OS-600 (10-08)

pennsylvania
DEPARTMENT OF TRANSPORTATION
www.dot.state.pa.us

May 22, 2012

RECEIVED
2012 MAY 16 AM 9:46
PA P.U.C.
SECRETARY'S BUREAU

Schuylkill County
Delano Township
SR 0081, SECTION 11B
DOT # 361 – 461 E
PUC No. A- 2010-2174106
ECMS # 75933

Ms. Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
PO Box 3265
Harrisburg, PA 17105-3265

Dear Secretary Chiavetta:

In accordance with ordering paragraph number 2 of PUC Docket No. A- 2010-2174106 entered on July 22, 2010, please find attached for your approval one half-size copy of the final signed Drawings for Construction of State Route 0081, Section 11B in Schuylkill County, consisting of sheets, 1 trough 15, 81, 82, 83, 87, 88, 89 and 96 through 106 of 113; and one copy of half-size final signed Structure Plans for SR 0081, Section 11B (S- 30816) consisting of sheets 1 through 6 of 45.

The Department of Transportation hereby avers that a partial set of the aforesaid final Drawings for Construction plans and a set of Structure Plans (S- 30816) are being sent to the following parties of record for examination simultaneously with this submission to the Public Utility Commission:

Frances Karycki
Vice President Real Estate
Reading Blue Mountain & Northern
Railroad
One Railroad Boulevard
Port Clinton, PA 19549

Schuylkill County Commissioners
Schuylkill County Government Center
401 North Second Street
Pottsville, PA 17901

Paul P. Kuropatasky, Chairman
Delano Township
One Hazle Street
P.O. Box 103
Delano, PA 18220

Al Zuba
Frontier Communication Solutions
100 CTE Drive
Dallas, PA 18612

Denise Boyle, Manager
Sunoco Logistics
525 Fritztown Road
Sinking Spring, PA 19608

Bill Brayford
Service Electric Broadband Cable
201 West Centre Street
Mahanoy City, PA 17948

John Alessandrini, Engineer
Verizon Business
630 Clark Avenue
King of Prussia, PA 19406

Kim Flowers
PPL Electric Utilities Corp.
2 North Ninth Street – GENN3
Allentown, PA 18101-1179

Randy Cahalan, Manager
Hazelton City Authority Water Department
400 East Arthur Gardener Parkway
Hazelton, PA 18201

Debbie Dalia
Verizon Pennsylvania Inc.
Right-of-Way Department
201 Stanwix Street, 9th Floor
Pittsburgh, PA 15222

We respectfully request the approval of these plans and the subsequent issuance of a PUC Order. Should you have any questions or concerns, please feel free to contact me at (610) 871 - 4562.

Sincerely,

Rodney O. Rehnert
District Grade Crossing Administrator
Engineering District 5-0
Department of Transportation

Attachments

cc: Parties of Record
Chief, Utilities and Right-of-Way Section, 7th Floor, CKB
Gina D'Alfonso, Office of Chief Counsel, 9th Floor, CKB
Manager, Rail Safety Division, PUC, 3rd Floor, CKB

FEDERAL PROJECT NO.

		DISTRICT	COUNTY	TOWNSHIP	BOROUGH	ROUTE	SECTION	TOTAL SHEETS
B00	IM	5-0	SCHUYLKILL	DELANO		0081	11B	113
185	581		SCHUYLKILL	KLINE		0081	11B	

WBS ELEMENT

T/P	SYS	WO	SPUR	PHA	SECTION	ORG.	PRG.	P_C
P	1	0 0 0 8 1	0	7	1 1 B	0 5 6 0	3 7 3	1
P	1	0 0 0 8 1	0	7	1 1 B	0 5 6 0	3 6 2	1

S.R. 0081 PREVIOUSLY KNOWN AS L.R. 1005 MPMS/ECMS NO. 75933

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF TRANSPORTATION

DRAWINGS
FOR
CONSTRUCTION
OF

STATE ROUTE 0081 SECTION 11B

IN SCHUYLKILL COUNTY

FROM STA. 1927+50.00 NB TO STA. 2194+00.00 NB LENGTH 25,661.13 FT. 4.860 MI.
FROM SEG. 1330 OFFSET 0827 TO SEG. 1380 OFFSET 0901

FROM STA. 1953+00.00 SB TO STA. 2194+15.00 SB LENGTH 23,837.15 FT. 4.515 MI.
FROM SEG. 1335 OFFSET 0724 TO SEG. 1381 OFFSET 1060

ALSO

STATE ROUTE 8017 (INTERCHANGE)

PUC APPLICATION DOCKET NUMBERS:
A-2010-2174106
A-2011-2250535
A-2011-2250551
A-2011-2250555

RECEIVED
MAY 16 2012
PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

ALSO INCLUDED:

TRAFFIC CONTROL PLAN	173 SHEETS
SIGNING AND PAVEMENT MARKING PLAN	56 SHEETS
EROSION AND SEDIMENT POLLUTION CONTROL PLAN	66 SHEETS
STRUCTURE PLAN S-31863	22 SHEETS
STRUCTURE PLAN S-31864	22 SHEETS
STRUCTURE PLAN S-31851	3 SHEETS
STRUCTURE PLAN S-31852	45 SHEETS
STRUCTURE PLAN S-30816	45 SHEETS
STRUCTURE PLAN S-31853	3 SHEETS
STRUCTURE PLAN S-30983	46 SHEETS
STRUCTURE PLAN S-30982	46 SHEETS
STRUCTURE PLAN S-31856	26 SHEETS
STRUCTURE PLAN S-31857	26 SHEETS
STRUCTURE PLAN S-31861	50 SHEETS
STRUCTURE PLAN S-31859	22 SHEETS
STRUCTURE PLAN S-31862	16 SHEETS
STRUCTURE PLAN S-31860	27 SHEETS
STRUCTURE PLAN S-31858	16 SHEETS
CROSS SECTIONS	108 SHEETS

EXISTING STRUCTURE PLANS

S-6897A	(ORIGINAL)	6 SHEETS
P-6897	(SHOP DWG'S)	3 SHEETS
S-16420/S-16421	(REHAB)	8 SHEETS
S-6898	(ORIGINAL)	4 SHEETS
S-6899A	(ORIGINAL)	11 SHEETS
P-6899	(SHOP DWG'S)	3 SHEETS
S-14516	(REHAB)	6 SHEETS
S-6902	(ORIGINAL)	4 SHEETS
S-6903A	(ORIGINAL)	11 SHEETS
P-6903	(SHOP DWG'S)	5 SHEETS
S-14517	(REHAB)	6 SHEETS
S-6904A	(ORIGINAL)	13 SHEETS
P-6904	(SHOP DWG'S)	11 SHEETS
S-16428/S-16429	(REHAB)	14 SHEETS
S-6900	(ORIGINAL)	9 SHEETS
D-2248	(SHOP DWG'S)	37 SHEETS
S-16424	(REHAB)	11 SHEETS
S-6901A	(ORIGINAL)	6 SHEETS
P-6901	(SHOP DWG'S)	5 SHEETS
S-16425	(REHAB)	7 SHEETS
S-6906A	(ORIGINAL)	6 SHEETS
P-6906	(SHOP DWG'S)	4 SHEETS
S-16431	(REHAB)	8 SHEETS
S-6907A	(ORIGINAL)	7 SHEETS
P-6907	(SHOP DWG'S)	4 SHEETS
S-16432	(REHAB)	7 SHEETS
S-6905	(ORIGINAL)	7 SHEETS
P-6905	(SHOP DWG'S)	4 SHEETS
S-16430	(REHAB)	5 SHEETS

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

DESIGN DESIGNATION

HIGHWAY CLASSIFICATION - RURAL INTERSTATE
DESIGN SPEED - 70 MPH
PAVEMENT WIDTH - 24'-0"
SHOULDER WIDTH - 4'-0" TO 10'-0"

TRAFFIC DATA

CURRENT A.D.T. - 25,500 (2012)
DESIGN YEAR A.D.T. - 38,166 (2034)
D.H.V. - 3817
D - 55%
T - 31%

ESTABLISHED AS A LIMITED ACCESS HIGHWAY FROM STATION 1907+60 TO STATION 2103+32 BY PLAN OF LEGISLATIVE ROUTE 1005 SECTION I-5 R/W RIGHT-OF-WAY

APPROVED APR 24, 1964

ESTABLISHED AS A LIMITED ACCESS HIGHWAY FROM STATION 2103+32 TO STATION 2267+65 BY PLAN OF LEGISLATIVE ROUTE 1005 SECTION 2-1 R/W RIGHT-OF-WAY

APPROVED JAN 17, 1966

PREPARED BY:
HDR
HDR ENGINEERING, INC.
1016 W 9TH AVENUE
SUITE 110
KING OF PRUSSIA, PA 19406

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES PETER VAN DIEN
ENGINEER

James P. Van Dien
REGISTERED PROFESSIONAL ENGINEER
DATE: 5/10/2012

RECOMMENDED DATE: ______
DISTRICT EXECUTIVE

RECOMMENDED DATE: ______
DEPUTY SECRETARY

APPROVED DATE: ______
SECRETARY OF TRANSPORTATION
(ON BEHALF OF THE GOVERNOR AS WELL AS HIMSELF)

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	2 OF 113

DELANO TOWNSHIP

REVISION NUMBER	REVISIONS	DATE	BY

EXISTING TYPES OF ROADWAY PAVEMENTS

LIMIT OF WORK ADJACENT TO STA 1927+50.00 (NB), SEG 1330 OFF 0827 AND STA 1953+00.00 (SB), SEG 1335 OFF 0724

1½" BITUMINOUS WEARING COURSE ON 2½" BINDER COURSE ON
½" WEARING COURSE (SCRATCHED) ON
10" REINFORCED CONCRETE CEMENT PAVEMENT ON 9" SUBBASE

STA 1927+50.00 TO STA 2187+00.00 (NB), SEG 1330 OFF 0827 TO SEG 1380 OFF 0201

1½" BITUMINOUS WEARING COURSE ON 2½" BINDER COURSE ON
½" WEARING COURSE (SCRATCHED) ON
10" REINFORCED CONCRETE CEMENT PAVEMENT ON 9" SUBBASE

STA 1953+00.00 TO STA 2194+15.00 (SB), SEG 1335 OFF 0724 TO SEG 1381 OFF 1060

1½" BITUMINOUS WEARING COURSE ON 2½" BINDER COURSE ON
½" WEARING COURSE (SCRATCHED) ON
10" REINFORCED CONCRETE CEMENT PAVEMENT ON 9" SUBBASE

LIMIT OF WORK ADJACENT TO STA 2187+00.00 (NB), SEG 1380 OFF 0201 AND STA 2194+15.00 (SB), SEG 1381 OFF 1060

1½" BITUMINOUS WEARING COURSE ON 2½" BINDER COURSE ON
½" WEARING COURSE (SCRATCHED) ON
10" REINFORCED CONCRETE CEMENT PAVEMENT ON 9" SUBBASE

NOTE: THE DEPTHS OF MATERIAL SHOWN ARE FOR DESIGN PURPOSES ONLY. ANY RISK OF UNANTICIPATED COSTS ASSOCIATED WITH DIFFERENCES BETWEEN THE LISTED DEPTHS AND THE ACTUAL DEPTHS SHALL BE ACCEPTED BY THE CONTRACTOR.

TABULATION OF SEGMENT EQUALITIES

SR 0081 NB STA 1919+72.70 = SEG 1330 OFFSET 0000
SR 0081 NB STA 1946+30.70 = SEG 1334 OFFSET 0000
SR 0081 NB STA 1973+23.54 = SEG 1340 OFFSET 0000
SR 0081 NB STA 1999+64.82 = SEG 1344 OFFSET 0000
SR 0081 NB STA 2026+43.94 = SEG 1350 OFFSET 0000
SR 0081 NB STA 2052+83.94 = SEG 1354 OFFSET 0000
SR 0081 NB STA 2079+45.74 = SEG 1360 OFFSET 0000
SR 0081 NB STA 2106+21.22 = SEG 1364 OFFSET 0000
SR 0081 NB STA 2132+86.22 = SEG 1370 OFFSET 0000
SR 0081 NB STA 2159+28.57 = SEG 1374 OFFSET 0000
SR 0081 NB STA 2184+99.00 = SEG 1380 OFFSET 0000

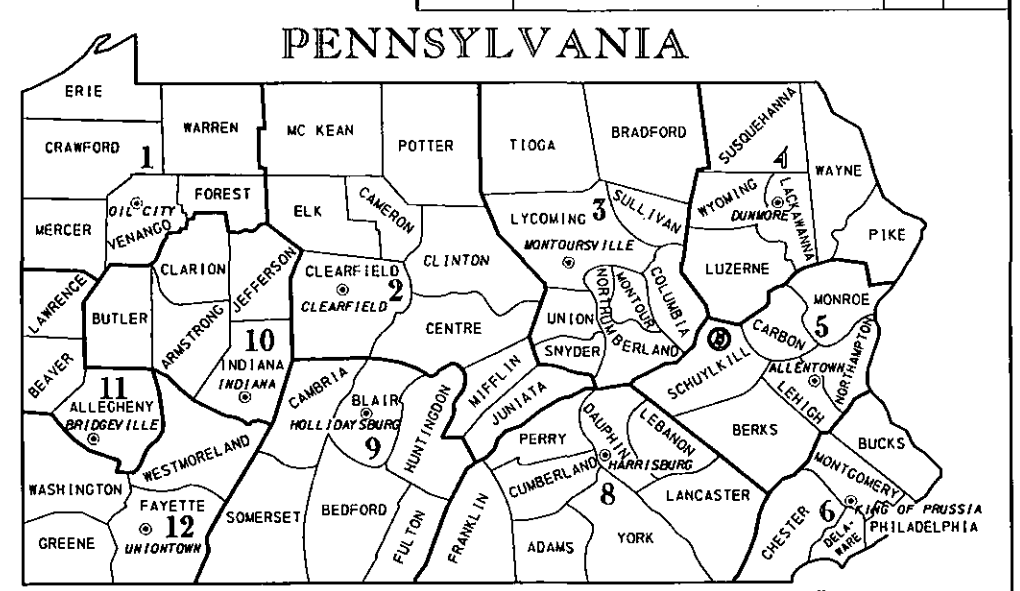
SR 0081 SB STA 1945+72.40 = SEG 1335 OFFSET 0000
SR 0081 SB STA 1971+54.40 = SEG 1341 OFFSET 0000
SR 0081 SB STA 1997+96.40 = SEG 1345 OFFSET 0000
SR 0081 SB STA 2025+90.47 = SEG 1351 OFFSET 0000
SR 0081 SB STA 2052+30.47 = SEG 1355 OFFSET 0000
SR 0081 SB STA 2078+82.07 = SEG 1361 OFFSET 0000
SR 0081 SB STA 2105+48.40 = SEG 1365 OFFSET 0000
SR 0081 SB STA 2132+10.25 = SEG 1371 OFFSET 0000
SR 0081 SB STA 2158+46.25 = SEG 1375 OFFSET 0000
SR 0081 SB STA 2184+55.25 = SEG 1381 OFFSET 0000

SR 1012 STA 6+09.43 = SEG 0110 OFFSET 0000

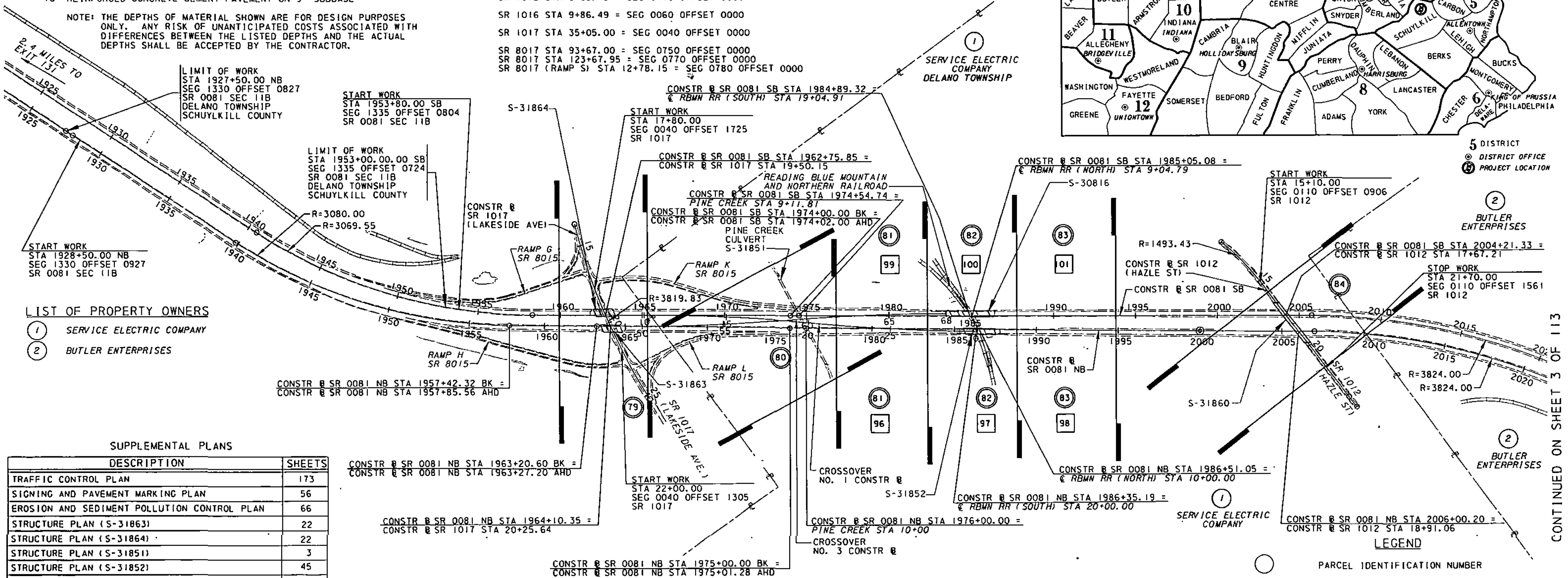
SR 1016 STA 9+86.49 = SEG 0060 OFFSET 0000

SR 1017 STA 35+05.00 = SEG 0040 OFFSET 0000

SR 8017 STA 93+67.00 = SEG 0750 OFFSET 0000
SR 8017 STA 123+67.95 = SEG 0770 OFFSET 0000
SR 8017 (RAMP S) STA 12+78.15 = SEG 0780 OFFSET 0000



5 DISTRICT
DISTRICT OFFICE
PROJECT LOCATION



CONTINUED ON SHEET 3 OF 113

LIST OF PROPERTY OWNERS

1. SERVICE ELECTRIC COMPANY
2. BUTLER ENTERPRISES

INDEX MAP
(SHEET 1 OF 4)

LEGEND

- PARCEL IDENTIFICATION NUMBER
- PARCEL IDENTIFICATION NUMBER - NO TAKE
- PLAN
- PROFILE
- SHEET LIMITS
- TOWNSHIP BOUNDARY

SCALE
0 300 600 FEET

SUPPLEMENTAL PLANS

DESCRIPTION	SHEETS
TRAFFIC CONTROL PLAN	173
SIGNING AND PAVEMENT MARKING PLAN	56
EROSION AND SEDIMENT POLLUTION CONTROL PLAN	66
STRUCTURE PLAN (S-31863)	22
STRUCTURE PLAN (S-31864)	22
STRUCTURE PLAN (S-31851)	3
STRUCTURE PLAN (S-31852)	45
STRUCTURE PLAN (S-30816)	45
STRUCTURE PLAN (S-31853)	3
STRUCTURE PLAN (S-30983)	46
STRUCTURE PLAN (S-30982)	46
STRUCTURE PLAN (S-31856)	26
STRUCTURE PLAN (S-31857)	26
STRUCTURE PLAN (S-31861)	50
STRUCTURE PLAN (S-31859)	22
STRUCTURE PLAN (S-31862)	16
STRUCTURE PLAN (S-31860)	27
STRUCTURE PLAN (S-31858)	16
CROSS SECTIONS	108

SHEET INDEX

PLOT DATE: 5/10/2012 11:39:00 PM
CHECK PRINT No. 1 5/10/2012
DRAWING ORIGINATOR:
CHECKED BY:
CORRECTIONS CHECKED BY:
CHANGES MADE BY:
CHANGES VERIFIED BY:

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	3 OF 113

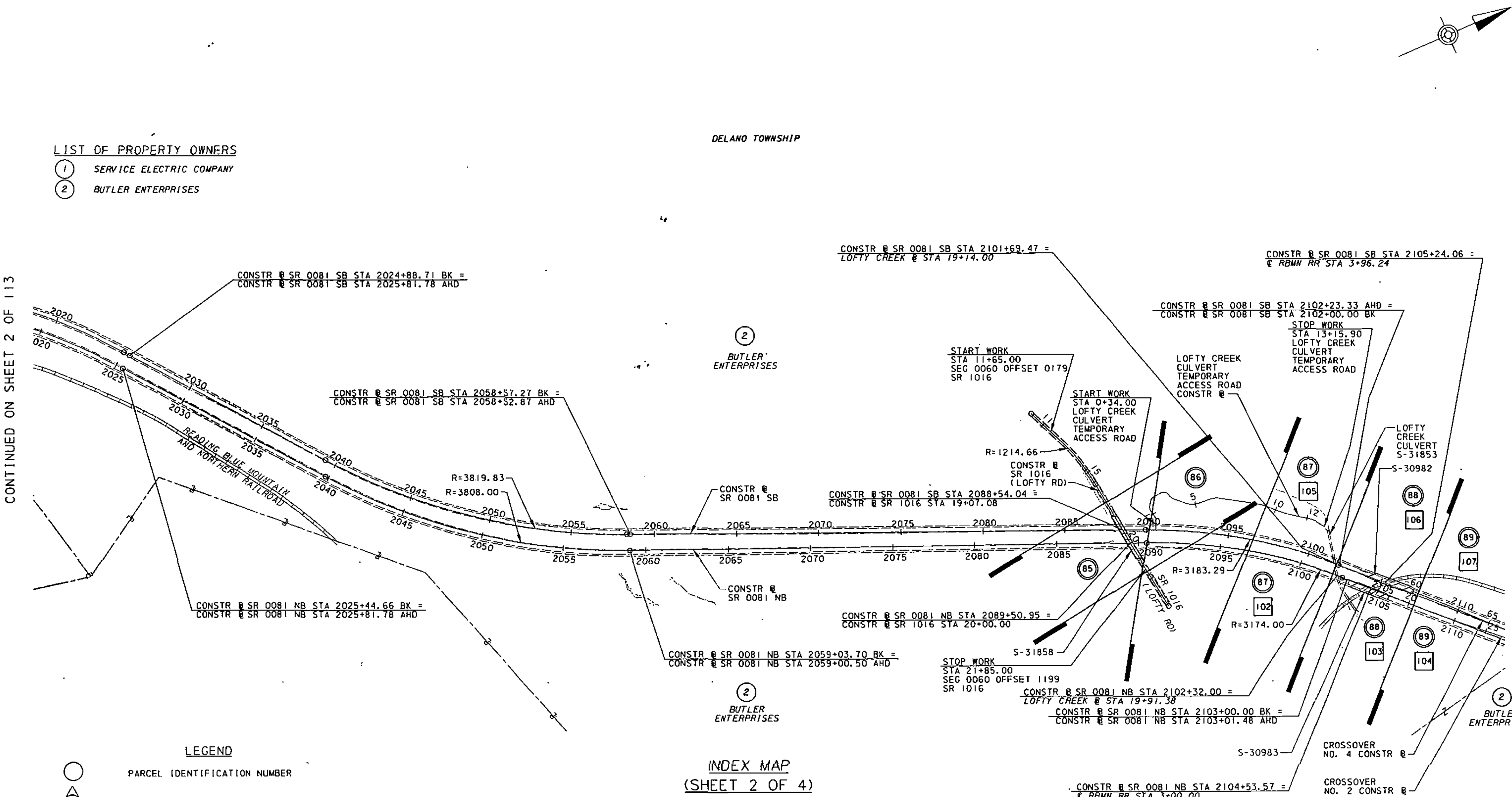
DELANO TOWNSHIP

REVISION NUMBER	REVISIONS	DATE	BY

CONTINUED ON SHEET 2 OF 113

LIST OF PROPERTY OWNERS

1. SERVICE ELECTRIC COMPANY
2. BUTLER ENTERPRISES



DELANO TOWNSHIP
BUTLER ENTERPRISES
CONSTR ℄ SR 0081 SB STA 2024+88.71 BK =
CONSTR ℄ SR 0081 SB STA 2025+81.78 AHD
CONSTR ℄ SR 0081 SB STA 2058+57.27 BK =
CONSTR ℄ SR 0081 SB STA 2058+52.87 AHD
R=3819.83
R=3808.00
CONSTR ℄ SR 0081 SB
READING BLUE MOUNTAIN AND NORTHERN RAILROAD
CONSTR ℄ SR 0081 NB STA 2025+44.66 BK =
CONSTR ℄ SR 0081 NB STA 2025+81.78 AHD
CONSTR ℄ SR 0081 NB
CONSTR ℄ SR 0081 NB STA 2059+03.70 BK =
CONSTR ℄ SR 0081 NB STA 2059+00.50 AHD
CONSTR ℄ SR 0081 SB STA 2101+69.47 =
LOFTY CREEK ℄ STA 19+14.00
START WORK
STA 11+65.00
SEG 0060 OFFSET 0179
SR 1016
START WORK
STA 0+34.00
LOFTY CREEK CULVERT TEMPORARY ACCESS ROAD
R=1214.66
CONSTR ℄ SR 1016 (LOFTY RD)
CONSTR ℄ SR 0081 SB STA 2088+54.04 =
CONSTR ℄ SR 1016 STA 19+07.08
CONSTR ℄ SR 0081 NB STA 2089+50.95 =
CONSTR ℄ SR 1016 STA 20+00.00
S-31858
STOP WORK
STA 21+85.00
SEG 0060 OFFSET 1199
SR 1016
SR 1016 (LOFTY RD)
CONSTR ℄ SR 0081 SB STA 2102+23.33 AHD =
CONSTR ℄ SR 0081 SB STA 2102+00.00 BK
LOFTY CREEK CULVERT TEMPORARY ACCESS ROAD CONSTR ℄
STOP WORK
STA 13+15.90
LOFTY CREEK CULVERT TEMPORARY ACCESS ROAD
CONSTR ℄ SR 0081 SB STA 2105+24.06 =
℄ RBMN RR STA 3+96.24
LOFTY CREEK CULVERT S-31853
S-30982
R=3183.29
R=3174.00
CONSTR ℄ SR 0081 NB STA 2102+32.00 =
LOFTY CREEK ℄ STA 19+91.38
CONSTR ℄ SR 0081 NB STA 2103+00.00 BK =
CONSTR ℄ SR 0081 NB STA 2103+01.48 AHD
S-30983
CROSSOVER NO. 4 CONSTR ℄
CROSSOVER NO. 2 CONSTR ℄
CONSTR ℄ SR 0081 NB STA 2104+53.57 =
℄ RBMN RR STA 3+00.00
85
86
87
88
89
102
103
104
105
106
107

INDEX MAP
(SHEET 2 OF 4)

CONTINUED ON SHEET 4 OF 113

LEGEND

- PARCEL IDENTIFICATION NUMBER
- PARCEL IDENTIFICATION NUMBER - NO TAKE
- PLAN
- PROFILE
- SHEET LIMITS
- TOWNSHIP BOUNDARY

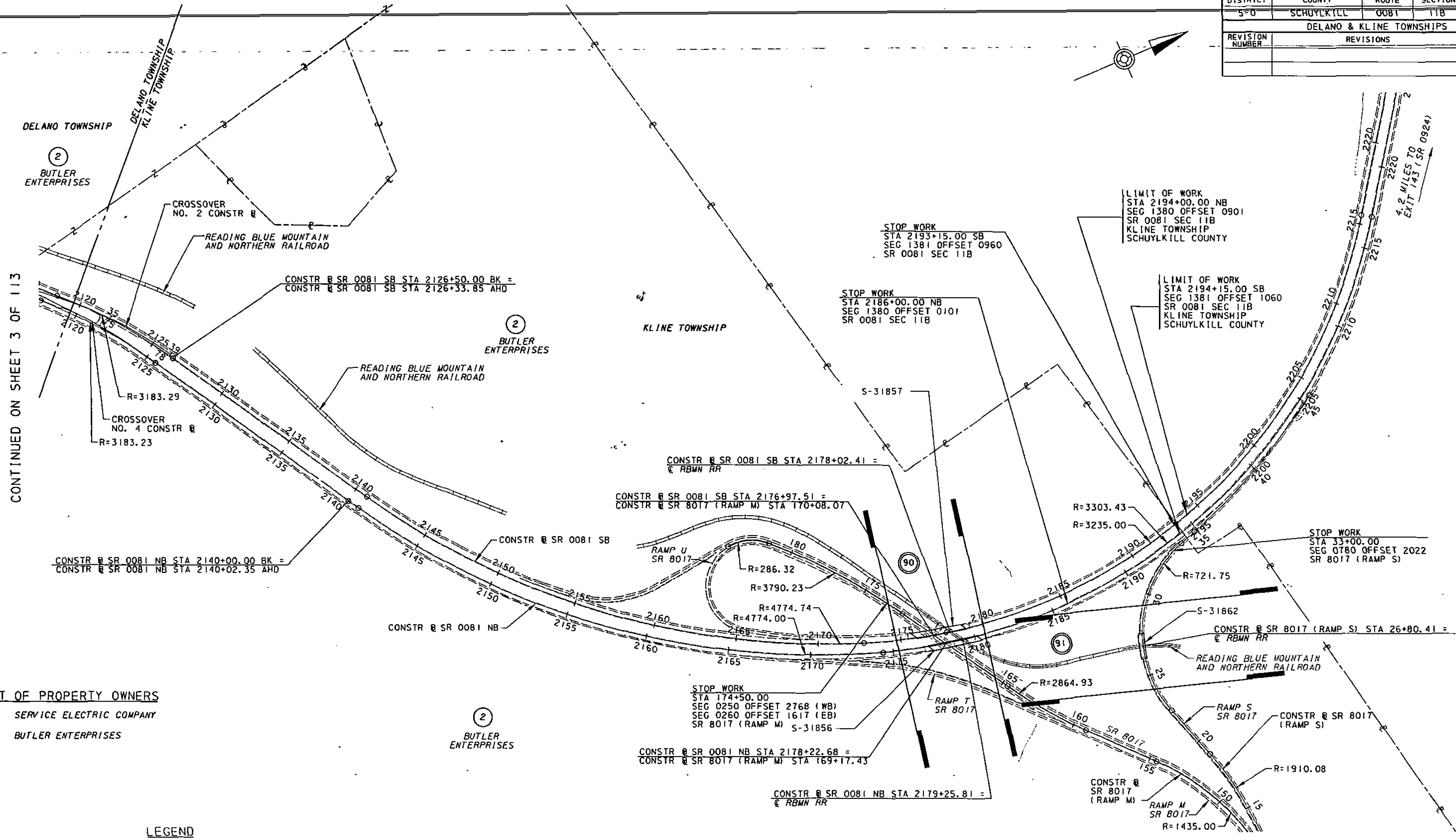
SCALE
0 300 600 FEET

JAMES PETER VAN DIEN
REGISTERED PROFESSIONAL ENGINEER
PE-056298-E

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	4 OF 113

DELANO & KLINE TOWNSHIPS

REVISION NUMBER	REVISIONS	DATE	BY



DELANO TOWNSHIP
DELANO TOWNSHIP
KLINE TOWNSHIP
2
BUTLER ENTERPRISES
CROSSOVER NO. 2 CONSTR ℄
READING BLUE MOUNTAIN AND NORTHERN RAILROAD
CONSTR ℄ SR 0081 SB STA 2126+50.00 BK = CONSTR ℄ SR 0081 SB STA 2126+33.85 AHD
2
BUTLER ENTERPRISES
KLINE TOWNSHIP
READING BLUE MOUNTAIN AND NORTHERN RAILROAD
CONTINUED ON SHEET 3 OF 113
R=3183.29
CROSSOVER NO. 4 CONSTR ℄
R=3183.23
CONSTR ℄ SR 0081 NB STA 2140+00.00 BK = CONSTR ℄ SR 0081 NB STA 2140+02.35 AHD
CONSTR ℄ SR 0081 SB
CONSTR ℄ SR 0081 NB
STOP WORK STA 2193+15.00 SB SEG 1381 OFFSET 0960 SR 0081 SEC 11B
STOP WORK STA 2186+00.00 NB SEG 1380 OFFSET 0101 SR 0081 SEC 11B
LIMIT OF WORK STA 2194+00.00 NB SEG 1380 OFFSET 0901 SR 0081 SEC 11B KLINE TOWNSHIP SCHUYLKILL COUNTY
LIMIT OF WORK STA 2194+15.00 SB SEG 1381 OFFSET 1060 SR 0081 SEC 11B KLINE TOWNSHIP SCHUYLKILL COUNTY
4.2 MILES TO EXIT 143 (SR 0924)
S-31857
CONSTR ℄ SR 0081 SB STA 2178+02.41 = ℄ RBMN RR
CONSTR ℄ SR 0081 SB STA 2176+97.51 = CONSTR ℄ SR 8017 (RAMP M) STA 170+08.07
RAMP U SR 8017
R=286.32
R=3790.23
R=4774.74
R=4774.00
90
91
R=3303.43
R=3235.00
R=721.75
STOP WORK STA 33+00.00 SEG 0780 OFFSET 2022 SR 8017 (RAMP S)
S-31862
CONSTR ℄ SR 8017 (RAMP S) STA 26+80.41 = ℄ RBMN RR
READING BLUE MOUNTAIN AND NORTHERN RAILROAD
STOP WORK STA 174+50.00 SEG 0250 OFFSET 2768 (WB) SEG 0260 OFFSET 1617 (EB) SR 8017 (RAMP M)
S-31856
RAMP T SR 8017
R=2864.93
SR 8017
CONSTR ℄ SR 0081 NB STA 2178+22.68 = CONSTR ℄ SR 8017 (RAMP M) STA 169+17.43
CONSTR ℄ SR 0081 NB STA 2179+25.81 = ℄ RBMN RR
RAMP S SR 8017
CONSTR ℄ SR 8017 (RAMP S)
R=1910.08
CONSTR ℄ SR 8017 (RAMP M)
RAMP M SR 8017
R=1435.00
2
BUTLER ENTERPRISES

CONTINUED ON SHEET 5 OF 113

LIST OF PROPERTY OWNERS

1. SERVICE ELECTRIC COMPANY
2. BUTLER ENTERPRISES

LEGEND

- ○ PARCEL IDENTIFICATION NUMBER
- △ PARCEL IDENTIFICATION NUMBER - NO TAKE
- ◎ PLAN
- □ PROFILE
- SHEET LIMITS
- TOWNSHIP BOUNDARY

INDEX MAP
(SHEET 3 OF 4)

SCALE
0 300 600 FEET

JAMES PETER VAN DIEN
REGISTERED PROFESSIONAL ENGINEER
PE-056298-E
COMMONWEALTH OF PENNSYLVANIA

USER: dyoung | PLOT DATE: 5/10/2012 11:39:09 PM
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FILE: DELANO1-RD-ID103.DGN | MODEL: Default

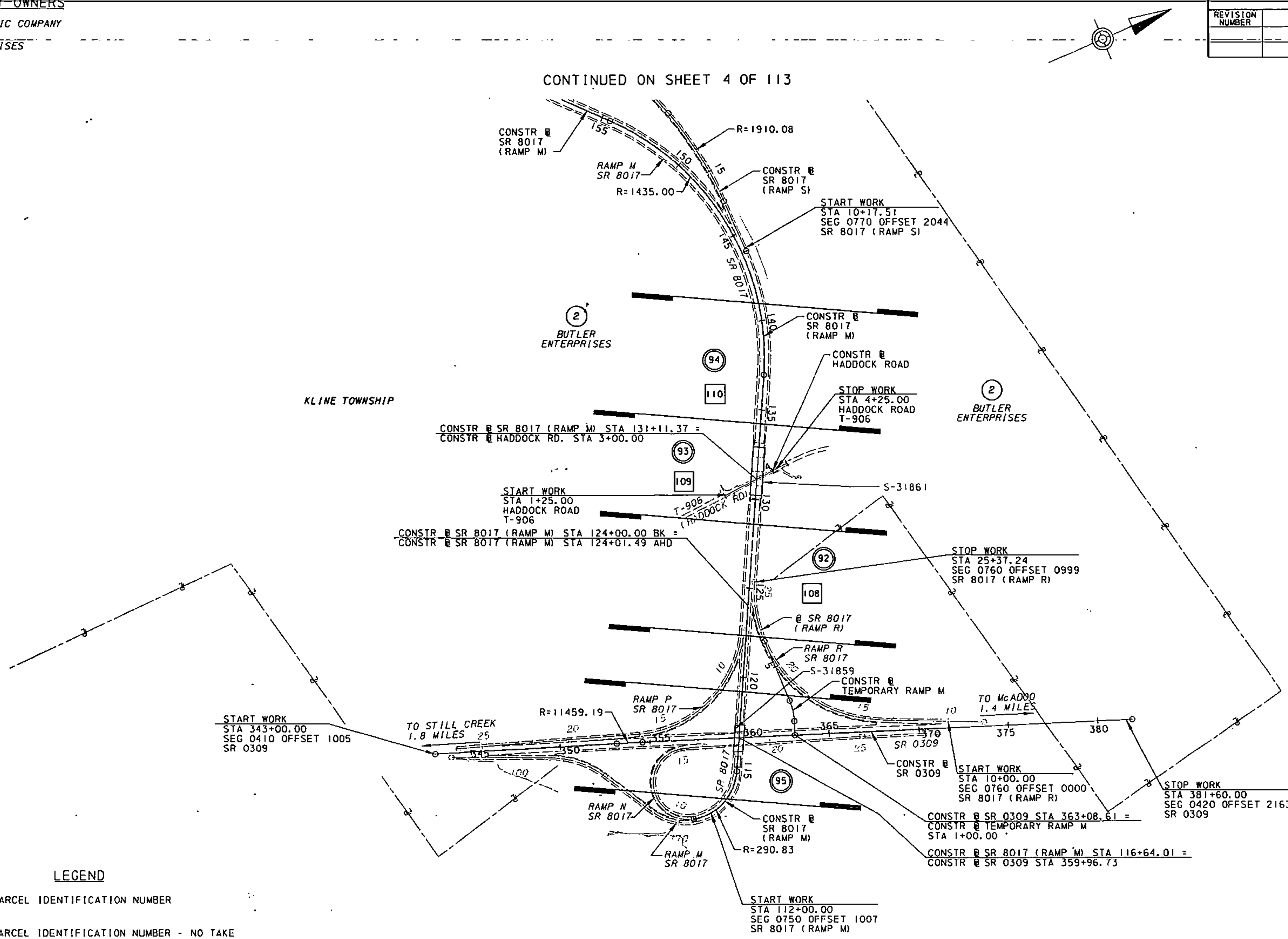
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	5 OF 113

KLINE TOWNSHIP

REVISION NUMBER	REVISIONS	DATE	BY

LIST OF PROPERTY OWNERS

1. SERVICE ELECTRIC COMPANY
2. BUTLER ENTERPRISES



INDEX MAP
(SHEET 4 OF 4)

LEGEND

- ◯ PARCEL IDENTIFICATION NUMBER
- △ PARCEL IDENTIFICATION NUMBER - NO TAKE
- ◎ PLAN
- □ PROFILE
- SHEET LIMITS
- TOWNSHIP BOUNDARY

SCALE 0 300 600 FEET

JAMES PETER VAN DIEN

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	6 OF 113
DELANO & KLINE TOWNSHIPS				

REVISION NUMBER	REVISIONS	DATE	BY

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.

