



July 26, 2022

LEHIGH COUNTY  
CATASAUQUA BOROUGH  
SR 1004, SECTION 03S  
DOT # 361 660 G  
PUC No. A-2019-3008985  
ECMS # 57433

Rosemary Chiavetta , Secretary  
Pennsylvania Public Utility Commission  
400 North Street  
Harrisburg, PA 17105-3265

Dear Secretary Chiavetta :

In accordance with ordering paragraph number 2 of PUC Docket No. A-2019-3008985 entered on December 20, 2019, please find attached electronically for your approval one half-size copy of the final signed Drawings for Construction of State Route 1004, Section 03S in Lehigh County, consisting of sheets, 1, 2, 4, 6, 8, 14, 22, 23, 24, 25, 66, 67, 104, 105, 108, and 109 of 111; and one copy of half-size final signed Structure Plans for SR 1004, Section 03S (S- 36735) consisting of sheets 1 through 44 of 44.

The Department of Transportation hereby avers that a partial set of the aforesaid final Drawings for Construction plans and complete set of Structure Plans (S- 36735) are being sent to the following parties of record for examination simultaneously with this submission to the Public Utility Commission:

Phil Armstrong, Executive  
Lehigh County  
Lehigh County Government Center  
17 S. Seventh Street  
Allentown, PA 18101-2400  
PhilArmstrong@lehighcounty.org

Christopher P. Bennett, P.E.  
Norfolk Southern Railway Company  
1200 Peachtree Street, NE  
Atlanta, GA 30309  
chris.bennett@nscorp.com

Stephen Travers  
Borough of Catasauqua  
90 Bridge Street  
Catasauqua, PA 18032  
travers@catasauqua.org

Timothy J. Bentley, Esq.  
Norfolk Southern Railway Company  
Three Commercial Place  
Norfolk, VA 23510-9241  
timothy.bentley@nscorp.com

Douglas Starling  
Senior Engineer Public Improvements  
Norfolk Southern Corporation  
1200 Peachtree Street  
Atlanta, GA 30309  
Douglas.Starling@nscorp.com

Pat Provost  
Centurylink Communications, LLC.  
1025 Eldorado Boulevard  
Broomfield, CO 80021  
patrick.provost@centurylink.com

Charlotte Krupa  
PPL Electric  
Two North 9<sup>th</sup> Street-GNN3  
Allentown, PA 18101  
cakrupa@pplweb.com

Kevin Cochran  
RCN Lehigh Valley  
5508 Nor-Bath Boulevard  
Northampton, PA 18067  
kevin.cochran@rcn.net

Mike Millhouse  
Service Electric Cable TV & Communications  
2260 Avenue A LVIP#1  
Bethlehem, PA 18017  
millh@sectv.com

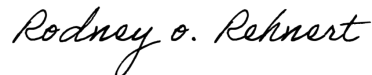
John Bruce  
Spread Networks LLC.  
800 Woodlands Parkway, Suite 102  
Ridgeland, MS 39157  
John.bruce@zayo.com

Luke Lichtenwalner  
UGI Utilities Inc.  
2121 City Line Road  
Bethlehem, PA 18017

Deborah Barum  
Verizon Pennsylvania LLC.  
3151 Pioneer Avenue  
Pittsburgh, PA 15226  
deborah.d.delia@verizon.com

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  
M. J. Chappell, PE - Chief, Utilities and Right-of-Way Section, 7<sup>th</sup> Floor, CKB  
Keren L. Cummins, Office of Chief Counsel, 9<sup>th</sup> Floor, CKB  
W. Sinick, PE - Manager, Rail Safety Division, PUC, 3<sup>rd</sup> Floor, CKB

PENNDOT PROJECT MANAGER KERRY COX

DISTRICT	COUNTY	CITY	BOROUGH	ROUTE	SECTION	TOTAL SHEETS
5-0	LEHIGH	-	CATASAUQUA	1004	03S	111
	LEHIGH	-	CATASAUQUA	1007	03S	

ECMS NO. 57433

SR 1004 PREVIOUSLY KNOWN AS LR 39032  
SR 1007 PREVIOUSLY KNOWN AS LR 153 SPUR

# COMMONWEALTH OF PENNSYLVANIA



## DEPARTMENT OF TRANSPORTATION

### DRAWINGS FOR CONSTRUCTION OF

STATE ROUTE 1004 SECTION 03S

IN LEHIGH COUNTY

FROM STA 5+50.00 TO STA 21+35.00 LENGTH 1485.00 FT 0.281 MI

FROM SEG 0020 OFFSET 0352 TO SEG 0020 OFFSET 1938

AND

STATE ROUTE 1007 SECTION 03S

IN LEHIGH COUNTY

FROM STA 230+95.00 TO STA 236+64.00 LENGTH 506.61 FT 0.096 MI

FROM SEG 0054 OFFSET 0985 TO SEG 0054 OFFSET 1554

CONSTRUCTION LENGTH TOTAL 1991.61 FT 0.377 MI

#### LIMIT OF TRAFFIC CONTROL

SR 1004 STATION 2+00.00 (SEG 0020 OFFSET 0002) TO STATION 21+35.00 (SEG 0020 OFFSET 1938) LENGTH 1935.00 FT 0.366 MI

SR 1007 STATION 229+20.00 (SEG 0054 OFFSET 0810) TO STATION 236+64.00 (SEG 0054 OFFSET 1554) LENGTH 744.00 FT 0.141 MI

#### SCALE

HORIZONTAL 0 25 50 FEET

VERTICAL 0 5 10 FEET

#### SR 1007 DESIGN DESIGNATION

HIGHWAY CLASSIFICATION - COMMUNITY ARTERIAL - TOWN/VILLAGE NEIGHBORHOOD

DESIGN SPEED - 30 MPH

PAVEMENT WIDTH - 2-12' LANES

SHOULDER WIDTH - VARIES 4' TO 8'

MEDIAN WIDTH, MAXIMUM - 0' TO 12'

#### TRAFFIC DATA

CURRENT ADT - 8,019 (2019)

DESIGN YEAR ADT - 8,825 (2039)

DHV - 802 (K=11%)

D - 55%

T - 3%

#### SR 1004 DESIGN DESIGNATION

HIGHWAY CLASSIFICATION - COMMUNITY ARTERIAL - TOWN CENTER

DESIGN SPEED - 35 MPH

PAVEMENT WIDTH - 2-12' LANES

SHOULDER WIDTH - VARIES 4' TO 8'

MEDIAN WIDTH, MAXIMUM - 0' TO 12'

#### TRAFFIC DATA

CURRENT ADT - 13,775 (2019)

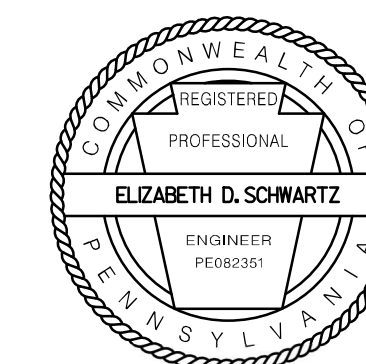
DESIGN YEAR ADT - 15,160 (2039)

DHV - 1378 (K=11%)

D - 70%

T - 4%

PREPARED BY:  
**benesch**  
Alfred Benesch and Company  
250 Cetrionia Road, Suite 150  
Allentown, Pennsylvania 18104  
610-439-7066



*Elizabeth D. Schwartz*  
PROJECT MANAGER

DATE: 04/20/2021

RECOMMENDED DATE: 4/20/2021  
*Christopher J. Kupro*  
DISTRICT EXECUTIVE

RECOMMENDED DATE: \_\_\_\_\_  
DEPUTY SECRETARY

APPROVED DATE: \_\_\_\_\_  
SECRETARY OF TRANSPORTATION  
(ON BEHALF OF THE GOVERNOR  
AS WELL AS THE SECRETARY)

PLOTTED: 03/17/2021

OPERATOR: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Construction\Plans\C\_T\Title.dgn (Default)

SHEET INDEX

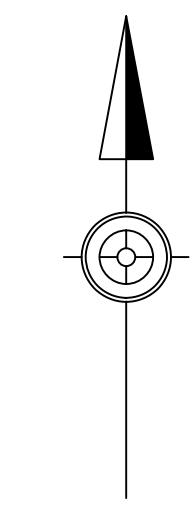
DESCRIPTION	SHEET
TITLE SHEET	1
INDEX MAP	2
PROPERTY OWNERS	3
LOCATION MAP & UTILITIES	4
PROJECT COORDINATES	5
BASELINE REFERENCE CIRCLES	6 - 7
TYPICAL SECTIONS	8 - 10
SPECIAL DETAILS	11- 80
SUMMARY SHEETS	81- 83
TABULATION SHEETS	84- 103
PLAN SHEETS	104- 107
PROFILE SHEETS	108- 111

TABULATION OF SEGMENT EQUALITIES

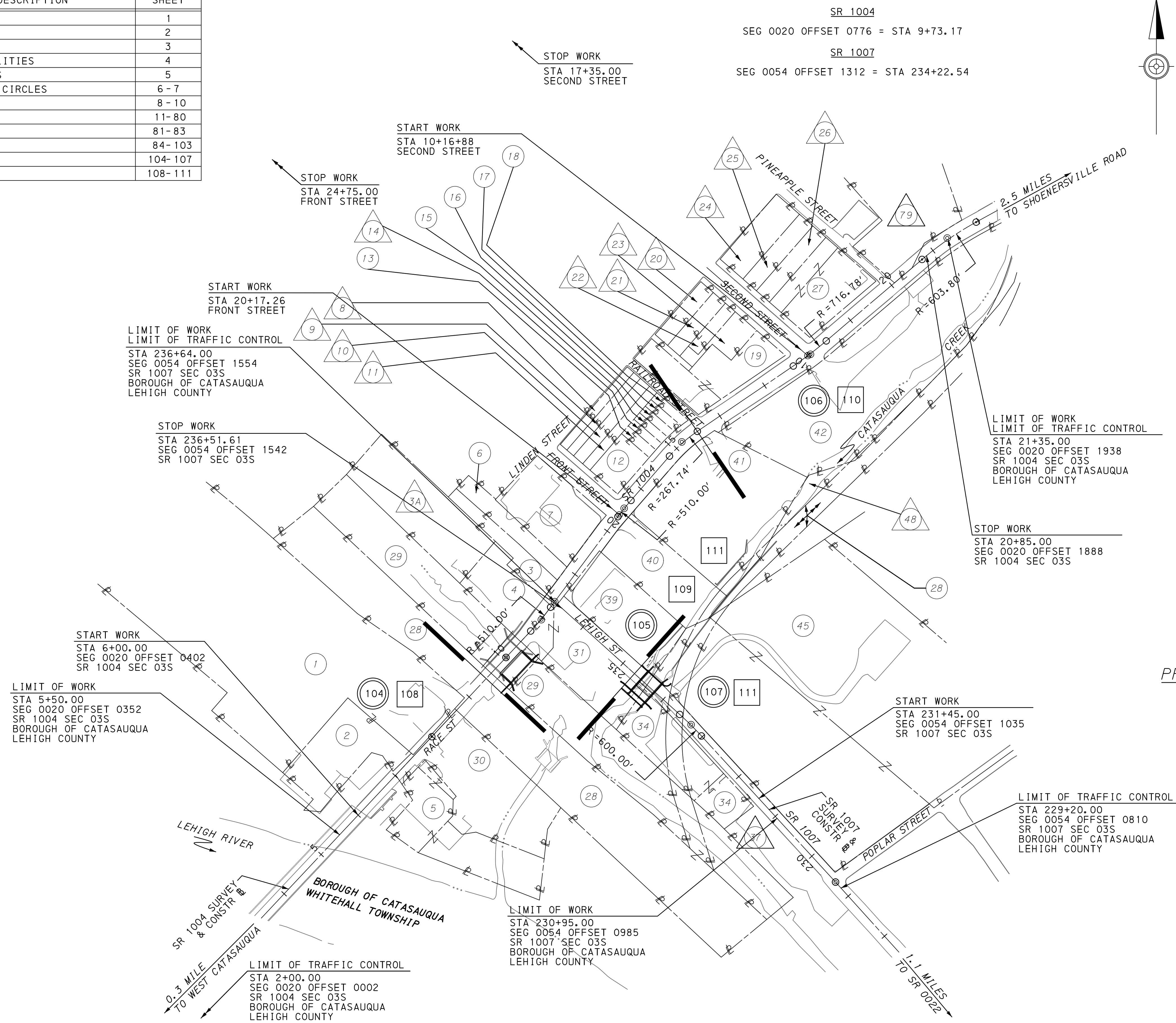
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	2 OF 111
		1007	03S	

BOROUGH OF CATASAUQUA			
REVISION NUMBER	REVISIONS	DATE	BY

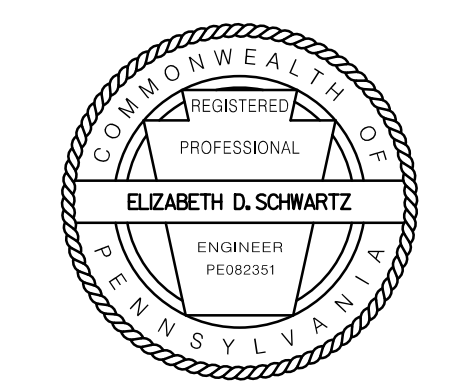


03\17\2021 PLOTTED:



LEGEND	
	PLAN
	PROFILE
	PARCEL IDENTIFICATION NUMBER
	PARCEL IDENTIFICATION NUMBER - NO TAKE
	SHEET LIMITS

PROPERTY OWNERS  
SEE SHEET 3



OPERATOR: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Construction\Plans\C\_Index\_Sheet\_01.dgn (Default) FILE NAME:

**LIST OF PUBLIC UTILITIES**

BOROUGH OF CATASAUQUA (WATER & SEWER) 90 BRIDGE ST CATASAUQUA, PA 18032 (610) 264-0571 ATTN: STEVE TRAVERS	— W — — W — — S —	ZAYO GROUP, SPREAD NETWORKS, FIBERTRACK LLC 800 WOODLANDS PKY, SUITE 205 RIDGELAND, MS 39157 (769) 216-8095 ATTN: JOHN BRUCE	— FOU —
CENTURYLINK, LUMEN, LEVEL 3 1000 MADISON AVE, SUITE 205 NORRISTOWN, PA 19403 (570) 323-8518 ATTN: NEAL KIMBERLING (CABLE SERVICES COMPANY, INC)	— FO — — FO —	UGI UTILITIES INC 2121 CITY LINE RD BETHLEHEM, PA 18017 (610) 807-3743 ATTN: KRISTOPHER AURAND	— G — — G —
PPL ELECTRIC UTILITIES CORPORATION TWO NORTH 9TH STREET - GENN3 ALLENTOWN, PA 18101 (610) 774-6287 ATTN: CHARLOTTE KRUPA	— E — — E —	VERIZON PENNSYLVANIA LLC 1050 VIRGINIA DRIVE FORT WASHINGTON, PA 19034 (267) 667-3456 ATTN: SCOTT BEITER	— TU — — TU — — T — — T —
RCN TELECOM SERVICES OF PA 5508 NOR-BATH BLVD NORTHAMPTON, PA 18067 (610) 972-8007 ATTN: STEVE CSEH	— CTV — — CTV —		
SERVICE ELECTRIC CABLE TV & COMMUNICATIONS 2260 AVENUE A LVIP #1 BETHLEHEM, PA 18017 (610) 625-8503 ATTN: MIKE MILLHOUSE	— CTV — — CTV —		

**CALL BEFORE YOU DIG!**

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

POCS SERIAL NUMBERS  
20152652425  
20152652457  
SYSTEM, INC.  
811 or 1-800-242-1776 BOROUGH OF CATASAUQUA

NOTE: SEE UTILITIES PLAN SPECIAL DETAILS FOR DETAILED UTILITY OWNERSHIP INFORMATION

**TABULATION OF OVERALL LENGTH**

SR 1004 STA 5+50.00 TO STA 21+35.00 = 1585.00 FT = 0.300 MI  
 SR 1007 STA 230+95.00 TO STA 236+64.00 = 569.00 FT = 0.108 MI  
 TOTAL LENGTH = 2154.00 FT = 0.408 MI

**TABULATION OF CONSTRUCTION LENGTH**

SR 1004 = STA 6+00.00 TO STA 20+85.00 = 1485.00 FT = 0.281 MI  
 SR 1007 = STA 231+45.00 TO STA 236+51.61 = 506.61 FT = 0.096 MI  
 TOTAL LENGTH = 1991.61 FT = 0.377 MI

**LIST OF EQUALITIES**

NONE

**GENERAL NOTES**

THE LEGAL RIGHT-OF-WAY ON SR 1004, FORMERLY LR 39032 FROM STATION 6+95.00 TO STATION 19+98 IS VARIABLE FROM 40 FEET TO 110 FEET BASED ON PLAN OF SR 1004 SECTION 03S R/W SIGNED ON APRIL 23, 2019 BY THE SECRETARY OF TRANSPORTATION AND RECORDED IN THE LEHIGH COUNTY RECORDER'S OFFICE IN INSTRUMENT NO. 2010026262, REVISED, RE-SIGNED ON APRIL 21, 2020 AND RE-RECORDED IN INSTRUMENT NO. 2020016584.

THE LEGAL RIGHT-OF-WAY ON SR 1007, FORMERLY LR 153 SPUR FROM STATION 231+62.00 TO STATION 236+25.00 IS VARIABLE FROM 33.5 FEET TO 189 FEET BASED ON PLAN OF SR 1004 SECTION 03S R/W SIGNED ON APRIL 23, 2019 BY THE SECRETARY OF TRANSPORTATION AND RECORDED IN THE LEHIGH COUNTY RECORDER'S OFFICE IN INSTRUMENT NO. 2010026262, REVISED, RE-SIGNED ON APRIL 21, 2020 AND RE-RECORDED IN INSTRUMENT NO. 2020016584.

THE LEGAL RIGHT-OF-WAY ON FRONT STREET FROM STATION 20+27.87 TO STATION 24+30.00 IS VARIABLE FROM 65 FEET TO 55 FEET, BASED ON BOROUGH OF CATASAUQUA ORDINANCE DATED MARCH 1, 1909. THERE IS NO OTHER PUBLIC RECORD.

THE LEGAL RIGHT-OF-WAY ON RAILROAD STREET FROM STATION 10+40.59 TO STATION 15+00.00 IS 20 FEET, BASED ON BOROUGH OF CATASAUQUA ORDINANCE DATED MARCH 1, 1909. THERE IS NO OTHER PUBLIC RECORD.

THE LEGAL RIGHT-OF-WAY ON SECOND STREET FROM THE INTERSECTION WITH SR 1004 TO THE INTERSECTION WITH UNION STREET IS 55 FEET, BASED ON BOROUGH OF CATASAUQUA ORDINANCE DATED MARCH 1, 1909. THERE IS NO OTHER PUBLIC RECORD.

THE LEGAL RIGHT-OF-WAY ON PINEAPPLE STREET FROM THE INTERSECTION WITH SR 1004 TO THE INTERSECTION WITH LINDEN STREET IS 20 FEET, BASED ON BOROUGH OF CATASAUQUA ORDINANCE DATED MARCH 1, 1909. THERE IS NO OTHER PUBLIC RECORD.

DO NOT INTERFERE WITH THE OPERATION OF ANY FIRE HYDRANT, FIRE CALL BOX OR POLICE CALL BOX.

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.

THREE TO TEN WORKING DAYS PRIOR TO EXCAVATION BASED ON THE COMPLEXITY OF THE PROJECT, THE CONTRACTOR MUST CONTACT THE PA ONE CALL SYSTEM, INC., PHONE 1-800-242-1776, SERIAL NO. ----- AND ----- FOR BOROUGH OF CATASAUQUA.

THE CONTRACTOR IS REQUIRED TO NOTIFY THE DEPARTMENT AND SUBMIT AN ALLEGED VIOLATION REPORT (AVR) TO THE PA PUBLIC UTILITY COMMISSION THROUGH THE PA ONE CALL SYSTEM, WWW.PA1CALL.ORG, WITHIN TEN (10) BUSINESS DAYS AFTER A UTILITY LINE IS STRUCK, DAMAGED, OR PREVIOUS DAMAGE IS DISCOVERED AS REQUIRED BY PENNSYLVANIA'S UNDERGROUND UTILITY LINE PROTECTION LAW ACT 50 (P.L.852, NO. 287 AMENDED OCT. 30, 2017).

SR 1004 FORMERLY KNOWN AS LR 39032.  
 SR 1007 FORMERLY KNOWN AS LR 153 SPUR.

**GENERAL NOTES (CONT'D)**

BUILDINGS AND STRUCTURES MARKED [X] HAVE BEEN OR ARE TO BE REMOVED OR ALTERED BY THE DEPARTMENT OR OTHER AUTHORITY RESPONSIBLE FOR THE PAYMENT OF PROPERTY DAMAGES AND SUCH WORK IS NOT PART OF THIS CONTRACT.

BUILDINGS AND STRUCTURES MARKED [O] ARE ENCROACHMENTS WHICH ARE THE RESPONSIBILITY OF THE PROPERTY OWNER TO REMOVE. IN CASE ANY ENCROACHMENTS SO MARKED ARE NOT REMOVED BY THE PROPERTY OWNER, DO NOT INTERFERE WITH OR REMOVE SAME UNTIL AUTHORIZED IN WRITING BY THE ENGINEER.

DEMOLISH AND REMOVE BUILDINGS AND STRUCTURES MARKED [X] AS LUMP SUM ITEMS AT THE LOCATIONS INDICATED.

HORIZONTAL CONTROL IS BASED ON THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83-2011(EPOCH 2010) ESTABLISHED BY GPS-RTK-KEYNET-VRS. COMBINED GRID FACTOR = 0.9999492.

VERTICAL CONTROL IS BASED ON NORTH AMERICAN VERTICAL DATUM NAVD 88, ESTABLISHED BY GPS-RTK-KEYNET-VRS.

THE FILING OF THIS PLAN IS NOT A CONDEMNATION OF THE PROPERTIES DESIGNATED THEREIN OR ANY OTHER PROPERTIES WITHIN THE PROPOSED HIGHWAY PATH AND DOES NOT IN ANY MANNER WHATSOEVER RESTRICT THE USE OR DISPOSAL THEREOF. AUTHORIZATION TO CONDEMN UNDER THIS PLAN EXTENDS FOR ONLY ONE YEAR FROM THE DATE OF THE SECRETARY'S SIGNATURE INITIALLY AUTHORIZING ACQUISITION OR SUBSEQUENTLY REVISING THE PLAN OR REAUTHORIZING ACQUISITION THEREUNDER.

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.

SLOPE EASEMENT. AN EASEMENT FOR THE SUPPORT AND PROTECTION OF THE HIGHWAY, INCLUDING THE RIGHT TO CONSTRUCT, INSPECT, MAINTAIN, REPAIR, RECONSTRUCT AND ALTER DRAINAGE FACILITIES AND THE CONTOUR OF THE LAND. THE EASEMENT SHALL NOT PREVENT THE PROPERTY OWNER FROM MAKING ANY LEGAL USE OF THE AREA WHICH IS NOT DETRIMENTAL TO THE NECESSARY SUPPORT AND PROTECTION OF THE HIGHWAY RIGHT-OF-WAY AND THE SAFETY OF THE TRAVELING PUBLIC.

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

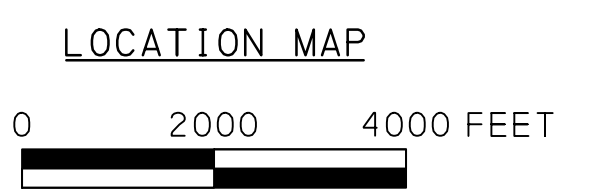
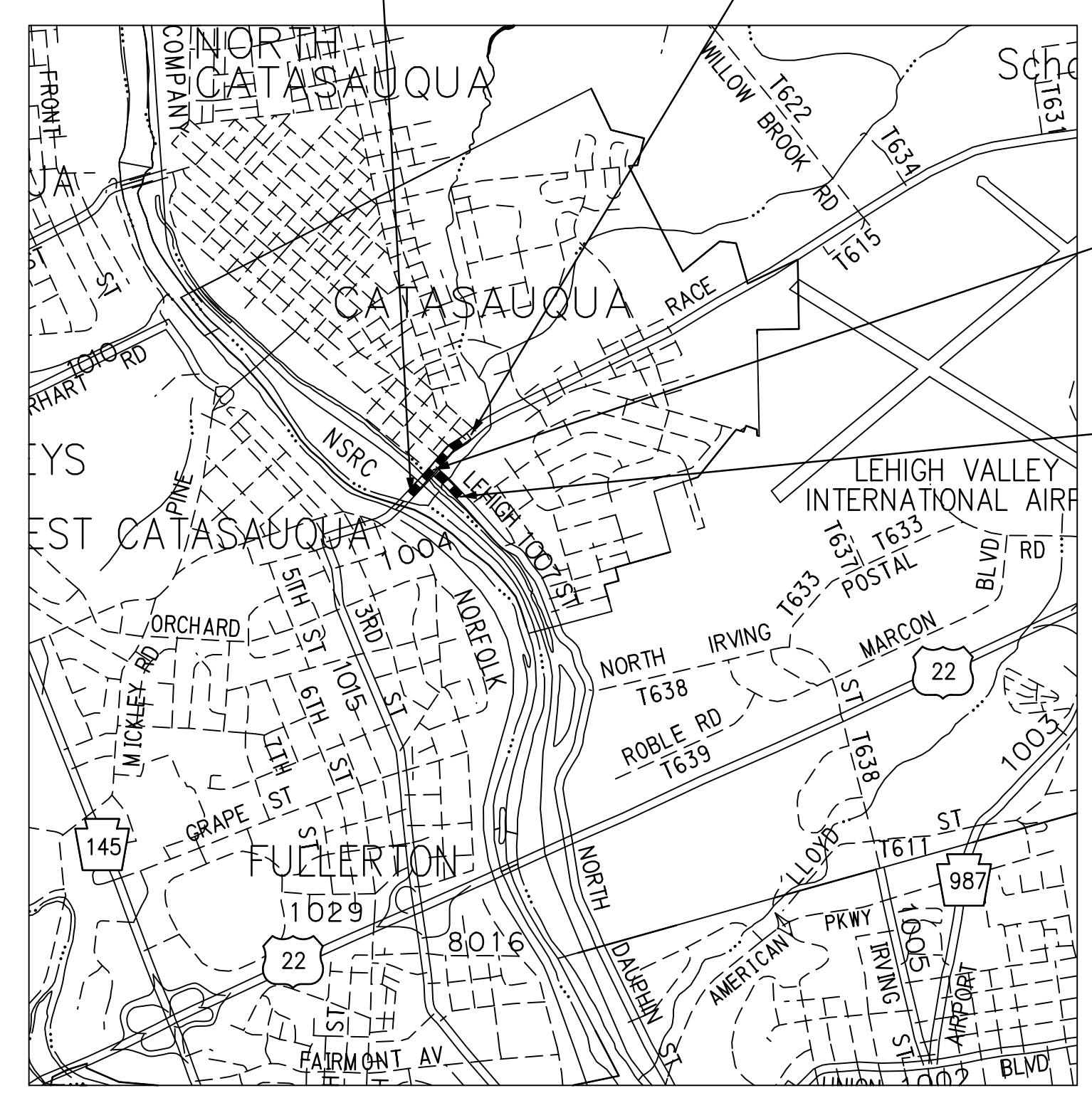
RC-10M	JUNE 1, 2010	TC-8600	JUNE 13, 2013
RC-11M	JUNE 1, 2010	TC-8700	JUNE 13, 2013
RC-12M	FEBRUARY 8, 2019	TC-8602	JUNE 13, 2013
RC-13M	JUNE 1, 2010	TC-8604	JUNE 13, 2013
RC-20M	DECEMBER 17, 2019	TC-8702	JUNE 13, 2013
RC-23M	FEBRUARY 8, 2019	TC-8716	JUNE 13, 2013
RC-25M	FEBRUARY 8, 2019	TC-8717	JUNE 13, 2013
RC-28M	FEBRUARY 8, 2019	BC-703M	AUGUST 4, 2017
RC-30M	DECEMBER 17, 2019	BC-716M	SEPTEMBER 30, 2016
RC-31M	JUNE 1, 2010	BC-719M	JANUARY 31, 2019
RC-32M	JUNE 1, 2010	BC-720M	SEPTEMBER 30, 2016
RC-39M	SEPTEMBER 15, 2016	BC-721M	SEPTEMBER 30, 2016
RC-40M	FEBRUARY 8, 2019	BC-732M	JANUARY 31, 2019
RC-45M	SEPTEMBER 15, 2016	BC-734M	JANUARY 31, 2019
RC-46M	SEPTEMBER 15, 2016	BC-735M	SEPTEMBER 30, 2016
RC-50M	FEBRUARY 8, 2019	BC-736M	JANUARY 31, 2019
RC-51M	DECEMBER 17, 2019	BC-739M	JANUARY 31, 2019
RC-54M	DECEMBER 17, 2019	BC-751M	JANUARY 31, 2019
RC-58M	AUGUST 4, 2017	BC-752M	SEPTEMBER 30, 2016
RC-64M	JUNE 1, 2010	BC-755M	JANUARY 31, 2019
RC-67M	DECEMBER 17, 2019	BC-766M	JANUARY 31, 2019
RC-70M	FEBRUARY 8, 2019	BC-772M	SEPTEMBER 30, 2016
RC-72M	FEBRUARY 8, 2019	BC-775M	SEPTEMBER 30, 2016
RC-73M	FEBRUARY 8, 2019	BC-783M	JANUARY 31, 2019
RC-75M	JUNE 1, 2010	BC-788M	JANUARY 31, 2019
RC-77M	DECEMBER 17, 2019	BC-794M	JANUARY 31, 2019
RC-91M	DECEMBER 17, 2019		

**LIMIT OF WORK**  
 STA 5+50.00  
 SEG 0020 OFFSET 0352  
 SR 1004 SEC 03S  
 BOROUGH OF CATASAUQUA  
 LEHIGH COUNTY

**LIMIT OF WORK**  
 STA 21+35.00  
 SEG 0020 OFFSET 1938  
 SR 1004 SEC 03S  
 BOROUGH OF CATASAUQUA  
 LEHIGH COUNTY

**LIMIT OF WORK**  
 STA 236+64.00  
 SEG 0054 OFFSET 1554  
 SR 1007 SEC 03S  
 BOROUGH OF CATASAUQUA  
 LEHIGH COUNTY

**LIMIT OF WORK**  
 STA 230+95.00  
 SEG 0054 OFFSET 0985  
 SR 1007 SEC 03S  
 BOROUGH OF CATASAUQUA  
 LEHIGH COUNTY



**LEGEND**

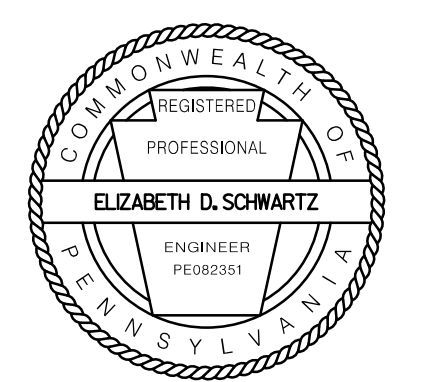
- PROJECT
- == STATE HIGHWAY
- - - MUNICIPAL ROAD
- ... STREAMS

**EARTHWORK SUMMARY ENTIRE PROJECT**

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

CUBIC YARDS OF EXCAVATION						CUBIC YARDS OF COMPLETED EMBANKMENT *	CUBIC YARDS OF BORROW EXCAVATION	CUBIC YARDS OF SELECT BORROW	CUBIC YARDS OF WASTE
CLASS 1 (1)	CLASS 1A (2)	CLASS 1B	CLASS 2	CLASS 3 **	CLASS 4 (3)				
4,822	12	4	13	5,567	2,483	5,121	0	2,843	10,623

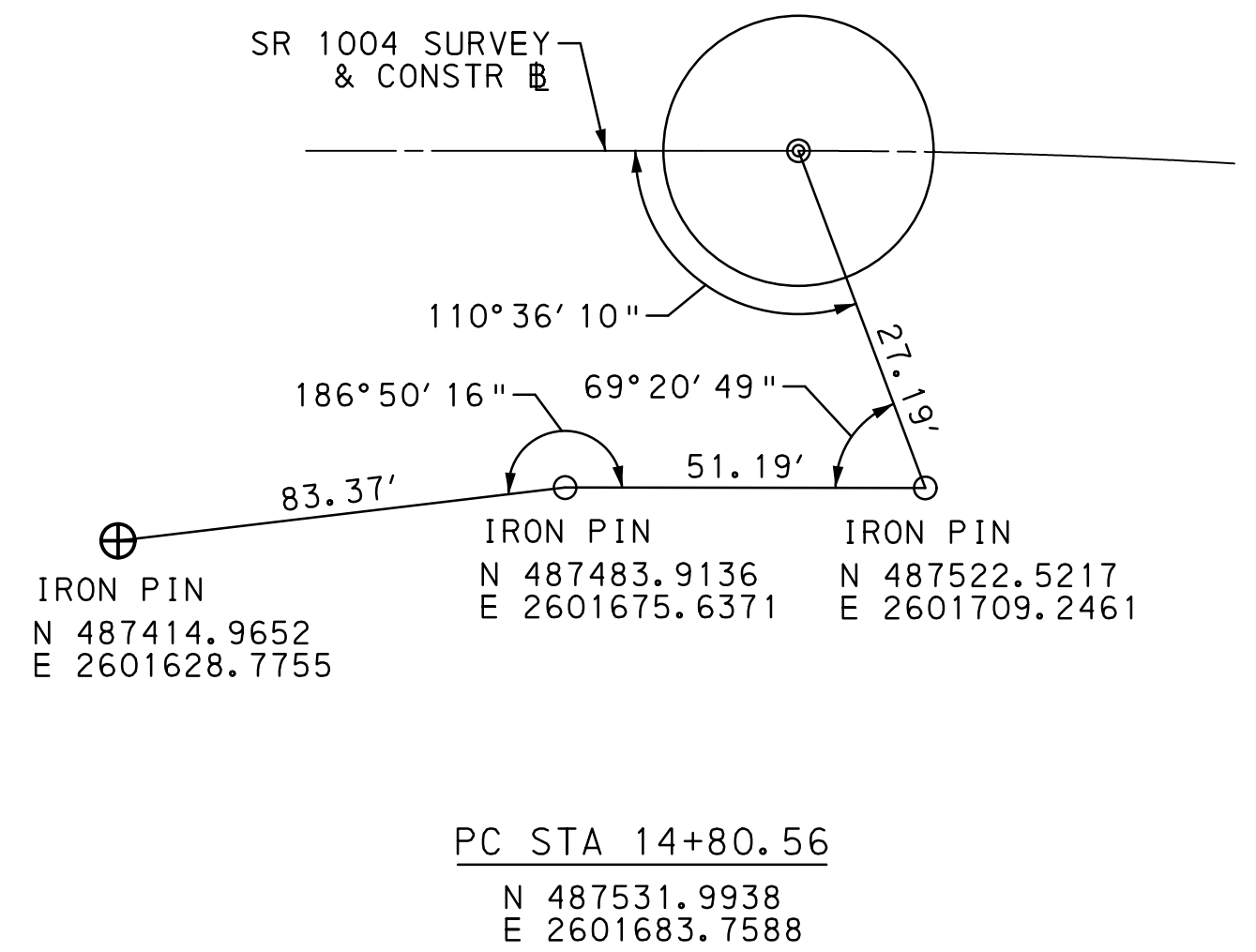
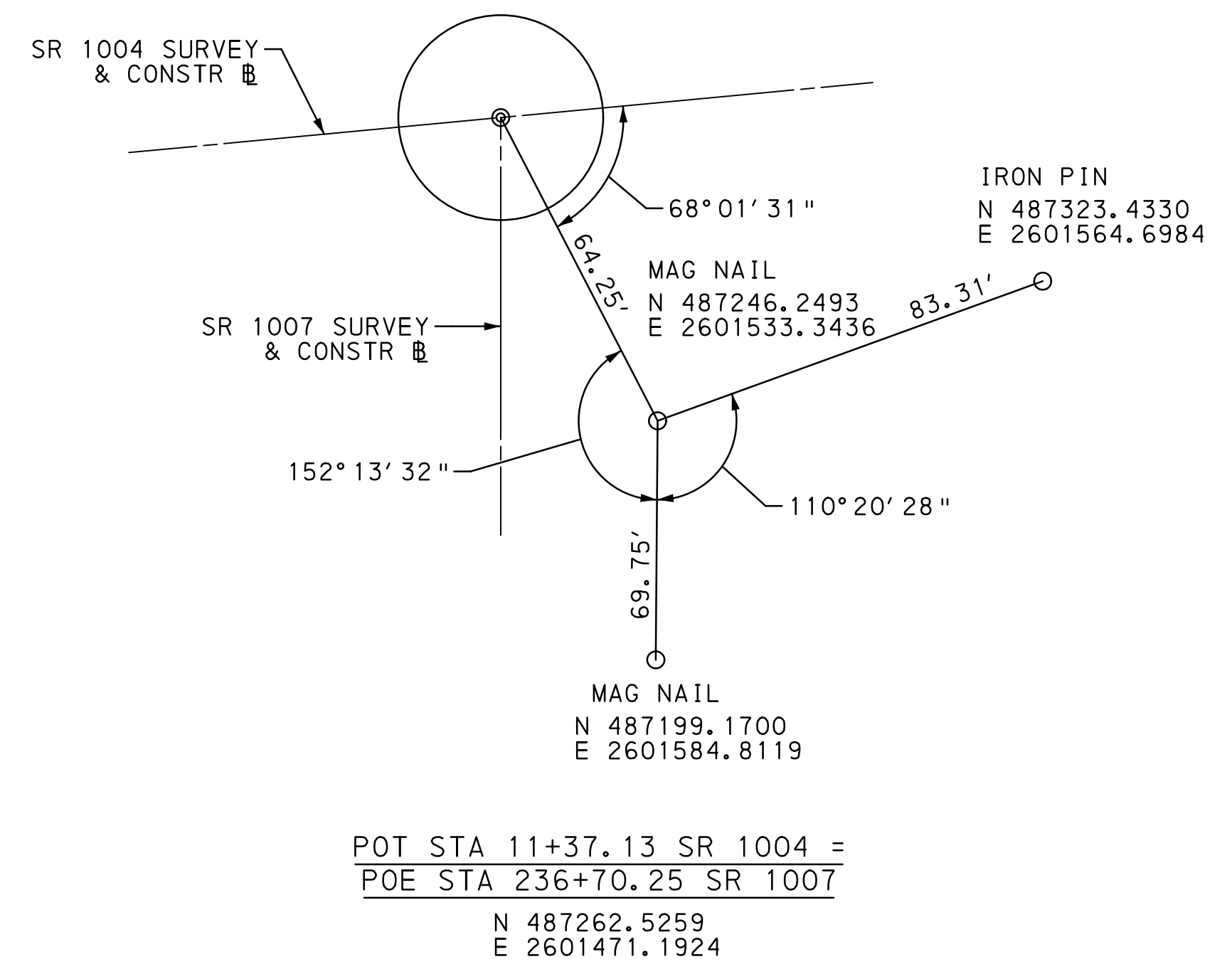
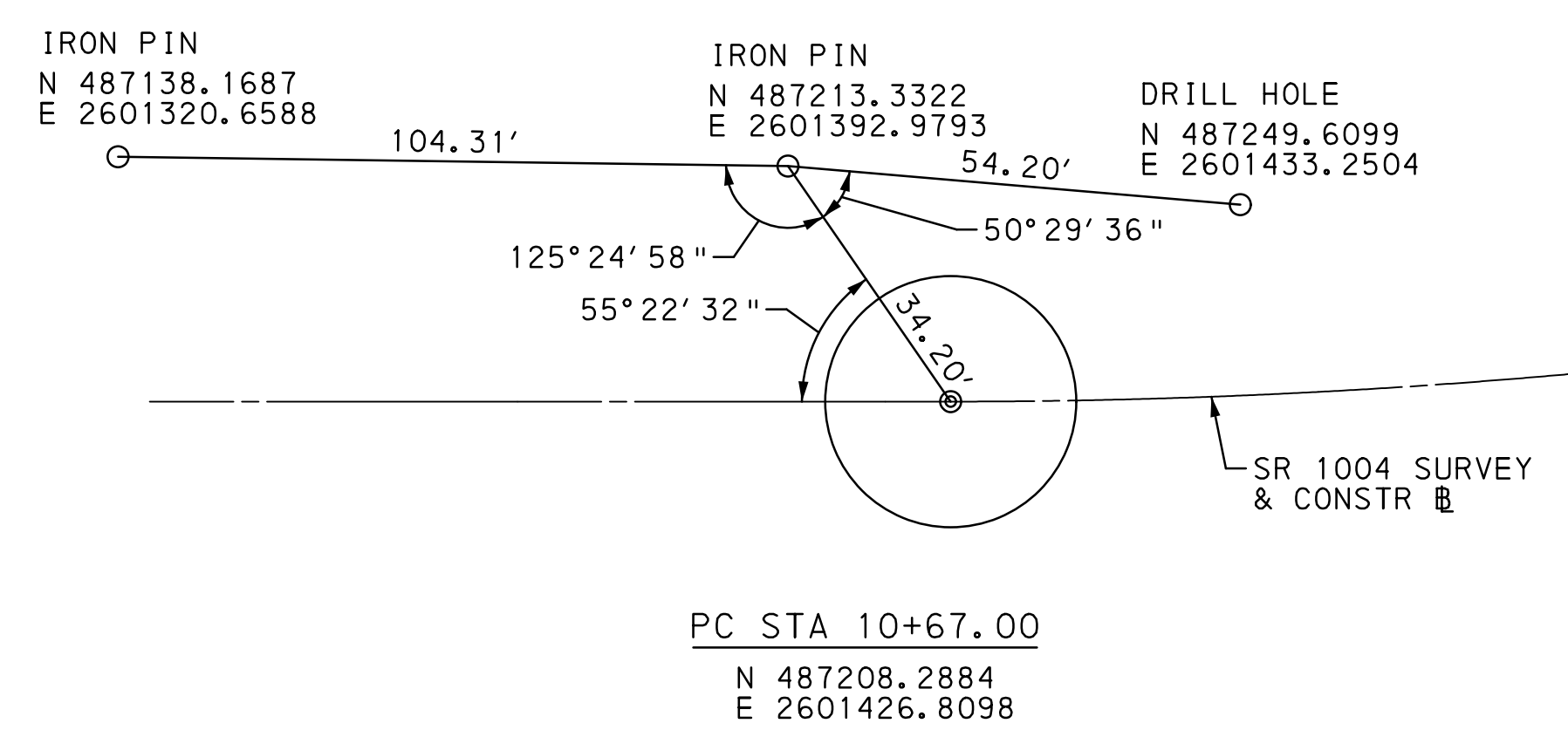
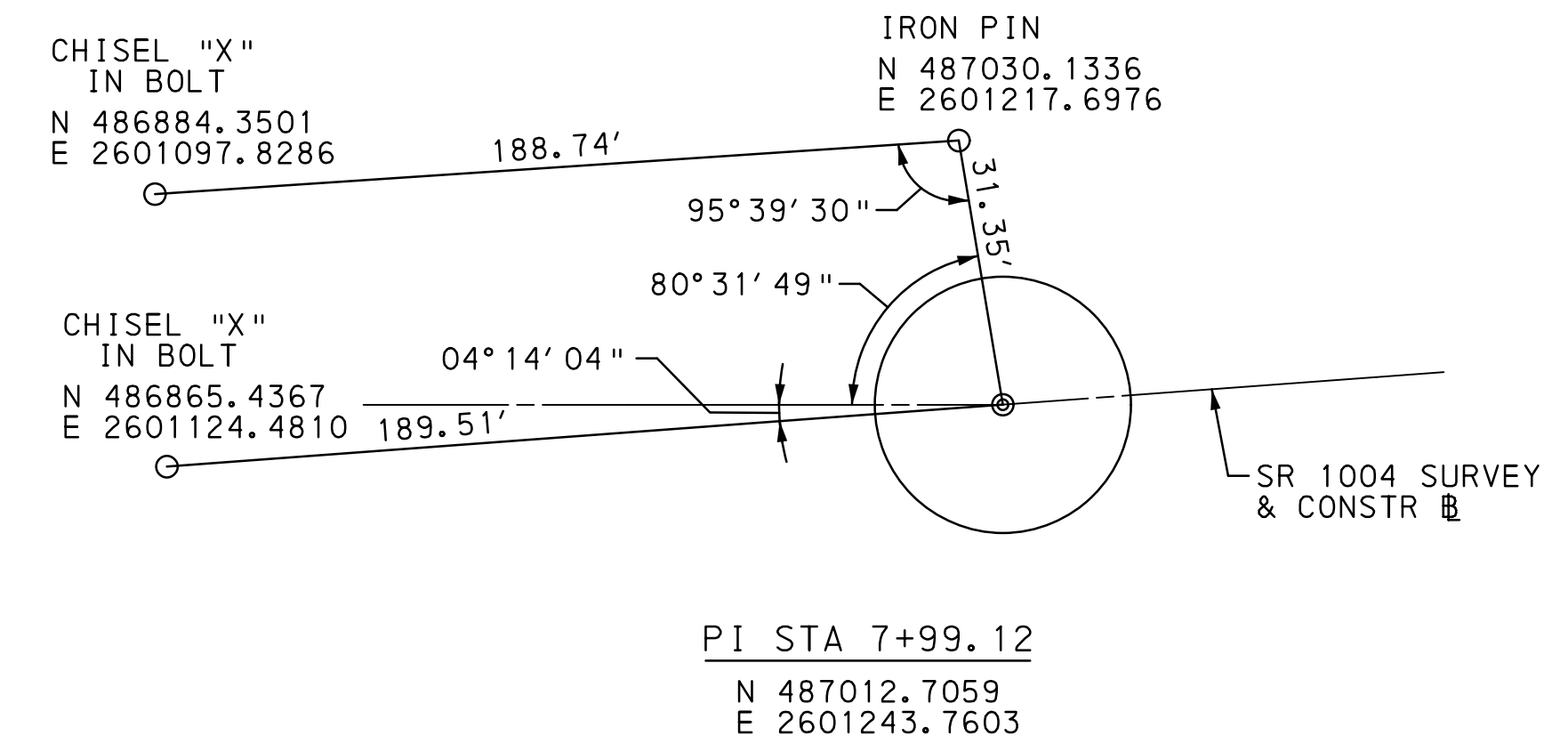
- \* INCLUDES ALL BORROW ITEMS
- \*\* 1,840 CY PART OF LUMP SUM FOR S-36735  
 3,727 CY PART OF LUMP SUM FOR S-36736
- (1) 153 CY INCIDENTAL TO DRAINAGE PIPE ITEMS
- (2) 27 CY INCLUDED FOR ITEM 9000-0001
- (2) 12 CY INCLUDED FOR ITEM 9000-0002
- (3) 2,466 CY INCIDENTAL TO DRAINAGE PIPE ITEMS



03\17\2021

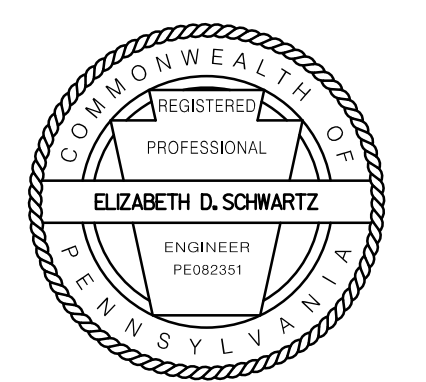
OPERATOR: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Construction\Plans\C\_Base\line\_Ref\_1.dgn (Default)

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	6 OF 111
BOROUGH OF CATASAUQUA				
REVISION NUMBER	REVISIONS	DATE	BY	



⊕ - RIGHT-OF-WAY MONUMENT (IRON PIN SET)

SR 1004  
BASELINE REFERENCE CIRCLES

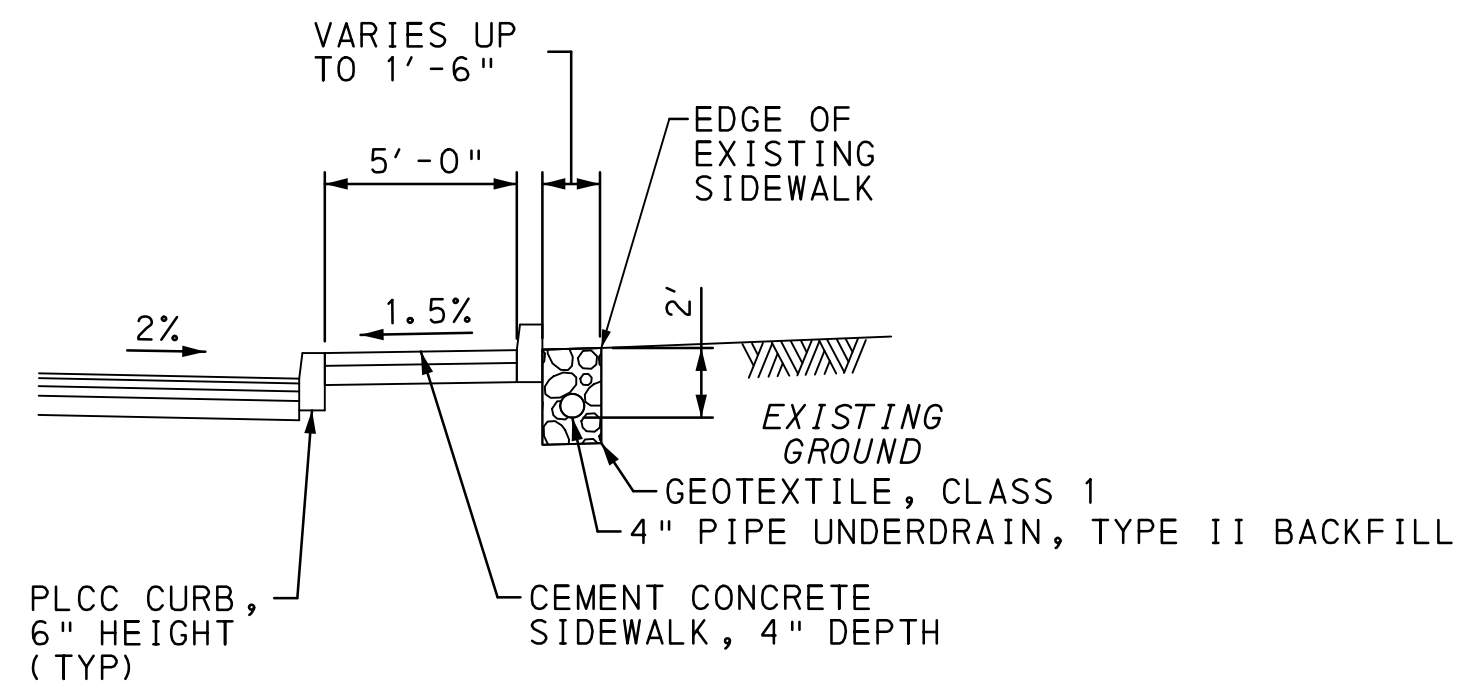


PLOTTED: 03/17/2021

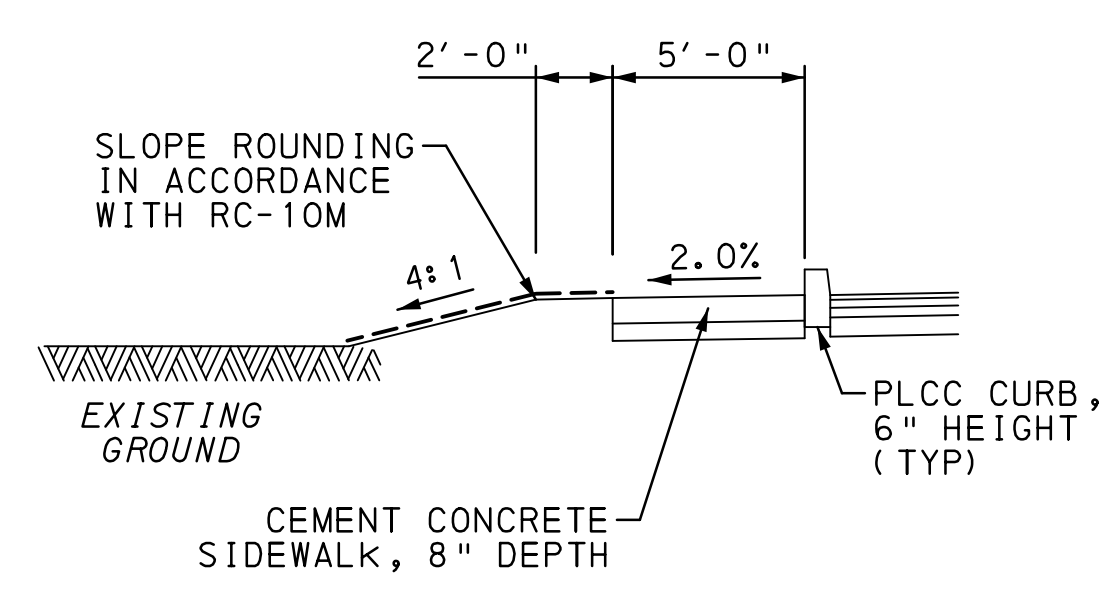
OPERATOR: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Construction\Plans\C\_Typ\_Sect01.dgn (Default)

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	8 OF 111
BOROUGH OF CATASAUQUA				
REVISION NUMBER	REVISIONS	DATE	BY	

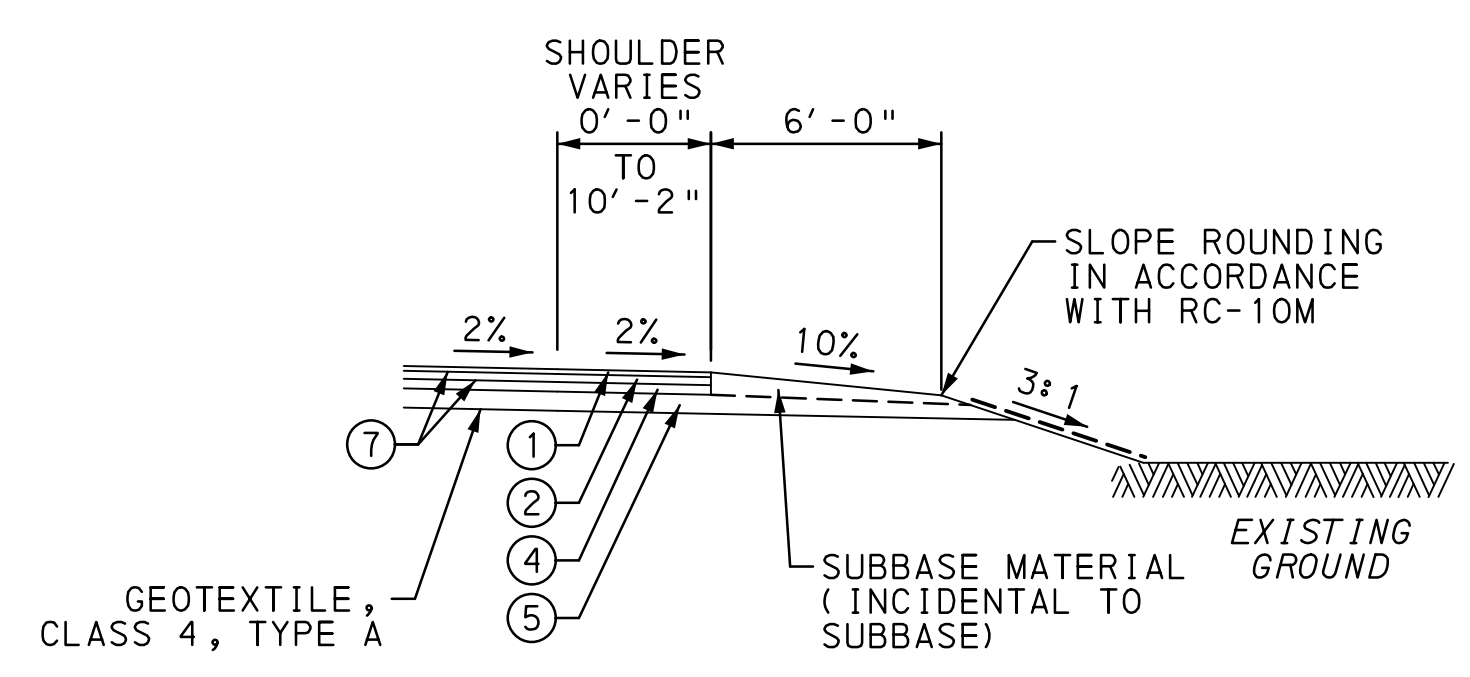
- LEGEND**
- ① SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, 0.3 TO < 3 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-H
  - ② SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE, PG 64S-22, 0.3 TO < 3 MILLION ESALS, 19.0 MM MIX, 2 1/2" DEPTH
  - ③ SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE, PG 64S-22, 0.3 TO < 3 MILLION ESALS, 19.0 MM MIX, 3 1/2" DEPTH
  - ④ SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, 0.3 TO < 3 MILLION ESALS, 25.0 MM MIX, 5" DEPTH
  - ⑤ SUBBASE 6" DEPTH (NO. 2A)
  - ⑥ SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE (LEVELING), PG 64S-22, 0.3 TO < 3 MILLION ESALS, 9.5 MM MIX, SRL-L (120 LB/SY APPLICATION RATE)
  - ⑦ ASPHALT TACK COAT
  - ⑧ SELECTED MATERIAL SURFACING (6" DEPTH)
- TOPSOIL FURNISHED AND PLACED AND SEEDING AND SOIL SUPPLEMENTS - TYPE B



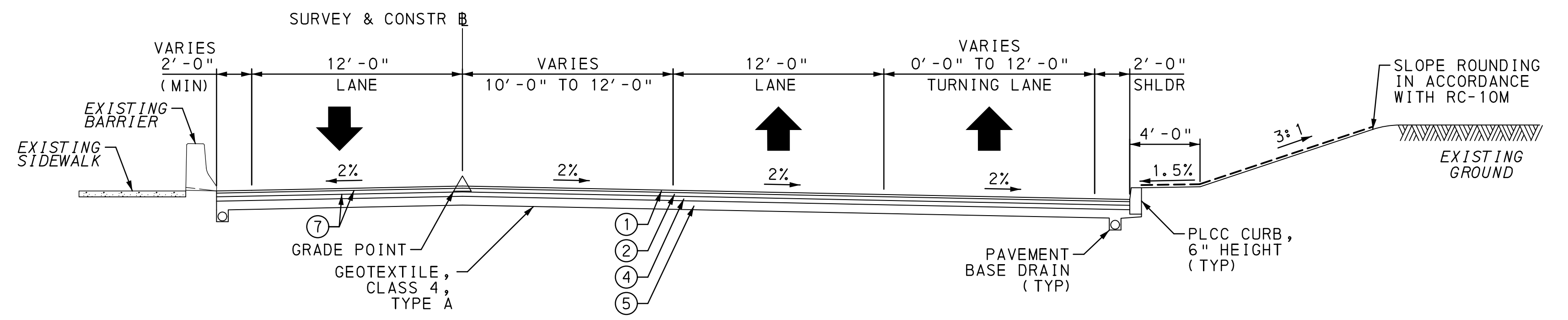
● **ALTERNATE SECTION**  
NOT TO SCALE  
SR 1004 STA 13+65 RT TO STA 15+27 RT



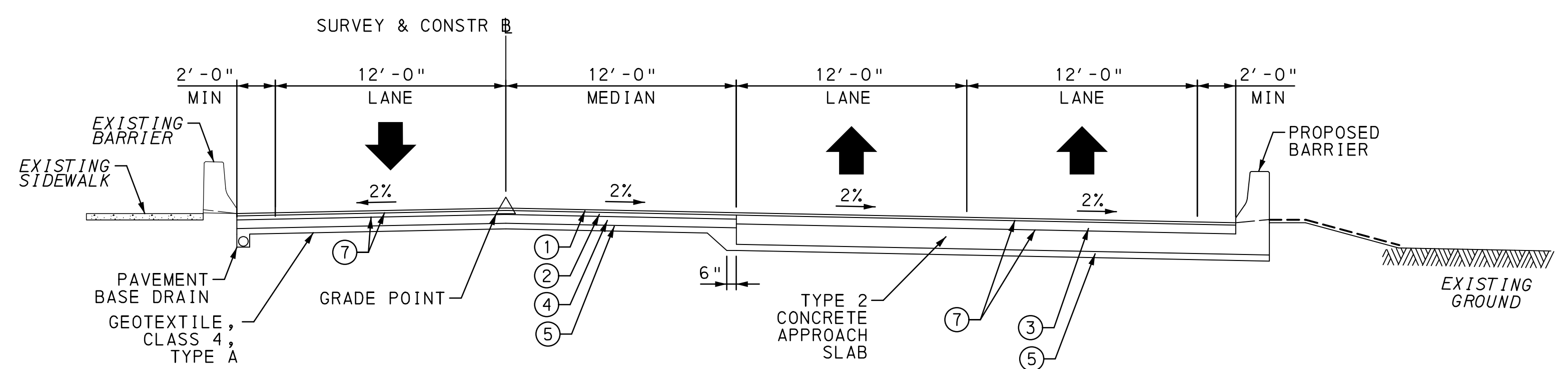
□ **ALTERNATE SECTION**  
NOT TO SCALE  
SR 1004 STA 9+26.00 LT TO STA 9+63.23 LT



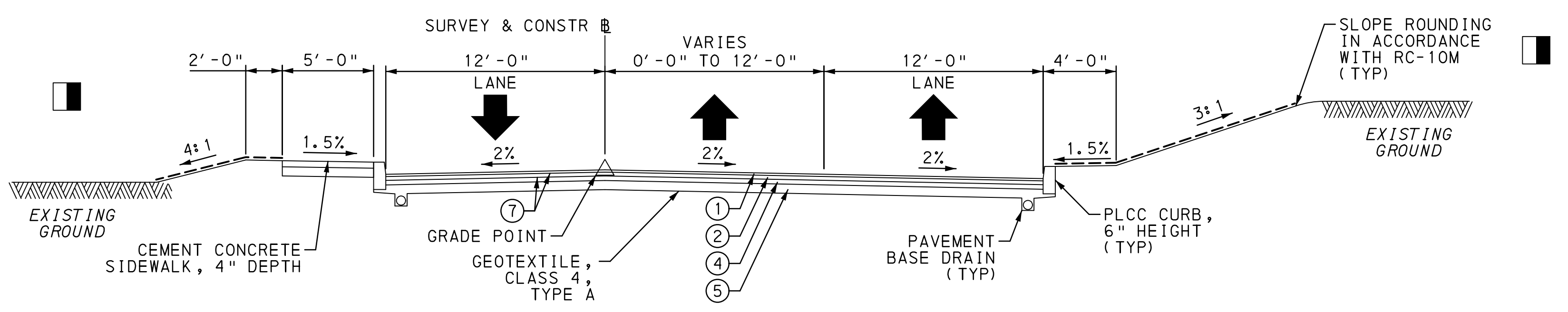
■ **ALTERNATE SECTION**  
NOT TO SCALE  
SR 1004 STA 8+97.00 RT TO STA 9+70.00 RT  
SR 1004 STA 8+97.00 LT TO STA 9+28.00 LT



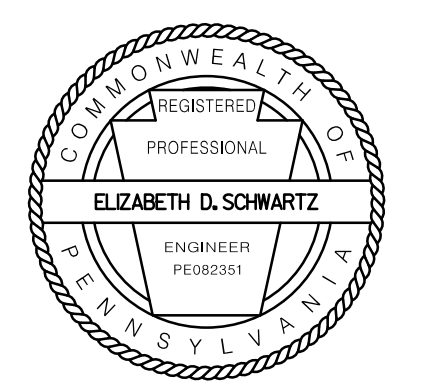
**TYPICAL SECTION - SR 1004 (RACE STREET)**  
NOT TO SCALE  
STA 10+54.58 TO STA 11+07.69



**TYPICAL SECTION - SR 1004 (RACE STREET)**  
NOT TO SCALE  
STA 9+45.42 TO STA 9+70.42  
STA 10+29.58 TO STA 10+54.58



**TYPICAL SECTION - SR 1004 (RACE STREET)**  
NOT TO SCALE  
STA 6+70.00 TO STA 9+45.42

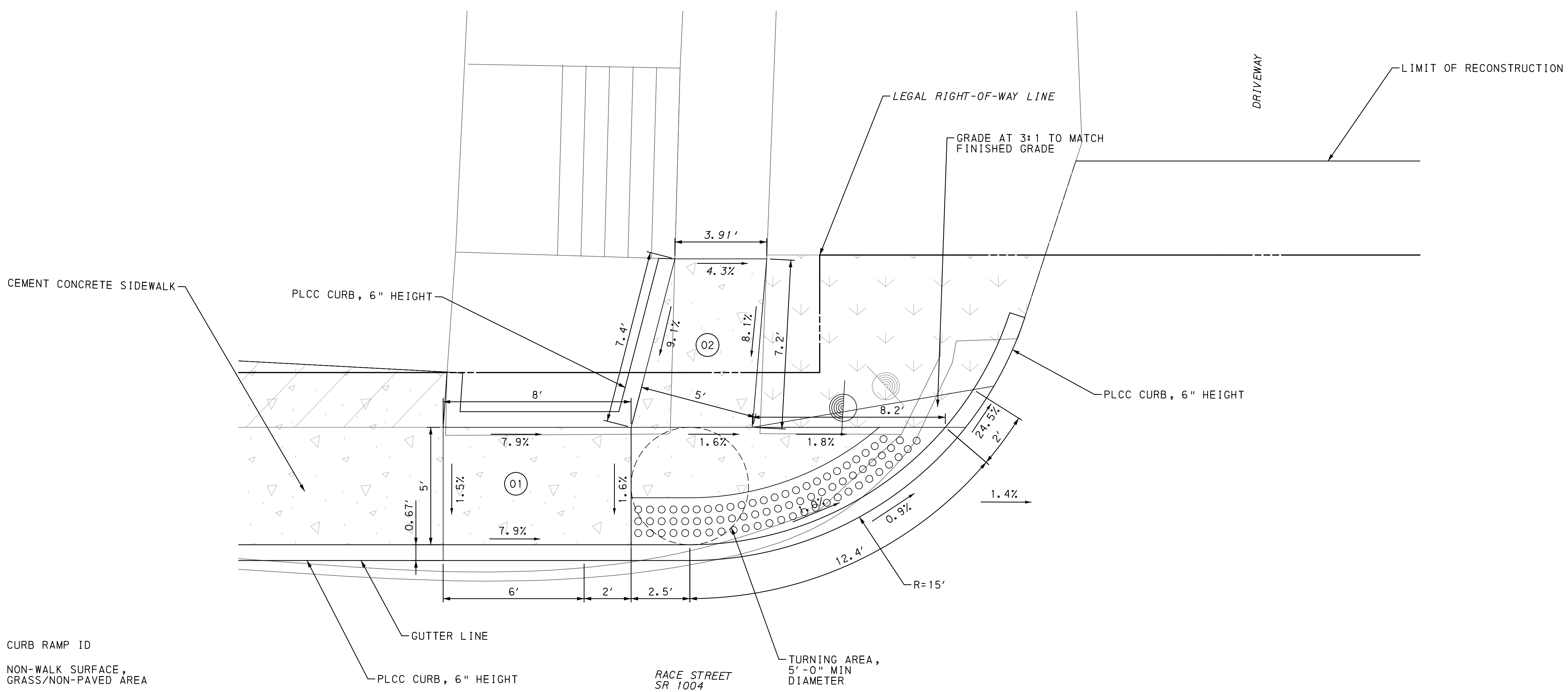
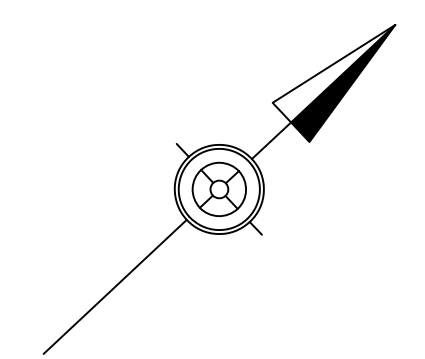




DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	22 OF 111
		1007	03S	
BOROUGH OF CATASAUQUA				
REVISION NUMBER	REVISIONS	DATE	BY	

PLOTTED: 03/17/2021

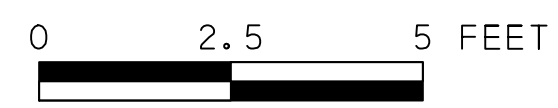
OPERATOR: FILE NAME: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Construction\Plans\C\_De\ADA\_01.dgn (Default)



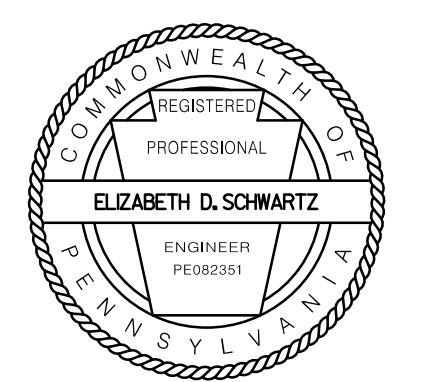
**LEGEND**

- 02 - CURB RAMP ID
- NON-WALK SURFACE, GRASS/NON-PAVED AREA
- NON-WALK SURFACE, OBSTRUCTED AREA
- CEMENT CONCRETE SIDEWALK/ CONCRETE ROLLED FLARE
- DETECTABLE WARNING SURFACE
- \* - GRADE AT 3:1 (MAX) TO FINISHED SIDEWALK/SHOULDER GRADE
- \*\* - DIMENSION IS THE DISTANCE TO THE DETECTABLE WARNING SURFACE, MEASURED PERPENDICULAR FROM THE EDGE OF SHOULDER
- BC - BOTTOM OF CURB ELEVATION
- TC - TOP OF CURB ELEVATION
- FG - FINISHED GRADE ELEVATION
- TF - TOP OF FOUNDATION ELEVATION

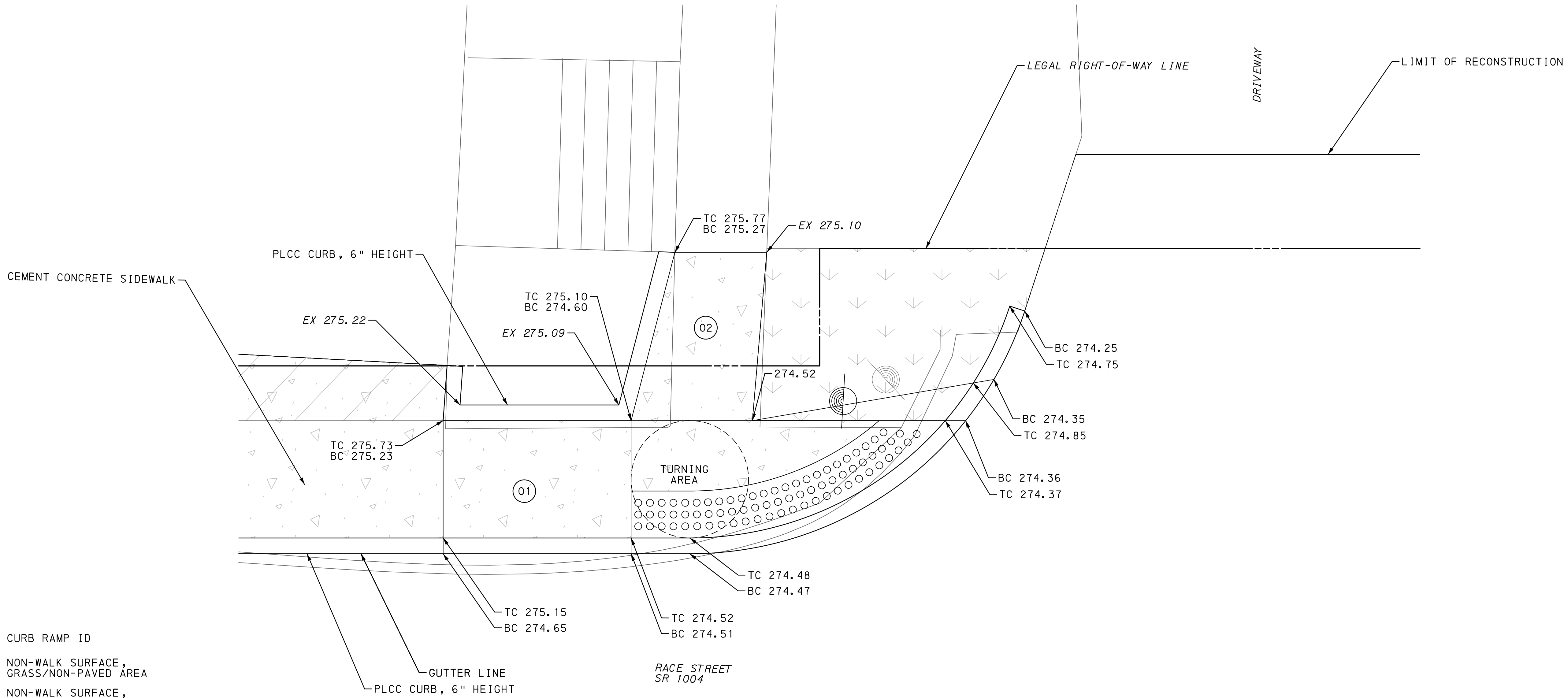
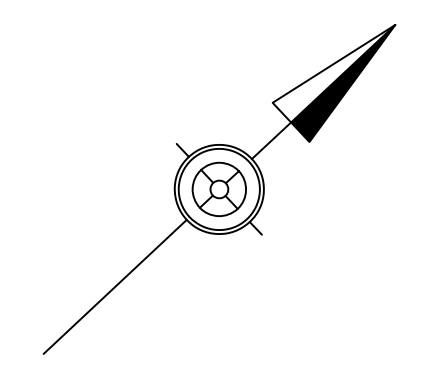
**RAMP 01 & 02**  
**SR 1004 (RACE STREET)**  
**STA 8+40 LT**  
**TYPE 1A CURB RAMP**



**ADA CURB RAMP**

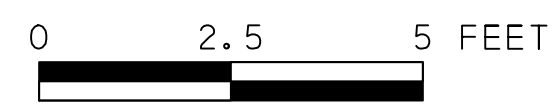


DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	23 OF 111
BOROUGH OF CATASAUQUA				
REVISION NUMBER	REVISIONS	DATE	BY	

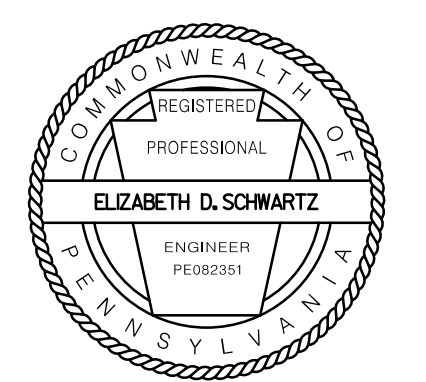


- LEGEND**
- 02 - CURB RAMP ID
  - NON-WALK SURFACE, GRASS/NON-PAVED AREA
  - NON-WALK SURFACE, OBSTRUCTED AREA
  - CEMENT CONCRETE SIDEWALK / CONCRETE ROLLED FLARE
  - DETECTABLE WARNING SURFACE
  - \* - GRADE AT 3:1 (MAX) TO FINISHED SIDEWALK/SHOULDER GRADE
  - \*\* - DIMENSION IS THE DISTANCE TO THE DETECTABLE WARNING SURFACE, MEASURED PERPENDICULAR FROM THE EDGE OF SHOULDER
  - BC - BOTTOM OF CURB ELEVATION
  - TC - TOP OF CURB ELEVATION
  - FG - FINISHED GRADE ELEVATION
  - TF - TOP OF FOUNDATION ELEVATION

**RAMP 01 & 02**  
**SR 1004 (RACE STREET)**  
**STA 8+40 LT**  
**TYPE 1A CURB RAMP**



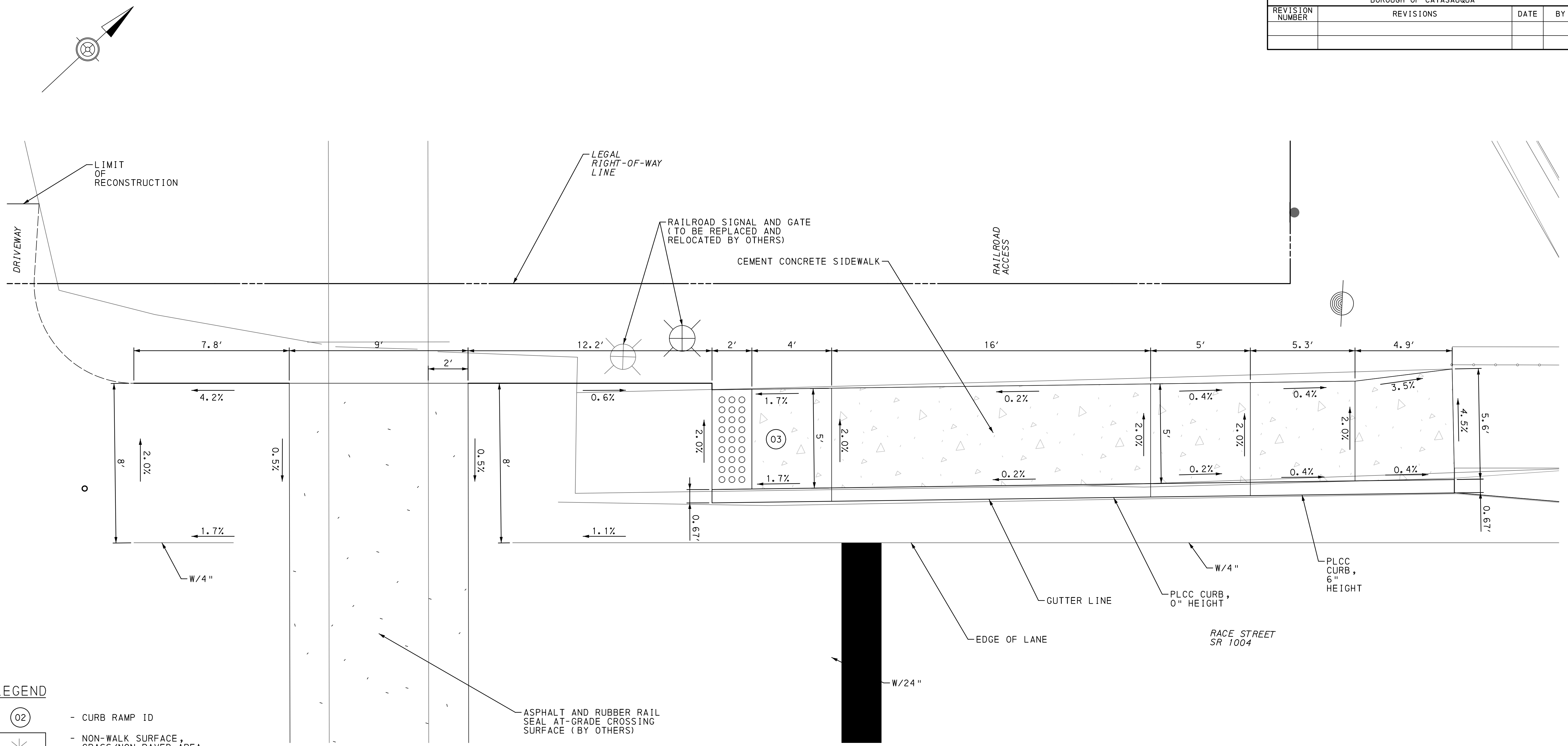
**ADA CURB RAMP**  
**SPECIAL DETAILS**



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	24 OF 111
BOROUGH OF CATASAUQUA				
REVISION NUMBER	REVISIONS	DATE	BY	

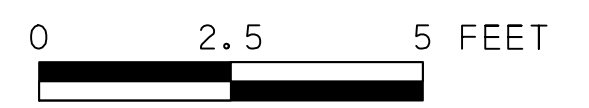
PLOTTED: 03/17/2021

OPERATOR: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Construction\Plans\C\_Development.dgn (Default)



- LEGEND**
- 02 - CURB RAMP ID
  - NON-WALK SURFACE, GRASS/NON-PAVED AREA
  - NON-WALK SURFACE, OBSTRUCTED AREA
  - CEMENT CONCRETE SIDEWALK/ CONCRETE ROLLED FLARE
  - DETECTABLE WARNING SURFACE
  - \* - GRADE AT 3:1 (MAX) TO FINISHED SIDEWALK/SHOULDER GRADE
  - \*\* - DIMENSION IS THE DISTANCE TO THE DETECTABLE WARNING SURFACE, MEASURED PERPENDICULAR FROM THE EDGE OF SHOULDER
  - BC - BOTTOM OF CURB ELEVATION
  - TC - TOP OF CURB ELEVATION
  - FG - FINISHED GRADE ELEVATION
  - TF - TOP OF FOUNDATION ELEVATION

**RAMP 03**  
**SR 1004 (RACE STREET)**  
**STA 9+25 LT**  
**TYPE 4 CURB RAMP DETAIL**



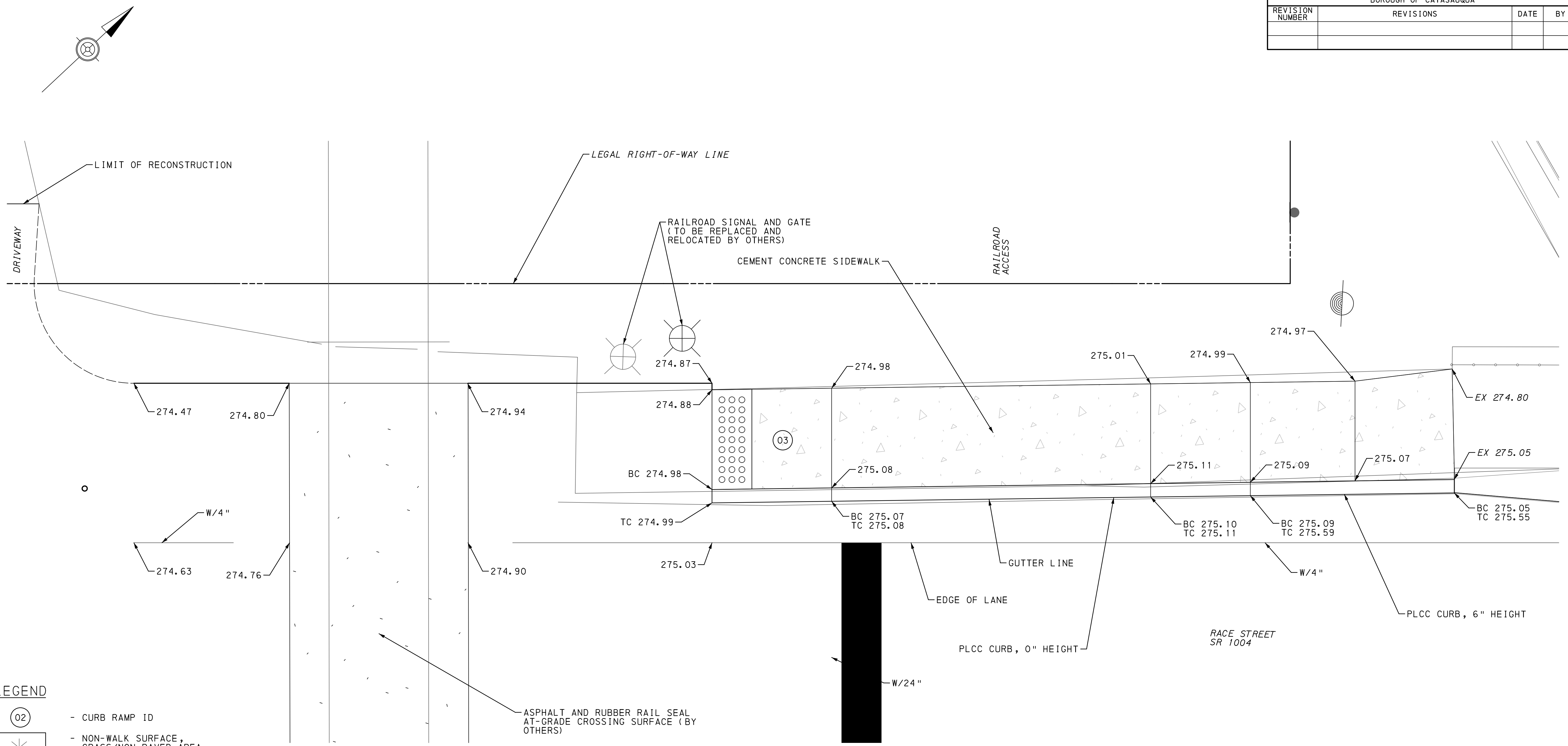
**ADA CURB RAMP**  
**SPECIAL DETAILS**



PLOTTED: 03/17/2021

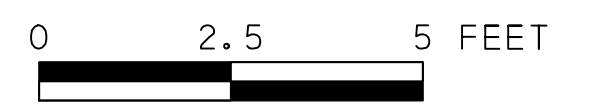
OPERATOR: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Construction\Plans\C\_Develop\ADA\_02.dgn (GRADES)

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	25 OF 111
BOROUGH OF CATASAUQUA				
REVISION NUMBER	REVISIONS	DATE	BY	

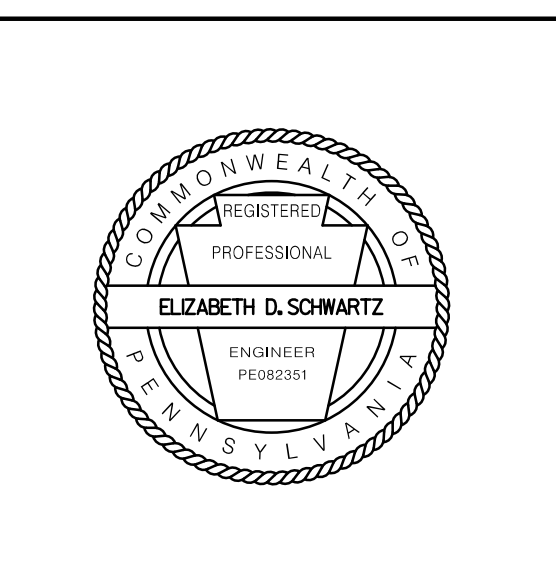


- LEGEND**
- 02 - CURB RAMP ID
  - NON-WALK SURFACE, GRASS/NON-PAVED AREA
  - NON-WALK SURFACE, OBSTRUCTED AREA
  - CEMENT CONCRETE SIDEWALK/ CONCRETE ROLLED FLARE
  - DETECTABLE WARNING SURFACE
  - \* - GRADE AT 3:1 (MAX) TO FINISHED SIDEWALK/SHOULDER GRADE
  - \*\* - DIMENSION IS THE DISTANCE TO THE DETECTABLE WARNING SURFACE, MEASURED PERPENDICULAR FROM THE EDGE OF SHOULDER
  - BC - BOTTOM OF CURB ELEVATION
  - TC - TOP OF CURB ELEVATION
  - FG - FINISHED GRADE ELEVATION
  - TF - TOP OF FOUNDATION ELEVATION

**RAMP 03**  
**SR 1004 (RACE STREET)**  
**STA 9+25 LT**  
**TYPE 4 CURB RAMP DETAIL**



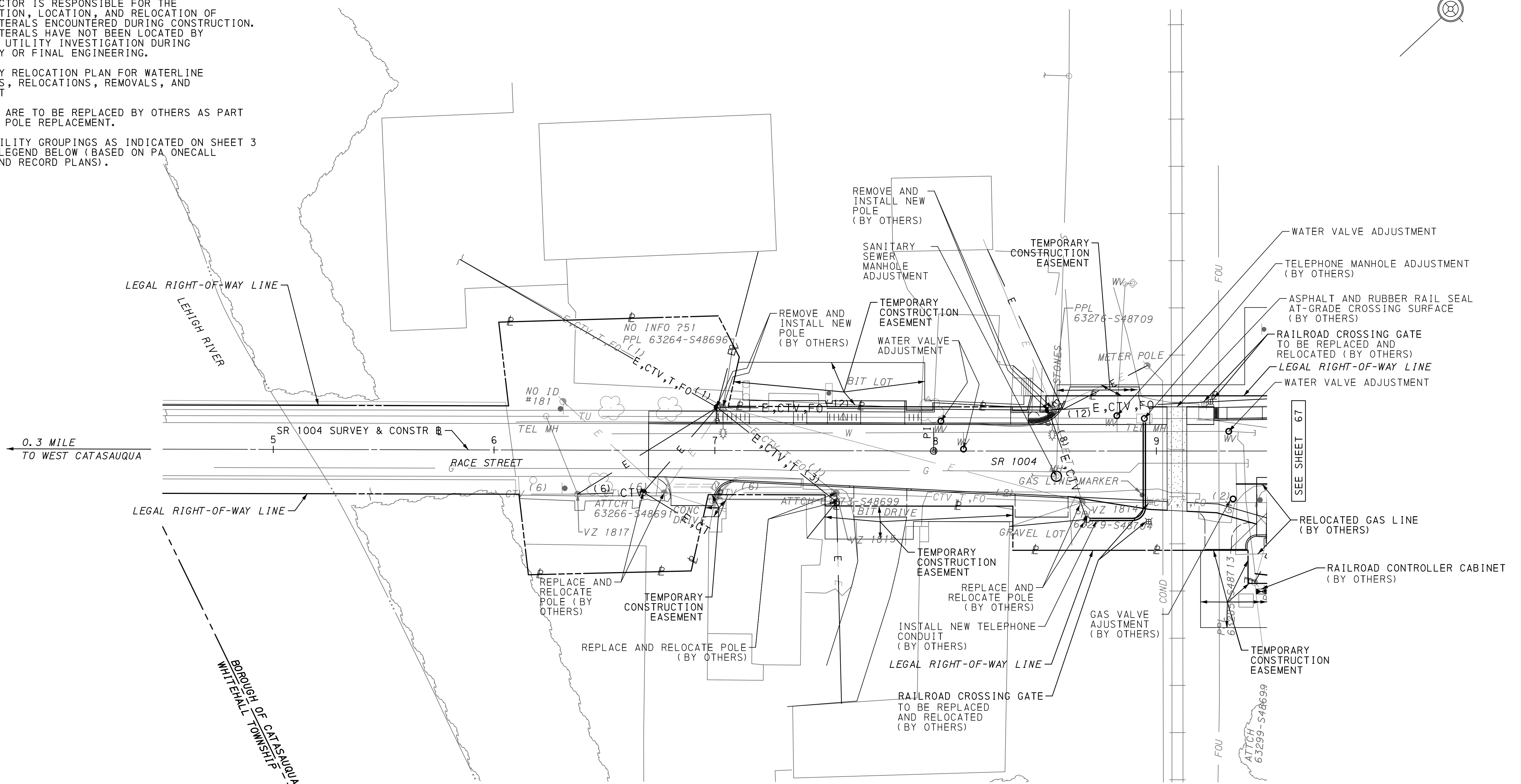
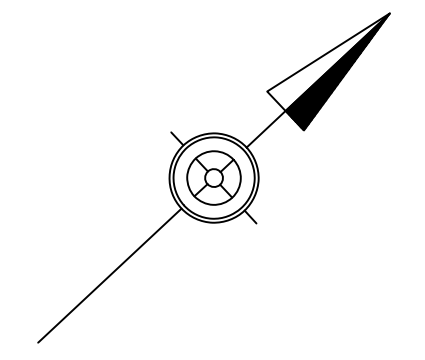
**ADA CURB RAMP**  
**SPECIAL DETAILS**



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	66 OF 111
BOROUGH OF CATASAUQUA				
REVISION NUMBER	REVISIONS	DATE	BY	

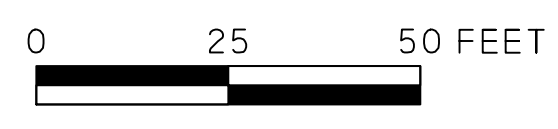
### NOTES

1. THIS PLAN DEPICTS THE EXISTING AND PROPOSED UTILITY LOCATIONS FOR THE PROJECT.
2. WHEN NOTED UTILITY RELOCATIONS AND ADJUSTMENTS WILL BE COMPLETED BY OTHERS.
3. COORDINATE WITH UTILITY OWNERS EARLY TO ENSURE NO IMPACTS TO PROJECT SCHEDULE.
4. SEE LIST OF PUBLIC UTILITIES FOR UTILITY CONTACT INFORMATION AND OWNERSHIP.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE IDENTIFICATION, LOCATION, AND RELOCATION OF UTILITY LATERALS ENCOUNTERED DURING CONSTRUCTION. UTILITY LATERALS HAVE NOT BEEN LOCATED BY SUBSURFACE UTILITY INVESTIGATION DURING PRELIMINARY OR FINAL ENGINEERING.
6. SEE UTILITY RELOCATION PLAN FOR WATERLINE ADJUSTMENTS, RELOCATIONS, REMOVALS, AND ABANDONMENT
7. LUMINAIRES ARE TO BE REPLACED BY OTHERS AS PART OF UTILITY POLE REPLACEMENT.
8. AERIAL FACILITY GROUPINGS AS INDICATED ON SHEET 3 OR IN THE LEGEND BELOW (BASED ON PA ONECALL RESPONSE AND RECORD PLANS).

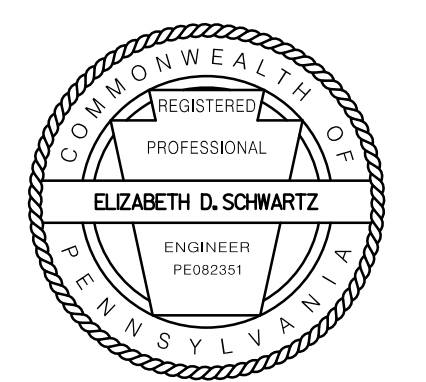


### LEGEND

EXISTING	PROPOSED	GROUPING
(1)	(1)	PPL, CENTURYLINK, RCN, SECTV, VERIZON
(2)	(2)	CENTURYLINK, RCN, SECTV, VERIZON
(3)	(3)	PPL, RCN, SECTV, VERIZON
(4)	(4)	RCN, SECTV, VERIZON
(5)	(5)	SECTV, VERIZON
(6)	(6)	SECTV
(7)	(7)	PPL, RCN
(8)	(8)	PPL, RCN, SECTV
(9)	(9)	PPL, SECTV
(10)	(10)	RCN, SECTV
(11)	(11)	RCN
(12)	(12)	PPL, CENTURYLINK, RCN, SECTV
(13)	(13)	PPL, RCN, VERIZON



## UTILITIES PLAN SPECIAL DETAILS



03\17\2021

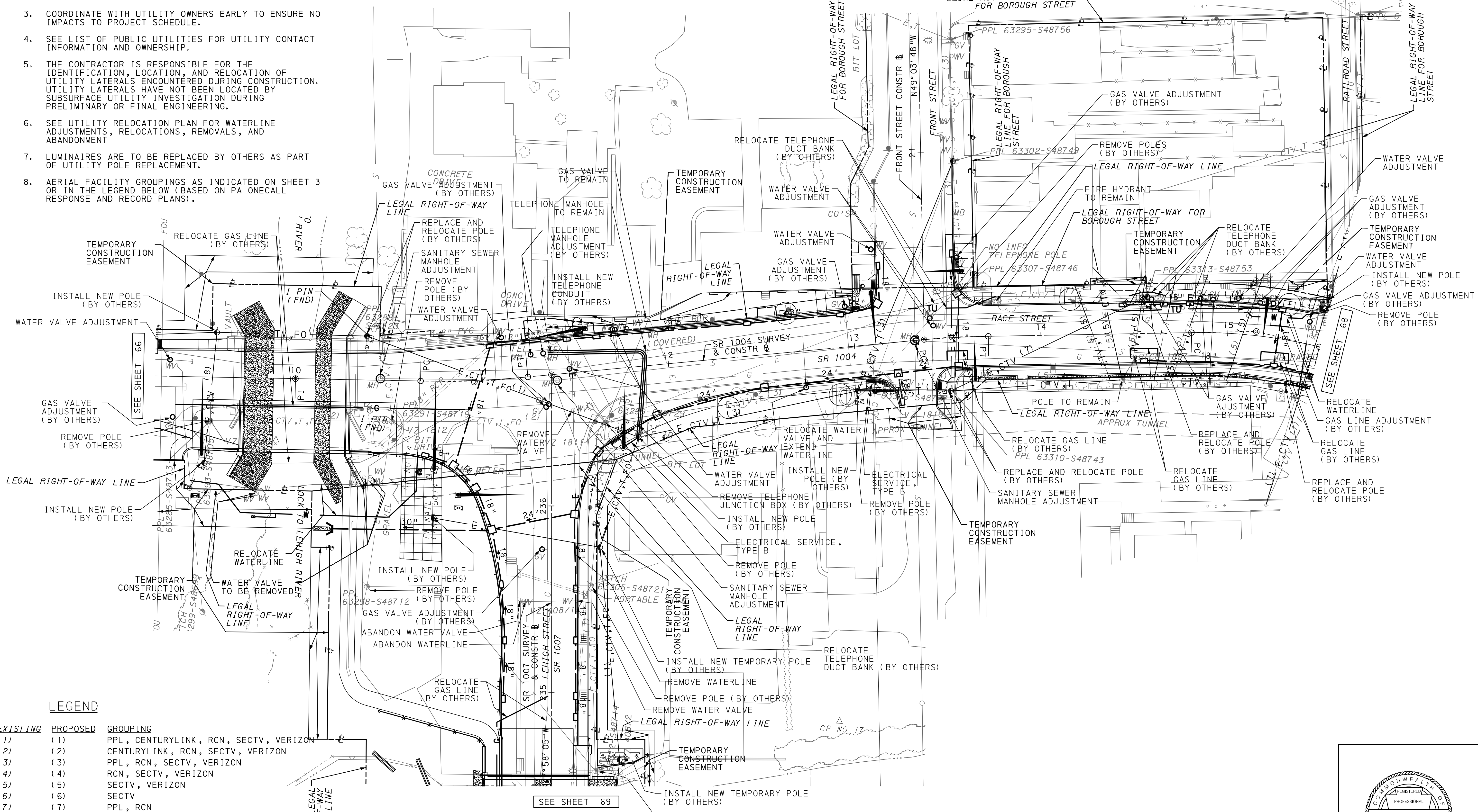
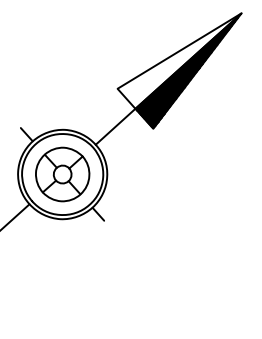
PLOTTED:

OPERATOR: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Construction\Plans\C\_Develop\U11\_01.dgn (Default)

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	67 OF 111
BOROUGH OF CATASAUQUA				
REVISION NUMBER	REVISIONS	DATE	BY	

### NOTES

- THIS PLAN DEPICTS THE EXISTING AND PROPOSED UTILITY LOCATIONS FOR THE PROJECT.
- WHEN NOTED UTILITY RELOCATIONS AND ADJUSTMENTS WILL BE COMPLETED BY OTHERS.
- COORDINATE WITH UTILITY OWNERS EARLY TO ENSURE NO IMPACTS TO PROJECT SCHEDULE.
- SEE LIST OF PUBLIC UTILITIES FOR UTILITY CONTACT INFORMATION AND OWNERSHIP.
- THE CONTRACTOR IS RESPONSIBLE FOR THE IDENTIFICATION, LOCATION, AND RELOCATION OF UTILITY LATERALS ENCOUNTERED DURING CONSTRUCTION. UTILITY LATERALS HAVE NOT BEEN LOCATED BY SUBSURFACE UTILITY INVESTIGATION DURING PRELIMINARY OR FINAL ENGINEERING.
- SEE UTILITY RELOCATION PLAN FOR WATERLINE ADJUSTMENTS, RELOCATIONS, REMOVALS, AND ABANDONMENT
- LUMINAIRES ARE TO BE REPLACED BY OTHERS AS PART OF UTILITY POLE REPLACEMENT.
- AERIAL FACILITY GROUPINGS AS INDICATED ON SHEET 3 OR IN THE LEGEND BELOW (BASED ON PA ONECALL RESPONSE AND RECORD PLANS).

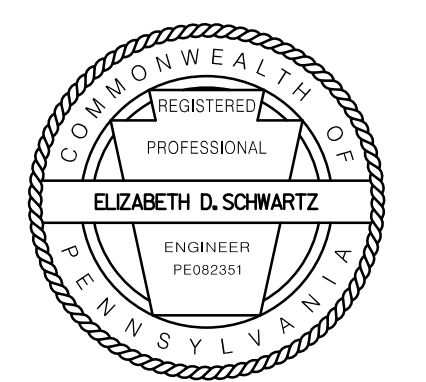


### LEGEND

EXISTING	PROPOSED	GROUPING
(1)	(1)	PPL, CENTURYLINK, RCN, SECTV, VERIZON
(2)	(2)	CENTURYLINK, RCN, SECTV, VERIZON
(3)	(3)	PPL, RCN, SECTV, VERIZON
(4)	(4)	RCN, SECTV, VERIZON
(5)	(5)	SECTV, VERIZON
(6)	(6)	SECTV
(7)	(7)	PPL, RCN
(8)	(8)	PPL, RCN, SECTV
(9)	(9)	PPL, SECTV
(10)	(10)	RCN, SECTV
(11)	(11)	RCN
(12)	(12)	PPL, CENTURYLINK, RCN, SECTV
(13)	(13)	PPL, RCN, VERIZON



## UTILITIES PLAN SPECIAL DETAILS

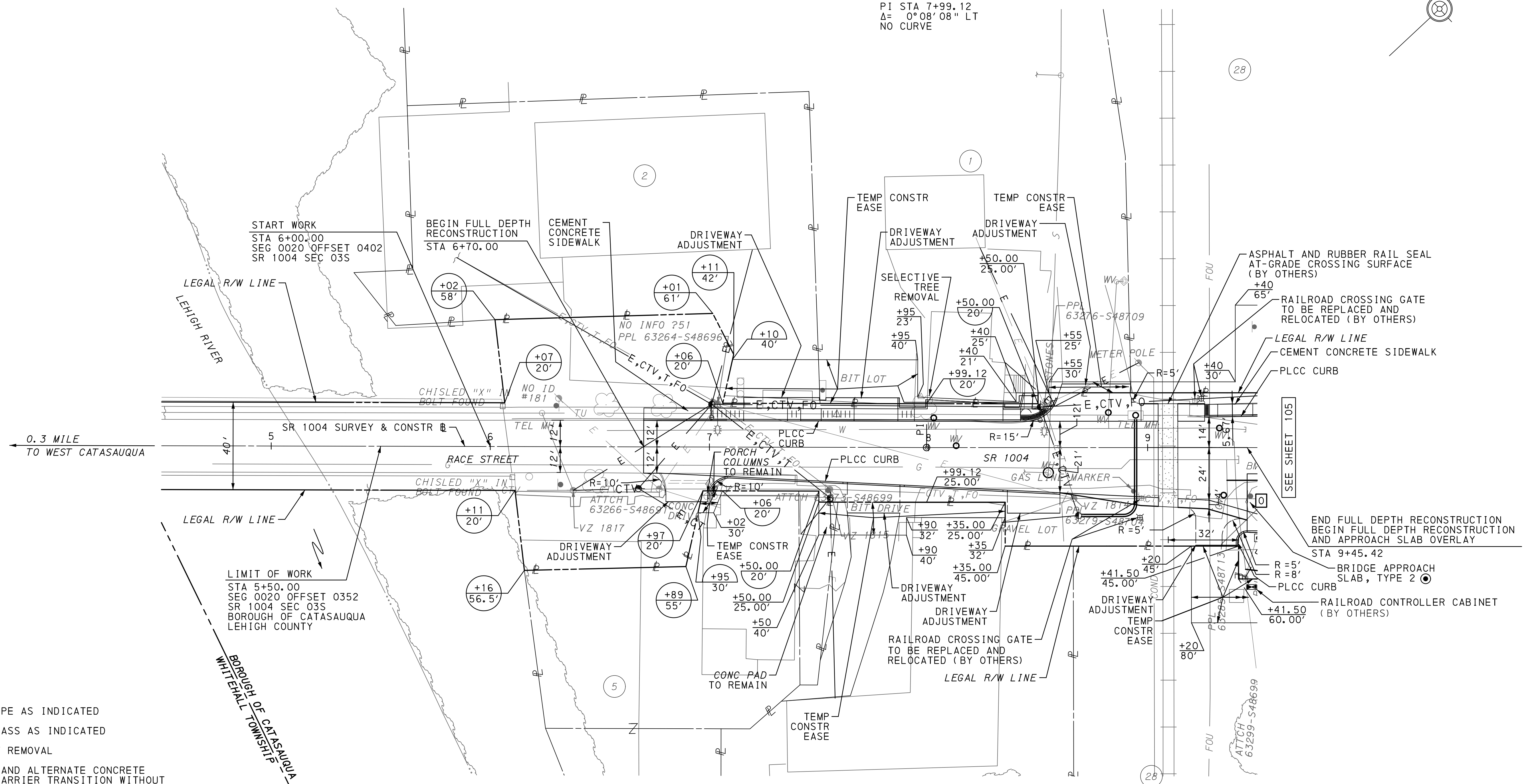
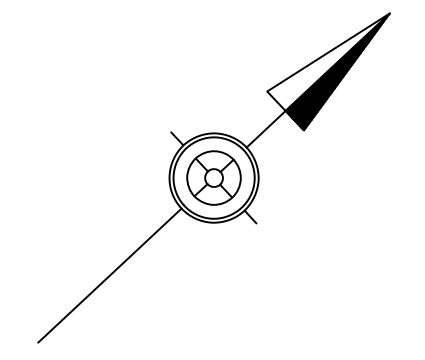


03\17\2021

OPERATOR: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Construction\Plans\C\_De\U11\_02.dgn (Defau17)

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	104 OF 111
BOROUGH OF CATASAUQUA				
REVISION NUMBER	REVISIONS	DATE	BY	

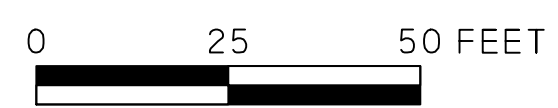
**SR 1004**  
 PI STA 7+99.12  
 Δ= 0°08'08" LT  
 NO CURVE



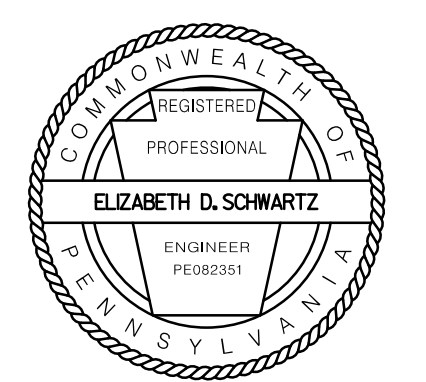
**LEGEND**

- (+) - TREE, TYPE AS INDICATED
- (X) - ROCK, CLASS AS INDICATED
- (Hatched Box) - PAVEMENT REMOVAL
- CBBT - TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION WITHOUT INLET PLACEMENT
- VWBBT - THRIE-BEAM TO VERTICAL WALL BRIDGE BARRIER TRANSITION
- (Dashed Line) - GUIDE RAIL, TYPE AS INDICATED
- TSS - TERMINAL SECTION, SINGLE
- (Circle with Dot) - STRUCTURE ITEM

NOTE: SEE SHEETS 14-65 FOR CURB, SIDEWALK, DRIVEWAY, AND ADA CURB RAMP DETAILS



FOR PROFILE SEE SHEET NO	108
SURVEY BOOK NO	24951 & 24952



03\17\2021

PLOTTED:

OPERATOR: FILE NAME: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Construction\Plans\C\_PL02.dgn (Defau17)

BM "A" ELEV 277.10' 29' LT STA 12+93 CHISELED SQUARE ON TOP SE CORNER OF TOP CONCRETE STEP

BM "H" ELEV 274.19' 33' RT STA 15+37 CHISELED SQUARE IN TOP SE CORNER CONCRETE PAD

BM "CAT 2" ELEV 277.78' 15' RT STA 9+72 PDH DISK IN TOP BRIDGE PARAPET

START WORK STA 20+17.26 FRONT STREET

STOP WORK STA 24+75.00 FRONT STREET

STAIR CASE AT SR 1004 STA 13+03 LT

LIMIT OF WORK STA 236+64.00 SEG 0054 OFFSET 1554 SR 1007 SEC 03S BOROUGH OF CATASAUQUA LEHIGH COUNTY

END FULL DEPTH RECONSTRUCTION STOP WORK STA 236+51.61 SEG 0054 OFFSET 1542 SR 1007 SEC 03S

EXISTING STRUCTURE DATA (SR 1004)

STATION: 10+00.00 TYPE: SINGLE SPAN COMPOSITE P/S CONCRETE SPREAD BOX BEAM (5-48/30) CLEAR SPAN LENGTH: 56'-6" ROADWAY WIDTH: 28'-0" (CLEAR CURB TO CURB) 37'-7" (BRIDGE OUT TO OUT) REQ'D UNDERCLEARANCE: 7'-2" (MIN TO TOWPATH) SKEW: 90°00'00" YEAR BUILT: 1996

PROPOSED STRUCTURE DATA (SR 1004)

STATION: 10+00.00 TYPE: SINGLE SPAN COMPOSITE P/S CONCRETE SPREAD BOX BEAM (5-48/30, 3-48/24) CLEAR SPAN LENGTH: 56'-6" ROADWAY WIDTH: 52'-0" (CLEAR CURB TO CURB) 61'-6 1/4" (BRIDGE OUT TO OUT) PROPOSED UNDERCLEARANCE: 8'-0" (MIN TO TOWPATH) SKEW: 90°00'00" STRUCTURE: S-36735

END FULL DEPTH RECONSTRUCTION AND APPROACH SLAB OVERLAY BEGIN STRUCTURE STA 9+70.42

END FULL DEPTH RECONSTRUCTION AND APPROACH SLAB OVERLAY STA 9+45.42

END FULL DEPTH RECONSTRUCTION AND APPROACH SLAB OVERLAY BEGIN FULL DEPTH RECONSTRUCTION STA 10+54.58

END APPROACH SLAB OVERLAY BEGIN FULL DEPTH RECONSTRUCTION STA 234+80.71

LEGEND

- + TREE, TYPE AS INDICATED
- ROCK, CLASS AS INDICATED
- PAVEMENT REMOVAL
CBBT - TYPICAL AND ALTERNATE CONCRETE BRIDGE BARRIER TRANSITION WITHOUT INLET PLACEMENT
VWBBT - THRIE-BEAM TO VERTICAL WALL BRIDGE BARRIER TRANSITION
- GUIDE RAIL, TYPE AS INDICATED
TSS - TERMINAL SECTION, SINGLE
- STRUCTURE ITEM

NOTE: SEE SHEETS 14-65 FOR CURB, SIDEWALK, DRIVEWAY, AND ADA CURB RAMP DETAILS

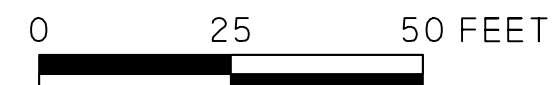
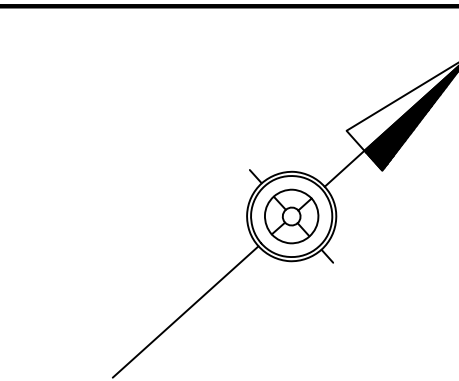
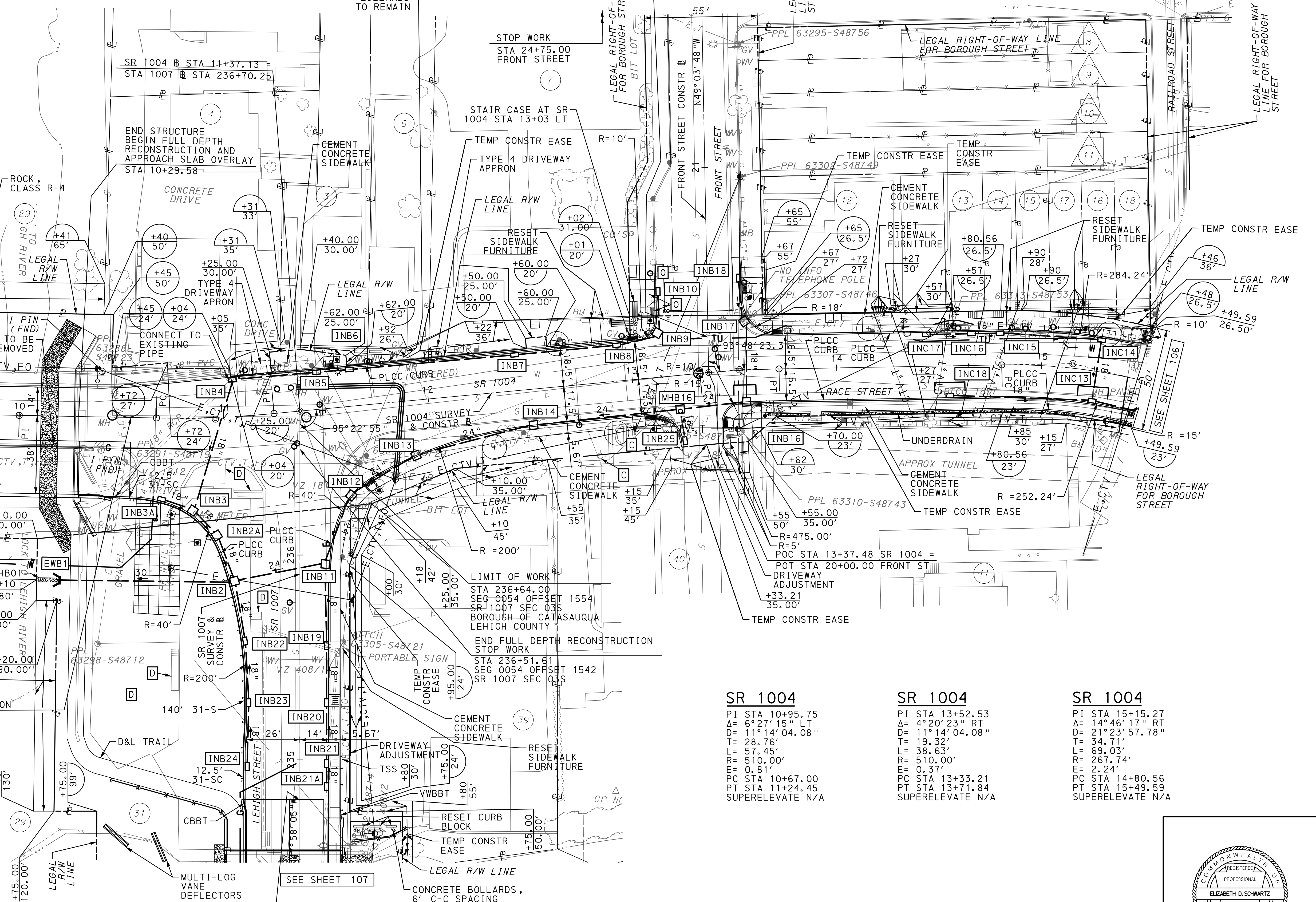


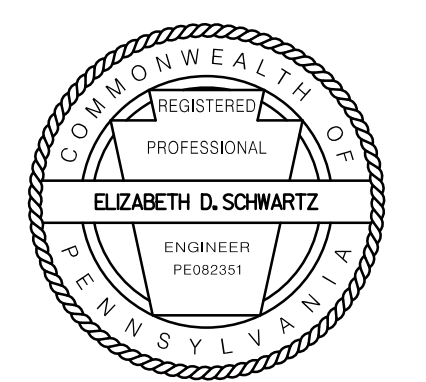
Table with columns: DISTRICT (5-0), COUNTY (LEHIGH), ROUTE (1004), SECTION (03S), SHEET (105 OF 111). Includes a REVISIONS table with columns for NUMBER, REVISIONS, DATE, and BY.



SR 1004 PI STA 10+95.75 Δ= 6°27'15" LT D= 11°14'04.08" T= 28.76' L= 57.45' R= 510.00' E= 0.81' PC STA 10+67.00 PT STA 11+24.45 SUPERELEVATE N/A

SR 1004 PI STA 13+52.53 Δ= 4°20'23" RT D= 21°23'57.78" T= 19.32' L= 38.63' R= 510.00' E= 2.24' PC STA 13+33.21 PT STA 13+71.84 SUPERELEVATE N/A

SR 1004 PI STA 15+15.27 Δ= 14°46'17" RT D= 21°23'57.78" T= 34.71' L= 69.03' R= 267.74' E= 2.24' PC STA 14+80.56 PT STA 15+49.59 SUPERELEVATE N/A

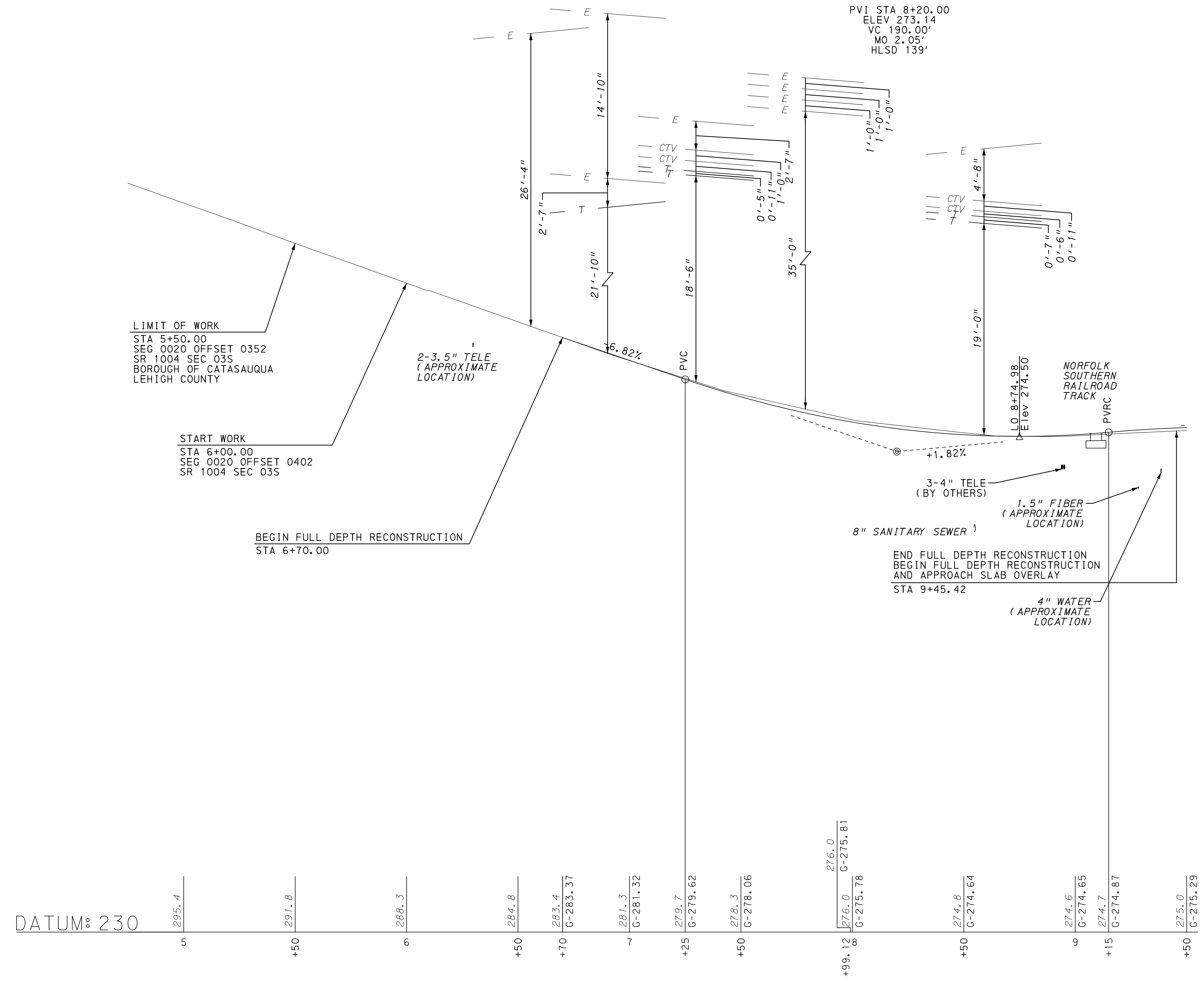


FOR PROFILE SEE SHEET NO 109 SURVEY BOOK NO 24951 & 24952

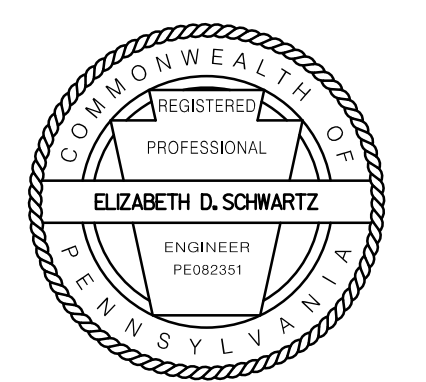
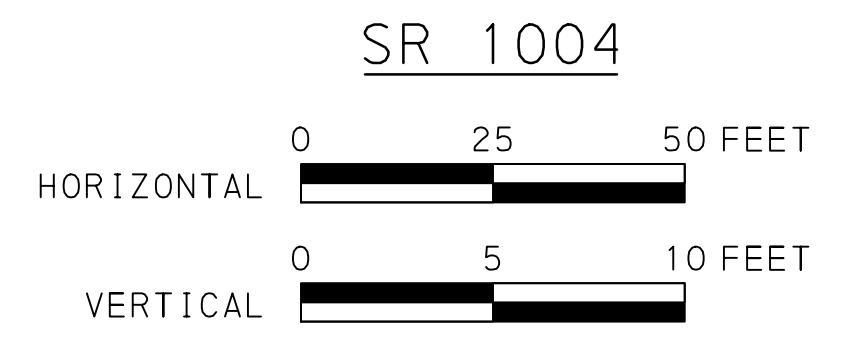
PLOTTED: 03/17/2021

OPERATOR: FILE NAME: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Construction\Plans\C\_PR01.dgn (Default)

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	108 OF 111
BOROUGH OF CATASAUQUA				
REVISION NUMBER	REVISIONS	DATE	BY	



SEE SHEET 109



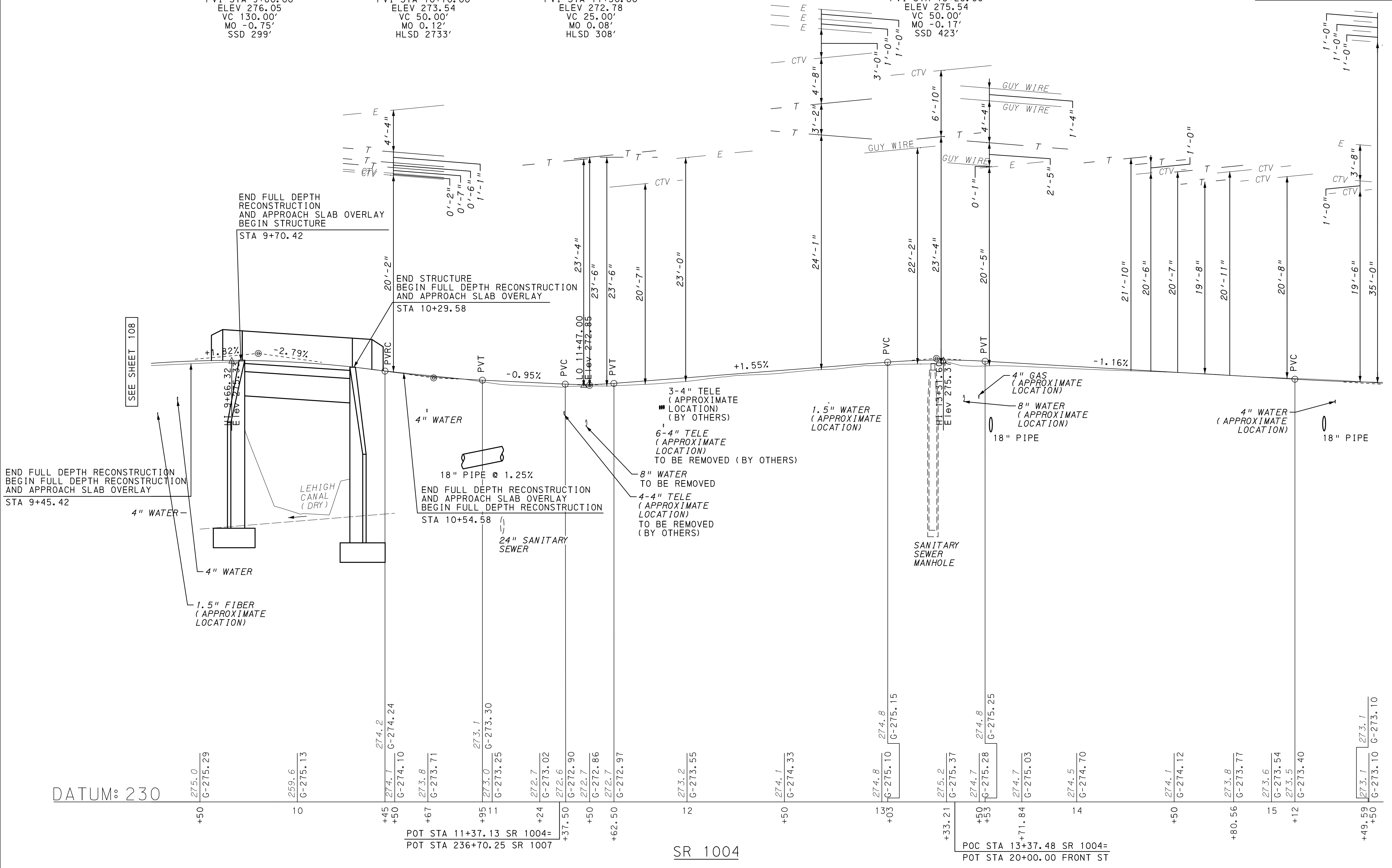
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
5-0	LEHIGH	1004	03S	109 OF 111
BOROUGH OF CATASAUQUA				
REVISION NUMBER	REVISIONS	DATE	BY	

PVI STA 9+80.00  
ELEV 276.05  
VC 130.00'  
MO -0.75'  
SSD 299'

PVI STA 10+70.00  
ELEV 273.54  
VC 50.00'  
MO 0.12'  
HLSD 2733'

PVI STA 11+50.00  
ELEV 272.78  
VC 25.00'  
MO 0.08'  
HLSD 308'

PVI STA 13+28.00  
ELEV 275.54  
VC 50.00'  
MO -0.17'  
SSD 423'



SEE SHEET 108

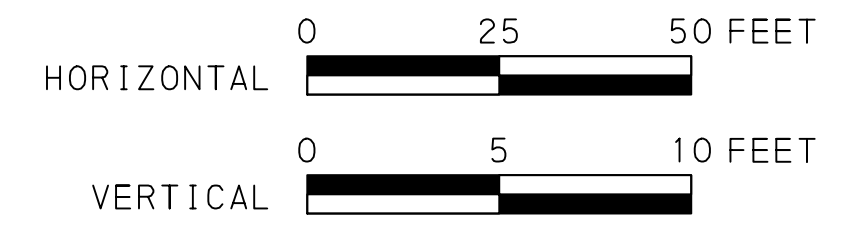
SEE SHEET 110

DATUM: 230

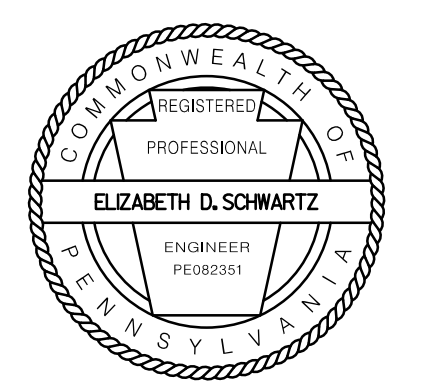
POT STA 11+37.13 SR 1004=  
POT STA 236+70.25 SR 1007

SR 1004

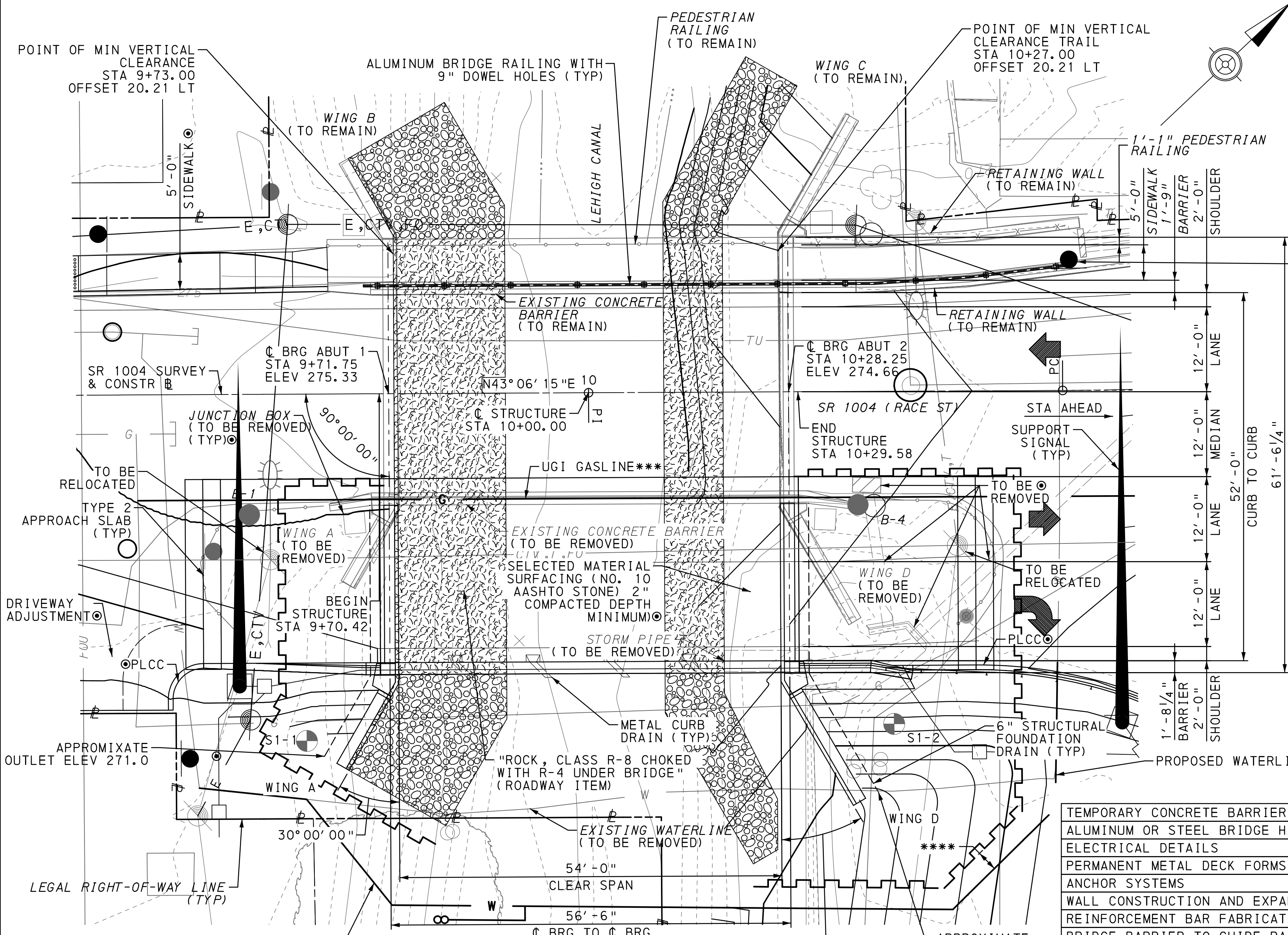
POC STA 13+37.48 SR 1004=  
POT STA 20+00.00 FRONT ST



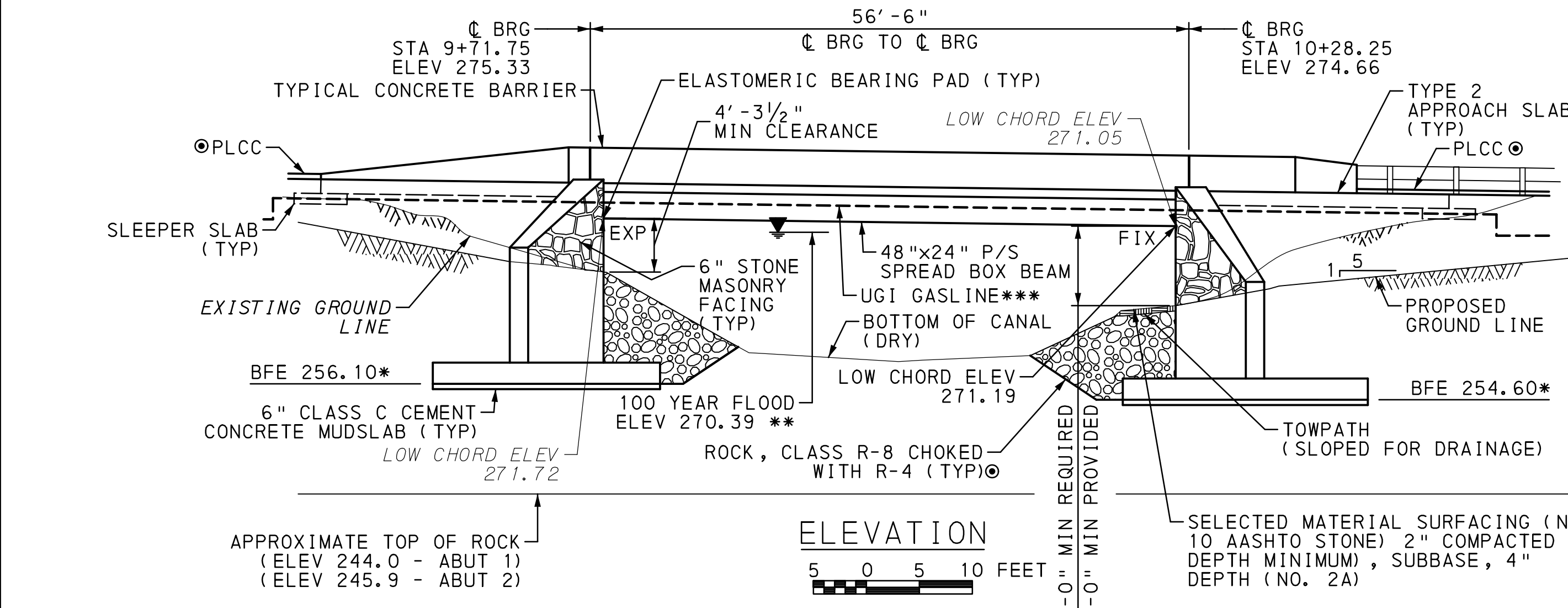
SURVEY BOOK NO	24951 & 24952
FOR PLAN SEE SHEET NO	105, 107



01\04\2021 PLOTTED: D-9002 CADD (02-90) REVISED (10-04) OPERATOR: FILE NAME: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Structure\SR\_1004\Final\IP\ams\01\_GenP\am&E lev.dgn (P 1 of 7)



**PLAN**  
5 0 5 10 FEET



**ELEVATION**  
5 0 5 10 FEET

**WING LAYOUT**

WING	LENGTH
A	12'-0"
D	18'-0"

**HORIZONTAL CURVE DATA**  
SR 1004 SURVEY & CONSTR B

TANGENT = N43°06'15"E

**VERTICAL CURVE DATA**  
SR 1004 SURVEY & CONSTR B

1.82% -2.79%  
PVI STA = 9+80.00  
PVI EL = 276.05  
VC = 130.00'

NO PEDESTRIAN CROSSING SIGN. SEE TRAFFIC SIGNAL CONSTRUCTION PLAN FOR MORE DETAILS.

