



June 10, 2019

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
P. O. Box 3265
Harrisburg, PA 17105-3265

Re: Bucks County
West Rockhill Twp.
S.R. 0309, Section PM1
S.R. 309 (Sellersville Bypass) Expressway
over East Penn Railroad & SEPTA
DOT #592 617 N
PUC Docket No. A-2018-3005701
MPMS No. 86923

Secretary Chiavetta:

PADOT is submitting the relevant structure and construction plans for review and approval on the above subject project. As permitted by PUC filing rules, this is being submitted electronically in lieu of mailing to the PUC.

Please review and approve these plans, so that we may proceed with the construction of the project. A Certificate-of-Service, as required by the Rules of Procedures found in the Pennsylvania Code, is enclosed.

If you have any questions, please call me at 610-205-6532.

Sincerely,

A handwritten signature in black ink, appearing to read "RM", is written over a horizontal line.

Robert Magee
District Grade Crossing/Utility Engineer
Engineering District 6-0
Pennsylvania Department of Transportation

Enclosures

cc: Parties of Record
Michelle Adolini, P.E., Chief Utilities & Right-of-Way Section, 7th Floor, CKB
Gina D'Alfonso, Office of Chief Counsel, 9th floor, Keystone Bldg.
Ron Hull, P.E., PA PUC Rail Safety, Keystone Bldg., 3rd floor, CKB
File: 86923-PUC

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Application of the Department of Transportation, of the Commonwealth of Pennsylvania, for approval to replace the superstructure and repair the substructure the public above grade crossing where SR 309 (Sellersville Bypass Expressway) crosses above two tracks owned by Southeastern Pennsylvania Transportation Authority and operated on by East Penn Railroad, LLC, DOT No. 592 617 N in West Rockhill Township, Bucks County.

Application
Docket No. A-2018-3005701

Electronically Filed

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document upon the participants listed below, in accordance with the requirements of 52 Pa. Code § 1.54, by first class mail, postage prepaid:

Alfred Sauer, President
East Penn Railroad, LLC
505 S Broad Street
Kennett Square, PA 19438

Robert L. Lund, Jr., Assistant General Manager
Southeastern Pennsylvania Transportation Authority
1234 Market Street, 12th Floor
Philadelphia, PA 19107-3780

Mr. Brian Hessenthaler, Chief Operating Officer
Bucks County Commissioners
Administration Building
55 East Court Street
Doylestown, PA 18901

Greg Lippincott, Manager
West Rockhill Township
1028 Ridge Road
Sellersville, PA 18960

Hugh Gallagher, President
Amerigas Propane
1000 Adams Ave.
Norristown, PA 19403

Eric Meissner, Operations Manager
CenturyLink
2011 Hartel Street
Levittown, PA 19057

John Dohalick, Regional Permit Coordinator
Comcast Cable Communications
2320 Trenton Road
Levittown, PA 19056

John Rider, Program Manager
Crown Castle Fiber
202 Titus Ave.
Warrington, PA 18976

Patrick Galli
Frontier Communications
300 E Laird Steeet
Wilkes Barre, PA 18702

Aaron Bibro, Manager
Hatfield Township
1950 School Road
Hatfield, PA 19440

Peter Dorney, Executive Director
Hatfield Township Municipal Authority
3200 Advance Lane
Colmar, PA 18915

Dan Compitello, OSP Engineer
Level (3) Communications, Inc.
3020 Market Street – 3rd Floor
Philadelphia, PA 19104

Dan Preston, Director of Operations & Eng
North Penn Water Authority
300 Forty Foot Road
Lansdale, PA 19446

Nicholas Fretz, Manager
Perkasie Regional Authority
150 Ridge Road
Sellersville, PA 18960

Charlotte Krupa, Agency Coordinator
PPL Electric Utilities Corporation
2 North 9th Street. - GENN-3
Allentown, PA 18101-1179

Michael Hamilton, Damage Prevention Specialist
PPL Interstate Energy Co.
214 Shoemaker Road
Pottstown, PA 19464

David J Rivet, Manager
Sellersville Borough
140 East Church Street
Sellersville, PA 18960

Mark D Fournier, Manager
Telford Borough
122 Penn Ave
Telford, PA 18969-1912


William Savage, Right-of-Way Agent
Texas Eastern Transmission LP/Enbridge
560 Pottstown Pike
Chester Springs, PA 19425

William Karr, Sr Engineering Manager
UGI Utilities, Inc
2121 City Line Road
Bethlehem, PA 18017

Laura M Lippincott, Section Manager
Verizon Pennsylvania, LLC
1050 Virginia Drive, Floor 4
Fort Washington, PA 19034

John Alessandrini, OSP Engineer
Verizon Business Local
630 Clark Ave.
King of Prussia PA 19406

Dated this 10th Day of June 2019



DISTRICT	COUNTY	TOWNSHIP	BOROUGH	ROUTE	SECTION	TOTAL SHEETS
6-0	BUCKS	HILLTOWN		0309	PM1	75
		WEST ROCKHILL				
		RICHLAND				
		HATFIELD				
	MONTGOMERY					

SR 0309 PREVIOUSLY KNOWN AS LR 153 AND LR 1027

ECMS No. 86923

ALSO INCLUDED:	
TRAFFIC CONTROL PLAN	152 SHEETS
SIGNING AND PAVEMENT MARKING PLAN	65 SHEETS
EROSION AND SEDIMENT POLLUTION CONTROL PLAN	67 SHEETS
ITS PLAN	73 SHEETS
STRUCTURE PLANS	
S-36504	6 SHEETS
S-36505	6 SHEETS
S-36506	6 SHEETS
S-36507	7 SHEETS
S-36508	10 SHEETS
S-36509	10 SHEETS
S-36510	10 SHEETS
S-36511	10 SHEETS
S-36512	10 SHEETS
S-36732	2 SHEETS
S-36745	13 SHEETS
S-36746	11 SHEETS
S-36747	2 SHEETS
S-36748	2 SHEETS
S-36749	2 SHEETS
S-36818	10 SHEETS
S-36847	28 SHEETS
S-36849	39 SHEETS
CROSS SECTIONS	16 SHEETS
EXISTING STRUCTURE PLANS	151 SHEETS

COMMONWEALTH OF PENNSYLVANIA



DEPARTMENT OF TRANSPORTATION

DRAWINGS FOR CONSTRUCTION OF

STATE ROUTE 0309 SECTION PM1

IN BUCKS COUNTY

FROM STA. 100+00.00 TO STA. 581+10.00 LENGTH 47910.00 FT. 9.074 MI.

N.B. FROM SEG. 0030 OFFSET 1982 TO SEG. 0220 OFFSET 2637

S.B. FROM SEG. 0061 OFFSET 0587 TO SEG. 0221 OFFSET 2228

AND

IN MONTGOMERY COUNTY

FROM STA. 100+00.00 TO STA. 139+50.00 LENGTH 3733.00 FT. 0.707 MI.

S.B. FROM SEG. 0031 OFFSET 1982 TO SEG. 0061 OFFSET 0587

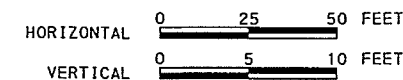
PUC APPLICATION DOCKET NUMBER A-2018-3005701

ESTABLISHED AS A LIMITED ACCESS HIGHWAY FROM STATION 114+00.00 TO STATION 324+34.00 BY PLAN OF LEGISLATIVE ROUTE 1027 SECTION 1 R/W APPROVED JULY 22, 1965.

ESTABLISHED AS A LIMITED ACCESS HIGHWAY FROM STATION 324+34.00 TO STATION 558+02.06 BY PLAN OF LEGISLATIVE ROUTE 1027 SECTION 2 R/W APPROVED MARCH 12, 1965.

ESTABLISHED AS A LIMITED ACCESS HIGHWAY FROM STATION 558+02.06 TO STATION 564+60.00 LEGISLATIVE ROUTE LR 153 SECTION 22A R/W APPROVED MARCH 12, 1965.

SCALE



DESIGN DESIGNATION

HIGHWAY CLASSIFICATION - PRINCIPAL ARTERIAL, REGIONAL ARTERIAL, SUBURBAN CORRIDOR (NORTH AND SOUTH OF LIMITED ACCESS SECTION OF SR 0309)

DESIGN SPEED - 45 M.P.H. - 55 M.P.H.

PAVEMENT WIDTH - 2-24' ROADWAYS DIVIDED

SHOULDER WIDTH - 0'-8' RT., 0'-9' LT.

MEDIAN WIDTH, MAXIMUM - 8'-12' (MOUNTABLE MEDIAN CURB, TURN LANE) 20' (MEDIAN BARRIER)

DESIGN DESIGNATION

HIGHWAY CLASSIFICATION - PRINCIPAL ARTERIAL, LIMITED ACCESS FREEWAY, URBAN NON-INTERSTATE (LIMITED ACCESS SECTION OF SR 0309)

DESIGN SPEED - 55 M.P.H.

PAVEMENT WIDTH - 2-24' ROADWAYS DIVIDED

SHOULDER WIDTH - 6'-8' RT., 5.5'-12.5' LT

MEDIAN WIDTH, MAXIMUM - 20' (MEDIAN BARRIER)

TRAFFIC DATA

CURRENT A. D. T. - 40,466 (2019)

DESIGN YEAR A. D. T. - 46,558 (2040)

D. H. V. - 3725 (2040)

D - 59%

T - 10%

PREPARED BY:

AECOM

1700 MARKET STREET
SUITE 1600
PHILADELPHIA, PA 19103

EDWARD C. REAGLE
PROJECT MANAGER

5/28/19
Date

RECOMMENDED DATE: 5/30/2019

Edward C. Reagle
DISTRICT EXECUTIVE

RECOMMENDED DATE: _____

DEPUTY SECRETARY

APPROVED DATE: _____

SECRETARY OF TRANSPORTATION
(ON BEHALF OF THE GOVERNOR
AS WELL AS THE SECRETARY)

CALL BEFORE YOU DIG

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL 1-800-242-1776

PENNSYLVANIA ONE CALL



DESIGNER SERIAL NUMBERS: 20183550867 (HATFIELD TOWNSHIP)
 DESIGNER SERIAL NUMBERS: 20183550877 (HILLTOWN TOWNSHIP)
 DESIGNER SERIAL NUMBERS: 20183550871 (WEST ROCKHILL TOWNSHIP)
 DESIGNER SERIAL NUMBERS: 20183550875 (EAST ROCKHILL TOWNSHIP)
 DESIGNER SERIAL NUMBERS: 20183550873 (RICHLAND TOWNSHIP)
 DESIGNER SERIAL NUMBERS: 20183550869 (TELFORD BORO)
 DESIGNER SERIAL NUMBERS: 20183550868 (SELLERSVILLE BORO)

TABULATION OF OVERALL LENGTH

MONTGOMERY COUNTY
 FROM STATION 100+00 TO 139+50 = 3,950 FT = 0.748 MI (SR 0309)
 BUCKS COUNTY
 FROM STATION 100+00 TO 581+10 = 48,110 FT = 9.111 MI (SR 0309)

TABULATION OF CONSTRUCTION LENGTH

MONTGOMERY COUNTY
 FROM STATION 101+50 TO 138+89 = 3,739 FT = 0.708 MI (SR0309)
 BUCKS COUNTY
 FROM STATION 101+50 TO 580+60 = 47,910 FT = 9.074 MI (SR0309)

LIST OF EQUALITIES

NONE

EARTHWORK SUMMARY ENTIRE PROJECT

THE INFORMATION ON ESTIMATED AMOUNTS OF EARTHWORK HAS BEEN USED IN THE PRELIMINARY ESTIMATE. DO NOT USE AS A WAIVER OF ANY PROVISIONS OF THE SPECIFICATIONS AND CONTRACTS

CUBIC YARDS OF EXCAVATION					CUBIC YARDS OF COMPLETED EMBANKMENT*	CUBIC YARDS OF BORROW EXCAVATION	CUBIC YARDS OF SELECT BORROW	CUBIC YARDS OF WASTE	
CLASS 1	CLASS 1A	CLASS 1B MODIFIED	CLASS 2	CLASS 3**					
16027	0	70803	277	1258	2651	5513	0	654	86157

* INCLUDES ALL BORROW ITEMS
 ** CY PART OF LUMP SUM STRUCTURE ITEM

PUBLIC UTILITIES

UTILITIES	ADDRESS	ATTN.
HATFIELD TOWNSHIP MUNICIPAL AUTHORITY S	3200 ADVANCE LANE COLMAR, PA 18915	MIKE LIGHTNER 215-822-9300
HATFIELD TOWNSHIP S	1950 SCHOOL ROAD HATFIELD, PA 19440	ANDREW HAINES 215-855-0900
TELFORD BOROUGH AUTHORITY S	122 PENN AVENUE TELFORD, PA 18969	MARK D. FOURNIER 215-723-5000
NORTH PENN WATER AUTHORITY W	300 FORTY FOOT ROAD P.O. BOX 1659 LANSDALE, PA 19446	DAN PRESTON 215-855-3617
VERIZON PENNSYLVANIA LLC FOU	180 SHEREE BLVD SUITE 2100 EXTON, PA 19341	CYNTHIA OBERHOLTZER 800-255-2355
UGI UTILITIES INC G	2121 CITY LINE ROAD BETHLEHEM, PA 18017	LINDA LEEWRIGHT 610-736-5508
PECO ENERGY E	C/O USIC, UNIT B450 S. HENDERSON ROAD KING OF PRUSSIA, PA 19406	GEORGE WELCH 484-681-5720
PPL ELECTRIC UTILITIES CORPORATION E	C/O USIC, UNIT B 450 S. HENERSON ROAD KING OF PRUSSIA, PA 19406	GEORGE WELCH 484-681-5720
PPL INTERSTATE ENERGY COMPANY E	214 SHOEMAKER ROAD POTTSTOWN, PA 19464	MARK STORY 610-327-5342
SPECTRA ENERGY/TEXAS EASTERN G	467 FORGEDALE ROAD BARTO, PA 19504	MARK R. STOVER 610-334-9074
SERVICE ELECTRIC CABLE TV, INC CTV	1045 HAMILTON ST ALLENTOWN, PA 18101	800-232-9100

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BUCKS & MONTGOMERY	0309	PM1	6 OF 75
HILLTOWN, HATFIELD, WEST ROCKHILL, AND RICHLAND TOWNSHIPS				
REVISION NUMBER	REVISIONS	DATE	BY	

GENERAL NOTES

THE LEGAL RIGHT-OF-WAY FROM STATION 100+00 TO STATION 107+50 IS VARIABLE IN WIDTH AS SHOWN BASED ON DRAWINGS FOR CONDEMNATION OF RIGHT-OF-WAY FOR LEGISLATIVE ROUTE NUMBER LR 153 SECTION 21, APPROVED DECEMBER 1962.

THE LEGAL RIGHT-OF-WAY ON SR 0309, FORMERLY LR 1027 FROM STATION 107+50.00 TO STATION 324+34.00 IS VARIABLE IN WIDTH AS SHOWN BASED ON DRAWINGS FOR LEG. ROUTE NUMBERS 153 SECTION 21A AND 1027 SECTION 1, DATED JANUARY 1967.

THE LEGAL RIGHT-OF-WAY ON SR 0309, FORMERLY LR 1027 FROM STATION 114+00.00 TO STATION 324+34.00 IS VARIABLE IN WIDTH AS SHOWN BASED ON DRAWINGS AUTHORIZING CONDEMNATION OF RIGHT-OF-WAY FOR LEGISLATIVE ROUTE NUMBERS 153 SECTION 21A AND 1027 SECTION 1, APPROVED JULY 22, 1965.

THE LEGAL RIGHT-OF-WAY ON SR 0309, FORMERLY LR 1027 FROM STATION 324+34.00 TO STATION 564+60.00 IS VARIABLE IN WIDTH AS SHOWN BASED ON DRAWINGS AUTHORIZING CONDEMNATION OF RIGHT-OF-WAY FOR LEGISLATIVE ROUTE NUMBERS 153 SECTION 22A AND 1027 SECTION 2, APPROVED MARCH 12, 1965.

THE LEGAL RIGHT-OF-WAY ON SR 0309, FORMERLY LR 1027 FROM STATION 345+19.79 TO STATION 580+60.00 IS VARIABLE IN WIDTH AS SHOWN BASED ON DRAWINGS OF CONSTRUCTION FOR LEG. ROUTE NUMBERS 1027 SECTION 2 AND 153 SECTION 22A DATED MARCH 17, 1966.

TEMPORARY CONSTRUCTION EASEMENTS ON SR 0309 IS BASED ON DRAWINGS AUTHORIZING ACQUISITION OF RIGHT-OF-WAY FOR SR 0309 SECTION PM1 R/W RECORDED ON MAY 8, 2018.

