

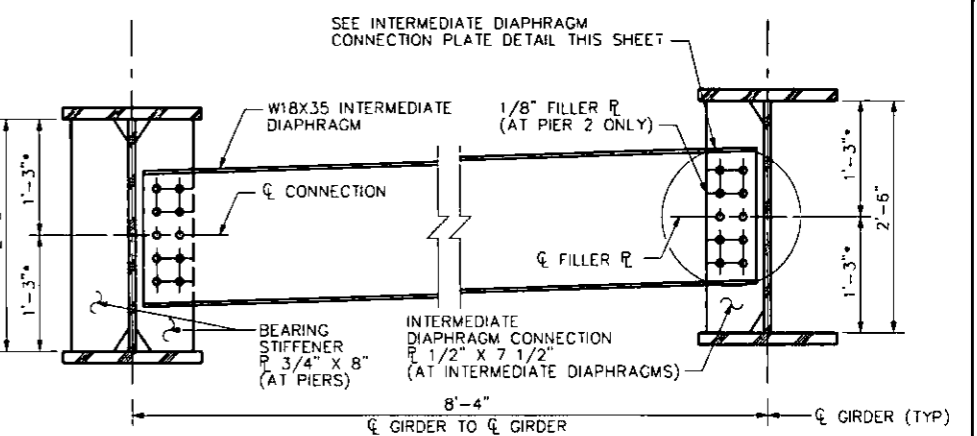
DRAWING: 62 OF 101
SHEET: 207 OF 315



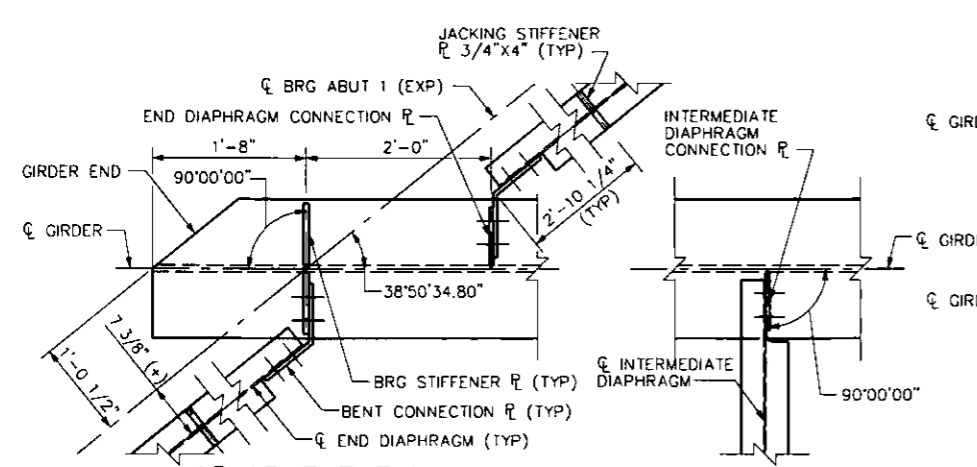
TYPICAL END DIAPHRAGM ELEVATION
(LOOKING AT FF OF ABUTMENT)
6 0 6 12 INCHES



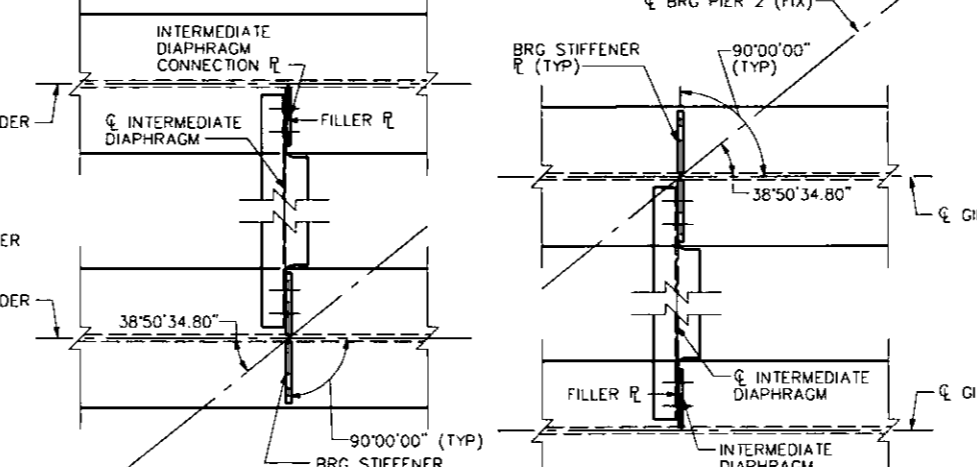
INTERMEDIATE DIAPHRAGM ELEVATION
(LOOKING STATION AHEAD AT PIER 1)
6 0 6 12 INCHES



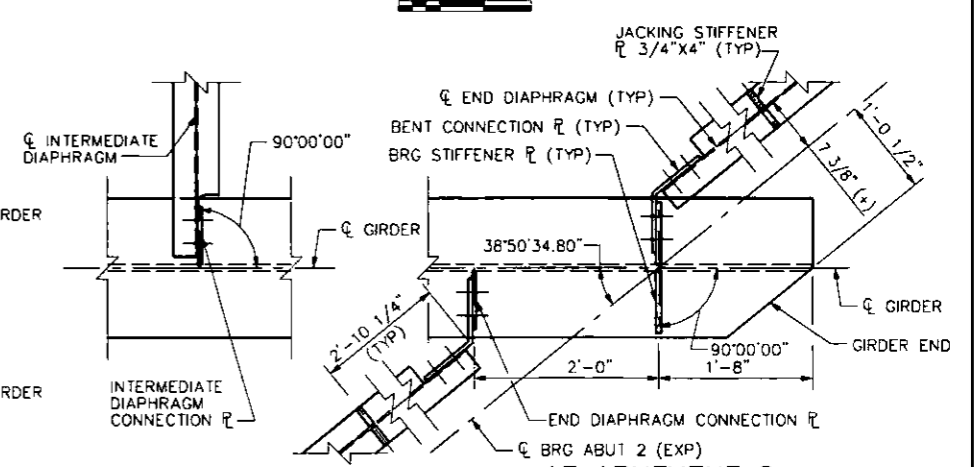
INTERMEDIATE DIAPHRAGM ELEVATION
(LOOKING STATION AHEAD AT PIER 2)
6 0 6 12 INCHES



AT ABUTMENT 1 **AT RIGHT INTERMEDIATE DIAPHRAGM**

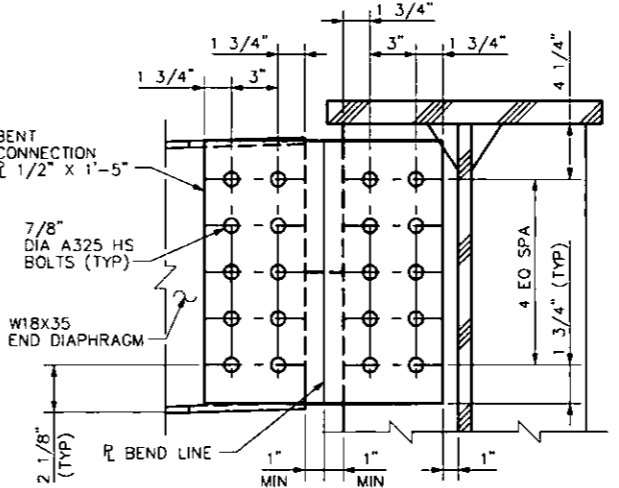


AT PIER 1 **AT PIER 2**

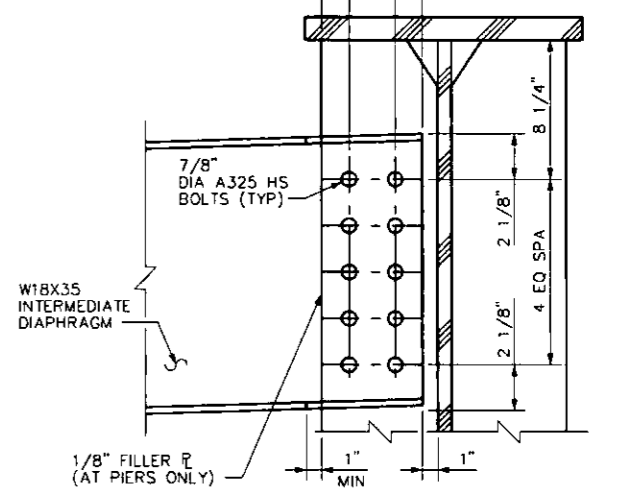


AT LEFT INTERMEDIATE DIAPHRAGM **AT ABUTMENT 2**

GIRDER DETAILS
6 0 6 12 INCHES



BENT CONNECTION PLATE DETAIL
NTS



INTERMEDIATE DIAPHRAGM CONNECTION PLATE DETAIL
NTS

LEGEND

SPA = SPACES
* = CENTER DIAPHRAGM ON R WHENEVER POSSIBLE

NOTES

- FOR GENERAL NOTES AND ADDITIONAL STEEL NOTES, SEE DRAWINGS 4 AND 5.
- FOR ADDITIONAL NOTES AND REQUIREMENTS, SEE STANDARD DRAWINGS BC-753M AND BC-754M.
- FOR FRAMING PLAN, SEE DRAWINGS 55 THROUGH 58.
- FOR GIRDER ELEVATIONS, SEE DRAWINGS 59 THROUGH 61.
- FOR ADDITIONAL STIFFENER AND CONNECTION PLATE DETAILS, SEE DRAWING 62.
- FOR FASCIA GIRDERS ONLY, PROVIDE INTERMEDIATE DIAPHRAGM STIFFENER PLATES ONLY ON THE INTERIOR FACE.
- ALL DIAPHRAGM MEMBERS, DIAPHRAGM CONNECTION PLATES AND BEARING STIFFENER PLATES SHALL BE ASTM M270 GRADE 50 UNLESS NOTED OTHERWISE.
- ALL DIAPHRAGMS, STIFFENERS AND CONNECTION PLATES ARE DESIGNATED (CVN). THE MATERIAL IS TO MEET TOUGHNESS REQUIREMENTS AS SPECIFIED IN THE GENERAL NOTES AND PUBLICATION 408 SECTION 1105.
- INTERMEDIATE DIAPHRAGM BOLTS ARE TO BE HAND-TIGHTENED PRIOR TO PLACEMENT OF THE DECK AND FULLY TIGHTENED AFTER COMPLETION OF DECK PLACEMENT.
- USE 7/8" DIAMETER BOLTS UNLESS NOTED OTHERWISE.
- DEVELOP SHOP DRAWINGS WHICH DETAIL ALL WEBS VERTICAL UNDER THE FULL DEAD LOAD EXISTING AT THE END OF CONSTRUCTION.
- USE 1 1/16" DIAMETER HOLES IN CONNECTION PLATES AND 15/16" DIAMETER HOLES IN CONNECTION MEMBERS FOR 7/8" DIAMETER BOLTS. OVERSIZE HOLE IN CONNECTION PLATES IS OPTIONAL AND STANDARD SIZE HOLE IS PERMITTED.
- USE ASTM DESIGNATION A325 BOLTS, HAVING AN UNTHREADED SHANK OF SUFFICIENT LENGTH TO NOT ALLOW ANY THREADS TO EXIST IN THE PLANE BETWEEN THE CONNECTED PARTS (SHEAR PLANE). THE SURFACE CONDITION SHALL BE CLASS B.
- SUPPORTS FOR FALL PROTECTION SAFETY RAILS OR CABLES MAY BE WELDED TO TOP FLANGE OF THE GIRDER PROVIDED THAT THE DETAILS CONFORM TO AASHTO FATIGUE CATEGORY C. THE DETAILS ARE INDICATED ON THE SHOP DRAWINGS, AND THE BASE OF THE SUPPORTS IS WELDED TO THE GIRDERS IN THE SHOP.

DATE: 7/12/2016

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PREPARED FOR:
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TURNPIKE COMMISSION



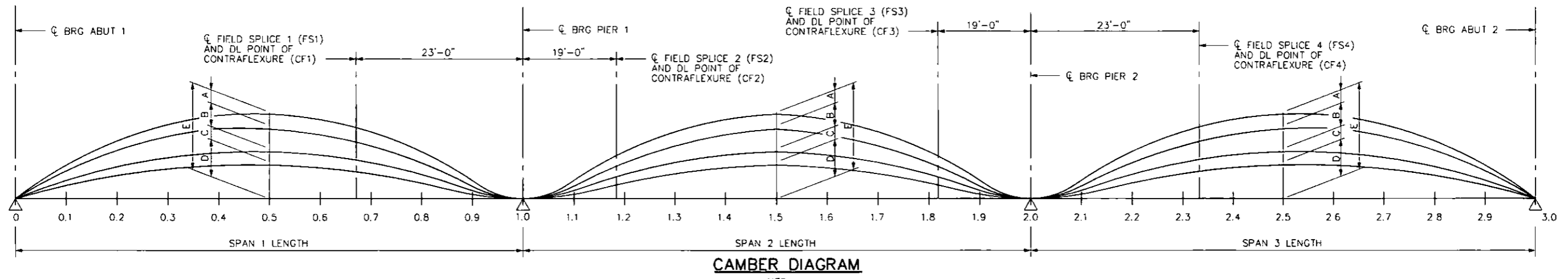
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				DRAWING TYPE: 2G	
				STRUCTURE NUMBER: EB-103	
				SCALE: AS NOTED	
NO.	REVISIONS	DATE	APPR.		

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

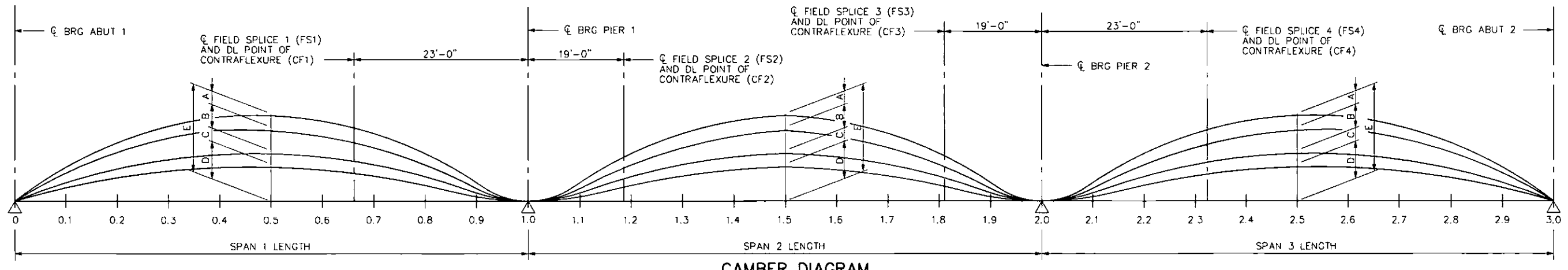
INTERMEDIATE AND END DIAPHRAGM DETAILS

DRAWING: 63 OF 101
SHEET: 208 OF 315



CAMBER ORDINATES (INCHES)

GIRDER	POINT	POINT NUMBERS (SPAN 1)										POINT NUMBERS (SPAN 2)										POINT NUMBERS (SPAN 3)														
		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.67 (FS1)	0.7	0.8	0.9	1.0	1.1	1.19 (FS2)	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.81 (FS3)	1.9	2.0	2.1	2.2	2.3	2.33 (FS4)	2.4	2.5	2.6	2.7	2.8	2.9	3.0
GIRDER 1	A	0.00	0.04	0.07	0.09	0.09	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.16	0.17	0.28	0.35	0.37	0.35	0.28	0.17	0.16	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.13	0.23	0.29	0.30	0.27	0.20	0.13	0.11	0.02	-0.03	0.00	0.22	0.51	0.55	0.87	1.10	1.18	1.10	0.87	0.55	0.51	0.22	0.00	-0.03	0.01	0.11	0.13	0.20	0.27	0.30	0.29	0.23	0.13	0.00
	C	0.00	0.03	0.05	0.07	0.07	0.06	0.05	0.03	0.03	0.00	-0.01	0.00	0.05	0.12	0.13	0.20	0.26	0.28	0.26	0.20	0.13	0.12	0.05	0.00	-0.01	0.00	0.03	0.03	0.05	0.06	0.07	0.07	0.05	0.03	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.28	0.50	0.64	0.69	0.65	0.53	0.41	0.36	0.18	0.04	0.00	0.51	1.09	1.16	1.76	2.17	2.31	2.17	1.76	1.16	1.09	0.51	0.00	0.04	0.18	0.36	0.41	0.53	0.65	0.69	0.64	0.50	0.28	0.00
GIRDER 2	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.24	1.33	1.24	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.03	0.05	0.06	0.07	0.06	0.04	0.03	0.02	0.00	-0.01	0.00	0.05	0.11	0.12	0.19	0.24	0.26	0.24	0.19	0.12	0.11	0.05	0.00	-0.01	0.00	0.02	0.03	0.04	0.06	0.07	0.06	0.05	0.03	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.29	0.53	0.68	0.73	0.68	0.55	0.43	0.37	0.18	0.03	0.00	0.54	1.16	1.22	1.86	2.30	2.45	2.30	1.86	1.22	1.16	0.54	0.00	0.03	0.18	0.37	0.43	0.55	0.68	0.73	0.68	0.53	0.29	0.00
GIRDER 3	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.23	1.33	1.23	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.26	0.48	0.61	0.66	0.62	0.51	0.40	0.35	0.17	0.04	0.00	0.49	1.04	1.10	1.66	2.05	2.19	2.05	1.66	1.10	1.04	0.49	0.00	0.04	0.17	0.35	0.40	0.51	0.62	0.66	0.61	0.48	0.26	0.00
GIRDER 4	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.23	1.33	1.23	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.26	0.48	0.61	0.66	0.62	0.51	0.40	0.35	0.17	0.04	0.00	0.49	1.04	1.10	1.66	2.05	2.19	2.05	1.66	1.10	1.04	0.49	0.00	0.04	0.17	0.35	0.40	0.51	0.62	0.66	0.61	0.48	0.26	0.00
GIRDER 5	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.23	1.33	1.23	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.26	0.48	0.61	0.66	0.62	0.51	0.40	0.35	0.17	0.04	0.00	0.49	1.04	1.10	1.66	2.05	2.19	2.05	1.66	1.10	1.04	0.49	0.00	0.04	0.17	0.35	0.40	0.51	0.62	0.66	0.61	0.48	0.26	0.00
GIRDER 6	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.23	1.33	1.23	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.26	0.48	0.61	0.66	0.62	0.51	0.40	0.35	0.17	0.04	0.00	0.49	1.04	1.10	1.66	2.05	2.19	2.05	1.66	1.10	1.04	0.49	0.00	0.04	0.17	0.35	0.40	0.51	0.62	0.66	0.61	0.48	0.26	0.00
GIRDER 7	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.24	1.33	1.24	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.03	0.05	0.07	0.07	0.07	0.05	0.03	0.03	0.00	-0.01	0.00	0.05	0.12	0.13	0.21	0.27	0.29	0.27	0.21	0.13	0.12	0.05	0.00	-0.01	0.00	0.03	0.03	0.05	0.07	0.07	0.07	0.05	0.03	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.29	0.53	0.68	0.73	0.69	0.56	0.43	0.37	0.18	0.03	0.00	0.54	1.17	1.24	1.88	2.32	2.48	2.32	1.88	1.24	1.17	0.54	0.00	0.03	0.18	0.37	0.43	0.56	0.69	0.73	0.68	0.53	0.29	0.00
GIRDER 8	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.16	0.17	0.28	0.35	0.37	0.35	0.28	0.17														



CAMBER DIAGRAM

A = CAMBER DUE TO WEIGHT OF STEEL B = CAMBER DUE TO WEIGHT OF DECK SLAB (DECK, HAUNCH & SIP FORMS) C = CAMBER DUE TO SUPERIMPOSED DEAD LOAD (W/O FWS) D = CAMBER DUE TO VERTICAL CURVE E = TOTAL CAMBER = A+B+C+D

		CAMBER ORDINATES (INCHES)																																		
		POINT NUMBERS (SPAN 1)										POINT NUMBERS (SPAN 2)										POINT NUMBERS (SPAN 3)														
		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.67 (FS1)	0.7	0.8	0.9	1.0	1.1	1.19 (FS2)	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.81 (FS3)	1.9	2.0	2.1	2.2	2.3	2.33 (FS4)	2.4	2.5	2.6	2.7	2.8	2.9	3.0
GIRDER 9	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.16	0.17	0.28	0.35	0.37	0.35	0.28	0.17	0.16	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.10	0.18	0.23	0.25	0.22	0.16	0.11	0.09	0.01	-0.03	0.00	0.18	0.42	0.45	0.71	0.90	0.96	0.90	0.71	0.45	0.42	0.18	0.00	-0.03	0.01	0.09	0.11	0.16	0.22	0.25	0.23	0.18	0.10	0.00
	C	0.00	0.03	0.06	0.08	0.08	0.07	0.05	0.04	0.03	0.01	-0.01	0.00	0.06	0.14	0.15	0.24	0.30	0.32	0.30	0.24	0.15	0.14	0.06	0.00	-0.01	0.00	0.03	0.04	0.05	0.07	0.08	0.08	0.06	0.03	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.26	0.47	0.60	0.65	0.61	0.50	0.39	0.34	0.17	0.04	0.00	0.48	1.02	1.08	1.62	2.00	2.14	2.00	1.62	1.08	1.02	0.48	0.00	0.04	0.17	0.34	0.39	0.50	0.61	0.65	0.60	0.47	0.26	0.00
GIRDER 10	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.24	1.33	1.24	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.03	0.05	0.07	0.07	0.07	0.05	0.03	0.03	0.00	-0.01	0.00	0.05	0.12	0.13	0.21	0.27	0.29	0.27	0.21	0.13	0.12	0.05	0.00	-0.01	0.00	0.03	0.03	0.05	0.07	0.07	0.05	0.03	0.00	
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.29	0.53	0.68	0.73	0.69	0.56	0.43	0.37	0.18	0.03	0.00	0.54	1.17	1.24	1.88	2.32	2.48	2.32	1.88	1.24	1.17	0.54	0.00	0.03	0.18	0.37	0.43	0.56	0.69	0.73	0.68	0.53	0.29	0.00
GIRDER 11	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.23	1.33	1.23	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.26	0.48	0.61	0.66	0.62	0.51	0.40	0.35	0.17	0.04	0.00	0.49	1.04	1.10	1.66	2.05	2.19	2.05	1.66	1.10	1.04	0.49	0.00	0.04	0.17	0.35	0.40	0.51	0.62	0.66	0.61	0.48	0.26	0.00
GIRDER 12	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.23	1.33	1.23	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.26	0.48	0.61	0.66	0.62	0.51	0.40	0.35	0.17	0.04	0.00	0.49	1.04	1.10	1.66	2.05	2.19	2.05	1.66	1.10	1.04	0.49	0.00	0.04	0.17	0.35	0.40	0.51	0.62	0.66	0.61	0.48	0.26	0.00
GIRDER 13	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.23	1.33	1.23	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.26	0.48	0.61	0.66	0.62	0.51	0.40	0.35	0.17	0.04	0.00	0.49	1.04	1.10	1.66	2.05	2.19	2.05	1.66	1.10	1.04	0.49	0.00	0.04	0.17	0.35	0.40	0.51	0.62	0.66	0.61	0.48	0.26	0.00
GIRDER 14	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.23	1.33	1.23	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.26	0.48	0.61	0.66	0.62	0.51	0.40	0.35	0.17	0.04	0.00	0.49	1.04	1.10	1.66	2.05	2.19	2.05	1.66	1.10	1.04	0.49	0.00	0.04	0.17	0.35	0.40	0.51	0.62	0.66	0.61	0.48	0.26	0.00
GIRDER 15	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.00	0.07	0.17	0.18	0.28	0.36	0.38	0.36	0.28	0.18	0.17	0.07	0.00	-0.01	0.01	0.03	0.04	0.06	0.09	0.10	0.09	0.07	0.04	0.00
	B	0.00	0.14	0.25	0.32	0.34	0.30	0.22	0.15	0.12	0.02	-0.04	0.00	0.25	0.58	0.62	0.98	1.24	1.33	1.24	0.98	0.62	0.58	0.25	0.00	-0.04	0.02	0.12	0.15	0.22	0.30	0.34	0.32	0.25	0.14	0.00
	C	0.00	0.03	0.05	0.06	0.07	0.06	0.04	0.03	0.02	0.00	-0.01	0.00	0.05	0.11	0.12	0.19	0.24	0.26	0.24	0.19	0.12	0.11	0.05	0.00	-0.01	0.00	0.02	0.03	0.04	0.06	0.07	0.06	0.05	0.03	0.00
	D	0.00	0.08	0.15	0.20	0.23	0.24	0.23	0.21	0.20	0.15	0.08	0.00	0.17	0.30	0.31	0.40	0.46	0.48	0.46	0.40	0.31	0.30	0.17	0.00	0.08	0.15	0.20	0.21	0.23	0.24	0.23	0.20	0.15	0.08	0.00
	E	0.00	0.29	0.53	0.68	0.73	0.68	0.55	0.43	0.37	0.18	0.03	0.00	0.54	1.16	1.22	1.86	2.30	2.45	2.30	1.86	1.22	1.16	0.54	0.00	0.03	0.18	0.37	0.43	0.55	0.68	0.73	0.68	0.53	0.29	0.00
GIRDER 16	A	0.00	0.04	0.07	0.09	0.10	0.09	0.06	0.04	0.03	0.01	-0.01	0.0																							

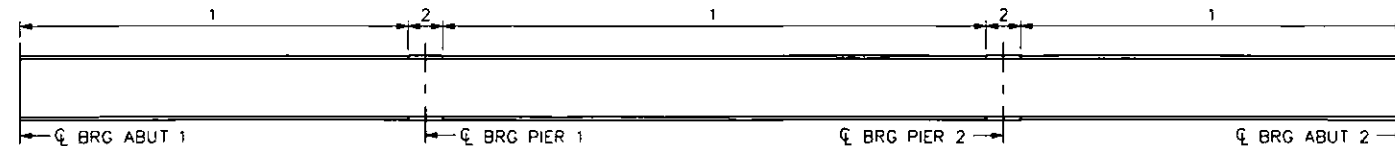
SECTION PROPERTIES G1 & G16				
SECTION	I (IN ⁴)	S _{TOP} (IN ³)	S _{BOT} (IN ³)	S _{SLAB} (IN ³)
NONCOMPOSITE				
1	15374	932	932	----
2	17862	1066	1066	----
COMPOSITE (3N)				
1	25410	2309	1155	1225
2	----	----	----	----
COMPOSITE (N)				
1	35721	6580	1296	2355
2	21646	1460	1159	1079

SECTION PROPERTIES G8 & G9				
SECTION	I (IN ⁴)	S _{TOP} (IN ³)	S _{BOT} (IN ³)	S _{SLAB} (IN ³)
NONCOMPOSITE				
1	15374	932	932	----
2	17862	1066	1066	----
COMPOSITE (3N)				
1	24047	2046	1132	1119
2	----	----	----	----
COMPOSITE (N)				
1	33756	5207	1273	2081
2	21044	1391	1145	1033

SECTION PROPERTIES G2, G7, G10 & G15				
SECTION	I (IN ⁴)	S _{TOP} (IN ³)	S _{BOT} (IN ³)	S _{SLAB} (IN ³)
NONCOMPOSITE				
1	15374	932	932	----
2	17862	1066	1066	----
COMPOSITE (3N)				
1	26897	2638	1180	1349
2	----	----	----	----
COMPOSITE (N)				
1	37684	8599	1317	2668
2	22340	1544	1174	1134

SECTION PROPERTIES G3 THROUGH G6 & G11 THROUGH G14				
SECTION	I (IN ⁴)	S _{TOP} (IN ³)	S _{BOT} (IN ³)	S _{SLAB} (IN ³)
NONCOMPOSITE				
1	15374	932	932	----
2	17862	1066	1066	----
COMPOSITE (3N)				
1	26716	2607	1174	1349
2	----	----	----	----
COMPOSITE (N)				
1	37335	8335	1309	2659
2	22267	1537	1171	1139

UNFACTORED GIRDER REACTIONS (KIPS)									
LOCATION	GIRDER NO.	TOTAL DC1	DC2	FWS	TOTAL DL	PHL-93 + I MAXIMUM	PHL-93 + I MINIMUM	TOTAL MAXIMUM	TOTAL MINIMUM
ABUT 1	G1 & G16	28.71	8.25	5.34	42.30	81.53	-13.97	123.83	28.33
	G2 & G15	31.83	8.25	5.34	45.42	84.56	-14.48	129.98	30.94
	G3-G6 & G11-G14	31.75	0.00	5.34	37.09	84.56	-14.48	121.65	22.61
	G7 & G10	31.83	9.02	5.34	46.19	84.56	-14.48	130.75	31.71
PIER 1	G8 & G9	24.69	9.02	5.34	39.05	63.17	-10.82	102.22	28.23
	G1 & G16	113.22	32.91	21.30	167.43	125.18	-9.30	292.61	158.13
	G2 & G15	124.61	32.91	21.30	178.82	159.84	-11.88	338.66	166.94
	G3-G6 & G11-G14	124.28	0.00	21.30	145.58	159.84	-11.88	305.42	133.70
PIER 2	G7 & G10	124.61	35.98	21.30	181.89	159.84	-11.88	341.73	170.01
	G8 & G9	97.21	35.98	21.30	154.49	119.40	-8.87	273.89	145.62
	G1 & G16	113.22	32.91	21.30	167.43	125.18	-9.30	292.61	158.13
	G2 & G15	124.61	32.91	21.30	178.82	159.84	-11.88	338.66	166.94
ABUT 2	G3-G6 & G11-G14	124.28	0.00	21.30	145.58	159.84	-11.88	305.42	133.70
	G7 & G10	124.61	35.98	21.30	181.89	159.84	-11.88	341.73	170.01
	G8 & G9	97.21	35.98	21.30	154.49	119.40	-8.87	273.89	145.62
	G1 & G16	28.71	8.25	5.34	42.30	66.22	-11.34	108.52	30.96
ABUT 2	G2 & G15	31.83	8.25	5.34	45.42	84.56	-14.48	129.98	30.94
	G3-G6 & G11-G14	31.75	0.00	5.34	37.09	84.56	-14.48	121.65	22.61
	G7 & G10	31.83	9.02	5.34	46.19	84.56	-14.48	130.75	31.71
	G8 & G9	24.69	9.02	5.34	39.05	77.77	-13.32	116.82	25.73



ELEVATION
NTS

NOTES

- FOR FRAMING PLAN, SEE DRAWINGS 55 THROUGH 58.
- FOR MOMENT AND SHEAR TABLES, SEE DRAWINGS 67 THROUGH 71.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
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PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STst09.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

SCALE:

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**GIRDER REACTIONS AND
SECTION PROPERTIES TABLE**

DRAWING: 66 OF 101
SHEET: 211 OF 315

UNFACTORED MOMENTS (KIP-FEET) - GIRDERS G1 AND G16

	SPAN 1											SPAN 2											SPAN 3										
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
DL1	0.0	169.3	281.0	334.9	331.1	269.6	150.3	-26.6	-261.3	-553.7	-903.9	-903.9	-373.8	38.5	333.0	509.7	568.6	509.7	333.0	38.5	-373.8	-903.9	-903.9	-553.7	-261.3	-26.6	150.3	269.6	331.1	334.9	281.0	169.3	0.0
DL2	0.0	49.4	81.9	97.7	96.7	78.8	44.2	-7.3	-75.6	-160.7	-262.5	-262.5	-108.2	11.9	97.6	149.1	166.2	149.1	97.6	11.9	-108.2	-262.5	-262.5	-160.7	-75.6	-7.3	44.2	78.8	96.7	97.7	81.9	49.4	0.0
FWS	0.0	32.0	53.0	63.2	62.6	51.0	28.6	-4.7	-48.9	-104.0	-169.9	-169.9	-70.0	7.7	63.2	96.5	107.6	96.5	63.2	7.7	-70.0	-169.9	-169.9	-104.0	-48.9	-4.7	28.6	51.0	62.6	63.2	53.0	32.0	0.0
PHL-93 (+)	0.0	406.1	699.7	884.4	965.8	957.6	870.9	704.9	472.8	217.0	139.0	139.0	252.2	569.1	873.0	1066.9	1129.2	1066.9	873.0	569.1	252.2	139.0	139.0	217.0	472.8	704.9	870.9	957.6	965.8	884.4	699.7	406.1	0.0
PHL-93 (-)	0.0	-79.4	-158.8	-238.2	-317.6	-397.0	-476.4	-564.2	-759.1	-881.3	-1251.2	-1251.2	-689.4	-350.3	-297.9	-252.1	-206.3	-252.1	-297.9	-350.3	-689.4	-1251.2	-1251.2	-881.3	-759.1	-664.2	-476.4	-397.0	-317.6	-238.2	-158.8	-79.4	0.0
P-82 (+)	0.0	576.5	967.9	1178.1	1236.3	1151.5	1110.2	899.0	551.5	192.4	203.0	203.0	255.2	698.6	1204.6	1474.8	1504.9	1474.8	1204.6	698.6	255.2	203.0	203.0	192.4	551.5	899.0	1110.2	1151.5	1236.3	1178.1	967.9	576.5	0.0
P-82 (-)	0.0	-122.2	-244.4	-366.7	-488.9	-611.1	-733.3	-855.5	-977.8	-1100.0	-1222.2	-1222.2	-597.0	-508.1	-419.2	-330.3	-241.4	-330.3	-419.2	-508.1	-597.0	-1222.2	-1222.2	-1100.0	-977.8	-855.5	-733.3	-611.1	-488.9	-366.7	-244.4	-122.2	0.0

UNFACTORED SHEARS (KIP) - GIRDERS G1 AND G16

	SPAN 1											SPAN 2											SPAN 3										
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
DL1	28.31	20.07	11.82	3.58	-4.67	-12.91	-21.16	-29.40	-37.65	-45.89	-54.23	58.99	47.12	35.34	23.56	11.78	0.00	-11.78	-23.56	-35.34	-47.12	-58.99	54.23	45.89	37.65	29.40	21.16	12.91	4.67	-3.58	-11.82	-20.07	-28.31
DL2	8.25	5.85	3.45	1.05	-1.35	-3.75	-6.15	-8.55	-10.95	-13.35	-15.76	17.15	13.72	10.29	6.86	3.43	0.00	-3.43	-6.86	-10.29	-13.72	-17.15	15.76	13.35	10.95	8.55	6.15	3.75	1.35	-1.05	-3.45	-5.85	-8.25
FWS	5.34	3.79	2.23	0.68	-0.87	-2.43	-3.98	-5.54	-7.09	-8.64	-10.20	11.10	8.88	6.66	4.44	2.22	0.00	-2.22	-4.44	-6.66	-8.88	-11.10	10.20	8.64	7.09	5.54	3.98	2.43	0.87	-0.68	-2.23	-3.79	-5.34
PHL-93 (+)	81.53	69.84	58.80	48.40	38.72	29.84	17.73	11.98	7.03	2.92	1.99	101.50	89.57	76.84	63.80	51.65	40.44	23.80	16.27	9.80	6.24	6.10	94.38	84.99	75.04	65.27	56.14	46.85	30.47	22.94	15.54	11.52	11.34
PHL-93 (-)	-13.97	-14.19	-19.13	-28.24	-37.51	-46.85	-45.60	-53.01	-60.95	-69.04	-76.67	-7.67	-7.85	-12.33	-20.45	-29.93	-40.44	-41.08	-50.75	-61.12	-71.24	-80.73	-2.45	-3.60	-8.65	-14.75	-21.83	-29.84	-31.46	-39.31	-47.76	-56.73	-66.22
P-82 (+)	122.71	101.39	81.23	63.10	46.96	34.40	19.88	12.62	6.26	2.90	2.90	158.66	138.55	116.71	94.17	71.95	51.45	26.97	17.15	8.99	8.89	8.89	142.60	124.52	104.90	85.54	66.33	52.18	32.20	22.12	17.46	17.46	17.46
P-82 (-)	-21.50	-21.50	-21.50	-27.23	-39.64	-52.18	-53.88	-69.48	-85.20	-101.14	-115.83	-11.18	-11.18	-11.30	-21.56	-33.91	-51.45	-57.23	-74.91	-92.83	-110.20	-126.20	-3.57	-3.57	-7.71	-15.53	-24.48	-34.40	-38.14	-51.26	-65.98	-82.36	-99.67

DATE: 7/12/2016

PREPARED BY:
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100 STERLING PARKWAY, SUITE 108
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PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STst10.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

SCALE: NOT TO SCALE

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**MOMENT AND SHEAR TABLES
GIRDERS G1 AND G16**

DRAWING: 67 OF 101
SHEET: 212 OF 315

UNFACTORED MOMENTS (KIP-FEET) - GIRDERS G2 AND G15

	SPAN 1											SPAN 2											SPAN 3										
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
DL1	0.0	186.4	309.3	368.6	364.4	296.7	165.5	-29.3	-287.6	-609.5	-995.0	-995.0	-411.4	42.4	366.5	561.0	625.9	561.0	366.5	42.4	-411.4	-995.0	-995.0	-609.5	-287.6	-29.3	165.5	296.7	364.4	368.6	309.3	186.4	0.0
DL2	0.0	49.4	82.0	97.7	96.7	78.8	44.2	-7.3	-75.6	-160.6	-262.5	-262.5	-108.2	11.9	97.6	149.1	166.2	149.1	97.6	11.9	-108.2	-262.5	-262.5	-160.6	-75.6	-7.3	44.2	78.8	96.7	97.7	82.0	49.4	0.0
FWS	0.0	32.0	53.0	63.2	62.6	51.0	28.6	-4.7	-48.9	-104.0	-169.9	-169.9	-70.0	7.7	63.2	96.5	107.6	96.5	63.2	7.7	-70.0	-169.9	-169.9	-104.0	-48.9	-4.7	28.6	51.0	62.6	63.2	53.0	32.0	0.0
PHL-93 (+)	0.0	451.6	778.0	983.3	1073.8	1064.8	968.3	783.8	525.7	241.3	154.6	154.6	264.7	597.5	916.5	1120.1	1185.5	1120.1	916.5	597.5	264.7	154.6	154.6	241.3	525.7	783.8	968.3	1064.8	1073.8	983.3	778.0	451.6	0.0
PHL-93 (-)	0.0	-88.3	-176.6	-264.9	-353.2	-441.5	-529.7	-715.7	-818.0	-949.7	-1348.4	-1348.4	-742.9	-367.8	-312.7	-264.7	-216.6	-264.7	-312.7	-367.8	-742.9	-1348.4	-1348.4	-949.7	-818.0	-715.7	-529.7	-441.5	-353.2	-264.9	-176.6	-88.3	0.0
P-82 (+)	0.0	641.0	1076.2	1309.9	1374.6	1280.3	1234.4	999.5	613.2	213.9	225.8	225.8	267.9	733.4	1264.6	1548.3	1579.9	1548.3	1264.6	733.4	267.9	225.8	225.8	213.9	613.2	999.5	1234.4	1280.3	1374.6	1309.9	1076.2	641.0	0.0
P-82 (-)	0.0	-135.9	-271.8	-407.7	-543.6	-679.5	-815.4	-922.0	-1053.7	-1185.4	-1317.1	-1317.1	-643.4	-533.5	-440.1	-346.8	-253.5	-346.8	-440.1	-533.5	-643.4	-1317.1	-1317.1	-1185.4	-1053.7	-922.0	-815.4	-679.5	-543.6	-407.7	-271.8	-135.9	0.0

UNFACTORED SHEARS (KIP) - GIRDERS G2 AND G15

	SPAN 1											SPAN 2											SPAN 3										
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
DL1	31.17	22.09	13.02	3.94	-5.14	-14.21	-23.29	-32.37	-41.44	-50.52	-59.69	64.92	51.86	38.90	25.93	12.97	0.00	-12.97	-25.93	-38.90	-51.86	-64.92	59.69	50.52	41.44	32.37	23.29	14.21	5.14	-3.94	-13.02	-22.09	-31.17
DL2	8.25	5.85	3.45	1.05	-1.35	-3.75	-6.15	-8.55	-10.95	-13.35	-15.76	17.15	13.72	10.29	6.86	3.43	0.00	-3.43	-6.86	-10.29	-13.72	-17.15	15.76	13.35	10.95	8.55	6.15	3.75	1.35	-1.05	-3.45	-5.85	-8.25
FWS	5.34	3.79	2.23	0.68	-0.87	-2.43	-3.98	-5.54	-7.09	-8.64	-10.20	11.10	8.88	6.66	4.44	2.22	0.00	-2.22	-4.44	-6.66	-8.88	-11.10	10.20	8.64	7.09	5.54	3.98	2.43	0.87	-0.68	-2.23	-3.79	-5.34
PHL-93 (+)	84.56	72.44	60.98	50.20	40.16	30.95	22.64	15.29	8.97	3.73	2.54	103.09	90.97	78.04	64.80	52.46	41.07	30.39	20.77	12.52	7.97	7.79	97.89	88.15	77.83	67.69	58.23	48.59	38.91	29.29	19.84	14.71	14.48
PHL-93 (-)	-14.48	-14.71	-19.84	-29.29	-38.91	-48.59	-58.23	-67.69	-77.83	-88.15	-97.89	-7.79	-7.97	-12.52	-20.77	-30.39	-41.07	-52.46	-64.80	-78.04	-90.97	-103.09	-2.54	-3.73	-8.97	-15.29	-22.64	-30.95	-40.16	-50.20	-60.98	-72.44	-84.56
P-82 (+)	127.27	105.16	84.25	65.45	48.70	35.68	25.39	16.11	7.99	3.70	3.70	161.14	140.71	118.54	95.65	73.08	52.25	34.44	21.90	11.48	11.35	11.35	147.90	129.15	108.80	88.72	68.80	54.12	41.12	28.24	22.30	22.30	22.30
P-82 (-)	-22.30	-22.30	-22.30	-28.24	-41.12	-54.12	-68.80	-88.72	-108.80	-129.15	-147.90	-11.35	-11.35	-11.48	-21.90	-34.44	-52.25	-73.08	-95.65	-118.54	-140.71	-161.14	-3.70	-3.70	-7.99	-16.11	-25.39	-35.68	-48.70	-65.45	-84.25	-105.16	-127.27

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STst11.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

SCALE: NOT TO SCALE

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**MOMENT AND SHEAR TABLES
GIRDERS G2 AND G15**

DRAWING: 68 OF 101
SHEET: 213 OF 315

UNFACTORED MOMENTS (KIP-Feet) - GIRDERS G3-G6 AND G11-G14

	SPAN 1											SPAN 2											SPAN 3										
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
DL1	0.0	185.9	308.5	367.7	363.5	295.9	165.0	-29.2	-286.9	-607.9	-992.4	-992.4	-410.3	42.3	365.6	559.6	624.2	559.6	365.6	42.3	-410.3	-992.4	-992.4	-607.9	-286.9	-29.2	165.0	295.9	363.5	367.7	308.5	185.9	0.0
DL2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FWS	0.0	32.0	53.0	63.2	62.6	51.0	28.6	-4.7	-48.9	-104.0	-169.9	-169.9	-70.0	7.7	63.2	96.5	107.6	96.5	63.2	7.7	-70.0	-169.9	-169.9	-104.0	-48.9	-4.7	28.6	51.0	62.6	63.2	53.0	32.0	0.0
PHL-93 (+)	0.0	451.1	777.2	982.3	1072.7	1063.7	967.3	782.9	525.1	241.1	154.4	154.4	264.5	596.9	915.6	1118.9	1184.2	1118.9	915.6	596.9	264.5	154.4	154.4	241.1	525.1	782.9	967.3	1063.7	1072.7	982.3	777.2	451.1	0.0
PHL-93 (-)	0.0	-88.2	-176.4	-264.6	-352.8	-441.0	-529.2	-715.0	-817.2	-948.7	-1347.0	-1347.0	-742.1	-367.4	-312.4	-264.4	-216.4	-264.4	-312.4	-367.4	-742.1	-1347.0	-1347.0	-948.7	-817.2	-715.0	-529.2	-441.0	-352.8	-264.6	-176.4	-88.2	0.0
P-82 (+)	0.0	640.3	1075.0	1308.5	1373.2	1279.0	1233.1	998.5	612.6	213.6	225.5	225.5	267.6	732.6	1263.3	1546.6	1578.2	1546.6	1263.3	732.6	267.6	225.5	225.5	213.6	612.6	998.5	1233.1	1279.0	1373.2	1308.5	1075.0	640.3	0.0
P-82 (-)	0.0	-135.8	-271.5	-407.3	-543.0	-678.8	-814.6	-921.0	-1052.6	-1184.2	-1315.8	-1315.8	-642.7	-532.9	-439.7	-346.4	-253.2	-346.4	-439.7	-532.9	-642.7	-1315.8	-1315.8	-1184.2	-921.0	-814.6	-678.8	-543.0	-407.3	-271.5	-135.8	0.0	

UNFACTORED SHEARS (KIP) - GIRDERS G3-G6 AND G11-G14

	SPAN 1											SPAN 2											SPAN 3										
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
DL1	31.09	22.03	12.98	3.93	-5.12	-14.18	-23.23	-32.28	-41.33	-50.39	-59.53	64.75	51.73	38.80	25.86	12.93	0.00	-12.93	-25.86	-38.80	-51.73	-64.75	59.53	50.39	41.33	32.28	23.23	14.18	5.12	-3.93	-12.98	-22.03	-31.09
DL2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FWS	5.34	3.79	2.23	0.68	-0.87	-2.43	-3.98	-5.54	-7.09	-8.64	-10.20	11.10	8.88	6.66	4.44	2.22	0.00	-2.22	-4.44	-6.66	-8.88	-11.10	10.20	8.64	7.09	5.54	3.98	2.43	0.87	-0.68	-2.23	-3.79	-5.34
PHL-93 (+)	84.56	72.44	60.98	50.20	40.16	30.95	22.64	15.29	8.97	3.73	2.54	103.09	90.97	78.04	64.80	52.46	41.07	30.39	20.77	12.52	7.97	7.79	97.89	88.15	77.83	67.69	58.23	48.60	38.91	29.29	19.84	14.71	14.48
PHL-93 (-)	-14.48	-14.71	-19.84	-29.29	-38.91	-48.60	-58.23	-67.69	-77.83	-88.15	-97.89	-7.79	-7.97	-12.52	-20.77	-30.39	-41.07	-52.46	-64.80	-78.04	-90.97	-103.09	-2.54	-3.73	-8.97	-15.29	-22.64	-30.95	-40.16	-50.20	-60.98	-72.44	-84.56
P-82 (+)	127.27	105.16	84.25	65.45	48.70	35.68	25.39	16.11	7.99	3.70	3.70	161.14	140.71	118.54	95.65	73.08	52.25	34.44	21.90	11.48	11.35	11.35	147.90	129.15	108.80	88.72	68.80	54.12	41.12	28.24	22.30	22.30	22.30
P-82 (-)	-22.30	-22.30	-22.30	-28.24	-41.12	-54.12	-68.80	-88.72	-108.80	-129.15	-147.90	-11.35	-11.35	-11.48	-21.90	-34.44	-52.25	-73.08	-95.65	-118.54	-140.71	-161.14	-3.70	-3.70	-7.99	-16.11	-25.39	-35.68	-48.70	-65.45	-84.25	-105.16	-127.27

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STst12.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

SCALE: NOT TO SCALE

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

**MOMENT AND SHEAR TABLES
GIRDERS G3-G6 AND G11-G14**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 69 OF 101
SHEET: 214 OF 315

UNFACTORED MOMENTS (KIP-FEET) - GIRDERS G7 AND G10

	SPAN 1											SPAN 2											SPAN 3										
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
DL1	0.0	186.4	309.3	368.6	364.4	296.7	165.5	-29.3	-287.6	-609.5	-995.0	-995.0	-411.4	42.4	366.5	561.0	625.9	561.0	366.5	42.4	-411.4	-995.0	-995.0	-609.5	-287.6	-29.3	165.5	296.7	364.4	368.6	309.3	186.4	0.0
DL2	0.0	54.0	89.6	106.8	105.7	86.2	48.3	-8.0	-82.6	-175.6	-287.0	-287.0	-118.3	13.0	106.7	163.0	181.7	163.0	106.7	13.0	-118.3	-287.0	-287.0	-175.6	-82.6	-8.0	48.3	86.2	105.7	106.8	89.6	54.0	0.0
FWS	0.0	32.0	53.0	63.2	62.6	51.0	28.6	-4.7	-48.9	-104.0	-169.9	-169.9	-70.0	7.7	63.2	96.5	107.6	96.5	63.2	7.7	-70.0	-169.9	-169.9	-104.0	-48.9	-4.7	28.6	51.0	62.6	63.2	53.0	32.0	0.0
PHL-93 (+)	0.0	451.6	778.0	983.3	1073.8	1064.8	968.3	783.8	525.7	241.3	154.6	154.6	264.7	597.5	916.5	1120.1	1185.5	1120.1	916.5	597.5	264.7	154.6	154.6	241.3	525.7	783.8	968.3	1064.8	1073.8	983.3	778.0	451.6	0.0
PHL-93 (-)	0.0	-88.3	-176.6	-264.9	-353.2	-441.5	-529.7	-715.7	-818.0	-949.7	-1348.4	-1348.4	-742.9	-367.8	-312.7	-264.7	-216.6	-264.7	-312.7	-367.8	-742.9	-1348.4	-1348.4	-949.7	-818.0	-715.7	-529.7	-441.5	-353.2	-264.9	-176.6	-88.3	0.0
P-82 (+)	0.0	641.0	1076.2	1309.9	1374.6	1280.3	1234.4	999.5	613.2	213.9	225.8	225.8	267.9	733.4	1264.6	1548.3	1579.9	1548.3	1264.6	733.4	267.9	225.8	225.8	213.9	613.2	999.5	1234.4	1280.3	1374.6	1309.9	1076.2	641.0	0.0
P-82 (-)	0.0	-135.9	-271.8	-407.7	-543.6	-679.5	-815.4	-922.0	-1053.7	-1185.4	-1317.1	-1317.1	-643.4	-533.5	-440.1	-346.8	-253.5	-346.8	-440.1	-533.5	-643.4	-1317.1	-1317.1	-1185.4	-1053.7	-922.0	-815.4	-679.5	-543.6	-407.7	-271.8	-135.9	0.0

UNFACTORED SHEARS (KIP) - GIRDERS G7 AND G10

	SPAN 1											SPAN 2											SPAN 3										
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
DL1	31.17	22.09	13.02	3.94	-5.14	-14.21	-23.29	-32.37	-41.44	-50.52	-59.69	64.92	51.86	38.90	25.93	12.97	0.00	-12.97	-25.93	-38.90	-51.86	-64.92	59.69	50.52	41.44	32.37	23.29	14.21	5.14	-3.94	-13.02	-22.09	-31.17
DL2	9.02	6.40	3.77	1.15	-1.48	-4.10	-6.73	-9.35	-11.98	-14.60	-17.23	18.75	15.00	11.25	7.50	3.75	0.00	-3.75	-7.50	-11.25	-15.00	-18.75	17.23	14.60	11.98	9.35	6.73	4.10	1.48	-1.15	-3.77	-6.40	-9.02
FWS	5.34	3.79	2.23	0.68	-0.87	-2.43	-3.98	-5.54	-7.09	-8.64	-10.20	11.10	8.88	6.66	4.44	2.22	0.00	-2.22	-4.44	-6.66	-8.88	-11.10	10.20	8.64	7.09	5.54	3.98	2.43	0.87	-0.68	-2.23	-3.79	-5.34
PHL-93 (+)	84.56	72.44	60.98	50.20	40.16	30.95	22.64	15.29	8.97	3.73	2.54	103.09	90.97	78.04	64.80	52.46	41.07	30.39	20.77	12.52	7.97	7.79	97.89	88.15	77.83	67.69	58.23	48.59	38.91	29.29	19.84	14.71	14.48
PHL-93 (-)	-14.48	-14.71	-19.84	-29.29	-38.91	-48.59	-58.23	-67.69	-77.83	-88.15	-97.89	-7.79	-7.97	-12.52	-20.77	-30.39	-41.07	-52.46	-64.80	-78.04	-90.97	-103.09	-2.54	-3.73	-8.97	-15.29	-22.64	-30.95	-40.16	-50.20	-60.98	-72.44	-84.56
P-82 (+)	127.27	105.16	84.25	65.45	48.70	35.68	25.39	16.11	7.99	3.70	3.70	161.14	140.71	118.54	95.65	73.08	52.25	34.44	21.90	11.48	11.35	11.35	147.90	129.15	108.80	88.72	68.80	54.12	41.12	28.24	22.30	22.30	22.30
P-82 (-)	-22.30	-22.30	-22.30	-28.24	-41.12	-54.12	-68.80	-88.72	-108.80	-129.15	-147.90	-11.35	-11.35	-11.48	-21.90	-34.44	-52.25	-73.08	-95.65	-118.54	-140.71	-161.14	-3.70	-3.70	-7.99	-16.11	-25.39	-35.68	-48.70	-65.45	-84.25	-105.16	-127.27

DATE: 7/12/2016

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PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STst13.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: NOT TO SCALE

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

MOMENT AND SHEAR TABLES GIRDERS G7 AND G10	
DRAWING: 70 OF 101	SHEET: 215 OF 315

UNFACTORED MOMENTS (KIP-FEET) - GIRDERS G8 AND G9

	SPAN 1											SPAN 2											SPAN 3										
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
DL1	0.0	145.4	241.2	287.5	284.2	231.4	129.0	-22.9	-224.3	-475.3	-776.0	-776.0	-320.8	33.1	285.8	437.5	488.1	437.5	285.8	33.1	-320.8	-776.0	-776.0	-475.3	-224.3	-22.9	129.0	231.4	284.2	287.5	241.2	145.4	0.0
DL2	0.0	54.0	89.6	106.8	105.7	86.1	48.2	-8.0	-82.7	-175.7	-287.1	-287.1	-118.3	12.9	106.7	162.9	181.7	162.9	106.7	12.9	-118.3	-287.1	-287.1	-175.7	-82.7	-8.0	48.2	86.1	105.7	106.8	89.6	54.0	0.0
FWS	0.0	32.0	53.0	63.2	62.6	51.0	28.6	-4.8	-48.9	-104.0	-170.0	-170.0	-70.1	7.6	63.1	96.4	107.5	96.4	63.1	7.6	-70.1	-170.0	-170.0	-104.0	-48.9	-4.8	28.6	51.0	62.6	63.2	53.0	32.0	0.0
PHL-93 (+)	0.0	387.4	667.4	843.6	921.2	913.4	830.7	672.4	451.0	207.0	132.6	132.6	240.5	542.9	832.7	1017.7	1077.1	1017.7	832.7	542.9	240.5	132.6	132.6	207.0	451.0	672.4	830.7	913.4	921.2	843.6	667.4	387.4	0.0
PHL-93 (-)	0.0	-75.7	151.5	-227.2	-303.0	-378.7	-454.4	-633.5	-724.0	-840.6	-1193.5	-1193.5	-657.5	-334.1	-284.1	-240.5	-196.8	-240.5	-284.1	-334.1	-657.5	-1193.5	-1193.5	-840.6	-724.0	-633.5	-454.4	-378.7	-303.0	-227.2	-151.5	-75.7	0.0
P-82 (+)	0.0	549.9	923.2	1123.7	1179.2	1098.3	1059.0	857.5	526.1	183.5	193.7	193.7	243.4	666.3	1149.0	1406.7	1435.4	1406.7	1149.0	666.3	243.4	193.7	193.7	183.5	526.1	857.5	1059.0	1098.3	1179.2	1123.7	923.2	549.9	0.0
P-82 (-)	0.0	-116.6	-233.2	-349.7	-466.3	-582.9	-699.5	-816.1	-932.6	-1049.2	-1165.8	-1165.8	-569.4	-484.7	-399.9	-315.1	-230.3	-315.1	-399.9	-484.7	-569.4	-1165.8	-1165.8	-1049.2	-932.6	-816.1	-699.5	-582.9	-466.3	-349.7	-233.2	-116.6	0.0

UNFACTORED SHEARS (KIP) - GIRDERS G8 AND G9

	SPAN 1											SPAN 2											SPAN 3										
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
DL1	24.31	17.23	10.15	3.07	-4.01	-11.08	-18.16	-25.24	-32.32	-39.39	-46.56	50.65	40.44	30.33	20.22	10.11	0.00	-10.11	-20.22	-30.33	-40.44	-50.65	46.56	39.39	32.32	25.24	18.16	11.08	4.01	-3.07	-10.15	-17.23	-24.31
DL2	9.02	6.40	3.77	1.15	-1.48	-4.10	-6.73	-9.35	-11.98	-14.60	-17.23	18.75	15.00	11.25	7.50	3.75	0.00	-3.75	-7.50	-11.25	-15.00	-18.75	17.23	14.60	11.98	9.35	6.73	4.10	1.48	-1.15	-3.77	-6.40	-9.02
FWS	5.34	3.79	2.23	0.68	-0.87	-2.43	-3.98	-5.54	-7.09	-8.64	-10.20	11.10	8.88	6.66	4.44	2.22	0.00	-2.22	-4.44	-6.66	-8.88	-11.10	10.20	8.64	7.09	5.54	3.98	2.43	0.87	-0.68	-2.23	-3.79	-5.34
PHL-93 (+)	63.17	54.11	45.56	37.50	30.00	23.12	20.82	14.07	8.25	3.43	2.34	77.01	67.96	58.30	48.40	39.19	30.68	28.55	19.51	11.76	7.49	7.32	73.13	65.85	58.14	50.57	43.50	36.30	35.78	26.93	18.25	13.53	13.32
PHL-93 (-)	-10.82	-10.99	-14.82	-21.88	-29.06	-36.30	-53.55	-62.25	-71.58	-81.07	-90.03	-5.82	-5.95	-9.35	-15.52	-22.71	-30.68	-49.27	-60.85	-73.29	-85.43	-96.82	-1.90	-2.79	-6.70	-11.43	-16.91	-23.12	-36.94	-46.17	-56.08	-66.62	-77.77
P-82 (+)	95.07	78.56	62.94	48.89	36.38	26.66	23.35	14.82	7.35	3.41	3.41	120.37	105.11	88.55	71.45	54.59	39.03	32.34	20.57	10.78	10.66	110.48	96.47	81.27	66.27	51.39	40.43	37.81	25.97	20.50	20.50	20.50	
P-82 (-)	-16.65	-16.65	-16.65	-21.09	-30.71	-40.43	-63.27	-81.59	-100.05	-118.77	-136.02	-8.48	-8.48	-8.58	-16.36	-25.73	-39.03	-68.63	-89.83	-111.32	-132.15	-151.34	-2.77	-2.77	-5.97	-12.03	-18.97	-26.66	-44.79	-60.19	-77.48	-96.71	-117.04

DATE: 7/12/2016

PREPARED BY:
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100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STst14.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

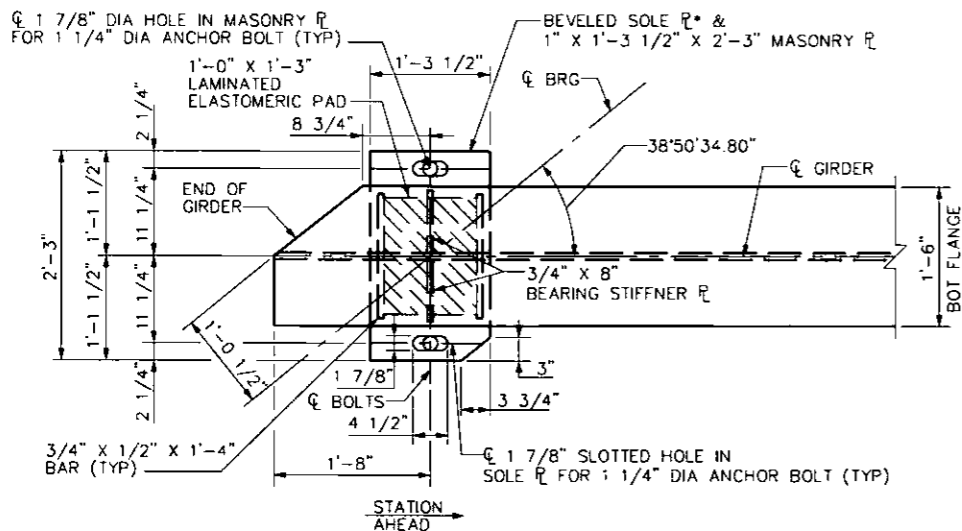
SCALE: NOT TO SCALE

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**MOMENT AND SHEAR TABLES
GIRDERS G8 AND G9**

