OS-600C (12-15)

pennsylvania
DEPARTMENT OF TRANSPORTATION

June 29, 2023

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

Re: PUC No. A-2021-3024204

Dear Secretary, Chiavetta:

In accordance with ordering paragraph number three (3) of the PUC Secretarial Letter/Order at Docket No. A-2021-3024204 dated May 25, 2022, please find attached for your approval of the final signed Drawings *eFILE* for Construction of State Route 1060, Section A20 in Westmoreland County and Armstrong County, consisting of sheets, 1 through 7, 9 through 13, 15 through 19, 27 through 30, 34, 61 through 64, 67 through 71, 81 through 84 of 87; and one copy of half-size final signed Structure Plans for SR 1060, Section A20 (S-39414) consisting of sheets 1 through 130 of 130.

The Department of Transportation hereby avers that a set of the aforesaid final Drawings for Construction plans and a set of Structure Plans (S-39414) are being sent to the parties of record in accordance with the attached Certificate of Service.

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 Thomas A. Ryczek Jr. at (724) 439 - 7190.

Sincerely,

Thomas A. Ryczek Jr.
District Grade Crossing Administrator
Engineering District 12-0
Department of Transportation

Attachments

cc: Parties of Record
Mark J. Chappell, P.E., Right-of-Way and Utilities Section, 7th Floor, CKB
Karen L. Cummings, Office of Chief Counsel, 9th Floor, CKB
William Sinick, P.E., Rail Safety Engineering Section, PUC, 3rd Floor, CKB

DISTRICT PROJECT MANAGER: TROY T. PRITTS

FEDERAL PROJECT NO.

| DISTRICT | COUNTY | TOWNSHIP | BOROUGH | ROUTE | SECTION | TOTAL SHEETS |
|---|---|---|---|---|---|---|
| 12-0 | WESTMORELAND | BELL | ——— | 1060 | A20 | 87 |
| | ARMSTRONG | KISKIMINETAS | | 2047 | A20 | |
| | | | | | | |
| | | | | | | |

ECMS NO 81747

# COMMONWEALTH OF PENNSYLVANIA

# DEPARTMENT OF TRANSPORTATION

## DRAWINGS

FOR

## CONSTRUCTION

**STATE ROUTE** 1060 **SECTION** A20

**IN** WESTMORELAND **COUNTY**

FROM STA 10+00.00 TO STA 108+90.00 LENGTH 3559.59 FT 0.674 MI
FROM SEGMENT 0004 OFFSET 0000 TO SEGMENT 0010 OFFSET 0772

**AND**

**STATE ROUTE** 2047 **SECTION** A20

**IN** ARMSTRONG **COUNTY**

FROM STA 108+90.00 TO STA 114+75.00 LENGTH 510.00 FT 0.097 MI
FROM SEGMENT 0010 OFFSET 0066 TO SEGMENT 0010 OFFSET 0651

**ALSO**

**STATE ROUTE** 1069

FROM STA 10+57.34 TO STA 18+50.00

PUC APPLICATION DOCKET NUMBER A-2021-3024204

ALSO INCLUDED:

| | |
|---|---|
| TRAFFIC CONTROL PLAN | 41 SHEETS |
| SIGNING, PAVEMENT MARKING, AND DELINEATION PLAN | 16 SHEETS |
| EROSION AND SEDIMENT POLLUTION CONTROL PLAN | 47 SHEETS |
| STRUCTURE PLAN | |
| S-39414 | 130 SHEETS |
| CROSS SECTIONS | 68 SHEETS |
| AIDS TO NAVIGATION PLAN | 2 SHEETS |
| EXISTING STRUCTURE PLANS | 23 SHEETS |

SCALE

HORIZONTAL 0 25 50 FEET

VERTICAL 0 5 10 FEET

### DESIGN DESIGNATION

| | |
|---|---|
| FUNCTIONAL CLASSIFICATION | - MAJOR COLLECTOR |
| ROADWAY TYPOLOGY | - COMMUNITY COLLECTOR, SUBURBAN NEIGHBORHOOD |
| DESIGN SPEED | - 25 MPH |
| PAVEMENT WIDTH | - 2 - 11'-0" LANES |
| SHOULDER WIDTH | - 5'-0" |
| MEDIAN WIDTH | - NONE |

### TRAFFIC DATA

| | |
|---|---|
| CURRENT YEAR ADT | - 640 (2023) |
| DESIGN YEAR ADT | - 720 (2043) |
| DHV | - 72 |
| D | - 50% |
| T | - 5.3% |


Michael Baker
INTERNATIONAL
AIRSIDE BUSINESS PARK
100 AIRSIDE DRIVE
MOON TOWNSHIP, PA 15108
Phone: (412) 269-6300


COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — STEPHEN J. KRAMER — ENGINEER 039065-E

Steven Kramer 06/22/2023
ENGINEER DATE
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CYDNEY JILL SEDLAR — ENGINEER No. 070?4

Cydney Jill Sedlar 06/22/2023
ENGINEER DATE
REGISTERED PROFESSIONAL ENGINEER

RECOMMENDED DATE: June 27, 2023
William L. Kovach
DISTRICT EXECUTIVE

RECOMMENDED DATE:
DEPUTY SECRETARY

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

# RECORD OF EXISTING ROAD TYPES

| | | |
|---|---|---|
| SR 1060 (SALINA ROAD EXT) LIMIT OF WORK SEGMENT 004 OFFSET 0000 TO SEGMENT 0006 OFFSET 0582 | 1996 | BIT WEARING CRSE, ID-2, SRL-M<br>ON 2" BIT BINDER CRSE, ID-2<br>ON 4" BIT CONC BASE CRSE<br>ON SUBBASE (NO. 2A) 8" DEPTH |
| SR 1060 (MAIN ST) SEGMENT 0006 OFFSET 0582 TO OFFSET 2375 | 2010 | SURFACE TREATMENT - SEAL COAT 0.25" DEPTH |
| | 2006 | SURFACE TREATMENT - SEAL COAT 0.3" DEPTH |
| | 1998 | BIT WEARING CRSE ID-2 BINDER CRSE 1.5" DEPTH |
| | 1998 | BIT WEARING CRSE ID-2 1" DEPTH |
| | 1900 | UNKNOWN BIT WEARING CRSE 1" DEPTH |
| SR 1060 (BRIDGE ST) SEGMENT 0010 OFFSET 0000 TO OFFSET 0037 | 2010 | SURFACE TREATMENT - SEAL COAT 0.25" DEPTH |
| | 1969 | SURFACE TREATMENT - SEAL COAT 0.25" DEPTH |
| | 1968 | BIT WEARING CRSE SCRATCH ID-2 0.5" DEPTH |
| | 1968 | BIT WEARING CRSE ID-2 2.5" DEPTH |
| | 1961 | BIT WEARING CRSE ID-2 2.5" DEPTH |
| | 1961 | CRUSHED AGGREGATE BASE CRSE 12" DEPTH |
| | 1961 | SPECIAL SUBBASE 6" DEPTH |
| SR 1069 SEGMENT 0032 OFFSET 0909 TO OFFSET 1263 | 1969 | SURFACE TREATMENT - SEAL COAT 0.25" DEPTH |
| | 1968 | BITUMINOUS WEARING CRSE ID-2 0.5" DEPTH |
| | 1968 | BITUMINOUS WEARING CRSE ID-2 2.5" DEPTH |
| | 1961 | BITUMINOUS WEARING CRSE ID-2 2.5" DEPTH |
| | 1961 | CRUSHED AGGREGATE BASE CRSE 12" DEPTH |
| | 1961 | SPECIAL SUBBASE 6" DEPTH |
| SR 2047 SEGMENT 0010 OFFSET 0000 TO OFFSET 0651 | 2016 | SURFACE TREATMENT - SEAL COAT 0.25" DEPTH |
| | 2012 | SURFACE TREATMENT - SEAL COAT 0.25" DEPTH |
| | 2008 | SURFACE TREATMENT - SEAL COAT 0.25" DEPTH |
| | 2003 | SURFACE TREATMENT - SEAL COAT 0.25" DEPTH |
| | 1997 | SURFACE TREATMENT - SEAL COAT 0.25" DEPTH |
| | 1987 | SURFACE TREATMENT - SEAL COAT 0.25" DEPTH |
| | 1900 | PLCC PAVEMENT 8" DEPTH |

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

# TABULATION OF SEGMENT EQUALITIES

SEGMENT 0004 OFFSET 0000 = STA 10+00 SR 1060

SEGMENT 0004 OFFSET 0518 = STA 15+18 SR 1060 =
SEGMENT 0006 OFFSET 0000 = STA 15+18 SR 1060

SEGMENT 0006 OFFSET 1181 = STA 26+99 SR 1060

SEGMENT 0006 OFFSET 1185 = STA 90+10 SR 1060

SEGMENT 0006 OFFSET 1530 = STA 93+55 SR 1060

SEGMENT 0006 OFFSET 2293 = STA 101+18 SR 1060 =
SEGMENT 0010 OFFSET 0000 = STA 101+18 SR 1060

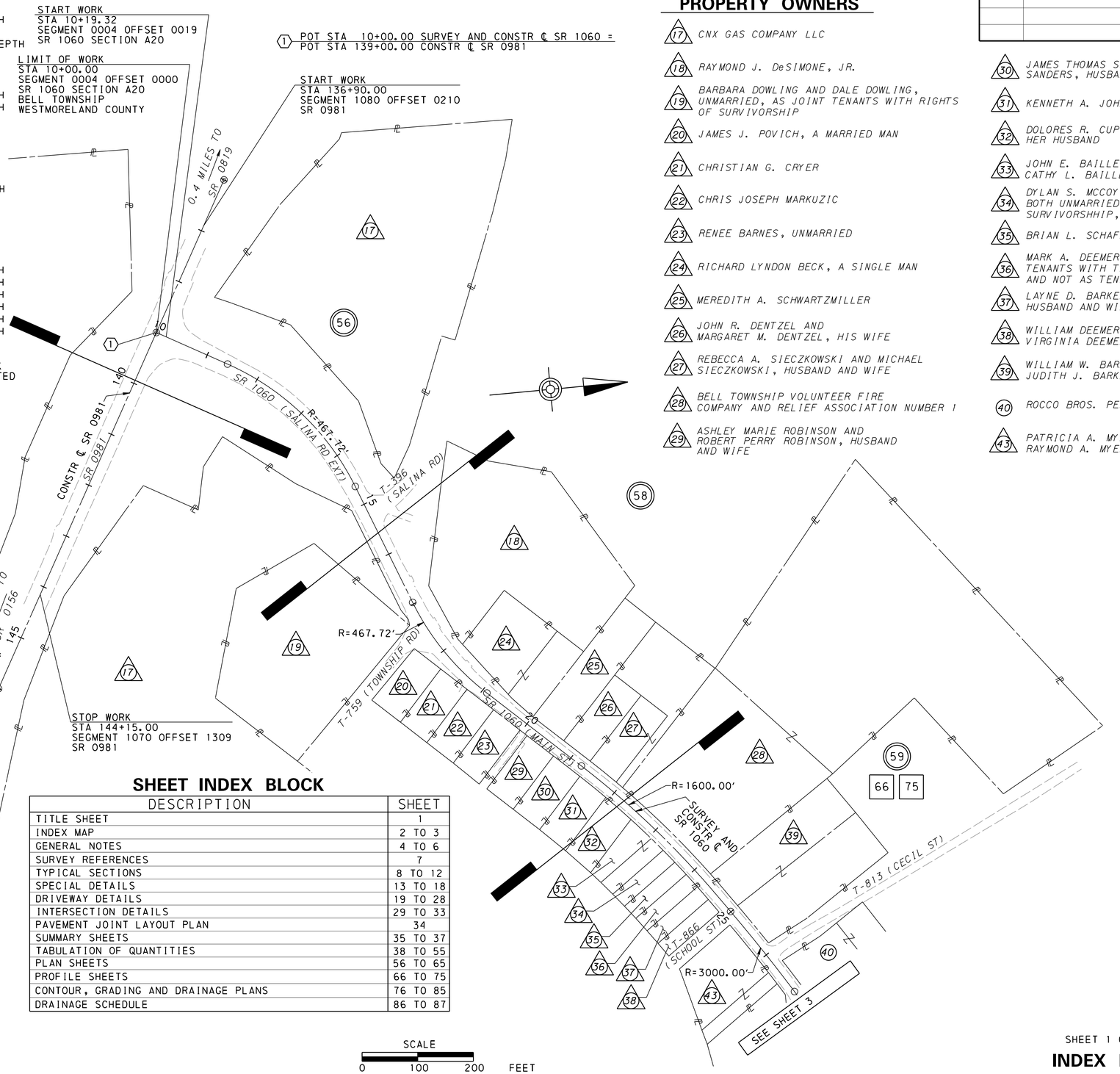
SEGMENT 0006 OFFSET 2375 = STA 11+96 SR 1069 =
SEGMENT 0032 OFFSET 1263 = STA 11+96 SR 1069

SEGMENT 0032 OFFSET 1023 = STA 14+36 SR 1069

SEGMENT 0010 OFFSET 0772 = STA 108+90 SR 1060 WESTMORELAND COUNTY =
SEGMENT 0010 OFFSET 0066 = STA 108+90 SR 2047 ARMSTRONG COUNTY

SEGMENT 0010 OFFSET 0304 = STA 111+28 SR 2047

SEGMENT 1080 OFFSET 0000 = STA 139+00 SR 0981=
SEGMENT 1070 OFFSET 1824 = STA 139+00 SR 0981




# PROPERTY OWNERS

17 CNX GAS COMPANY LLC

18 RAYMOND J. DeSIMONE, JR.

19 BARBARA DOWLING AND DALE DOWLING, UNMARRIED, AS JOINT TENANTS WITH RIGHTS OF SURVIVORSHIP

20 JAMES J. POVICH, A MARRIED MAN

21 CHRISTIAN G. CRYER

22 CHRIS JOSEPH MARKUZIC

23 RENEE BARNES, UNMARRIED

24 RICHARD LYNDON BECK, A SINGLE MAN

25 MEREDITH A. SCHWARTZMILLER

26 JOHN R. DENTZEL AND MARGARET M. DENTZEL, HIS WIFE

27 REBECCA A. SIECZKOWSKI AND MICHAEL SIECZKOWSKI, HUSBAND AND WIFE

28 BELL TOWNSHIP VOLUNTEER FIRE COMPANY AND RELIEF ASSOCIATION NUMBER 1

29 ASHLEY MARIE ROBINSON AND ROBERT PERRY ROBINSON, HUSBAND AND WIFE

30 JAMES THOMAS SANDERS AND BETHANY SANDERS, HUSBAND AND WIFE

31 KENNETH A. JOHNSON, JR.

32 DOLORES R. CUP AND ARCHIE CUP, HER HUSBAND

33 JOHN E. BAILLEY AND CATHY L. BAILLEY, HIS WIFE

34 DYLAN S. MCCOY AND BROOKE L. OSKEY, BOTH UNMARRIED AS JOINT TENANTS WITH RIGHT OF SURVIVORSHHIP, AND NOT AS TENANTS IN COMMON

35 BRIAN L. SCHAFER

36 MARK A. DEEMER AND DONNA J. ECK, AS JOINT TENANTS WITH THE RIGHT OF SURVIVORSHIP AND NOT AS TENANTS IN COMMON

37 LAYNE D. BARKER AND SANDRA L. BARKER, HUSBAND AND WIFE

38 WILLIAM DEEMER AND VIRGINIA DEEMER, HIS WIFE

39 WILLIAM W. BARKER AND JUDITH J. BARKER, HIS WIFE

40 ROCCO BROS. PERFORMANCE

43 PATRICIA A. MYERS AND RAYMOND A. MYERS, SR., HER HUSBAND

# SHEET INDEX BLOCK

| DESCRIPTION | SHEET |
|---|---|
| TITLE SHEET | 1 |
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| SURVEY REFERENCES | 7 |
| TYPICAL SECTIONS | 8 TO 12 |
| SPECIAL DETAILS | 13 TO 18 |
| DRIVEWAY DETAILS | 19 TO 28 |
| INTERSECTION DETAILS | 29 TO 33 |
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| SUMMARY SHEETS | 35 TO 37 |
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| DRAINAGE SCHEDULE | 86 TO 87 |

# LEGEND

PLAN

PROFILE

PARCEL IDENTIFICATION NUMBER

PARCEL IDENTIFICATION NUMBER - NO TAKE

SHEET BREAK

SCALE
0 100 200 FEET

* WESTMORELAND COUNTY AND ARMSTRONG COUNTY

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 2 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

SHEET 1 OF 2

## INDEX MAP

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 3 OF 87 |

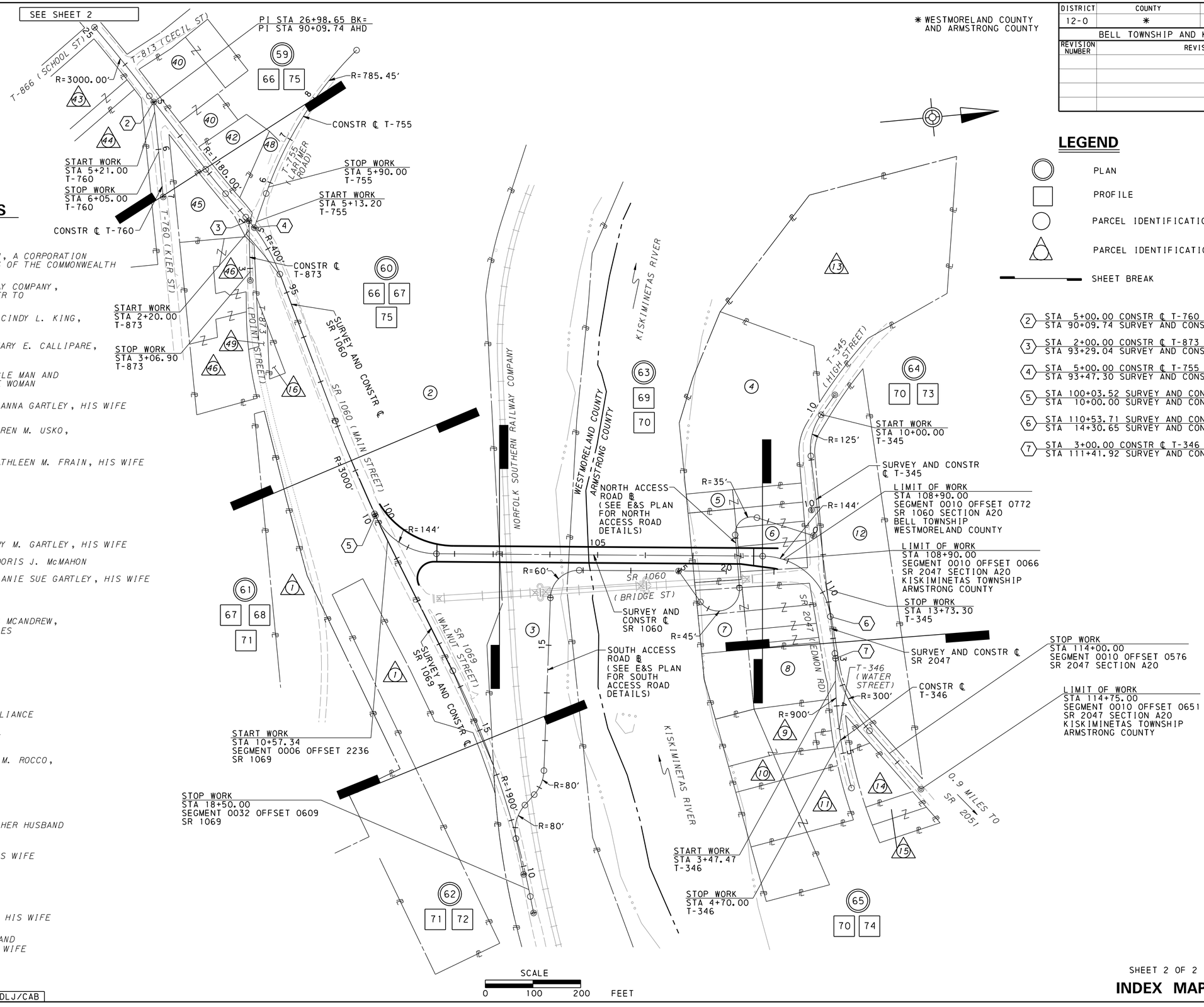
BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |

* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY

## PROPERTY OWNERS

1. PATRICK CALANDRELLA
2. BIG VISIONS CORPORATION, A CORPORATION EXISTING UNDER THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA
3. NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER TO PENNSYLVANIA LINES LLC
4. ELDEN L. KING, JR. AND CINDY L. KING, HUSBAND AND WIFE
5. ANTONIO CALLIPARE AND MARY E. CALLIPARE, HUSBAND AND WIFE
6. DAVID A. CARNEY, A SINGLE MAN AND DEBORAH SENGE, A SINGLE WOMAN
7. JOHN O. GARTLEY AND ROSANNA GARTLEY, HIS WIFE
8. EDWARD USKO, JR. AND KAREN M. USKO, HUSBAND AND WIFE
9. WILLIAM L. FRAIN AND KATHLEEN M. FRAIN, HIS WIFE
10. DENNIS J. KERCHENSKY
11. SHANE M. CLARK
12. BUHL D. GARTLEY AND MARY M. GARTLEY, HIS WIFE (5/9 INTEREST)
    THOMAS C. McMAHON AND DORIS J. McMAHON (1/9 INTEREST)
    JOHN O. GARTLEY AND MELANIE SUE GARTLEY, HIS WIFE (2/9 INTEREST)
    LUCINDA K. GARTLEY (1/9 INTEREST)
13. RYAN MCANDREW AND KAYLA MCANDREW, TENANTS BY THE ENTIRETIES
14. LINDA L. ROSENSTEEL
15. SHELDA J. ROSENSTEEL
16. AMERICAN RESPIRATORY ALLIANCE
40. ROCCO BROS. PERFORMANCE
40. FELIX ROCCO AND JOANNE M. ROCCO, HIS WIFE
42. CASSIE BEATTIE
43. PATRICIA A. MYERS AND RAYMOND A. MYERS, SR., HER HUSBAND
44. LEONARD SHEARER AND PATRICIA E. SHEARER, HIS WIFE
45. MARYANN M. DENTU AND CLARAMARIE DENTU-NABORS
46. LUCIO DIVINCENZO AND MARGARET A. DIVINCENZO, HIS WIFE
48. FRANKLIN D. DOVERSPIKE AND JUDY A. DOVERSPIKE, HIS WIFE
49. UNKNOWN OWNER




## LEGEND

- PLAN
- PROFILE
- PARCEL IDENTIFICATION NUMBER
- PARCEL IDENTIFICATION NUMBER - NO TAKE
- SHEET BREAK

2. STA 5+00.00 CONSTR ℄ T-760 = STA 90+09.74 SURVEY AND CONSTR ℄ SR 1060
3. STA 2+00.00 CONSTR ℄ T-873 = STA 93+29.04 SURVEY AND CONSTR ℄ SR 1060
4. STA 5+00.00 CONSTR ℄ T-755 = STA 93+47.30 SURVEY AND CONSTR ℄ SR 1060
5. STA 100+03.52 SURVEY AND CONSTR ℄ SR 1060 = STA 10+00.00 SURVEY AND CONSTR ℄ SR 1069
6. STA 110+53.71 SURVEY AND CONSTR ℄ SR 2047 = STA 14+30.65 SURVEY AND CONSTR ℄ T-345
7. STA 3+00.00 CONSTR ℄ T-346 = STA 111+41.92 SURVEY AND CONSTR ℄ SR 2047