DRAINAGE EASEMENT. AN EASEMENT FOR THE CONSTRUCTION, INSPECTION, MAINTENANCE, REPAIR, RECONSTRUCTION AND ALTERATION OF HIGHWAY DRAINAGE FACILITIES. THE EASEMENT SHALL NOT PREVENT THE PROPERTY OWNER FROM MAKING ANY LEGAL USE OF THE AREA WHICH IS NOT DETRIMENTAL TO THE NECESSARY FLOW OF WATER. HOWEVER, NO STRUCTURE OF ANY KIND MAY BE ERECTED IN THE AREA, NOR MAY ANY PIPE OR DITCH BE CONNECTED TO THE DEPARTMENT'S PIPE OR DITCH WITHOUT ADVANCED WRITTEN APPROVAL BY THE DEPARTMENT OF TRANSPORTATION.

THE DEPARTMENT OF TRANSPORTATION DOES NOT GUARANTEE THE ACCURACY OF THE LOCATIONS OF THE EXISTING ABOVE GROUND AND SUBSURFACE UTILITY STRUCTURES SHOWN ON THE PLANS, NOR DOES THE DEPARTMENT OF TRANSPORTATION GUARANTEE THAT ALL ABOVE GROUND AND SUBSURFACE STRUCTURES ARE SHOWN.

EXISTING UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CORRECTNESS OF THE INFORMATION IS NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY THE INFORMATION AND SHALL TAKE ALL PRECAUTIONS TO FULLY PROTECT THE UTILITY AND SERVICE.

EXISTING DRAINAGE FACILITY LOCATIONS HAVE NOT BEEN FIELD VERIFIED. LOCATIONS, AS SHOWN, ARE BASED ON AERIAL PHOTOGRAPHY AND THE ORIGINAL CONSTRUCTION PLANS.

THREE WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE PA ONE CALL SYSTEM, INC., PHONE 1-800-242-1776, SERIAL NO: (HATFIELD TOWNSHIP) (HILLTOWN TOWNSHIP) (WEST ROCKHILL TOWNSHIP) (EAST ROCKHILL TOWNSHIP) (RICHLAND TOWNSHIP) (TELFORD BORO) (SELLERSVILLE BORO)

THIS IS A FEDERAL AID PROJECT AND AS SUCH IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF THE FEDERAL HIGHWAY ADMINISTRATION AND THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION.

THE VERTICAL DATUM FOR THIS PLAN IS BASED ON NAVD88.

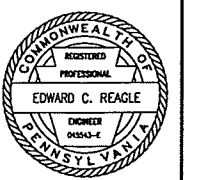
THE HORIZONTAL CONTROL IS BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE) AND NORTH AMERICAN DATUM (NAD) 83.

SR 0309 WAS PREVIOUSLY KNOWN AS LR 153 & LR 1027.

DETAILS, OTHER THAN THOSE INDICATED, ARE ON THE FOLLOWING STANDARD DRAWINGS:

RC-10M (06/01/10)	RC-50M (02/08/19)	RC-92M (06/01/10)	BC-751M (01/31/19)
RC-11M (06/01/10)	RC-51M (02/08/19)	TC-8600 (06/13/13)	BC-752M (09/30/16)
RC-12M (02/08/19)	RC-53M (08/04/17)	TC-8700 (06/13/13)	BC-755M (01/31/19)
RC-20M (04/29/19)	RC-57M (06/01/10)	TC-8804 (12/12/11)	BC-766M (01/31/19)
RC-22M (02/08/19)	RC-58M (08/04/17)	ITS-1200 (03/01/13)	BC-767M (01/31/19)
RC-25M (02/08/19)	RC-59M (06/01/10)	BC-719M (01/31/19)	BC-783M (01/31/19)
RC-28M (02/08/19)	RC-64M (06/01/10)	BC-721M (09/30/16)	BC-788M (01/31/19)
RC-32M (06/01/10)	RC-65M (08/28/17)	BC-732M (01/31/19)	
RC-39M (09/15/16)	RC-70M (02/08/19)	BC-734M (01/31/19)	
RC-40M (02/08/19)	RC-72M (02/08/19)	BC-735M (09/30/16)	
RC-43M (02/08/19)	RC-73M (02/08/19)	BC-736M (09/30/16)	
RC-45M (09/15/16)	RC-75M (06/01/10)	BC-739M (01/31/19)	
RC-46M (09/15/16)	RC-77M (06/01/10)	BC-741M (08/04/17)	

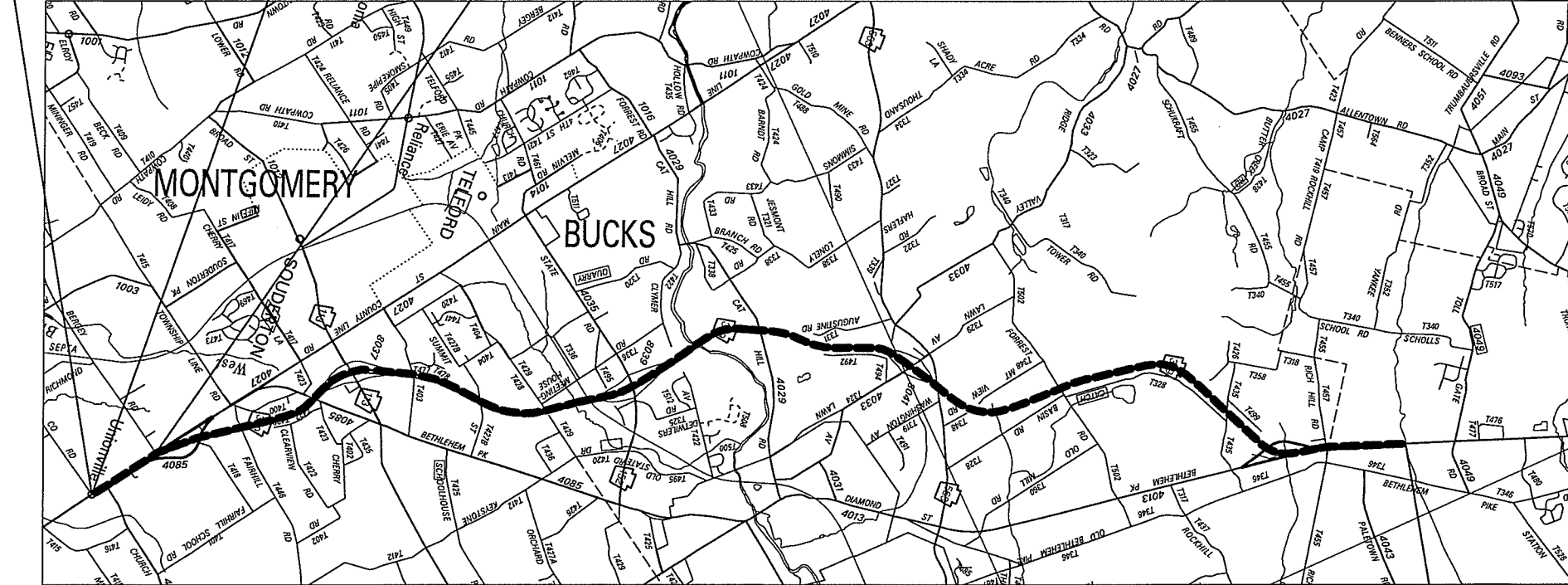
+00 THE HALF CIRCLED NUMBER INDICATES A SCALED DIMENSION.



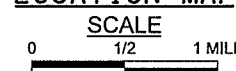
LIMIT OF WORK
 STA 100+00.00
 SEG 0031 OFFSET 1982
 SR 0309 SECTION PM1
 HATFIELD TOWNSHIP
 MONTGOMERY COUNTY

LIMIT OF WORK
 STA 100+00.00
 SEG 0030 OFFSET 1982
 SR 0309 SECTION PM1
 HILLTOWN TOWNSHIP
 BUCKS COUNTY

LIMIT OF WORK
 STA 139+50.00
 SEG 0061 OFFSET 0587
 SR 0309 SECTION PM1
 HATFIELD TOWNSHIP
 MONTGOMERY COUNTY



LOCATION MAP



LEGEND

PROJECT
 STATE HIGHWAY

LIMIT OF WORK

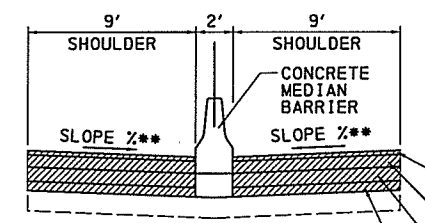
STA 581+10.00
 SEG 0220 OFFSET 2637
 SEG 0221 OFFSET 2228
 SR 0309 SEC PM1
 RICHLAND TOWNSHIP
 BUCKS COUNTY

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BUCKS & MONTGOMERY	0309	PM1	12 OF 75
HILLTOWN, HATFIELD, WEST ROCKHILL, AND RICHLAND TOWNSHIPS				
REVISION NUMBER	REVISIONS	DATE	BY	

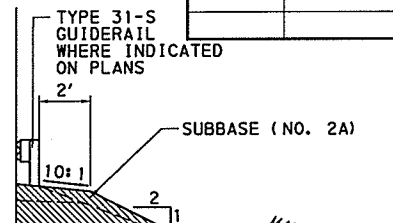
TYPE 31-S GUIDERAIL WITH 7' EXTRA LENGTH POSTS
 STA 163+73.04 TO STA 164+22.56, LT
 STA 217+88.24 TO STA 220+23.26, LT
 STA 256+10.97 TO STA 256+71.87, LT
 STA 295+55.56 TO STA 297+98.29, LT
 STA 430+07.96 TO STA 432+12.45, LT
 STA 444+38.45 TO STA 446+68.79, LT
 STA 463+67.86 TO STA 463+97.87, LT
 STA 533+34.78 TO STA 545+37.47, LT
 STA 555+72.64 TO STA 557+49.27, LT

STA 141+64.49 TO STA 145+15.32, LT
 STA 153+13.42 TO STA 155+45.69, LT
 STA 157+79.88 TO STA 158+19.92, LT
 STA 163+20.25 TO STA 166+72.65, LT
 STA 185+42.79 TO STA 186+57.61, LT
 STA 212+91.91 TO STA 220+23.17, LT
 STA 222+04.72 TO STA 222+64.69, LT
 STA 225+61.21 TO STA 227+44.88, LT
 STA 231+23.06 TO STA 231+42.81, LT
 STA 232+30.76 TO STA 233+28.59, LT
 STA 241+46.74 TO STA 242+78.68, LT
 STA 255+18.93 TO STA 257+39.11, LT
 STA 274+66.03 TO STA 275+65.15, LT
 STA 286+89.28 TO STA 289+98.73, LT
 STA 295+56.04 TO STA 300+61.53, LT
 STA 301+80.24 TO STA 305+53.28, LT
 STA 323+79.43 TO STA 325+18.78, LT
 STA 327+64.34 TO STA 330+23.78, LT
 STA 340+40.15 TO STA 342+18.38, LT
 STA 361+80.82 TO STA 363+86.97, LT
 STA 405+86.51 TO STA 407+31.10, LT
 STA 428+06.18 TO STA 435+95.80, LT
 STA 440+04.76 TO STA 442+34.85, LT
 STA 445+39.12 TO STA 446+69.39, LT
 STA 462+67.92 TO STA 466+46.74, LT
 STA 496+99.00 TO STA 498+89.46, LT
 STA 533+34.67 TO STA 545+37.50, LT
 STA 554+21.23 TO STA 557+79.54, LT

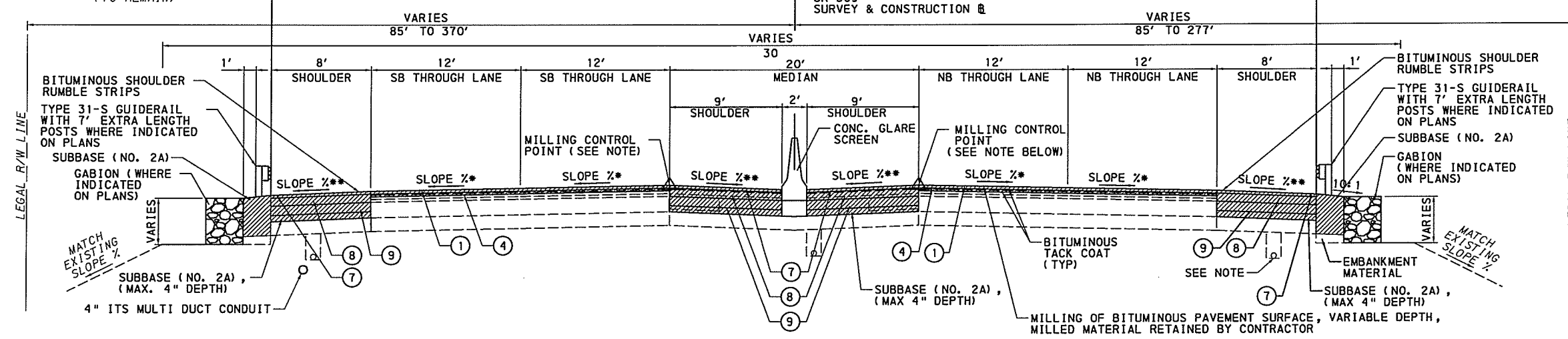
STA 133+93.81 TO STA 143+17.10, RT
 STA 146+98.58 TO STA 151+48.11, RT
 STA 198+54.80 TO STA 199+98.08, RT
 STA 209+80.39 TO STA 214+76.58, RT
 STA 222+44.58 TO STA 222+63.25, RT
 STA 228+95.86 TO STA 240+01.80, RT
 STA 242+51.80 TO STA 244+04.10, RT
 STA 244+34.09 TO STA 246+22.14, RT
 STA 247+86.00 TO STA 261+56.04, RT
 STA 262+04.99 TO STA 264+79.05, RT
 STA 266+50.94 TO STA 268+26.80, RT
 STA 269+56.81 TO STA 273+46.80, RT
 STA 287+51.36 TO STA 288+61.21, RT
 STA 294+02.65 TO STA 300+35.07, RT
 STA 301+54.96 TO STA 305+29.75, RT
 STA 324+48.54 TO STA 325+83.40, RT
 STA 326+00.37 TO STA 326+16.01, RT
 STA 328+04.87 TO STA 331+45.41, RT
 STA 337+66.67 TO STA 342+81.35, RT
 STA 345+64.16 TO STA 348+14.18, RT
 STA 360+16.97 TO STA 360+80.64, RT
 STA 403+20.04 TO STA 404+20.10, RT
 STA 405+50.63 TO STA 405+80.86, RT
 STA 427+84.05 TO STA 429+23.22, RT
 STA 442+34.15 TO STA 442+79.51, RT
 STA 447+22.50 TO STA 451+99.61, RT
 STA 464+15.43 TO STA 465+31.39, RT
 STA 504+98.01 TO STA 505+88.11, RT
 STA 517+16.19 TO STA 525+96.87, RT
 STA 532+78.58 TO STA 539+92.59, RT
 STA 540+69.53 TO STA 544+50.39, RT
 STA 546+42.21 TO STA 551+73.40, RT
 STA 552+12.41 TO STA 552+70.80, RT
 STA 556+90.83 TO STA 558+35.12, RT



STA 172+07.79 TO STA 181+79.55
 STA 254+84.47 TO STA 263+97.00
 STA 332+49.31 TO STA 342+33.75
 STA 357+29.10 TO STA 362+38.10
 STA 389+70.27 TO STA 400+46.85
 STA 425+90.32 TO STA 442+63.15
 STA 492+78.98 TO STA 508+54.76
 STA 542+06.39 TO STA 570+80.93



TYPE 31-S GUIDERAIL WITH 7' EXTRA LENGTH POSTS
 STA 142+33.13 TO STA 143+16.87, RT
 STA 149+39.57 TO STA 151+19.32, RT
 STA 251+69.86 TO STA 252+19.62, RT
 STA 294+05.50 TO STA 294+35.43, RT
 STA 300+27.64 TO STA 300+41.96, RT
 STA 339+85.07 TO STA 340+87.26, RT
 STA 447+25.76 TO STA 452+00.65, RT
 STA 522+99.83 TO STA 525+96.73, RT
 STA 532+78.30 TO STA 538+03.32, RT



3' GABION WALLS
 STA 145+95.97 TO STA 153+13.43, LT
 STA 220+23.17 TO STA 221+28.09, LT
 STA 242+78.68 TO STA 245+88.62, LT
 STA 246+61.14 TO STA 255+18.93, LT
 STA 275+65.15 TO STA 277+32.27, LT
 STA 277+72.23 TO STA 284+95.30, LT
 STA 286+49.34 TO STA 286+89.25, LT
 STA 325+18.78 TO STA 325+76.18, LT
 STA 342+18.38 TO STA 347+34.73, LT
 STA 347+54.53 TO STA 349+63.44, LT
 STA 350+83.18 TO STA 352+52.13, LT
 STA 356+74.41 TO STA 361+80.82, LT
 STA 435+95.80 TO STA 440+04.76, LT
 STA 442+34.85 TO STA 445+39.12, LT
 STA 454+22.12 TO STA 461+82.06, LT
 STA 462+48.31 TO STA 462+67.92, LT
 STA 466+46.74 TO STA 466+96.10, LT
 STA 498+89.46 TO STA 510+24.23, LT
 STA 511+09.66 TO STA 517+82.31, LT
 STA 518+94.40 TO STA 525+24.98, LT
 STA 525+87.05 TO STA 533+34.67, LT
 STA 546+05.06 TO STA 551+97.36, LT
 STA 552+07.35 TO STA 554+21.23, LT