WORK TYPE	CUBIC YARDS OF EXCAVATION					CUBIC YARDS OF COMPLETED EMBANKMENT *	CUBIC YARDS OF FOREIGN BORROW EXCAVATION	CUBIC YARDS OF NO. 1 COARSE AGGREGATE	CUBIC YARDS OF NO. 57 COARSE AGGREGATE	CUBIC YARDS OF SELECT MATERIAL SURFACING	CUBIC YARDS OF SELECTED BORROW EXCAVATION, ROCK, CLASS R-4	CUBIC YARDS OF ROCK, CLASS R-3	CUBIC YARDS OF ROCK, CLASS R-4	CUBIC YARDS OF SPECIFIED BACKFILL	CUBIC YARDS OF SELECTED BORROW EXCAVATION, STRUCTURE BACKFILL	CUBIC YARDS OF WASTE
	CLASS 1	CLASS 1B	CLASS 2	CLASS 3	CLASS 4											
TRAFFIC CONTROL	24,470	871	310	-	300	9,500	800	-	-	-	-	-	-	-	-	26,751
CONSTRUCTION	2,927	7,009	453	32,260 ▲	881	51,272	-	929	313 ■	107	826	2 ▲	292	18,469 ▲	1,980 ▲	15,176

- * INCLUDES ALL BORROW ITEMS
- ▲ INCLUDED IN LUMP SUM STRUCTURES
- ■ INCLUDES 312 CY AS PART OF LUMP SUM FOR STRUCTURES

TABULATION OF OVERALL LENGTH *

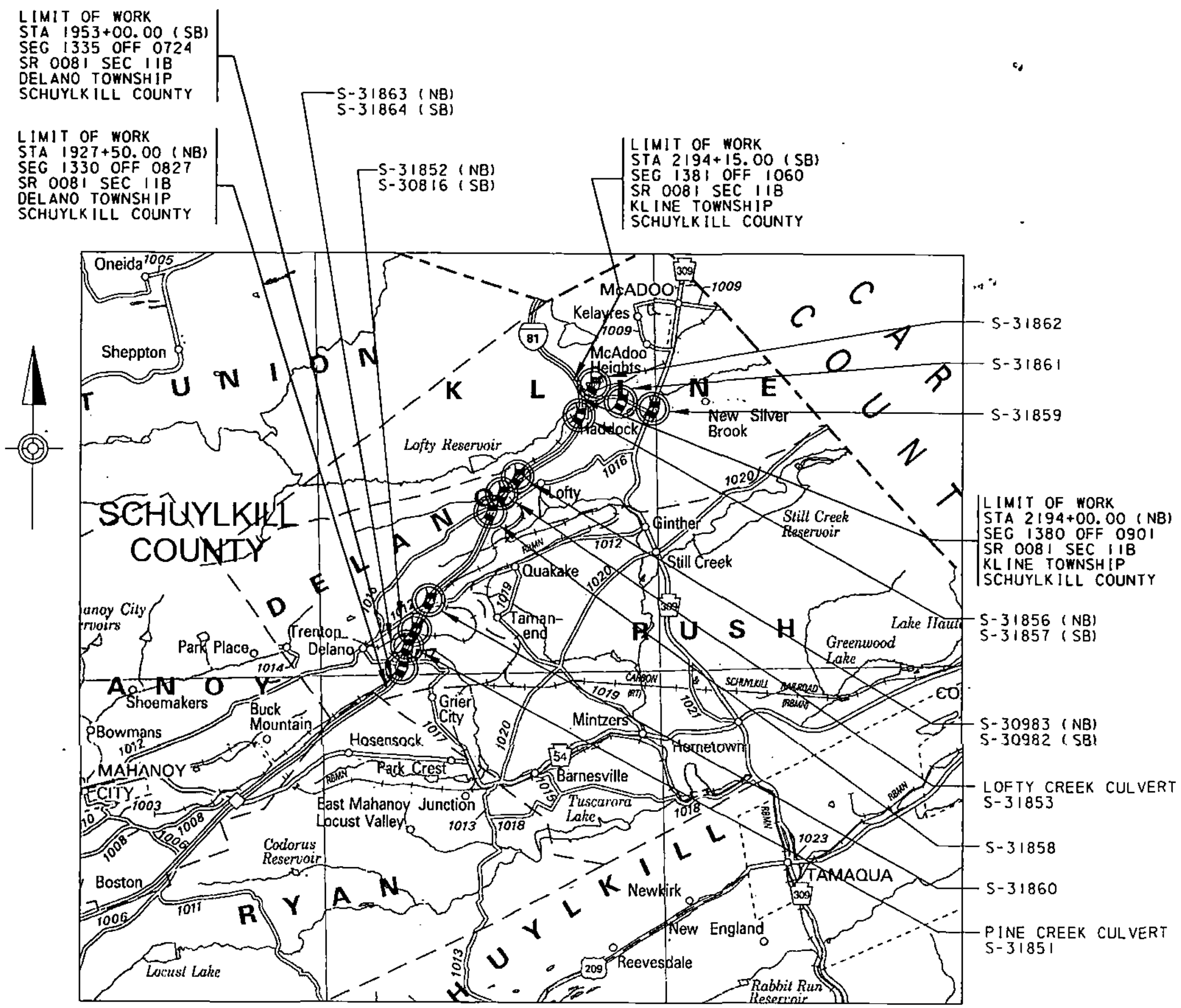
SR 0081 NB:
STA 1927+50.00 TO STA 2194+00.00 = 26511.13 FEET = 5.021 MILES

SR 0081 SB:
STA 1953+00.00 TO STA 2194+15.00 = 24017.15 FEET = 4.549 MILES

TABULATION OF CONSTRUCTION LENGTH *

SR 0081 NB:
STA 1928+50.00 TO STA 2186+00.00 = 25661.13 FEET = 4.860 MILES
SR 0081 SB:
STA 1953+80.00 TO STA 2193+15.00 = 23837.15 FEET = 4.515 MILES

* OVERALL AND CONSTRUCTION LENGTHS INCLUDE STATION EQUALITIES



LOCATION MAP

LEGEND

- INTERSTATE
- U.S. ROUTE
- STATE ROUTE
- PROJECT LOCATION
- TOWNSHIP BOUNDARY
- COUNTY LINE

SCALE
0 1 2 MILES

LIST OF STATION EQUALITIES

CONSTR ℄ SR 0081 NB STA 1957+42.32 BK = CONSTR ℄ SR 0081 NB STA 1957+85.56 AHD
CONSTR ℄ SR 0081 NB STA 1963+20.60 BK = CONSTR ℄ SR 0081 NB STA 1963+27.20 AHD
CONSTR ℄ SR 0081 NB STA 1964+10.35 = CONSTR ℄ SR 1017 (LAKESIDE DR) STA 20+25.64
CONSTR ℄ SR 0081 NB STA 1975+00.00 BK = CONSTR ℄ SR 0081 NB STA 1975+01.28 AHD
CONSTR ℄ SR 0081 NB STA 2006+00.20 = CONSTR ℄ SR 1012 (HAZEL ST) STA 18+91.06
CONSTR ℄ SR 0081 NB STA 2025+44.66 BK = CONSTR ℄ SR 0081 NB STA 2025+81.78 AHD
CONSTR ℄ SR 0081 NB STA 2059+03.70 BK = CONSTR ℄ SR 0081 NB STA 2059+00.50 AHD
CONSTR ℄ SR 0081 NB STA 2089+50.95 = CONSTR ℄ SR 1016 (LOFTY RD) STA 20+00.00
CONSTR ℄ SR 0081 NB STA 2103+00.00 BK = CONSTR ℄ SR 0081 NB STA 2103+01.48 AHD
CONSTR ℄ SR 0081 NB STA 2140+00.00 BK = CONSTR ℄ SR 0081 NB STA 2140+02.35 AHD
CONSTR ℄ SR 0081 NB STA 2178+22.68 = CONSTR ℄ SR 8017 (RAMP M) STA 169+17.43

CONSTR ℄ SR 0081 SB STA 1962+75.85 = CONSTR ℄ SR 1017 (LAKESIDE DR) STA 19+50.15
CONSTR ℄ SR 0081 SB STA 1974+00.00 BK = CONSTR ℄ SR 0081 SB STA 1974+02.00 AHD
CONSTR ℄ SR 0081 SB STA 2004+21.33 = CONSTR ℄ SR 1012 (HAZEL ST) STA 17+67.21
CONSTR ℄ SR 0081 SB STA 2024+88.71 BK = CONSTR ℄ SR 0081 SB STA 2025+81.78 AHD
CONSTR ℄ SR 0081 SB STA 2058+57.27 BK = CONSTR ℄ SR 0081 SB STA 2058+52.87 AHD
CONSTR ℄ SR 0081 SB STA 2088+54.04 = CONSTR ℄ SR 1016 (LOFTY RD) STA 19+07.08
CONSTR ℄ SR 0081 SB STA 2102+00.00 BK = CONSTR ℄ SR 0081 SB STA 2102+23.33 AHD
CONSTR ℄ SR 0081 SB STA 2126+50.00 BK = CONSTR ℄ SR 0081 SB STA 2126+33.85 AHD
CONSTR ℄ SR 0081 SB STA 2176+97.51 = CONSTR ℄ SR 8017 (RAMP M) STA 170+08.07

CONSTR ℄ SR 8017 (RAMP M) STA 116+64.01 = CONSTR ℄ SR 0309 STA 359+96.73
CONSTR ℄ SR 8017 (RAMP M) STA 124+00.00 BK = CONSTR ℄ SR 8017 (RAMP M) STA 124+01.49 AHD

LIST OF PUBLIC UTILITIES

LEGEND	UTILITY COMPANY	TELEPHONE	MAILING ADDRESS	COMPANY REPRESENTATIVE
—W—	KLINE TOWNSHIP MUNICIPAL AUTHORITY	570-579-8715	76 S. KENNEDY DRIVE P.O. BOX 160 McADOO, PA 18237	STEVEN ST. CLAIR
—CTV—	SERVICE ELECTRIC CABLEVISION	570-453-2586	380 MAPLEWOOD DRIVE HAZLE TOWNSHIP, PA 18202	ROBERT F. TRENTLY
—PU—	SUNOCO PIPELINE L.P.	610-670-3256	525 FRITZTOWN ROAD SINKING SPRING, PA 19608	TRACY HOFFMAN
—TU—	VERIZON PENNSYLVANIA INC.	570-826-4267	222 S. MAIN STREET WILKES BARRE, PA 18706	WILLIAM JIMMERSON
—E— —EU—	PPL ELECTRIC UTILITIES CORP.	610-774-6287	TWO NORTH 9TH ST. ALLENTOWN, PA 18101	CHARLOTTE KRUPA
—S—	DELANO TOWNSHIP	570-366-9534	400 PINE BROOK PLACE SUITE 8 ORWIGSBURG, PA 17961	BILL McMULLEN ARRO ENGINEERING & ENVIRONMENTAL CONSULTANTS
—T—	FRONTIER COMMUNICATIONS	570-788-1777	100 CTE DRIVE DALLAS, PA 18612	JOHN BUGDONOVITCH

PENNSYLVANIA ONE CALL TOLL FREE TELEPHONE NO.: (800) 242-1776
DESIGNER SERIAL NO.: 20113201438, 20113200670, 20113200762, 20113201350, 20113200827, 20113200793, 20113200896, 20113200939, 20113201351, 20113201403, 20113201404

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
JAMES PETER VAN DEN
ENGINEER NO. PE-036298-E

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	7 OF 113
	DELANO & KLINE TOWNSHIPS			

REVISION NUMBER	REVISIONS	DATE	BY

GENERAL NOTES:

THE LEGAL RIGHT-OF-WAY FOR SR 0081 (PREVIOUSLY KNOWN AS LR 1005) FROM STA 1972+77.00 TO STA 2101+00.00 IS VARIABLE, BASED ON THE PLAN OF SR 0081, SECTION 11B R/W, SIGNED BY THE SECRETARY ON MAY 18, 2011, RECORDED IN THE SCHUYLKILL COUNTY RECORDER OF DEEDS OFFICE ON JUNE 9, 2011, INSTRUMENT NO. 20110007253, HIGHWAY MAP BOOK 9, PAGE 45.

THE LEGAL RIGHT-OF-WAY FOR SR 0081 (PREVIOUSLY KNOWN AS LR 1005) FROM STA 1907+60 TO STA 1972+77.00 AND STA 2101+00.00 TO STA. 2103+32.00 IS VARIABLE, BASED ON COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HIGHWAYS DRAWINGS FOR ESTABLISHMENT OF LIMITED ACCESS HIGHWAY AND CONDEMNATION OF RIGHT-OF-WAY OF LR 1005, SEC. 1-5 R/W, SIGNED ON APRIL 24TH, 1964. RECORDED IN THE SCHUYLKILL COUNTY COURTHOUSE, RIGHT-OF-WAY BOOK VOL. 7, PAGE 29, APRIL, 1964.

THE LEGAL RIGHT-OF-WAY FOR SR 0081 (PREVIOUSLY KNOWN AS LR 1005) FROM STA 2103+32 TO STA STA. 2267+65 IS VARIABLE, BASED ON COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HIGHWAYS DRAWINGS FOR ESTABLISHMENT OF LIMITED ACCESS HIGHWAY AND CONDEMNATION OF RIGHT-OF-WAY OF LR 1005, SEC. 2-1 R/W, SIGNED ON JANUARY 17, 1966. RECORDED IN THE SCHUYLKILL COUNTY COURTHOUSE, RIGHT-OF-WAY BOOK VOL. 7, PAGE 49, JANUARY, 1966.

THE LEGAL RIGHT-OF-WAY FOR SR 8017 (PREVIOUSLY KNOWN AS LR 1005) FROM STA 110+88.50 TO STA 184+07.18 IS VARIABLE, BASED ON COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HIGHWAYS DRAWINGS FOR ESTABLISHMENT OF LIMITED ACCESS HIGHWAY AND CONDEMNATION OF RIGHT-OF-WAY OF LR 1005, SEC. 2-1 R/W, SIGNED ON JANUARY 17, 1966. RECORDED IN THE SCHUYLKILL COUNTY COURTHOUSE, RIGHT-OF-WAY BOOK VOL. 7, PAGE 49, JANUARY, 1966.

THE LEGAL RIGHT-OF-WAY FOR SR 1012 (PREVIOUSLY KNOWN AS LR 53041) FROM STA 15+10 TO STA 21+70 IS VARIABLE, BASED ON COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HIGHWAYS DRAWINGS FOR ESTABLISHMENT OF LIMITED ACCESS HIGHWAY AND CONDEMNATION OF RIGHT-OF-WAY OF LR 1005, SEC. 1-5 R/W, SIGNED ON APRIL 24TH, 1964. RECORDED IN THE SCHUYLKILL COUNTY COURTHOUSE, RIGHT-OF-WAY BOOK VOL. 7, PAGE 29, APRIL, 1964.

THE LEGAL RIGHT-OF-WAY FOR SR 1016 (PREVIOUSLY KNOWN AS LR 53045) FROM STA 11+65 TO STA 21+85 IS VARIABLE, BASED ON COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HIGHWAYS DRAWINGS FOR ESTABLISHMENT OF LIMITED ACCESS HIGHWAY AND CONDEMNATION OF RIGHT-OF-WAY OF LR 1005, SEC. 1-5 R/W, SIGNED ON APRIL 24TH, 1964. RECORDED IN THE SCHUYLKILL COUNTY COURTHOUSE, RIGHT-OF-WAY BOOK VOL. 7, PAGE 29, APRIL, 1964.

THE LEGAL RIGHT-OF-WAY FOR T-906, HADDOCK ROAD FROM STA 1+00.00 TO STA 4+92.13 IS 54 FEET, BASED ON COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HIGHWAYS DRAWINGS FOR ESTABLISHMENT OF LIMITED ACCESS HIGHWAY AND CONDEMNATION OF RIGHT-OF-WAY OF LR 1005, SEC. 2-1 R/W, SIGNED ON JANUARY 17, 1966. RECORDED IN THE SCHUYLKILL COUNTY COURTHOUSE, RIGHT-OF-WAY BOOK VOL. 7, PAGE 49, JANUARY, 1966.

THE LEGAL RIGHT-OF-WAY FOR SR 1017 (PREVIOUSLY KNOWN AS LR 53044) FROM STA 13+65.07 TO STA 25+28.07 IS VARIABLE, BASED ON COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HIGHWAYS DRAWINGS FOR ESTABLISHMENT OF LIMITED ACCESS HIGHWAY AND CONDEMNATION OF RIGHT-OF-WAY OF LR 1005, SEC. 1-5 R/W, SIGNED ON APRIL 24TH, 1964. RECORDED IN THE SCHUYLKILL COUNTY COURTHOUSE, RIGHT-OF-WAY BOOK VOL. 7, PAGE 29, APRIL, 1964.

THE LEGAL RIGHT-OF-WAY FOR SR 8015 (RAMP G, RAMP H, RAMP K AND RAMP L) IS VARIABLE, BASED ON COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF HIGHWAYS DRAWINGS FOR ESTABLISHMENT OF LIMITED ACCESS HIGHWAY AND CONDEMNATION OF RIGHT-OF-WAY OF LR 1005, SEC. 1-5 R/W, SIGNED ON APRIL 24TH, 1964. RECORDED IN THE SCHUYLKILL COUNTY COURTHOUSE, RIGHT-OF-WAY BOOK VOL. 7, PAGE 29, APRIL, 1964.

STATE ROUTE 0081 PREVIOUSLY KNOW AS LEGISLATIVE ROUTE 1005.

CONSTRUCT PROJECT IN ACCORDANCE WITH PUBLICATION 408 SPECIFICATIONS, DATED 2011.

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 HORIZONTAL CONTROL IS TIED TO THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SOUTH ZONE), NAD 1983 (CONUS 96), AS ESTABLISHED BY GPS OBSERVATIONS OCTOBER 2009 AND PROCESSED BY NGS-OPUS. THE COMBINED AVERAGE SCALE FACTOR IS 0.99969393.

VERTICAL CONTROL IS BASED ON NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 (GEOID 03), AS ESTABLISHED BY GPS OBSERVATIONS OCTOBER 2009 AND PROCESSED BY NGS-OPUS.

THREE WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE PA ONE CALL SYSTEM, INC., PHONE 1-800-242-1776, SERIAL NO. _____ FOR DELANO TOWNSHIP AND SERIAL NO. _____ FOR KLINE TOWNSHIP.

TEMPORARY CONSTRUCTION EASEMENT. AN EASEMENT TO USE THE LAND AS NECESSARY DURING CONSTRUCTION OF THE PROJECT. THE EASEMENT IS REQUIRED ONLY UNTIL THE CONSTRUCTION OR WORK INDICATED BY THE PLAN IS COMPLETED, UNLESS SOONER RELINQUISHED IN WRITING BY THE DEPARTMENT.

CHANNEL EASEMENT. AN EASEMENT FOR THE CONSTRUCTION, INSPECTION, MAINTENANCE, REPAIR, RECONSTRUCTION AND ALTERATION OF THE COURSE OF THE CHANNEL. 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.

LEGAL AERIAL EASEMENT. THE ESTATE TO BE ACQUIRED IS LIMITED TO AN AERIAL EASEMENT PLUS A SURFACE EASEMENT UNLIMITED IN VERTICAL DIMENSION FOR THE ACCOMIDATION OF PIERS AND OTHER APPURTENANCES BETWEEN THE STATIONS LISTED BELOW:

NB STA 1986+17 TO NB STA 1987+01	SB STA 1984+65 TO SB STA 1985+55
NB STA 2103+32 TO NB STA 2106+00	SB STA 2103+91 TO SB STA 2106+94
NB STA 2178+65 TO NB STA 2179+77	SB STA 2177+39 TO SB STA 2178+54

SR 8017 RAMP M STA 131+68 TO STA 132+43
SR 8017 RAMP S STA 26+15 TO STA 27+40

GENERAL NOTES (CONTINUED):

PER THE LR 1005, SEC. 1-5 AND 2-1 R/W DRAWINGS, THE LEGAL AERIAL EASEMENT IS DEFINED AS FOLLOWS:

WHERE THE ESTATE ACQUIRED IS LIMITED TO AN AERIAL EASEMENT AND A SURFACE EASEMENT UNLIMITED IN VERTICAL DIMENSION FOR THE ACCOMMODATION OF PIERS AND OTHER APPURTENANCES, THE FOLLOWING LIMITATIONS SHALL BE IMPOSED ON THE USE OF THE PROPERTY BENEATH THE AREA AFFECTED BY THE AERIAL EASEMENT:

1. NO USE SHALL BE MADE OF THE PROPERTY WHICH SHALL ENDANGER THE STRUCTURE OF THE HEALTH SAFETY, AND WELFARE OF THE TRAVELING PUBLIC.

2. NO FLAMMABLE, EXPLOSIVE, DANGEROUS OR HAZARDOUS MATERIAL SHALL BE *ALLOWED TO BE PLACED OR STORED BENEATH THE AREA AFFECTED BY THE AERIAL* EASEMENT.

3. NO BUILDINGS OR OTHER FACILITIES SHALL BE CONSTRUCTED, BENEATH THE AREA AFFECTED BY THE AERIAL EASEMENT, WITHOUT THE PROPERTY OWNER OBTAINING PRIOR AUTHORITY OF THE COMMONWEALTH OF PENNSYLVANIA AND THE UNITED STATES BUREAU OF PUBLIC ROADS AND THAT, IF AND WHEN SUCH AUTHORITY IS GRANTED, THE PLANS FOR THE BUILDING AND CONSTRUCTION METHODS SHALL BE SUBJECT TO THE APPROVAL OF THE COMMONWEALTH OF PENNSYLVANIA AND THE *UNITED STATES BUREAU OF PUBLIC ROADS.*

4. ANY SUBSTANTIAL CHANGE IN LAND USE MADE SUBSEQUENT TO THE EXECUTION OF THE EASEMENT WILL BE SUBJECT TO APPROVAL BY THE COMMONWEALTH OF PENNSYLVANIA AND THE UNITED STATES BUREAU OF PUBLIC ROADS.

5. NO INTERFERENCE SHALL BE MADE WITH THE RIGHT, WHICH IS IN THE COMMONWEALTH OF PENNSYLVANIA, TO ENTER UPON THE PROPERTY BENEATH THE AREA AFFECTED BY THE AERIAL EASEMENT, FOR PURPOSES OF INSPECTION, MAINTENANCE, REPAIRS, RECONSTRUCTION OR ALTERATION OF THE STRUCTURE AND OTHER APPURTENANCES.

THE NOTES ON THESE DRAWINGS SHALL NOT BE CONSTRUED AS LIMITING OR INTERFERING IN ANY WAY WITH THE PRESENT AND FUTURE OPERATION, USE, MAINTENANCE, REPAIR, RENEWAL, CHANGE, ADDITION, BETTERMENT OR ALTERATION OF THE RAILROAD AND IT'S SUPPORTING FACILITIES.

THE PROJECT SURVEY IS BASED UPON THE NATIONAL GEODETIC REFERENCE SYSTEM *(FORMERLY USC&GS).*

+85 / 50' THE HALF CIRCLED NUMBER INDICATED A SCALED DIMENSION.

THE FOLLOWING SYMBOL IS USED TO DEPICT SLOPE LIMITS: C — F (CUT | FILL)

ALL CURVE DATA IS BASED ON THE ARC DEFINITION UNLESS OTHERWISE *INDICATED.*

PINE AND LOFTY CREEKS ARE NOT NAVIGABLE STREAMS IN THE PROJECT LIMITS.

SLOPES 3:1 OR FLATTER SHALL BE SEEDED WITH FORMULA D SEED MIXTURE.

SLOPES STEEPER THAN 3:1 SHALL BE SEEDED WITH FORMULA C SEED MIXTURE.

USE FORMULA E SEED MIXTURE FOR ALL TEMPORARY SEEDING.

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

BRIDGE STANDARDS

BC-703M	3 SHEETS	OCT 26, 2010
BC-719M	8 SHEETS	OCT 26, 2010
BC-720M	1 SHEET	OCT 26, 2010
BC-731M	1 SHEET	OCT 26, 2010
BC-732M	4 SHEETS	OCT 26, 2010
BC-734M	3 SHEETS	OCT 26, 2010
BC-735M	1 SHEET	OCT 26, 2010
BC-736M	3 SHEETS	OCT 26, 2010
BC-739M	2 SHEETS	OCT 26, 2010
BC-751M	6 SHEETS	OCT 26, 2010
BC-752M	2 SHEETS	OCT 26, 2010
BC-754M	2 SHEETS	OCT 26, 2010
BC-755M	4 SHEETS	OCT 26, 2010
BC-757M	3 SHEETS	OCT 26, 2010
BC-766M	2 SHEETS	OCT 26, 2010
BC-767M	6 SHEETS	OCT 26, 2010
BC-772M	5 SHEETS	OCT 26, 2010
BC-775M	3 SHEETS	OCT 26, 2010
BC-783M	2 SHEETS	OCT 26, 2010
BC-788M	11 SHEETS	OCT 26, 2010
BC-795M	3 SHEETS	OCT 26, 2010
BC-799M	13 SHEETS	OCT 26, 2010
BD-628M	35 SHEETS	MAR 23, 2011

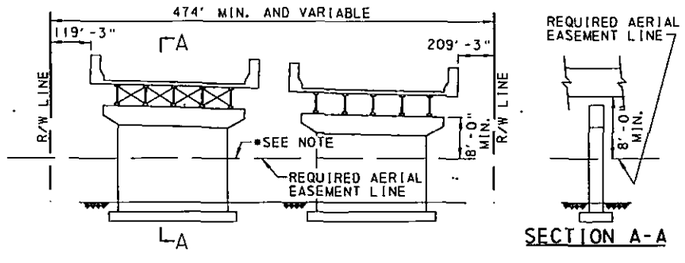
TRAFFIC CONTROL STANDARDS

TC-8600	11 SHEETS	JUN 23, 2009
TC-8602	4 SHEETS	JUN 23, 2009
TC-8604	4 SHEETS	JUN 23, 2009
TC-8700C	18 SHEETS	JUN 23, 2009
TC-8701A	7 SHEETS	JUN 23, 2009
TC-8701D	9 SHEETS	MAR 18, 2008
TC-8701E	2 SHEETS	MAY 25, 2007
TC-8702A	8 SHEETS	MAY 25, 2007
TC-8702B	9 SHEETS	MAY 25, 2007
TC-8702C	2 SHEETS	MAY 25, 2007
TC-8710	1 SHEET	MAY 25, 2007
TC-8716	1 SHEET	JUN 23, 2009
TC-8717	1 SHEET	JUN 23, 2009
TC-8801	10 SHEETS	DEC 12, 2011
TC-8802	1 SHEET	DEC 12, 2011
TC-8804	2 SHEETS	DEC 12, 2011
TC-8805	1 SHEET	DEC 12, 2011
TC-8806	2 SHEETS	DEC 12, 2011

ROADWAY CONSTRUCTION STANDARDS

RC-10M	1 SHEET	JUN 1, 2010
RC-11M	2 SHEETS	JUN 1, 2010
RC-12M	2 SHEETS	JUN 1, 2010
RC-13M	1 SHEET	JUN 1, 2010
RC-20M	3 SHEETS	JUN 1, 2010
RC-21M	1 SHEET	JUN 1, 2010
RC-23M	3 SHEETS	JUN 1, 2010
RC-24M	3 SHEETS	JUN 1, 2010
RC-25M	7 SHEETS	JUN 1, 2010
RC-27M	2 SHEETS	JUN 1, 2010
RC-28M	1 SHEET	JUN 1, 2010
RC-30M	5 SHEETS	JUN 1, 2010
RC-31M	2 SHEETS	JUN 1, 2010
RC-32M	1 SHEET	JUN 1, 2010
RC-33M	2 SHEETS	JUN 1, 2010
RC-39M	6 SHEETS	JUN 1, 2010
RC-40M	1 SHEET	JUN 1, 2010
RC-45M	20 SHEETS	JUN 1, 2010
RC-46M	45 SHEETS	JUN 1, 2010
RC-50M	16 SHEETS	JUN 1, 2010
RC-52M	7 SHEETS	JUN 1, 2010
RC-54M	7 SHEETS	JUN 1, 2010
RC-57M	6 SHEETS	JUN 1, 2010
RC-58M	4 SHEETS	JUN 1, 2010
RC-59M	4 SHEETS	JUN 1, 2010
RC-64M	1 SHEET	JUN 1, 2010
RC-70M	3 SHEETS	JUN 1, 2010
RC-72M	7 SHEETS	JUN 1, 2010
RC-73M	4 SHEETS	JUN 1, 2010
RC-75M	1 SHEET	JUN 1, 2010
RC-77M	1 SHEET	JUN 1, 2010
RC-83M	2 SHEETS	JUN 1, 2010
RC-84M	2 SHEETS	JUN 1, 2010

AERIAL EASEMENT SKETCH PER LR 1005, SEC. 1-5 & 2-1 R/W PLANS



SKETCH SHOWING ESTATE ACQUIRED FOR LEGAL AERIAL EASEMENT. FOR LOCATIONS, SEE STATIONS LISTED ABOVE.

* A PLANE 8' MIN. BELOW THE UNDERSIDE OF THE VIADUCT. THE ESTATE CONDEMNED ABOVE THIS PLANE MAY BE ENCROACHED ON BY MOVING VEHICLES, SUCH AS TRUCKS OR RAILROAD ROLLING STOCK.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES PETER VAN DIEN ENGINEER NO. PE-056238-E

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	8 OF 113

DELANO & KLINE TOWNSHIPS

REVISION NUMBER	REVISIONS	DATE	BY

SUMMARY OF PROJECT COORDINATES

BASED ON STATE PLANE COORDINATES

ROUTE	POINT	STATION	COORDINATES NORTH	COORDINATES EAST	BEARING
SR 0081 NB CONSTR. ℄	POT	1913+79.63	548,395.5210	2,431,806.5890	N 56°33'38" E
	PC	1939+82.67	549,829.9439	2,433,978.7417	N 56°33'38" E
	PI	1948+87.23	550,328.4105	2,434,733.5720	N 23°49'35" E
	PT	1957+42.32	551,155.8821	2,435,098.9876	N 23°49'35" E
	PI	1999+99.90	555,003.8375	2,436,798.2638	N 23°44'31" E
	PC	2006+95.92	555,640.9540	2,437,078.4932	N 23°44'31" E
	PI	2016+38.73	556,503.9708	2,437,458.0826	N 51°26'31" E
	PT	2025+81.78	557,091.6298	2,438,195.3362	N 51°26'31" E
	PC	2039+79.86	557,963.0641	2,439,288.6031	N 51°26'31" E
	PI	2049+62.78	558,575.7224	2,440,057.2197	N 22°29'44" E
	PT	2059+00.50	559,483.8465	2,440,433.2944	N 22°29'44" E
	PC	2090+49.28	562,393.0285	2,441,638.0525	N 22°29'44" E
	PI	2096+66.66	562,963.4312	2,441,874.2691	N 44°30'36" E
	PT	2102+68.81	563,403.7016	2,442,307.0733	N 44°30'36" E
	PC	2117+69.50	564,472.8298	2,443,358.0710	N 44°30'36" E
	PI	2121+68.24	564,757.1805	2,443,637.5995	N 58°47'23" E
	PT	2125+62.84	564,963.7990	2,443,978.6277	N 58°47'23" E
	PC	2140+76.91	565,748.1827	2,445,273.2697	N 58°47'23" E
	PI	2158+31.73	566,656.4588	2,446,772.3988	N 18°28'23" E
	PCC	2174+38.69	568,318.9537	2,447,327.7946	N 18°28'23" E
	PI	2199+19.34	570,671.7865	2,448,113.8141	N 55°20'07" W
	PT	2216+94.15	572,082.7213	2,446,073.4927	

ROUTE	POINT	STATION	COORDINATES NORTH	COORDINATES EAST	BEARING
SR 0081 SB CONSTR. ℄	POT	1958+28.82	551,310.3462	2,435,095.5739	N 23°25'01" E
	PC	2005+76.37	555,665.0460	2,436,981.5481	N 23°25'01" E
	PI	2015+30.69	556,540.7626	2,437,360.8117	N 51°26'31" E
	PT	2024+46.80	557,135.5953	2,438,107.0651	N 51°26'31" E
	PC	2039+31.66	558,003.1065	2,439,195.4103	N 51°26'31" E
	PI	2049+04.45	558,609.4558	2,439,956.1120	N 22°51'59" E
	PT	2058+36.75	559,505.8004	2,440,334.1238	N 22°51'59" E
	PC	2089+93.68	562,418.6930	2,441,562.5663	N 22°51'59" E
	PI	2096+01.92	562,979.1332	2,441,798.9185	N 44°30'03" E
	PT	2101+95.67	563,412.9533	2,442,225.2467	N 44°30'03" E
	PC	2118+55.89	564,580.4451	2,443,372.5762	N 44°30'03" E
	PI	2122+54.89	564,865.0280	2,443,652.2445	N 58°47'23" E
	PT	2126+49.75	565,071.7831	2,443,993.4982	N 58°47'23" E
	PC	2140+79.52	565,821.0309	2,445,230.1477	N 58°47'23" E
	PI	2157+40.44	566,681.6919	2,446,650.6871	N 20°25'23" E
	PCC	2172+76.30	568,238.2138	2,447,230.2634	N 20°25'23" E
	PI	2197+93.87	570,597.5306	2,448,108.7632	N 55°21'33" W
	PT	2215+55.06	572,028.5943	2,446,037.4847	

ROUTE	POINT	STATION	COORDINATES NORTH	COORDINATES EAST	BEARING
SR 1012 (HAZLE ST) CONSTR. ℄	PC	11+67.09	555,336.6687	2,436,351.2553	N 62°25'05" E
	PI	13+41.17	555,417.2713	2,436,505.5524	N 75°42'56" E
	PT	15+13.69	555,460.2238	2,436,674.2516	N 75°42'56" E
	PC	23+90.15	555,676.4801	2,437,523.6136	N 75°42'56" E
	PI	24+29.15	555,686.1024	2,437,561.4058	N 73°25'40" E
	PT	24+68.13	555,697.2256	2,437,598.7839	

ROUTE	POINT	STATION	COORDINATES NORTH	COORDINATES EAST	BEARING
SR 1016 (LOFTY RD) CONSTR. ℄	POB	10+00.00	562,058.9512	2,440,638.2265	N 66°01'57" E
	PC	12+31.55	562,153.0095	2,440,849.8089	N 66°01'57" E
	PI	14+07.17	562,224.3497	2,441,010.2871	N 82°29'12" E
	PT	15+80.37	562,247.3130	2,441,184.4003	N 82°29'12" E
	PC	22+37.60	562,333.2491	2,441,835.9878	N 82°29'12" E
	PI	23+43.72	562,347.1241	2,441,941.1913	N 80°09'31" E
	PT	24+49.80	562,365.2612	2,442,045.7444	

ROUTE	POINT	STATION	COORDINATES NORTH	COORDINATES EAST	BEARING
SR 1017 (LAKESIDE AVE) CONSTR. ℄	PC	13+65.07	551,764.6729	2,434,690.3916	S 81°17'02" E
	PI	19+51.10	551,675.8669	2,435,269.6578	N 81°16'18" E
	PT	25+28.07	551,764.7986	2,435,848.9047	

ROUTE	POINT	STATION	COORDINATES NORTH	COORDINATES EAST	BEARING
SR 8017 (RAMP M) CONSTR. ℄	POB/PC	110+89.50	568,465.6683	2,452,342.5889	N 13°21'21" E
	PI	113+17.45	568,687.4490	2,452,395.2436	N 62°49'16" W
	PT	114+76.17	568,791.5673	2,452,192.4664	N 62°49'16" W
	PC	136+96.18	569,804.9148	2,450,218.9067	N 62°49'16" W
	PI	147+03.97	570,265.2439	2,449,322.3859	S 47°01'06" W
	PT	154+53.38	569,578.1640	2,448,585.1114	S 47°01'06" W
	PC	159+16.37	569,262.5140	2,448,246.4017	S 47°01'06" W
	PI	161+92.09	569,074.5385	2,448,044.6937	S 58°00'45" W
	PT	164+66.11	568,928.4813	2,447,810.8386	S 58°00'45" W
	PC	172+33.79	568,521.8171	2,447,159.7205	

ROUTE	POINT	STATION	COORDINATES NORTH	COORDINATES EAST	BEARING
SR 8017 (RAMP S) CONSTR. ℄	POT	10+10.35	569,989.2809	2,449,548.3122	S 89°24'24" W
	PC	13+16.00	569,986.1151	2,449,242.6760	S 89°24'24" W
	PI	16+09.04	569,983.0801	2,448,949.6575	S 71°57'45" W
	PT	18+97.54	569,892.3454	2,448,671.0246	S 71°57'45" W
	PC	22+46.16	569,784.3985	2,448,339.5360	S 71°57'45" W
	PI	29+58.07	569,563.9625	2,447,662.6096	N 18°49'25" W
	PT	33+69.98	570,237.8005	2,447,432.9062	N 18°49'25" W
	PC	34+78.01	570,340.0574	2,447,398.0480	N 18°49'25" W
	PI	40+22.31	570,855.2442	2,447,222.4269	N 34°49'38" W
	PT	45+59.52	571,302.0456	2,446,911.5754	

ROUTE	POINT	STATION	COORDINATES NORTH	COORDINATES EAST	BEARING
SR 0309 CONSTR. ℄	POB	343+00.00	567,284.3657	2,451,441.2781	N 19°52'40" E
	PC	353+13.96	568,237.9172	2,451,786.0418	N 19°52'40" E
	PI	353+85.67	568,305.3528	2,451,810.4237	N 20°35'42" E
	PT	354+57.38	568,372.4780	2,451,835.6476	N 20°35'42" E
	POE	382+00.00	570,939.8213	2,452,800.3880	

ROUTE	POINT	STATION	COORDINATES NORTH	COORDINATES EAST	BEARING
LOFTY CULVERT TEMPORARY ACCESS ROAD CONSTR. ℄	POB	0+00.00	562,474.3991	2,441,586.6877	N 66°02'31" W
	PC	0+60.20	562,498.8456	2,441,531.6714	N 66°02'31" W
	PI	0+71.22	562,503.3171	2,441,521.6083	S 79°01'43" W
	PT	0+81.54	562,501.2213	2,441,510.7978	S 79°01'43" W
	PC	1+25.14	562,492.9226	2,441,467.9907	S 79°01'43" W
	PI	1+42.16	562,489.6840	2,441,451.2855	N 54°52'52" W
	PT	1+57.32	562,499.4730	2,441,437.3669	N 54°52'52" W
	PC	1+85.71	562,515.8047	2,441,414.1456	N 54°52'52" W
	PI	2+04.40	562,526.5563	2,441,398.8583	N 4°47'37" W
	PT	2+20.68	562,545.1805	2,441,397.2965	N 4°47'37" W
	PC	2+66.77	562,591.1125	2,441,393.4447	N 4°47'37" W
	PI	3+01.60	562,625.8166	2,441,390.5345	N 77°17'43" E
	PRC	3+24.08	562,633.4758	2,441,424.5082	N 77°17'43" E
	PI	3+46.56	562,638.4200	2,4414,46.4386	N 43°09'32" E
	PT	3+67.70	562,654.8188	2,441,461.8161	N 43°09'32" E
	PC	4+38.68	562,706.5926	2,441,510.3652	N 43°09'32" E
	PI	4+80.63	562,737.1902	2,441,539.0572	N 4°37'30" E
	PT	5+19.39	562,778.9994	2,441,542.4395	N 4°37'30" E
	PC	5+96.77	562,856.1330	2,441,548.6795	N 4°37'30" E
	PI	6+25.81	562,885.0789	2,441,551.0212	N 31°50'01" E
	PT	6+53.76	562,909.7512	2,441,566.3387	N 31°50'01" E
	PC	8+72.59	563,095.6687	2,441,681.7632	N 31°50'01" E
	PI	9+01.41	563,120.1543	2,441,696.9648	N 44°14'51" E
	PT	9+30.01	563,140.7995	2,441,717.0746	N 44°14'51" E
	PC	10+38.05	563,218.1969	2,441,792.4651	N 44°14'51" E
	PI	10+64.26	563,236.9733	2,441,810.7546	N 35°40'54" E
	PT	10+90.38	563,258.2644	2,441,826.0434	N 35°40'54" E
	PC	12+19.09	563,362.8093	2,441,901.1155	N 35°40'54" E
	PI	12+44.40	563,383.3732	2,441,915.8822	N 56°10'55" E
	PT	12+69.16	563,397.4634	2,441,936.9154	N 56°10'55" E
	POE	13+15.90	563,423.4658	2,441,975.7308	

ROUTE	POINT	STATION	COORDINATES NORTH	COORDINATES EAST	BEARING
HADDOCK ROAD CONSTR. ℄	POB	1+00.00	569,338.2948	2,450,753.2129	N 3°57'46" W
	PI	2+79.97	562,153.0095	2,450,740.7740	N 4°41'11" W
	POE	4+92.13	569,729.2824	2,450,723.4420	

NOTE: FOUR (4) PLACE COORDINATES ARE FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO (2) PLACES.