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 07074

SHEET 2 OF 2

# INDEX MAP

| DES: CJS | DWG: BSP | CKD: DLJ/CAB |
|---|---|---|

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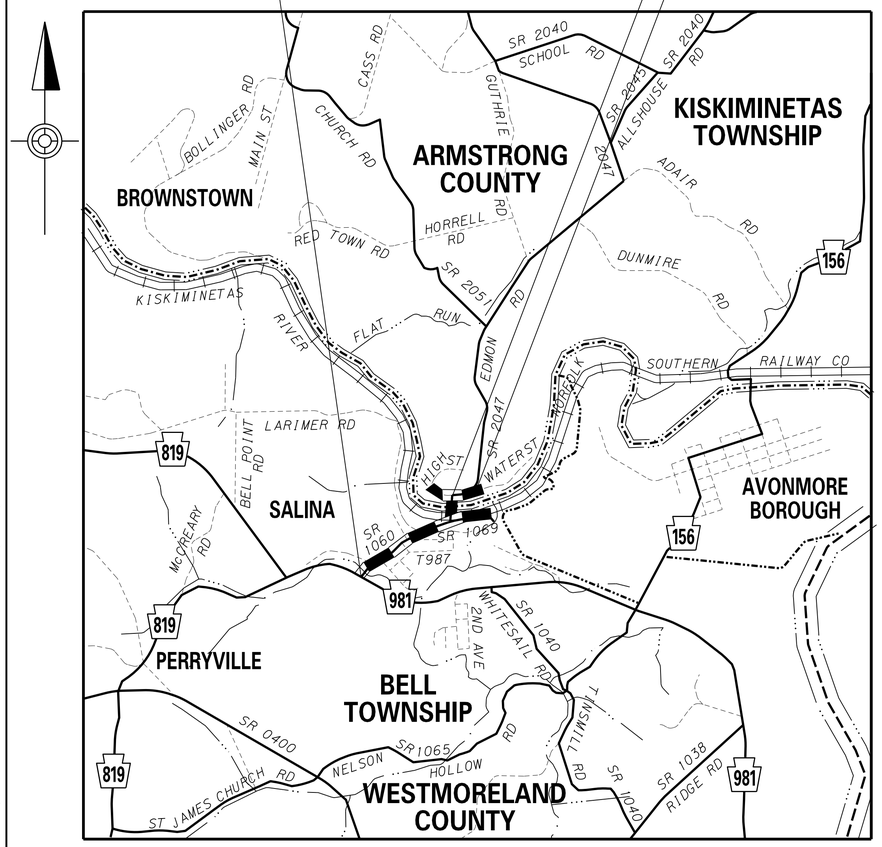
LIMIT OF WORK
STA 10+00.00
SEGMENT 0004 OFFSET 0000
SR 1060 SECTION A20
BELL TOWNSHIP
WESTMORELAND COUNTY

LIMIT OF WORK
STA 108+90.00
SEGMENT 0010 OFFSET 0066
SR 2047 SECTION A20
KISKIMINETAS TOWNSHIP
ARMSTRONG COUNTY

LIMIT OF WORK
STA 108+90.00
SEGMENT 0010 OFFSET 0772
SR 1060 SECTION A20
BELL TOWNSHIP
WESTMORELAND COUNTY

LIMIT OF WORK
STA 114+75.00
SEGMENT 0010 OFFSET 0651
SR 2047 SECTION A20
KISKIMINETAS TOWNSHIP
ARMSTRONG COUNTY




## LOCATION MAP

SCALE
0 0.5 1.0 MILE

## GENERAL NOTES

THE LEGAL RIGHT-OF-WAY FOR SR 0981, FORMERLY SR 1048, FROM STATION 136+90.00 TO STATION 144+15.00 IS VARIABLE IN WIDTH BASED ON PLAN SR 1048, SEC 009 R/W, SIGNED ON AUGUST 13, 1996 AND RECORDED IN THE WESTMORELAND RECORDER'S OFFICE IN PLAN BOOK 59, PAGE 699.

THE LEGAL RIGHT-OF-WAY FOR SR 1060, FORMERLY SR 1040, ALSO KNOWN AS SALINA ROAD EXTENSION, FROM STATION 10+00.00 TO STATION 20+00.00 IS VARIABLE IN WIDTH BASED ON PLAN OF SR 1048, SEC 009 R/W, SIGNED ON AUGUST 13, 1996 AND RECORDED IN THE WESTMORELAND RECORDER'S OFFICE IN PLAN BOOK 59, PAGE 699.

THE LEGAL RIGHT-OF-WAY FOR SR 1060, FORMERLY LR 64261, ALSO KNOWN AS MAIN STREET, FROM STATION 20+00.00 TO STATION 26+98.65 AND FROM STA 90+97.05 TO STA 90+82.92 IS 33 FEET IN WIDTH BASED ON REPORT OF VIEWERS SESSION NUMBER 3 CONFIRMED ON FEBRUARY 23, 1825, RECORDED IN ROAD AND BRIDGE DOCKET NO. 2 PAGE 449 IN WESTMORELAND COUNTY COURTHOUSE.

THE LEGAL RIGHT-OF-WAY FOR SR 1060, FORMERLY LR 64261, ALSO KNOWN AS MAIN STREET, FROM STATION 90+82.92 TO STATION 108+90.00 IS VARIABLE IN WIDTH AS SHOWN ON DRAWINGS AUTHORIZING ACQUISTION OF RIGHT-OF-WAY PLAN FOR SR 1060 SECTION A20 R/W, SIGNED BY THE SECRETARY OF TRANSPORTATION ON JULY 12, 2022 AND RECORDED ON AUGUST 30, 2022 IN THE WESTMORELAND COUNTY RECORDER OF DEEDS OFFICE AS INSTRUMENT NUMBER 202208300030793.

THE LEGAL RIGHT-OF-WAY ON SR 1069, FORMERLY KNOWN AS LR 990, FROM STATION 10+57.34 TO STATION 17+50.00 IS VARIABLE IN WIDTH AS SHOWN ON DRAWINGS AUTHORIZING ACQUISTION OF RIGHT-OF-WAY PLAN FOR SR 1060 SECTION A20 R/W, SIGNED BY THE SECRETARY OF TRANSPORTATION ON JULY 12, 2022 AND RECORDED ON AUGUST 30, 2022 IN THE WESTMORELAND COUNTY RECORDER OF DEEDS OFFICE AS INSTRUMENT NUMBER 202208300030793.

THE LEGAL RIGHT-OF-WAY ON SR 1069, FORMERLY KNOWN AS LR 990, FROM STATION 17+50.00 TO STATION 18+50.00 IS VARIABLE IN WIDTH BASED ON A PENNSYLVANIA DEPARTMENT OF HIGHWAYS PLAN TITLED "FINAL DRAWINGS FOR CONSTRUCTION AND CONDEMNATION OF RIGHT-OF-WAY FOR ROUTE NO. 64261 SECTION 1" IN WESTMORELAND COUNTY, SIGNED BY THE GOVERNOR ON OCTOBER 27, 1960 AND RECORDED IN THE WESTMORELAND COUNTY RECORDER OF DEEDS OFFICE, IN PLANS VOLUME 35, PAGE 11.

THE LEGAL RIGHT-OF-WAY ON SR 2047 FROM STATION 108+90.00 TO STATION 114+75.00 IS VARIABLE IN WIDTH AS SHOWN ON DRAWINGS AUTHORIZING ACQUISTION OF RIGHT-OF-WAY PLAN FOR SR 2047 SECTION A20 R/W, SIGNED BY THE SECRETARY OF TRANSPORTATION ON JULY 12, 2022 AND RECORDED ON AUGUST 26, 2022 IN THE ARMSTRONG COUNTY RECORDER OF DEEDS OFFICE AS INSTRUMENT NUMBER 202209742.

THE LEGAL RIGHT-OF-WAY ON T-396, ALSO KNOWN AS SALINA ROAD, IS VARIABLE IN WIDTH BASED ON PLAN SR 1048, SEC 009 R/W, SIGNED ON AUGUST 13, 1996 AND RECORDED IN THE WESTMORELAND RECORDER'S OFFICE IN PLAN BOOK 59, PAGE 699.

THE LEGAL RIGHT-OF-WAY ON T-759, ALSO KNOWN AS TOWNSHIP ROAD, IS 33 FEET BASED ON THE ACT OF MAY 1, 1933, P.L. 103, SECTION 1105, AS AMENDED. IT HAS BEEN OPENED AND MAINTAINED FOR TWENTY-ONE (21) YEARS OR MORE BY BELL TOWNSHIP, A SECOND-CLASS TOWNSHIP. THERE IS NO PUBLIC RECORD OF ANY OTHER WIDTH.

THE LEGAL RIGHT-OF-WAY ON T-866, ALSO KNOWN AS SCHOOL STREET, IS 30 FEET BASED ON A PLAN OF LOTS FOR ELIZABETH J. KIERS, DATE JANUARY 22, 1908, AND RECORDED IN THE WESTMORELAND RECORDER'S OFFICE IN PLAN BOOK 4, PAGES 144 - 145.

THE LEGAL RIGHT-OF-WAY ON AN UNAMMED ALLEY, IS 16 FEET BASED ON A PLAN OF LOTS FOR ELIZABETH J. KIERS, DATE JANUARY 22, 1908, AND RECORDED IN THE WESTMORELAND RECORDER'S OFFICE IN PLAN BOOK 4, PAGES 144 - 145.

THE LEGAL RIGHT-OF-WAY ON T-813, ALSO KNOWN AS CECIL STREET, IS 40 FEET BASED ON A PLAN OF LOTS FOR ELIZABETH J. KIERS, DATE JANUARY 22, 1908, AND RECORDED IN THE WESTMORELAND RECORDER'S OFFICE IN PLAN BOOK 4, PAGES 144 - 145.

THE LEGAL RIGHT-OF-WAY ON T-760, ALSO KNOWN AS KIER ROAD, FROM STATION 5+21.00 TO STATION 6+05.00 IS 50 FEET BASED ON A PLAN OF LOTS FOR ELIZABETH J. KIERS, DATE JANUARY 22, 1908, AND RECORDED IN THE WESTMORELAND RECORDER'S OFFICE IN PLAN BOOK 4, PAGES 144 - 145.

THE LEGAL RIGHT-OF-WAY ON T-755, ALSO KNOW AS LARIMER ROAD, FROM STATION 5+13.20 TO STATION 5+90.00 IS 33 FEET BASED ON THE ACT OF MAY 1, 1933, P.L. 103, SECTION 1105, AS AMENDED. T-755 (LARIMER ROAD) HAS BEEN OPENED AND MAINTAINED FOR (21) YEARS OR MORE BY BELL TOWNSHIP, A SECOND-CLASS TOWNSHIP. THERE IS NO PUBLIC RECORD OF ANY OTHER WIDTH.

THE LEGAL RIGHT-OF-WAY ON T-873, ALSO KNOWN AS POINT STREET, FROM STATION 2+20.00 TO STATION 3+06.90 IS VARIABLE IN WIDTH BASED ON A PENNSYLVANIA DEPARTMENT OF HIGHWAYS PLAN TITLED "FINAL DRAWINGS FOR CONSTRUCTION AND CONDEMNATION OF RIGHT-OF-WAY FOR ROUTE NO. 64261 SECTION 1" IN WESTMORELAND COUNTY, SIGNED BY THE GOVERNOR ON OCTOBER 27, 1960 AND RECORDED IN THE WESTMORELAND COUNTY RECORDER OF DEEDS OFFICE, IN PLANS VOLUME 35, PAGE 11.

THE LEGAL RIGHT-OF-WAY ON T-345, ALSO KNOWN AS HIGH STREET, FROM STA 10+00.00 TO 13+73.30 IS VARIABLE IN WIDTH AS SHOWN ON DRAWINGS AUTHORIZING ACQUISTION OF RIGHT-OF-WAY PLAN FOR SR 2047 SECTION A20 R/W, SIGNED BY THE SECRETARY OF TRANSPORTATION ON JULY 12, 2022 AND RECORDED ON AUGUST 26, 2022 IN THE ARMSTRONG COUNTY RECORDER OF DEEDS OFFICE AS INSTRUMENT NUMBER 202209742.

THE LEGAL RIGHT-OF-WAY ON T-346, ALSO KNOWN AS WATER STREET, FROM STATION 3+47.47 TO STATION 4+70.00 IS 33 FT, BASED ON THE ACT OF MAY 1, 1933, P.L. 103, SECTION 1105, AS AMENDED. T-346 (WATER STREET) HAS BEEN OPENED AND MAINTAINED FOR (21) YEARS OR MORE BY KISKIMINETAS TOWNSHIP, A SECOND-CLASS TOWNSHIP. THERE IS NO PUBLIC RECORD OF ANY OTHER WIDTH.

## LEGEND

- COUNTY LINE
- TOWNSHIP LINE
- BOROUGH LINE
- STATE HIGHWAY
- TOWNSHIP ROAD
- PROJECT
- STREAM
- RAILROAD
- 981 PA TRAFFIC ROUTE
- NO DETOUR

## GENERAL NOTES

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

THE HORIZONTAL CONTROL IS TIED TO THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD 83, PA SOUTH ZONE). THE COMBINED FACTOR FOR THIS PROJECT IS 0.999960336. GROUND LEVEL DISTANCES CAN BE DERIVED BY DIVIDING THE NAD 83 DISTANCE, OR GRID DISTANCE, BY THE COMBINED FACTOR.

VERTICAL CONTROL IS BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) (GEOID 12B).

ALL CURVE DATA IS BASED ON THE ARC DEFINITION.

CONSTRUCT PROJECT IN ACCORDANCE WITH PUBLICATION 408 SPECIFICATIONS, DATED 2020.

SR 1060 PREVIOUSLY KNOWN AS LR 64261.

THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY FIELD SURVEY AND SEARCHES OF AVAILABLE RECORDS. THE DEPARTMENT OF TRANSPORTATION DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. VERIFY THEIR LOCATION IN THE FIELD PRIOR TO EXCAVATION.

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.

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.

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

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. _____ BELL TOWNSHIP, WESTMORELAND COUNTY.
SERIAL NO. _____ KISKIMINETAS TOWNSHIP, ARMSTRONG COUNTY.
ADDITIONAL INFORMATION IS AVAILABLE AT https://www.palcall.org/pa811/public/.

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.PAICALL.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).

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

BUILDINGS AND STRUCTURES MARKED [O] ARE ENCROACHMENTS WHICH ARE THE RESPONSIBLITY 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.

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

+85.04
50.00'
INDICATED MONUMENTED DIMENSIONS.


PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741


GENERAL NOTES

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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# TABULATION OF PROJECT COORDINATES

BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD 83, PA SOUTH ZONE)

| ROUTE | STATION | POINT | COORDINATES NORTH | COORDINATES EAST | BEARING |
|---|---|---|---|---|---|
| SURVEY AND CONSTR ℄ SR 1060 AND SR 2047 | 10+00.00 | POT | 436942.0160 | 1481233.8510 | |
| | 11+39.92 | PC | 437064.0275 | 1481302.3392 | N 29°18'24"E |
| | 13+09.00 | PI | 437211.4684 | 1481385.1016 | |
| | 14+64.41 | PT | 437271.9060 | 1481543.0120 | N 69°03'23"E |
| | 16+96.80 | PC | 437354.9738 | 1481760.0504 | |
| | 18+04.84 | PI | 437393.5926 | 1481860.9530 | N 43°02'34"E |
| | 19+09.16 | PT | 437472.5533 | 1481934.6954 | |
| | 21+23.62 | PC | 437629.2951 | 1482081.0788 | |
| | 22+91.73 | PI | 437752.1562 | 1482195.8205 | N 55°02'19"E |
| | 24+58.61 | PT | 437848.4862 | 1482333.5920 | |
| | 24+99.01 | PC | 437871.6353 | 1482366.6999 | |
| | 25+91.07 | PI | 437924.3855 | 1482442.1435 | N 58°33'14"E |
| | 26+83.06 | PT | 437972.4108 | 1482520.6794 | |
| | 26+98.65 BK | PI | 437980.5420 | 1482533.9763 | |
| | 90+09.74 AHD | PI | 437980.5420 | 1482533.9763 | N 57°46'44"E |
| | 91+88.07 | PC | 438075.6227 | 1482684.8385 | |
| | 92+21.04 | PI | 438093.2027 | 1482712.7323 | |
| | 92+54.00 | PT | 438112.3129 | 1482739.6009 | N 54°34'40"E |
| | 93+18.91 | PC | 438149.9348 | 1482792.4966 | |
| | 93+89.60 | PI | 438190.9101 | 1482850.1072 | |
| | 94+58.85 | PT | 438209.6557 | 1482918.2728 | N 74°37'25"E |
| | 97+87.89 | PC | 438296.9020 | 1483235.5322 | |
| | 98+93.60 | PI | 438324.9326 | 1483337.4616 | |
| | 99+99.23 | PCC | 438360.0684 | 1483437.1652 | N 70°35'15"E |
| | 100+90.56 | PI | 438390.4229 | 1483523.3014 | |
| | 101+62.01 | PT | 438481.2803 | 1483532.5621 | N 05°49'11"E |
| | 108+46.01 | PC | 439161.7543 | 1483601.9198 | |
| | 109+72.61 | PI | 439287.7063 | 1483614.7575 | |
| | 110+53.71 | PT | 439291.1009 | 1483741.3165 | N 88°27'49"E |
| | 111+31.61 | PC | 439293.1896 | 1483819.1871 | |
| | 112+24.56 | PI | 439295.6818 | 1483912.1000 | |
| | 113+11.88 | PT | 439350.2679 | 1483987.3289 | N 54°02'07"E |
| | 114+50.00 | POT | 439431.3847 | 1484099.1216 | |
| SURVEY AND CONSTR ℄ SR 1069 | 10+00.00 | POT | 438361.5528 | 1483441.1855 | N 68°53'11"E |
| | 13+63.29 | PC | 438492.4180 | 1483780.0893 | |
| | 16+15.52 | PI | 438583.2772 | 1484015.3884 | N 84°00'37"E |
| | 18+64.82 | PT | 438609.5974 | 1484266.2436 | |
| | 19+00.00 | POT | 438613.2684 | 1484301.2309 | |
| SURVEY AND CONSTR ℄ T-345 | 9+50.00 | POT | 439344.0965 | 1483279.7173 | S 49°51'52"E |
| | 10+00.72 | PC | 439311.4007 | 1483318.4961 | |
| | 10+48.30 | PI | 439280.7353 | 1483399.0708 | N 88°27'49"E |
| | 10+91.64 | PT | 439282.0109 | 1483402.4224 | |
| | 14+30.65 | POT | 439291.1009 | 1483741.3165 | |
| SOUTH ACCESS ROAD Ⓑ | 10+00.00 | POT | 438600.2977 | 1484218.8592 | S 83°13'41"W |
| | 10+76.76 | PC | 438591.2462 | 1484142.6347 | |
| | 11+17.50 | PI | 438586.4425 | 1484102.1816 | N 42°48'00"W |
| | 11+52.12 | PT | 438616.3327 | 1484074.5029 | |
| | 11+81.63 | PC | 438637.9871 | 1484054.4506 | |
| | 12+10.48 | PI | 438659.1536 | 1484034.8502 | N 82°27'30"W |
| | 12+37.01 | PT | 438662.9397 | 1484006.2521 | |
| | 15+99.30 | PC | 438710.4897 | 1483647.0915 | |
| | 16+57.52 | PI | 438718.1313 | 1483589.3716 | N 5°49'11"E |
| | 16+91.74 | PT | 438776.0547 | 1483595.2755 | |
| | 21+94.85 | POT | 439276.5659 | 1483646.2904 | |
| NORTH ACCESS ROAD Ⓑ | 10+00.00 | POT | 439272.8455 | 1483515.1203 | S 3°04'44"E |
| | 11+19.72 | PC | 439153.3004 | 1483521.5502 | |
| | 11+38.19 | PI | 439134.8558 | 1483522.5423 | S 75°59'47"E |
| | 11+51.53 | PT | 439130.3861 | 1483540.4646 | |
| | 13+15.56 | PC | 439090.6949 | 1483699.6141 | |
| | 13+71.15 | PI | 439077.2433 | 1483753.5511 | S 55°34'26"W |
| | 13+72.97 | PT | 439045.8165 | 1483707.6981 | |
| | 14+83.66 | POT | 438983.2375 | 1483616.3927 | |

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

# TABULATION OF PROJECT COORDINATES

BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD 83, PA SOUTH ZONE)

| ROUTE | STATION | POINT | COORDINATES NORTH | COORDINATES EAST | BEARING |
|---|---|---|---|---|---|
| CONSTR ℄ SR 0981 | 136+00.00 | POT | 437088.8626 | 1480972.2430 | S 60°41'37"E |
| | 146+00.00 | POT | 436599.3813 | 1481844.2569 | |
| CONSTR ℄ T-760 | 5+00.00 | POT | 437980.5420 | 1482533.9763 | N 89°44'14"E |
| | 7+00.00 | POT | 437981.4588 | 1482733.9742 | |
| CONSTR ℄ T-755 | 5+00.00 | POT | 438165.5565 | 1483279.7173 | N 65°24'58"W |
| | 5+75.82 | PC | 438197.1012 | 1483318.4961 | |
| | 7+58.13 | PI | 438272.9439 | 1483399.0708 | N 39°16'55"W |
| | 9+34.09 | PT | 438414.0540 | 1483402.4224 | |
| | 9+49.27 | POT | 438425.8042 | 1483741.3165 | |
| CONSTR ℄ T-873 | 2+00.00 | POT | 438155.7012 | 1482800.8254 | S 85°53'43"E |
| | 3+25.00 | POT | 438146.7540 | 1482925.5048 | |
| CONSTR ℄ T-346 | 3+00.00 | PC | 439293.6429 | 1483829.4830 | S 82°52'18"E |
| | 4+38.58 | PI | 439276.4459 | 1483966.9917 | N 79°37'17"E |
| | 5+75.00 | PT | 439301.4114 | 1484103.3042 | |

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

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

| | | | | | |
|---|---|---|---|---|---|
| RC-10M | ( 1 SHEET) | JUNE 1, 2010 | BC-701M | FEB 19, 2021 |
| RC-11M | ( 2 SHEETS) | JUNE 1, 2010 | BC-713M | FEB 19, 2021 |
| RC-12M | ( 2 SHEETS) | NOV 1, 2022 | BC-732M | JAN 31, 2019 |
| RC-13M | ( 1 SHEET) | JUNE 1, 2010 | BC-734M | FEB 19, 2021 |
| RC-20M | (15 SHEETS) | NOV 1, 2022 | BC-735M | SEPT 30, 2016 |
| RC-23M | ( 3 SHEETS) | FEB 8, 2019 | BC-736M | JAN 31, 2019 |
| RC-24M | ( 3 SHEETS) | FEB 19, 2021 | BC-751M | JAN 31, 2019 |
| RC-25M | ( 4 SHEETS) | FEB 27, 2023 | BC-752M | FEB 19, 2021 |
| RC-27M | ( 2 SHEETS) | NOV 30, 2021 | BC-753M | JAN 31, 2019 |
| RC-28M | ( 2 SHEETS) | NOV 1, 2022 | BC-754M | JAN 31, 2019 |
| RC-30M | ( 5 SHEETS) | FEB 27, 2023 | BC-756M | SEPT 30, 2016 |
| RC-31M | ( 3 SHEETS) | NOV 30, 2021 | BC-757M | SEPT 30, 2016 |
| RC-45M | (24 SHEETS) | FEB 19, 2021 | BC-762M | JAN 31, 2019 |
| RC-46M | (34 SHEETS) | FEB 19, 2021 | BC-788M | JAN 31, 2019 |
| RC-50M | (16 SHEETS) | FEB 27, 2023 | | |
| RC-51M | (18 SHEETS) | FEB 27, 2023 | | |
| RC-54M | (12 SHEETS) | FEB 27, 2023 | TC-8600 | JUNE 13, 2013 |
| RC-60M | ( 3 SHEETS) | JUNE 1, 2010 | TC-8604 | AUG 17, 2021 |
| RC-61M | ( 1 SHEET) | JUNE 1, 2010 | TC-8702B | JUNE 13, 2013 |
| RC-64M | ( 2 SHEETS) | FEB 19, 2021 | TC-8716 | JUNE 13, 2013 |
| RC-70M | ( 3 SHEETS) | FEB 8, 2019 | TC-8717 | JUNE 13, 2013 |
| RC-73M | ( 4 SHEETS) | FEB 8, 2019 | | |
| RC-75M | ( 1 SHEET) | JUNE 1, 2010 | | |
| RC-77M | ( 1 SHEET) | DEC 17, 2019 | | |