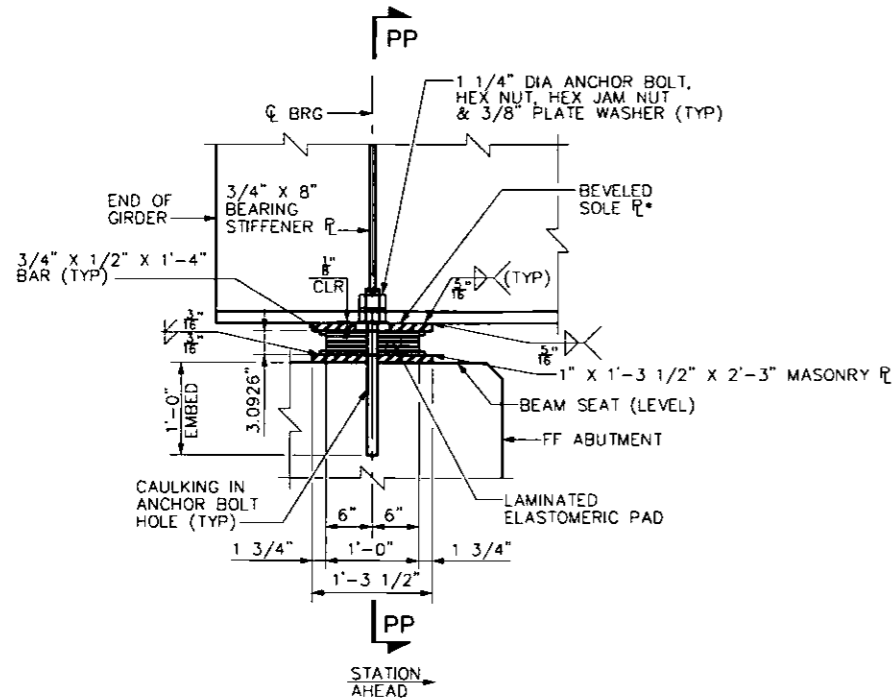
DRAWING: 71 OF 101
SHEET: 216 OF 315



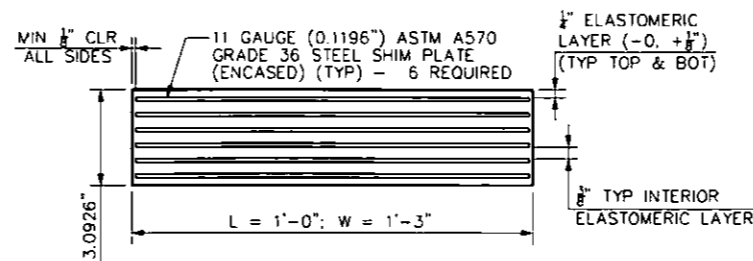
PLAN - EXPANSION BEARING AT ABUTMENT 1
(ABUTMENT 2 SIMILAR)

ELASTOMERIC BEARING PADS				
LOCATION	BEARING TYPE	ITEM DESCRIPTION	SIZE (T X L X W)	NUMBER REQUIRED
ABUT 1	EXPANSION	LAMINATED PADS	3.0926" X 1'-0" X 1'-3"	17▲
ABUT 2	EXPANSION	LAMINATED PADS	3.0926" X 1'-0" X 1'-3"	16

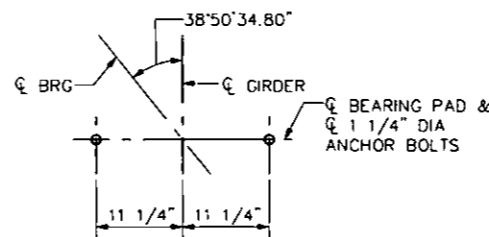
▲ = INCLUDES ONE (1) ADDITIONAL BEARING PAD FOR TESTING



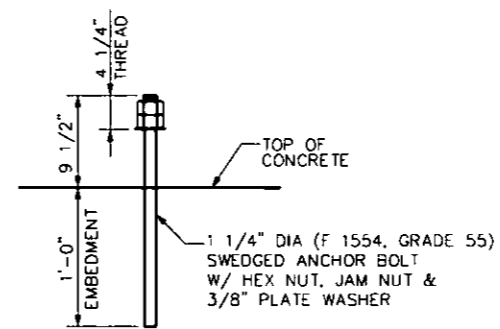
ELEVATION - EXPANSION BEARING AT ABUTMENT 1
(ABUTMENT 2 SIMILAR)



TYPICAL SECTION - LAMINATED ELASTOMERIC PAD FOR EXPANSION BEARING
NOT TO SCALE

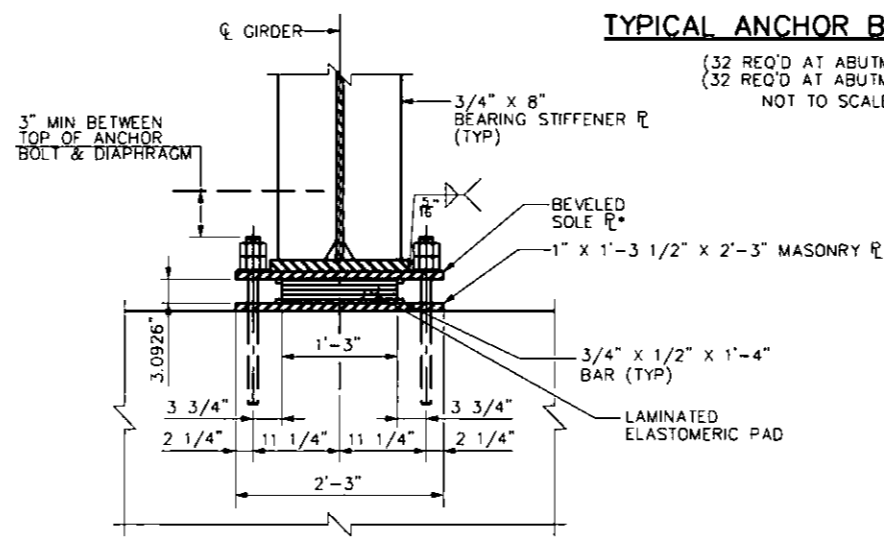


TYPICAL ANCHOR BOLT LAYOUT
(TYPICAL FOR EXPANSION BEARINGS)



TYPICAL ANCHOR BOLT DETAIL

(32 REQ'D AT ABUTMENT 1)
(32 REQ'D AT ABUTMENT 2)
NOT TO SCALE

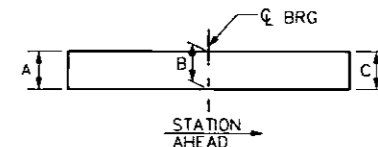


SECTION PP-PP - EXPANSION BEARING AT ABUTMENT 1
(ABUTMENT 2 SIMILAR)

BEARING NOTES

- SEE STANDARD DRAWING BC-755M FOR ADDITIONAL INFORMATION.
- USE 50 DUROMETER STEEL LAMINATED NEOPRENE BEARING PADS.
- PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 408/2016 SECTION 1001.3(k)9. DO NOT USE AN EPOXY LEVELING MATERIAL BENEATH ELASTOMERIC BEARINGS.
- TOLERANCES:

OVERALL HEIGHT	-0, +1/4"
OVERALL HORIZONTAL DIMENSIONS	-0, +1/4"
THICKNESS OF INDIVIDUAL LAYERS OF ELASTOMER AT ANY POINT WITHIN BEARINGS	± 1/32"
INTERIOR LAYER	
PARALLELISM WITH OPPOSITE FACE TOP AND BOTTOM SIDES	0.005 RADIAN 0.02 RADIAN
POSITION OF EXPOSED CONNECTION MEMBERS HOLES, SLOTS OR INSERTS	± 1/8"
EDGE COVER EMBEDDED LAMINATES OR CONNECTION MEMBERS	-0, + 1/8"
THICKNESS TOP AND BOTTOM COVER LAYER	-0, + 1/16"
SIZE OF HOLES, SLOTS OR INSERTS	± 1/8"
- PROVIDE INTERNAL SHIMS AS PER ASTM A570 GRADE A36.
- NO SHOP DRAWINGS FOR BEARING PADS ARE REQUIRED.
- ALL BEARING PADS ARE TO BE MOLDED TO DESIGN DIMENSIONS. CUTTING TO SIZE AFTER FABRICATION IS PROHIBITED. THE INTERNAL STEEL LAMINATES TO BE SANDBLASTED AND CLEANED OF ALL SURFACE COATING, RUST AND MILL SCALE BEFORE BONDING.



SOLE PLATE DIMENSIONS

ABUTMENT 1			
GIRDERS	A	B	C
1-16	1"	1 1/8"	1 1/8"
ABUTMENT 2			
GIRDERS	A	B	C
1-16	1"	1"	1"

LEGEND

- (a) PROVIDE FLATNESS TOLERANCE IN ACCORDANCE WITH PUBLICATION 408 SECTION 1105.03(q).
- (b) PROVIDE SOLE PLATE IN ACCORDANCE WITH DM-4, D14.7.6.3.8P.

NOTES

- FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
- FOR ABUTMENT 1 PLAN AND ELEVATION - WESTBOUND, SEE DRAWING 17.
- FOR ABUTMENT 1 PLAN AND ELEVATION - EASTBOUND, SEE DRAWING 18.
- FOR ABUTMENT 2 PLAN AND ELEVATION - WESTBOUND, SEE DRAWING 28.
- FOR ABUTMENT 2 PLAN AND ELEVATION - EASTBOUND, SEE DRAWING 29.
- FOR FRAMING PLAN, SEE DRAWINGS 55 THROUGH 58.
- FOR STEEL GIRDER DETAILS, SEE DRAWINGS 59 THROUGH 62.

DATE: 7/12/2016

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MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.				REVISIONS				DATE				APPR.			

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STbrg01.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

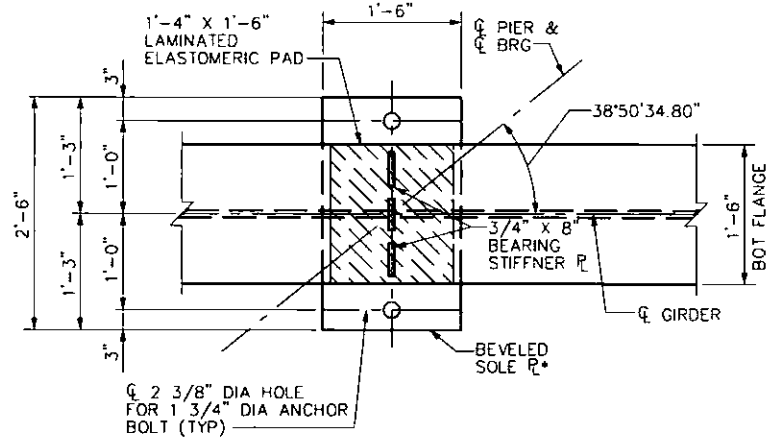
SCALE: AS NOTED

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

EXPANSION BEARING DETAILS ABUTMENTS 1 AND 2

DRAWING: 72 OF 101
SHEET: 217 OF 315

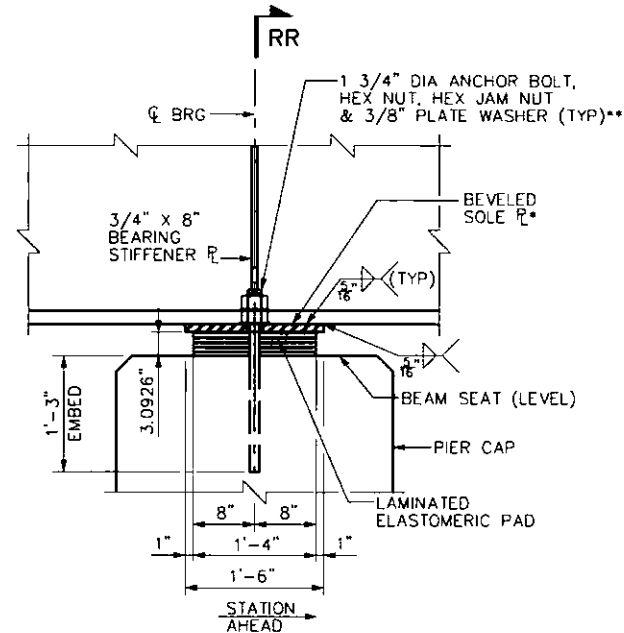


PLAN - FIXED BEARING AT PIER 1

(PIER 2 SIMILAR)
6 0 6 INCHES

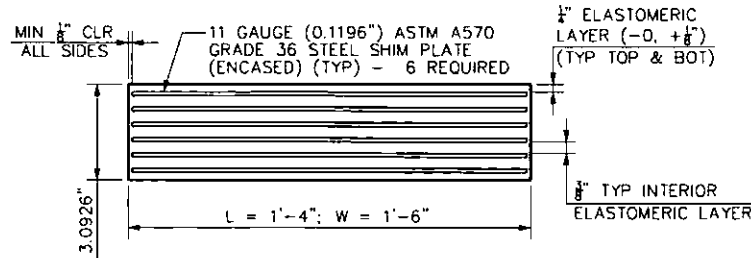
ELASTOMERIC BEARING PADS				
LOCATION	BEARING TYPE	ITEM DESCRIPTION	SIZE (T X L X W)	NUMBER REQUIRED
PIER 1	FIXED	LAMINATED PADS	3.0926" X 1'-4" X 1'-6"	17▲
PIER 2	FIXED	LAMINATED PADS	3.0926" X 1'-4" X 1'-6"	16

▲ = INCLUDES ONE (1) ADDITIONAL BEARING PAD FOR TESTING



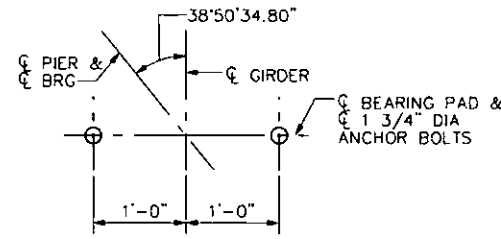
ELEVATION - FIXED BEARING AT PIER 1

(PIER 2 SIMILAR)
6 0 6 INCHES



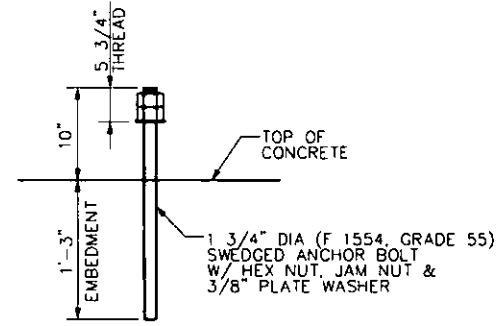
TYPICAL SECTION - LAMINATED ELASTOMERIC PAD FOR FIXED BEARING

NOT TO SCALE



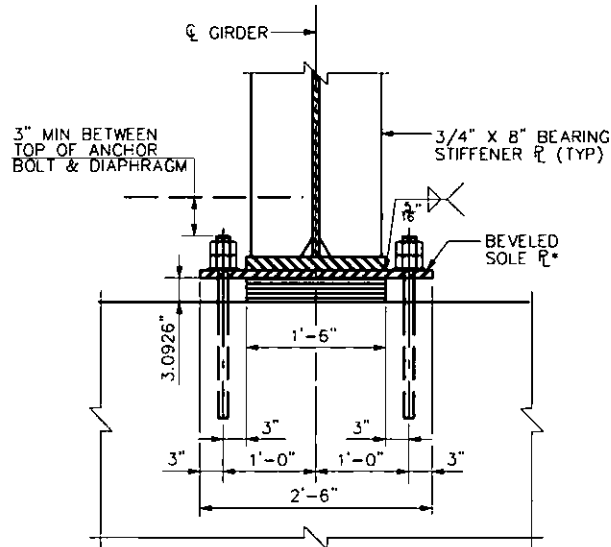
TYPICAL ANCHOR BOLT LAYOUT

(TYPICAL FOR FIXED BEARINGS)
6 0 6 INCHES



TYPICAL ANCHOR BOLT DETAIL

(32 REQ'D AT PIER 1)
(32 REQ'D AT PIER 2)
NOT TO SCALE



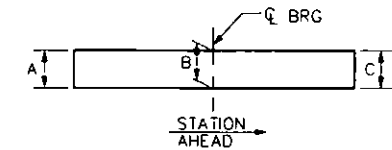
SECTION RR-RR - FIXED BEARING AT PIER 1

(PIER 2 SIMILAR)
6 0 6 INCHES

BEARING NOTES

- SEE STANDARD DRAWING BC-755M FOR ADDITIONAL INFORMATION.
- USE 50 DUROMETER STEEL LAMINATED NEOPRENE BEARING PADS.
- PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 40B/2016 SECTION 1001.3(k)9. DO NOT USE AN EPOXY LEVELING MATERIAL BENEATH ELASTOMERIC BEARINGS.
- TOLERANCES:

OVERALL HEIGHT	-0, +1/4"
OVERALL HORIZONTAL DIMENSIONS	-0, +1/4"
THICKNESS OF INDIVIDUAL LAYERS OF ELASTOMER AT ANY POINT WITHIN BEARINGS	±1/8"
INTERIOR LAYER	±1/8"
PARALLELISM WITH OPPOSITE FACE TOP AND BOTTOM SIDES	0.005 RADIAN / 0.02 RADIAN
POSITION OF EXPOSED CONNECTION MEMBERS HOLES, SLOTS OR INSERTS	±1/8"
EDGE COVER EMBEDDED LAMINATES OR CONNECTION MEMBERS	-0, +1/8"
THICKNESS TOP AND BOTTOM COVER LAYER SIZE OF HOLES, SLOTS OR INSERTS	-0, +1/8" / ±1/8"
- FILL ANCHOR BOLT SOLE PLATE HOLES WITH NON-HARDENING CAULKING COMPOUND AT FIXED BEARINGS.
- PROVIDE INTERNAL SHIMS AS PER ASTM A570 GRADE A36.
- NO SHOP DRAWINGS FOR BEARING PADS ARE REQUIRED.
- ALL BEARING PADS ARE TO BE MOLDED TO DESIGN DIMENSIONS. CUTTING TO SIZE AFTER FABRICATION IS PROHIBITED. THE INTERNAL STEEL LAMINATES TO BE SANDBLASTED AND CLEANED OF ALL SURFACE COATING, RUST AND MILL SCALE BEFORE BONDING.



SOLE PLATE DIMENSIONS

PIER 1			
GRDERS	A	B	C
1-16	1"	1 1/2"	1 1/2"
PIER 2			
GRDERS	A	B	C
1-11	1"	1"	1"
12-16	1"	1 1/2"	1 1/2"

LEGEND

- (a) PROVIDE FLATNESS TOLERANCE IN ACCORDANCE WITH PUBLICATION 40B SECTION 1105.03(q).
- (b) PROVIDE SOLE PLATE IN ACCORDANCE WITH DM-4, §14.7.6.3.BP.
- ** DRAW NUT FINGER TIGHT AND BACK OFF 1/4 TURN AND PEEN BOLT THREADS AT FACE OF NUTS.

NOTES

- FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
- FOR ABUTMENT 1 PLAN AND ELEVATION - WESTBOUND, SEE DRAWING 17.
- FOR ABUTMENT 1 PLAN AND ELEVATION - EASTBOUND, SEE DRAWING 18.
- FOR ABUTMENT 2 PLAN AND ELEVATION - WESTBOUND, SEE DRAWING 28.
- FOR ABUTMENT 2 PLAN AND ELEVATION - EASTBOUND, SEE DRAWING 29.
- FOR FRAMING PLAN, SEE DRAWINGS 55 THROUGH 58.
- FOR STEEL GIRDER DETAILS, SEE DRAWINGS 59 THROUGH 62.

DATE: 7/12/2016

PREPARED BY:
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MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

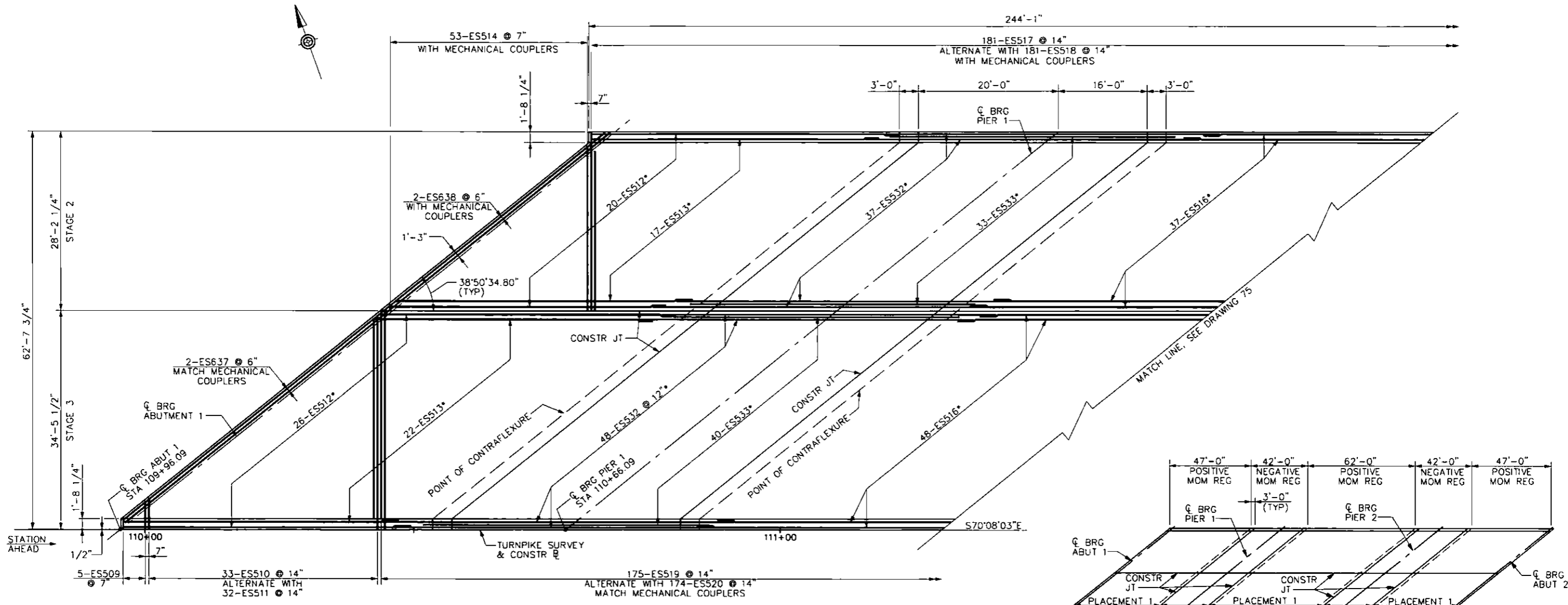
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NETWORK NUMBER: 7003982
FILE NAME: STbrg02.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: AS NOTED

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54

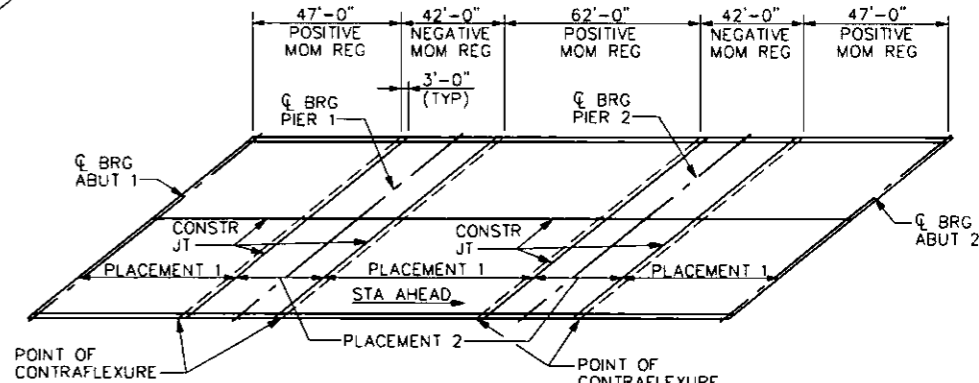
FIXED BEARING DETAILS PIERS 1 AND 2

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 73 OF 101
SHEET: 218 OF 315



DECK PLAN - WESTBOUND STRUCTURE



DECK PLACEMENT SCHEMATIC

NOT TO SCALE
(WB SHOWN, EB SIMILAR)

DECK PLACEMENT SCHEMATIC

- 1) CAST PLACEMENT 1 (POSITIVE MOMENT REGION TO CONSTR JT).
- 2) CAST PLACEMENT 2 (NEGATIVE MOMENT REGION TO CONSTR JT).

NOTES

- 1. FOR WESTBOUND FRAMING PLANS, SEE DRAWINGS 55 AND 56.
- 2. FOR WESTBOUND DECK BOTTOM SLAB REINFORCING PLAN - 2, SEE DRAWING 75.
- 3. FOR WESTBOUND DECK TOP SLAB REINFORCING PLAN, SEE DRAWINGS 76 AND 77.
- 4. FOR WESTBOUND BARRIER REINFORCING PLAN, SEE DRAWINGS 78 AND 79.
- 5. FOR TYPICAL DECK CORNER REINFORCING DETAILS, SEE DRAWING 86.
- 6. FOR TYPICAL DECK CROSS SECTION - POSITIVE MOMENT REGION, SEE DRAWING 87.
- 7. FOR TYPICAL DECK CROSS SECTION - NEGATIVE MOMENT REGION, SEE DRAWING 88.
- 8. FOR SUPERSTRUCTURE BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

* FOR LOCATION AND SPACING OF LONGITUDINAL REINFORCEMENT, SEE TYPICAL DECK SECTION

DATE: 7/12/2016

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PREPARED FOR:
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TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STdk01.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

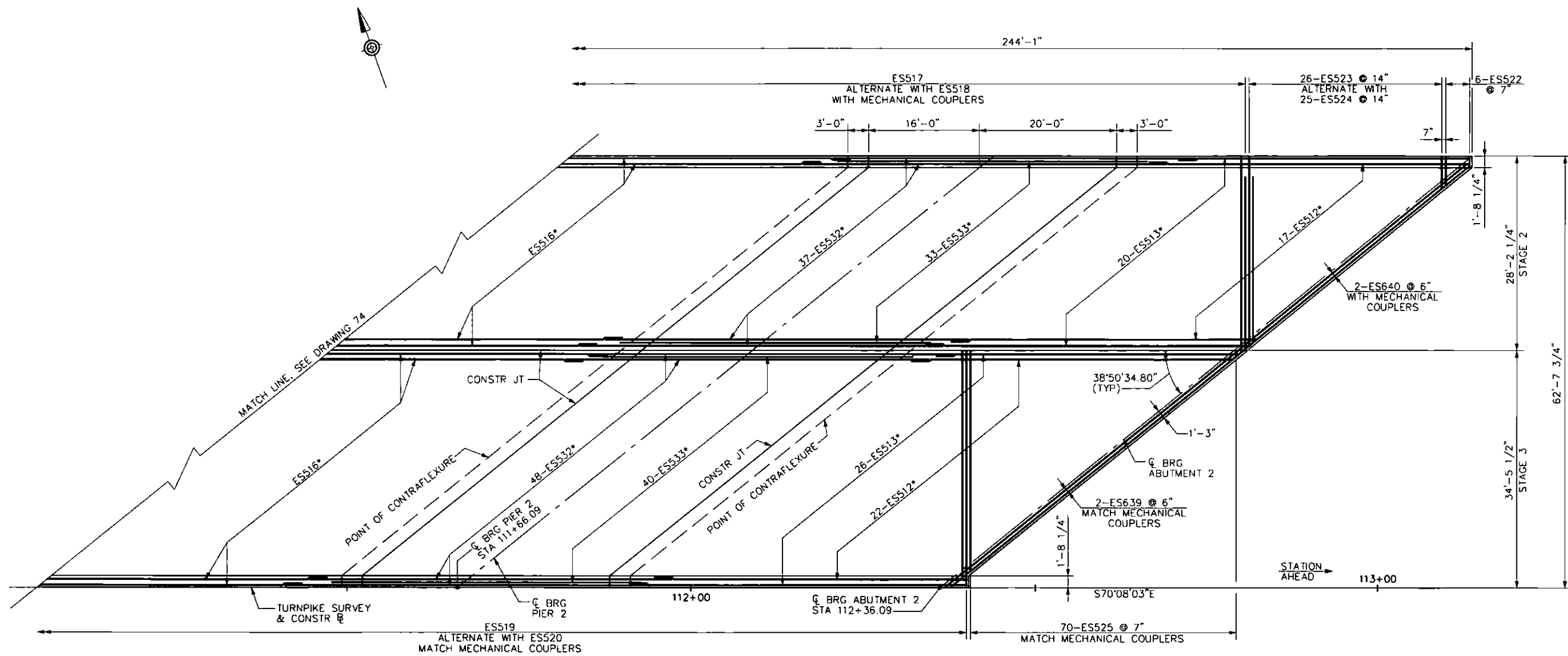
SCALE: 2 0 4 8 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**WESTBOUND DECK
BOTTOM REINFORCING PLAN - 1**

DRAWING: 74 OF 101
SHEET: 219 OF 315



* FOR LOCATION AND SPACING OF LONGITUDINAL REINFORCEMENT, SEE TYPICAL DECK SECTION

DECK PLAN - WESTBOUND STRUCTURE

NOTES

1. FOR WESTBOUND FRAMING PLANS, SEE DRAWINGS 55 AND 56.
2. FOR WESTBOUND DECK BOTTOM SLAB REINFORCING PLAN - 1, SEE DRAWING 74.
3. FOR WESTBOUND DECK TOP SLAB REINFORCING PLAN, SEE DRAWINGS 76 AND 77.
4. FOR WESTBOUND BARRIER REINFORCING PLAN, SEE DRAWINGS 78 AND 79.
5. FOR TYPICAL DECK CORNER REINFORCING DETAILS, SEE DRAWING 86.
6. FOR TYPICAL DECK CROSS SECTION - POSITIVE MOMENT REGION, SEE DRAWING 87.
7. FOR TYPICAL DECK CROSS SECTION - NEGATIVE MOMENT REGION, SEE DRAWING 88.
8. FOR SUPERSTRUCTURE BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

DATE: 7/12/2016

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MECHANICSBURG, PA 17050

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TURNPIKE COMMISSION



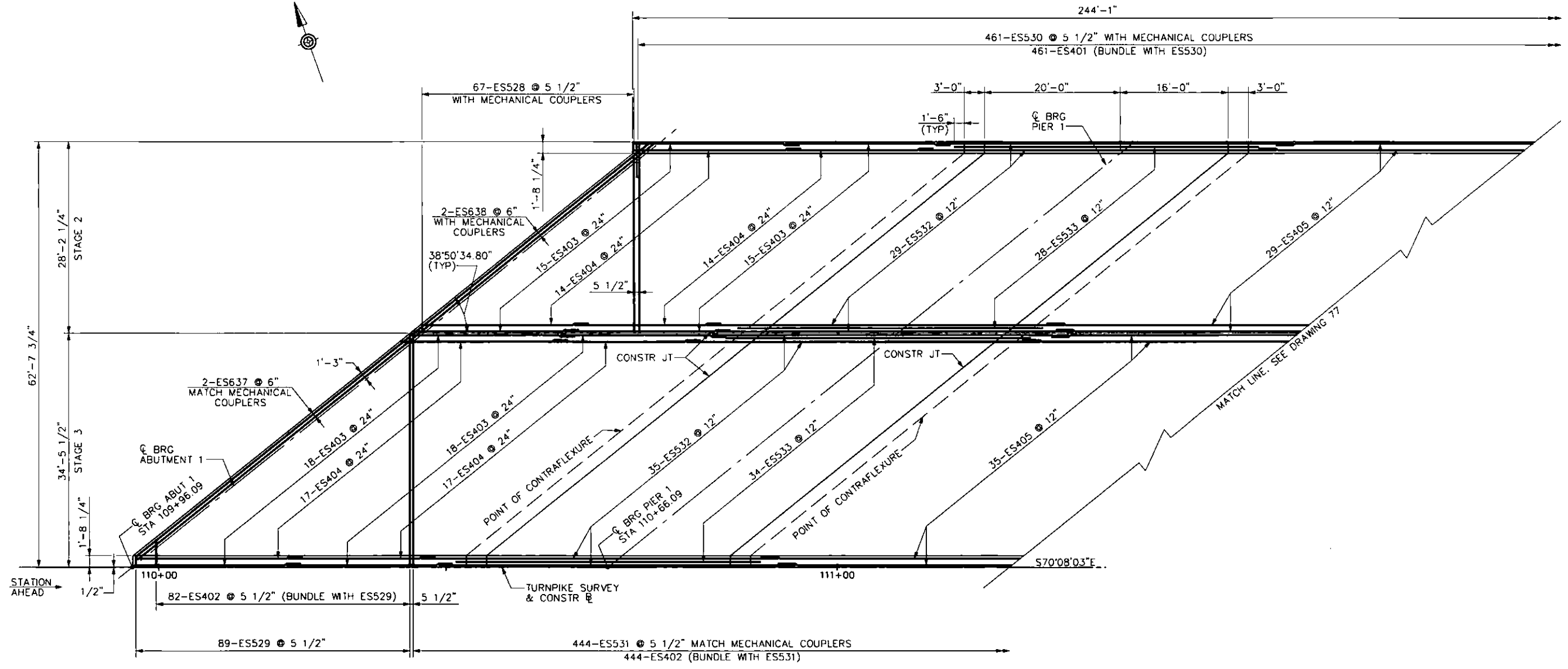
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				STRUCTURE NUMBER: EB-103	
				SCALE: 2 0 4 8 FEET	
NO.	REVISIONS	DATE	APPR.		

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

**WESTBOUND DECK
BOTTOM REINFORCING PLAN - 2**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 75 OF 101
SHEET: 220 OF 315



DECK PLAN - WESTBOUND STRUCTURE

NOTES

1. FOR WESTBOUND FRAMING PLANS, SEE DRAWINGS 55 AND 56.
2. FOR WESTBOUND DECK BOTTOM SLAB REINFORCING PLAN, SEE DRAWINGS 74 AND 75.
3. FOR WESTBOUND DECK TOP SLAB REINFORCING PLAN - 2, SEE DRAWING 77.
4. FOR WESTBOUND BARRIER REINFORCING PLAN, SEE DRAWINGS 78 AND 79.
5. FOR TYPICAL DECK CORNER REINFORCING DETAILS, SEE DRAWING 86.
6. FOR TYPICAL DECK CROSS SECTION - POSITIVE MOMENT REGION, SEE DRAWING 87.
7. FOR TYPICAL DECK CROSS SECTION - NEGATIVE MOMENT REGION, SEE DRAWING 88.
8. FOR SUPERSTRUCTURE BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

DATE: 7/12/2016

PREPARED BY:
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MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

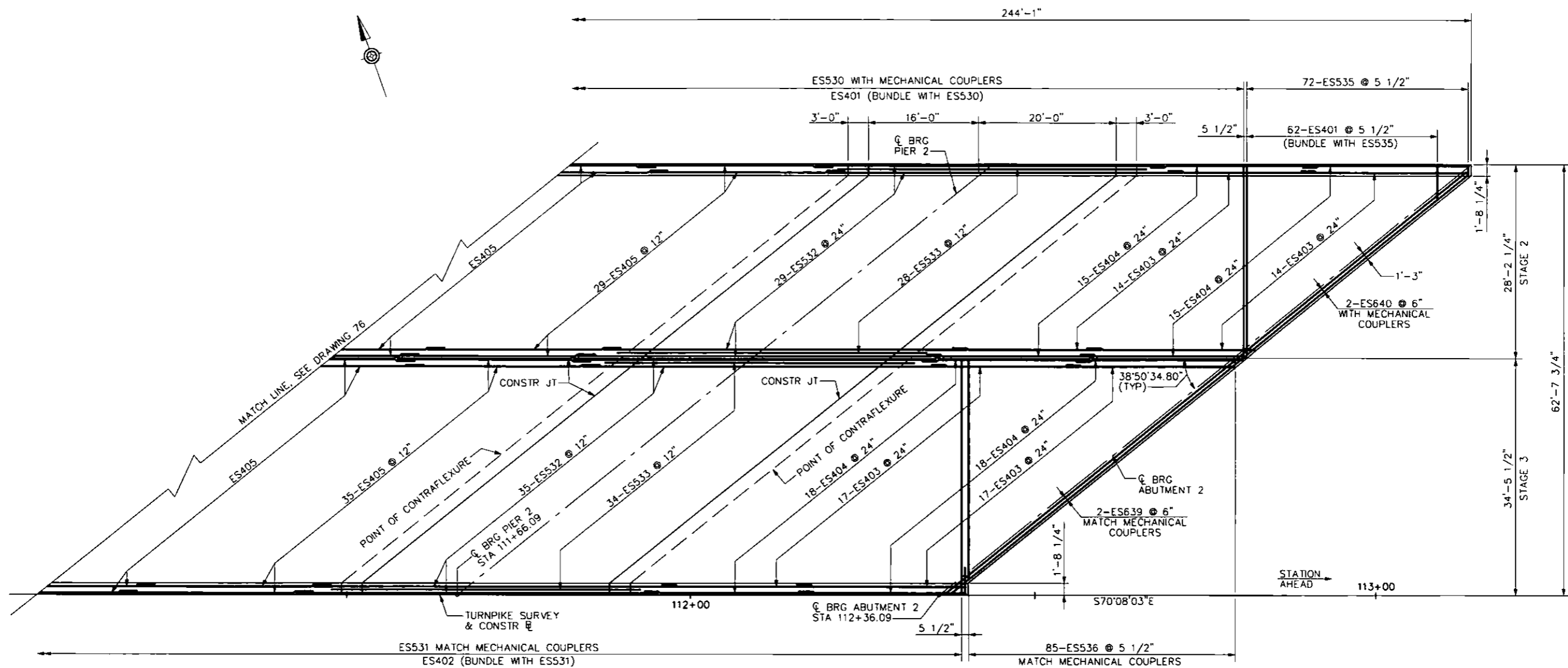
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NETWORK NUMBER: 7003982
FILE NAME: STdk03.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: 2 0 4 8 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**WESTBOUND DECK
TOP REINFORCING PLAN - 1**

DRAWING: 76 OF 101
SHEET: 221 OF 315



DECK PLAN - WESTBOUND STRUCTURE

NOTES

1. FOR WESTBOUND FRAMING PLANS, SEE DRAWINGS 55 AND 56.
2. FOR WESTBOUND DECK BOTTOM SLAB REINFORCING PLAN, SEE DRAWINGS 74 AND 75.
3. FOR WESTBOUND DECK TOP SLAB REINFORCING PLAN - 1, SEE DRAWING 76.
4. FOR WESTBOUND BARRIER REINFORCING PLAN, SEE DRAWINGS 78 AND 79.
5. FOR TYPICAL DECK CORNER REINFORCING DETAILS, SEE DRAWING 86.
6. FOR TYPICAL DECK CROSS SECTION - POSITIVE MOMENT REGION, SEE DRAWING 87.
7. FOR TYPICAL DECK CROSS SECTION - NEGATIVE MOMENT REGION, SEE DRAWING 88.
8. FOR SUPERSTRUCTURE BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

DATE: 7/12/2016

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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STdk04.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

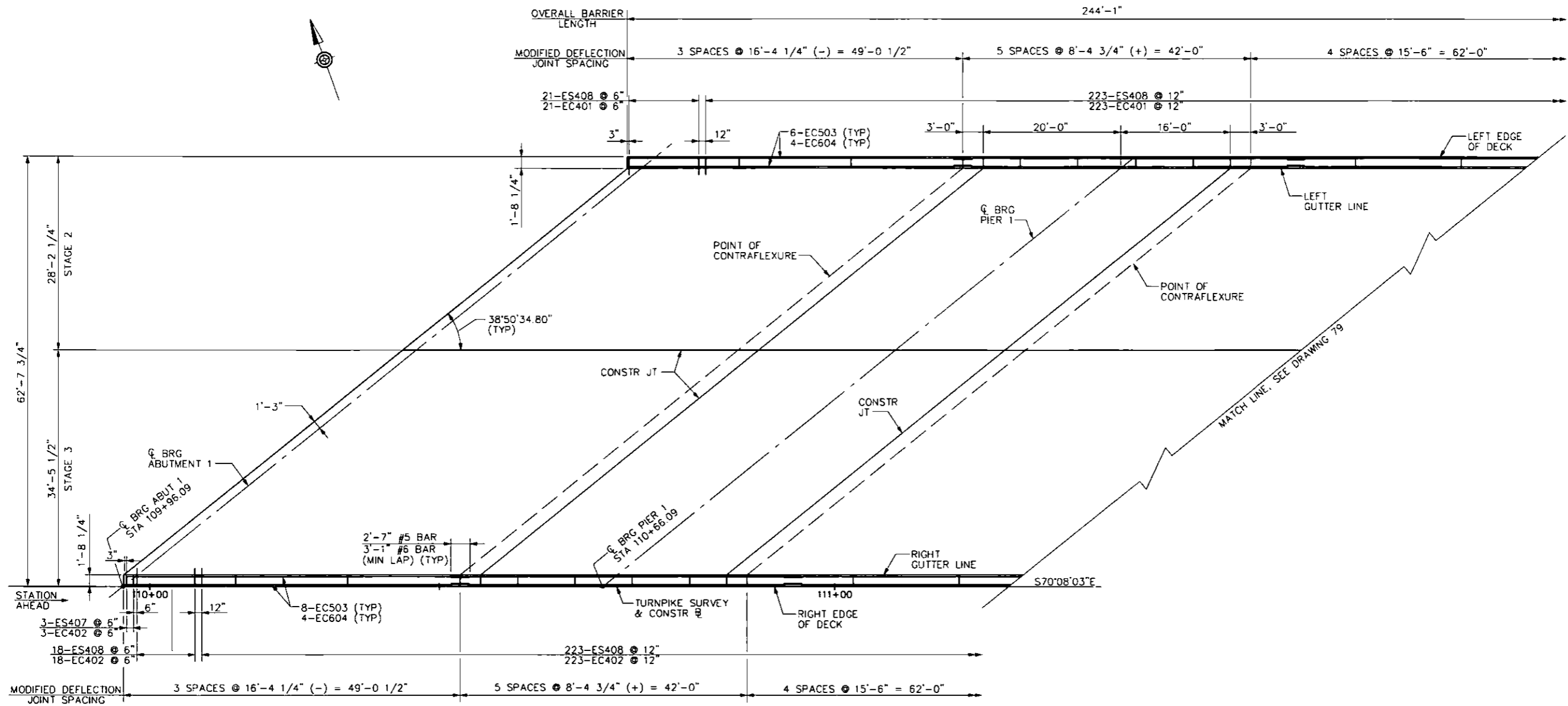
SCALE: 2 0 4 8 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**WESTBOUND DECK
TOP REINFORCING PLAN - 2**

DRAWING: 77 OF 101
SHEET: 222 OF 315



BARRIER PLAN - WESTBOUND STRUCTURE

NOTES

1. FOR WESTBOUND FRAMING PLAN, SEE DRAWINGS 55 AND 56.
2. FOR WESTBOUND DECK BOTTOM SLAB REINFORCING PLAN - WESTBOUND, SEE DRAWINGS 74 AND 75.
3. FOR WESTBOUND DECK TOP SLAB REINFORCING PLAN - WESTBOUND, SEE DRAWINGS 76 AND 77.
4. FOR WESTBOUND BARRIER REINFORCING PLAN-2, SEE DRAWING 79.
5. FOR TYPICAL DECK CROSS SECTION - POSITIVE MOMENT REGION, SEE DRAWING 87.
6. FOR TYPICAL DECK CROSS SECTION - NEGATIVE MOMENT REGION, SEE DRAWING 88.
7. FOR BARRIER TYPICAL SECTION AND DECK JOINT DETAIL, SEE DRAWING 89.
8. FOR SUPERSTRUCTURE BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



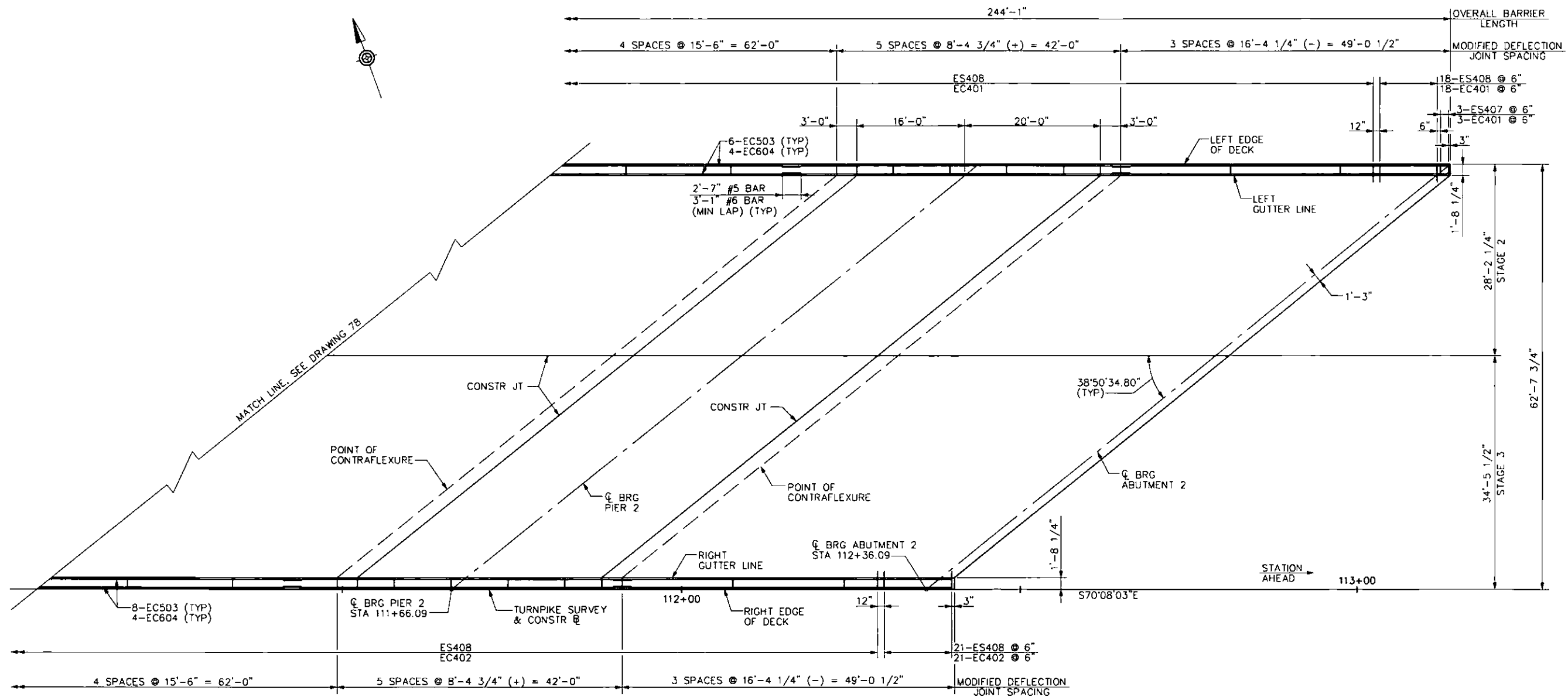
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SCALE: 2 0 4 8 FEET			
NO.	REVISIONS	DATE	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

**WESTBOUND BARRIER
REINFORCING PLAN - 1**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 78 OF 101
SHEET: 223 OF 315



BARRIER PLAN - WESTBOUND STRUCTURE

NOTES

1. FOR FRAMING PLAN, SEE DRAWINGS 55 AND 56.
2. FOR WESTBOUND DECK BOTTOM SLAB REINFORCING PLAN - WESTBOUND, SEE DRAWINGS 74 AND 75.
3. FOR WESTBOUND DECK TOP SLAB REINFORCING PLAN - WESTBOUND, SEE DRAWINGS 76 AND 77.
4. FOR WESTBOUND BARRIER REINFORCING PLAN-1, SEE DRAWING 78.
5. FOR TYPICAL DECK CROSS SECTION - POSITIVE MOMENT REGION, SEE DRAWING 87.
6. FOR TYPICAL DECK CROSS SECTION - NEGATIVE MOMENT REGION, SEE DRAWING 88.
7. FOR BARRIER TYPICAL SECTION AND DECK JOINT DETAIL, SEE DRAWING 89.
8. FOR SUPERSTRUCTURE BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

DATE: 7/12/2016

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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

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FILE NAME: STdk06.dgn
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STRUCTURE NUMBER: EB-103

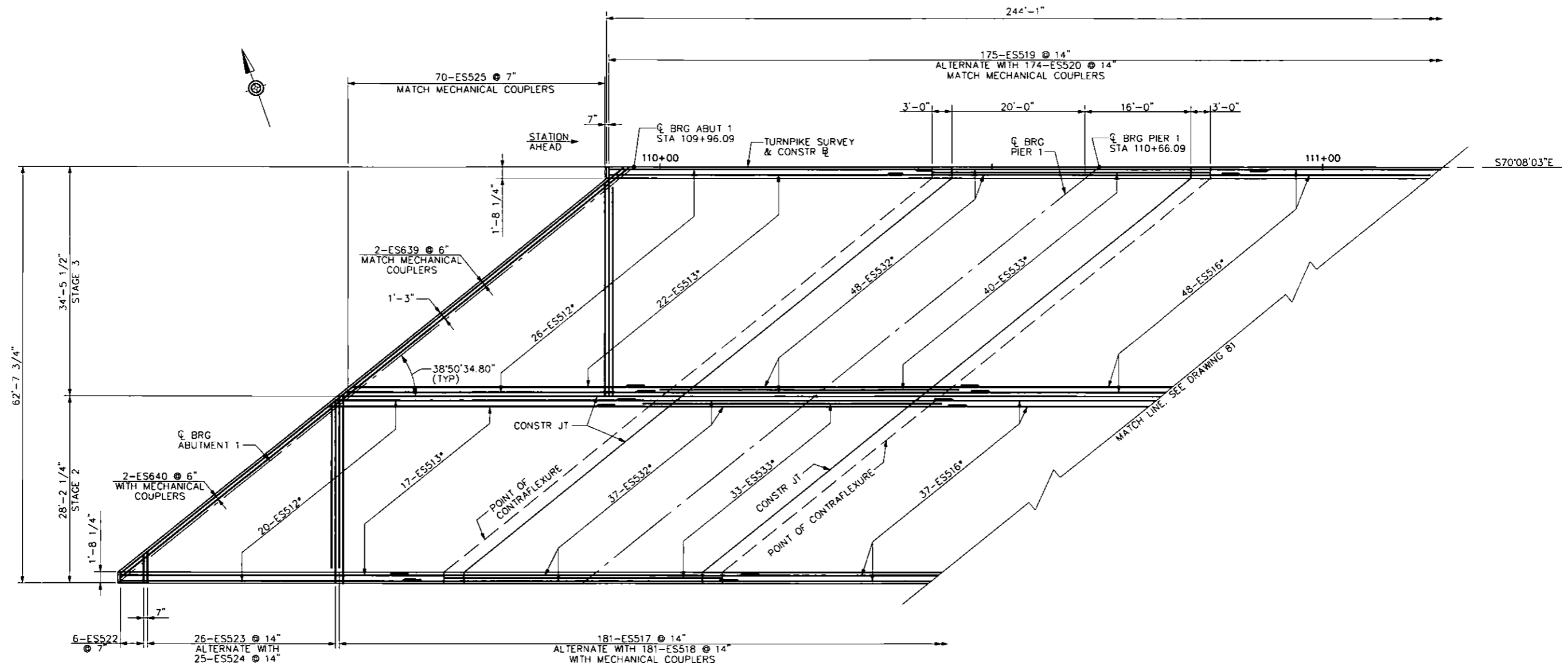
SCALE: 2 0 4 8 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**WESTBOUND BARRIER
REINFORCING PLAN - 2**

DRAWING: 79 OF 101
SHEET: 224 OF 315



• FOR LOCATION AND SPACING OF LONGITUDINAL REINFORCEMENT, SEE TYPICAL DECK SECTION

DECK PLAN - EASTBOUND STRUCTURE

NOTES

1. FOR EASTBOUND FRAMING PLANS, SEE DRAWINGS 57 AND 58.
2. FOR EASTBOUND DECK BOTTOM SLAB REINFORCING PLAN - 2, SEE DRAWING 81.
3. FOR EASTBOUND DECK TOP SLAB REINFORCING PLAN, SEE DRAWINGS 82 AND 83.
4. FOR EASTBOUND BARRIER REINFORCING PLAN, SEE DRAWINGS 84 AND 85.
5. FOR TYPICAL DECK CORNER REINFORCING DETAILS, SEE DRAWING 86.
6. FOR TYPICAL DECK CROSS SECTION - POSITIVE MOMENT REGION, SEE DRAWING 87.
7. FOR TYPICAL DECK CROSS SECTION - NEGATIVE MOMENT REGION, SEE DRAWING 88.
8. FOR SUPERSTRUCTURE BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

DATE: 7/12/2016

PREPARED BY:
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PREPARED FOR:
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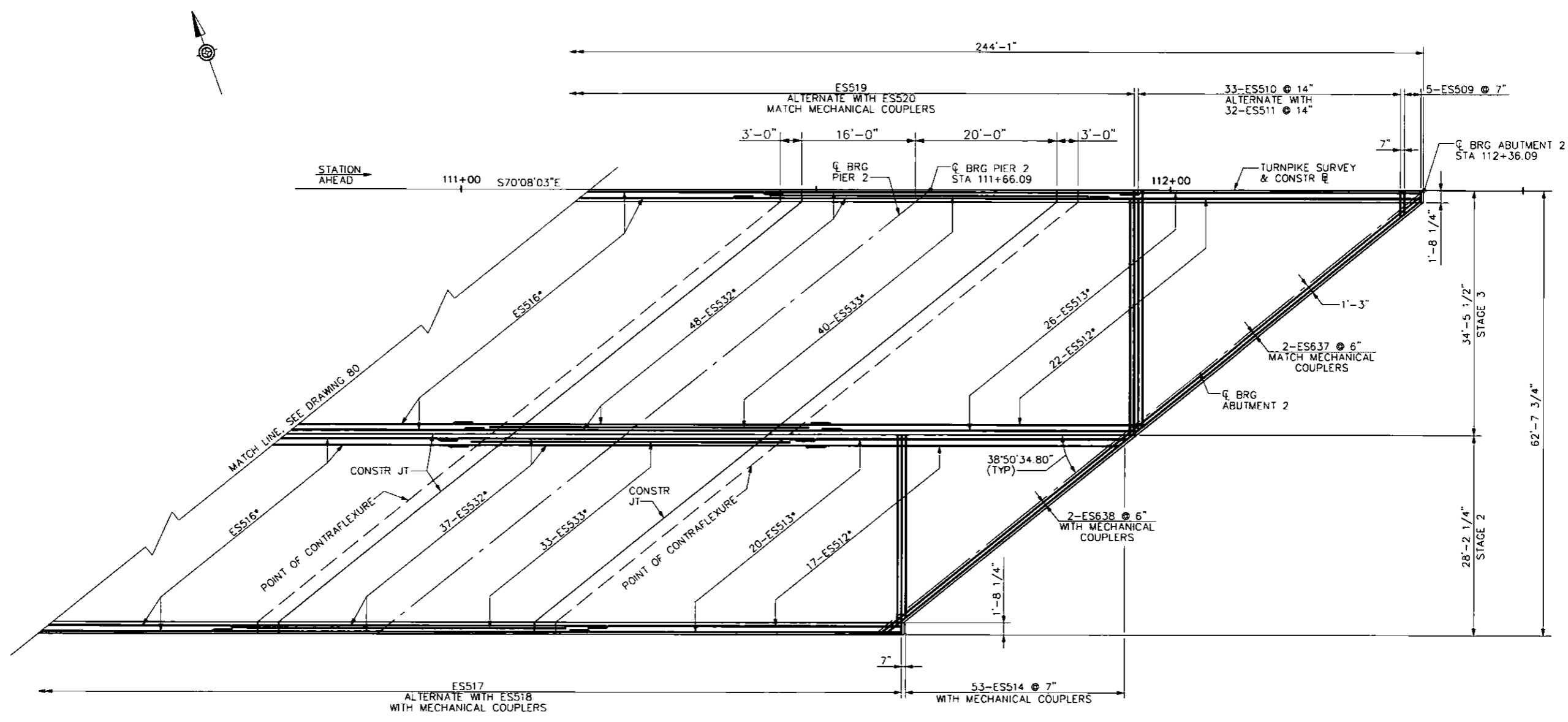
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STRUCTURE NUMBER: EB-103			
SCALE: 2 0 4 8 FEET			
NO.	REVISIONS	DATE	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

**EASTBOUND DECK
BOTTOM REINFORCING PLAN - 1**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 80 OF 101
SHEET: 225 OF 315



NOTES

1. FOR EASTBOUND FRAMING PLANS, SEE DRAWINGS 57 AND 58.
2. FOR EASTBOUND DECK BOTTOM SLAB REINFORCING PLAN - 1, SEE DRAWING 80.
3. FOR EASTBOUND DECK TOP SLAB REINFORCING PLAN, SEE DRAWINGS 82 AND 83.
4. FOR EASTBOUND BARRIER REINFORCING PLAN, SEE DRAWINGS 84 AND 85.
5. FOR TYPICAL DECK CORNER REINFORCING DETAILS, SEE DRAWING 86.
6. FOR TYPICAL DECK CROSS SECTION - POSITIVE MOMENT REGION, SEE DRAWING 87.
7. FOR TYPICAL DECK CROSS SECTION - NEGATIVE MOMENT REGION, SEE DRAWING 88.
8. FOR SUPERSTRUCTURE BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

* FOR LOCATION AND SPACING OF LONGITUDINAL REINFORCEMENT, SEE TYPICAL DECK SECTION

DECK PLAN - EASTBOUND STRUCTURE

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
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MECHANICSBURG, PA 17050