- \* MATCH EXISTING ABUTMENT FOOTING ELEVATION
- \*\* THE 100 YEAR FLOOD ELEVATION WAS TAKEN FROM THE CATASAUQUA CREEK H & H REPORT AND DETERMINED WITH A COMBINATION OF FLOW FROM THE CATASAUQUA CREEK AND LEHIGH RIVER BACKING UP TO THE RACE STREET BRIDGE.
- \*\*\* STA 9+40.00 TO 9+72.00 AND 10+28.00 TO 10+60.00  
8" STEEL CASING FBE/POWERCRETE COATED,  
4" STEEL CARRIER FBE/POWERCRETE COATED.
- STA 9+72.00 TO 10+28.00  
4" STEEL CARRIER FBE/POWERCRETE COATED,  
DIRECT BURY 4" HPDE TO TIE IN LOCATIONS.
- \*\*\*\* PROVIDE MINIMUM OF 3'-0" BETWEEN TEMPORARY EXCAVATION SUPPORT AND UTILITIES.

**LEGEND**

- 1995 BORING LOCATION
- AS DRILLED BORING LOCATION
- ⊙ ROADWAY PAY ITEM
- EXISTING CONTOURS
- PROPOSED CONTOURS
- ➔ DIRECTION OF TRAFFIC
- W — EXISTING WATER UTILITY
- W — PROPOSED WATER UTILITY
- T — EXISTING TELEPHONE UTILITY
- S — EXISTING SEWER
- TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM S-36735
- E — EXISTING ELECTRIC UTILITY
- G — EXISTING GAS
- G — PROPOSED GAS
- FOU — EXISTING FIBER OPTIC
- ⊘ ROCK, CLASS R-8 CHOKED WITH R-4 (ROADWAY ITEM)
- ⊘ ROCK, CLASS R-8 CHOKED WITH R-4 UNDER BRIDGE (ROADWAY ITEM)

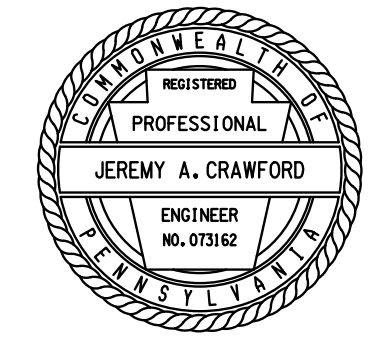
**NOTES:**

1. FOR TYPICAL SECTION AND DECK ELEVATIONS, SEE SHEET 2.
2. FOR QUANTITIES, SEE SHEET 6.
3. FOR GENERAL NOTES, AND INDEX OF DRAWINGS, SEE SHEET 3.

DESIGN REVIEWED BY:

GANNETT FLEMING, INC.  
1275 GLENLIVET DRIVE, SUITE 305  
ALLENTOWN, PA 18106

*JAC* 01/11/2021



THE DESIGN REVIEW IS FOR GENERAL CONFORMANCE WITH DEPARTMENT'S 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.

TEMPORARY CONCRETE BARRIER STRUCTURE MOUNTED	BC-719M	1/31/19
ALUMINUM OR STEEL BRIDGE HAND RAILING	BC-720M	9/30/16
ELECTRICAL DETAILS	BC-721M	9/30/16
PERMANENT METAL DECK FORMS	BC-732M	1/31/19
ANCHOR SYSTEMS	BC-734M	1/31/19
WALL CONSTRUCTION AND EXPANSION JOINT DETAILS	BC-735M	9/30/16
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	1/31/19
BRIDGE BARRIER TO GUIDE RAIL TRANSITION	BC-739M	1/31/19
BRIDGE DRAINAGE	BC-751M	1/31/19
CONCRETE DECK SLAB DETAILS	BC-752M	9/30/16
BEARINGS	BC-755M	1/31/19
PREFORMED NEOPRENE COMPRESSION SEAL JOINT FOR APPROACH SLABS	BC-766M	1/31/19
PRESTRESSED CONCRETE BEAM BRACING	BC-772M	9/30/16
MISCELLANEOUS PRESTRESS DETAILS	BC-775M	9/30/16
REINFORCED CONCRETE REPAIR	BC-783M	1/31/19
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	1/31/19
UTILITY ATTACHMENT & SUPPORT DETAILS, PRESTRESSED BRIDGES	BC-794M	1/31/19
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	6/1/2010
BACKFILL AT STRUCTURES	RC-12M	2/8/2019
SUBSURFACE DRAINS	RC-30M	12/17/2019
GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS	RC-50M	2/8/2019
DESCRIPTION	DWG. NO.	REC. DATE

**SUPPLEMENTAL DRAWINGS**

 JESSICA BARHIGHT REHRIG ENGINEER 073566	PREPARED BY:  <b>benesch</b> Alfred Benesch & Company 400 One Norwegian Plaza Pottsville, Pennsylvania 17901	 SHANE J. RYAN ENGINEER 073566
	DATE: 1/5/2021	

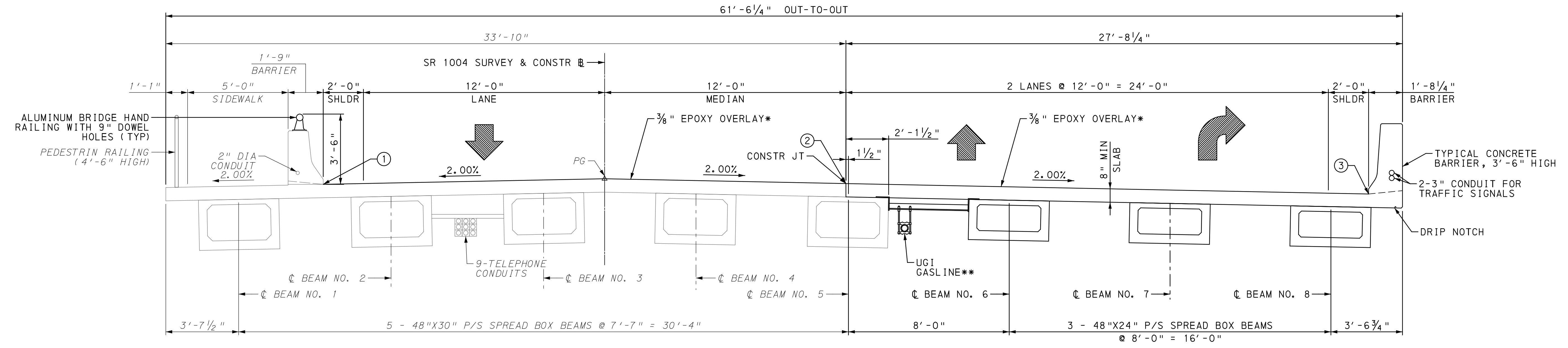
Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

**COMMONWEALTH OF PENNSYLVANIA**  
**DEPARTMENT OF TRANSPORTATION**  
**LEHIGH COUNTY**  
**SR 1004 SECTION 03S**  
**SEG 0020 OFFSET 0776**  
**SR 1004 (RACE STREET) - STA 10+00.00**  
**OVER LEHIGH CANAL**  
**1 SPAN COMP P/S CONC SPREAD BOX BEAM**  
**BRIDGE WIDENING**  
**GENERAL PLAN & ELEVATION**

RECOMMENDED: \_\_\_\_\_ 01/11/2021  
 \_\_\_\_\_  
 DISTRICT 5-0 BRIDGE ENGINEER

**SHEET 1 OF 44**  
**& SUPPLEMENTAL**  
**DRAWINGS**  
**S - 36735**



TYPICAL SECTION  
1 0 1 2 3 FEET

\* EPOXY OVERLAY INCLUDES SHOTBLASTING  
\*\* 4" ST FBE/POWERCRETE CARRIER IN BAY.  
8" ST FBE/POWERCRETE CASING WITH 4" ST FBE/POWERCRETE CARRIER ALL OTHER LOCATIONS.

DECK ELEVATIONS AT TENTH POINTS ALONG C OF BEAM								
TENTH POINT LOCATION	BEAM 6		BEAM 7		BEAM 8		EXISTING PG ELEV	
	STATION	TOP OF DECK ELEV	STATION	TOP OF DECK ELEV	STATION	TOP OF DECK ELEV	STATION	TOP OF DECK ELEV
NR C BRG	09+71.75	274.93	09+71.75	274.77	09+71.75	274.61	09+71.75	275.33
1/10th	09+77.40	274.91	09+77.40	274.75	09+77.40	274.59	09+77.40	275.32
2/10th	09+83.05	274.88	09+83.05	274.72	09+83.05	274.56	09+83.05	275.29
3/10th	09+88.70	274.85	09+88.70	274.69	09+88.70	274.53	09+88.70	275.25
4/10th	09+94.35	274.80	09+94.35	274.64	09+94.35	274.48	09+94.35	275.20
MIDSPAN	10+00.00	274.73	10+00.00	274.57	10+00.00	274.41	10+00.00	275.14
6/10th	10+05.65	274.66	10+05.65	274.50	10+05.65	274.34	10+05.65	275.06
7/10th	10+11.30	274.58	10+11.30	274.42	10+11.30	274.26	10+11.30	274.98
8/10th	10+16.95	274.48	10+16.95	274.32	10+16.95	274.16	10+16.95	274.88
9/10th	10+22.60	274.37	10+22.60	274.21	10+22.60	274.05	10+22.60	274.78
FAR C BRG	10+28.25	274.25	10+28.25	274.09	10+28.25	273.93	10+28.25	274.66

NOTE: TOP OF DECK ELEVATIONS REPRESENT TOP OF EPOXY OVERLAY.

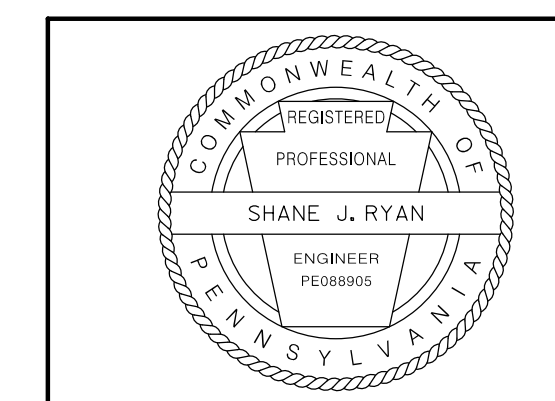
TABLE OF DECK ELEVATIONS AT BREAKLINES							
POINT 1 (EXISTING)		PG (EXISTING)		POINT 2 (AT CONSTR JT)		POINT 3 (AT GUTTER PT)	
STATION	TOP OF DECK PANEL ELEV	STATION	TOP OF DECK PANEL ELEV	STATION	TOP OF DECK PANEL ELEV	STATION	TOP OF DECK PANEL ELEV
09+71.75	275.05	09+71.75	275.33	09+71.75	275.09	09+71.75	274.57
09+80.00	275.02	09+80.00	275.30	09+80.00	275.06	09+80.00	274.54
09+90.00	274.96	09+90.00	275.24	09+90.00	275.00	09+90.00	274.48
10+00.00	274.86	10+00.00	275.14	10+00.00	274.90	10+00.00	274.38
10+10.00	274.72	10+10.00	275.00	10+10.00	274.76	10+10.00	274.24
10+20.00	274.55	10+20.00	274.83	10+20.00	274.59	10+20.00	274.07
10+28.25	274.38	10+28.25	274.66	10+28.25	274.42	10+28.25	273.90

NOTE: TOP OF DECK ELEVATIONS REPRESENT TOP OF EPOXY OVERLAY.

- NOTES:
- FOR GENERAL NOTES, SEE SHEET 3.
  - FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1.
  - FOR STAGED CONSTRUCTION DETAILS, SEE SHEETS 4 AND 5.
  - FOR ADDITIONAL ALUMINUM BRIDGE HAND RAILING WITH 9" DOWEL HOLE DETAILS, SEE SHEET 42.
  - FOR UGI GASLINE LINE UTILITY ATTACHMENT DETAILS, SEE SHEET 41.

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF TRANSPORTATION

LEHIGH COUNTY  
SR 1004 SECTION 03S  
SEG 0020 OFFSET 0776  
SR 1004 (RACE STREET) - STA 10+00.00  
OVER LEHIGH CANAL  
1 SPAN COMP P/S CONC SPREAD BOX BEAM  
BRIDGE WIDENING  
TYPICAL SECTION & DECK ELEVATION

RECOMMENDED \_\_\_\_\_ SHEET 2 OF 44  
S - 36735

OPERATOR: FILE NAME: Y:\Lehigh9500s\9510\_05\Eng\_Docs\Structure\SR\_1004\Final\PLans\03\_GenNo.res.dgn (P lot)  
 D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020

**GENERAL NOTES**

1. PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408/2020, ANSI, AASHTO/AWS/D1.5 BRIDGE WELDING CODE 2015 (USE ANSI/AWS/D1.1-08 FOR WELDING NOT COVERED IN ANSI/AASHTO/AWS/D1.5-08), AND CONTRACT SPECIAL PROVISIONS.
2. SUPERSTRUCTURE DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68° F.
3. ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.
4. VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION. BRIDGE DOES NOT CONTAIN ASBESTOS.
5. SITE CLASS IS NOT CLASS E.

**DESIGN SPECIFICATIONS**

1. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SEVENTH EDITION, 2014, ADOPTED BY AASHTO AND AS SUPPLEMENTED BY DESIGN MANUAL PART 4, APRIL 2015 EDITION (INCLUDING LATEST REVISIONS).
2. LIVE LOAD DISTRIBUTION TO BEAMS IS BASED UPON DM-4 DISTRIBUTION FACTORS.
3. DESIGN IS IN ACCORDANCE WITH THE LOAD AND RESISTANCE FACTOR DESIGN METHOD (LRFD).

**DEAD LOADS**

1. INCLUDES SURFACE AREA DENSITY OF 0.030 KSF FOR FUTURE WEARING SURFACE ON THE DECK SLAB.
2. INCLUDES SURFACE AREA DENSITY OF 0.015 KSF FOR PERMANENT METAL DECK FORMS.
3. INCLUDES 0.650 KLF FOR TYPICAL CONCRETE BARRIER.
4. INCLUDES 0.020 KLF FOR UTILITY LOADS.

**DESIGN LIVE LOADS**

1. PHL-93 OR P-82 (204 K PERMIT LOAD).
2. FATIGUE DESIGN IS BASED ON THE FOLLOWING:  
PRESTRESSED CONCRETE:  
ADTT=612 (2038) TWO-DIRECTIONAL.

MAXIMUM ALLOWABLE TENSILE STRESS IN THE PRECOMPRESSED TENSILE ZONE = 0.0948  $f'_c$

**CONCRETE NOTES**

1. USE CLASS AAAP CEMENT CONCRETE IN THE DECK SLAB.
2. USE CLASS AA CEMENT CONCRETE IN BARRIERS, SLEEPER SLABS, CHEEKWALLS, BRIDGE APPROACH SLAB, END DIAPHRAGM & SHEAR BLOCK.
3. USE CLASS A CEMENT CONCRETE IN ABUTMENTS BELOW THE BRIDGE SEAT, WINGWALLS, AND FOOTINGS.
4. USE CLASS C CEMENT CONCRETE BELOW THE BOTTOM OF FOOTINGS WHEN SPECIFIED.
5. A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT.
6. PROVIDE 2" CONCRETE COVER ON REINFORCEMENT BARS EXCEPT AS NOTED.
7. RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS EXCEPT AS INDICATED.
8. CONSTRUCT DECK SLAB TRANSVERSE CONSTRUCTION JOINTS PARALLEL TO BRIDGE CENTERLINE OF BEARINGS.
9. CHAMFER EXPOSED CONCRETE EDGES 1"x1" EXCEPT AS NOTED.
10. DECK SLAB THICKNESS INCLUDES A 1/2" INTEGRAL WEARING SURFACE.
11. PLACE CHEEKWALL AND CONCRETE SHEAR BLOCKS AFTER BEAMS ARE SET IN POSITION.
12. USE EITHER PERMANENT METAL FORMS OR REMOVEABLE FORMS TO CONSTRUCT THE DECK SLAB.
13. PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 408, SECTION 1001.3(k)9.
14. CLEAN, STRAIGHTEN AND COAT EXISTING REINFORCING STEEL (SCHEDULED TO REMAIN) IN ACCORDANCE WITH BC-783M, SHEET 1, NOTE 4.
15. CLEAN EXISTING CONCRETE SURFACES AGAINST WHICH NEW CONCRETE WILL BE CAST IN ACCORDANCE PUB 408/2020. APPLY EPOXY BONDING COMPOUND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND PUB 408/2020.
16. CONTRACTOR RESPONSIBLE TO REPAIR ANY DAMAGE DONE TO ANY PORTION OF EXISTING STRUCTURE TO REMAIN.

**REINFORCEMENT NOTES**

1. PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A 615/A 615M, A 996/A 996M, AND A 706/A 706M. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED. GRADE 40 REINFORCING BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS-SECTIONAL AREA, IF APPROVED BY THE CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL A 996/A 996M REINFORCEMENT BARS IN BRIDGE, ABUTMENTS, SHEAR BLOCKS, BEAMS, FOOTINGS, BARRIERS OR WHERE BENDING OR WELDING OF THE REINFORCEMENT IS INDICATED.
2. USE EPOXY-COATED REINFORCEMENT BARS IN THE DECK SLAB, BARRIERS, APPROACH SLABS, CHEEKWALLS, SLEEPER SLABS AND STIRRUPS PROTRUDING FROM PRESTRESSED BEAMS INTO THE DECK SLAB. ALSO, EPOXY COAT SUBSTRUCTURE REINFORCEMENT BARS AS INDICATED.
3. PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS IN ACCORDANCE WITH STANDARD DRAWING BC-736M, UNLESS OTHERWISE INDICATED.
4. WELDING OF REINFORCING BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.
5. GALVANIZED REINFORCING STEEL BARS MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL BARS AT NO ADDITIONAL COST TO THE DEPARTMENT.

**UTILITIES**

1. COORDINATE, LOCATE, AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH PUBLICATION 408, SECTIONS 105.06 AND 107.12.
2. COORDINATE THE REQUIREMENTS FOR PROTECTION AND/OR RELOCATION OF UTILITIES WITH THE OWNER PRIOR TO STARTING WORK.

**FOUNDATION NOTES**

1. PROVIDE TEMPORARY SUPPORT OF EXCAVATION WHERE INDICATED ON THE PLANS, OR WHERE REQUIRED, THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE TEMPORARY SUPPORT OF EXCAVATION AND OF ANY NECESSARY BRACING AND SHORING SYSTEMS. ALL BRACING AND SHORING DESIGN SHOULD FOLLOW THE SPECIAL PROVISION. THE SOIL PARAMETERS ARE BASED ON PREVIOUS SUBSURFACE INVESTIGATIONS. THE CONTRACTOR MUST VERIFY THAT THE SOIL PARAMETERS ARE APPROPRIATE FOR THE SPECIFIC SHEETING AND SHORING SYSTEM TO BE USED.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF ALL EXCAVATED SLOPES AND THE DESIGN OF ANY TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM THAT MAY BE USED. DIVERT ALL SURFACE RUNOFF AWAY FROM THE EXCAVATION USING CURBING OR A BARRIER PLACED ALONG THE TOP OF THE SLOPE. IF REQUIRED, COVER EXCAVATED SLOPES WITH PLASTIC TO PROTECT AGAINST INFILTRATION. PERFORM EXCAVATIONS IN ACCORDANCE WITH OSHA REQUIREMENTS.
3. SPREAD FOOTINGS MAY BE ORDERED BY THE ENGINEER TO BE AT ANY ELEVATION OR OF ANY DIMENSIONS NECESSARY TO PROVIDE A PROPER FOUNDATION.
4. DESIGN FOUNDATIONS USING THE LOAD AND RESISTANCE FACTOR DESIGN (LRFD) METHOD IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND AS SUPPLEMENTED BY PENNDOT DESIGN MANUAL, PART 4.
5. MAINTAIN A MINIMUM SOIL COVER OVER THE FOOTING OF 1.0 FOOT ACCORDING TO DM-4, D10.6.1.2.
6. MAXIMUM ALLOWABLE POST CONSTRUCTION SETTLEMENT IS 1.0 INCH.
7. REMOVE EXISTING WINGWALLS A AND D IN THEIR ENTIRETY USING ONLY MECHANICAL METHODS. BLASTING IS NOT PERMITTED.
8. OVER-EXCAVATE SIX INCHES BELOW THE BOTTOM OF FOOTING ELEVATIONS AND BACKFILL WITH CLASS C CEMENT CONCRETE FOR CONSTRUCTION OF A 6-INCH THICK MUDSLAB FOR ALL SUBSTRUCTURES. IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED AT THE BOTTOM OF EXCAVATIONS FOR THE PROPOSED SUBSTRUCTURES, OVER-EXCAVATE THE SOILS AND BACKFILL WITH PENNDOT NO. 2A COARSE AGGREGATE OR APPROVED EQUAL IN ACCORDANCE WITH SPECIAL PROVISION "CLASS 3 EXCAVATION INCLUDING OVER EXCAVATION AND BACKFILLING WITH COARSE AGGREGATE". THE LIMIT OF UNSUITABLE SOILS SHALL BE DETERMINED BY THE DISTRICT STRUCTURE CONTROL ENGINEER (DSCE) OR THEIR REPRESENTATIVE.
9. FOUNDATION SUBGRADE MUST BE INSPECTED AND APPROVED BY THE DISTRICT STRUCTURE CONTROL ENGINEER. NOTIFY THE REPRESENTATIVE OF A TENTATIVE SCHEDULE FOR THE INSPECTION OF A FOUNDATION EXCAVATION AT LEAST 7 CALENDAR DAYS BEFORE THE NEED FOR THE INSPECTION NOTIFY THE REPRESENTATIVE OF A FIRM DATE AND TIME AT LEAST 48 HOURS BEFORE THE REQUESTED EXCAVATION BUT GIVE NOTICE BETWEEN START OF WORK ON MONDAY AND NOON FOR THE FOLLOWING FRIDAY. DO NOT SCHEDULE AN INSPECTION OF FOUNDATION ON SATURDAYS, SUNDAYS, OR HOLIDAYS WITHOUT PRIOR APPROVAL OF THE REPRESENTATIVE.
10. DIVERT ALL SURFACE RUNOFF AWAY FROM SUBSTRUCTURE EXCAVATIONS, OVER-EXCAVATIONS, AND FOUNDATION CONSTRUCTION TO PREVENT DEGRADATION OF FOUNDATION SOILS.
11. PROVIDE ADEQUATE DEWATERING METHODS DURING EXCAVATION, MUDSLAB CONSTRUCTION AND FOUNDATION CONSTRUCTION IF NECESSARY SUCH THAT THE EXCAVATION IS DRY ENOUGH FOR INSPECTION AND CONSTRUCTION.
12. EXCAVATE ACCORDING TO CURRENT OSHA OR OTHER APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS AND IN ACCORDANCE WITH THE SPECIAL PROVISION "TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM S-36735". PROVIDE TEMPORARY SHORING OF EXCAVATED AREAS AS NECESSARY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE STABILITY OF ALL EXCAVATIONS. A QUALIFIED PROFESSIONAL (GEOTECHNICAL) ENGINEER REGISTERED IN THE COMMONWEALTH OF PENNSYLVANIA MUST PERFORM THE DESIGN OF TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEMS, EXCAVATION SLOPING, AND/OR BENCHING CONSIDER FINAL CONDITIONS AND ALL CONSTRUCTION CONDITIONS, AS WELL AS ANY OTHER APPLICABLE DESIGN SURCHARGES. REEVALUATE THE TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM AND DEWATERING DESIGNS IF ACTUAL CONDITIONS ENCOUNTERED DIFFER FROM THOSE ANTICIPATED.

**EXISTING BRIDGE**

1. 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.  
  
EXISTING STRUCTURE DRAWINGS:  
- S-21555 DATED 9/30/96
2. DO NOT CONSIDER ANY DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN DRAWINGS OR MADE AVAILABLE TO YOU BY THE DEPARTMENT OR ITS AUTHORIZED AGENTS AS POSITIVE REPRESENTATION OF ANY OF THE CONDITIONS THAT YOU WILL ENCOUNTER IN THE FIELD.
3. BRIDGE IS NOT WEIGHT RESTRICTED. SEE PUBLICATION 408 SECTION 105.17 FOR CONSTRUCTION LOADING LIMITS.

**INDEX OF DRAWINGS**

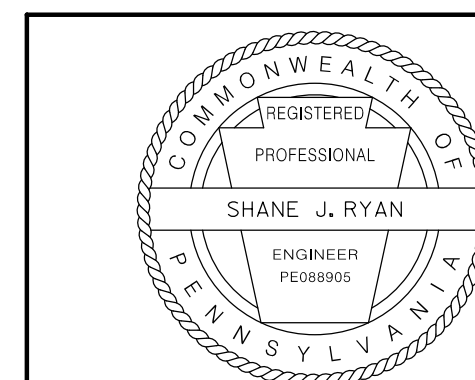
SHT NO.	TITLE
1	GENERAL PLAN & ELEVATION
2	TYPICAL SECTION & DECK ELEVATION
3	GENERAL NOTES & INDEX OF DRAWINGS
4	CONSTRUCTION STAGING SECTIONS - I
5	CONSTRUCTION STAGING SECTIONS - II
6	QUANTITIES
7	RATINGS
8	STAKE-OUT PLAN
9	ABUTMENT 1 PLAN & ELEVATION
10	ABUTMENT 1 SECTION
11	ABUTMENT 1 FOOTING PLAN
12	ABUTMENT 1 DETAILS
13	ABUTMENT 1 DOWEL DETAILS
14	ABUTMENT 1 WING DETAILS
15	ABUTMENT 1 REBAR SCHEDULE
16	ABUTMENT 2 PLAN & ELEVATION
17	ABUTMENT 2 SECTIONS
18	ABUTMENT 2 FOOTING PLAN
19	ABUTMENT 2 DETAILS
20	ABUTMENT 2 DOWEL DETAILS
21	ABUTMENT 2 WING DETAILS
22	ABUTMENT 2 REBAR SCHEDULE
23	FRAMING PLAN
24	BOX BEAM DETAILS-I
25	BOX BEAM DETAILS-II
26	BOX BEAM DETAILS-III
27	ELASTOMERIC BEARING DETAILS
28	DIAPHRAGM DETAILS
29	ABUTMENT 1 DIAPHRAGM DETAILS
30	ABUTMENT 2 DIAPHRAGM DETAILS
31	DECK SLAB PLAN
32	DECK SLAB SECTION
33	BARRIER SECTION & DETAILS
34	SUPERSTRUCTURE REBAR SCHEDULE
35	APPROACH SLAB PLAN-I
36	APPROACH SLAB PLAN-II
37	APPROACH SLAB SECTION
38	APPROACH SLAB DETAILS
39	APPROACH SLAB REBAR SCHEDULE
40	STONE MASONRY FACING DETAILS
41	UTILITY DETAILS
42	BARRIER HAND RAIL PLAN & SECTION
43	STRUCTURE BORINGS-I
44	STRUCTURE BORINGS-II

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

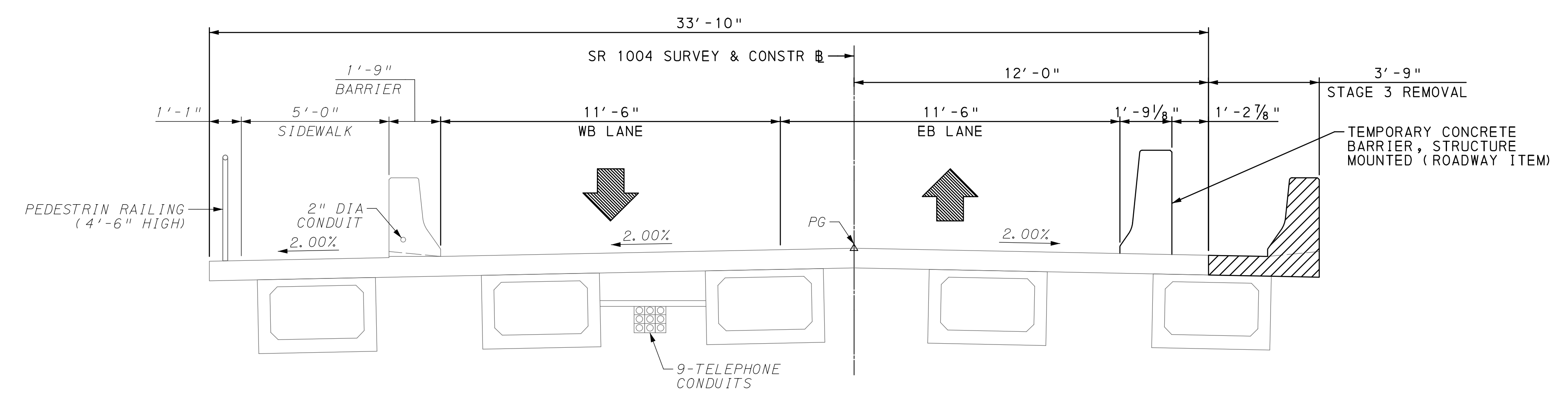
SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

**COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION**

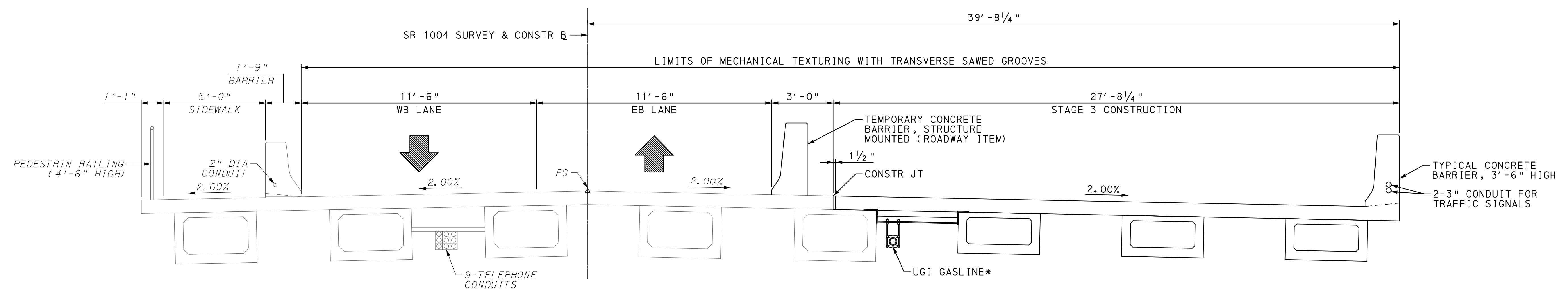
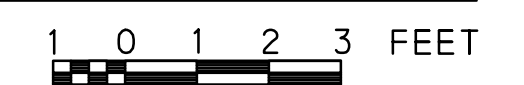
**LEHIGH COUNTY**  
**SR 1004 SECTION 03S**  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
**GENERAL NOTES & INDEX OF DRAWINGS**



RECOMMENDED _____	SHEET 3 OF 44
	S - 36735



STAGE 3 REMOVAL



STAGE 3 CONSTRUCTION



\* 4" ST FBE/POWERCRETE CARRIER IN BAY.  
 8" ST FBE/POWERCRETE CASING WITH 4" ST FBE/POWERCRETE CARRIER  
 ALL OTHER LOCATIONS.

PROPOSED CONSTRUCTION STAGING

STAGE 3 REMOVAL

- \* INSTALL TEMPORARY BARRIER
- \* REMOVE EXISTING RIGHT PARAPET, WINGWALL A AND WINGWALL D.

STAGE 3 CONSTRUCTION

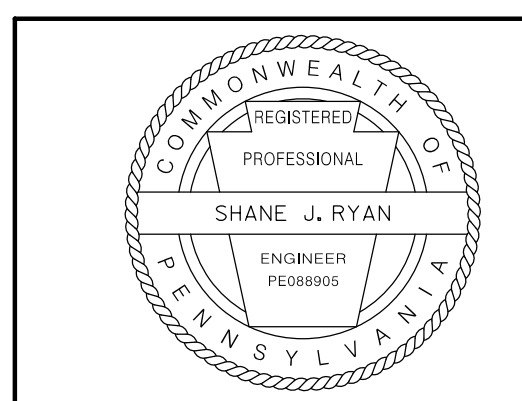
- \* CONSTRUCT WIDENED ABUTMENT, PROPOSED WINGWALLS A AND D.
- \* SET 48X24 SPREAD BOX BEAMS AND UTILITIES ON STRUCTURE.
- \* CONSTRUCT WIDENED BRIDGE DECK AND RIGHT PARAPET.
- \* CONSTRUCT TYPE 2 APPROACH SLABS WITHIN WIDENED PORTION OF APPROACH ROADWAY.

LEGEND



NOTES:

1. FOR GENERAL NOTES, SEE SHEET 3.
2. FOR STAGE 3 CONSTRUCTION SECTION, SEE SHEET 5.
3. REFER TO TRAFFIC CONTROL PLAN FOR FULL CONSTRUCTION SEQUENCE.



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

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 CONSTRUCTION STAGING SECTIONS-I

RECOMMENDED \_\_\_\_\_ SHEET 4 OF 44

S - 36735

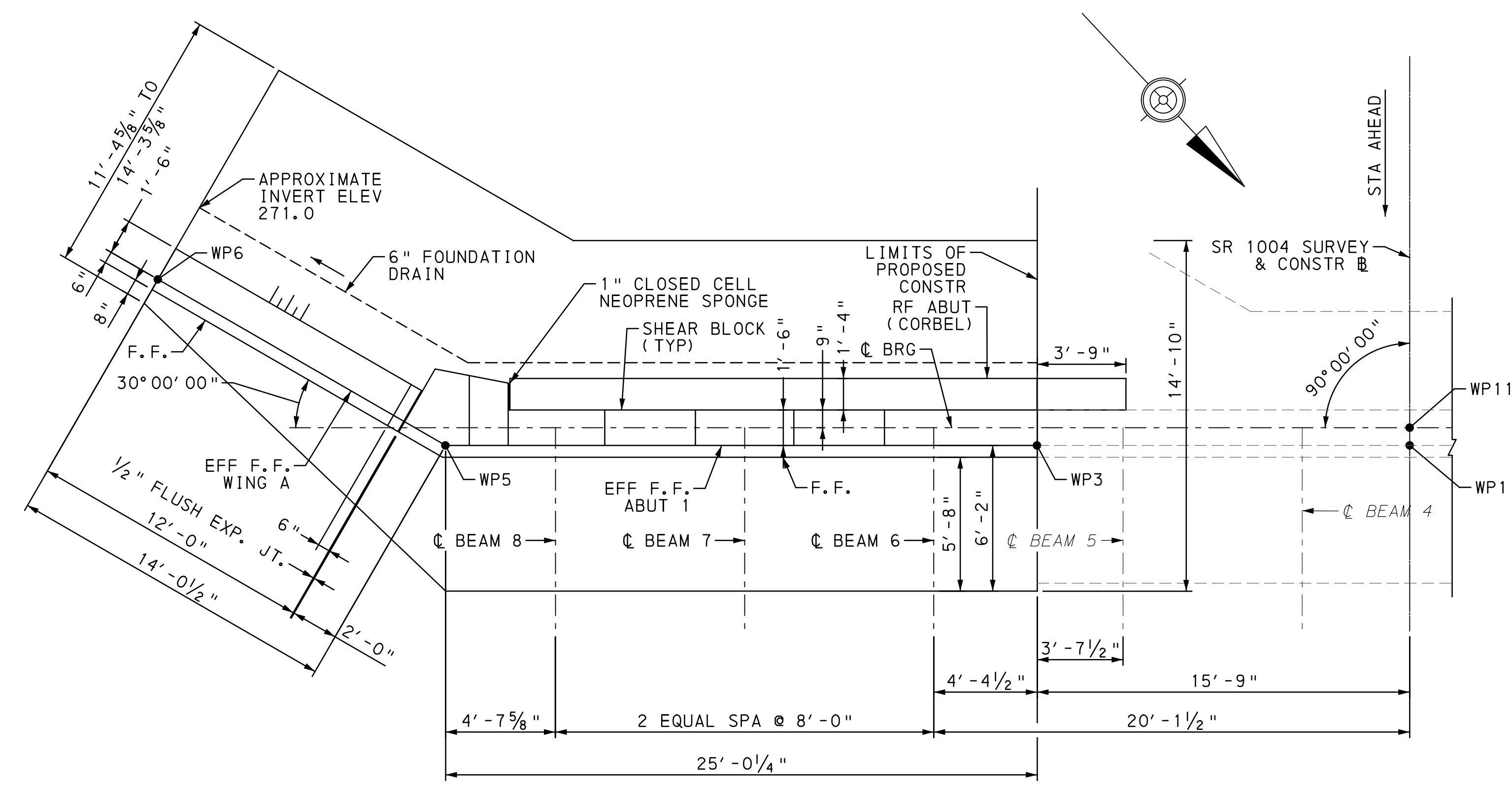






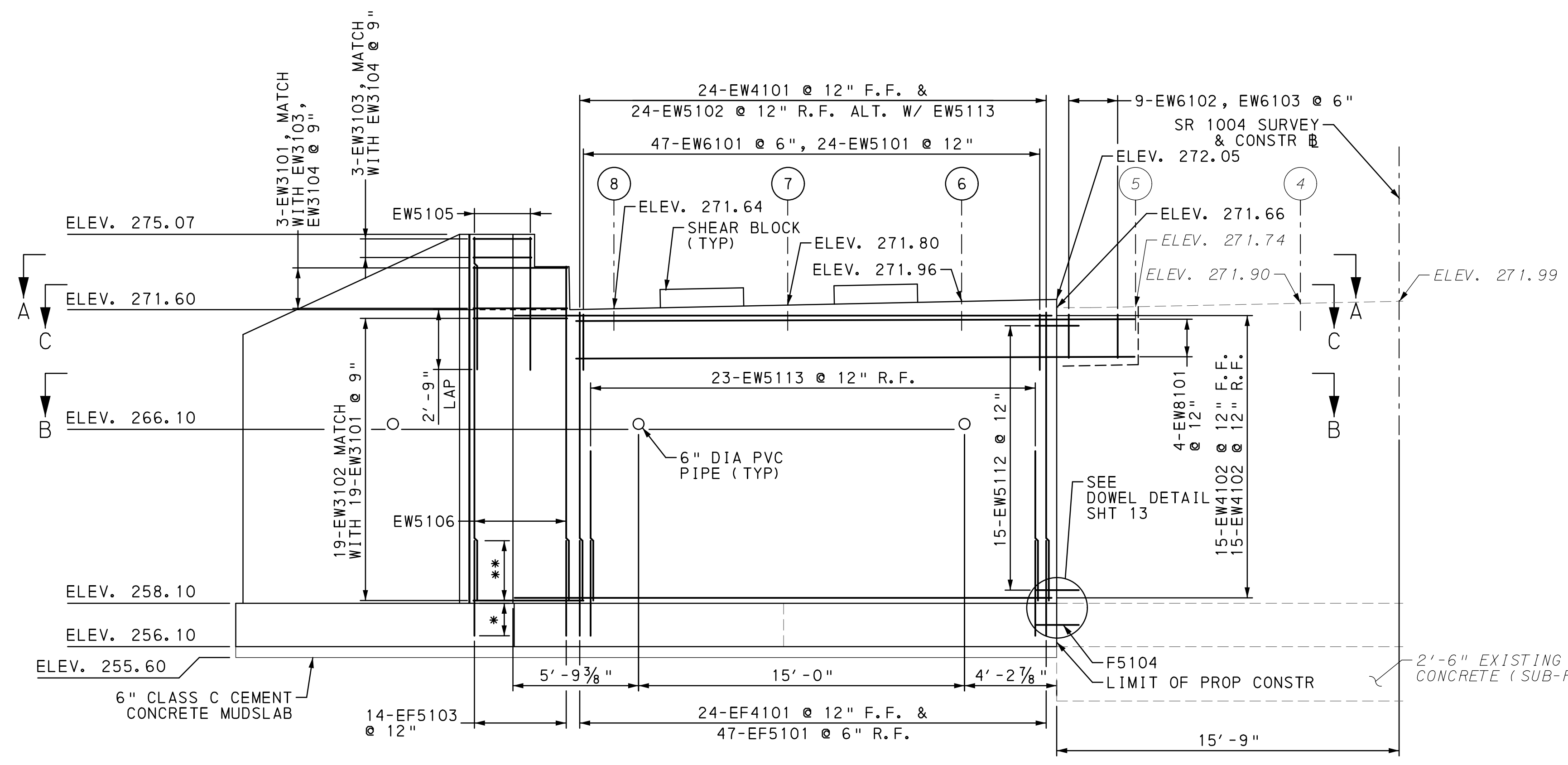


OPERATOR: 07\21\2020 PLOTTED: 07\21\2020  
 FILE NAME: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Plan\Abut1\_Plan&Elev.dgn (PLOT) D-9002 CADD (02-90) REVISED (10-04)



**ABUTMENT 1 - PLAN**

2 0 2 4 FEET



**ABUTMENT 1 - ELEVATION**

2 0 2 4 FEET

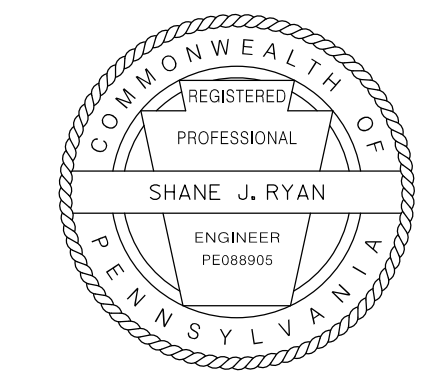
\* 1' - 6" EMBEDMENT  
 \*\* 2' - 9" LAP E.F.

- NOTES:**
1. FOR GENERAL NOTES, SEE SHEET 3.
  2. FOR ABUTMENT 1 SECTION, SEE SHEET 10.
  3. FOR ABUTMENT 1 FOOTING PLAN, SEE SHEET 11.
  4. FOR ABUTMENT 1 WING DETAILS, SEE SHEET 14.
  5. FOR WEEPHOLE REINFORCEMENT, SEE SHEET 12.
  6. FOR ABUTMENT 1 REBAR SCHEDULE, SEE SHEET 15.
  7. FOR SHEAR BLOCK DETAILS, SEE SHEETS 12, 28 AND 29.
  8. FOR SECTION A-A, B-B, AND C-C, SEE SHEET 12.

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

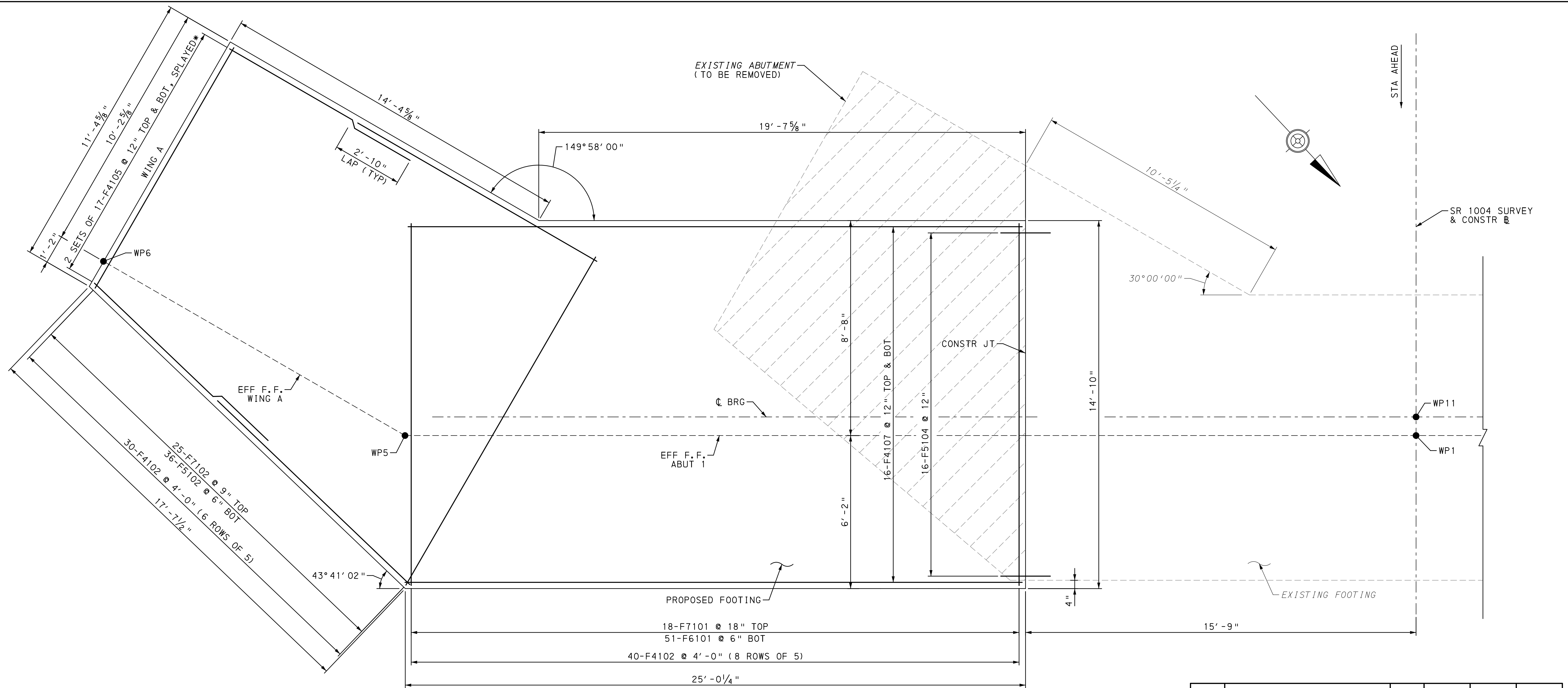
SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
**ABUTMENT 1 PLAN & ELEVATION**





OPERATOR: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\11\_Abut1\_Footing.dgn (P lot)  
 FILE NAME: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\11\_Abut1\_Footing.dgn (P lot)  
 D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020



ABUTMENT 1 FOOTING PLAN

- NOTES:**
- FOR GENERAL NOTES, SEE SHEET 3.
  - FOR STAKE-OUT PLAN, SEE SHEET 8.
  - FOR ABUTMENT 1 PLAN & ELEVATION, SEE SHEET 9.
  - FOR ABUTMENT 1 SECTION, SEE SHEET 10.
  - FOR ABUTMENT 1 WING DETAILS, SEE SHEET 14.
  - FOR ABUTMENT 1 REBAR SCHEDULE, SEE SHEET 15.
  - ALTERNATE 90° HOOKS AND 135° HOOKS OF F4102 BARS AT TOP IN ALTERNATE TIES.

\* 8" MIN SPACING

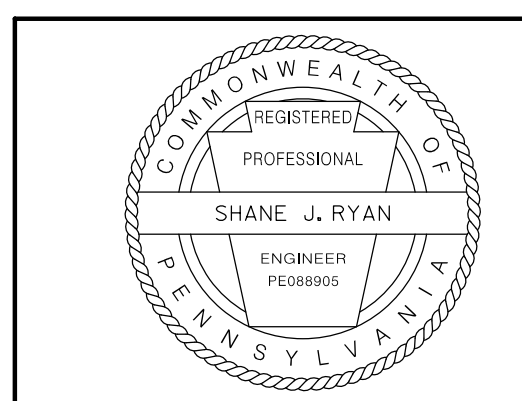


SLIDING						
LOCATION	LIMIT STATE	LOAD CASE	STAGE	A HORIZONTAL FORCE (kip)	B SLIDING RESISTANCE (kip)	B/A PERFORMANCE RATIO
ABUTMENT 1	STR-I	MIN	FIN	13.96	15.45	1.106

BEARING CAPACITY											
LOCATION	LIMIT STATE	LOAD CASE	STAGE	A UNIFORM BEARING PRESSURE (ksf)	B BEARING RESISTANCE (ksf)	B/A PERFORMANCE RATIO	UNDRAINED SHEAR STRENGTH (ksf)	MASS UNIT DENSITY (lb/ft**3)	SATURATED UNIT DENSITY (lb/ft**3)	COHESION (ksf)	EFFECTIVE FRICTION ANGLE (deg.)
ABUTMENT 1	STR-I	MAX	FIN	3.40	13.80	4.055	N/A	120/105	125/115	N/A	33/29

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

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

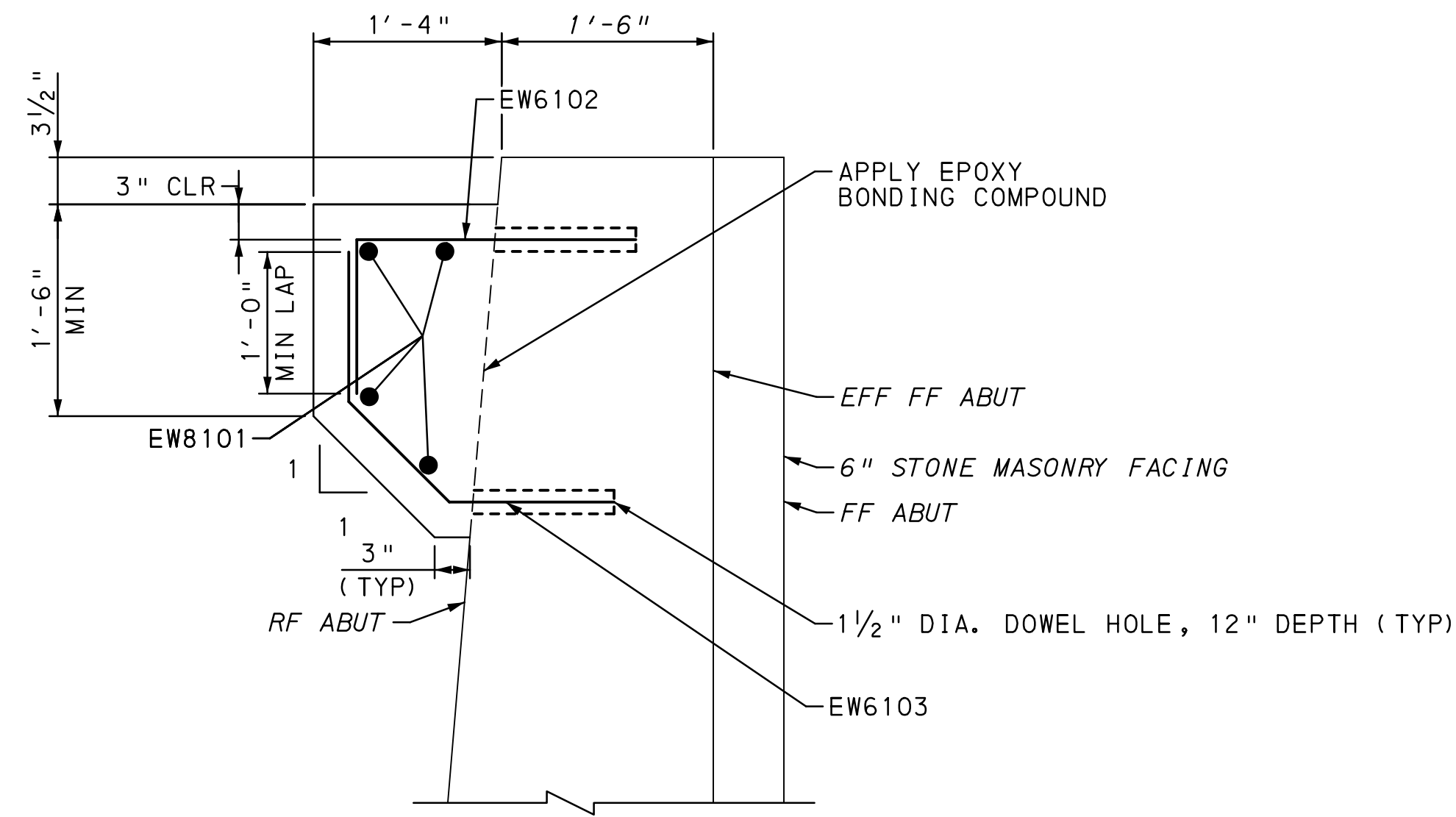


**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
**ABUTMENT 1 FOOTING PLAN**

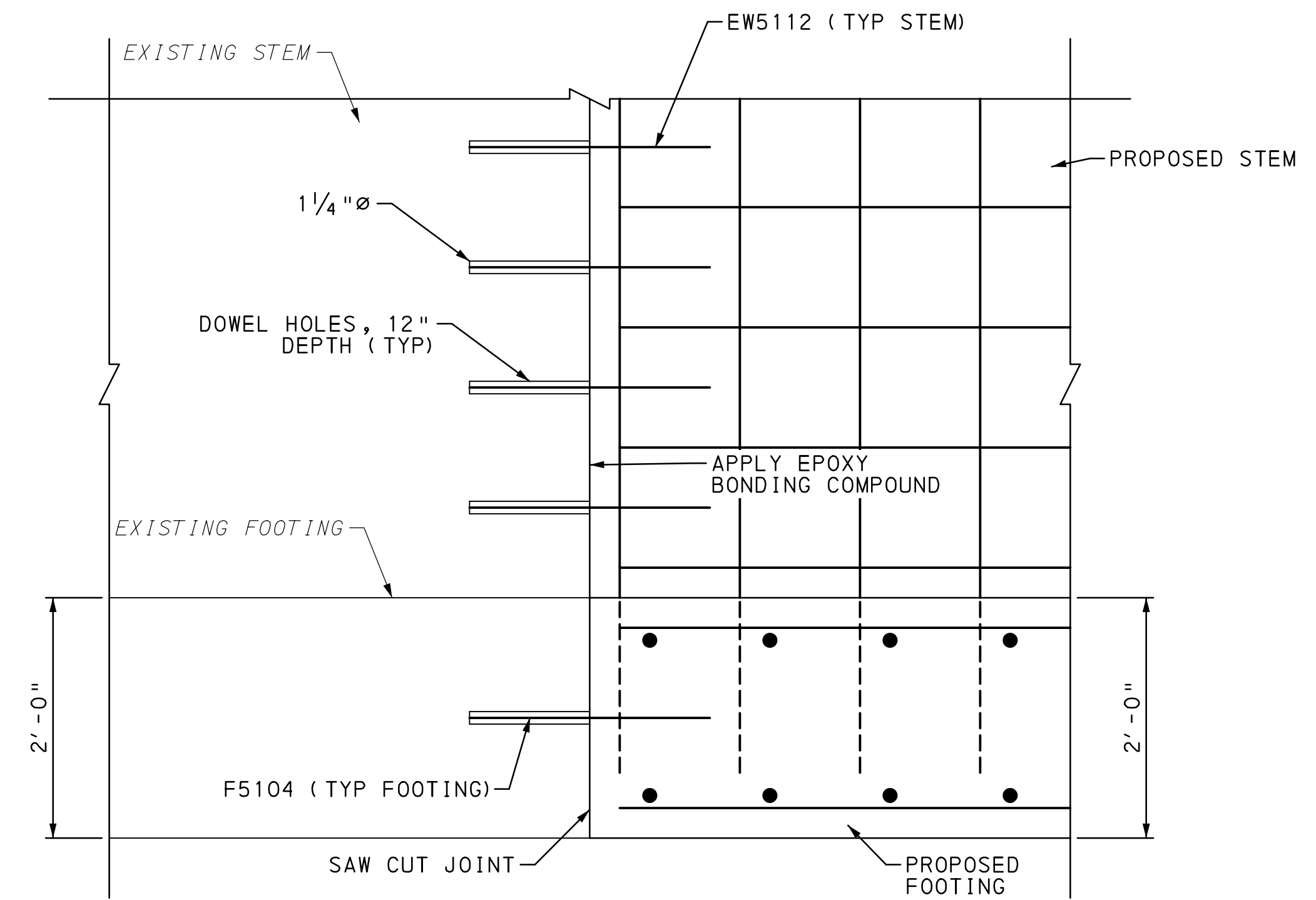
RECOMMENDED \_\_\_\_\_ SHEET 11 OF 44  
 S - 36735



OPERATOR: FILE NAME: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Plans\13\_Abu11\_Dowel.dgn (Plot) D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020



ABUTMENT 1 CORBEL DETAIL  
NOT TO SCALE



DOWEL DETAIL  
NOT TO SCALE

NOTES:

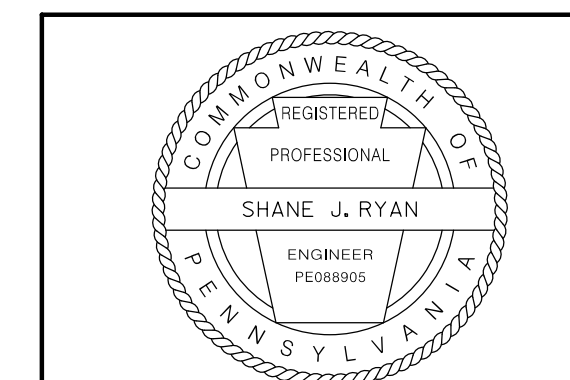
1. FOR GENERAL NOTES, SEE SHEET 2.
2. FOR ABUTMENT 1 PLAN AND ELEVATION, SEE SHEET 9.
3. FOR ABUTMENT 1 SECTION, SEE SHEET 10.
4. FOR ABUTMENT 1 REBAR SCHEDULE, SEE SHEET 15.