## 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 CLASS 1 EXC | CLASS 1B EXC | CLASS 2 EXC | CLASS 3 EXC * | CLASS 4 EXC | CUBIC YARDS OF COMPLETED EMBANKMENT | CUBIC YARDS OF SELECTED BORROW EXCAVATION, 206 ROCK, SANDSTONE | CUBIC YARDS OF SELECTED BORROW EXCAVATION, ROCK, CLASS R-3 | CUBIC YARDS OF SELECTED BORROW EXCAVATION, COARSE AGGREGATE NO. 2A | CUBIC YARDS OF SELECTED BORROW EXCAVATION, ROCK, CLASS R-8 | CUBIC YARDS OF SELECTED BORROW EXCAVATION, ROCK, CLASS NO. 57 | CUBIC YARDS OF SELECTED COARSE AGGREGATE NO. 1 | CUBIC YARDS OF STRUCTURE BACKFILL * | ROCK, CLASS R-3 | ROCK, CLASS R-6 | ROCK, CLASS R-8 | CUBIC YARDS OF CLEAR & GRUB | CUBIC YARDS OF WASTE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ▲40,169 | 3277 | 139 | 6320 | ⊠ 2240 | ⬢ 8744 | ◆ 14,628 | 190 | ▼ 619 | ■ 676 | ► 291 | 261 | 6800 | ⬮ 1013 | ⬮ 17,735 | ⬮ 849 | ▪ 2719 | 42,372 |

* PART OF LUMP SUM STRUCTURE ITEM

■ QUANTITY IS BASED ON 1.5 TON/CY

▲ 23,987 CY INCLUDED IN RIVER ACCESS LUMP SUM ITEM

◆ 5385 CY INCLUDED IN RIVER ACCESS LUMP SUM ITEM

⬢ INCLUDED IN "FOR INFORMATION ONLY" QUANTITIES

⊠ 287 CY INCLUDED IN "FOR INFORMATION ONLY" QUANTITIES

⬮ INCLUDED IN RIVER ACCESS LUMP SUM ITEM

▼ 579 CY INCLUDED IN RIVER ACCESS LUMP SUM ITEMS

► 287 CY INCLUDED IN "FOR INFORMATION ONLY" QUANTITIES

▪ 471 CY STOCKPILED FOR TOPSOIL (STA 12+35 TO STA 14+90 LT/RT - SEE CROSS SECTION SHEETS 2-3)

## GENERAL NOTES

* WESTMORELAND COUNTY AND ARMSTRONG COUNTY

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 5 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
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| | | | |

## TABULATION OF OVERALL LENGTH

SR 1060
STA 10+00.00 TO STA 26+98.65 = 1698.65 FT = 0.322 MI
STA 90+09.74 TO STA 108+90.00 = 1880.26 FT = 0.356 MI
TOTAL = 3578.91 FT = 0.678 MI

SR 2047
SR 2047 STA 108+90.00 TO STA 114+75.00 = 585.00 FT = 0.111 MI

## TABULATION OF CONSTRUCTION LENGTH

SR 1060
STA 10+19.32 TO STA 26+98.65 = 1679.33 FT = 0.318 MI
STA 90+09.74 TO STA 108+90.00 = 1880.26 FT = 0.356 MI
TOTAL = 3559.59 FT = 0.674 MI

SR 2047
SR 2047 STA 108+90.00 TO STA 114+00.00 = 510.00 FT = 0.097 MI

## LIST OF STATION EQUALITIES

SR 1060
STA 26+98.65 BK = STA 90+09.74 AHD

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

| DES: CJS | DWG: BSP | CKD: DLJ/CAB |
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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 6 OF 87 |
| BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP | | | | |

| REVISION NUMBER | REVISIONS | DATE | BY |
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* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY

## AERIAL EASEMENT NOTES

WHERE AN AERIAL EASEMENT IS ACQUIRED, IT SHALL INCLUDE AN EASEMENT IN THE AIR FOR THE ACCOMMODATION OF THE ELEVATED HIGHWAY STRUCTURE UNLIMITED IN VERTICAL DIMENSION ABOVE THE STRUCTURE, A SURFACE EASEMENT UNLIMITED IN VERTICAL DIMENSION FOR THE ACCOMMODATION OF PIERS AND OTHER APPURTENANCES AND A TEMPORARY EASEMENT FOR CONSTRUCTION PURPOSES INCLUDING THE STORAGE OF MATERIALS DURING CONSTRUCTION FOR THE ENTIRE AREA. THE FOLLOWING LIMITATIONS SHALL BE IMPOSED ON THE PROPERTY BENEATH THE AREA AFFECTED BY THE AERIAL EASEMENT.

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

2. NO FLAMMABLE, EXPLOSIVE, DANGEROUS OR HAZARDOUS MATERIAL SHALL BE USED, PLACED OR STORED ON THE PROPERTY.

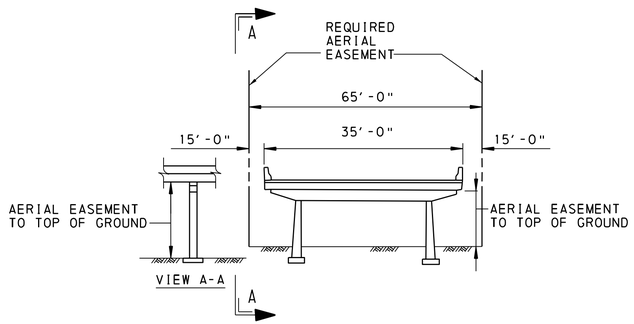
3. NO BUILDING OR OTHER FACILITY SHALL BE CONSTRUCTED ON THE PROPERTY WITHOUT PRIOR AUTHORITY OF THE DEPARTMENT OF TRANSPORTATION. IF AND WHEN SUCH AUTHORITY IS GRANTED, THE PLANS FOR THE BUILDING OR FACILITY AND CONSTRUCTION METHODS SHALL BE SUBJECT TO THE APPROVAL OF THE DEPARTMENT OF TRANSPORTATION.

4. NO INTERFERENCE SHALL BE MADE WITH THE RIGHT OF THE DEPARTMENT OF TRANSPORTATION TO ENTER UPON THE PROPERTY FOR THE PURPOSES OF INSPECTION, MAINTENANCE, REPAIR, PAINTING, RECONSTRUCTION OR ALTERATION OF THE STRUCTURE OR APPURTENANCES. MOVEABLE ITEMS MAY HAVE TO BE REMOVED BY THE OWNER DURING SOME OR ALL OF THE ABOVE OPERATIONS.

5. ANY SUBSTANTIAL CHANGE IN PROPERTY USE TO BE MADE SUBSEQUENT TO THE ACQUISITION OF THE EASEMENT SHALL BE SUBJECT TO THE APPROVAL OF THE DEPARTMENT OF TRANSPORTATION.

6. THE NOTES ON THIS DRAWING SHALL NOT BE CONSTRUED AS LIMITING OR INTERFERING IN ANY WAY WITH THE PRESENT AND FUTURE OPERATION, USE, MAINTENANCE, REPAIR, RENEWAL, CHANGE, ADDITION, BETTERMENT OR ALTERATION OF THE RAILROAD AND ITS SUPPORTING FACILITIES.

7. THE AREA WITHIN THE AERIAL EASEMENT BENEATH THE BRIDGE STRUCTURE SHALL BE AVAILABLE TO THE DEPARTMENT, ITS QUALIFIED EMPLOYEES AND CONTRACTORS IN ORDER TO INSPECT AND MAINTAIN THE STRUCTURE UPON CONTACTING THE RAILROAD AND ESTABLISHING PROPER PROTECTION FOR THE WORK IN ACCORDANCE WITH THE USUAL AND CUSTOMARY PROCEDURES THAT THE RAILROAD HAS ESTABLISHED FOR SUCH PROTECTION.




SKETCH SHOWING ESTATE TO BE ACQUIRED FOR A LIMITED AERIAL EASEMENT FROM STATION 101+85.00 TO STATION 104+26.79.

USE OF AIRSPACE BENEATH THE ESTABLISHED GRADELINE OF THE HIGHWAY SHALL PROVIDE SUFFICIENT VERTICAL AND HORIZONTAL CLEARANCES FOR THE CONSTRUCTION, OPERATION, MAINTENANCE, VENTILATION AND SAFETY OF THE HIGHWAY FACILITY. THE ESTATE ACQUIRED ABOVE THE AERIAL EASEMENT LINE MAY BE ENTERED ON BY MOVING VEHICLES SUCH AS TRUCKS OR RAILROAD ROLLING STOCK.

## LIST OF PUBLIC UTILITIES

—E— WEST PENN POWER
—E— 143 WEST PENN DR.
JEANNETTE, PA 15644
ATTN: ROB HOLMAN
PHONE: (724) 523-7238
EMAIL: rholman@firstenergycorp.com

—CTV— COMCAST
—CTV— 1250 GREENSBURG RD.
LOWER BURRELL, PA 15068
ATTN: JOHN RADESHAK
PHONE: (724) 212-7236
EMAIL: John_Radeshak@cable.comcast.com

—T— VERIZON (GTE FIBER)
—T— 508 OLD FRANKSTOWN ROAD
—TU— MONROEVILLE, PA 15146
ATTN: MIKE FOWKES
PHONE: (412) 793-3803 (412) 558-5601
EMAIL: michael.g.fowkes@verizon.com

—FOU— WINDSTREAM (INSIDE T-CUBED DUCT)
WINDSTREAM 1003 TREASURE LAKE
DUBOIS, PA 15801
ATTN: LARRY GOGLIN
PHONE: (814) 715-1692
EMAIL: larry.goglin@windstream.com

—FOU— T-CUBED
T-CUBED NORFOLK SOUTHERN CORPORATION
PUBLIC IMPROVEMENTS
1200 PEACHTREE ST. NE
ATLANTA, GEORGIA 30309
ATTN: SHAWN STARLING
PHONE: (404) 527-2536
EMAIL: douglas.starling@nscorp.com

—W— MUNICIPAL AUTHORITY OF
WESTMORELAND COUNTY
P.O. BOX 730
GREENSBURG, PA 15601
ATTN: M. CURTIS FONTAINE, P.E.
MANAGER OF OPERATIONS ENGINEERING
PHONE: (724) 755-5955
EMAIL: mawc@mawc.org

—G— PEOPLES GAS COMPANY LLC
375 NORTH SHORE DRIVE
PITTSBURGH, PA 15212
ATTN: MICHAEL DENNY
PHONE:
EMAIL: MICHAEL.DENNY@PEOPLES-GAS.COM

PENNSYLVANIA ONE CALL SYSTEM, INC 1-800-242-1776
PRELIMINARY DESIGN SERIAL NO 20211613512 BELL TOWNSHIP, WESTMORELAND COUNTY
PRELIMINARY DESIGN SERIAL NO 20190420712 BELL TOWNSHIP, WESTMORELAND COUNTY
PRELIMINARY DESIGN SERIAL NO 20190420713 KISKIMINETAS TOWNSHIP, ARMSTRONG COUNTY
FINAL DESIGN SERIAL NO BELL TOWNSHIP, WESTMORELAND COUNTY
FINAL DESIGN SERIAL NO KISKIMINETAS TOWNSHIP, ARMSTRONG COUNTY

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

## GENERAL NOTES

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 7 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
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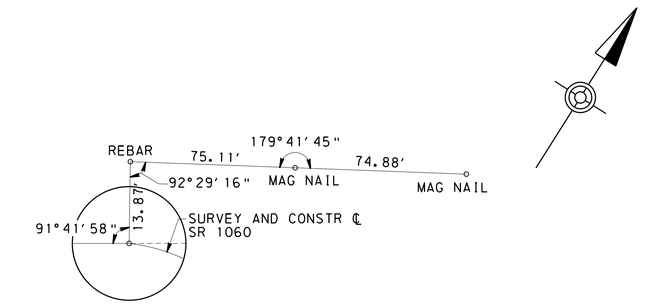
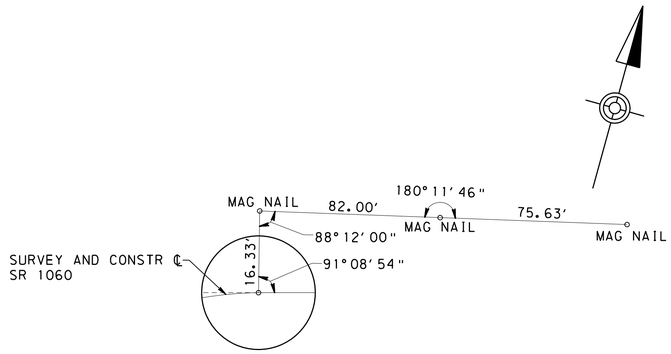
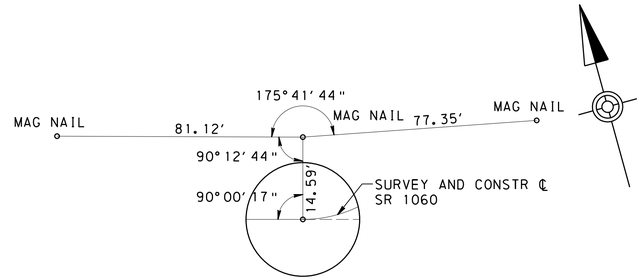
* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY



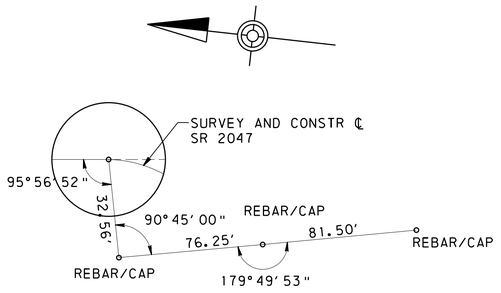

SURVEY AND CONSTR ℄ SR 1060
PC STA 91+88.07



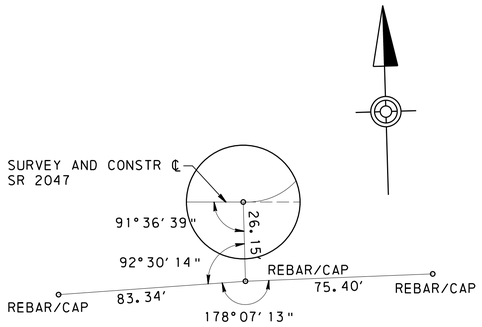

SURVEY AND CONSTR ℄ SR 1060
PT STA 94+58.85



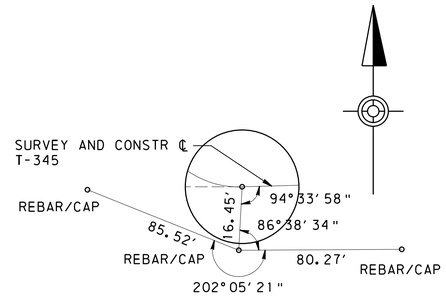

SURVEY AND CONSTR ℄ SR 1060
PC STA 97+87.89



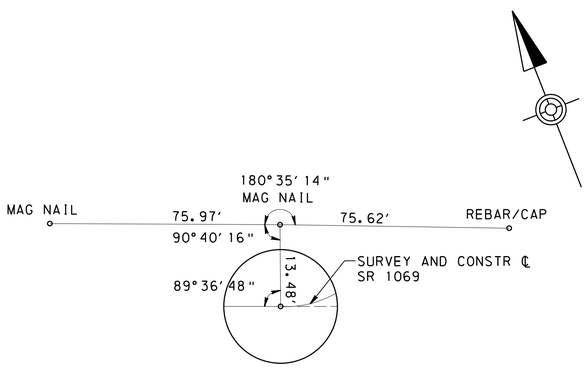

SURVEY AND CONSTR ℄ SR 2047
PC STA 108+46.01



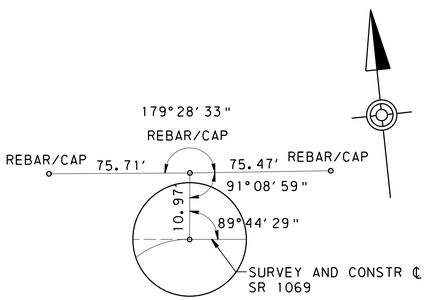

SURVEY AND CONSTR ℄ SR 2047
PC STA 111+31.61




SURVEY AND CONSTR ℄ T-345
PT STA 10+91.64




SURVEY AND CONSTR ℄ SR 1069
PC STA 13+63.29




SURVEY AND CONSTR ℄ SR 1069
PT STA 18+64.82

NOT TO SCALE

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

## SURVEY REFERENCES

| DES: CJS | DWG: BSP | CKD: DLJ/CAB |
|---|---|---|

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 9 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

* WESTMORELAND COUNTY AND ARMSTRONG COUNTY

NOTES:

APPLY ALL ROADWAY JOINT SEALING IN ACCORDANCE WITH PUBLICATION 408 SECTION 469 ( INCIDENTAL TO THE COURSE BEING PLACED).

APPLY SEPARATE LAYER OF ASPHALT TACK COAT (NTT/CNTT) FOR EACH PAVING COURSE, INCLUDING MULTIPLE LIFTS OF THE SAME MATERIAL.

REFER TO RC-10M FOR CUT SLOPE ROUNDING.

◩ SEE CROSS SLOPE TRANSITION DIAGRAM, ON SHEETS 8 & 9.

SEEDING LEGEND

-- D --·-·-·- D - SEEDING & SOIL SUPPLEMENTS - FORMULA L CLEAR ZONE MIX, INCLUDING MULCH

① SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, <0.3 MILLION ESALS, 9.5 MM MIX, 1½" DEPTH, SRL-M

② SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE (LEVELING), PG 64S-22, <0.3 MILLION ESALS, 9.5 MM MIX, SRL-L

③ SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE, PG 64S-22, <0.3 MILLION ESALS, 19.0 MM MIX, 2½" DEPTH

④ SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, <0.3 MILLION ESALS, 25.0 MM MIX, 3" DEPTH

⑤ SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, <0.3 MILLION ESALS, 25.0 MM MIX, 4" DEPTH

⑥ SUBBASE 6" DEPTH (NO. 2A)

⑦ PLAIN CEMENT CONCRETE PAVEMENT, 12" DEPTH

⑧ CEMENT OR ASPHALT TREATED PERMEABLE BASE COURSE, 4" DEPTH

⑨ SUBBASE 4" DEPTH (NO. 2A)

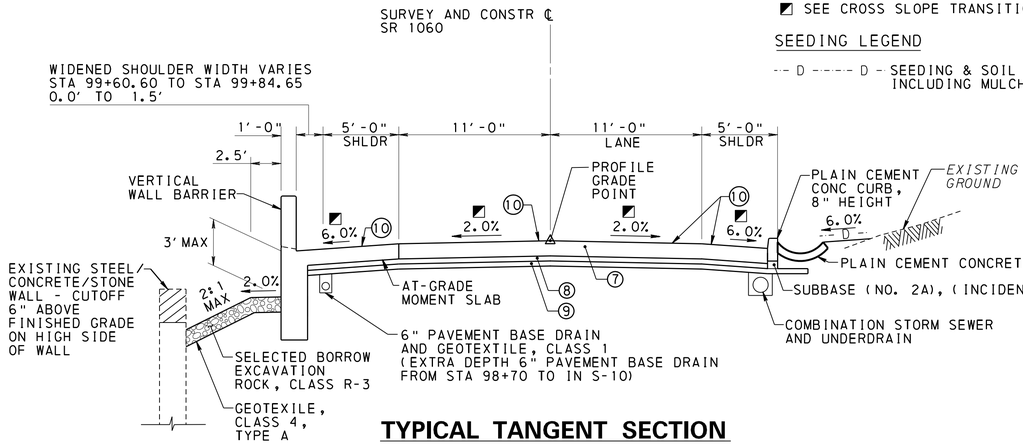
⑩ HIGH FRICTION SURFACE TREATMENT (HFST)

SURVEY AND CONSTR ℄ SR 1060 AND SR 2047

| | ES | EP | | EP | ES |
|---|---|---|---|---|---|
| STA 113+64.38 | 6.0% | 2.0% | 2.0% | | 6.0% |
| STA 113+32.88 | 6.0% | 2.0% | 0.0% | | 4.0% |
| STA 113+01.38 | 6.0% | 2.0% | 2.0% | | 2.0% |
| STA 111+42.11 | 6.0% | 2.0% | 2.0% | | 2.0% |
| STA 111+10.61 | 6.0% | 2.0% | 0.0% | | 4.0% |
| STA 111+06.21 | 6.0% | 2.0% | 0.3% | | 6.0% |
| STA 110+79.11 | 4.3% | 0.3% | 2.0% | | 6.0% |
| STA 110+74.71 | 4.0% | 0.0% | 2.0% | | 6.0% |
| STA 110+43.21 | 2.0% | 2.0% | 2.0% | | 6.0% |
| STA 109+50.00 | 2.0% | 2.0% | 2.0% | | 6.0% |
| STA 109+00.00 | 2.0% | 2.0% | 2.0% | | 4.0% |
| STA 108+56.51 | 2.0% | 2.0% | 2.0% | | 4.0% |
| STA 108+25.01 | 2.0% | 0.0% | 2.0% | | 4.0% |
| STA 107+93.51 | 2.0% | 2.0% | 2.0% | | 4.0% |
| STA 107+46.80 | 4.0% | 2.0% | 2.0% | | 4.0% |
| STA 102+14.51 | 4.0% | 2.0% | 2.0% | | 4.0% |
| STA 101+83.01 | 4.0% | 2.0% | 0.0% | | 3.0% |
| STA 101+51.51 | 4.0% | 2.0% | 2.0% | | 2.0% |
| STA 101+00.00 | 4.0% | 2.0% | 2.0% | | 2.0% |
| STA 100+50.00 | 6.0% | 2.0% | 2.0% | | 2.0% |
| STA 99+77.73 | 6.0% | 2.0% | 2.0% | | 2.0% |
| STA 99+46.23 | 6.0% | 2.0% | 0.0% | | 4.0% |
| STA 99+14.73 | 6.0% | 2.0% | 2.0% | | 6.0% |