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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
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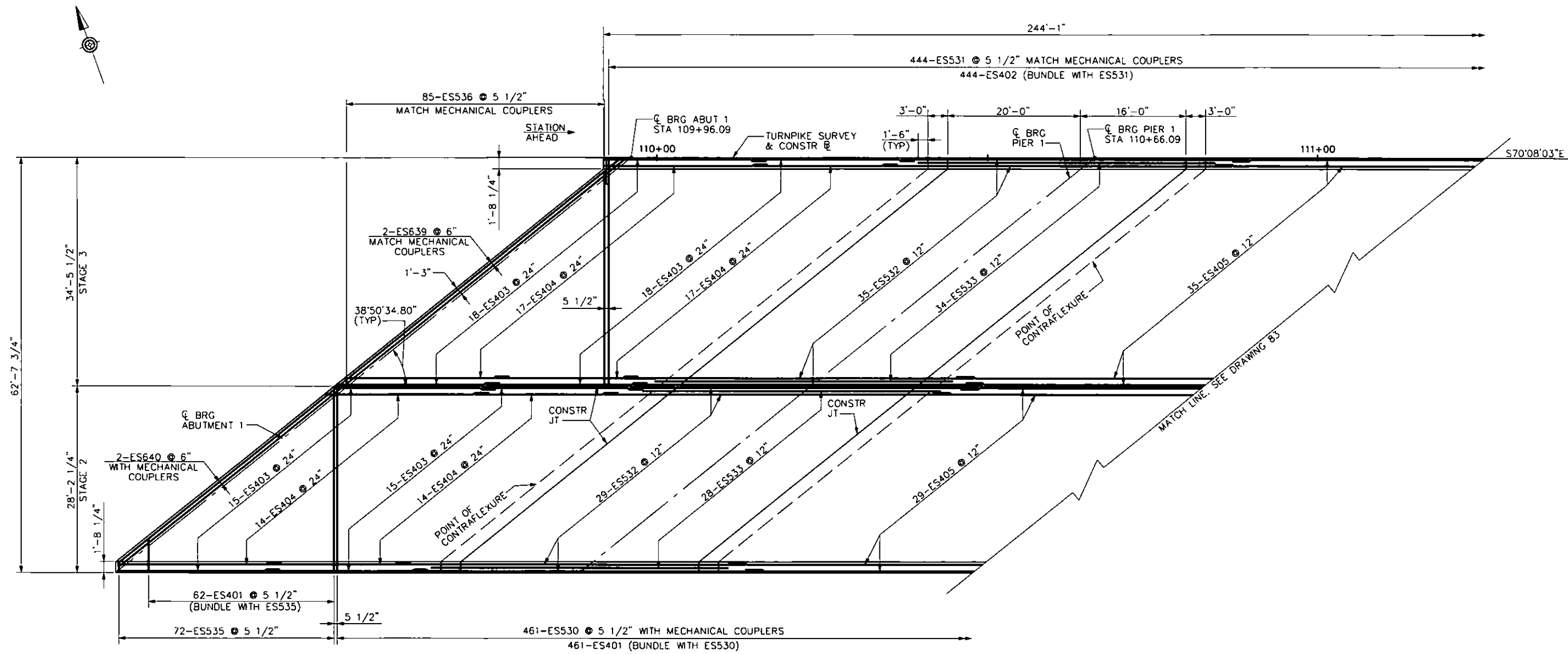
SCALE: 2 0 4 8 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EASTBOUND DECK
BOTTOM REINFORCING PLAN - 2**

DRAWING: 81 OF 101
SHEET: 226 OF 315



DECK PLAN - EASTBOUND STRUCTURE

NOTES

1. FOR EASTBOUND FRAMING PLANS, SEE DRAWINGS 57 AND 58.
2. FOR EASTBOUND DECK BOTTOM SLAB REINFORCING PLAN, SEE DRAWINGS 80 AND 81.
3. FOR EASTBOUND DECK TOP SLAB REINFORCING PLAN - 2, SEE DRAWING 83.
4. FOR EASTBOUND BARRIER REINFORCING PLAN, SEE DRAWINGS 84 AND 85.
5. FOR TYPICAL DECK CORNER REINFORCING DETAILS, SEE DRAWING 86.
6. FOR TYPICAL DECK CROSS SECTION - POSITIVE MOMENT REGION, SEE DRAWING 87.
7. FOR TYPICAL DECK CROSS SECTION - NEGATIVE MOMENT REGION, SEE DRAWING 88.
8. FOR SUPERSTRUCTURE BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

DATE: 7/12/2016

PREPARED BY:
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PREPARED FOR:
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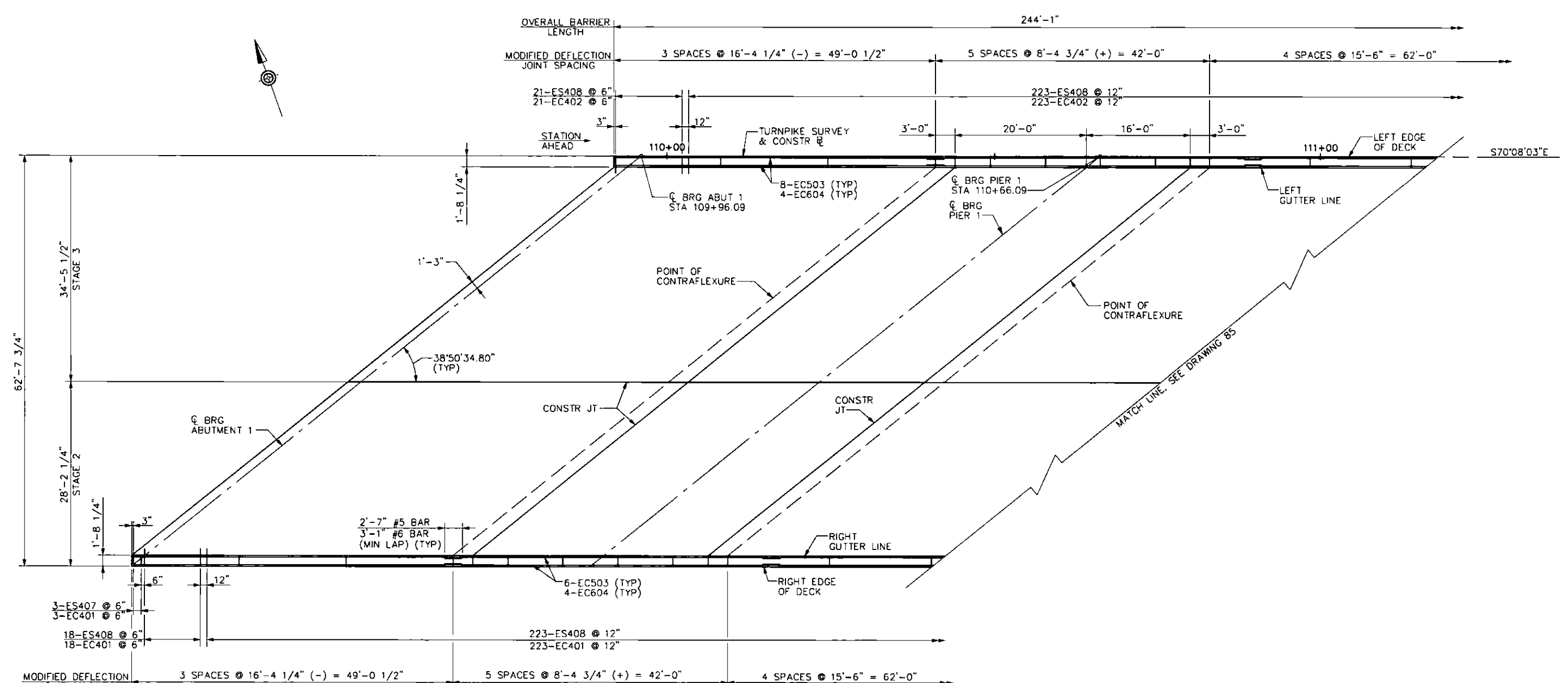
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SCALE: 2 0 4 8 FEET	
NO.	REVISIONS
	DATE
	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EASTBOUND DECK
TOP REINFORCING PLAN - 1**

DRAWING: 82 OF 101
SHEET: 227 OF 315



BARRIER PLAN - EASTBOUND STRUCTURE

NOTES

1. FOR EASTBOUND FRAMING PLAN, SEE DRAWINGS 57 AND 58.
2. FOR EASTBOUND DECK BOTTOM REINFORCING PLAN, SEE DRAWINGS 80 AND 81.
3. FOR EASTBOUND DECK TOP REINFORCING PLAN, SEE DRAWING 82 AND 83.
4. FOR EASTBOUND BARRIER REINFORCING PLAN-2, SEE DRAWING 85.
5. FOR TYPICAL DECK CROSS SECTION - POSITIVE MOMENT REGION, SEE DRAWING 87.
6. FOR TYPICAL DECK CROSS SECTION - NEGATIVE MOMENT REGION, SEE DRAWING 88.
7. FOR BARRIER TYPICAL SECTION AND DECK JOINT DETAIL, SEE DRAWING 89.
8. FOR SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
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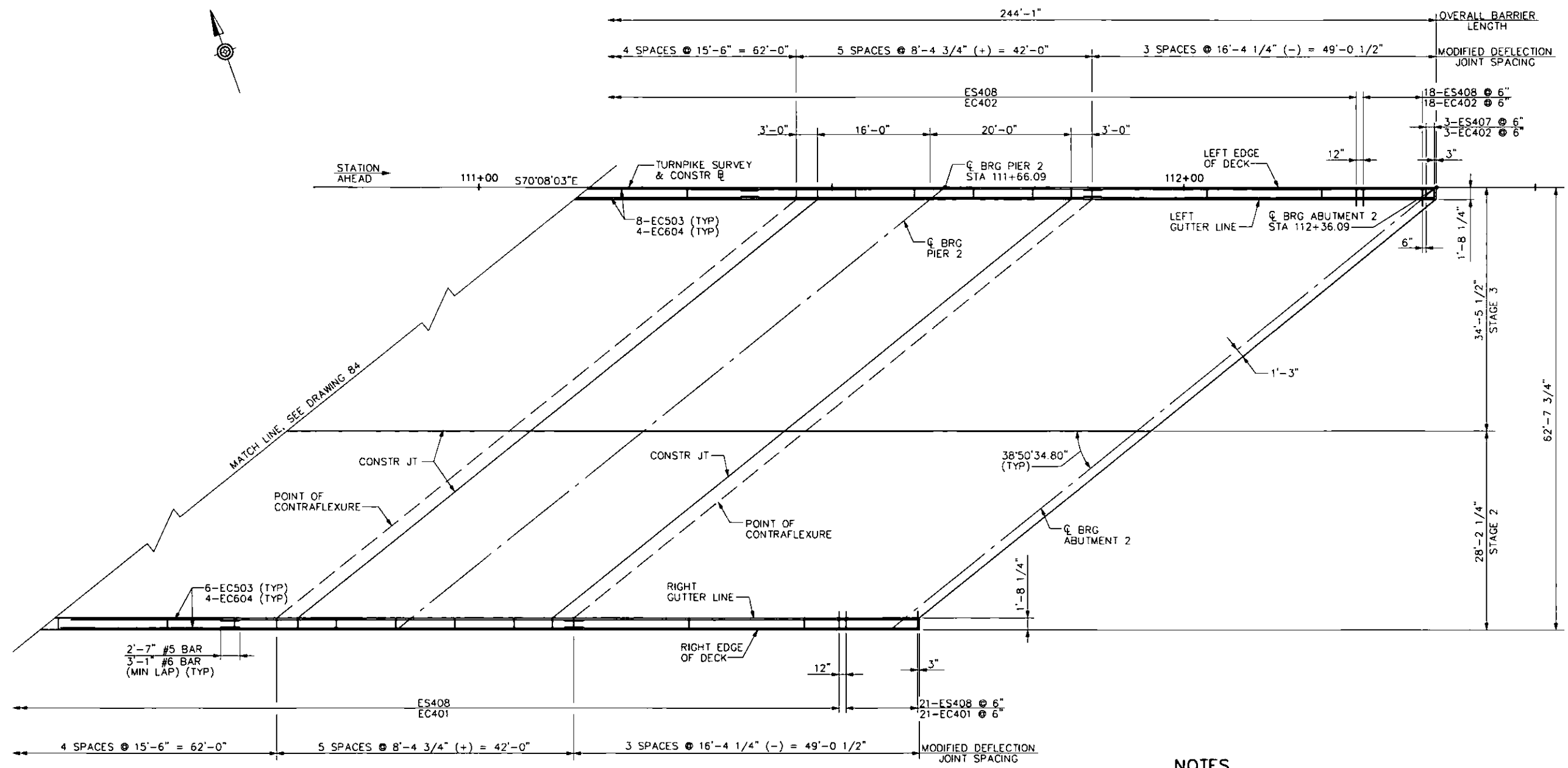
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NO.	REVISIONS	DATE	APPR.

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

**EASTBOUND BARRIER
REINFORCING PLAN - 1**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 84 OF 101
SHEET: 229 OF 315



BARRIER PLAN - EASTBOUND STRUCTURE

NOTES

1. FOR EASTBOUND FRAMING PLAN, SEE DRAWINGS 57 AND 58.
2. FOR EASTBOUND DECK BOTTOM SLAB REINFORCING PLAN, SEE DRAWINGS 80 AND 81.
3. FOR EASTBOUND DECK TOP SLAB REINFORCING PLAN, SEE DRAWINGS 82 AND 83.
4. FOR EASTBOUND BARRIER REINFORCING PLAN-1, SEE DRAWING 84.
5. FOR TYPICAL DECK CROSS SECTION - POSITIVE MOMENT REGION, SEE DRAWING 87.
6. FOR TYPICAL DECK CROSS SECTION - NEGATIVE MOMENT REGION, SEE DRAWING 88.
7. FOR BARRIER TYPICAL SECTION AND DECK JOINT DETAIL, SEE DRAWING 89.
8. FOR SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
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MECHANICSBURG, PA 17050

PREPARED FOR:
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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
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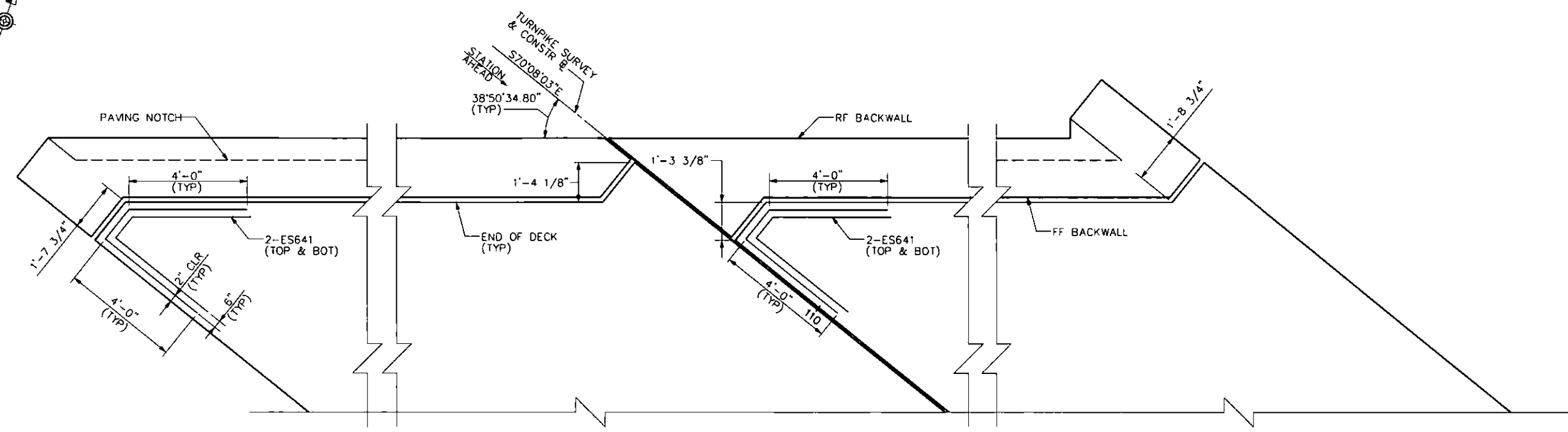
SCALE: 2 0 4 8 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**EASTBOUND BARRIER
REINFORCING PLAN - 2**

DRAWING: 85 OF 101
SHEET: 230 OF 315



TYPICAL DECK CORNER REINFORCEMENT BARS
(ABUTMENT 1 SHOWN, ABUTMENT 2 SIMILAR)

NOTES

- 1. FOR SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
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NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
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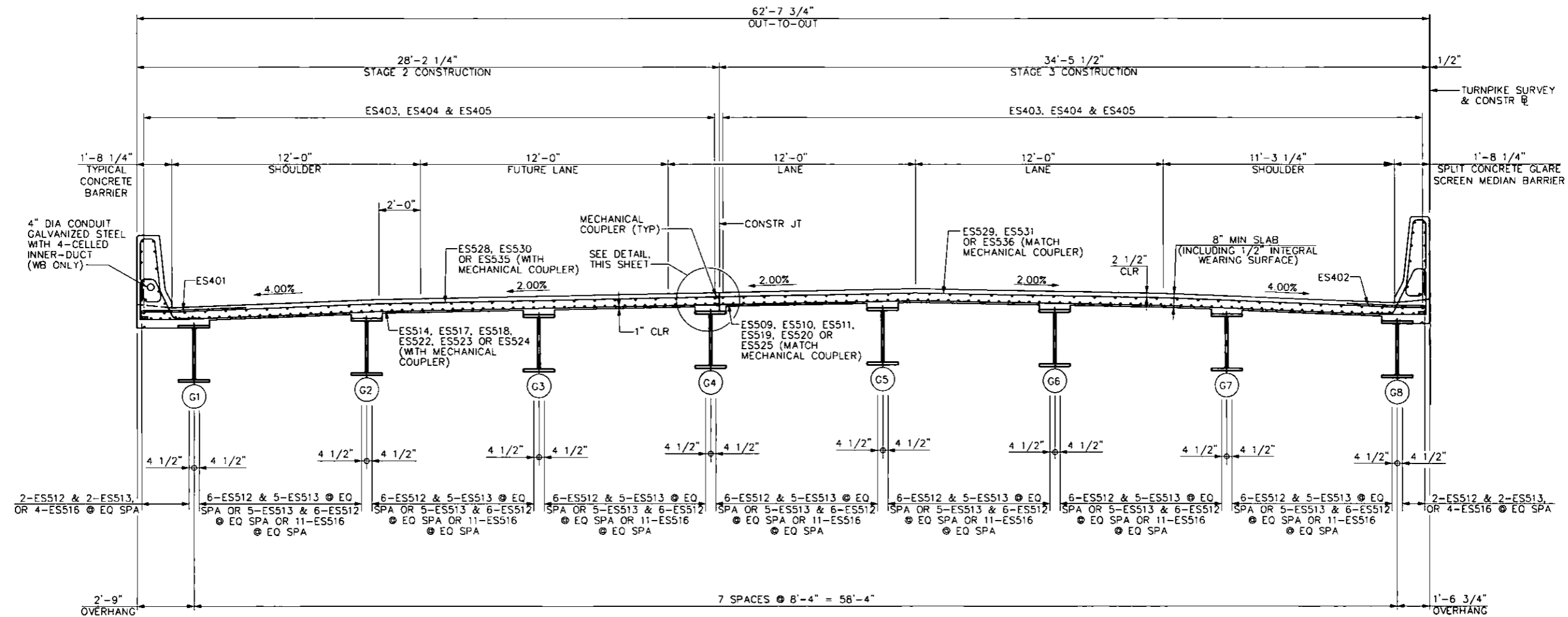
SCALE: 1/10 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

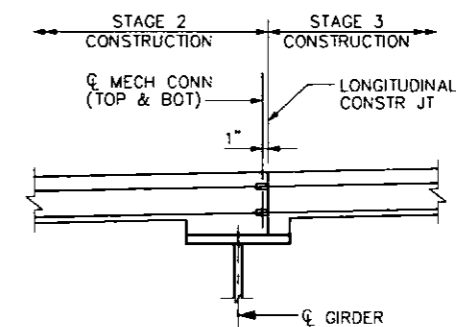
**TYPICAL DECK CORNER
REINFORCEMENT DETAILS**

DRAWING: 86 OF 101
SHEET: 231 OF 315



**TYPICAL DECK SECTION
AT POSITIVE MOMENT REGION**

(WB DECK SHOWN, EB DECK SIMILAR)



**MECHANICAL SPLICE CONNECTION DETAIL AT
DECK LONGITUDINAL CONSTRUCTION JOINT**

NOT TO SCALE
(WB DECK SHOWN, EB DECK SIMILAR)

NOTES

1. FOR DECK BOTTOM SLAB REINFORCEMENT PLANS, SEE DRAWINGS 74, 75, 80 AND 81.
2. FOR DECK TOP SLAB REINFORCEMENT PLANS, SEE DRAWINGS 76, 77, 82 AND 83.
3. FOR BARRIER REINFORCEMENT PLANS, SEE DRAWINGS 78, 79, 84 AND 85.
4. FOR TYPICAL DECK SECTION AT NEGATIVE MOMENT REGION, SEE DRAWING 88.
5. FOR BARRIER TYPICAL SECTION AND DECK JOINT DETAIL, SEE DRAWING 89.
6. FOR SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 90 AND 91.
7. MECHANICAL SPLICING IS REQUIRED FOR REBARS AT THE CONSTRUCTION JOINT, AS PER DETAIL SHOWN ON THIS SHEET.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050



PREPARED FOR:
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TURNPIKE COMMISSION

NO.	REVISIONS	DATE	APPR.

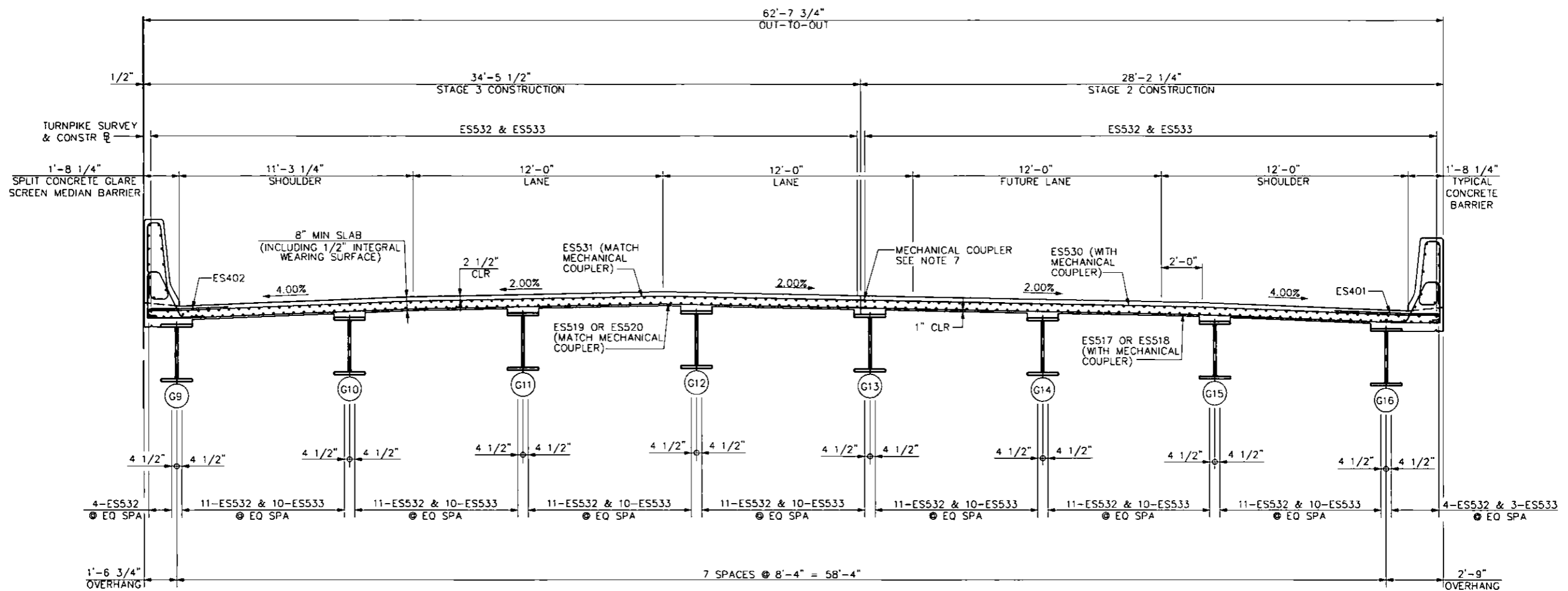
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**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TYPICAL DECK SECTION
POSITIVE MOMENT REGION**

DRAWING: 87 OF 101
SHEET: 232 OF 315

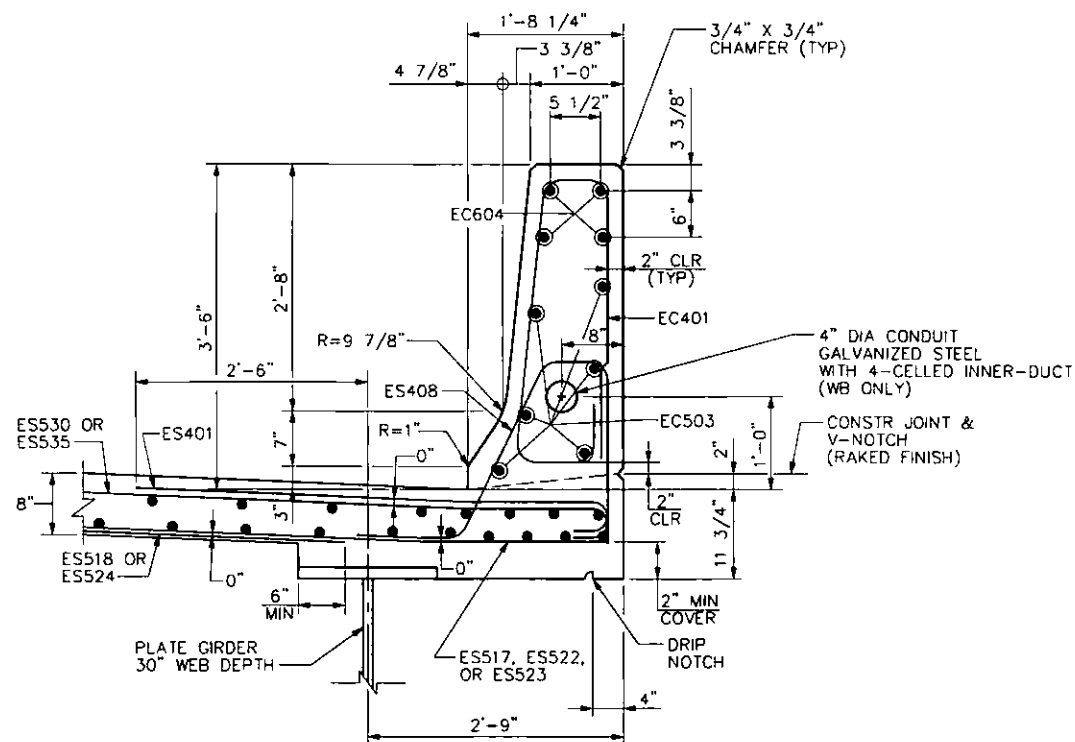


**TYPICAL DECK SECTION
AT NEGATIVE MOMENT REGION**
(EB DECK SHOWN, WB DECK SIMILAR)

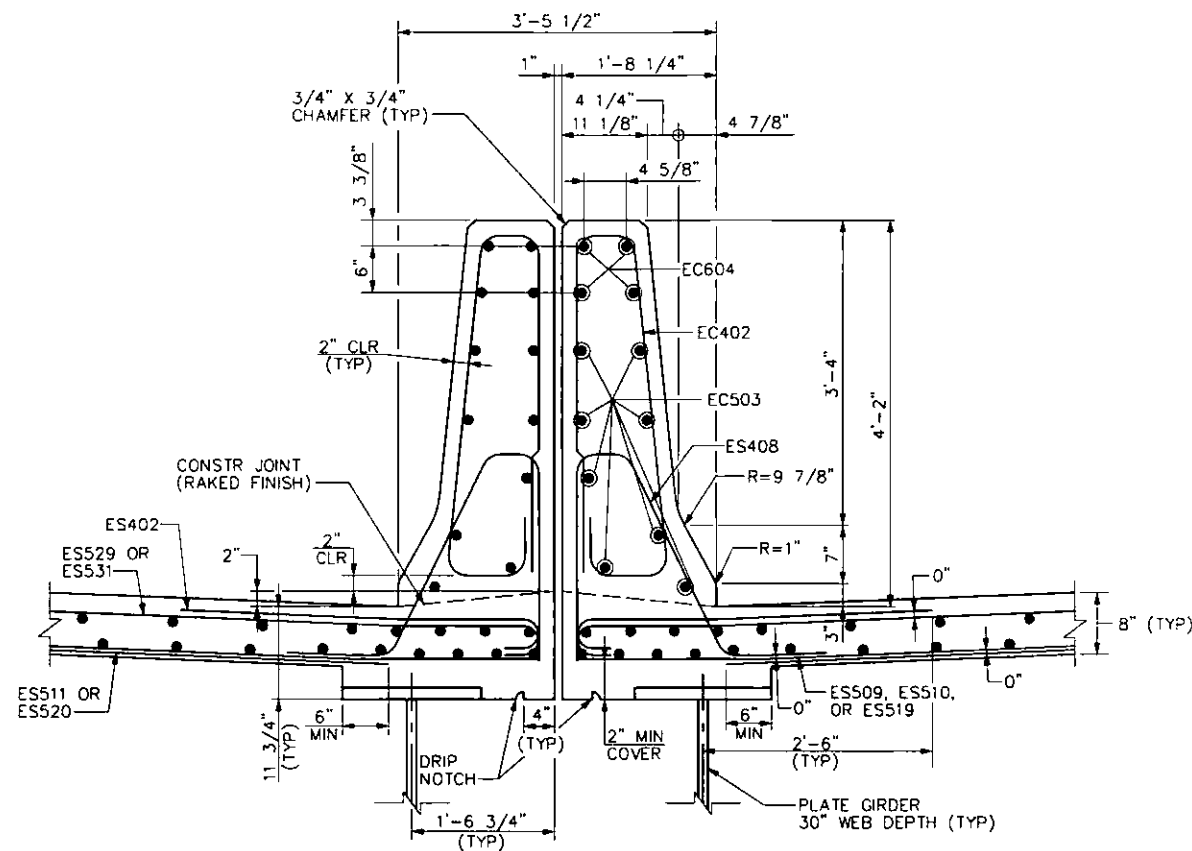
NOTES

1. FOR DECK BOTTOM SLAB REINFORCEMENT PLANS, SEE DRAWINGS 74, 75, 80 AND 81.
2. FOR DECK TOP SLAB REINFORCEMENT PLANS, SEE DRAWINGS 76, 77, 82 AND 83.
3. FOR BARRIER REINFORCEMENT PLANS, SEE DRAWINGS 78, 79, 84 AND 85.
4. FOR TYPICAL DECK SECTION AT POSITIVE MOMENT REGION, SEE DRAWING 87.
5. FOR BARRIER TYPICAL SECTION AND DECK JOINT DETAIL, SEE DRAWING 89.
6. FOR WESTBOUND SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 90 AND 91.
7. MECHANICAL SPLICING IS REQUIRED FOR REBARS AT THE CONSTRUCTION JOINT, AS PER MECHANICAL SPLICE CONSTRUCTION DETAIL AT LONGITUDINAL CONSTRUCTION JOINT SHOWN ON DRAWING 84.

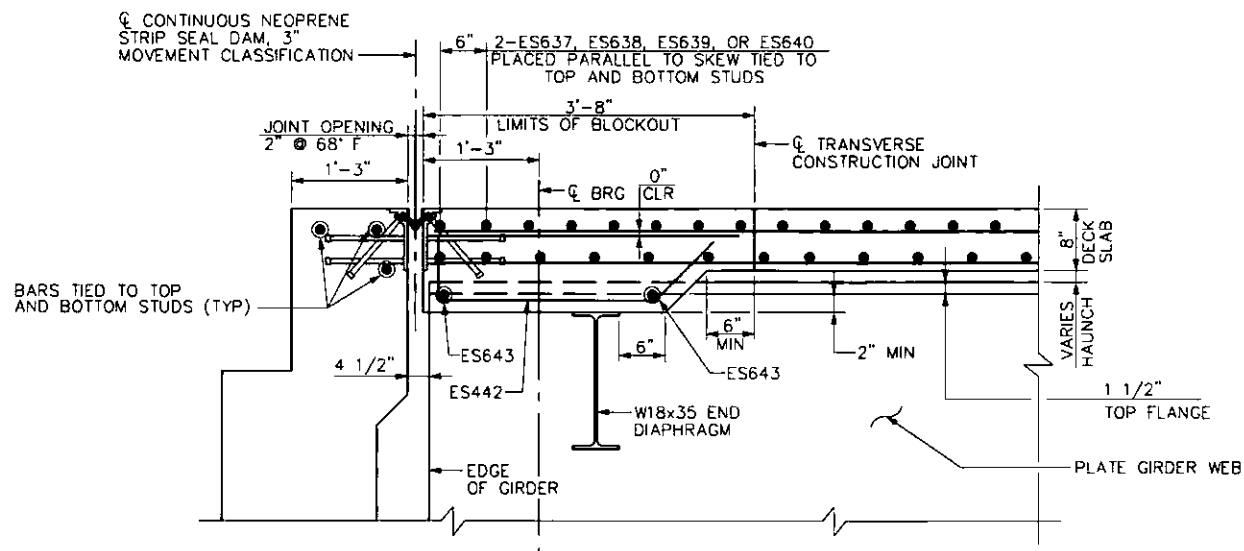
DATE: 7/12/2016	PREPARED BY: WHITNEY, BAILEY, COX & MAGNANI, LLC 100 STERLING PARKWAY, SUITE 108 MECHANICSBURG, PA 17050				WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54		
	PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		NO.	REVISIONS	DATE			APPR.
							TYPICAL DECK SECTION NEGATIVE MOMENT REGION	DRAWING: 88 OF 101 SHEET: 233 OF 315



TYPICAL CONCRETE BARRIER DETAIL



SPLIT CONCRETE MEDIAN BARRIER DETAIL



BACKWALL AND DECK JOINT SECTION

NOTE: ABUTMENT BARS NOT SHOWN FOR CLARITY

NOTES

1. FOR WESTBOUND DECK AND BARRIER PLANS, SEE DRAWINGS 74 TO 79.
2. FOR EASTBOUND DECK AND BARRIER PLANS, SEE DRAWINGS 80 TO 85.
3. FOR TYPICAL DECK SECTIONS, SEE DRAWINGS 87 AND 88.
4. FOR SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE, SEE DRAWINGS 90 AND 91.

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

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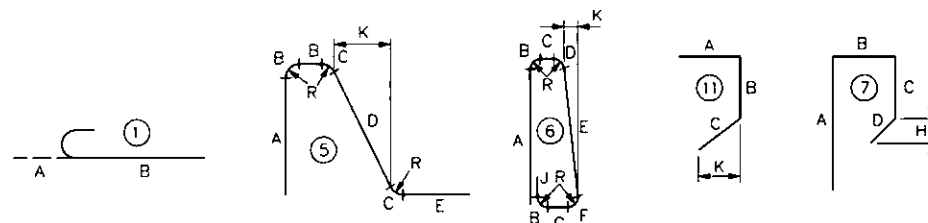
REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

BARRIER TYPICAL SECTIONS AND DECK JOINT DETAIL	
DRAWING: 89 OF 101	SHEET: 234 OF 315

SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE - STAGE 2 WESTBOUND														SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE - STAGE 2 EASTBOUND															
MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	F	G	H	R	REMARKS	MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	F	G	H	R	REMARKS
DECK															DECK														
ES401	4	5'-7"	523	1	6"	5'-1"									ES401	4	5'-7"	523	1	6"	5'-1"								
ES403	4	23'-5"	58	STR											ES403	4	23'-5"	58	STR										
ES404	4	24'-8"	58	STR											ES404	4	24'-8"	58	STR										
ES405	4	29'-3"	58	STR											ES405	4	29'-3"	58	STR										
ES407	4	6'-7½"	3	6	1'-9"	4"	4"	2½"	1'-9"	5½"	1'-0½"		2"	J = 5", K = 9½"	ES407	4	6'-7½"	3	6	1'-9"	4"	4"	2½"	1'-9"	5½"	1'-0½"	2"	J = 5", K = 9½"	
ES408	4	5'-9½"	262	5	1'-9"	4"	2½"	1'-11"	1'-0"					K = 10½"	ES408	4	5'-9½"	262	5	1'-9"	4"	2½"	1'-11"	1'-0"			2"	K = 10½"	
ES512	5	47'-4"	37	STR											ES512	5	47'-4"	37	STR										
ES513	5	44'-9"	37	STR											ES513	5	44'-9"	37	STR										
ES514	5	25'-6" TO 1'-8"	53	STR										VARY EA BY 5½"; PROVIDE MECH COUPLER @ ONE END	ES514	5	25'-6" TO 1'-8"	53	STR									VARY EA BY 5½"; PROVIDE MECH COUPLER @ ONE END	
ES516	5	56'-5"	37	STR											ES516	5	56'-5"	37	STR										
ES517	5	28'-0"	181	STR										PROVIDE MECH COUPLER @ ONE END	ES517	5	28'-0"	181	STR										PROVIDE MECH COUPLER @ ONE END
ES518	5	25'-0"	181	STR										PROVIDE MECH COUPLER @ ONE END	ES518	5	25'-0"	181	STR										PROVIDE MECH COUPLER @ ONE END
ES523	5	27'-6" TO 4'-4"	26	STR										VARY EA BY 11½"	ES523	5	27'-6" TO 4'-4"	26	STR										VARY EA BY 11½"
ES524	5	24'-0" TO 1'-9"	25	STR										VARY EA BY 11½"	ES524	5	24'-0" TO 1'-9"	25	STR										VARY EA BY 11½"
ES525	5	3'-5" TO 1'-6½"	6	STR										VARY EA BY 4½"	ES525	5	3'-5" TO 1'-6½"	6	STR										VARY EA BY 4½"
ES528	5	26'-0" TO 1'-11½"	67	STR										VARY EA BY 4½"; PROVIDE MECH COUPLER @ ONE END	ES528	5	26'-0" TO 1'-11½"	67	STR										VARY EA BY 4½"; PROVIDE MECH COUPLER @ ONE END
ES530	5	28'-7"	461	1	7"	28'-0"								PROVIDE MECH COUPLER @ ONE END	ES530	5	28'-7"	461	STR	7"	28'-0"								PROVIDE MECH COUPLER @ ONE END
ES532	5	52'-9"	132	STR											ES532	5	52'-9"	132	STR										
ES533	5	45'-0"	122	STR											ES533	5	45'-0"	122	STR										
ES535	5	28'-3" TO 2'-4½"	72	1	7"	27'-8" TO 1'-9½"								VARY EA BY 4½"	ES535	5	28'-3" TO 2'-4½"	72	1	7"	27'-8" TO 1'-9½"								VARY EA BY 4½"
ES638	6	44'-9"	4	STR										PROVIDE MECH COUPLER @ ONE END	ES638	6	44'-9"	4	STR										PROVIDE MECH COUPLER @ ONE END
ES640	6	43'-10" TO 42'-10"	4	STR										VARY 2 EA BY 1'-0"; PROVIDE MECH COUPLER @ ONE END	ES640	6	43'-10" TO 42'-10"	4	STR										VARY 2 EA BY 1'-0"; PROVIDE MECH COUPLER @ ONE END
ES641	6	9'-4½" TO 8'-8"	8	11	4'-0"	1'-4½" TO 8"	4'-0"							VARY 'B' EA BY 8½"	ES641	6	9'-4½" TO 8'-8"	8	11	4'-0"	1'-4½" TO 8"	4'-0"							VARY 'B' EA BY 8½"
ES442	4	7'-2½"	48	7	3'-4"	9"	2'-4"	9½"					6½"		ES442	4	7'-2½"	48	7	3'-4"	9"	2'-4"	9½"			6½"			
ES643	6	12'-10½"	12	STR											ES643	6	12'-10½"	12	STR										
BARRIERS															BARRIERS														
EC401	4	8'-0½"	265	6	2'-9½"	4"	3½"	3½"	2'-7½"	4½"	6½"		2"	J = 5", K = 3½"	EC401	4	8'-0½"	265	6	2'-9½"	4"	3½"	3½"	2'-7½"	4½"	6½"	2"	J = 5", K = 3½"	
EC503	5	50'-10"	30	STR											EC503	5	50'-10"	30	STR										
EC604	6	51'-3"	20	STR											EC604	6	51'-3"	20	STR										

REINFORCEMENT NOTES

- "E" IN BAR MARK DENOTES EPOXY-COATED BARS.
- ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.



DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STss01.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

SUPERSTRUCTURE
REINFORCEMENT BAR SCHEDULE STAGE 2

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 90 OF 101
SHEET: 235 OF 315

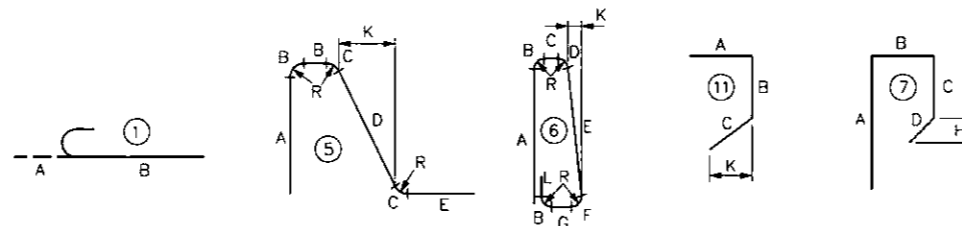
SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE - STAGE 3 WESTBOUND

SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE - STAGE 3 EASTBOUND

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	F	G	H	R	REMARKS	MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	F	G	H	R	REMARKS
DECK															DECK														
ES402	4	4'-5"	526	1	6"	3'-11"									ES402	4	4'-5"	526	1	6"	3'-11"								
ES403	4	23'-5"	70	STR											ES403	4	23'-5"	70	STR										
ES404	4	24'-8"	70	STR											ES404	4	24'-8"	70	STR										
ES405	4	29'-3"	70	STR											ES405	4	29'-3"	70	STR										
ES407	4	6'-7 $\frac{1}{2}$ "	3	6	1'-9"	4"	4"	2 $\frac{1}{2}$ "	1'-9"	5 $\frac{1}{8}$ "	1'-0 $\frac{1}{2}$ "		2"	J = 5", K = 9 $\frac{5}{8}$ "	ES407	4	6'-7 $\frac{1}{2}$ "	3	6	1'-9"	4"	4"	2 $\frac{1}{2}$ "	1'-9"	5 $\frac{1}{8}$ "	1'-0 $\frac{1}{2}$ "	2"	J = 5", K = 9 $\frac{5}{8}$ "	
ES408	4	5'-9 $\frac{1}{2}$ "	262	5	1'-9"	4"	2 $\frac{1}{2}$ "	1'-11"	1'-0"				2"	K = 10 $\frac{1}{8}$ "	ES408	4	5'-9 $\frac{1}{2}$ "	262	5	1'-9"	4"	2 $\frac{1}{2}$ "	1'-11"	1'-0"			2"	K = 10 $\frac{1}{8}$ "	
ES509	5	3'-0" TO 1'-7"	5	STR										VARY EA BY 4 $\frac{1}{2}$ "	ES509	5	3'-0" TO 1'-7"	5	STR										VARY EA BY 4 $\frac{1}{2}$ "
ES510	5	33'-7" TO 3'-6"	33	STR										VARY EA BY 11 $\frac{1}{2}$ "	ES510	5	33'-7" TO 3'-6"	33	STR										VARY EA BY 11 $\frac{1}{2}$ "
ES511	5	31'-3" TO 2'-1 $\frac{1}{8}$ "	32	STR										VARY EA BY 11 $\frac{1}{2}$ "	ES511	5	31'-3" TO 2'-1 $\frac{1}{8}$ "	32	STR										VARY EA BY 11 $\frac{1}{2}$ "
ES512	5	47'-4"	48	STR											ES512	5	47'-4"	48	STR										
ES513	5	44'-9"	48	STR											ES513	5	44'-9"	48	STR										
ES516	5	56'-5"	48	STR											ES516	5	56'-5"	48	STR										
ES519	5	34'-3 $\frac{1}{2}$ "	175	STR										MATCH MECH COUPLER @ ONE END	ES519	5	34'-3 $\frac{1}{2}$ "	175	STR										MATCH MECH COUPLER @ ONE END
ES520	5	32'-5"	174	STR										MATCH MECH COUPLER @ ONE END	ES520	5	32'-5"	174	STR										MATCH MECH COUPLER @ ONE END
ES525	5	32'-6" TO 1'-6"	70	STR										VARY EA BY 5 $\frac{1}{8}$ "; MATCH MECH COUPLER @ ONE END	ES525	5	32'-6" TO 1'-6"	70	STR										VARY EA BY 5 $\frac{1}{8}$ "; MATCH MECH COUPLER @ ONE END
ES529	5	34'-6" TO 2'-5"	89	1	7"	33'-11" TO 1'-10"								VARY EA BY 4 $\frac{1}{2}$ "	ES529	5	34'-6" TO 2'-5"	89	1	7"	33'-11" TO 1'-10"								VARY EA BY 4 $\frac{1}{2}$ "
ES531	5	34'-10 $\frac{1}{2}$ "	444	1	7"	34'-3 $\frac{1}{2}$ "								MATCH MECH COUPLER @ ONE END	ES531	5	34'-10 $\frac{1}{2}$ "	444	1	7"	34'-3 $\frac{1}{2}$ "								MATCH MECH COUPLER @ ONE END
ES532	5	52'-9"	166	STR											ES532	5	52'-9"	166	STR										
ES533	5	45'-0"	148	STR											ES533	5	45'-0"	148	STR										
ES536	5	32'-1 $\frac{1}{2}$ " TO 1'-6"	85	STR										VARY EA BY 4 $\frac{1}{2}$ "; MATCH MECH COUPLER @ ONE END	ES536	5	32'-1 $\frac{1}{2}$ " TO 1'-6"	85	STR										VARY EA BY 4 $\frac{1}{2}$ "; MATCH MECH COUPLER @ ONE END
ES637	6	53'-10" TO 52'-10"	4	STR										VARY 2 EA BY 1'-0"; MATCH MECH COUPLER @ ONE END	ES637	6	53'-10" TO 52'-10"	4	STR										VARY 2 EA BY 1'-0"; MATCH MECH COUPLER @ ONE END
ES639	6	54'-8"	4	STR										MATCH MECH COUPLER @ ONE END	ES639	6	54'-8"	4	STR										MATCH MECH COUPLER @ ONE END
ES641	6	9'-4 $\frac{1}{2}$ " TO 8'-8"	8	11	4'-0"	1'-4 $\frac{1}{2}$ " TO 8"	4'-0"							VARY 'B' EA BY 8 $\frac{1}{2}$ "	ES641	6	9'-4 $\frac{1}{2}$ " TO 8'-8"	8	11	4'-0"	1'-4 $\frac{1}{2}$ " TO 8"	4'-0"						VARY 'B' EA BY 8 $\frac{1}{2}$ "	
ES442	4	7'-2 $\frac{1}{2}$ "	64	7	3'-4"	9"	2'-4"	9 $\frac{1}{2}$ "					6 $\frac{7}{8}$ "		ES442	4	7'-2 $\frac{1}{2}$ "	64	7	3'-4"	9"	2'-4"	9 $\frac{1}{2}$ "				6 $\frac{7}{8}$ "		
ES643	6	12'-10 $\frac{1}{8}$ "	16	STR											ES643	6	12'-10 $\frac{1}{8}$ "	16	STR										
BARRIERS															BARRIERS														
EC402	4	9'-3 $\frac{1}{2}$ "	265	6	3'-5 $\frac{1}{2}$ "	4"	2 $\frac{1}{2}$ "	3 $\frac{3}{8}$ "	3'-3 $\frac{1}{2}$ "	4 $\frac{1}{8}$ "	6 $\frac{1}{2}$ "		2"	J = 5", K = 4 $\frac{1}{2}$ "	EC402	4	9'-3 $\frac{1}{2}$ "	265	6	3'-5 $\frac{1}{2}$ "	4"	2 $\frac{1}{2}$ "	3 $\frac{3}{8}$ "	3'-3 $\frac{1}{2}$ "	4 $\frac{1}{8}$ "	6 $\frac{1}{2}$ "	2"	J = 5", K = 4 $\frac{1}{2}$ "	
EC503	5	50'-10"	40	STR											EC503	5	50'-10"	40	STR										
EC604	6	51'-3"	20	STR											EC604	6	51'-3"	20	STR										

REINFORCEMENT NOTES

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- FIGURES IN CIRCLES SHOW TYPES.



DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

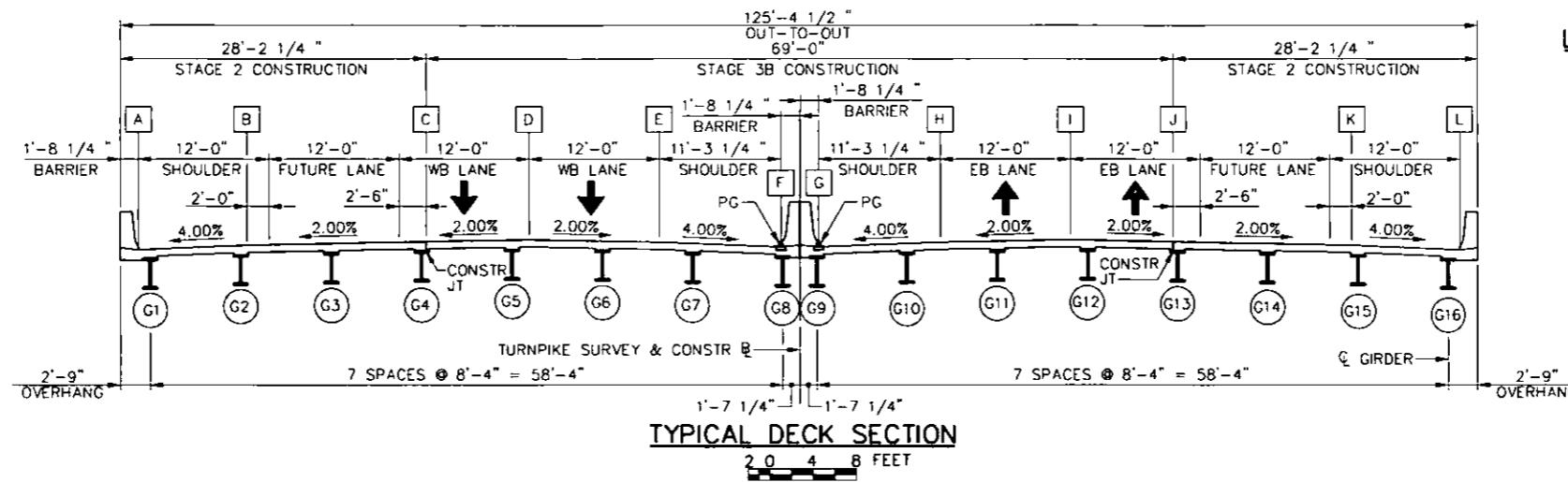
WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: STss02.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103
SCALE: NONE

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

SUPERSTRUCTURE
REINFORCEMENT BAR SCHEDULE STAGE 3

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 91 OF 101
SHEET: 236 OF 315



- LEGEND**
- [X] = BREAK POINT
 - (GX) = GIRDER NUMBER

- NOTES**
- FOR GENERAL NOTES, SEE DRAWINGS 4 AND 5.
 - FOR DECK PLAN, SEE DRAWINGS 74 THROUGH 83.
 - DECK ELEVATIONS ARE GIVEN AT TOP OF FINISHED ROADWAY.
 - DECK ELEVATIONS ARE GIVEN AT 10'-0" INCREMENTS ALONG BREAK POINTS.
 - FOR DECK ELEVATIONS AT TENTH POINTS ALONG GIRDER CENTERLINES, SEE DRAWING 93.
 - ELEVATIONS GIVEN AT THE FIRST AND LAST STATIONS LISTED FOR EACH POINT ARE LOCATED ALONG THE Q OF BEARING.
 - FOR CONSTRUCTION STAGING, SEE DRAWINGS 9 AND 10.