4' GABION WALLS
 STA 277+32.27 TO STA 277+72.23, LT
 STA 284+95.30 TO STA 285+04.34, LT
 STA 347+34.73 TO STA 347+54.53, LT
 STA 349+63.44 TO STA 349+84.09, LT
 STA 350+58.56 TO STA 350+83.18, LT
 STA 352+52.13 TO STA 356+74.41, LT
 STA 510+24.23 TO STA 511+09.66, LT
 STA 517+82.31 TO STA 518+94.40, LT
 STA 551+97.36 TO STA 552+07.35, LT

- ① STONE MATRIX ASPHALT MIXTURE DESIGN, WMA WEARING COURSE, RPS PG 76-22, 9.5MM MIX, 1 1/2" DEPTH, SRL-E
- ④ SUPERPAVE ASPHALT MIXTURE DESIGN, WMA WEARING COURSE (SCRATCH), PG 64-22, 3 TO < 10 MILLION ESALS, 9.5MM MIX, SRL-E (0.5" DEPTH)
- ⑦ SUPERPAVE ASPHALT MIXTURE DESIGN, WMA WEARING COURSE, RPS, PG 64-22, 0.3 TO < 3 MILLION ESALS, 9.5MM MIX, 1 1/2" DEPTH, SRL-E
- ⑧ SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BINDER COURSE, PG 64-22, 0.3 TO < 3 MILLION ESALS, 19.0MM MIX, 2 1/2" DEPTH
- ⑨ SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BASE COURSE, PG 64-22, 0.3 TO < 3 MILLION ESALS, 25.0MM MIX, 6" DEPTH

3' GABION WALLS
 STA 143+17.10 TO STA 144+24.67, RT
 STA 145+05.82 TO STA 146+98.58, RT
 STA 214+76.58 TO STA 217+79.71, RT
 STA 218+41.34 TO STA 221+40.51, RT
 STA 222+14.59 TO STA 222+44.58, RT
 STA 227+99.59 TO STA 228+30.00, RT
 STA 240+01.80 TO STA 242+51.80, RT
 STA 244+04.10 TO STA 244+34.09, RT
 STA 246+22.14 TO STA 246+37.70, RT
 STA 247+04.76 TO STA 247+86.00, RT
 STA 261+56.04 TO STA 262+04.98, RT
 STA 264+79.05 TO STA 266+50.94, RT
 STA 273+46.80 TO STA 276+77.51, RT
 STA 277+36.39 TO STA 283+07.58, RT
 STA 283+47.05 TO STA 285+46.16, RT
 STA 286+91.35 TO STA 287+51.36, RT
 STA 325+83.38 TO STA 326+00.37, RT
 STA 342+81.35 TO STA 345+64.16, RT
 STA 348+14.18 TO STA 350+15.24, RT
 STA 350+88.50 TO STA 356+90.04, RT
 STA 359+79.02 TO STA 360+16.97, RT
 STA 429+23.22 TO STA 431+84.13, RT
 STA 432+57.54 TO STA 434+37.92, RT
 STA 434+76.30 TO STA 442+34.15, RT
 STA 451+99.61 TO STA 462+01.13, RT
 STA 462+55.39 TO STA 464+15.43, RT
 STA 465+31.39 TO STA 472+37.25, RT
 STA 472+97.64 TO STA 487+15.97, RT
 STA 488+46.79 TO STA 502+53.22, RT
 STA 502+84.87 TO STA 504+98.02, RT
 STA 526+68.63 TO STA 527+21.98, RT

3' GABION WALLS
 STA 527+73.19 TO STA 528+62.38, RT
 STA 529+65.51 TO STA 530+62.95, RT
 STA 531+53.83 TO STA 532+78.58, RT
 STA 545+44.80 TO STA 546+42.21, RT
 STA 551+73.40 TO STA 556+12.41, RT
 STA 551+31.00 TO STA 552+40.31, RT
 STA 553+98.47 TO STA 556+90.83, RT

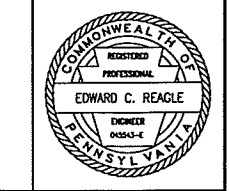
4' GABION WALLS
 STA 217+79.71 TO STA 218+41.34, RT
 STA 276+77.51 TO STA 277+36.39, RT
 STA 283+07.58 TO STA 283+47.05, RT
 STA 356+90.04 TO STA 359+79.02, RT
 STA 431+84.13 TO STA 432+57.54, RT
 STA 434+37.92 TO STA 434+76.30, RT
 STA 472+37.25 TO STA 472+97.64, RT
 STA 487+15.97 TO STA 488+46.79, RT
 STA 502+53.22 TO STA 502+84.87, RT
 STA 527+21.98 TO STA 527+73.19, RT
 STA 528+62.38 TO STA 529+65.51, RT
 STA 530+62.95 TO STA 531+53.83, RT
 STA 552+40.31 TO STA 553+98.47, RT

SR 309
2 INCH MILLING & OVERLAY
 STA 130+94.00 TO STA 571+00.00
 NOT TO SCALE

- * ADJUST CROSS SLOPE OF TRAVEL LANES TO MIN 1.5%.
- ** ADJUST SHOULDER CROSS SLOPE TO 2% WHERE EXISTING ALGEBRAIC DIFFERENCE >8%. INCLUDE 2' ROUNDING WHERE TRAVEL LANES SUPERELEVATION >6%. ADJUST SHOULDER CROSS SLOPE FROM >8% IN TANGENT AND CURVE SECTION TO MAX 8%.

NOTE: MINIMUM 2" DEPTH MILLING AT THE MILLING CONTROL POINT

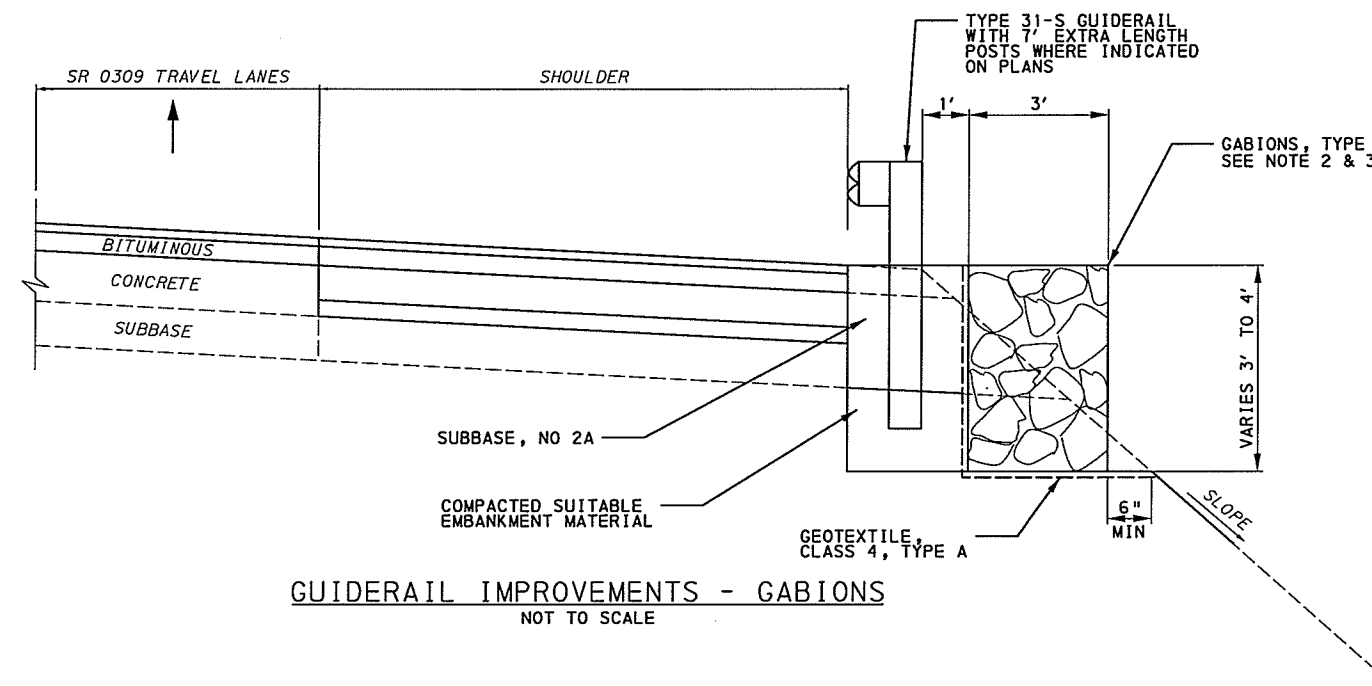
NOTE:
 APPROXIMATE LOCATION OF BASE DRAIN IS SHOWN WHICH IS EXISTING IN AREAS OF CUT. BASE DRAIN OUTLETS TO BE PROTECTED DURING CONSTRUCTION. WHEN DIRECTED BY THE REPRESENTATIVE, REPLACE DAMAGED BASE DRAIN OUTLETS PAID UNDER ITEM 0615-0022.



TYPICAL SECTIONS

6/5/2019 P:\60236723 SR 309-PM1\000_CAD\006_Civil\Sheets\CP Plans\TS04.dgn

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BUCKS & MONTGOMERY	0309	PM1	14 OF 75
HILLTOWN, HATFIELD, WEST ROCKHILL, AND RICHLAND TOWNSHIPS				
REVISION NUMBER	REVISIONS	DATE	BY	

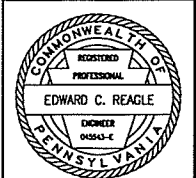


GUIDERAIL IMPROVEMENTS - GABIONS
NOT TO SCALE

NOTES:

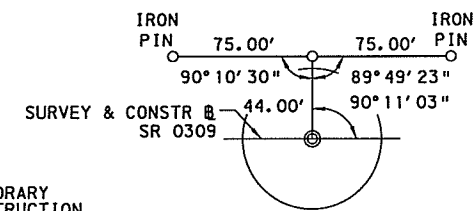
1. REMOVE AND REPLACE GUIDE RAIL IN ACCORDANCE WITH THE CONTRACT DRAWINGS.
2. VERIFY LOCATION OF EXISTING STORMWATER PIPES AND UTILITIES PRIOR TO SLOPE/EMBANKMENT REPAIR. IN CASE OF CONFLICT WITH EXISTING STORMWATER PIPES, THE PIPES SHALL BE PROTECTED DURING CONSTRUCTION. FORM GABION BASKETS AROUND THE PIPE.
3. BASE DRAIN OUTLETS TO BE PROTECTED DURING CONSTRUCTION. WHEN DIRECTED BY THE REPRESENTATIVE, REPLACE DAMAGED BASE DRAIN OUTLETS PAID UNDER ITEM 0615-0022.
4. GABIONS TO BE PLACED AND BUILT ACCORDING TO RC-43M. USE A COMBINATION OF STANDARD GABION SIZES TO ATTAIN NECESSARY HEIGHT.
5. PROVIDE EMBANKMENT FILL MATERIAL IN ACCORDANCE WITH PENNDOT PUB 408, SECTION 206.2 (A)

6/5/2019 P:\60236723 SR 309-PM1\000-CAD\006-Civil\Sheets\CP Plans\Det02.dgn



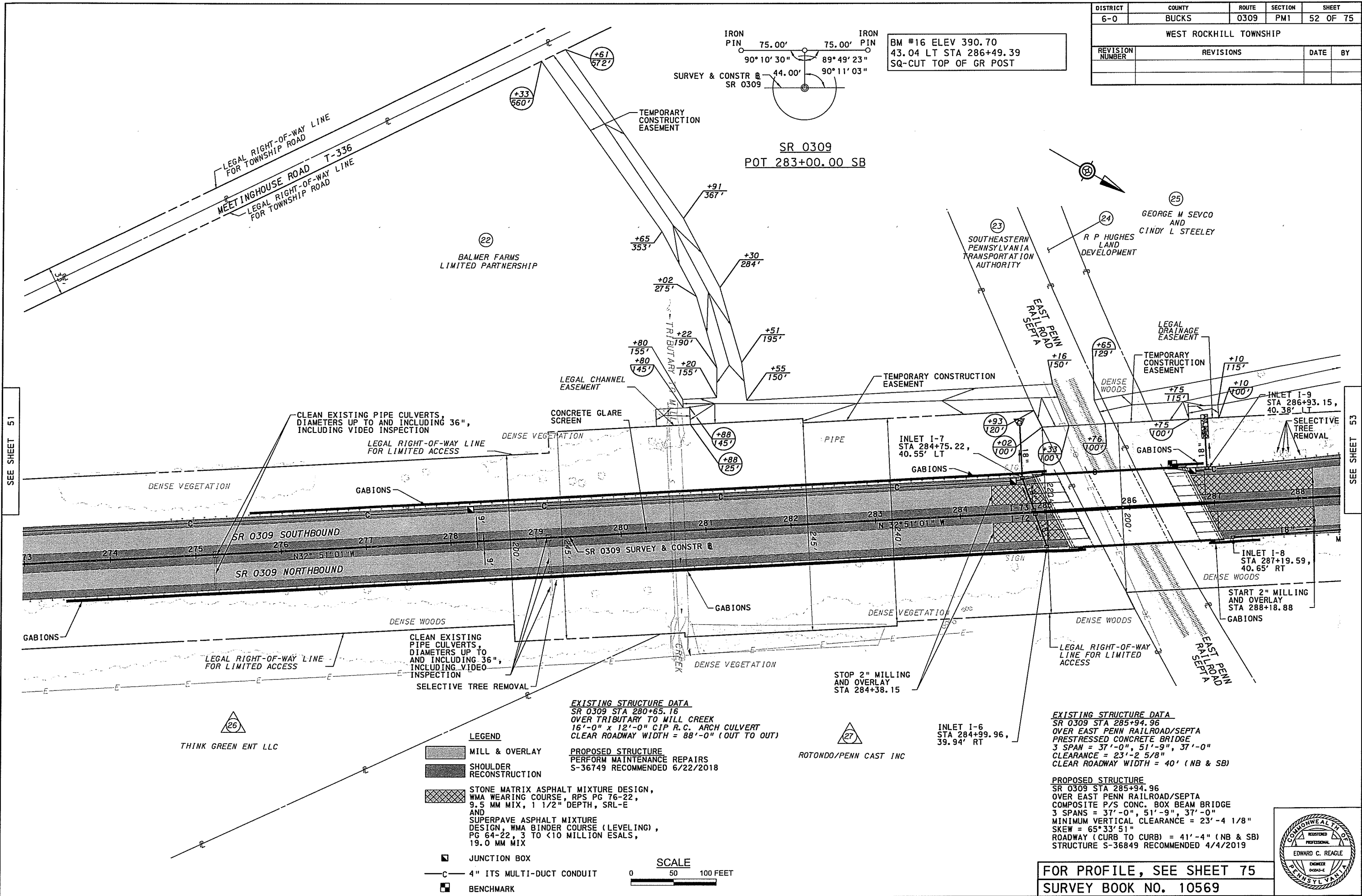
DETAILS

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BUCKS	0309	PM1	52 OF 75
WEST ROCKHILL TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	



BM #16 ELEV 390.70
43.04 LT STA 286+49.39
SQ-CUT TOP OF GR POST

SR 0309
POT 283+00.00 SB



SEE SHEET 51

SEE SHEET 53

6/5/2019 P:\60236723 SR 309-PM1\000-CAD\006-Civil\Sheets\CP Plans\Plan13.dgn

THINK GREEN ENT LLC

ROTONDO/PENN CAST INC

- LEGEND**
- MILL & OVERLAY
 - SHOULDER RECONSTRUCTION
 - STONE MATRIX ASPHALT MIXTURE DESIGN, WMA WEARING COURSE, RPS PG 76-22, 9.5 MM MIX, 1 1/2" DEPTH, SRL-E AND SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BINDER COURSE (LEVELING), PG 64-22, 3 TO <10 MILLION ESALS, 19.0 MM MIX
 - JUNCTION BOX
 - 4" ITS MULTI-DUCT CONDUIT
 - BENCHMARK

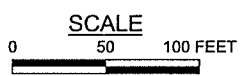
EXISTING STRUCTURE DATA
SR 0309 STA 280+65.16
OVER TRIBUTARY TO MILL CREEK
16'-0" x 12'-0" CIP R.C. ARCH CULVERT
CLEAR ROADWAY WIDTH = 88'-0" (OUT TO OUT)