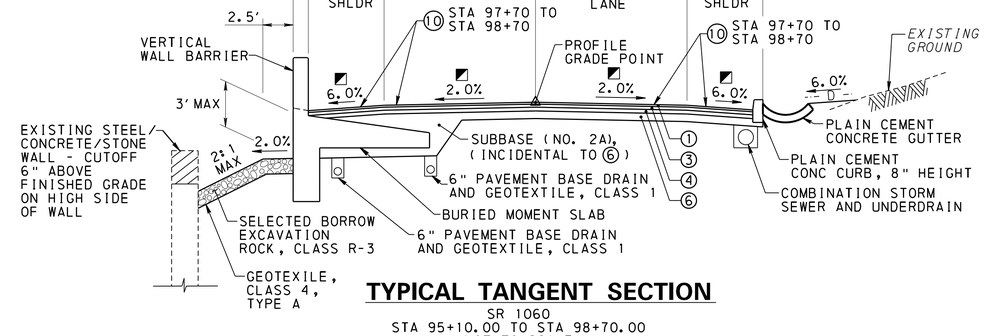
CROSS SLOPE TRANSITIONS

● SUPERELEVATION ROTATION POINT IS ABOUT THE CENTERLINE



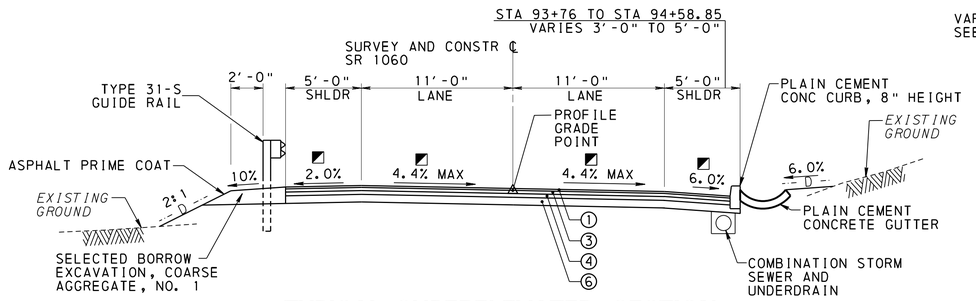

## TYPICAL TANGENT SECTION

SR 1060
STA 98+70.00 TO STA 99+84.65
NOT TO SCALE



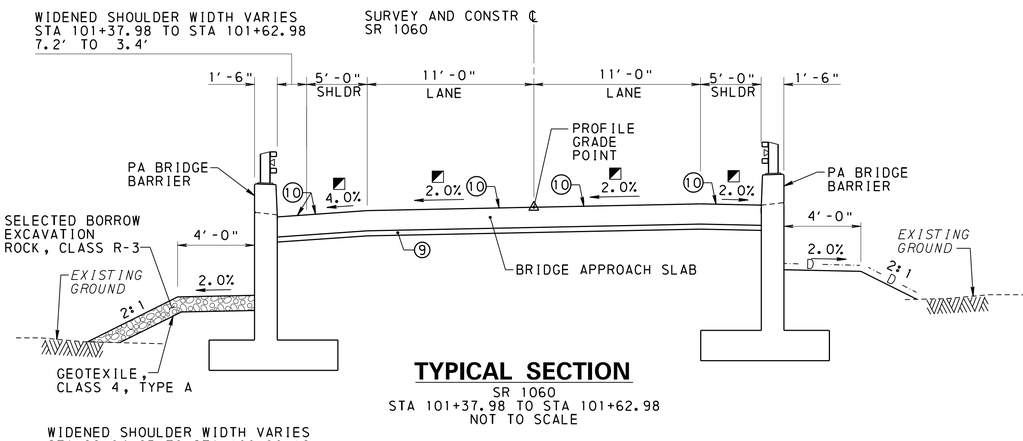

## TYPICAL TANGENT SECTION

SR 1060
STA 95+10.00 TO STA 98+70.00
NOT TO SCALE



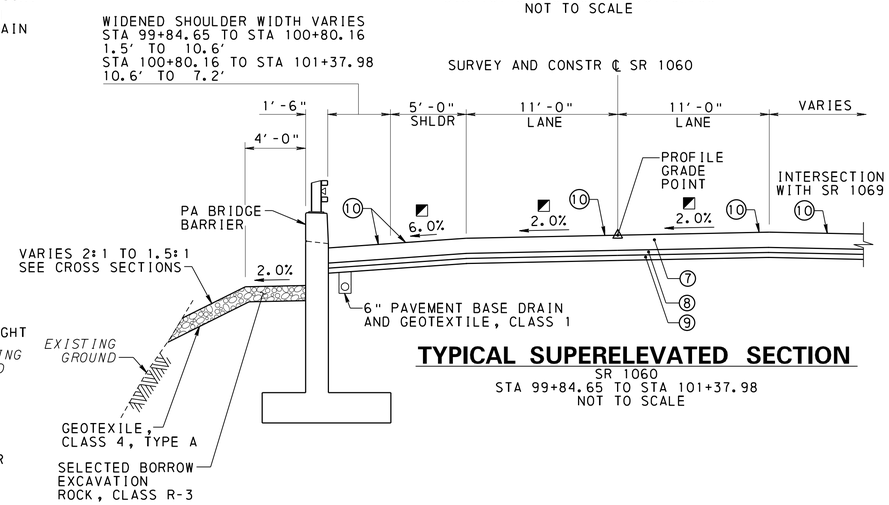

## TYPICAL SUPERELEVATED SECTION

SR 1060
STA 93+72.32 TO STA 95+10.00
NOT TO SCALE




## TYPICAL SECTION

SR 1060
STA 101+37.98 TO STA 101+62.98
NOT TO SCALE




## TYPICAL SUPERELEVATED SECTION

SR 1060
STA 99+84.65 TO STA 101+37.98
NOT TO SCALE

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

# TYPICAL SECTIONS

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 10 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
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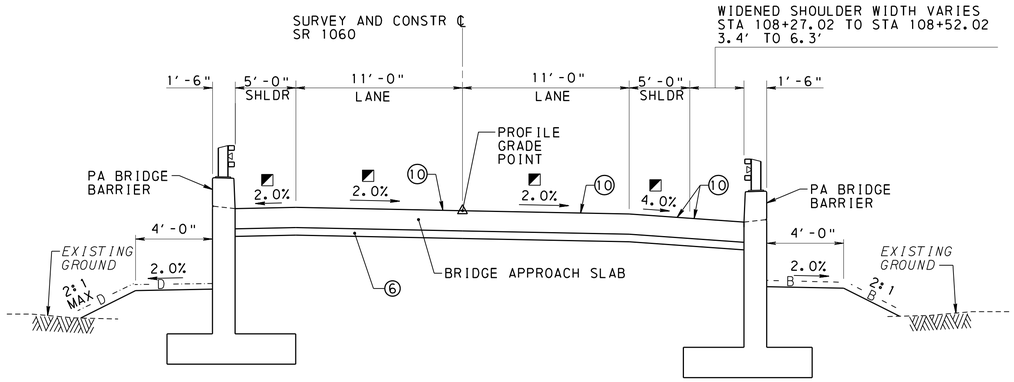
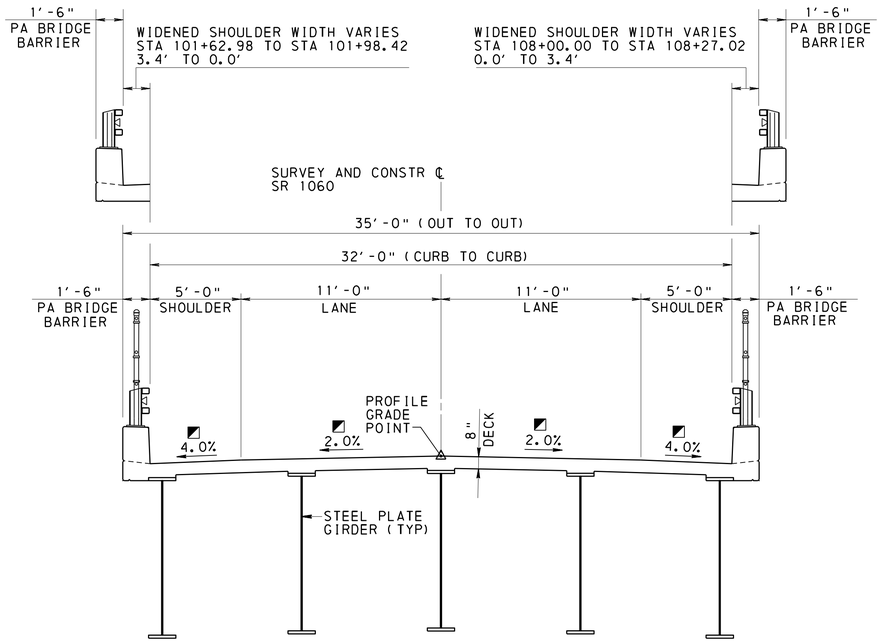


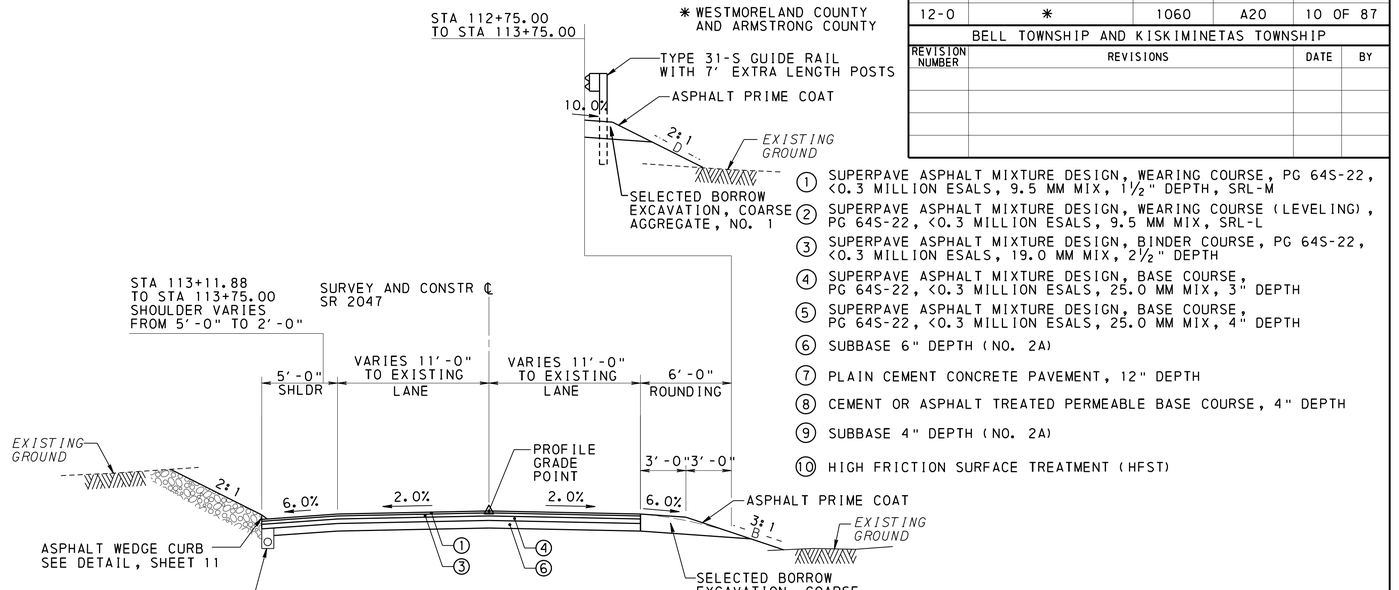

## TYPICAL SECTION

SR 1060
STA 108+27.02 TO STA 108+52.02
NOT TO SCALE




## TYPICAL BRIDGE SECTION

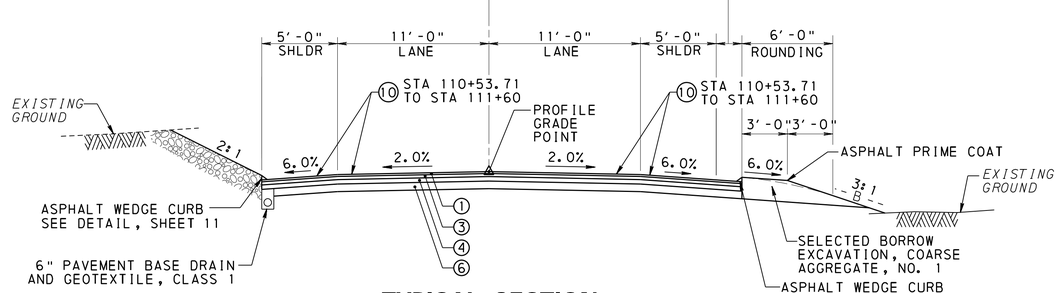
SR 1060
STA 101+62.98 TO STA 108+27.02
NOT TO SCALE




1. SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, <0.3 MILLION ESALS, 9.5 MM MIX, 1½" DEPTH, SRL-M
2. SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE (LEVELING), PG 64S-22, <0.3 MILLION ESALS, 9.5 MM MIX, SRL-L
3. SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE, PG 64S-22, <0.3 MILLION ESALS, 19.0 MM MIX, 2½" DEPTH
4. SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, <0.3 MILLION ESALS, 25.0 MM MIX, 3" DEPTH
5. SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, <0.3 MILLION ESALS, 25.0 MM MIX, 4" DEPTH
6. SUBBASE 6" DEPTH (NO. 2A)
7. PLAIN CEMENT CONCRETE PAVEMENT, 12" DEPTH
8. CEMENT OR ASPHALT TREATED PERMEABLE BASE COURSE, 4" DEPTH
9. SUBBASE 4" DEPTH (NO. 2A)
10. HIGH FRICTION SURFACE TREATMENT (HFST)

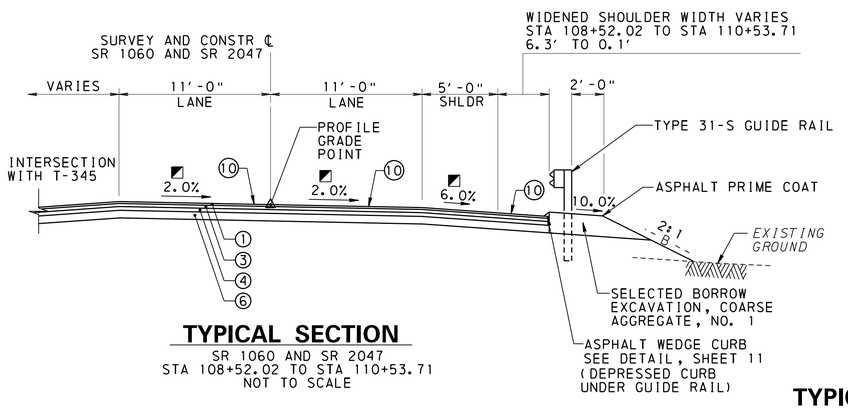
## TYPICAL SECTION

SR 2047
STA 111+87.28 TO STA 113+75.00
NOT TO SCALE




## TYPICAL SECTION

SR 2047
STA 110+53.71 TO STA 111+87.28
NOT TO SCALE




## TYPICAL SECTION

SR 1060 AND SR 2047
STA 108+52.02 TO STA 110+53.71
NOT TO SCALE

NOTES:

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REFER TO RC-10M FOR CUT SLOPE ROUNDING.

◩ FOR CROSS SLOPE TRANSITION DIAGRAM, SEE SHEET 9.

SEEDING LEGEND

- B - - - - B - - SEEDING & SOIL SUPPLEMENTS - FORMULA B RESIDENTIAL MIX, INCLUDING MULCH
- D - - - - D - SEEDING & SOIL SUPPLEMENTS - FORMULA L CLEAR ZONE MIX, INCLUDING MULCH

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 07074

# TYPICAL SECTIONS

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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* WESTMORELAND COUNTY AND ARMSTRONG COUNTY

NOTES:

APPLY ALL ROADWAY JOINT SEALING IN ACCORDANCE WITH PUBLICATION 408 SECTION 469 (INCIDENTAL TO THE COURSE BEING PLACED).

APPLY SEPARATE LAYER OF ASPHALT TACK COAT (NTT/CNTT) FOR EACH PAVING COURSE, INCLUDING MULTIPLE LIFTS OF THE SAME MATERIAL.

REFER TO RC-10M FOR CUT SLOPE ROUNDING.

SEEDING LEGEND

-- D --.--.-- D - SEEDING & SOIL SUPPLEMENTS - FORMULA L CLEAR ZONE MIX, INCLUDING MULCH

① SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, <0.3 MILLION ESALS, 9.5 MM MIX, 1½" DEPTH, SRL-M

② SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE (LEVELING), PG 64S-22, <0.3 MILLION ESALS, 9.5 MM MIX, SRL-L

③ SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE, PG 64S-22, <0.3 MILLION ESALS, 19.0 MM MIX, 2½" DEPTH

④ SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, <0.3 MILLION ESALS, 25.0 MM MIX, 3" DEPTH

⑤ SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, <0.3 MILLION ESALS, 25.0 MM MIX, 4" DEPTH

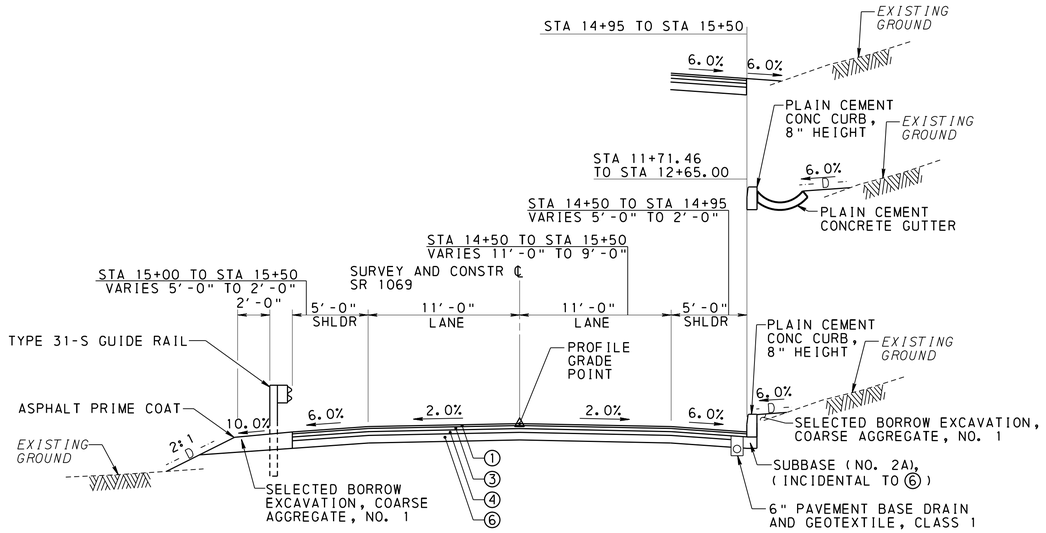
⑥ SUBBASE 6" DEPTH (NO. 2A)

⑦ PLAIN CEMENT CONCRETE PAVEMENT, 12" DEPTH

⑧ CEMENT OR ASPHALT TREATED PERMEABLE BASE COURSE, 4" DEPTH

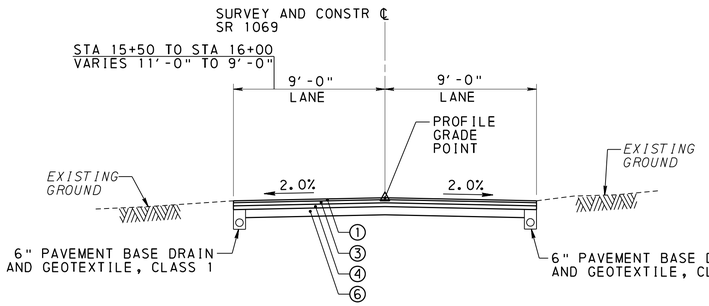
⑨ SUBBASE 4" DEPTH (NO. 2A)

⑩ HIGH FRICTION SURFACE TREATMENT (HFST)



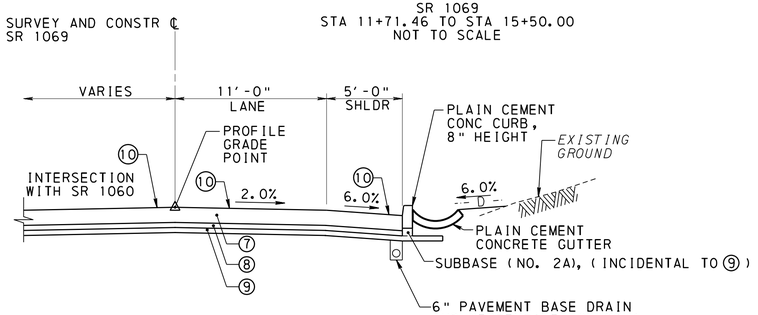

## TYPICAL SECTION

SR 1069
STA 11+71.46 TO STA 15+50.00
NOT TO SCALE



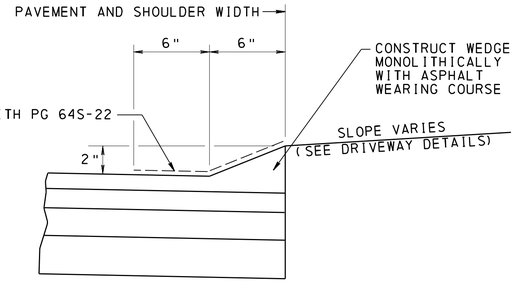

## TYPICAL SECTION

SR 1069
STA 15+50.00 TO STA 18+50.00
NOT TO SCALE



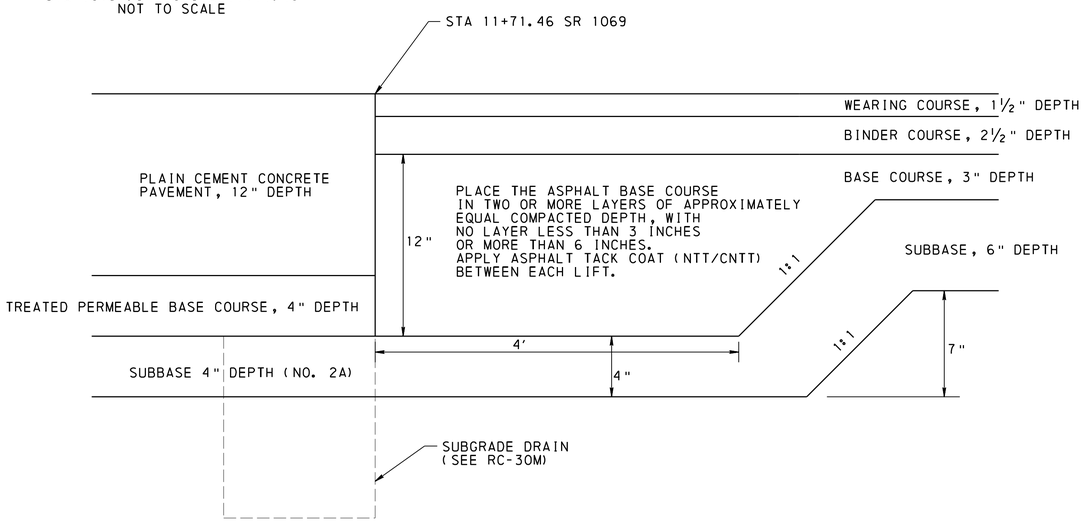

## TYPICAL SECTION

SR 1069
STA 10+57.34 TO STA 11+71.46
NOT TO SCALE



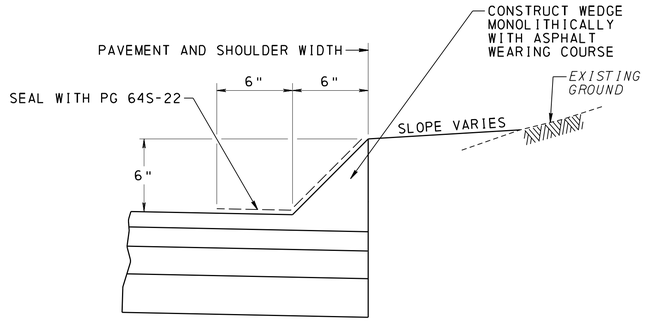

## DEPRESSED ASPHALT WEDGE CURB DETAIL (USE AT DRIVEWAYS AND UNDER GUIDE RAIL)

NOT TO SCALE
NO PAY ITEM




## TRANSITION FROM ASPHALT TO CONCRETE PAVEMENT DETAIL

NOT TO SCALE
NO PAY ITEM




## ASPHALT WEDGE CURB DETAIL

NOT TO SCALE
NO PAY ITEM

## TYPICAL SECTIONS

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 12 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
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* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY

NOTES:

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REFER TO RC-10M FOR CUT SLOPE ROUNDING.