STATION	TOP OF DECK ELEVATIONS ALONG BREAK POINTS											
	A	B	C	D	E	F	G	H	I	J	K	L
109+20.34	---	---	---	---	---	---	---	---	---	---	---	493.80
109+30.00	---	---	---	---	---	---	---	---	---	---	---	493.91
109+32.76	---	---	---	---	---	---	---	---	---	---	494.33	---
109+40.00	---	---	---	---	---	---	---	---	---	---	494.41	494.01
109+50.00	---	---	---	---	---	---	---	---	---	---	494.51	494.11
109+53.25	---	---	---	---	---	---	---	---	---	---	494.87	---
109+60.00	---	---	---	---	---	---	---	---	---	---	494.93	494.20
109+65.04	---	---	---	---	---	---	---	---	---	---	495.17	---
109+70.00	---	---	---	---	---	---	---	---	---	---	495.22	495.30
109+79.95	---	---	---	---	---	---	---	---	---	---	495.06	---
109+80.00	---	---	---	---	---	---	---	---	---	---	495.06	495.30
109+90.00	---	---	---	---	---	---	---	---	---	---	495.15	495.39
109+90.34	---	---	---	---	---	---	---	---	---	---	---	494.47
109+93.94	---	---	---	---	---	---	---	---	---	---	494.73	---
109+98.24	---	---	---	---	---	---	---	---	---	---	494.77	---
110+00.00	---	---	---	---	---	---	---	---	---	---	494.78	494.78
110+02.76	---	---	---	---	---	---	---	---	---	---	---	494.98
110+10.00	---	---	---	---	---	---	---	---	---	---	494.86	494.86
110+12.23	---	---	---	---	---	---	---	---	---	---	495.33	---
110+20.00	---	---	---	---	---	---	---	---	---	---	495.39	494.94
110+23.25	---	---	---	---	---	---	---	---	---	---	---	495.46
110+27.14	---	---	---	---	---	---	---	---	---	---	495.68	---
110+30.00	---	---	---	---	---	---	---	---	---	---	495.70	495.46
110+35.04	---	---	---	---	---	---	---	---	---	---	---	495.74
110+38.93	---	---	---	---	---	---	---	---	---	---	495.58	---
110+40.00	---	---	---	---	---	---	---	---	---	---	495.58	495.77
110+49.95	---	---	---	---	---	---	---	---	---	---	495.60	---
110+50.00	---	---	---	---	---	---	---	---	---	---	495.65	495.84
110+59.42	---	---	---	---	---	---	---	---	---	---	495.38	---
110+60.00	---	---	---	---	---	---	---	---	---	---	495.38	495.71
110+63.94	---	---	---	---	---	---	---	---	---	---	---	495.24
110+68.24	---	---	---	---	---	---	---	---	---	---	495.26	---
110+70.00	---	---	---	---	---	---	---	---	---	---	495.44	495.77
110+71.84	---	---	---	---	---	---	---	---	---	---	495.06	---
110+80.00	---	---	---	---	---	---	---	---	---	---	495.10	495.33
110+82.23	---	---	---	---	---	---	---	---	---	---	495.79	---
110+90.00	---	---	---	---	---	---	---	---	---	---	495.16	495.89
110+90.34	---	---	---	---	---	---	---	---	---	---	---	495.16
110+97.14	---	---	---	---	---	---	---	---	---	---	496.11	---
111+00.00	---	---	---	---	---	---	---	---	---	---	495.21	495.61
111+02.76	---	---	---	---	---	---	---	---	---	---	---	495.62
111+08.93	---	---	---	---	---	---	---	---	---	---	495.98	---
111+10.00	---	---	---	---	---	---	---	---	---	---	495.25	495.93
111+20.00	---	---	---	---	---	---	---	---	---	---	495.30	495.70

STATION	TOP OF DECK ELEVATIONS ALONG BREAK POINTS											
	A	B	C	D	E	F	G	H	I	J	K	L
111+23.25	---	---	---	---	---	---	---	---	---	---	---	496.04
111+29.42	---	---	---	---	---	---	---	---	---	---	---	---
111+30.00	---	---	---	---	---	---	---	---	---	---	---	---
111+35.04	---	---	---	---	---	---	---	---	---	---	---	---
111+40.00	---	---	---	---	---	---	---	---	---	---	---	---
111+41.84	---	---	---	---	---	---	---	---	---	---	---	---
111+49.95	---	---	---	---	---	---	---	---	---	---	---	---
111+50.00	---	---	---	---	---	---	---	---	---	---	---	---
111+60.00	---	---	---	---	---	---	---	---	---	---	---	---
111+60.34	---	---	---	---	---	---	---	---	---	---	---	---
111+63.94	---	---	---	---	---	---	---	---	---	---	---	---
111+68.24	---	---	---	---	---	---	---	---	---	---	---	---
111+70.00	---	---	---	---	---	---	---	---	---	---	---	---
111+72.76	---	---	---	---	---	---	---	---	---	---	---	---
111+80.00	---	---	---	---	---	---	---	---	---	---	---	---
111+82.23	---	---	---	---	---	---	---	---	---	---	---	---
111+90.00	---	---	---	---	---	---	---	---	---	---	---	---
111+93.25	---	---	---	---	---	---	---	---	---	---	---	---
111+97.14	---	---	---	---	---	---	---	---	---	---	---	---
112+00.00	---	---	---	---	---	---	---	---	---	---	---	---
112+05.04	---	---	---	---	---	---	---	---	---	---	---	---
112+08.93	---	---	---	---	---	---	---	---	---	---	---	---
112+10.00	---	---	---	---	---	---	---	---	---	---	---	---
112+19.95	---	---	---	---	---	---	---	---	---	---	---	---
112+20.00	---	---	---	---	---	---	---	---	---	---	---	---
112+29.42	---	---	---	---	---	---	---	---	---	---	---	---
112+30.00	---	---	---	---	---	---	---	---	---	---	---	---
112+33.94	---	---	---	---	---	---	---	---	---	---	---	---
112+38.24	---	---	---	---	---	---	---	---	---	---	---	---
112+40.00	---	---	---	---	---	---	---	---	---	---	---	---
112+41.84	---	---	---	---	---	---	---	---	---	---	---	---
112+50.00	---	---	---	---	---	---	---	---	---	---	---	---
112+52.23	---	---	---	---	---	---	---	---	---	---	---	---
112+60.00	---	---	---	---	---	---	---	---	---	---	---	---
112+67.14	---	---	---	---	---	---	---	---	---	---	---	---
112+70.00	---	---	---	---	---	---	---	---	---	---	---	---
112+78.93	---	---	---	---	---	---	---	---	---	---	---	---
112+80.00	---	---	---	---	---	---	---	---	---	---	---	---
112+90.00	---	---	---	---	---	---	---	---	---	---	---	---
112+99.42	---	---	---	---	---	---	---	---	---	---	---	---
113+00.00	---	---	---	---	---	---	---	---	---	---	---	---
113+10.00	---	---	---	---	---	---	---	---	---	---	---	---
113+11.84	---	---	---	---	---	---	---	---	---	---	---	---

DATE: 7/12/2016

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: STde01.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

SCALE: 2 0 4 8 FEET

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

**TOP OF DECK ELEVATIONS AT
BREAKS IN CROSS SLOPE**

DRAWING: 92 OF 101
SHEET: 237 OF 315

TOP OF DECK ELEVATIONS AT 10th POINTS ALONG GIRDER CENTERLINES

SPAN	LOCATION	GIRDER 1			GIRDER 2			GIRDER 3			GIRDER 4			GIRDER 5			GIRDER 6			GIRDER 7			GIRDER 8		
		STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
1	Q BRG ABUT 1	110+70.52	59.94 LT	495.09	110+60.17	51.60 LT	495.36	110+49.83	43.27 LT	495.47	110+39.48	34.94 LT	495.57	110+29.13	26.60 LT	495.67	110+18.78	18.27 LT	495.49	110+08.43	9.94 LT	495.18	109+98.08	1.60 LT	494.77
	0.1 L	110+77.52	59.94 LT	495.13	110+67.17	51.60 LT	495.40	110+56.83	43.27 LT	495.52	110+46.48	34.94 LT	495.62	110+36.13	26.60 LT	495.71	110+25.78	18.27 LT	495.54	110+15.43	9.94 LT	495.23	110+05.08	1.60 LT	494.82
	0.2 L	110+84.52	59.94 LT	495.17	110+74.17	51.60 LT	495.45	110+63.83	43.27 LT	495.56	110+53.48	34.94 LT	495.66	110+43.13	26.60 LT	495.76	110+32.78	18.27 LT	495.59	110+22.43	9.94 LT	495.29	110+12.08	1.60 LT	494.88
	0.3 L	110+91.52	59.94 LT	495.21	110+81.17	51.60 LT	495.48	110+70.83	43.27 LT	495.60	110+60.48	34.94 LT	495.71	110+50.13	26.60 LT	495.81	110+39.78	18.27 LT	495.64	110+29.43	9.94 LT	495.34	110+19.08	1.60 LT	494.93
	0.4 L	110+98.52	59.94 LT	495.24	110+88.17	51.60 LT	495.52	110+77.83	43.27 LT	495.64	110+67.48	34.94 LT	495.75	110+57.13	26.60 LT	495.85	110+46.78	18.27 LT	495.68	110+36.43	9.94 LT	495.39	110+26.08	1.60 LT	494.98
	0.5 L	111+05.52	59.94 LT	495.28	110+95.17	51.60 LT	495.56	110+84.83	43.27 LT	495.68	110+74.48	34.94 LT	495.79	110+64.13	26.60 LT	495.90	110+53.78	18.27 LT	495.73	110+43.43	9.94 LT	495.43	110+33.08	1.60 LT	495.03
	0.6 L	111+12.52	59.94 LT	495.31	111+02.17	51.60 LT	495.59	110+91.83	43.27 LT	495.72	110+81.48	34.94 LT	495.83	110+71.13	26.60 LT	495.94	110+60.78	18.27 LT	495.77	110+50.43	9.94 LT	495.48	110+40.08	1.60 LT	495.08
	0.7 L	111+19.52	59.94 LT	495.34	111+09.17	51.60 LT	495.63	110+98.83	43.27 LT	495.76	110+88.48	34.94 LT	495.87	110+78.13	26.60 LT	495.98	110+67.78	18.27 LT	495.82	110+57.43	9.94 LT	495.53	110+47.08	1.60 LT	495.13
	0.8 L	111+26.52	59.94 LT	495.37	111+16.17	51.60 LT	495.66	111+05.83	43.27 LT	495.79	110+95.48	34.94 LT	495.91	110+85.13	26.60 LT	496.02	110+74.78	18.27 LT	495.86	110+64.43	9.94 LT	495.57	110+54.08	1.60 LT	495.18
	0.9 L	111+33.52	59.94 LT	495.40	111+23.17	51.60 LT	495.69	111+12.83	43.27 LT	495.82	111+02.48	34.94 LT	495.94	110+92.13	26.60 LT	496.06	110+81.78	18.27 LT	495.90	110+71.43	9.94 LT	495.61	110+61.08	1.60 LT	495.22
2	Q BRG PIER 1	111+40.52	59.94 LT	495.42	111+30.17	51.60 LT	495.72	111+19.83	43.27 LT	495.85	111+09.48	34.94 LT	495.97	110+99.13	26.60 LT	496.09	110+88.78	18.27 LT	495.94	110+78.43	9.94 LT	495.65	110+68.08	1.60 LT	495.26
	0.1 L	111+50.52	59.94 LT	495.46	111+40.17	51.60 LT	495.76	111+29.83	43.27 LT	495.89	111+19.48	34.94 LT	496.02	111+09.13	26.60 LT	496.14	110+98.78	18.27 LT	495.99	110+88.43	9.94 LT	495.71	110+78.08	1.60 LT	495.32
	0.2 L	111+60.52	59.94 LT	495.49	111+50.17	51.60 LT	495.79	111+39.83	43.27 LT	495.93	111+29.48	34.94 LT	496.06	111+19.13	26.60 LT	496.18	111+08.78	18.27 LT	496.03	110+98.43	9.94 LT	495.76	110+88.08	1.60 LT	495.38
	0.3 L	111+70.52	59.94 LT	495.52	111+60.17	51.60 LT	495.82	111+49.83	43.27 LT	495.97	111+39.48	34.94 LT	496.10	111+29.13	26.60 LT	496.23	111+18.78	18.27 LT	496.08	111+08.43	9.94 LT	495.81	110+98.08	1.60 LT	495.43
	0.4 L	111+80.52	59.94 LT	495.54	111+70.17	51.60 LT	495.85	111+59.83	43.27 LT	496.00	111+49.48	34.94 LT	496.13	111+39.13	26.60 LT	496.26	111+28.78	18.27 LT	496.12	111+18.43	9.94 LT	495.85	111+08.08	1.60 LT	495.48
	0.5 L	111+90.52	59.94 LT	495.56	111+80.17	51.60 LT	495.88	111+69.83	43.27 LT	496.03	111+59.48	34.94 LT	496.16	111+49.13	26.60 LT	496.30	111+38.78	18.27 LT	496.16	111+28.43	9.94 LT	495.89	111+18.08	1.60 LT	495.52
	0.6 L	112+00.52	59.94 LT	495.58	111+90.17	51.60 LT	495.90	111+79.83	43.27 LT	496.05	111+69.48	34.94 LT	496.19	111+59.13	26.60 LT	496.33	111+48.78	18.27 LT	496.19	111+38.43	9.94 LT	495.93	111+28.08	1.60 LT	495.56
	0.7 L	112+10.52	59.94 LT	495.60	112+00.17	51.60 LT	495.92	111+89.83	43.27 LT	496.08	111+79.48	34.94 LT	496.22	111+69.13	26.60 LT	496.36	111+58.78	18.27 LT	496.23	111+48.43	9.94 LT	495.97	111+38.08	1.60 LT	495.60
	0.8 L	112+20.52	59.94 LT	495.61	112+10.17	51.60 LT	495.93	111+99.83	43.27 LT	496.09	111+89.48	34.94 LT	496.24	111+79.13	26.60 LT	496.38	111+68.78	18.27 LT	496.26	111+58.43	9.94 LT	496.00	111+48.08	1.60 LT	495.64
	0.9 L	112+30.52	59.94 LT	495.62	112+20.17	51.60 LT	495.94	112+09.83	43.27 LT	496.11	111+99.48	34.94 LT	496.26	111+89.13	26.60 LT	496.41	111+78.78	18.27 LT	496.28	111+68.43	9.94 LT	496.03	111+58.08	1.60 LT	495.67
3	Q BRG PIER 2	112+40.52	59.94 LT	495.63	112+30.17	51.60 LT	495.95	112+19.83	43.27 LT	496.12	112+09.48	34.94 LT	496.28	111+99.13	26.60 LT	496.43	111+88.78	18.27 LT	496.30	111+78.43	9.94 LT	496.05	111+68.08	1.60 LT	495.70
	0.1 L	112+47.52	59.94 LT	495.63	112+37.17	51.60 LT	495.96	112+26.83	43.27 LT	496.13	112+16.48	34.94 LT	496.28	112+06.13	26.60 LT	496.44	111+95.78	18.27 LT	496.32	111+85.43	9.94 LT	496.07	111+75.08	1.60 LT	495.72
	0.2 L	112+54.52	59.94 LT	495.63	112+44.17	51.60 LT	495.96	112+33.83	43.27 LT	496.13	112+23.48	34.94 LT	496.29	112+13.13	26.60 LT	496.45	112+02.78	18.27 LT	496.33	111+92.43	9.94 LT	496.08	111+82.08	1.60 LT	495.73
	0.3 L	112+61.52	59.94 LT	495.63	112+51.17	51.60 LT	495.96	112+40.83	43.27 LT	496.14	112+30.48	34.94 LT	496.30	112+20.13	26.60 LT	496.46	112+09.78	18.27 LT	496.34	111+99.43	9.94 LT	496.10	111+89.08	1.60 LT	495.75
	0.4 L	112+68.52	59.94 LT	495.62	112+58.17	51.60 LT	495.96	112+47.83	43.27 LT	496.14	112+37.48	34.94 LT	496.30	112+27.13	26.60 LT	496.46	112+16.78	18.27 LT	496.35	112+06.43	9.94 LT	496.11	111+96.08	1.60 LT	495.76
	0.5 L	112+75.52	59.94 LT	495.62	112+65.17	51.60 LT	495.96	112+54.83	43.27 LT	496.14	112+44.48	34.94 LT	496.31	112+34.13	26.60 LT	496.47	112+23.78	18.27 LT	496.36	112+13.43	9.94 LT	496.12	112+03.08	1.60 LT	495.77
	0.6 L	112+82.52	59.94 LT	495.61	112+72.17	51.60 LT	495.96	112+61.83	43.27 LT	496.14	112+51.48	34.94 LT	496.31	112+41.13	26.60 LT	496.47	112+30.78	18.27 LT	496.36	112+20.43	9.94 LT	496.13	112+10.08	1.60 LT	495.78
	0.7 L	112+89.52	59.94 LT	495.61	112+79.17	51.60 LT	495.95	112+68.83	43.27 LT	496.14	112+58.48	34.94 LT	496.31	112+48.13	26.60 LT	496.47	112+37.78	18.27 LT	496.37	112+27.43	9.94 LT	496.13	112+17.08	1.60 LT	495.79
	0.8 L	112+96.52	59.94 LT	495.60	112+86.17	51.60 LT	495.94	112+75.83	43.27 LT	496.13	112+65.48	34.94 LT	496.30	112+55.13	26.60 LT	496.47	112+44.78	18.27 LT	496.37	112+34.43	9.94 LT	496.14	112+24.08	1.60 LT	495.80
	0.9 L	113+03.52	59.94 LT	495.59	112+93.17	51.60 LT	495.94	112+82.83	43.27 LT	496.13	112+72.48	34.94 LT	496.30	112+62.13	26.60 LT	496.47	112+51.78	18.27 LT	496.37	112+41.43	9.94 LT	496.14	112+31.08	1.60 LT	495.81
	Q BRG ABUT 2	113+10.52	59.94 LT	495.58	113+00.17	51.60 LT	495.93	112+89.83	43.27 LT	496.12	112+79.48	34.94 LT	496.30	112+69.13	26.60 LT	496.47	112+58.78	18.27 LT	496.37	112+48.43	9.94 LT	496.14	112+38.08	1.60 LT	495.81

TOP OF DECK ELEVATIONS AT 10th POINTS ALONG GIRDER CENTERLINES

SPAN	LOCATION	GIRDER 9			GIRDER 10			GIRDER 11			GIRDER 12			GIRDER 13			GIRDER 14			GIRDER 15			GIRDER 16		
		STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
1	Q BRG ABUT 1	109+94.10	1.60 RT	494.73	109+83.75	9.94 RT	494.97	109+73.40	18.27 RT	495.11	109+63.05	26.60 RT	495.12	109+52.70	34.94 RT	494.85	109+42.35	43.27 RT	494.59	109+32.01	51.60 RT	494.30	109+21.66	59.94 RT	493.86
	0.1 L	110+01.10	1.60 RT	494.79	109+90.75	9.94 RT	495.03	109+80.40	18.27 RT	495.17	109+70.05	26.60 RT	495.18	109+59.70	34.94 RT	494.92	109+49.35	43.27 RT	494.66	109+39.01	51.60 RT	494.37	109+28.66	59.94 RT	493.93
	0.2 L	110+08.10	1.60 RT	494.85	109+97.75	9.94 RT	495.09	109+87.40	18.27 RT	495.23	109+77.05	26.60 RT	495.25	109+66.70	34.94 RT	494.99	109+56.35	43.27 RT	494.72	109+46.01	51.60 RT	494.44	109+35.66	59.94 RT	494.01
	0.3 L	110+15.10	1.60 RT	494.90	110+04.75	9.94 RT	495.15	109+94.40	18.27 RT	495.29	109+84.05	26.60 RT	495.31	109+73.70	34.94 RT	495.05	109+63.35	43.27 RT	494.79	109+53.01	51.60 RT	494.51	109+42.66	59.94 RT	494.08
	0.4 L	110+22.10	1.60 RT	494.96																					

GENERAL NOTES

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FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

THE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SUBSURFACE CONDITIONS MAY DIFFER FROM THE CONDITIONS REPORTED AT THE SPECIFIC LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF CONDITIONS AT THE BORING LOCATIONS.

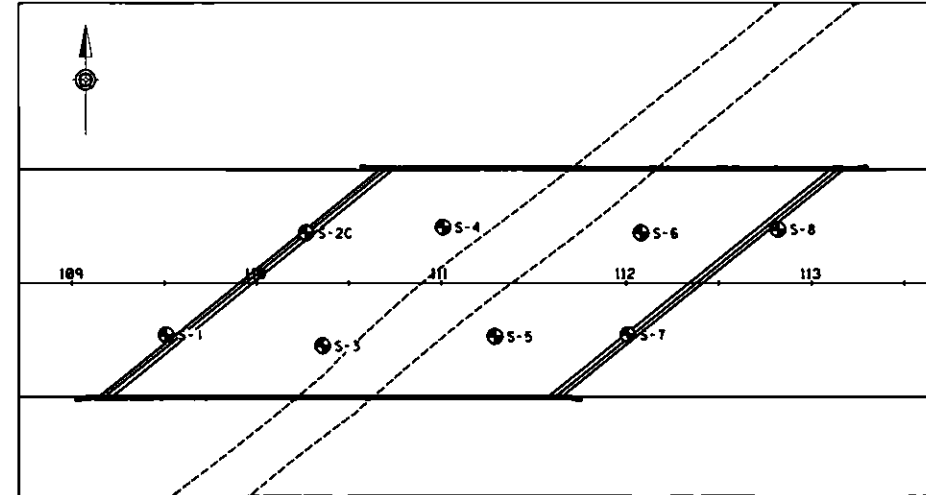
LEGEND

- PP POCKET PENETROMETER
- TOR TOP OF ROCK ELEVATION
- BPC BOTTOM OF PILE CAP ELEVATION
- EBC ESTIMATED BOTTOM OF CASING ELEVATION
- EMT ESTIMATED MICROPILE TIP ELEVATION

THE CLASSIFICATIONS OF THE MATERIALS HAVE BEEN VERIFIED.

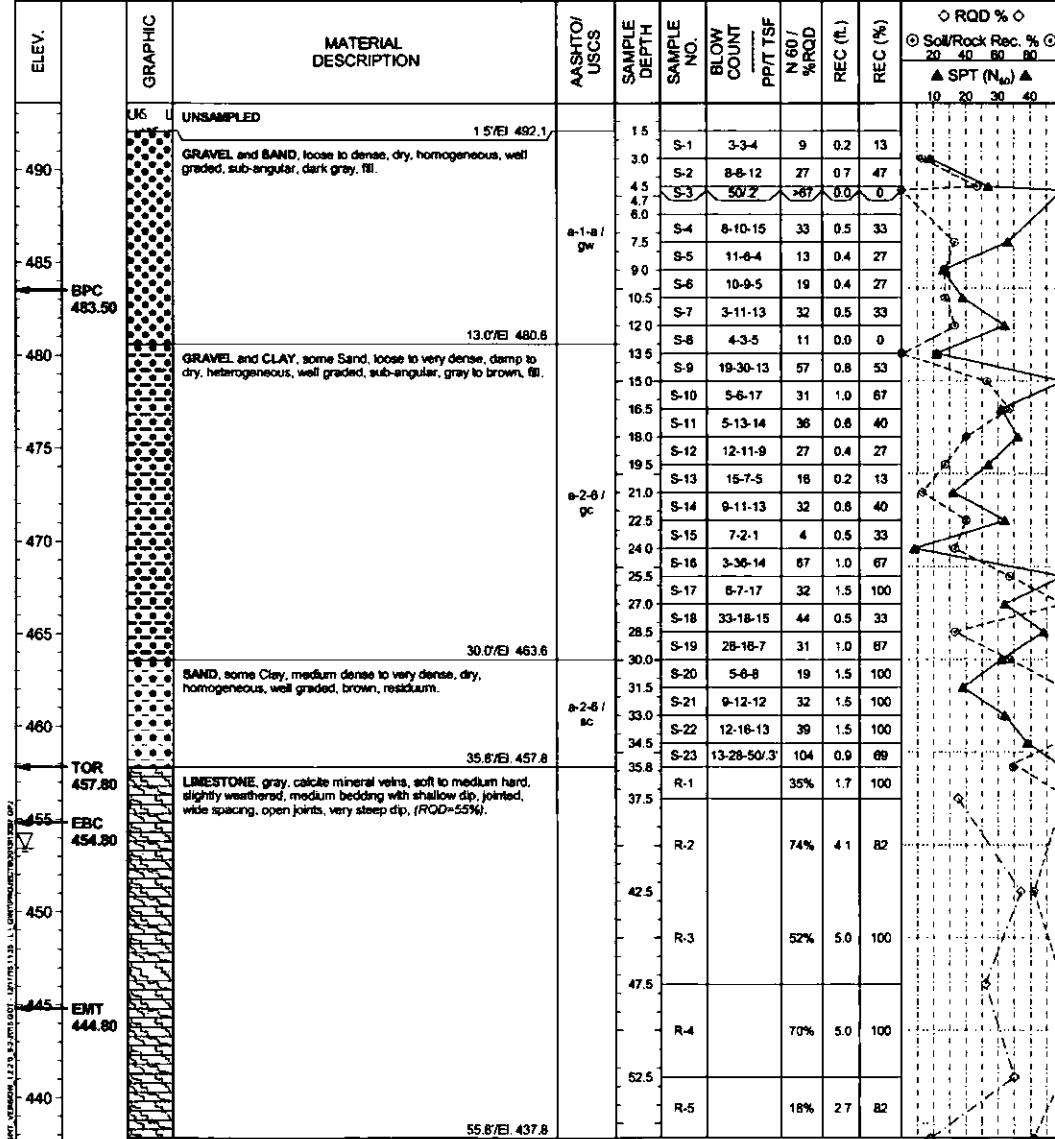
THE SUBSURFACE EXPLORATION DATA THAT ARE PRESENTED ON THESE DRAWINGS (INCLUDING BORING LOGS, EARTH SAMPLES, ROCK CORES, CLASSIFICATION OF MATERIALS AND DEPTH OF BORINGS) ACCURATELY REPRESENT THE CONDITIONS ENCOUNTERED BY THE TEST BORING PROGRAM AT EACH BORING LOCATION.

Rachelle J. Dale
 GEOTECHNICAL ENGINEER/ENGINEERING GEOLOGIST
 DATE: 11-23-15



BORING LOCATION LAYOUT

SUBSTRUCTURE UNIT: ABUTMENT 1				LOG 1 OF 1
BORING NUMBER: S-1	BORING LOCATION STATION: 109+51.0 OFFSET: 28.0 ft. RT.	START: 09/22/2015 7:00 PM FINISH: 09/23/2015 12:30 AM	HAMMER: AUTOMATIC EFFICIENCY: 0.8 ER _g	
DRILLING METHOD AND EQUIPMENT: DBLE TUBE SPLIT INNER BRL-NQ, AUTOMATIC, ACKER SOILS XLS TRACK RIG		SIZE OF CORE: 1.874"	VERTICAL SCALE: 0 FT. 5 FT.	TOP OF BORING ELEVATION: 493.6 FT.
DRILLING INSPECTOR: PATRICK PENDERGAST DRILLER & DRILLING COMPANY: J. MEHALICK TRC ENGINEERS, INC.		▽ 0 HR. READING - ELAPSED TIME: EI 453.4 - 0.0 hr. ▽ 24 HR. READING - ELAPSED TIME: NR - NR ¹		



¹24-hr. Water: Boring grouted upon completion.

PREPARED BY:
 AMERICAN GEOTECHNICAL &
 ENVIRONMENTAL SERVICES, Inc.
 Canonsburg, PA - King of Prussia, PA
 Altoona, PA - Baltimore, MD
 PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
 FILE NAME: 13087_strb.dgn
 DRAWING TYPE: 2G
 STRUCTURE NUMBER: EB-103

REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54

STRUCTURE BORINGS

NO.	REVISIONS	DATE	APPR.
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DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

DRAWING: 94 OF 101
 SHEET: 239 OF 315



GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

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LEGEND

- PP POCKET PENETROMETER
- TOR TOP OF ROCK ELEVATION
- BPC BOTTOM OF PILE CAP ELEVATION
- EBC ESTIMATED BOTTOM OF CASING ELEVATION
- EMT ESTIMATED MICROPILE TIP ELEVATION

THE CLASSIFICATIONS OF THE MATERIALS HAVE BEEN VERIFIED.

RW

SUBSTRUCTURE UNIT: **ABUTMENT 1** LOG 1 OF 2

BORING NUMBER: **S-2C** BORING LOCATION STATION: 110+27.0 OFFSET: 27.0 ft. LT.

START: 09/24/2015 9:00 PM HAMMER: SAFETY
FINISH: 09/29/2015 4:30 AM EFFICIENCY: 0.6 ERa

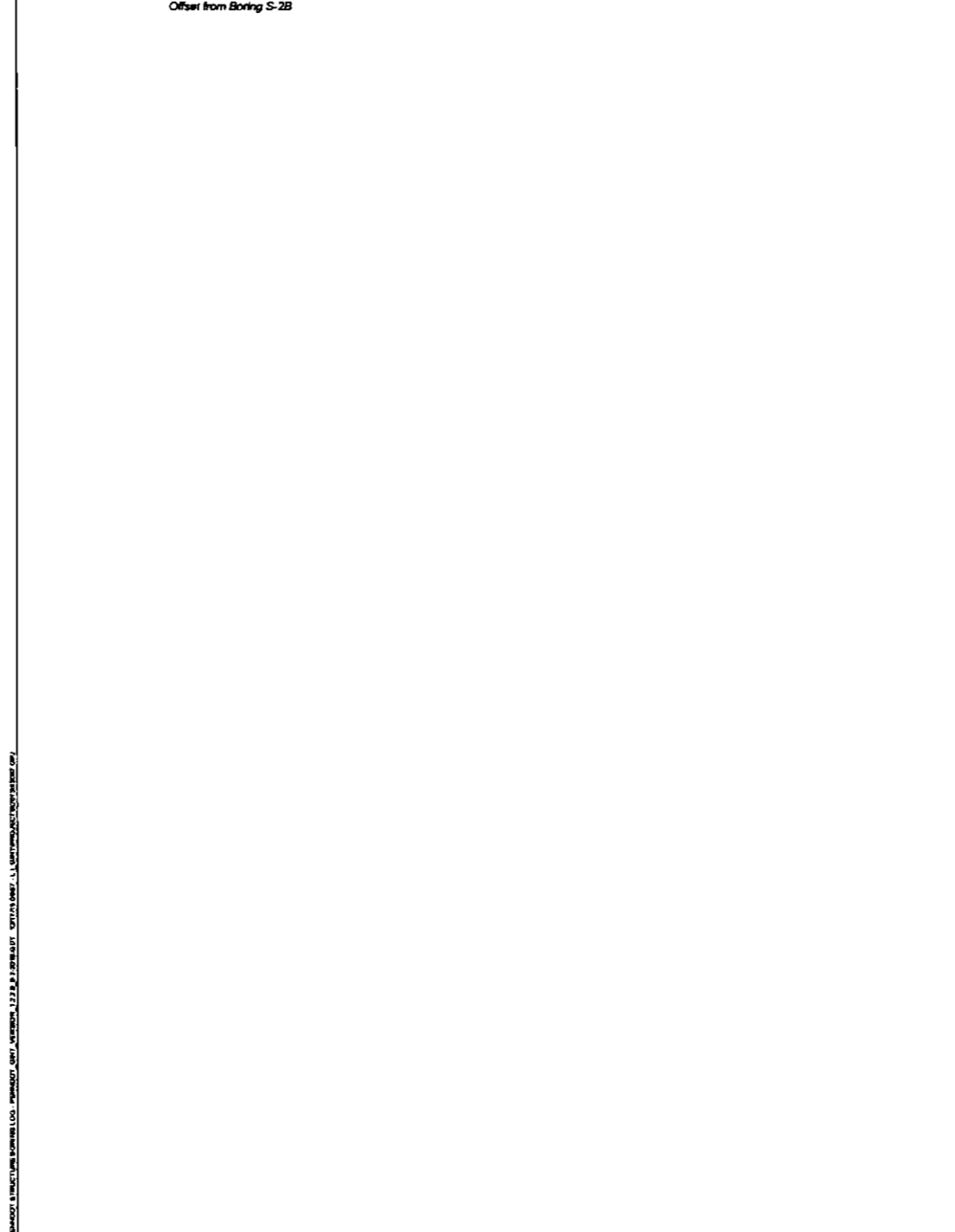
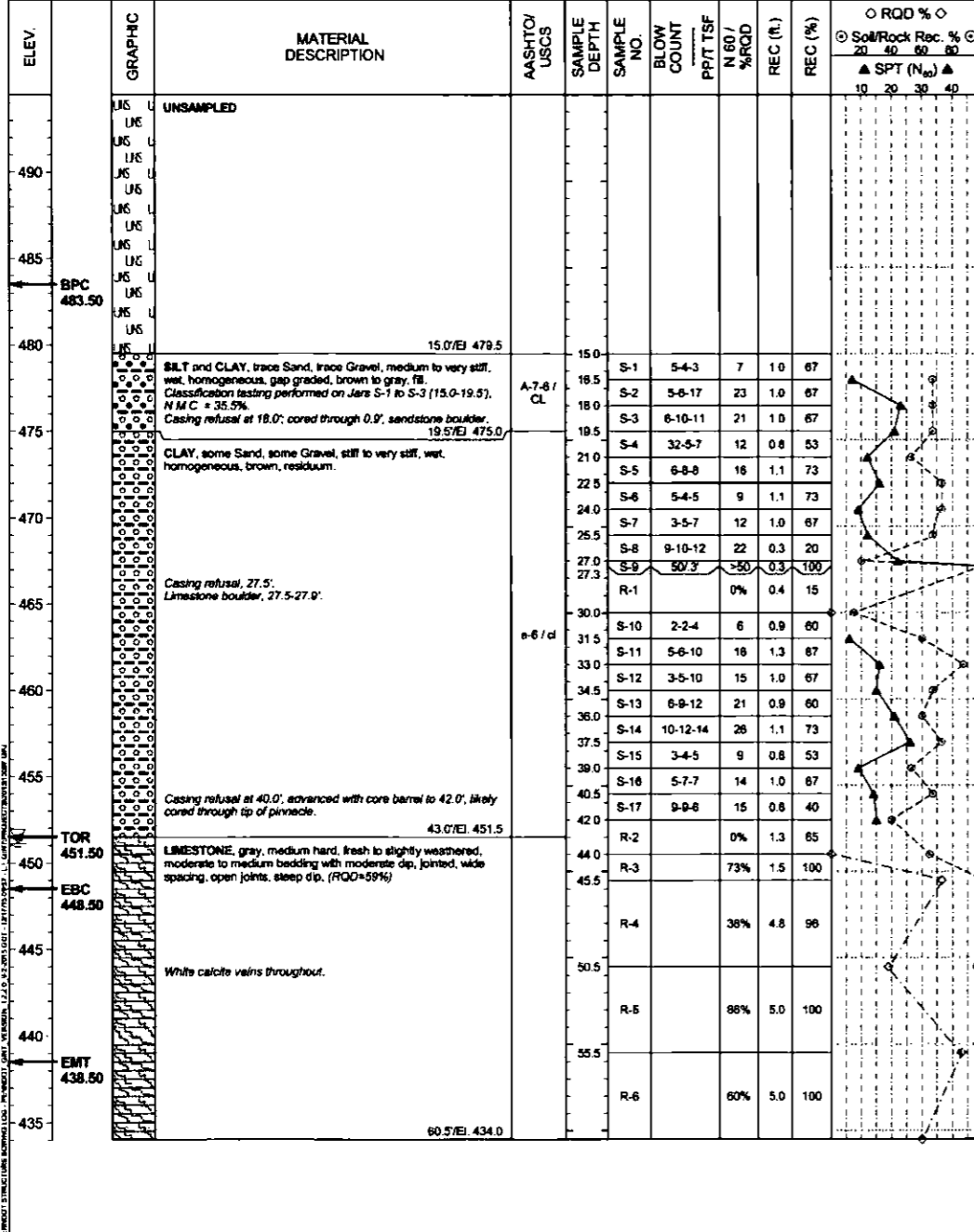
DRILLING METHOD AND EQUIPMENT: DBLE TUBE WIRE LN-NO, SAFETY, CME 45 TRUCK RIG
SIZE OF CORE: 1.874" VERTICAL SCALE: 0 FT. 5 FT. TOP OF BORING ELEVATION: 494.5 FT.

DRILLING INSPECTOR: PATRICK PENDERGAST
DRILLER & DRILLING COMPANY: S. WARD TRC ENGINEERS, INC.
0 HR. READING - ELAPSED TIME: El. 451.6 - 0.0 hr.
24 HR. READING - ELAPSED TIME: NR - NR

SUBSTRUCTURE UNIT: **ABUTMENT 1** LOG 2 OF 2

BORING NUMBER: **S-2C** BORING LOCATION STATION: 110+27.0 OFFSET: 27.0 ft. LT.

VERTICAL SCALE: 0 FT. 5 FT. 0 HR. READING: 0.0 hr.
24 HR. READING: NR



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Canonsburg, PA - King of Prussia, PA
Altoona, PA - Baltimore, MD
PREPARED FOR:
THE PENNSYLVANIA TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO. **T-228.54S001-3-02**

NETWORK NUMBER: 7003982
FILE NAME: 13087_strb.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

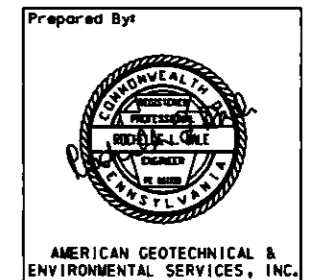
SCALE:

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

STRUCTURE BORINGS

DRAWING: 95 OF 101
SHEET: 240 OF 315



GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

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LEGEND

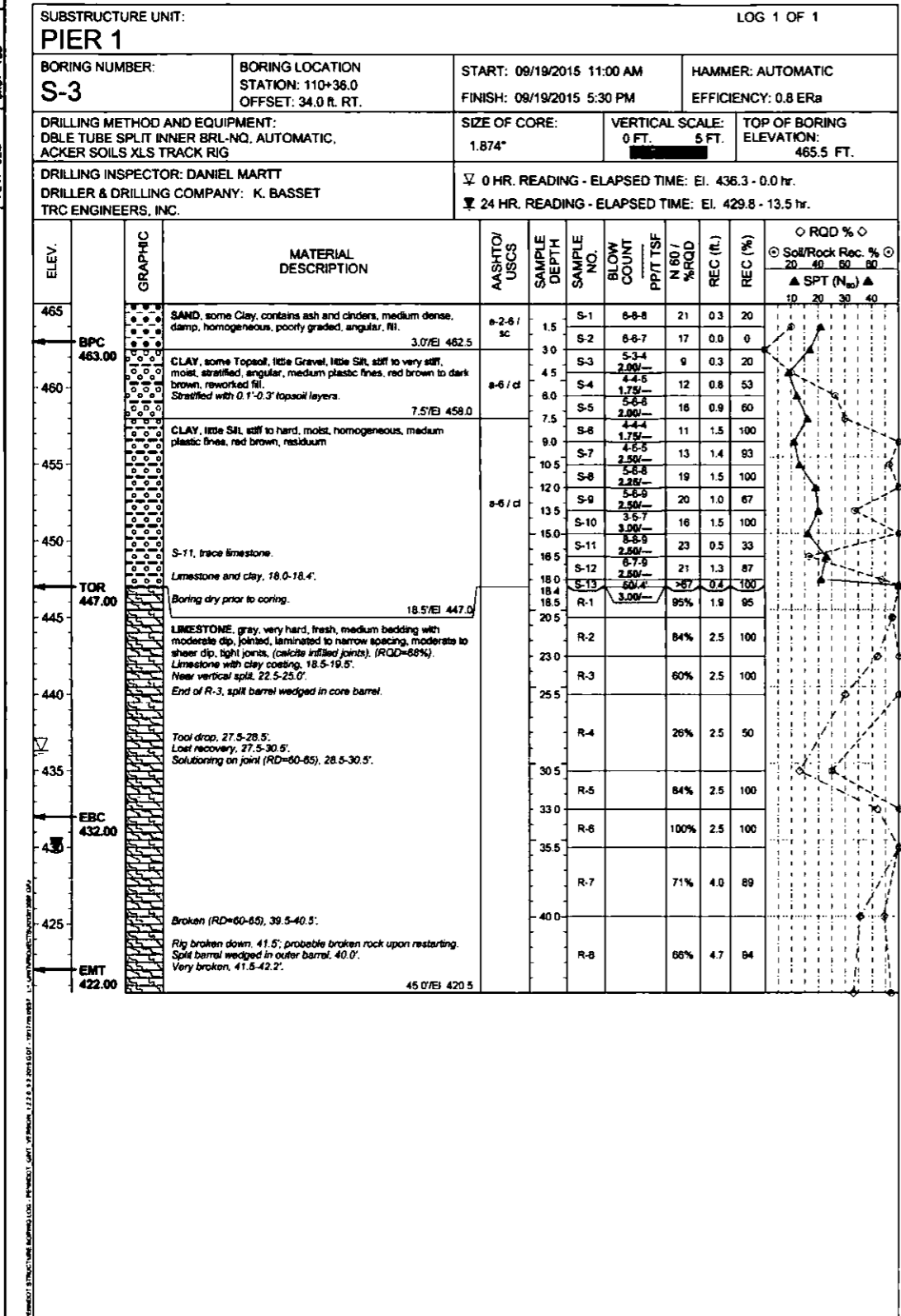
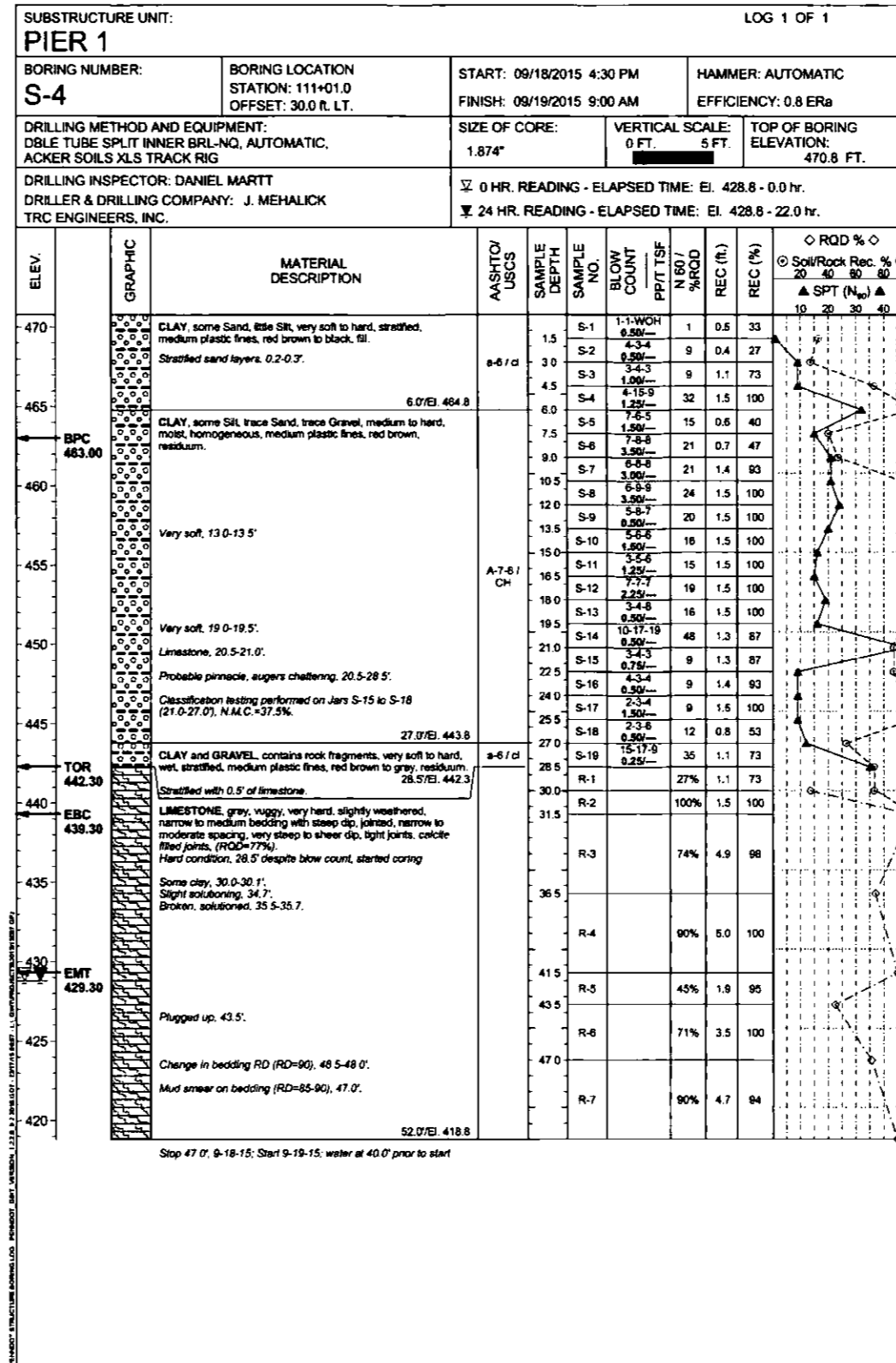
- PP POCKET PENETROMETER
- TOR TOP OF ROCK ELEVATION
- BPC BOTTOM OF PILE CAP ELEVATION
- EBC ESTIMATED BOTTOM OF CASING ELEVATION
- EMT ESTIMATED MICROPILE TIP ELEVATION

THE CLASSIFICATIONS OF THE MATERIALS HAVE BEEN VERIFIED.
RLO

Prepared By:



AMERICAN GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.




FILE: M:\2013\087\Structure\Structure 113087.dwg
 PLOTTER: 2/29/2015
 PLOT: JLM
 CDD: TBO
 QAL/QCC: SL

PREPARED BY:

AMERICAN GEOTECHNICAL & ENVIRONMENTAL SERVICES, Inc.
 Canonsburg, PA - King of Prussia, PA
 Altoona, PA - Baltimore, MD

PREPARED FOR:

THE PENNSYLVANIA TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE:

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: 13087_strb.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

STRUCTURE BORINGS

DRAWING: 96 OF 101
SHEET: 241 OF 315

GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

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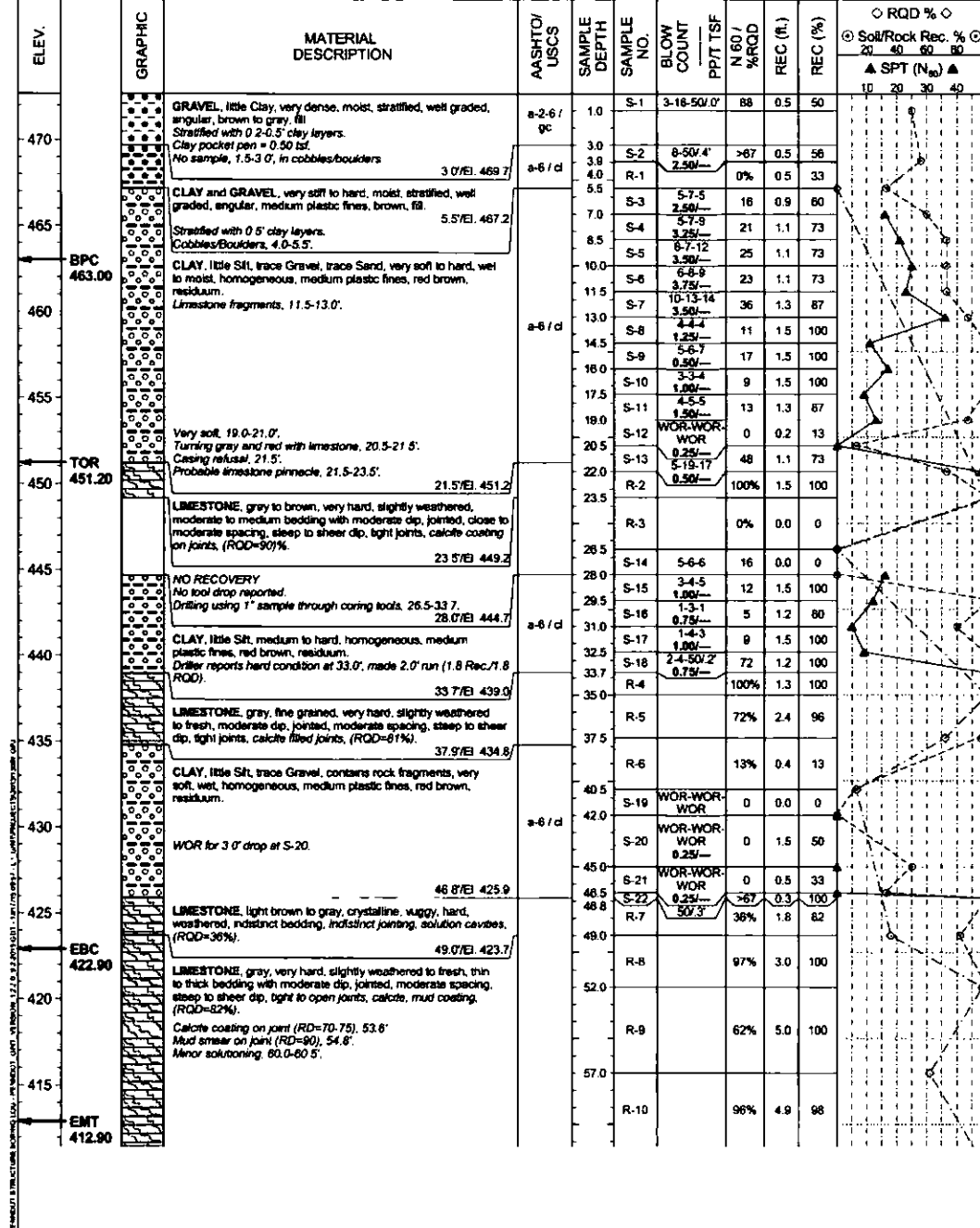
LEGEND

- PP POCKET PENETROMETER
- TOR TOP OF ROCK ELEVATION
- BPC BOTTOM OF PILE CAP ELEVATION
- EBC ESTIMATED BOTTOM OF CASING ELEVATION
- EMT ESTIMATED MICROPILE TIP ELEVATION

THE CLASSIFICATIONS OF THE MATERIALS HAVE BEEN VERIFIED.
RED

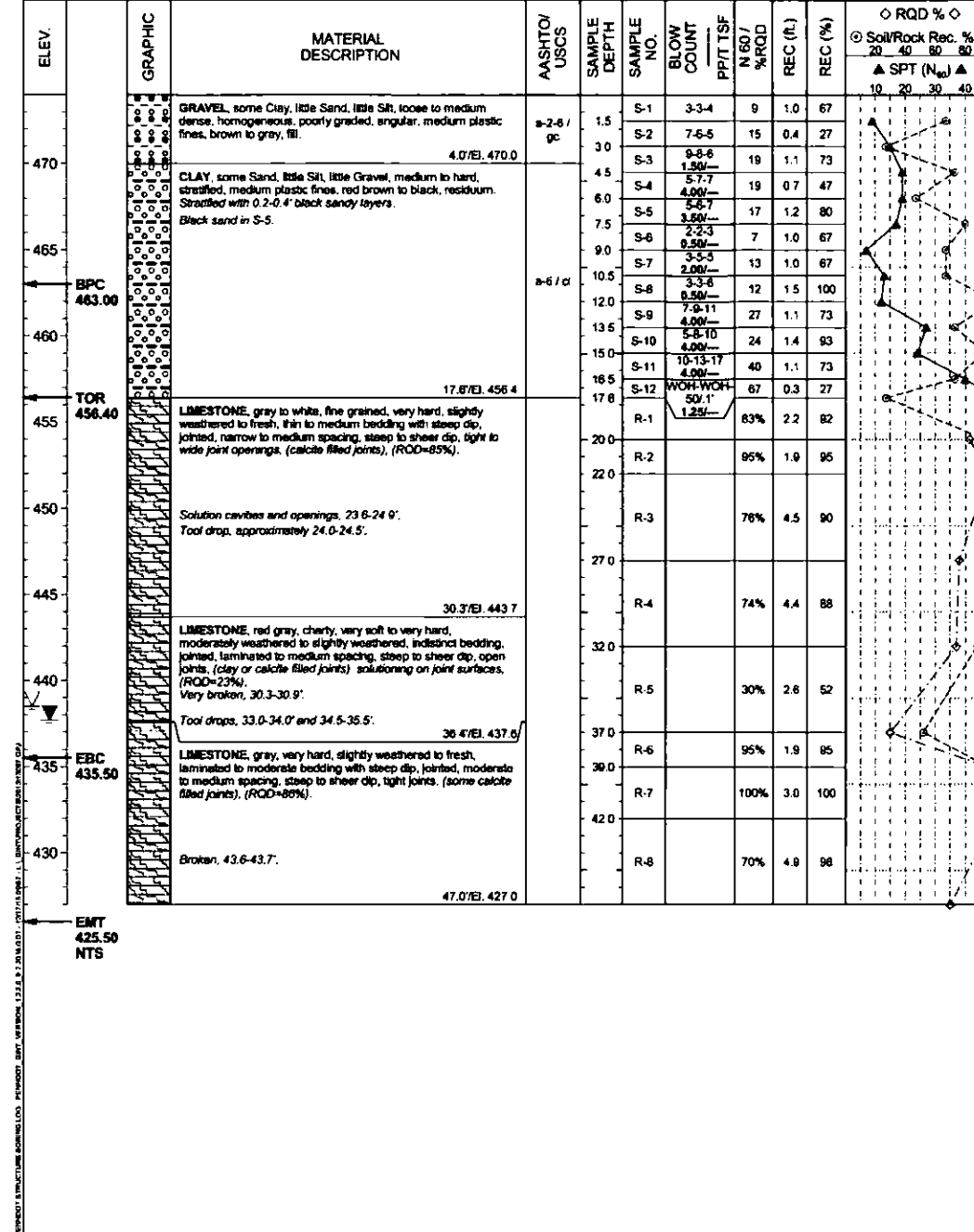
SUBSTRUCTURE UNIT: PIER 2 LOG 1 OF 2

BORING NUMBER: S-5	BORING LOCATION STATION: 111+29.0 OFFSET: 29.0 ft. RT.	START: 09/17/2015 11:30 AM FINISH: 09/17/2015 6:30 PM	HAMMER: AUTOMATIC EFFICIENCY: 0.8 ERa
DRILLING METHOD AND EQUIPMENT: DBLE TUBE SPLIT INNER BRL-NQ, AUTOMATIC, ACKER SOILS XLS TRACK RIG		SIZE OF CORE: 1.874"	VERTICAL SCALE: 0 FT. 5 FT. TOP OF BORING ELEVATION: 472.7 FT.
DRILLING INSPECTOR: DANIEL MARTT DRILLER & DRILLING COMPANY: J. MEHALICK TRC ENGINEERS, INC.		0 HR. READING - ELAPSED TIME: DRY - 0.0 hr. 24 HR. READING - ELAPSED TIME: DRY - 62.5 hr.	



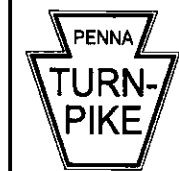
SUBSTRUCTURE UNIT: PIER 2 LOG 1 OF 1

BORING NUMBER: S-6	BORING LOCATION STATION: 112+08.0 OFFSET: 27.0 ft. LT.	START: 09/18/2015 12:00 PM FINISH: 09/18/2015 3:00 PM	HAMMER: AUTOMATIC EFFICIENCY: 0.8 ERa
DRILLING METHOD AND EQUIPMENT: DBLE TUBE SPLIT INNER BRL-NQ, AUTOMATIC, ACKER SOILS XLS TRACK RIG		SIZE OF CORE: 1.874"	VERTICAL SCALE: 0 FT. 5 FT. TOP OF BORING ELEVATION: 474.0 FT.
DRILLING INSPECTOR: DANIEL MARTT DRILLER & DRILLING COMPANY: J. MEHALICK TRC ENGINEERS, INC.		0 HR. READING - ELAPSED TIME: EI. 438.5 - 0.0 hr. 24 HR. READING - ELAPSED TIME: EI. 437.7 - 40.0 hr.	



PL 11 JUL 04 09:19:00
 PLOT FILE: 2/27/2016
 FILE: N:\2015\13087\substructure\13087\13087.dgn

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 PREPARED FOR:
 THE PENNSYLVANIA
 TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO.
T-228.54S001-3-02
 NETWORK NUMBER: 7003982
 FILE NAME: 13087_strb.dgn
 DRAWING TYPE: 2G
 STRUCTURE NUMBER: EB-103
 SCALE:

REPLACEMENT OF BRIDGE NO. EB-103
 AT MILEPOST 228.54
 DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

AMERICAN GEOTECHNICAL &
 ENVIRONMENTAL SERVICES, INC.
 STRUCTURE BORINGS
 DRAWING: 97 OF 101
 SHEET: 242 OF 315

GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

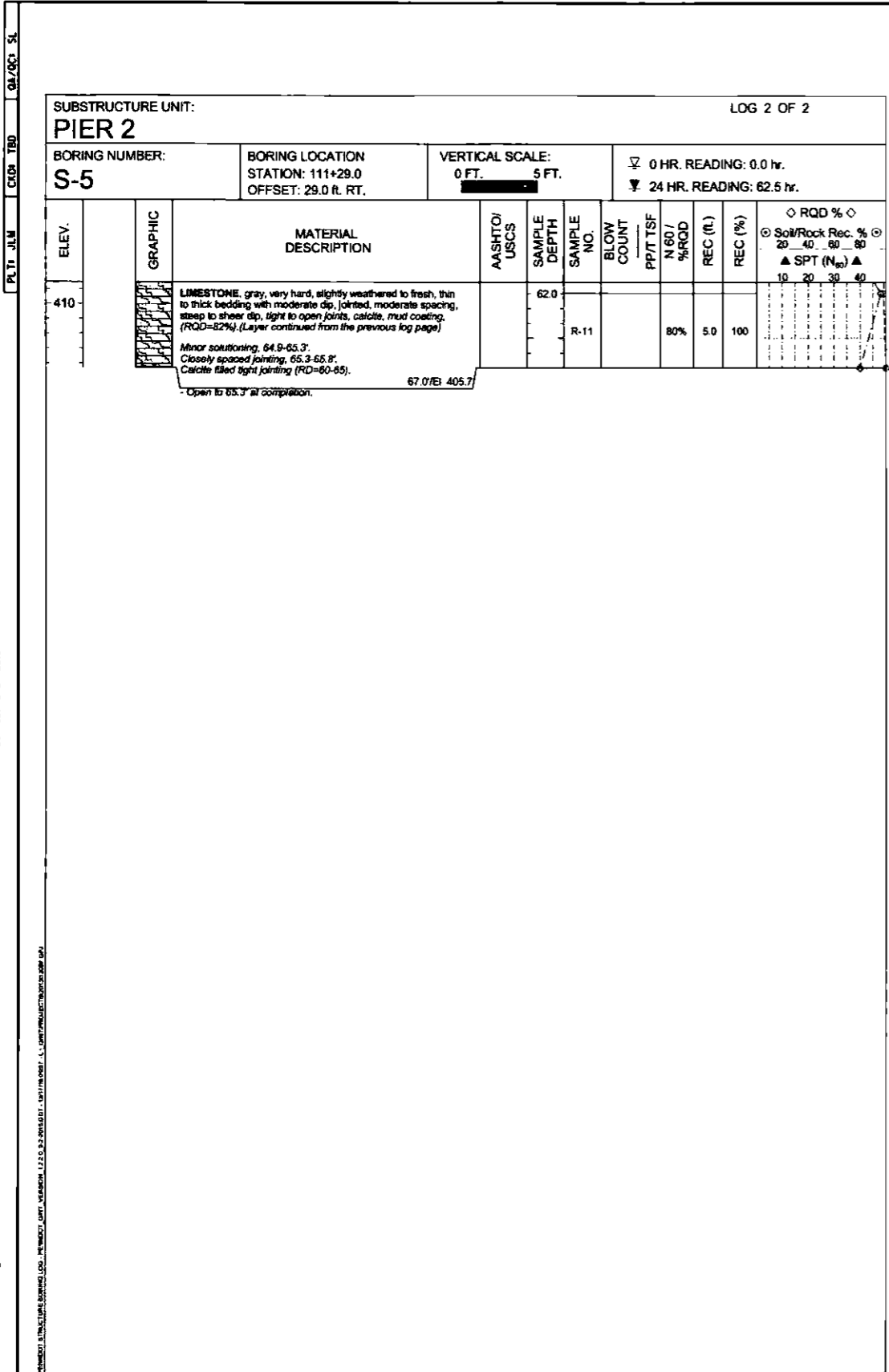
FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

THE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SUBSURFACE CONDITIONS MAY DIFFER FROM THE CONDITIONS REPORTED AT THE SPECIFIC LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF CONDITIONS AT THE BORING LOCATIONS.

LEGEND

- PP POCKET PENETROMETER
- TOR TOP OF ROCK ELEVATION
- BPC BOTTOM OF PILE CAP ELEVATION
- EBC ESTIMATED BOTTOM OF CASING ELEVATION
- EMT ESTIMATED MICROPILE TIP ELEVATION

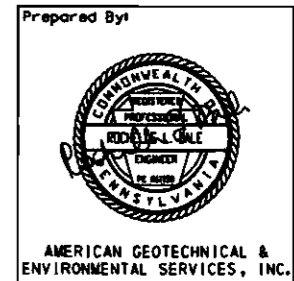
THE CLASSIFICATIONS OF THE MATERIALS HAVE BEEN VERIFIED.
RED



PLOTTED 2/27/2016

FILE: M:\2013\07\ambish\structure\13087_strb.dgn

PREPARED BY: AMERICAN GEOTECHNICAL & ENVIRONMENTAL SERVICES, Inc. Canonsburg, PA - King of Prussia, PA Altoona, PA - Baltimore, MD PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION		WBS NO.	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	STRUCTURE BORINGS	
		T-228.54S001-3-02			
		NETWORK NUMBER: 7003982			
		FILE NAME: 13087_strb.dgn			
		DRAWING TYPE: 2G			
STRUCTURE NUMBER: EB-103	SCALE:	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 98 OF 101	
NO.	REVISIONS	DATE	APPR.	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 243 OF 315



GENERAL NOTES

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LEGEND

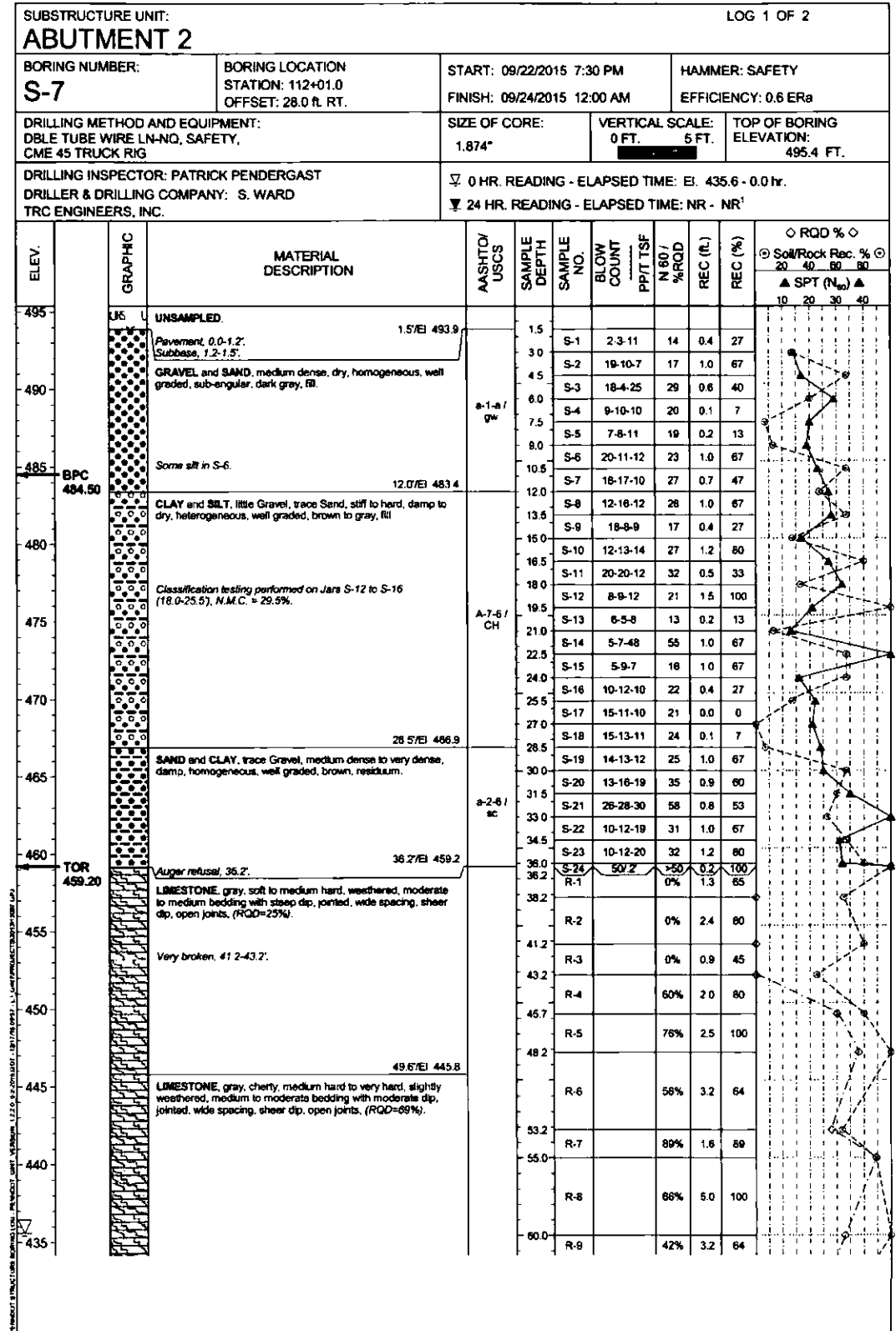
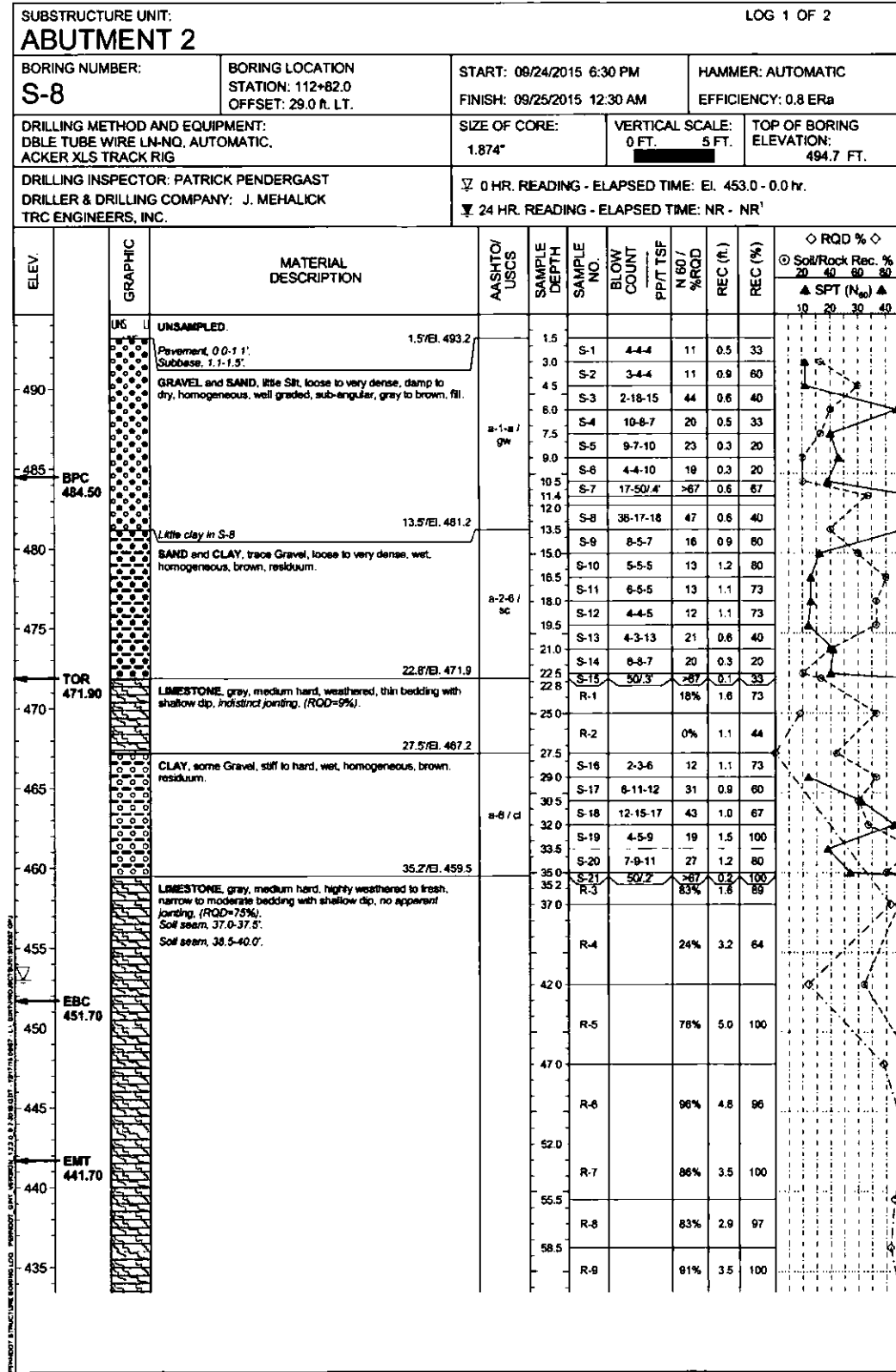
- PP POCKET PENETROMETER
- TOR TOP OF ROCK ELEVATION
- BPC BOTTOM OF PILE CAP ELEVATION
- EBC ESTIMATED BOTTOM OF CASING ELEVATION
- EMT ESTIMATED MICROPILE TIP ELEVATION

THE CLASSIFICATIONS OF THE MATERIALS HAVE BEEN VERIFIED.
RJD

Prepared By:



AMERICAN GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.