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

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION

LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 ABUTMENT 1 DOWEL DETAILS



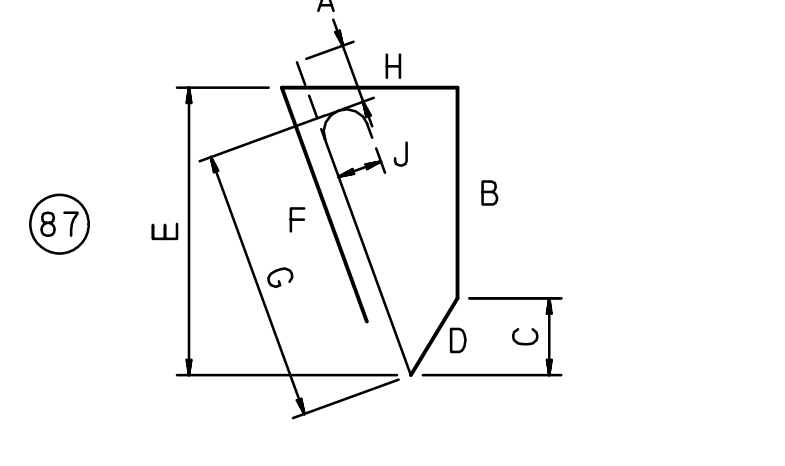
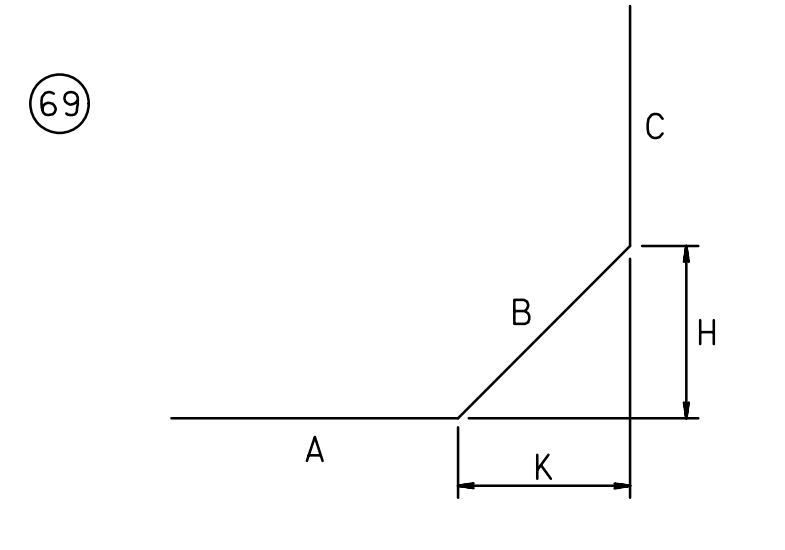
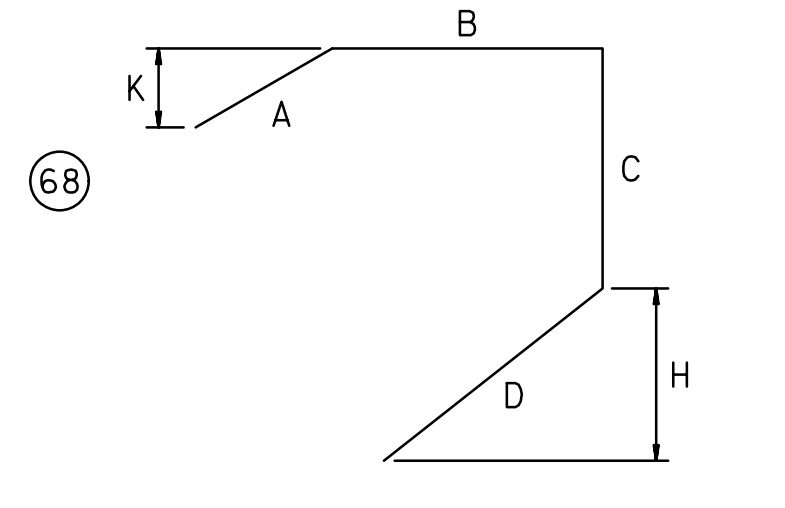
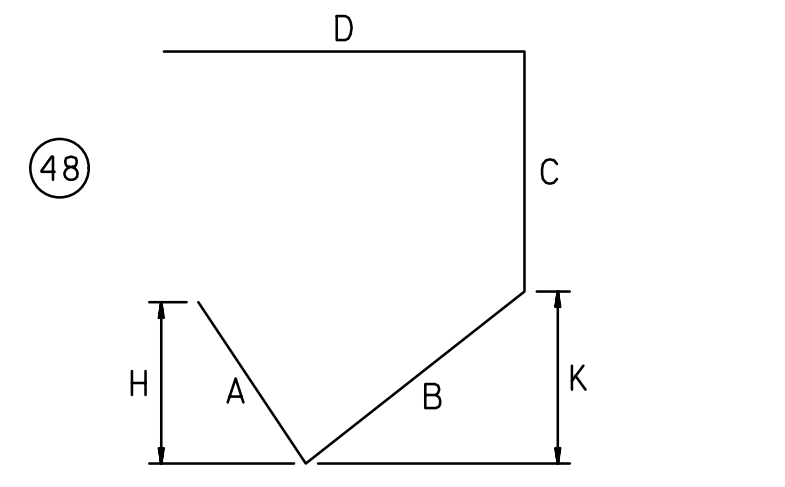
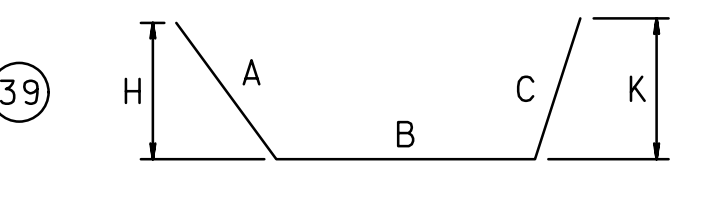
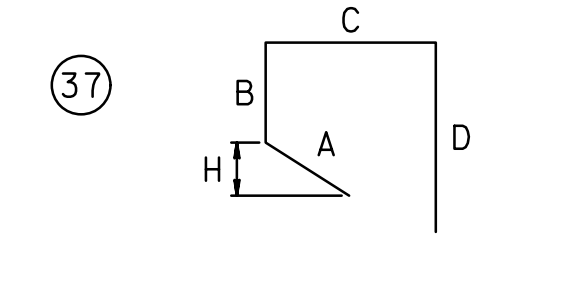
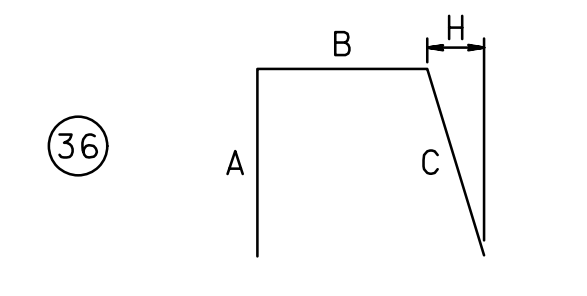
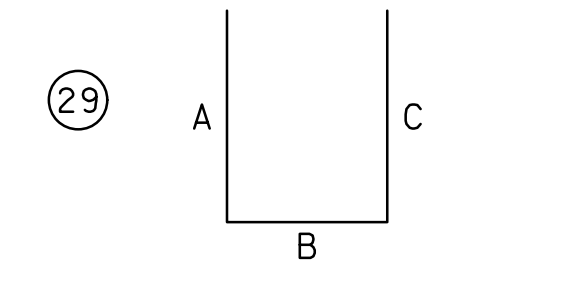
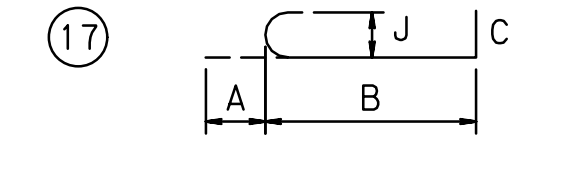
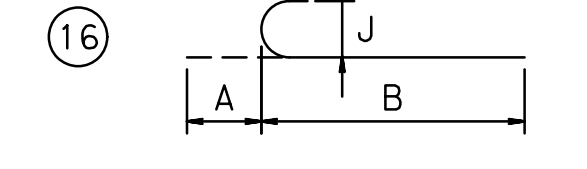
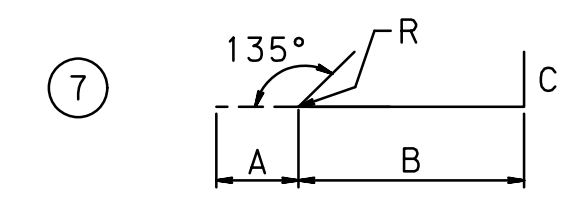
RECOMMENDED \_\_\_\_\_ SHEET 13 OF 44

S - 36735



REINFORCEMENT BAR SCHEDULE

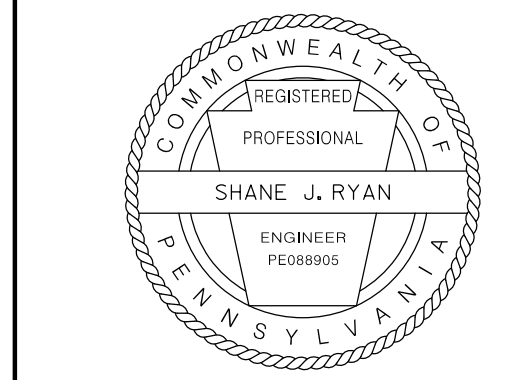
MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F	G	H	J	R	REMARKS
EW3101	3	22	8'-7"	68	1'-5"	2'-4"	2'-2"	2'-8"				6 1/8"			"K" = 8 1/2"
EW3102	3	19	5'-0"	36	1'-5"	2'-1"	1'-6"					5 7/8"			
EW3103	3	6	6'-0"	48	1'-9"	1'-8"	8"	1'-11"				10 1/2"			"K" = 1'-5 1/4"
EW3104	3	6	4'-9"	39	1'-9"	1'-1"	1'-11"					1'-7 7/8"			"K" = 1'-10 5/8"
EW4101	4	24	13'-4"	STR											
EW4102	4	30	24'-9"	STR											
EW4103	4	24	3'-6"	STR											
EW4110	4	13	12'-0"	STR											VARY BY 4 5/8" (+)
			TO 16'-8"												
EW4111	4	2	12'-1"	STR											
EW4112	4	8	2'-8"	STR											VARY 2 SETS BY 2'-1 3/8" (-)
			TO 9'-0"												
EW4113	4	26	11'-6"	STR											
EW4114	4	28	8'-10"	STR											
EW4115	4	11	24'-8"	STR											
EW4116	4	14	8'-3"	STR											
EW4117	4	12	11'-8"	STR											
EW5101	5	24	7'-5"	29	3'-2"	1'-1"	3'-2"								
EW5102	5	24	13'-4"	STR											
EW5105	5	10	6'-2"	STR											
EW5106	5	14	15'-5"	STR											
EW5107	5	24	12'-0"	STR											VARY BY 2 3/8" (-)
			TO 16'-8"												
EW5108	5	10	5'-8"	29	2'-3"	1'-2"	2'-3"								
EW5109	5	6	8'-0"	29	2'-3"	3'-6"	2'-3"								
EW5112	5	15	4'-6"	STR											DOWEL
EW5113	5	23	7'-6"	STR											
EW6101	6	47	8'-10 1/2"	37	3'-0"	1'-1"	2'-3 1/2"	2'-6"				2'-1 1/2"			
EW6102	6	9	3'-9"	17	8"	1'-1"	2'-0"						6"		DOWEL
EW6103	6	9	3'-2"	69	1'-1"	1'-0"	1'-1"					8 1/2"			"K" = 8 1/2", DOWEL
EW8101	8	4	25'-8"	STR											
EF4101	4	37	4'-4"	STR											
EF5101	5	72	5'-7"	16	7"	5'-0"							5"		
EF5103	5	14	4'-6"	STR											
F4102	4	70	2'-2"	7	4 1/2"	1'-5"	4 1/2"							1"	
F4105	4	68	10'-6"	STR											
F4107	4	32	24'-8"	STR											
F5102	5	36	11'-8"	16	7"	11'-1"							5"		VARY BY 1 3/8" (+)
			TO 15'-9"			TO 15'-2"									
F5104	5	16	4'-6"	STR											DOWEL
F6101	6	51	14'-6"	STR											
F7101	7	18	14'-6"	STR											
F7102	7	25	11'-1"	STR											VARY BY 2" (+)
			TO 15'-2"												



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

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 ABUTMENT 1 REBAR SCHEDULE

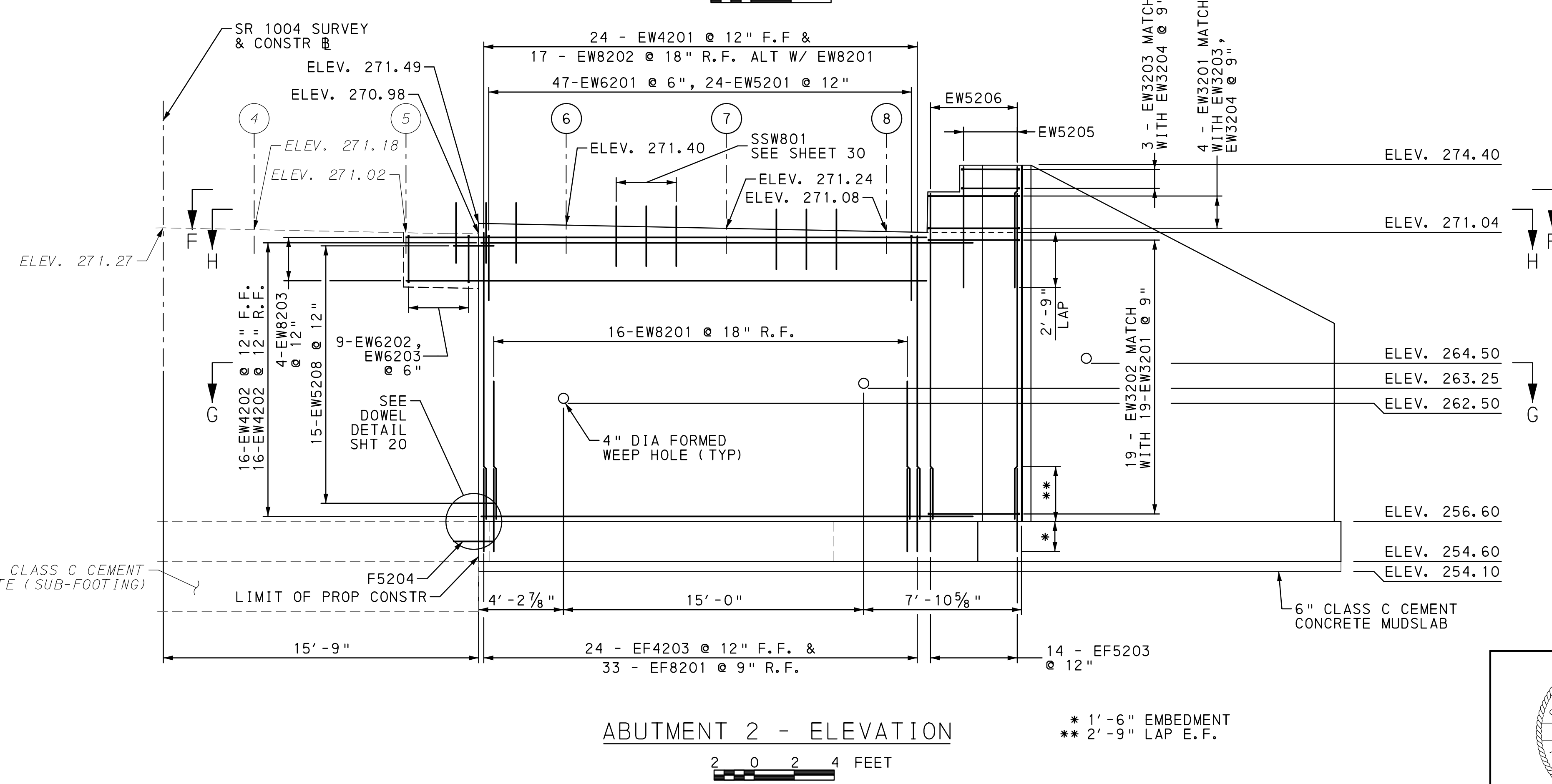
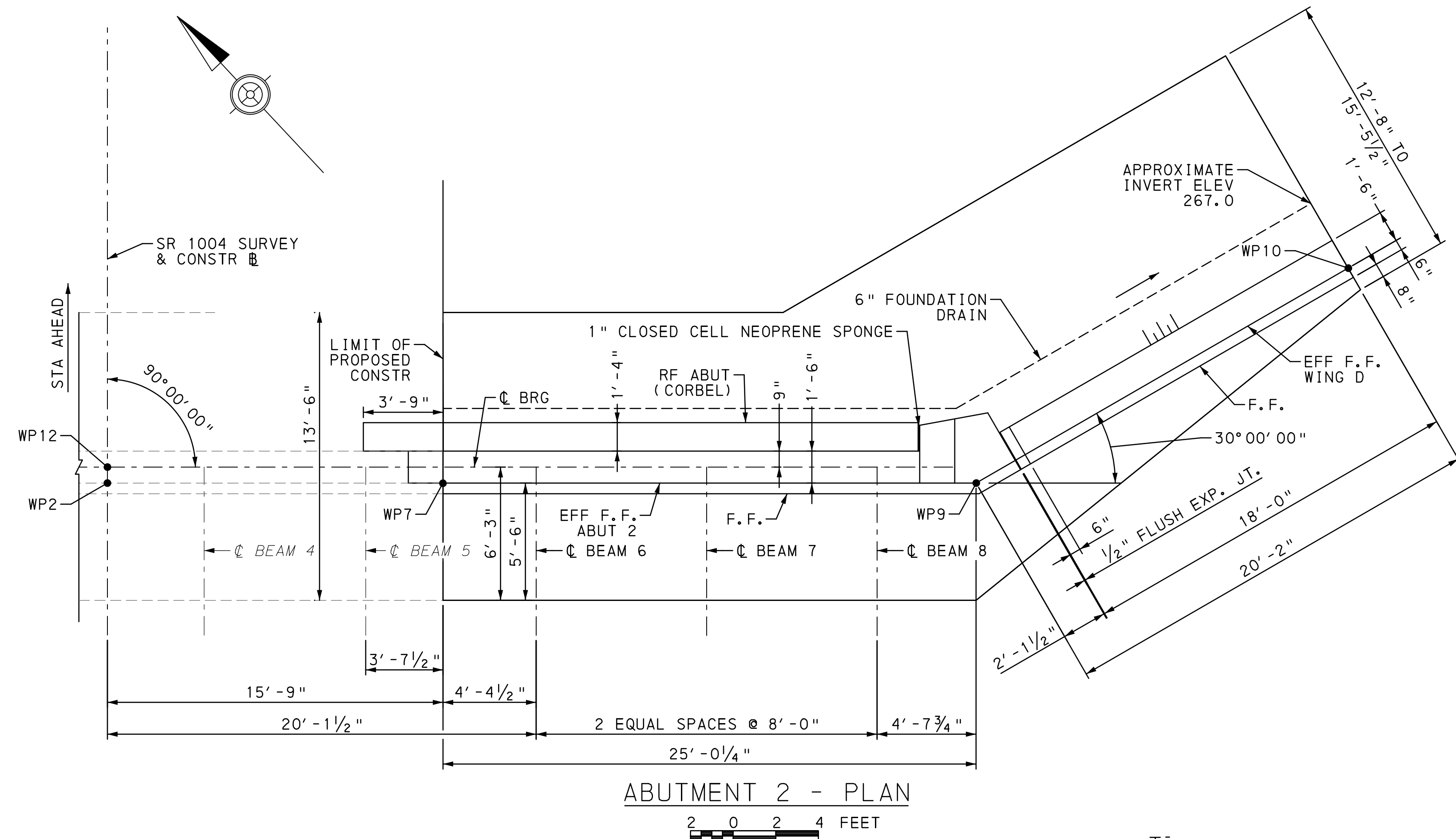


RECOMMENDED \_\_\_\_\_ SHEET 15 OF 44  
 S - 36735

- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.
- "E" - INDICATES EPOXY COATED REBARS.
- FOR ALL BAR TYPES SHOWN, DIMENSIONS A-H AND LENGTH ARE MEASURED ALONG OUTSIDE OF BAR. R IS MEASURED ALONG INSIDE OF BAR.
- FOR GENERAL NOTES, SEE SHEET 2.

OPERATOR: PLOTTED: 07/21/2020  
 FILE NAME: Y:\Lehigh9500s\9510\_05\Eng\_Docs\Structure\SR\_1004\Final\Plots\15\_Abu11\_Rebar\_Sched.dgn (PLOT) D-9002 CADD (02-90) REVISED (10-04)

OPERATOR: 07\21\2020 PLOTTED: 07\21\2020  
 FILE NAME: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\16\_Abut2\_Plan&Elev.dgn (P 1 of 1) D-9002 CADD (02-90) REVISED (10-04)

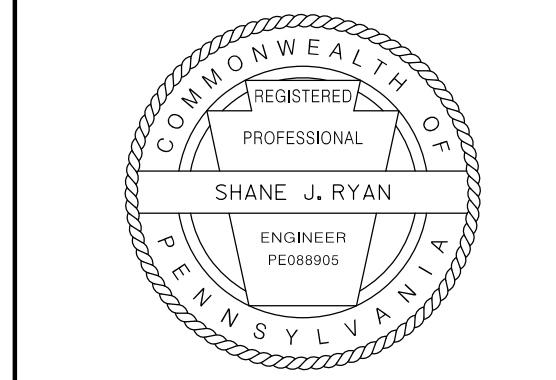


- NOTES:**
1. FOR GENERAL NOTES, SEE SHEET 3.
  2. FOR ABUTMENT 2 SECTION, SEE SHEET 17.
  3. FOR ABUTMENT 2 FOOTING PLAN, SEE SHEET 18.
  4. FOR ABUTMENT 2 WING DETAILS, SEE SHEET 21.
  5. FOR WEEP HOLE REINFORCEMENT, SEE SHEET 19.
  6. FOR ABUTMENT 2 REBAR SCHEDULE, SEE SHEET 22.
  7. FOR SECTION F-F, G-G, AND H-H, SEE SHEET 19.

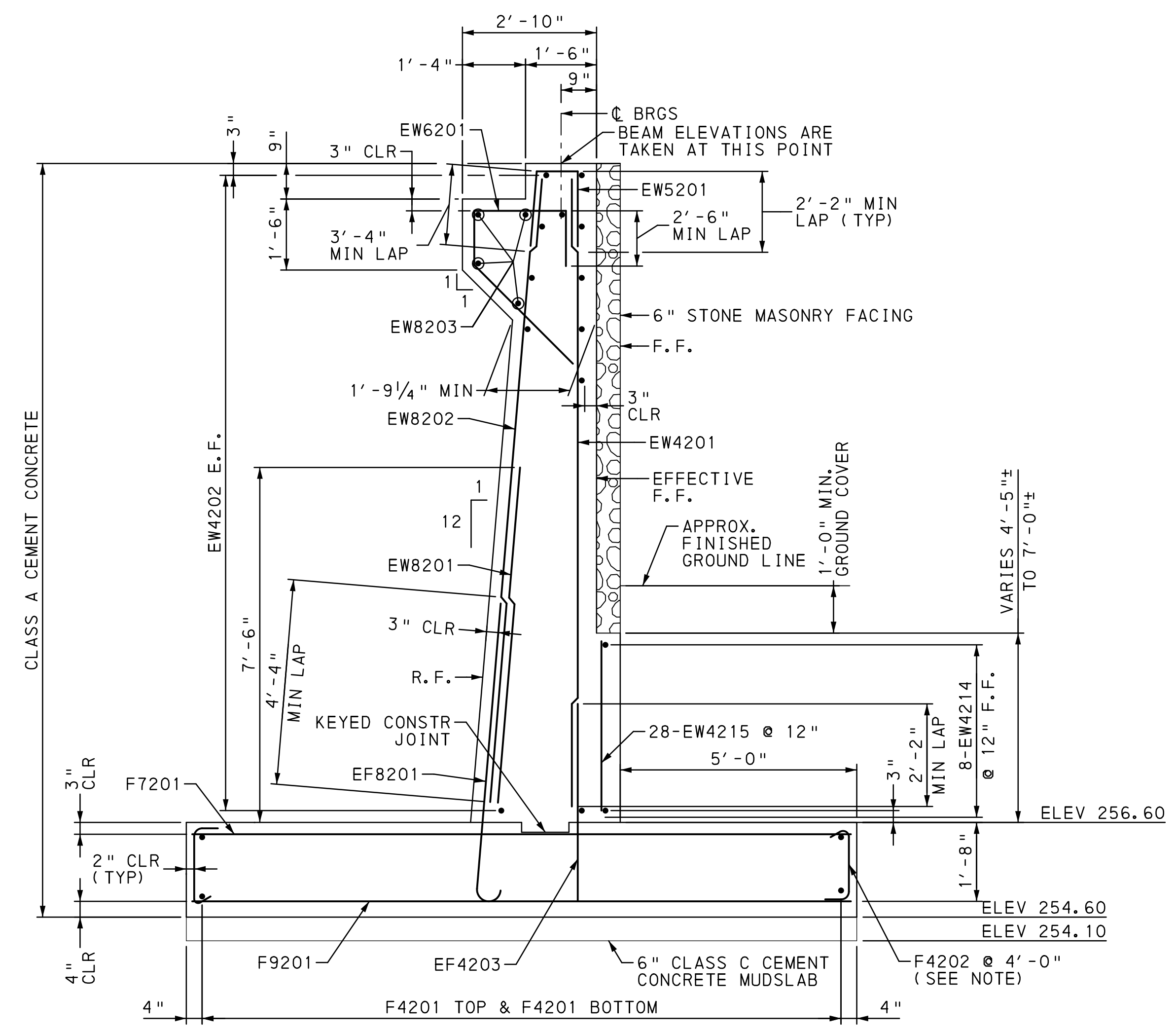
Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
**ABUTMENT 2 PLAN & ELEVATION**

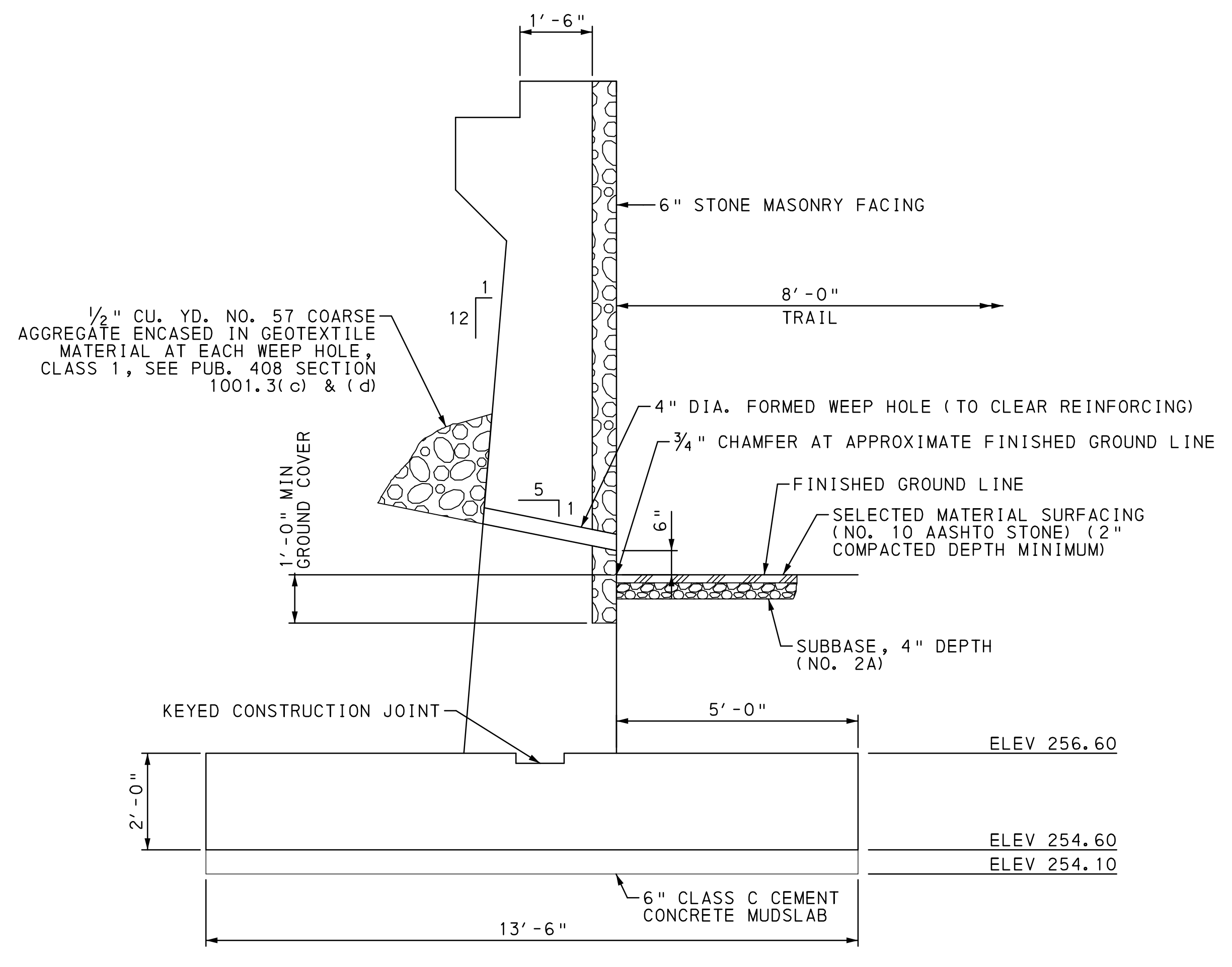


OPERATOR: FILE NAME: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Plan\Abut2\_Sec.dgn (Plot) D-9002 CADD (02-90) REVISED (10-04) 07\21\2020 PLOTTED: 07\21\2020



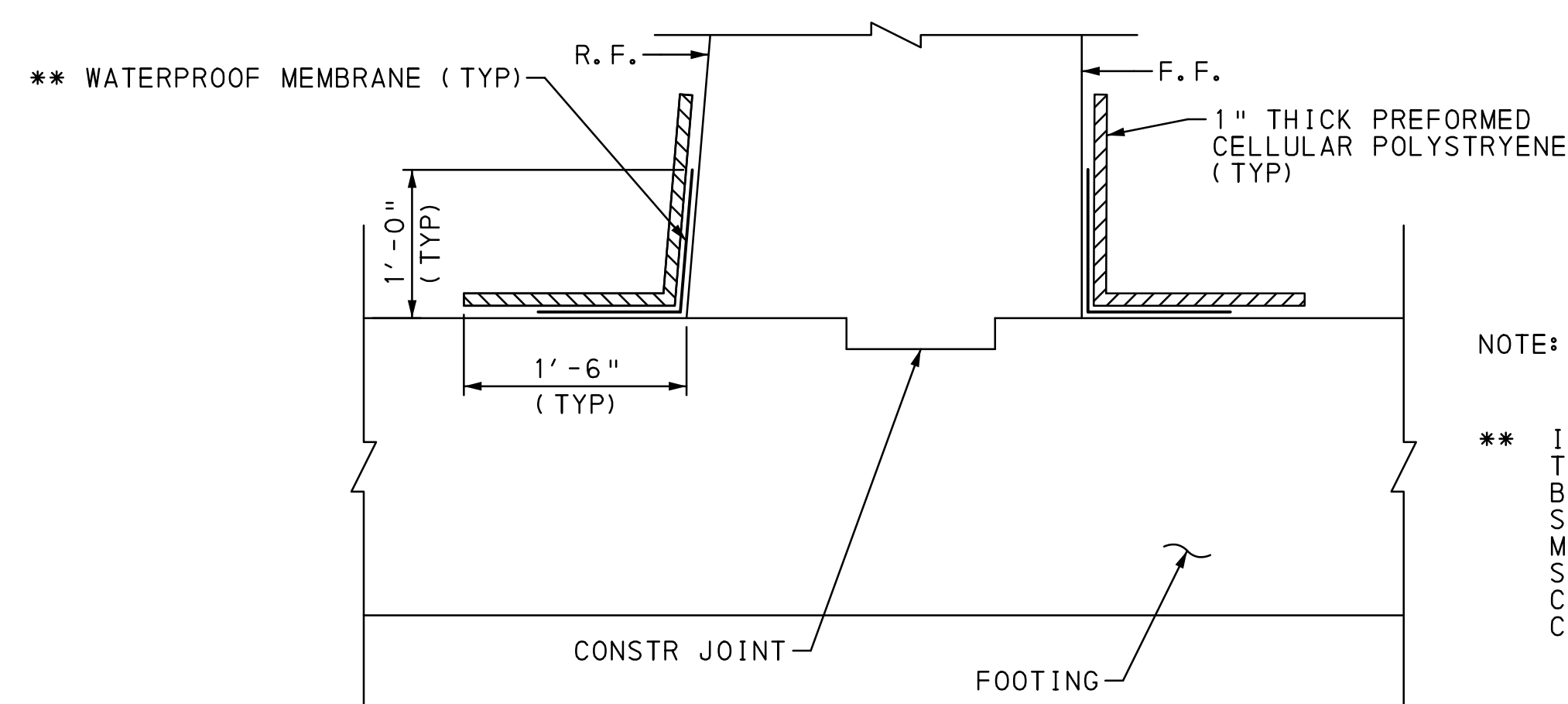
**ABUTMENT 2 SECTION**  
 1 0 1 2 FEET

NOTE: TIE TOP AND BOTTOM MATS OF REINFORCING STEEL WITH F4202 TIE BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. PROVIDE THE TIE BARS WITH 90 DEG HOOK AT ONE END AND 135 DEG HOOK AT THE OTHER END. ALTERNATE 90 DEG AND 135 DEG HOOKS IN ALTERNATE TIES.  
 \* " LESS CLR IS ALLOWED ON TIE BARS.



**ABUTMENT 2 SECTION**  
 1 0 1 2 FEET

- NOTES:**
- FOR GENERAL NOTES, SEE SHEET 3.
  - FOR ABUTMENT 2 PLAN & ELEVATION, SEE SHEET 16.
  - FOR ABUTMENT 2 FOOTING PLAN, SEE SHEET 18.
  - FOR ABUTMENT 2 WING DETAILS, SEE SHEET 21.
  - FOR WEEPHOLE REINFORCEMENT, SEE SHEET 19.
  - FOR ABUTMENT 2 REBAR SCHEDULE, SEE SHEET 22.
  - FOR WATERPROOFING AND FOUNDATION DRAIN DETAIL, SEE SHEET 28.

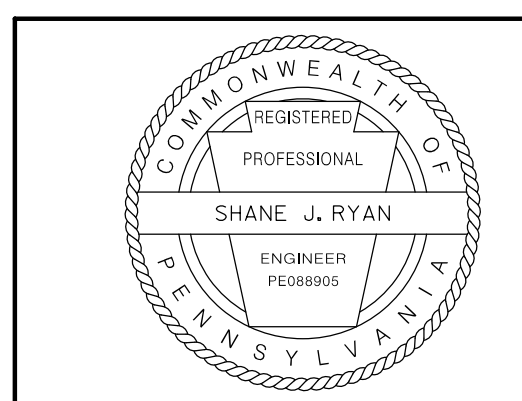


**WATERPROOFING DETAIL**  
 STEM TO FOOTING CONNECTION  
 6 0 6 12 INCHES

NOTE: DETAIL TO BE USED AT ALL ABUTMENTS, WINGWALLS AND SAFETY WINGS.  
 \*\* INSTALL 2'-0" WIDE PIECE BENT TO FIT STEM AND TOP OF FOOTING AS SHOWN. USE AN ADHESIVE BACKED PREFORMED MEMBRANE WATERPROOFING SYSTEM PER PUB. 408 SECTION 680.2 (b). MEMBRANE TO BE RUN CONTINUOUS FROM WINGWALL STEM TO ABUTMENT STEM. THIS MATERIAL IS CONSIDERED INCIDENTAL TO THE FOOTING CONCRETE.

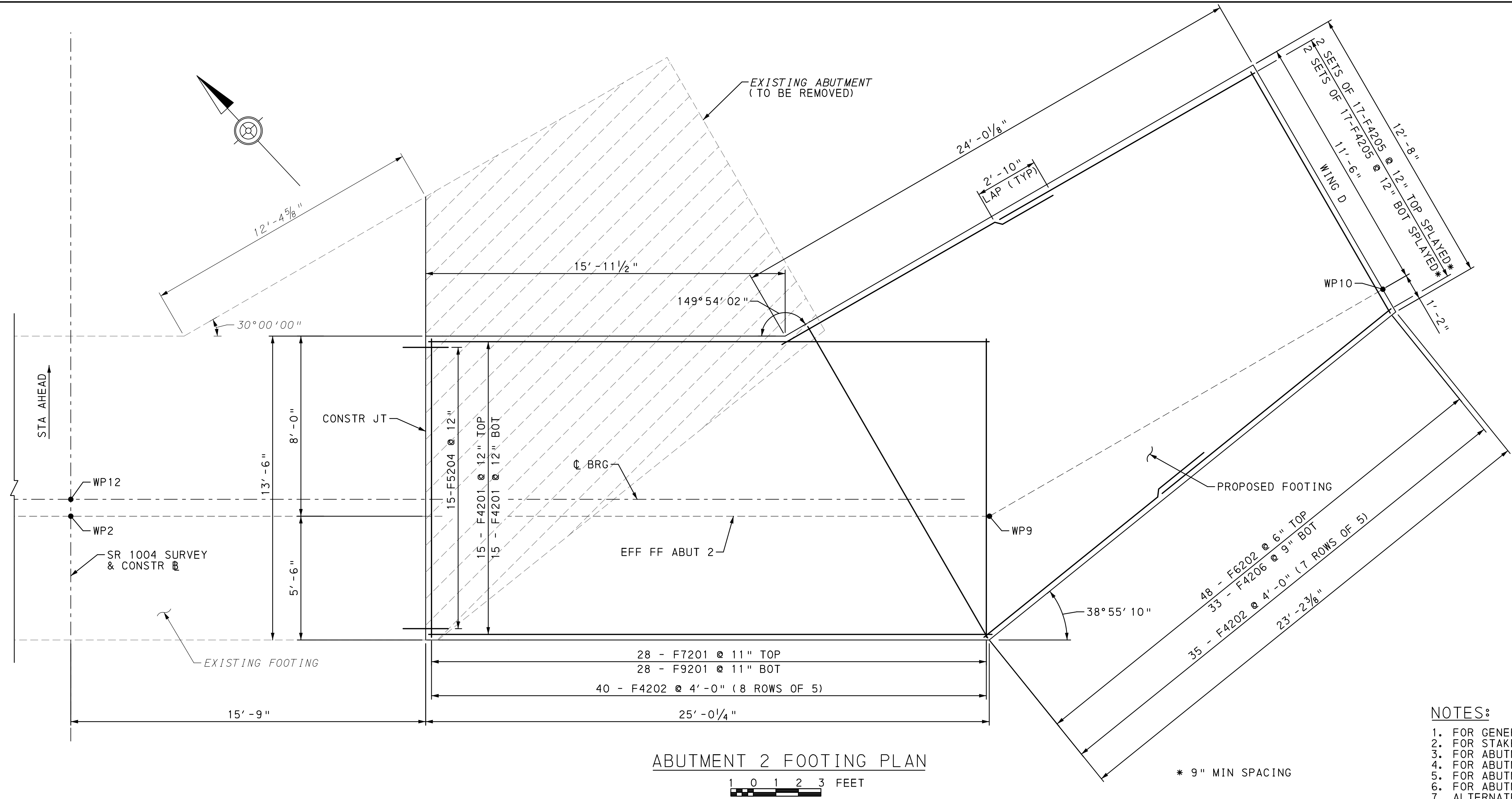
Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

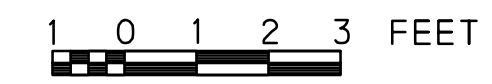


**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
**LEHIGH COUNTY**  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
**ABUTMENT 2 SECTIONS**

OPERATOR: FILE NAME: Y:\Lehigh9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\18\_Abut2\_Footing.dgn (P lot) D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020



ABUTMENT 2 FOOTING PLAN



NOTES:

1. FOR GENERAL NOTES, SEE SHEET 3.
2. FOR STAKE-OUT PLAN, SEE SHEET 8.
3. FOR ABUTMENT 2 PLAN & ELEVATION, SEE SHEET 16.
4. FOR ABUTMENT 2 SECTION, SEE SHEET 17.
5. FOR ABUTMENT 2 WING DETAILS, SEE SHEET 21.
6. FOR ABUTMENT 2 REBAR SCHEDULE, SEE SHEET 22.
7. ALTERNATE 90° HOOKS AND 135° HOOKS OF F4202 BARS AT TOP IN ALTERNATE TIES.

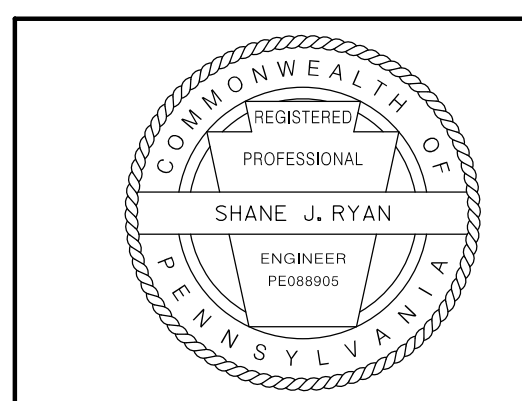
\* 9" MIN SPACING

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

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

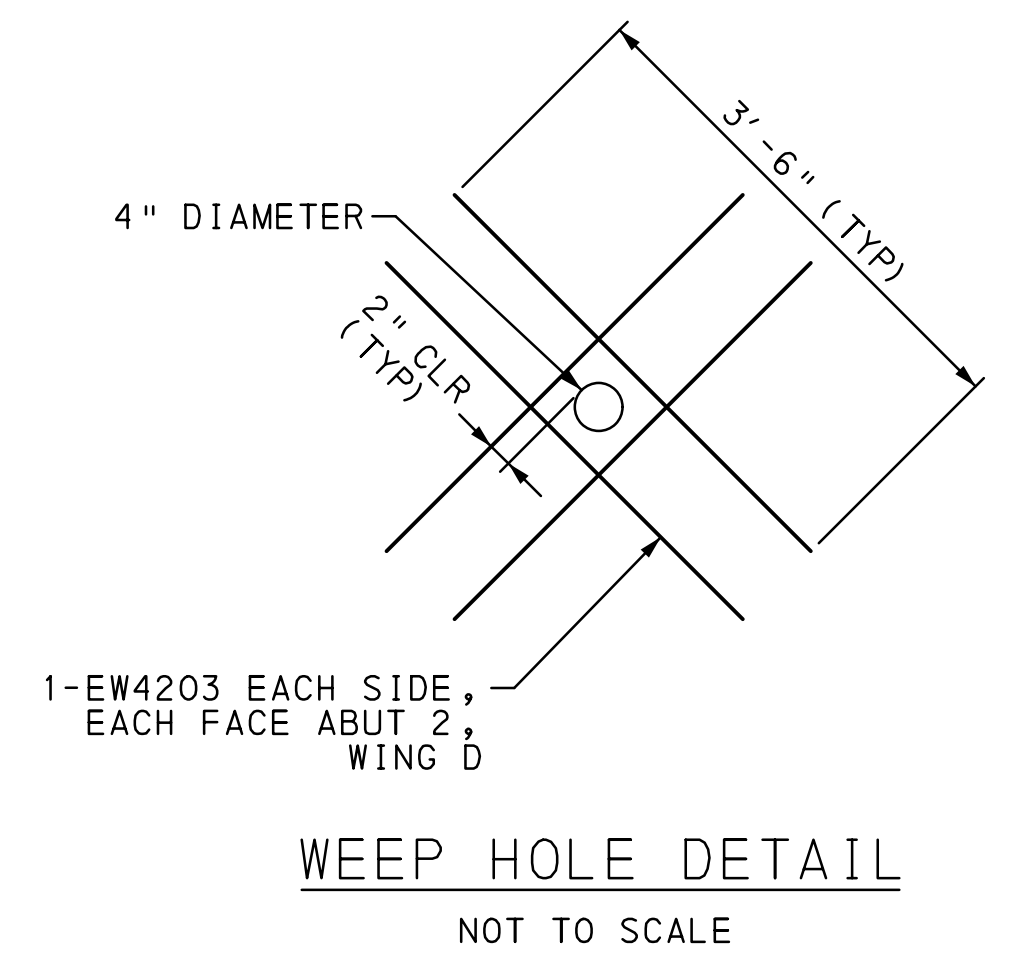
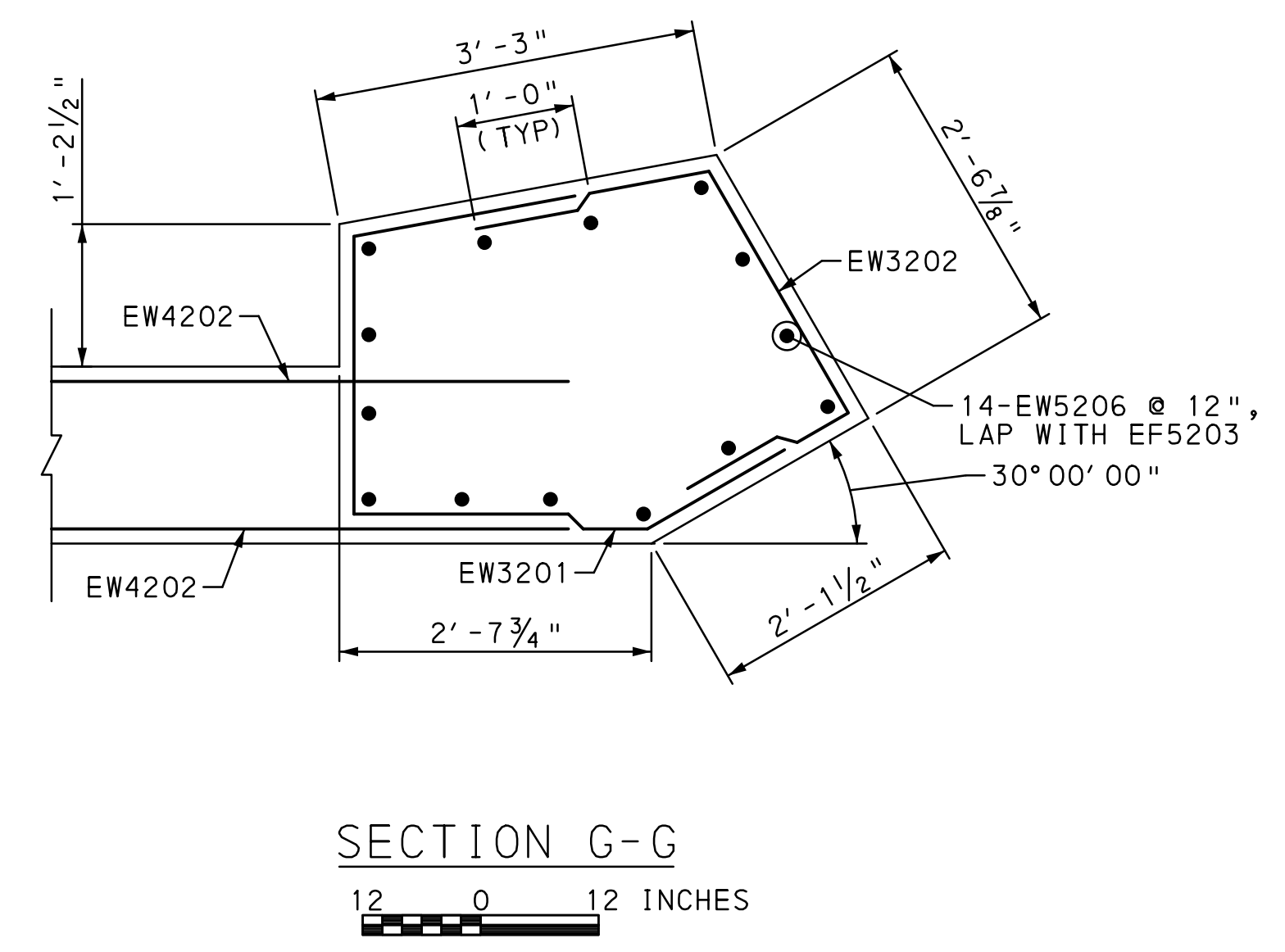
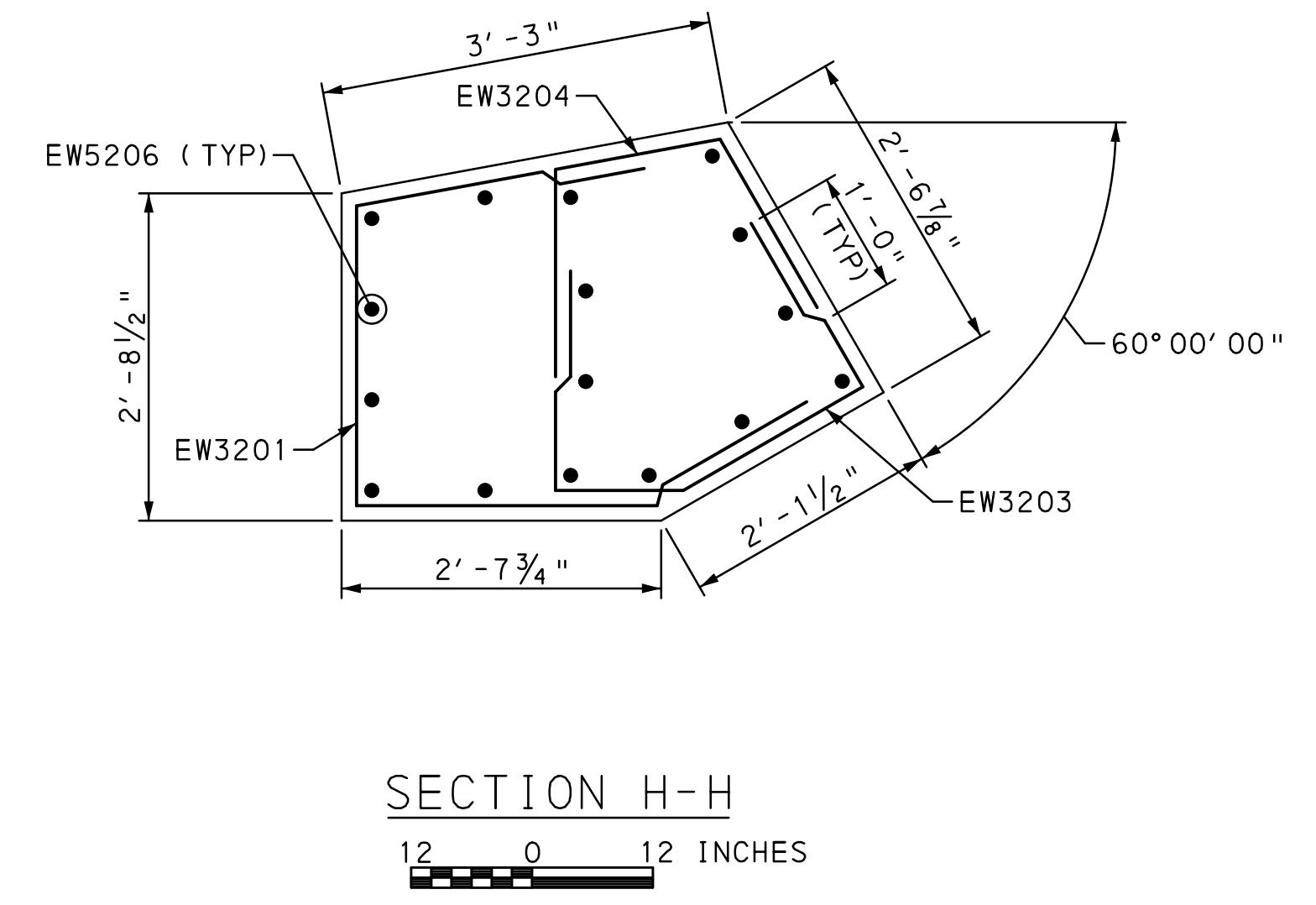
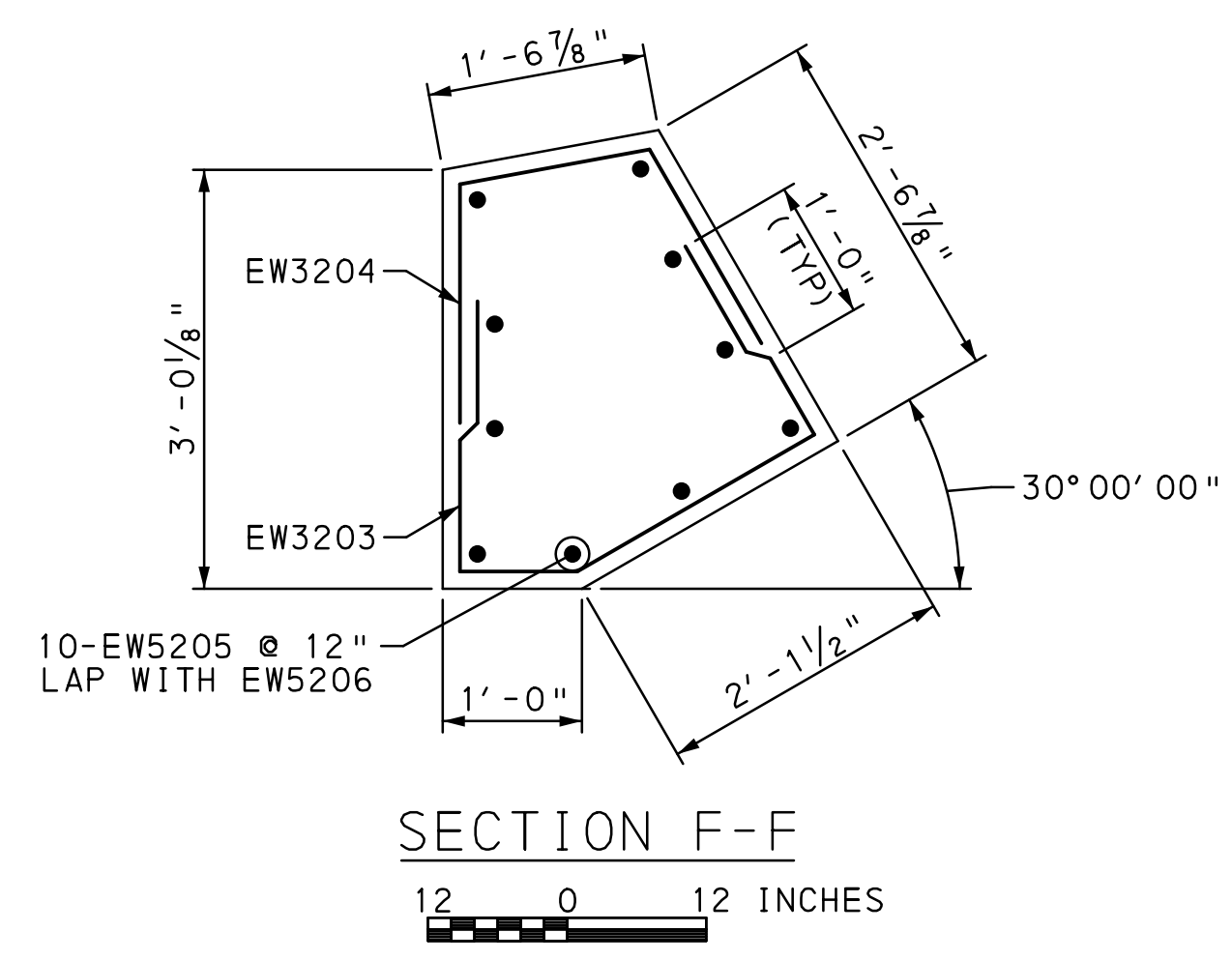
SLIDING						
LOCATION	LIMIT STATE	LOAD CASE	STAGE	A HORIZONTAL FORCE (kip)	B SLIDING RESISTANCE (kip)	B/A PERFORMANCE RATIO
ABUTMENT 2	STR-I	MIN	FIN	15.88	16.83	1.060

BEARING CAPACITY											
LOCATION	LIMIT STATE	LOAD CASE	STAGE	A UNIFORM BEARING PRESSURE (ksf)	B BEARING RESISTANCE (ksf)	B/A PERFORMANCE RATIO	UNDRAINED SHEAR STRENGTH (ksf)	MASS UNIT DENSITY (lb/ft**3)	SATURATED UNIT DENSITY (lb/ft**3)	COHESION (ksf)	EFFECTIVE FRICTION ANGLE (deg.)
ABUTMENT 2	STR-I	MAX	FIN	4.19	12.84	3.063	N/A	120	125	N/A	34



**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
**ABUTMENT 2 FOOTING PLAN**

RECOMMENDED \_\_\_\_\_ SHEET 18 OF 44  
 S - 36735



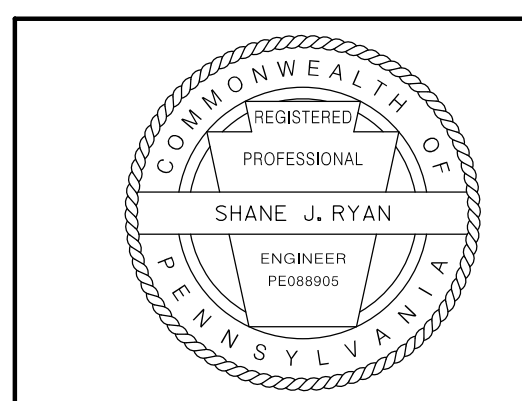
NOTES:

- 1. FOR GENERAL NOTES, SEE SHEET 3.
- 2. FOR LOCATIONS OF SECTIONS OF F-F, G-G & H-H, SEE SHEET 16.
- 3. FOR ABUTMENT 2 REINFORCEMENT SCHEDULE, SEE SHEET 22.

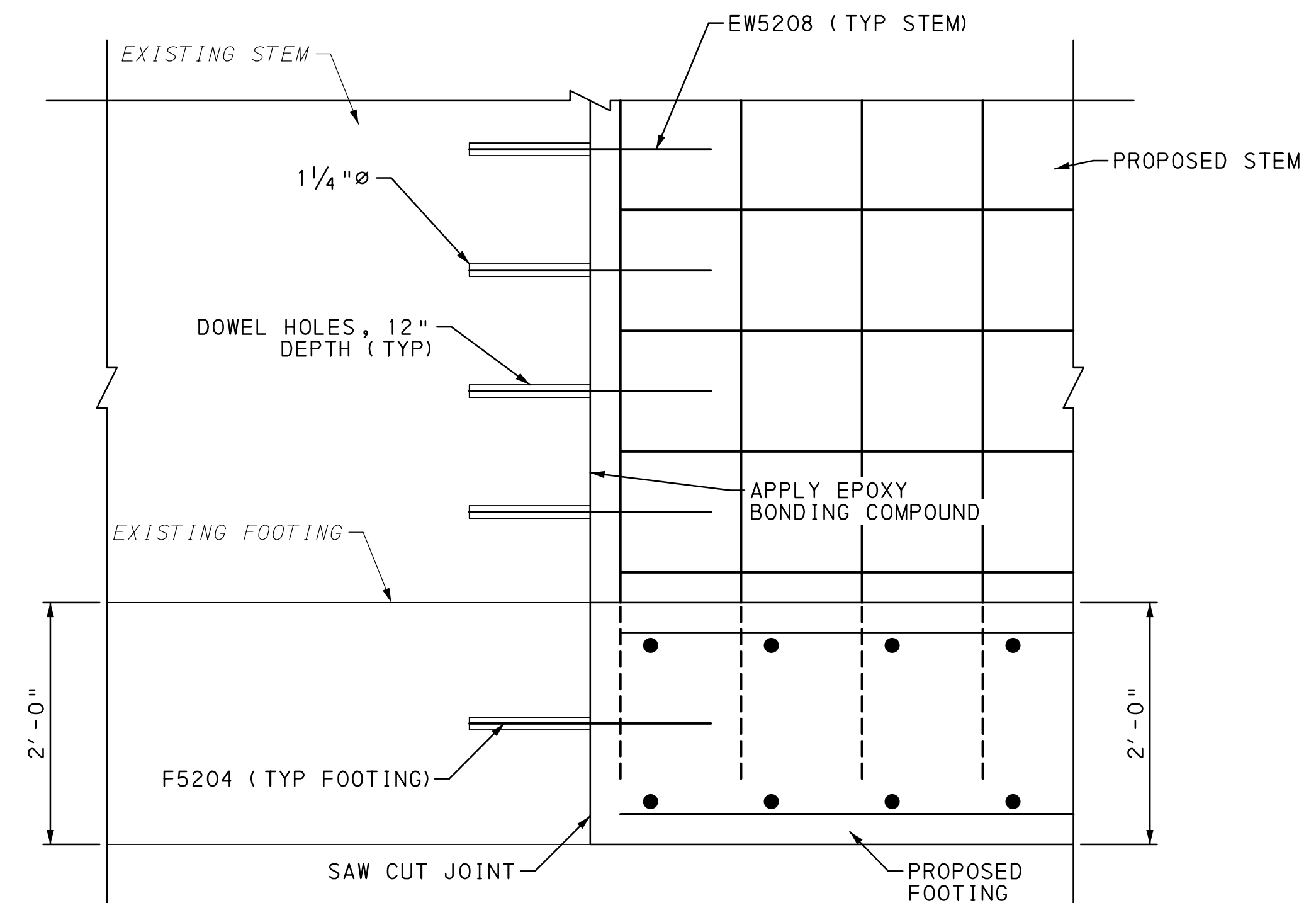
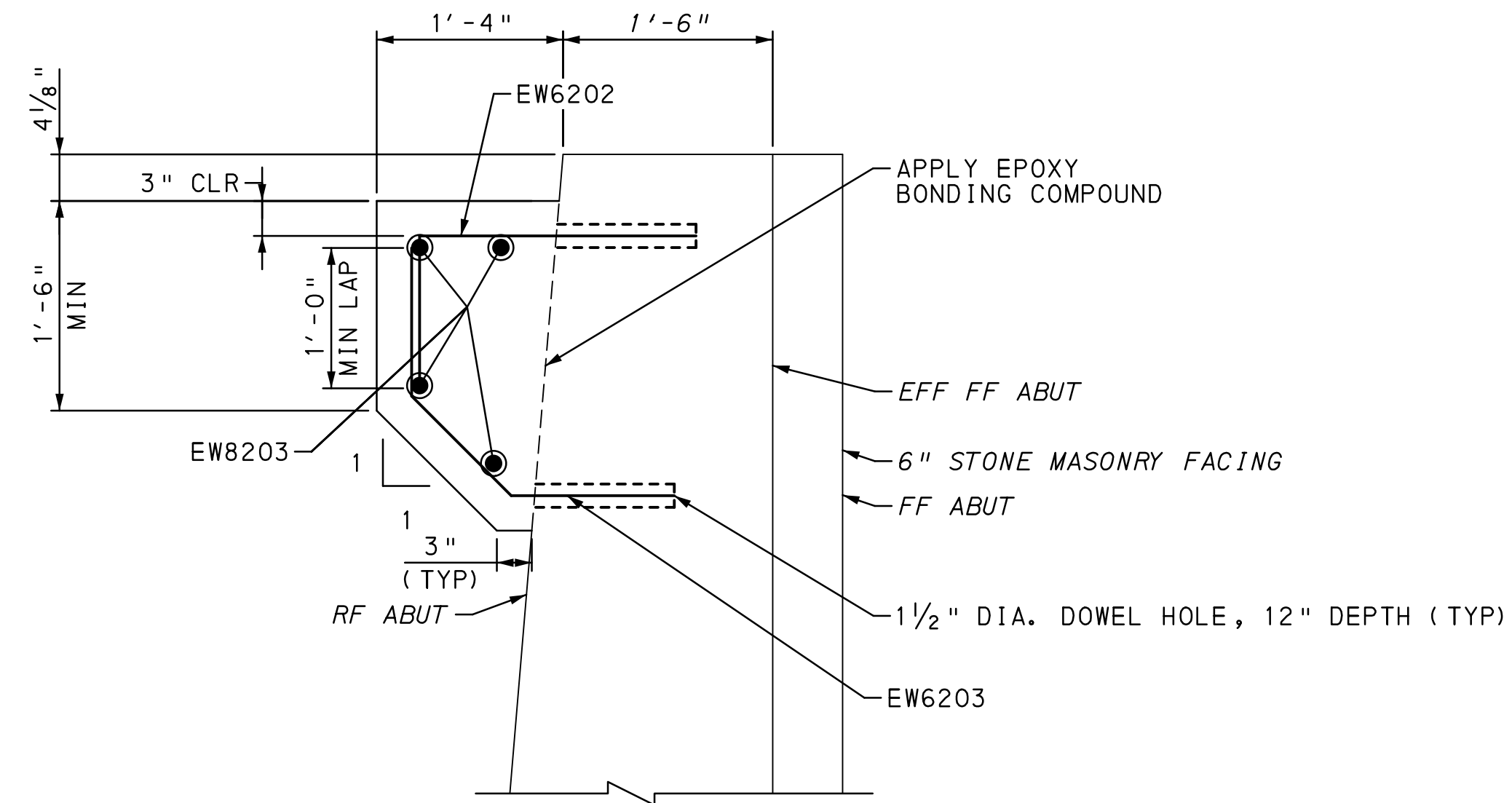
Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 ABUTMENT 2 DETAILS



RECOMMENDED _____	SHEET 19 OF 44
	S - 36735



NOTES:

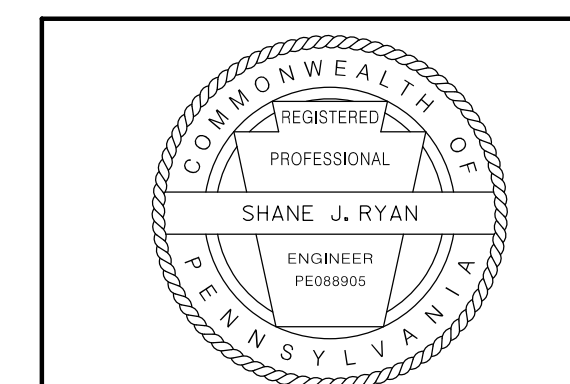
- 1. FOR GENERAL NOTES, SEE SHEET 3.
- 2. FOR ABUTMENT 2 PLAN AND ELEVATION, SEE SHEET 16.
- 3. FOR ABUTMENT 2 SECTION, SEE SHEET 17.
- 4. FOR ABUTMENT 2 REBAR SCHEDULE, SEE SHEET 22.

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

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION

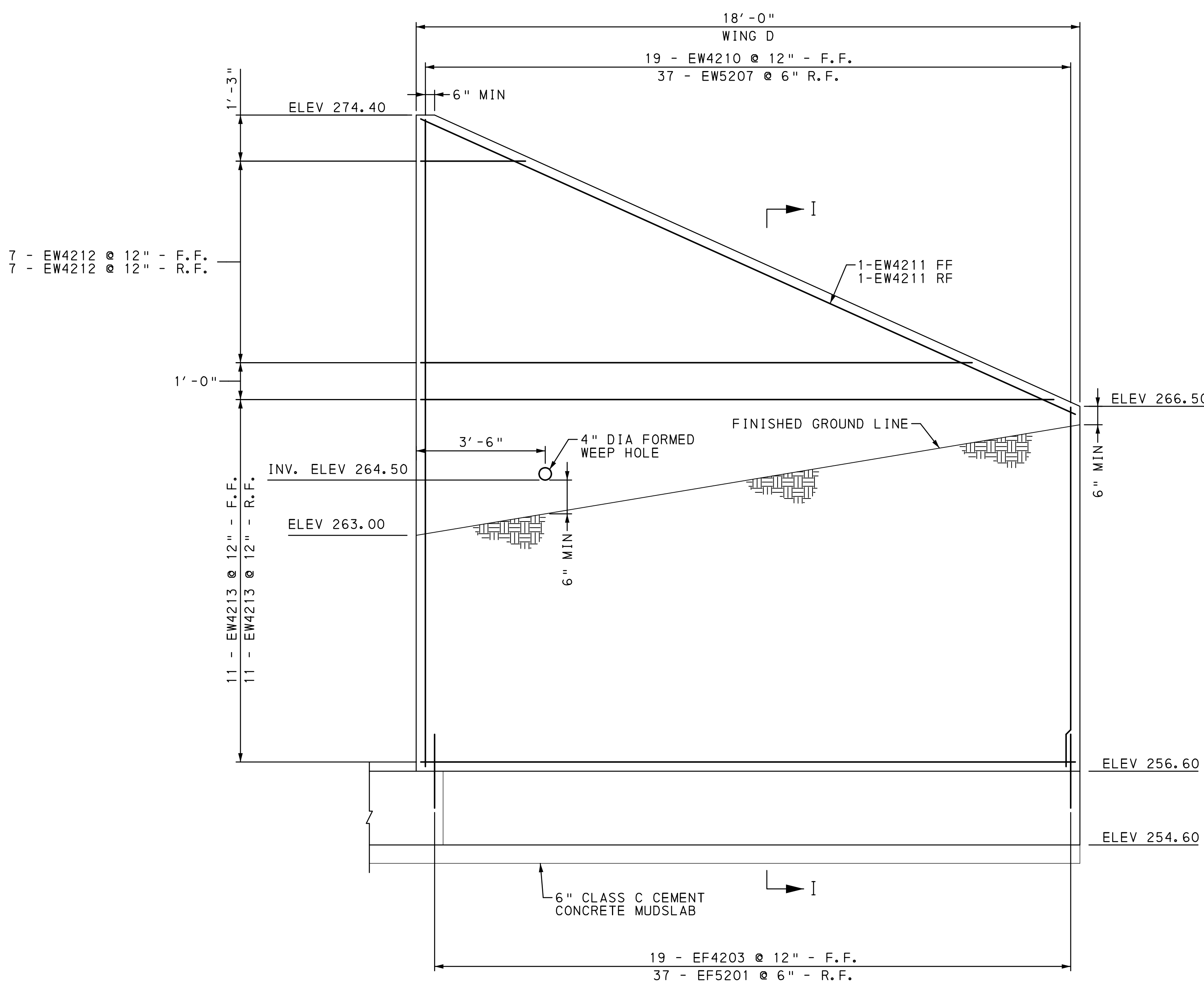
LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 ABUTMENT 2 DOWEL DETAILS



RECOMMENDED \_\_\_\_\_ SHEET 20 OF 44

S - 36735

OPERATOR: FILE NAME: Y:\Lehigh9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\Abut2\_WingDet.dgn (P lot)  
 D-9002 CADD (02-90) REVISED (10-04)  
 PLOTTED: 07\21\2020

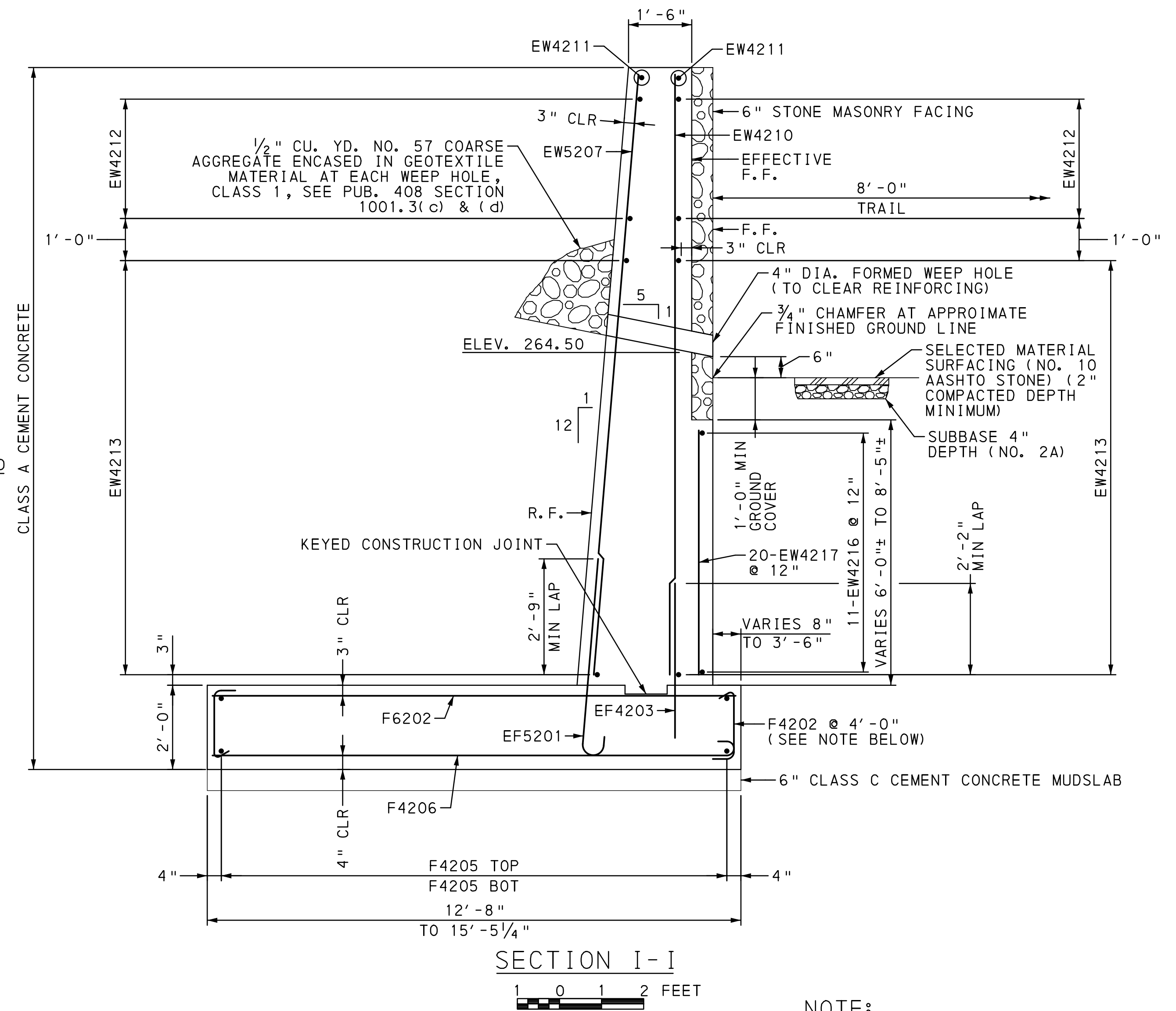


**WINGWALL ELEVATION**  
 1 0 1 2 FEET

SLIDING						
LOCATION	LIMIT STATE	LOAD CASE	STAGE	A HORIZONTAL FORCE (kip)	B SLIDING RESISTANCE (kip)	B/A PERFORMANCE RATIO
WING D	STR-I	MIN	FIN	14.40	14.42	1.001

BEARING CAPACITY											
LOCATION	LIMIT STATE	LOAD CASE	STAGE	A UNIFORM BEARING PRESSURE (ksf)	B BEARING RESISTANCE (ksf)	B/A PERFORMANCE RATIO	UNDRAINED SHEAR STRENGTH (ksf)	MASS UNIT DENSITY (lb/ft**3)	SATURATED UNIT DENSITY (lb/ft**3)	COHESION (ksf)	EFFECTIVE FRICTION ANGLE (deg.)
WING D	STR-I	MIN	FIN	4.78	10.26	2.146	N/A	120	125	N/A	34

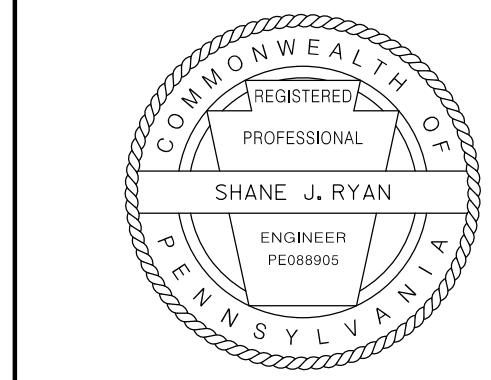
- NOTES:**
- FOR GENERAL NOTES, SEE SHEET 3.
  - FOR REBAR SCHEDULE, SEE SHEET 22.
  - FOR WATERPROOFING DETAIL AT STEM TO FOOTING, SEE SHEET 17.
  - FOR ABUTMENT 2 PLAN AND ELEVATION, SEE SHEET 16.
  - FOR WEEPHOLE REINFORCEMENT LAYOUT, SEE SHEET 19.
  - FOR ABUTMENT WATERPROOFING AND FOUNDATION DRAIN DETAIL, SEE SHEET 28.