SUMMARY OF SITE TRAVERSE POINTS

BASED ON STATE PLANE COORDINATES

POINT NUMBER	COORDINATES NORTH	COORDINATES EAST	DESCRIPTION	STATION/OFFSET
4	550,323.4680	2,434,531.4580	REBAR W/CAP	SR 0081 NB STA. 1947+27.44, 18.17' LT.
3	551,785.9300	2,435,426.2900	REBAR W/CAP	SR 0081 NB STA. 1965+00.73, 44.89' RT.
3a	551,701.7200	2,435,430.5300	SPIKE	SR 0081 NB STA. 1964+25.41, 82.78' RT.
3c	551,737.2900	2,435,186.8500	SPIKE	SR 0081 SB STA. 1962+56.87, 85.92' LT
3b	5,516,96.3900	2,435,298.5000	SPIKE	SR 0081 NB STA. 1963+67.20, 35.84' LT.
131	553,560.8800	2,436,140.6800	PADOT	SR 0081 NB STA. 1984+14.28, 18.64' LT.
1-OPUS	553,328.9990	2,436,001.0580	REBAR W/CAP	SR 0081 SB STA. 1980+43.03, 28.66' RT.
2-OPUS	552,715.0250	2,435,759.8190	REBAR W/CAP	SR 0081 NB STA. 1974+85.38, 25.33' LT.
109	553,583.4230	2,436,211.4060	SPIKE	SR 0081 NB STA. 1984+63.47, 36.96' RT.
110	553,853.3390	2,436,331.4530	SPIKE	SR 0081 NB STA. 1987+58.88, 37.74' RT.
106	555,652.9310	2,437,127.9910	REBAR W/CAP	SR 0081 NB STA. 2007+27.14,40.36' RT.
107	555,456.6570	2,437,042.2920	REBAR W/CAP	SR 0081 NB STA. 2005+12.64, 41.06' RT.
108	555,413.2780	2,436,832.3240	REBAR W/CAP	SR 0081 SB STA 2002+86.04, 36.88' LT.
102	562,351.6070	2,441,561.6560	REBAR W/CAP	SR 0081 SB STA. 2089+31.51, 25.23' RT.
103	562,245.2410	2,441,525.4840	SPIKE	SR 0081 SB STA. 2088+19.45, 33.23' RT.
104	562,395.6460	2,441,625.5410	REBAR W/CAP	SR 0081 NB STA. 2090+46.91, 12.56' LT.
100	563,500.7880	2,442,351.4660	REBAR W/CAP	SR 0081 SB STA. 2103+70.12, 28.46' RT
101	563,110.9050	2,441,999.6110	REBAR W/CAP	SR 0081 SB STA 2098+17.81, 28.58' RT.
56	568,629.7050	2,447,288.4100	MAG NAIL	SR 0081 SB STA. 2176+71.58, 58.44' LT. (ON RAMP M)
57	568,697.3330	2,447,400.0840	MAG NAIL	SR 0081 NB STA. 2178+24.73,28.99' LT. (ON RAMP M)
58	568,768.6160	2,447,513.2790	MAG NAIL	SR 0081 NB STA. 2179+15.74, 68.55' LT. (ON RAMP M)
59	569,715.7480	2,447,908.9310	SPIKE	SR 8017 RAMP S STA. 26+66.64, 61.08' LT.
102B	568,874.8460	2,447,411.9260	REBAR W/CAP	SR 0081 SB STA. 2179+37.70, 15.80' RT.
112	569,732.6880	2,447,890.2010	SPIKE	SR 8017 RAMP S STA. 26+87.73, 50.03' LT.
113	569,746.9420	2,447,868.9960	SPIKE	SR 8017 RAMP S STA. 27+10.80, 42.99' LT.
1M	569,505.7450	2,450,629.4480	REBAR W/CAP	SR 8017 RAMP M STA. 131+94.31, 78.61' LT.
2M	569,440.4920	2,450,732.5250	REBAR W/CAP	SR 8017 RAMP M STA. 130+72.81, 89.58' LT.
3M	569,618.2390	2,450,517.8510	MAG NAIL	SR 8017 RAMP M STA. 133+44.97,29.52' LT.
6M	569,654.7340	2,450,665.9030	SPIKE	SR 8017 RAMP M STA. 132+29.94, 70.58' RT.
5M	568,952.6170	2,452,101.4190	MAG NAIL	SR 0309 STA. 360+93.93,44.72' RT.
7M	568,914.3330	2,451905.2980	MAG NAIL	SR 8017 RAMP M STA. 117+87.71, 21.96' LT.
8M	568,923.2690	2,451,859.5090	PADOT	SR 8017 RAMP M STA. 118+32.52,34.92' LT.

NOTE: FOUR (4) PLACE COORDINATES ARE FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO (2) PLACES.

REGISTERED PROFESSIONAL JAMES PETER VAN DIEN ENGINEER

USER:	dyoung	PLOT DATE:	5/10/2012 1:45:49 PM
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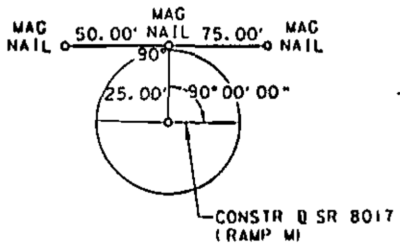
REVISION NUMBER	REVISIONS	DATE	BY



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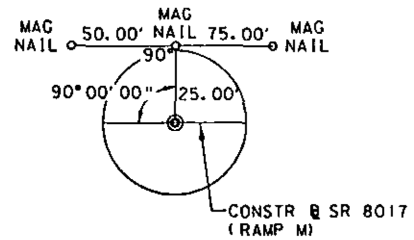

SR 8017 - RAMP M
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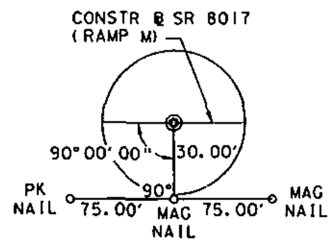
N - 568,939.4826
E - 2,451,904.3919



SR 8017 - RAMP M
POT STA 128+00.00
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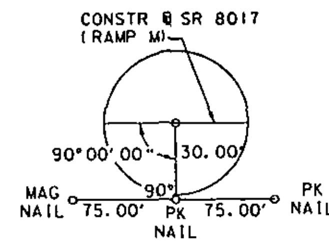
E - 2,451,016.1316



SR 8017 - RAMP M
PC STA 136+96.18
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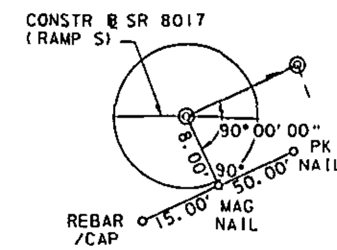
E - 2,450,218.9027



SR 8017 - RAMP S
POC STA 25+00.00
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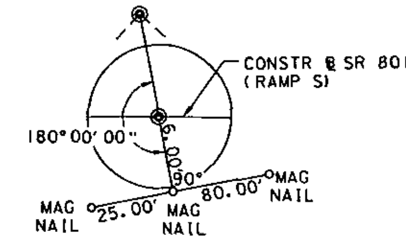
E - 2,448,089.4355



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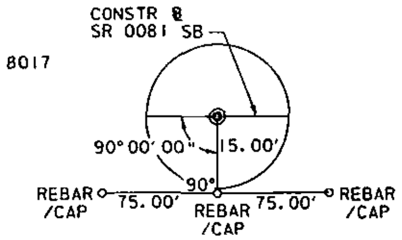
E - 2,447,756.2906



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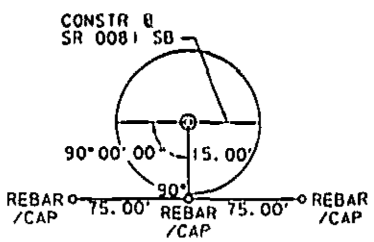

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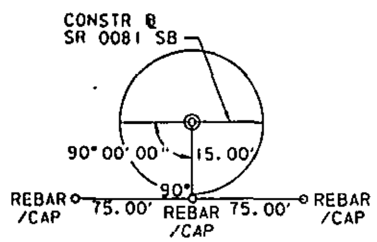

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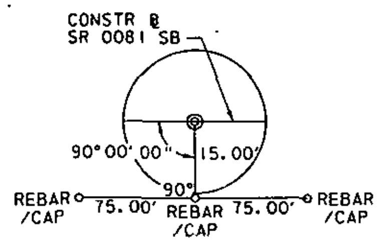

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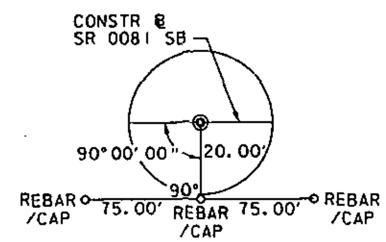

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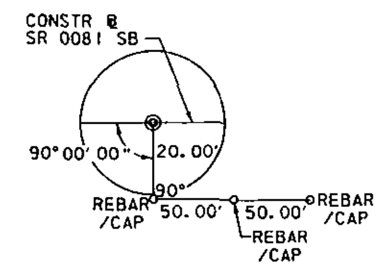
E - 2,442,246.9758



SR 0081 SB
POT STA 2108+00.00
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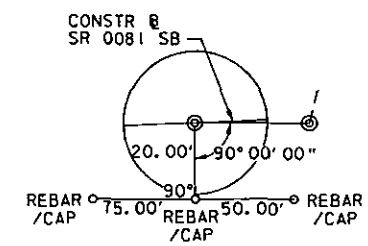
E - 2,442,632.4825



SR 0081 SB
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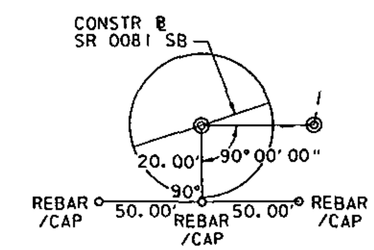
E - 2,447,271.2014



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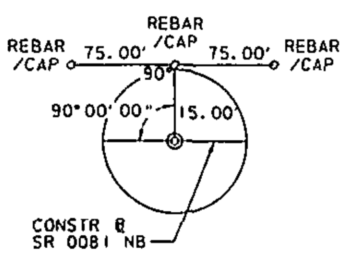
E - 2,447,416.8518



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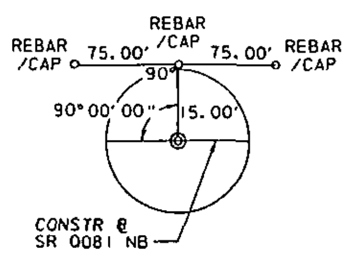

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POT STA 1967+50.00
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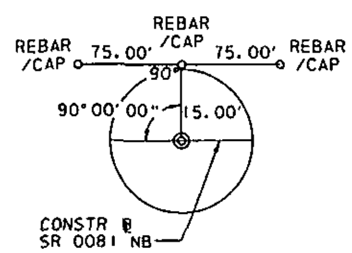
E - 2,435,485.9250



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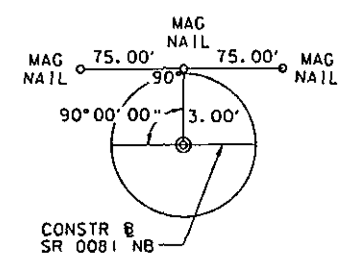

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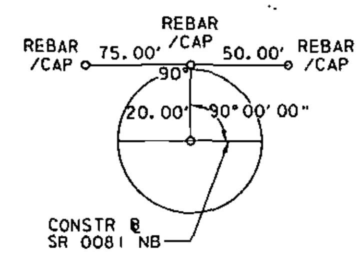
E - 2,436,394.3366



SR 0081 NB
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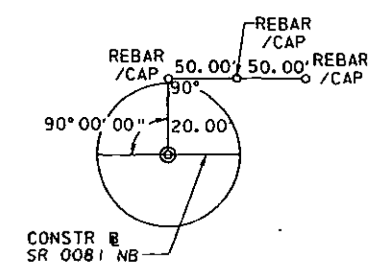

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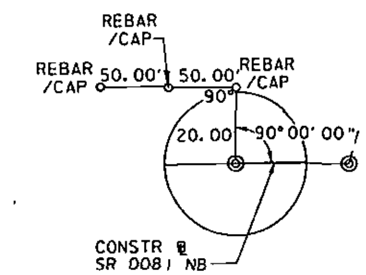

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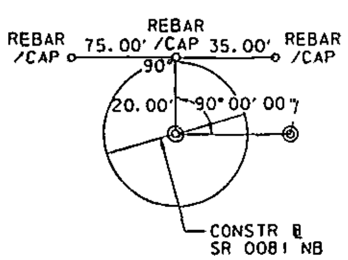


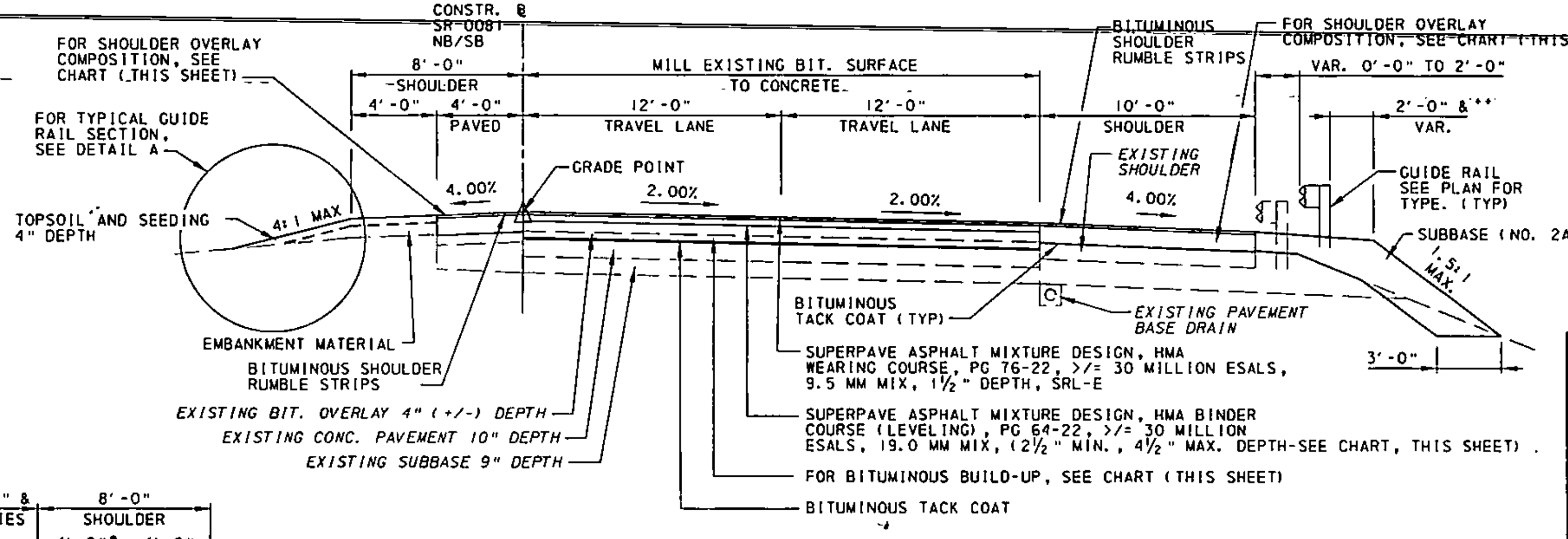
SR 0081 NB
POC STA 2182+00.00
N - 569,062.3379
E - 2,447,484.0556

REFERENCE CIRCLES

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
JAMES PETER VAN DIEN
PE-056298-E

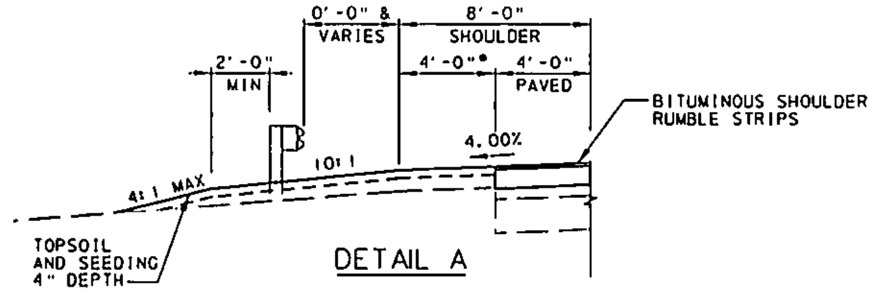
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	10 OF 113
DELANO & KLINE TOWNSHIPS				

REVISION NUMBER	REVISIONS	DATE	BY



NOTES:

1. NB SR 0081 TYPICAL SECTION SHOWN. SB SECTION MIRRORED ABOUT CONSTRUCTION BASELINE.
2. USE LONGER POST IF OFFSET IS LESS THAN 2'-0", PER STANDARD DRAWING RC-52M.
3. FOR SEEDING AND SOIL SUPPLEMENT TYPES SEE EROSION AND SEDIMENT POLLUTION CONTROL PLAN.



DETAIL A

- TAPERS AT BRIDGES WHERE SHOWN

SR 0081 - TYPICAL OVERLAY SECTION

◐ NB STA 1961+00.00 TO STA 1962+95.00
◐ NB STA 1965+40.00 TO STA 1967+00.00
◐ NB STA 1980+00.00 TO STA 1984+90.00
◐ NB STA 1988+15.00 TO STA 1993+00.00
▲ NB STA 2106+30.00 TO STA 2112+00.00
◐ SB STA 1960+00.00 TO STA 1961+50.00
◐ SB STA 1963+85.00 TO STA 1965+50.00
◐ SB STA 1981+00.00 TO STA 1983+00.00
◐ SB STA 1986+85.00 TO STA 1989+00.00
▲ SB STA 2107+25.00 TO STA 2113+00.00
NOT TO SCALE

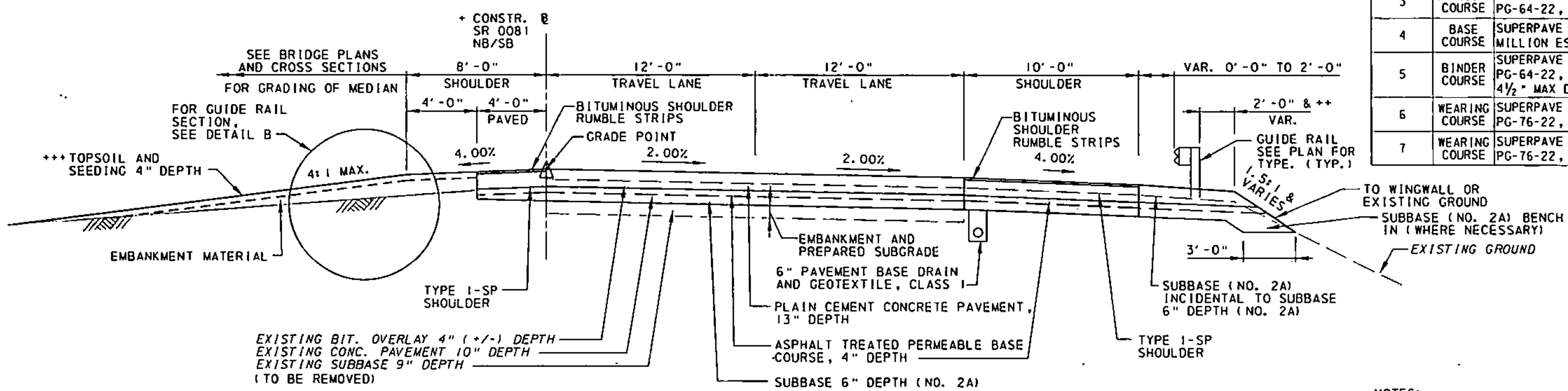
ROADWAY PAVEMENT BUILD UP CHART							
FINISHED HEIGHT ABOVE UNDERLYING CONCRETE SURFACE		ROADWAY PAVEMENT OVERLAY/ BUILD UP COMPOSITION					
		1	-	2	4	5	6
FROM	TO	MILLING DEPTH	BIT TACK COAT	SCRATCH COURSE	BASE COURSE	BINDER COURSE	WEARING COURSE
4.5"	7.0"	TO CONCRETE SURFACE	YES	0.5" to 1.0"	0"	2.5" to 4.5"	1.5"
7.0"	19.0"	TO CONCRETE SURFACE	YES	0"	3" to 15"	2.5"	1.5"

HEIGHT ABOVE EXISTING SHOULDER SURFACE		SHOULDER OVERLAY COMPOSITION					
		1	-	2	3	4	7
FROM	TO	MILLING DEPTH	BIT TACK COAT	SCRATCH COURSE	LEVELING COURSE	BASE COURSE	WEARING COURSE
0.0"	1.5"	2" to 0.5"	YES	0.5"	0"	0"	1.5"
1.5"	3.0"	0"	YES	0" to 1.5"	0"	0"	1.5"
3.0"	4.5"	0"	YES	0" to 1.5"	1.5"	0"	1.5"
4.5"	15.0"	0"	YES	0"	0"	3" to 13.5"	1.5"

SYMBOL	TYPE	PAVEMENT LAYER DESCRIPTION
1	MILLING	MILLING OF BITUMINOUS PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED AS INDICATED - SEE BELOW
2	SCRATCH COURSE	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA WEARING COURSE (SCRATCH), PG-64-22, >/= 30 MILLION ESALS, 9.5 MM MIX, SRL-L
3	LEVELING COURSE	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA WEARING COURSE (LEVELING), PG-64-22, >/= 30 MILLION ESALS, 9.5 MM MIX, SRL-L
4	BASE COURSE	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BASE COURSE, PG-64-22, >/= 30 MILLION ESALS, 25.0 MM MIX (3" LIFTS MIN, 6" LIFTS MAX)
5	BINDER COURSE	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA BINDER COURSE (LEVELING), PG-64-22, >/= 30 MILLION ESALS, 19.0 MM MIX, (2½" MIN DEPTH, 4½" MAX DEPTH)
6	WEARING COURSE	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA WEARING COURSE, PG-76-22, >/= 30 MILLION ESALS, 9.5 MM MIX, 1½" DEPTH, SRL-E
7	WEARING COURSE	SUPERPAVE ASPHALT MIXTURE DESIGN, HMA WEARING COURSE, PG-76-22, >/= 30 MILLION ESALS, 9.5 MM MIX, 1½" DEPTH, SRL-L

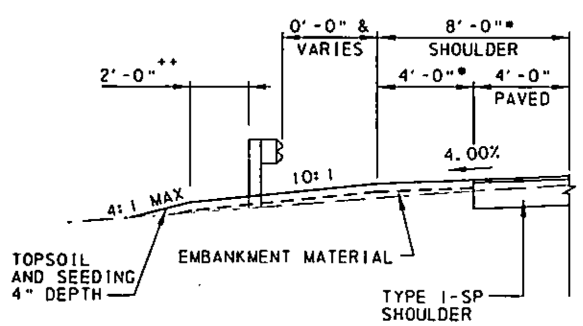
▲ MILLING OF BITUMINOUS PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR

◐ MILLING OF BITUMINOUS PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED BY DEPARTMENT (DELIVERED TO STOCKPILE)



NOTES:

1. NB SR 0081 TYPICAL SECTION SHOWN. SB SECTION MIRRORED ABOUT CONSTRUCTION BASELINE.
2. USE LONGER POST IF OFFSET IS LESS THAN 2'-0", PER STANDARD DRAWING RC-52M.
3. FOR SEEDING AND SOIL SUPPLEMENT TYPES SEE EROSION AND SEDIMENT POLLUTION CONTROL PLAN.



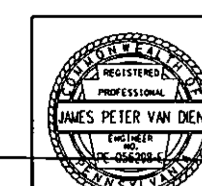
- TAPERS AT BRIDGES WHERE SHOWN

DETAIL B

SR 0081 - TYPICAL FULL DEPTH RECONSTRUCTION SECTION

NB STA 1962+95.00 TO STA 1963+09.05
NB STA 1965+06.58 TO STA 1965+40.00
NB STA 1984+90.00 TO STA 1985+06.90
NB STA 1987+94.60 TO STA 1988+15.00
NB STA 2105+39.37 TO STA 2106+30.00
SB STA 1961+50.00 TO STA 1961+80.42
SB STA 1963+72.32 TO STA 1963+85.00
SB STA 1983+00.00 TO STA 1983+38.27
SB STA 1986+65.73 TO STA 1986+85.00
SB STA 2106+19.66 TO STA 2107+25.00
NOT TO SCALE

TABULATION OF EXTRA LENGTH GUIDE RAIL POST					
LOCATION	SIDE	BEGIN STATION	END STATION	LENGTH	NUMBER OF POST
SR 81 - NB	RIGHT	1980+00	1985+00	500.00	80
SR 81 - SB	LEFT	1986+12	1987+75	163.00	27
SR 81 - SB	LEFT	2097+50	2098+00	50.00	8
SR 81 - SB	LEFT	2179+65	2181+00	135.00	22



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FILE: Delano1-RD-TYP01.dgn | MODEL: typ1

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	11 OF 113
DELANO & KLINE TOWNSHIPS				

REVISION NUMBER	REVISIONS	DATE	BY

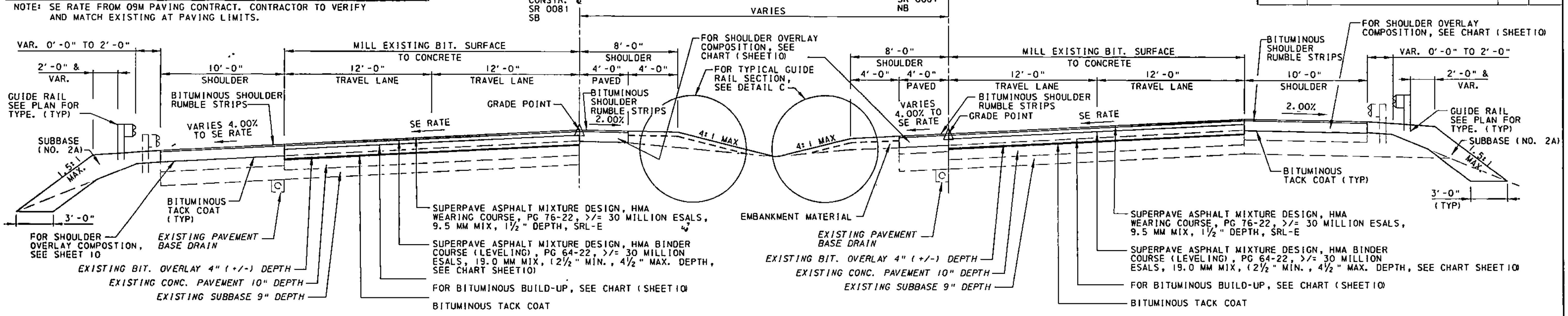
SR 0081 SB SE RATES

STA. TO STA.	SE RATE	CURVE DIRECTION
2097+00.00 TO 2101+00.00	5.50%	RIGHT
2101+00.00 TO 2104+40.00	TRANSITION TO TANGENT SECTION	RIGHT
2174+00.00 TO 2175+56.47	5.90%	LEFT
2179+32.75 TO 2181+00.00	5.90%	LEFT

NOTE: SE RATE FROM 09M PAVING CONTRACT. CONTRACTOR TO VERIFY AND MATCH EXISTING AT PAVING LIMITS.

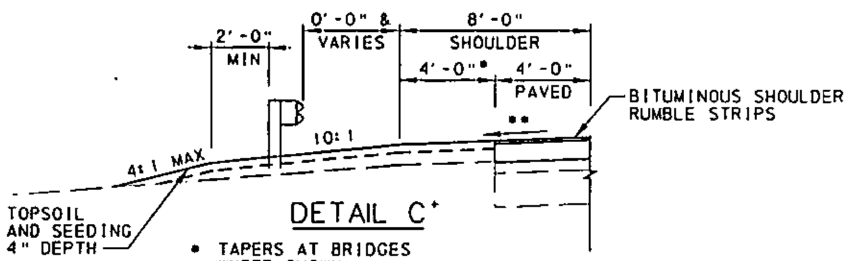
▲ MILLING OF BITUMINOUS PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR

◐ MILLING OF BITUMINOUS PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED BY DEPARTMENT (DELIVERED TO STOCKPILE)



SR 0081 - TYPICAL SUPERELEVATED OVERLAY SECTION

▲ NB STA 2097+00.00 TO STA 2102+80.00
◐ NB STA 2175+00.00 TO STA 2176+50.00
◐ NB STA 2180+85.00 TO STA 2182+00.00
▲ SB STA 2097+50.00 TO STA 2103+60.00
◐ SB STA 2174+00.00 TO STA 2174+80.00
◐ SB STA 2179+45.00 TO STA 2181+00.00
NOT TO SCALE



DETAIL C*

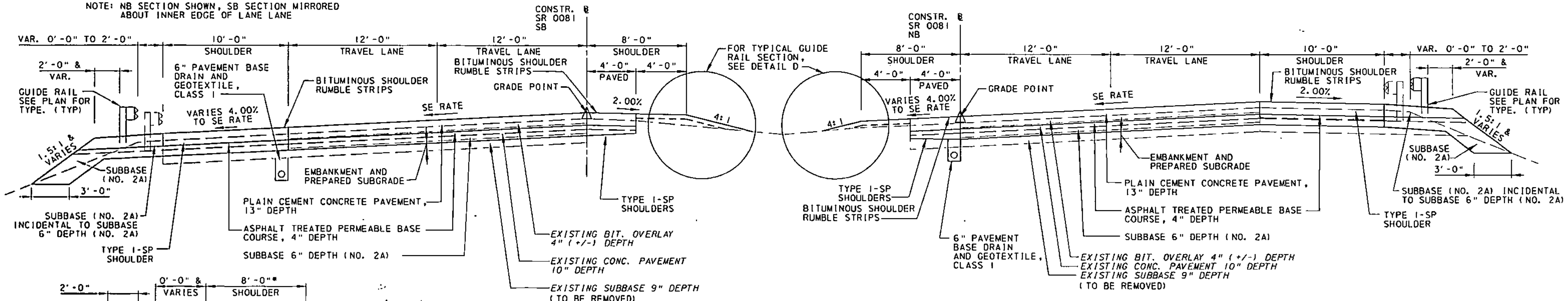
- * TAPERS AT BRIDGES WHERE SHOWN
- ** NB VARIES 4% TO SE RATE SB 2%

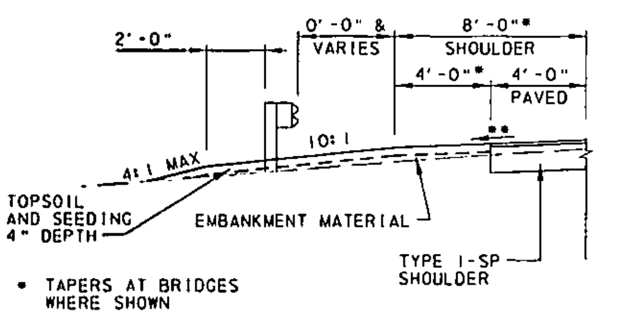
NOTE: NB SECTION SHOWN, SB SECTION MIRRORED ABOUT INNER EDGE OF LANE LANE

SR 0081 NB SE RATES

STA. TO STA.	SE RATE	CURVE DIRECTION
2097+00.00 TO 2102+28.50	5.90%	RIGHT
2102+28.50 TO 2103+50.00	TRANSITION TO TANGENT SECTION	RIGHT
2175+00.00 TO 2176+77.42	5.80%	LEFT
2180+54.62 TO 2182+00.00	5.80%	LEFT

NOTE: SE RATE FROM 09M PAVING CONTRACT. CONTRACTOR TO VERIFY AND MATCH EXISTING AT PAVING LIMITS.