PROPOSED STRUCTURE
PERFORM MAINTENANCE REPAIRS
S-36749 RECOMMENDED 6/22/2018

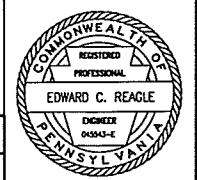
INLET I-6
STA 284+99.96,
39.94' RT

EXISTING STRUCTURE DATA
SR 0309 STA 285+94.96
OVER EAST PENN RAILROAD/SEPTA
PRESTRESSED CONCRETE BRIDGE
3 SPAN = 37'-0", 51'-9", 37'-0"
CLEARANCE = 23'-2 5/8"
CLEAR ROADWAY WIDTH = 40' (NB & SB)

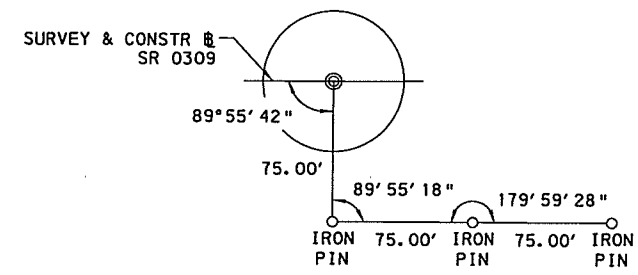
PROPOSED STRUCTURE
SR 0309 STA 285+94.96
OVER EAST PENN RAILROAD/SEPTA
COMPOSITE P/S CONC. BOX BEAM BRIDGE
3 SPAN = 37'-0", 51'-9", 37'-0"
MINIMUM VERTICAL CLEARANCE = 23'-4 1/8"
SKEW = 65°33'51"
ROADWAY (CURB TO CURB) = 41'-4" (NB & SB)
STRUCTURE S-36849 RECOMMENDED 4/4/2019



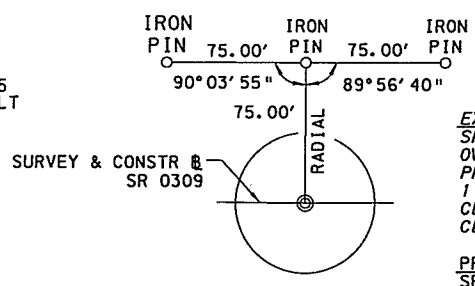
FOR PROFILE, SEE SHEET 75
SURVEY BOOK NO. 10569



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	BUCKS	0309	PM1	53 OF 75
WEST ROCKHILL TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	



SR 0309
 PI STA 297+53.95
 Δ = 22°20'50" LT
 T = 754.76'
 R = 3819.83'
 L = 1490.33'
 T = 754.76'
 E = 73.85'



BM #3 ELEV 377.15
 43.03 RT STA 300+56.19
 SQ-CUT TOP OF BRIDGE WALL

EXISTING STRUCTURE DATA
 SR 0309 STA 301+02.48
 OVER SR 0152 (STATE ROAD)
 PRESTRESSED CONCRETE BRIDGE
 1 SPAN = 72'-3"
 CLEARANCE = 14'-9"
 CLEAR ROADWAY WIDTH = 40' (NB & SB)

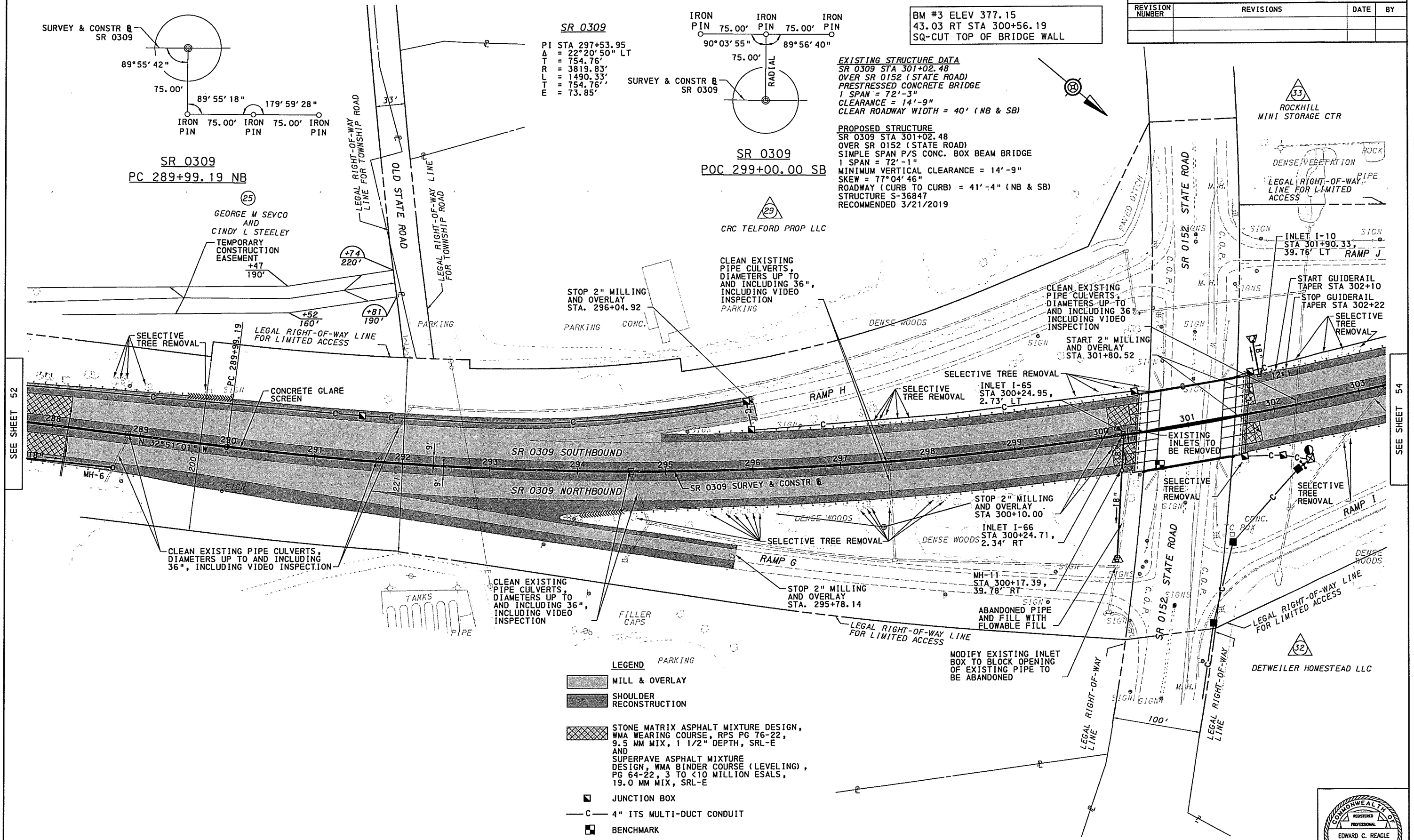
PROPOSED STRUCTURE
 SR 0309 STA 301+02.48
 OVER SR 0152 (STATE ROAD)
 SIMPLE SPAN P/S CONC. BOX BEAM BRIDGE
 1 SPAN = 72'-1"
 MINIMUM VERTICAL CLEARANCE = 14'-9"
 SKEW = 77°04'46"
 ROADWAY (CURB TO CURB) = 41'-4" (NB & SB)
 STRUCTURE S-36847
 RECOMMENDED 3/21/2019

SR 0309
 PC 289+99.19 NB

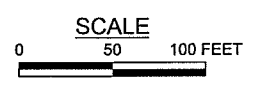
SR 0309
 POC 299+00.00 SB

SEE SHEET 52

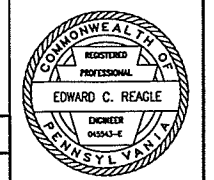
SEE SHEET 54



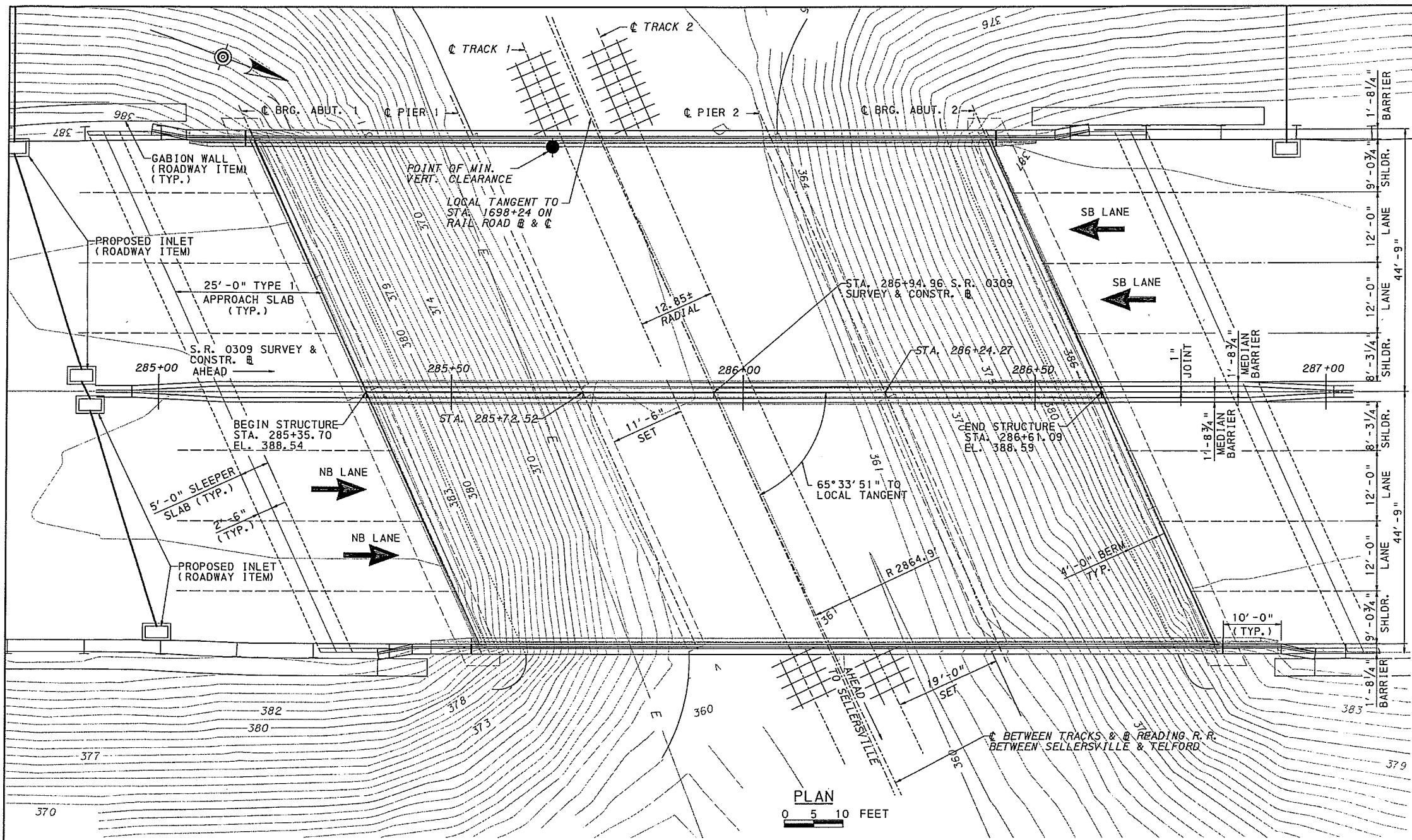
- LEGEND**
- MILL & OVERLAY
 - SHOULDER RECONSTRUCTION
 - STONE MATRIX ASPHALT MIXTURE DESIGN, WMA WEARING COURSE, RPS PG 76-22, 9.5 MM MIX, 1 1/2" DEPTH, SRL-E AND SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BINDER COURSE (LEVELING), PG 64-22, 3 TO <10 MILLION ESALS, 19.0 MM MIX, SRL-E
 - JUNCTION BOX
 - 4" ITS MULTI-DUCT CONDUIT
 - BENCHMARK



FOR PROFILE, SEE SHEET 75
 SURVEY BOOK NO. 10569



4/15/2019 \\usph11\p002\Data\Proj\ec\ts\60236723 SR 309-PM1\000_CAD\008_S\Structure\01\Sheets\TSL_2\BRIDGE 9\GP&E\09\0270\ID. 10M.89.dgn



- ### SCOPE OF REHABILITATION
1. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS.
 2. MODIFY PEDESTALS AND BEAM SEATS TO ACCOMMODATE NEW SUPERSTRUCTURE.
 3. REPAIR THE CONCRETE PIERS AND ABUTMENTS.
 4. CONSTRUCT NEW PRESTRESSED CONCRETE SPREAD BOX BEAM SUPERSTRUCTURE WITH COMPOSITE 8" DECK (INCLUDING 1/2" INTEGRAL WEARING SURFACE.) BARRIERS ON NEW SUPERSTRUCTURE WILL MEET CURRENT STANDARDS.
 5. CONSTRUCT NEW APPROACH SLABS.
 6. IMPROVE THE OFF-BRIDGE DRAINAGE. (ROADWAY ITEM)
 7. IMPROVE THE EXISTING APPROACH GUIDERAIL TO MEET THE CURRENT STANDARDS. (ROADWAY ITEM)

TEMPORARY CONCRETE BARRIER, STRUCTURE MOUNTED	BC-719M	01-31-19
ELECTRICAL DETAILS	BC-721M	09-30-16
PERMANENT METAL DECK FORMS	BC-732M	01-31-19
ANCHOR SYSTEMS	BC-734M	01-31-19
WALL CONSTR. & EXP. JOINT DETAILS	BC-735M	09-30-16
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	09-30-16
BRIDGE BARRIER TO GUIDERAIL TRANSITION	BC-739M	01-31-19
CONCRETE DECK SLAB DETAILS	BC-752M	09-30-16
BEARINGS	BC-755M	01-31-19
PREFORMED NEOPRENE COMPRESSION SEAL JOINT FOR APPROACH SLABS	BC-766M	01-31-19
REINFORCED CONCRETE REPAIRS	BC-783M	01-31-19
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	01-31-19
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	06-01-10
BACKFILL AT STRUCTURES	RC-12M	02-08-19
GUIDE RAIL TO BRIDGE BARRIER TRANSITION	RC-50M	02-08-19
DESCRIPTION	DWG. NO.	DATE

SUPPLEMENTAL DRAWINGS

LEGEND

- DIRECTION OF TRAFFIC
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- POINT OF MINIMUM VERTICAL CLEARANCE
- EXPANSION BEARING
- FIXED BEARING

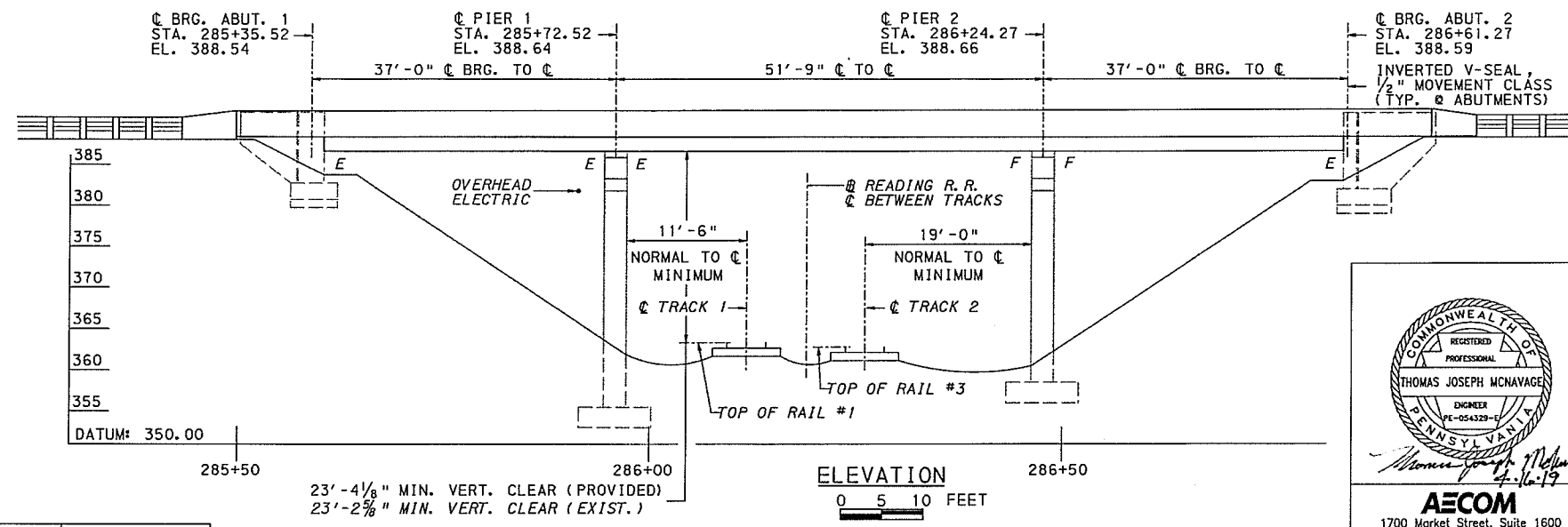
NOTES

1. FOR TYPICAL SECTION AND STAGING SEQUENCE, SEE SHEET 7.
2. FOR GENERAL NOTES, SEE SHEET 2.

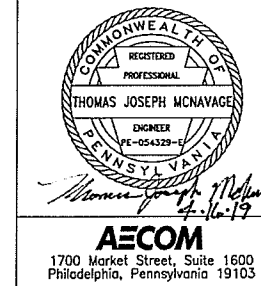
Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

VERTICAL CURVE DATA S.R. 0309

STATION	ELEVATION
284+75.00	388.05
285+00.00	388.31
285+25.00	388.50
285+50.00	388.59
285+75.00	388.64
286+00.00	388.67
286+25.00	388.66
286+50.00	388.62
286+75.00	388.56
287+00.00	388.38
287+25.00	388.19



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
 BUCKS COUNTY
 SR 0309 SECTION PM1
 SEG. 0110 OFFSET 0000
 (SELLERSVILLE BYPASS), STA. 285+ 94.96
 OVER EAST PENN RAILROAD/SEPTA
 3 SPAN COMPOSITE P/S CONC. BOX BEAM BRIDGE
 GENERAL PLAN & ELEVATION



RECOMMENDED **04/27 2019**
Henry M. Berman
 DISTRICT BRIDGE ENGINEER

SHEET 1 OF 39
 + SUPPLEMENTAL DWGS.
 S - 36849

GENERAL NOTES:

DESIGN SPECIFICATIONS

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION, 2014, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, APRIL 2015.