SEEDING LEGEND

- B - - - B - - SEEDING & SOIL SUPPLEMENTS - FORMULA B RESIDENTIAL MIX, INCLUDING MULCH
- D - · - · - D - SEEDING & SOIL SUPPLEMENTS - FORMULA L CLEAR ZONE MIX, INCLUDING MULCH

① SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, <0.3 MILLION ESALS, 9.5 MM MIX, 1½" DEPTH, SRL-M

② SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE (LEVELING), PG 64S-22, <0.3 MILLION ESALS, 9.5 MM MIX, SRL-L

③ SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE, PG 64S-22, <0.3 MILLION ESALS, 19.0 MM MIX, 2½" DEPTH

④ SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, <0.3 MILLION ESALS, 25.0 MM MIX, 3" DEPTH

⑤ SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, <0.3 MILLION ESALS, 25.0 MM MIX, 4" DEPTH

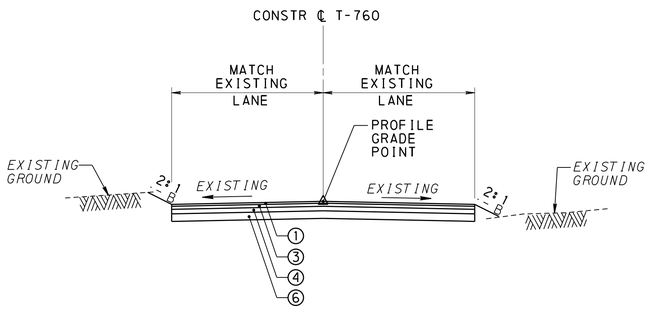
⑥ SUBBASE 6" DEPTH (NO. 2A)

⑦ PLAIN CEMENT CONCRETE PAVEMENT, 12" DEPTH

⑧ CEMENT OR ASPHALT TREATED PERMEABLE BASE COURSE, 4" DEPTH

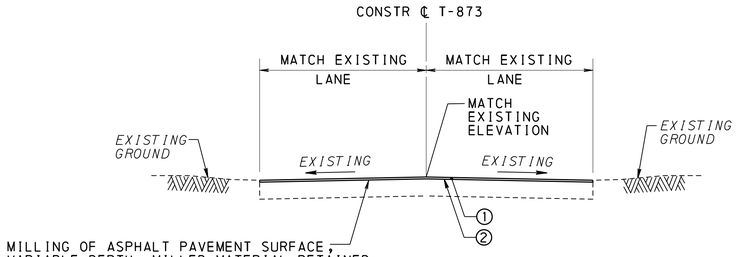
⑨ SUBBASE 4" DEPTH (NO. 2A)

⑩ HIGH FRICTION SURFACE TREATMENT (HFST)



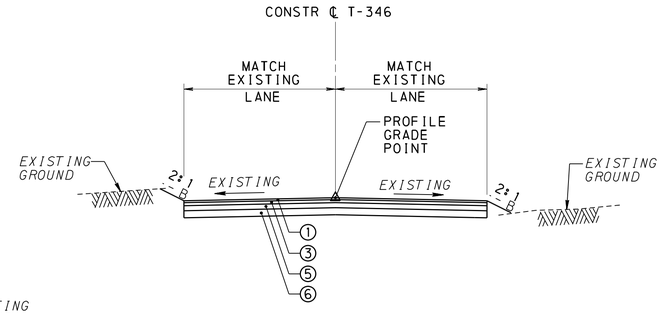

## TYPICAL TANGENT SECTION

T-760
STA 5+21.00 TO STA 6+05.00
NOT TO SCALE



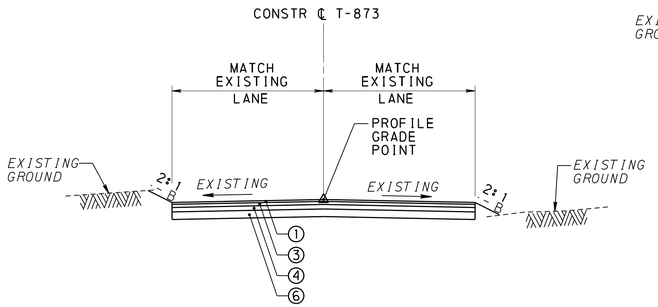

## TYPICAL TANGENT SECTION

T-873
STA 2+66.00 TO STA 3+06.90
NOT TO SCALE



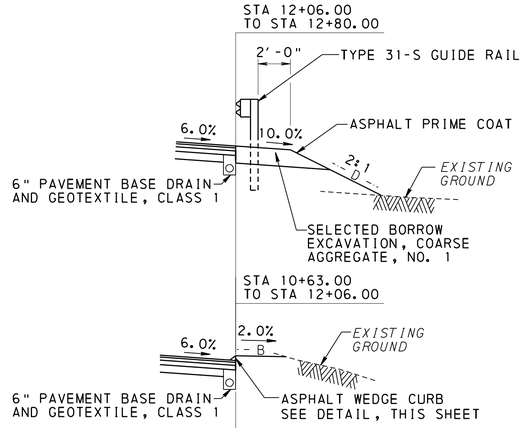

## TYPICAL TANGENT SECTION

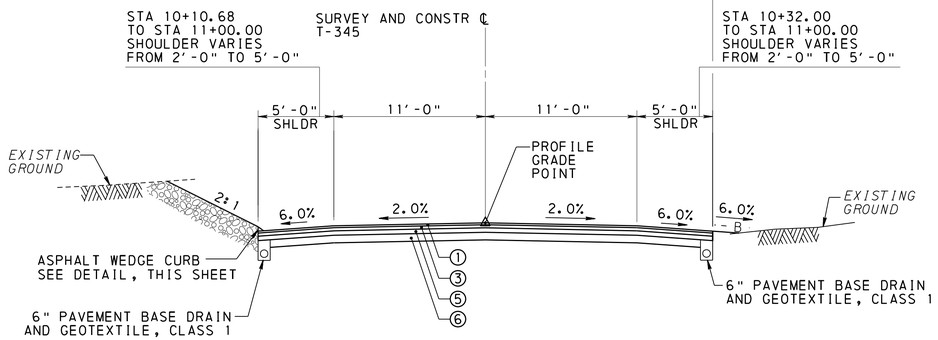
T-346
STA 3+47.47 TO STA 4+70.00
NOT TO SCALE




## TYPICAL TANGENT SECTION

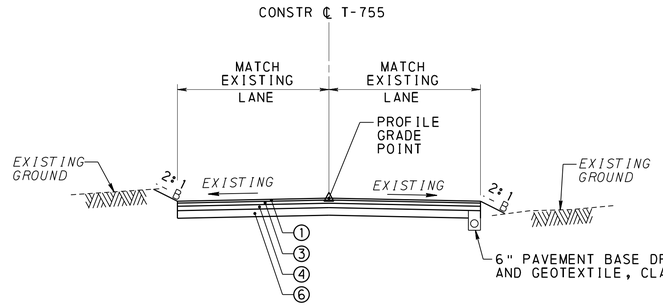
T-873
STA 2+20.00 TO STA 2+66.00
NOT TO SCALE




## TYPICAL SECTION

T-345
STA 10+00.00 TO STA 13+73.30
NOT TO SCALE




## TYPICAL TANGENT SECTION

T-755
STA 5+13.20 TO STA 5+70.00
NOT TO SCALE

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 07074

# TYPICAL SECTIONS

| DES: CJS | DWG: BSP | CKD: DLJ/CAB |
|---|---|---|

6/6/2023 7:25:21 PM

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 13 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
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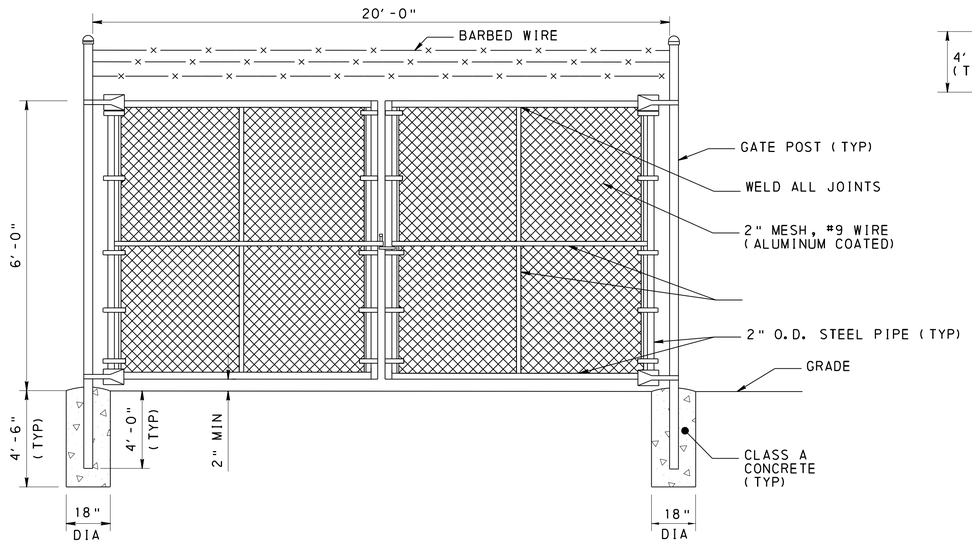
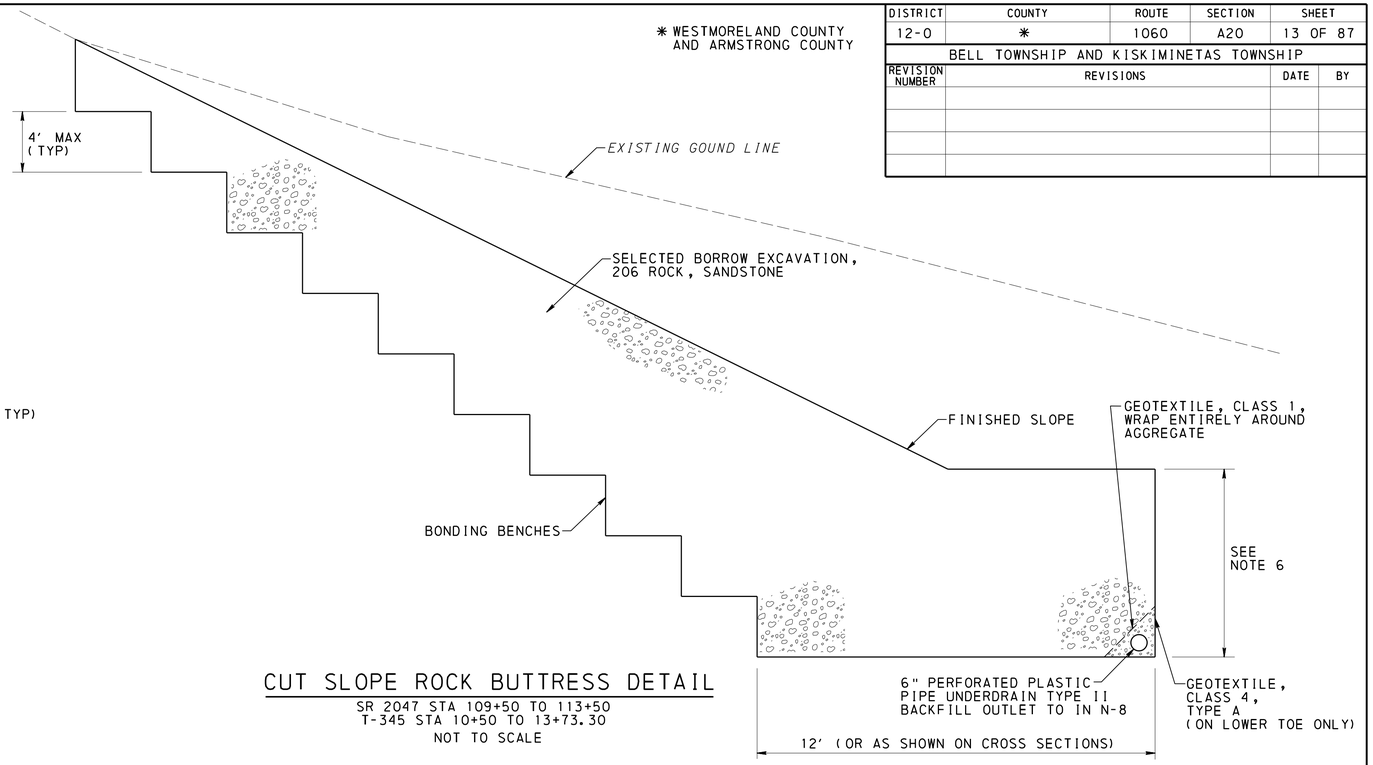



## VEHICULAR GATE FOR CHAIN LINK FENCE, (6' HEIGHT) DETAIL

ITEM NO. 9000-0004
NOT TO SCALE

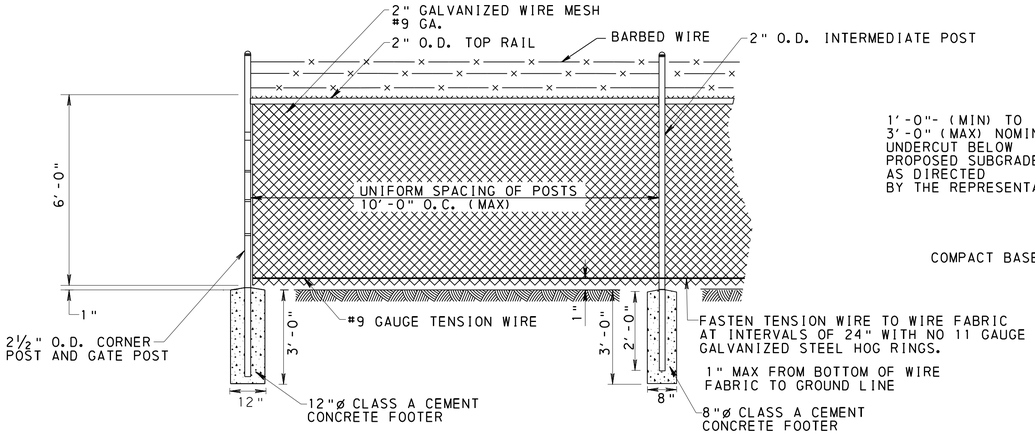



## CUT SLOPE ROCK BUTTRESS DETAIL

SR 2047 STA 109+50 TO 113+50
T-345 STA 10+50 TO 13+73.30
NOT TO SCALE

### NOTES:

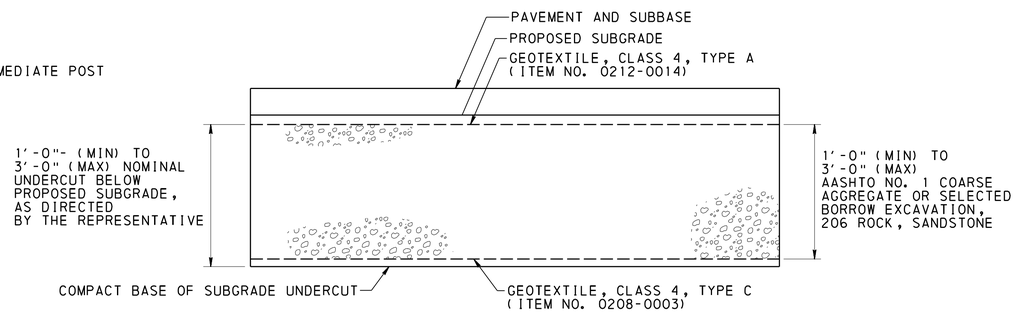
1. BACKFILL MATERIAL TO CONSIST OF SELECTED BORROW EXCAVATION, 206 ROCK, SANDSTONE WHICH MEETS THE REQUIREMENTS OF PUB 408 SECTION 206.2(a)1.d.
2. EXCAVATE FROM TOP OF CUT TOWARDS THE ROAD GRADE.
3. CONSTRUCT ROCK BUTTRESS IN SEGMENTS. ALL EXCAVATION FOR ROCK BUTTRESS IS TO BE BACK FILLED WITH SELECTED BORROW EXCAVATION, 206 ROCK, SANDSTONE THE SAME DAY.
4. THE MAXIMUM CUT HEIGHT FOR BONDING BENCHES IS 4 FEET (NOMINAL) OR TRIM TEMPORARY EXCAVATION SLOPE ABOVE THE BENCH TO MAINTAIN SLOPE STABILITY OR USE OTHER MEANS FOR STABILITY AT NO ADDITIONAL COST TO THE DEPARTMENT.
5. FILL BENCH CONFIGURATION AND NOMINAL SLOPES SHOWN ON THE CROSS SECTIONS ARE FOR ESTIMATES OF QUANTITIES. ACTUAL QUANTITIES AND CONFIGURATIONS WILL BE DETERMINED BASED ON FIELD CONDITIONS AT THE TIME OF CONSTRUCTION.
6. THE DEPTH OF THE TOE AND SHAPE OF BUTTRESS AT TOE ARE TO BE AS SHOWN ON THE CROSS SECTIONS.
7. ALL ROCK BUTTRESS EXCAVATIONS MUST BE INSPECTED AND APPROVED BY THE DISTRICT GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE.




## CHAIN LINK FENCE (6' HEIGHT) DETAIL

ITEM NO. 9000-0003
NOT TO SCALE

NOTE:
CONSTRUCT AS PER MANUFACTURES SPECIFICATIONS.
ALL MATERIALS INCIDENTAL TO INSTALLATION.




## SUBGRADE UNDERCUT DETAIL
## ITEM 0208-0001 SPECIAL ROLLING
## ITEM 0208-0002 EXCAVATION/BACKFILL/COMPACTION

NOT TO SCALE

### NOTES:

1. PERFORM SPECIAL ROLLING TO DETERMINE WEAK SUBGRADE AREA (ITEM NO. 0208-0001).
2. PERFORM UNDERCUTTING/EXCAVATION AT LOCATIONS AS DIRECTED BY THE REPRESENTATIVE. DEPTH OF UNDERCUT 1'-0" (MIN) TO 3'-0" (MAX).
3. COMPACT BOTTOM OF THE UNDERCUT.
4. GEOTEXTILE, CLASS 4, TYPE C TO BE USED FOR STABILIZATION.
5. PLACE SELECTED BORROW EXCAVATION, COARSE AGGREGATE, NO. 1 IN 8"- MAXIMUM LIFTS.
6. GEOTEXTILE, CLASS 4, TYPE A TO BE USED FOR LAYER SEPARATION.
7. 8" OF NO. 1 COARSE AGGREGATE OR 6" OF SUBBASE MATERIAL IS TO BE IN PLACE ON GEOTEXTILE BEFORE PERMITTING COMPACTION.


PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 07074


## SPECIAL DETAILS

DES: CJS | DWG: BSP | CKD: DLJ/CAB

6/6/2023 7:26:21 PM

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 15 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
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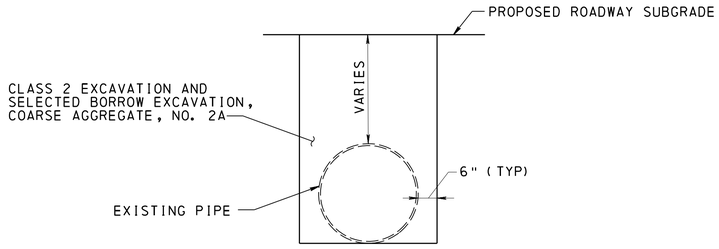
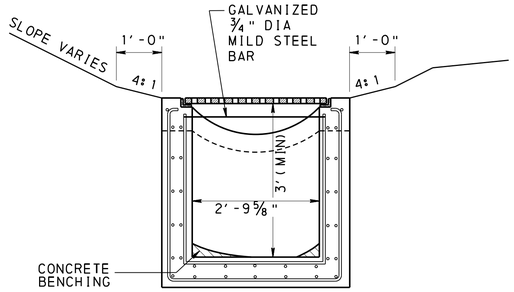
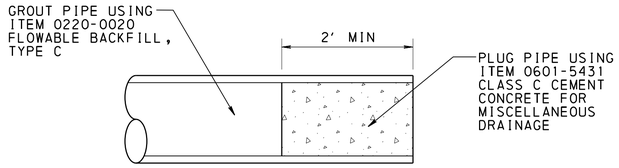
* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY




## EXISTING PIPE REMOVAL
NOT TO SCALE

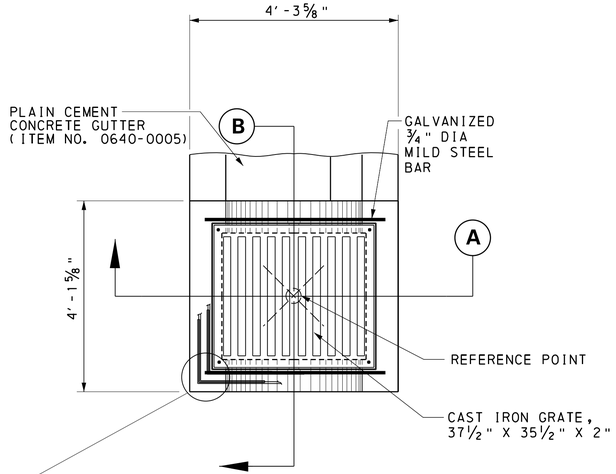



SECTION A

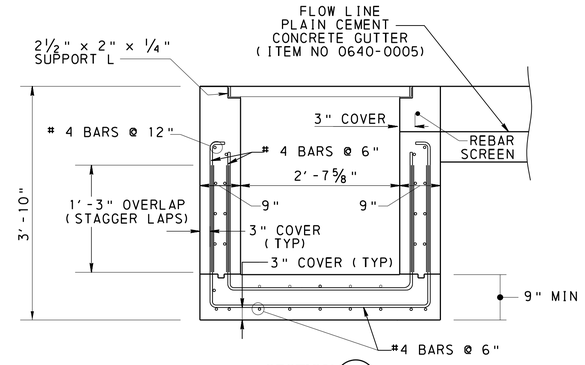



NOTES:
1. PLUG PIPE AT BOTH ENDS UNLESS OTHERWISE NOTED ON PLAN.
2. USE CLASS C CEMENT CONCRETE.
3. SEE DRAINAGE TABULATION QUANTITIES AND ROADWAY PLANS FOR LOCATIONS.

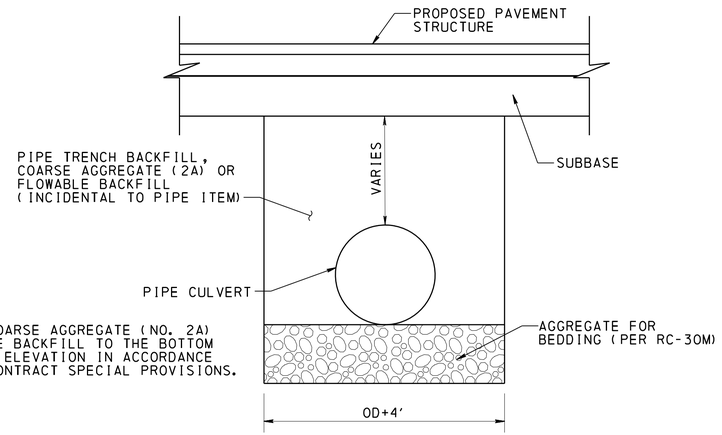
## PERMANENT PIPE PLUG AND GROUT DETAIL
NOT TO SCALE




## PLAN
NOT TO SCALE

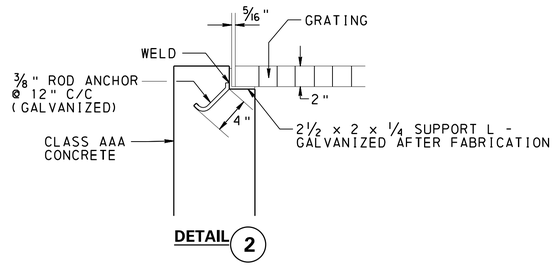



SECTION B



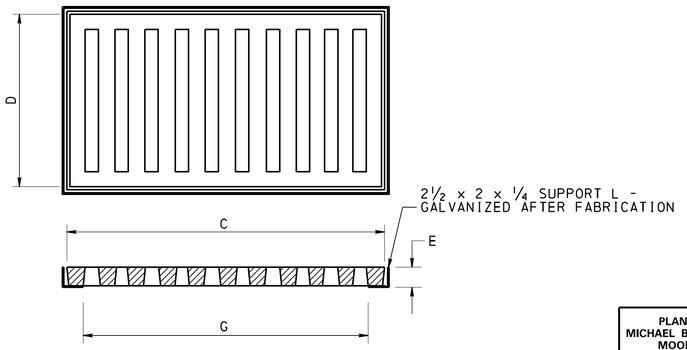

NOTE:
1. BACKFILL COARSE AGGREGATE (NO. 2A) OR FLOWABLE BACKFILL TO THE BOTTOM OF SUBBASE ELEVATION IN ACCORDANCE WITH THE CONTRACT SPECIAL PROVISIONS.