DETAIL D*

- * TAPERS AT BRIDGES WHERE SHOWN
- ** NB VARIES 4% TO SE RATE SB 2%

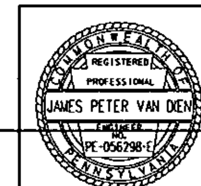
NOTE: NB SECTION SHOWN, SB SECTION MIRRORED ABOUT INNER EDGE OF LANE LANE

SR 0081 - TYPICAL FULL DEPTH RECONSTRUCTION SECTION

NB STA 2102+80.00 TO STA 2103+74.32
NB STA 2176+50.00 TO STA 2176+77.42
NB STA 2180+54.62 TO STA 2180+85.00
SB STA 2103+60.00 TO STA 2104+38.07
SB STA 2174+80.00 TO STA 2175+56.47
SB STA 2179+32.75 TO STA 2179+45.00
NOT TO SCALE

NOTES:

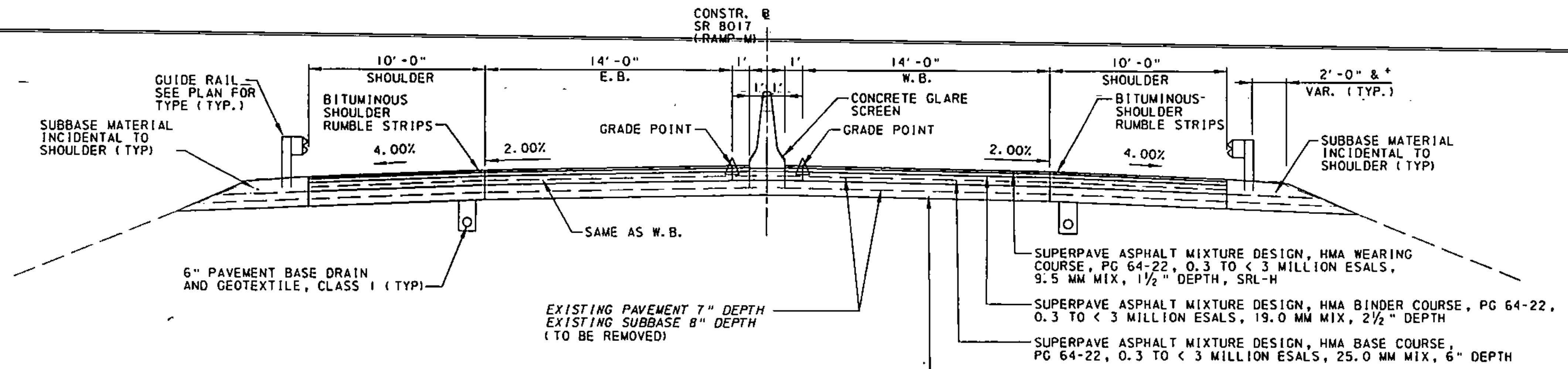
1. USE LONGER POST IF OFFSET IS LESS THAN 2'-0", PER STANDARD DRAWING RC-52M.
2. FOR SEEDING AND SOIL SUPPLEMENT TYPES SEE EROSION AND SEDIMENT POLLUTION CONTROL PLAN.



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	12 OF 113

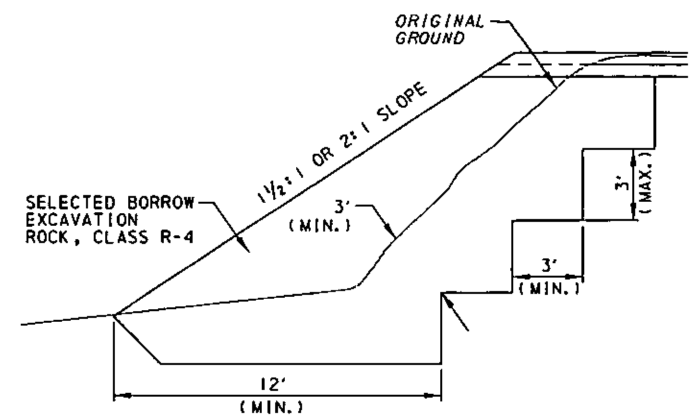
DELANO & KLINE TOWNSHIPS

REVISION NUMBER	REVISIONS	DATE	BY



SR 8017 - TYPICAL SECTION

STA 115+25.00 TO STA 115+59.75
STA 117+58.75 TO STA 117+80.00
NOT TO SCALE

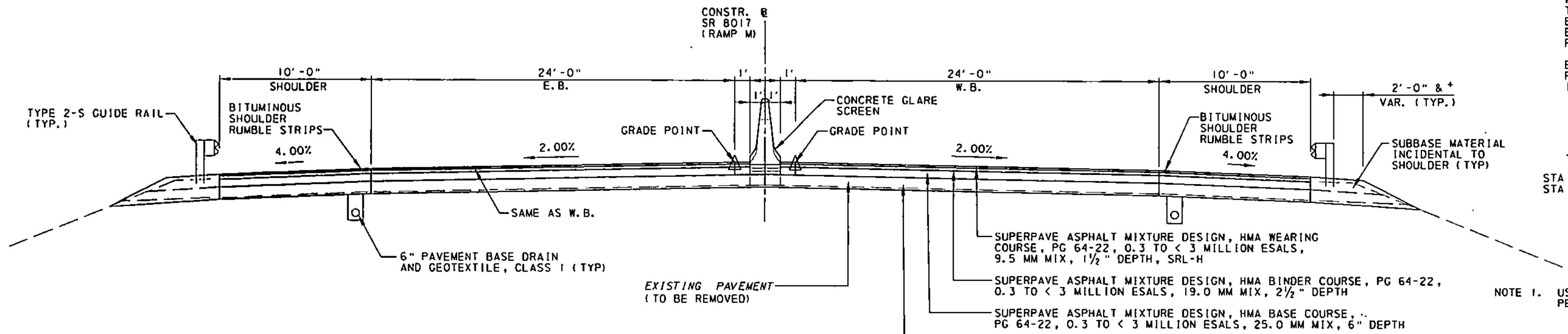


WHERE THE EMBANKMENT WIDTH IS LESS THAN 8 FEET, THE EMBANKMENT SHALL BE BENCHED INTO THE EXISTING GROUND A MINIMUM OF 3 FEET. WIDTH OF BENCHING MAY BE ADJUSTED BY THE ENGINEER, FOR ROCK AREAS.

BENCHING IS PAID AS CLASS I EXCAVATION, AND REPLACED AS EMBANKMENT, UNLESS OTHERWISE INDICATED.

METHOD OF BENCHING FOR NARROW EMBANKMENTS (<8'-0")

STA 129+35.00 TO STA 129+96.00 SR 8017 (RAMP M)
STA 133+14.00 TO STA 134+25.00 SR 8017 (RAMP M)
NOT TO SCALE



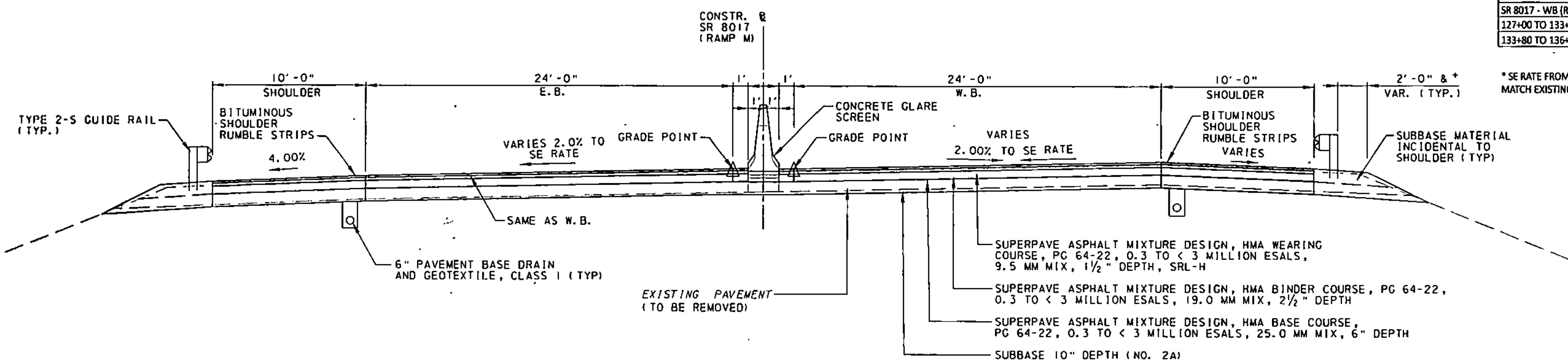
SR 8017 - TYPICAL SECTION

STA 127+00.00 TO STA 129+79.17
STA 133+31.17 TO STA 133+80.00
NOT TO SCALE

NOTE 1. USE LONGER POST IF OFFSET IS LESS THAN 2'-0", PER STANDARD DRAWING RC-52M

SR 8017 (RAMP M) SE RATES		
SR 8017 - EB (LEFT)		
STA. to STA.	SE RATE*	CURVE DIRECTION
127+00 TO 135+40	(+) 2.00% (TANGENT SECTION)	
135+40 TO 136+50 (POC)	TRANSITION TO S.E. SECTION (+4.75%)	LEFT
SR 8017 - WB (RIGHT)		
127+00 TO 133+80	(-) 2.00% (TANGENT SECTION)	
133+80 TO 136+50 (POC)	TRANSITION TO S.E. SECTION (+4.75%)	LEFT

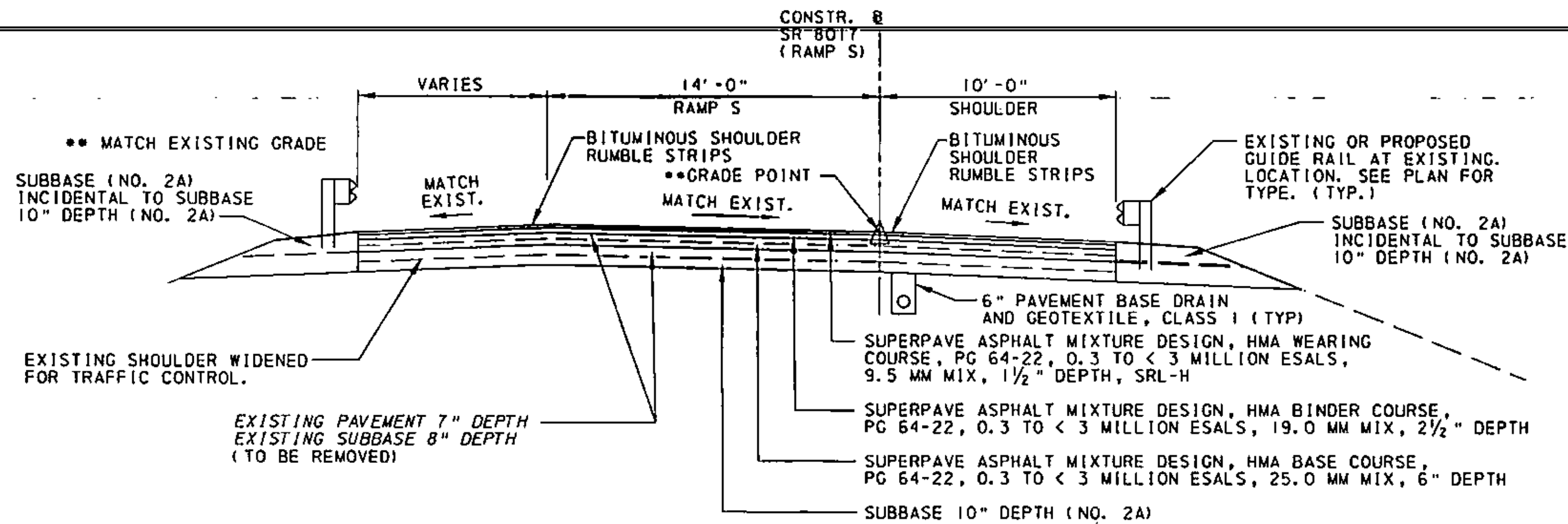
* SE RATE FROM 09M PAVING CONTRACT. CONTRACTOR TO VERIFY AND MATCH EXISTING AT PAVING LIMITS.



SR 8017 - TYPICAL SUPERELEVATION TRANSITION SECTION

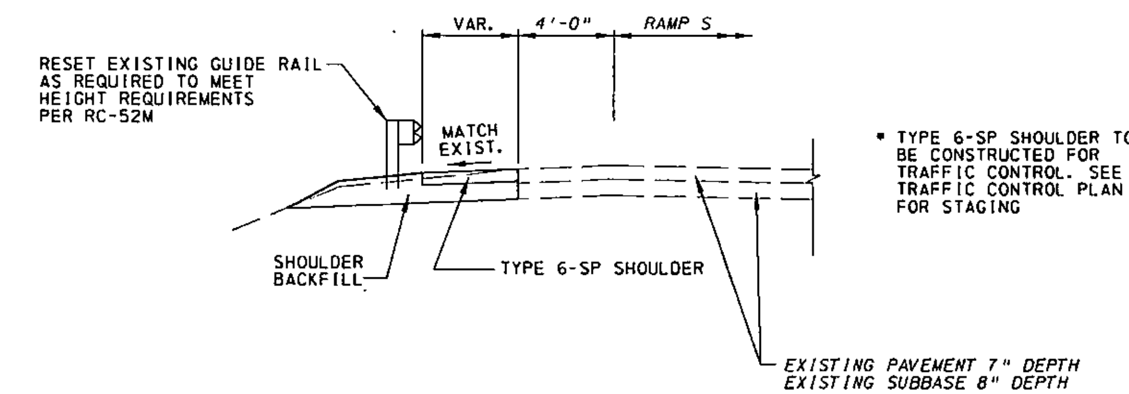
STA 133+80.00 TO STA 136+50.00
NOT TO SCALE

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES PETER VAN DIEN ENGINEER PE-056298-E



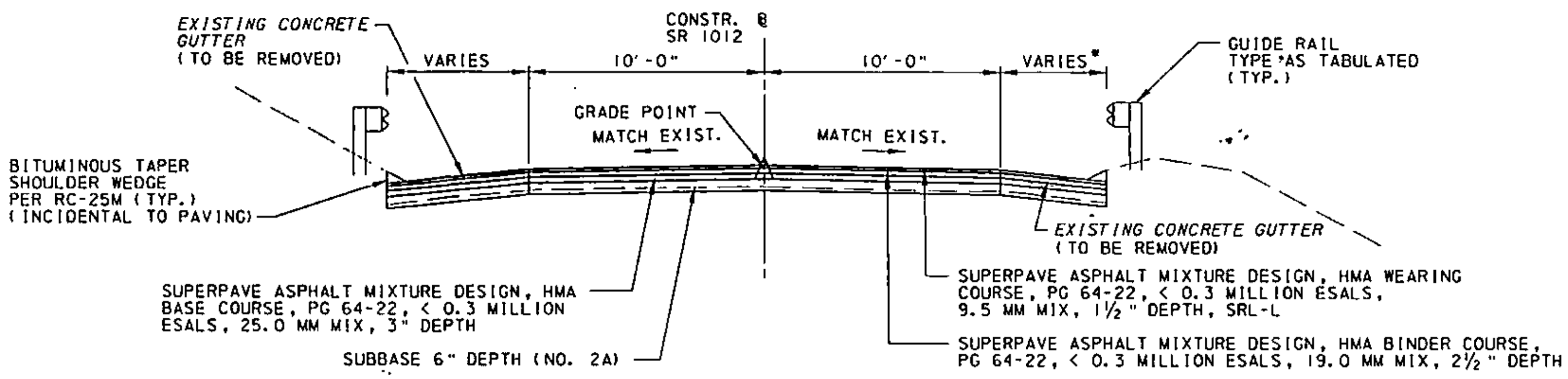
SR 8017 RAMP S - TYPICAL SECTION

STA 25+50.00 TO STA 25+90.15
STA 27+73.68 TO STA 28+00.00
NOT TO SCALE



SR 8017 RAMP S - SHOULDER WIDENING*

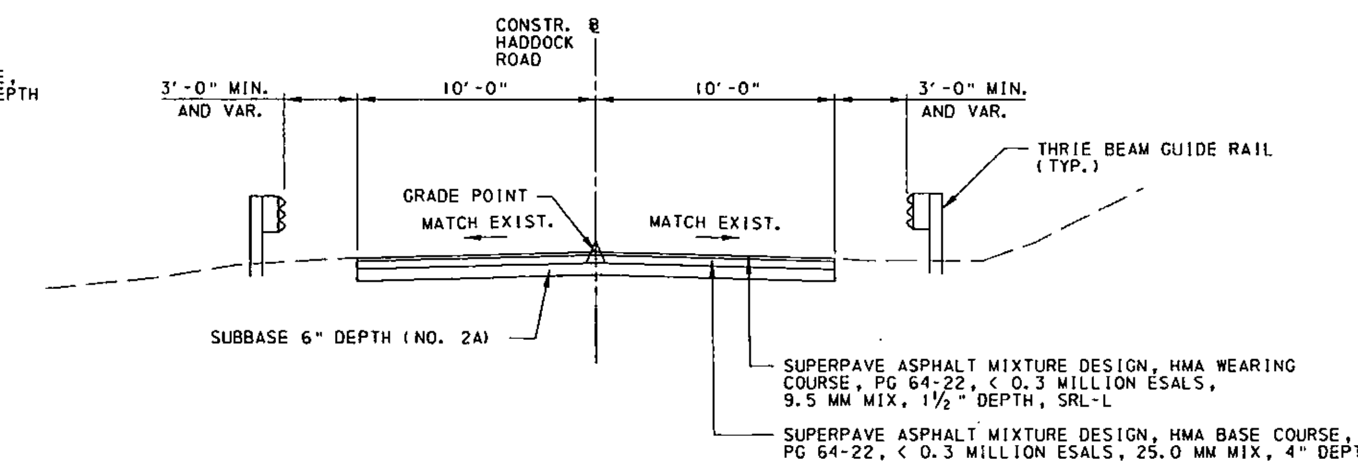
STA 24+00.00 TO STA 25+90.15 LEFT
STA 27+73.68 TO STA 29+50.00 LEFT
NOT TO SCALE



SR 1012 HAZLE STREET - TYPICAL SECTION

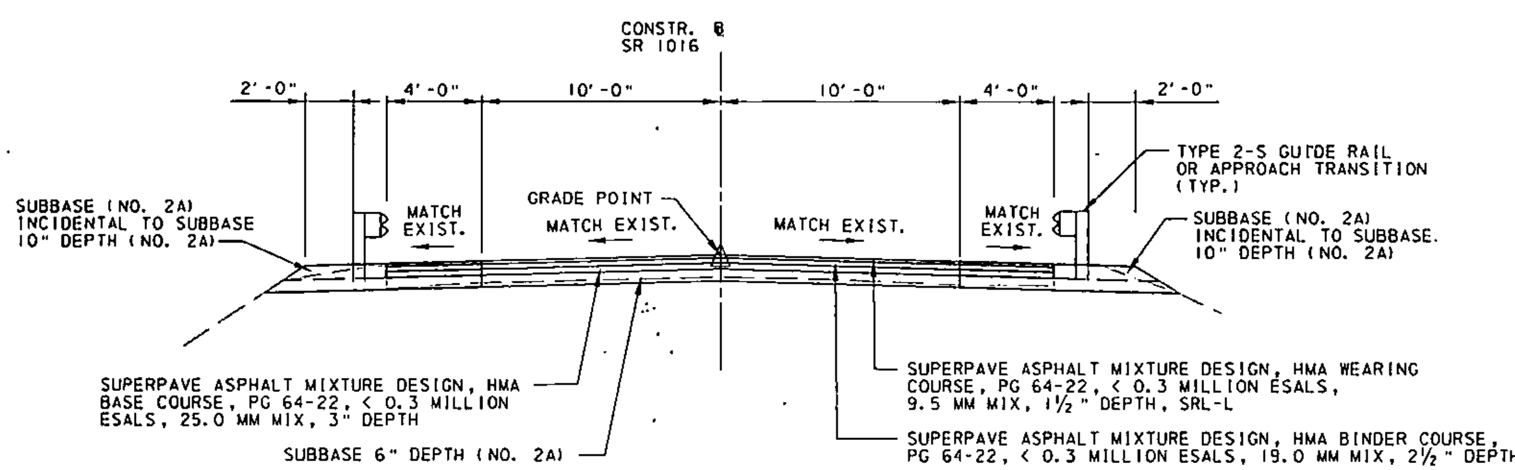
* STA 16+10.00 TO STA 16+67.00
STA 19+78.00 TO STA 20+60.00
NOT TO SCALE

* BEGIN PAVING RIGHT SHOULDER AT STATION 15+80.00



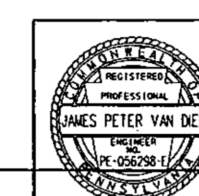
HADDOCK ROAD - TYPICAL SECTION

STA 2+00.00 TO STA 4+25.00
NOT TO SCALE



SR 1016 LOFTY ROAD - TYPICAL SECTION

STA 17+85.00 TO STA 18+07.50
STA 21+09.00 TO STA 21+35.00
NOT TO SCALE



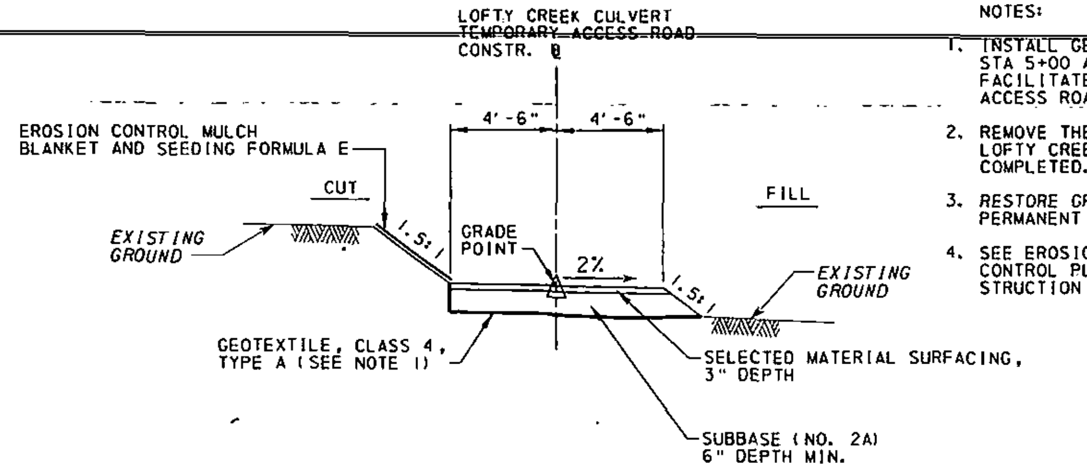
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	14 OF 113

DELANO & KLINE TOWNSHIPS

REVISION NUMBER	REVISIONS	DATE	BY

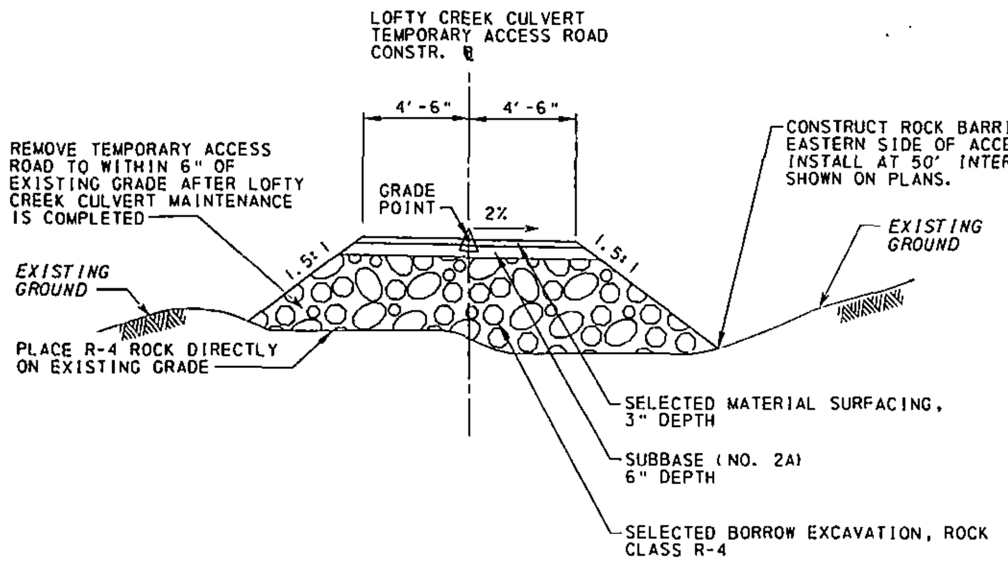
NOTES:

1. INSTALL GEOTEXTILE BETWEEN STA 0+34 TO STA 5+00 AND STA 6+60 TO STA 13+15 TO FACILITATE REMOVAL OF THE TEMPORARY ACCESS ROAD.
2. REMOVE THE TEMPORARY ACCESS ROAD AFTER LOFTY CREEK CULVERT MAINTENANCE IS COMPLETED.
3. RESTORE GRADING AND STABILIZE WITH PERMANENT SEEDING AND MULCH.
4. SEE EROSION AND SEDIMENT POLLUTION CONTROL PLAN SHEET 9 FOR ROCK CONSTRUCTION ENTRANCE DETAIL.



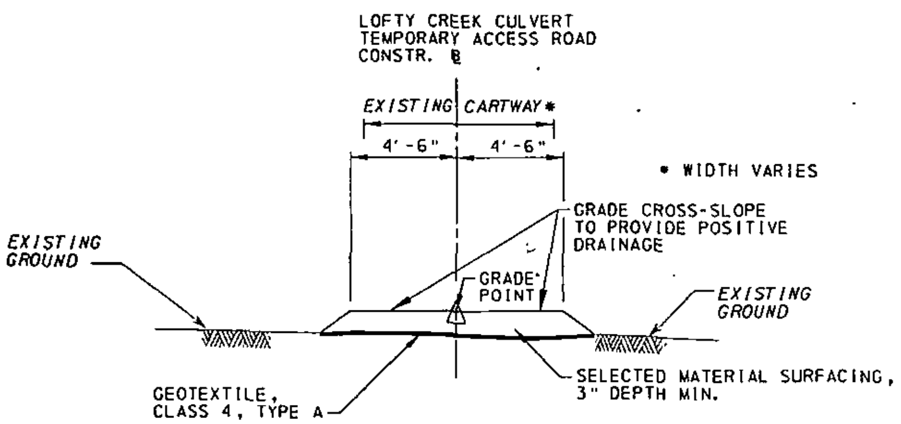
LOFTY CULVERT TEMPORARY ACCESS ROAD - TYPICAL SECTION

STA 0+85.00 TO STA 5+00.00
STA 6+60.00 TO STA 8+20.00
NOT TO SCALE



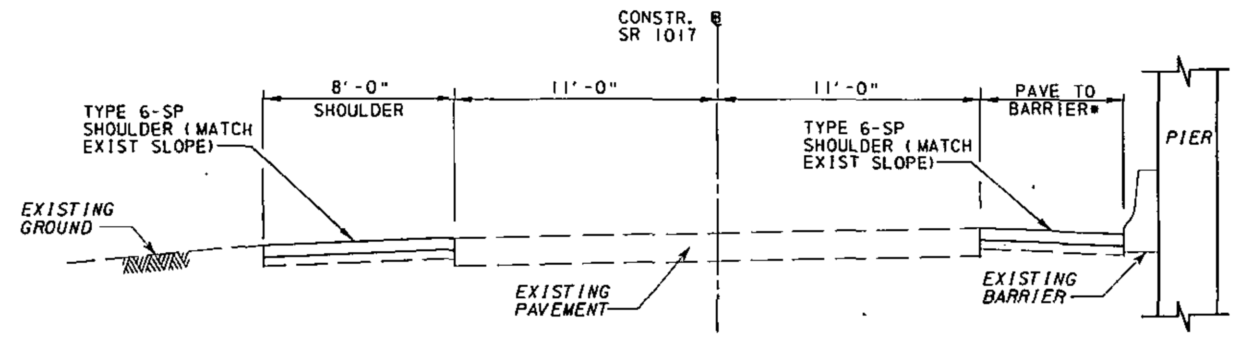
LOFTY CULVERT TEMPORARY ACCESS ROAD - TYPICAL SECTION

STA 5+00.00 TO STA 6+60.00
NOT TO SCALE



LOFTY CULVERT TEMPORARY ACCESS ROAD - TYPICAL SECTION

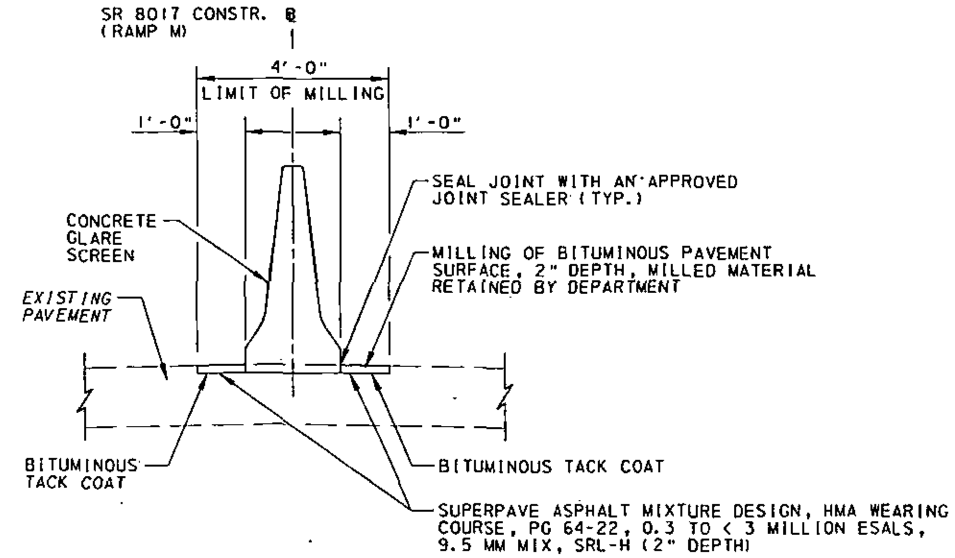
STA 8+20.00 TO STA 13+15.19
NOT TO SCALE



SR 1017 SHOULDER UPGRADES FOR TRAFFIC CONTROL

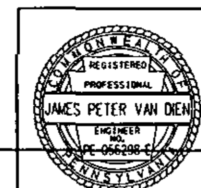
STA 17+80.00 TO STA 22+00.00 RT
STA 18+00.00 TO STA 22+00.00 LT
NOT TO SCALE

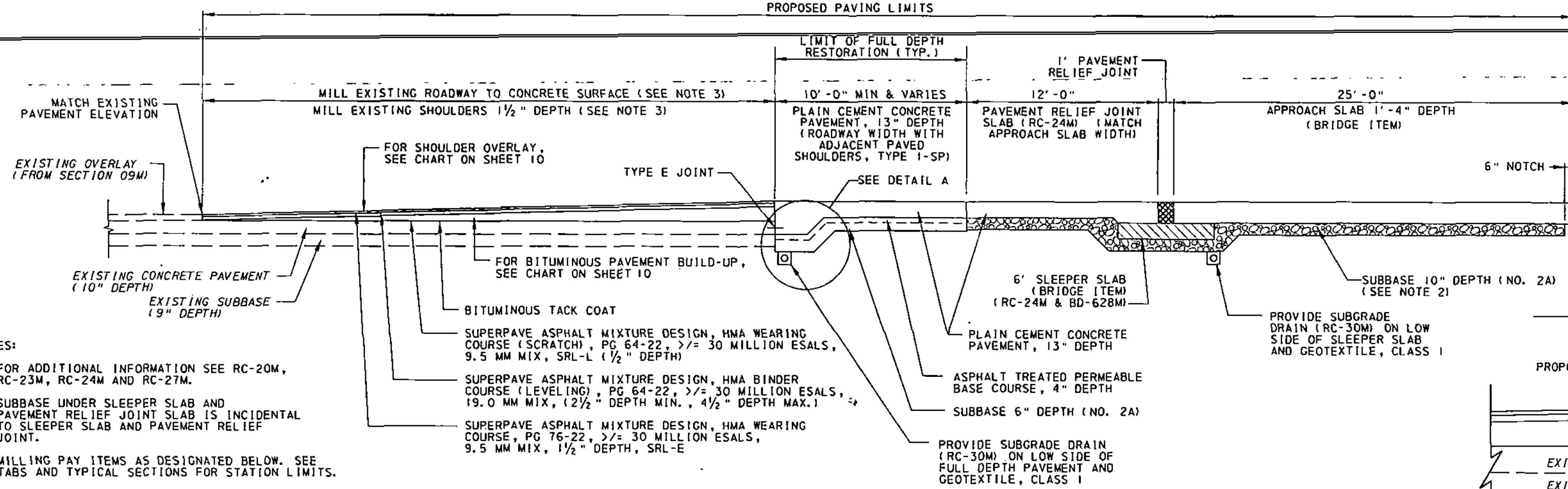
* 8' MAXIMUM WIDTH



CONCRETE GLARE SCREEN PLACEMENT DETAIL

STA 112+00.00 TO STA 115+25.00 (SR 8017, RAMP M)
STA 117+80.00 TO STA 127+00.00 (SR 8017, RAMP M)
STA 136+50.00 TO STA 142+00.00 (SR 8017, RAMP M)
NOT TO SCALE





NOTES:

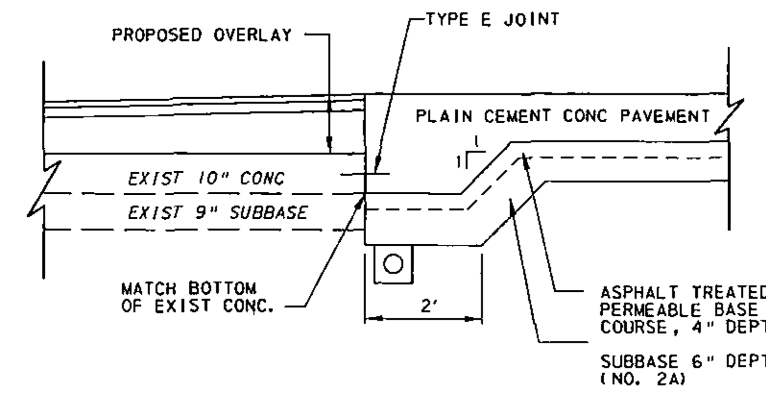
1. FOR ADDITIONAL INFORMATION SEE RC-20M, RC-23M, RC-24M AND RC-27M.
2. SUBBASE UNDER SLEEPER SLAB AND PAVEMENT RELIEF JOINT SLAB IS INCIDENTAL TO SLEEPER SLAB AND PAVEMENT RELIEF JOINT.
3. MILLING PAY ITEMS AS DESIGNATED BELOW. SEE TABS AND TYPICAL SECTIONS FOR STATION LIMITS.