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 (204 KIP PERMIT LOAD)

MAXIMUM ALLOWABLE TENSILE STRESS IN PRECOMPRESSED TENSILE ZONE: $0.0948\sqrt{f'c}$

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, AND CONTRACT SPECIAL PROVISIONS.

PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M270 (ASTM A 709) GRADE 50 DESIGNATION, EXCEPT WHEN NOTED OTHERWISE.

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 CURBS, BARRIERS, TYPE 1 APPROACH SLABS, CONCRETE DIAPHRAGMS, CHEEKWALLS, AND SHEAR BLOCKS.

USE CLASS A CEMENT CONCRETE IN ABUTMENTS, PIERS AND PEDESTALS.

A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT, IF APPROVED BY THE DISTRICT BRIDGE ENGINEER.

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 CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL A 996/A 996M REINFORCEMENT BARS IN BRIDGE PIERS, ABUTMENTS, SHEAR BLOCKS, BEAMS, FOOTINGS, PILES, BARRIERS OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.

USE EPOXY-COATED REINFORCEMENT BARS IN DECK SLAB, BARRIERS, STIRRUPS PROTRUDING FROM DIAPHRAGMS AND PRESTRESSED BEAMS INTO DECK SLAB AND SUBSTRUCTURE REINFORCEMENT BARS AS INDICATED.

GALVANIZED REINFORCING STEEL BARS MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL BARS AT NO ADDITIONAL COST TO THE DEPARTMENT.

RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS INDICATED.

VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.

CONSTRUCT DECK SLAB TRANSVERSE CONSTRUCTION JOINTS PARALLEL TO BRIDGE CENTERLINE OF BEARINGS.

PLACE CHEEKWALL AND CONCRETE SHEAR BLOCKS AFTER BEAMS ARE SET IN POSITION.

DECK SLAB THICKNESS INCLUDES 1/2" INTEGRAL WEARING SURFACE.

ONLY APPLY PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, BRIDGE SUPERSTRUCTURE) TO BRIDGE DECK IF CONCRETE IS POURED BETWEEN SEPTEMBER 1 AND MARCH 1 PER PUBLICATIONS 408, SECTION 1001.3(k)6.

CHAMFER EXPOSED CONCRETE EDGES 1 IN. BY 1 IN., EXCEPT AS NOTED.

ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.

USE EITHER PERMANENT METAL FORMS OR REMOVABLE FORMS TO CONSTRUCT THE DECK SLAB.

SUPERSTRUCTURE DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68°F.

PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS IN ACCORDANCE WITH STANDARD DRAWING BC-736M, UNLESS OTHERWISE INDICATED.

PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 408, SECTION 1001.3(k)9.

BRIDGE IS NOT WEIGHT RESTRICTED. SEE PUBLICATION 408 SECTION 105.17 FOR CONSTRUCTION LOADING LIMITS.

BRIDGE REHABILITATION NOTES

DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN DRAWINGS OR MADE AVAILABLE TO YOU BY THE DEPARTMENT OR ITS AUTHORIZED AGENTS AS POSITIVE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT YOU WILL ENCOUNTER IN THE FIELD.

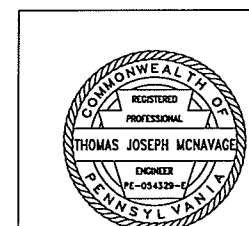
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UTILITY NOTES

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

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1	GENERAL PLAN & ELEVATION
2	GENERAL NOTES
3	BRIDGE LOAD RATINGS
4	TABULATION OF QUANTITIES
5	DECK ELEVATIONS - 1
6	DECK ELEVATIONS - 2
7	STAGING SEQUENCE
8	ABUTMENT 1 DEMOLITION LIMITS
9	ABUTMENT 1 REPAIR DETAILS - 1
10	ABUTMENT 1 REPAIR DETAILS - 2
11	PIER 1 DEMOLITION LIMITS
12	PIER 1 REPAIR DETAILS
13	PIER 2 DEMOLITION LIMITS
14	PIER 2 REPAIR DETAILS
15	ABUTMENT 2 DEMOLITION LIMITS
16	ABUTMENT 2 REPAIR DETAILS - 1
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18	ABUTMENT & PIER REINFORCEMENT BAR SCHEDULE
19	BEARING DETAILS
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23	CAMBER DIAGRAM AND BEAM PARAMETERS
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29	DECK PLAN NORTHBOUND
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39	APPROACH SLAB REINFORCEMENT SCHEDULE

Mark	Description	By	Chk'd	Rec'd	Date
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SR 0309 SECTION PM1
SEG. 0110 OFFSET 0000
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OVER EAST PENN RAILROAD/SEPTA
3 SPAN COMPOSITE P/S CONC. BOX BEAM BRIDGE
GENERAL NOTES

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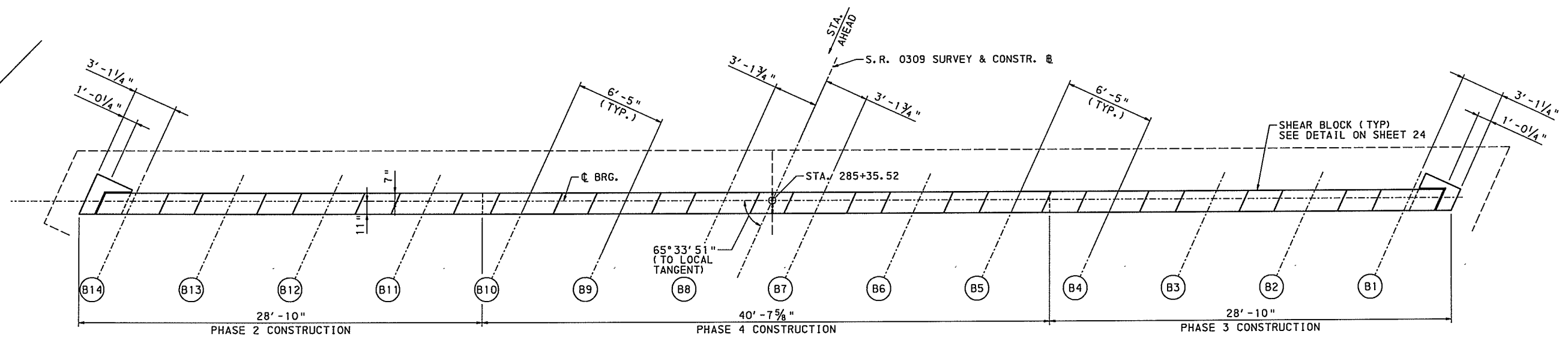
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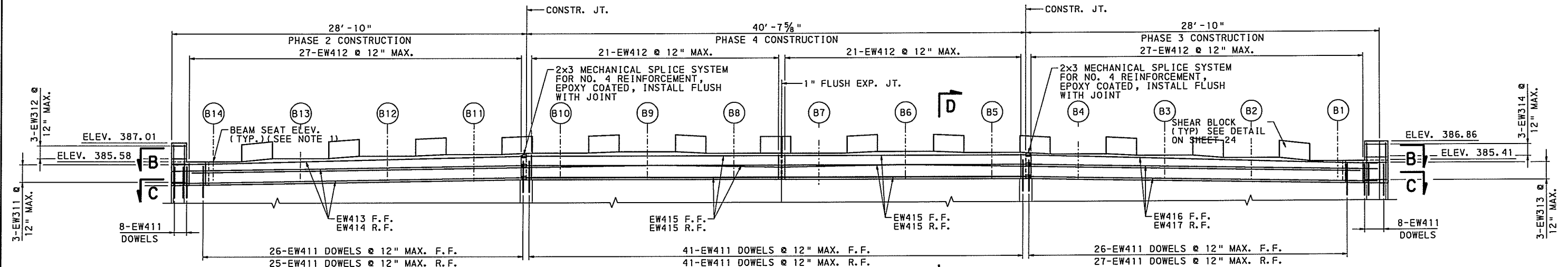
TOP OF DECK ELEVATIONS AT C BEAMS

	BEAM 1		BEAM 2		BEAM 3		BEAM 4		BEAM 5		BEAM 6		BEAM 7		BEAM 8		BEAM 9		BEAM 10		BEAM 11		BEAM 12		BEAM 13		BEAM 14	
	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV	STATION	ELEV
CL BRG ABUT 1	285+16.60	387.84	285+19.51	388.13	285+22.43	388.31	285+25.34	388.46	285+28.26	388.60	285+31.18	388.72	285+34.09	388.80	285+36.95	388.86	285+39.86	388.75	285+42.78	388.65	285+45.70	388.53	285+48.61	388.42	285+51.53	388.27	285+54.44	388.01
SPAN 1	285+20.30	387.87	285+23.21	388.16	285+26.13	388.33	285+29.04	388.47	285+31.96	388.61	285+34.88	388.73	285+37.79	388.81	285+40.65	388.86	285+43.56	388.76	285+46.48	388.66	285+49.40	388.55	285+52.31	388.43	285+55.23	388.28	285+58.14	388.01
	285+24.00	387.90	285+26.91	388.18	285+29.83	388.35	285+32.74	388.49	285+35.66	388.63	285+38.58	388.75	285+41.49	388.82	285+44.35	388.83	285+47.26	388.78	285+50.18	388.68	285+53.10	388.56	285+56.01	388.43	285+58.93	388.28	285+61.84	388.02
	285+27.70	387.91	285+30.61	388.20	285+33.53	388.36	285+36.44	388.50	285+39.36	388.64	285+42.28	388.76	285+45.19	388.84	285+48.05	388.85	285+50.96	388.79	285+53.88	388.69	285+56.80	388.56	285+59.71	388.44	285+62.63	388.29	285+65.54	388.03
	285+31.40	387.93	285+34.31	388.21	285+37.23	388.37	285+40.14	388.51	285+43.06	388.65	285+45.98	388.77	285+48.89	388.85	285+51.75	388.86	285+54.66	388.80	285+57.58	388.69	285+60.50	388.57	285+63.41	388.45	285+66.33	388.30	285+69.24	388.04
	285+35.10	387.94	285+38.01	388.22	285+40.93	388.39	285+43.84	388.53	285+46.76	388.67	285+49.68	388.79	285+52.59	388.86	285+55.45	388.87	285+58.36	388.80	285+61.28	388.70	285+64.20	388.58	285+67.11	388.46	285+70.03	388.31	285+72.94	388.04
	285+38.80	387.96	285+41.71	388.24	285+44.63	388.40	285+47.54	388.54	285+50.46	388.68	285+53.38	388.79	285+56.29	388.87	285+59.15	388.87	285+62.06	388.81	285+64.98	388.71	285+67.90	388.59	285+70.81	388.46	285+73.73	388.31	285+76.64	388.05
	285+42.50	387.97	285+45.41	388.25	285+48.33	388.41	285+51.24	388.55	285+54.16	388.69	285+57.08	388.80	285+59.99	388.87	285+62.85	388.88	285+65.76	388.82	285+68.68	388.71	285+71.60	388.59	285+74.51	388.47	285+77.43	388.32	285+80.34	388.05
	285+46.20	387.98	285+49.11	388.26	285+52.03	388.42	285+54.94	388.56	285+57.86	388.69	285+60.78	388.81	285+63.69	388.88	285+66.55	388.89	285+69.47	388.83	285+72.38	388.72	285+75.30	388.60	285+78.21	388.47	285+81.13	388.32	285+84.04	388.06
	285+49.90	388.00	285+52.81	388.27	285+55.73	388.43	285+58.64	388.57	285+61.56	388.70	285+64.48	388.82	285+67.39	388.89	285+70.25	388.90	285+73.17	388.83	285+76.08	388.73	285+79.00	388.60	285+81.91	388.48	285+84.83	388.33	285+87.74	388.06
	285+53.60	388.01	285+56.51	388.28	285+59.43	388.44	285+62.34	388.57	285+65.26	388.71	285+68.18	388.82	285+71.09	388.90	285+73.95	388.90	285+76.87	388.84	285+79.78	388.73	285+82.70	388.61	285+85.61	388.48	285+88.53	388.33	285+91.44	388.07
CL PIER 1	BEAM 15	BEAM 16	BEAM 17	BEAM 18	BEAM 19	BEAM 20	BEAM 21	BEAM 22	BEAM 23	BEAM 24	BEAM 25	BEAM 26	BEAM 27	BEAM 28														
	285+53.60	388.01	285+56.51	388.28	285+59.43	388.44	285+62.34	388.57	285+65.26	388.71	285+68.18	388.82	285+71.09	388.90	285+73.95	388.90	285+76.87	388.84	285+79.78	388.73	285+82.70	388.61	285+85.61	388.48	285+88.53	388.33	285+91.44	388.07
SPAN 2	285+58.77	388.02	285+61.69	388.29	285+64.60	388.45	285+67.52	388.58	285+70.43	388.72	285+73.35	388.83	285+76.27	388.91	285+79.12	388.91	285+82.04	388.85	285+84.96	388.74	285+87.87	388.61	285+90.79	388.49	285+93.70	388.34	285+96.62	388.07
	285+63.95	388.03	285+66.86	388.30	285+69.78	388.46	285+72.69	388.59	285+75.61	388.73	285+78.53	388.84	285+81.44	388.91	285+84.30	388.92	285+87.21	388.85	285+90.13	388.75	285+93.05	388.62	285+95.96	388.50	285+98.88	388.34	286+01.79	388.08
	285+69.12	388.04	285+72.04	388.31	285+74.95	388.47	285+77.87	388.60	285+80.78	388.73	285+83.70	388.85	285+86.62	388.92	285+89.47	388.92	285+92.39	388.86	285+95.31	388.75	285+98.22	388.63	286+01.14	388.50	286+04.05	388.34	286+06.97	388.08
	285+74.30	388.05	285+77.21	388.32	285+80.13	388.48	285+83.04	388.61	285+85.96	388.74	285+88.88	388.85	285+91.79	388.92	285+94.65	388.93	285+97.56	388.87	286+00.48	388.76	286+03.40	388.63	286+06.31	388.50	286+09.23	388.34	286+12.14	388.07
	285+79.47	388.05	285+82.39	388.32	285+85.30	388.48	285+88.22	388.62	285+91.13	388.75	285+94.05	388.86	285+96.97	388.93	285+99.82	388.93	286+02.74	388.87	286+05.66	388.76	286+08.57	388.63	286+11.49	388.50	286+14.40	388.34	286+17.32	388.07
	285+84.65	388.06	285+87.56	388.33	285+90.48	388.49	285+93.39	388.62	285+96.31	388.75	285+99.23	388.87	286+02.14	388.93	286+05.00	388.93	286+07.91	388.86	286+10.83	388.75	286+13.75	388.62	286+16.66	388.49	286+19.58	388.34	286+22.49	388.07
	285+89.82	388.07	285+92.74	388.34	285+95.65	388.50	285+98.57	388.63	286+01.48	388.76	286+04.40	388.87	286+07.32	388.93	286+10.17	388.93	286+13.09	388.86	286+16.01	388.75	286+18.92	388.62	286+21.84	388.49	286+24.75	388.34	286+27.67	388.06
	285+95.00	388.07	285+97.91	388.34	286+00.83	388.50	286+03.74	388.63	286+06.66	388.75	286+09.58	388.86	286+12.49	388.93	286+15.35	388.93	286+18.26	388.86	286+21.18	388.75	286+24.10	388.62	286+27.01	388.49	286+29.93	388.33	286+32.84	388.06
	286+00.17	388.08	286+03.09	388.34	286+06.00	388.50	286+08.92	388.63	286+11.83	388.75	286+14.75	388.86	286+17.67	388.93	286+20.52	388.93	286+23.44	388.86	286+26.36	388.75	286+29.27	388.61	286+32.19	388.48	286+35.10	388.32	286+38.02	388.05
	286+05.35	388.08	286+08.26	388.34	286+11.18	388.50	286+14.09	388.62	286+17.01	388.75	286+19.93	388.86	286+22.84	388.93	286+25.70	388.93	286+28.61	388.85	286+31.53	388.74	286+34.45	388.60	286+37.36	388.47	286+40.28	388.31	286+43.19	388.04
CL PIER 2	BEAM 29	BEAM 30	BEAM 31	BEAM 32	BEAM 33	BEAM 34	BEAM 35	BEAM 36	BEAM 37	BEAM 38	BEAM 39	BEAM 40	BEAM 41	BEAM 42														
	286+05.35	388.08	286+08.26	388.34	286+11.18	388.50	286+14.09	388.62	286+17.01	388.75	286+19.93	388.86	286+22.84	388.93	286+25.70	388.93	286+28.61	388.85	286+31.53	388.74	286+34.45	388.60	286+37.36	388.47	286+40.28	388.31	286+43.19	388.04
SPAN 3	286+09.05	388.07	286+11.96	388.34	286+14.88	388.49	286+17.79	388.62	286+20.71	388.75	286+23.63	388.86	286+26.54	388.92	286+29.40	388.92	286+32.31	388.85	286+35.23	388.73	286+38.15	388.60	286+41.06	388.47	286+43.98	388.31	286+46.89	388.03
	286+12.75	388.07	286+15.66	388.34	286+18.58	388.49	286+21.49	388.62	286+24.41	388.75	286+27.33	388.85	286+30.24	388.92	286+33.10	388.91	286+36.01	388.84	286+38.93	388.73	286+41.85	388.59	286+44.76	388.46	286+47.68	388.30	286+50.59	388.03
	286+16.45	388.07	286+19.36	388.34	286+22.28	388.49	286+25.19	388.62	286+28.11	388.74	286+31.03	388.85	286+33.94	388.91	286+36.80	388.91	286+39.71	388.83	286+42.63	388.72	286+45.55	388.59	286+48.46	388.45	286+51.38	388.29	286+54.29	388.02
	286+20.15	388.07	286+23.06	388.34	286+25.98	388.49	286+28.89	388.61	286+31.81	388.74	286+34.73	388.84	286+37.64	388.90	286+40.50	388.90	286+43.41	388.83	286+46.33	388.71	286+49.25	388.58	286+52.16	388.45	286+55.08	388.28	286+57.99	388.01
	286+23.85	388.07	286+26.76	388.33	286+29.68	388.48	286+32.59	388.61	286+35.51	388.73	286+38.43	388.84	286+41.34	388.90	286+44.20	388.89	286+47.11	388.82	286+50.03	388.71	286+52.95	388.57	286+55.86	388.44	286+58.78	388.27	286+61.69	388.00
	286+27.55	388.06	286+30.46	388.33	286+33.38	388.48	286+36.29	388.60	286+39.21	388.72	286+42.13	388.83	286+45.04	388.89	286+47.90	388.89	286+50.81	388.82	286+53.73	388.70	286+56.65	388.56	286+59.56	388.43	286+62.48	388.27	286+65.39	387.99
	286+31.25	388.06	286+34.16	388.32	286+37.08	388.47	286+39.99	388.60	286+42.91	388.72	286+45.83	388.																