FILE: \\MS-2613\MS7\substructure\substructure\13087.dwg

PREPARED BY:
AMERICAN GEOTECHNICAL & ENVIRONMENTAL SERVICES, Inc.
Canonsburg, PA - King of Prussia, PA
Altoona, PA - Baltimore, MD
PREPARED FOR:
THE PENNSYLVANIA TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.	SCALE:

WBS NO.
T-228.54S001-3-02

NETWORK NUMBER: 7003982
FILE NAME: 13087_strb.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

**REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54**

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

STRUCTURE BORINGS

DRAWING: 99 OF 101
SHEET: 244 OF 315

GENERAL NOTES

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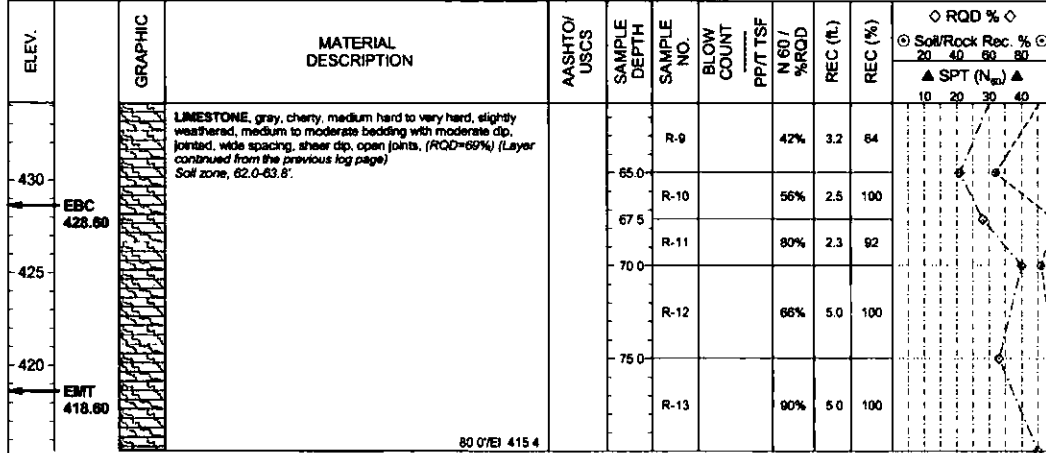
LEGEND

- PP POCKET PENETROMETER
- TOR TOP OF ROCK ELEVATION
- BPC BOTTOM OF PILE CAP ELEVATION
- EBC ESTIMATED BOTTOM OF CASING ELEVATION
- EMT ESTIMATED MICROPILE TIP ELEVATION

THE CLASSIFICATIONS OF THE MATERIALS HAVE BEEN VERIFIED.
RLO

SUBSTRUCTURE UNIT: **ABUTMENT 2** LOG 2 OF 2

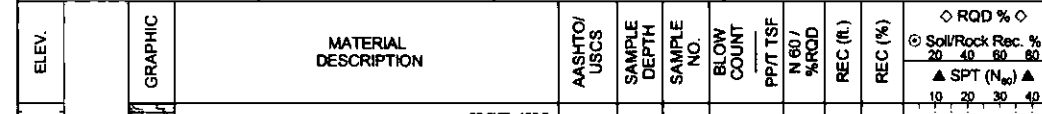
BORING NUMBER: **S-7** BORING LOCATION STATION: 112+01.0 OFFSET: 28.0 ft. RT. VERTICAL SCALE: 0 FT. 5 FT. 0 HR. READING: 0.0 hr. 24 HR. READING: NR¹



24-hr. Water: Boring grouted upon completion.

SUBSTRUCTURE UNIT: **ABUTMENT 2** LOG 2 OF 2

BORING NUMBER: **S-8** BORING LOCATION STATION: 112+82.0 OFFSET: 29.0 ft. LT. VERTICAL SCALE: 0 FT. 5 FT. 0 HR. READING: 0.0 hr. 24 HR. READING: NR¹



24-hr. Water: Boring grouted upon completion.

PLotted 2/29/2016

FILE: M:\2013\07\substructure\20130729.dgn

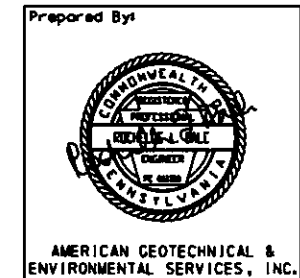
PREPARED BY:
AMERICAN GEOTECHNICAL & ENVIRONMENTAL SERVICES, Inc.
Canonsburg, PA - King of Prussia, PA
Altoona, PA - Baltimore, MD
PREPARED FOR:
THE PENNSYLVANIA TURNPIKE COMMISSION



NO.	REVISIONS	DATE	APPR.

WBS NO. **T-228.54S001-3-02**
NETWORK NUMBER: 7003982
FILE NAME: 13087_strb.dgn
DRAWING TYPE: 2G
STRUCTURE NUMBER: EB-103

REPLACEMENT OF BRIDGE NO. EB-103
AT MILEPOST 228.54



STRUCTURE BORINGS

DISTRICT: 3 COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP
DRAWING: 100 OF 101
SHEET: 245 OF 315

P.L. T. J.L.M. C.E.P. T.B.D. G.A./D.C. S.L.

GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

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LABORATORY TEST SUMMARY - SOILS																				
BORING NUMBER	STATION & OFFSET	SAMPLE #	TEST DEPTH (FT.)	NATURAL MOISTURE %	% GRAIN SIZE DISTRIBUTION (AASHTO)							CLASSIFICATION		PLASTICITY PARAMETERS			MOISTURE DENSITY		CBR	
					GRAVEL %	SAND %	COARSE SAND %	FINE SAND %	FINES %	SILT %	CLAY %	AASHTO	USCS	S.G.	LIQUID LIMIT	PLASTIC LIMIT	P. I.	MAX. DRY DENSITY (PCF)		OPTIMUM MOISTURE %
S-2C	110+27.0 27 ft. LT.	S-1 to 3	15.0 to 19.5	35.5	4.9	8.4	3.1	5.3	86.7	45.4	41.3	A-7-6	CL		46	24	22			
S-4	111+01.0 30 ft. LT.	S-15 to 18	21.0 to 27.0	37.5	2.2	2.6	1.5	1.1	95.2	34.4	60.8	A-7-6	CH		58	25	33			
S-7	112+01.0 28 ft. RT.	S-12 to 16	18.0 to 25.5	29.5	13.6	7.8	3.9	3.9	78.6	38.9	39.7	A-7-6	CH		59	26	33			

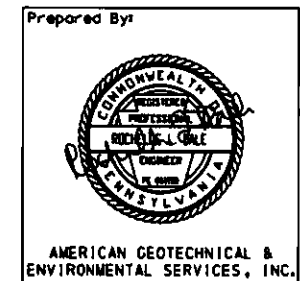
LEGEND

- PP POCKET PENETROMETER
- TOR TOP OF ROCK ELEVATION
- BPC BOTTOM OF PILE CAP ELEVATION
- EBC ESTIMATED BOTTOM OF CASING ELEVATION
- EMT ESTIMATED MICROPILE TIP ELEVATION

THE CLASSIFICATIONS OF THE MATERIALS HAVE BEEN VERIFIED.
RJD

P.LOTTED 2/29/2016

LABORATORY TEST SUMMARY - ROCK CORE											
BORING NUMBER	STATION & OFFSET	SAMPLE #	TEST DEPTH (FT.)	TEST	STRENGTH	JAR SLAKE TEST PERFORMED?	SLAKE DURABILITY INDEX / TYPE	ROCK RECOVERY %	RQD %	BEDROCK LITHOLOGY	STRATIGRAPHIC UNIT
S-1	109+51.0 28 ft. RT.	R-2	40.4 to 41.1	Unconfined Compressive Test	12631.6 PSI / 902 TSF	No		82	74	LIMESTONE	Rockdale Run Formation
S-3	110+36.0 34 ft. RT.	R-2	20 ft to 21 ft	Unconfined Compressive Test	9279.1 PSI / 668 TSF	No		100	84	LIMESTONE	Rockdale Run Formation
S-5	111+29.0 29 ft. RT.	R-2	22.0 to 22.5	Unconfined Compressive Test	13599.9 PSI / 979 TSF	No		100	100	LIMESTONE	Rockdale Run Formation
S-5	111+29.0 29 ft. RT.	R-8	49.0 to 49.5	Unconfined Compressive Test	6066.9 PSI / 438 TSF	No		100	97	LIMESTONE	Rockdale Run Formation
S-7	112+01.0 28 ft. RT.	R-4	43.9 to 44.4	Unconfined Compressive Test	15444.8 PSI / 1112 TSF	No		80	60	LIMESTONE	Rockdale Run Formation
S-7	112+01.0 28 ft. RT.	R-11	67.5 to 68.0	Unconfined Compressive Test	19149.2 PSI / 1379 TSF	No		92	80	LIMESTONE	Rockdale Run Formation



FILE: H:\2013\087\ambro\Structure\13087_srb.dgn

PREPARED BY: AMERICAN GEOTECHNICAL & ENVIRONMENTAL SERVICES, Inc. Canonsburg, PA - King of Prussia, PA Altoona, PA - Baltimore, MD PREPARED FOR: THE PENNSYLVANIA TURNPIKE COMMISSION					WBS NO. T-228.54S001-3-02 NETWORK NUMBER: 7003982 FILE NAME: 13087_srb.dgn DRAWING TYPE: 2G STRUCTURE NUMBER: EB-103	REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	STRUCTURE BORINGS			
			NO.	REVISIONS	DATE	APPR.	SCALE:	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 101 OF 101
									TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 246 OF 315

ROUTE	STATION TO STATION	MILEPOST TO MILEPOST	SHEETS
I-76	83+50 TO 138+80	228.00 TO 229.08	59
NORFOLK SOUTHERN	735+00 TO 744+00		10

Cross Sections

I-76 Pennsylvania Turnpike

Station 83+50 to Station 138+80

DATE: 7/12/2018

PREPARED BY:
WHITNEY, BAILEY, COX & MAGNANI, LLC
100 STERLING PARKWAY, SUITE 108
MECHANICSBURG, PA. 17050

PREPARED FOR:
THE PENNSYLVANIA
TURNPIKE COMMISSION



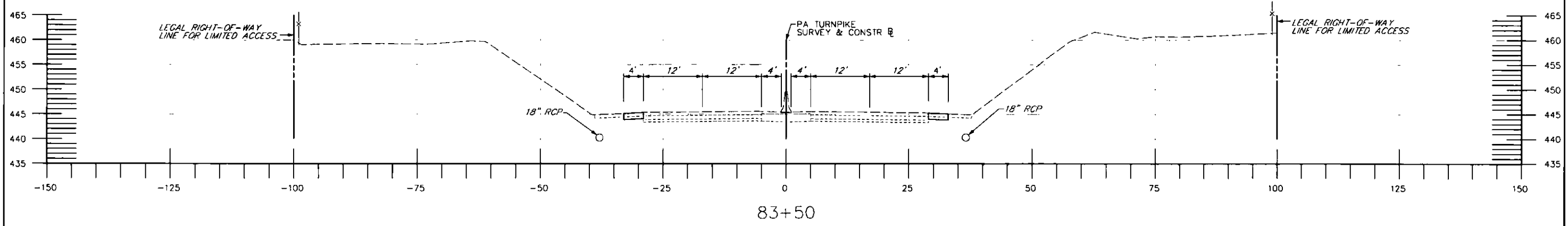
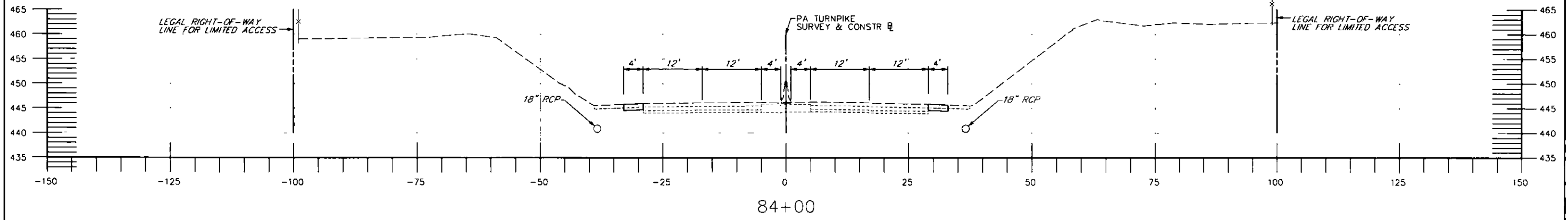
NO.	REVISIONS	DATE	APPR.

WBS NO. T-228.54S001-3-02
NETWORK NUMBER: 7003982
FILE NAME: CSxs01.dgn
DRAWING TYPE: 1B
STRUCTURE NUMBER: EB-103
SCALE: NONE

REPLACEMENT OF BRIDGE NO. EB-103 AT MILEPOST 228.54	
DISTRICT: 3	COUNTY: CUMBERLAND
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	

CROSS SECTIONS	
DRAWING: 1 OF 59	SHEET: 247 OF 315

PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.



LIMIT OF WORK
STA 82+50

START WORK
STA 83+50

STA 83+50 EB & WB
BEGIN 4' SHOULDER RECONSTRUCTION

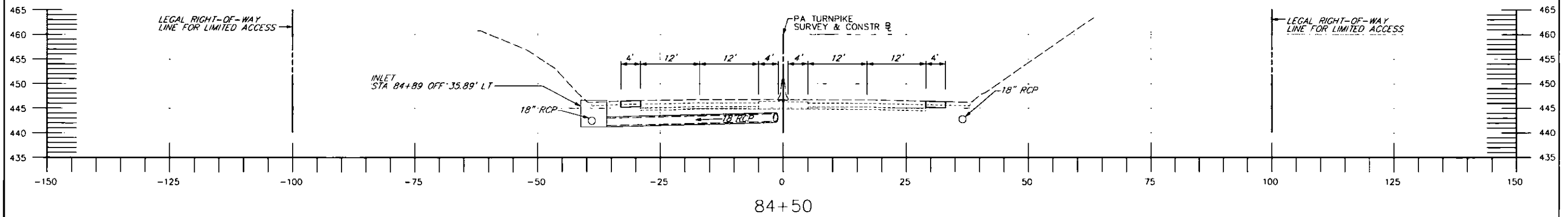
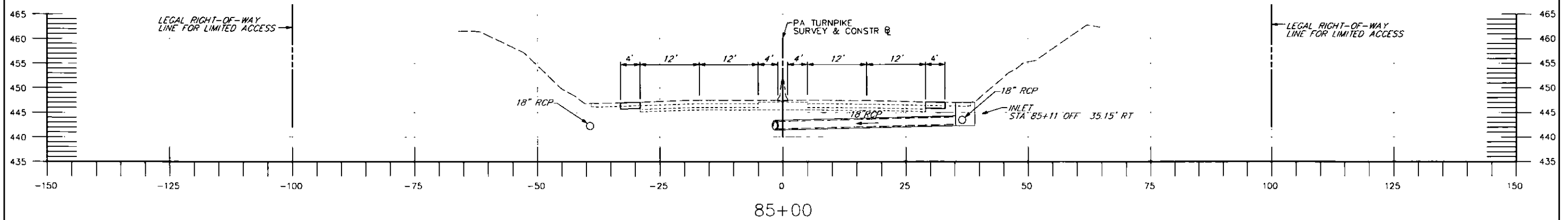
PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.		REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	STATION 83+50 TO 84+00		DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 2 OF 59
					NETWORK NUMBER: 7003982							TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 248 OF 315
					FILE NAME: CSxs01.dgn									
					DRAWING TYPE: 1B									

PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.

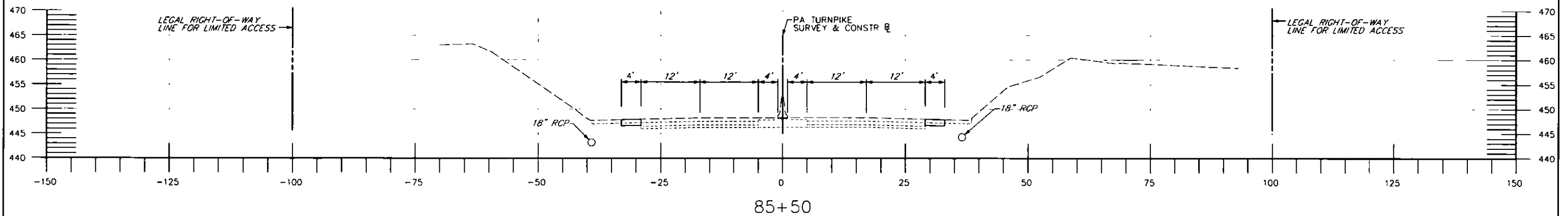
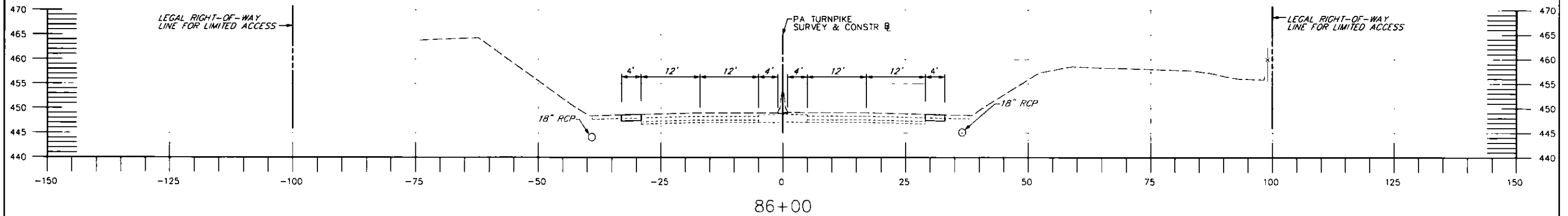


PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

	NETWORK NUMBER: 7003982		WBS NO. T-228.54S001-3-02		ROUTE: I-76		STATION 84+50 TO 85+00	
	FILE NAME: CSxs01.dgn		DRAWING TYPE: 1B		DISTRICT: 3 COUNTY: CUMBERLAND		DRAWING: 3 OF 59	
NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 249 OF 315	

PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.

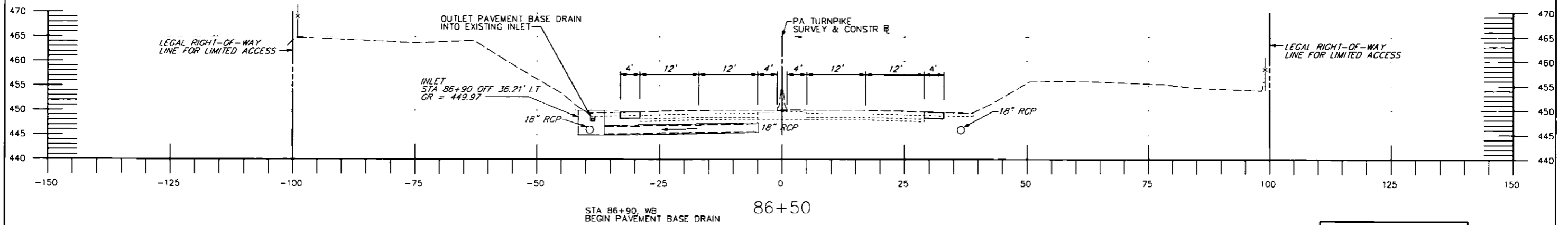
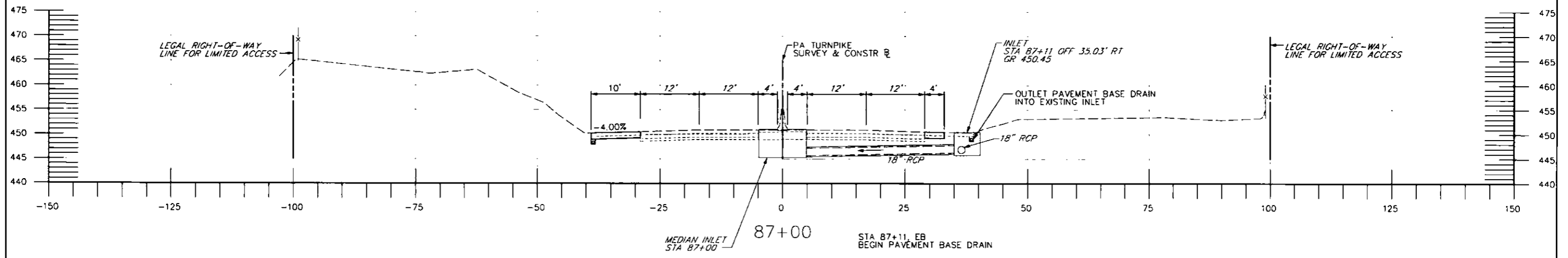


PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02 REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 85+50 TO 86+00 DRAWING: 4 OF 59 SHEET: 250 OF 315

PRELIMINARY	
C. 2.0	F. 0.0
FINAL	
C.	F.
TC.	TF.



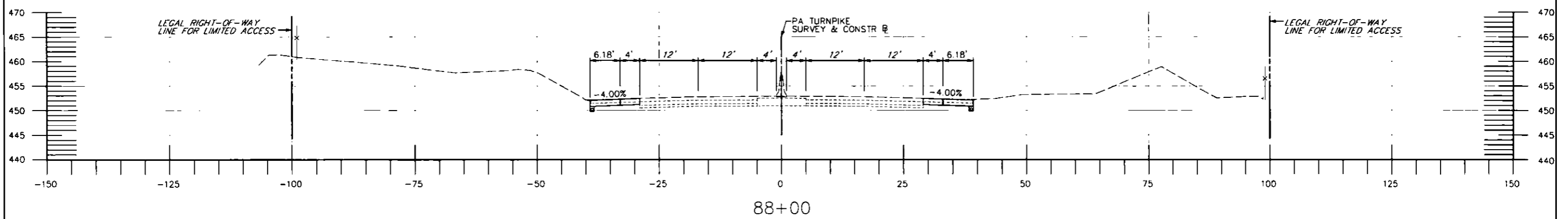
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FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

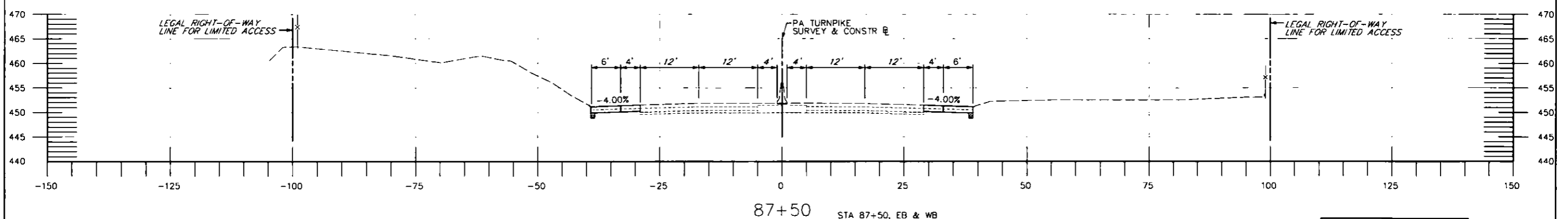


NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 86+50 TO 87+00	DRAWING: 5 OF 59	SHEET: 251 OF 315
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54						
				FILE NAME: CSxs01.dgn								
				DRAWING TYPE: 1B								

PRELIMINARY	
C. 3.0	F. 0.0
FINAL	
C.	F.
TC.	TF.



88+00



87+50

STA 87+50, EB & WB
BEGIN PAVEMENT WIDENING

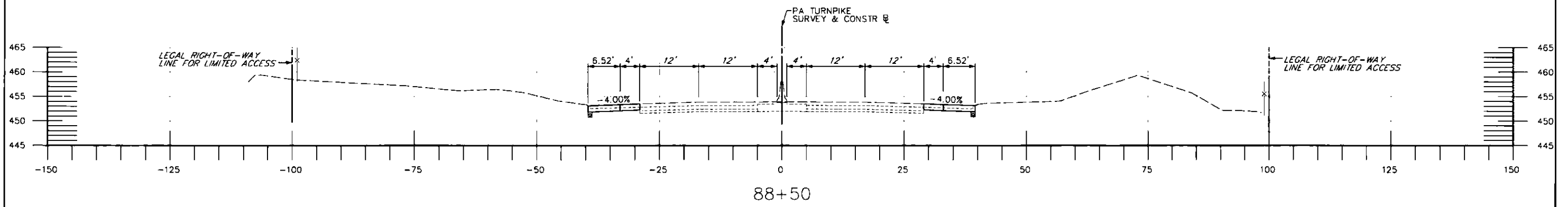
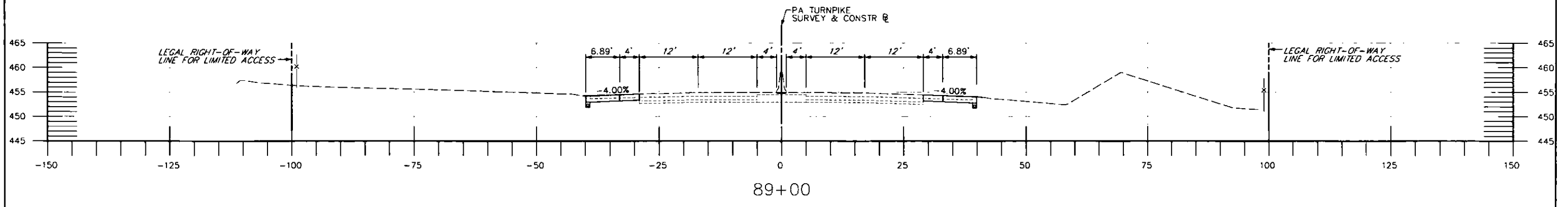
PRELIMINARY	
C. 2.9	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 87+50 TO 88+00	DRAWING: 6 OF 59	SHEET: 252 OF 315
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOSTY 228.54						
				FILE NAME: CSxs01.dgn								
				DRAWING TYPE: 1B								

PRELIMINARY	
C. 3.2	F. 0.0
FINAL	
C.	F.
TC.	TF.



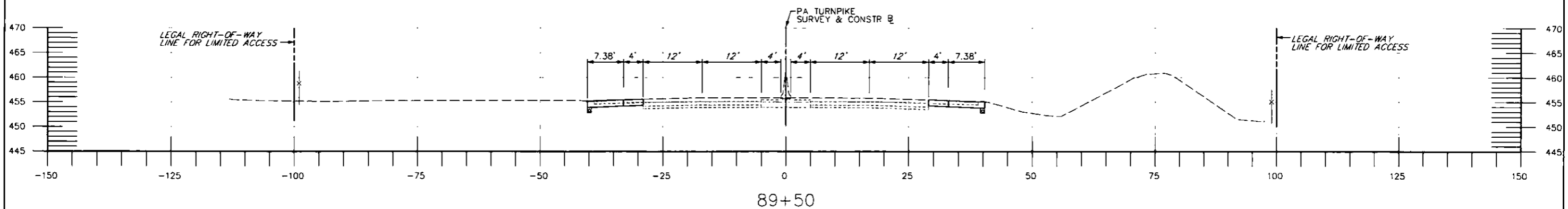
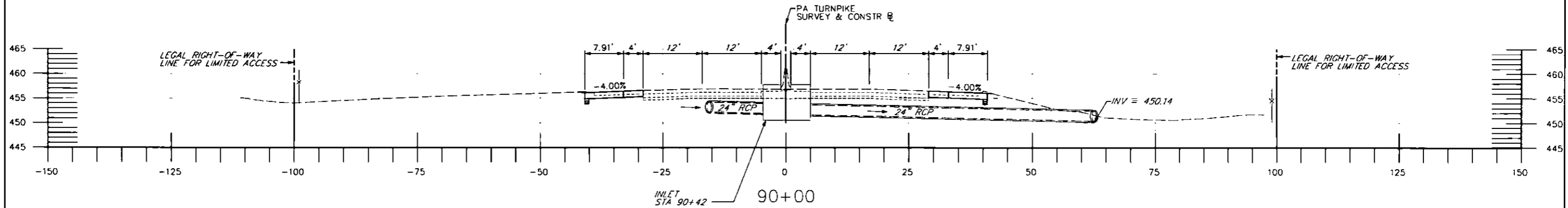
PRELIMINARY	
C. 3.0	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 88+50 TO 89+00	DRAWING: 7 OF 59	SHEET: 253 OF 315
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54						
				FILE NAME: CSxs01.dgn								
				DRAWING TYPE: 1B								

PRELIMINARY	
C. 3.5	F. 0.0
FINAL	
C.	F.
TC.	TF.



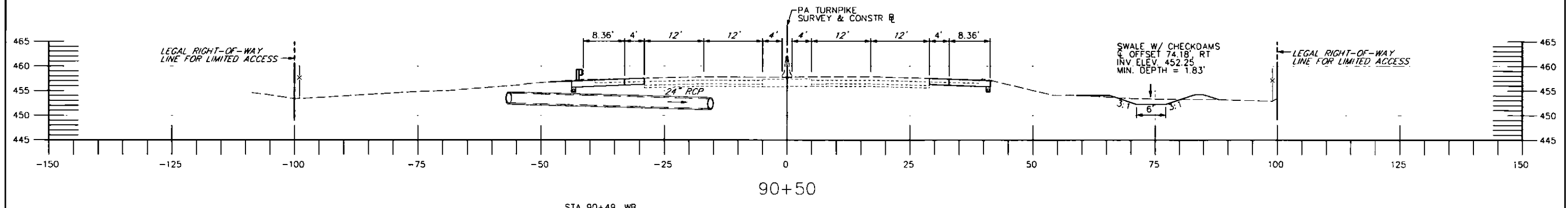
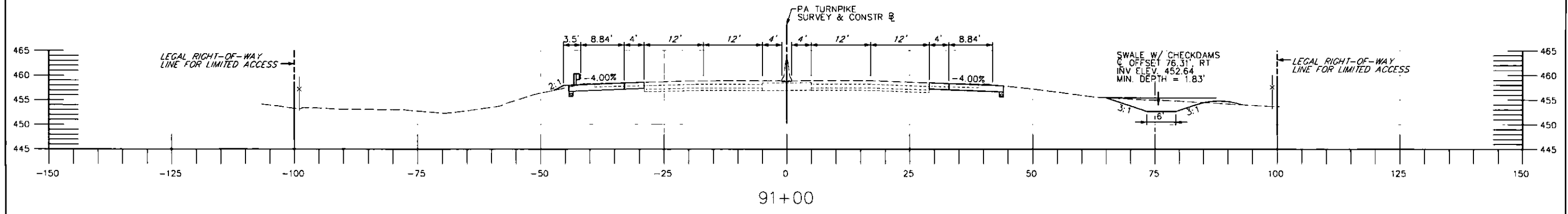
PRELIMINARY	
C. 3.3	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	STATION 89+50 TO 90+00		DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 8 OF 59
											TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 254 OF 315	

CLASS 2 EXCAV - 29.2 SF

PRELIMINARY	
C. 7.7	F. 0.5
FINAL	
C.	F.
TC.	TF.



STA 90+49, WB
BEGIN GUIDE RAIL;
INSTALL TYPE 2-S POST ANCHORAGE
SEE PTS-130 AND RC-54M

CLASS 2 EXCAV - 10.6 SF

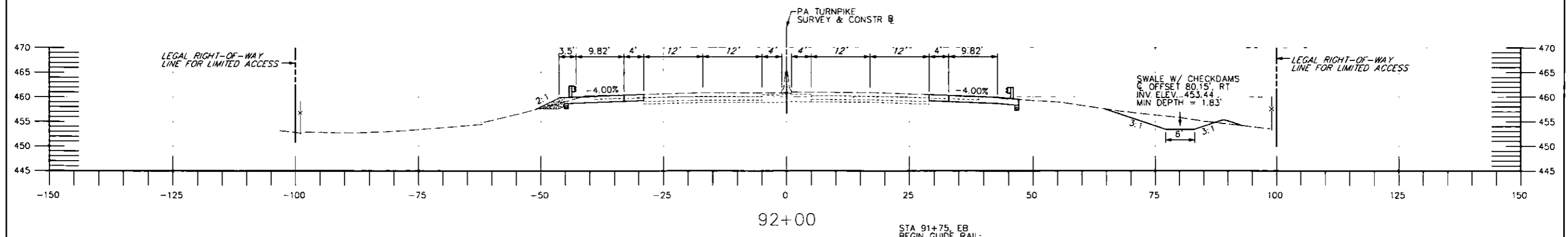
PRELIMINARY	
C. 5.3	F. 0.7
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

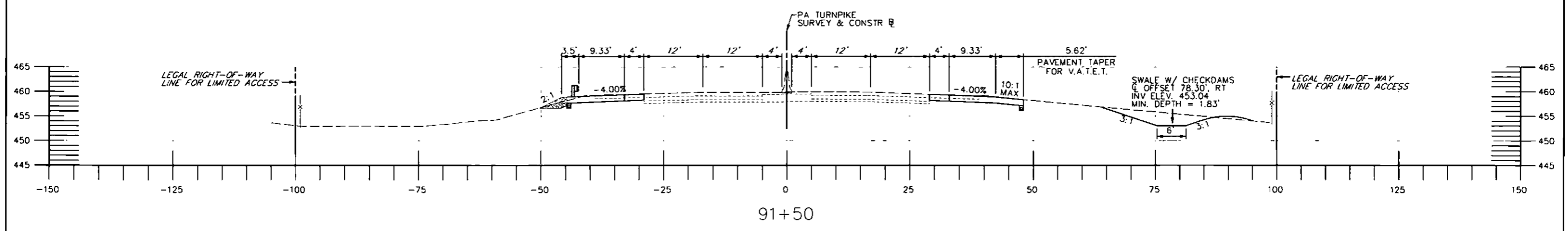
	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	STATION 90+50 TO 91+00	
									DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 9 OF 59
									TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 255 OF 315

CLASS 2 EXCAV - 34.0 SF

PRELIMINARY	
C. 8.4	F. 0.3
FINAL	
C.	F.
TC.	TF.



STA 91+75, EB
BEGIN GUIDE RAIL;
INSTALL V.A.T.E.T. TYPE II,
TEST LEVEL 3 (TANGENT),
SEE PTS-130



CLASS 2 EXCAV - 36.9 SF

PRELIMINARY	
C. 9.0	F. 0.3
FINAL	
C.	F.
TC.	TF.

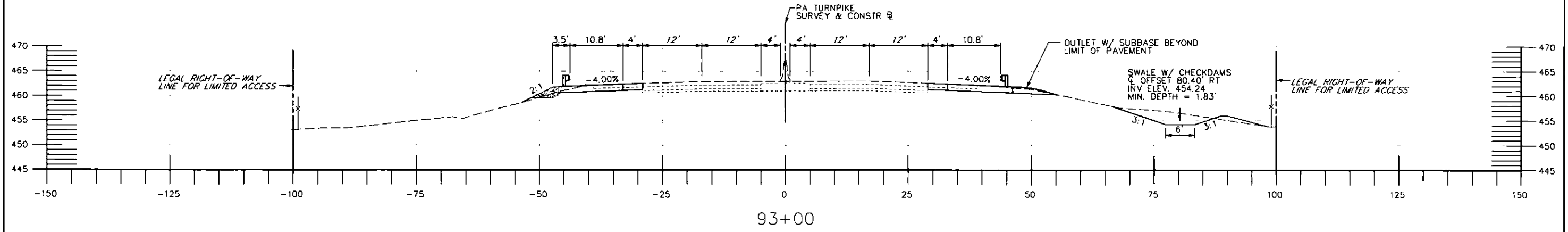
DATE: 7/12/2016



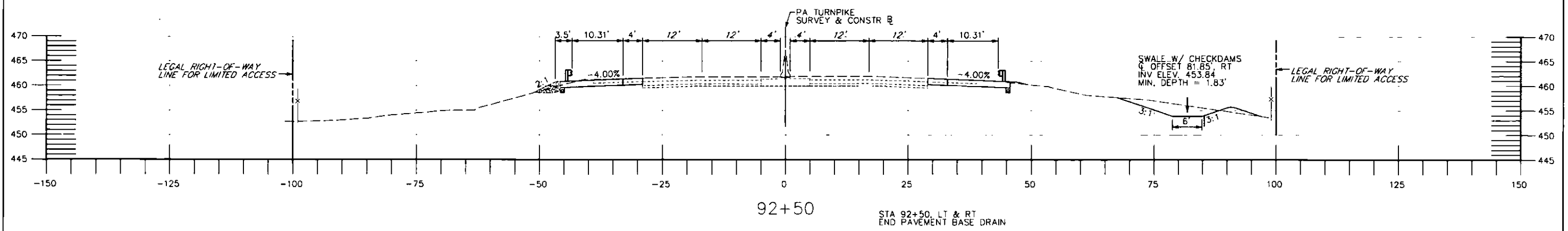
NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	STATION 91+50 TO 92+00	
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 10 OF 59
				FILE NAME: CSxs01.dgn	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 256 OF 315
				DRAWING TYPE: 1B				

CLASS 2 EXCAV - 30.8 SF

PRELIMINARY	
C. 8.6	F. 1.6
FINAL	
C.	F.
TC.	TF.



93+00



92+50

STA 92+50, LT & RT
END PAVEMENT BASE DRAIN

CLASS 2 EXCAV - 31.9 SF

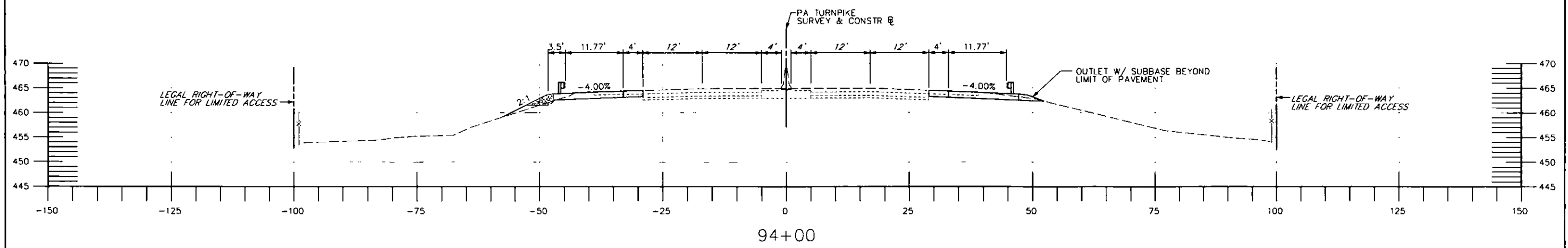
PRELIMINARY	
C. 8.1	F. 0.6
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

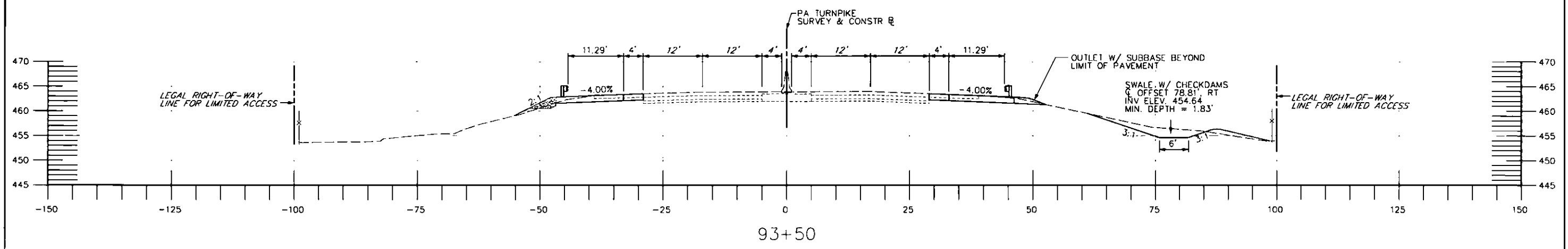


NO.		REVISIONS		DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 92+50 TO 93+00	DRAWING: 11 OF 59	SHEET: 257 OF 315
NETWORK NUMBER: 7003982						FILE NAME: CSxs01.dgn		DRAWING TYPE: 1B		DISTRICT: 3		COUNTY: CUMBERLAND		DRAWING: 11 OF 59		SHEET: 257 OF 315

PRELIMINARY	
C. 4.9	F. 0.9
FINAL	
C.	F.
TC.	TF.



94+00



93+50

CLASS 2 EXCAV - 26.7 SF

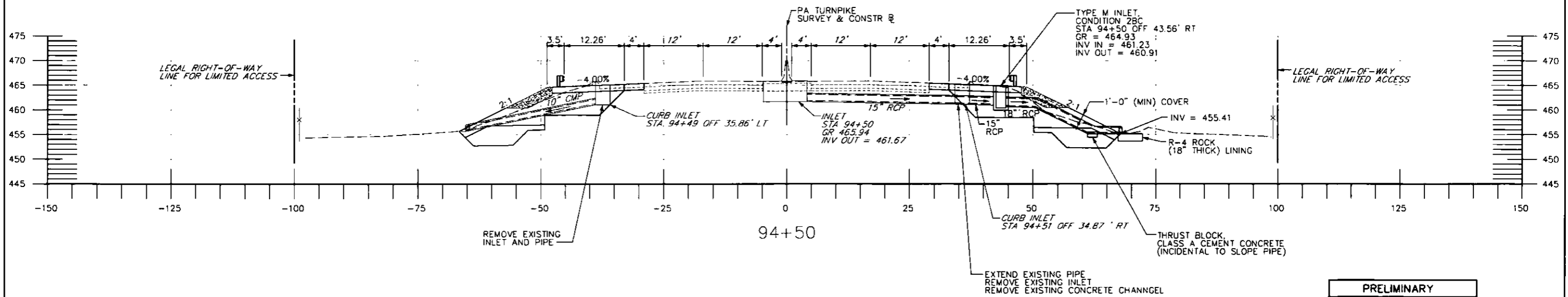
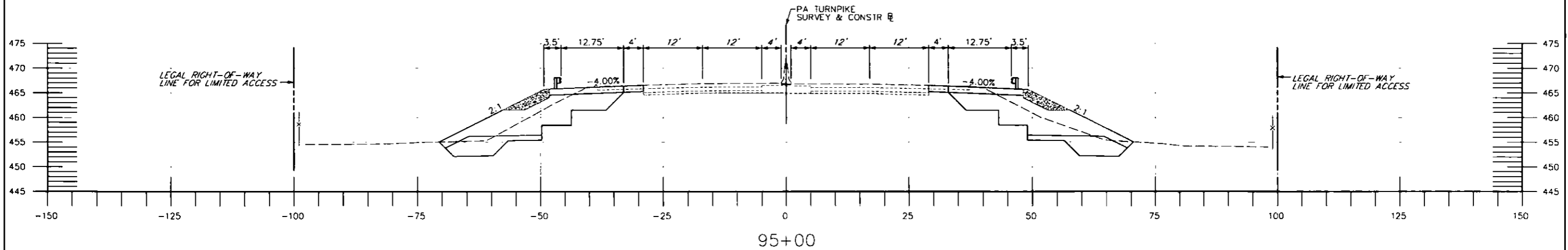
PRELIMINARY	
C. 7.9	F. 1.7
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	STATION 93+50 TO 94+00	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 12 OF 59
												TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 258 OF 315

PRELIMINARY	
C. 32.5	F. 42.6
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 282.1 SF
 TYPE B ROCK - 93.6 SF
 EMBANKMENT B'FILL - 270.1 SF



PRELIMINARY	
C. 36.8	F. 36.0
FINAL	
C.	F.
TC.	TF.

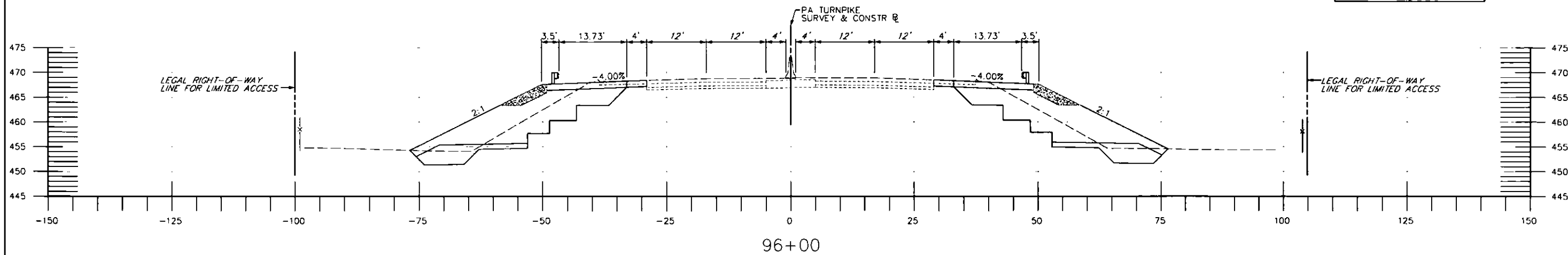
BENCHING EXCAV - 321.1 SF
 TYPE B ROCK - 86.3 SF
 EMBANKMENT B'FILL - 222.5 SF

DATE: 7/12/2016

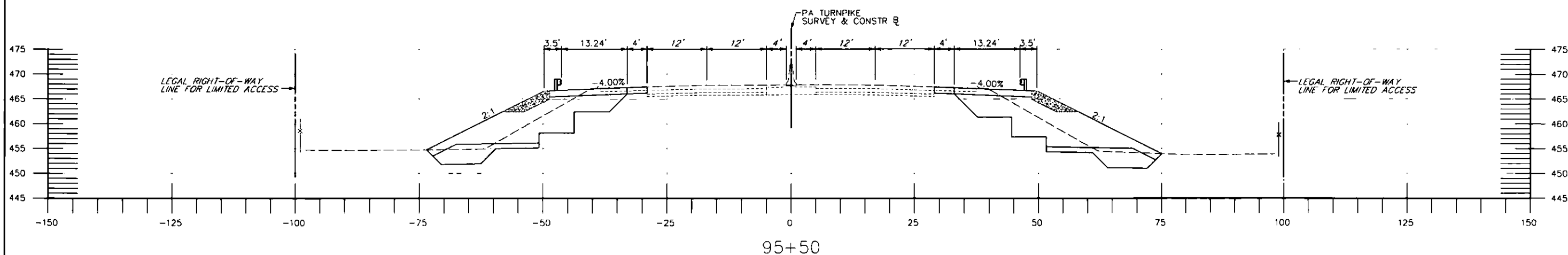
	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 94+50 TO 95+00	DRAWING: 13 OF 59
	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET					DRAWING: 13 OF 59

PRELIMINARY	
C. 34.0	F. 56.6
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 295.5 SF
 TYPE B ROCK - 98.7 SF
 EMBANKMENT B'FILL - 383.3 SF



96+00



95+50

STA 95+42. EB
 BEGIN TYPE 2 RIGHT-OF-WAY FENCE;
 CONNECT TO EXISTING FENCE.

PRELIMINARY	
C. 33.9	F. 52.8
FINAL	
C.	F.
TC.	TF.

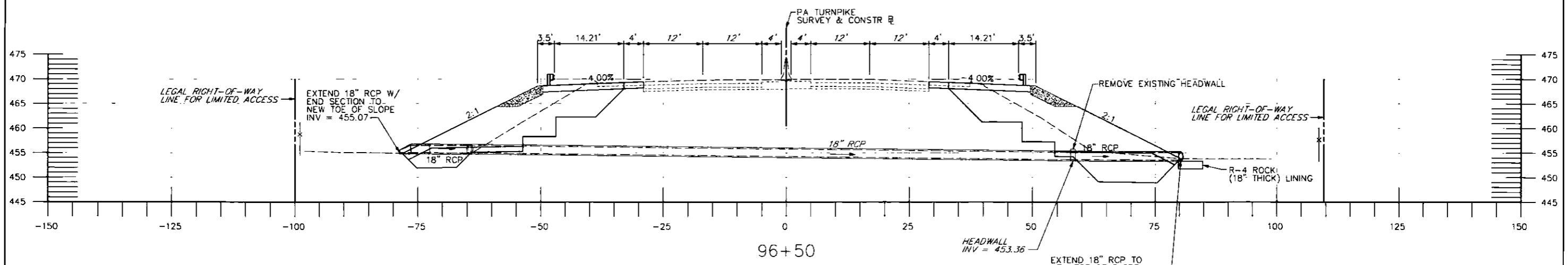
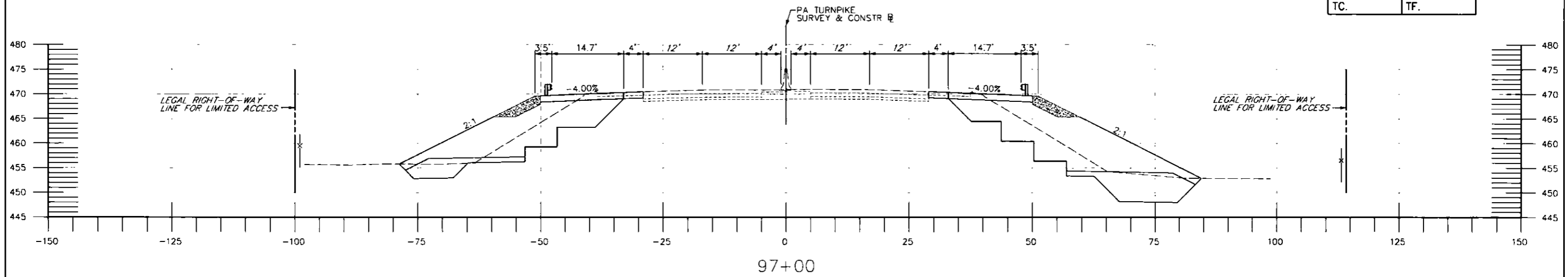
BENCHING EXCAV - 294.7 SF
 TYPE B ROCK - 97.5 SF
 EMBANKMENT B'FILL - 385.3 SF

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	COUNTY: CUMBERLAND	STATION 95+50 TO 96+00	
											DRAWING: 14 OF 59	SHEET: 260 OF 315
NETWORK NUMBER: 7003982 FILE NAME: CSxs01.dgn DRAWING TYPE: 1B												

PRELIMINARY	
C. 44.8	F. 79.8
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 393.5 SF
 TYPE B ROCK - 156.5 SF
 EMBANKMENT B'FILL - 527.7 SF



PRELIMINARY	
C. 44.6	F. 73.0
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 390.8 SF
 TYPE B ROCK - 153.5 SF
 EMBANKMENT B'FILL - 472.5 SF

DATE: 7/12/2016



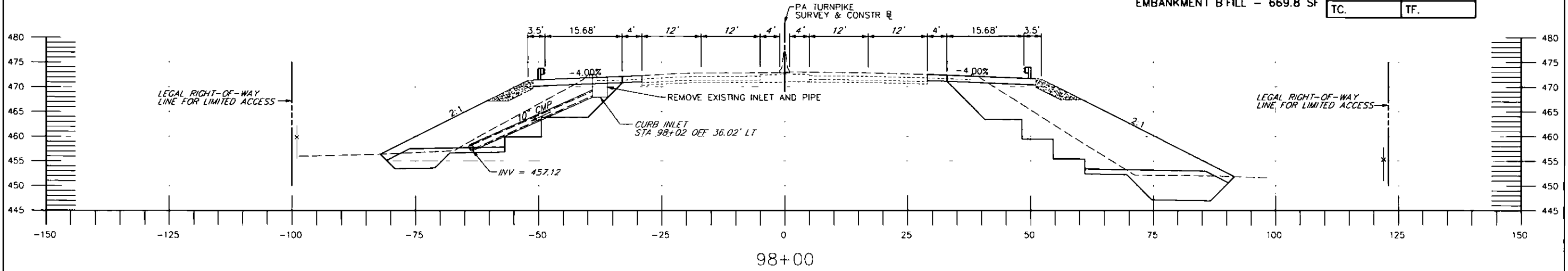
NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 96+50 TO 97+00	DRAWING: 15 OF 59	SHEET: 261 OF 315
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NETWORK NUMBER: 7003982
 FILE NAME: CSxs01.dgn
 DRAWING TYPE: 1B

WBS NO.
 T-228.54S001-3-02

PRELIMINARY	
C. 51.1	F. 96.5
FINAL	
C.	F.
TC.	TF.

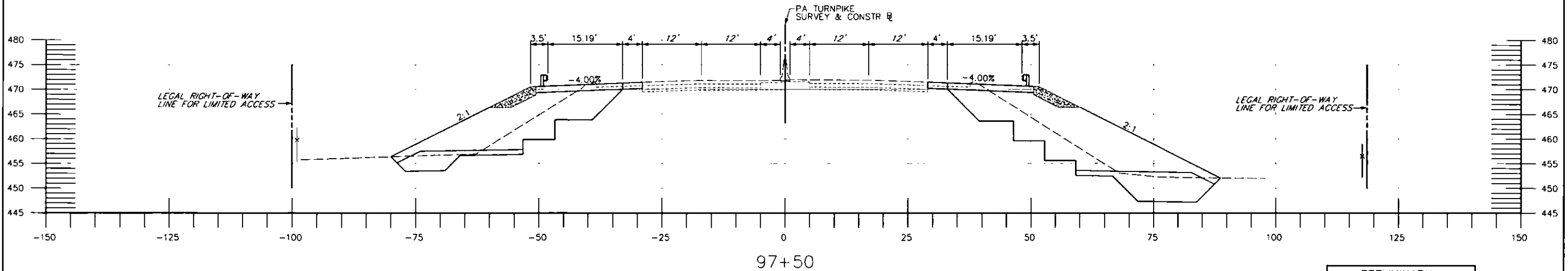
BENCHING EXCAV - 450.3 SF
 TYPE B ROCK - 159.1 SF
 EMBANKMENT B'FILL - 669.8 SF



98+00

PRELIMINARY	
C. 46.6	F. 89.4
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 409.3 SF
 TYPE B ROCK - 159.6 SF
 EMBANKMENT B'FILL - 607.8 SF



97+50

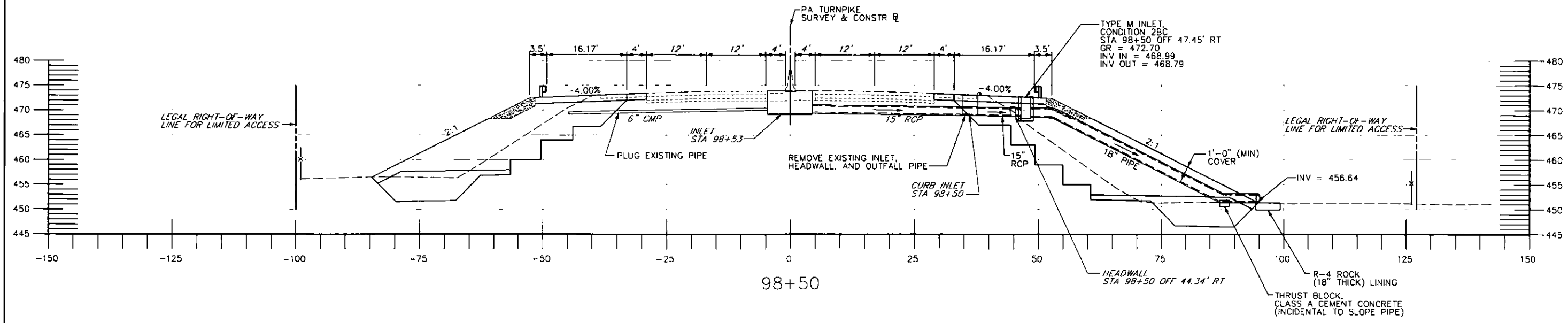
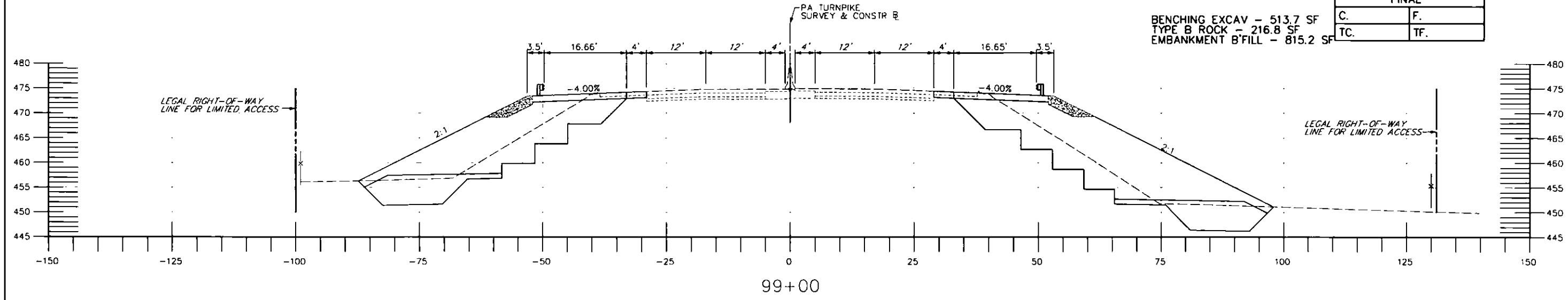
DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	DRAWING: 16 OF 59	SHEET: 262 OF 315
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54		STATION 97+50 TO 98+00			
				FILE NAME: CSx01.dgn							
				DRAWING TYPE: 1B							

PRELIMINARY	
C. 58.2	F. 119.9
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 513.7 SF
 TYPE B ROCK - 216.8 SF
 EMBANKMENT B'FILL - 815.2 SF



PRELIMINARY	
C. 52.8	F. 112.2
FINAL	
C.	F.
TC.	TF.