▲ MILLING OF BITUMINOUS PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR

◑ MILLING OF BITUMINOUS PAVEMENT SURFACE, VARIABLE DEPTH, MILLED MATERIAL RETAINED BY DEPARTMENT (DELIVERED TO STOCKPILE)

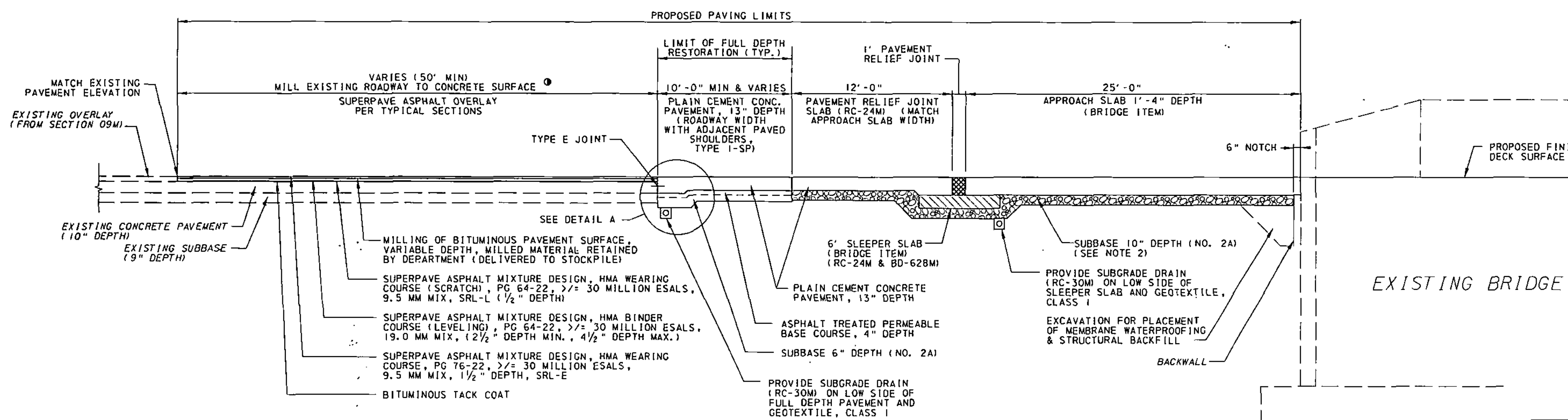
TYPICAL SR 0081 PAVING TRANSITIONS AT REPLACEMENT STRUCTURES WITH PROPOSED APPROACH SLAB

NOT TO SCALE



DETAIL A

NTS



TYPICAL SR 0081 PAVING TRANSITIONS AT PRESERVATION STRUCTURES WITH PROPOSED APPROACH SLAB

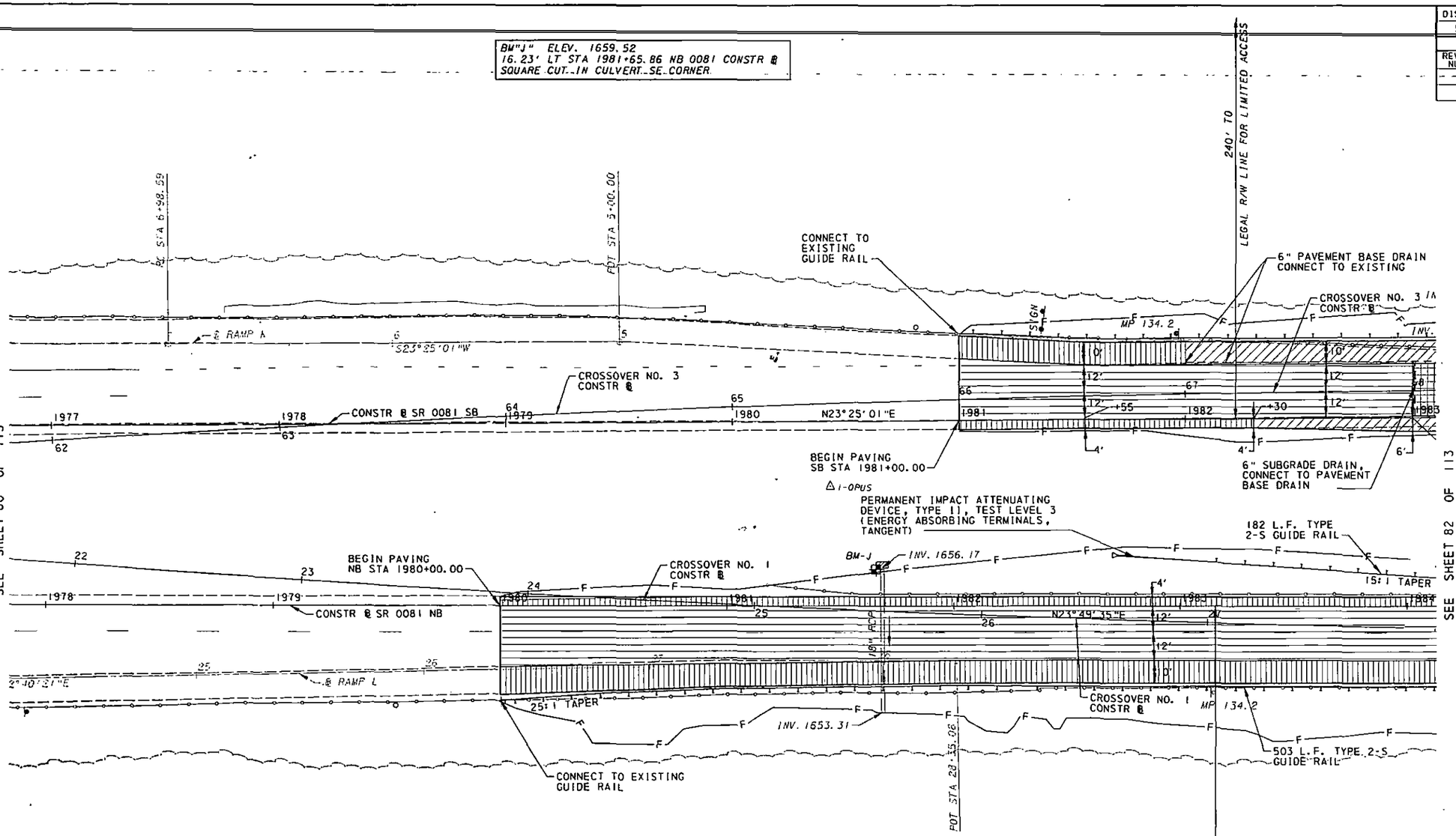
NOT TO SCALE

JAMES PETER VAN DIEN
PE-056298-E

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	81 OF 113
DELANO TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY

BM"J" ELEV. 1659.52
16.23' LT STA 1981+65.86 NB 0081 CONSTR ℄
SQUARE CUT IN CULVERT SE CORNER



LEGEND

- MILL & PAVE FROM END OF PLAIN CEMENT CONCRETE PAVEMENT
- TYPE I BRIDGE APPROACH SLAB (BRIDGE ITEM)
- PLAIN CEMENT CONCRETE PAVEMENT, 13" DEPTH
- SHOULDERS, MILL AND OVERLAY
- PAVED SHOULDERS, TYPE 1-SP
- SLOPE PROTECTION
- PAVED SHOULDERS, TYPE 6-SP

PLAN 1 OF 3

BRIDGES:
S-31852 (NB)
S-30816 (SB)

SCALE
0 25 50 FEET

(1) SERVICE ELECTRIC COMPANY

LEGAL R/W LINE FOR LIMITED ACCESS

FOR PROFILE, SEE SHEETS 96 & 99

SURVEY BOOK NO 24142

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES PETER VAN DIEN ENGINEER PE-056298-E

USER: dyoung
PLOT DATE: 5/10/2012 11:49:16 PM
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5-0	SCHUYLKILL	0081	11B	82 OF 113
DELANO TOWNSHIP				

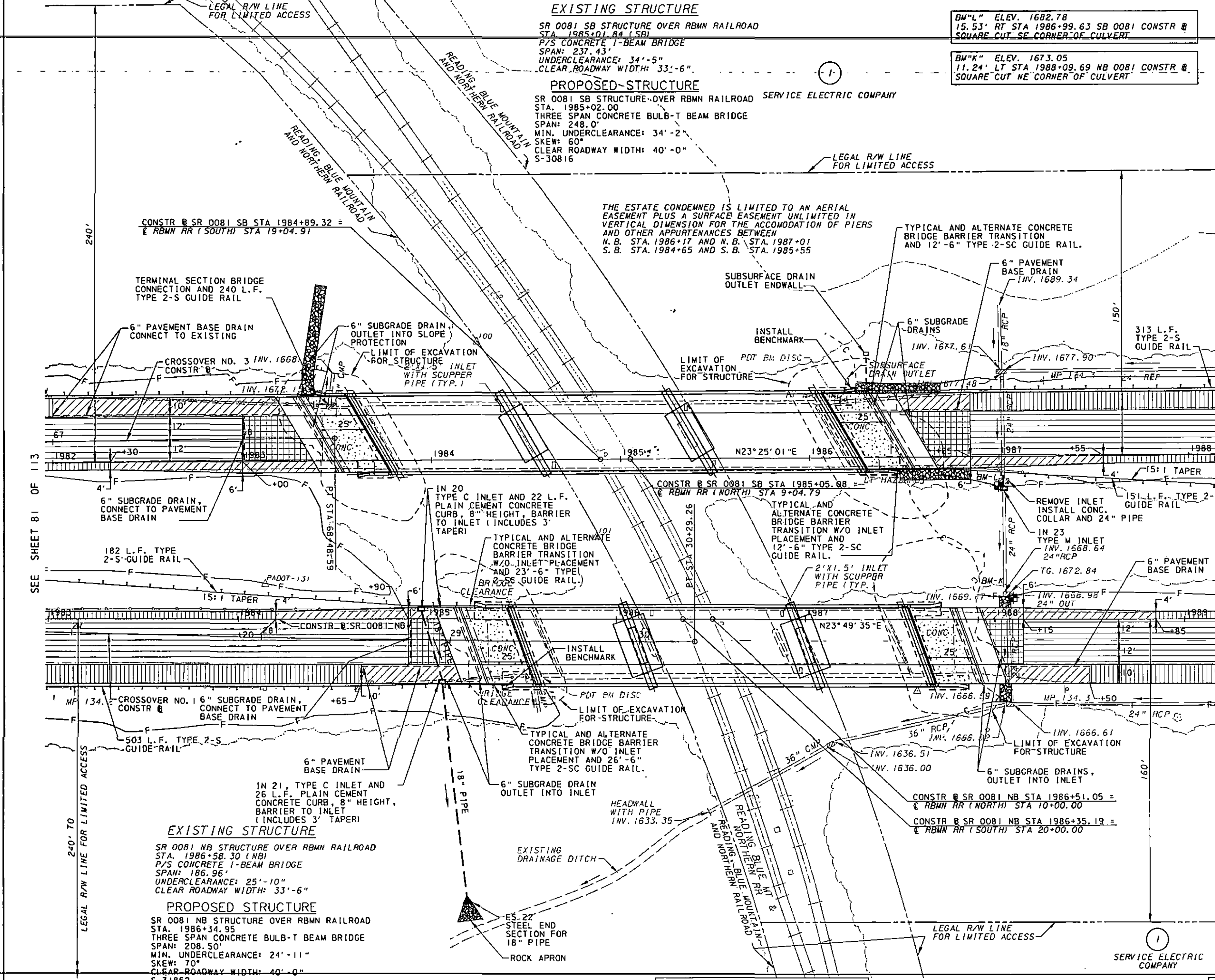
REVISION NUMBER	REVISIONS	DATE	BY

BM"L" ELEV. 1682.78
15.53' RT STA 1986+99.63 SB 0081 CONSTR ℄ SQUARE CUT SE CORNER OF CULVERT

BM"K" ELEV. 1673.05
11.24' LT STA 1988+09.69 NB 0081 CONSTR ℄ SQUARE CUT NE CORNER OF CULVERT

LEGEND

- MILL & PAVE FROM END OF PLAIN CEMENT CONCRETE PAVEMENT
- TYPE 1 BRIDGE APPROACH SLAB (BRIDGE ITEM)
- PLAIN CEMENT CONCRETE PAVEMENT, 13" DEPTH
- SHOULDERS, MILL AND OVERLAY
- PAVED SHOULDERS, TYPE 1-SP
- SLOPE PROTECTION
- PAVED SHOULDERS, TYPE 6-SP



EXISTING STRUCTURE
SR 0081 SB STRUCTURE OVER RBMN RAILROAD
STA. 1985+01.84 (SB)
P/S CONCRETE I-BEAM BRIDGE
SPAN: 237.43'
UNDERCLEARANCE: 34'-5"
CLEAR ROADWAY WIDTH: 33'-6"
PROPOSED STRUCTURE
SR 0081 SB STRUCTURE OVER RBMN RAILROAD
STA. 1985+02.00
THREE SPAN CONCRETE BULB-T BEAM BRIDGE
SPAN: 248.0'
MIN. UNDERCLEARANCE: 34'-2"
SKEW: 60°
CLEAR ROADWAY WIDTH: 40'-0"
S-30816
LEGAL R/W LINE FOR LIMITED ACCESS
SERVICE ELECTRIC COMPANY
READING BLUE MOUNTAIN AND NORTHERN RAILROAD
THE ESTATE CONDEMNED IS LIMITED TO AN AERIAL EASEMENT PLUS A SURFACE EASEMENT UNLIMITED IN VERTICAL DIMENSION FOR THE ACCOMODATION OF PIERS AND OTHER APPURTENANCES BETWEEN N.B. STA. 1986+17 AND N.B. STA. 1987+01 S.B. STA. 1984+65 AND S.B. STA. 1985+55
CONSTR ℄ SR 0081 SB STA 1984+89.32 = ℄ RBMN RR (SOUTH) STA 19+04.91
TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION AND 12'-6" TYPE 2-SC GUIDE RAIL.
TERMINAL SECTION BRIDGE CONNECTION AND 240 L.F. TYPE 2-S GUIDE RAIL
6" PAVEMENT BASE DRAIN INV. 1689.34
SUBSURFACE DRAIN OUTLET ENDWALL
6" PAVEMENT BASE DRAIN CONNECT TO EXISTING
6" SUBGRADE DRAIN OUTLET INTO SLOPE PROTECTION
LIMIT OF EXCAVATION FOR STRUCTURE
2'X1.5' INLET WITH SCUPPER PIPE (TYP.)
INSTALL BENCHMARK
6" SUBGRADE DRAINS
313 L.F. TYPE 2-S GUIDE RAIL
CROSSOVER NO. 3 CONSTR ℄
LIMIT OF EXCAVATION FOR STRUCTURE
PDT BM DISC
SUBSURFACE DRAIN OUTLET
N23°25'01"E
CONSTR ℄ SR 0081 SB STA 1985+05.08 = ℄ RBMN RR (NORTH) STA 9+04.79
15:1 TAPER
151 L.F. TYPE 2-S GUIDE RAIL
6" SUBGRADE DRAIN, CONNECT TO PAVEMENT BASE DRAIN
IN 20 TYPE C INLET AND 22 L.F. PLAIN CEMENT CONCRETE CURB, 8" HEIGHT, BARRIER TO INLET (INCLUDES 3' TAPER)
TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION W/O INLET PLACEMENT AND 12'-6" TYPE 2-SC GUIDE RAIL.
REMOVE INLET INSTALL CONC. COLLAR AND 24" PIPE
IN 23 TYPE M INLET INV. 1668.64 24"RCP
TG. 1672.84
6" PAVEMENT BASE DRAIN
182 L.F. TYPE 2-S GUIDE RAIL
TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION W/O INLET PLACEMENT AND 23'-6" TYPE 2-SC GUIDE RAIL.
2'X1.5' INLET WITH SCUPPER PIPE (TYP.)
PADOT-131
BRIDGE CLEARANCE
15:1 TAPER
CONSTR ℄ SR 0081 NB
N23°49'35"E
INSTALL BENCHMARK
PDT BM DISC
CROSSOVER NO. 1 CONSTR ℄
6" SUBGRADE DRAIN, CONNECT TO PAVEMENT BASE DRAIN
LIMIT OF EXCAVATION FOR STRUCTURE
503 L.F. TYPE 2-S GUIDE RAIL
6" PAVEMENT BASE DRAIN
TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION W/O INLET PLACEMENT AND 26'-6" TYPE 2-SC GUIDE RAIL.
IN 21, TYPE C INLET AND 26 L.F. PLAIN CEMENT CONCRETE CURB, 8" HEIGHT, BARRIER TO INLET (INCLUDES 3' TAPER)
6" SUBGRADE DRAIN OUTLET INTO INLET
18" PIPE
HEADWALL WITH PIPE INV. 1633.35
36" CMP
INV. 1636.51
INV. 1636.00
LIMIT OF EXCAVATION FOR STRUCTURE
6" SUBGRADE DRAINS, OUTLET INTO INLET
CONSTR ℄ SR 0081 NB STA 1986+51.05 = ℄ RBMN RR (NORTH) STA 10+00.00
CONSTR ℄ SR 0081 NB STA 1986+35.19 = ℄ RBMN RR (SOUTH) STA 20+00.00
EXISTING DRAINAGE DITCH
READING BLUE MT & NORTHERN RR
ES-22 STEEL END SECTION FOR 18" PIPE
ROCK APRON
LEGAL R/W LINE FOR LIMITED ACCESS
SERVICE ELECTRIC COMPANY
EXISTING STRUCTURE
SR 0081 NB STRUCTURE OVER RBMN RAILROAD
STA. 1986+58.30 (NB)
P/S CONCRETE I-BEAM BRIDGE
SPAN: 186.96'
UNDERCLEARANCE: 25'-10"
CLEAR ROADWAY WIDTH: 33'-6"
PROPOSED STRUCTURE
SR 0081 NB STRUCTURE OVER RBMN RAILROAD
STA. 1986+34.95
THREE SPAN CONCRETE BULB-T BEAM BRIDGE
SPAN: 208.50'
MIN. UNDERCLEARANCE: 24'-11"
SKEW: 70°
CLEAR ROADWAY WIDTH: 40'-0"
S-31852
240' TO LEGAL R/W LINE FOR LIMITED ACCESS
SEE SHEET 81 OF 113
SEE SHEET 83 OF 113

PLAN 2 OF 3

BRIDGES:
S-31852 (NB)
S-30816 (SB)

SCALE 0 25 50 FEET

JAMES PETER VAN DIEN — REGISTERED PROFESSIONAL ENGINEER — PE-056298-E — COMMONWEALTH OF PENNSYLVANIA

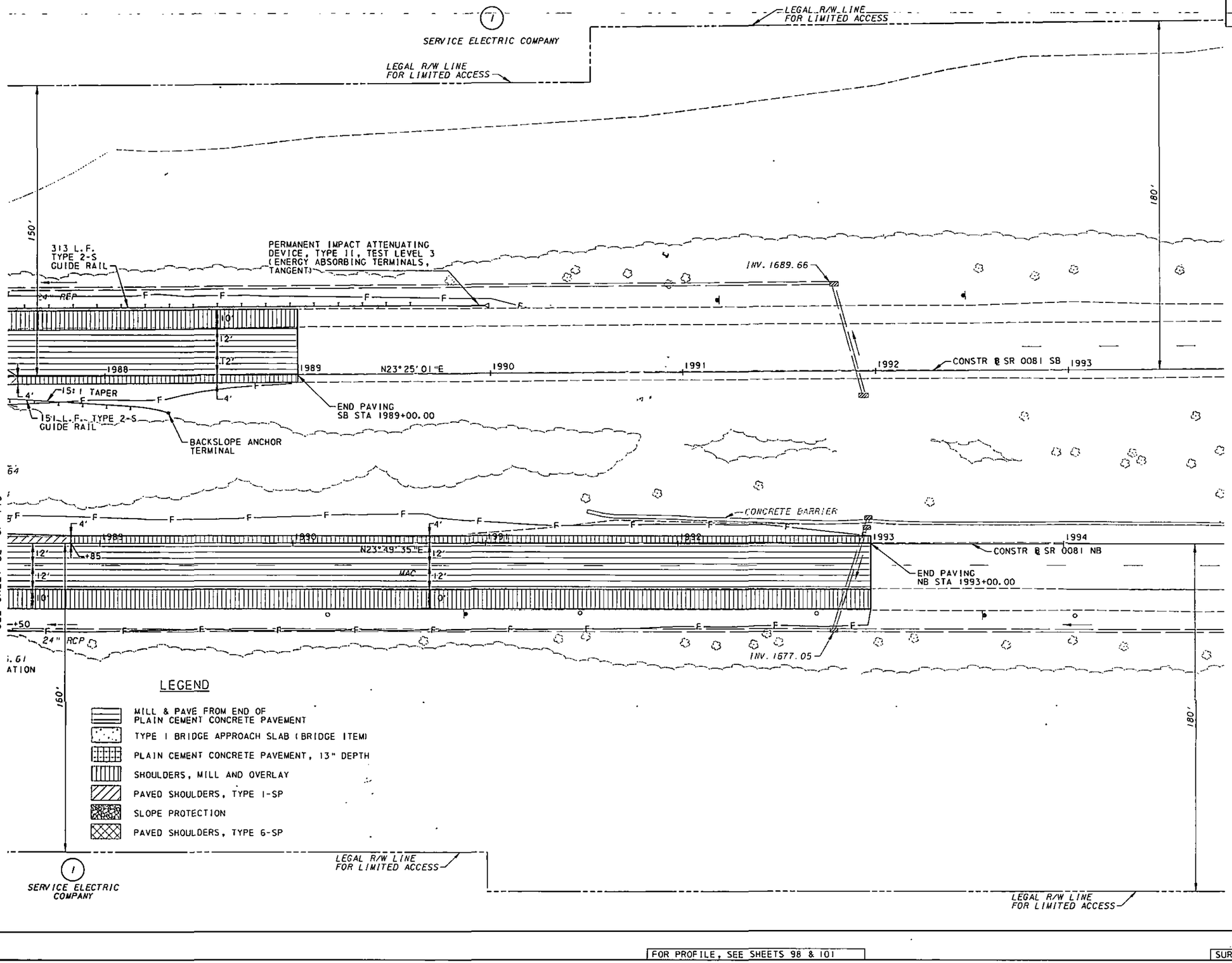
FOR PROFILE, SEE SHEETS 97 & 100

SURVEY BOOK NO 24142

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	83 OF 113

DELANO TOWNSHIP

REVISION NUMBER	REVISIONS	DATE	BY



LEGEND

- MILL & PAVE FROM END OF PLAIN CEMENT CONCRETE PAVEMENT
- TYPE I BRIDGE APPROACH SLAB (BRIDGE ITEM)
- PLAIN CEMENT CONCRETE PAVEMENT, 13" DEPTH
- SHOULDERS, MILL AND OVERLAY
- PAVED SHOULDERS, TYPE I-SP
- SLOPE PROTECTION
- PAVED SHOULDERS, TYPE 6-SP

PLAN 3 OF 3

BRIDGES:
S-31852 (NB)
S-30816 (SB)

SCALE
0 25 50 FEET

FOR PROFILE, SEE SHEETS 98 & 101

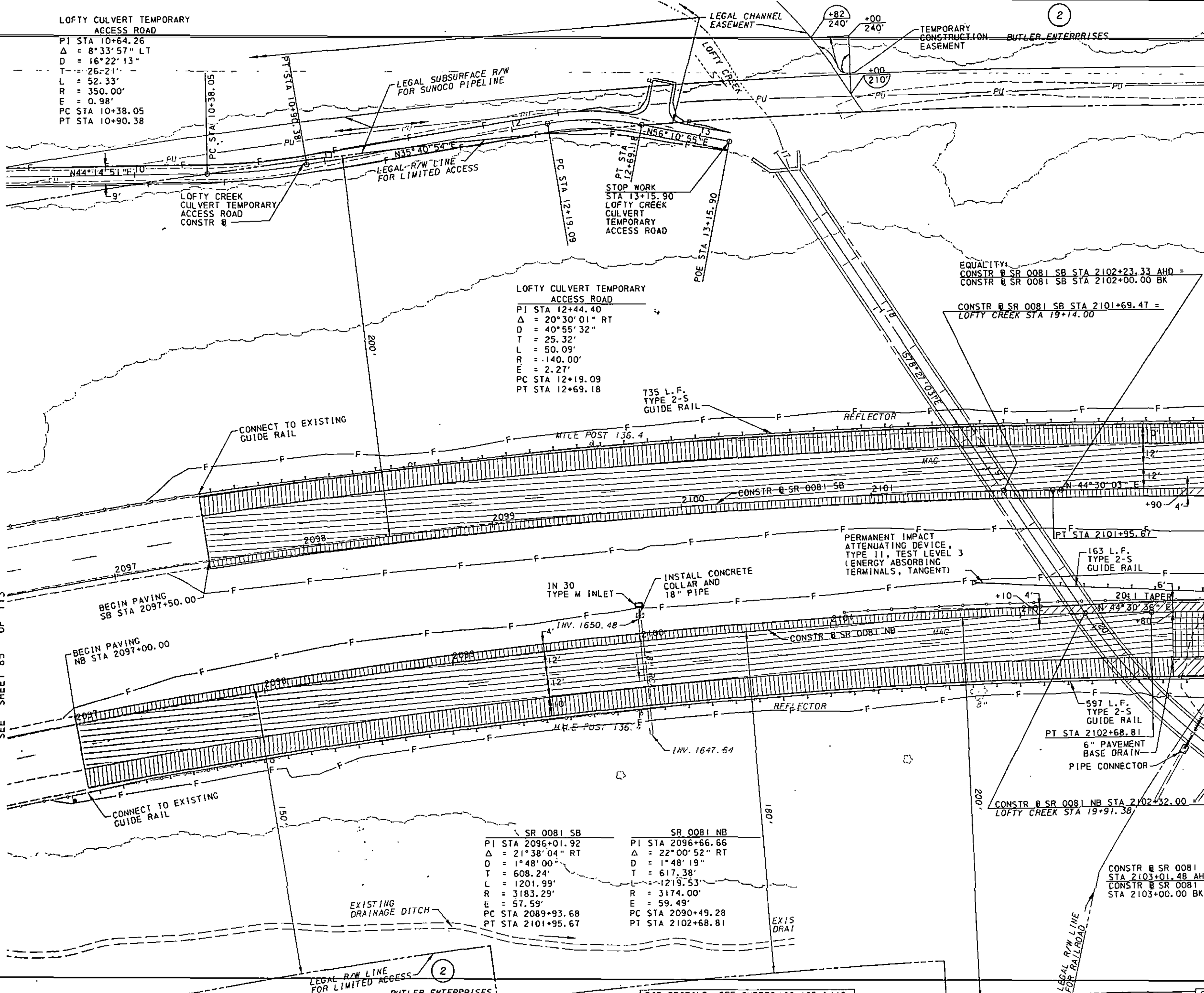
SURVEY BOOK NO 24142

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES PETER VAN DIEN ENGINEER PE 056208

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	118	87 OF 113

DELANO TOWNSHIP

REVISION NUMBER	REVISIONS	DATE	BY



LOFTY CULVERT TEMPORARY ACCESS ROAD
PI STA 10+64.26
Δ = 8°33'57" LT
D = 16°22'13"
T = 26.21'
L = 52.33'
R = 350.00'
E = 0.98'
PC STA 10+38.05
PT STA 10+90.38
LEGAL CHANNEL EASEMENT
TEMPORARY CONSTRUCTION EASEMENT
BUTLER ENTERPRISES
LEGAL SUBSURFACE R/W FOR SUNOCO PIPELINE
LOFTY CREEK
N44°14'51"E
N35°40'54"E
N56°10'55"E
LEGAL R/W LINE FOR LIMITED ACCESS
LOFTY CREEK CULVERT TEMPORARY ACCESS ROAD CONSTR ℄
PC STA 12+19.09
PT STA 12+69.18
STOP WORK STA 13+15.90 LOFTY CREEK CULVERT TEMPORARY ACCESS ROAD
POE STA 13+15.90
LOFTY CULVERT TEMPORARY ACCESS ROAD
PI STA 12+44.40
Δ = 20°30'01" RT
D = 40°55'32"
T = 25.32'
L = 50.09'
R = 140.00'
E = 2.27'
PC STA 12+19.09
PT STA 12+69.18
EQUALITY:
CONSTR ℄ SR 0081 SB STA 2102+23.33 AHD =
CONSTR ℄ SR 0081 SB STA 2102+00.00 BK
CONSTR ℄ SR 0081 SB STA 2101+69.47 =
LOFTY CREEK STA 19+14.00
S78°27'03"E
735 L.F. TYPE 2-S GUIDE RAIL
REFLECTOR
CONNECT TO EXISTING GUIDE RAIL
MILE POST 136.4
CONSTR ℄ SR 0081 SB
N 44°30'03" E
PT STA 2101+95.67
BEGIN PAVING SB STA 2097+50.00
PERMANENT IMPACT ATTENUATING DEVICE, TYPE II, TEST LEVEL 3 (ENERGY ABSORBING TERMINALS, TANGENT)
163 L.F. TYPE 2-S GUIDE RAIL
20:1 TAPER
N 44°30'36" E
IN 30 TYPE M INLET
INSTALL CONCRETE COLLAR AND 18" PIPE
INV. 1650.48
CONSTR ℄ SR 0081 NB
BEGIN PAVING NB STA 2097+00.00
597 L.F. TYPE 2-S GUIDE RAIL
PT STA 2102+68.81
6" PAVEMENT BASE DRAIN
PIPE CONNECTOR
INV. 1647.64
CONNECT TO EXISTING GUIDE RAIL
CONSTR ℄ SR 0081 NB STA 2102+32.00 =
LOFTY CREEK STA 19+91.38
SR 0081 SB
PI STA 2096+01.92
Δ = 21°38'04" RT
D = 1°48'00"
T = 608.24'
L = 1201.99'
R = 3183.29'
E = 57.59'
PC STA 2089+93.68
PT STA 2101+95.67
SR 0081 NB
PI STA 2096+66.66
Δ = 22°00'52" RT
D = 1°48'19"
T = 617.38'
L = 1219.53'
R = 3174.00'
E = 59.49'
PC STA 2090+49.28
PT STA 2102+68.81
CONSTR ℄ SR 0081 NB STA 2103+01.48 AHD =
CONSTR ℄ SR 0081 NB STA 2103+00.00 BK
EXISTING DRAINAGE DITCH
LEGAL R/W LINE FOR LIMITED ACCESS
LEGAL R/W LINE FOR RAILROAD
BUTLER ENTERPRISES
SEE SHEET 85 OF 113
SEE SHEET 88 OF 113

LEGEND

- MILL & PAVE FROM END OF PLAIN CEMENT CONCRETE PAVEMENT
- TYPE 1 BRIDGE APPROACH SLAB (BRIDGE ITEM)
- PLAIN CEMENT CONCRETE PAVEMENT, 13" DEPTH
- SHOULDERS, MILL AND OVERLAY
- PAVED SHOULDERS, TYPE 1-SP
- SLOPE PROTECTION
- PAVED SHOULDERS, TYPE 6-SP

EXISTING STRUCTURE

LOFTY CREEK CULVERT UNDER SR 0081 NB & SB
STA. 2102+32.00 (NB)
CONCRETE TIED ARCH CULVERT
LENGTH: 420' (+/-)
SPAN: 10'-0"
CLEAR ROADWAY WIDTH: N/A

PROPOSED STRUCTURE

PRESERVATION OF EXISTING STRUCTURE
NO CHANGES PROPOSED
S-31853

PLAN 1 OF 3

BRIDGE: S-30983 (NB)
S-30982 (SB)

CULVERT: S-31853

SCALE 0 25 50 FEET

REGISTERED PROFESSIONAL ENGINEER JAMES PETER VAN DIEN PE-056298-E

FOR PROFILE, SEE SHEETS 102, 105 & 112

SURVEY BOOK NO 24142

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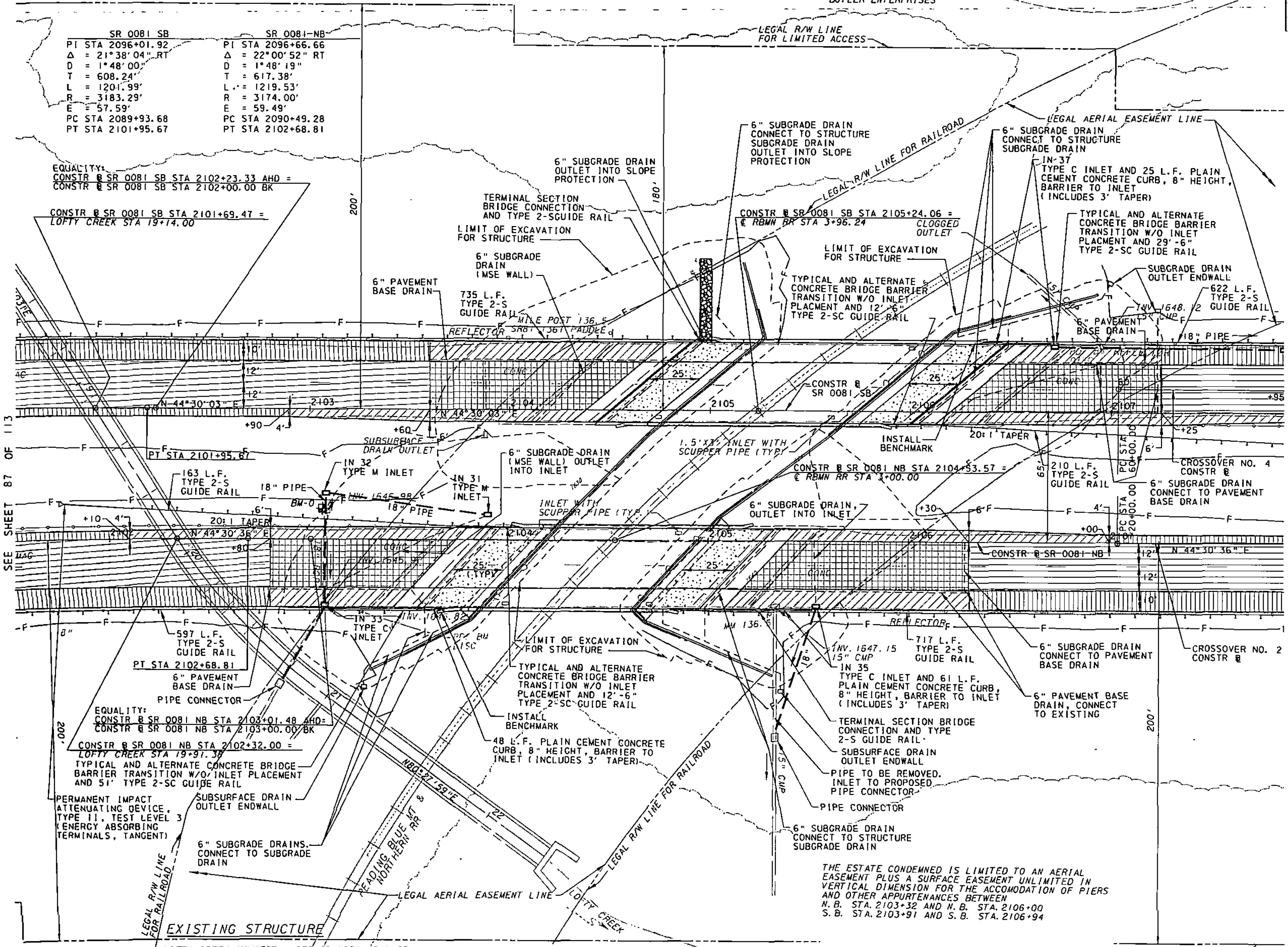
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	88 OF 113
DELANO TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY

BM"0" ELEV. 1650.05
15.34' LT STA 2103+05.78 NB 0081 CONSTR ℄
SQUARE CUT SW CORNER OF INLET

SR 0081 SB	SR 0081-NB
PI STA 2096+01.92	PI STA 2096+66.66
Δ = 21°38'04" RT	Δ = 22°00'52" RT
D = 1°48'00"	D = 1°48'19"
T = 608.24'	T = 617.38'
L = 1201.99'	L = 1219.53'
R = 3183.29'	R = 3174.00'
E = 57.59'	E = 59.49'
PC STA 2089+93.68	PC STA 2090+49.28
PT STA 2101+95.67	PT STA 2102+68.81



BUTLER ENTERPRISES
LEGAL R/W LINE FOR LIMITED ACCESS
LEGAL AERIAL EASEMENT LINE
EQUALITY:
CONSTR ℄ SR 0081 SB STA 2102+23.33 AHD =
CONSTR ℄ SR 0081 SB STA 2102+00.00 BK
CONSTR ℄ SR 0081 SB STA 2101+69.47 =
LOFTY CREEK STA 19+14.00
6" SUBGRADE DRAIN OUTLET INTO SLOPE PROTECTION
TERMINAL SECTION BRIDGE CONNECTION AND TYPE 2-SGUIDE RAIL
LIMIT OF EXCAVATION FOR STRUCTURE
6" SUBGRADE DRAIN (MSE WALL)
6" PAVEMENT BASE DRAIN
735 L.F. TYPE 2-S GUIDE RAIL
6" SUBGRADE DRAIN CONNECT TO STRUCTURE SUBGRADE DRAIN OUTLET INTO SLOPE PROTECTION
LEGAL R/W LINE FOR RAILROAD
CONSTR ℄ SR 0081 SB STA 2105+24.06 =
℄ RBMN RR STA 3+96.24
CLOGGED OUTLET
LIMIT OF EXCAVATION FOR STRUCTURE
TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION W/O INLET PLACMENT AND 12'-6" TYPE 2-SC GUIDE RAIL
6" SUBGRADE DRAIN CONNECT TO STRUCTURE SUBGRADE DRAIN
IN 37 TYPE C INLET AND 25 L.F. PLAIN CEMENT CONCRETE CURB, 8" HEIGHT, BARRIER TO INLET (INCLUDES 3' TAPER)
TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION W/O INLET PLACMENT AND 29'-6" TYPE 2-SC GUIDE RAIL
SUBGRADE DRAIN OUTLET ENDWALL
622 L.F. TYPE 2-S GUIDE RAIL
INV. 1648.12
6" PAVEMENT BASE DRAIN
18" PIPE
REFLECTOR
MILE POST 136.5
CONSTR ℄ SR 0081 SB
PT STA 2101+95.67
SUBSURFACE DRAIN OUTLET
IN 32 TYPE M INLET
IN 31 TYPE M INLET
6" SUBGRADE DRAIN (MSE WALL) OUTLET INTO INLET
163 L.F. TYPE 2-S GUIDE RAIL
18" PIPE
BM-0
INLET WITH SCUPPER PIPE (TYP)
1.5'X3' INLET WITH SCUPPER PIPE (TYP)
INSTALL BENCHMARK
20:1 TAPER
CONSTR ℄ SR 0081 NB STA 2104+53.57 =
℄ RBMN RR STA 3+00.00
6" SUBGRADE DRAIN, OUTLET INTO INLET
210 L.F. TYPE 2-S GUIDE RAIL
CROSSOVER NO. 4 CONSTR ℄
6" SUBGRADE DRAIN CONNECT TO PAVEMENT BASE DRAIN
PC STA 2104+00.00
CONSTR ℄ SR 0081 NB
N 44°30'36" E
N 44°30'03" E
IN 33 TYPE C INLET
INV. 1645.82
597 L.F. TYPE 2-S GUIDE RAIL
PT STA 2102+68.81
6" PAVEMENT BASE DRAIN
PIPE CONNECTOR
EQUALITY:
CONSTR ℄ SR 0081 NB STA 2103+01.48 AHD=
CONSTR ℄ SR 0081 NB STA 2103+00.00 BK
CONSTR ℄ SR 0081 NB STA 2102+32.00 =
LOFTY CREEK STA 19+91.38
TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION W/O INLET PLACEMENT AND 51' TYPE 2-SC GUIDE RAIL
PERMANENT IMPACT ATTENUATING DEVICE, TYPE II, TEST LEVEL 3 (ENERGY ABSORBING TERMINALS, TANGENT)
SUBSURFACE DRAIN OUTLET ENDWALL
6" SUBGRADE DRAINS. CONNECT TO SUBGRADE DRAIN
LIMIT OF EXCAVATION FOR STRUCTURE
TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION W/O INLET PLACEMENT AND 12'-6" TYPE 2-SC GUIDE RAIL
INSTALL BENCHMARK
48 L.F. PLAIN CEMENT CONCRETE CURB, 8" HEIGHT, BARRIER TO INLET (INCLUDES 3' TAPER)
READING BLUE MT & NORTHERN RR
N80°27'59"E
LEGAL R/W LINE FOR RAILROAD
INV. 1647.15 15" CMP
717 L.F. TYPE 2-S GUIDE RAIL
IN 35 TYPE C INLET AND 61 L.F. PLAIN CEMENT CONCRETE CURB, 8" HEIGHT, BARRIER TO INLET (INCLUDES 3' TAPER)
TERMINAL SECTION BRIDGE CONNECTION AND TYPE 2-S GUIDE RAIL
SUBSURFACE DRAIN OUTLET ENDWALL
PIPE TO BE REMOVED. INLET TO PROPOSED PIPE CONNECTOR
PIPE CONNECTOR
6" SUBGRADE DRAIN CONNECT TO STRUCTURE SUBGRADE DRAIN
6" SUBGRADE DRAIN CONNECT TO PAVEMENT BASE DRAIN
6" PAVEMENT BASE DRAIN, CONNECT TO EXISTING
CROSSOVER NO. 2 CONSTR ℄
15" CMP
LOFTY CREEK
LEGAL AERIAL EASEMENT LINE
SEE SHEET 87 OF 113
SEE SHEET 89 OF 113