## BACKFILL PIPE TRENCH DETAIL FOR PIPES UNDER PAVEMENT AND SHOULDER AREA (EXCLUDES COMBINATION STORM SEWER)
NOT TO SCALE




DETAIL 2

## TYPE B INLET BOX
ITEM NO 9000-0180
NOT TO SCALE




| DIMENSIONS (INCHES) | | | |
|---|---|---|---|
| C | D | E | G |
| 37½ | 35½ | 2 | 35½x33½ |

## TYPE B INLET GRATE

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEPHEN J. KRAMER
ENGINEER
039885-E

# SPECIAL DETAILS

| DES: SJK | DWG: CB | CKD: ER |
|---|---|---|

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 16 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
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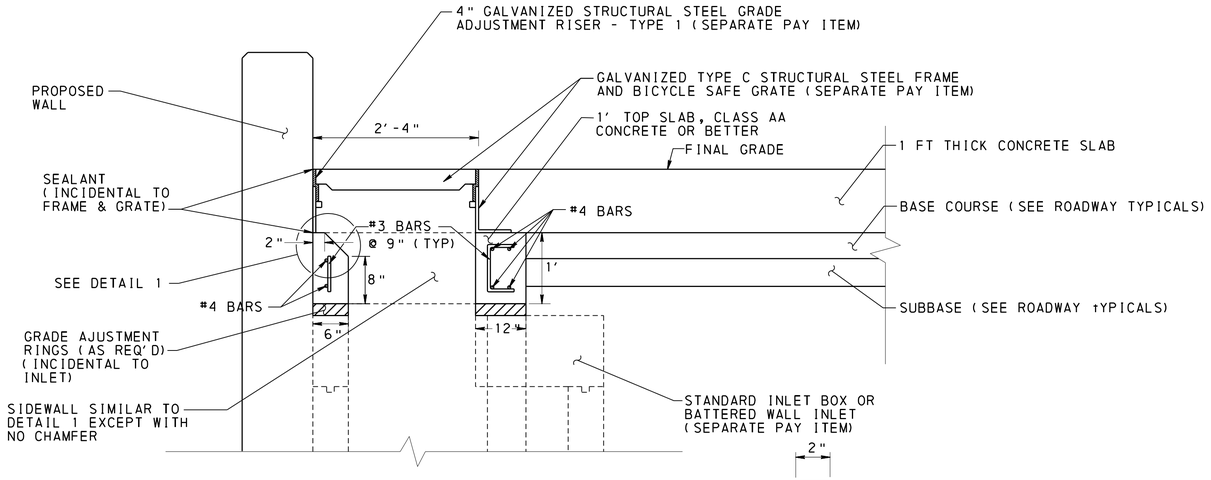
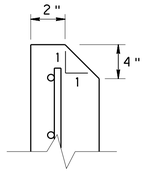
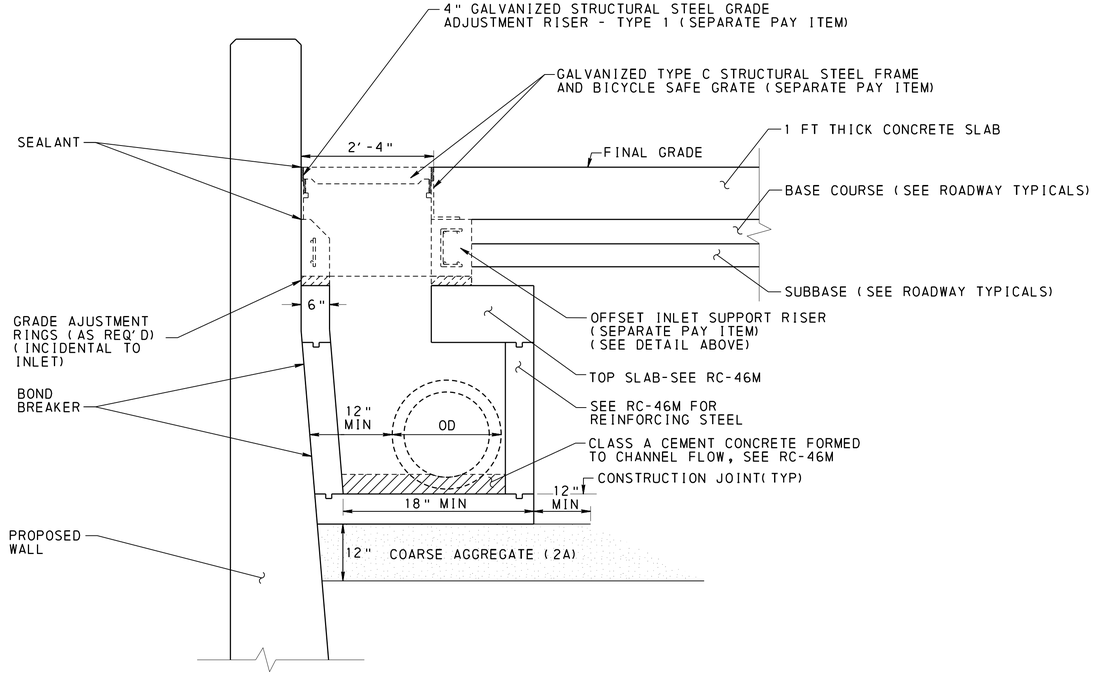
* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY



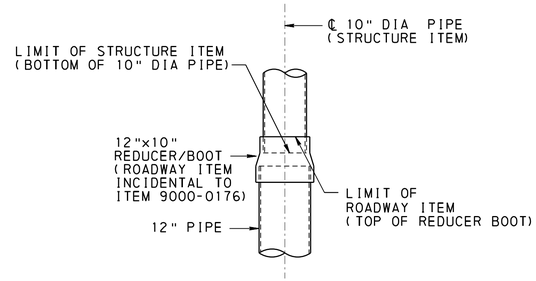

**OFFSET INLET SUPPORT RISER**
ITEM NO. 9000-0184
NOT TO SCALE



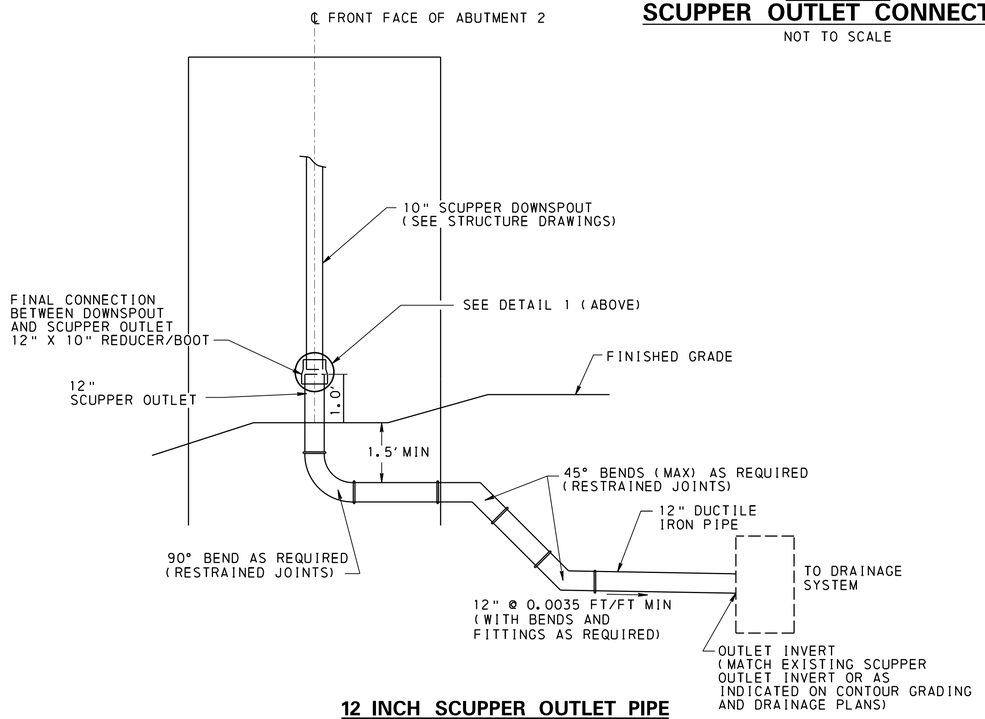

**DETAIL 1**
NOT TO SCALE




**BATTERED WALL INLET**
ITEM NO. 9000-0183
NOT TO SCALE




**DETAIL 1**
**SCUPPER OUTLET CONNECTION**
NOT TO SCALE




**12 INCH SCUPPER OUTLET PIPE**
ITEM NO. 9000-0176
NOT TO SCALE

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEPHEN J. KRAMER
ENGINEER
039885-E

**SPECIAL DETAILS**

| DES: SJK | DWG: CB | CKD: ER |
|---|---|---|

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 17 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
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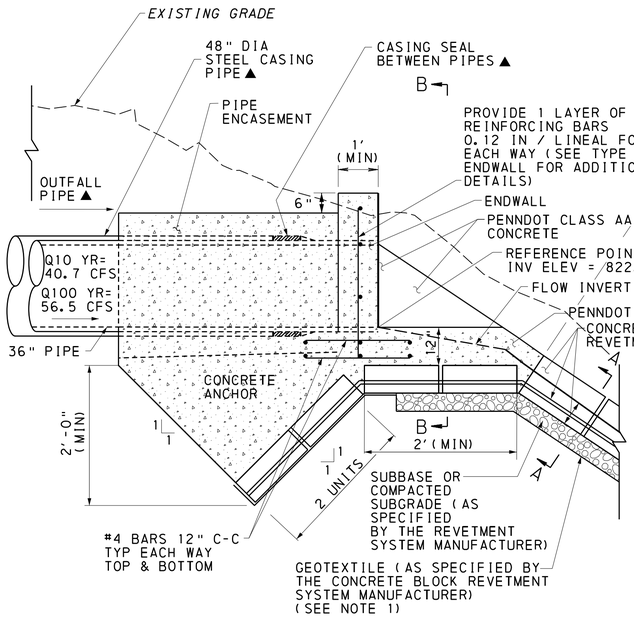
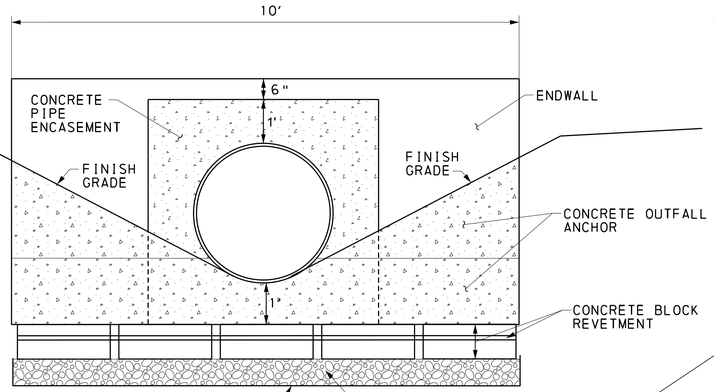
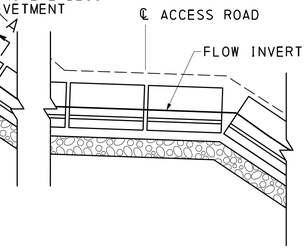
* WESTMORELAND COUNTY AND ARMSTRONG COUNTY

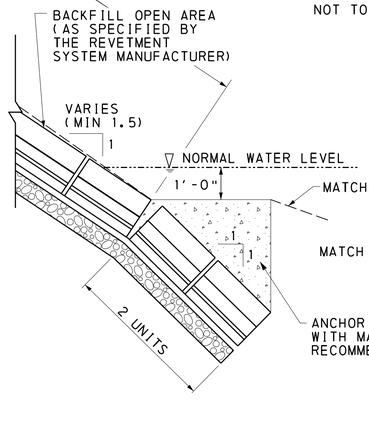


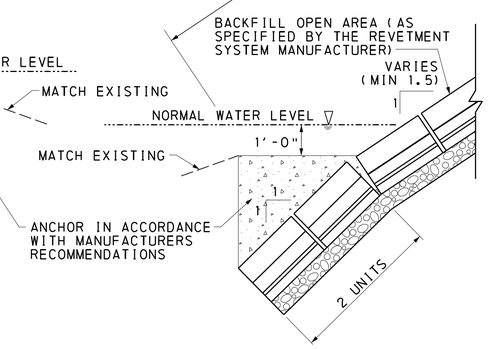

**PROFILE OUTFALL NO. 2**
NOT TO SCALE

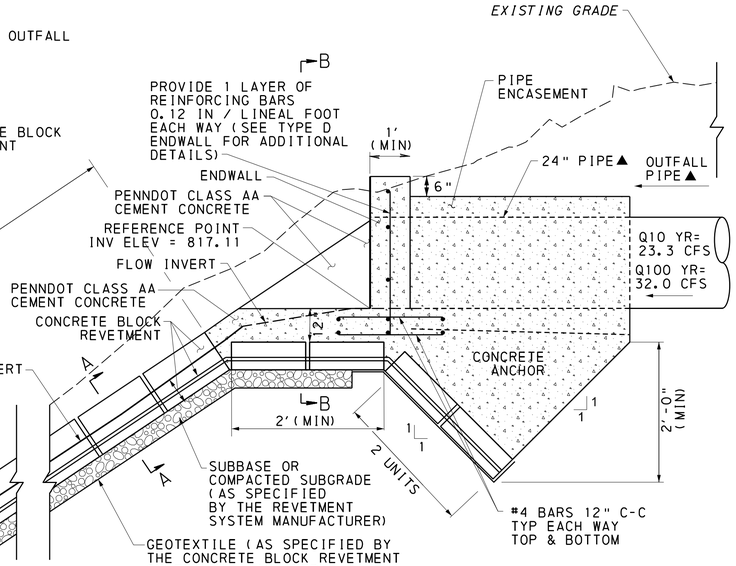



**SECTION B–B**
NOT TO SCALE



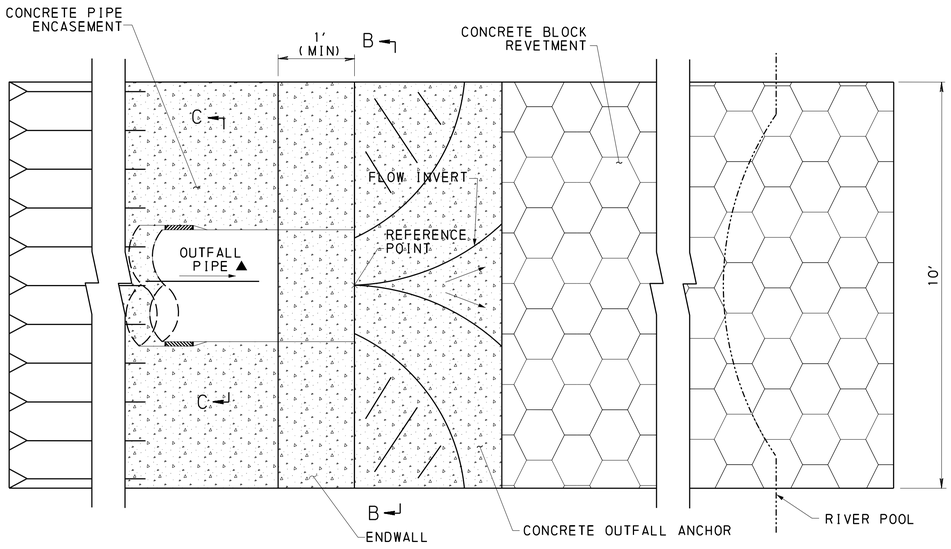




**PROFILE OUTFALL NO. 1**
NOT TO SCALE

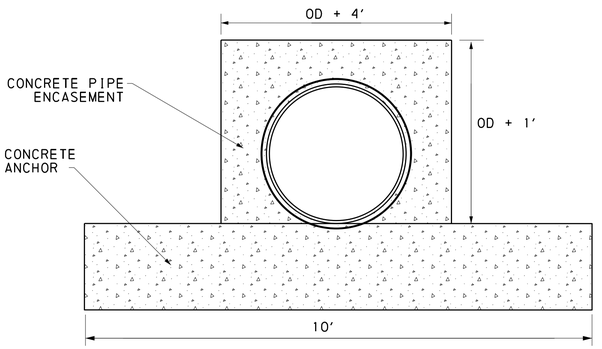
NOTE:

1. GRADE SLOPE TO BE A SMOOTH SURFACE. BACKFILL VOIDS OR SOFT AREAS WITH SUITABLE MATERIAL AND COMPACT TO NON-MOVEMENT. FINE GRADE THE AREA AND HAND DRESS, WHERE NECESSARY BEFORE PLACING THE GEOTEXTILE.

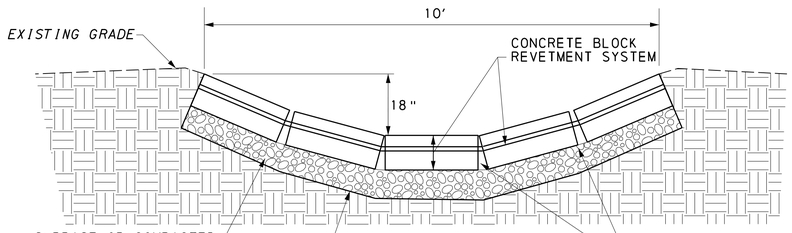
▲ A TEMPORARY COFFERDAM SHALL BE USED TO SEPARATE THE WORK AREA AND THE RIVER WATER IN ORDER TO CONSTRUCT THESE TWO OUTFALLS.




**PLAN VIEW**
NOT TO SCALE




**SECTION C–C**
NOT TO SCALE




**SECTION A–A**
NOT TO SCALE

▲ SEPARATE PAY ITEMS NOT INCLUDED IN ITEM 4857-0001 CONCRETE BLOCK REVETMENT SYSTEMS INCLUDING ENDWALL AND ANCHORS

**ITEM 4857–0001 CONCRETE BLOCK REVETMENT SYSTEMS INCLUDING ENDWALL AND ANCHORS**

| DES: SJK | DWG: CB | CKD: ER |
|---|---|---|

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEPHEN J. KRAMER
ENGINEER
039885-E

**SPECIAL DETAILS**

6/6/2023 7:27:23 PM

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| AS-DRILLED BORING LOCATIONS | | | | | |
|---|---|---|---|---|---|
| BORING | NORTH | EAST | STATION | OFFSET | ELEVATION |
| | | | | | |
| JB-1 | 438560.4690 | 1483620.7410 | 14+57.49 | 38.24' LT | 836.11 |
| JB-2 | 438687.1000 | 1483853.2000 | 14+90.98 | 159.93' LT | 816.53 |

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
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| BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP | | | | |

| REVISION NUMBER | REVISIONS | DATE | BY |
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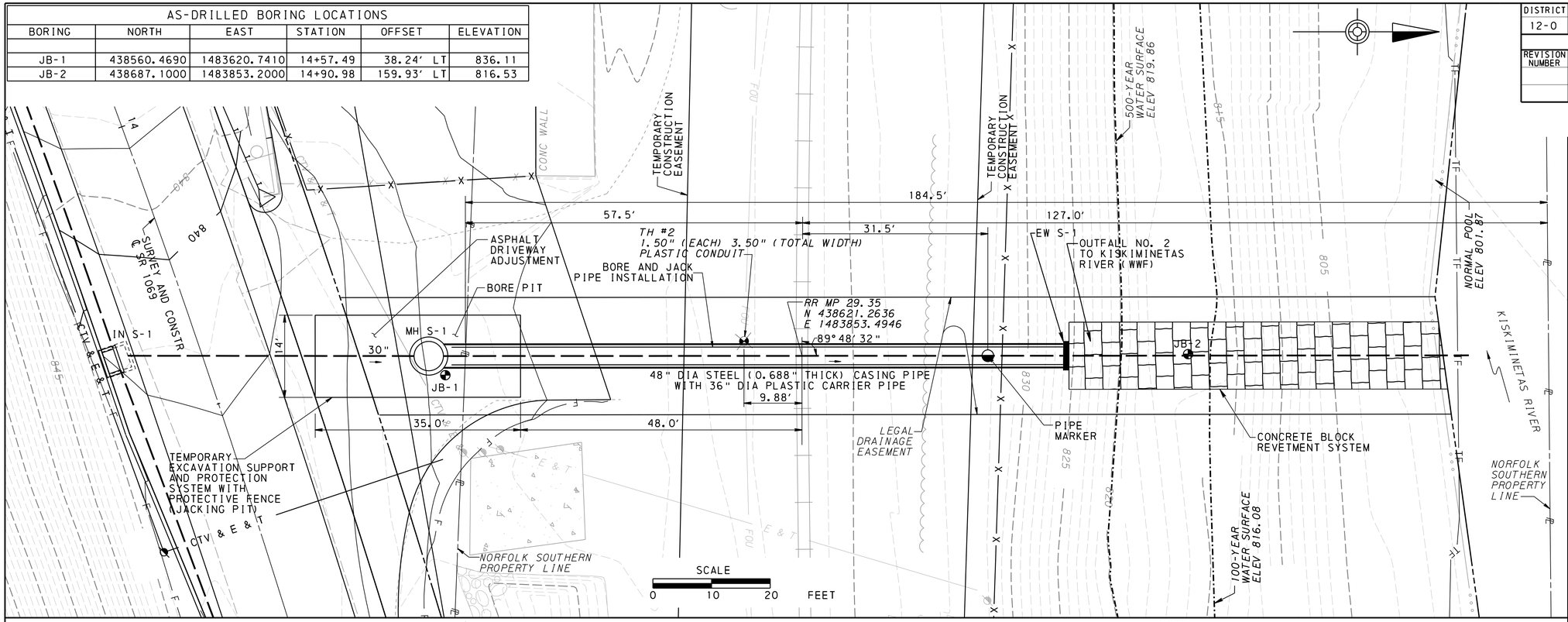
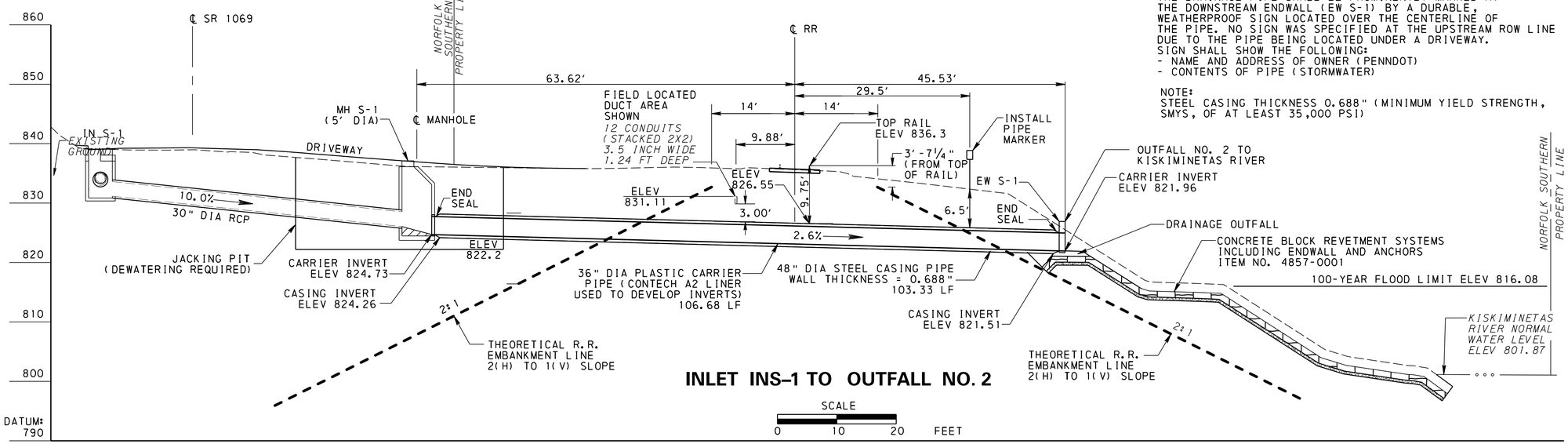