**NOTE:**  
 TIE TOP AND BOTTOM MATS OF REINFORCING STEEL WITH F4203 TIE BARS AT A MAXIMUM SPACING OF 4'-0" IN BOTH DIRECTIONS. PROVIDE TIE BARS WITH 90 DEG HOOK AT ONE END AND 135 DEG HOOK AT THE OTHER END. ALTERNATE 90 DEG AND 135 DEG HOOKS AT TOP IN ALTERNATE TIES.

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

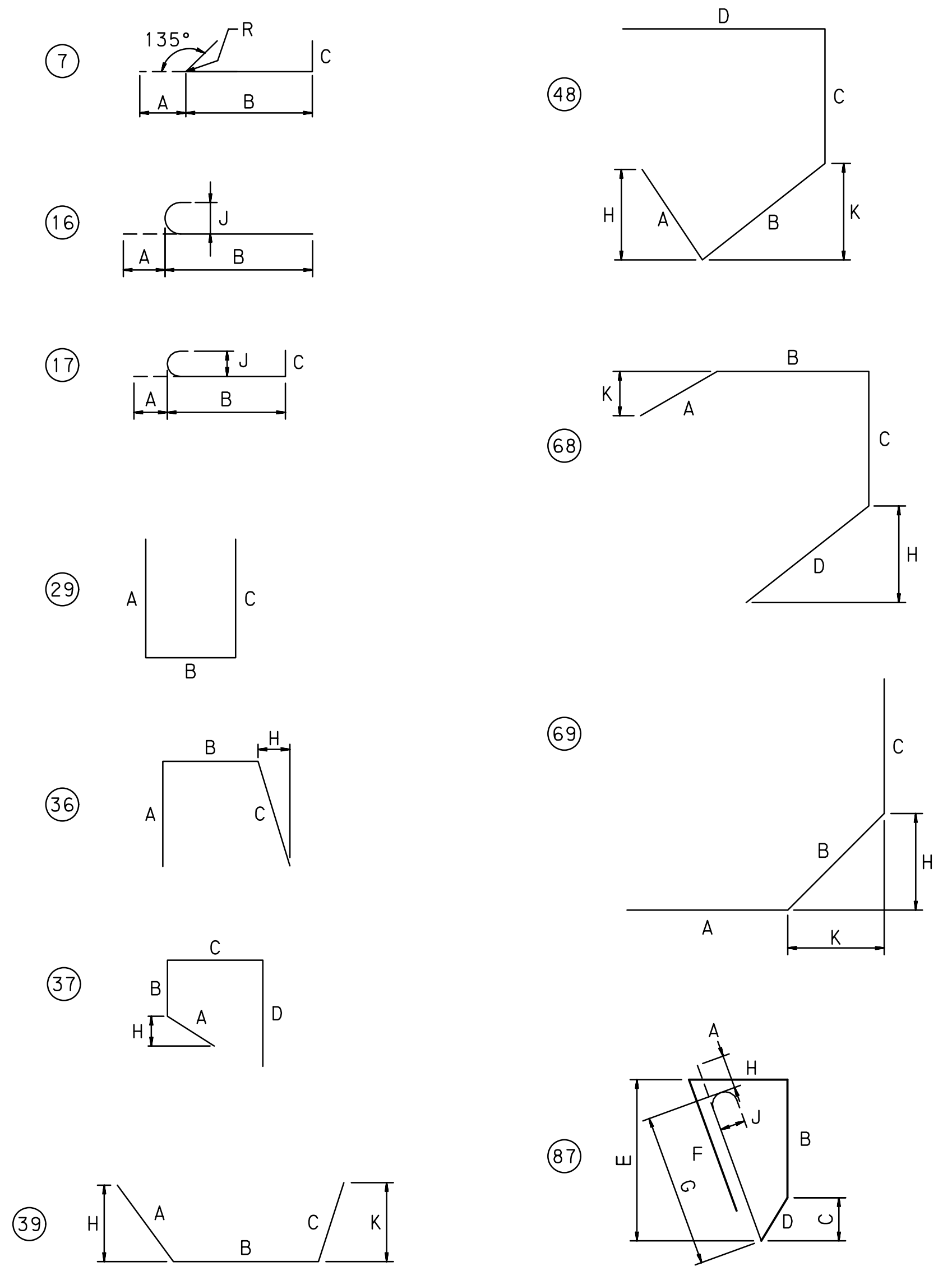


**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 ABUTMENT 2 WING DETAILS

RECOMMENDED \_\_\_\_\_ SHEET 21 OF 44  
 S - 36735

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F	G	H	J	R	REMARKS
EW3201	3	23	8'-5"	68	1'-3"	2'-4"	2'-3"	2'-7"				5 5/8"			"K" = 7 1/2"
EW3202	3	19	6'-1"	36	1'-7"	2'-2"	2'-4"					9 3/8"			
EW3203	3	7	6'-0"	48	1'-8"	1'-9"	9"	1'-10"				10"			"K" = 1'-6 1/4"
EW3204	3	7	4'-9"	39	1'-8"	1'-3"	1'-10"					1'-6 7/8"			"K" = 1'-9 5/8"
EW4201	4	24	14'-3"	STR											
EW4202	4	32	24'-9"	STR											
EW4203	4	24	3'-6"	STR											
EW4210	4	19	9'-7"	STR											VARY BY 5 1/4" (+)
EW4211	4	2	19'-0"	STR											
EW4212	4	14	2'-5"	STR											VARY 2 SETS BY 2'-2"
EW4213	4	22	17'-6"	STR											
EW4214	4	8	24'-8"	STR											
EW4215	4	28	4'-4"	STR											
EW4216	4	11	17'-8"	STR											
EW4217	4	20	5'-11"	STR											
EW5201	5	24	8'-5"	29	3'-8"	1'-1"	3'-8"								
EW5205	5	10	6'-2"	STR											
EW5206	5	14	16'-11"	STR											
EW5207	5	37	9'-7"	STR											VARY BY 2 5/8" (+)
EW5208	5	15	4'-6"	STR											DOWEL
EW6201	6	47	8'-10 1/2"	37	3'-0"	1'-1"	2'-3 1/2"	2'-6"				2'-1 1/2"			
EW6202	6	9	3'-9"	17	8"	1'-1"	2'-0"					6"			DOWEL
EW6203	6	9	3'-2"	69	1'-1"	1'-0"	1'-1"					8 1/2"			"K" = 8 1/2", DOWEL
EW8201	8	16	7'-6"	STR											
EW8202	8	17	14'-3"	STR											
EW8203	8	4	25'-8"	STR											
EF4203	4	43	4'-4"	STR											
EF5201	5	37	5'-7"	16	7"	5'-0"							5"		
EF5203	5	14	4'-6"	STR											
EF8201	8	33	7'-5"	16	11"	6'-6"							8"		
F4201	4	30	24'-10"	STR											
F4202	4	75	2'-2"	7	4 1/2"	1'-5"	4 1/2"						1"		
F4205	4	68	13'-6"	STR											
F4206	4	33	12'-10"	16	6"	12'-4"							4"		VARY BY 1 1/8" (+)
F5204	5	15	4'-6"	STR											DOWEL
F6202	6	48	12'-4"	STR											VARY BY 7/8" (-)
F7201	7	28	13'-2"	STR											
F9201	9	28	13'-2"	STR											
SSW801	8	9	3'-3"	STR											STAINLESS STEEL DOWEL

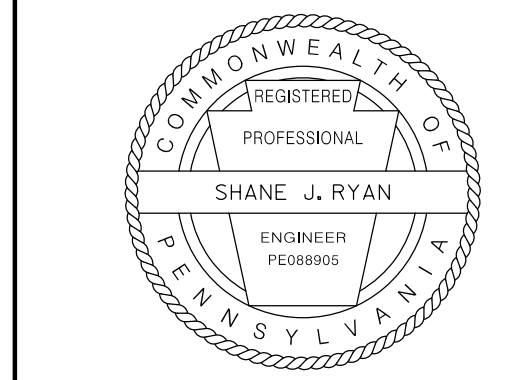


- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.
- "E" - INDICATES EPOXY COATED REBARS.
- FOR ALL BAR TYPES SHOWN, DIMENSIONS A-H AND LENGTH ARE MEASURED ALONG OUTSIDE OF BAR. R IS MEASURED ALONG INSIDE OF BAR.
- FOR GENERAL NOTES, SEE SHEET 2.

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

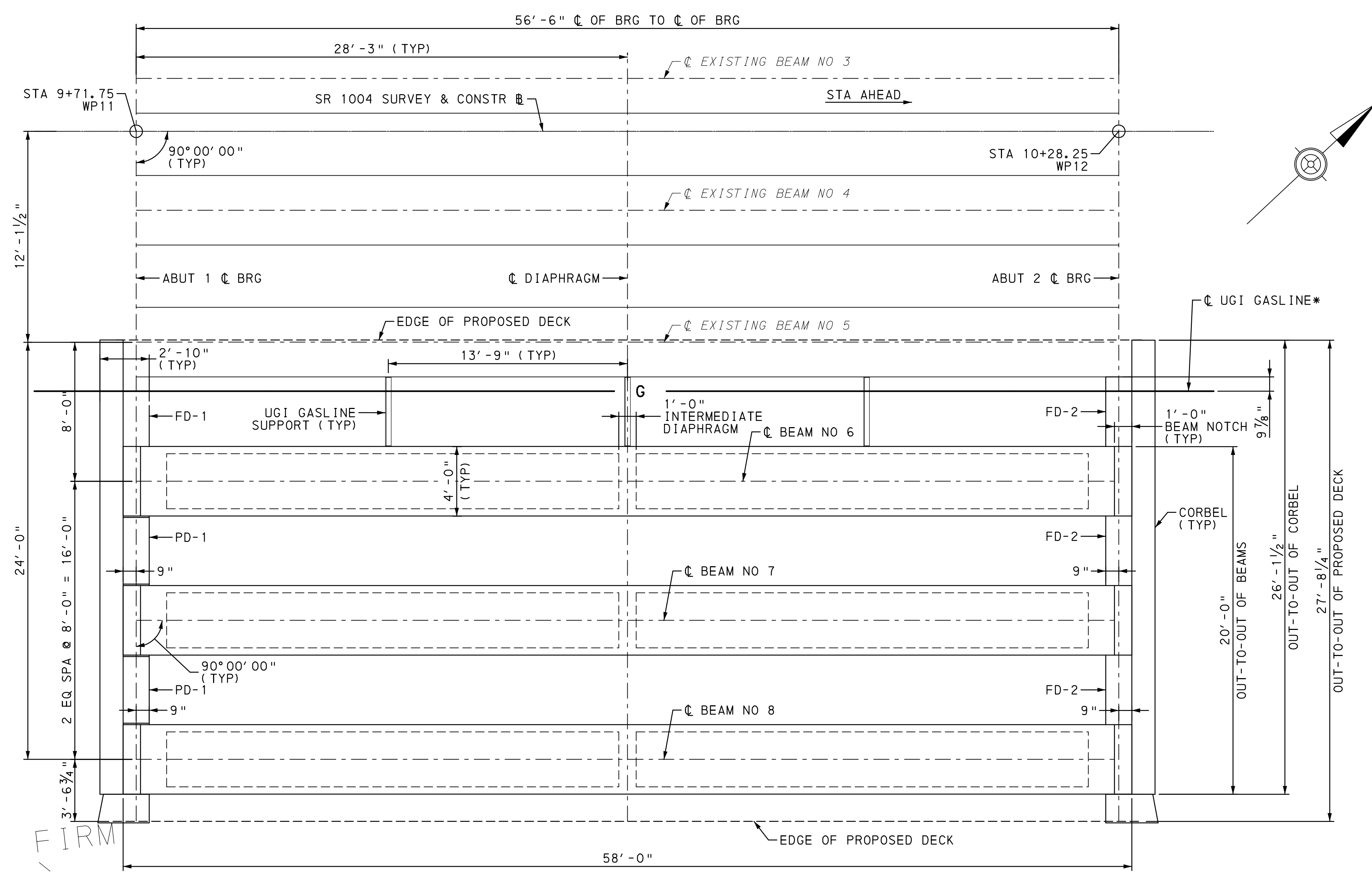
SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 ABUTMENT 2 REBAR SCHEDULE

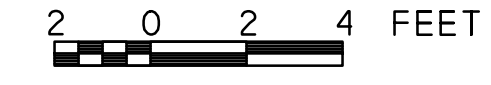


RECOMMENDED \_\_\_\_\_ SHEET 22 OF 44  
 S - 36735

OPERATOR: PLOTTED: 07\21\2020  
 FILE NAME: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Plots\Rebar\Sched.dgn (P lot) D-9002 CADD (02-90) REVISED (10-04)



FRAMING PLAN



\* 4" ST FBE/POWERCRETE CARRIER IN BAY.  
 8" ST FBE/POWERCRETE CASING WITH 4" ST FBE/POWERCRETE CARRIER  
 ALL OTHER LOCATIONS.

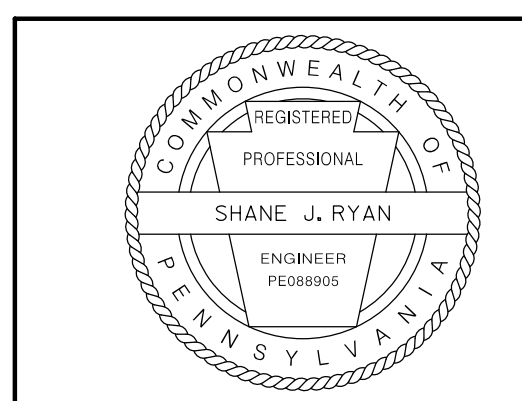
NOTES:

1. FOR GENERAL NOTES, SEE SHEET 3.
2. FOR TYPICAL SECTION, SEE SHEET 2.
3. FOR STAKE-OUT PLAN, SEE SHEET 8.
4. FOR BEAM DETAILS, SEE SHEETS 24 AND 25.
5. FOR GASLINE SUPPORT DETAILS, SEE SHEET 41.
6. FOR ABUTMENT 1 DIAPHRAGM DETAILS AND LOCATION, SEE SHEET 29.
7. FOR ABUTMENT 2 DIAPHRAGM DETAILS AND LOCATION, SEE SHEET 30.

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

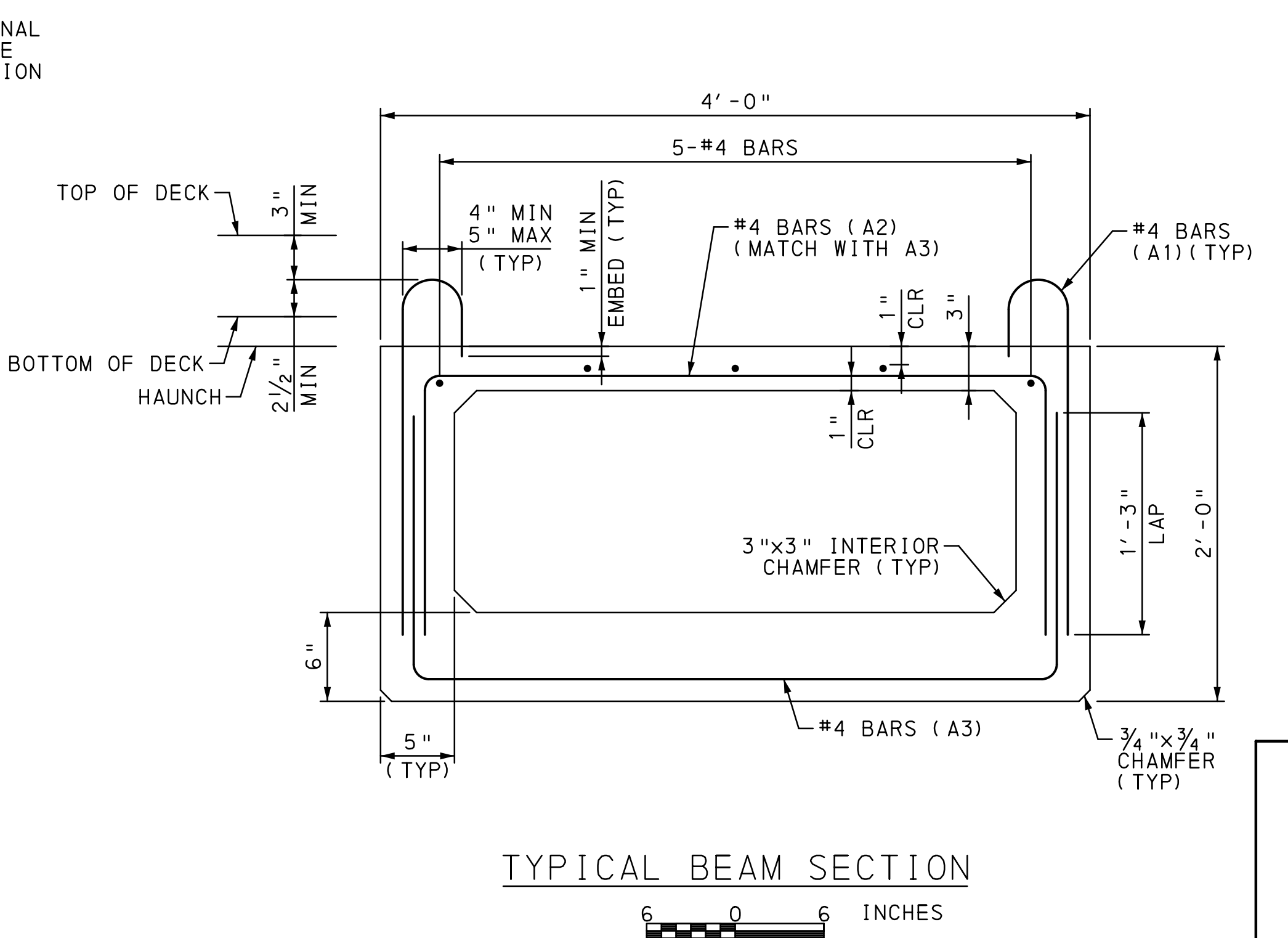
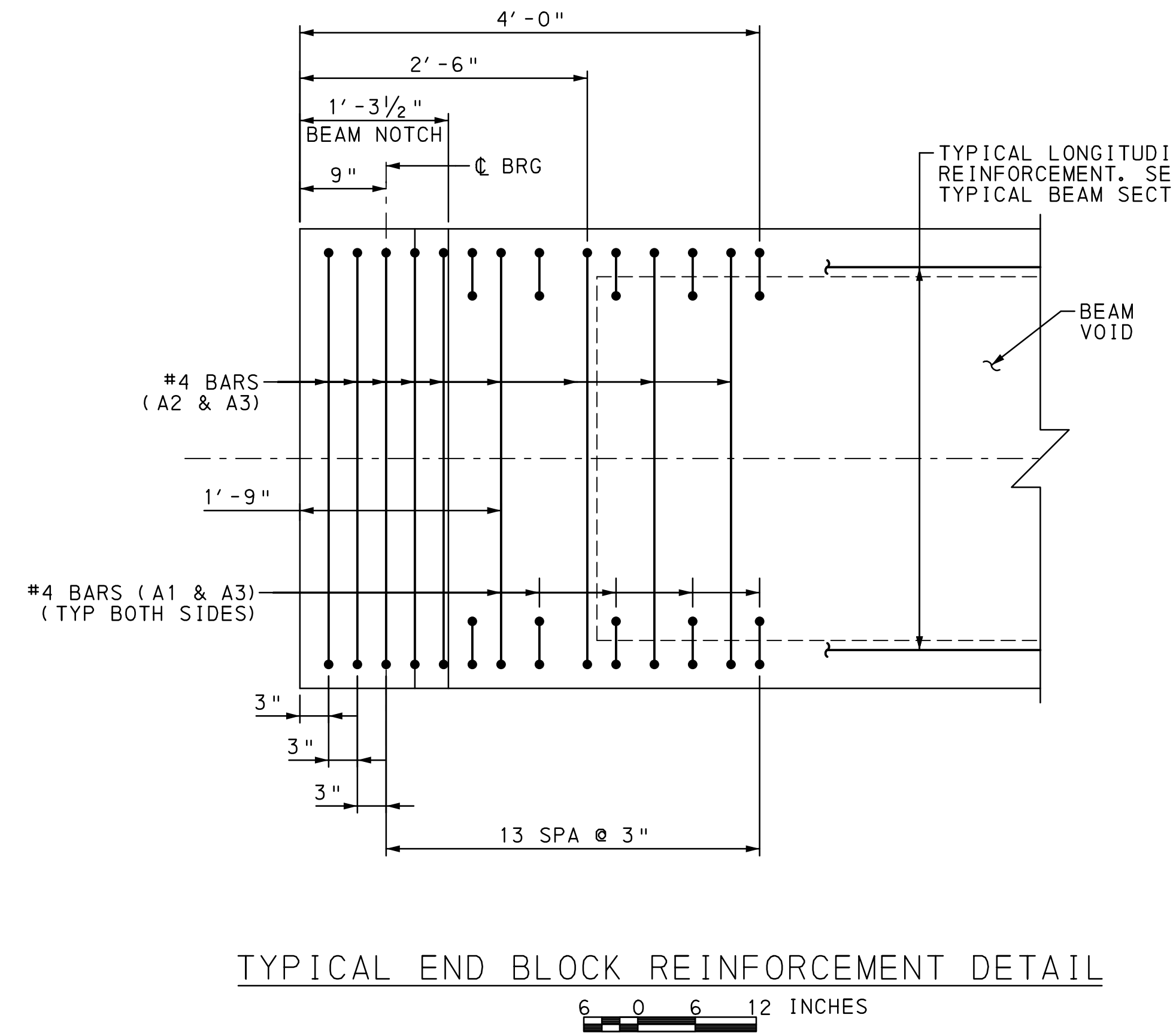
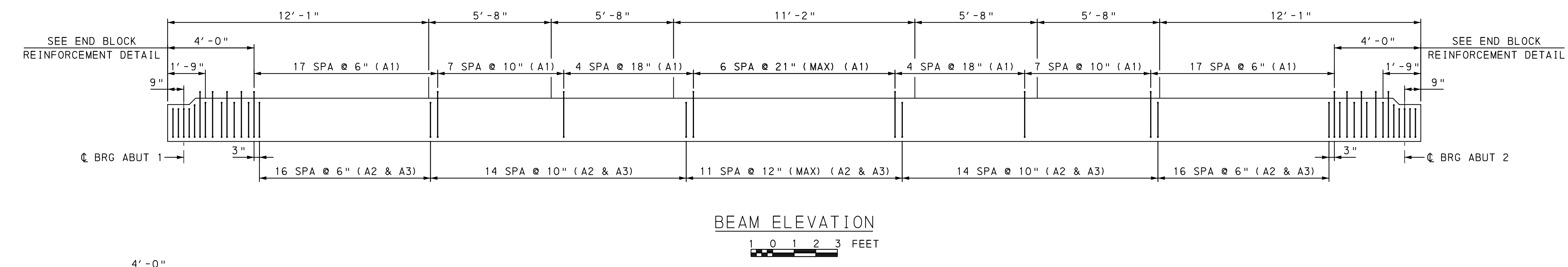
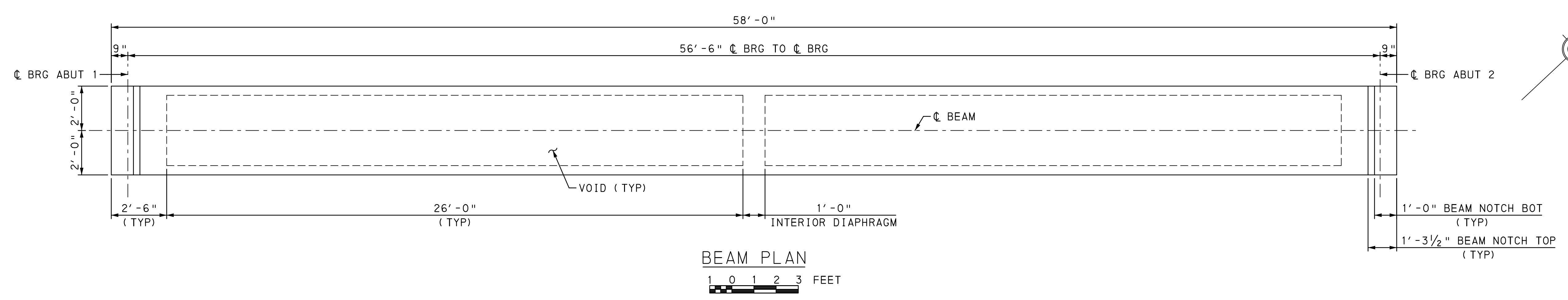
SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 FRAMING PLAN



RECOMMENDED _____	SHEET 23 OF 44
	S - 36735

OPERATOR: PLOTTED: 07\21\2020 08:58:22  
 FILE NAME: Y:\Lehigh\9500s\9510\_05\Eng\_Docs\Structure\SR\_1004\Final\Plan\BoxBeamDetail\_1.dgn (P 1 of 1)  
 D-9002 CADD (02-90) REVISED (10-04)

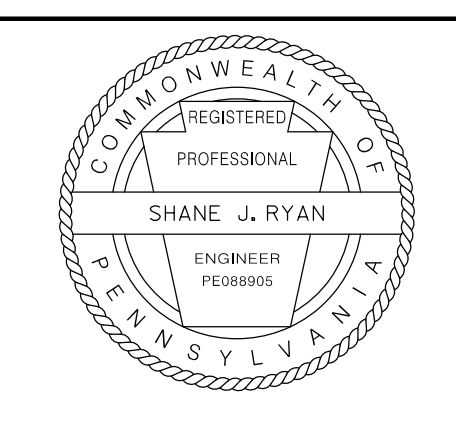


- NOTES:**
1. FOR GENERAL NOTES, SEE SHEET 3.
  2. FOR FRAMING PLAN, SEE SHEET 23.
  3. FOR ADDITIONAL BOX BEAM DETAILS, SEE SHEETS 25 AND 26.
  4. FOR BEARING DETAILS, SEE SHEET 27.

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
**BOX BEAM DETAILS - I**



RECOMMENDED \_\_\_\_\_ SHEET 24 OF 44

OPERATOR: FILE NAME: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\25\_BoxBeamDet-2.dgn (P 1 of 7)  
 D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020

**PRESTRESS NOTES:**

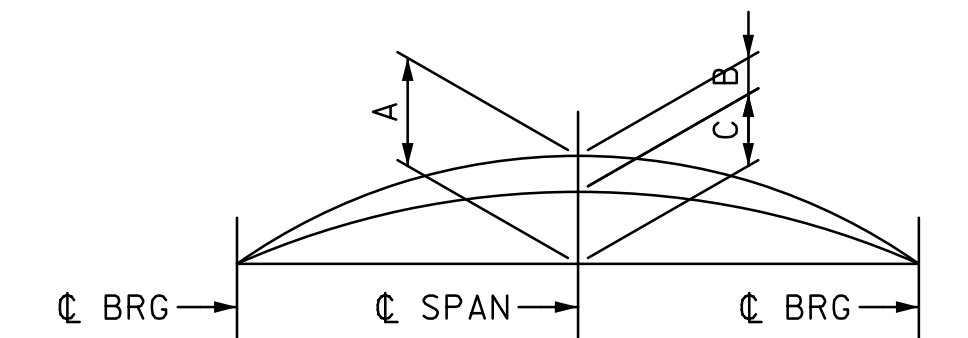
1. SHOW BEAM DESIGN LENGTH AND BEAM CASTING LENGTH ON SHOP DRAWINGS.
2. SHOW PLAN, ELEVATION, SECTIONS AND ALL REINFORCEMENT DETAILS ON SHOP DRAWINGS.
3. SHOW ANY MODIFICATIONS TO REINFORCEMENT SPLICE AND BENDING DETAILS ON SHOP DRAWINGS.
4. EPOXY COAT ALL REINFORCEMENT WHICH PROTRUDES INTO BRIDGE DECK FROM TOP OF BEAMS.
5. SHOW THE FOLLOWING DATA ON THE SHOP DRAWINGS:  
 A) THE SIZE AND LOCATION OF TEMPORARY STORAGE SUPPORTS.  
 B) THE TYPE AND LOCATION OF BRACING AND TEMPORARY SUPPORTS USED FOR THE TRANSPORTATION AND ERECTION OF THE BEAMS.
6. END ZONE REINFORCEMENT MAY BE INCREASED BY FABRICATOR TO REFLECT FABRICATOR'S EXPERIENCE AND/OR TO CONTROL CRACKING. WIRE MESH OF EQUIVALENT AREA IS PERMISSIBLE FOR CRACK CONTROL REINFORCEMENT.
7. FABRICATOR TO CHECK STABILITY FOR HANDLING AND TRANSPORTING OF THE MEMBERS.
8. MINIMUM COVER ON REINFORCEMENT BARS:  
 TOP SLAB - 1"  
 INSIDE VOID - 1"  
 ELSEWHERE - 2" UNLESS OTHERWISE NOTED
9. FORM BEAM ENDS TO BE TRULY VERTICAL IN THE FINAL POSITION.
10. TOP FLANGES OF BEAMS SHALL BE INTENTIONALLY ROUGHENED.
11. EPOXY COAT ALL REBAR FOR A DISTANCE OF 9'-0" FROM BEAM ENDS ADJACENT TO DECK JOINTS.
12. ALL REINFORCEMENT STEEL BARS MEET THE REQUIRMENTS OF ASTM A615, A996 OR A706.

**PRESTRESSING DATA:**

PRESTRESSED BOX BEAM SIZE	48"x24"
CONCRETE STRENGTH AT STRAND RELEASE	6800 PSI
CONCRETE STRENGTH AT 28 DAYS (f'c)	8000 PSI
JACKING PRESTRESS FORCE	1350.3 KIPS
CENTER OF GRAVITY OF BONDED STRANDS	(SEE DEBONDING DIAGRAM)

USE 0.52"Ø STRANDS (0.167 SI, 270 KSI LOW RELAXATION STRANDS)

CAMBER TABLE			
BEAM NO	A (IN)	B (IN)	C (IN)
6	2.33	0.98	1.35
7	2.33	1.10	1.23
8	2.33	1.05	1.28



**BEAM CAMBER DIAGRAM**

**CAMBER NOTES**

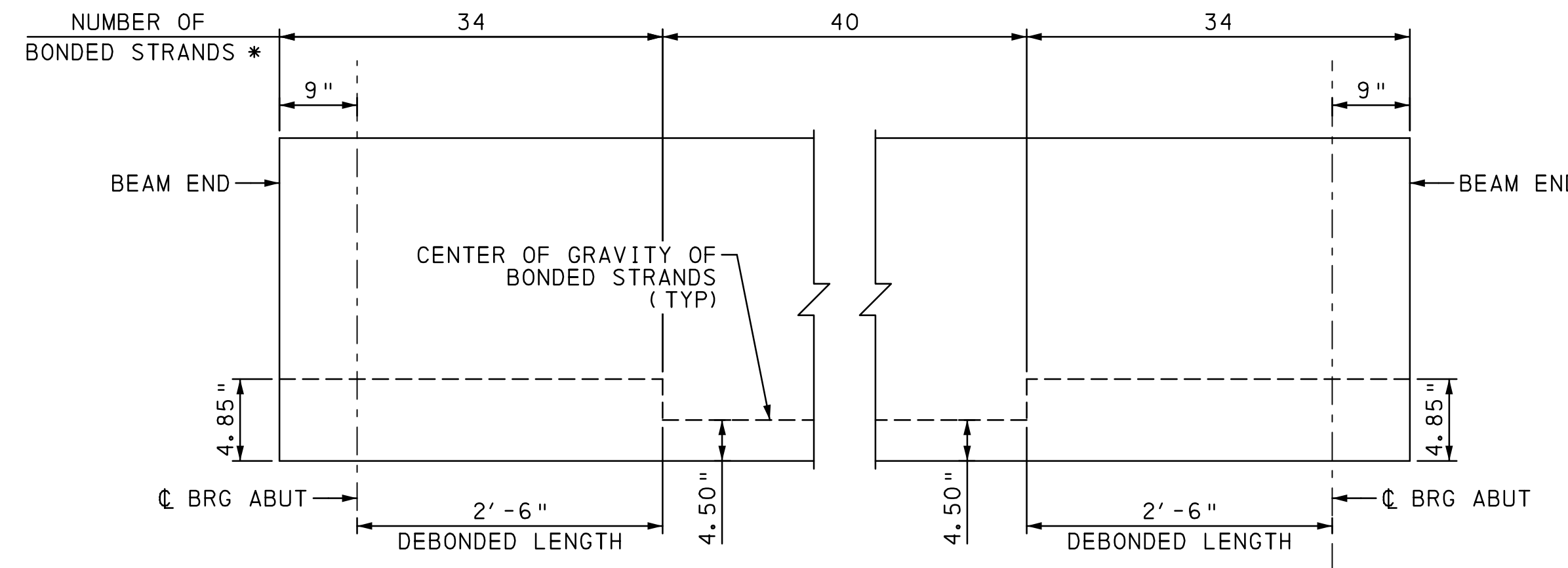
A = ESTIMATED PRESTRESS CAMBER LESS DEFLECTION DUE TO DEAD LOAD OF BEAM AT RELEASE TIMES CREEP FACTOR OF 1.60. (CHECK IN FIELD)

B = DEFLECTION DUE TO ALL DEAD LOAD EXCEPT BEAM WEIGHT AND FUTURE WEARING SURFACE.

C = A-B = NET FINAL CAMBER

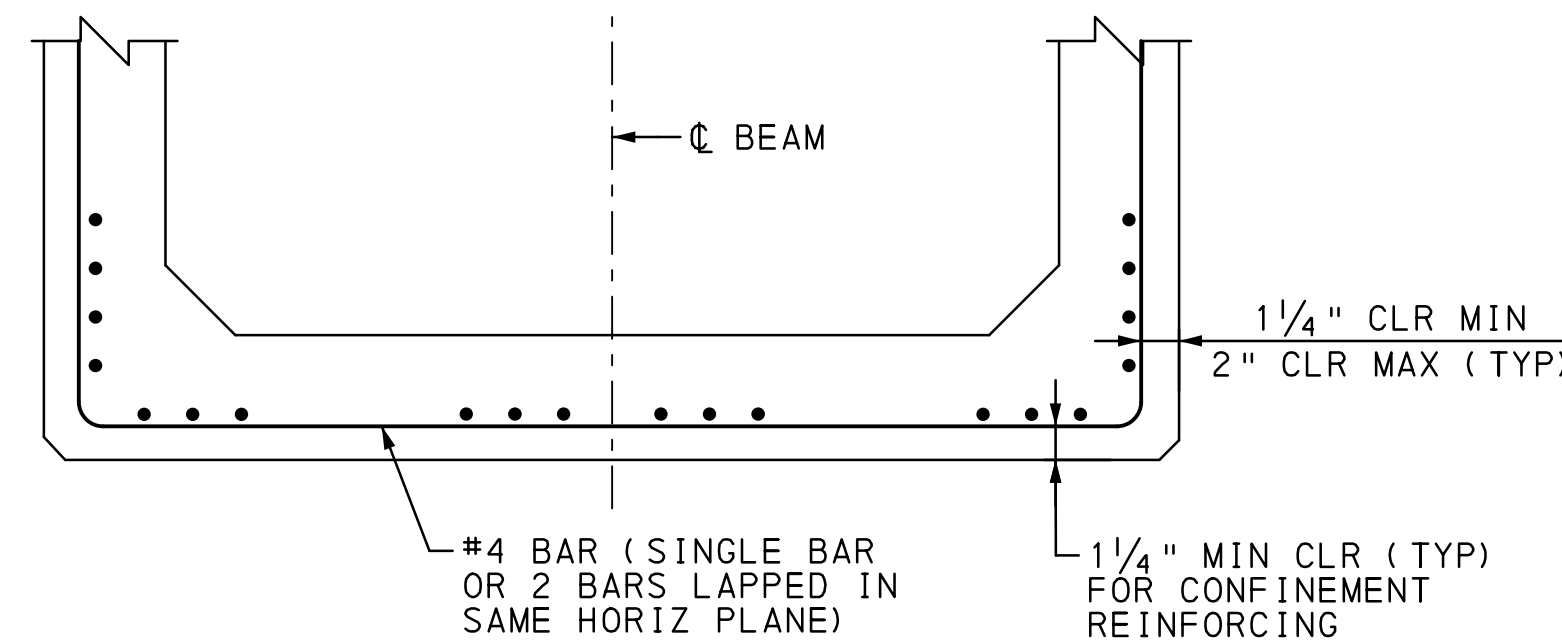
VARY THE THICKNESS OF THE CONCRETE HAUNCH TO COMPENSATE FOR ANY INACCURACIES IN BEAM CAMBER.

A, B AND C ARE THEORETICAL VALUES AND MAY VARY WITH ACTUAL CONCRETE STRENGTH (AGE), VARIOUS PRESTRESSING CONDITIONS, CREEP AND PRESTRESS LOSS. A CREEP FACTOR OF 1.60 AND A PRESTRESS LOSS OF 10% IS ASSUMED IN CALCULATING INITIAL CAMBER "A". NO CREEP FACTOR IS ASSUMED IN CALCULATING DEAD LOAD DEFLECTION "B".



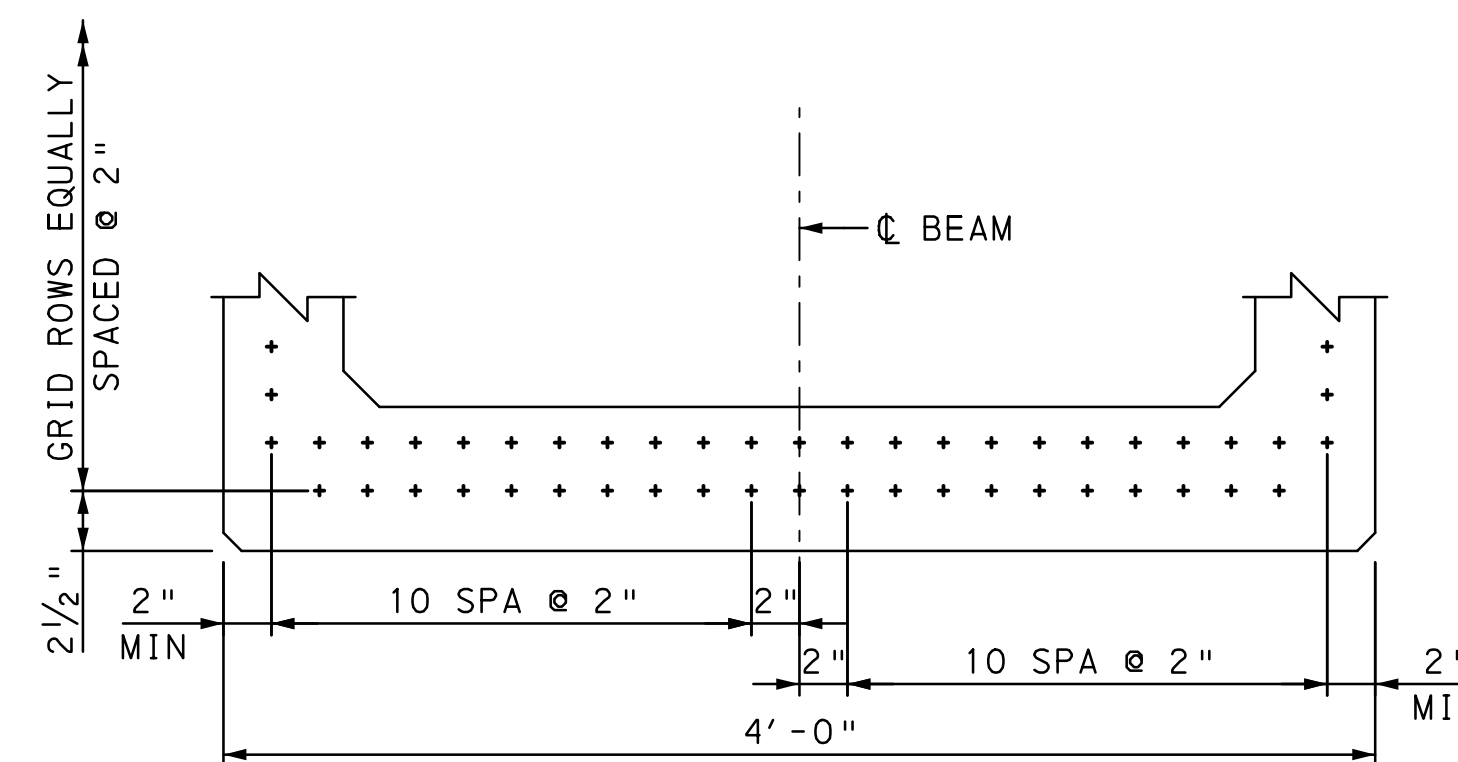
**TYPICAL DEBONDING DIAGRAM**

NOT TO SCALE  
 \* NUMBER OF DEBONDED STRANDS DOES NOT INCLUDE CRACK CONTROL DEBONDING.



**TYPICAL STRAND CONFINEMENT DETAIL**

NOT TO SCALE

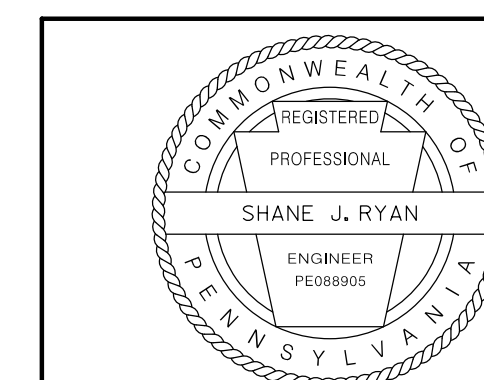


**TYPICAL STRAND PATTERN**

NOT TO SCALE

**STRAND PATTERN NOTES:**

1. DO NOT PLACE MORE THAN ONE COLUMN OF PRESTRESSING STRANDS IN THE WEBS.
2. DO NOT PLACE PRESTRESSING STRANDS AT CORNER LOCATION IN BOTTOM ROW.



**NOTES:**

1. FOR GENERAL NOTES, SEE SHEET 3.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR ADDITIONAL BOX BEAM DETAILS, SEE SHEETS 24 AND 26.
4. FOR BEARING DETAILS, SEE SHEET 27.

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

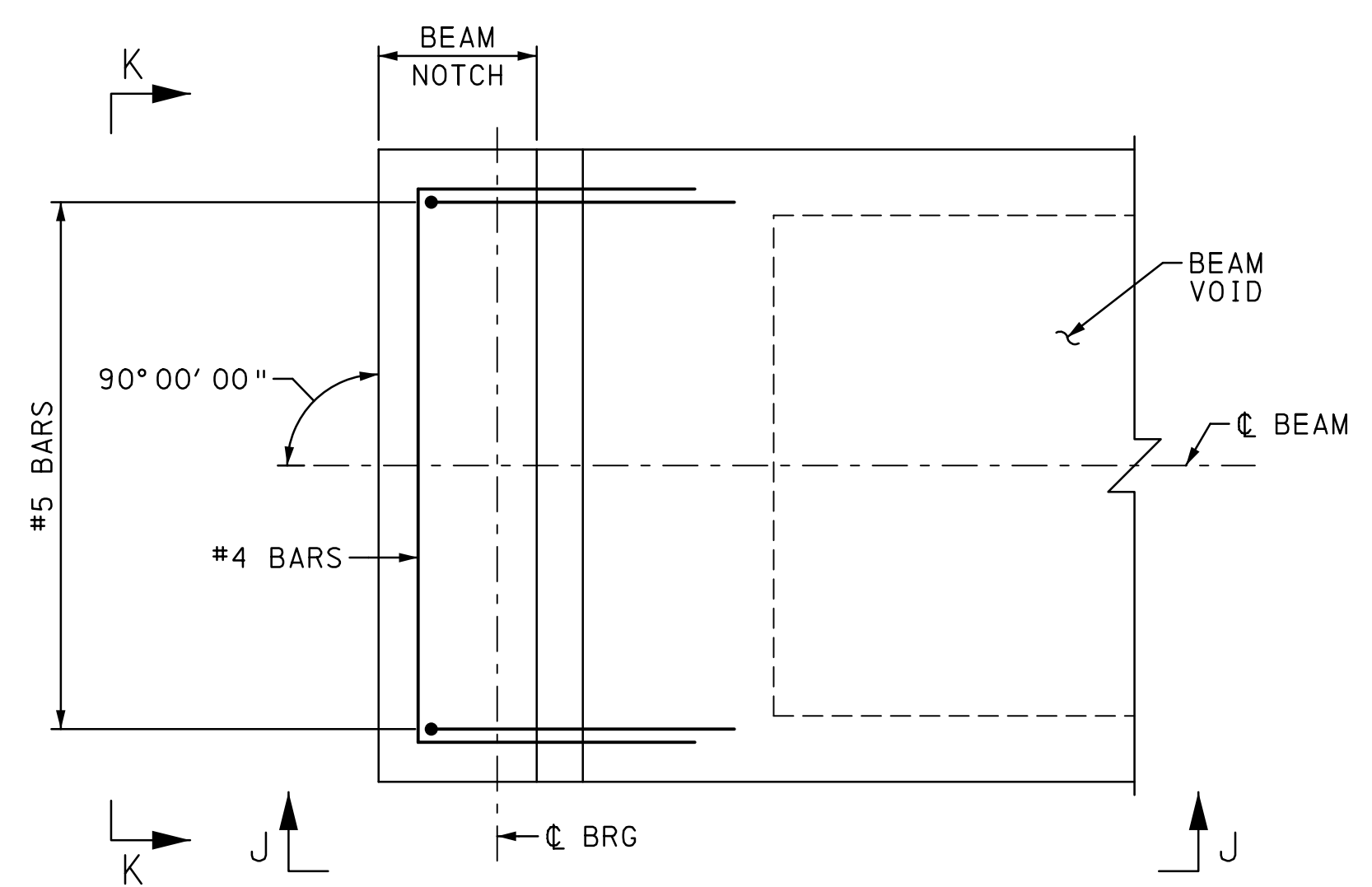
SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION

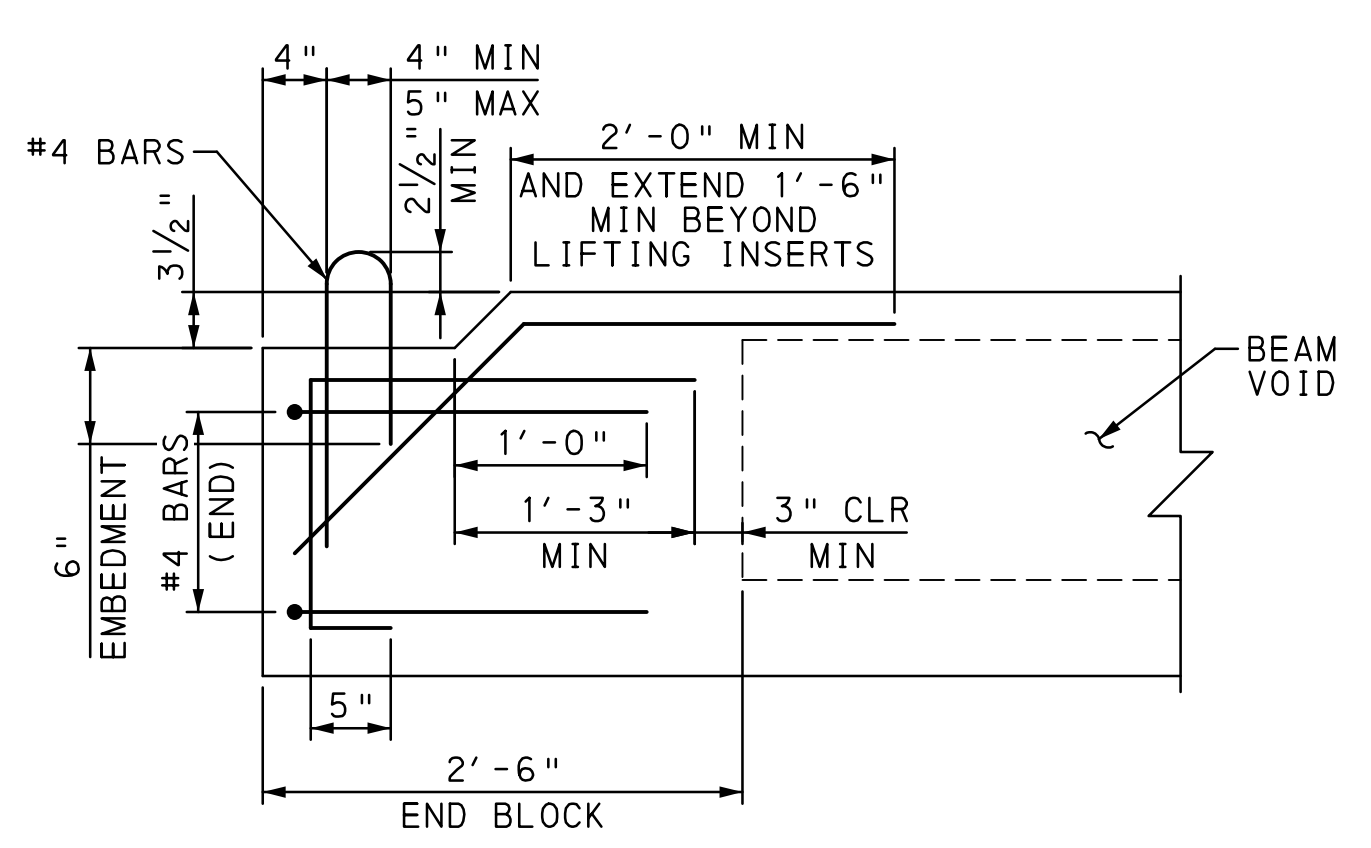
LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 BOX BEAM DETAILS - II

RECOMMENDED \_\_\_\_\_ SHEET 25 OF 44

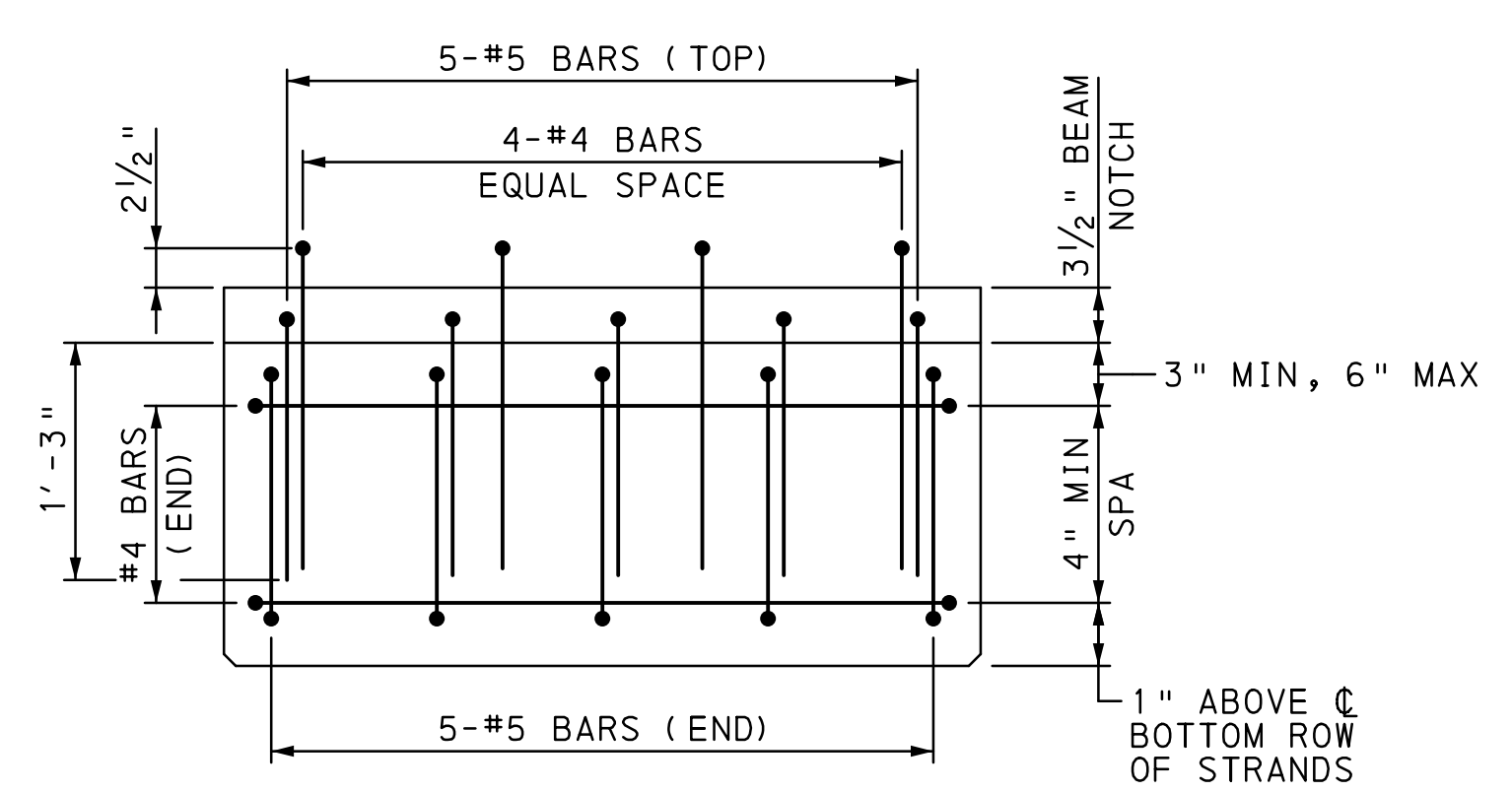
S - 36735



PLAN - BEAM END LONGITUDINAL REINFORCEMENT  
 NOT TO SCALE  
 (NEAR SIDE SHOWN, FAR SIDE OPPOSITE HAND)



VIEW J-J  
 NOT TO SCALE



VIEW K-K  
 NOT TO SCALE

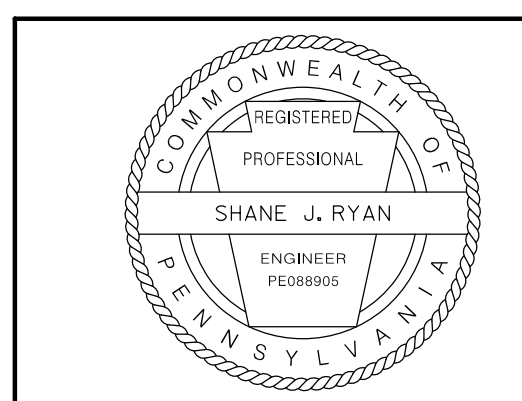
NOTES:

1. FOR GENERAL NOTES, SEE SHEET 3.
2. FOR FRAMING PLAN, SEE SHEET 23.
3. FOR ADDITIONAL BOX BEAM DETAILS, SEE SHEETS 24 AND 25.
4. FOR BEARING DETAILS, SEE SHEET 27.

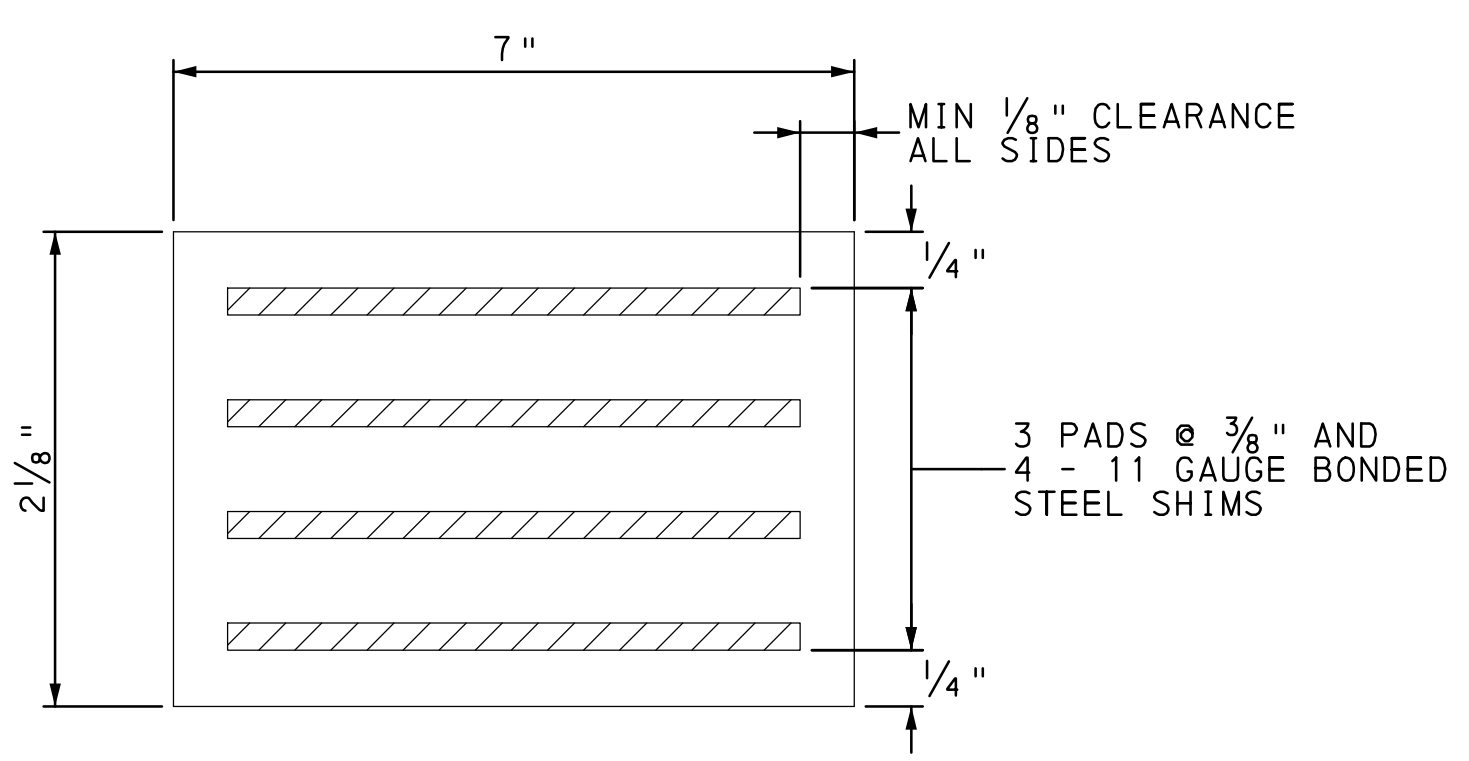
Mark	Description	By	Chk'd.	Recm'd.	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

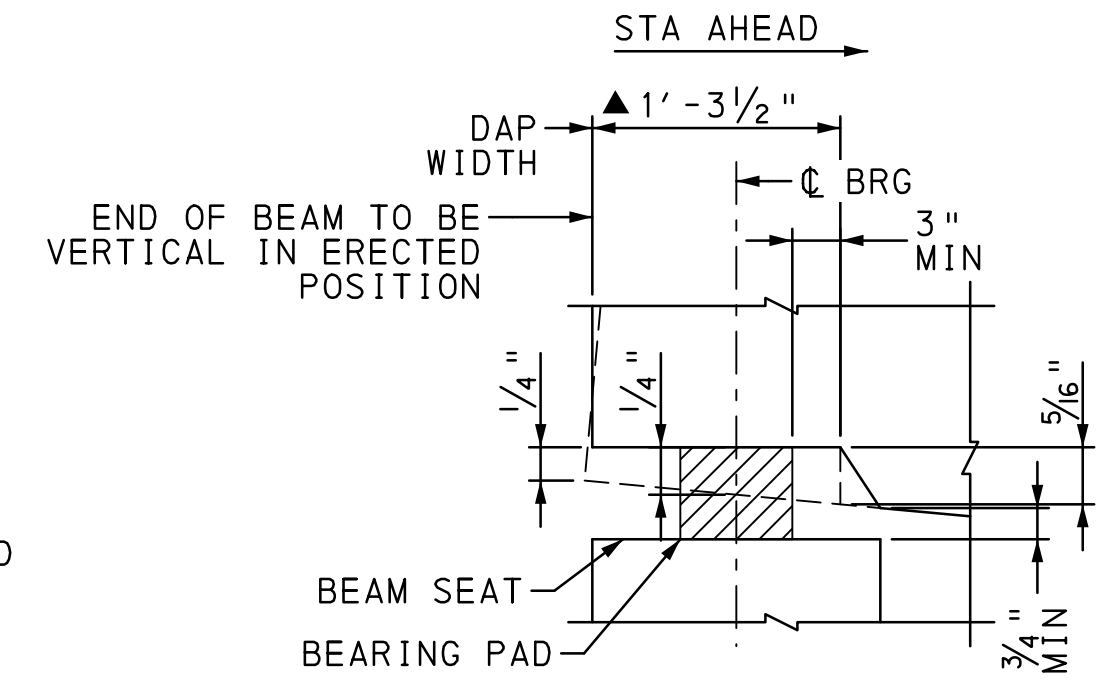
COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 BOX BEAM DETAILS - III



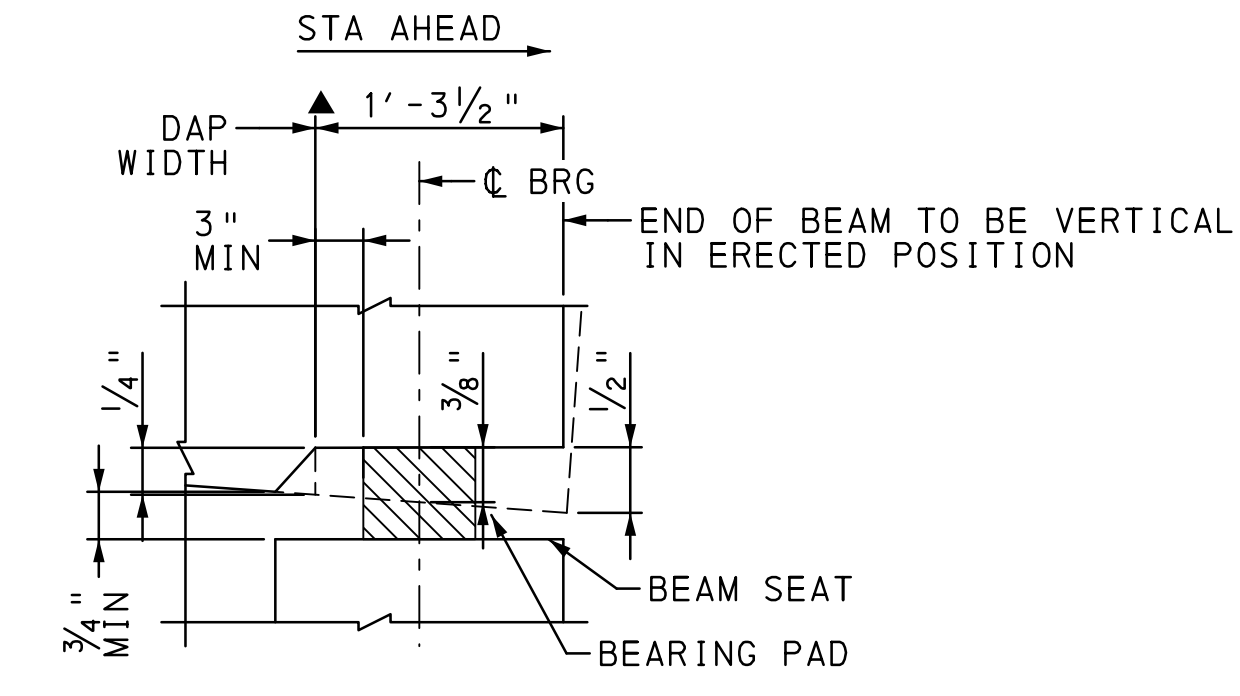
RECOMMENDED \_\_\_\_\_ SHEET 26 OF 44



**ELASTOMERIC BEARING PAD SECTION**  
**ABUTMENT 1 & 2**  
 NOT TO SCALE



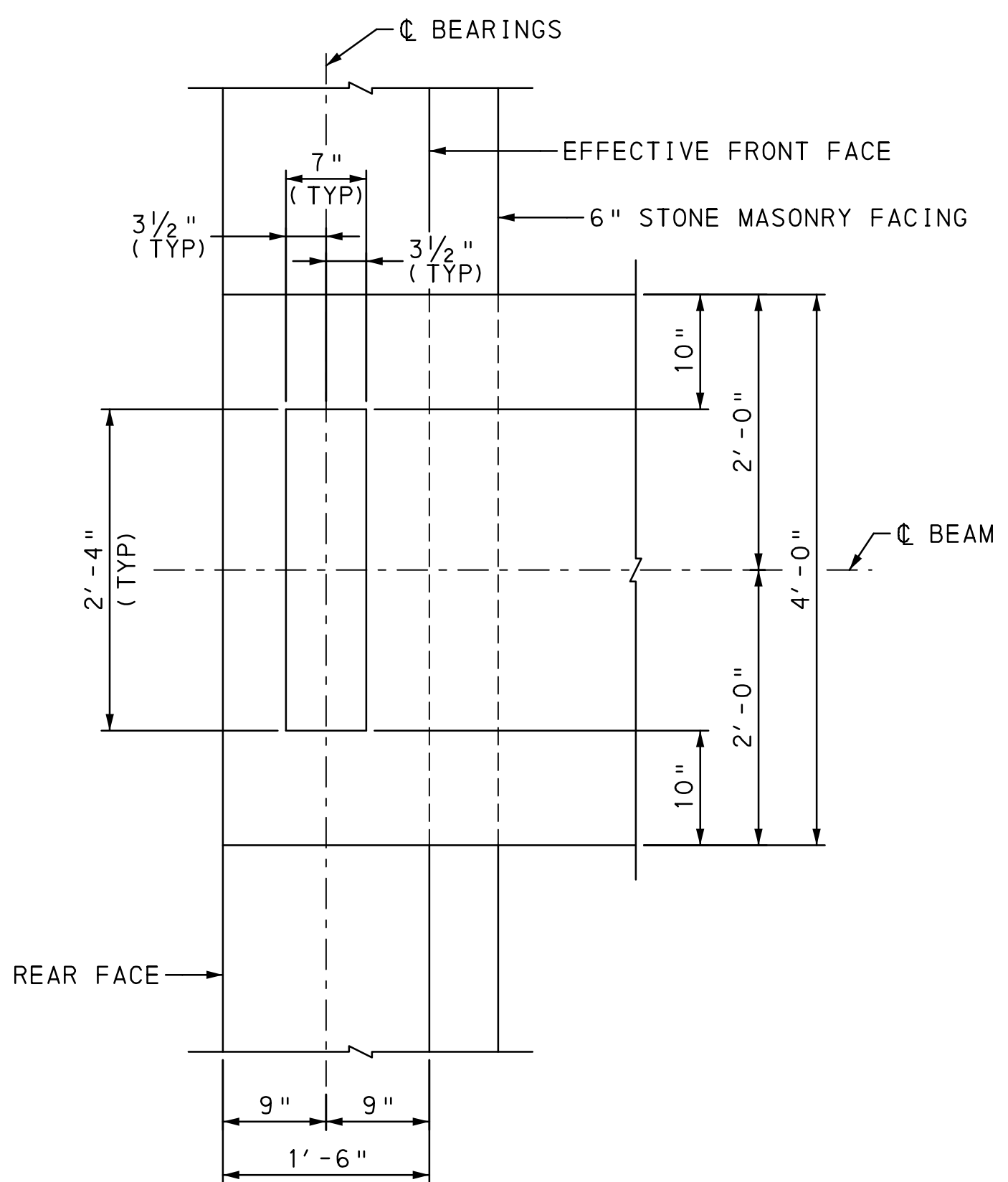
**ABUTMENT 1 DAP DETAIL**  
 BEAM DAP DETAIL  
 NOT TO SCALE  
 TYPICAL ALL BEAM NEAR END:



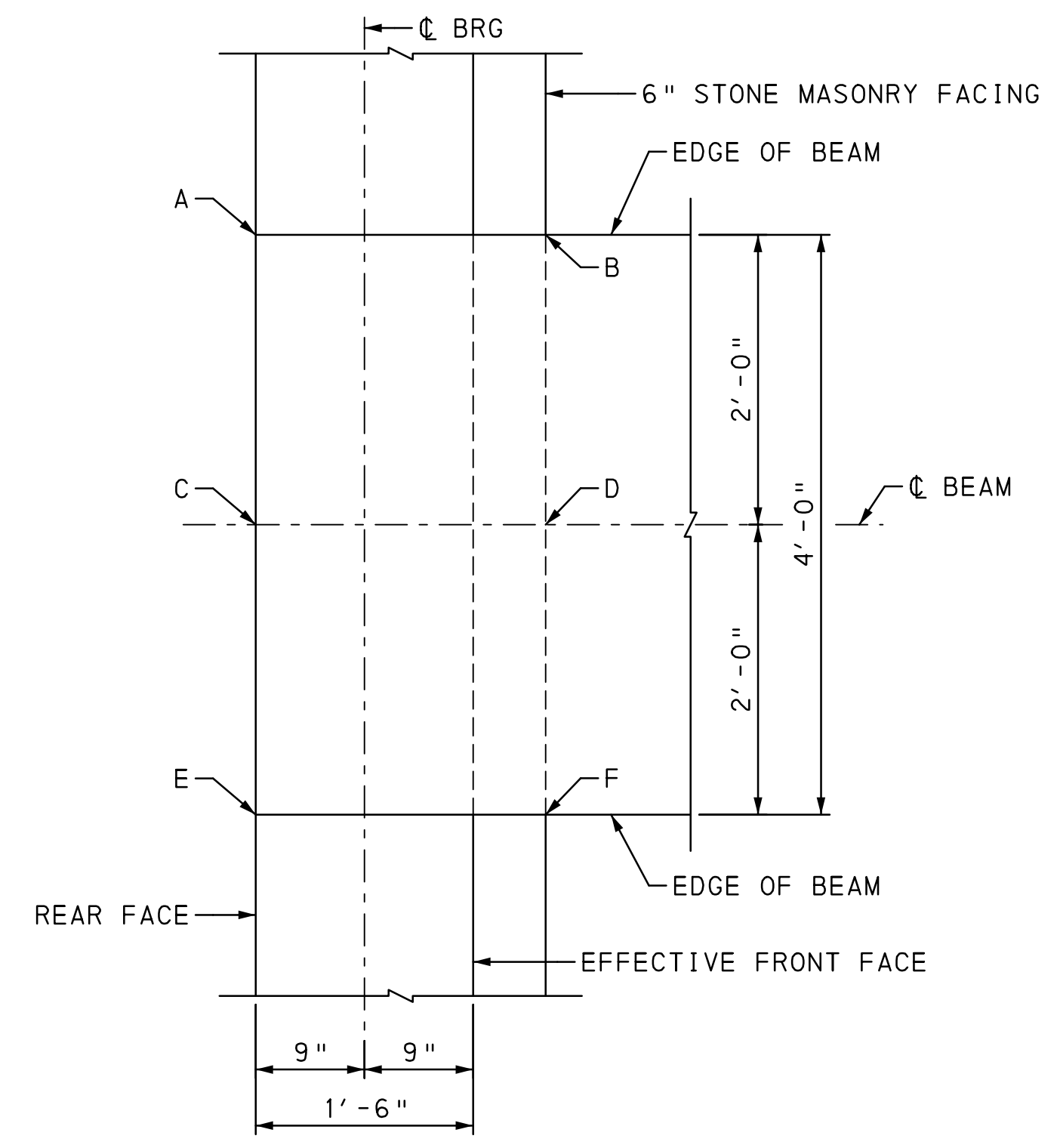
**ABUTMENT 2 DAP DETAIL**  
 BEAM DAP DETAIL  
 NOT TO SCALE  
 TYPICAL ALL BEAM FAR END:

ELASTOMERIC BEARING PADS				
LOCATION	BEARING TYPE	ITEM DESCRIPTION	SIZE ( T x L x W )	NUMBER REQUIRED
ABUT 1	EXPANSION	LAMINATED PADS	2 1/8" x 7" x 28"	3
ABUT 2	FIXED	LAMINATED PADS	2 1/8" x 7" x 28"	3

- NOTES:**
- \* SMOOTH CUT AND DEBURR METAL SHIMS.
  - \* GRIT BLAST AND DEGREASE METAL SHIMS.
  - \* MANUFACTURE ALL BEARINGS IN ACCORDANCE WITH THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PLANS AND SPECIFICATIONS (PUB. 408) SECTION 1113.02 AND DESIGN MANUAL - PART 4.
  - \* ALL BEARING PADS ARE TO BE MOLDED TO DESIGN DIMENSIONS. CUTTING TO SIZE AFTER FABRICATION IS PROHIBITED.
  - \* PROVIDE NEOPRENE 50 +/- 5 DUROMETER.
  - \* PROVIDE MINIMUM LOW-TEMPERATURE NEOPRENE GRADE 3.
  - \* PROVIDE INTERNAL SHIMS AS PER ASTM A36 GRADE 36.
  - \* VULCANIZE PATCH PIN GROOVES.
  - \* FABRICATOR MAY USE CONTRACT DRAWINGS TO FABRICATE BEARING PADS.