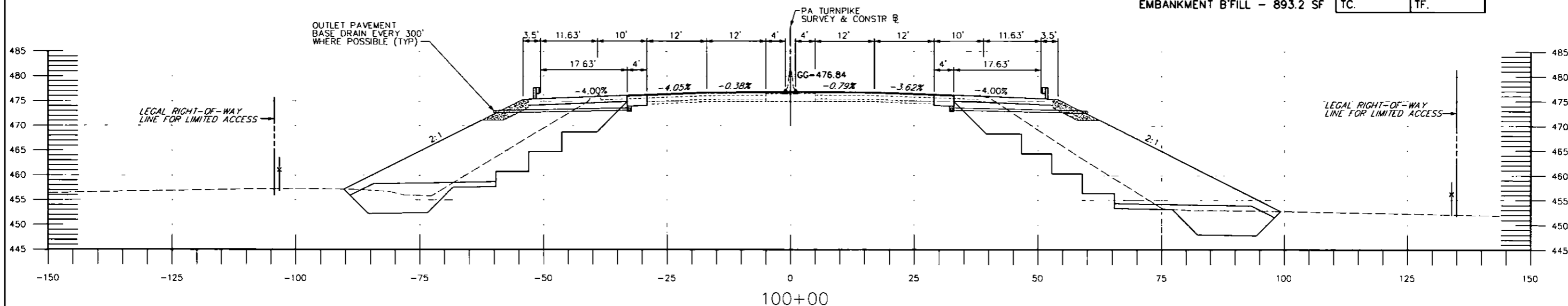
BENCHING EXCAV - 465.7 SF
 TYPE B ROCK - 217.6 SF
 EMBANKMENT B'FILL - 749.2 SF

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	NETWORK NUMBER: 7003982 FILE NAME: CSxs01.dgn DRAWING TYPE: 1B	WBS NO. T-228.54S001-3-02	SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	COUNTY: CUMBERLAND	STATION 98+50 TO 99+00	DRAWING: 17 OF 59 SHEET: 263 OF 315
	PA TURNPIKE SURVEY & CONSTR B												

PRELIMINARY	
C. 57.1	F. 129.1
FINAL	
C.	F.
TC.	TF.

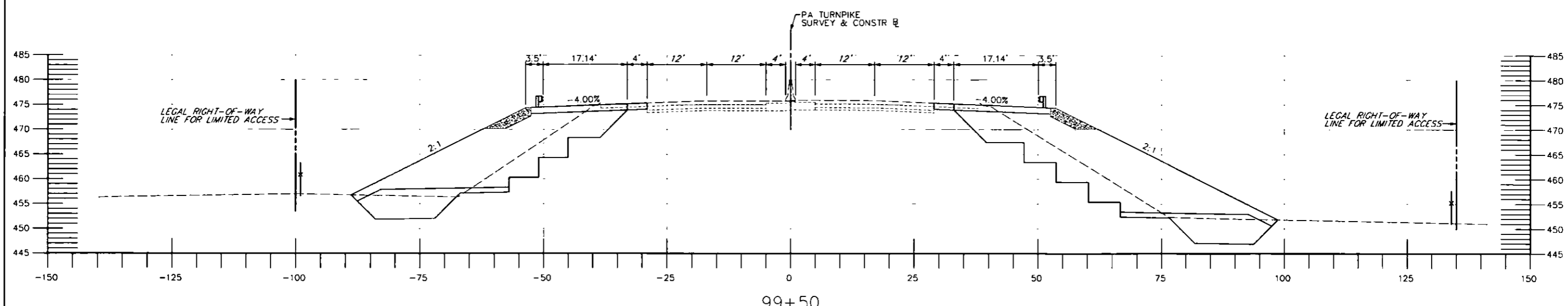
BENCHING EXCAV - 504.2 SF
 TYPE B ROCK - 219.9 SF
 EMBANKMENT B'FILL - 893.2 SF



STA 100+00, EB & WB
 BEGIN MILL AND OVERLAY
 BEGIN MEDIAN WIDENING
 BEGIN PAVEMENT BASE DRAIN AT OUTSIDE EDGES OF WIDENED LANES

PRELIMINARY	
C. 56.8	F. 124.8
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 501.4 SF
 TYPE B ROCK - 219.3 SF
 EMBANKMENT B'FILL - 856.0 SF



STA 99+50, WB
 BEGIN TYPE 2 RIGHT-OF-WAY FENCE;
 CONNECT TO EXISTING FENCE.

DATE: 7/12/2016



NETWORK NUMBER: 7003982
 FILE NAME: CSxs01.dgn
 DRAWING TYPE: 1B
 STRUCTURE NUMBER: EB-103

WBS NO.
T-228.54S001-3-02

SCALE: 10 0 10 FEET

REPLACEMENT OF BRIDGE EB-103
 AT MILEPOST 228.54

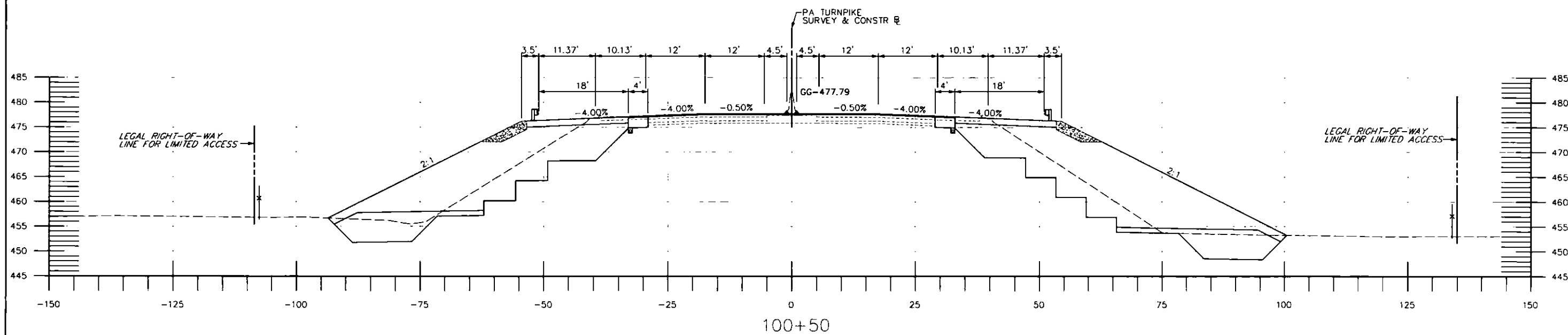
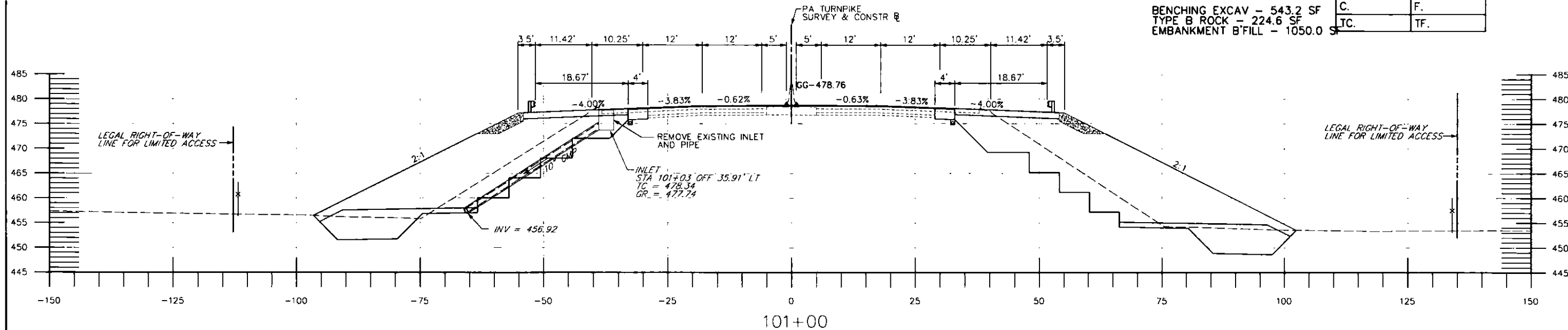
ROUTE: I-76
 DISTRICT: 3
 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

STATION 99+50 TO 100+00

DRAWING: 18 OF 59
 SHEET: 264 OF 315

PRELIMINARY	
C. 62.3	F. 147.6
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 543.2 SF
 TYPE B ROCK - 224.6 SF
 EMBANKMENT B'FILL - 1050.0 SF



PRELIMINARY	
C. 62.4	F. 138.8
FINAL	
C.	F.
TC.	TF.

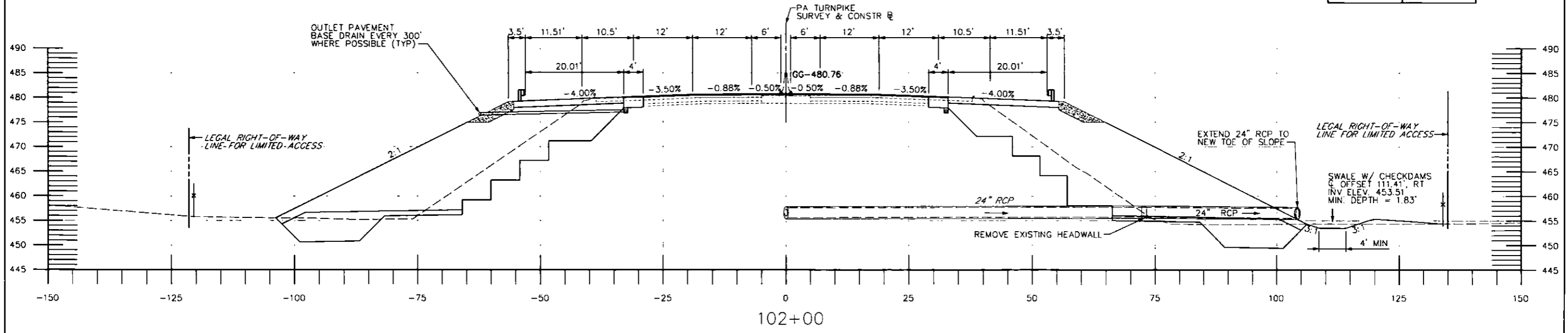
BENCHING EXCAV - 155.9 SF
 TYPE B ROCK - 221.6 SF
 EMBANKMENT B'FILL - 976.3 SF

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	STATION 100+50 TO 101+00	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 19 OF 59
												TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 265 OF 315

PRELIMINARY	
C. 65.6	F. 177.1
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 566.5 SF
 CLASS 2 EXCAV - 6.7 SF
 TYPE B ROCK - 233.2 SF
 EMBANKMENT B'FILL - 1290.5 SF



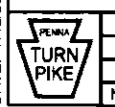
LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS	
EXTEND 24" RCP TO NEW TOE OF SLOPE	
SWALE W/ CHECKDAMS C. OFFSET 111.41' RT INV. ELEV. 453.51' MIN. DEPTH = 1.83'	
REMOVE EXISTING HEADWALL	
4' MIN	

LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS	
LEGAL RIGHT-OF-WAY LINE FOR LIMITED ACCESS	

PRELIMINARY	
C. 62.9	F. 146.7
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 584.7 SF
 TYPE B ROCK - 227.3 SF
 EMBANKMENT B'FILL - 1136.0 SF

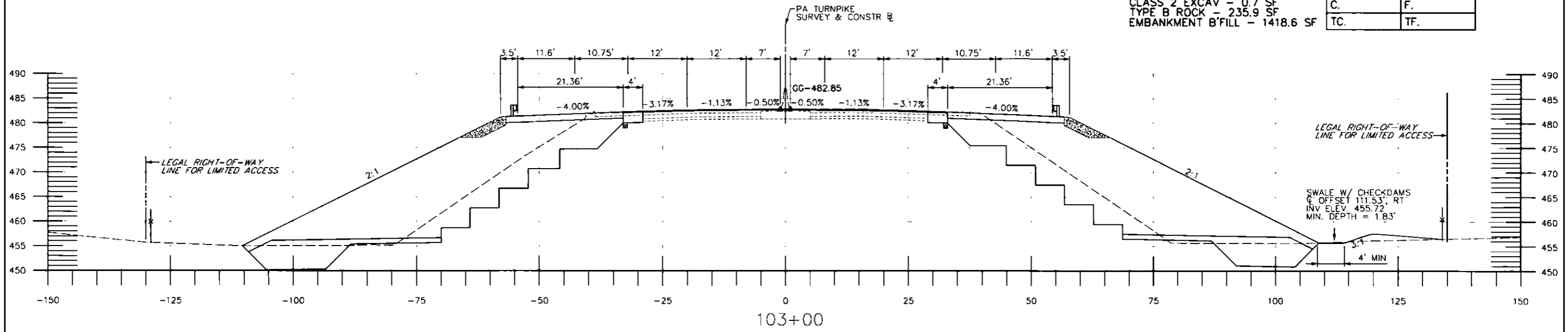
DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 101+50 TO 102+00	DRAWING: 20 OF 59	SHEET: 266 OF 315
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54						
				FILE NAME: CSxs01.dgn								
				DRAWING TYPE: 1B								

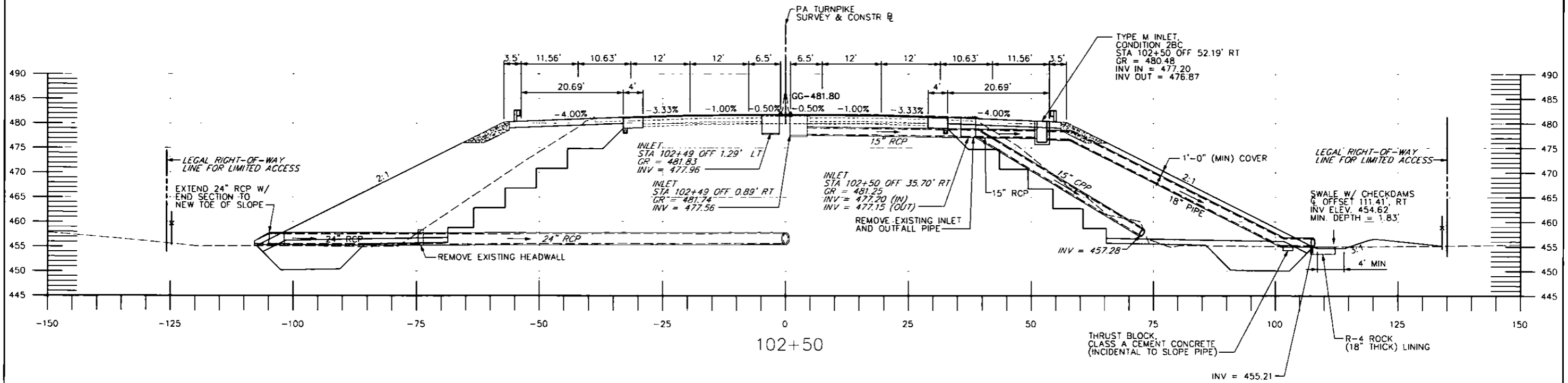
PRELIMINARY	
C. 66.5	F. 192.7
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 579.5 SF
 CLASS 2 EXCAV - 0.7 SF
 TYPE B ROCK - 235.9 SF
 EMBANKMENT B'FILL - 1418.6 SF



PRELIMINARY	
C. 64.6	F. 185.6
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 561.4 SF
 CLASS 2 EXCAV - 2.1 SF
 TYPE B ROCK - 236.5 SF
 EMBANKMENT B'FILL - 1355.6 SF



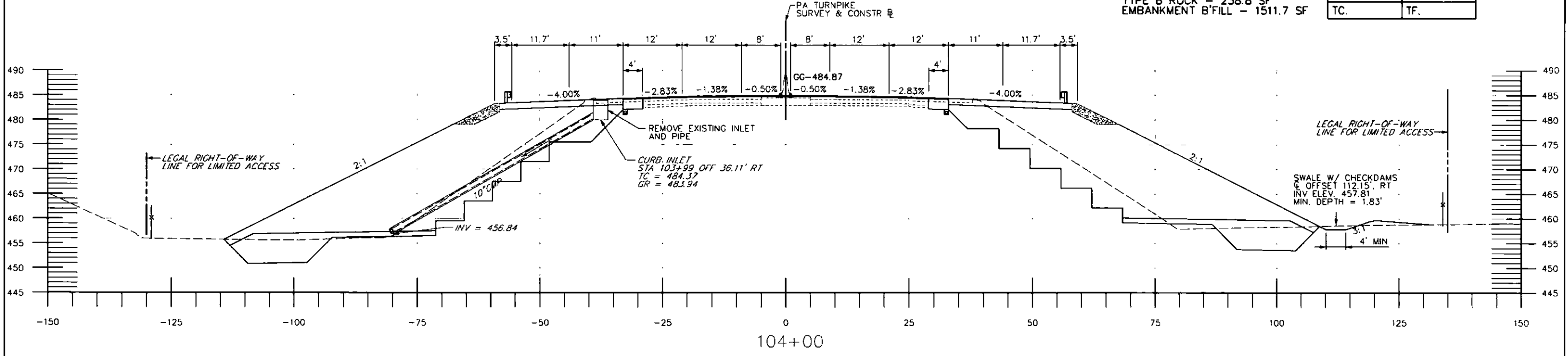
PRELIMINARY	
C. 64.6	F. 185.6
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	NETWORK NUMBER: 7003982 FILE NAME: CSxs01.dgn DRAWING TYPE: 1B STRUCTURE NUMBER: EB-103	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 102+50 TO 103+00 COUNTY: CUMBERLAND DRAWING: 21 OF 59 SHEET: 267 OF 315
	SCALE: 10 0 10 FEET								

PRELIMINARY	
C. 67.6	F. 202.7
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 585.8 SF
 CLASS 2 EXCAV - 4.5 SF
 TYPE B ROCK - 238.8 SF
 EMBANKMENT B'FILL - 1511.7 SF



LEGAL RIGHT-OF-WAY
 LINE FOR LIMITED ACCESS

SWALE W/ CHECKDAMS
 4' OFFSET 112.15' RT
 INV ELEV. 457.81
 MIN. DEPTH = 1.83'

LEGAL RIGHT-OF-WAY
 LINE FOR LIMITED ACCESS

SWALE W/ CHECKDAMS
 4' OFFSET 111.93' RT
 INV ELEV. 456.82
 MIN. DEPTH = 1.83'

PRELIMINARY	
C. 66.8	F. 197.4
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 581.5 SF
 CLASS 2 EXCAV - 2.0 SF
 TYPE B ROCK - 237.6 SF
 EMBANKMENT B'FILL - 1461.8 SF

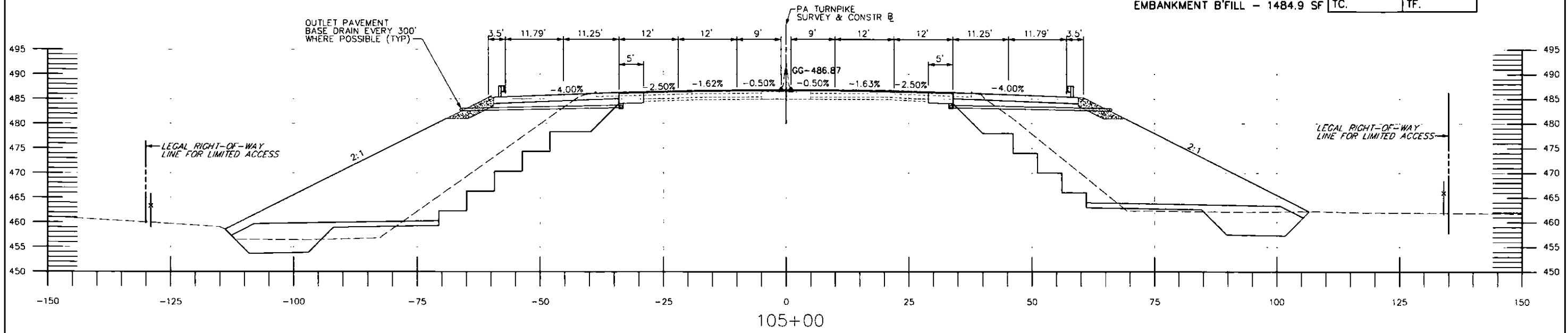
DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 22 OF 59
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 103+50 TO 104+00	
				FILE NAME: CSxs01.dgn					SHEET: 268 OF 315
				DRAWING TYPE: 1B					

PRELIMINARY	
C. 57.5	F. 199.1
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 494.8 SF
 TYPE B ROCK - 244.2 SF
 EMBANKMENT B'FILL - 1484.9 SF

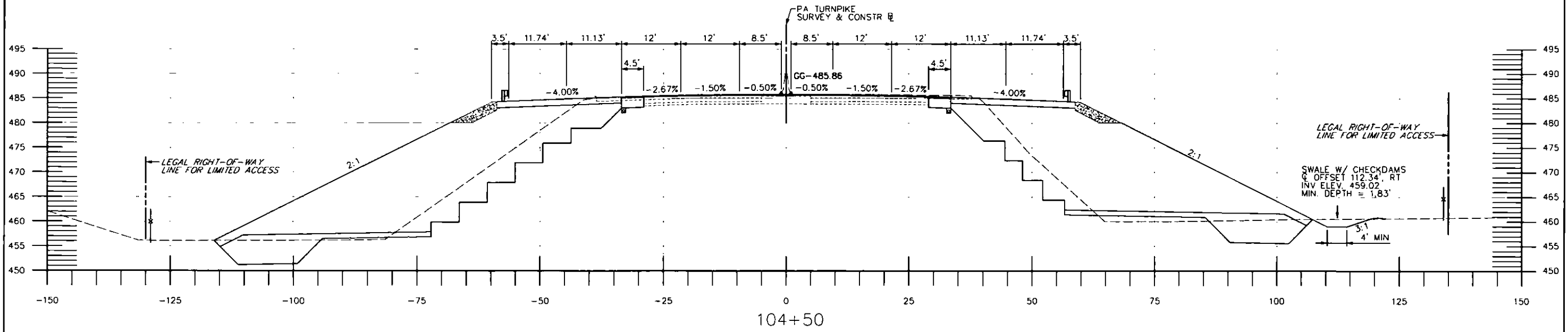


LEGAL RIGHT-OF-WAY
 LINE FOR LIMITED ACCESS

SWALE W/ CHECKDAMS
 Q OFFSET 112.34' RT
 INV ELEV 459.02'
 MIN. DEPTH = 1.83'

PRELIMINARY	
C. 61.5	F. 213.5
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 519.8 SF
 CLASS 2 EXCAV - 12.1 SF
 TYPE B ROCK - 250.1 SF
 EMBANKMENT B'FILL - 1605.5 SF



DATE: 7/12/2016

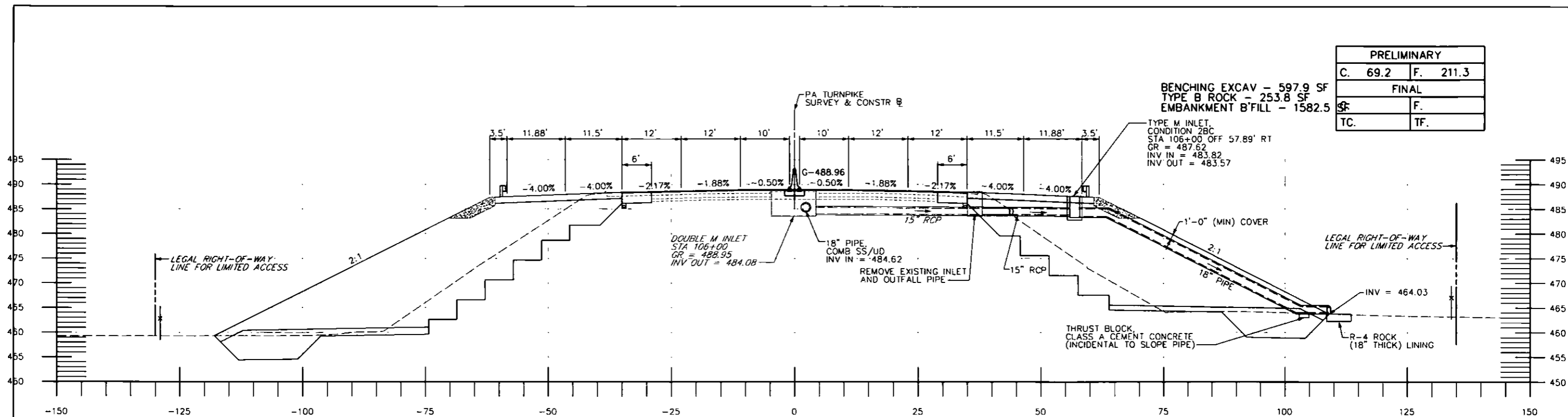


NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 104+50 TO 105+00	DRAWING: 23 OF 59	SHEET: 269 OF 315
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NETWORK NUMBER: 7003982
 FILE NAME: CSxs01.dgn
 DRAWING TYPE: 1B

WBS NO.
 T-228.54S001-3-02

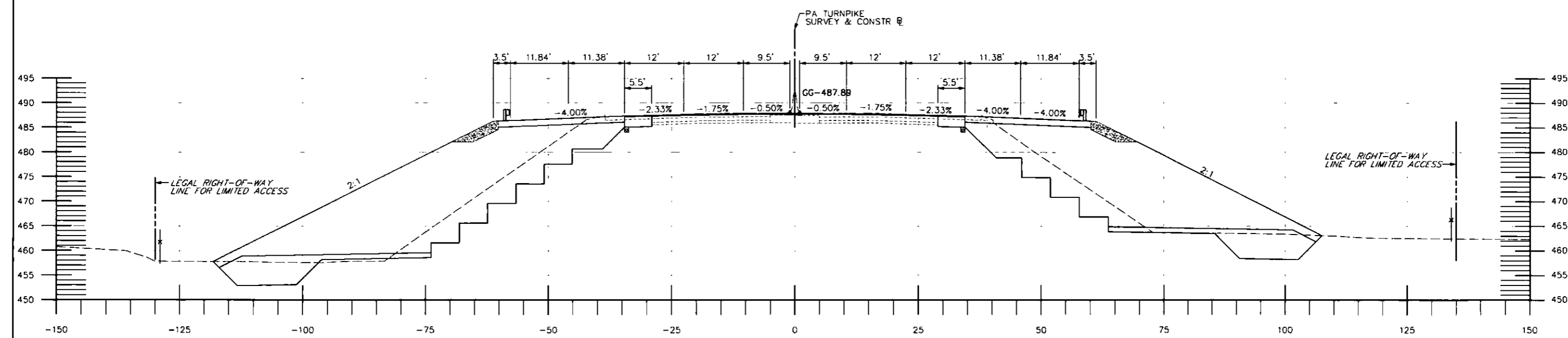
REPLACEMENT OF BRIDGE EB-103
 AT MILEPOST 228.54



106+00
 STA 106+00
 BEGIN COMBINATION STORM SEWER AND UNDERDRAIN
 STA 105+90.50
 BEGIN CONCRETE GLARE SCREEN REPLACEMENT

PRELIMINARY	
C. 69.2	F. 211.3
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 597.9 SF
 TYPE B ROCK - 253.8 SF
 EMBANKMENT B'FILL - 1582.5 SF



105+50

PRELIMINARY	
C. 64.9	F. 207.5
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 559.8 SF
 TYPE B ROCK - 243.6 SF
 EMBANKMENT B'FILL - 1558.7 SF

DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 105+50 TO 106+00	DRAWING: 24 OF 59	SHEET: 270 OF 315
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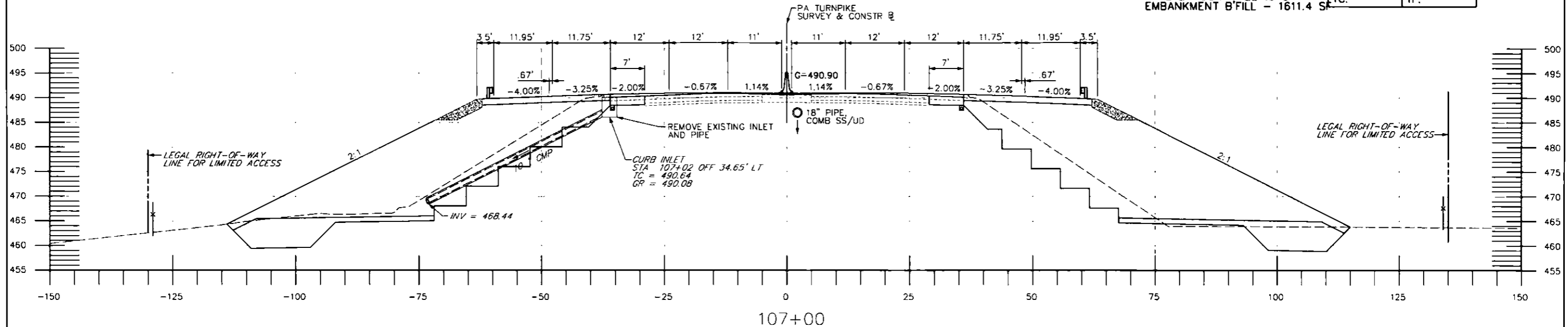
NETWORK NUMBER: 7003982
 FILE NAME: CSxs01.dgn
 DRAWING TYPE: 1B

WBS NO.
 T-228.54S001-3-02

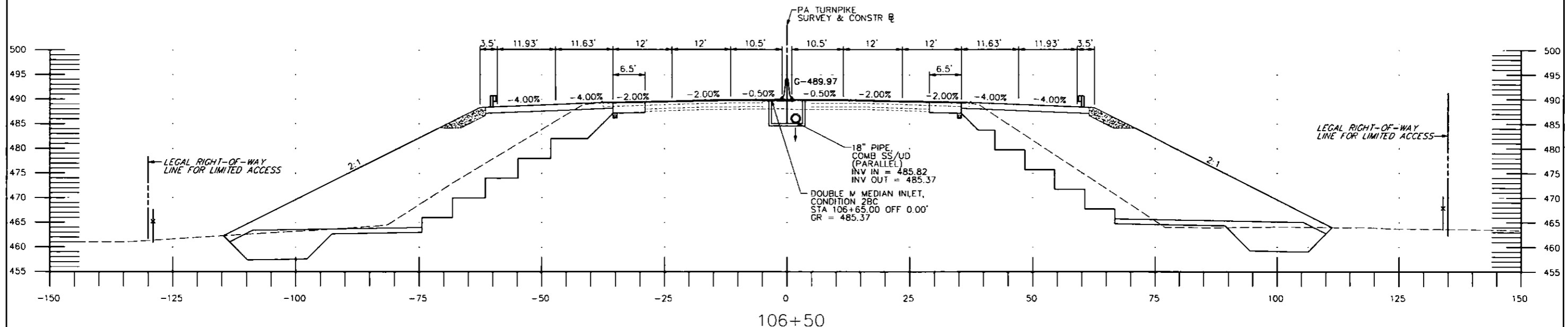
REPLACEMENT OF BRIDGE EB-103
 AT MILEPOST 228.54

PRELIMINARY	
C. 65.7	F. 213.4
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 590.9 SF
 TYPE B ROCK - 224.9 SF
 EMBANKMENT B'FILL - 1611.4 SF



107+00



106+50

STA 106+50 EB & WB
 BEGIN CROSS SLOPE TRANSITION
 TO THREE LANE SECTION

PRELIMINARY	
C. 68.6	F. 201.1
FINAL	
C.	F.
TC.	TF.

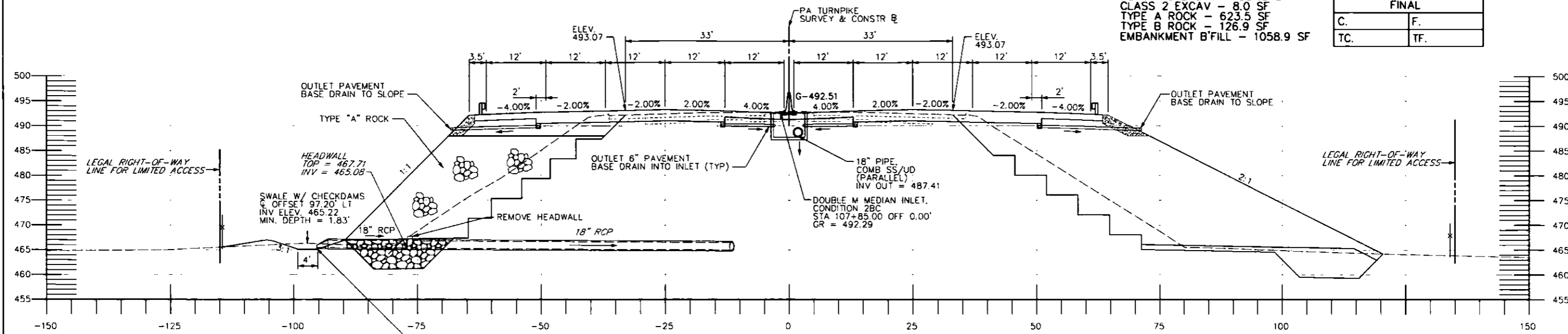
BENCHING EXCAV - 590.2 SF
 TYPE B ROCK - 240.2 SF
 EMBANKMENT B'FILL - 1506.4 SF

DATE: 7/12/2016

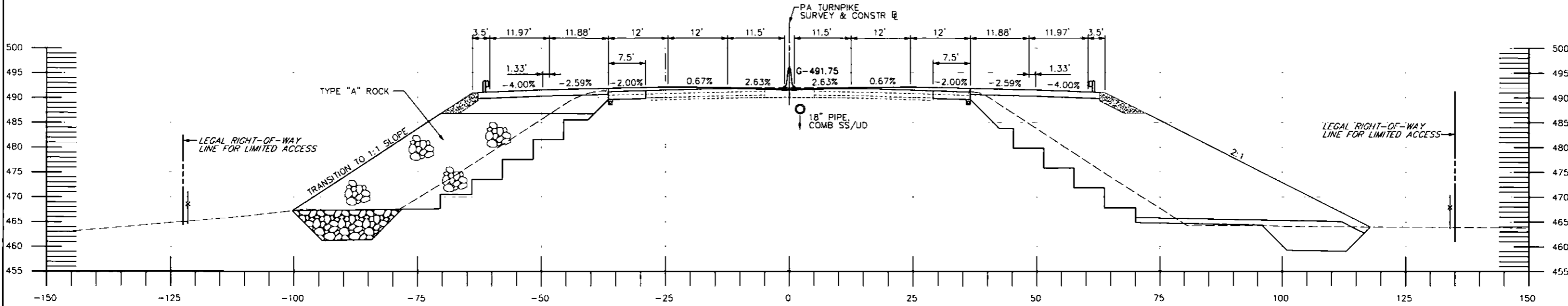
	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 106+50 TO 107+00 COUNTY: CUMBERLAND DRAWING: 25 OF 59 SHEET: 271 OF 315
	NO.	REVISIONS	DATE	APPR.	FILE NAME: CSxs01.dgn DRAWING TYPE: 1B NETWORK NUMBER: 7003982					

PRELIMINARY	
C. 73.2	F. 206.2
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 581.3 SF
 CLASS 2 EXCAV - 8.0 SF
 TYPE A ROCK - 623.5 SF
 TYPE B ROCK - 126.9 SF
 EMBANKMENT B'FILL - 1058.9 SF



108+00
 STA 108+00 EB & WB
 END MILL AND OVERLAY
 END MEDIAN WIDENING
 END CROSS SLOPE TRANSITION TO THREE LANE SECTION
 END PAVEMENT BASE DRAIN AT OUTSIDE EDGE OF WIDENED LANES
 BEGIN PAVEMENT BASE DRAIN AT INSIDE AND OUTSIDE EDGES OF FULL DEPTH PAVEMENT
 BEGIN FULL DEPTH, FULL WIDTH RECONSTRUCTION



107+50
 BENCHING EXCAV - 540.3 SF
 TYPE A ROCK - 665.3 SF
 TYPE B ROCK - 125.5 SF
 EMBANKMENT B'FILL - 998.0 SF

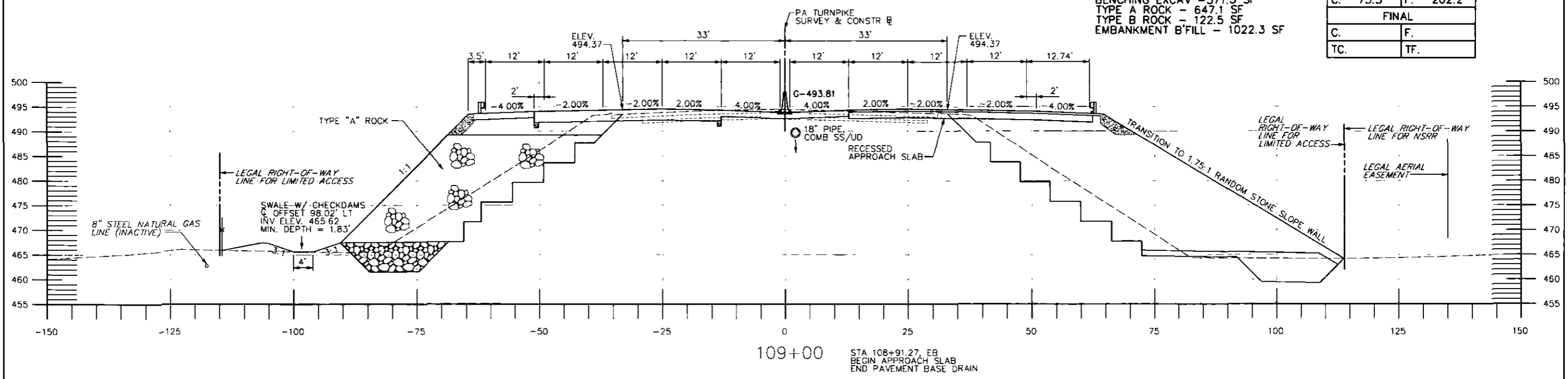
PRELIMINARY	
C. 60.0	F. 202.6
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

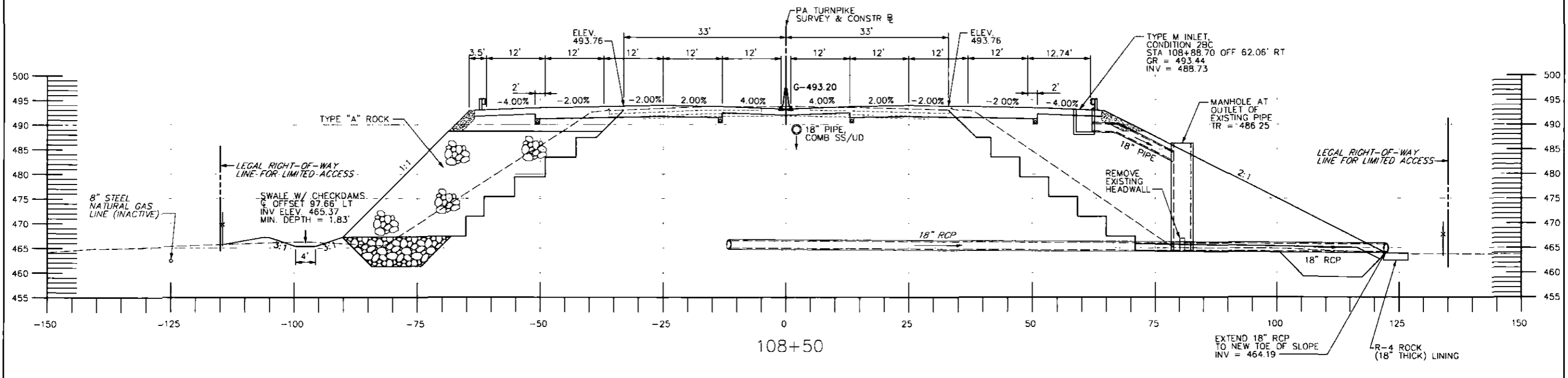
	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	STATION 107+50 TO 108+00	
	NETWORK NUMBER: 7003982 FILE NAME: CSxs01.dgn DRAWING TYPE: 1B WBS NO. T-228.54S001-3-02 REPAIR OF BRIDGE EB-103 AT MILEPOST 228.54					DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		DRAWING: 26 OF 59 SHEET: 272 OF 315	

BENCHING EXCAV - 571.5 SF
 TYPE A ROCK - 647.1 SF
 TYPE B ROCK - 122.5 SF
 EMBANKMENT B'FILL - 1022.3 SF

PRELIMINARY	
C. 75.3	F. 202.2
FINAL	
C.	F.
TC.	TF.



109+00
 STA 108+91.27, EB
 BEGIN APPROACH SLAB
 END PAVEMENT BASE DRAIN

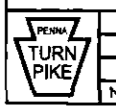


108+50
 EXTEND 18" RCP TO NEW TOE OF SLOPE
 INV = 464.19
 R-4 ROCK (18" THICK) LINING

BENCHING EXCAV - 600.0 SF
 CLASS 2 EXCAV - 5.4 SF
 TYPE A ROCK - 632.7 SF
 TYPE B ROCK - 138.6 SF
 EMBANKMENT B'FILL - 1118.6 SF

PRELIMINARY	
C. 80.7	F. 216.4
FINAL	
C.	F.
TC.	TF.

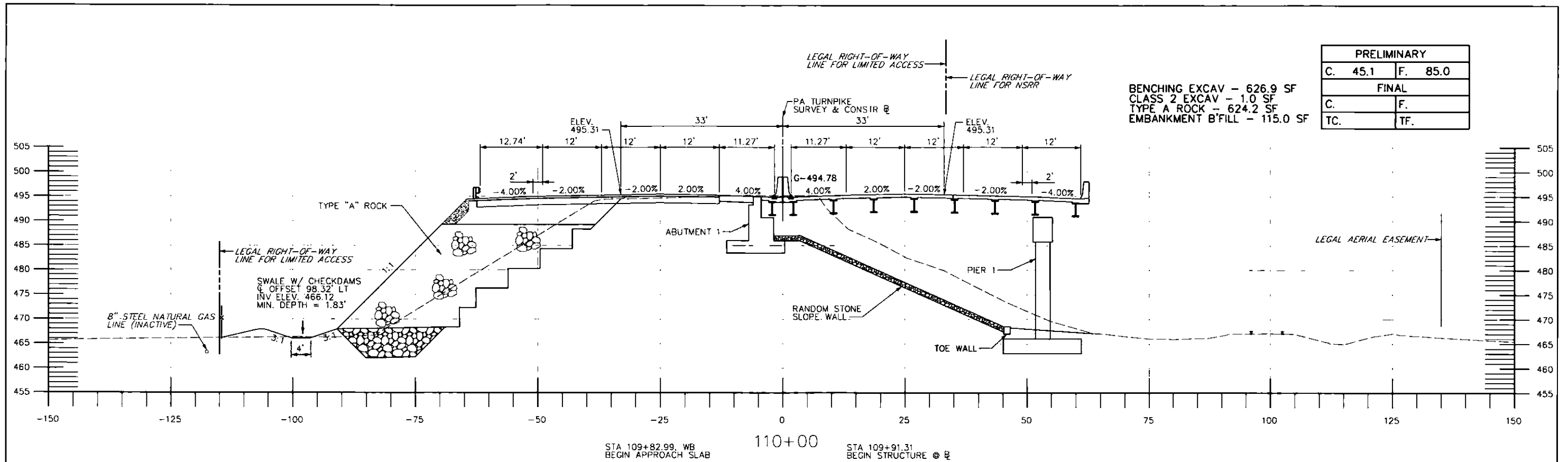
DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 108+50 TO 109+00	DRAWING: 27 OF 59	SHEET: 273 OF 315
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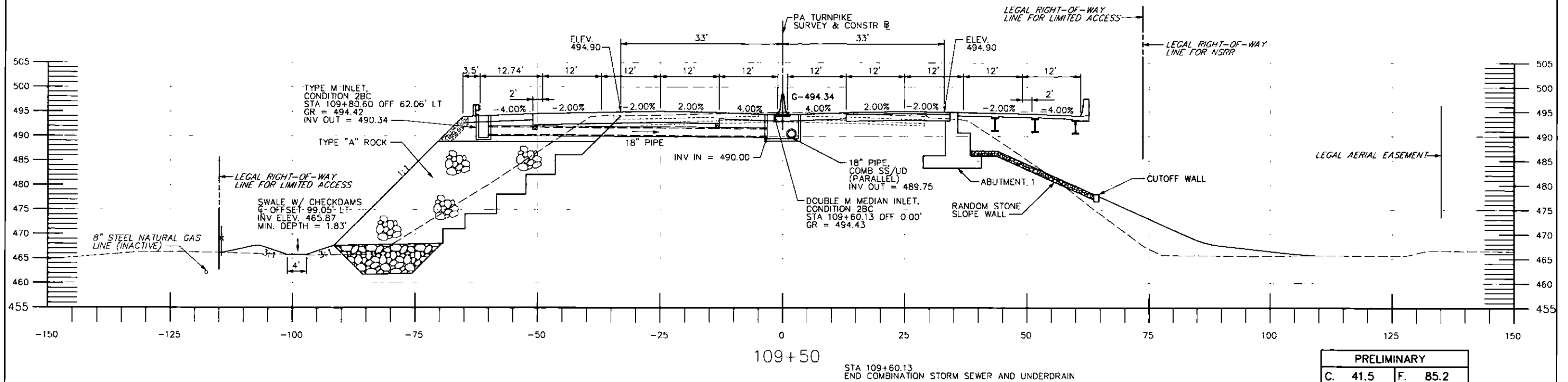
NETWORK NUMBER: 7003982
 FILE NAME: CSxs01.dgn
 DRAWING TYPE: 1B

WBS NO.
 T-228.54S001-3-02



BENCHING EXCAV - 626.9 SF
 CLASS 2 EXCAV - 1.0 SF
 TYPE A ROCK - 624.2 SF
 EMBANKMENT B'FILL - 115.0 SF

PRELIMINARY	
C. 45.1	F. 85.0
FINAL	
C.	F.
TC.	TF.

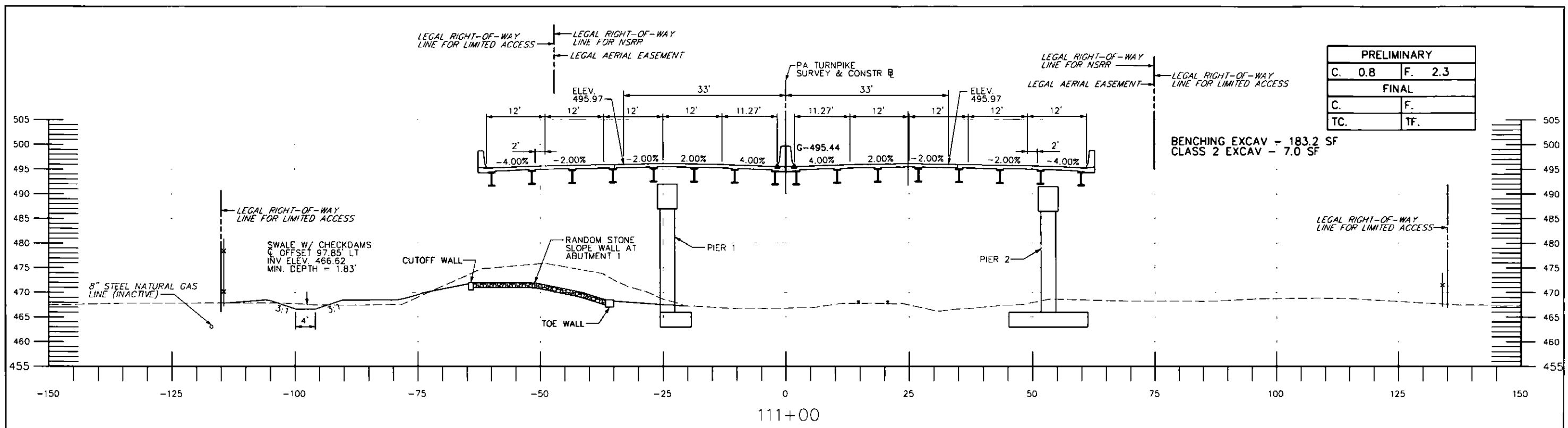


BENCHING EXCAV - 340.6 SF
 TYPE A ROCK - 635.1 SF
 EMBANKMENT B'FILL - 251.8 SF

PRELIMINARY	
C. 41.5	F. 85.2
FINAL	
C.	F.
TC.	TF.

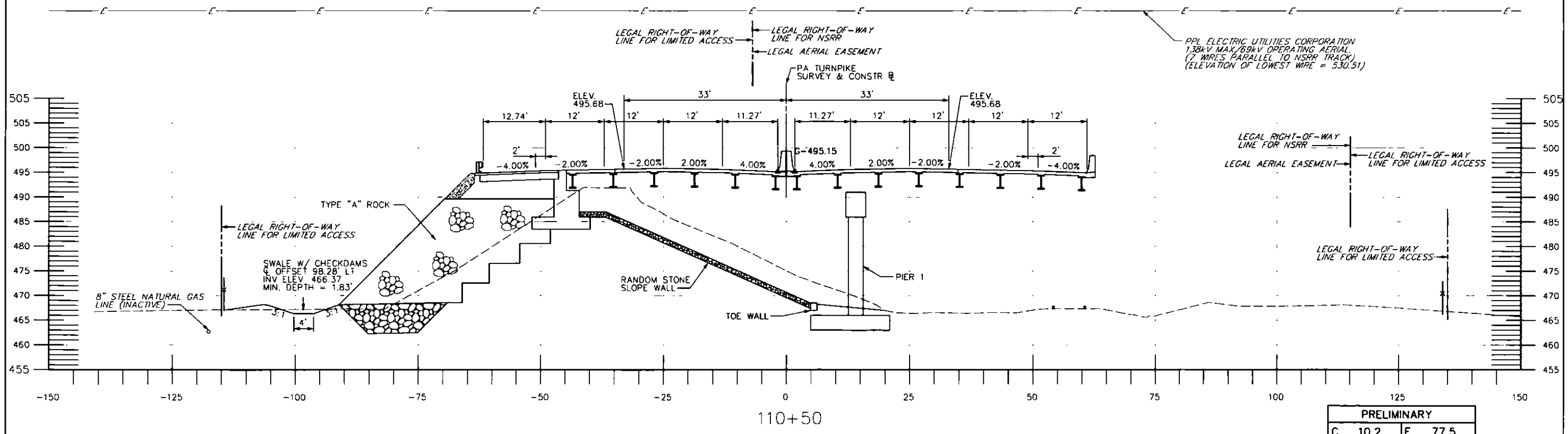
DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	NETWORK NUMBER: 7003982 FILE NAME: CSxs01.dgn DRAWING TYPE: 1B STRUCTURE NUMBER: EB-103	WBS NO. T-228.54S001-3-02 SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 109+50 TO 110+00 DRAWING: 28 OF 59 SHEET: 274 OF 315
	DATE: 7/12/2016								



PRELIMINARY	
C. 0.8	F. 2.3
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 183.2 SF
CLASS 2 EXCAV - 7.0 SF



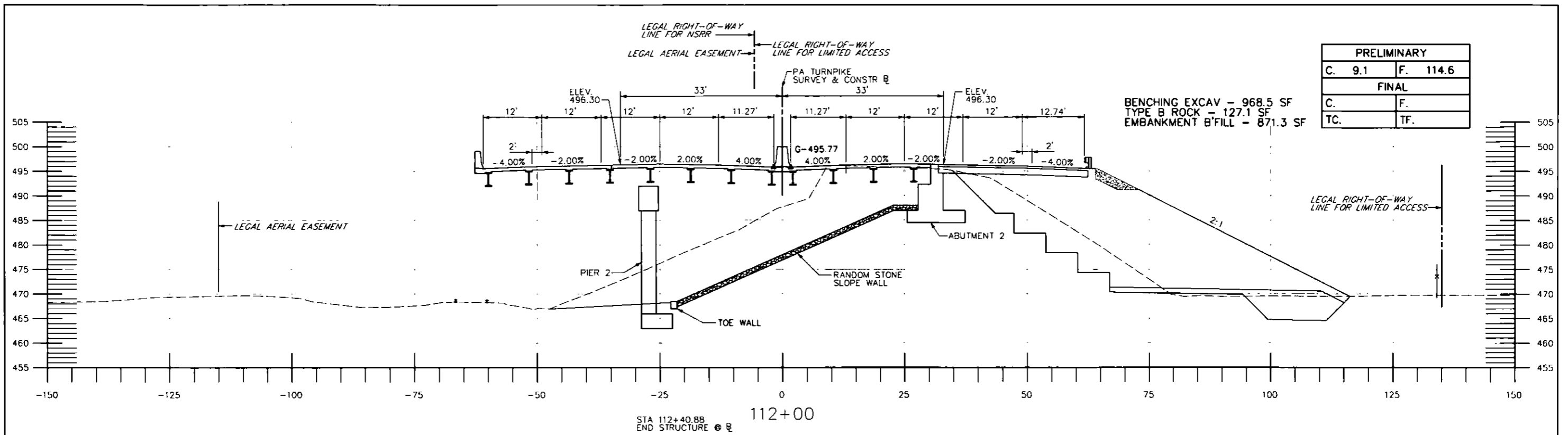
PRELIMINARY	
C. 10.2	F. 77.5
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 592.6 SF
CLASS 2 EXCAV - 5.6 SF
TYPE A ROCK - 625.0 SF
EMBANKMENT B'FILL - 68.0 SF

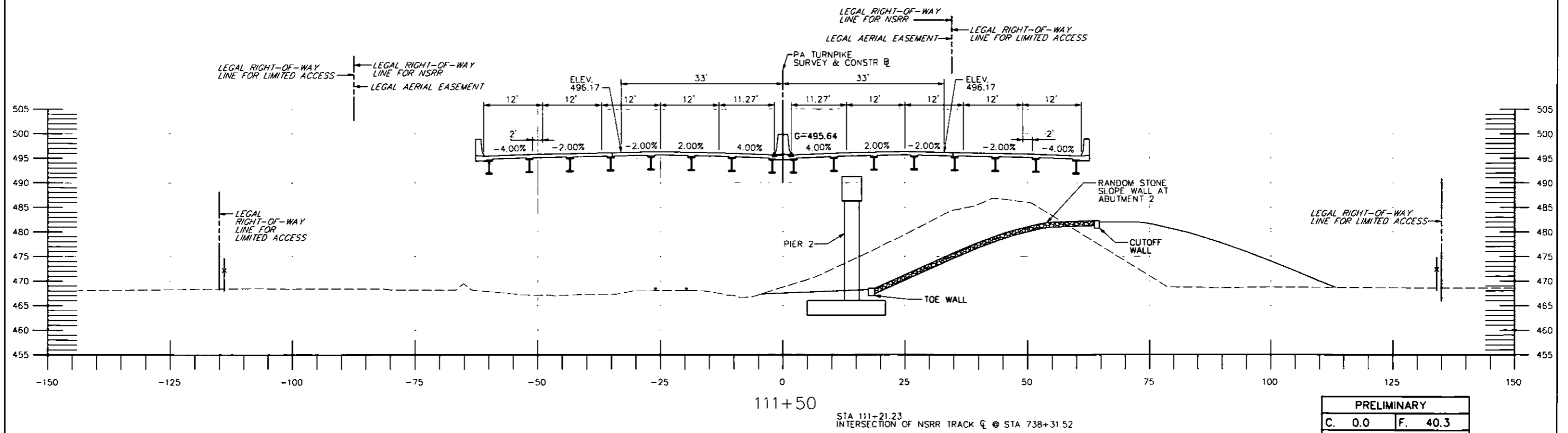
DATE: 7/12/2016



NETWORK NUMBER: 7003982		WBS NO. T-228.54S001-3-02		REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54		ROUTE: I-76		STATION 110+50 TO 111+00	
FILE NAME: CSrs01.dgn		DRAWING TYPE: 1B		SCALE: 10 0 10 FEET		DISTRICT: 3 COUNTY: CUMBERLAND			
NO. REVISIONS		DATE APPR.		STRUCTURE NUMBER: EB-103		TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		DRAWING: 29 OF 59	
								SHEET: 275 OF 315	



PRELIMINARY	
C. 9.1	F. 114.6
FINAL	
C.	F.
TC.	TF.