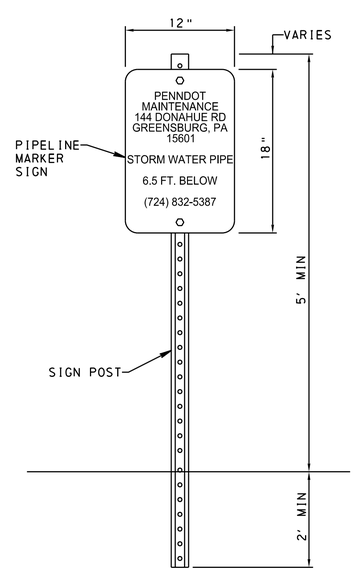

## INLET INS-1 TO OUTFALL NO. 2

SCALE
0 10 20 FEET

NOTE:
THE DRAINAGE PIPE SHALL BE PROMINENTLY MARKED AT THE DOWNSTREAM ENDWALL (EW S-1) BY A DURABLE, WEATHERPROOF SIGN LOCATED OVER THE CENTERLINE OF THE PIPE. NO SIGN WAS SPECIFIED AT THE UPSTREAM ROW LINE DUE TO THE PIPE BEING LOCATED UNDER A DRIVEWAY. SIGN SHALL SHOW THE FOLLOWING:
- NAME AND ADDRESS OF OWNER (PENNDOT)
- CONTENTS OF PIPE (STORMWATER)

NOTE:
STEEL CASING THICKNESS 0.688" (MINIMUM YIELD STRENGTH, SMYS, OF AT LEAST 35,000 PSI)

## 48 INCH STEEL JACK AND BORE PIPE AND 36 INCH CARRIER PIPE UNDER NORFOLK SOUTHERN RAILROAD
## ITEM NO. 9000-0190




## TYPICAL PIPELINE MARKER SIGN

NOT TO SCALE

## SIGN NOTES

1. SIGN POSTS SHALL BE STEEL CHANNEL WITH GREEN BAKED ENAMEL FINISH. PUNCHED WITH ⅜" HOLES ON 1" CENTERS FULL LENGTH.
2. SIGNS SHALL BE METAL WITH PAINTED YELLOW BACKGROUND AND BLACK UPPER CASE LETTERING.
3. INFORMATION PRINTED ON SIGNS SHALL INCLUDE THE FOLLOWING:
   A. NAME AND ADDRESS OF OWNER
   B. CONTENTS OF PIPE
   C. PIPE DEPTH BELOW GRADE AT POINT OF SIGN
   D. EMERGENCY PHONE NUMBER IN EVENT OF PIPE RUPTURE
4. MINIMUM SIGN SIZE SHALL BE AS SHOWN IN DETAIL.
5. PIPE INFORMATION ON SIGN SHALL VARY WITH SIGN LOCATION. CONTRACTOR SHALL COORDINATE WITH AND ATTAIN OWNERS APPROVAL OF INFORMATION PRINTED ON SIGNS.
6. SIGNS SHALL BE INSTALLED AT LOCATIONS SHOWN ON DRAWINGS.
7. A MINIMUM OF TWO FASTENERS SHALL BE USED PER SIGN.
8. SIGN IS INCIDENTAL TO ITEM 9000-0190- 48 INCH STEEL JACK AND BORE PIPE AND 36 INCH CARRIER PIPE UNDER NORFOLK SOUTHERN RAILROAD.


PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEPHEN J. KRAMER
ENGINEER
039885-E


## SPECIAL DETAILS

DES: SJK | DWG: CB | CKD: ER

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | ✳ | 1060 | A20 | 19 OF 87 |
| BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP | | | | |

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
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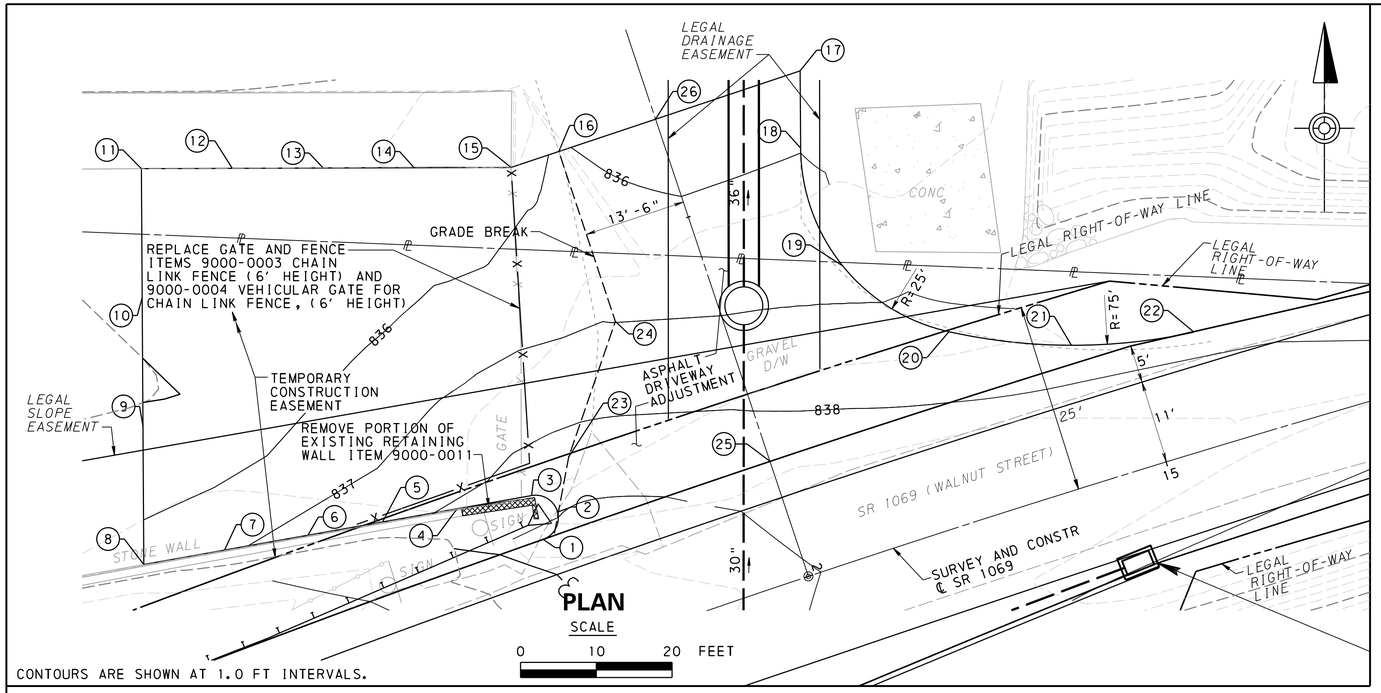
✳ WESTMORELAND COUNTY
AND ARMSTRONG COUNTY

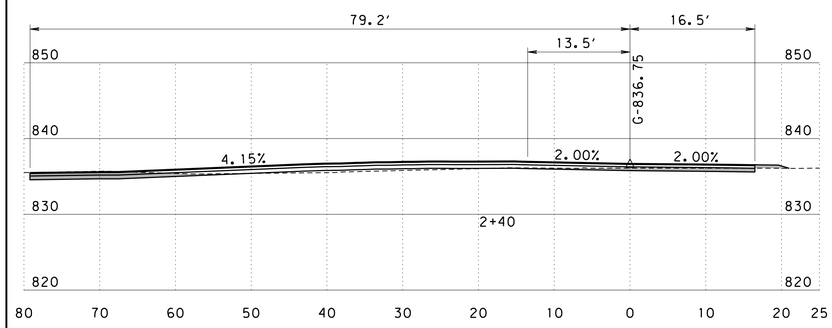



CONTOURS ARE SHOWN AT 1.0 FT INTERVALS.

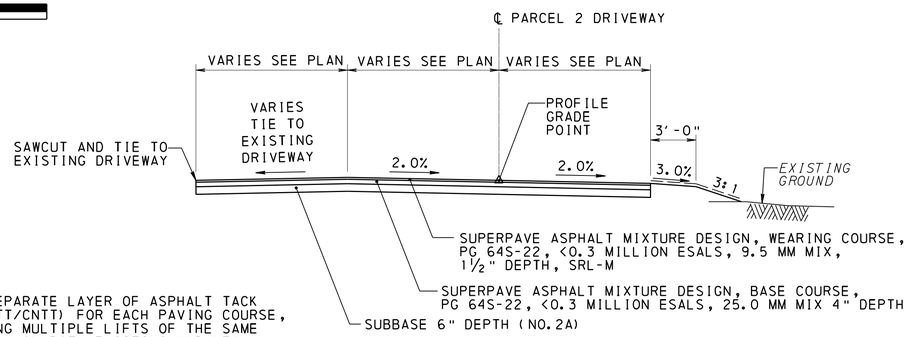
BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD 83), PA SOUTH ZONE

| POINT | STATION (SR 1069) | OFFSET | COORDINATES | | ELEVATION |
|---|---|---|---|---|---|
| | | | NORTH | EAST | |
| 1 | 14+19.02 | 16.00' LT | 438526.8147 | 1483827.0369 | 839.71 |
| 2 | 14+21.98 | 18.76' LT | 438530.4078 | 1483828.9398 | 838.91 |
| 3 | 14+19.50 | 21.96' LT | 438532.5975 | 1483825.5139 | 838.52 |
| 4 | 14+09.75 | 23.61' LT | 438530.8481 | 1483815.6682 | 838.12 |
| 5 | 14+00.02 | 25.31' LT | 438529.0987 | 1483805.8224 | 837.72 |
| 6 | 13+90.31 | 27.06' LT | 438527.3493 | 1483795.9766 | 837.32 |
| 7 | 13+79.48 | 29.07' LT | 438525.3950 | 1483784.9778 | 836.87 |
| 8 | 13+69.01 | 31.08' LT | 438523.4917 | 1483774.3175 | 836.62 |
| 9 | 13+75.27 | 48.17' LT | 438541.7395 | 1483774.2079 | 835.15 |
| 10 | 13+81.00 | 64.11' LT | 438558.7392 | 1483774.1058 | 835.09 |
| 11 | 13+86.65 | 80.07' LT | 438575.7389 | 1483774.0037 | 835.27 |
| 12 | 13+97.47 | 75.95' LT | 438575.7788 | 1483786.0036 | 835.39 |
| 13 | 14+08.35 | 71.90' LT | 438575.8186 | 1483798.0035 | 835.51 |
| 14 | 14+19.26 | 67.92' LT | 438575.8585 | 1483810.0035 | 835.63 |
| 15 | 14+30.96 | 63.74' LT | 438575.9010 | 1483822.8060 | 835.98 |
| 16 | 14+37.38 | 63.68' LT | 438578.0066 | 1483829.1038 | 835.89 |
| 17 | 14+69.88 | 63.74' LT | 438588.6558 | 1483860.9560 | 835.85 |
| 18 | 14+66.89 | 54.00' LT | 438578.4433 | 1483861.0283 | 835.98 |
| 19 | 14+67.37 | 37.51' LT | 438562.9110 | 1483866.5798 | 836.68 |
| 20 | 14+77.88 | 24.95' LT | 438554.2172 | 1483880.5973 | 837.35 |
| 21 | 14+92.61 | 18.39' LT | 438552.4265 | 1483896.7745 | 837.69 |
| 22 | 15+08.46 | 15.33' LT | 438554.1680 | 1483912.9571 | 837.79 |
| 23 | 14+25.74 | 25.16' LT | 438537.7104 | 1483830.4175 | 838.35 |
| 24 | 14+37.19 | 40.05' LT | 438555.5828 | 1483836.5679 | 836.99 |
| 25 | 14+50.42 | 16.00' LT | 438537.1019 | 1483856.9812 | 838.53 |
| 26 | 14+50.42 | 63.63' LT | 438582.2773 | 1483841.8776 | 835.76 |

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



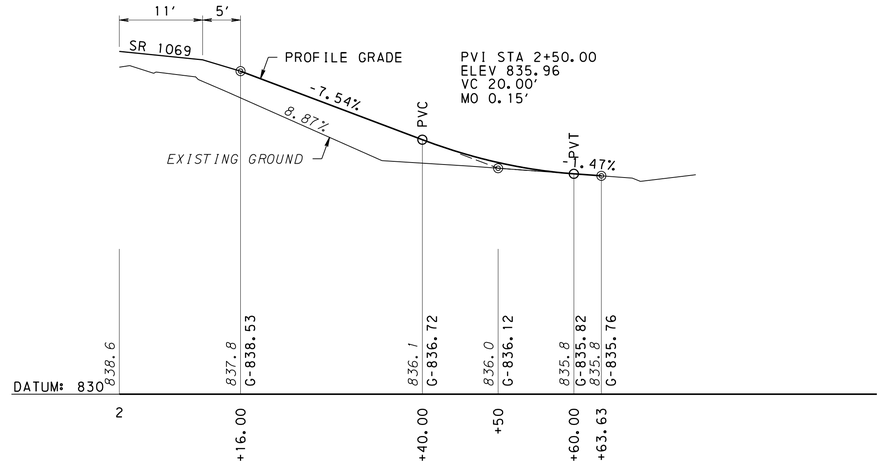

CROSS SECTION SCALE
0 10 20 FEET




NOTE:
APPLY SEPARATE LAYER OF ASPHALT TACK COAT (NTT/CNTT) FOR EACH PAVING COURSE, INCLUDING MULTIPLE LIFTS OF THE SAME MATERIAL, ON BOTH EXISTING AND NEW ASPHALT SURFACES.

## DRIVEWAY ADJUSTMENT (ASPHALT)

NOT TO SCALE




## PROFILE PARCEL 2 DRIVEWAY

PROFILE SCALE
HORIZONTAL 0 10 20 FEET
VERTICAL 0 2 4 FEET

## SEEDING LEGEND

– – – – – SEEDING & SOIL SUPPLEMENTS - FORMULA L CLEAR ZONE MIX, INCLUDING MULCH

DES: CJS | DWG: BSP | CKD: DLJ/CAB

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

## PARCEL 2 DRIVEWAY DETAIL

N:\SR_1060_Saling_Bridge\deliverables\general\details\DW Detail Parcel 2.dgn
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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 27 OF 87 |
| BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP | | | | |

| REVISION NUMBER | REVISIONS | DATE | BY |
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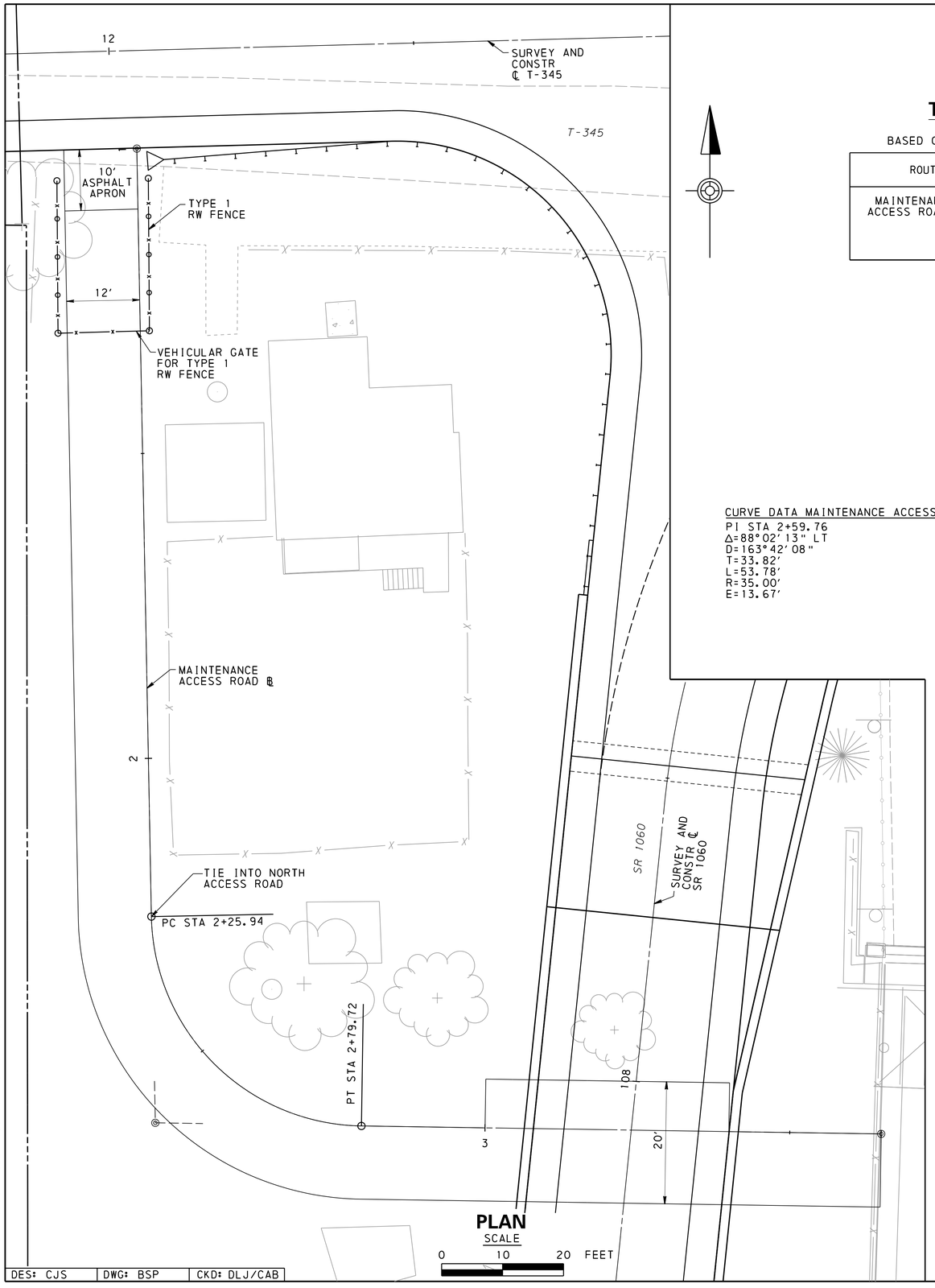
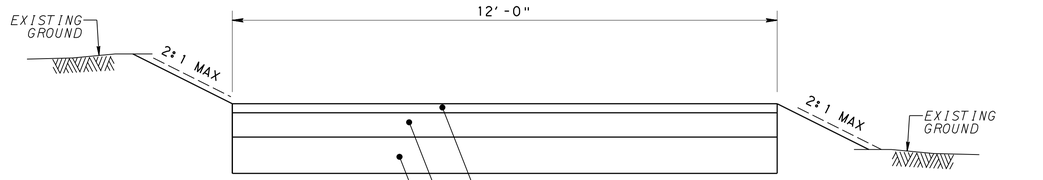
* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY




## TABULATION OF DRIVEWAY COORDINATES

BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD 83, PA SOUTH ZONE)

| ROUTE | STATION | POINT | COORDINATES | | BEARING |
|---|---|---|---|---|---|
| | | | NORTH | EAST | |
| MAINTENANCE ACCESS ROAD ℄ | 1+00.00 | POT | 439268.9394 | 1483515.3231 | S1°05'15"E |
| | 2+25.94 | PC | 439143.0204 | 1483517.7135 | |
| | 2+59.76 | PI | 439109.2055 | 1483518.3554 | S89°07'29"E |
| | 2+79.72 | PT | 439108.6887 | 1483552.1725 | |
| | 3+65.00 | POT | 439107.3859 | 1483637.4421 | |




CURVE DATA MAINTENANCE ACCESS ROAD
PI STA 2+59.76
Δ=88°02'13" LT
D=163°42'08"
T=33.82'
L=53.78'
R=35.00'
E=13.67'

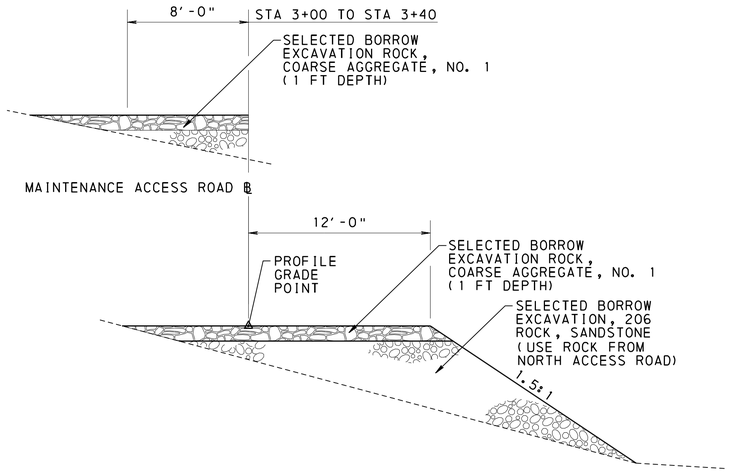
NOTE:
APPLY SEPARATE LAYER OF ASPHALT TACK COAT (NTT/CNTT) FOR EACH PAVING COURSE, INCLUDING MULTIPLE LIFTS OF THE SAME MATERIAL, ON BOTH EXISTING AND NEW ASPHALT SURFACES.