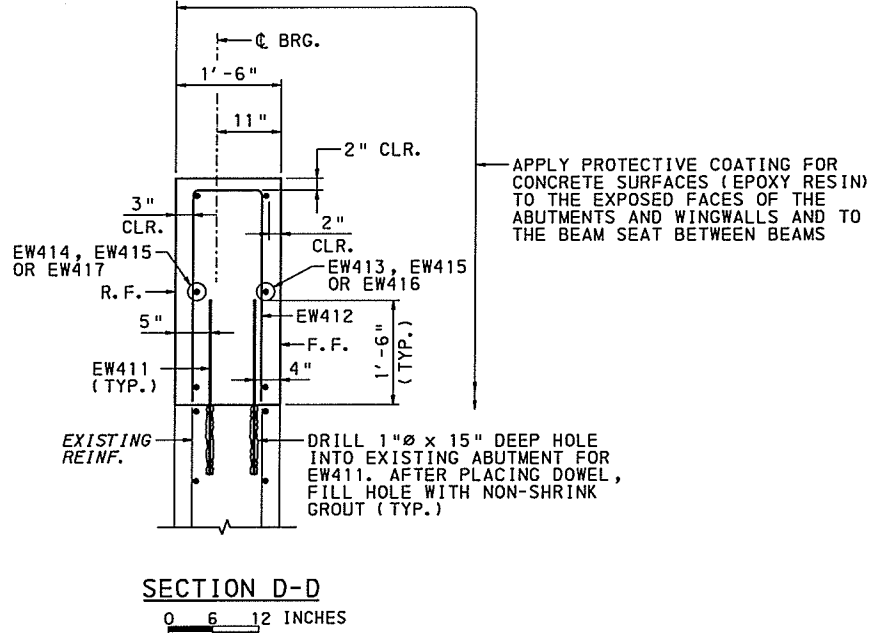
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ABUTMENT 1 PLAN
0 2 4 FEET



ABUTMENT 1 ELEVATION
(LOOKING STATIONS BACK)
0 2 4 FEET

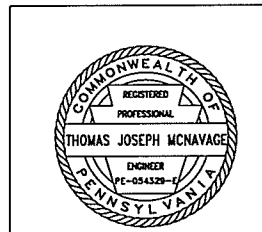


SECTION D-D
0 6 12 INCHES

APPLY PROTECTIVE COATING FOR CONCRETE SURFACES (EPOXY RESIN) TO THE EXPOSED FACES OF THE ABUTMENTS AND WINGWALLS AND TO THE BEAM SEAT BETWEEN BEAMS

- NOTES**
- FOR SECTION B-B, C-C & BEAM SEAT ELEVATION, SEE SHEET 10.
 - FOR DIAPHRAGM AND SHEAR BLOCK DETAILS, SEE SHEET 24.

Mark	Description	By	Chk'd	Rec'd	Date
REVISIONS					



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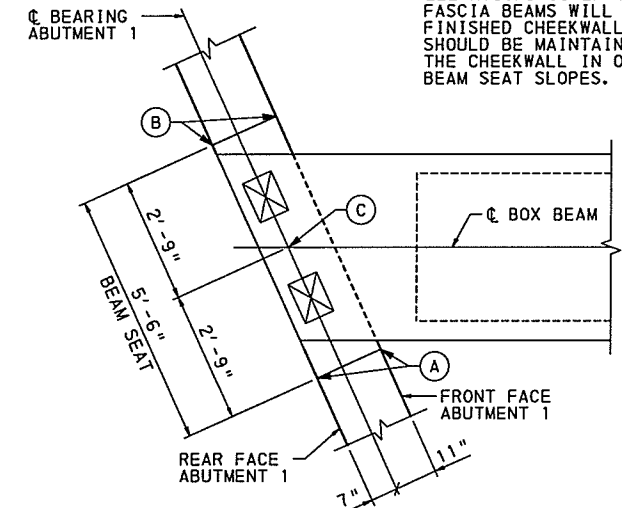
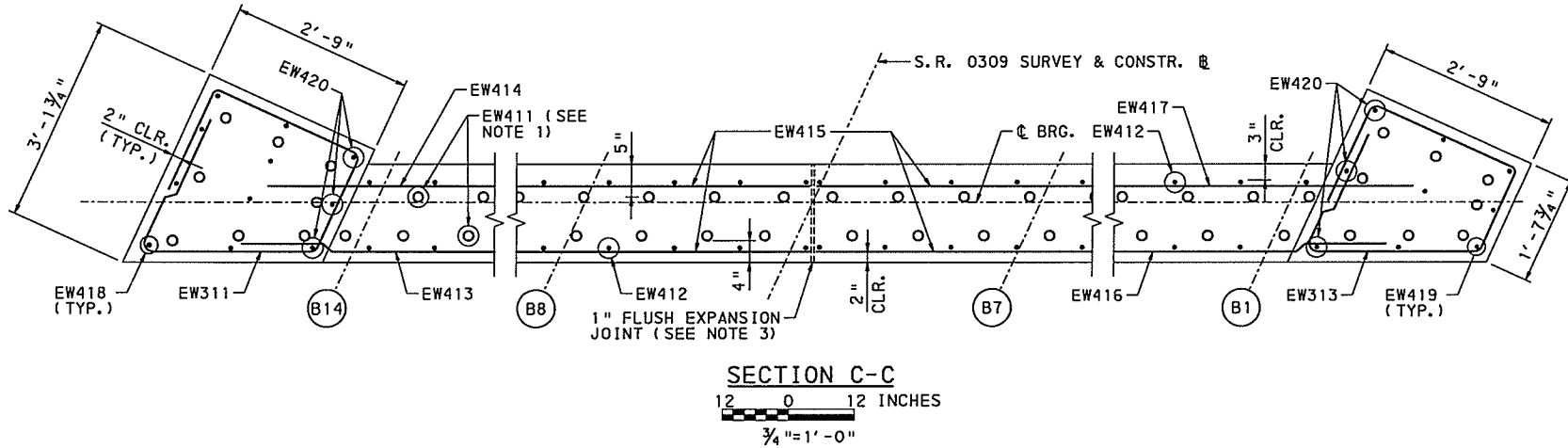
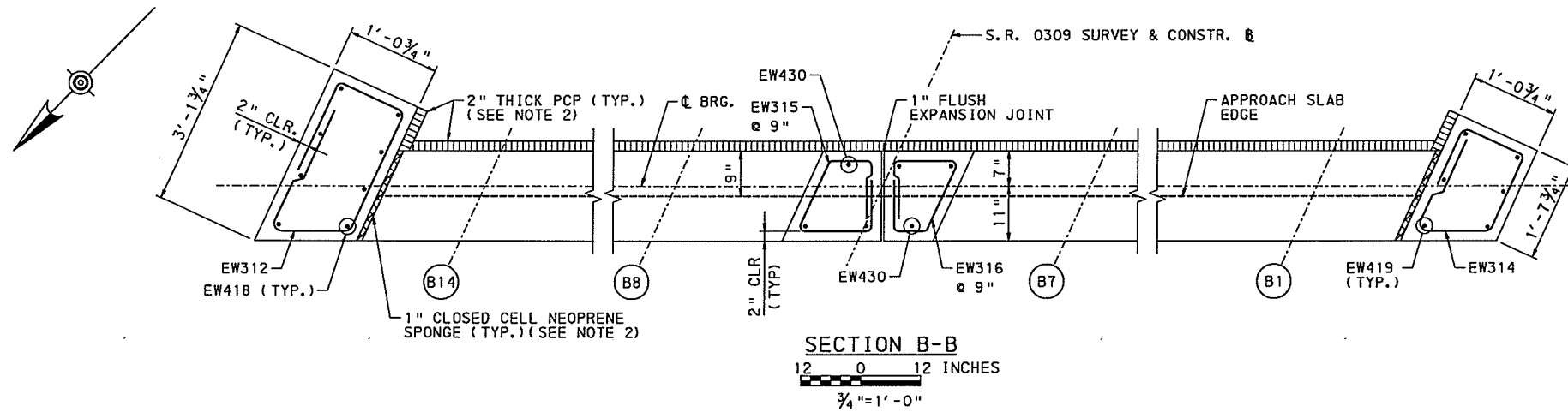
BUCKS COUNTY
SR 0309 SECTION PM1
SEG. 0110 OFFSET 0000
(SELLERSVILLE BYPASS), STA. 285+ 94.96
OVER EAST PENN RAILROAD/SEPTA
3 SPAN COMPOSITE P/S CONC. BOX BEAM BRIDGE
ABUTMENT 1 REPAIR DETAILS - 1

RECOMMENDED 04/27/2019 9 SHEET 9 OF 39

DES: KH CKD: GOB DWN: CMM CKD: TJM

S - 36849

4/15/2019 \\usph11\fp002\Data\Projects\60236723 SR 309-PM1\000_CAD\008_Structural\Sheets\YSL-2\BRIDGE 9\GP&E\09102710D.10M.B9.dgn



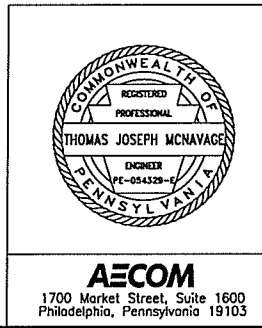
ABUTMENT 1 BEAM SEAT ELEVATIONS			
BEAM	ELEVATIONS AT ABUTMENT 1		
	'A'	'B'	'C'
BEAM 1	385.27	385.25	385.26
BEAM 2	385.56	385.54	385.55
BEAM 3	385.77	385.75	385.76
BEAM 4	385.92	385.90	385.91
BEAM 5	386.06	386.04	386.05
BEAM 6	386.18	386.16	386.17
BEAM 7	386.06	386.04	386.05
BEAM 8	386.06	386.04	386.05
BEAM 9	386.21	386.19	386.20
BEAM 10	386.11	386.09	386.10
BEAM 11	385.99	386.97	385.98
BEAM 12	385.87	385.85	385.86
BEAM 13	385.68	385.66	385.67
BEAM 14	385.42	385.40	385.41

* ELEVATIONS GIVEN TO THE OUTSIDE OF THE FASCIA BEAMS WILL FALL UNDER THE FINISHED CHEEKWALLS. THESE ELEVATIONS SHOULD BE MAINTAINED PRIOR TO PLACING THE CHEEKWALL IN ORDER TO ENSURE PROPER BEAM SEAT SLOPES.

**ABUTMENT 1
BEAM SEAT DETAIL - PLAN**
NOT TO SCALE

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

- NOTES**
1. LOCATE DOWEL HOLES FOR EW411 BETWEEN EXISTING ABUTMENT REINFORCEMENT AND STAGGER FRONT AND REAR FACE DOWEL HOLES.
 2. FOR ADDITIONAL WATERPROOFING DETAILS, SEE BC-788M.
 3. FOR FLUSH EXPANSION JOINT SEE BC-735M.