**BEARING PAD PLACEMENT**  
 (ABUT 1 SHOWN, ABUT 2 OPPOSITE HAND)  
 NOT TO SCALE



		A	B	C	D	E	F
BEAM 6	ABUT 1	272.00	272.00	271.96	271.96	271.92	271.92
	ABUT 2	271.44	271.44	271.40	271.40	271.36	271.36
BEAM 7	ABUT 1	271.84	271.84	271.80	271.80	271.76	271.76
	ABUT 2	271.28	271.28	271.24	271.24	271.20	271.20
BEAM 8	ABUT 1	271.68	271.68	271.64	271.64	271.60	271.60
	ABUT 2	271.12	271.12	271.08	271.08	271.04	271.04

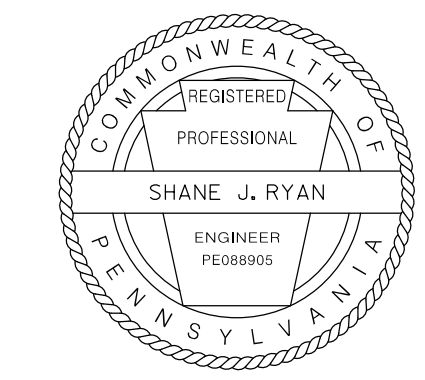
**BEAM SEAT ELEVATIONS**  
 (ABUT 1 SHOWN, ABUT 2 OPPOSITE HAND)  
 NOT TO SCALE

- NOTES:**
1. FOR GENERAL NOTES, SEE SHEET 3.
  2. FOR STAKE-OUT PLAN, SEE SHEET 8.
  3. FOR BEAM DETAILS, SEE SHEETS 24 TO 26.
  4. ADDITIONAL BEARING DETAILS, SEE BC-755M.

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

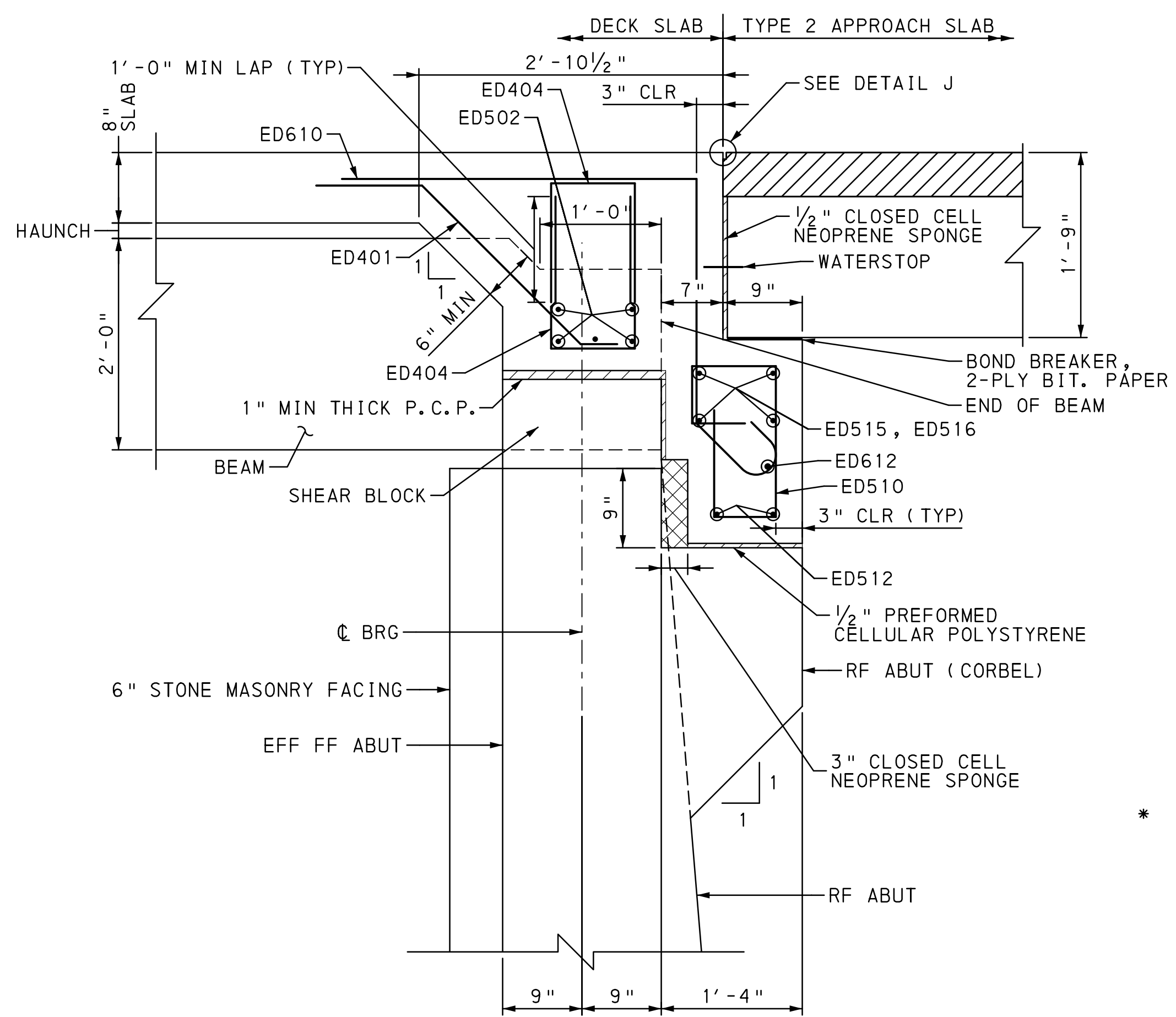
SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
**ELASTOMERIC BEARING DETAILS**

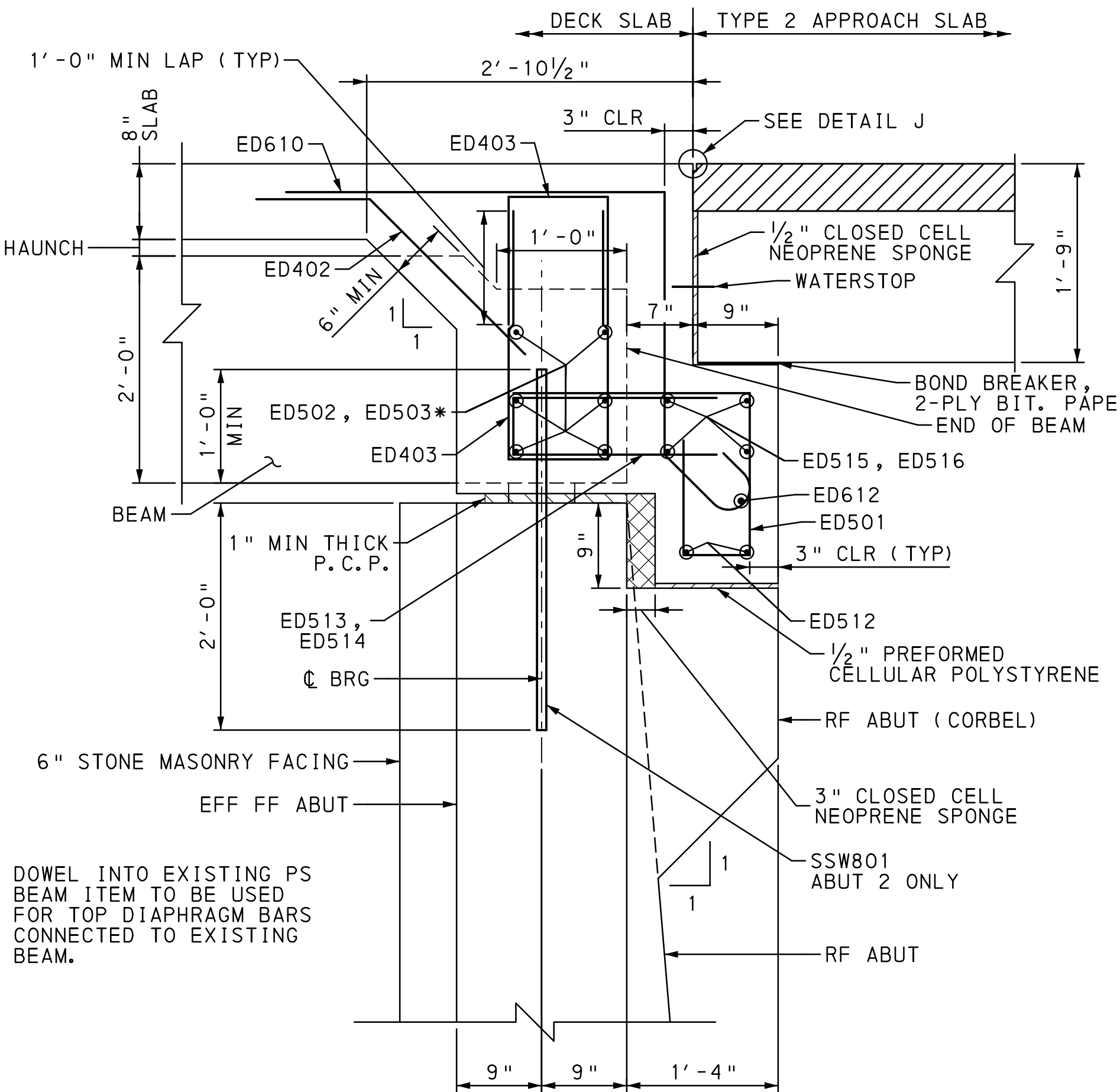


RECOMMENDED \_\_\_\_\_ SHEET 27 OF 44

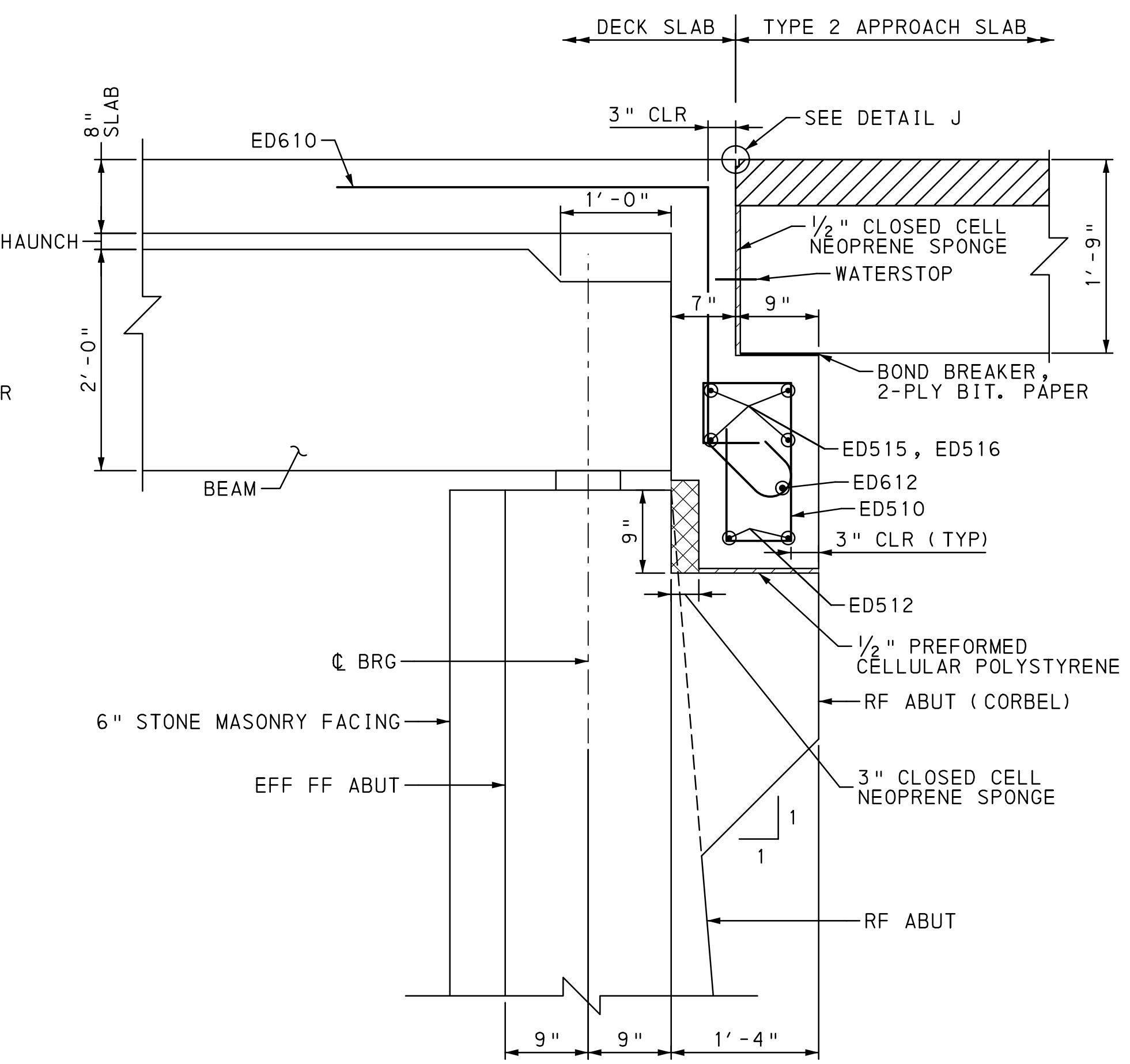
OPERATOR: FILE NAME: Y:\Lehigh9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\VP\ans\28\_D\apthrgmDet\_1.dgn (Plot) D-9002 CADD (02-90) REVISED (10-04) 07\21\2020 PLOTTED: 07\21\2020



SECTION L-L  
PARTIAL DEPTH DIAPHRAGM  
(ABUT 1 ONLY)  
(ABUTMENT REINFORCEMENT NOT SHOWN FOR CLARITY)  
6 0 6 12 INCHES



SECTION M-M  
FULL DEPTH DIAPHRAGM  
(ABUTMENT REINFORCEMENT NOT SHOWN FOR CLARITY)  
6 0 6 12 INCHES



SECTION N-N  
END DIAPHRAGM AT BEAM  
(ABUTMENT REINFORCEMENT NOT SHOWN FOR CLARITY)  
6 0 6 12 INCHES

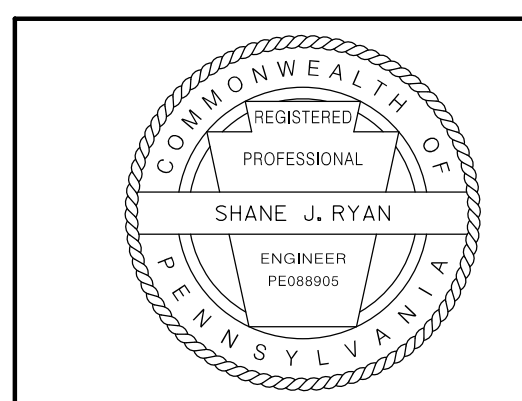
\* DOWEL INTO EXISTING PS BEAM ITEM TO BE USED FOR TOP DIAPHRAGM BARS CONNECTED TO EXISTING BEAM.

- NOTES:
1. FOR GENERAL NOTES, SEE SHEET 3.
  2. FOR TYPICAL SECTION, SEE SHEET 2.
  3. FOR STAKE-OUT PLAN, SEE SHEET 8.
  4. FOR BOX BEAM DETAILS, SEE SHEETS 24 TO 26.
  5. FOR BEAM SEAT ELEVATIONS, SEE SHEETS 9 & 16.
  6. FOR SHEAR BLOCK DETAILS, SEE SHEETS 12 AND 29.
  7. FOR LOCATION OF SECTIONS, L-L, M-M, AND N-N, SEE SHEETS 29 AND 30.
  8. FOR ABUTMENT 2 REBAR SCHEDULE, SEE SHEET 22.
  9. FOR SUPERSTRUCTURE REBAR SCHEDULE, SEE SHEET 34.
  10. FOR PAVING NOTCH FORMING DETAIL, SEE SHEET 29.

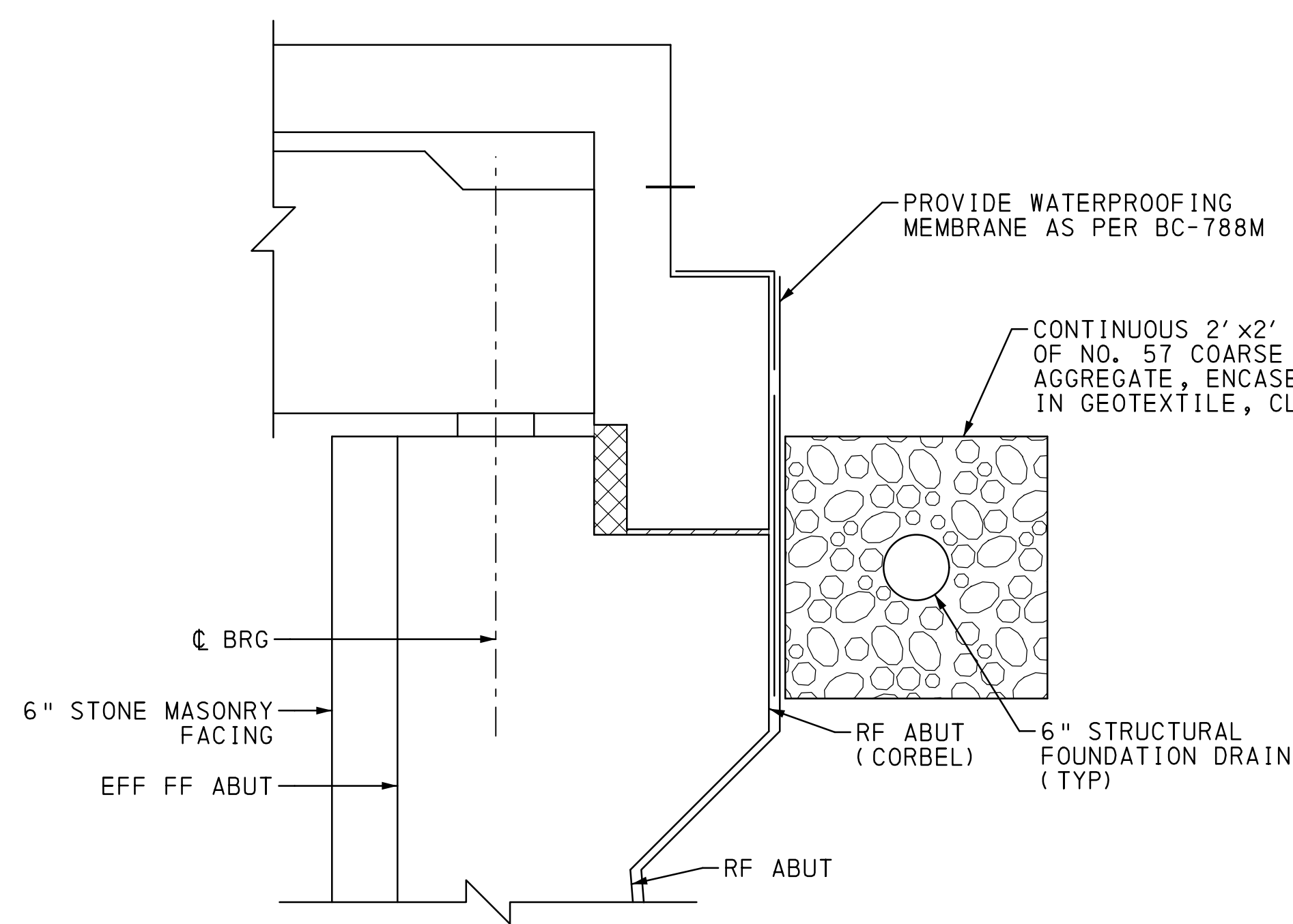
Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

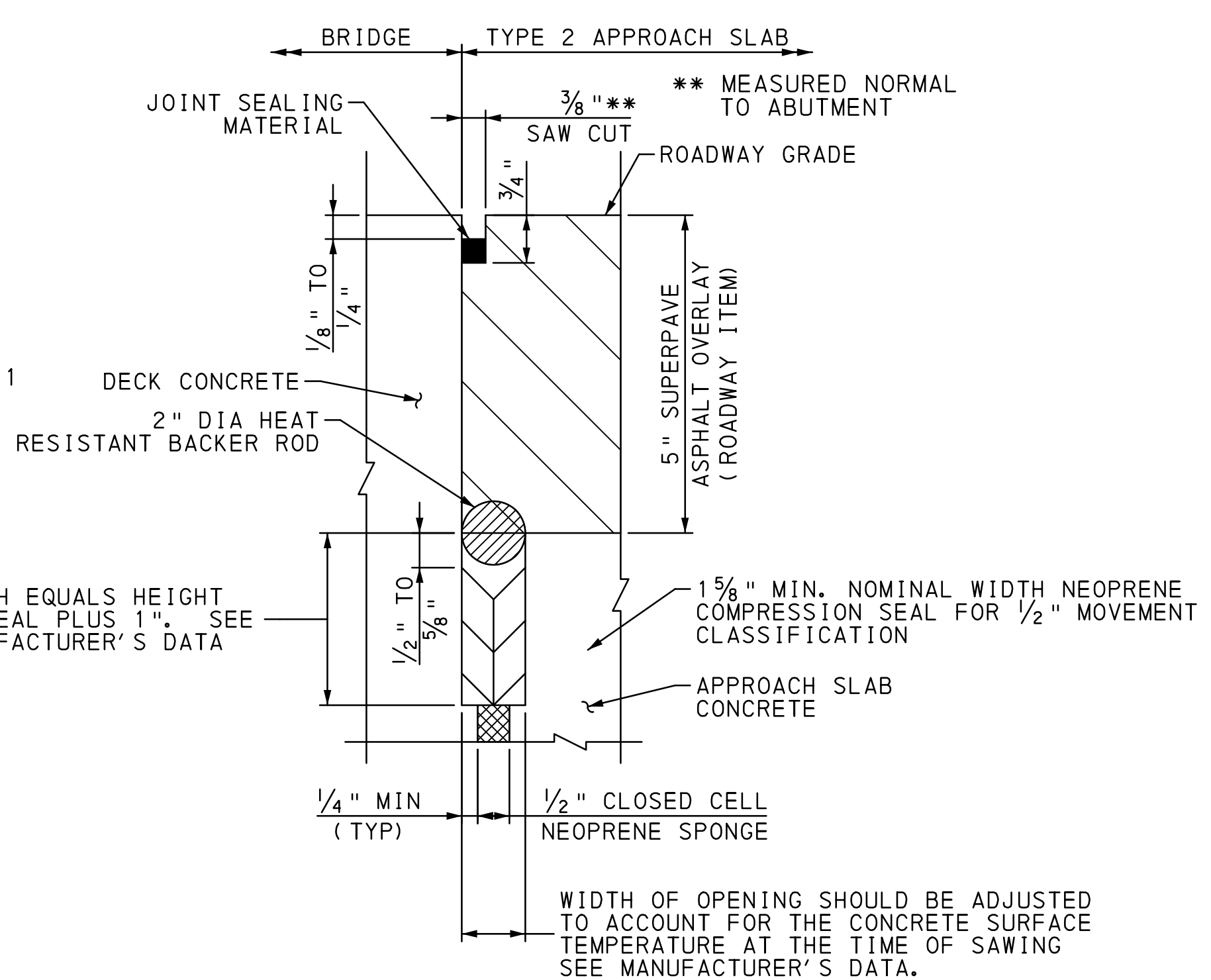
**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
**LEHIGH COUNTY**  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 DIAPHRAGM DETAILS



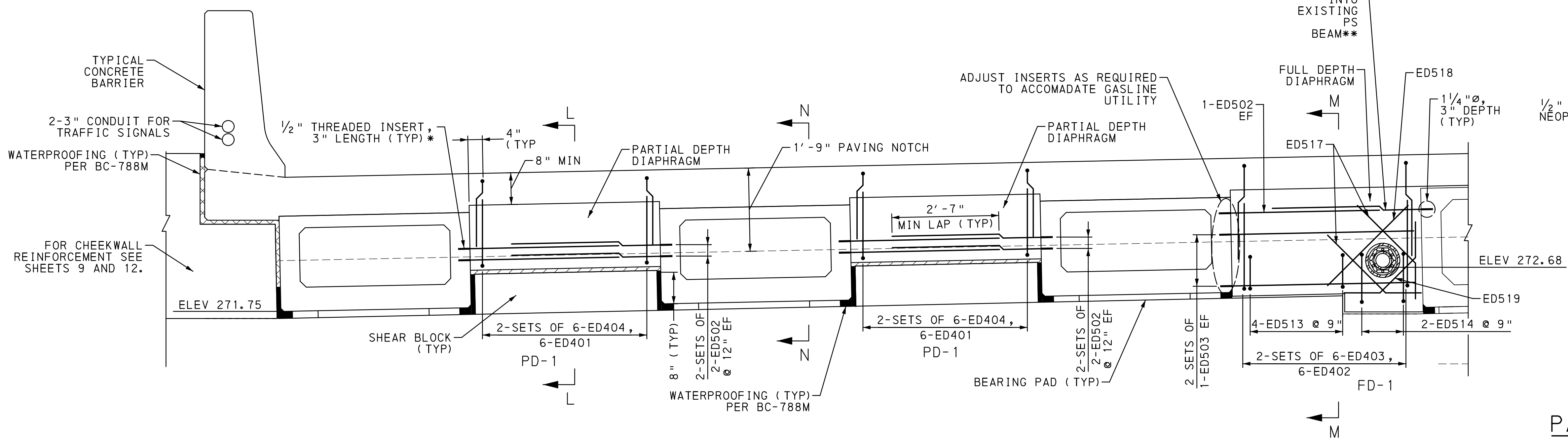
RECOMMENDED \_\_\_\_\_ SHEET 28 OF 44  
S - 36735



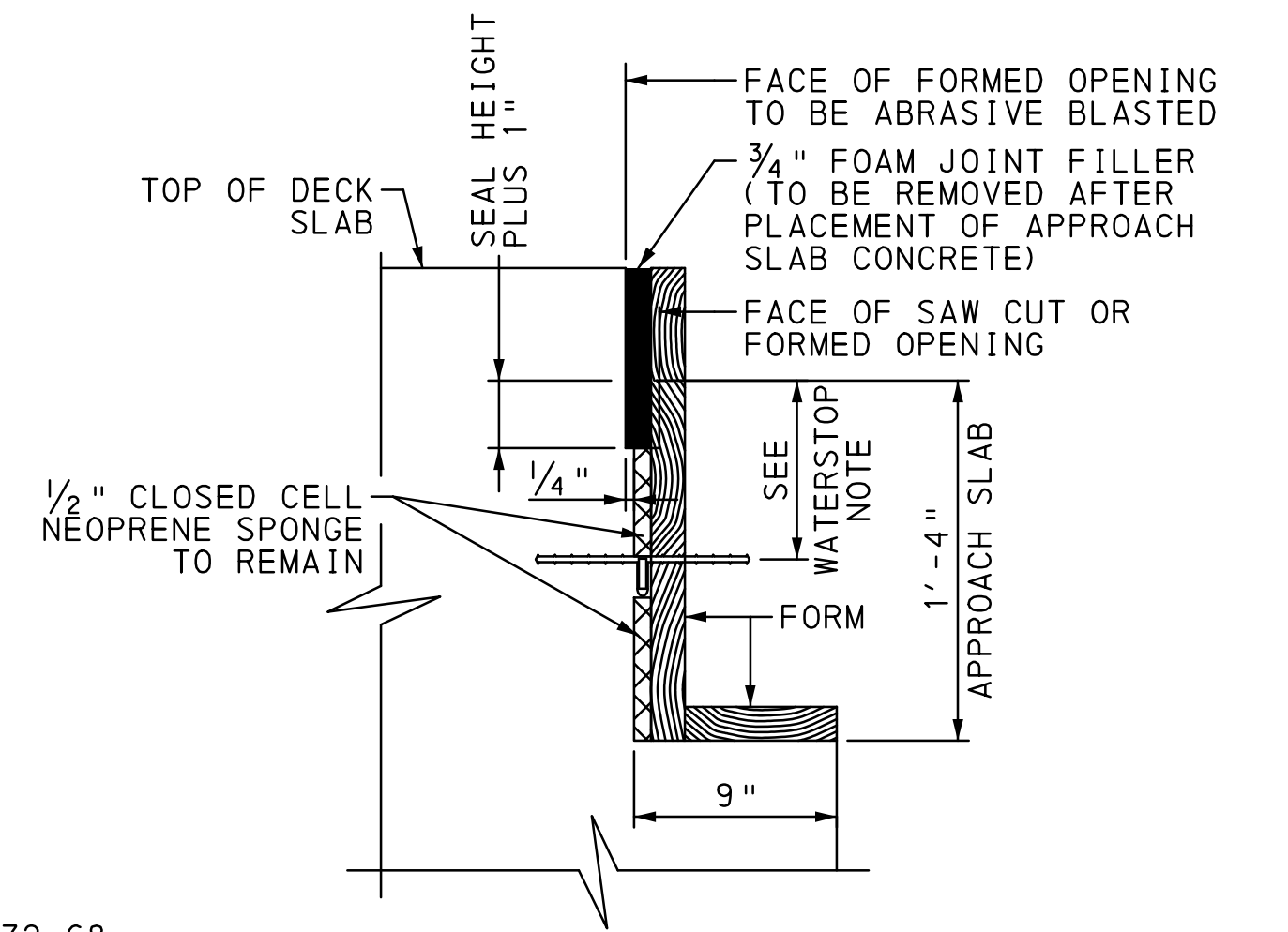
ABUTMENT WATERPROOFING AND  
FOUNDATION DRAIN DETAIL  
6 0 6 12 INCHES



DETAIL J  
(NEOPRENE COMPRESSION SEAL)  
NOT TO SCALE



FRONT FACE ABUTMENT 1 - DIAPHRAGM ELEVATION

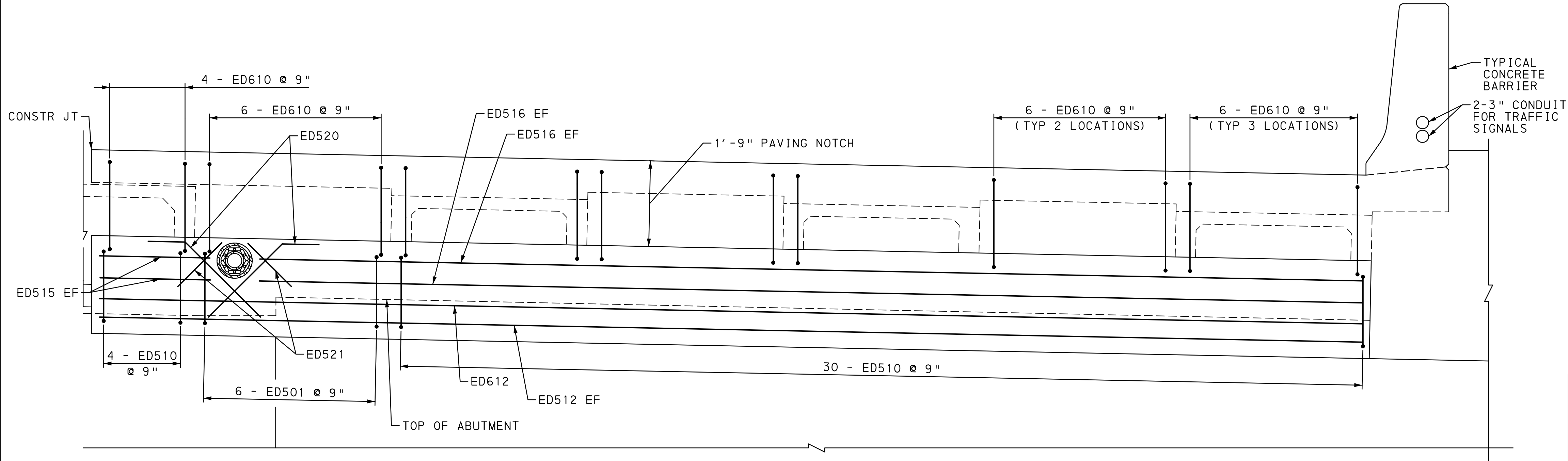


TYPE 2 APPROACH SLABS

WATERSTOP NOTE:  
 AN EXPANSION WATERSTOP (TYPE E1 OR E2), IN ACCORDANCE WITH BC-735M, MUST BE INSTALLED AT MID-DEPTH OF APPROACH SLAB, OR ABOVE THE BEAM NOTCH FOR ADJACENT AND SPREAD BOX BEAMS. PLACE WATERSTOP TO PROVIDE POSITIVE DRAINAGE TO THE OUTSIDE OF THE STRUCTURE.

PAVING NOTCH FORMING DETAILS

- \* USE ONE SIZE SMALLER INSERT FOR DEFORMED BARS. THE MINIMUM LENGTH OF THE INSERT IS 3". INSERTS TO BE GALVANIZED OR COMPLETELY ZINC-ELECTROPLATED.
- \*\* CONTRACTOR TO VERIFY LOCATION OF EXISTING PRESTRESSED STRANDS BEFORE DOWELING INTO EXISTING BEAM.



REAR FACE ABUTMENT 1 - DIAPHRAGM ELEVATION



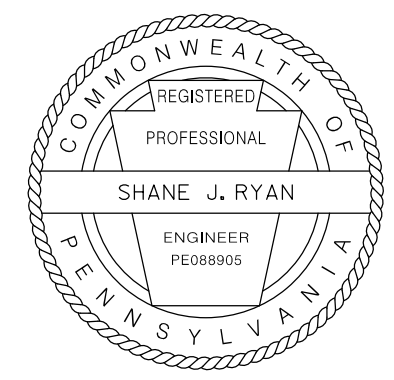
NOTES:

1. FOR GENERAL NOTES, SEE SHEET 3.
2. FOR TYPICAL SECTION, SEE SHEET 2.
3. FOR STAKE-OUT PLAN, SEE SHEET 8.
4. FOR BOX BEAM DETAILS, SEE SHEETS 24 TO 26.
5. FOR BEARING SEAT ELEVATIONS, SEE SHEETS 9 & 16.
6. FOR SUPERSTRUCTURE REBAR SCHEDULE, SEE SHEET 34.
7. FOR SECTIONS L-L, M-M, AND N-N, SEE SHEET 28.

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

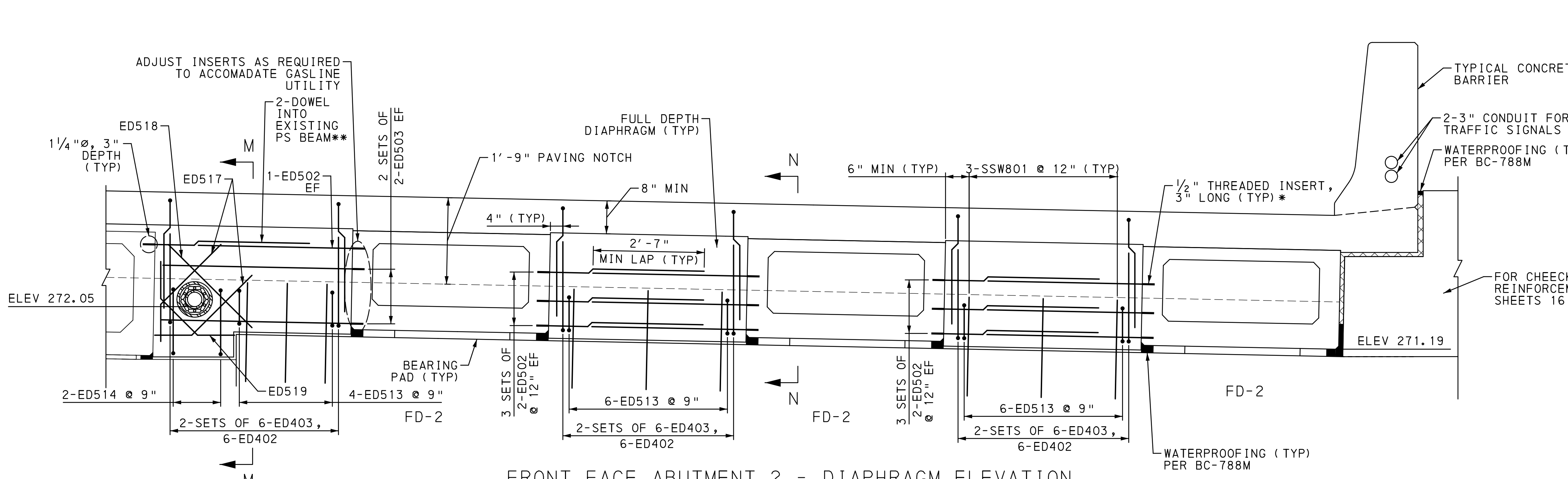
SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 ABUTMENT 1 DIAPHRAGM DETAILS



RECOMMENDED \_\_\_\_\_ SHEET 29 OF 44

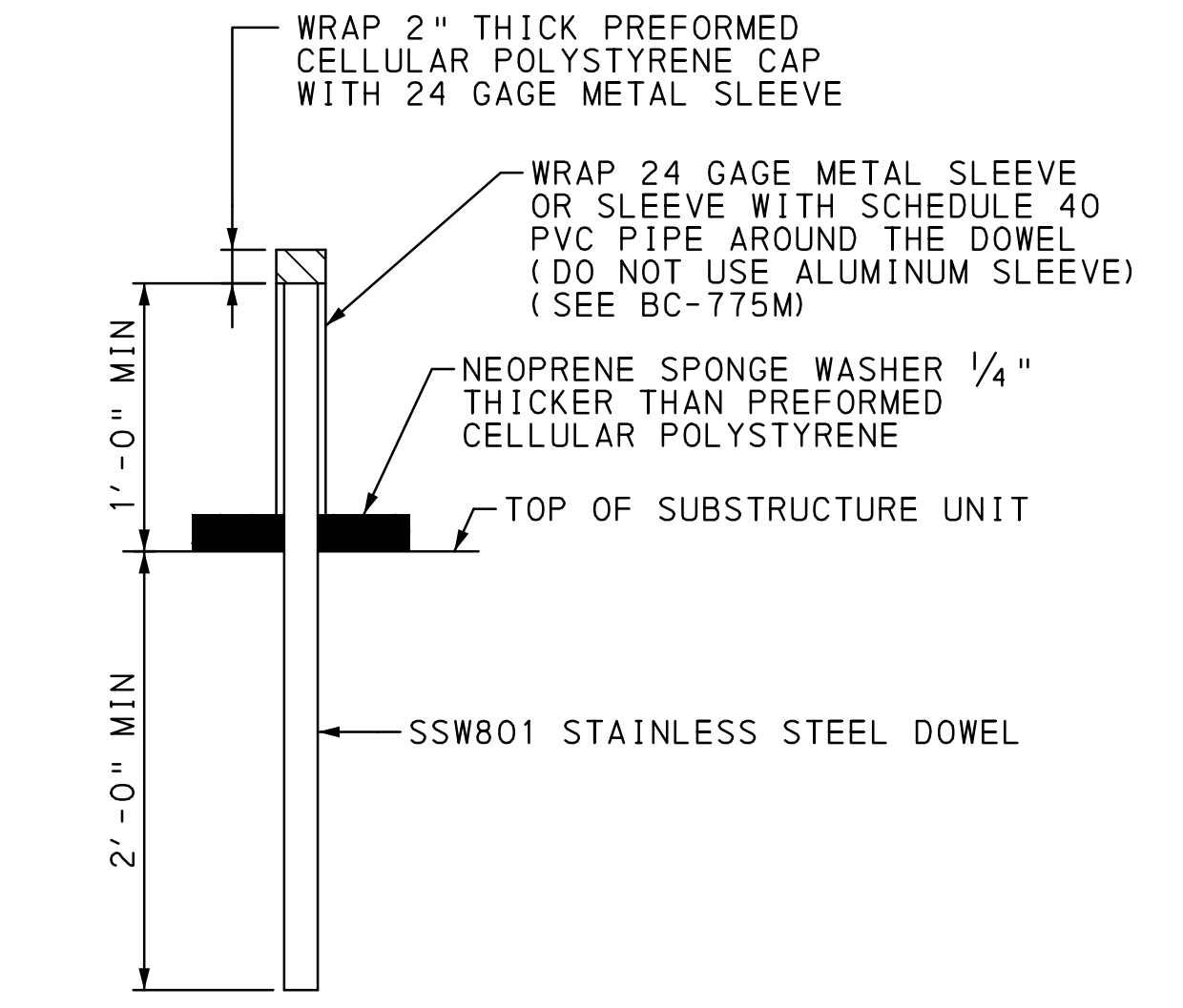
OPERATOR: FILE NAME: Y:\Lehigh9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\30\_DiaphragmDet1-3.dgn (Plot) D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020



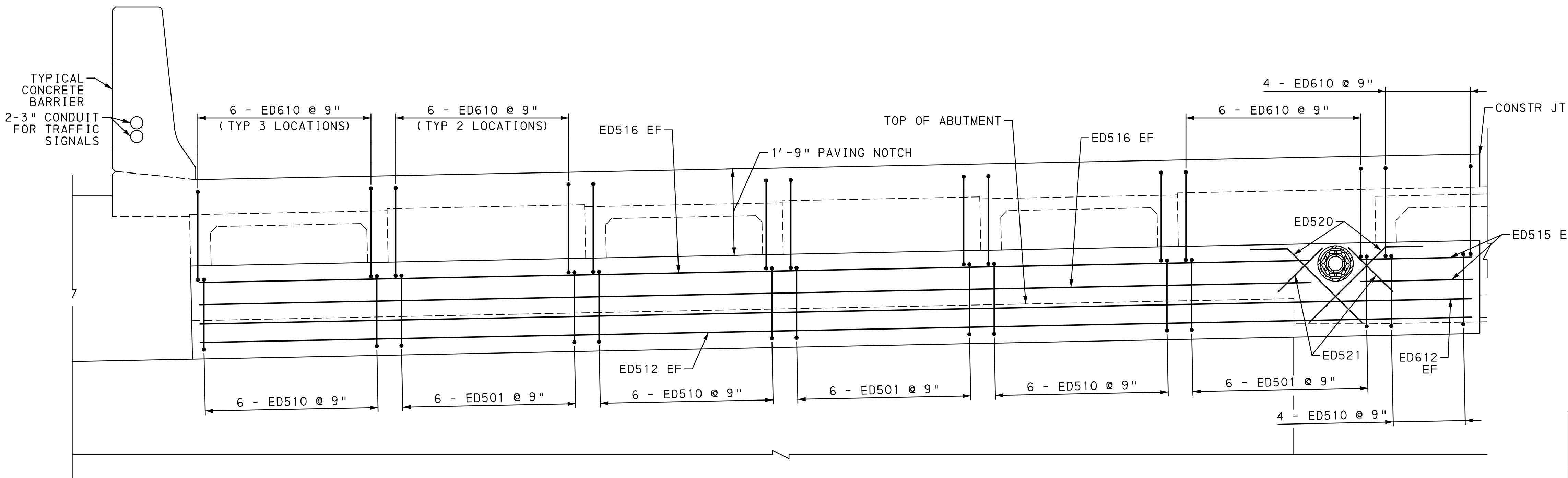
FRONT FACE ABUTMENT 2 - DIAPHRAGM ELEVATION



- \* USE ONE SIZE SMALLER INSERT FOR DEFORMED BARS. THE MINIMUM LENGTH OF THE INSERT IS 3". INSERTS TO BE GALVANIZED OR COMPLETELY ZINC-ELECTROPLATED.
- \*\* CONTRACTOR TO VERIFY LOCATION OF EXISTING PRESTRESSED STRANDS BEFORE DOWELING INTO EXISTING BEAM.



DOWEL DETAIL  
NOT TO SCALE



REAR FACE ABUTMENT 2 - DIAPHRAGM ELEVATION



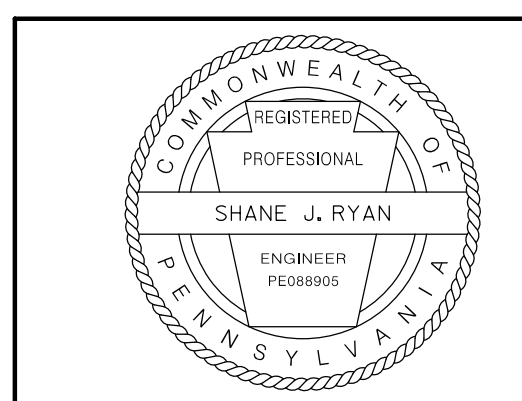
NOTES:

1. FOR GENERAL NOTES, SEE SHEET 3.
2. FOR TYPICAL SECTION, SEE SHEET 2.
3. FOR STAKE-OUT PLAN, SEE SHEET 8.
4. FOR BOX BEAM DETAILS, SEE SHEETS 24 TO 26.
5. FOR BEARING SEAT ELEVATIONS, SEE SHEETS 9 & 16.
6. FOR SUPERSTRUCTURE REBAR SCHEDULE, SEE SHEET 34.
7. FOR ABUTMENT 2 REBAR SCHEDULE, SEE SHEET 22.
8. FOR SECTIONS M-M AND N-N, SEE SHEET 28.

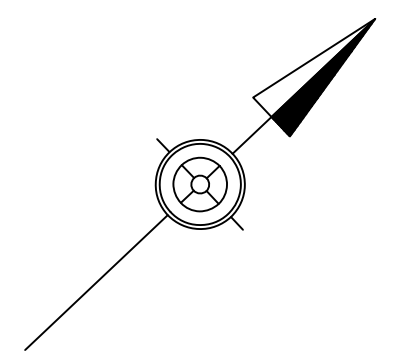
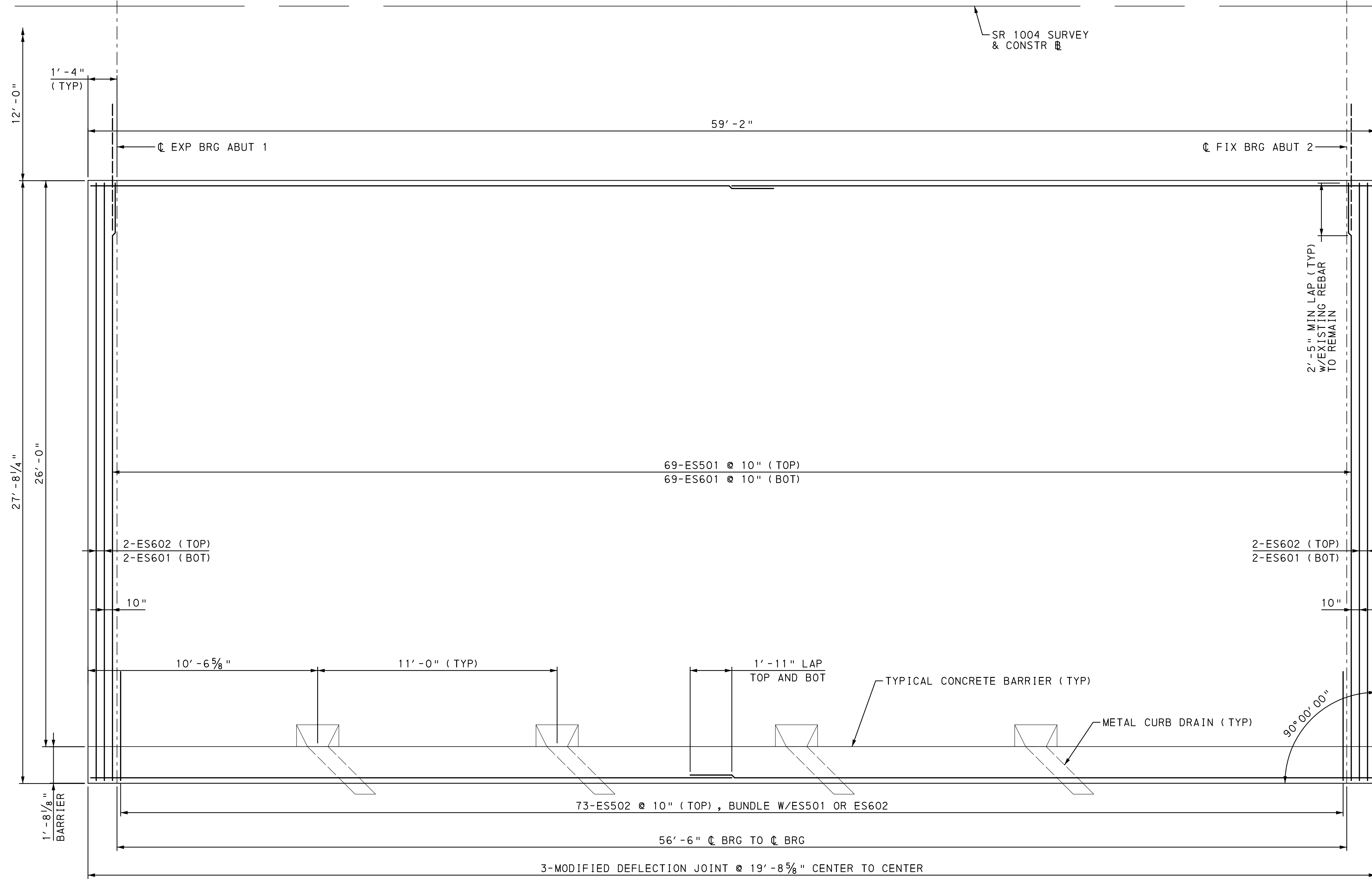
Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
**ABUTMENT 2 DIAPHRAGM DETAILS**



OPERATOR: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\31\_DeckSlab\Draw.dgn (Plot) D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020

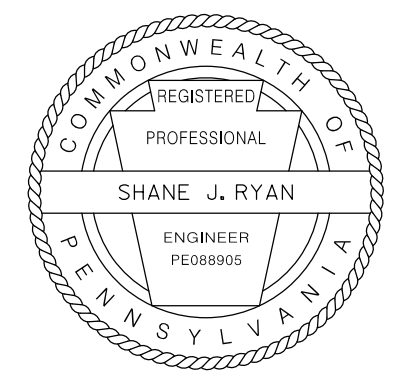


**DECK PLAN**  
1 0 1 2 3 FEET

- NOTES:**
1. FOR GENERAL NOTES, SEE SHEET 3.
  2. FOR STAKE-OUT PLAN, SEE SHEET 8.
  3. FOR ADDITIONAL CONCRETE DECK SLAB DETAILS AND MODIFIED DEFLECTION JOINT DETAILS, SEE BC-752M.
  4. FOR SUPERSTRUCTURE REBAR SCHEDULE, SEE SHEET 34.
  5. FOR ADDITIONAL METAL CURB DRAIN DETAILS, SEE BC-751M.

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

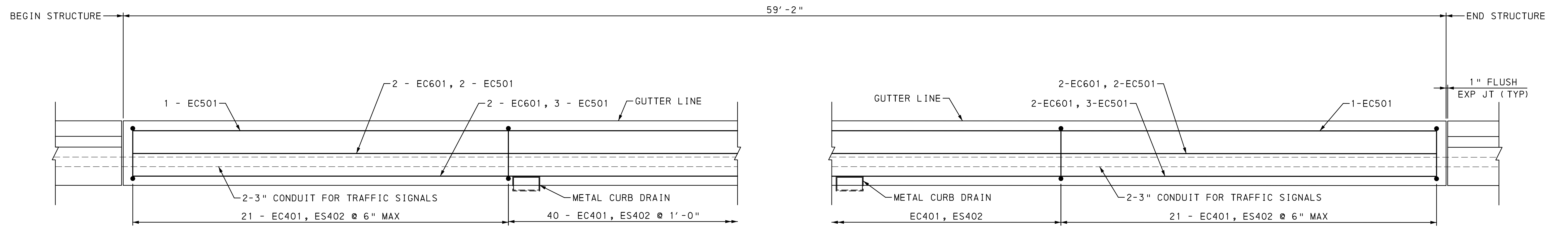
SR 1004 PREVIOUSLY KNOWN AS LR 39092  
BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608



**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 DECK SLAB PLAN

RECOMMENDED _____	SHEET 31 OF 44
	S - 36735

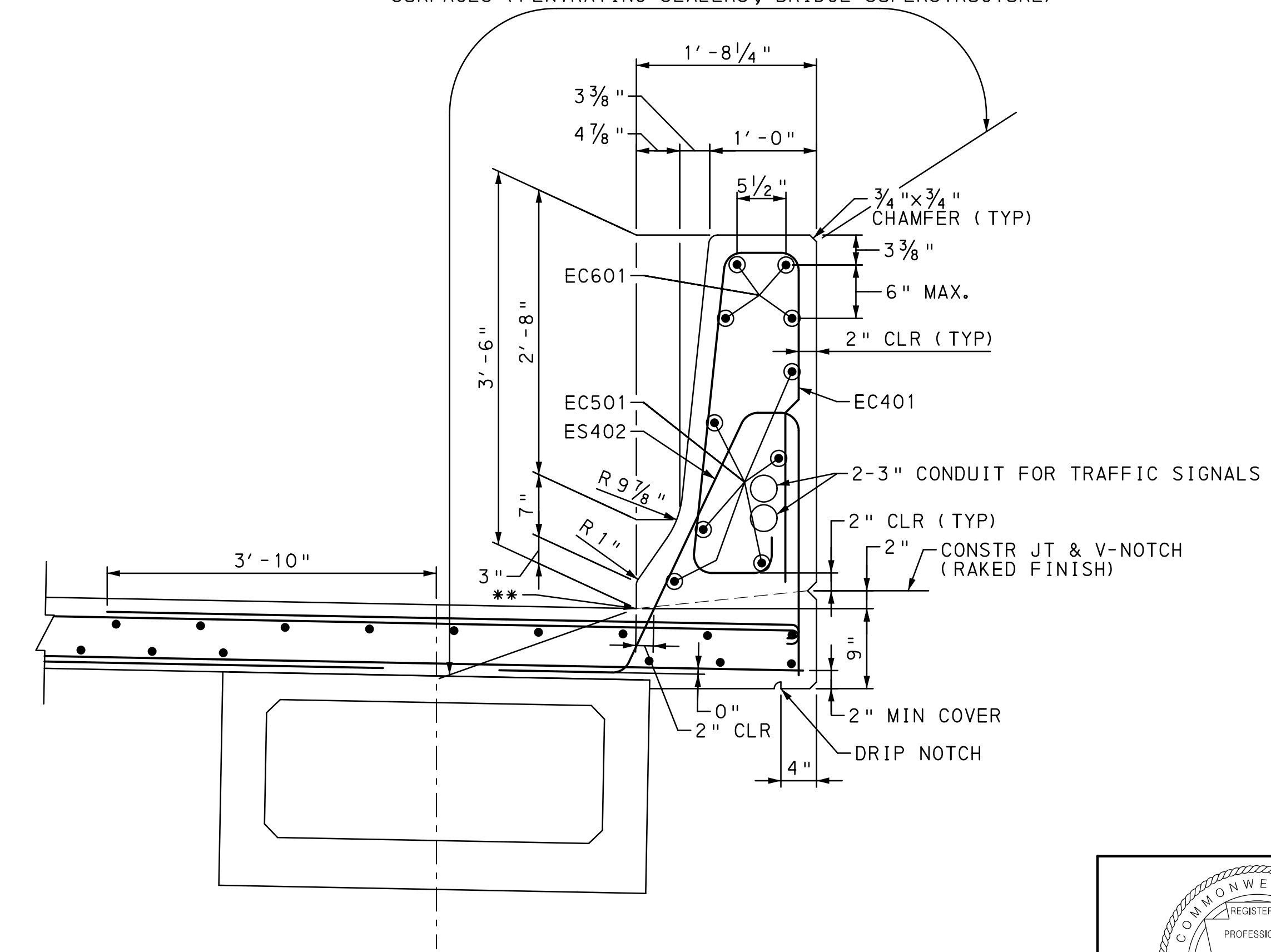




RIGHT BARRIER PLAN



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



CONCRETE BARRIER SECTION  
NOT TO SCALE

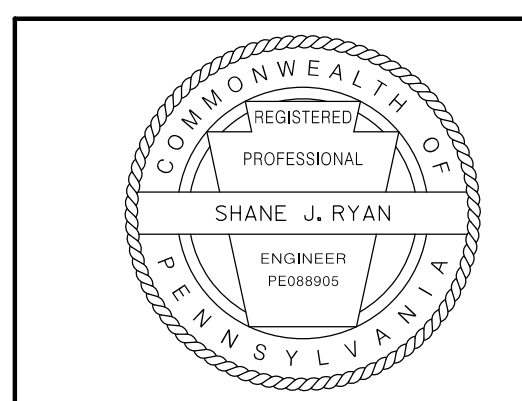
NOTES:

1. FOR GENERAL NOTES, SEE SHEET 3.
2. FOR DECK PLAN, SEE SHEET 31.
3. FOR DECK SLAB SECTION, SEE SHEET 32.
4. FOR SUPERSTRUCTURE REBAR SCHEDULE, SEE SHEET 34.
5. FOR ADDITIONAL METAL CURB DRAIN DETAILS, SEE BC-751M.