THE ESTATE CONDEMNED IS LIMITED TO AN AERIAL EASEMENT PLUS A SURFACE EASEMENT UNLIMITED IN VERTICAL DIMENSION FOR THE ACCOMODATION OF PIERS AND OTHER APPURTENANCES BETWEEN
N. B. STA. 2103+32 AND N. B. STA. 2106+00
S. B. STA. 2103+91 AND S. B. STA. 2106+94

EXISTING STRUCTURE

SR 0081 SB STRUCTURE OVER RBMN RAILROAD
STA. 2105+26.50 (SB)
P/S CONCRETE I-BEAM BRIDGE
SPAN: 228.0'
UNDERCLEARANCE: 22'-10"
CLEAR ROADWAY WIDTH: 38'-6"

PROPOSED STRUCTURE

SR 0081 SB STRUCTURE OVER RBMN RAILROAD
STA. 2105+24.00
SINGLE SPAN CONCRETE BULB-T BEAM BRIDGE
SPAN: 103'
MIN. UNDERCLEARANCE: 23'-0"
SKEW: 40°
CLEAR ROADWAY WIDTH: 40'-0"
S-30982

LEGEND

- MILL & PAVE FROM END OF PLAIN CEMENT CONCRETE PAVEMENT
- TYPE I BRIDGE APPROACH SLAB (BRIDGE ITEM)
- PLAIN CEMENT CONCRETE PAVEMENT, 13" DEPTH
- SHOULDERS, MILL AND OVERLAY
- PAVED SHOULDERS, TYPE 1-SP
- SLOPE PROTECTION
- PAVED SHOULDERS, TYPE 6-SP

EXISTING STRUCTURE

SR 0081 NB STRUCTURE OVER RBMN RAILROAD
STA. 2104+56.00 (NB)
P/S CONCRETE I-BEAM BRIDGE
SPAN: 187.0'
UNDERCLEARANCE: 22'-6"
CLEAR ROADWAY WIDTH: 38'-6"

PROPOSED STRUCTURE

SR 0081 NB STRUCTURE OVER RBMN RAILROAD
STA. 2104+56.00
SINGLE SPAN CONCRETE BULB-T BEAM BRIDGE
SPAN: 87'
MIN. UNDERCLEARANCE: 23'-0"
SKEW: 47°
CLEAR ROADWAY WIDTH: 40'-0"
S-30983

PLAN 2 OF 3

BRIDGE: S-30983 (NB)
S-30982 (SB)

CULVERT: S-31853

EXISTING STRUCTURE

LOFTY CREEK CULVERT UNDER SR 0081 NB & SB
STA. 2102+32.00 (NB)
CONCRETE TIED ARCH CULVERT
LENGTH: 420'
UNDERCLEARANCE: 10'-0"
CLEAR ROADWAY WIDTH: N/A

PROPOSED STRUCTURE

PRESERVATION OF EXISTING STRUCTURE
NO CHANGES PROPOSED
S-31853

BUTLER ENTERPRISES

LEGAL R/W LINE FOR LIMITED ACCESS

SCALE 0 25 50 FEET

JAMES PETER VAN DIEN, REGISTERED PROFESSIONAL ENGINEER, PE-056298-E, COMMONWEALTH OF PENNSYLVANIA

FOR PROFILE, SEE SHEETS 103 & 106

SURVEY BOOK NO 24142

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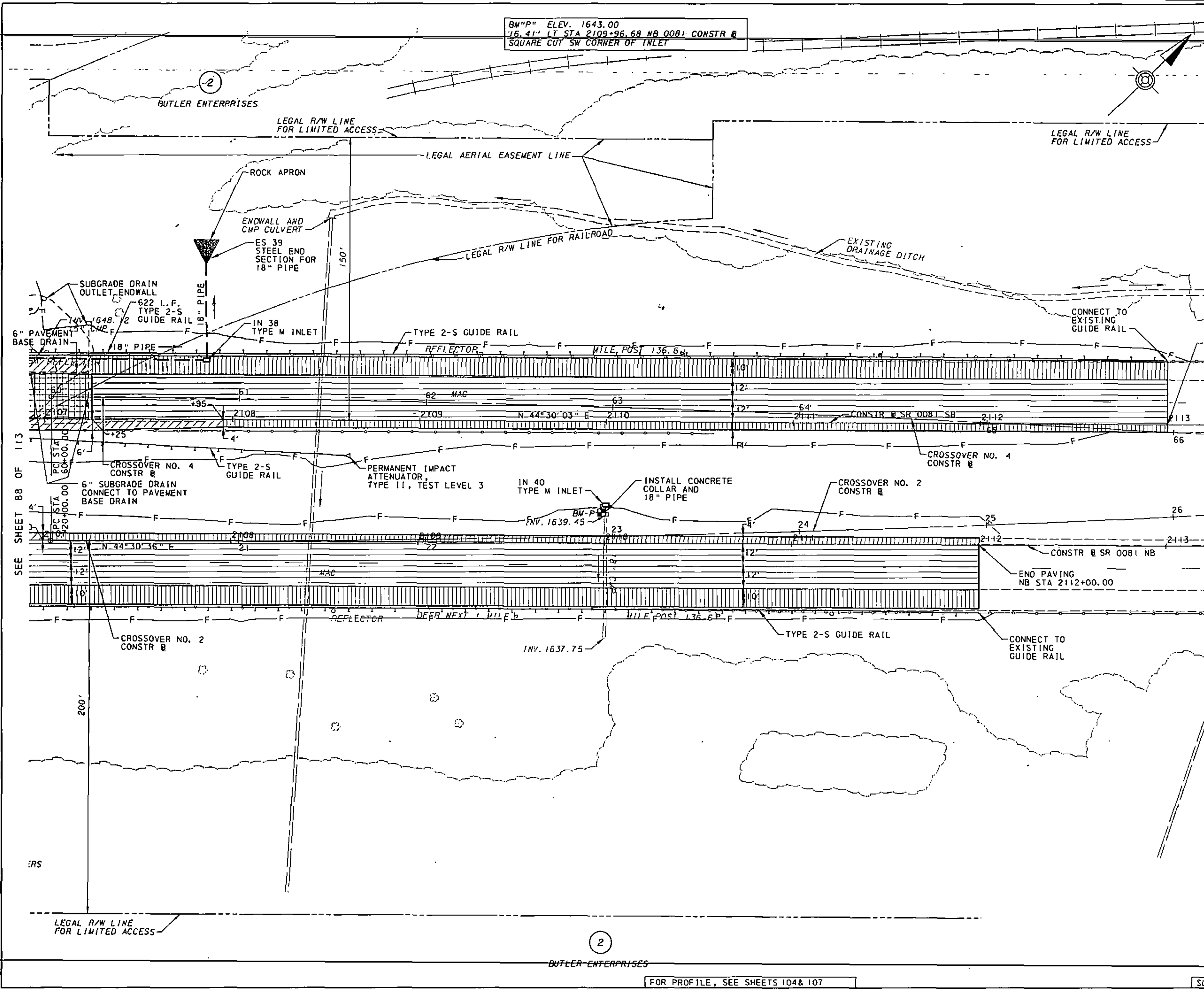
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	118	89 OF 113

DELANO TOWNSHIP

REVISION NUMBER	REVISIONS	DATE	BY

LEGEND

- MILL & PAVE FROM END OF PLAIN CEMENT CONCRETE PAVEMENT
- TYPE I BRIDGE APPROACH SLAB (BRIDGE ITEM)
- PLAIN CEMENT CONCRETE PAVEMENT, 13" DEPTH
- SHOULDERS, MILL AND OVERLAY
- PAVED SHOULDERS, TYPE 1-SP
- SLOPE PROTECTION
- PAVED SHOULDERS, TYPE 6-SP



BM"P" ELEV. 1643.00
16.41' LT STA 2109+96.68 NB 0081 CONSTR ℄
SQUARE CUT SW CORNER OF INLET
BUTLER ENTERPRISES
LEGAL R/W LINE FOR LIMITED ACCESS
LEGAL AERIAL EASEMENT LINE
ROCK APRON
ENDWALL AND CMP CULVERT
ES 39 STEEL END SECTION FOR 18" PIPE
LEGAL R/W LINE FOR RAILROAD
EXISTING DRAINAGE DITCH
SUBGRADE DRAIN OUTLET ENDWALL
622 L.F. TYPE 2-S GUIDE RAIL
6" PAVEMENT BASE DRAIN
18" PIPE
IN 38 TYPE M INLET
TYPE 2-S GUIDE RAIL
REFLECTOR
MILE POST 136.6
CONNECT TO EXISTING GUIDE RAIL
END PAVING SB STA 2113+00.00
N 44°30'03" E
CONSTR ℄ SR 0081 SB
CROSSOVER NO. 4 CONSTR ℄
TYPE 2-S GUIDE RAIL
PERMANENT IMPACT ATTENUATOR, TYPE II, TEST LEVEL 3
6" SUBGRADE DRAIN CONNECT TO PAVEMENT BASE DRAIN
IN 40 TYPE M INLET
INSTALL CONCRETE COLLAR AND 18" PIPE
CROSSOVER NO. 2 CONSTR ℄
INV. 1639.45
N 44°30'36" E
CONSTR ℄ SR 0081 NB
END PAVING NB STA 2112+00.00
DEER NEXT 1 MILE
TYPE 2-S GUIDE RAIL
CONNECT TO EXISTING GUIDE RAIL
CROSSOVER NO. 2 CONSTR ℄
INV. 1637.75
SEE SHEET 88 OF 113
LEGAL R/W LINE FOR LIMITED ACCESS
BUTLER ENTERPRISES

PLAN 3 OF 3

BRIDGE: S-30983 (NB)
S-30982 (SB)

SCALE 0 25 50 FEET

JAMES PETER VAN DEN — REGISTERED PROFESSIONAL ENGINEER PE-056298-E

FOR PROFILE, SEE SHEETS 104 & 107

SURVEY BOOK NO 24142

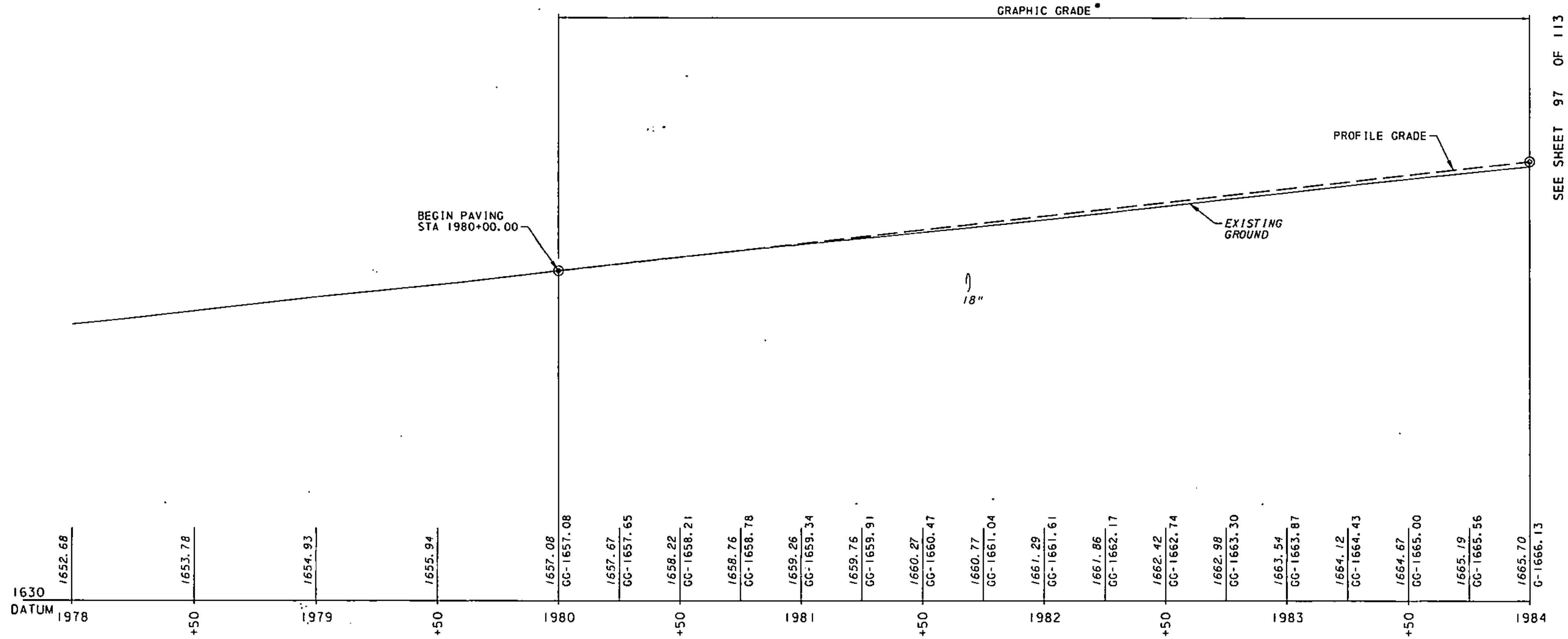
5-0	SCHUYLKILL	0081	11B	96 OF 113
	DELANO TOWNSHIP			

REVISION NUMBER	REVISIONS	DATE	BY

LIMIT OF WORK
STA 1927+50.00 NB
SEC 1330 OFF 0827
SR 0081 SEC 11B
DELANO TOWNSHIP
SCHUYLKILL COUNTY

START WORK
STA 1928+50.00 NB
SEC 1330 OFF 0927
SR 0081 SEC 11B

* DUE TO SECTION 09M PAVING CONTRACT, CONTRACTOR TO VERIFY EXISTING PAVEMENT GRADES AT TIE-INS AND ADJUST GRAPHIC GRADES AS NECESSARY PER RC-28M.



NOTE: EXISTING GRADES SHOWN ARE PRE SECTION 09M PAVING CONTRACT.

SR 0081 PROFILE AT BRIDGE S-31852 (NB)

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

JAMES PETER VAN DIEN
REGISTERED PROFESSIONAL ENGINEER
NO. PE-056298-E
COMMONWEALTH OF PENNSYLVANIA

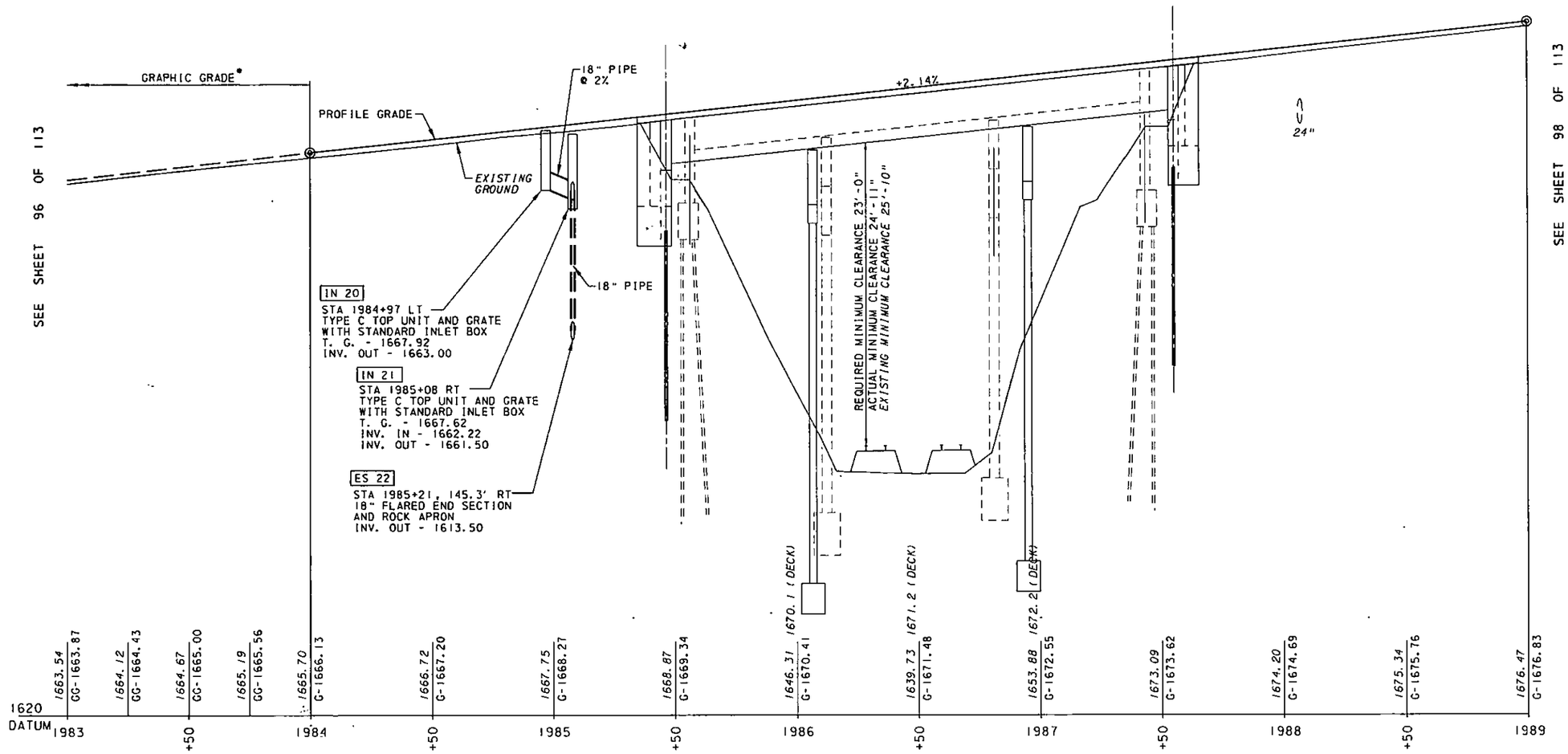
FOR PLAN, SEE SHEET 81

SURVEY BOOK NO 24142

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	97 OF 113
	DELANO TOWNSHIP			

REVISION NUMBER	REVISIONS	DATE	BY

• DUE TO SECTION 09M PAVING CONTRACT, CONTRACTOR TO VERIFY EXISTING PAVEMENT GRADES AT TIE-INS AND ADJUST GRAPHIC GRADES AS NECESSARY PER RC-28M.



NOTE: EXISTING GRADES SHOWN ARE PRE SECTION 09M PAVING CONTRACT.

SR 0081 PROFILE AT BRIDGE S-31852 (NB)

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

FOR PLAN, SEE SHEET 82

SURVEY BOOK NO 24142

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES PETER VAN DIEN ENGINEER NO. PE-056288-E

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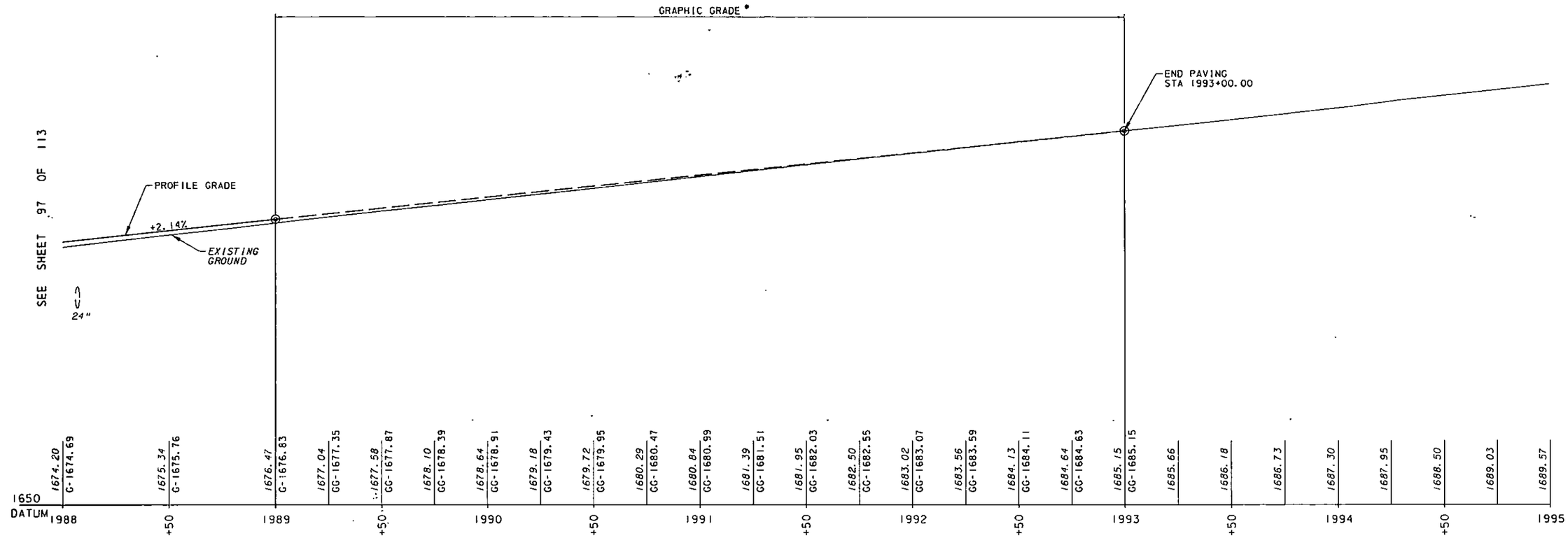
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	98 OF 113
DELANO TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY

LIMIT OF WORK
STA 2194+00.00 NB
SEG 1380 OFF 0901
SR 0081 SEC 11B
KLINE TOWNSHIP
SCHUYLKILL COUNTY →

STOP WORK
STA 2186+00.00 NB
SEG 1380 OFF 0101
SR 0081 SEC 11B →

• DUE TO SECTION 09M PAVING CONTRACT, CONTRACTOR TO VERIFY EXISTING PAVEMENT GRADES AT TIE-INS AND ADJUST GRAPHIC GRADES AS NECESSARY PER RC-28M.



NOTE: EXISTING GRADES SHOWN ARE PRE SECTION 09M PAVING CONTRACT.

SR 0081 PROFILE AT BRIDGE S-31852 (NB)

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

FOR PLAN, SEE SHEET 83

SURVEY BOOK NO 24142

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES PETER VAN DIEN ENGINEER No. PE-050798-E

USER:dyeung
PLOT DATE: 5/10/2017 11:42:01 PM
PATH:000001\0000000001640321\13.00.CADD\13.02_Contract_Files\Sheet_Files\PGL_Roadway_Constr
FILE:DELAND-RD-PRF01.dgn
MODEL:181 MB 53-0081-1340-1284

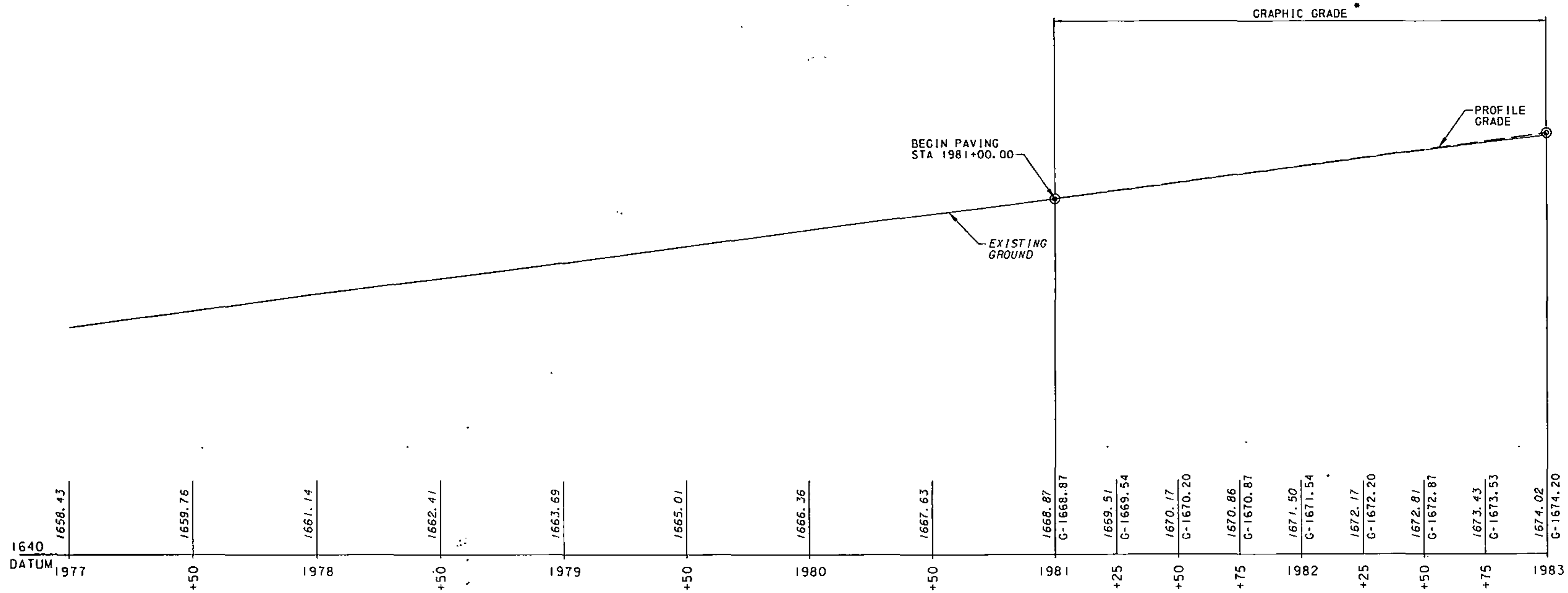
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	99 OF 113
DELANO TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY

LIMIT OF WORK
STA 1953+00.00 SB
SEG 1335 OFFSET 0724
SR 0081 SEC 11B
DELANO TOWNSHIP
SCHUYLKILL COUNTY

START WORK
STA 1953+80.00 SB
SEG 1335 OFFSET 0804
SR 0081 SEC 11B

* DUE TO SECTION 09M PAVING CONTRACT, CONTRACTOR TO VERIFY EXISTING PAVEMENT GRADES AT TIE-INS AND ADJUST GRAPHIC GRADES AS NECESSARY PER RC-28M.



SEE SHEET 100 OF 113

SR 0081 PROFILE AT BRIDGE S-30816 (SB)

NOTE: EXISTING GRADES SHOWN ARE POST SECTION 09M PAVING CONTRACT (SB ONLY).

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES PETER VAN DEN
ENGINEER
NO. PE-056298-E

FOR PLAN, SEE SHEET 81

SURVEY BOOK NO 24142

USER: dyoung
PLOT DATE: 5/10/2012 11:42:04 PM
PATH: 000001\000000000164032\13_00_CAD\13_02_Contract_Files\Sheet_Files\01_Roadway_Constr
FILE: Delano1-RD-PRF02.dgn
MODEL: I-81 SB 53-0081-1341

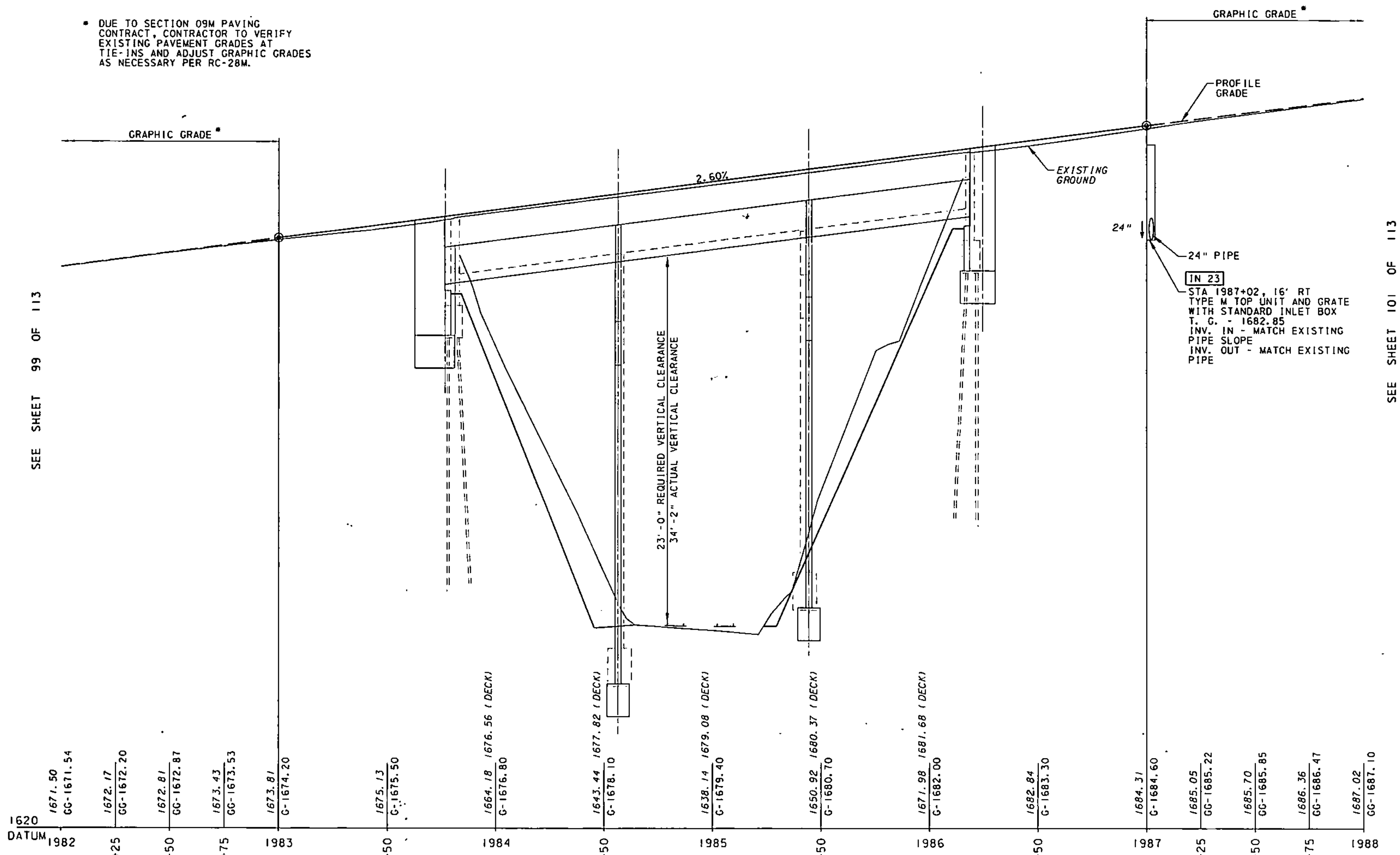
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	100 OF 113

DELANO TOWNSHIP

REVISION NUMBER	REVISIONS	DATE	BY

* DUE TO SECTION 09M PAVING CONTRACT, CONTRACTOR TO VERIFY EXISTING PAVEMENT GRADES AT TIE-INS AND ADJUST GRAPHIC GRADES AS NECESSARY PER RC-28M.

SEE SHEET 99 OF 113



SEE SHEET 101 OF 113

USER: dyoung | PLOT DATE: 5/10/2012 11:42:04 PM
PATH: 000011000000000164032\13.00_CAD\13.02_Contract_Files\Sheet_Files\01_Roadway_Constr
FILE: Delano-RD-PRF02.dgn | MODEL: I-81 SB SS-0081-134

SR 0081 PROFILE AT BRIDGE S-30816 (SB)

NOTE: EXISTING GRADES SHOWN ARE POST SECTION 09M PAVING CONTRACT (SB ONLY).

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — JAMES PETER VAN DIEN — NO. PE-056298-E

FOR PLAN, SEE SHEET 82

SURVEY BOOK NO 24142

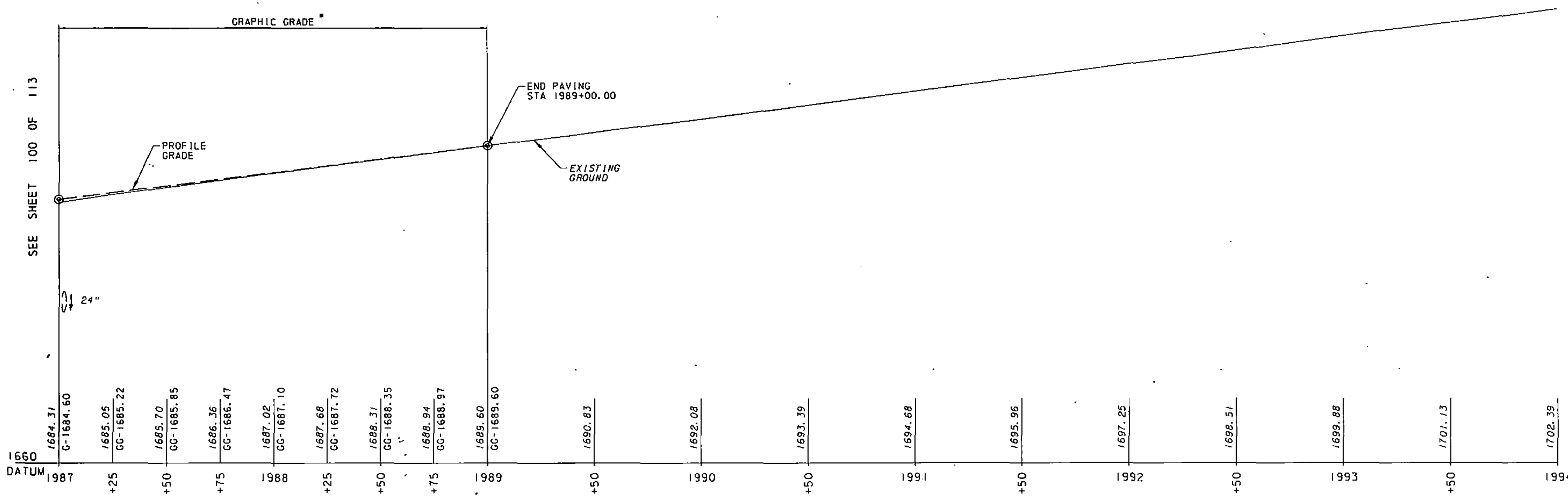
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	101 OF 113
DELANO TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY

LIMIT OF WORK
STA 2194+15.00 SB
SEG 1381 OFFSET 1060
SR 0081 SEC 11B
KLINE TOWNSHIP
SCHUYLKILL COUNTY

STOP WORK
STA 2193+15.00 SB
SEG 1381 OFFSET 0960
SR 0081 SEC 11B

- DUE TO SECTION 09M PAVING CONTRACT, CONTRACTOR TO VERIFY EXISTING PAVEMENT GRADES AT TIE-INS AND ADJUST GRAPHIC GRADES AS NECESSARY PER RC-28M.



SR 0081 PROFILE AT BRIDGE S-30816 (SB)

NOTE: EXISTING GRADES SHOWN ARE POST SECTION 09M PAVING CONTRACT (SB ONLY).

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

FOR PLAN, SEE SHEET 83

SURVEY BOOK NO 24142

REGISTERED PROFESSIONAL ENGINEER JAMES PETER VAN DIEN PE-056298-E

USER: dyoung | PLOT DATE: 5/10/2012 11:42:05 PM
PATH: 00000100000000164032\13.00.CAD\13.02.Contract.Files\Sheet.Files\01.Roadway.Constr
FILE: Delano1-RD-PRF02.dgn | MODEL: F-81 SB 53-0081-1341

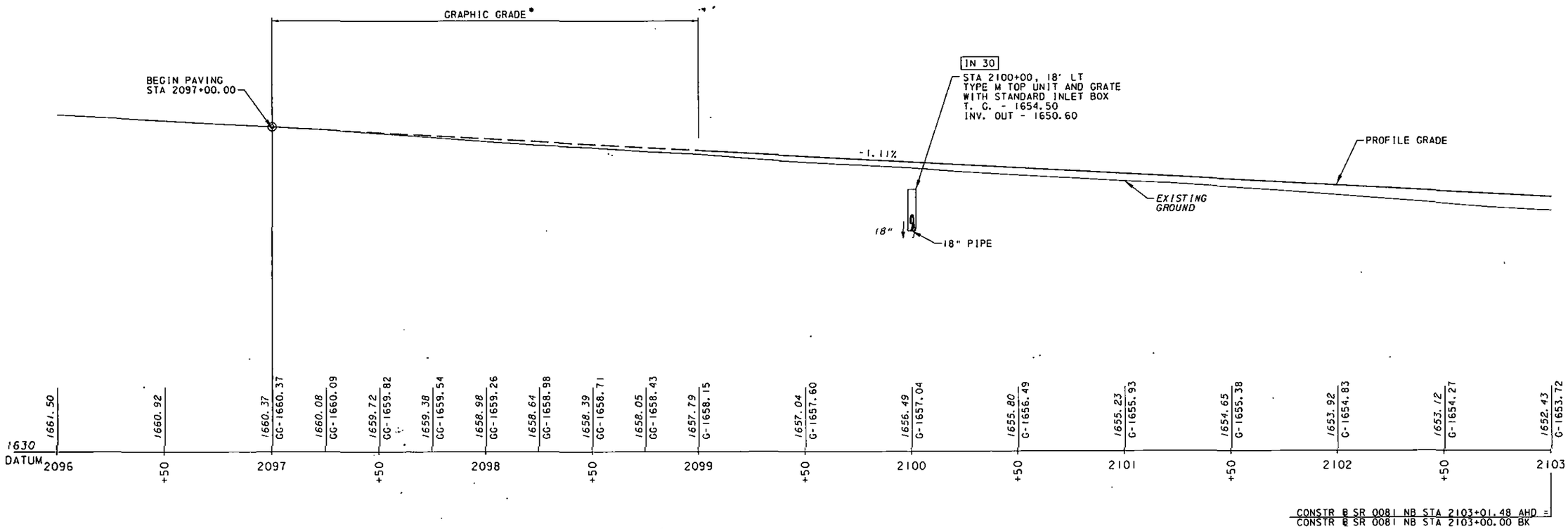
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	102 OF 113
DELANO TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY
-	-	-	-

LIMIT OF WORK
STA 1927+50.00 NB
SEG 1330 OFF 0827
SR 0081 SEC 11B
DELANO TOWNSHIP
SCHUYLKILL COUNTY

START WORK
STA 1928+50.00 NB
SEG 1330 OFF 0927
SR 0081 SEC 11B

* DUE TO SECTION 09M PAVING CONTRACT, CONTRACTOR TO VERIFY EXISTING PAVEMENT GRADES AT TIE-INS AND ADJUST GRAPHIC GRADES AS NECESSARY PER RC-28M.