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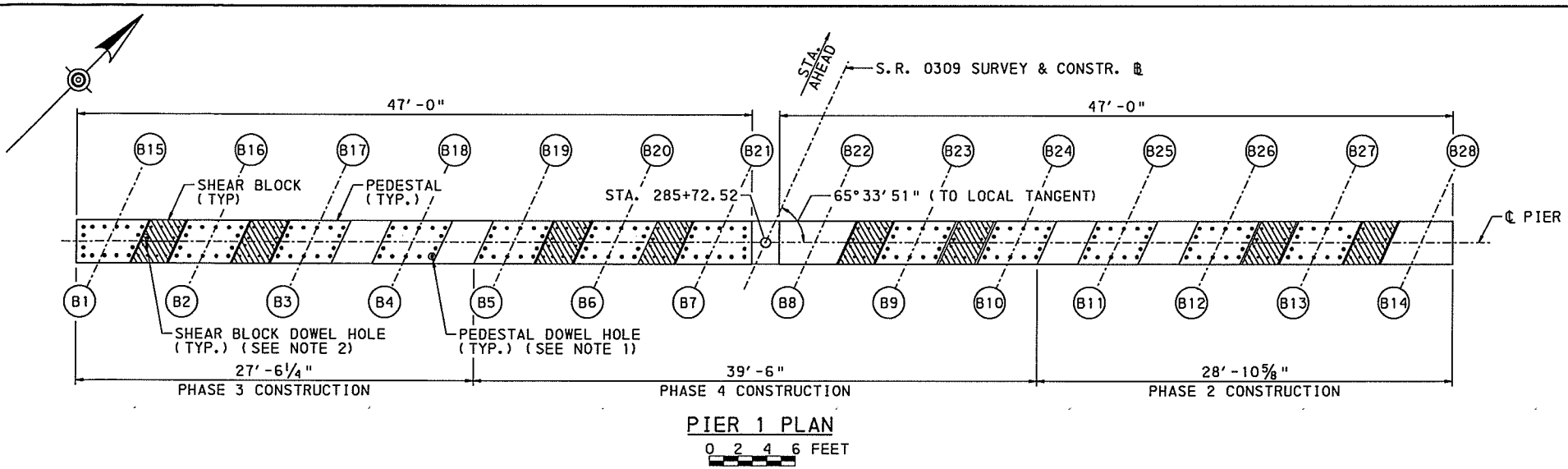
COMMONWEALTH OF PENNSYLVANIA
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BUCKS COUNTY
SR 0309 SECTION PM1
SEG. 0110 OFFSET 0000
(SELLERSVILLE BYPASS), STA. 285+ 94.96
OVER EAST PENN RAILROAD/SEPTA
3 SPAN COMPOSITE P/S CONC. BOX BEAM BRIDGE
ABUTMENT 1 REPAIR DETAILS - 2

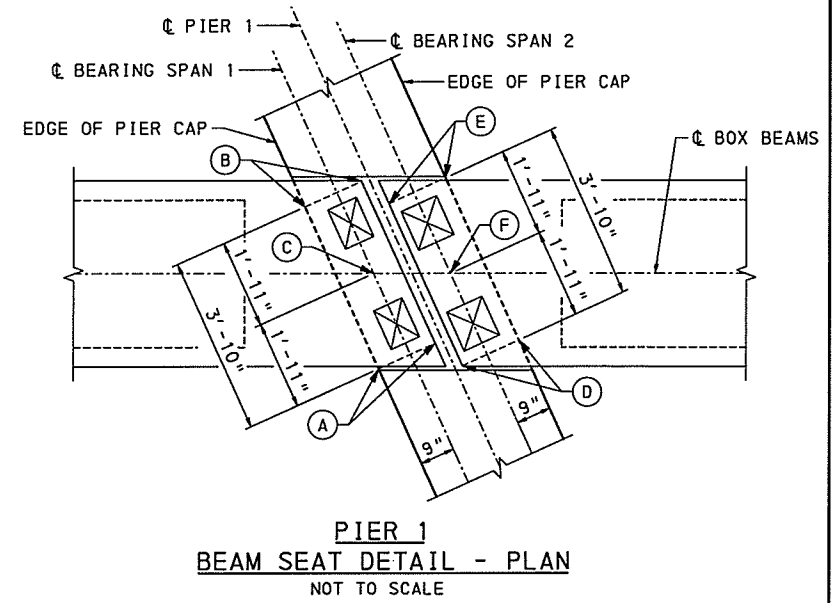
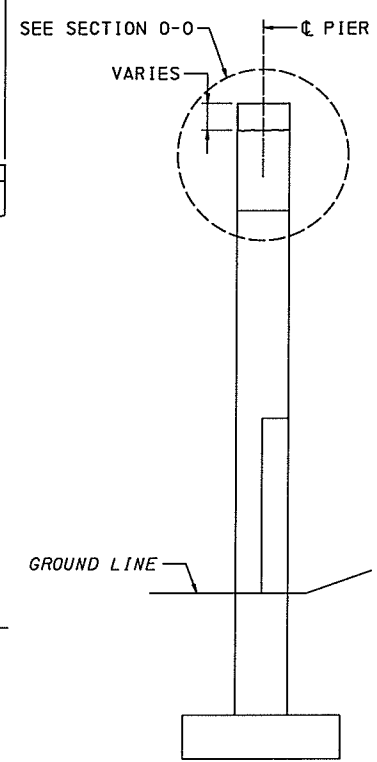
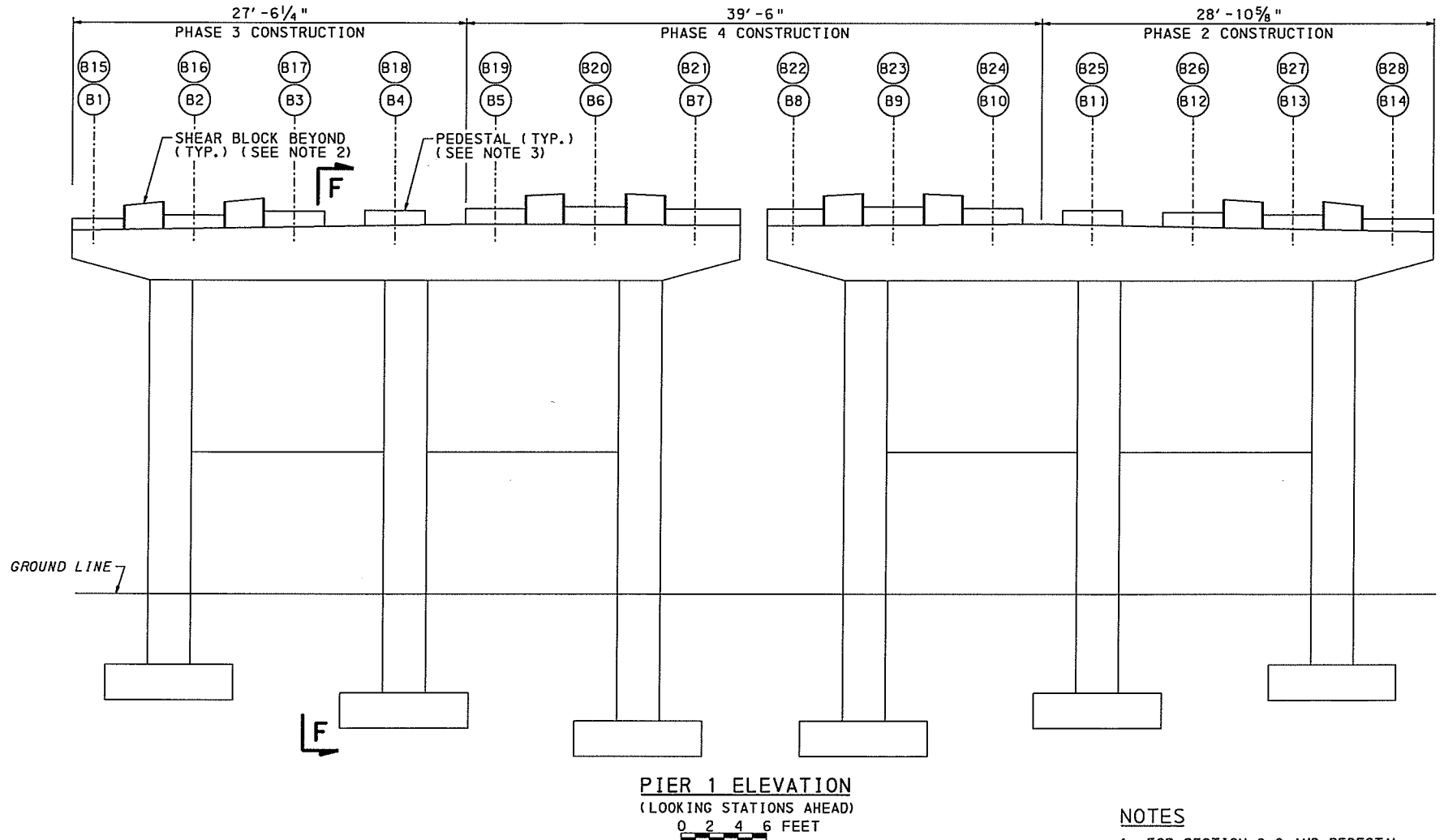
RECOMMENDED 04/27/2019 SHEET 10 OF 39

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4/15/2019 \\usph11\fp002\Data\Projects\60236723 SR 309-PM1\000-CAD\008-Structural\Sheets\TSL-2\BRIDGE 9\GP&E\09102712D_10M_B9.dgn

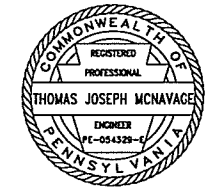


PIER 1 BEAM SEAT ELEVATIONS							
BEAM	ELEVATIONS AT PIER 1			BEAM	ELEVATIONS AT PIER 1		
	'A'	'B'	'C'		'D'	'E'	'F'
BEAM 1	385.40	385.40	385.40	BEAM 15	385.33	385.31	385.32
BEAM 2	385.67	385.67	385.67	BEAM 16	385.61	385.59	385.60
BEAM 3	385.87	385.87	385.87	BEAM 17	385.80	385.78	385.79
BEAM 4	386.00	386.00	386.00	BEAM 18	385.94	385.92	385.93
BEAM 5	386.14	386.14	386.14	BEAM 19	386.07	386.05	386.06
BEAM 6	386.26	386.26	386.26	BEAM 20	386.20	386.18	386.19
BEAM 7	386.13	386.13	386.13	BEAM 21	386.07	386.05	386.06
BEAM 8	386.13	386.13	386.13	BEAM 22	386.08	386.06	386.07
BEAM 9	386.27	386.27	386.27	BEAM 23	386.22	386.20	386.21
BEAM 10	386.16	386.16	386.16	BEAM 24	386.10	386.08	386.09
BEAM 11	386.03	386.03	386.03	BEAM 25	385.97	385.95	385.96
BEAM 12	385.91	385.91	385.91	BEAM 26	385.85	385.83	385.84
BEAM 13	385.71	385.71	385.71	BEAM 27	385.67	385.65	385.66
BEAM 14	385.45	385.45	385.45	BEAM 28	385.40	385.38	385.39



- NOTES
1. FOR SECTION 0-0 AND PEDESTAL DOWEL LOCATIONS, SEE SHEET 27.
 2. FOR SHEAR BLOCK DETAIL, SEE SHEET 26.
 3. DOWELS ARE NOT SHOWN IN ELEVATION VIEW FOR CLARITY.

Mark	Description	By	Chk'd	Rec'd	Date
REVISIONS					



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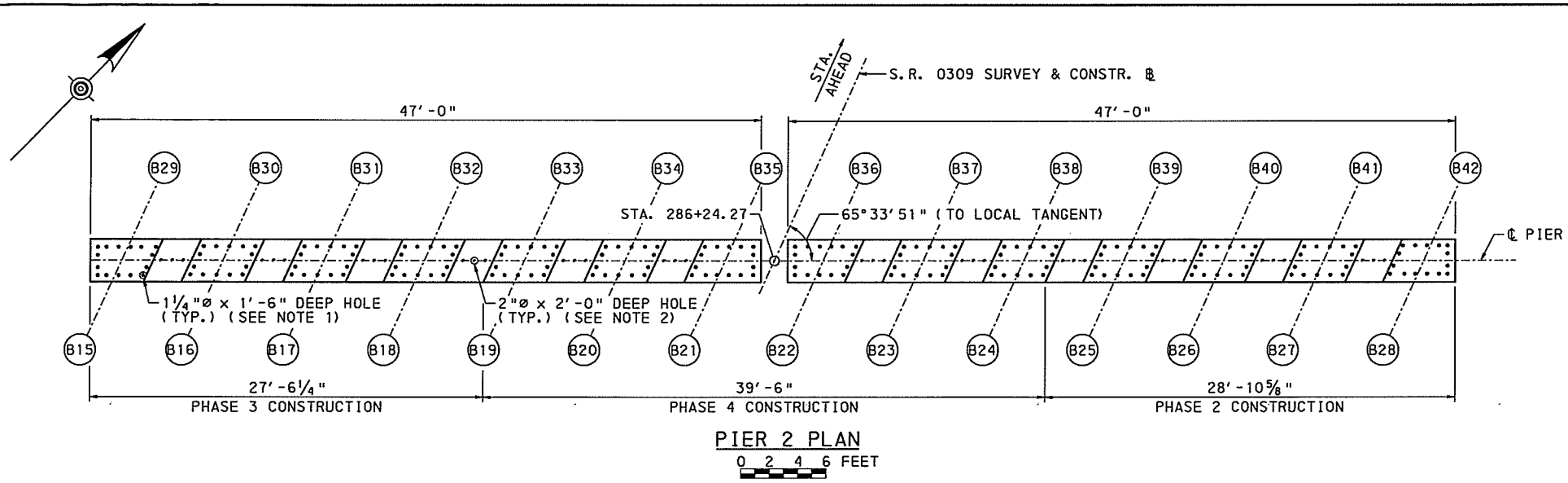
BUCKS COUNTY
SR 0309 SECTION PM1
SEG. 0110 OFFSET 0000
(SELLERSVILLE BYPASS), STA. 285+ 94.96
OVER EAST PENN RAILROAD/SEPTA
3 SPAN COMPOSITE P/S CONC. BOX BEAM BRIDGE
PIER 1 REPAIR DETAILS

RECOMMENDED 04/27/2019

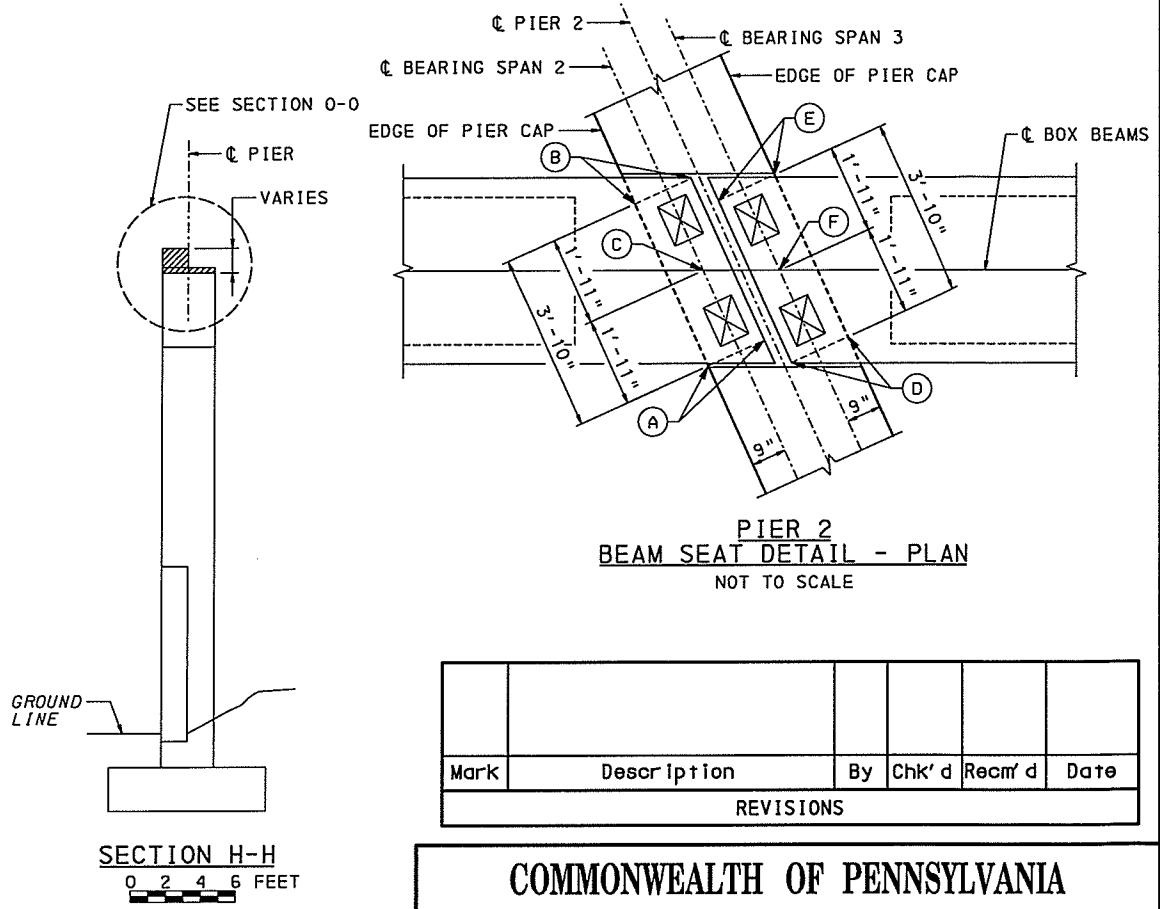
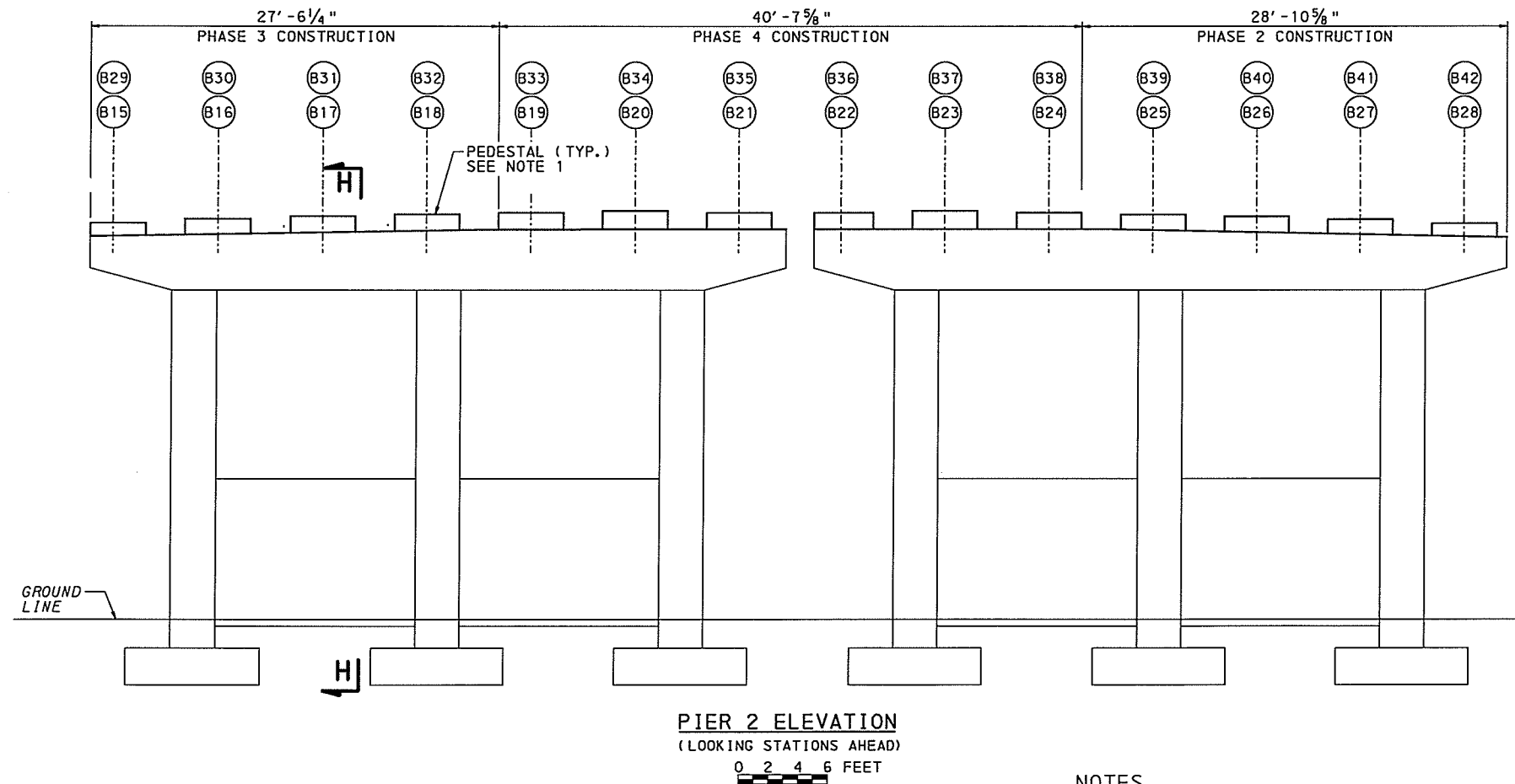
SHEET 12 OF 39