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

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 BARRIER SECTION & DETAILS

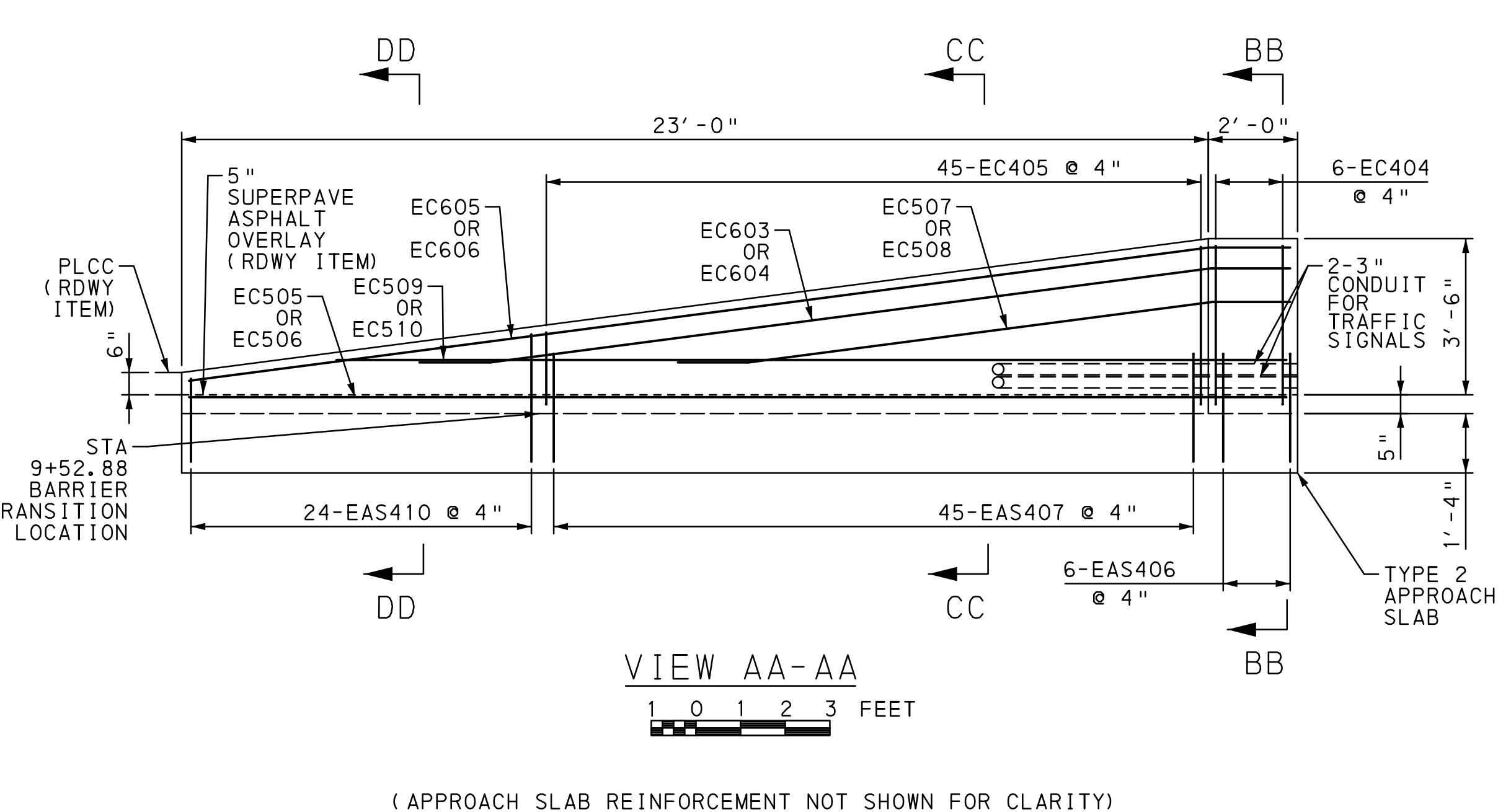
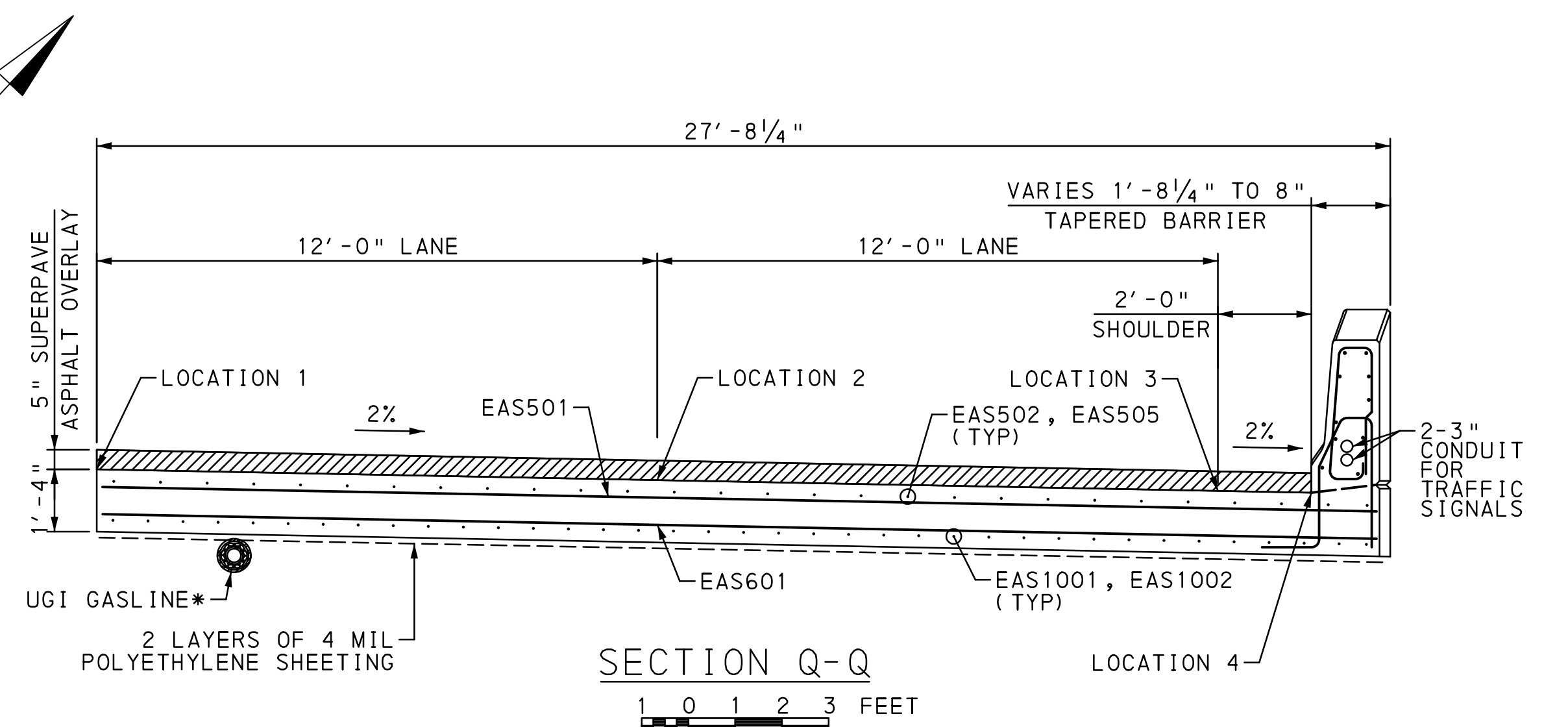
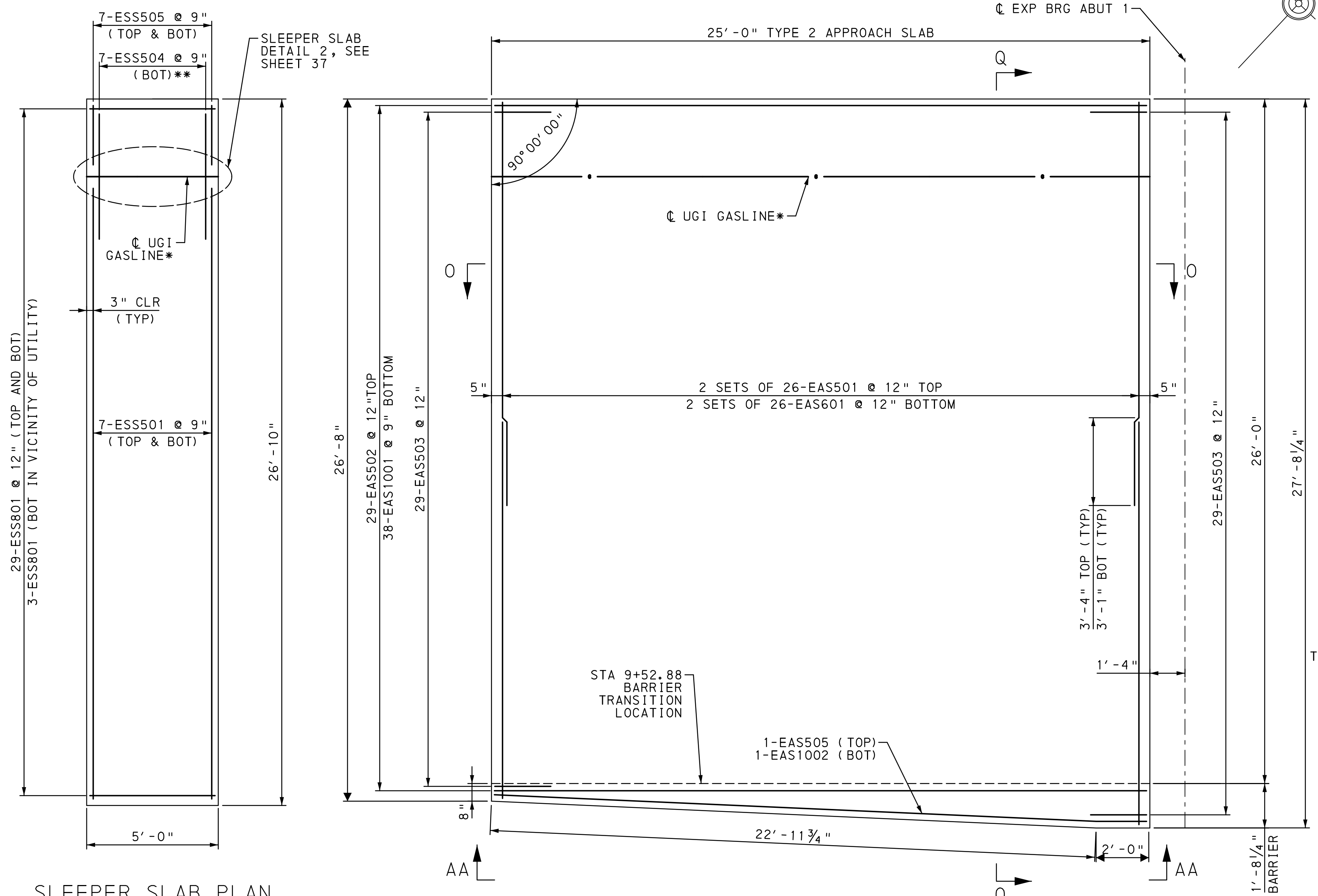


RECOMMENDED \_\_\_\_\_ SHEET 33 OF 44

S - 36735



OPERATOR: FILE NAME: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\35\_App5\lab1P.lam.dgn (P 1 of 1) D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07/21/2020



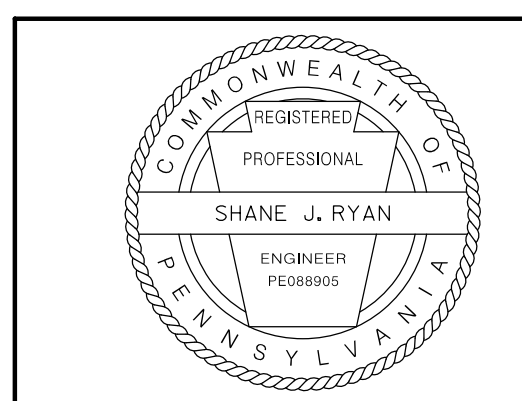
SLEEPER SLAB PLAN  
1 0 1 2 3 FEET

NEAR TYPE 2 APPROACH SLAB PLAN  
1 0 1 2 3 FEET

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

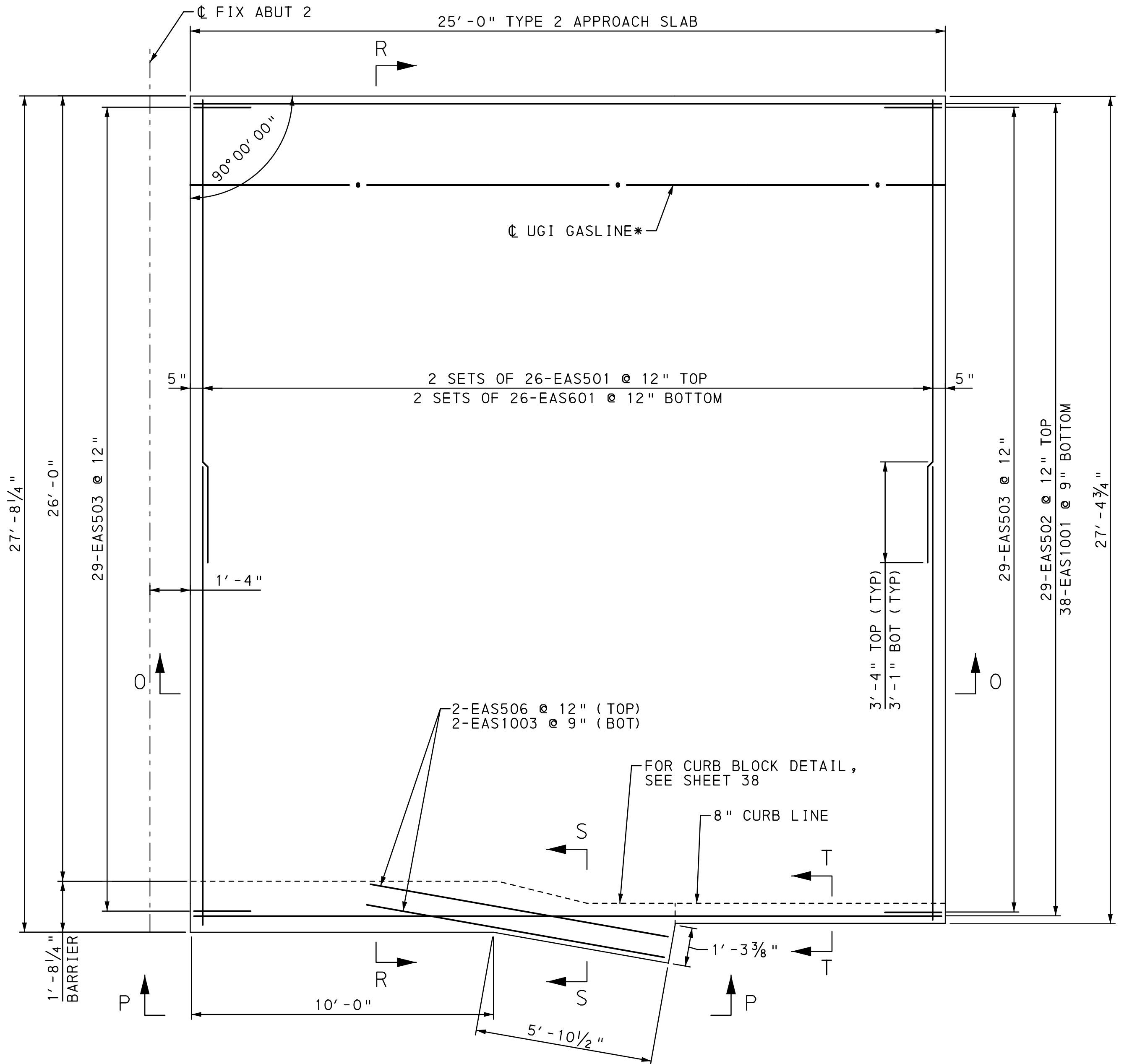
**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
**LEHIGH COUNTY**  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
**APPROACH SLAB PLAN - I**



LOCATION 1		LOCATION 2		LOCATION 3		LOCATION 4	
STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION
09+46.75	274.61	09+46.75	274.37	09+46.75	274.13	09+46.75	274.09
09+50.00	274.63	09+50.00	274.39	09+50.00	274.15	09+50.00	274.11
09+60.00	274.67	09+60.00	274.43	09+60.00	274.19	09+60.00	274.15
09+70.00	274.68	09+70.00	274.44	09+70.00	274.20	09+70.00	274.16
09+71.75	274.68	09+71.75	274.44	09+71.75	274.20	09+71.75	274.16

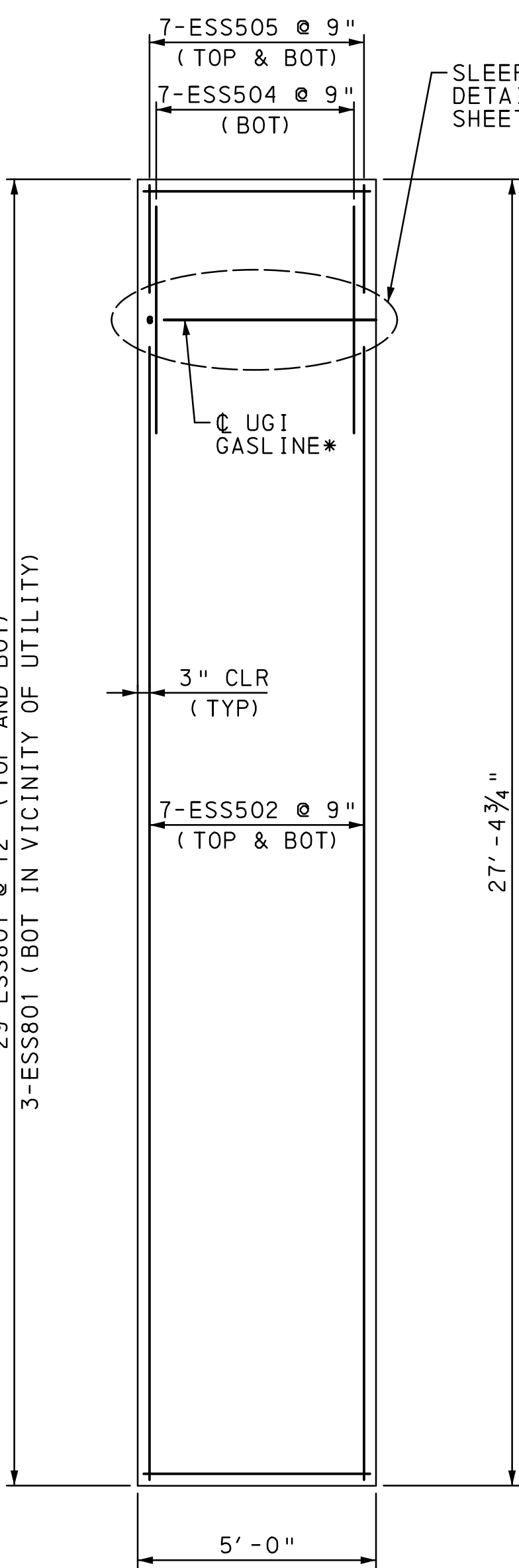
- NOTES:**
- FOR GENERAL NOTES, SEE SHEET 3.
  - FOR APPROACH SLAB REBAR SCHEDULE, SEE SHEET 39.
  - FOR SECTION 0-0, SEE SHEET 37.
  - FOR SLEEPER SLAB DETAIL 2, SEE SHEET 37.
  - FOR SECTIONS BB-BB, CC-CC, AND DD-DD, SEE SHEET 38.

OPERATOR: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\36\_AppS\lab2P\lan.dgn (P 1 of 1)  
 FILE NAME: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\36\_AppS\lab2P\lan.dgn (P 1 of 1)  
 D-9002 CADD (02-90) REVISED (10-04)  
 PLOTTED: 07/21/2020



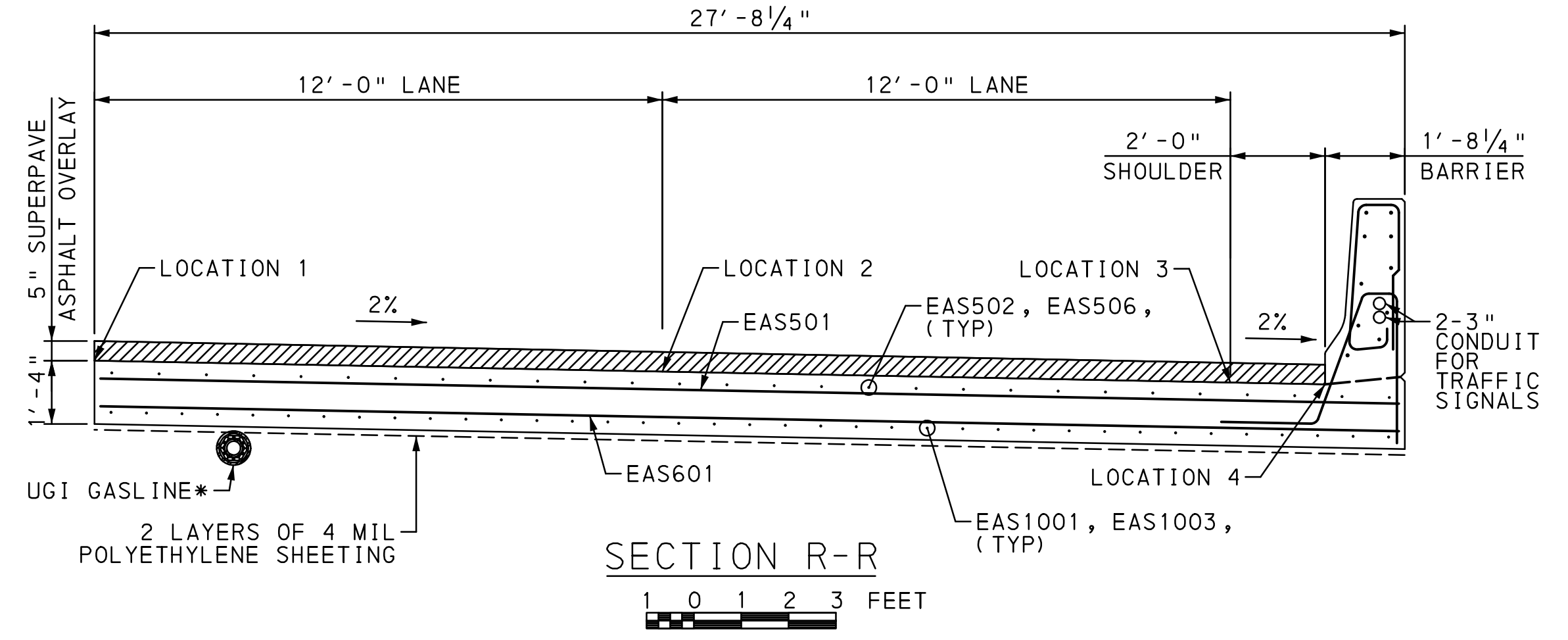
FAR TYPE 2 APPROACH SLAB PLAN

TABLE OF FAR APPROACH SLAB ELEVATIONS (TOP OF CEMENT CONCRETE)							
LOCATION 1		LOCATION 2		LOCATION 3		LOCATION 4	
STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION
10+28.25	274.00	10+28.25	273.76	10+28.25	273.52	10+28.25	273.48
10+30.00	273.96	10+30.00	273.72	10+30.00	273.48	10+30.00	273.44
10+40.00	273.72	10+40.00	273.48	10+40.00	273.24	10+40.00	273.20
10+50.00	273.44	10+50.00	273.20	10+50.00	272.96	10+50.00	272.92
10+53.25	273.34	10+53.25	273.10	10+53.25	272.86	10+53.25	272.82



SLEEPER SLAB PLAN

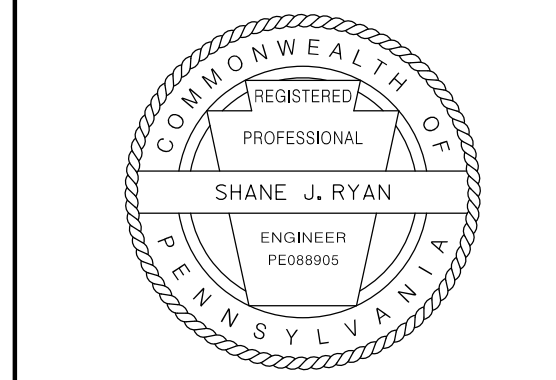
\* 4" ST FBE/POWERCRETE CARRIER IN BAY.  
 8" ST FBE/POWERCRETE CASING WITH 4" ST FBE/POWERCRETE CARRIER ALL OTHER LOCATIONS.  
 \*\* BUNDLE W/ ESS504 AND ESS505



- NOTES:
- FOR GENERAL NOTES, SEE SHEET 3.
  - FOR APPROACH SLAB REBAR SCHEDULE, SEE SHEET 39.
  - FOR BARRIER REINFORCEMENT, SEE SHEET 38.
  - FOR SECTION 0-0, SEE SHEET 37.
  - FOR SLEEPER SLAB DETAIL 2, SEE SHEET 37.
  - FOR SECTIONS S-S AND T-T, SEE SHEET 38.
  - FOR VIEW P-P, SEE SHEET 38.

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

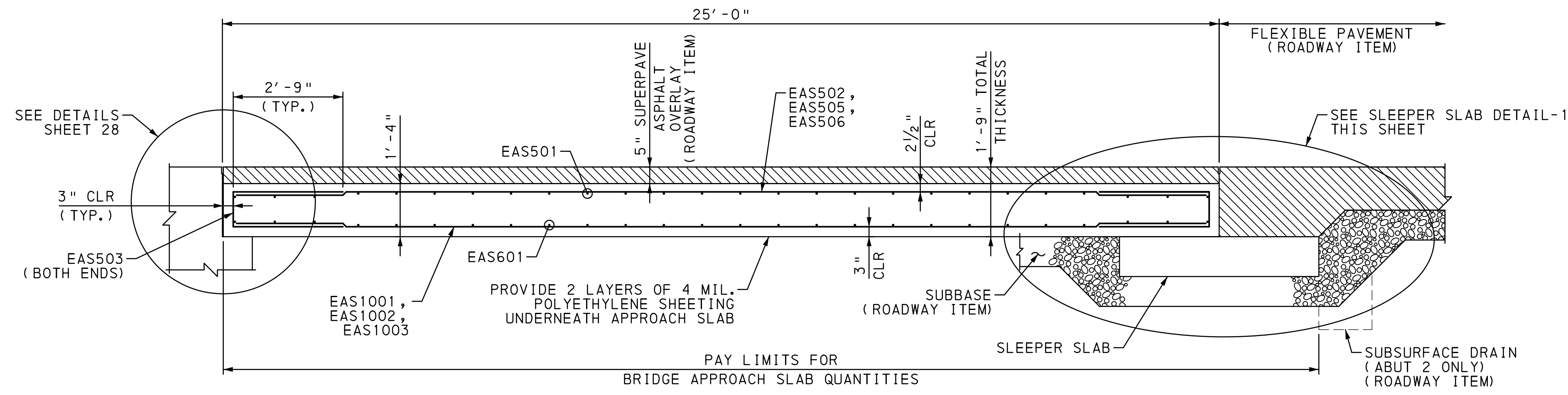
SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608



**COMMONWEALTH OF PENNSYLVANIA**  
**DEPARTMENT OF TRANSPORTATION**  
**LEHIGH COUNTY**  
**SR 1004 SECTION 03S**  
**SEG 0020 OFFSET 0776**  
**SR 1004 (RACE STREET) - STA 10+00.00**  
**OVER LEHIGH CANAL**  
**1 SPAN COMP P/S CONC SPREAD BOX BEAM**  
**BRIDGE WIDENING**  
**APPROACH SLAB PLAN - II**

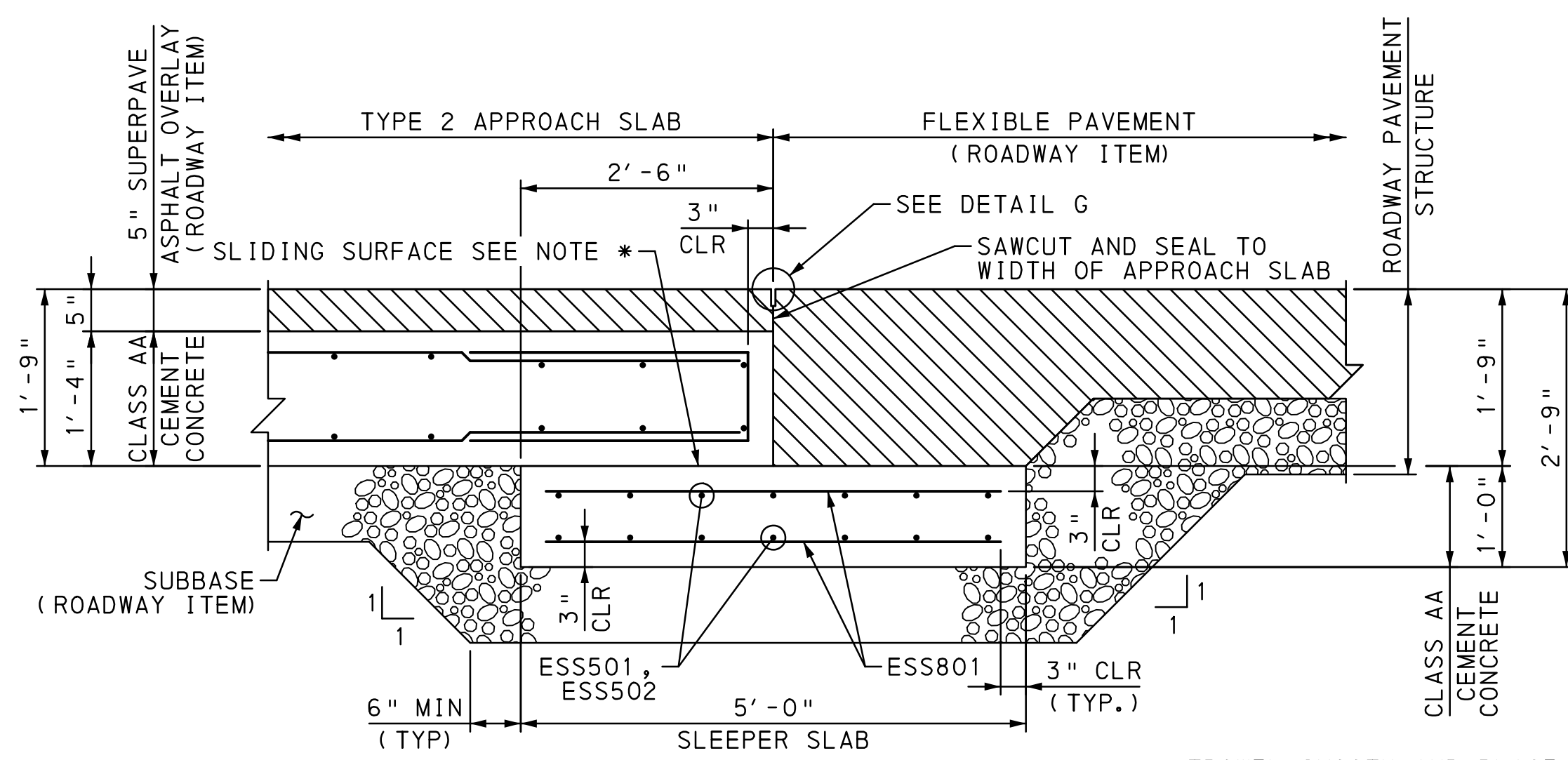
RECOMMENDED \_\_\_\_\_ SHEET 36 OF 44  
 S - 36735

OPERATOR: FILE NAME: Y:\Lehigh9500s\9510\_05\Eng\_Docs\Structure\SR\_1004\Final\VP\lans\37\_App5\labSec.dgn (P lot)  
 D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020

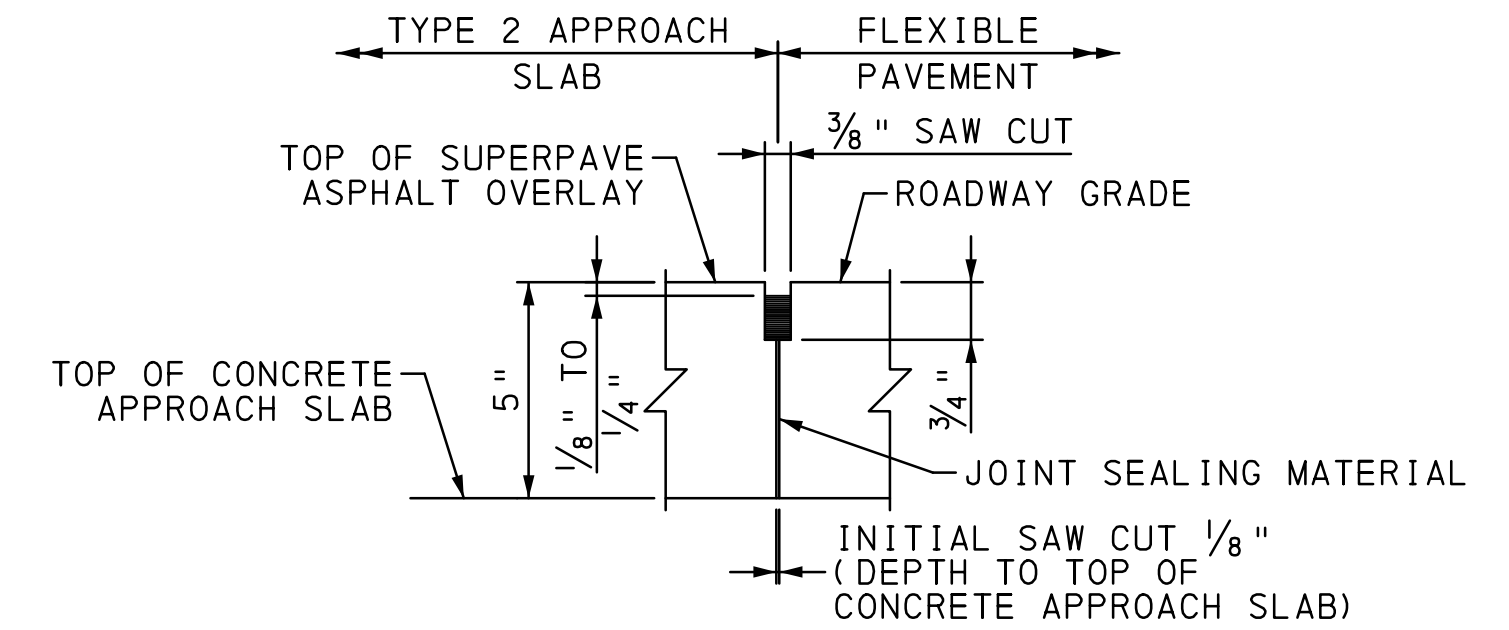


TYPE 2 CONCRETE APPROACH SLAB WITH SUPERPAVE ASPHALT OVERLAY

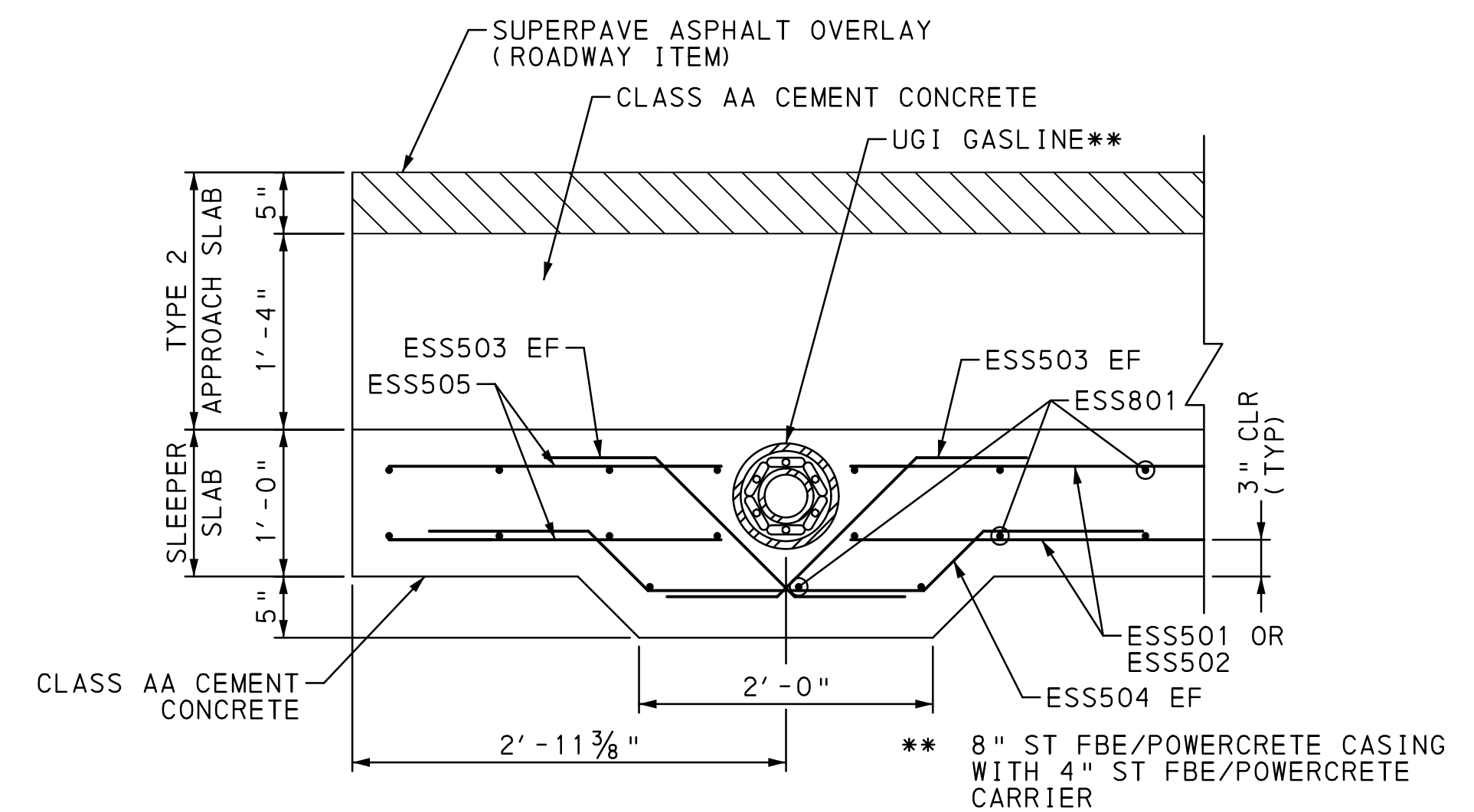
SECTION 0-0



SLEEPER SLAB DETAIL-1



DETAIL G  
NOT TO SCALE



SLEEPER SLAB DETAIL-2

(TYPE 2 APPROACH SLAB REINFORCEMENT NOT SHOWN FOR CLARITY)



JOINT PREPARATION NOTES:

1. THE JOINT OPENING IS TO BE FORMED BY A TWO-STAGE SAWING OPERATION WHERE ACCESSIBLE. WHERE ACCESSIBILITY IS LIMITED, THE JOINT OPENING SHALL BE FORMED. THE FIRST SAW CUT IS DESIGNED TO CONTROL CRACKING. THE SECOND SAW CUT IS MADE USING A DOUBLE-BLADED WATER-COOLED SAW CAPABLE OF HOLDING A TOLERANCE OF  $\pm 1/16$ " TO CREATE THE PROPER OPENING FOR THE PREFORMED NEOPRENE COMPRESSION SEAL OR INVERTED V JOINT SEAL.
2. WATER BLAST OPENING IMMEDIATELY FOLLOWING SAW CUTTING OPERATION TO REMOVE ANY RESIDUAL SLURRY BEFORE IT DRIES.
3. THE DEPTH OF THE JOINT OPENING EQUALS THE HEIGHT OF THE SEAL PLUS 1". THE WIDTH OF THE SECOND SAW CUT SHOULD BE ADJUSTED TO ACCOUNT FOR THE CONCRETE SURFACE TEMPERATURE AT THE TIME OF THE SAWING, SEE MANUFACTURER'S PRODUCT INFORMATION.
4. BEFORE INSTALLING THE SEAL, ABRASIVE BLAST THE BONDING SURFACES TO THOROUGHLY CLEAN THE JOINT OPENING AND REMOVE FOREIGN MATERIAL, INCLUDING BROKEN CONCRETE. USE WATER AND OIL FREE COMPRESSED AIR TO BLOW OUT RESIDUE FROM THE SEAL GROOVE OPENING.
5. PREPARE BONDING SURFACES AND INSTALL JOINT SEAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. DO NOT EXCEED 3% ELONGATION OF THE SEAL, IF STRETCHING OCCURS.

NOTES:

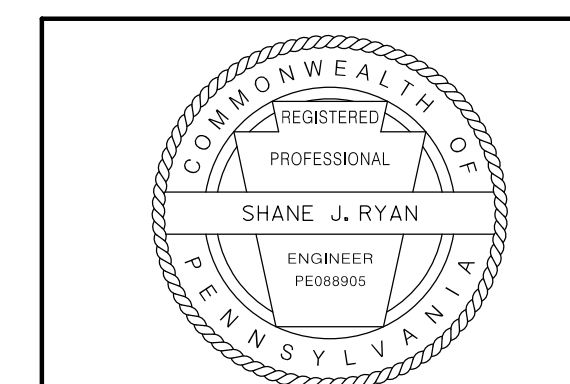
1. FOR GENERAL NOTES, SEE SHEET 3.
2. FOR APPROACH SLAB PLANS AND LOCATION OF SECTION 0-0, SEE SHEETS 35 & 36.
3. FOR APPROACH SLAB DETAILS, SEE SHEET 38.
4. FOR LOCATION OF SLEEPER SLAB DETAIL-2, SEE SHEETS 35 & 36.

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

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION

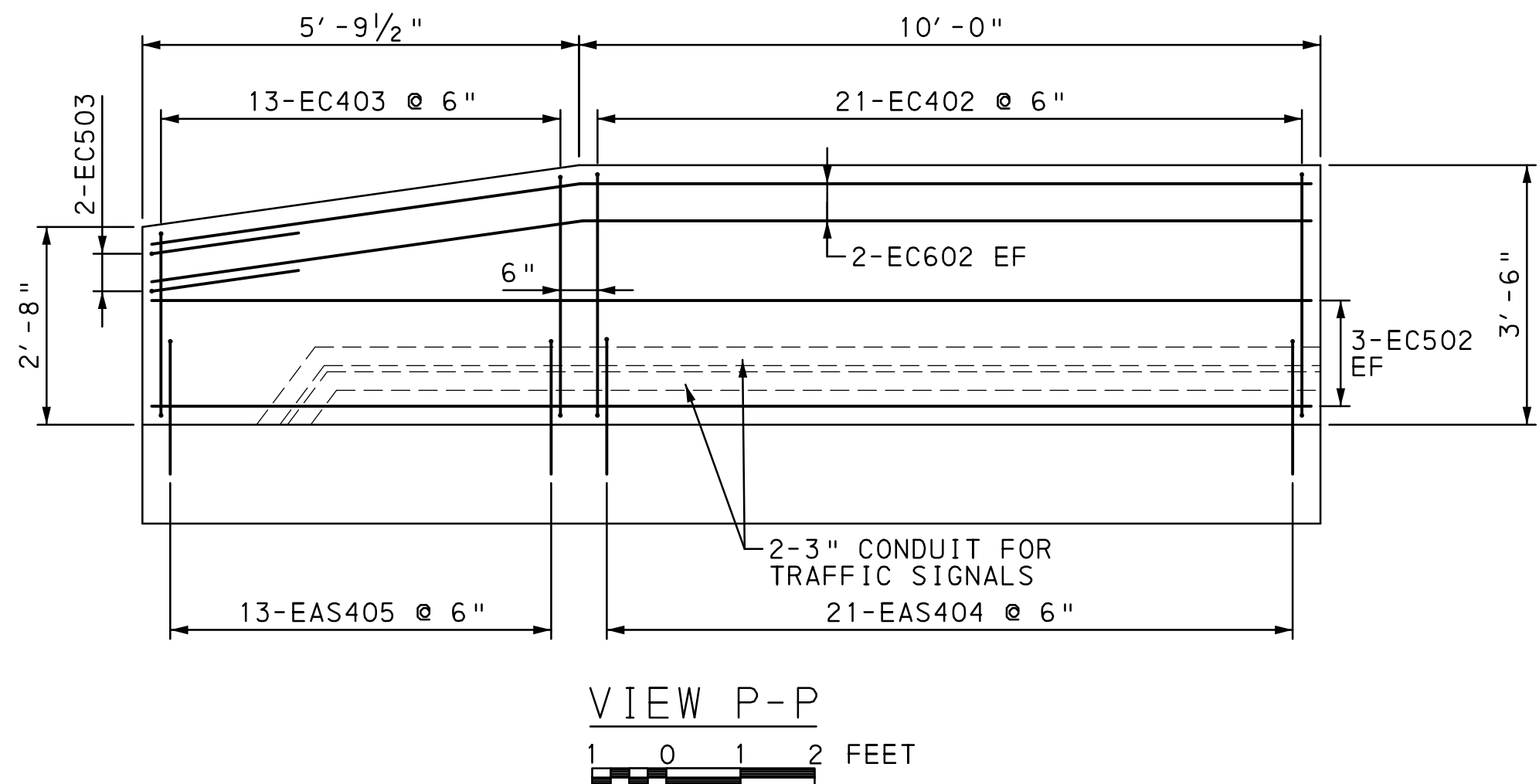
LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 APPROACH SLAB SECTION



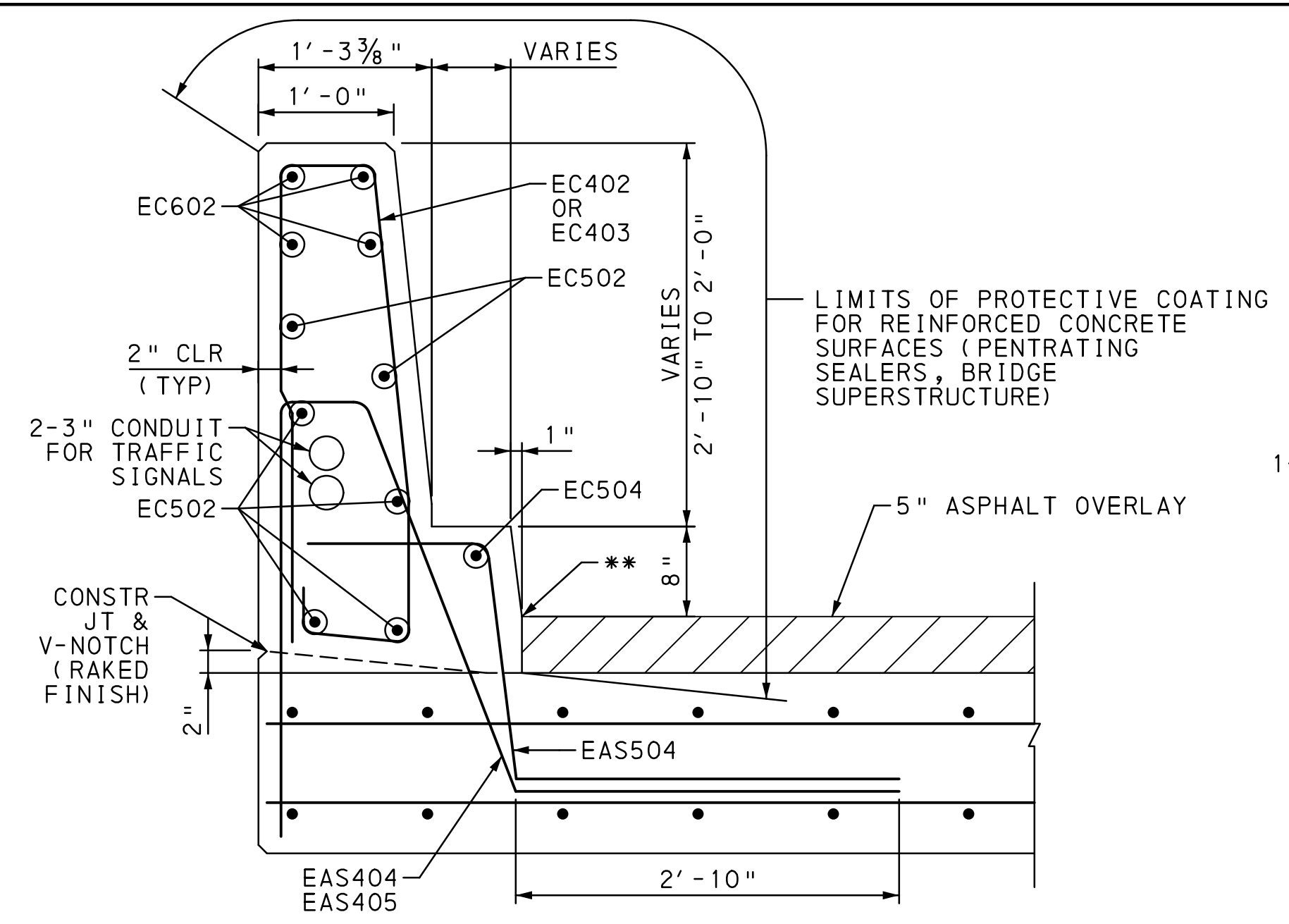
RECOMMENDED \_\_\_\_\_ SHEET 37 OF 44

S - 36735

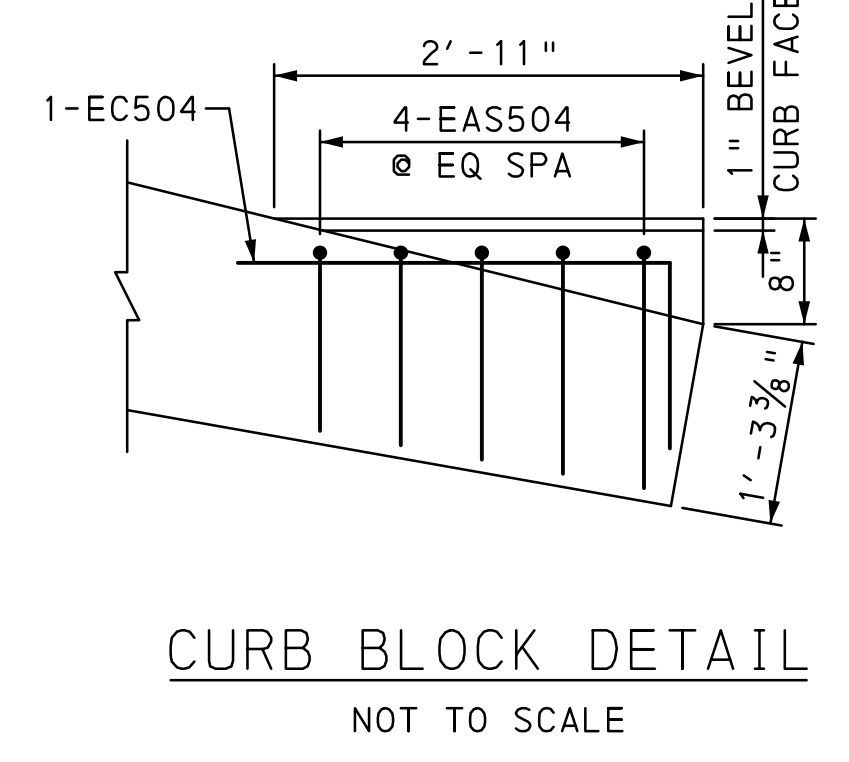
OPERATOR: FILE NAME: Y:\Lehigh9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\38\_AppSlabDetail.dgn (P lot) D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020



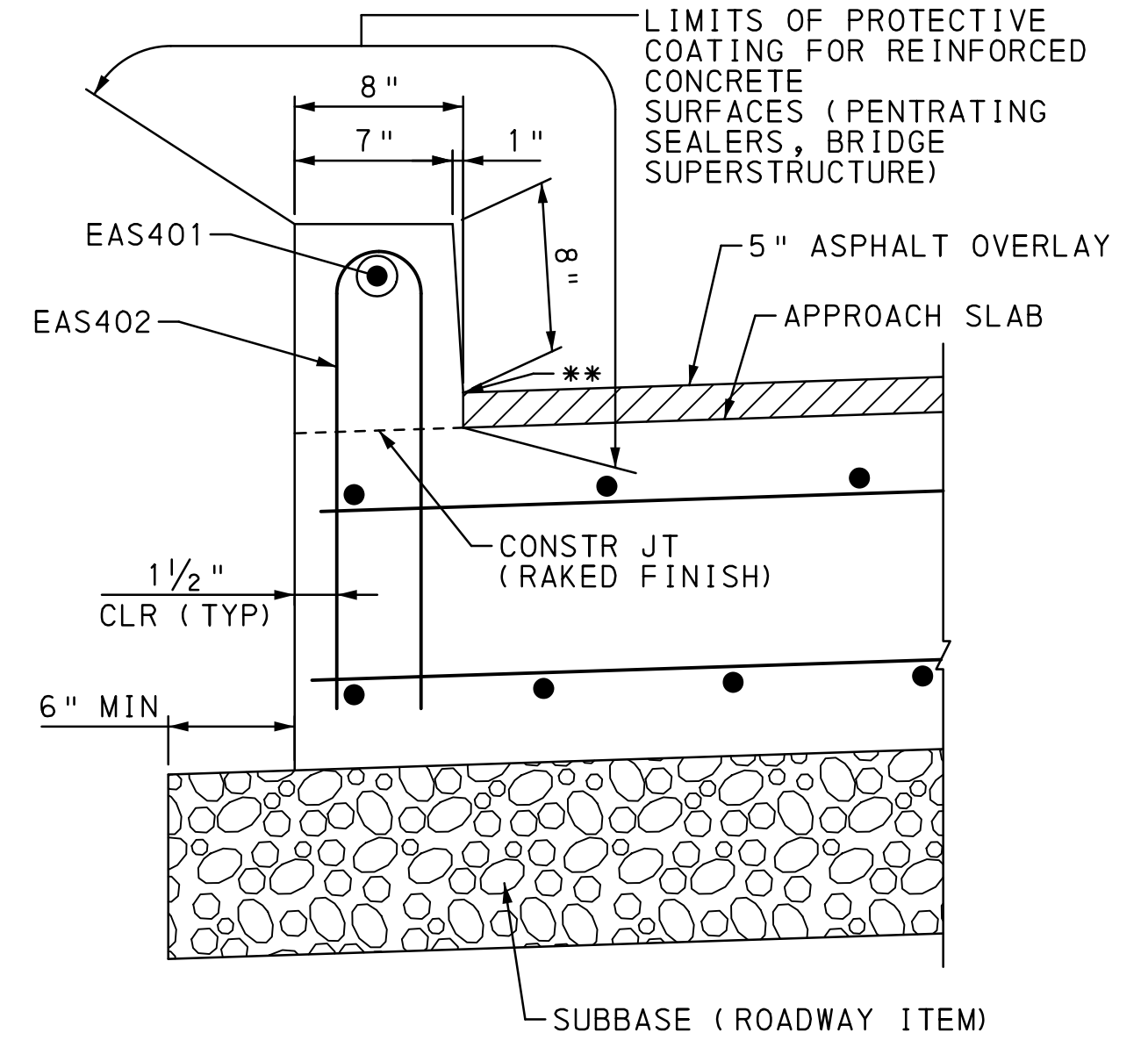
VIEW P-P  
1 0 2 FEET



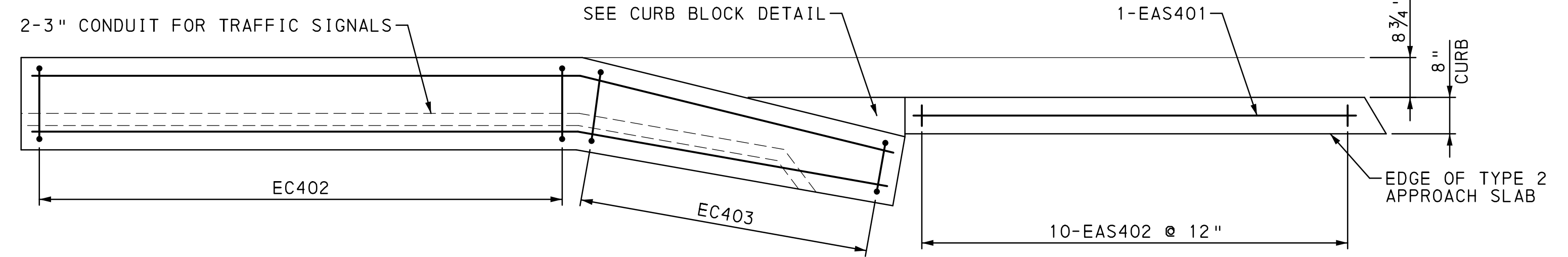
FAR TYPE 2 APPROACH SLAB BARRIER  
SECTION S-S  
6 0 6 12 INCHES



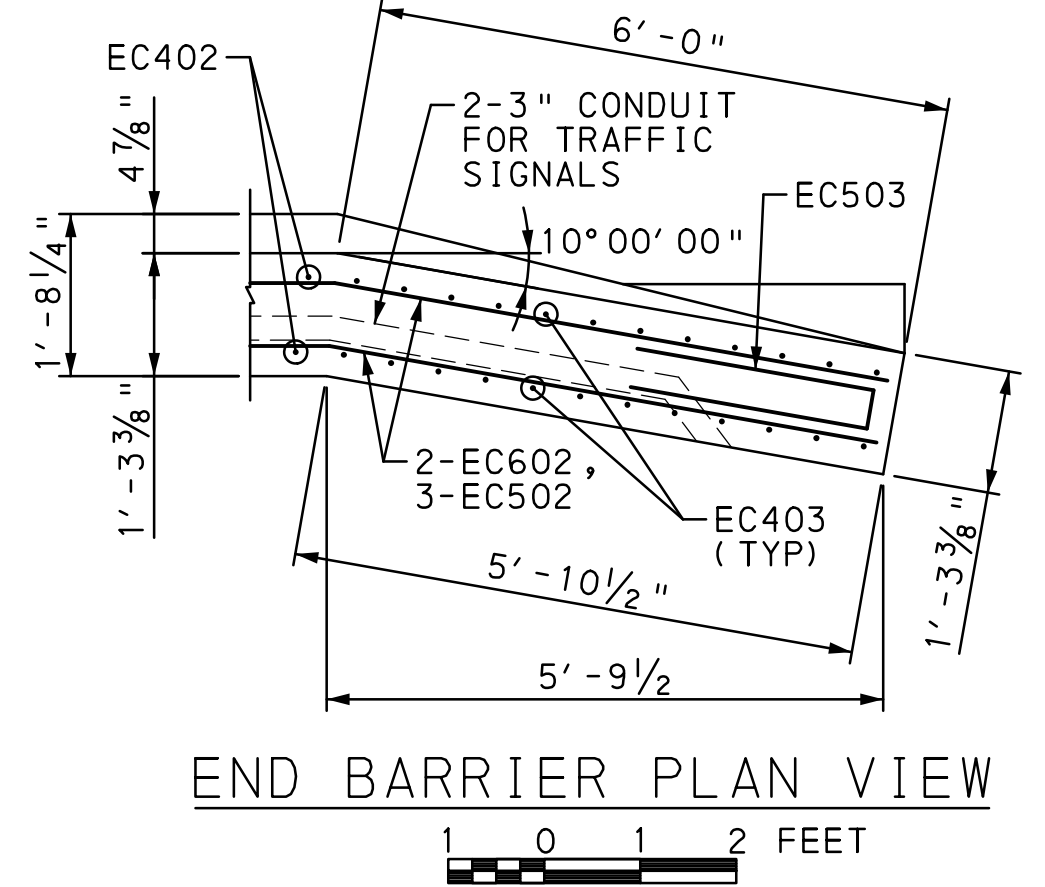
CURB BLOCK DETAIL  
NOT TO SCALE



SECTION T-T  
NOT TO SCALE

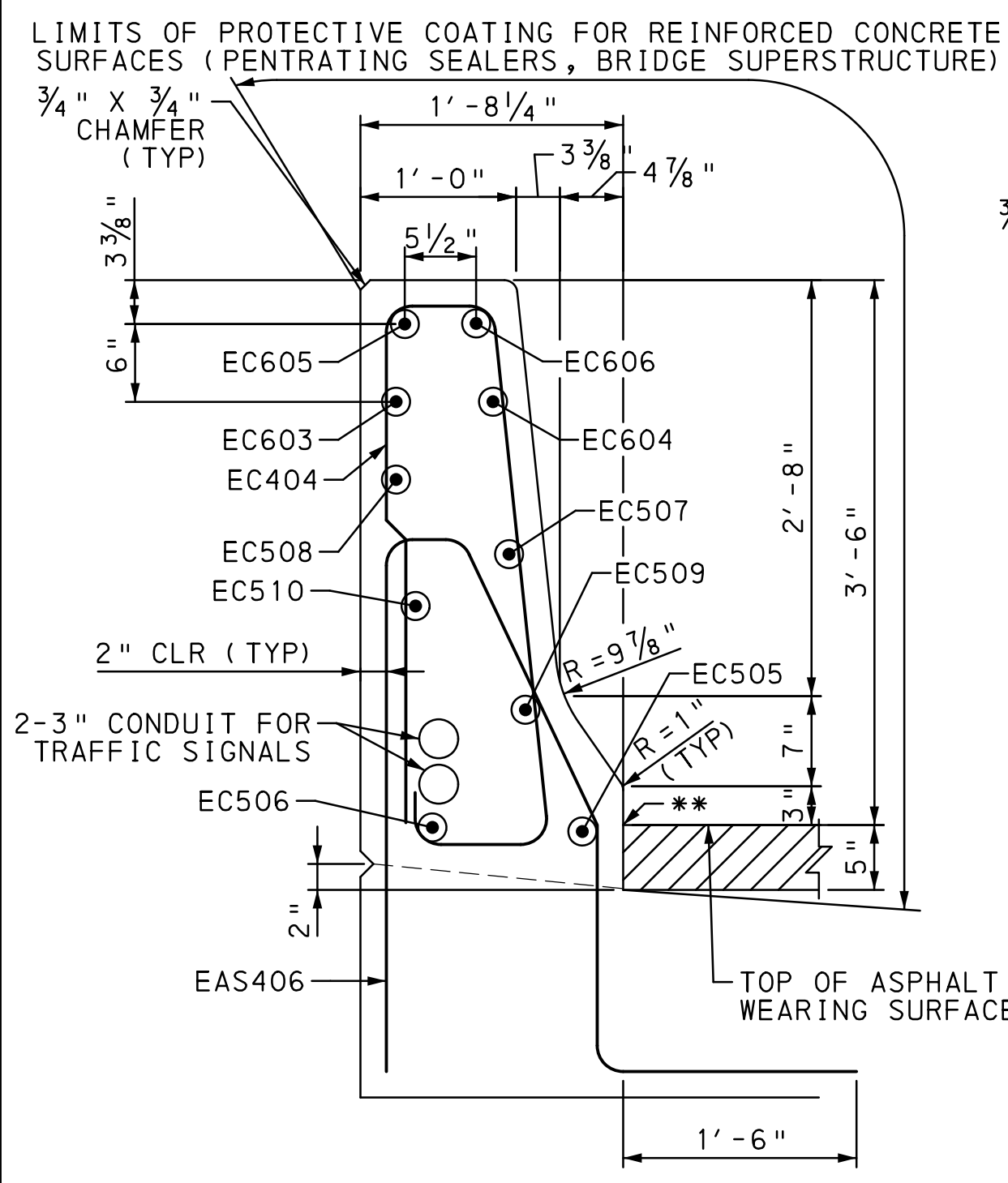


FAR TYPE 2 APPROACH SLAB BARRIER PLAN VIEW  
NOT TO SCALE

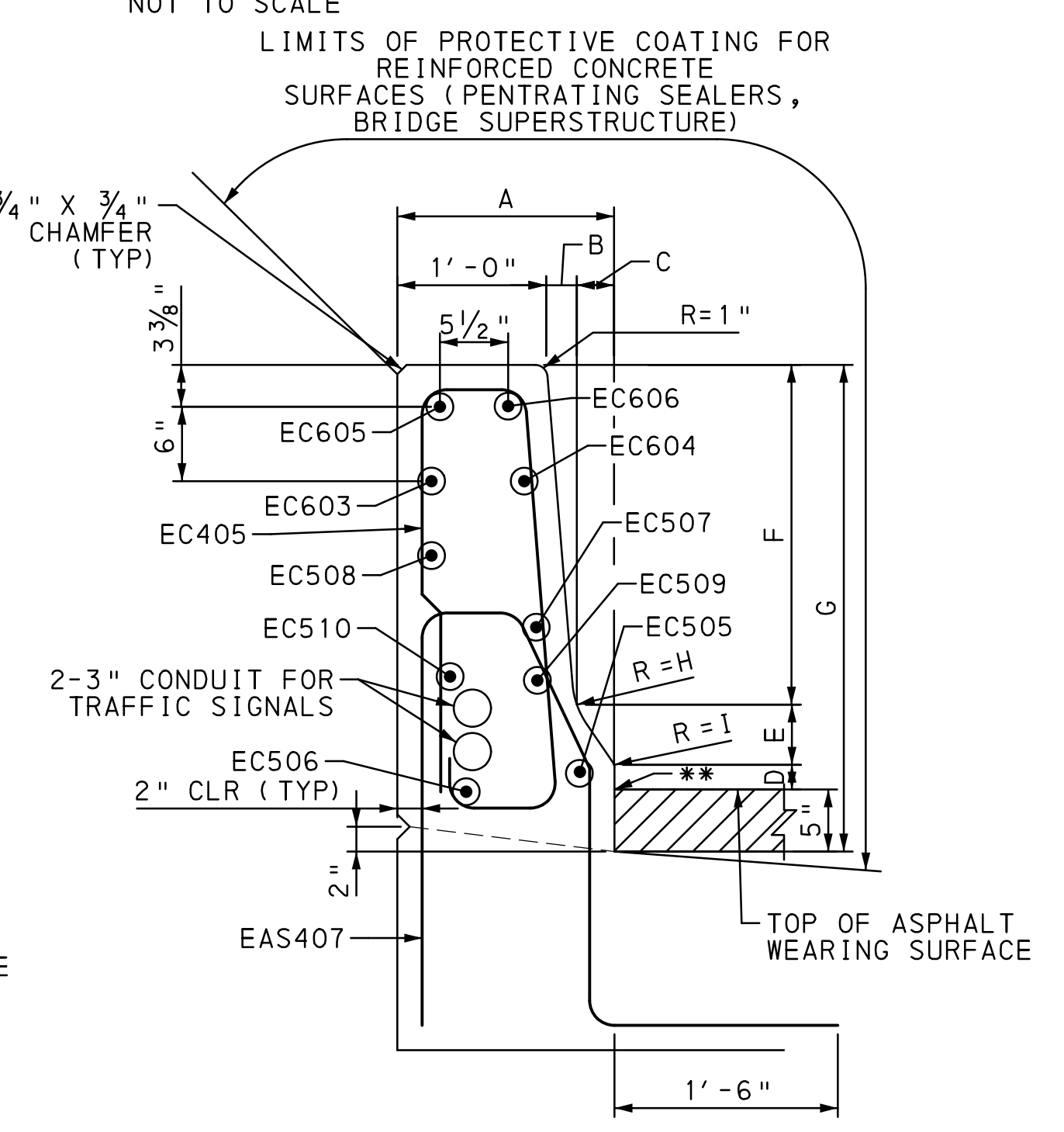


END BARRIER PLAN VIEW  
1 0 2 FEET

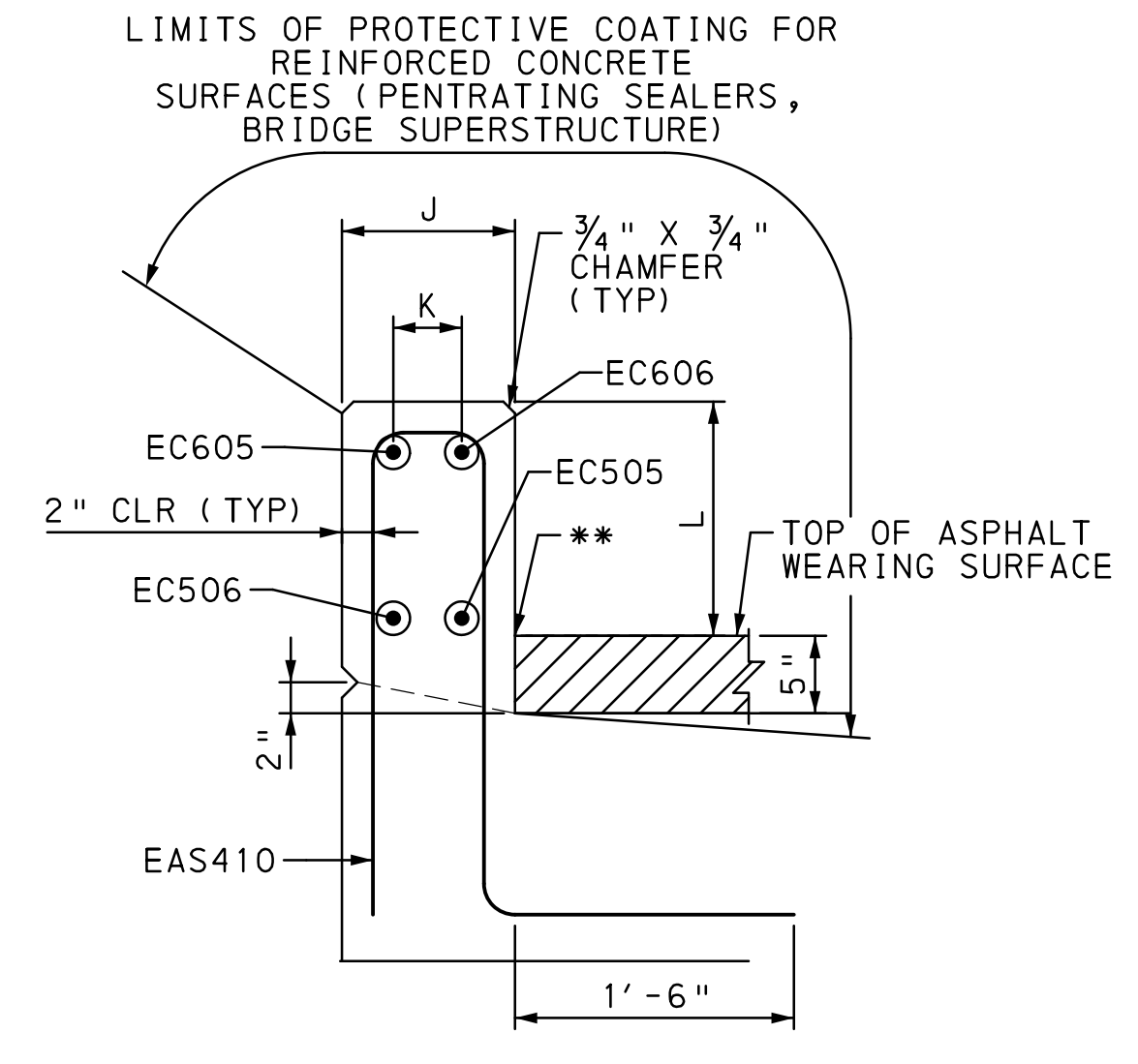
- NOTES:
- FOR GENERAL NOTES, SEE SHEET 3.
  - FOR APPROACH SLAB PLANS, SEE SHEETS 35 & 36.
  - FOR APPROACH SLAB SECTION, SEE SHEET 37.
  - FOR APPROACH SLAB REBAR SCHEDULE, SEE SHEET 39.
  - FOR MORE APPROACH SLAB BARRIER DETAILS, SEE BC-739M.
  - FOR LOCATIONS OF VIEW P-P, SEE SHEET 36.
  - FOR LOCATIONS OF SECTIONS S-S AND T-T, SEE SHEET 36.
  - FOR MORE CONDUIT DETAILS, SEE BC-721M.