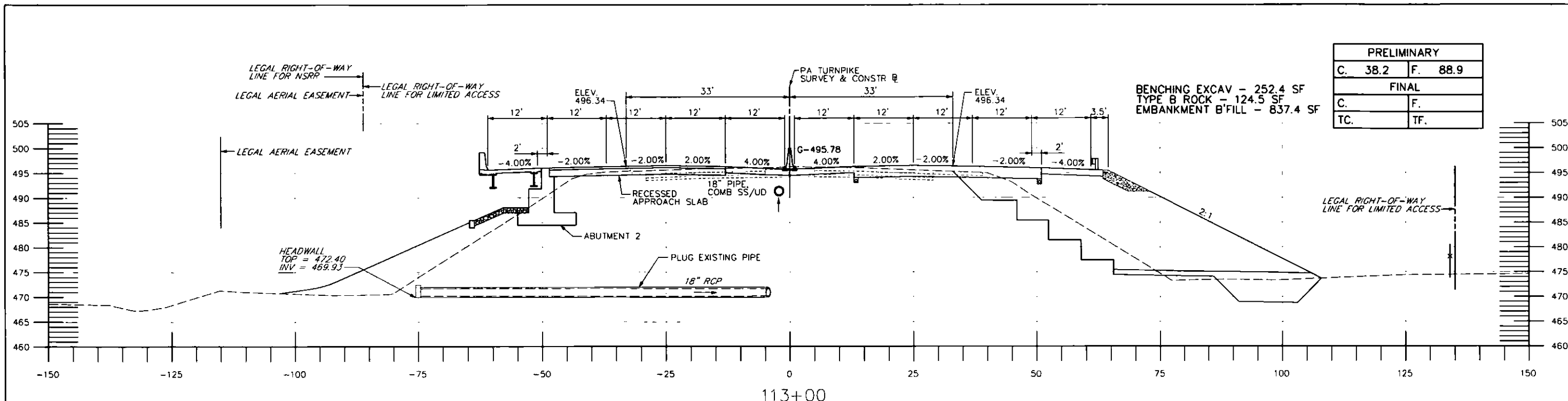


PRELIMINARY	
C. 0.0	F. 40.3
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 389.4 SF
EMBANKMENT B'FILL - 362.5 SF

DATE: 7/12/2016

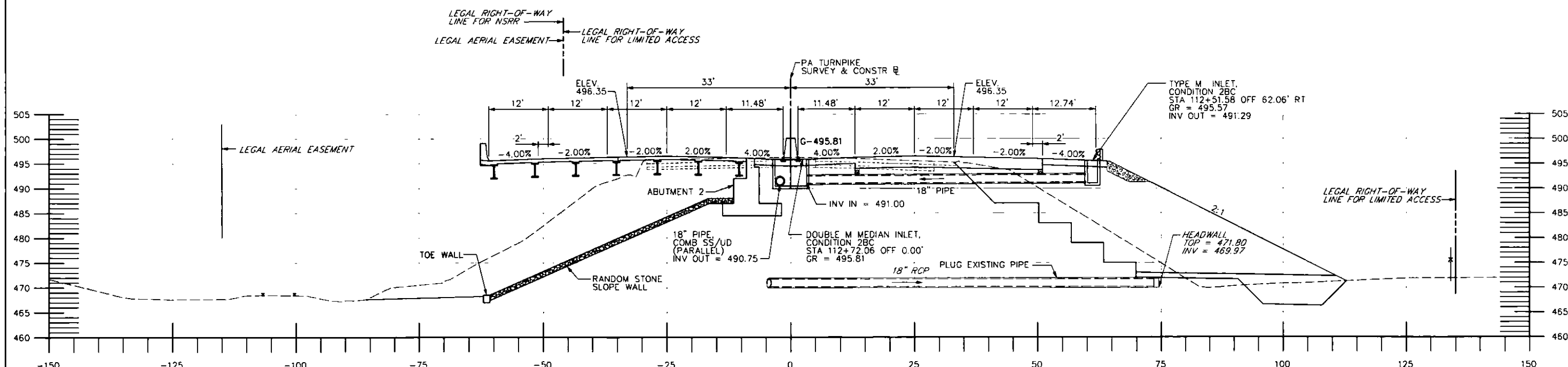
PENNA TURNPIKE	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	STATION 111+50 TO 112+00	
									DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 30 OF 59
									TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 276 OF 315



PRELIMINARY	
C. 38.2	F. 88.9
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 252.4 SF
 TYPE B ROCK - 124.5 SF
 EMBANKMENT B'FILL - 837.4 SF

113+00
 STA 113+41.09, WB
 END APPROACH SLAB
 BEGIN PAVEMENT BASE DRAIN AT INSIDE AND OUTSIDE EDGES OF FULL DEPTH PAVEMENT
 STA 112+72.06
 BEGIN COMBINATION STORM SEWER AND UNDERDRAIN



PRELIMINARY	
C. 43.3	F. 100.3
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 934.4 SF
 TYPE B ROCK - 125.0 SF
 EMBANKMENT B'FILL - 748.0 SF

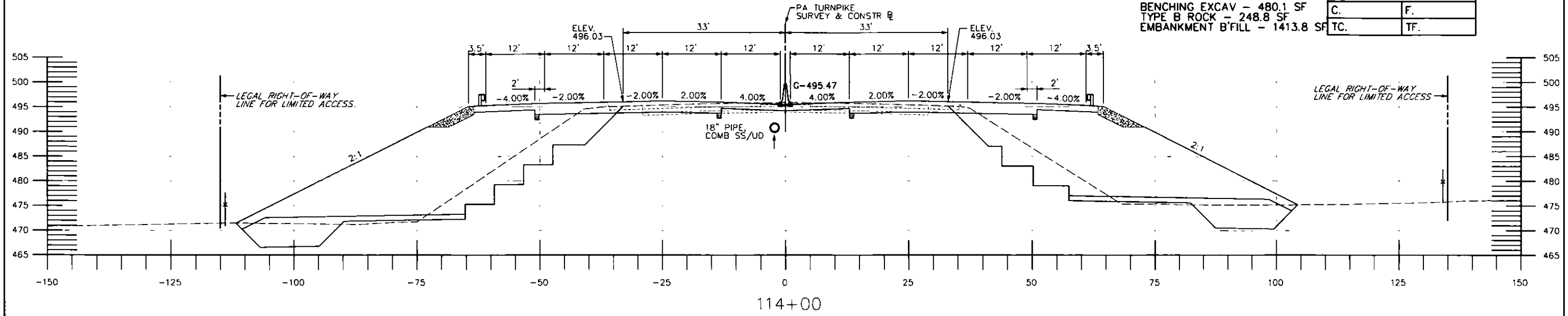
112+50
 STA 112+49.02, EB
 END APPROACH SLAB
 BEGIN PAVEMENT BASE DRAIN AT INSIDE AND OUTSIDE EDGES OF FULL DEPTH PAVEMENT

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	NETWORK NUMBER: 7003982 FILE NAME: CSxs01.dgn DRAWING TYPE: 1B STRUCTURE NUMBER: EB-103	WBS NO. T-228.54S001-3-02 SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 112+50 TO 113+00 DRAWING: 31 OF 59 SHEET: 277 OF 315
	PENN TURNPIKE								

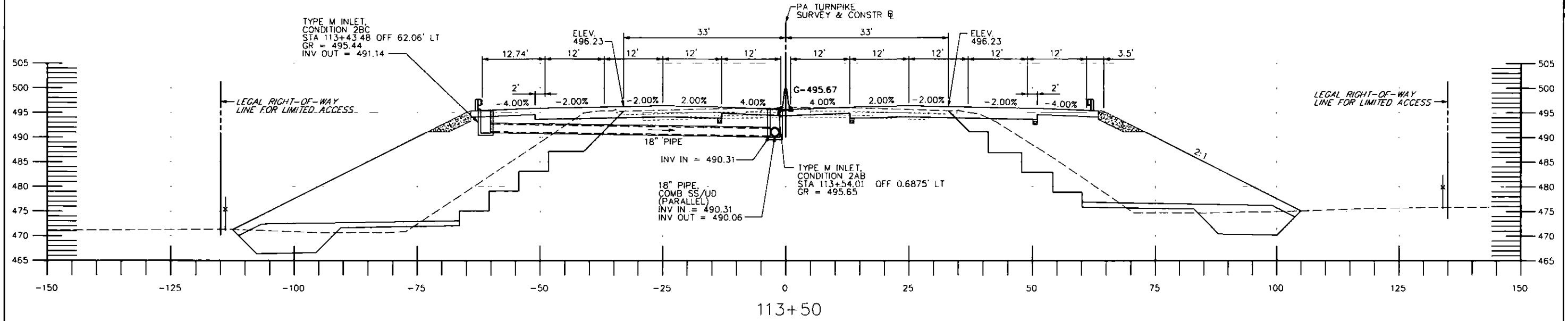
PRELIMINARY	
C. 64.5	F. 190.6
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 480.1 SF
 TYPE B ROCK - 248.8 SF
 EMBANKMENT B'FILL - 1413.8 SF



PRELIMINARY	
C. 67.1	F. 188.8
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 484.1 SF
 TYPE B ROCK - 246.3 SF
 EMBANKMENT B'FILL - 1398.5 SF



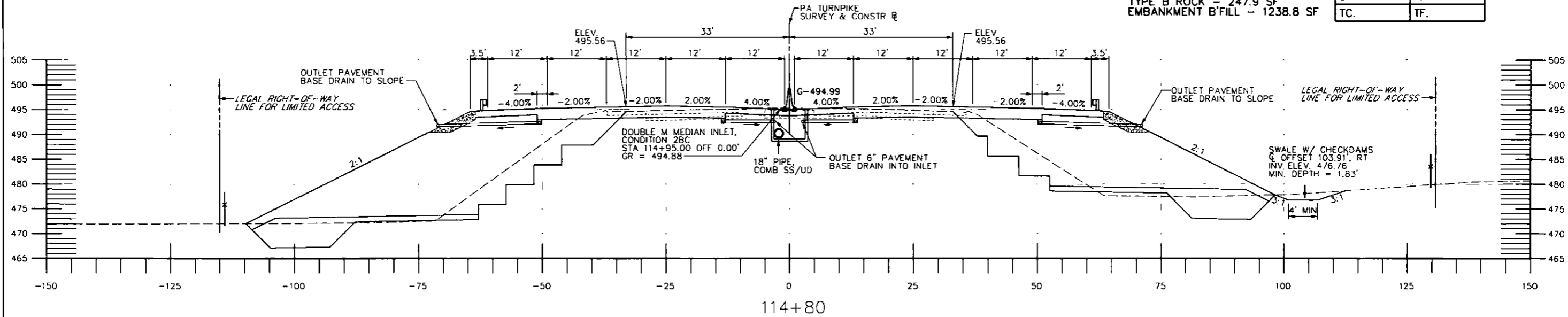
DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 113+50 TO 114+00	DRAWING: 32 OF 59	SHEET: 278 OF 315
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54						
				FILE NAME: CSxs01.dgn								
				DRAWING TYPE: 1B								

PRELIMINARY	
C. 59.9	F. 170.4
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 433.3 SF
 CLASS 2 EXCAV - 13.2 SF
 TYPE B ROCK - 247.9 SF
 EMBANKMENT B'FILL - 1238.8 SF

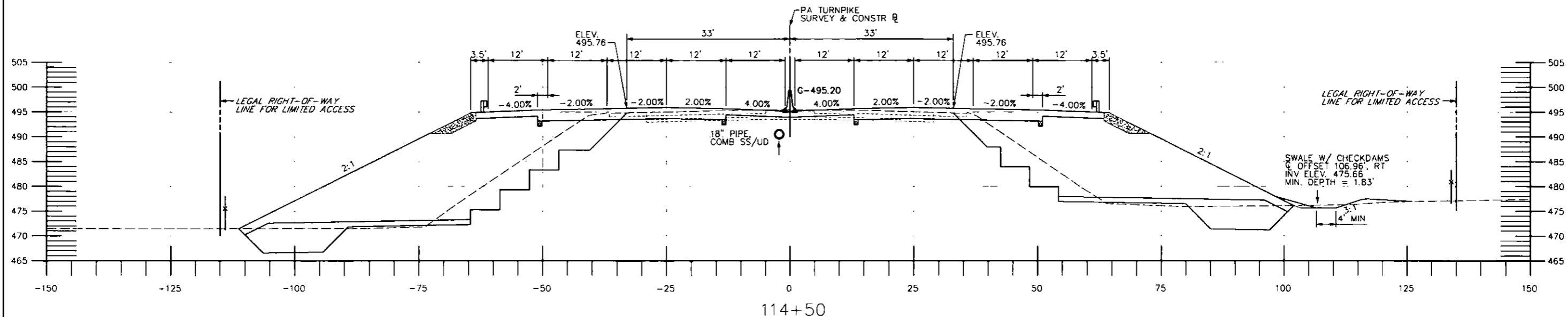


114+80

STA 114+80, EB & WB
 END FULL DEPTH, FULL WIDTH RECONSTRUCTION
 END PAVEMENT BASE DRAIN AT INSIDE AND OUTSIDE EDGES OF FULL DEPTH PAVEMENT
 BEGIN CROSS SLOPE TRANSITION FROM THREE LANE SECTION
 BEGIN MILL AND OVERLAY
 BEGIN MEDIAN WIDTH TRANSITION
 BEGIN PAVEMENT BASE DRAIN AT OUTSIDE EDGE OF WIDENED LANES

PRELIMINARY	
C. 61.2	F. 184.0
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 451.4 SF
 CLASS 2 EXCAV - 5.0 SF
 TYPE B ROCK - 249.7 SF
 EMBANKMENT B'FILL - 1355.0 SF



114+50

DATE: 7/12/2016



NETWORK NUMBER: 7003982
 FILE NAME: CSxs01.dgn
 DRAWING TYPE: 1B
 STRUCTURE NUMBER: EB-103

WBS NO.
T-228.54S001-3-02
 SCALE: 10 0 10 FEET

REPLACEMENT OF BRIDGE EB-103
 AT MILEPOST 228.54

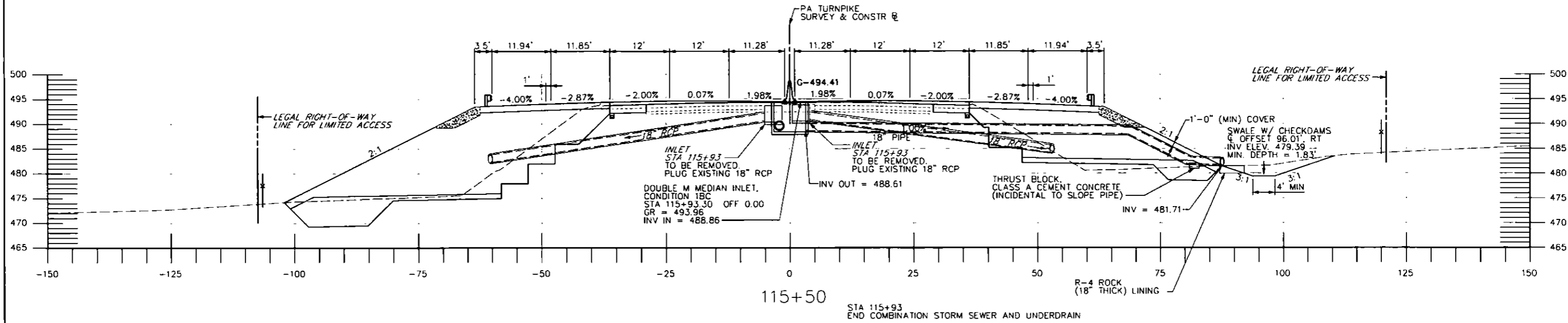
ROUTE: I-76
 DISTRICT: 3
 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

STATION 114+50 TO 114+80

DRAWING: 33 OF 59
 SHEET: 279 OF 315

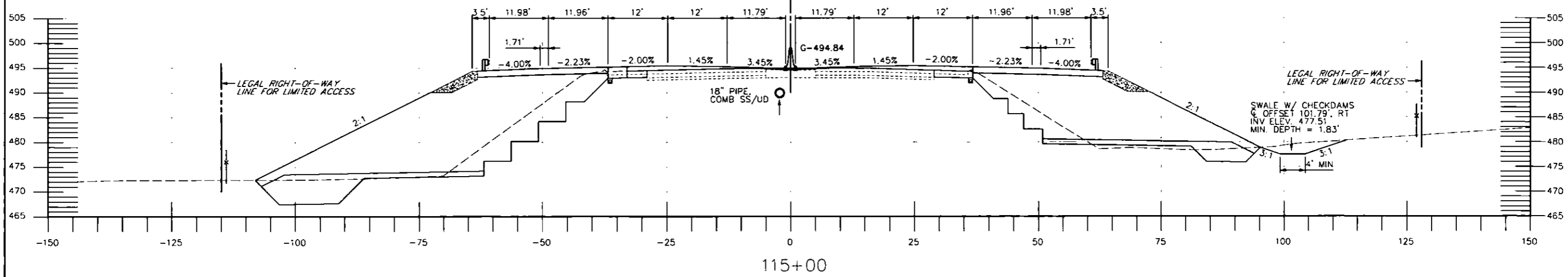
PRELIMINARY	
C. 40.8	F. 123.7
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 336.0 SF
 CLASS 2 EXCAV - 31.3 SF
 TYPE B ROCK - 187.9 SF
 EMBANKMENT B'FILL - 890.7 SF



PRELIMINARY	
C. 38.7	F. 149.9
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 325.2 SF
 CLASS 2 EXCAV - 23.0 SF
 TYPE B ROCK - 193.9 SF
 EMBANKMENT B'FILL - 1131.1 SF

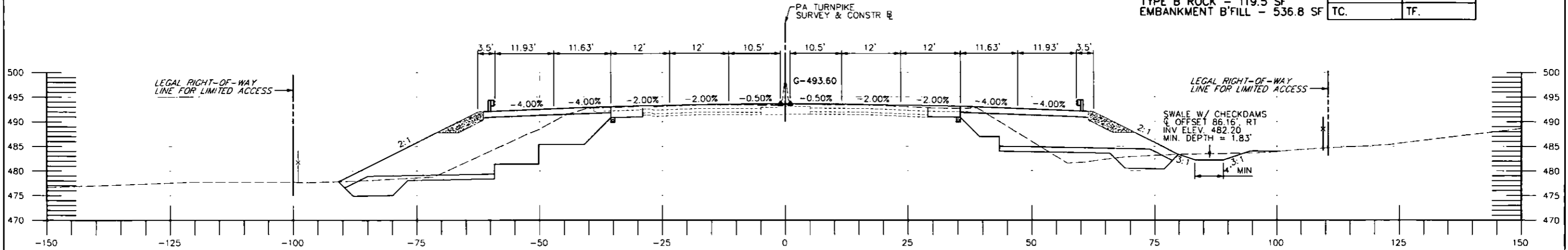


DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 115+00 TO 115+50	DRAWING: 34 OF 59	SHEET: 280 OF 315							
	<table border="1"> <tr><th colspan="2">PRELIMINARY</th></tr> <tr><td>C. 38.7</td><td>F. 149.9</td></tr> <tr><th colspan="2">FINAL</th></tr> <tr><td>C.</td><td>F.</td></tr> <tr><td>TC.</td><td>TF.</td></tr> </table>													PRELIMINARY		C. 38.7	F. 149.9	FINAL		C.	F.	TC.
PRELIMINARY																						
C. 38.7	F. 149.9																					
FINAL																						
C.	F.																					
TC.	TF.																					

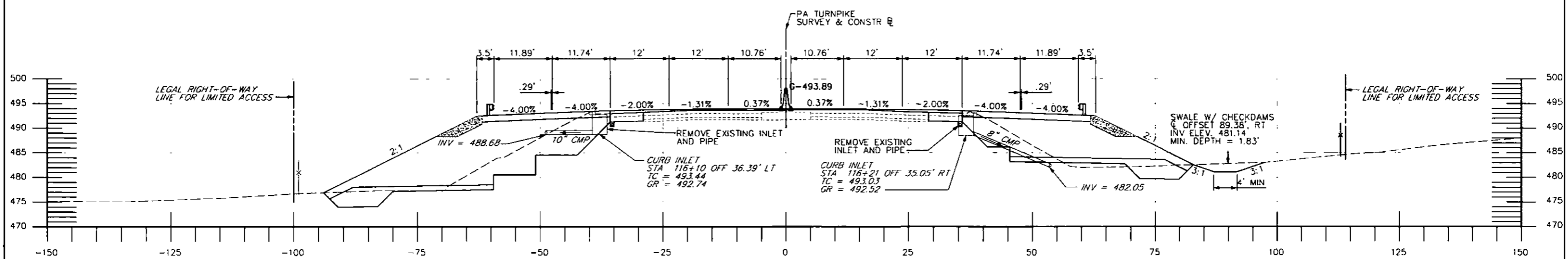
PRELIMINARY	
C. 36.2	F. 75.6
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 288.4 SF
 CLASS 2 EXCAV - 12.0 SF
 TYPE B ROCK - 119.5 SF
 EMBANKMENT B'FILL - 536.8 SF



116+25
 STA 116+25 EB & WB
 END CROSS SLOPE TRANSITION FROM THREE LANE SECTION

STA 116+05.67
 END CONCRETE GLARE SCREEN REPLACEMENT



STA 115+92. WB
 END TYPE 2 RIGHT-OF-WAY FENCE;
 CONNECT TO EXISTING FENCE.

PRELIMINARY	
C. 33.6	F. 87.9
FINAL	
C.	F.
TC.	TF.

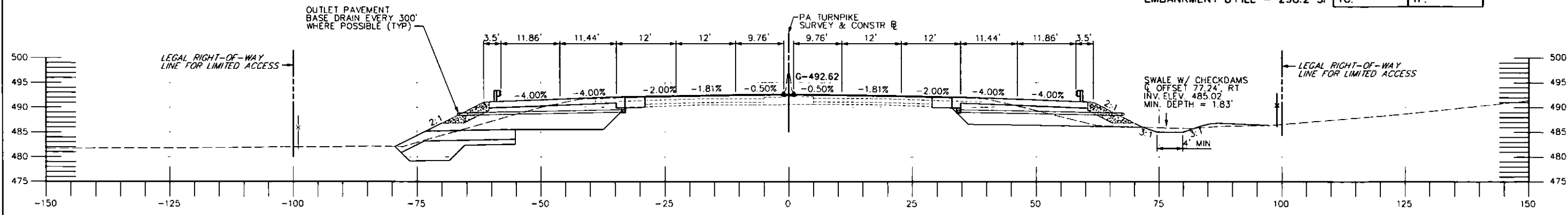
BENCHING EXCAV - 286.1 SF
 CLASS 2 EXCAV - 16.0 SF
 TYPE B ROCK - 123.3 SF
 EMBANKMENT B'FILL - 641.8 SF

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 116+00 TO 116+25	DRAWING: 35 OF 59
	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET					DRAWING: 35 OF 59

PRELIMINARY	
C. 36.2	F. 40.0
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 302.1 SF
 CLASS 2 EXCAV - 6.6 SF
 TYPE B ROCK - 49.9 SF
 EMBANKMENT B'FILL - 298.2 SF

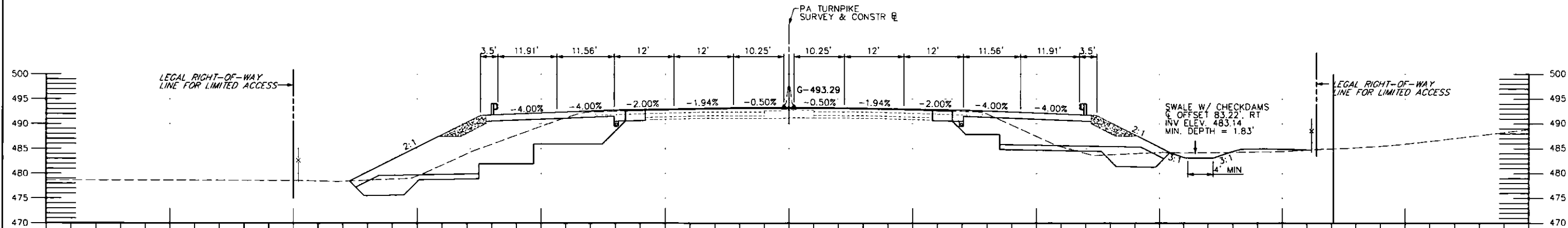


117+00

STA 117+12, EB
 END TYPE 2 RIGHT-OF-WAY FENCE;
 CONNECT TO EXISTING FENCE.

PRELIMINARY	
C. 40.0	F. 65.8
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 334.0 SF
 CLASS 2 EXCAV - 9.5 SF
 TYPE B ROCK - 111.9 SF
 EMBANKMENT B'FILL - 454.6 SF



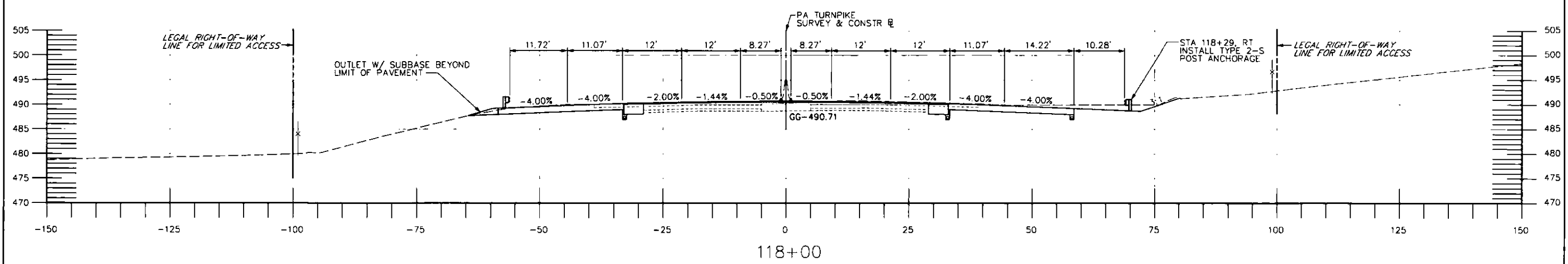
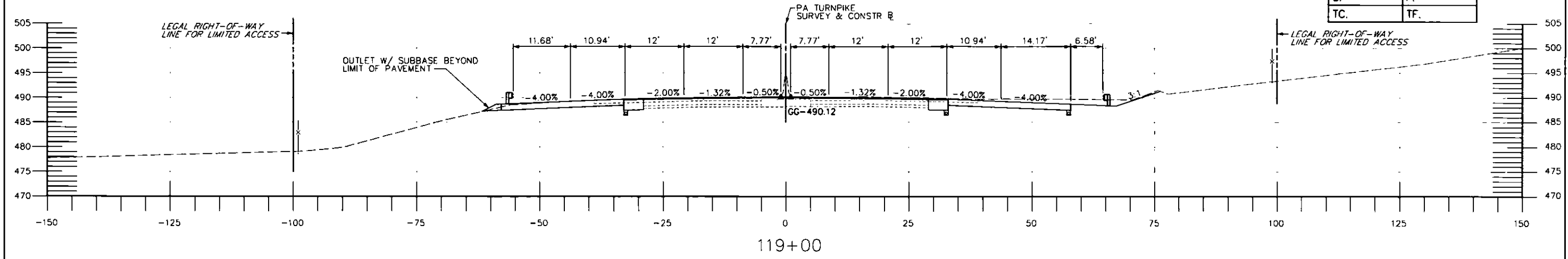
116+50

DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 116+50 TO 117+00	DRAWING: 36 OF 59	SHEET: 282 OF 315
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54						
				FILE NAME: CSxs01.dgn								
				DRAWING TYPE: 1B								

PRELIMINARY	
C. 11.9	F. 0.3
FINAL	
C.	F.
TC.	TF.



PRELIMINARY	
C. 12.1	F. 0.5
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NETWORK NUMBER: 7003982
 FILE NAME: CSxs01.dgn
 DRAWING TYPE: 1B
 STRUCTURE NUMBER: EB-103

WBS NO.
T-228.54S001-3-02
 SCALE: 10 0 10 FEET

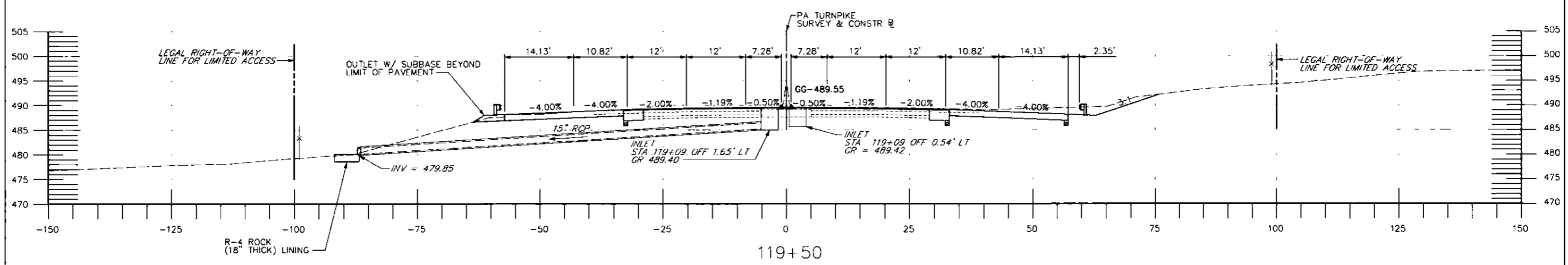
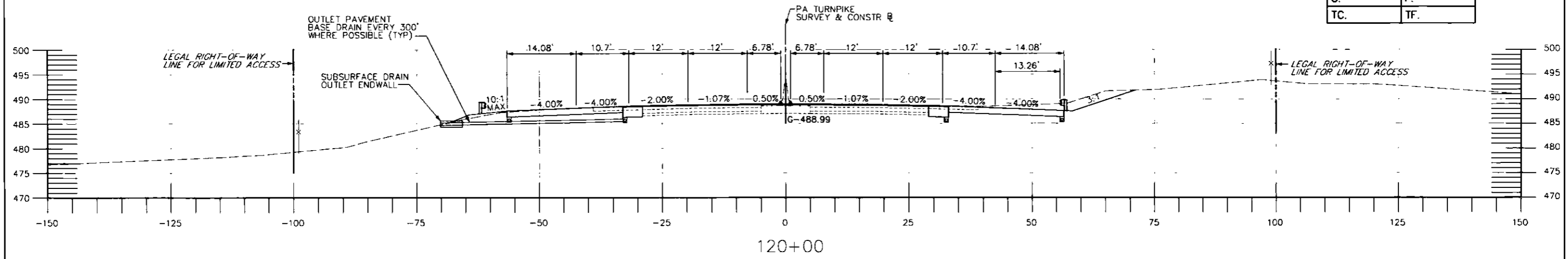
REPLACEMENT OF BRIDGE EB-103
 AT MILEPOST 228.54

ROUTE: I-76
 DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

STATION 118+50 TO 119+00

DRAWING: 38 OF 59
 SHEET: 284 OF 315

PRELIMINARY	
C. 12.9	F. 0.6
FINAL	
C.	F.
TC.	TF.



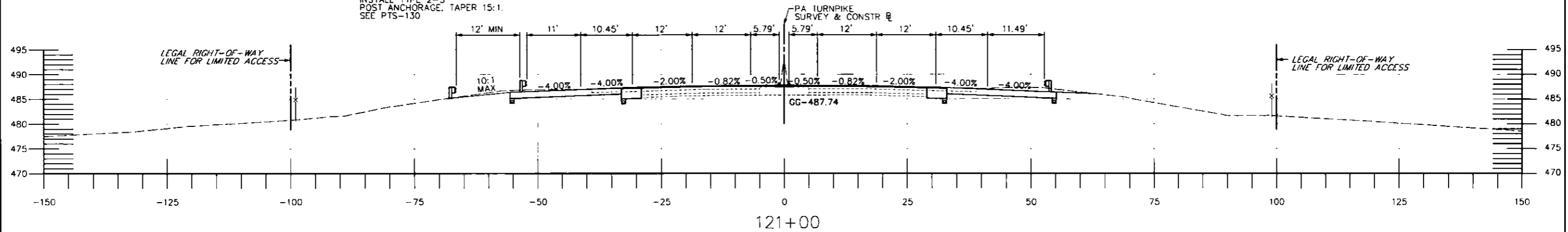
PRELIMINARY	
C. 12.8	F. 0.5
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

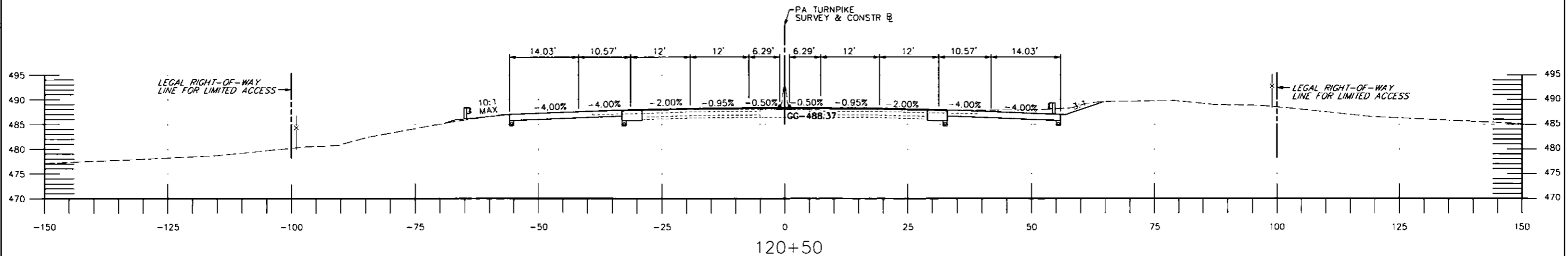
	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 119+50 TO 120+00	DRAWING: 39 OF 59
	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET					DRAWING: 39 OF 59

PRELIMINARY	
C. 10.1	F. 0.0
FINAL	
C.	F.
TC.	TF.

STA 121+00, WB
INSTALL TYPE 2-S
POST ANCHORAGE, TAPER 15:1.
SEE PTS-130



STA 120+25, WB
BEGIN PAVEMENT BASE DRAIN AT EDGE OF SHOULDER

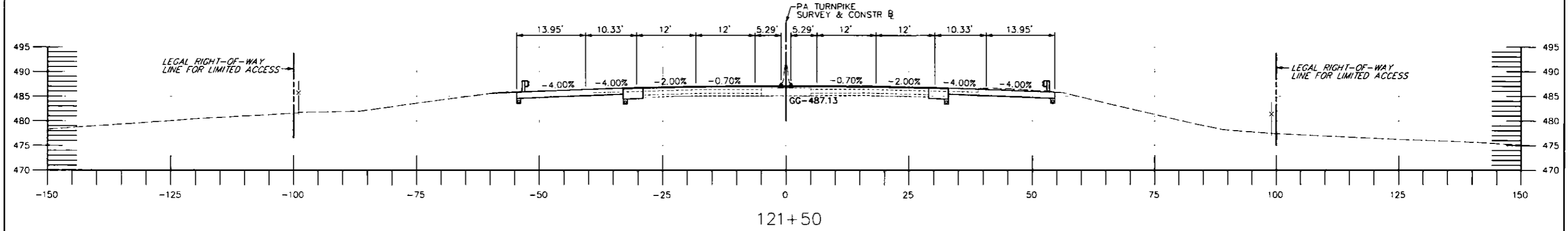
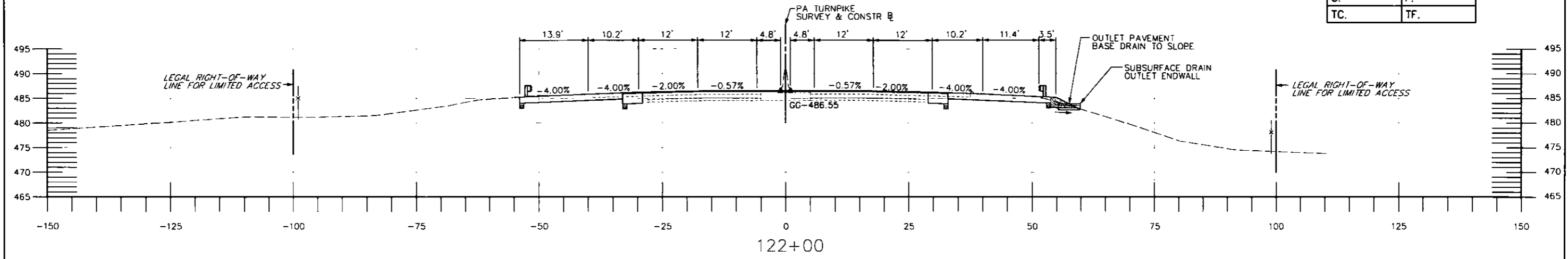


PRELIMINARY	
C. 10.3	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

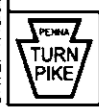
	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	STATION 120+50 TO 121+00	
								DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 40 OF 59
								TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 286 OF 315

PRELIMINARY	
C. 7.8	F. 0.0
FINAL	
C.	F.
TC.	TF.



PRELIMINARY	
C. 8.5	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.

NETWORK NUMBER: 7003982
FILE NAME: CSxs01.dgn
DRAWING TYPE: 1B
STRUCTURE NUMBER: EB-103

WBS NO.
T-228.54S001-3-02
SCALE: 10 0 10 FEET

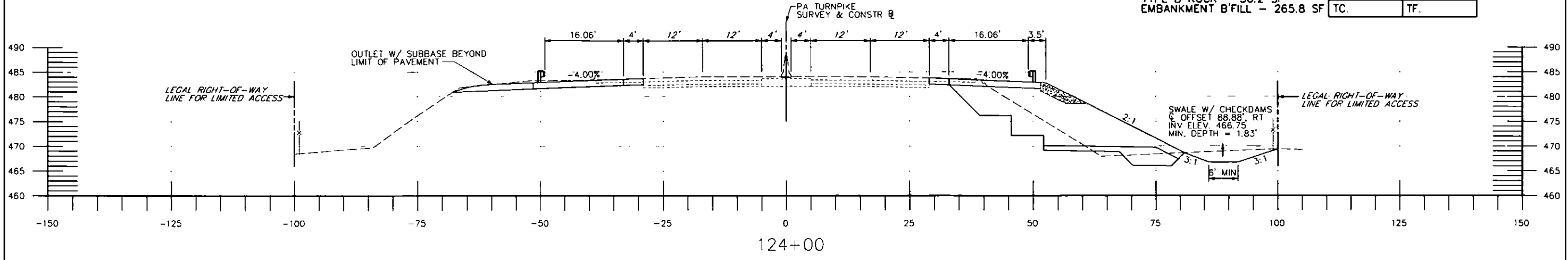
REPLACEMENT OF BRIDGE EB-103
AT MILEPOST 228.54

ROUTE: I-76
DISTRICT: 3
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

STATION 121+50 TO 122+00	
COUNTY: CUMBERLAND	DRAWING: 41 OF 59
SHEET: 287 OF 315	

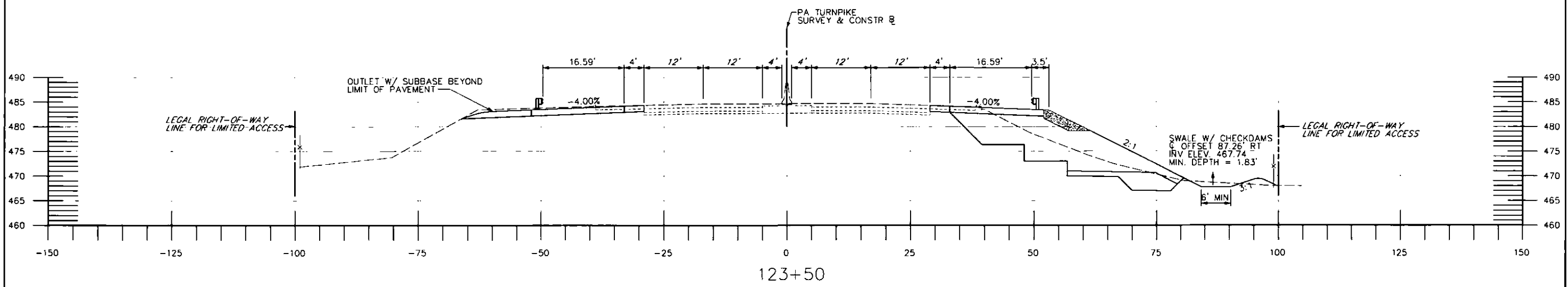
PRELIMINARY	
C. 25.6	F. 36.8
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 145.6 SF
 CLASS 2 EXCAV - 28.1 SF
 TYPE B ROCK - 50.2 SF
 EMBANKMENT B'FILL - 265.8 SF



PRELIMINARY	
C. 29.2	F. 34.5
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 196.2 SF
 CLASS 2 EXCAV - 7.4 SF
 TYPE B ROCK - 45.3 SF
 EMBANKMENT B'FILL - 244.5 SF

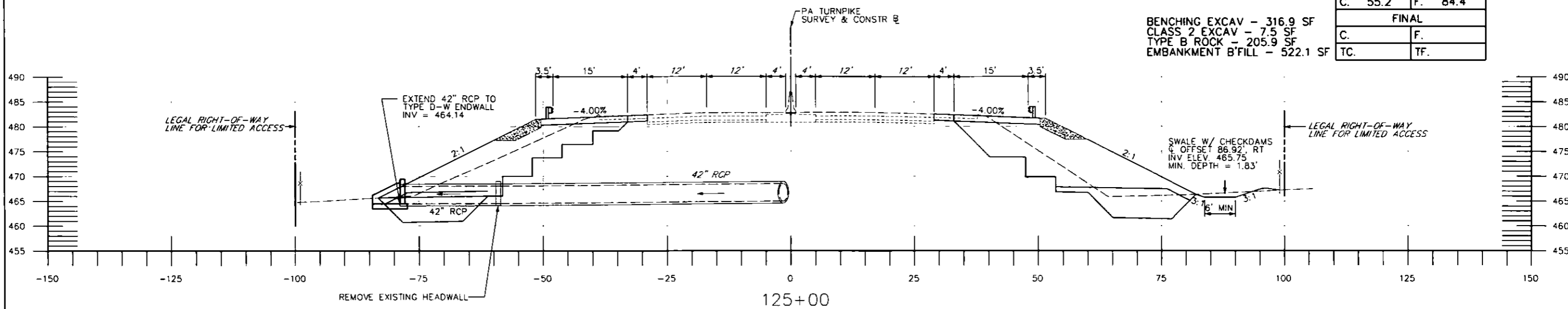


DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 123+50 TO 124+00 COUNTY: CUMBERLAND DRAWING: 44 OF 59 SHEET: 290 OF 315
	NETWORK NUMBER: 7003982					FILE NAME: CSxs01.dgn				

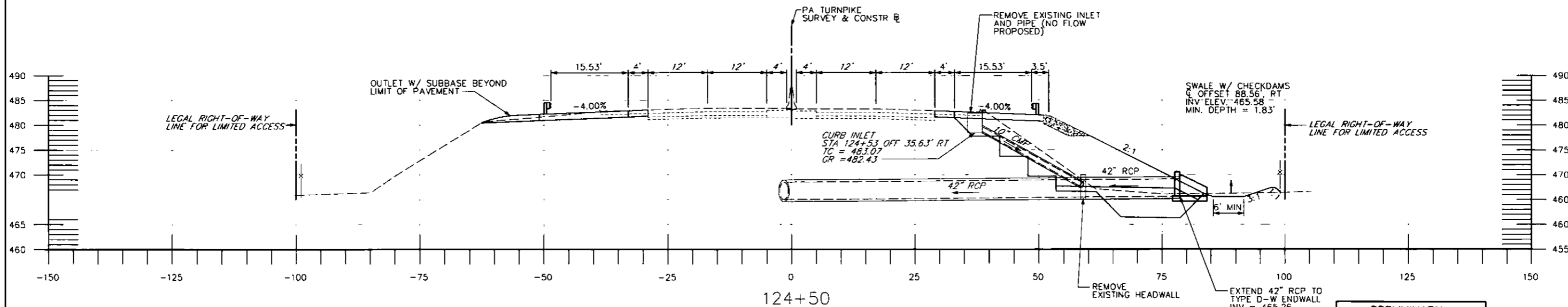
PRELIMINARY	
C. 55.2	F. 84.4
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 316.9 SF
 CLASS 2 EXCAV - 7.5 SF
 TYPE B ROCK - 205.9 SF
 EMBANKMENT B'FILL - 522.1 SF



PRELIMINARY	
C. 28.5	F. 49.3
FINAL	
C.	F.
TC.	TF.

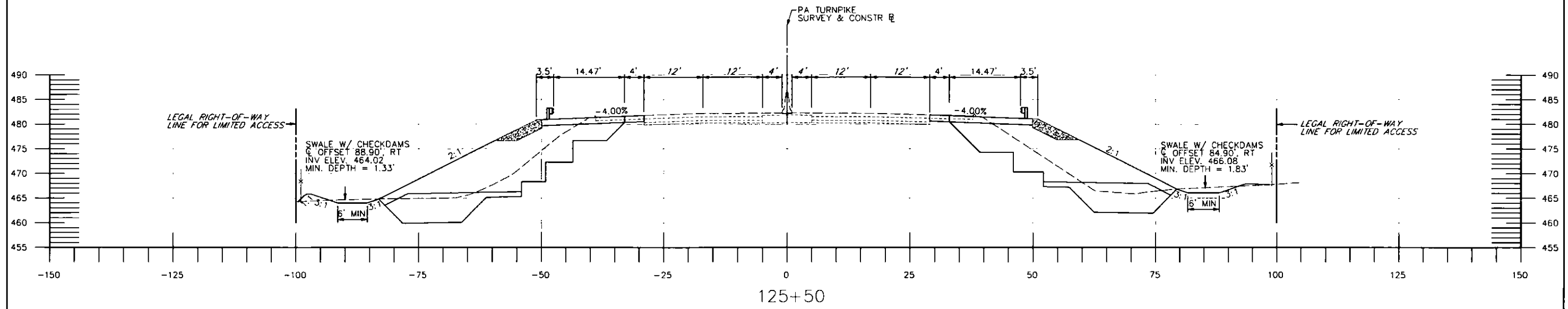
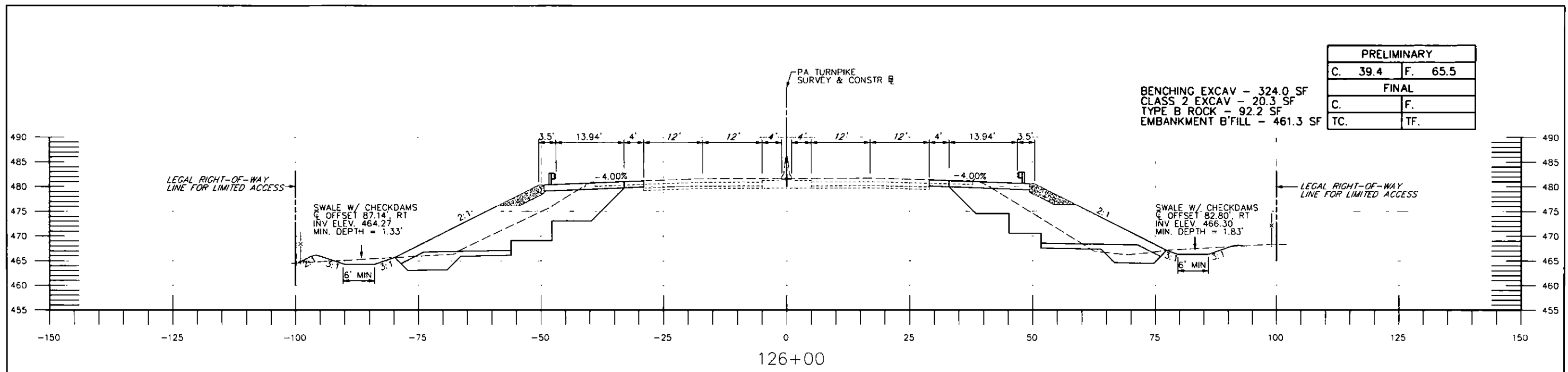
BENCHING EXCAV - 204.5 SF
 CLASS 2 EXCAV - 5.7 SF
 TYPE B ROCK - 107.8 SF
 EMBANKMENT B'FILL - 289.0 SF



DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 45 OF 59
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 124+50 TO 125+00	
				FILE NAME: CSxs01.dgn					SHEET: 291 OF 315
				DRAWING TYPE: 1B					

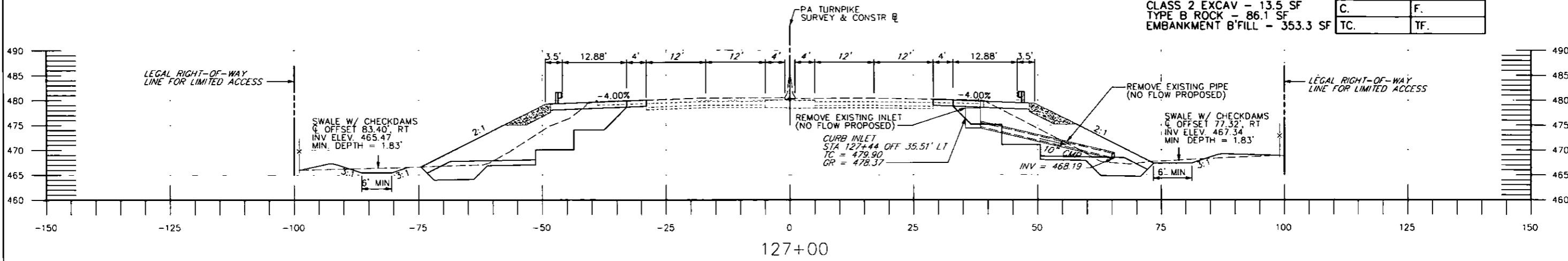


DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	NETWORK NUMBER: 7003982 FILE NAME: CSxs01.dgn DRAWING TYPE: 1B STRUCTURE NUMBER: EB-103	WBS NO. T-228.54S001-3-02	SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 125+50 TO 126+00 DRAWING: 46 OF 59 SHEET: 292 OF 315
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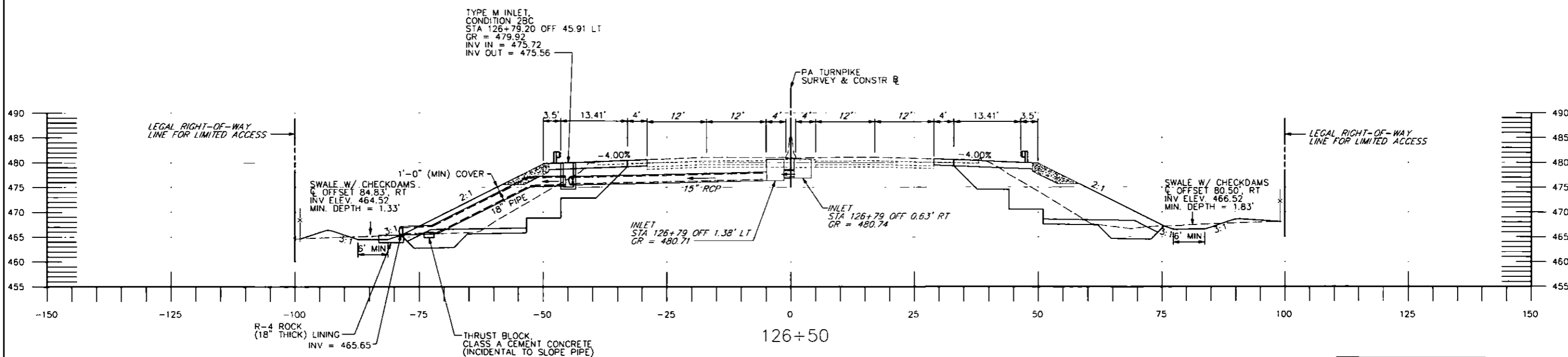
PRELIMINARY	
C. 34.5	F. 53.0
FINAL	
C.	F.
TC.	TF.

BENCHING EXCAV - 286.4 SF
 CLASS 2 EXCAV - 13.5 SF
 TYPE B ROCK - 86.1 SF
 EMBANKMENT B'FILL - 353.3 SF



PRELIMINARY	
C. 35.9	F. 62.8
FINAL	
C.	F.
TC.	TF.

CLASS 2 - 1.6
 BENCHING EXCAV - 299.5 SF
 CLASS 2 EXCAV - 13.6 SF
 TYPE B ROCK - 92.6 SF
 EMBANKMENT B'FILL - 431.2 SF

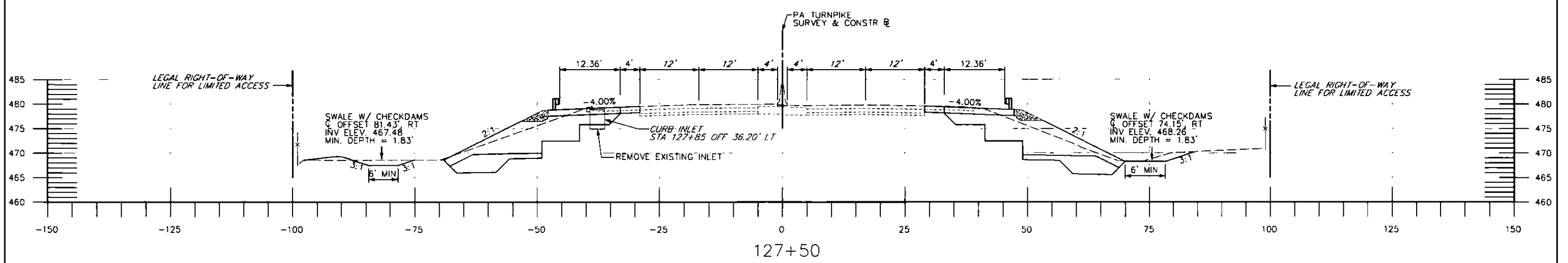
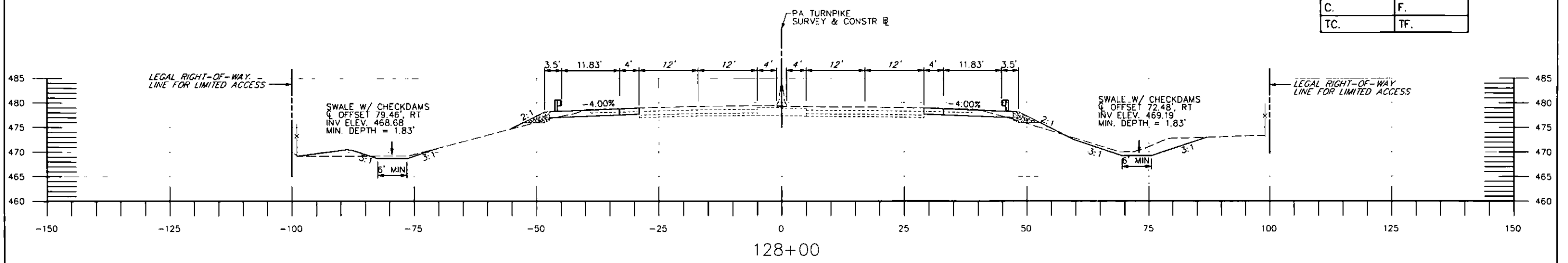


DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	STATION 126+50 TO 127+00	
	NETWORK NUMBER: 7003982		FILE NAME: CSxe01.dgn		DRAWING TYPE: 1B		DISTRICT: 3 COUNTY: CUMBERLAND		TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		DRAWING: 47 OF 59
SHEET: 293 OF 315											

CLASS 2 EXCAV - 34.8 SF

PRELIMINARY	
C. 8.0	F. 1.5
FINAL	
C.	F.
TC.	TF.



BENCHING EXCAV - 309.0 SF
CLASS 2 EXCAV - 19.4 SF
TYPE B ROCK - 83.8 SF
EMBANKMENT B'FILL - 251.1 SF

PRELIMINARY	
C. 40.0	F. 40.4
FINAL	
C.	F.
TC.	TF.

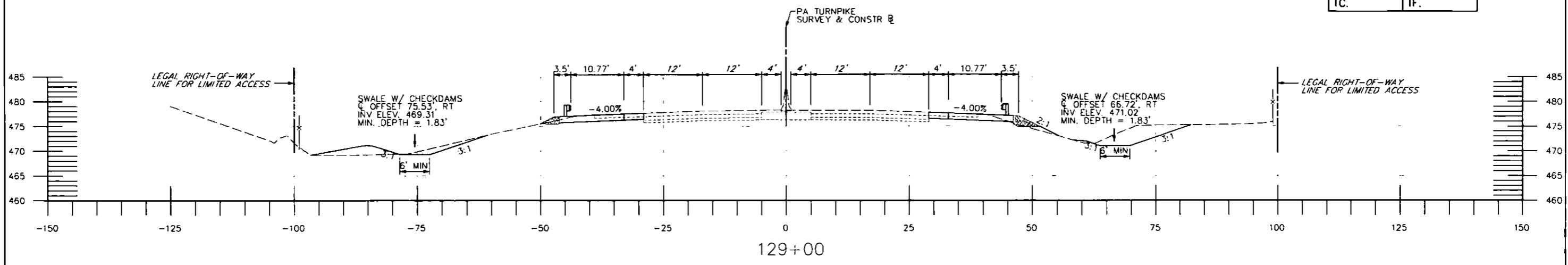
DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 127+50 TO 128+00	DRAWING: 48 OF 59	SHEET: 294 OF 315
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54						
				FILE NAME: CSxs01.dgn								
				DRAWING TYPE: 1B								

PRELIMINARY	
C. 9.8	F. 2.4
FINAL	
C.	F.
TC.	TF.

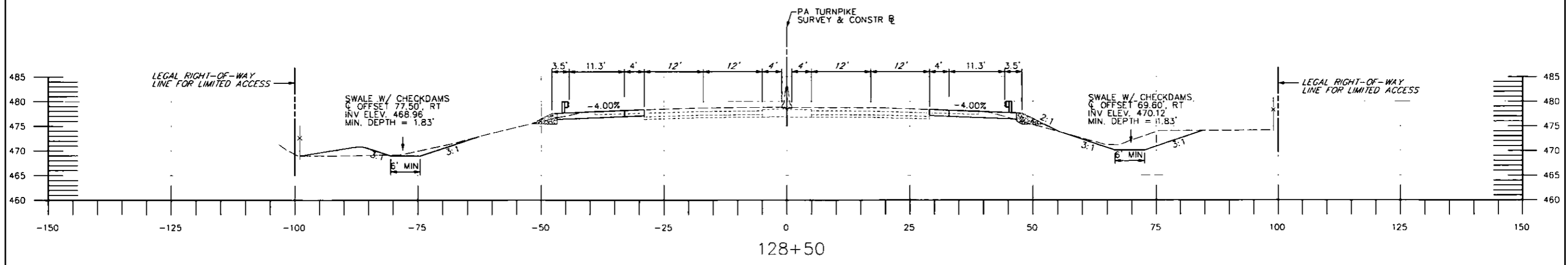
CLASS 2 EXCAV - 49.7 SF



129+00

PRELIMINARY	
C. 9.3	F. 2.1
FINAL	
C.	F.
TC.	TF.

CLASS 2 EXCAV - 45.3 SF



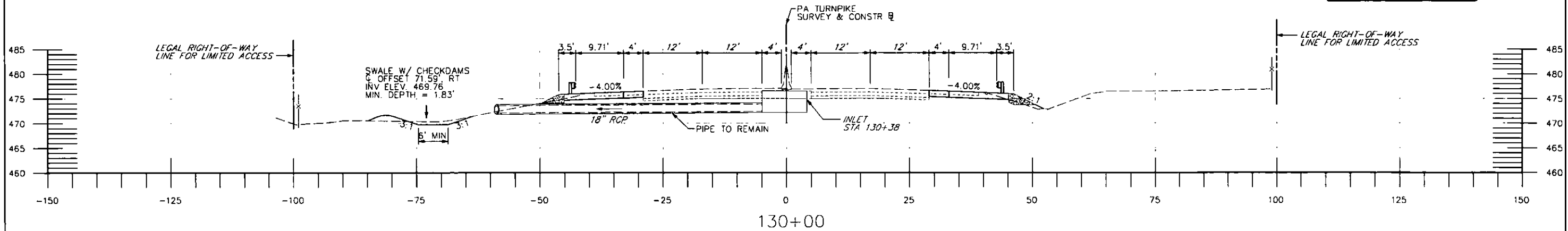
128+50

DATE: 7/12/2016

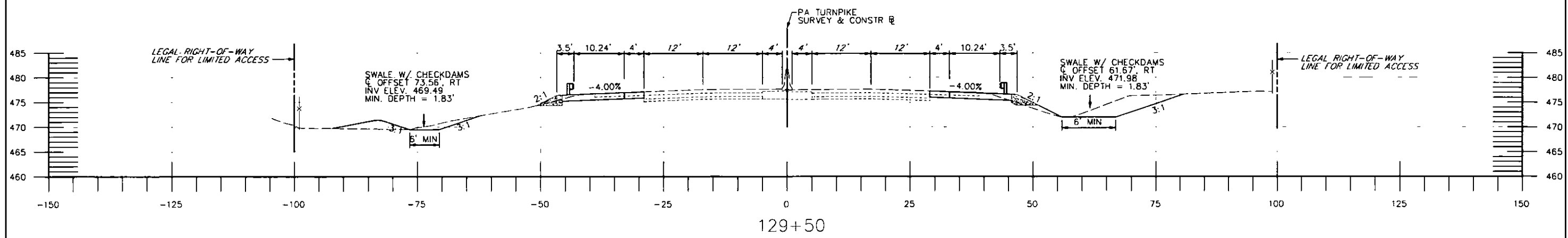
	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76 DISTRICT: 3 COUNTY: CUMBERLAND TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 128+50 TO 129+00 DRAWING: 49 OF 59 SHEET: 295 OF 315
	NETWORK NUMBER: 7003982 FILE NAME: CSxs01.dgn DRAWING TYPE: 1B									

CLASS 2 EXCAV - 6.3 SF

PRELIMINARY	
C. 4.6	F. 0.7
FINAL	
C.	F.
TC.	TF.



130+00



129+50

CLASS 2 EXCAV - 51.4 SF

PRELIMINARY	
C. 9.8	F. 2.1
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



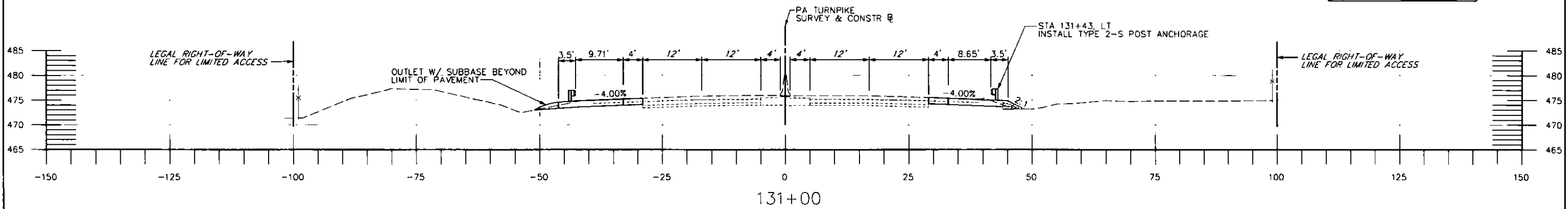
NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 129+50 TO 130+00	DRAWING: 50 OF 59	SHEET: 296 OF 315
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NETWORK NUMBER: 7003982
 FILE NAME: CSxs01.dgn
 DRAWING TYPE: 1B

WBS NO.
T-228.54S001-3-02

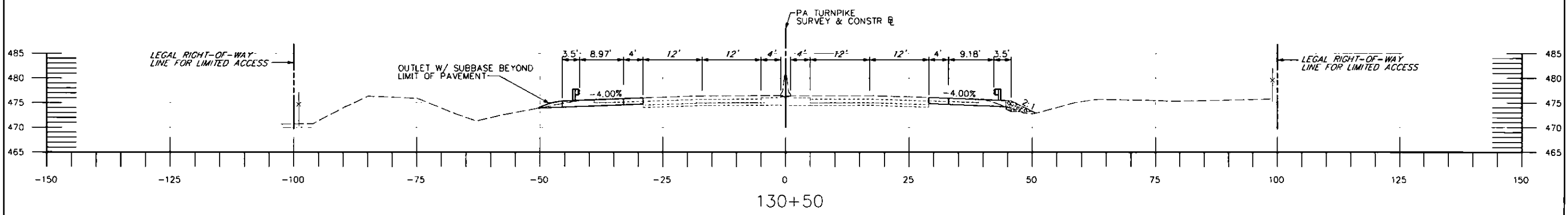
REPLACEMENT OF BRIDGE EB-103
 AT MILEPOST 228.54

PRELIMINARY	
C. 4.5	F. 0.0
FINAL	
C.	F.
TC.	TF.