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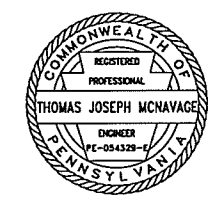


PIER 2 BEAM SEAT ELEVATIONS							
BEAM	ELEVATIONS AT PIER 2			BEAM	ELEVATIONS AT PIER 2		
	'A'	'B'	'C'		'D'	'E'	'F'
BEAM 15	385.54	385.56	385.55	BEAM 29	385.62	385.62	385.62
BEAM 16	385.81	385.83	385.82	BEAM 30	385.88	385.88	385.88
BEAM 17	386.00	386.02	386.01	BEAM 31	386.07	386.07	386.07
BEAM 18	386.12	386.14	386.13	BEAM 32	386.20	386.20	386.20
BEAM 19	386.25	386.27	386.26	BEAM 33	386.33	386.33	386.33
BEAM 20	386.37	386.39	386.38	BEAM 34	386.44	386.44	386.44
BEAM 21	386.24	386.26	386.25	BEAM 35	386.30	386.30	386.30
BEAM 22	386.24	386.26	386.25	BEAM 36	386.30	386.30	386.30
BEAM 23	386.37	386.39	386.38	BEAM 37	386.43	386.43	386.43
BEAM 24	386.24	386.26	386.25	BEAM 38	386.31	386.31	386.31
BEAM 25	386.11	386.13	386.12	BEAM 39	386.18	386.18	386.18
BEAM 26	385.97	385.99	385.98	BEAM 40	386.05	386.05	386.05
BEAM 27	385.78	385.80	385.79	BEAM 41	385.85	385.85	385.85
BEAM 28	385.51	385.53	385.52	BEAM 42	385.58	385.58	385.58



- NOTES**
- FOR SECTION 0-0, PEDESTAL DETAIL, AND PEDESTAL DOWEL LOCATIONS, SEE SHEET 27.
 - FOR DOWEL HOLE DETAIL, SEE SECTION P-P SHEET 28.
 - DOWELS ARE NOT SHOWN IN ELEVATION VIEW FOR CLARITY.

Mark	Description	By	Chk'd	Rec'd	Date
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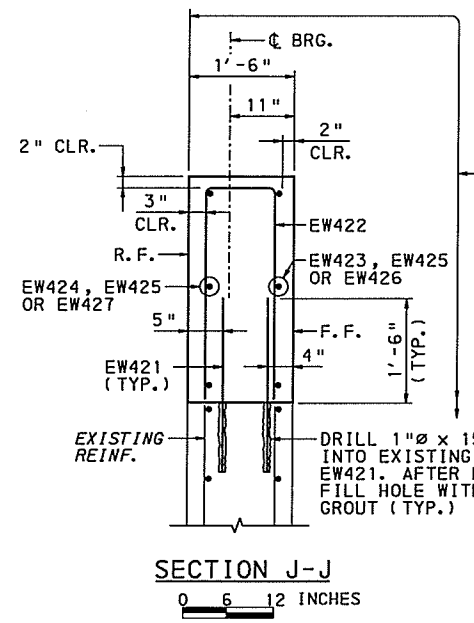
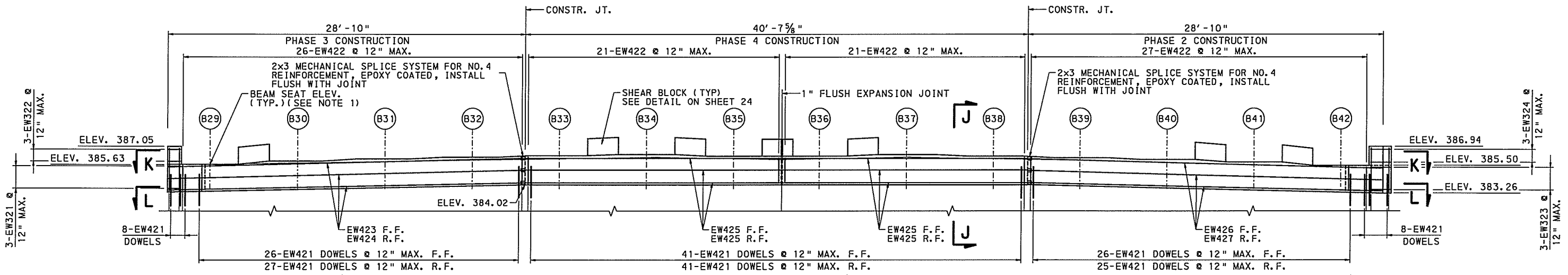
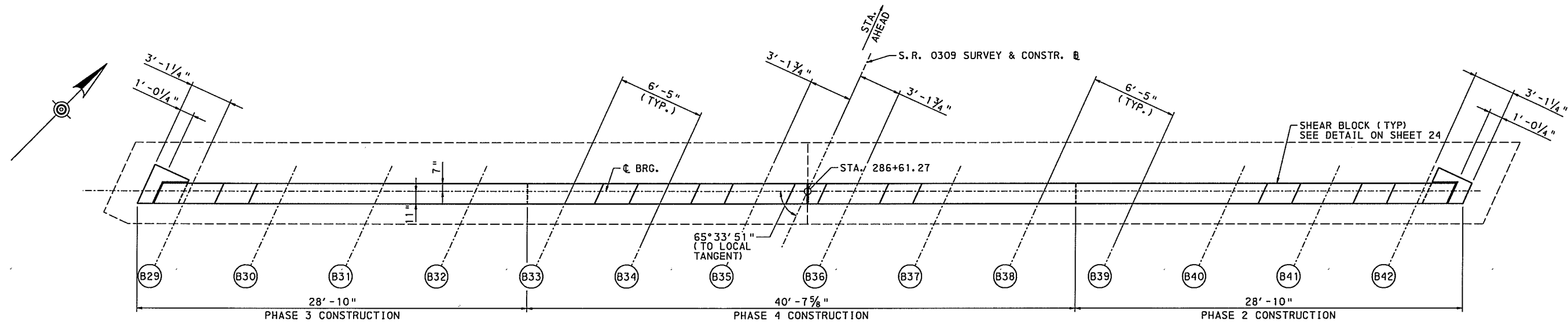


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PIER 2 REPAIR DETAILS

RECOMMENDED 04/27/2019 SHEET 14 OF 39

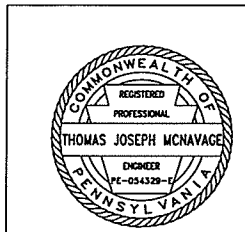
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APPLY PROTECTIVE COATING FOR CONCRETE SURFACES (EPOXY RESIN) TO THE EXPOSED FACES OF THE ABUTMENTS AND WINGWALLS AND TO THE BEAM SEAT BETWEEN BEAMS

- NOTES
1. FOR SECTION K-K, L-L & BEAM SEAT ELEVATION, SEE SHEET 17.
 2. FOR DIAPHRAGM DETAIL, SEE SHEET 28.
 3. FOR SHEAR BLOCK DETAILS, SEE SHEET 24.

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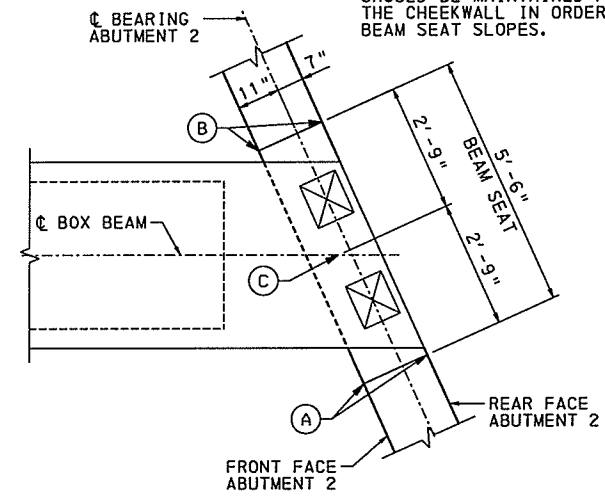
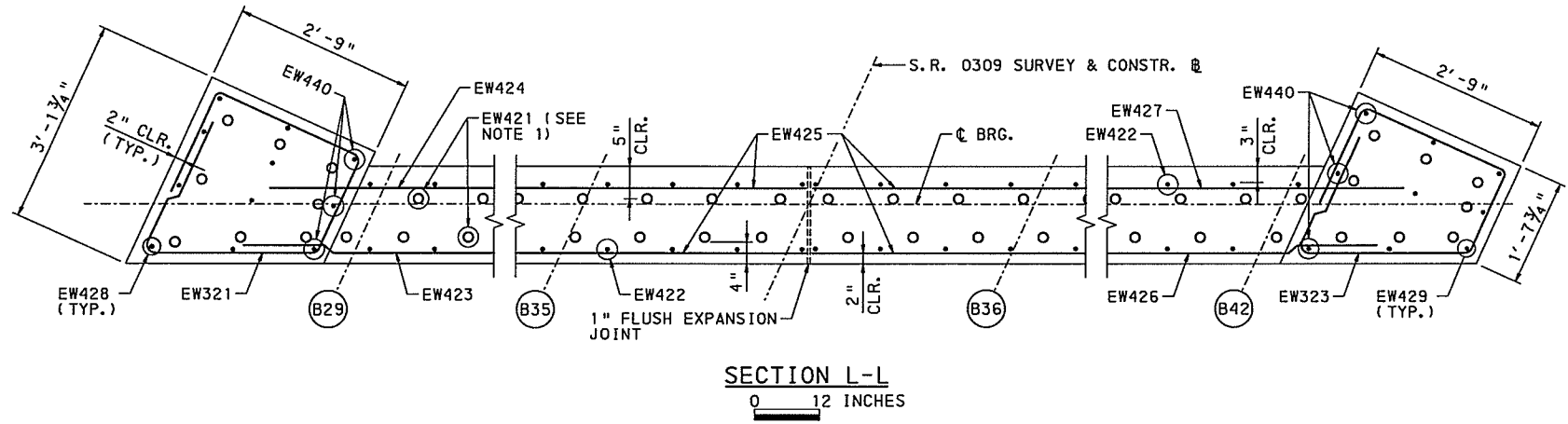
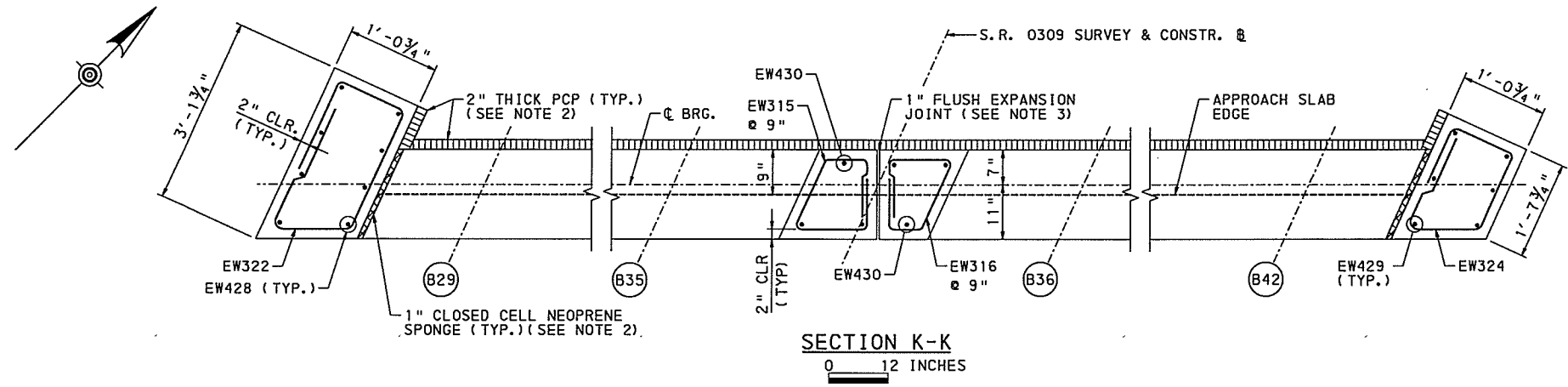
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ABUTMENT 2 REPAIR DETAILS - 1

RECOMMENDED 04/27/2019 SHEET 16 OF 39

DES: KH CKD: GOB DWN: CMM CKD: TJM

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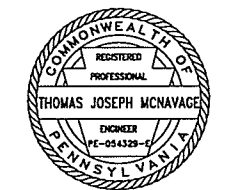
ABUTMENT 2 BEAM SEAT ELEVATIONS			
BEAM	ELEVATIONS AT ABUTMENT 2		
	'A'	'B'	'C'
BEAM 29	385.59	385.61	385.60
BEAM 30	385.86	385.88	385.87
BEAM 31	386.05	386.07	386.06
BEAM 32	386.17	386.19	386.18
BEAM 33	386.29	386.31	386.30
BEAM 34	386.39	386.41	386.40
BEAM 35	386.25	386.27	386.26
BEAM 36	386.24	386.26	386.25
BEAM 37	386.37	386.39	386.38
BEAM 38	386.25	386.27	386.26
BEAM 39	386.12	386.14	386.13
BEAM 40	385.98	386.00	385.99
BEAM 41	385.77	385.79	385.78
BEAM 42	385.49	385.51	385.50

* ELEVATIONS GIVEN TO THE OUTSIDE OF THE FASCIA BEAMS WILL FALL UNDER THE FINISHED CHEEKWALLS. THESE ELEVATIONS SHOULD BE MAINTAINED PRIOR TO PLACING THE CHEEKWALL IN ORDER TO ENSURE PROPER BEAM SEAT SLOPES.

**ABUTMENT 2
BEARING SEAT DETAIL - PLAN**
NOT TO SCALE

Mark	Description	By	Chk'd	Recm'd	Date
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- NOTES**
1. LOCATE DOWEL HOLES FOR EW421 BETWEEN EXISTING ABUTMENT REINFORCEMENT AND STAGGER FRONT AND REAR FACE DOWEL HOLES.
 2. FOR ADDITIONAL WATERPROOFING DETAILS, SEE BC-788M.
 3. FOR FLUSH EXPANSION JOINT, SEE BC-735M.



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ABUTMENT 2 REPAIR DETAILS - 2

RECOMMENDED 04/27/2019 SHEET 17 OF 39

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