SECTION BB-BB  
6 0 6 12 INCHES



SECTION CC-CC  
6 0 6 12 INCHES



SECTION DD-DD  
6 0 6 12 INCHES

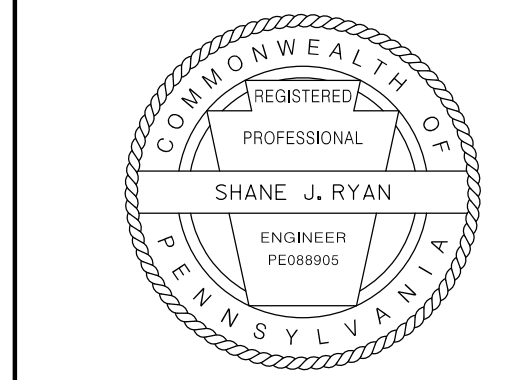
SECTION CC-CC AND SECTION DD-DD DIMENSIONS	
A	1'-0" TO 1'-8 1/4"
B	0" TO 3 3/8"
C	0" TO 4 7/8"
D	0" TO 3"
E	0" TO 7"
F	1'-5 3/4" TO 2'-8"
G	1'-5 3/4" TO 3'-6"
H	0" TO 9 7/8"
I	0" TO 1"
J	8" TO 1'-0"
K	3" TO 5 1/2"
L	6" TO 1'-5 3/4"

\*\* APPLY 2" x 2" STRIP OF EPOXY BINDER RESIN ALONG THE BASE OF THE BARRIER PER PUB 408, SECTION 1001.3(f)

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

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 APPROACH SLAB DETAILS



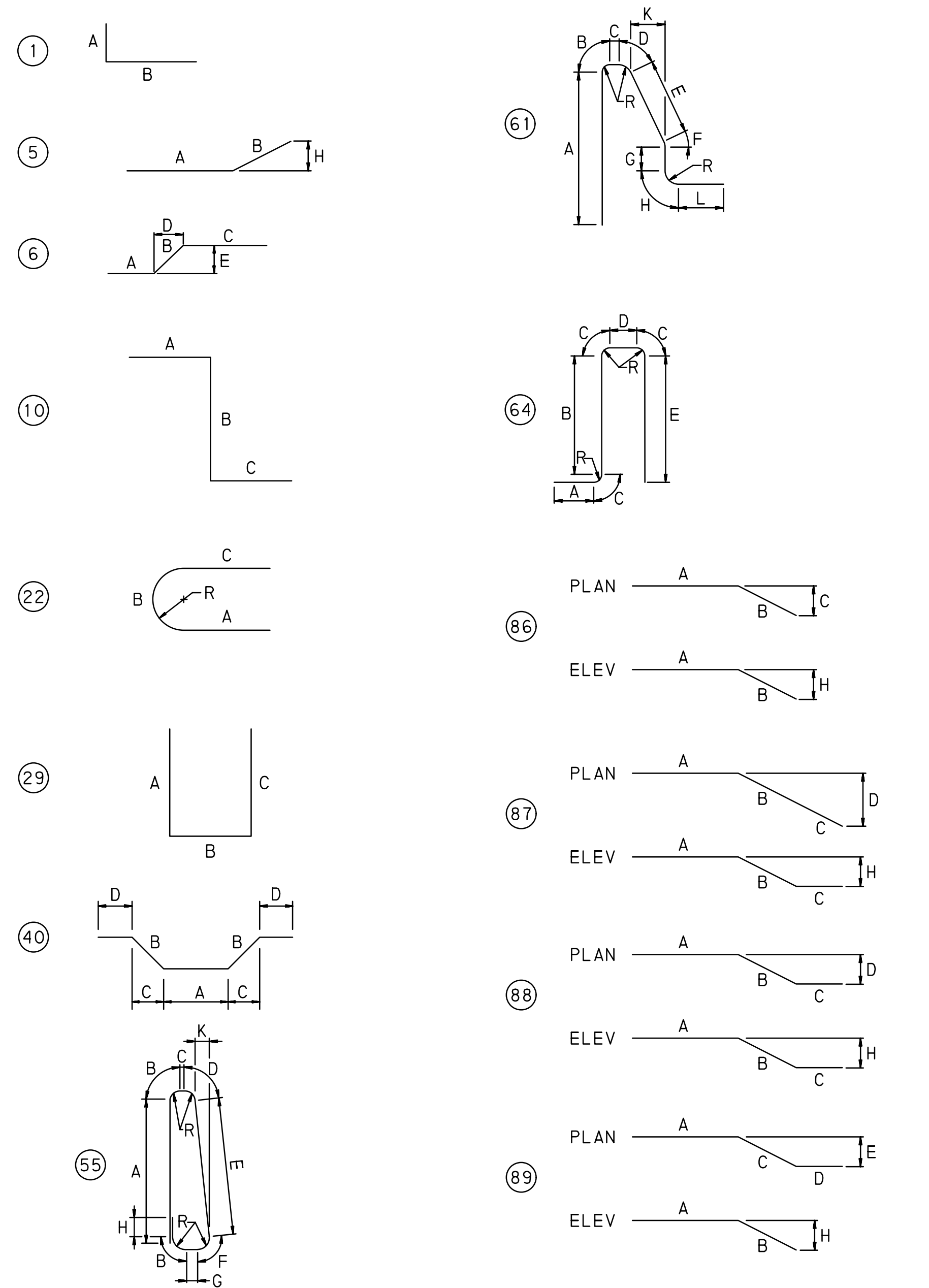
RECOMMENDED \_\_\_\_\_ SHEET 38 OF 44  
S - 36735

OPERATOR: 07\21\2020  
 FILE NAME: Y:\Lehigh9500s\9510\_05\Eng\_Docs\Structure\SR\_1004\Final\Plans\39\_AppS\lab\_RebarSched.dgn (P:\07\21\2020\08:59:40) REVISED (10-04)

### REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F	G	H	J	R	REMARKS
EAS401	4	1	8'-7"	STR											
EAS402	4	10	4'-0 3/4"	22	1'-10"	4 3/4"	1'-10"							1 1/2"	
EAS404	4	21	9'-5 1/8"	61	2'-9"	4"	4"	2 3/4"	1'-5"	1 3/8"	1'-1"	4"		2"	"L"= 2'-10"; "K"= 7 1/4"
EAS405	4	13	9'-3 5/8"	61	2'-9"	4"	4"	2 3/4"	1'-3 1/2"	1 3/8"	1'-1"	4"		2"	"L"= 2'-10"; "K"= 2 3/8"
			TO 9'-5 1/8"						TO 1'-5"						VARY "E" 2 SETS BY 1/8" (+)
EAS406	4	6	8'-4 3/4"	61	2'-9"	4"	4"	2 3/4"	1'-7"	1"	1'-3"	4"		8 3/8"	"K"=1'-6"
EAS407	4	45	7'-7"	61	2'-9"	4"	4"	4"	1'-5"	0"	1'-3"	4"		3/8"	"K"=1'-6"
			TO 8'-4 3/4"					TO 2 3/4"	TO 1'-7"	TO 1"					VARY "D", "E", "F", "J" BY 1/8" (-)
EAS410	4	24	5'-10"	64	1'-6"	1'-7"	4"	0"	1'-9"					2"	VARY "B" AND "E" BY 1/2" (+) VARY "D" BY 1/8" (+)
			TO 8'-2"			TO 2'-7"		TO 4"	TO 2'-9"						
EAS501	5	104	15'-6"	STR											
EAS502	5	58	24'-6"	STR											
EAS503	5	116	7'-6"	29	3'-4"	10"	3'-4"								
EAS504	5	4	5'-8" TO 6'-4"	10	11"	1'-11"	2'-10"								VARY "A" BY 2 5/8" (+)
EAS505	5	1	24'-9"	5	22'-10"	1'-11"	1"								
EAS506	5	2	10'-0"	STR											
EAS601	6	104	15'-6"	STR											
EAS1001	10	76	24'-6"	STR											
EAS1002	10	1	24'-9"	5	22'-10"	1'-11"	1"								
EAS1003	10	2	10'-0"	STR											
ESS501	5	14	23'-2"	STR											
ESS502	5	14	23'-9"	STR											
ESS503	5	8	2'-9"	6	9"	1'-3"	9"	10 5/8"	10 5/8"						
ESS504	5	14	5'-1"	40	1'-9"	7"	4 7/8"	1'-1"							
ESS505	5	28	2'-3"	STR											
ESS801	8	122	4'-6"	STR											
EC402	4	21	8'-0 1/8"	55	2'-9 1/2"	4"	3 3/8"	3 5/8"	2'-7 3/4"	4 1/8"	6 3/4"	5"		2"	"K"= 3 3/8"
EC403	4	13	8'-0 1/8"	55	2'-9 1/2"	4"	3 3/8"	3 5/8"	2'-7 3/4"	4 1/8"	6 3/4"	5"		2"	"K"= 3 3/8" TO 2 1/4" VARY 2 SETS "A" BY 7/8" (+), "E" BY 7/8" (-), "G" BY 1/8" (-)
			TO 6'-3"		TO 1'-11 1/2"				TO 1'-9 3/4"		TO 5 5/8"				
EC404	4	6	8'-8 5/8"	55	3'-0 1/2"	4"	3 3/8"	3 5/8"	3'-0 3/4"	4 1/8"	7 1/4"	5"		2"	"K"=3 7/8"
EC405	4	45	4'-8"	55	1'-1 1/4"	4"	4"	4"	1'-1 3/8"	4 1/8"	4 1/4"	5"		2"	"K"=0 1/4"
			TO 8'-8 5/8"		TO 3'-0 1/2"		TO 3 3/8"	TO 3 5/8"	TO 3'-0 3/4"		TO 7 1/4"				VARY "A", "C", "D", "E", "G" BY 1/8" (-)
EC502	5	6	15'-7"	5	9'-10"	5'-9"									1'-0"
EC503	5	2	5'-7"	29	2'-6"	7"	2'-6"								
EC504	5	1	5'-4"	1	4'-0"	1'-4"									
EC505	5	1	24'-7"	STR											
EC506	5	1	24'-8"	5	22'-10"	1'-10"	1"								
EC507	5	1	14'-3"	87	1'-10"	10'-10"	1'-7"	4"				1'-5"			
EC508	5	1	14'-3"	87	1'-10"	10'-10"	1'-7"	6 5/8"				1'-5"			
EC509	5	1	22'-3"	6	1'-10"	15'-0"	5'-5"	14'-11 7/8"	4 7/8"						
EC510	5	1	22'-3"	5	20'-5"	1'-10"	1"								
EC602	6	4	15'-7"	86	9'-10"	5'-9"	1'-0"					10"			
EC603	6	1	20'-1"	87	1'-10"	16'-8"	1'-7"	9 5/8"				2'-2"			
EC604	6	1	20'-1"	88	1'-10"	16'-8"	1'-7"	8 1/4"				2'-2"			
EC605	6	1	24-10"	86	1'-10"	23'-0"	1'-0 1/8"					2'-11 3/4"			
EC606	6	1	24-10"	89	1'-10"	23'-0"	15'-0 1/4"	7'-9 3/4"				2'-11 3/4"			

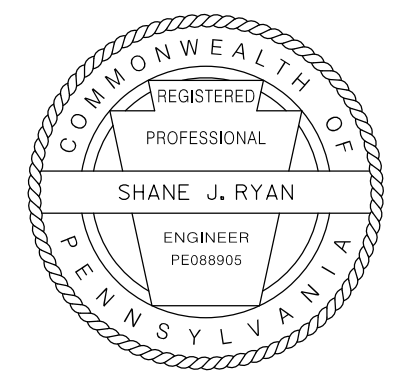
- "\*" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
- FIGURES IN CIRCLES SHOW TYPES.
- "E" - INDICATES EPOXY COATED REBARS.
- FOR ALL BAR TYPES SHOWN, DIMENSIONS A-H AND LENGTH ARE MEASURED ALONG OUTSIDE OF BAR. R IS MEASURED ALONG INSIDE OF BAR.
- FOR GENERAL NOTES, SEE SHEET 2.



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

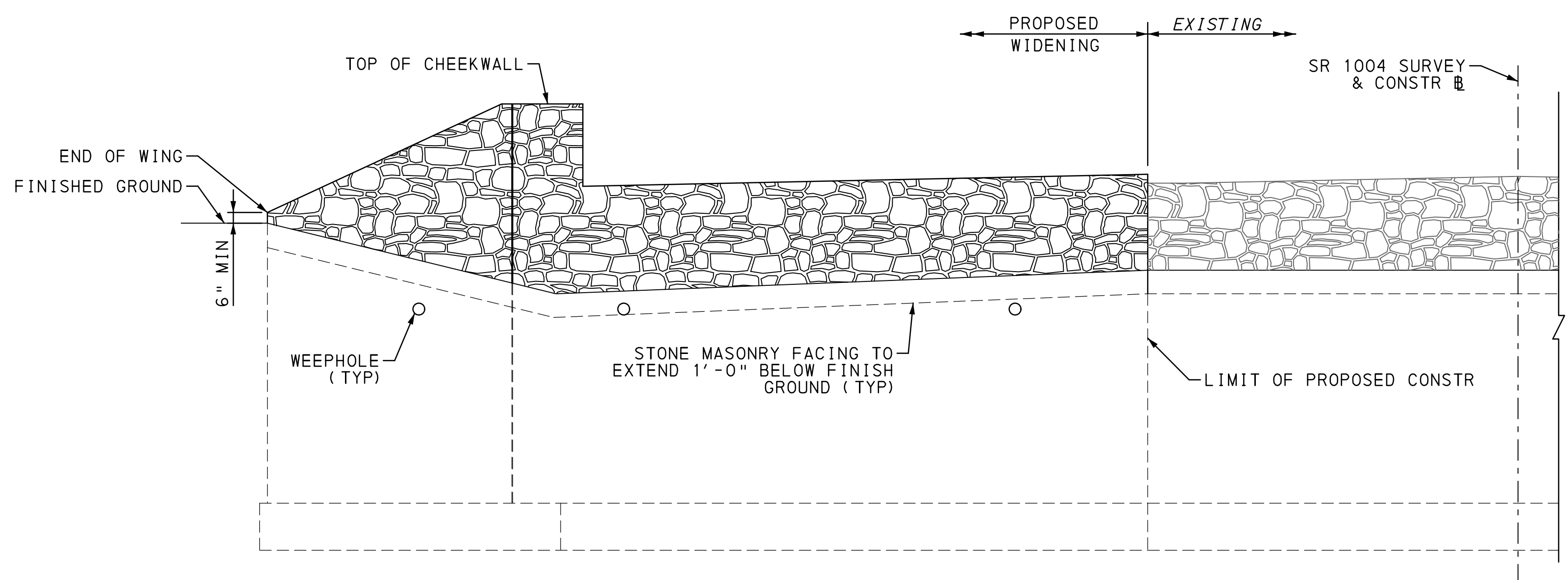
SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 APPROACH SLAB REBAR SCHEDULE

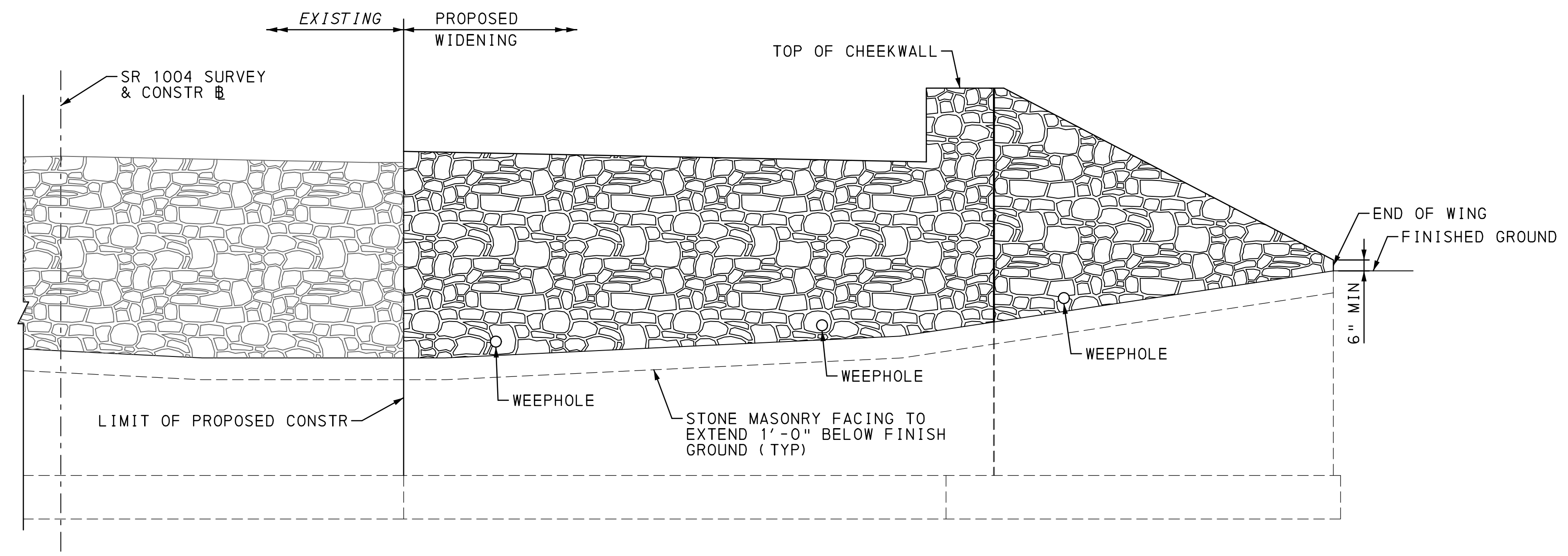


RECOMMENDED \_\_\_\_\_  
 SHEET 39 OF 44  
 S - 36735

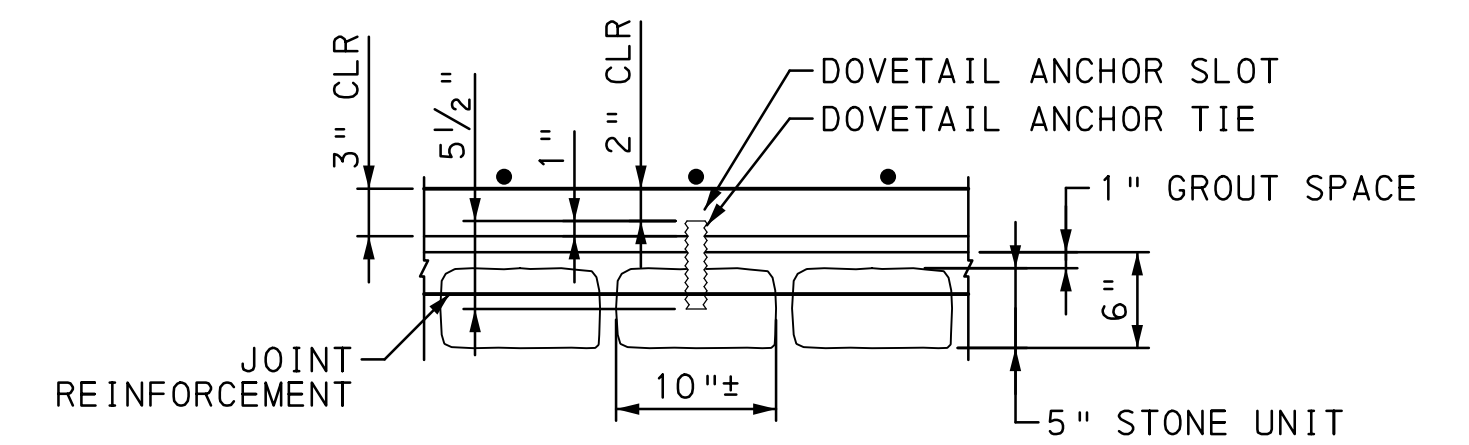
OPERATOR: FILE NAME: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\40\_ArchTreatDet.dgn (P.1 of 1)  
 D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020



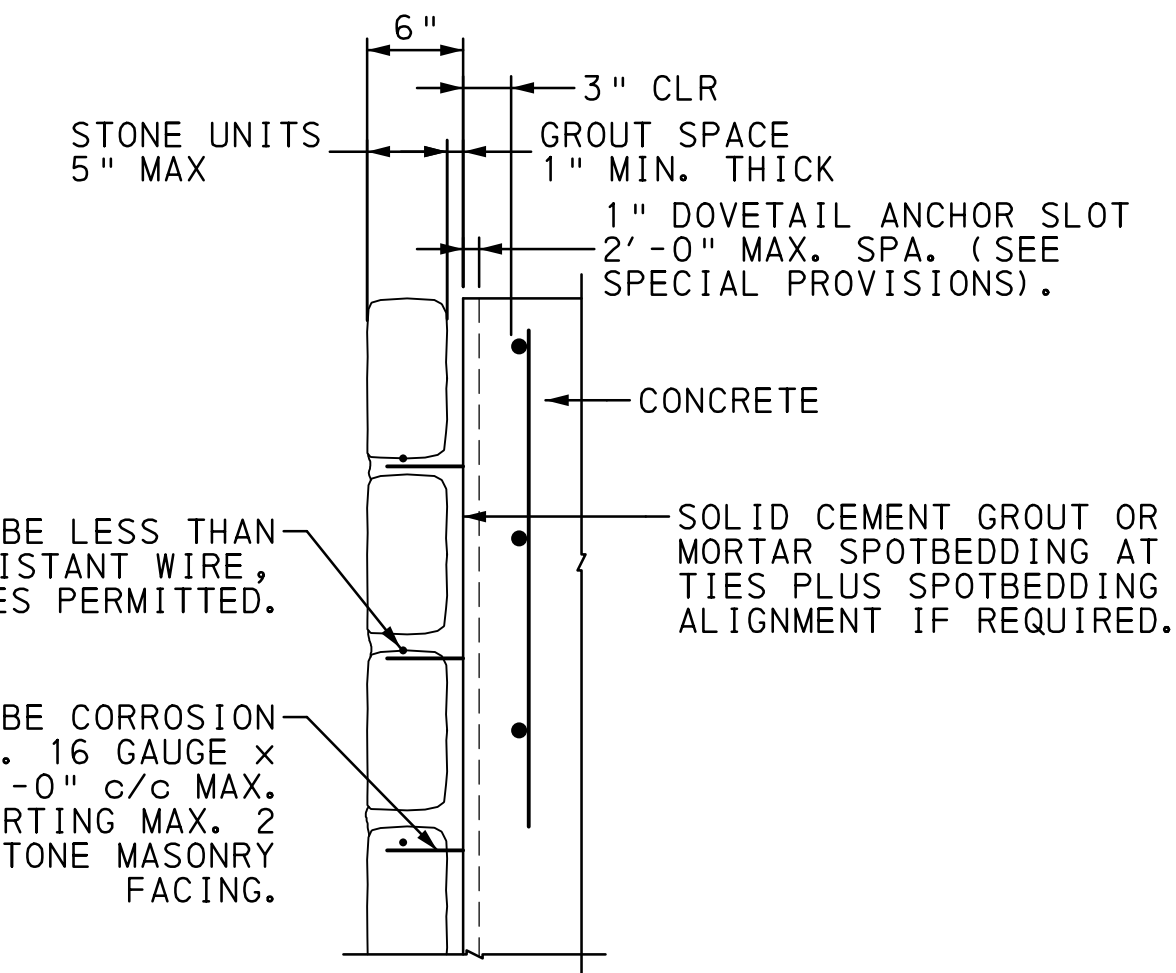
ABUTMENT 1 ELEVATION  
 2 0 2 4 FEET



ABUTMENT 2 ELEVATION  
 2 0 2 4 FEET



DOVETAIL ANCHOR TIE DETAIL-PLAN  
 6 0 6 12 INCHES



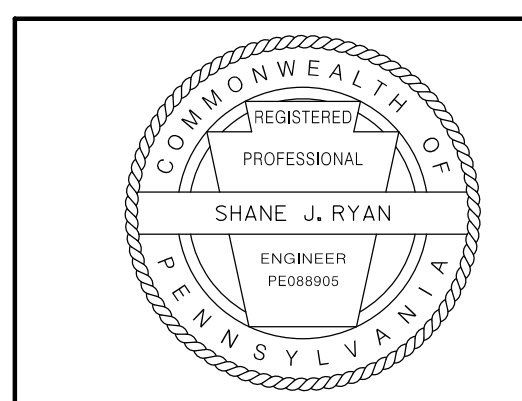
STONE MASONRY FACING DETAIL ELEVATION  
 6 0 6 12 INCHES

JOINT REINFORCEMENT NOT TO BE LESS THAN ONE 9 GAUGE CORROSION RESISTANT WIRE, CONTINUOUS, BUTT SPLICES PERMITTED.  
 DOVETAIL ANCHOR TIES, MUST BE CORROSION RESISTANT SHEET METAL MIN. 16 GAUGE x 1" WIDTH, SPACED AT 2'-0" c/c MAX. HORIZONTALLY AND SUPPORTING MAX. 2 SQUARE FEET AREA OF STONE MASONRY FACING.  
 SOLID CEMENT GROUT OR CEMENT MORTAR SPOTBEDDING AT ANCHOR TIES PLUS SPOTBEDDING FOR ALIGNMENT IF REQUIRED.

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

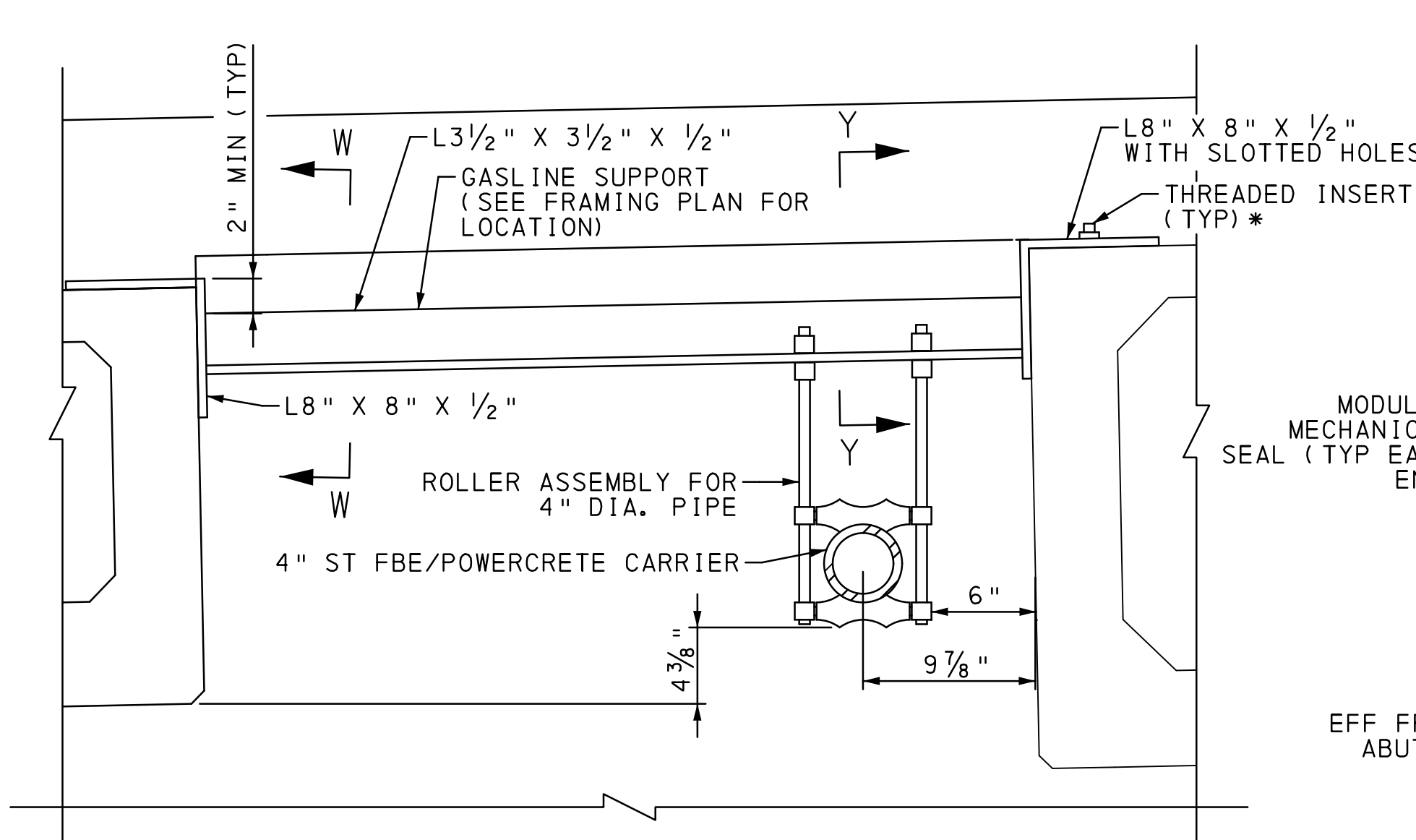
SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 STONE MASONRY FACING DETAILS



- NOTES:
- FOR GENERAL NOTES, SEE SHEET 3.
  - FOR ABUTMENT 1 SECTION, SEE SHEET 10.
  - FOR ABUTMENT 1 WING DETAILS, SEE SHEET 14.
  - FOR ABUTMENT 2 SECTION, SEE SHEET 17.
  - FOR ABUTMENT 2 WING DETAILS, SEE SHEET 21.

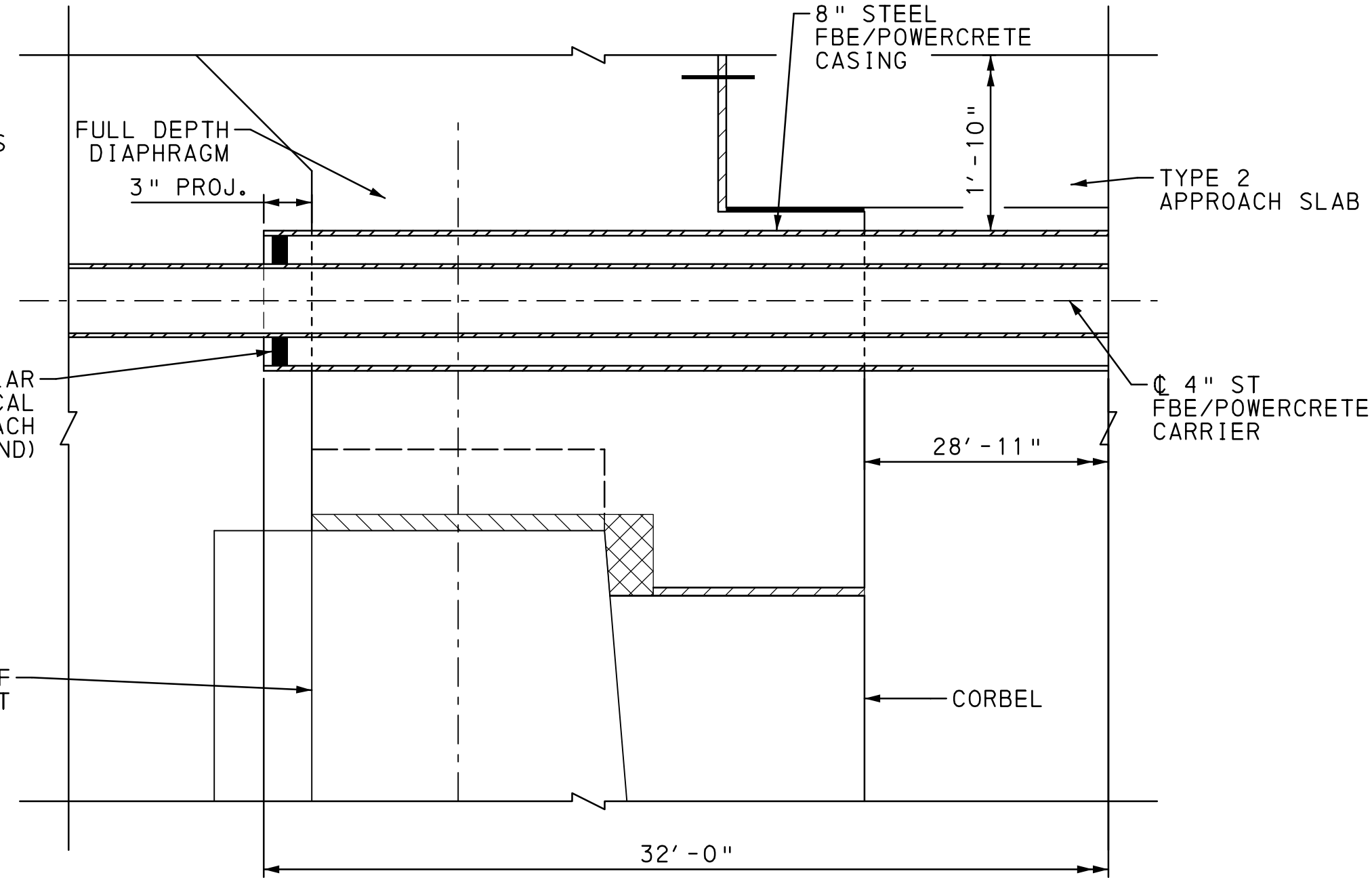
OPERATOR: FILE NAME: Y:\Lehigh9500s\9510\_05\Eng\_Docs\Structure\SR\_1004\Final\Drawings\41\_Utility\_Details.dgn (P 1 of 1)  
 D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020



**HANGER ATTACHMENT DETAIL**  
(LOOKING BACK STATION)



\* POSITION ANGLE TO AVOID EXISTING STIRRUPS IF POSSIBLE. CONSULT ENGINEER BEFORE REMOVING ANY EXISTING STIRRUPS.



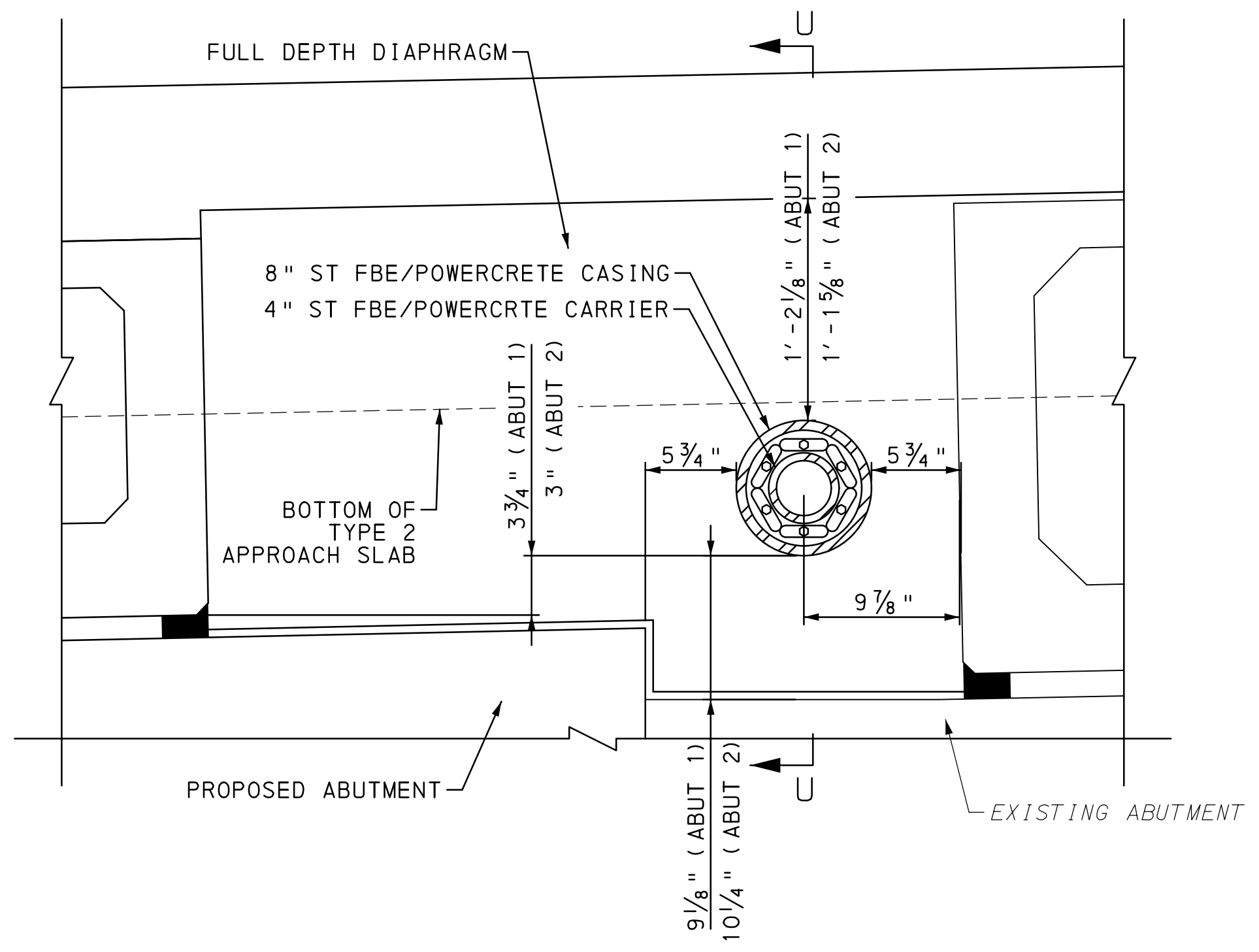
**SECTION U-U**  
(ABUT 1 SHOWN)  
(ABUT 2 SIMILAR, FULL DEPTH DIAPHRAGM)



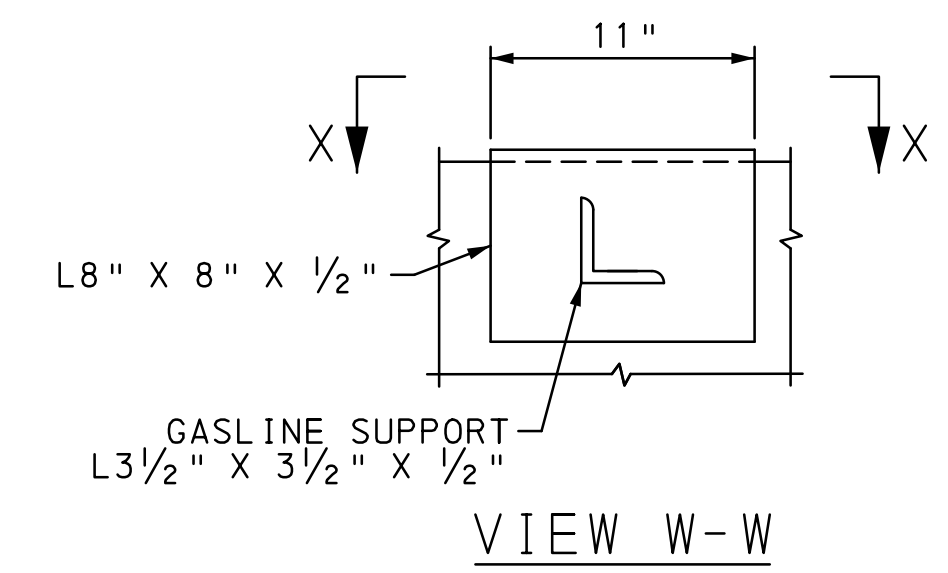
UGI UTILITIES, INC.				
ITEM NO 9000-0310 *INSTALLATION OF UGI UTILITIES, INC. - GAS UTILITY (f)				
MATERIALS	FURNISHED BY	INSTALLED BY	UNIT	AMOUNT
FABRICATED STRUCTURAL STEEL (c)	CONTRACTOR	CONTRACTOR	LB	260
SOLID PIPE ROLLER HANGER ASSEMBLY (d)	UGI	CONTRACTOR	EA	3
4" DIA ST PIPE FBE/POWERCRETE COATED GAS MAIN	UGI	UGI	LF	120
8" DIA ST PIPE FBE/POWERCRETE COATED SLEEVE (e)	UGI	CONTRACTOR	LF	64
MODULAR MECHANICAL SEAL	UGI	UGI	EA	4
4" SHRINK SLEEVE FOR PIPE WELDS	UGI	UGI	EA	13
4" GLASS MESH FRP ROLL-ON SHIELDS 360°	UGI	CONTRACTOR	EA	3
OPENINGS IN DIAPHRAGMS	CONTRACTOR	CONTRACTOR	EA	2
FULL WEIGHT OF FACILITY = 20 LB/FT (a) EMPTY WEIGHT OF FACILITY = 20 LB/FT (b)				

**NOTES FOR GASLINE:**

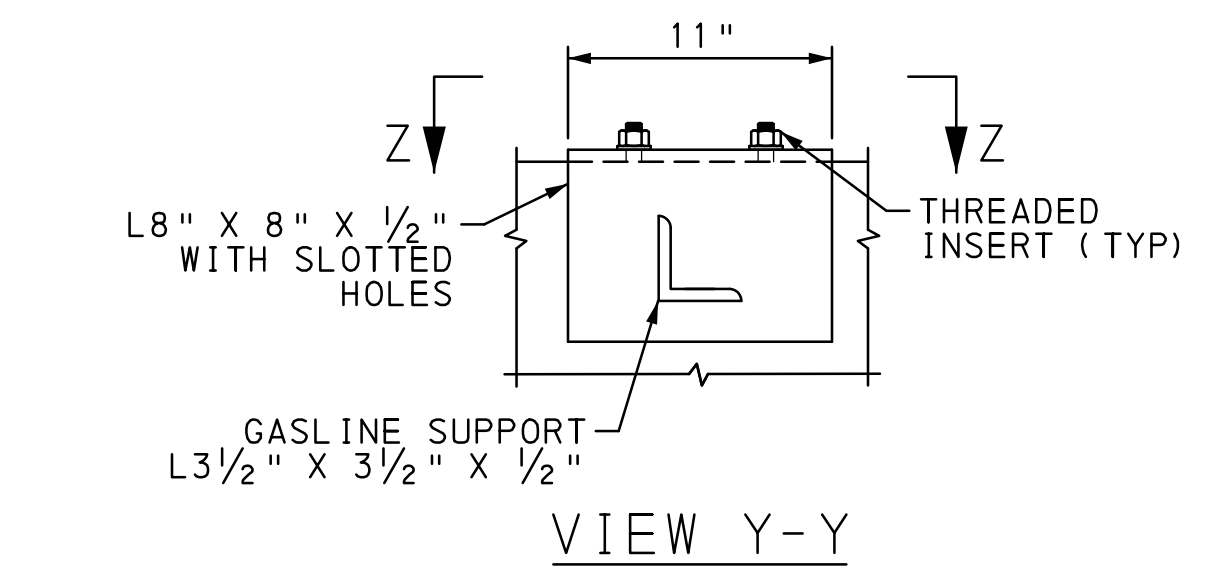
- (a) - WEIGHT OF UTILITY LINE AND CONTENTS FOR 56'-6" OF STRUCTURE LENGTH.
  - (b) - WEIGHT OF UTILITY LINE WITHOUT CONTENTS FOR 56'-6" OF STRUCTURE LENGTH.
  - (c) - INCLUDES WELDED STEEL SUPPORT ANGLES AND CHANNELS ONLY. ALL FABRICATED STRUCTURAL STEEL TO BE GALVANIZED. BOLTS AND THREADED INSERTS USED AT UTILITY SUPPORTS TO BE CONSIDERED INCIDENTAL TO FABRICATED STRUCTURAL STEEL.
  - (d) - SOLID ROLLER HANGER ASSEMBLY INCLUDES THREADED RODS, NUTS, WASHERS, ROLLERS, SOCKETS AND PLASTIC SLEEVES FOR FULL LENGTH OF THREADED RODS.
  - (e) - 32'-0" LENGTH WITH 2 MODULAR MECHANICAL SEALS AT EACH ABUTMENT.
  - (f) - THE CONTRACTOR IS TO CONTACT THE UTILITY FOR DIRECTION ON REQUIRED SOURCES OF SUPPLY FOR UTILITY SUPPORT MATERIAL.
- QUANTITY FOR EPOXY COATED REINFORCEMENT BARS AT BACKWALL AND DIAPHRAGM PENETRATIONS IS INCLUDED IN STRUCTURE REINFORCEMENT BARS, EPOXY COATED ITEM.



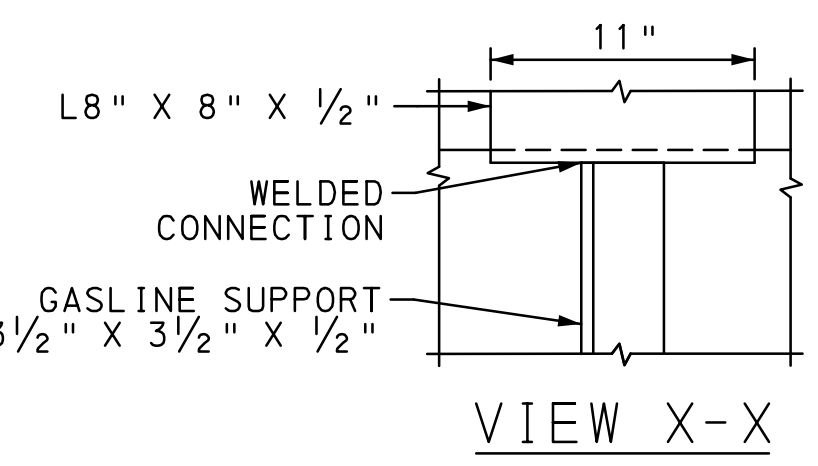
**GASLINE PENETRATION DETAIL AT ABUTMENT**  
(ABUT 1 SHOWN)  
(ABUT 2 SIMILAR, FULL DEPTH DIAPHRAGM)



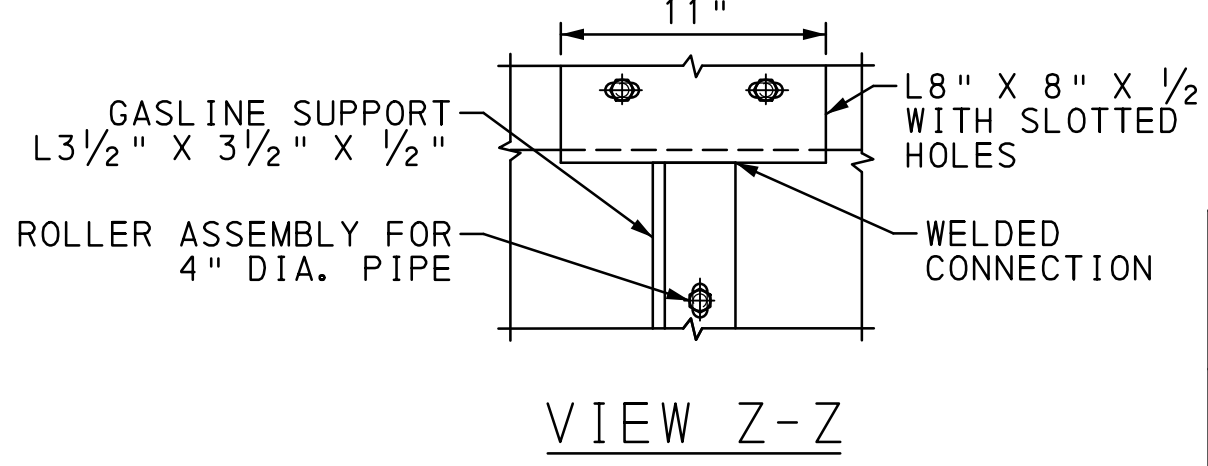
**VIEW W-W**



**VIEW Y-Y**



**VIEW X-X**



**VIEW Z-Z**

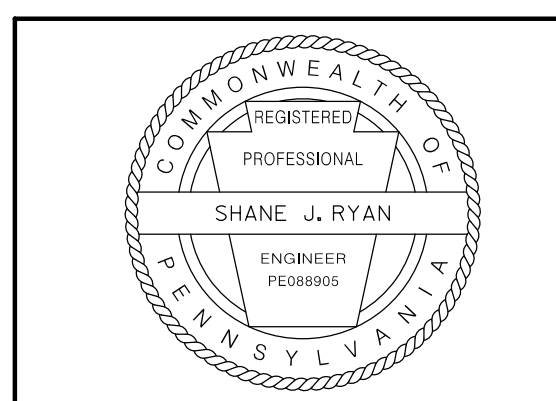
**NOTES:**

- 1. FOR GENERAL NOTES, SEE SHEET 3.
- 2. FOR FRAMING PLAN, SEE SHEET 23.
- 3. FOR ADDITIONAL UTILITY ATTACHMENT DETAILS, SEE BC-794M.

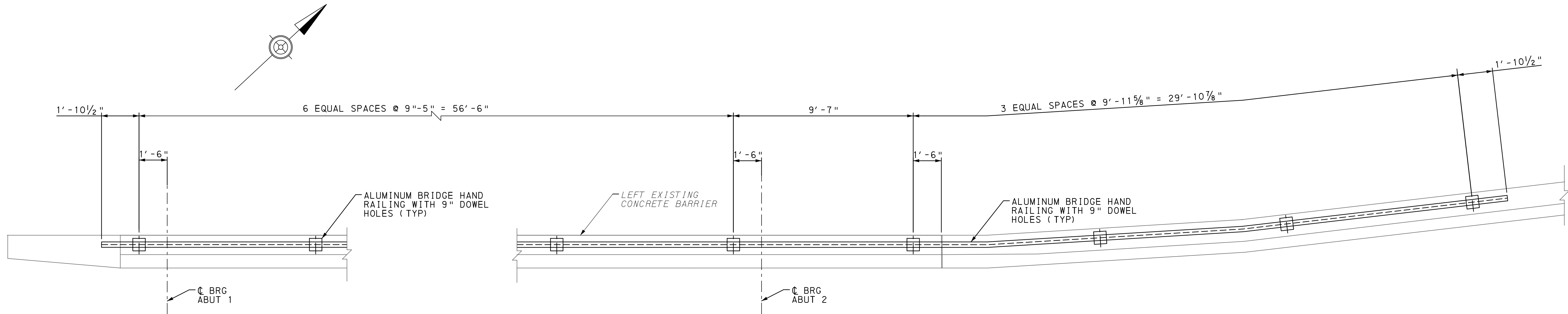
Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
 BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

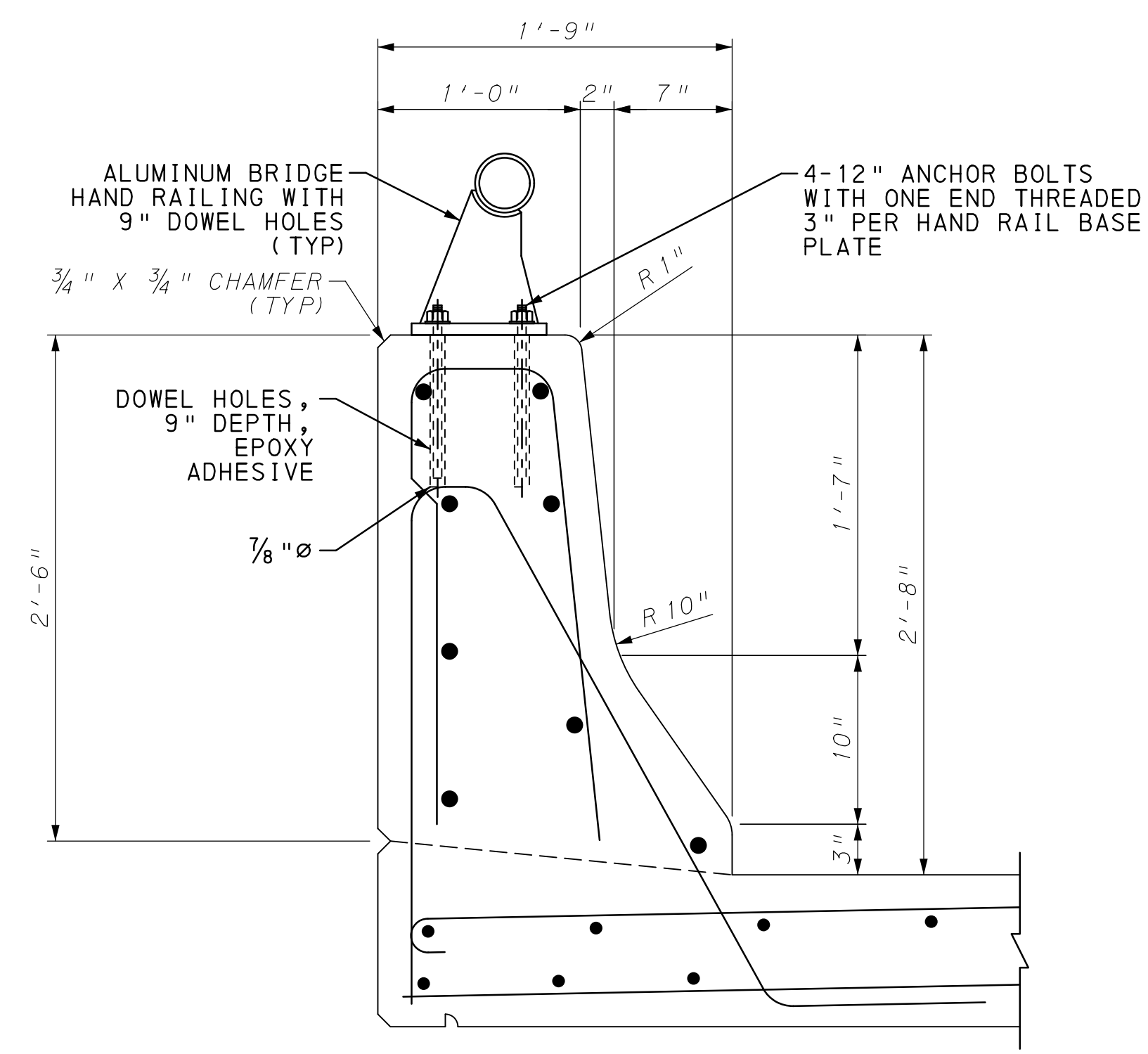
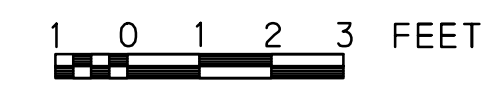
**COMMONWEALTH OF PENNSYLVANIA**  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 UTILITY DETAILS



OPERATOR: FILE NAME: Y:\Lehigh\9500s\9510.05\Eng\_Docs\Structure\SR\_1004\Final\IP\ans\42\_Barr\lerHandrail.dgn (P 1 of 1) D-9002 CADD (02-90) REVISED (10-04) PLOTTED: 07\21\2020



PROPOSED HAND RAIL PLAN



LEFT EXISTING CONCRETE BARRIER  
PROPOSED BRIDGE HAND RAIL

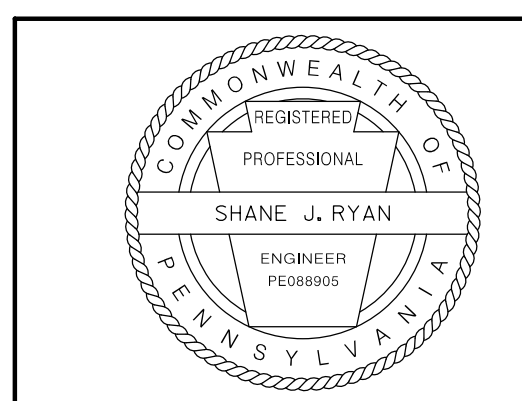


- NOTES:
- FOR GENERAL NOTES, SEE SHEET 3.
  - FOR ALUMINUM BRIDGE HAND RAILING DETAILS, SEE BC-720M.

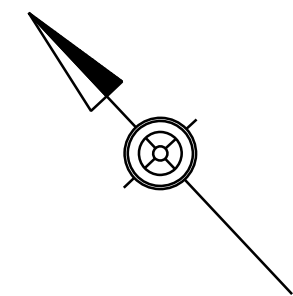
Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

COMMONWEALTH OF PENNSYLVANIA  
 DEPARTMENT OF TRANSPORTATION  
 LEHIGH COUNTY  
 SR 1004 SECTION 03S  
 SEG 0020 OFFSET 0776  
 SR 1004 (RACE STREET) - STA 10+00.00  
 OVER LEHIGH CANAL  
 1 SPAN COMP P/S CONC SPREAD BOX BEAM  
 BRIDGE WIDENING  
 BARRIER HAND RAIL PLAN & SECTION



RECOMMENDED \_\_\_\_\_ SHEET 42 OF 44  
S - 36735



SUBSTRUCTURE UNIT: <b>ABUTMENT 1 AND WINGWALL A</b>		LOG 1 OF 1	
BORING NUMBER: <b>S1-1</b>	BORING LOCATION STATION: 9+60.0 OFFSET: 49.0 FT. RT.	START: 01/30/2017 9:00 AM FINISH: 01/30/2017 12:45 PM	HAMMER: AUTOMATIC EFFICIENCY: 0.8 ERa
DRILLING METHOD AND EQUIPMENT: DOUBLE TUBE WIRE LINE-NQ2, AUTOMATIC, ACKER XLS TRACK RIG		SIZE OF CORE: 2.000 IN.	VERTICAL SCALE: 0 FT. 5 FT.
DRILLING INSPECTOR: KYLE GIBNEY / ANDY NAJDEK DRILLER & DRILLING COMPANY: RICH CRUM TRC ENGINEERS, INC.		TOP OF BORING ELEVATION: 271.0 FT.	
		▽ 0 HR. READING - ELAPSED TIME: El. 255.2 ft. - 0.0 hr. ▼ 24 HR. READING - ELAPSED TIME: El. 254.9 ft. - 27.2 hr.	

**GENERAL NOTES**

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

THE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SUBSURFACE CONDITIONS MAY DIFFER FROM THE CONDITIONS REPORTED AT THE SPECIFIC LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF CONDITIONS AT THE BORING LOCATIONS.

**LEGEND**

- PP POCKET PENETROMETER
- T TORVANE
- NTS NOT TO SCALE
- BFE BOTTOM OF FOOTING ELEVATION
- BOEX BOTTOM OF OVER-EXCAVATION
- SBE STREAMBED ELEVATION
- TOR ESTIMATED TOP OF ROCK ELEVATION

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

**SA**

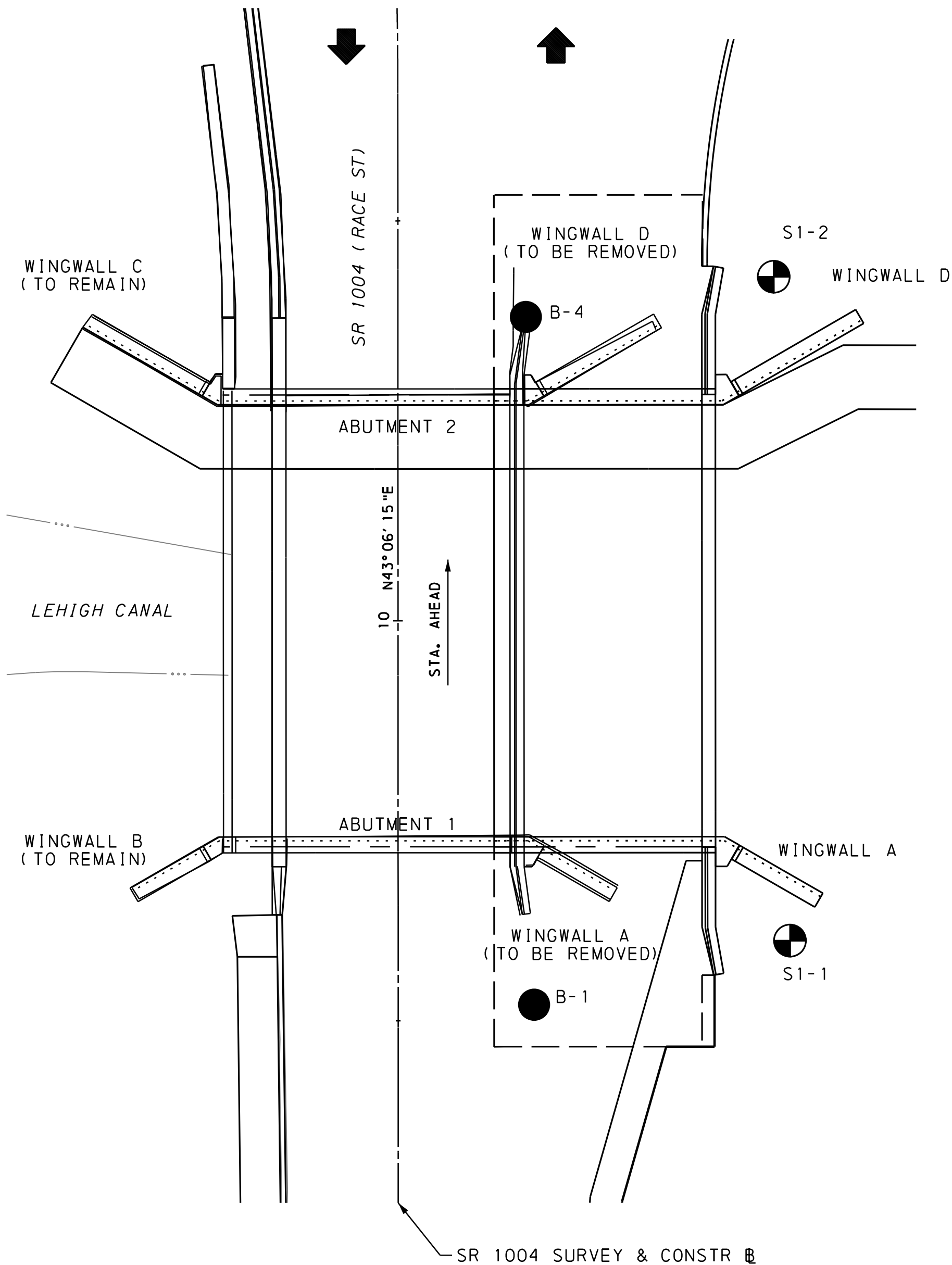
---

THE SUBSURFACE EXPLORATION DATA THAT ARE PRESENTED ON THESE DRAWINGS (INCLUDING BORING LOGS, EARTH SAMPLES, ROCK CORES, CLASSIFICATION OF MATERIALS AND DEPTH OF BORINGS) ACCURATELY REPRESENT THE CONDITIONS ENCOUNTERED BY THE TEST BORING PROGRAM AT EACH BORING LOCATION.

**Sa**

**3/8/2019**  
DATE:

GEOTECHNICAL ENGINEER/ENGINEERING GEOLOGIST



LOCATION PLAN  
NTS

**LEGEND**

- ⊙ AS DRILLED BORING LOCATION
- 1995 BORING LOCATION

ELEV.	GRAPHIC	MATERIAL DESCRIPTION	AASHTO/USCS	SAMPLE DEPTH	SAMPLE NO.	BLOW COUNT	PP/T	TSF	N 60 / %RQD	REC (ft.)	REC (%)	RQD %	Soil/Rock Rec. %	SPT (N <sub>60</sub> )
270	[Symbol]	GRAVEL, some Sand, trace Silt, contains slag, brick fragments and cinders, loose, moist, well graded, sub-angular, dark gray, fill. 2.0'/EI. 269.0	a-1-a / gw	1.5	S-1	3-3-4	9	0.5	33					
265	[Symbol]	SAND, some Silt, little Gravel, little Clay, contains brick fragments and slag, loose to medium dense, moist to wet, homogeneous, well graded, sub-angular, low plastic fines, orange brown to red brown, fill. S-7 & S-9: More gravel. 12.5'/EI. 258.5	a-1-b / sm	3.0	S-2	3-3-5	11	1.0	67					
260	[Symbol]	SILT, some Sand, some Clay, loose, moist to wet, homogeneous, low plastic fines, gray to gray brown, alluvium, smell of organics. 17.0'/EI. 254.0	a-4 / ml	4.5	S-3	4-2-3	7	1.2	80					
255	[Symbol]	SAND, some Gravel, little Silt, trace Clay, medium dense to dense, moist to wet, homogeneous, well graded, rounded to sub-rounded, orange brown, alluvium. 22.5'/EI. 248.5	A-2-4 / SM	6.0	S-4	4-3-3	8	0.3	20					
250	[Symbol]	SILT, some Gravel, little Clay, trace Sand, very loose to very dense, moist to wet, laminated, varved, low plastic fines, brown to red brown, alluvium, also orange brown in color. S-18: More gravel. 27.0'/EI. 244.0	A-4 / ML	7.5	S-5	3-3-3	8	1.0	67					
245	[Symbol]	LIMESTONE, gray, very hard, slightly weathered to fresh, laminated to narrow bedding with shallow to moderate dip, bedding joints, narrow to wide spacing, flat to steep dip, tight to narrow joint opening, calcite mineral veining. 27.0'-33.0': highly weathered to weathered, narrow to large joint openings, laminated soil seams with rock. No water return for the entire duration of coring. 31.0'-33.5': Possible solution activities. Used dish soap to lubricate tools. Spoon and casing refusal at 27.0'. 53.0'/EI. 218.0		9.0	S-6	2-3-4	9	1.0	67					
240	[Symbol]			10.5	S-7	10-7-3	13	0.6	40					
235	[Symbol]			12.0	S-8	5-2-3	7	0.6	40					
230	[Symbol]			13.5	S-9	17-8-4	16	1.3	87					
225	[Symbol]			15.0	S-10	1-1-3	5	1.5	100					
220	[Symbol]			16.5	S-11	3-3-2	7	1.5	100					
	[Symbol]			18.0	S-12	2-11-12	31	1.5	100					
	[Symbol]			19.5	S-13	7-6-7	17	1.5	100					
	[Symbol]			21.0	S-14	4-4-4	11	0.8	53					
	[Symbol]			22.5	S-15	6-5-5	13	1.0	67					
	[Symbol]			24.0	S-16	2-2-5	9	0.9	60					
	[Symbol]			25.5	S-17	5-2-1	4	0.8	53					
	[Symbol]			26.3	S-18	5-50/3'	>67	0.3	38					
	[Symbol]			27.0	S-19	50/0'	>67	0.0	0					
	[Symbol]			27.0	R-1		20%	0.9	45					
	[Symbol]			29.0	R-2		0%	0.3	15					
	[Symbol]			31.0	R-3		0%	0.7	35					
	[Symbol]			33.0	R-4		68%	2.2	88					
	[Symbol]			35.5	R-5		100%	2.5	100					
	[Symbol]			38.0	R-6		96%	5.0	100					
	[Symbol]			43.0	R-7		94%	4.8	96					
	[Symbol]			48.0	R-8		82%	4.5	90					

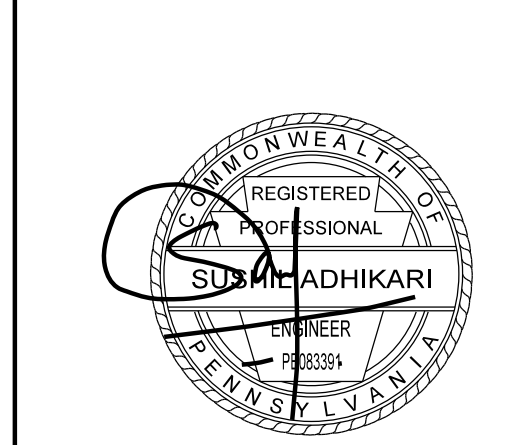
\*\*SAMPLE NO. shading indicates lab testing performed.

Mark	Description	By	Chk'd	Recm'd	Date
REVISIONS					

SR 1004 PREVIOUSLY KNOWN AS LR 39092  
BMS STR ID: 39-1004-0020-0776 MPMS/ECMS PROJ: 57433 BRKEY: 39608

**COMMONWEALTH OF PENNSYLVANIA**  
DEPARTMENT OF TRANSPORTATION

**LEHIGH COUNTY**  
SR 1004 SECTION 03S  
SEG 0020 OFFSET 0776  
SR 1004 (RACE STREET) - STA 10+00.00  
OVER LEHIGH CANAL  
1 SPAN COMP P/S CONC SPREAD BOX BEAM  
BRIDGE WIDENING  
STRUCTURE BORINGS I



7:37:54 AM 11/6/2019 m:\v\l\m\m\3339-SR1004-TestBor.dgn