NOTE: EXISTING GRADES SHOWN ARE PRE SECTION 09M PAVING CONTRACT.

SR 0081 PROFILE AT BRIDGE S-30983 (NB)

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

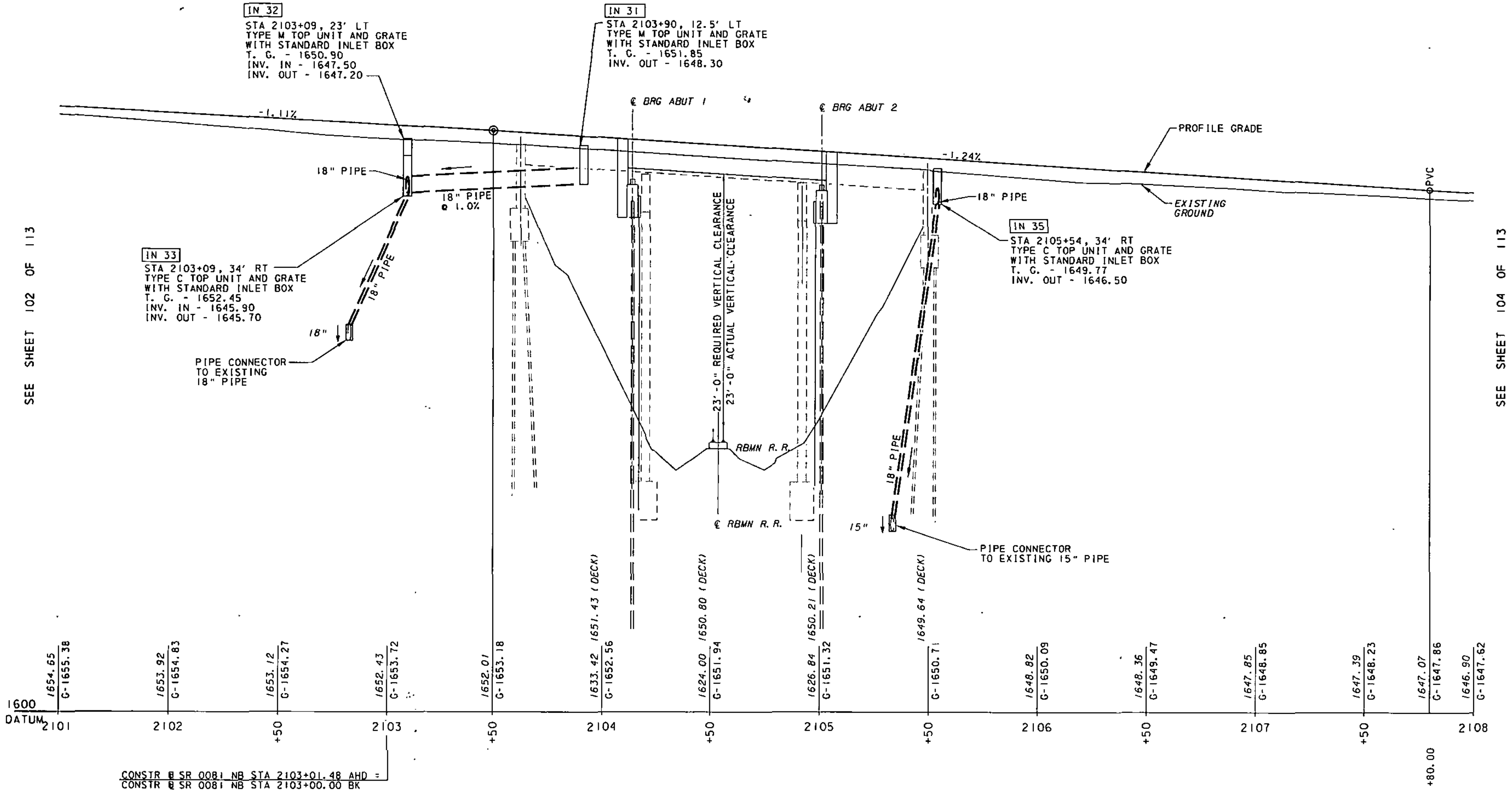
FOR PLAN, SEE SHEET 87

SURVEY BOOK NO 24142

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES PETER VAN DIEN ENGINEER PE-056288-E

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	103 OF 113
DELANO TOWNSHIP				

REVISION NUMBER	REVISIONS	DATE	BY



IN 32
STA 2103+09, 23' LT
TYPE M TOP UNIT AND GRATE
WITH STANDARD INLET BOX
T. G. - 1650.90
INV. IN - 1647.50
INV. OUT - 1647.20
IN 31
STA 2103+90, 12.5' LT
TYPE M TOP UNIT AND GRATE
WITH STANDARD INLET BOX
T. G. - 1651.85
INV. OUT - 1648.30
℄ BRG ABUT 1
℄ BRG ABUT 2
-1.11%
-1.24%
PROFILE GRADE
EXISTING GROUND
PVC
18" PIPE
18" PIPE @ 1.0%
18" PIPE
IN 35
STA 2105+54, 34' RT
TYPE C TOP UNIT AND GRATE
WITH STANDARD INLET BOX
T. G. - 1649.77
INV. OUT - 1646.50
IN 33
STA 2103+09, 34' RT
TYPE C TOP UNIT AND GRATE
WITH STANDARD INLET BOX
T. G. - 1652.45
INV. IN - 1645.90
INV. OUT - 1645.70
18" PIPE
18"
PIPE CONNECTOR TO EXISTING 18" PIPE
23'-0" REQUIRED VERTICAL CLEARANCE
23'-0" ACTUAL VERTICAL CLEARANCE
RBMN R. R.
℄ RBMN R. R.
18" PIPE
15"
PIPE CONNECTOR TO EXISTING 15" PIPE
SEE SHEET 102 OF 113
SEE SHEET 104 OF 113
1651.43 (DECK)
1650.80 (DECK)
1650.21 (DECK)
1649.64 (DECK)
1654.65 G-1655.38
1653.92 G-1654.83
1653.12 G-1654.27
1652.43 G-1653.72
1652.01 G-1653.18
1633.42 G-1652.56
1624.00 G-1651.94
1626.84 G-1651.32
G-1650.71
1648.82 G-1650.09
1648.36 G-1649.47
1647.85 G-1648.85
1647.39 G-1648.23
1647.07 G-1647.86
1646.90 G-1647.62
1600 DATUM
2101
2102
+50
2103
+50
2104
+50
2105
+50
2106
+50
2107
+50
+80.00
2108

CONSTR ℄ SR 0081 NB STA 2103+01.48 AHD =
CONSTR ℄ SR 0081 NB STA 2103+00.00 BK

NOTE: EXISTING GRADES SHOWN ARE PRE SECTION 09M PAVING CONTRACT.

SR 0081 PROFILE AT BRIDGE S-30983 (NB)

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

FOR PLAN, SEE SHEET 88

SURVEY BOOK NO 24142

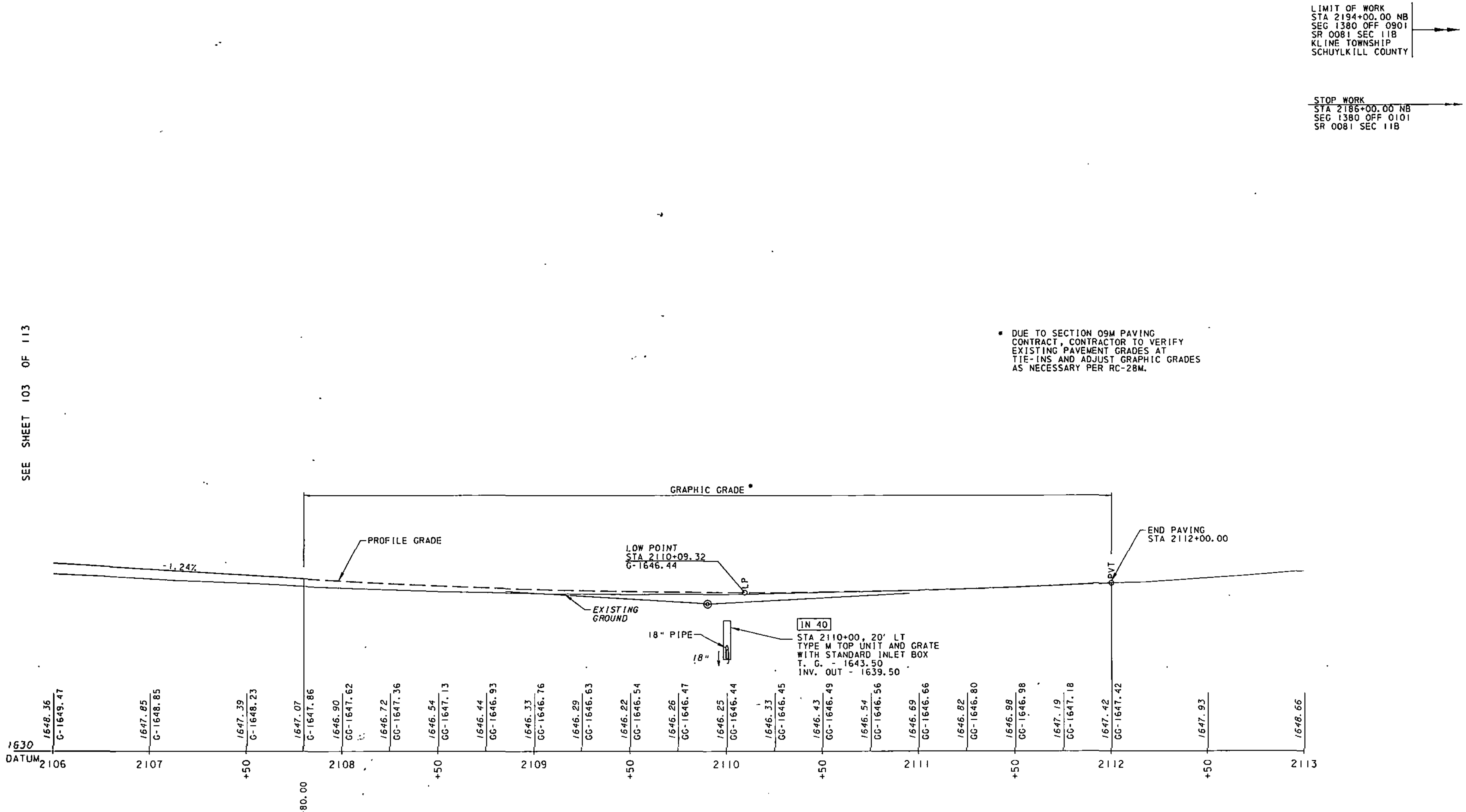
JAMES PETER VAN OIEN
REGISTERED PROFESSIONAL ENGINEER
PE-056298-E

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	104 OF 113

DELANO TOWNSHIP

REVISION NUMBER	REVISIONS	DATE	BY

SEE SHEET 103 OF 113



* DUE TO SECTION 09M PAVING CONTRACT, CONTRACTOR TO VERIFY EXISTING PAVEMENT GRADES AT TIE-INS AND ADJUST GRAPHIC GRADES AS NECESSARY PER RC-28M.

NOTE: EXISTING GRADES SHOWN ARE PRE SECTION 09M PAVING CONTRACT.

SR 0081 PROFILE AT BRIDGE S-30983 (NB)

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

FOR PLAN, SEE SHEET 89

SURVEY BOOK NO 24142

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES PETER VAN DIEN ENGINEER

USER: gyoung PLOT DATE: 5/10/2012 11:42:09 PM FILE: DELANO1-RD-PRF03.dgn MODEL: Default

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	105 OF 113

DELANO TOWNSHIP

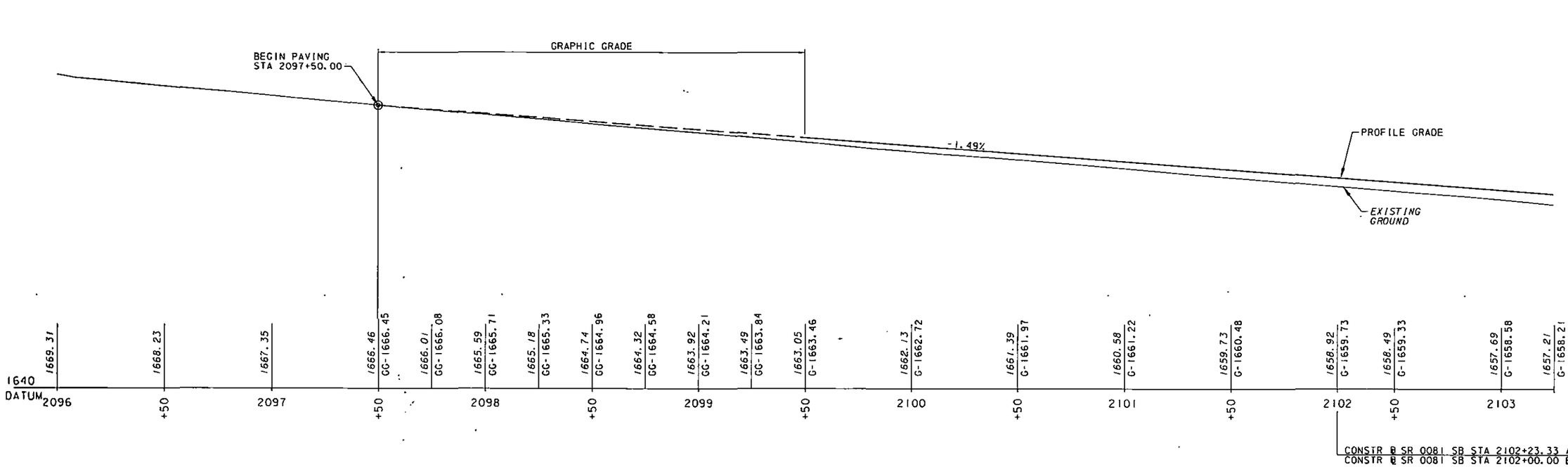
REVISION NUMBER	REVISIONS	DATE	BY

LIMIT OF WORK
STA 1953+00.00 SB
SEG 1335 OFFSET 0724
SR 0081 SEC 11B
DELANO TOWNSHIP
SCHUYLKILL COUNTY

START WORK
STA 1953+80.00 SB
SEG 1335 OFFSET 0804
SR 0081 SEC 11B

* DUE TO SECTION 09M PAVING CONTRACT, CONTRACTOR TO VERIFY EXISTING PAVEMENT GRADES AT TIE-INS AND ADJUST GRAPHIC GRADES AS NECESSARY PER RC-28M.

SEE SHEET 106 OF 113



CONSTR ℄ SR 0081 SB STA 2102+23.33 AHD =
CONSTR ℄ SR 0081 SB STA 2102+00.00 BK

NOTE: EXISTING GRADES SHOWN ARE POST SECTION 09M PAVING CONTRACT (SB ONLY).

SR 0081 PROFILE AT BRIDGE S-30982 (SB)

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

FOR PLAN, SEE SHEET 87

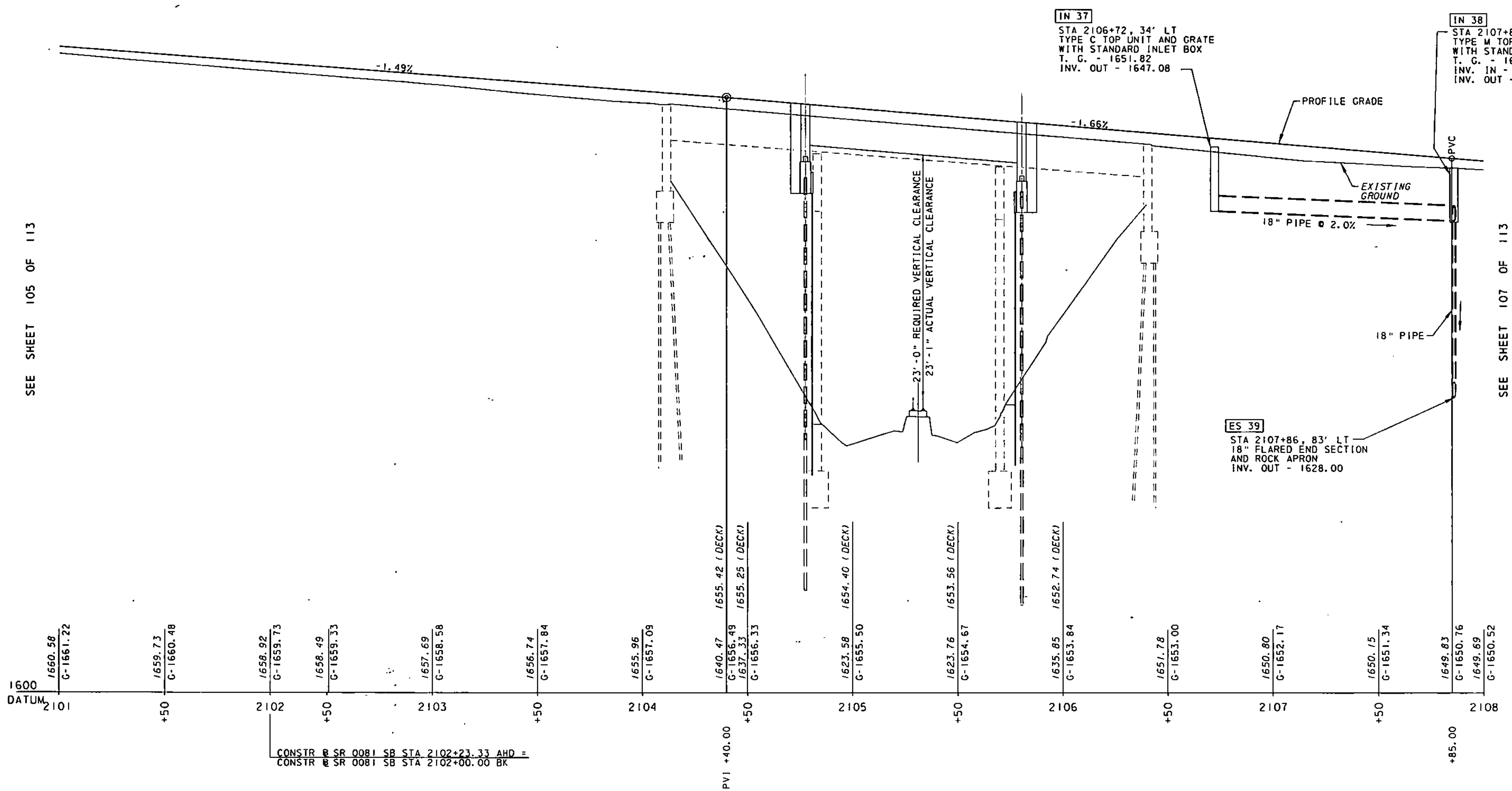
SURVEY BOOK NO 24142

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JAMES PETER VAN DIEN
ENGINEER
No. PE 050290-E

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	106 OF 113

DELANO TOWNSHIP

REVISION NUMBER	REVISIONS	DATE	BY



SR 0081 PROFILE AT BRIDGE S-30982 (SB)

NOTE: EXISTING GRADES SHOWN ARE POST SECTION 09M PAVING CONTRACT (SB ONLY).

SCALE

HORIZONTAL 0 25 50 FEET

VERTICAL 0 5 10 FEET

FOR PLAN, SEE SHEET 88

SURVEY BOOK NO 24142

REGISTERED PROFESSIONAL ENGINEER JAMES PETER VAN DIEN

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	SCHUYLKILL	0081	11B	107 OF 113

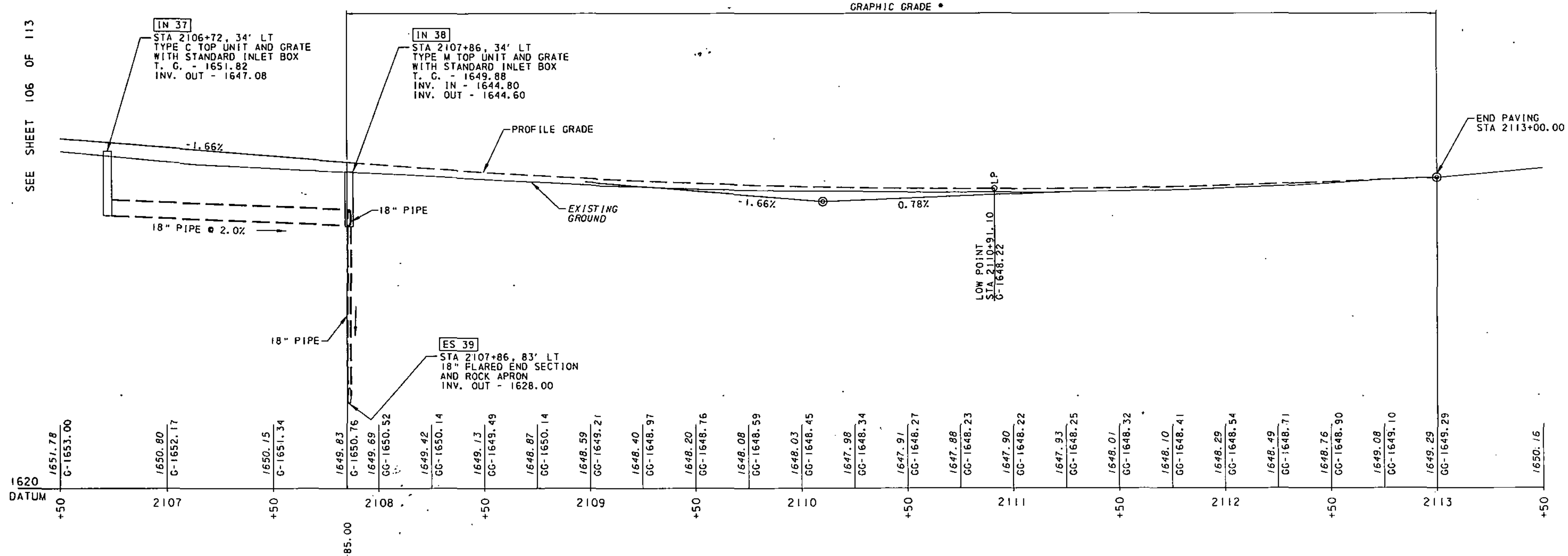
DELANO TOWNSHIP

REVISION NUMBER	REVISIONS	DATE	BY

* DUE TO SECTION 09M PAVING CONTRACT, CONTRACTOR TO VERIFY EXISTING PAVEMENT GRADES AT TIE-INS AND ADJUST GRAPHIC GRADES AS NECESSARY PER RC-28M.

LIMIT OF WORK
STA 2194+15.00 SB
SEG 1381 OFFSET 1060
SR 0081 SEC 11B
KLINE TOWNSHIP
SCHUYLKILL COUNTY

STOP WORK
STA 2193+15.00 SB
SEG 1381 OFFSET 0960
SR 0081 SEC 11B



SR 0081 PROFILE AT BRIDGE S-30982 (SB)

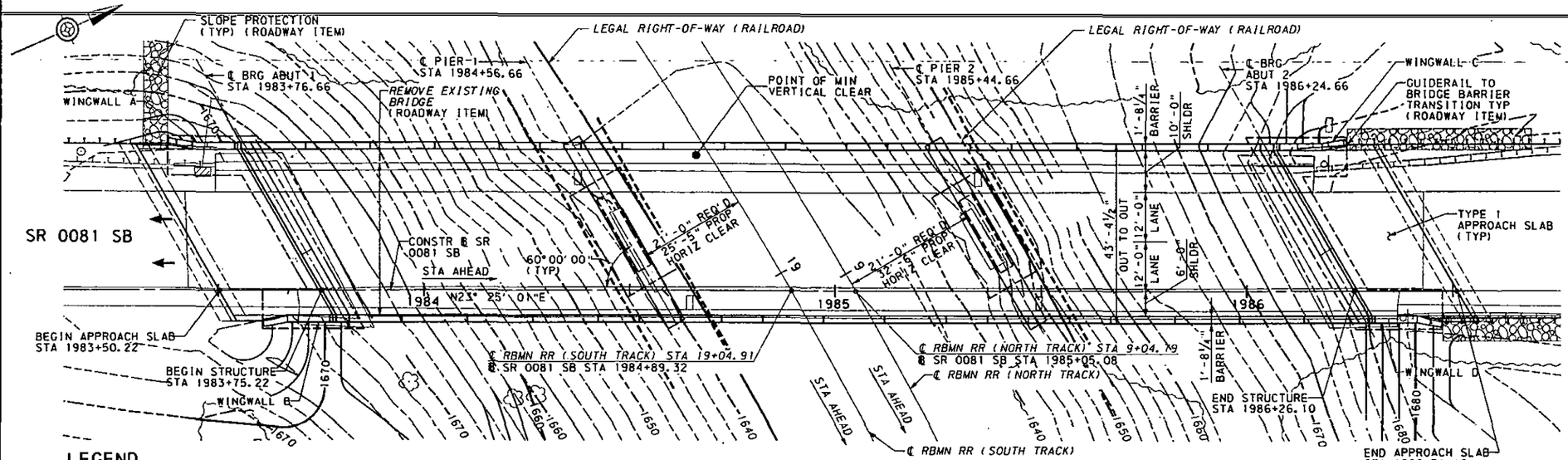
NOTE: EXISTING GRADES SHOWN ARE POST SECTION 09M PAVING CONTRACT (SB ONLY).

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

FOR PLAN, SEE SHEET 89

SURVEY BOOK NO 24142

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JAMES PETER VAN DIEN ENGINEER NO. PE-056208-E



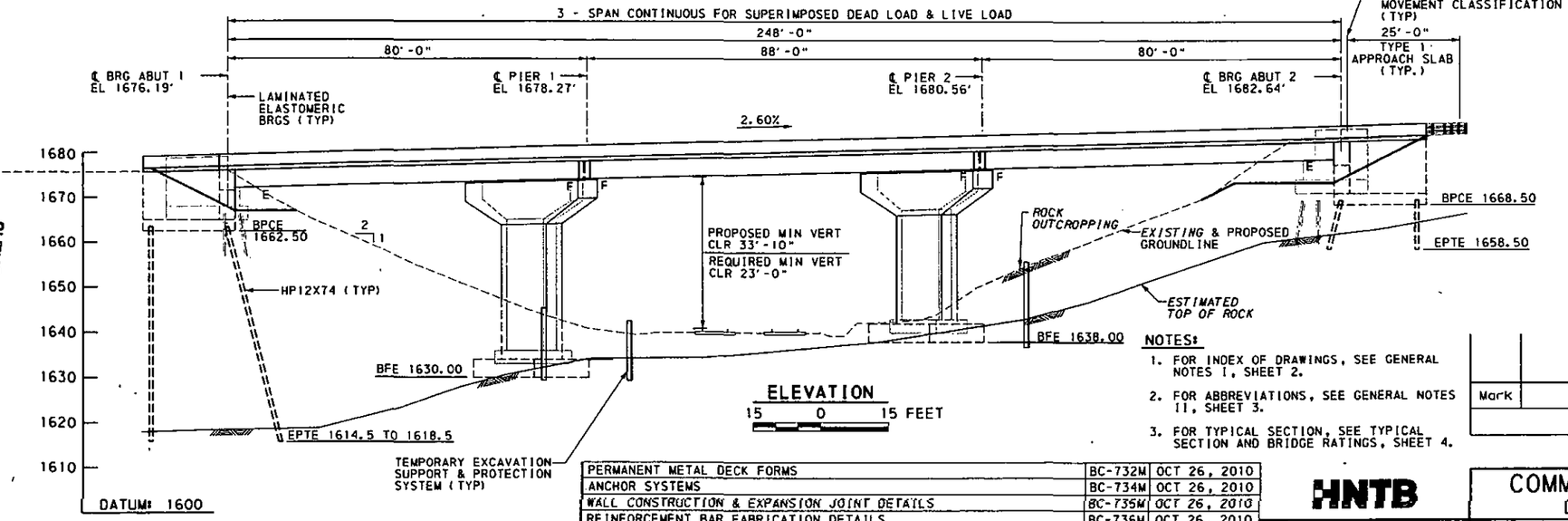
LEGEND

- TEMPORARY EXCAVATION SUPPORT & PROTECTION SYSTEM
- EXISTING CONTOUR
- PROPOSED CONTOUR

PLAN
15 0 15 FEET

SR 0081 SB GRADE DATA

2.60%
STA 1983+00.00 ELEV 1674.20
STA 1987+00.00 ELEV 1684.60



ELEVATION
15 0 15 FEET

RBMN RR VERTICAL ALIGNMENT (SOUTH TRACK)

RBMN VERTICAL PROFILE DATA			
LEFT RAIL		RIGHT RAIL	
STA	ELEV	STA	ELEV
18+35.25	1637.98	18+34.92	1637.69
18+85.15	1638.64	18+85.12	1638.59
19+35.03	1639.27	19+35.25	1639.24
19+84.97	1639.90	19+85.74	1639.83
20+35.52	1640.49	20+36.31	1640.41

RBMN RR VERTICAL ALIGNMENT (NORTH TRACK)

RBMN VERTICAL PROFILE DATA			
LEFT RAIL		RIGHT RAIL	
STA	ELEV	STA	ELEV
8+26.84	1638.30	8+26.59	1638.32
8+76.78	1639.12	8+76.70	1639.04
9+26.62	1639.84	9+26.67	1639.69
9+76.75	1640.44	9+77.18	1640.34
10+26.93	1640.78	10+27.85	1640.92

RBMN RR HORIZONTAL ALIGNMENT (SOUTH TRACK)

PI STA 17+40.23
Δ = 1°26'30" RT
Dc = 4°04'05"
T = 17.72
L = 35.44
R = 1408.46
E = 0.11
PC STA 17+22.51
PCC STA 17+57.95

PI STA 18+45.47
Δ = 9°52'22" RT
Dc = 5°39'15"
T = 87.52
L = 174.61
R = 1013.34
E = 3.77
PCC STA 17+57.95
PCC STA 19+32.56

PI STA 19+70.65
Δ = 6°50'41" RT
Dc = 8°59'40"
T = 38.10
L = 76.10
R = 637.02
E = 1.14
PCC STA 19+32.56
PCC STA 20+08.66

PI STA 20+81.36
Δ = 5°10'55" RT
Dc = 3°33'58"
T = 72.70
L = 145.31
R = 1606.67
E = 1.64
PCC STA 20+08.66
PT STA 21+53.97

RBMN RR HORIZONTAL ALIGNMENT (NORTH TRACK)

PI STA 8+30.36
Δ = 2°35'13" RT
Dc = 2°56'53"
T = 43.88
L = 87.75
R = 1943.55
E = 0.50
PC STA 7+86.48
PCC STA 8+74.23

PI STA 9+19.42
Δ = 6°40'00" RT
Dc = 7°23'01"
T = 45.20
L = 90.29
R = 776.00
E = 1.32
PCC STA 8+74.23
PCC STA 9+64.52

PI STA 10+05.97
Δ = 4°06'42" RT
Dc = 4°57'41"
T = 41.46
L = 82.87
R = 1154.84
E = 0.74
PCC STA 9+64.52
PCC STA 10+47.39

PI STA 10+98.05
Δ = 5°52'22" RT
Dc = 5°48'05"
T = 50.66
L = 101.23
R = 987.60
E = 1.30
PCC STA 10+47.39
PT STA 11+48.63

NOTES:
1. FOR INDEX OF DRAWINGS, SEE GENERAL NOTES I, SHEET 2.
2. FOR ABBREVIATIONS, SEE GENERAL NOTES II, SHEET 3.
3. FOR TYPICAL SECTION, SEE TYPICAL SECTION AND BRIDGE RATINGS, SHEET 4.

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 0081 PREVIOUSLY KNOWN AS LR 1005

SUPPLEMENTAL DRAWINGS		
DESCRIPTION	DWG. NO.	APP. DATE
PERMANENT METAL DECK FORMS	BC-732M	OCT 26, 2010
ANCHOR SYSTEMS	BC-734M	OCT 26, 2010
WALL CONSTRUCTION & EXPANSION JOINT DETAILS	BC-735M	OCT 26, 2010
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	OCT 26, 2010
TYPE F-BRIDGE BARRIER TO GUIDE RAIL TRANSITION	BC-739M	OCT 26, 2010
BRIDGE DRAINAGE	BC-751M	OCT 26, 2010
CONCRETE DECK SLAB DETAILS	BC-752M	OCT 26, 2010
BEARINGS	BC-755M	OCT 26, 2010
STEEL PILE TIP REINFORCEMENTS & SPLICES	BC-757M	OCT 26, 2010
PREFORMED NEOPRENE COMPRESSION SEAL JOINT FOR APPROACH SLABS	BC-766M	OCT 26, 2010
PRESTRESSED CONCRETE BEAM BRACING	BC-772M	OCT 26, 2010
MISCELLANEOUS PRESTRESS DETAILS	BC-775M	OCT 26, 2010
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	OCT 26, 2010
GENERAL NOTES AND LEGENDS FOR SOIL/ROCK DESCRIPTION	BC-795M	OCT 26, 2010
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	JUNE 1, 2010
BACKFILL AT STRUCTURES	RC-12M	JUNE 1, 2010
GUIDE RAIL TRANSITION AT END OF STRUCTURE	RC-50M	JUNE 1, 2010

RECEIVED
MAY 16 2012
PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

DESIGN REVIEWED BY:

ERDMAN ANTHONY
ONE STERLING PLACE
100 STERLING PARKWAY, SUITE 212
MECHANICSBURG, PA 17050

NICHOLAS B. BONNER — REGISTERED PROFESSIONAL — ENGINEER — No. 061300-E — COMMONWEALTH OF PENNSYLVANIA

Nicholas B. Bonner 4/19/2012
SIGNATURE AND DATE

THE DESIGN REVIEW IS FOR GENERAL CONFORMANCE WITH THE DEPARTMENTS DESIGN AND CONSTRUCTION CRITERIA AND STANDARDS AND IS NOT INTENDED TO RELIEVE THE DESIGNER OF FULL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF THE PLANS.

DES: JDH	DES CKD: JRM	DWG: EMD	DWG CKD: RSS

4/13/2012
FILENAME: 19122-S-BR11-GPE01.dgn

HNTB

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — BHARATKUMAR V. PATEL — 067152-E

Patel Bharat Vithalbhai
REG PROF ENGINEER
DATE APRIL 16, 2012

PREPARED BY:
HNTB CORPORATION
8 PENN CENTER, 7TH FLOOR
1628 JOHN F KENNEDY BLVD
PHILADELPHIA, PA 19103

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

SCHUYLKILL COUNTY
SR 0081 SECTION 11B
SEG 1341 OFFSET 1225
SR 0081 SB STA 1985+00.66 OVER READING, BLUE MOUNTAIN & NORTHERN RAILROAD
3-SPAN CONTINUOUS COMPOSITE PS CONCRETE PA BULB-TEE BEAM BRIDGE

GENERAL PLAN AND ELEVATION

RECOMMENDED 4/19/12
DISTRICT 5-0 BRIDGE ENGINEER

SHEET 1 OF 45
& SUPPLEMENTAL DRAWINGS

S - 30816

GENERAL NOTES

- PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408-2011 CHANGE NO 2, AASHTO/AWS D1.5: 2008 BRIDGE WELDING CODE (USE AWS D1.1: 2008 FOR WELDING NOT COVERED IN AASHTO/AWS D1.5) AND THE CONTRACT SPECIAL PROVISIONS, INCLUDING RB6 SPECIFIC REQUIREMENTS FOR WORKING ON THE READING BLUE MOUNTAIN & NORTHERN RAILROAD RIGHT OF WAY.

DESIGN SPECIFICATIONS:

- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 2004, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, SEPTEMBER 2007, INCLUDING CHANGE NO.1 DATED JANUARY 12, 2010.

- DESIGN IS IN ACCORDANCE WITH THE LOAD AND RESISTANCE FACTOR DESIGN (LRFD) METHOD.

- LIVE LOAD DISTRIBUTION TO GIRDERS IS BASED UPON DM-4 DISTRIBUTION FACTORS.

- SEISMIC DESIGN IS IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 2010. SITE CLASS IS NOT CLASS E OR F.

DESIGN LIVE LOADS:

- PHL-93 OR P-82 (204 KIP PERMIT LOAD)

- FATIGUE DESIGN IS BASED ON THE FOLLOWING:
  ADTT: 5853 (DESIGN YEAR 2034) ONE DIRECTIONAL
  MAXIMUM ALLOWABLE TENSILE STRESS IN PRECOMPRESSED TENSILE ZONE: $0.0948\sqrt{f'c}$

DEAD LOADS:

- INCLUDES SURFACE AREA DENSITY OF 30 LB/SF FOR FUTURE WEARING SURFACE ON THE DECK SLAB.