131+00

STA 131+43. EB
END GUIDE RAIL
INSTALL POST END ANCHORAGE



130+50

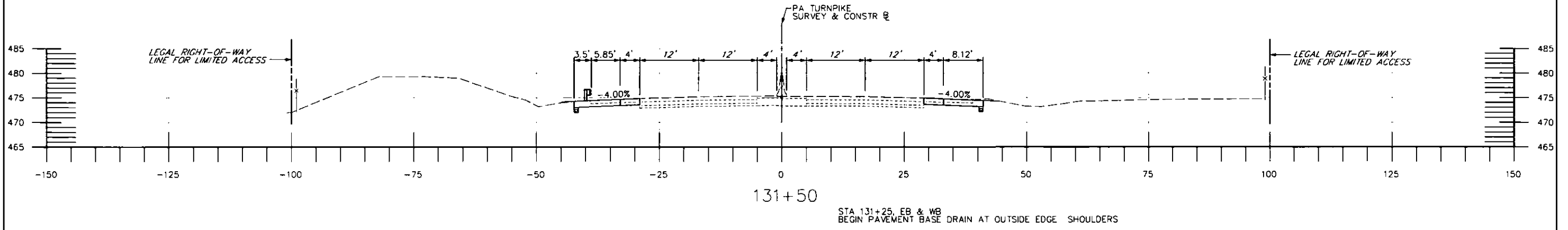
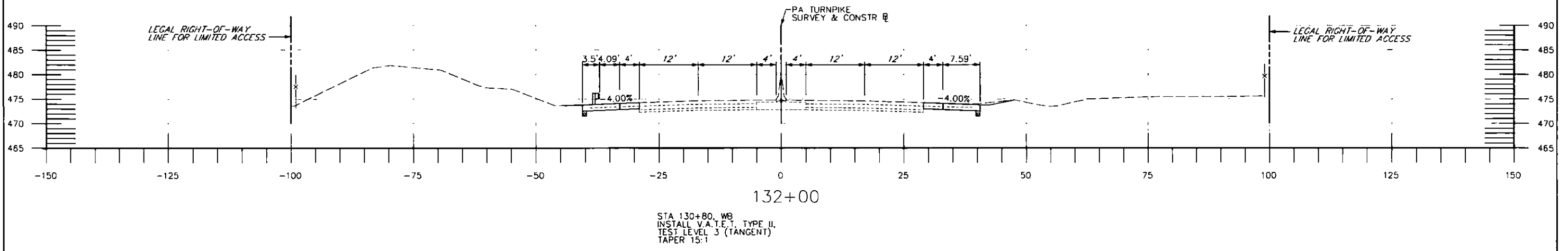
PRELIMINARY	
C. 4.4	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 130+50 TO 131+00	DRAWING: 51 OF 59	SHEET: 297 OF 315
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54						
				FILE NAME: CSxs01.dgn								
				DRAWING TYPE: 1B								

PRELIMINARY	
C. 3.6	F. 0.0
FINAL	
C.	F.
TC.	TF.



PRELIMINARY	
C. 3.8	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.

NETWORK NUMBER: 7003982
FILE NAME: CSxs01.dgn
DRAWING TYPE: 1B
STRUCTURE NUMBER: EB-103

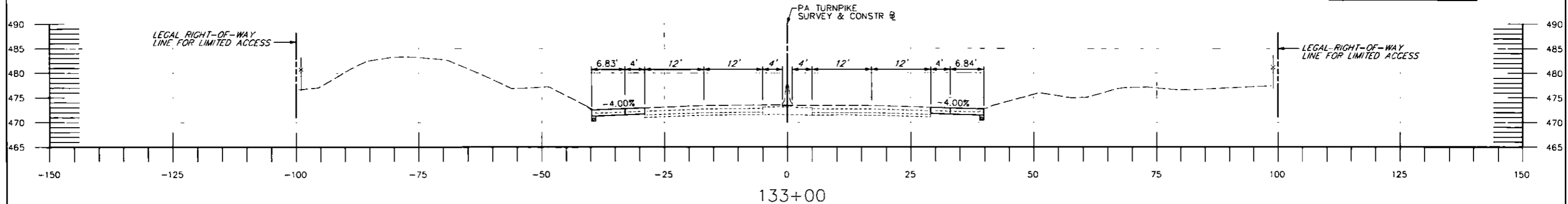
WBS NO. T-228.54S001-3-02
SCALE: 10 0 10 FEET

REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54

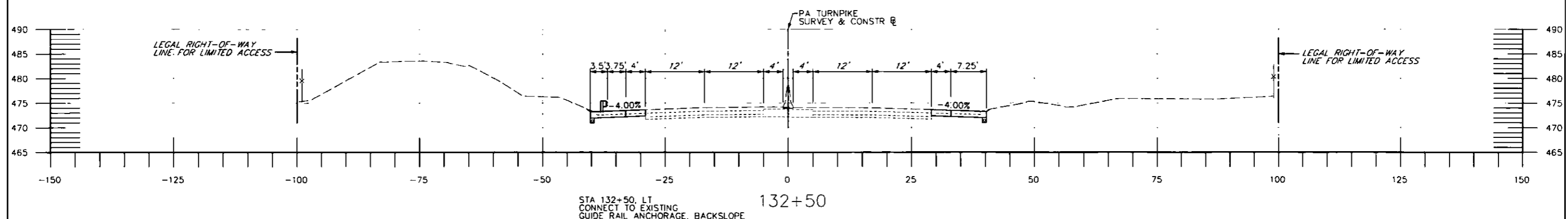
ROUTE: I-76
DISTRICT: 3
TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

STATION 131+50 TO 132+00	
COUNTY: CUMBERLAND	DRAWING: 52 OF 59
SHEET: 298 OF 315	

PRELIMINARY	
C. 3.1	F. 0.0
FINAL	
C.	F.
TC.	TF.



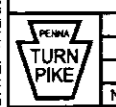
133+00



132+50
 STA 132+50, LT
 CONNECT TO EXISTING
 GUIDE RAIL ANCHORAGE, BACKSLOPE

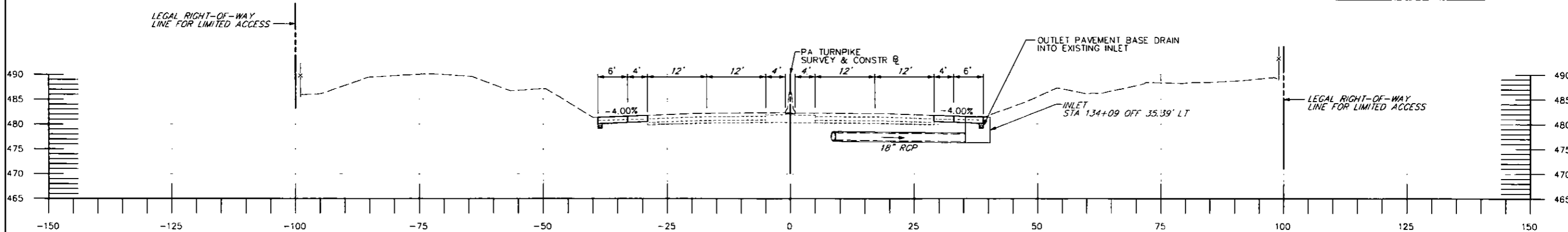
PRELIMINARY	
C. 3.2	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

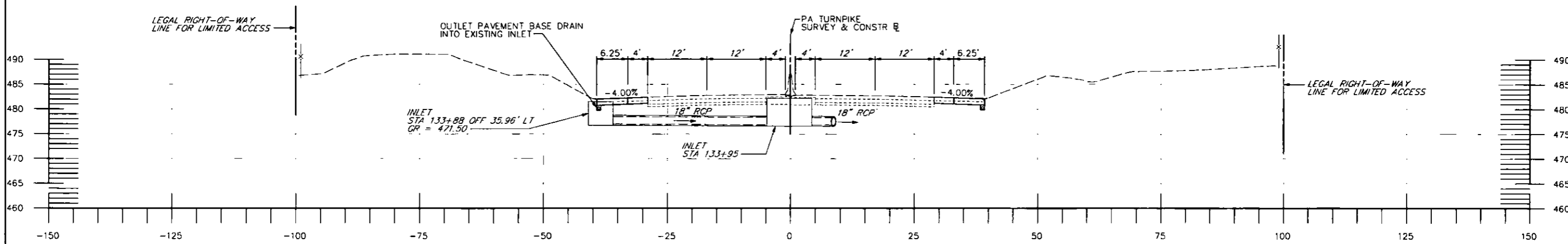


NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	STATION 132+50 TO 133+00	
				NETWORK NUMBER: 7003982			DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 53 OF 59
				FILE NAME: CSxs01.dgn			TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 299 OF 315
				DRAWING TYPE: 1B					
				WBS NO. T-228.54S001-3-02					

PRELIMINARY	
C. 2.8	F. 0.0
FINAL	
C.	F.
TC.	TF.



134+00
STA 134+00 EB & WB
END PAVEMENT WIDENING



133+50

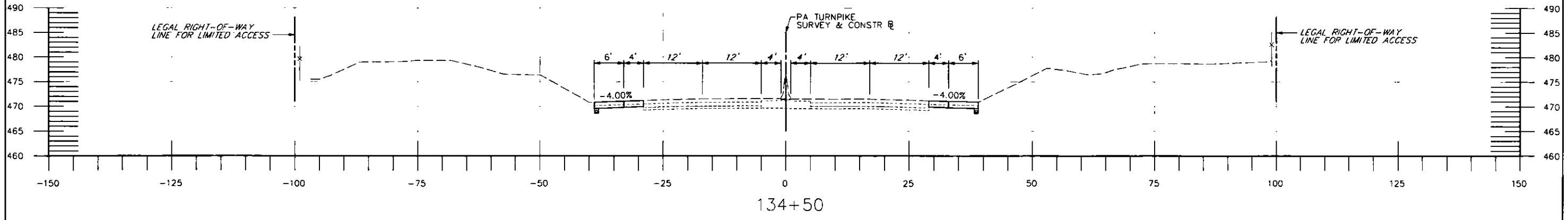
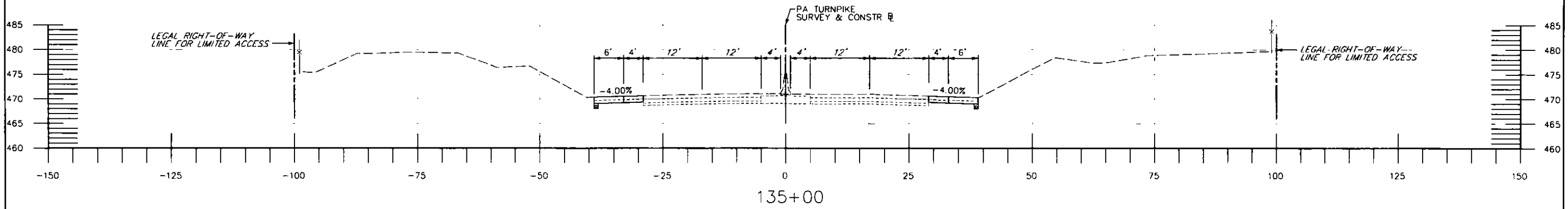
PRELIMINARY	
C. 3.0	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	STATION 133+50 TO 134+00	
				NETWORK NUMBER: 7003982			DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 54 OF 59
				FILE NAME: CSxs01.dgn			TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 300 OF 315
				DRAWING TYPE: 1B					
				WBS NO. T-228.54S001-3-02					

PRELIMINARY	
C. 2.9	F. 0.0
FINAL	
C.	F.
TC.	TF.



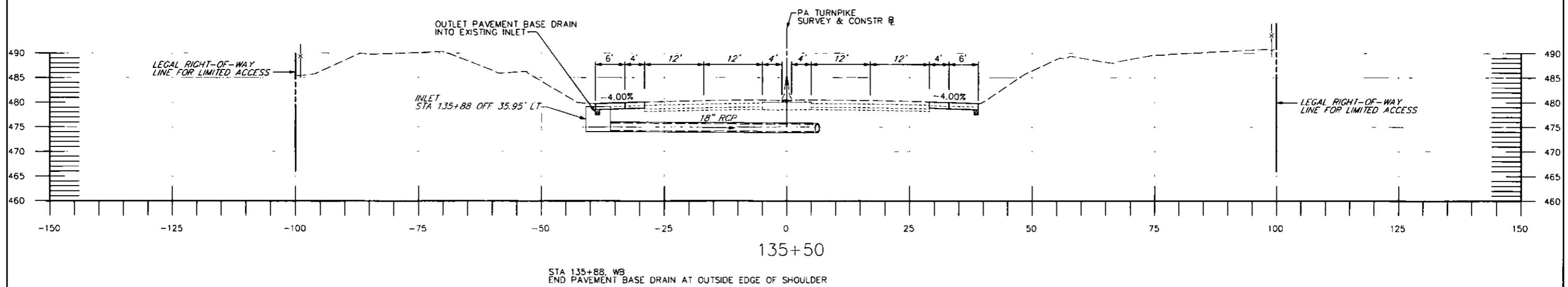
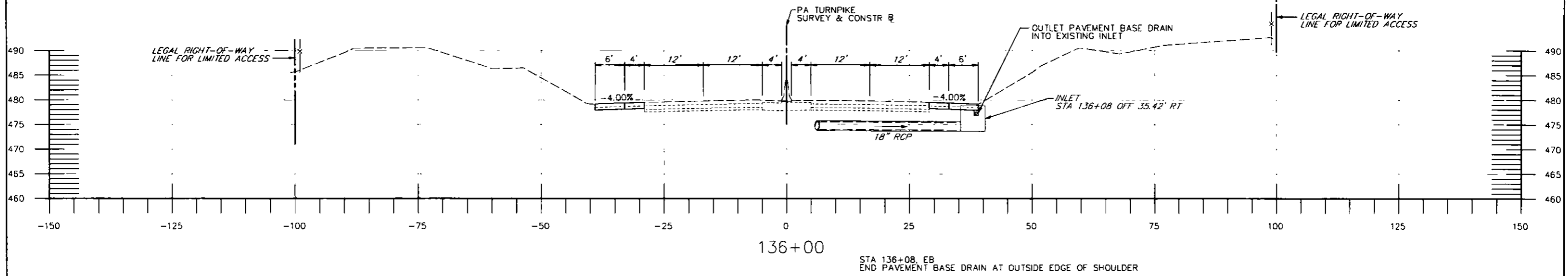
PRELIMINARY	
C. 2.8	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 134+50 TO 135+00	DRAWING: 55 OF 59	SHEET: 301 OF 315
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54						
				FILE NAME: CSxs01.dgn								
				DRAWING TYPE: 1B								

PRELIMINARY	
C. 2.8	F. 0.0
FINAL	
C.	F.
TC.	TF.



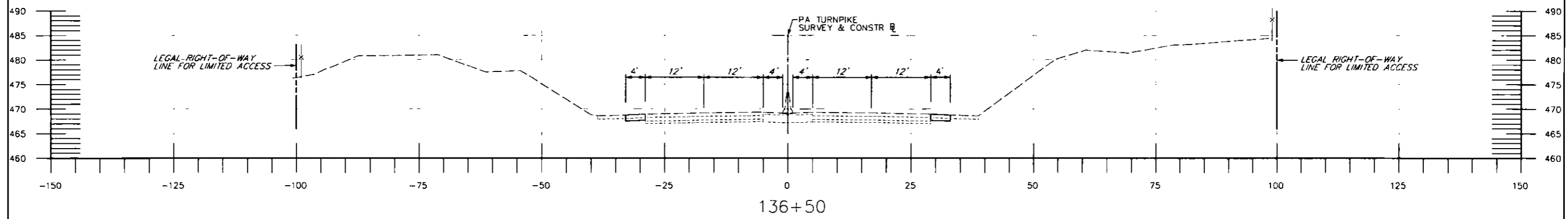
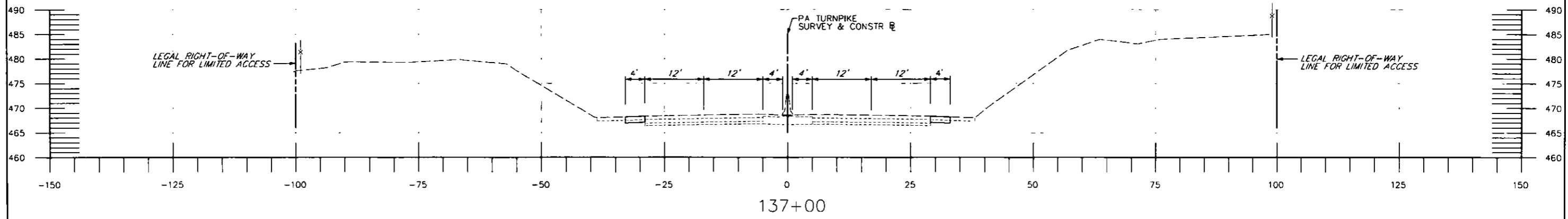
PRELIMINARY	
C. 2.7	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 1" = 10' 0" = 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 135+50 TO 136+00	DRAWING: 56 OF 59	SHEET: 302 OF 315
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PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.



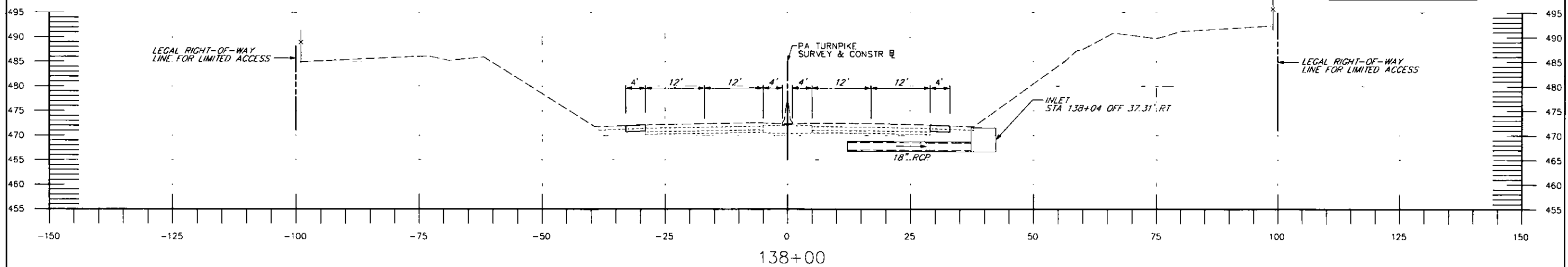
PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

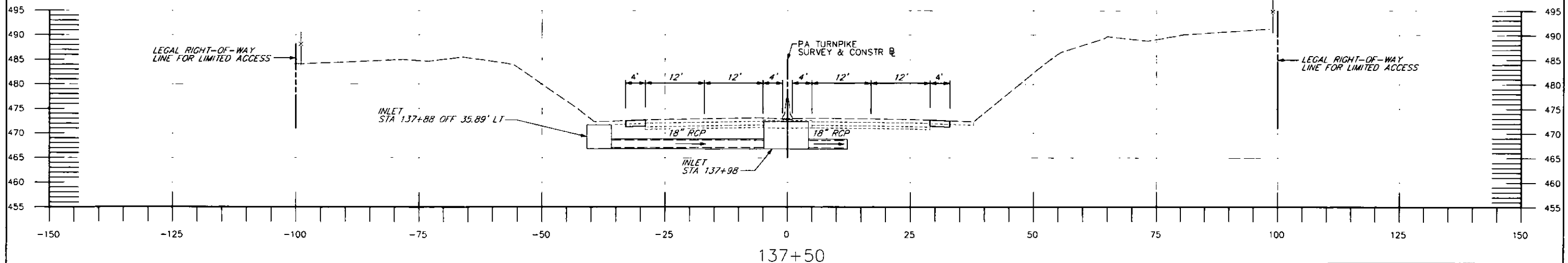


NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	DISTRICT: 3	COUNTY: CUMBERLAND	TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	STATION 136+50 TO 137+00	DRAWING: 57 OF 59	SHEET: 303 OF 315
				NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54						
				FILE NAME: CSxs01.dgn								
				DRAWING TYPE: 1B								

PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.



138+00



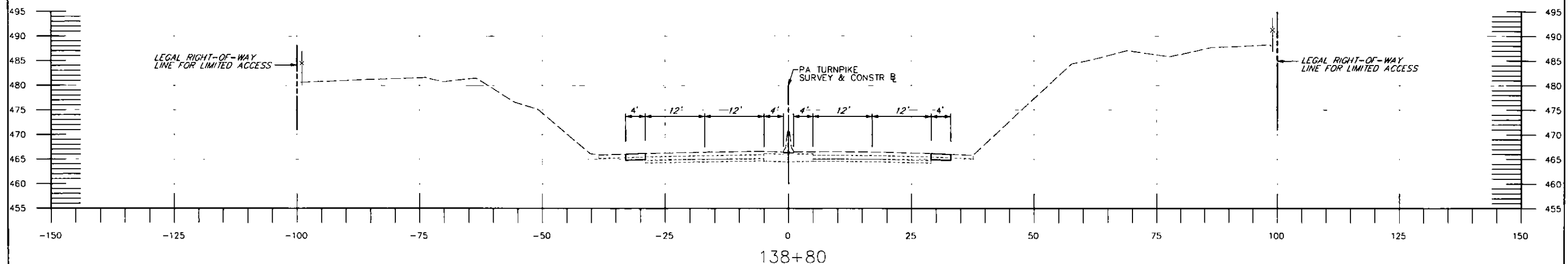
137+50

PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

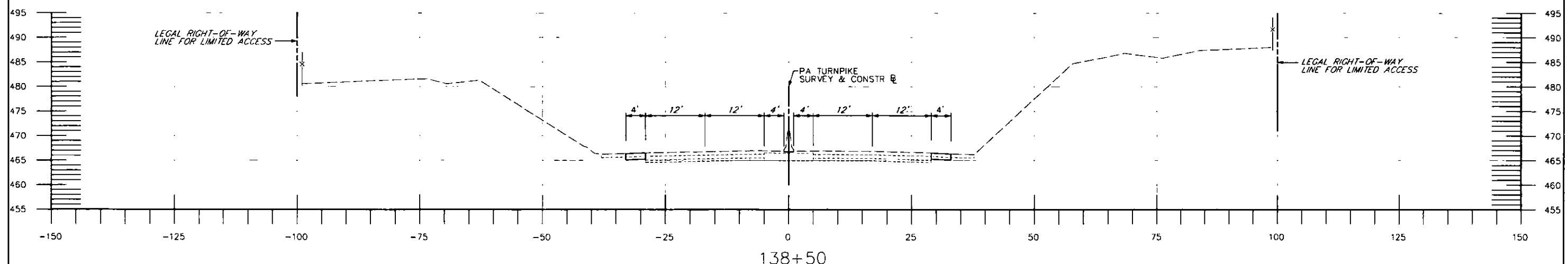
	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: I-76	STATION 137+50 TO 138+00		DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 58 OF 59
											TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 304 OF 315	
					NETWORK NUMBER: 7003982	WBS NO. T-228.54S001-3-02							
					FILE NAME: CSxs01.dgn								
					DRAWING TYPE: 1B								

PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.



138+80

STA 138+80 EB & WB
 END 4' OUTSIDE SHOULDER RECONSTRUCTION
 STOP WORK
 STA 138+80
 LIMIT OF WORK
 STA 139+80



138+50

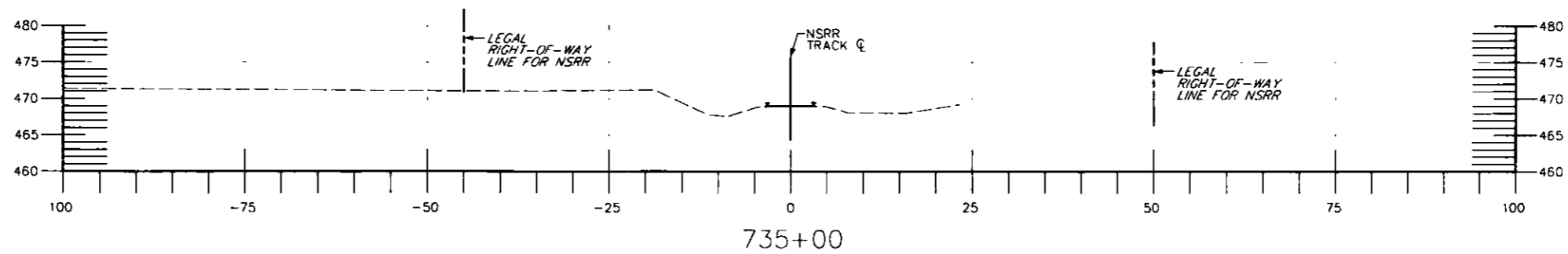
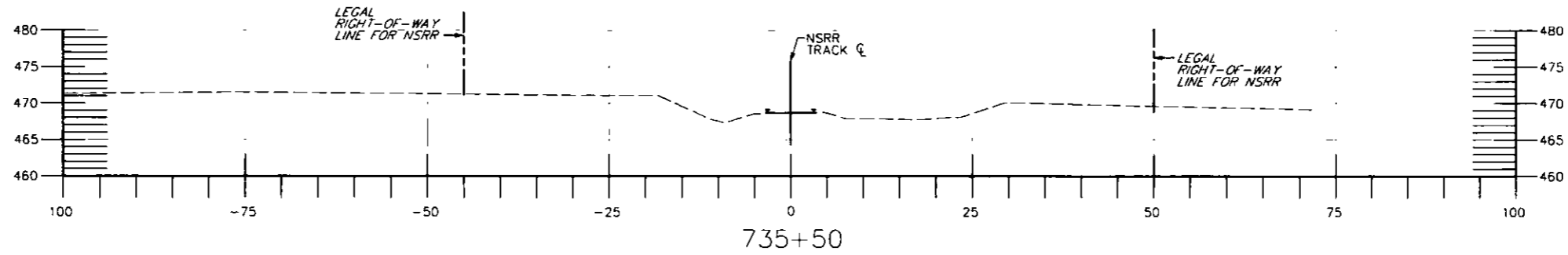
PRELIMINARY	
C. 1.1	F. 0.0
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.		REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	ROUTE: I-76	STATION 138+50 TO 138+80	
NETWORK NUMBER: 7003982					WBS NO. T-228.54S001-3-02		DISTRICT: 3 COUNTY: CUMBERLAND		DRAWING: 59 OF 59
FILE NAME: CSxs01.dgn					REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54		TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 305 OF 315
DRAWING TYPE: 1B									

PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.



PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: NORFOLK SOUTHERN RAILROAD	STATION 735+00 TO 735+50	DRAWING: 1 OF 10
							DISTRICT: 3	COUNTY: CUMBERLAND	SHEET: 306 OF 315
							TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		

NETWORK NUMBER: 7003982

FILE NAME: CSxsRR.dgn

DRAWING TYPE: 1B

WBS NO. T-228.54S001-3-02

REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54

ROUTE: NORFOLK SOUTHERN RAILROAD

STATION 735+00 TO 735+50

DISTRICT: 3

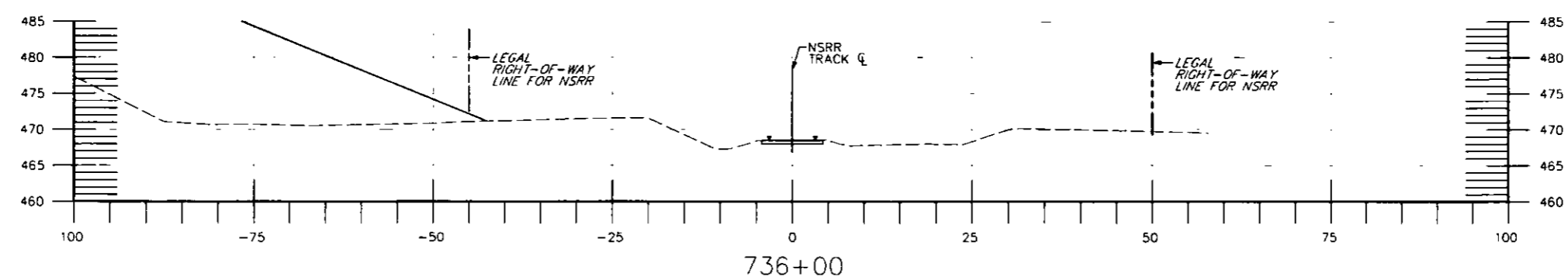
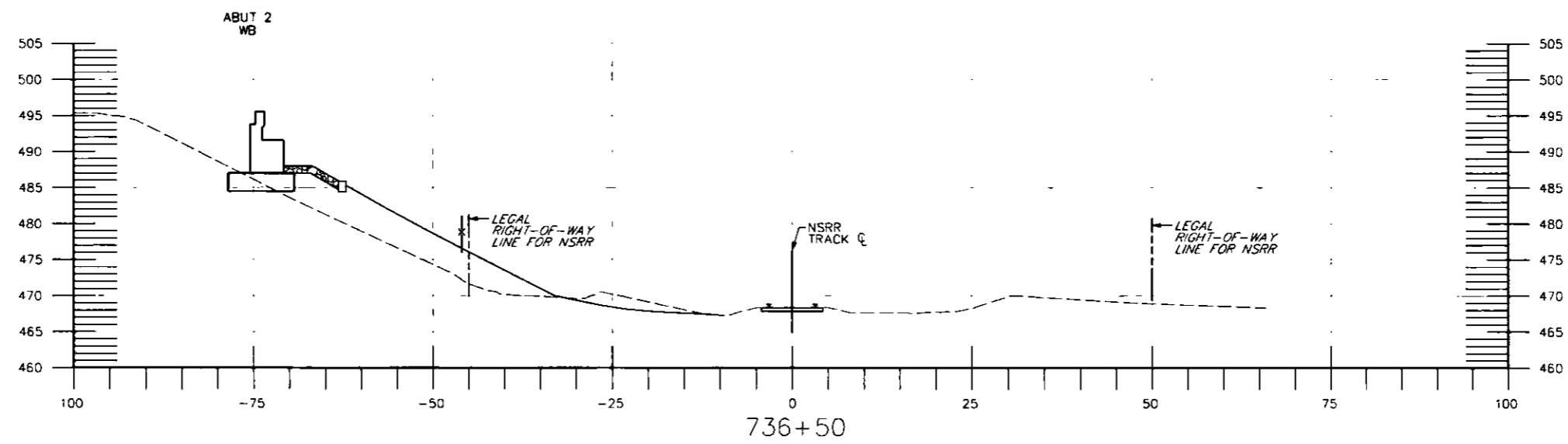
COUNTY: CUMBERLAND

DRAWING: 1 OF 10

TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

SHEET: 306 OF 315

PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.



PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NETWORK NUMBER: 7003982
 FILE NAME: CSxsRR.dgn
 DRAWING TYPE: 1B
 STRUCTURE NUMBER: EB-103

WBS NO.
T-228.54S001-3-02
 SCALE: 10 0 10 FEET

REPLACEMENT OF BRIDGE EB-103
 AT MILEPOST 228.54

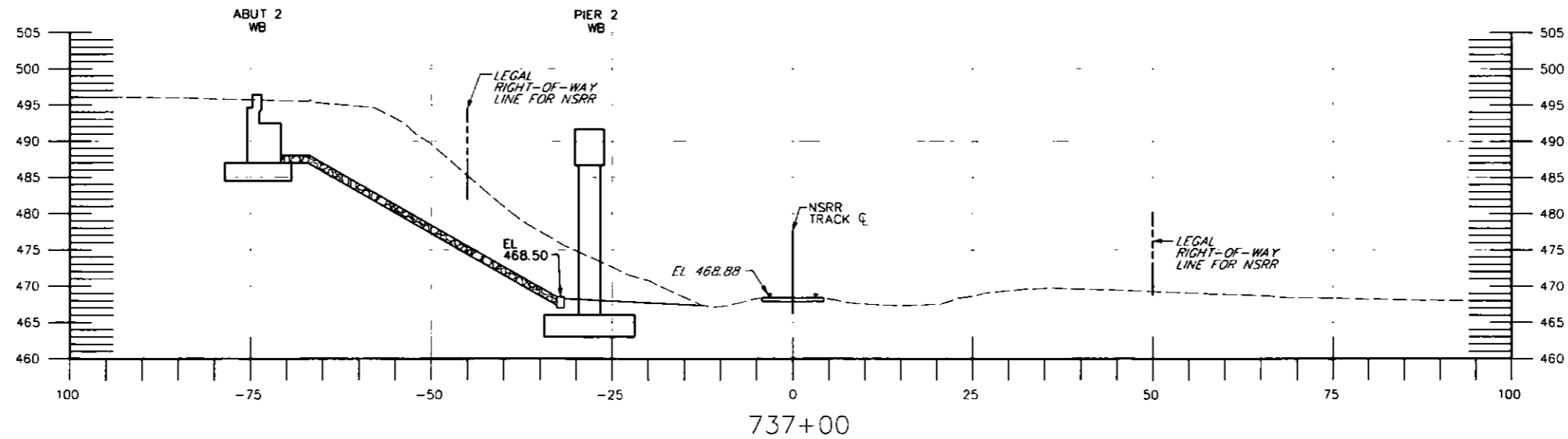
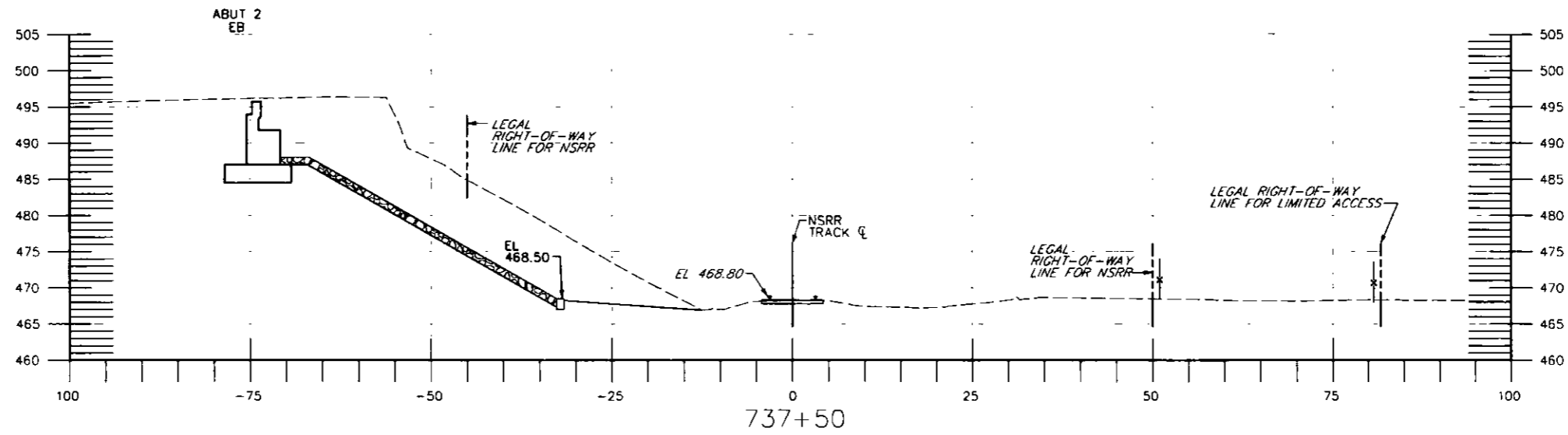
ROUTE: NORFOLK SOUTHERN RAILROAD
 DISTRICT: 3 COUNTY: CUMBERLAND
 TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP

STATION 736+00 TO 736+50

DRAWING: 2 OF 10
 SHEET: 307 OF 315

NO.	REVISIONS	DATE	APPR.

PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.

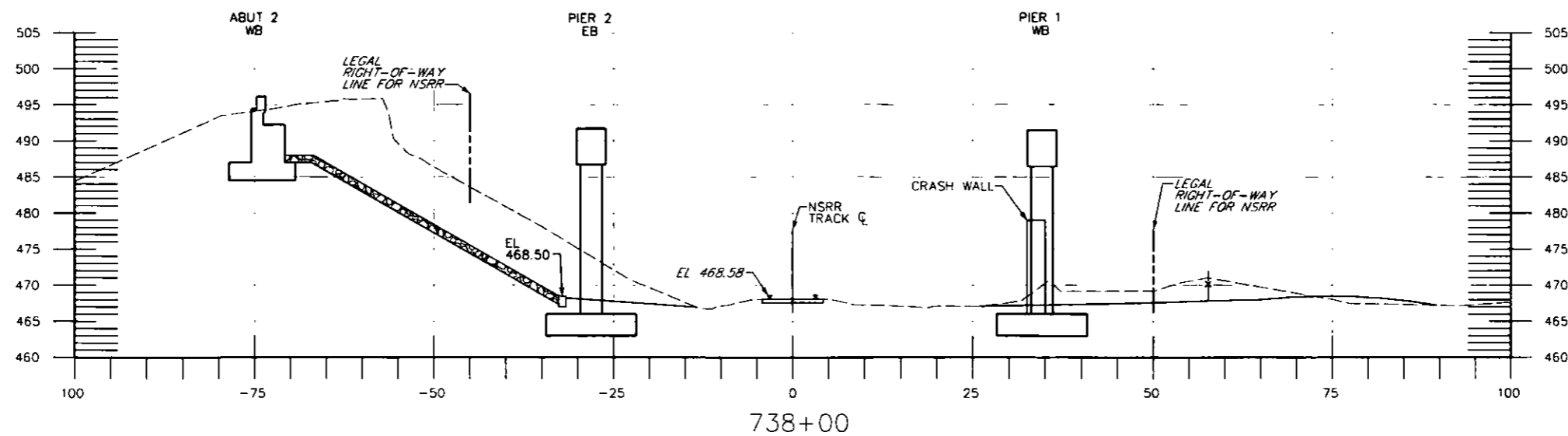
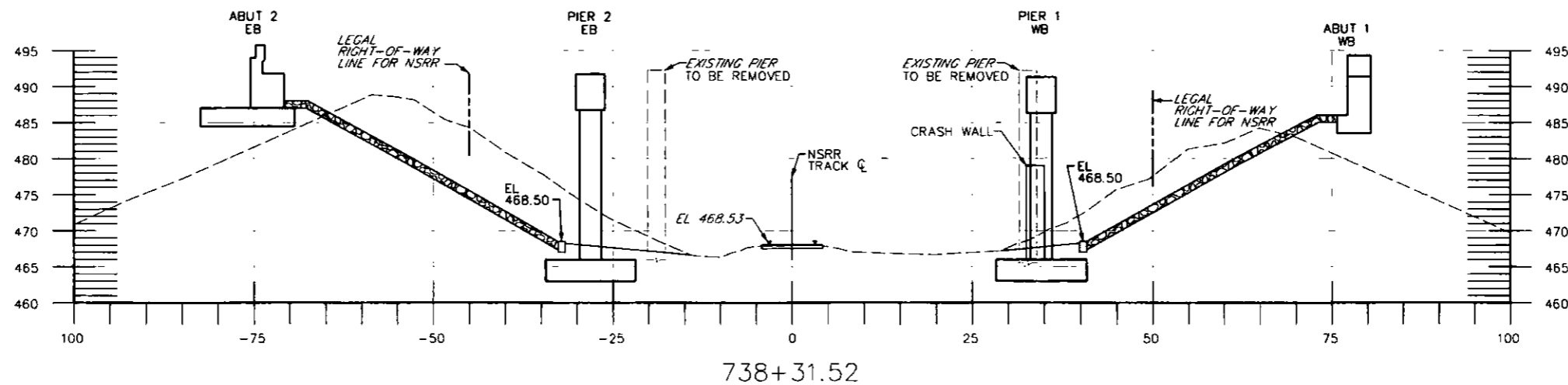


PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: NORFOLK SOUTHERN RAILROAD	STATION 737+00 TO 737+50	
									DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 3 OF 10

PRELIMINARY	
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FINAL	
C.	F.
TC.	TF.

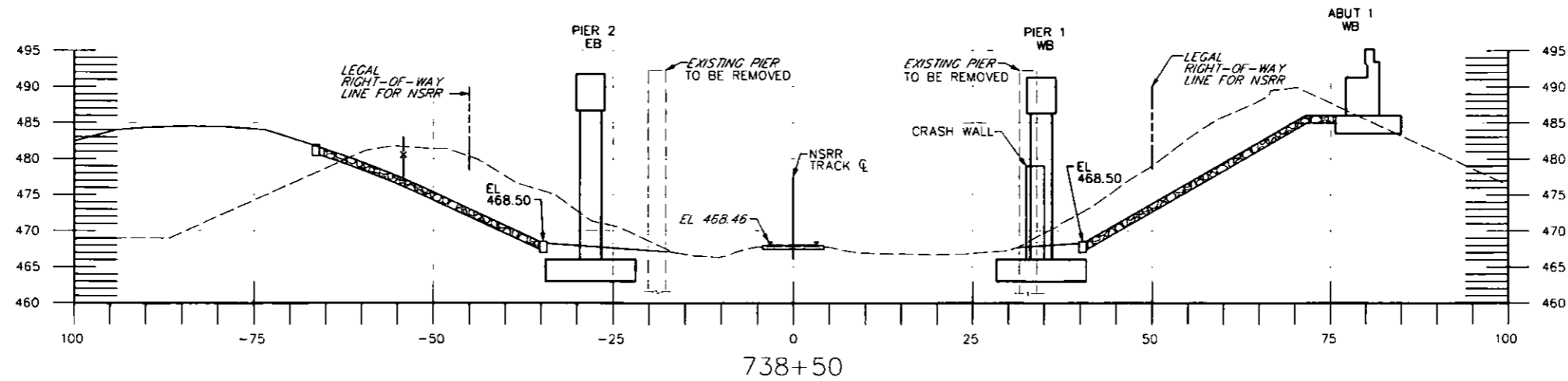
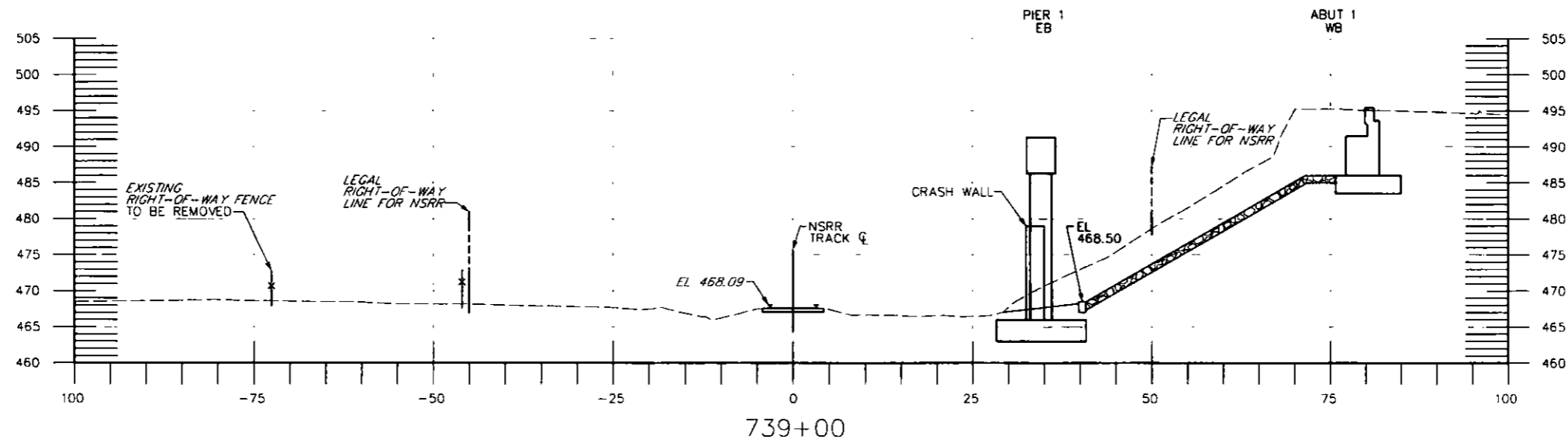


PRELIMINARY	
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FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: NORFOLK SOUTHERN RAILROAD	STATION 738+00 TO 738+31.52	
						DISTRICT: 3			COUNTY: CUMBERLAND	DRAWING: 4 OF 10	
								TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP	SHEET: 309 OF 315		

PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.

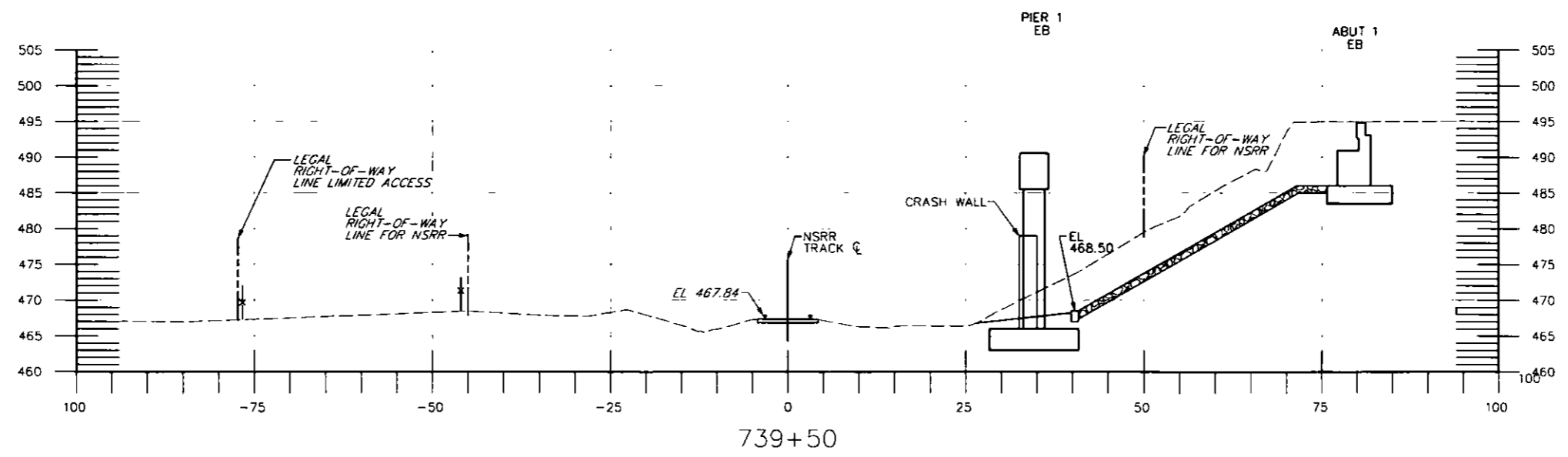
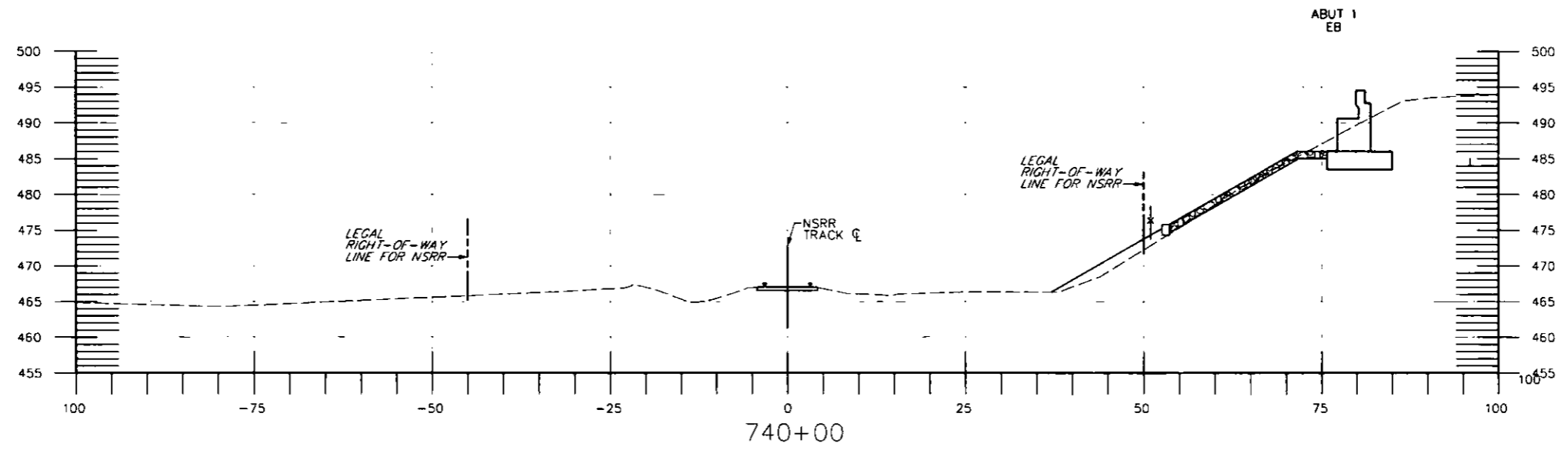


PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: NORFOLK SOUTHERN RAILROAD	STATION 738+50 TO 739+00	
									DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 5 OF 10

PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.



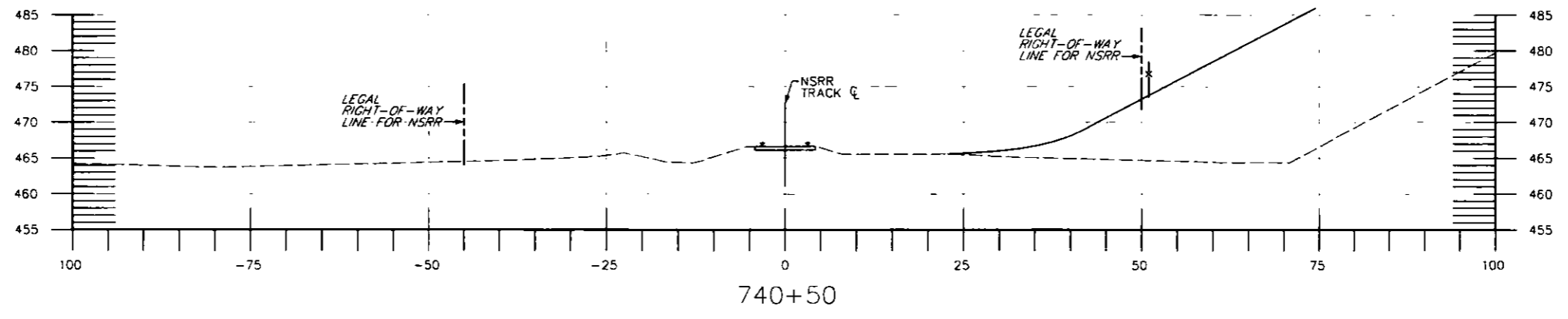
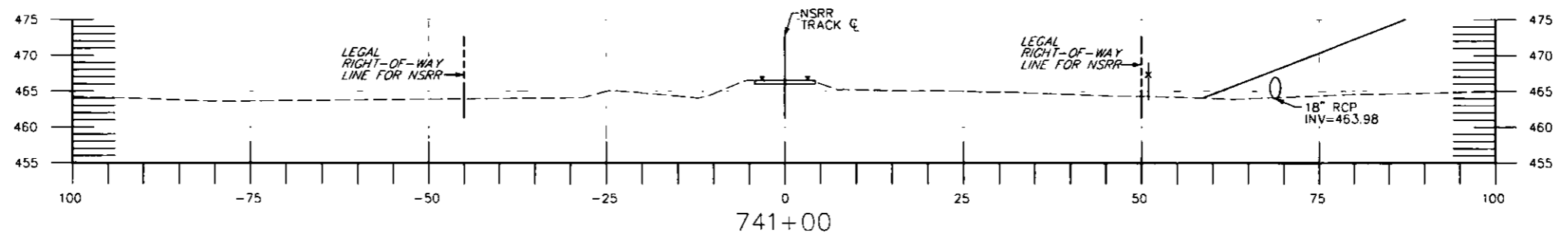
PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.		REVISIONS		DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: NORFOLK SOUTHERN RAILROAD	STATION 739+50 TO 740+00	
						NETWORK NUMBER: 7003982		FILE NAME: CSxsRR.dgn		DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 6 OF 10
						DRAWING TYPE: 1B				TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 311 OF 315

PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.



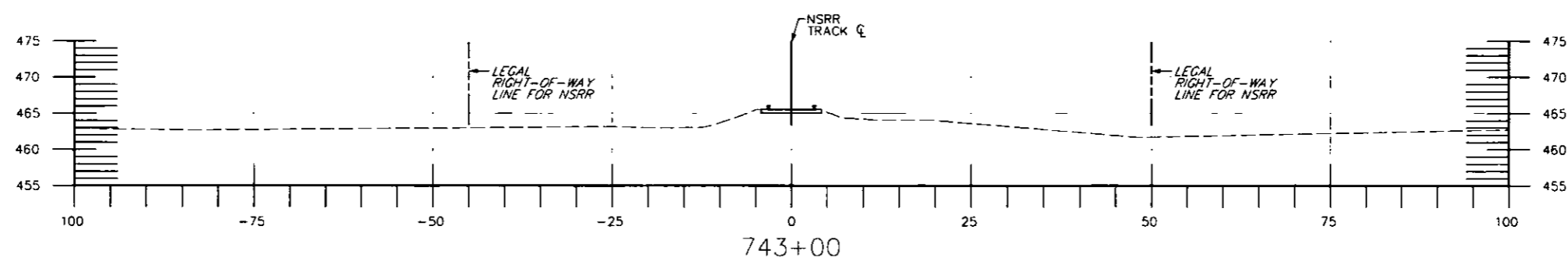
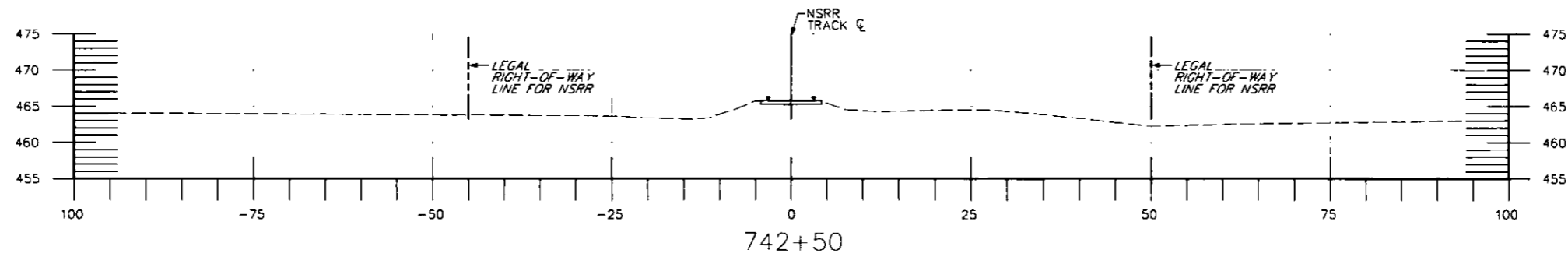
PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



NO.		REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: NORFOLK SOUTHERN RAILROAD	STATION 740+50 TO 741+00		DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 7 OF 10
NETWORK NUMBER: 7003982					WBS NO. T-228.54S001-3-02		TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP						SHEET: 312 OF 315
FILE NAME: CSxRR.dgn													
DRAWING TYPE: 1B													

PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.



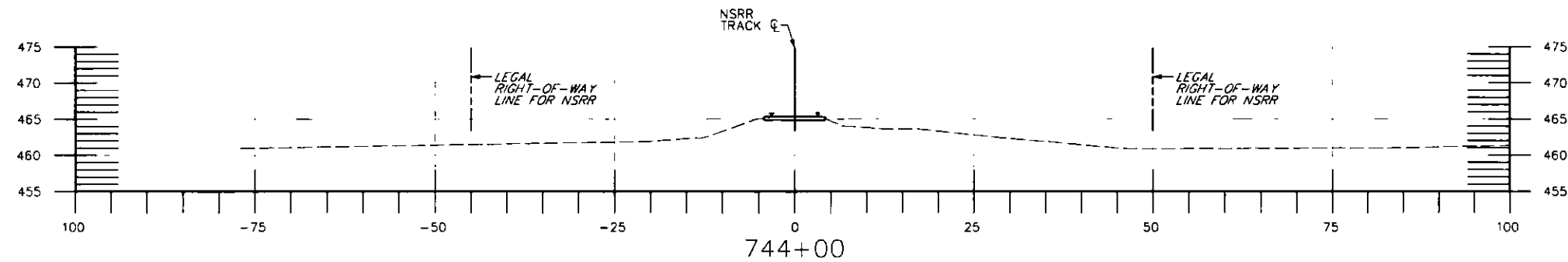
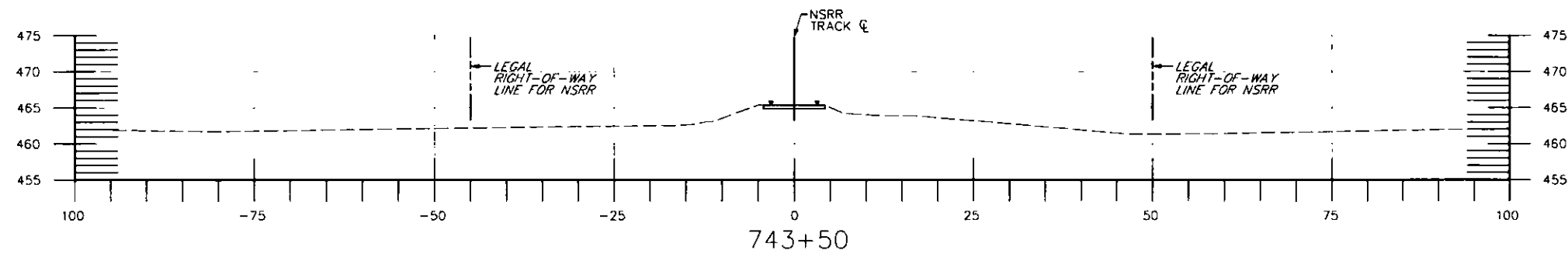
PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016



		NETWORK NUMBER: 7003982		WBS NO. T-228.54S001-3-02		ROUTE: NORFOLK SOUTHERN RAILROAD		STATION 742+50 TO 743+00	
		FILE NAME: CSxsRR.dgn				REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54		DISTRICT: 3 COUNTY: CUMBERLAND	
		DRAWING TYPE: 1B		SCALE: 10 0 10 FEET		TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		DRAWING: 9 OF 10	
NO.		REVISIONS		DATE		APPR.		STRUCTURE NUMBER: EB-103	
								SHEET: 314 OF 315	

PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.



PRELIMINARY	
C.	F.
FINAL	
C.	F.
TC.	TF.

DATE: 7/12/2016

	NO.	REVISIONS	DATE	APPR.	STRUCTURE NUMBER: EB-103	SCALE: 10 0 10 FEET	WBS NO. T-228.54S001-3-02	REPLACEMENT OF BRIDGE EB-103 AT MILEPOST 228.54	ROUTE: NORFOLK SOUTHERN RAILROAD	STATION 743+50 TO 744+00	
									DISTRICT: 3	COUNTY: CUMBERLAND	DRAWING: 10 OF 10
									TOWNSHIP / BOROUGH: MIDDLESEX TOWNSHIP		SHEET: 315 OF 315