- INCLUDES SURFACE AREA DENSITY OF 15 LB/SF FOR PERMANENT METAL DECK FORMS WHICH TAKES INTO ACCOUNT THE WEIGHT OF THE FORMS, PLUS THE WEIGHT OF THE CONCRETE IN THE VALLEYS OF THE FORMS.

GENERAL:

- PROVIDE 2" COVER ON CONCRETE REINFORCEMENT BARS, EXCEPT AS NOTED.

- USE CONCRETE HAVING MINIMUM COMPRESSIVE STRENGTH (f'c) AT 28 DAYS OF 8,000 PSI IN PRESTRESSED CONCRETE BEAMS.

- USE CLASS A TYPE II, SULFATE-RESISTANT CEMENT CONCRETE IN PIER SHAFTS, ABUTMENTS BELOW BRIDGE SEATS, WINGWALLS, FOOTINGS, AND ABUTMENT PEDESTALS.

- USE CLASS A CEMENT CONCRETE IN PIER CAPS AND PIER PEDESTALS

- USE CLASS AA TYPE II, SULFATE RESISTANT CEMENT CONCRETE IN APPROACH SLABS, SLEEPER SLABS, CONCRETE DIAPHRAGMS AT ABUTMENTS, AND SHEAR BLOCKS AND CURTAIN WALLS AT ABUTMENTS.

- USE CLASS AA CEMENT CONCRETE IN CURBS, BARRIERS, CONCRETE DIAPHRAGMS AT PIERS, CHEEKWALLS AT PIERS AND CONCRETE DIAPHRAGMS AT MID-SPAN.

- USE CLASS AAAP CEMENT CONCRETE IN DECK SLAB.

- USE CLASS C TYPE II, SULFATE RESISTANT CEMENT CONCRETE BELOW THE BOTTOM OF FOOTINGS WHEN SPECIFIED.

- A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO COST TO THE DEPARTMENT.

- WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION WILL NOT BE PERMITTED UNLESS SPECIFIED.

- PROVIDE GRADE 60 REINFORCEMENT BARS THAT MEET THE REQUIREMENTS OF ASTM A615, A996 OR A706. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED. GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS-SECTIONAL AREA, IF APPROVED BY THE CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL A996 REINFORCEMENT BARS IN BRIDGE PIERS, ABUTMENTS, SHEAR BLOCKS, CHEEKWALLS, BEAMS, FOOTINGS, BARRIERS OR WHERE BENDING OR WELDING OF REINFORCEMENT BARS IS INDICATED.

- EPOXY COAT ALL REINFORCEMENT BARS.

- RAKE FINISH ALL HORIZONTAL CONSTRUCTION JOINTS EXCEPT AS INDICATED.

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

- PROVIDE MINIMUM LAP AND EMBEDMENT LENGTH OF 30 DIAMETERS OR IN ACCORDANCE WITH AASHTO AS MODIFIED BY DM-4, WHICHEVER IS GREATER, UNLESS NOTED ON PLANS.

- USE RETARDER ADMIXTURE CONFORMING TO PUBLICATION 408 IN THE CONCRETE DECK SLAB.

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

- PLACE CHEEKWALL, SHEAR BLOCK AND CURTAIN WALL CONCRETE AFTER BEAMS ARE SET IN POSITION.

- PREPARE CONCRETE BEARING AREAS IN ACCORDANCE WITH PUBLICATION 408, SECTION 1001.3(K)9.

- CHAMFER EXPOSED CONCRETE EDGES 1" x 1", EXCEPT AS NOTED.

- ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.

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

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

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

- ALL STATIONS AND ELEVATIONS ARE IN FEET UNLESS NOTED OTHERWISE.

- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A PERMIT FROM THE DEPARTMENT'S OCCUPANCY AND HAULING PERMIT SECTION FOR THE TRANSPORTATION OF BRIDGE BEAMS. OBTAIN PERMIT PRIOR TO BEAM FABRICATION.

- AFTER THE ERECTION OF ALL BEAMS AND REMOVAL OF BRACING AND FALSEWORK, IF USED, THE CONTRACTOR SHALL SURVEY THE TOPS OF BEAMS TO INSURE THAT THE MINIMUM DECK SLAB THICKNESS WILL BE MAINTAINED FOR THE PROPOSED TOP OF DECK ELEVATIONS INDICATED ON THE CONTRACT DRAWINGS. IF THE BEAMS HAVE EXCESSIVE CAMBER, A NEW PROFILE IS TO BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO SETTING THE FORMS FOR CONSTRUCTING THE DECK. THIS WORK IS INCIDENTAL TO THE CONSTRUCTION OF THE BRIDGE. COMPENSATE FOR DEAD LOAD DEFLECTIONS DUE TO THE WEIGHT OF CONCRETE WHEN FORMING AND CONSTRUCTING THE DECK.

- STABILITY OF BEAMS IS TO BE MAINTAINED BY THE CONTRACTOR DURING ERECTION, UNTIL ALL BEAMS AND DIAPHRAGMS ARE IN PLACE. ERECTION LOADS, INCLUDING SELF WEIGHT OF FRAMING, WIND LOADING AND CONSTRUCTION LIVE LOAD EFFECTS ARE TO BE EVALUATED BY THE CONTRACTOR FOR STABILITY, STRESSES AND DEFLECTIONS ON CONCRETE MEMBERS DURING ALL STAGES OF CONSTRUCTION.

- LABORATORY ANALYSIS OF SAMPLES FROM DECK EXPANSION JOINT MATERIAL, JOINT SEALANT MATERIAL, AND CAULKING MATERIAL INDICATED THAT ASBESTOS WAS DETECTED IN THE CAULKING MATERIAL.

GENERAL:

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

- THE INFORMATION SHOWN ON THE PLANS FOR THE EXISTING BRIDGE IS NOT PART OF THE PLANS, PROPOSAL, OR CONTRACT AND IS NOT TO BE CONSIDERED A BASIS FOR COMPUTATION OF THE UNIT PRICES USED FOR BIDDING PURPOSES. THERE IS NO EXPRESSED OR IMPLIED AGREEMENT THAT INFORMATION IS CORRECTLY SHOWN. THE BIDDER IS NOT TO RELY ON THIS INFORMATION, BUT IS TO ASSUME THE POSSIBILITY THAT CONDITIONS AFFECTING THE COST AND/OR QUANTITIES OF WORK TO BE PERFORMED MAY DIFFER FROM THOSE INDICATED. (ORIGINAL DWGS S-6899A; REHAB DWGS S-14516)

UTILITY:

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

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

INDEX OF SHEETS

Mark	Description	By	Chk'd	Recm'd	Date
	REVISIONS				

SR 0081 PREVIOUSLY KNOWN AS LR 1005

HNTB

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL BHARATKUMAR V. PATEL ENGINEER 48752-R

SCHUYLKILL COUNTY
SR 0081 SECTION 11B
SEG 1341 OFFSET 1225
SR 0081 SB STA 1985+00.66 OVER READING, BLUE MOUNTAIN & NORTHERN RAILROAD
3-SPAN CONTINUOUS COMPOSITE PS CONCRETE PA BULB-TEE BEAM BRIDGE
GENERAL NOTES I & INDEX

PREPARED BY:
HNTB CORPORATION
8 PENN CENTER, 7TH FLOOR
1628 JOHN F KENNEDY BLVD
PHILADELPHIA, PA 19103

RECOMMENDED APRIL 19, 2012

SHEET 2 OF 45

S - 30816

4/16/2012
FILENAME: 49122-S-B81-GEN01.dgn

DES: JDH | DES CKD: BVP | DWG: EMD | DWG CKD: BVP/RSS

RAILROAD NOTES:

- CONSTRUCTION ACTIVITY WITHIN THE RIGHT-OF-WAY OF THE READING BLUE MOUNTAIN AND NORTHERN RAILROAD (RBM&N) RAILROAD IS SUBJECT TO RB6 SPECIFIC REQUIREMENTS FOR WORKING ON THE READING BLUE MOUNTAIN AND NORTHERN RAILROAD RIGHT OF WAY.
- MAINTAIN ALL DRAINAGE ON OR IMPACTING THE RAILROAD TRACK AND RAILROAD RIGHT OF WAY DURING WORK ACTIVITIES AND RESTORE AREA AFTER COMPLETION OF CONSTRUCTION ACTIVITY.
- SUBMIT REQUIRED INSURANCE CERTIFICATES PRIOR TO WORKING ON RAILROAD PROPERTY.
- NOTIFY, IN WRITING, THE RAILROAD AT LEAST 14 DAYS PRIOR TO THE INITIATION OF THE FOLLOWING ACTIVITIES:

  -THE CONSTRUCTION OF TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM WITHIN 25'-0" OF THE CENTERLINE OF THE RAILROAD TRACKS.

  -THE DEMOLITION OF ANY PORTION OF THE EXISTING STRUCTURE OVER THE RAILROAD.

  -THE ERECTION OF ANY BEAMS OR ANY OVERHEAD CONSTRUTION ACTIVITY OCCURRING OVER THE RAILROAD.

  -ANY CONSTRUCTION ACTIVITY OCCURRING WITHIN 15'-0" OF THE CENTERLINE OF THE RAILROAD TRACKS.

  -THE CONTRACTOR IS RESPONSIBLE TO COORDINATE NOTIFICATION, APPROVALS AND FLAGGING SERVICE.

PRE-WORK MEETING:

- PRIOR TO WORKING ON THE RAILWAY COMPANY'S RIGHT-OF-WAY OR IN THE VICINITY OF THEIR TRACKS, CONTACT THE RAILROAD TO COORDINATE WORK AND ARRANGE A PRE-WORK MEETING.

FOUNDATION NOTES:

- GROUND WATER WAS ENCOUNTERED DURING DRILLING. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT DEWATERING MEASURES TO DIVERT GROUND WATER AND STORM WATER AWAY FROM THE EXCAVATED AREA TO ACCOMMODATE INSPECTION OF THE EXCAVATIONS AND CONSTRUCTION OF THE FOUNDATIONS.
- DO NOT LEAVE ANY PORTION OF TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM IN STRUCTURES.
- PROVIDE TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM WHERE INDICATED ON THE PLANS, OR WHERE REQUIRED. ALL TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM SHOWN ON THE PLANS IS FOR INFORMATION ONLY; NO IMPLICATIONS SHOULD BE MADE REGARDING THE LOCATIONS AND/OR LIMITS OF THE SUPPORTS. ENSURE THAT ALL COMPONENTS STAY WITHIN THE LEGAL RIGHT-OF-WAY UNLESS AN EASEMENT IS OBTAINED BY THE CONTRACTOR. THE CONTRACTOR MUST SUBMIT A PLAN AND DESIGN TO THE ENGINEER FOR REVIEW AND APPROVAL.
- EFFECTS OF THE GROUND WATER TABLE, SURCHRAGE AND RETAINED SLOPING EARTH CONDITIONS MUST BE CONSIDERED IN THE DESIGN OF TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEMS. DESIGN TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM RETAINING RBM&N RAILROAD TRACKS IN ACCORDANCE WITH SPECIFIC REQUIREMENTS FOR WORKING ON THE READING BLUE MOUNTAIN & NORTHERN RAILROAD RIGHT-OF-WAY. SEE SPECIAL PROVISIONS.
- ENSURE ALL EXCAVATIONS ARE STABLE. ALL EXCAVATIONS MUST CONFORM TO CURRENT OSHA REGULATIONS, AND OTHER APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS AND DESIGN STANDARDS.
- SPREAD FOOTINGS MAY BE ORDERED BY THE ENGINEER TO BE AT ANY ELEVATION OR OF ANY DIMENSION NECESSARY TO PROVIDE A PROPER FOUNDATION.
- FOOTING EXCAVATIONS ARE TO BE INSPECTED AND APPROVED BY THE DISTRICT GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL EVALUATE THE SUITABILITY OF THE BEARING SURFACE AT ALL PROPOSED FOUNDATIONS PRIOR TO FOOTING CONSTRUCTION. THE BEARING SURFACE IS TO BE FREE FROM LOOSE AND DELETERIOUS MATERIALS, AND CLEANED TO A FIRM SURFACE AS DIRECTED BY THE ENGINEER. ANY LOOSE OR SOFT ZONES THAT ARE IDENTIFIED DURING INSPECTION ARE TO BE OVER-EXCAVATED AND REPLACED WITH CLASS C CONCRETE, AS DIRECTED BY THE ENGINEER.
- FOOTING EXCAVATIONS ADVANCING BELOW THE PROPOSED BOTTOM OF FOOTING ELEVATION FOR THE PURPOSE OF PLACING CLASS C CEMENT CONCRETE SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL ENGINEER TO DETERMINE WHEN A SUITABLE BEARING STRATUM IS REACHED.
- PRIOR TO PLACEMENT OF CLASS C CEMENT CONCRETE IN THE FOOTING EXCAVATIONS, THE GEOTECHNICAL ENGINEER SHALL INSPECT THE FOUNDATION SUBGRADE. REMOVE ALL UNSUITABLE MATERIAL AND REPLACE IT WITH CLASS C CEMENT CONCRETE AS DIRECTED BY THE ENGINEER UP TO BOTTOM OF FOOTING ELEVATION.
- STRUCTURE BACKFILL SHALL BE CONSTRUCTED IN ACCOROANCE WITH RC-12M.
- SOIL IS CORROSIVE. SULFATE RESISTANT CEMENT CONCRETE AND EPOXY COATED REINFORCING STEEL ARE REQUIRED IN ALL SUBSTRUCTURE UNITS. TYPE II CEMENT WITH A MAXIMUM WATER CEMENT RATIO OF 0.45 SHOULD BE USED AS THE CORROSION RESISTANT CONCRETE. ADDITIVES CONTAINING CHLORIDES SHALL NOT BE USED IN THE SUBSTRUCTURE CONCRETE.
- BLASTING IS NOT PERMITTED FOR STRUCTURE FOUNDATION EXCAVATION.
- ALL PILES ARE HP12x74 AASHTO M270, GRADE 36 STEEL.
- A 1/16 INCH REDUCTION ALONG THE PERIMETER OF PILE CROSS SECTION HAS BEEN INCLUDED IN THE DESIGN TO ACCOUNT FOR CORROSION LOSS.
- MANDATORY PREDRILLING FOR FULL LEGNTH IS REQUIRED FOR ALL PILES.
- PROVIDE PILE TIP REINFORCEMENT IN ACCORDANCE WITH BC-757M.
- EXTRACT PILES FROM EXISTING ABUTMENTS THAT INTERFERE WITH NEW PILES TO ALLOW FOR NEW CONSTRUCTION AND AS DIRECTED BY THE ENGINEER.
- DRIVE PILES BY METHOD A TO CASE 1 REFUSAL AS POINT BEARING PILES. CONTROL PILE DRIVING BY THE WAVE EQUATION ANALYSIS. DRIVE TEST PILES TO ABSOLUTE REFUSAL. THE ENGINEER SHALL VERIFY, FROM THE TEST PILE DRIVING RESULTS, THE CAPABILITY OF THE PILE HAMMER SELECTED BY THE CONTRACTOR. DRIVE BEARING PILES TO ABSOLUTE REFUSAL INTO THE STRATUM DEFINED BY A TIP ELEVATION WHICH IS PREDETERMINED BY THE ENGINEER FROM THE TEST PILES. THE ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE BEARING PILES WHICH ATTAIN ABSOLUTE REFUSAL ABOVE THE PREDETERMINED TIP ELEVATIONS.
- DRIVE ALL PILES TO WITHIN 3 INCHES OF PLAN LOCATION.
- DRIVE TWO TEST PILES TO ABSOLUTE REFUSAL ON ROCK FOR EACH SUBSTRUCTURE. PERFORM DYNAMIC PILE TESTING FOR EACH TEST PILE DRIVEN. STATIC PILE LOAD TESTING IS NOT REQUIRED.

EXISTING BRIDGE REMOVAL NOTES:

- REMOVE EXISTING STRUCTURE TO 2 FEET BELOW FINAL GRADE. IN THE AREAS WHERE THERE IS CONFLICT WITH NEW CONSTRUCTION, REMOVE EXISTING STRUCTURE IN ITS ENTIRETY.

ABBREVIATIONS:

ADTT	AVERAGE DAILY TRUCK TRAFFIC
APPROX	APPROXIMATE
BPCE	BOTTOM PILE CAP ELEVATION
BFE	BOTTOM OF FOOTING ELEVATION
EF	EACH FACE
EMBED	EMBEDMENT
EPTE	ESTIMATED PILE TIP ELEVATION
EW	EACH WAY
FF	FRONT FACE
FIX	FIXED
LR	LEGAL ROUTE
NTS	NOT TO SCALE
PGL	PROFILE GRADE LINE
PROP	PROPOSED
RF	REAR FACE
SPA	SPACES
SR	STATE ROUTE
UNO	UNLESS NOTED OTHERWISE
WP	WORK POINT

TEST PILES AS-BUILT INFORMATION TABLE

SUBSTRUCTURE UNIT	PILE TYPE	PILE TIP (Y OR N)	PILE TIP ELEVATION	FACTORED DESIGN LOAD (KIP)	ULTIMATE PILE CAPACITY AT END OF DRIVING (KIP)	WEAP OR PDA
ABUTMENT 1						
ABUTMENT 2						

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 0081 PREVIOUSLY KNOWN AS LR 1005

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SCHUYLKILL COUNTY
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3-SPAN CONTINUOUS COMPOSITE PS CONCRETE PA BULB-TEE BEAM BRIDGE
GENERAL NOTES II

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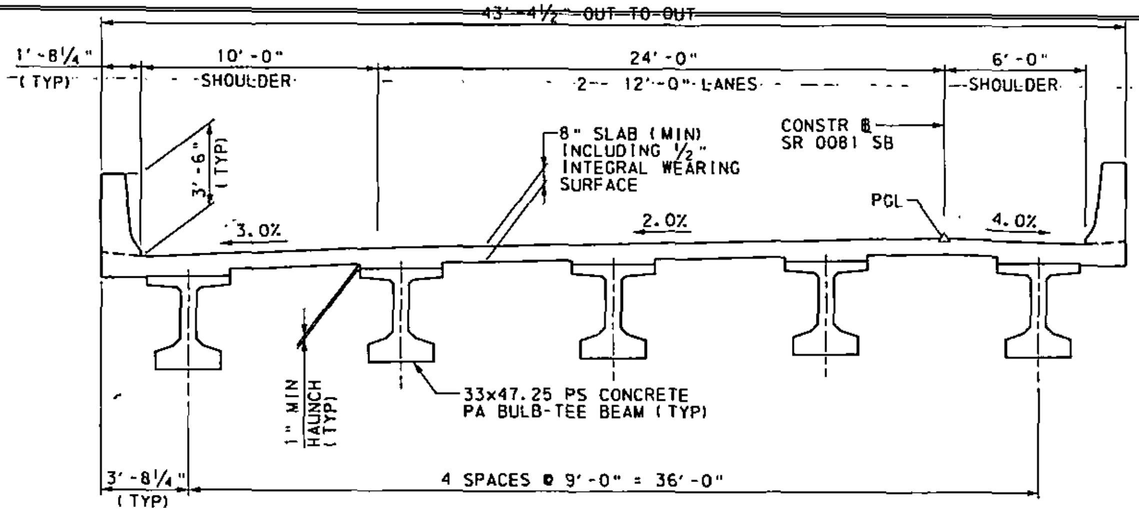
RECOMMENDED APRIL 19, 2012

SHEET 3 OF 45

S - 30816

4/16/2012
FILENAME = 49122-S-B81-GEN02.dgn

DES: JDH | DES CKD: BVP | DWG: CM | DWG CKD: BVP



TYPICAL SECTION

4 2 0 4 FEET

LIMITS OF PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, BRIDGE SUPERSTRUCTURE)

APPROACH SLAB AND DECK

PROTECTIVE COATING DETAILS

NOT TO SCALE

BRIDGE LOAD RATINGS WITH FUTURE WEARING SURFACE							
ADTT: 3,911 (2012); ADTT: 5,853 (2034) (ONE DIRECTIONAL)							
		PA BULB-TEE BEAM, 33"x47.25"					
SPANS 1,2,3		H-20	HS-20	ML-80	PHL-93	P-82	TK527
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.836	0.836	0.849	0.836	-	0.836
	LOCATION	0.5L SPAN 2	0.5L SPAN 2	0.5L SPAN 1	0.5L SPAN 2	-	0.5L SPAN 2
	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	-	SERV-III
	RATING FACTOR	1.59 M	1.24 M	1.08 M	1.13 M	-	1.09 M
	CRITICAL MEMBER	INTERIOR	INTERIOR	INTERIOR	INTERIOR	-	INTERIOR
	FACTORED FLEXURAL RESISTANCE (KIP-FT)	9035.2	9035.2	7541.4	9035.2	-	9035.2
	FACTORED SHEAR RESISTANCE (KIPS)	-	-	-	-	-	-
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.828	0.884	0.884	0.828	0.884	0.884
	LOCATION	0.0L SPAN 2	0.6L SPAN 1	0.6L SPAN 1	0.0L SPAN 2	0.8L SPAN 1	0.6L SPAN 1
	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II
	RATING FACTOR	2.76 M	2.20 S	1.94 S	1.91 M	1.16 S	1.93 S
	CRITICAL MEMBER	EXTERIOR	INTERIOR	INTERIOR	EXTERIOR	INTERIOR	INTERIOR
	FACTORED FLEXURAL RESISTANCE (KIP-FT)	-3836.8	-	-	-3836.8	-	-
	FACTORED SHEAR RESISTANCE (KIPS)	-	215.95	215.95	-	297.92	215.95

BRIDGE LOAD RATINGS WITHOUT FUTURE WEARING SURFACE							
ADTT: 3,911 (2012); ADTT: 5,853 (2034) (ONE DIRECTIONAL)							
		PA BULB-TEE BEAM, 33"x47.25"					
SPANS 1,2,3		H-20	HS-20	ML-80	PHL-93	P-82	TK527
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.836	0.849	0.849	0.836	-	0.849
	LOCATION	0.5L SPAN 2	0.5L SPAN 1	0.5L SPAN 1	0.5L SPAN 2	-	0.5L SPAN 1
	LIMIT STATE	SERV-III	SERV-III	SERV-III	SERV-III	-	SERV-III
	RATING FACTOR	1.78 M	1.38 M	1.21 M	1.27 M	-	1.22 M
	CRITICAL MEMBER	INTERIOR	INTERIOR	INTERIOR	INTERIOR	-	INTERIOR
	FACTORED FLEXURAL RESISTANCE (KIP-FT)	9035.2	7541.4	7541.4	9035.2	-	7541.4
	FACTORED SHEAR RESISTANCE (KIPS)	-	-	-	-	-	-
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.884	0.884	0.884	0.828	0.884	0.884
	LOCATION	0.9L SPAN 1	0.6L SPAN 1	0.6L SPAN 1	0.0L SPAN 2	0.8L SPAN 1	0.6L SPAN 1
	LIMIT STATE	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II
	RATING FACTOR	2.95 S	2.32 S	2.05 S	2.06 M	1.22 S	2.04 S
	CRITICAL MEMBER	INTERIOR	INTERIOR	INTERIOR	EXTERIOR	INTERIOR	INTERIOR
	FACTORED FLEXURAL RESISTANCE (KIP-FT)	-	-	-	-3836.8	-	-
	FACTORED SHEAR RESISTANCE (KIPS)	370.05	244.02	244.02	-	301.51	244.02

BRIDGE LOAD RATING NOTES:

1. "M" OR "S" DENOTES THAT MOMENT OR SHEAR CONTROLS THE RATING FACTOR, RESPECTIVELY.
2. DISTRIBUTION FACTORS ARE CORRESPONDING TO THE CONTROLLING LIMIT STATES.
3. PHL-93 = PENNSYLVANIA DESIGN VEHICULAR LIVE LOAD.
   ML-80 = PENNSYLVANIA MAXIMUM LEGAL LOAD.
   P-82 = PENNSYLVANIA PERMIT LOAD.
   TK-527 = PENNSYLVANIA LEGAL LOAD FOR 5-7 AXLE DUMP TRUCK.
4. DATA IS TAKEN FROM PENNDOT'S LRFD PRESTRESSED CONCRETE GIRDER DESIGN AND RATING OUTPUT (VERSION 2.5.0.0).
5. FACTORED RESISTANCE TAKEN AT THE LOCATION ON THE CRITICAL BEAM INDICATED.

Mark	Description	By	Chk'd	Recm'd	Date

REVISIONS

SR 0081 PREVIOUSLY KNOWN AS LR 1005

HNTB

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL BHARATKUMAR V. PATEL ENGINEER 48752-E

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

SCHUYLKILL COUNTY
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TYPICAL SECTION & BRIDGE RATINGS

RECOMMENDED APRIL 19, 2012

SHEET 4 OF 45

S - 30816

4/16/2012 FILENAME: 49122-S-BR1-TYP02.dgn

DES: RSS | DES CKD: MJR | DWG: CRM | DWG CKD: RSS

APPROXIMATE QUANTITIES - BRIDGE STRUCTURE, AS DESIGNED, S-30816

ITEM NUMBER	ITEM	UNIT	ABUTMENT 1	PIER 1	PIER 2	ABUTMENT 2	SUPER STRUCTURE	APPROACH SLAB 1	APPROACH SLAB 2	TOTAL
8030-0002	BRIDGE STRUCTURE, AS DESIGNED, S-30816 (2)	LS	---	---	---	---	---	---	---	LS
(1)	CLASS 3 EXCAVATION	CY	709	402	419	754	---	---	---	2,284
(1)	MEMBRANE WATERPROOFING SYSTEM INSTALLED ON OTHER SURFACES (12)	SY	31	---	---	31	---	---	---	62
(1)	NO. 57 COARSE AGGREGATE (3)	CY	20	---	---	20	---	---	---	40
(1)	6" STRUCTURE FOUNDATION DRAIN (11)	LF	182	---	---	192	---	---	---	374
(1)	SELECTED BORROW EXCAVATION, STRUCTURE BACKFILL	CY	356	---	---	357	---	---	---	713
(1)	CLASS AAAP CEMENT CONCRETE (4)	CY	---	---	---	---	346	---	---	346
(1)	CLASS AA CEMENT CONCRETE	CY	---	1	2	---	135	8	8	154
(1)	CLASS A CEMENT CONCRETE	CY	---	68	69	---	---	---	---	137
(1)	CLASS AA TYPE II, SULFATE RESISTANT CEMENT CONCRETE (2)	CY	5	---	---	5	38	63	63	174
(1)	CLASS A TYPE II, SULFATE RESISTANT CEMENT CONCRETE (2)	CY	112	149	134	117	---	---	---	512
(1)	STEEL BEAM TEST PILES, HP12X74 (14)	LS	2 AT 49'	---	---	2 AT 11'	---	---	---	LS
(1)	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, BRIDGE SUPERSTRUCTURE)	SY	---	---	---	---	1,455	146	145	1,746
(1)	PRESTRESSED CONCRETE PA BULB-TEE BEAMS, 33" x 47.25" (5)	LF	---	---	---	---	1,244	---	---	1,244
AND										
1002-0192	REINFORCEMENT BARS, EPOXY COATED (6) (7)	LB	10,893	47,208	45,082	11,127	119,176	14,411	14,411	262,309
AND										
1005-1104	STEEL BEAM BEARING PILES, HP12X74 (8)	LF	1,159	---	---	261	---	---	---	1,420
AND										
1005-1154	STEEL BEAM PILE TIP REINFORCEMENT, HP12X74 (8)	EACH	23	---	---	23	---	---	---	46
AND										
9005-0002	MANDATORY PRE-DRILLING FOR STEEL BEAM BEARING PILES, S-30816 (2) (8)	LF	1,257	---	---	283	---	---	---	1,540
AND										
9005-0012	DYNAMIC PILE LOAD MONITORING, S-30816 (2) (8)	EACH	2	---	---	2	---	---	---	4
1091-0335	EPOXY INJECTION CRACK SEAL	DOLLAR	---	---	---	---	3,000	---	---	3,000
5001-0020	CLASS C CEMENT CONCRETE MODIFIED (2) (10)	CY	---	29	28	---	---	---	---	57
9005-0022	PILE EXTRACTION FOR EXISTING PILES, S-30816 (2) (13)	EACH	19	---	---	19	---	---	---	38
9205-0112	TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM, S-30816 (2)	LS	---	---	---	---	---	---	---	LS

(1) ITEMS IN BRIDGE STRUCTURE LUMP SUM ITEM 8030-0002 GIVEN FOR INFORMATION ONLY.
(2) SEE SPECIAL PROVISIONS.
(3) GEOTEXTILE, CLASS 1 IS INCIDENTAL TO NO. 57 COARSE AGGREGATE.
(4) INCLUDES APPROXIMATELY 20 CUBIC YARDS TO ACCOUNT FOR STAY-IN-PLACE FORM TROUGHS.
(5) INCLUDES LAMINATED NEOPRENE BEARING PADS, REQUIRED BEARING PAD MATERIAL, AND RUBBERIZED JOINT SEALING MATERIAL AS REQUIRED.
(6) INCLUDES 1402 LBS. OF EPOXY COATED DOWELS.
(7) FOR AS DESIGNED STRUCTURE, INCLUDED IN BRIDGE ITEMS. FOR ALTERNATE DESIGNS, INCLUDED IN BRIDGE STRUCTURE LUMP SUM BID ITEM.
(8) INCLUDED IN BRIDGE BID ITEMS.
(9) STEEL CASINGS AND SAND OR PEA GRAVEL ARE INCIDENTAL TO PRE-DRILLING FOR STEEL BEAM BEARING PILES, S-30816.
(10) APPROXIMATE QUANTITY FOR OVER EXCAVATION AND BACKFILLING, AS DIRECTED BY THE ENGINEER.
(11) INCLUDES 114 LF OF 6" DIAMETER PVC PIPE (SCHEDULE 40) EXTENDING IN FRONT OF ABUTMENT STEM.
(12) INCLUDES RUBBERIZED TROUGH MATERIAL, 2" CLOSED CELL POLYSTYRENE FOAM, AND WATERPROOFING MEMBRANE.
(13) ASSUMED NUMBER OF PILES TO BE EXTRACTED IS SHOWN. ACTUAL QUANTITY TO BE DETERMINED AS DIRECTED BY THE ENGINEER.
(14) INCLUDES 4 PILE TIP REINFORCEMENTS

ALTERNATE STRUCTURE ITEMS

ITEM NUMBER	ITEM	UNIT	TOTAL
8030-0002	BRIDGE SUPERSTRUCTURE, AS DESIGNED, S-30816	LS	LUMP SUM
8000-0002	PRESTRESSED CONCRETE BRIDGE STRUCTURE	LS	LUMP SUM
8100-0002	STEEL BRIDGE STRUCTURE	LS	LUMP SUM

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 0081 PREVIOUSLY KNOWN AS LR 1005

HNTB

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL BHARATKUMAR V. PATEL ENGINEER 48152-R

SCHUYLKILL COUNTY
SR 0081 SECTION 11B
SEG 1341 OFFSET 1225
SR 0081 SB STA 1985+00.66 OVER READING, BLUE MOUNTAIN & NORTHERN RAILROAD
3-SPAN CONTINUOUS COMPOSITE PS CONCRETE PA BULB-TEE BEAM BRIDGE
SUMMARY OF QUANTITIES

PREPARED BY:
HNTB CORPORATION
8 PENN CENTER, 7TH FLOOR
1628 JOHN F KENNEDY BLVD
PHILADELPHIA, PA 19103

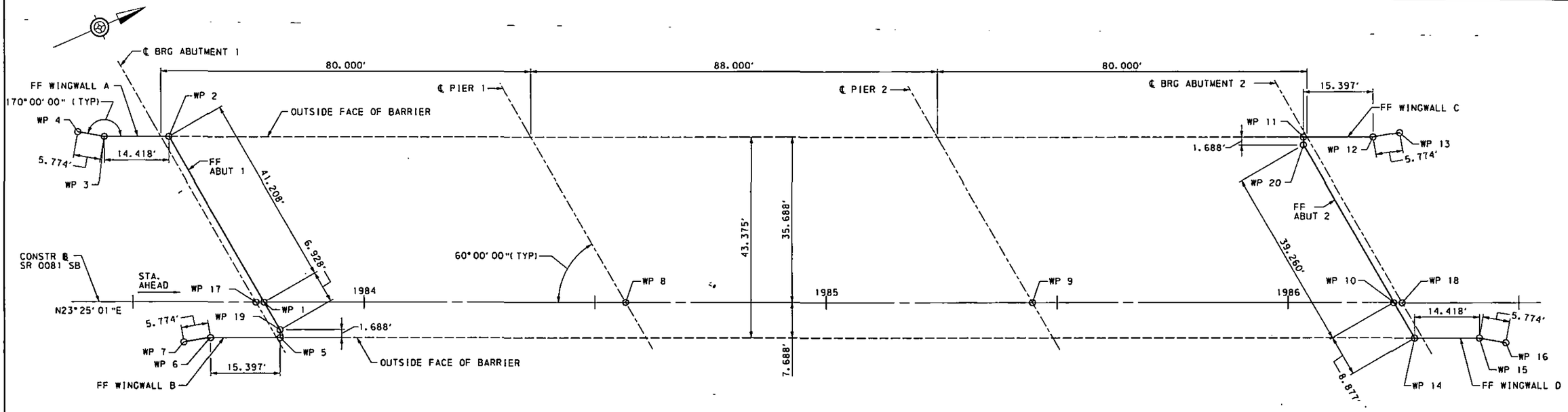
RECOMMENDED APRIL 19, 2012

SHEET 5 OF 45

S - 30816

4/16/2012
FILENAME: 49122-S-BRI-SUM01.dgn

DES: MJR | DES CKD: MLK | DWG: CM | DWG CKD: MJR



STAKE-OUT PLAN
NOT TO SCALE

COORDINATE TABLE					
WORK POINT	STATION	OFFSET (FT)	NORTHING	EASTING	DESCRIPTION
WP 1	1983+78.39	0	553648.0943	2436108.0277	F.F. ABUT. 1 ℄ CONSTRUCTION ℄ S.R. 0081
WP 2	1983+57.79	35.6875 LT	553643.3700	2436067.0910	WEST CORNER OF F.F. OF ABUT. 1
WP 3	1983+43.37	35.6875 LT	553630.1397	2436061.3611	F.F. CORNER OF WINGWALL A
WP 4	1983+37.68	36.6902 LT	553625.3202	2436058.1812	F.F. CORNER OF WINGWALL A END
WP 5	1983+81.86	7.6875 RT	553648.2179	2436116.4587	EAST CORNER OF F.F. OF ABUT. 1
WP 6	1983+66.46	7.6875 RT	553634.0891	2436110.3397	F.F. CORNER OF WINGWALL B
WP 7	1983+60.77	8.6902 RT	553628.4726	2436108.9999	F.F. CORNER OF WINGWALL B END
WP 8	1984+56.66	0	553719.9159	2436139.1329	℄ PIER 1 ℄ CONSTRUCTION ℄ S.R. 0081
WP 9	1985+44.66	0	553800.6679	2436174.1058	℄ PIER 2 ℄ CONSTRUCTION ℄ S.R. 0081
WP 10	1986+22.93	0	553872.4895	2436205.2110	F.F. ABUT. 2 ℄ CONSTRUCTION ℄ S.R. 0081
WP 11	1986+03.30	35.6875 LT	553868.6593	2436164.6615	WEST CORNER OF F.F. OF ABUT. 2
WP 12	1986+18.70	35.6875 LT	553882.7881	2436170.7806	F.F. CORNER OF WINGWALL C
WP 13	1986+24.38	36.6902 LT	553888.4046	2436172.1203	F.F. CORNER OF WINGWALL C END
WP 14	1986+27.37	7.6875 RT	553873.5072	2436214.0292	EAST CORNER OF F.F. OF ABUT. 2
WP 15	1986+41.78	7.6875 RT	553886.7375	2436219.7591	F.F. CORNER OF WINGWALL D
WP 16	1986+47.47	8.6902 RT	553891.5570	2436222.9391	F.F. CORNER OF WINGWALL D END
WP 17	1983+76.66	0	553646.5049	2436107.3393	℄ BRG ABUT. 1 ℄ CONSTRUCTION ℄ S.R. 0081
WP 18	1986+24.66	0	553874.0789	2436205.8993	℄ BRG ABUT. 2 ℄ CONSTRUCTION ℄ S.R. 0081
WP 19	1983+81.86	6.0000 RT	553648.8886	2436114.9102	EAST CORNER OF F.F. OF ABUT. 1 ℄ BARRIER
WP 20	1986+03.30	34.0000 LT	553867.9886	2436166.2100	WEST CORNER OF F.F. OF ABUT. 2 ℄ BARRIER

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 0081 PREVIOUSLY KNOWN AS LR 1005

HNTB

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

REGISTERED PROFESSIONAL
BHARATKUMAR V. PATEL
ENGINEER 48752-R
COMMONWEALTH OF PENNSYLVANIA

SCHUYLKILL COUNTY
SR 0081 SECTION 11B
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RECOMMENDED APRIL 19, 2012

SHEET 6 OF 45

S - 30816

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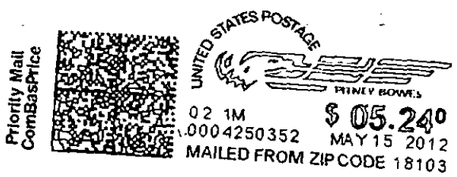
DES: MLK | DES CKD: RSS | DWG: CRM | DWG CKD: MLK

ENOS-3WH (7-07)
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION



pennsylvania
DEPARTMENT OF TRANSPORTATION
Engineering District 5-0
1002 Hamilton Street
Allentown, PA 18101-1013

To:

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