## MAINTENANCE ACCESS ROAD TYPICAL SECTION

STA 1+00 TO STA 1+10
NOT TO SCALE

## SEEDING LEGEND

_____ SEEDING & SOIL SUPPLEMENTS - FORMULA D SEED MIXTURE AND MULCHING-STRAW ON 4" OF TOPSOIL




## MAINTENANCE ACCESS ROAD TYPICAL SECTION

NOT TO SCALE
STA 1+10 TO STA 3+65

# MAINTENANCE ACCESS ROAD DETAIL

SHEET 1 OF 2

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 28 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
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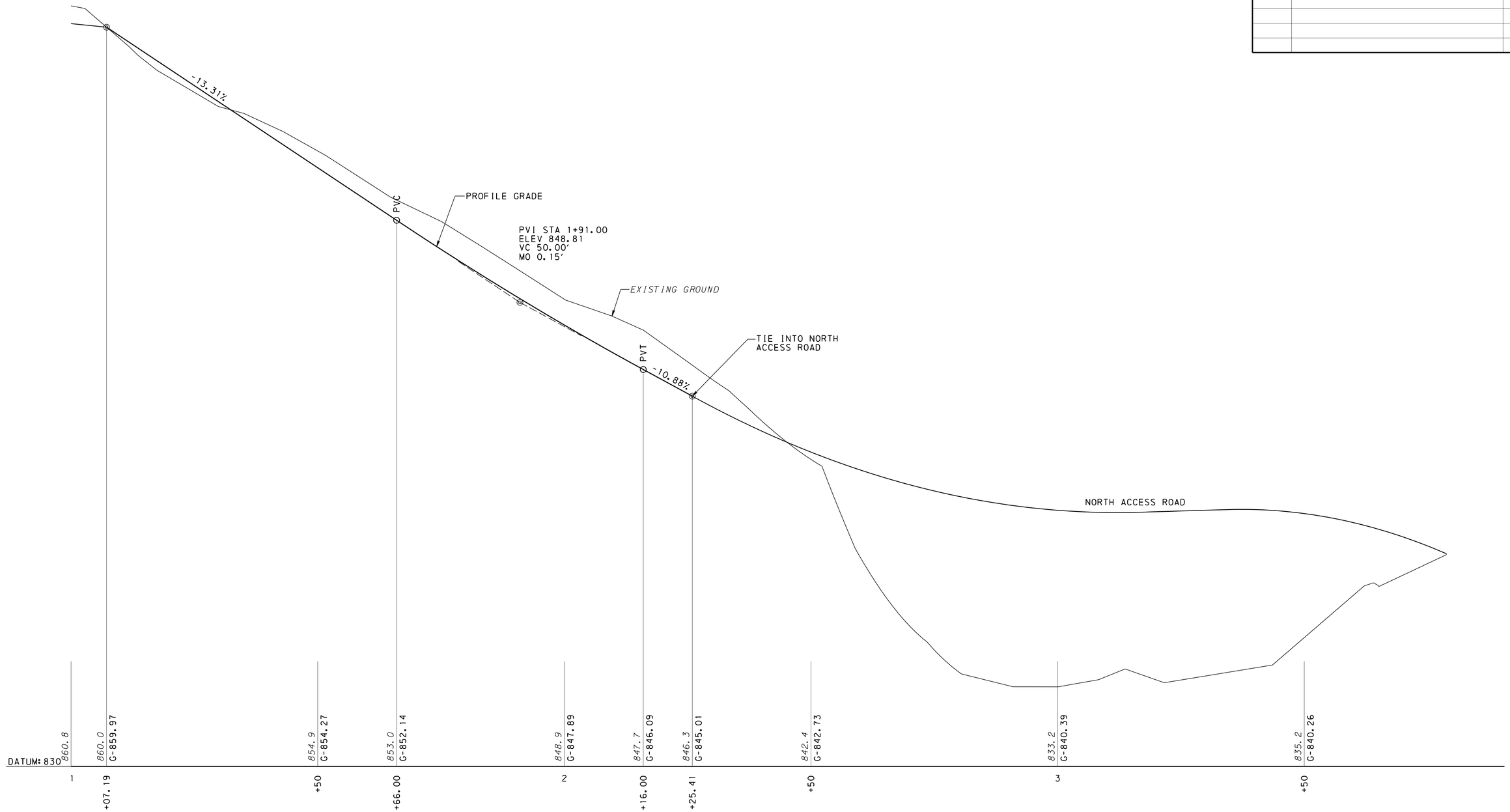
* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY




## PROFILE MAINTENANCE ACCESS ROAD

SCALE

HORIZONTAL 0 10 20

VERTICAL 0 2 4 FEET

DES: CJS | DWG: BSP | CKD: DLJ/CAB

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

## MAINTENANCE ACCESS ROAD DETAIL

SHEET 2 OF 2

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BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD 83), PA SOUTH ZONE

| ROUTE | POINT | STATION | OFFSET | COORDINATES | | ELEVATION |
|---|---|---|---|---|---|---|
| | | | | NORTH | EAST | |
| SR 1060 | 1 | 99+60.60 | 16.00' LT | 438362.6214 | 1483395.5260 | 884.14 |
| SR 1060 | 2 | 99+90.65 | 18.28' LT | 438374.4845 | 1483423.0450 | 881.07 |
| SR 1060 | 3 | 100+24.00 | 23.35' LT | 438390.6350 | 1483448.2876 | 877.90 |
| SR 1060 | 4 | 100+60.13 | 26.22' LT | 438410.6491 | 1483470.5915 | 875.14 |
| SR 1060 | 5 | 100+96.88 | 26.35' LT | 438434.0017 | 1483489.3715 | 873.15 |
| SR 1060 | 6 | 101+33.11 | 23.72' LT | 438460.0799 | 1483504.1348 | 871.60 |
| SR 1060 | 7 | 101+67.06 | 18.68' LT | 438488.1996 | 1483514.4940 | 870.67 |
| SR 1060 | 8 | 99+99.23 | 11.00' LT | 438370.4430 | 1483433.5092 | 880.73 |
| SR 1060 | 9 | 100+80.62 | 11.00' LT | 438413.6270 | 1483493.8180 | 874.70 |
| SR 1060 | 10 | 101+62.01 | 11.00' LT | 438482.3957 | 1483521.6188 | 871.11 |
| SR 1060 | 11 | 99+99.23 | 11.00' RT | 438349.6937 | 1483440.8213 | 881.17 |
| SR 1060 | 12 | 100+31.38 | 11.00' RT | 438364.7267 | 1483471.9075 | 878.50 |
| SR 1060 | 13 | 100+59.25 | 11.00' RT | 438383.0637 | 1483495.5918 | 876.49 |
| SR 1060 | 14 | 100+87.12 | 11.00' RT | 438405.6138 | 1483515.3069 | 874.76 |
| SR 1060 | 15 | 101+14.99 | 11.00' RT | 438431.5349 | 1483530.3166 | 873.33 |
| SR 1060 | 16 | 101+42.86 | 11.00' RT | 438459.8591 | 1483540.0602 | 872.18 |
| SR 1060 | 17 | 101+58.11 | 11.00' RT | 438475.9967 | 1483543.0234 | 871.62 |
| SR 1069 | 18 | 10+19.99 | 11.00' RT | 438358.4919 | 1483463.7958 | 879.24 |
| SR 1069 | 19 | 10+39.99 | 11.00' RT | 438365.6963 | 1483482.4531 | 877.69 |
| SR 1069 | 20 | 10+59.99 | 11.00' RT | 438372.9007 | 1483501.1105 | 876.05 |
| SR 1069 | 21 | 10+79.99 | 11.00' RT | 438380.1051 | 1483519.7678 | 873.85 |
| SR 1069 | 22 | 10+99.99 | 11.00' RT | 438387.3095 | 1483538.4251 | 871.65 |
| SR 1069 | 23 | 11+19.99 | 11.00' RT | 438394.5139 | 1483557.0825 | 869.45 |
| SR 1069 | 24 | 11+39.99 | 11.00' RT | 438401.7183 | 1483575.7398 | 867.25 |
| SR 1069 | 25 | 11+59.99 | 11.00' RT | 438408.9227 | 1483594.3972 | 865.05 |
| SR 1069 | 26 | 11+79.99 | 11.00' RT | 438416.1271 | 1483613.0545 | 862.85 |
| SR 1060 | 27 | 99+99.23 | 16.00' RT | 438344.9785 | 1483442.4829 | 881.07 |
| SR 1060 | 28 | 100+03.51 | 16.00' RT | 438346.6241 | 1483446.9392 | 880.69 |
| SR 1069 | 29 | 10+29.99 | 16.00' RT | 438357.4303 | 1483474.9253 | 878.25 |
| SR 1069 | 30 | 10+59.99 | 16.00' RT | 438368.2364 | 1483502.9116 | 875.75 |
| SR 1069 | 31 | 10+89.99 | 16.00' RT | 438379.0430 | 1483530.8976 | 872.45 |
| SR 1069 | 32 | 11+19.99 | 16.00' RT | 438389.8496 | 1483558.8836 | 869.15 |
| SR 1069 | 33 | 11+49.99 | 16.00' RT | 438400.6562 | 1483586.8696 | 865.85 |
| SR 1069 | 34 | 11+79.99 | 16.00' RT | 438411.4628 | 1483614.8556 | 862.55 |
| SR 1069 | 35 | 11+86.38 | 11.00' LT | 438438.9536 | 1483611.0947 | 862.15 |
| SR 1069 | 36 | 11+71.38 | 11.00' LT | 438433.5503 | 1483597.1017 | 863.80 |
| SR 1069 | 37 | 11+61.49 | 12.24' LT | 438431.1455 | 1483587.4220 | 864.95 |
| SR 1069 | 38 | 11+52.21 | 15.90' LT | 438431.2103 | 1483577.4482 | 866.20 |
| SR 1069 | 39 | 11+44.12 | 21.73' LT | 438433.7406 | 1483567.8005 | 867.55 |
| SR 1069 | 40 | 11+37.73 | 29.39' LT | 438438.5792 | 1483559.0788 | 869.01 |
| SR 1060 | 41 | 101+33.29 | 26.17' RT | 438445.4251 | 1483551.8252 | 870.36 |
| SR 1060 | 42 | 101+39.01 | 18.71' RT | 438453.8527 | 1483546.4909 | 871.26 |
| SR 1060 | 43 | 101+46.67 | 13.50' RT | 438463.3381 | 1483543.4074 | 871.70 |
| SR 1069 | 44 | 11+86.46 | 16.00' LT | 438443.6468 | 1483609.3684 | 861.84 |
| SR 1069 | 45 | 11+71.46 | 16.00' LT | 438438.2435 | 1483595.3754 | 863.49 |
| SR 1069 | 46 | 11+61.50 | 17.45' LT | 438436.0050 | 1483585.5548 | 864.91 |
| SR 1069 | 47 | 11+52.44 | 21.62' LT | 438436.6338 | 1483575.6087 | 866.35 |
| SR 1069 | 48 | 11+44.93 | 28.17' LT | 438440.0404 | 1483566.2429 | 867.93 |
| SR 1060 | 49 | 101+35.25 | 32.14' RT | 438445.9486 | 1483558.2170 | 869.58 |
| SR 1060 | 50 | 101+40.29 | 24.21' RT | 438453.8793 | 1483552.1816 | 870.78 |
| SR 1060 | 51 | 101+47.49 | 18.64' RT | 438463.1895 | 1483548.6261 | 871.38 |
| SR 1060 | 52 | 101+57.29 | 16.09' RT | 438474.4428 | 1483547.9481 | 871.36 |
| SR 1060 | 53 | 101+98.42 | 16.00' LT | 438519.1223 | 1483520.3362 | 870.10 |

NOTES:
1. CONTOURS ARE SHOWN AT 0.20 FT INTERVALS.
2. FOUR (4) PLACE COORDINATES ARE USED FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO (2) PLACES.

* WESTMORELAND COUNTY AND ARMSTRONG COUNTY

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 29 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
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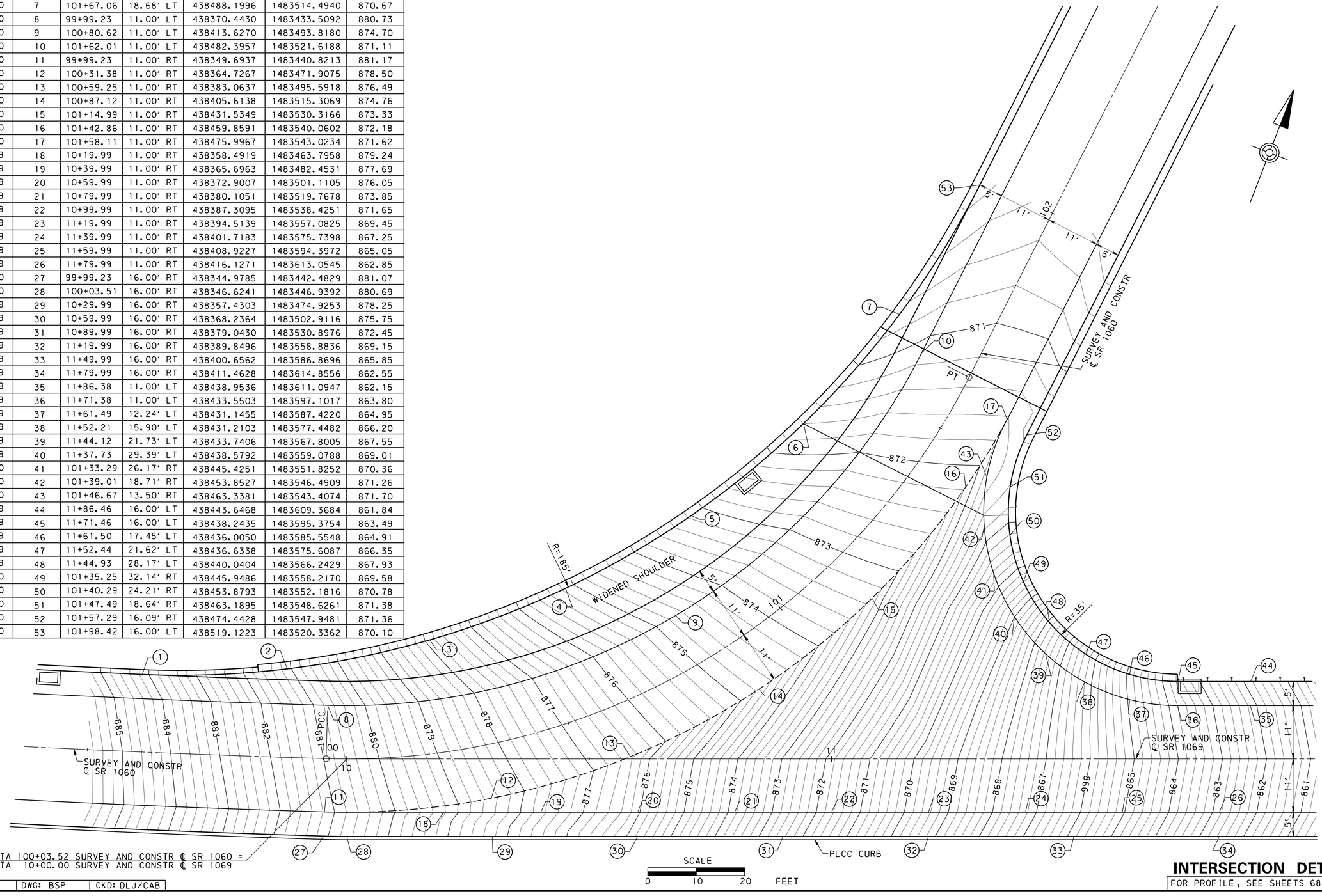


# INTERSECTION DETAIL

FOR PROFILE, SEE SHEETS 68 & 71

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 30 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
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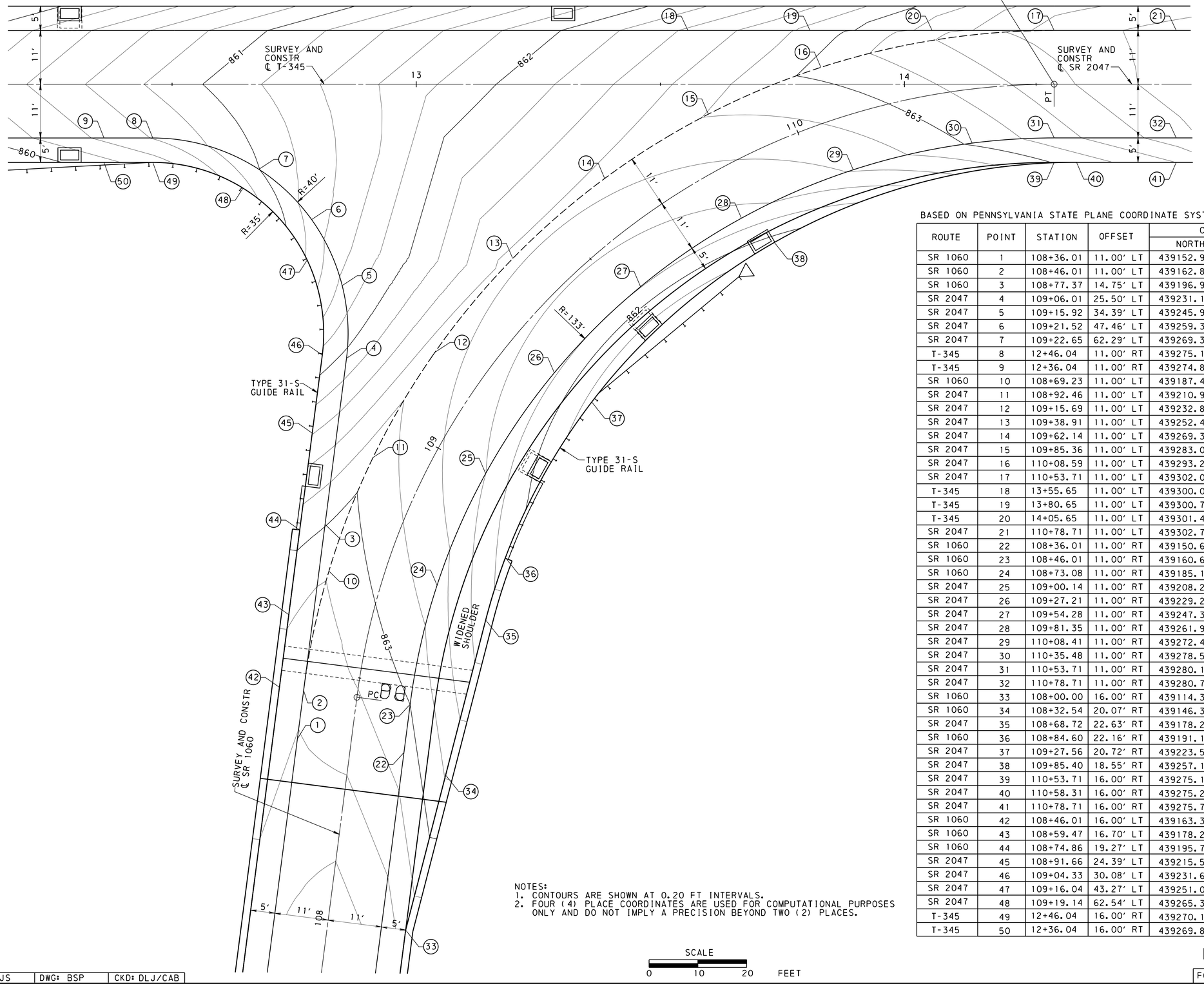
STA 110+53.71 SURVEY AND CONSTR ℄ SR 2047 =
STA 14+30.65 SURVEY AND CONSTR ℄ T-345

* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY




BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD 83), PA SOUTH ZONE

| ROUTE | POINT | STATION | OFFSET | COORDINATES | | ELEVATION |
|---|---|---|---|---|---|---|
| | | | | NORTH | EAST | |
| SR 1060 | 1 | 108+36.01 | 11.00' LT | 439152.9213 | 1483589.9625 | 863.41 |
| SR 1060 | 2 | 108+46.01 | 11.00' LT | 439162.8697 | 1483590.9765 | 863.37 |
| SR 1060 | 3 | 108+77.37 | 14.75' LT | 439196.9915 | 1483594.4544 | 862.99 |
| SR 2047 | 4 | 109+06.01 | 25.50' LT | 439231.1132 | 1483597.9323 | 862.07 |
| SR 2047 | 5 | 109+15.92 | 34.39' LT | 439245.9705 | 1483596.6525 | 861.65 |
| SR 2047 | 6 | 109+21.52 | 47.46' LT | 439259.3265 | 1483590.0199 | 861.29 |
| SR 2047 | 7 | 109+22.65 | 62.29' LT | 439269.3251 | 1483578.9562 | 861.00 |
| T-345 | 8 | 12+46.04 | 11.00' RT | 439275.1549 | 1483557.0659 | 860.61 |
| T-345 | 9 | 12+36.04 | 11.00' RT | 439274.8867 | 1483547.0695 | 860.44 |
| SR 1060 | 10 | 108+69.23 | 11.00' LT | 439187.4292 | 1483595.5019 | 863.18 |
| SR 2047 | 11 | 108+92.46 | 11.00' LT | 439210.9431 | 1483603.9127 | 862.92 |
| SR 2047 | 12 | 109+15.69 | 11.00' LT | 439232.8012 | 1483615.9904 | 862.72 |
| SR 2047 | 13 | 109+38.91 | 11.00' LT | 439252.4360 | 1483631.4216 | 862.64 |
| SR 2047 | 14 | 109+62.14 | 11.00' LT | 439269.3378 | 1483649.8057 | 862.67 |
| SR 2047 | 15 | 109+85.36 | 11.00' LT | 439283.0679 | 1483670.6654 | 862.81 |
| SR 2047 | 16 | 110+08.59 | 11.00' LT | 439293.2699 | 1483693.4594 | 863.06 |
| SR 2047 | 17 | 110+53.71 | 11.00' LT | 439302.0970 | 1483741.0215 | 863.68 |
| T-345 | 18 | 13+55.65 | 11.00' LT | 439300.0860 | 1483666.0485 | 862.43 |
| T-345 | 19 | 13+80.65 | 11.00' LT | 439300.7563 | 1483691.0395 | 862.85 |
| T-345 | 20 | 14+05.65 | 11.00' LT | 439301.4267 | 1483716.0305 | 863.26 |
| SR 2047 | 21 | 110+78.71 | 11.00' LT | 439302.7673 | 1483766.0126 | 863.89 |
| SR 1060 | 22 | 108+36.01 | 11.00' RT | 439150.6905 | 1483611.8491 | 863.11 |
| SR 1060 | 23 | 108+46.01 | 11.00' RT | 439160.6389 | 1483612.8631 | 863.00 |
| SR 1060 | 24 | 108+73.08 | 11.00' RT | 439185.1263 | 1483617.7138 | 862.70 |
| SR 2047 | 25 | 109+00.14 | 11.00' RT | 439208.2760 | 1483627.0550 | 862.40 |
| SR 2047 | 26 | 109+27.21 | 11.00' RT | 439229.2723 | 1483640.5574 | 862.23 |
| SR 2047 | 27 | 109+54.28 | 11.00' RT | 439247.3756 | 1483657.7455 | 862.21 |
| SR 2047 | 28 | 109+81.35 | 11.00' RT | 439261.9483 | 1483678.0137 | 862.34 |
| SR 2047 | 29 | 110+08.41 | 11.00' RT | 439272.4768 | 1483700.6481 | 862.62 |
| SR 2047 | 30 | 110+35.48 | 11.00' RT | 439278.5903 | 1483724.8511 | 863.03 |
| SR 2047 | 31 | 110+53.71 | 11.00' RT | 439280.1049 | 1483741.6114 | 863.31 |
| SR 2047 | 32 | 110+78.71 | 11.00' RT | 439280.7752 | 1483766.6024 | 863.70 |
| SR 1060 | 33 | 108+00.00 | 16.00' RT | 439114.3610 | 1483613.1721 | 863.32 |
| SR 1060 | 34 | 108+32.54 | 20.07' RT | 439146.3187 | 1483620.5177 | 862.79 |
| SR 2047 | 35 | 108+68.72 | 22.63' RT | 439178.2763 | 1483627.8633 | 862.28 |
| SR 1060 | 36 | 108+84.60 | 22.16' RT | 439191.1599 | 1483631.5620 | 862.12 |
| SR 2047 | 37 | 109+27.56 | 20.72' RT | 439223.5061 | 1483648.3842 | 861.73 |
| SR 2047 | 38 | 109+85.40 | 18.55' RT | 439257.1743 | 1483684.8986 | 861.92 |
| SR 2047 | 39 | 110+53.71 | 16.00' RT | 439275.1067 | 1483741.7455 | 863.01 |
| SR 2047 | 40 | 110+58.31 | 16.00' RT | 439275.2298 | 1483746.3349 | 863.08 |
| SR 2047 | 41 | 110+78.71 | 16.00' RT | 439275.7770 | 1483766.7365 | 863.40 |
| SR 1060 | 42 | 108+46.01 | 16.00' LT | 439163.3767 | 1483586.0023 | 863.27 |
| SR 1060 | 43 | 108+59.47 | 16.70' LT | 439178.2994 | 1483587.5233 | 863.17 |
| SR 1060 | 44 | 108+74.86 | 19.27' LT | 439195.7012 | 1483589.2970 | 862.92 |
| SR 2047 | 45 | 108+91.66 | 24.39' LT | 439215.5981 | 1483591.3250 | 862.39 |
| SR 2047 | 46 | 109+04.33 | 30.08' LT | 439231.6202 | 1483592.9580 | 861.86 |
| SR 2047 | 47 | 109+16.04 | 43.27' LT | 439251.0157 | 1483589.3456 | 861.22 |
| SR 2047 | 48 | 109+19.14 | 62.54' LT | 439265.3761 | 1483575.8174 | 860.72 |
| T-345 | 49 | 12+46.04 | 16.00' RT | 439270.1567 | 1483557.2000 | 860.31 |
| T-345 | 50 | 12+36.04 | 16.00' RT | 439269.8885 | 1483547.2036 | 860.14 |

NOTES:
1. CONTOURS ARE SHOWN AT 0.20 FT INTERVALS.
2. FOUR (4) PLACE COORDINATES ARE USED FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO (2) PLACES.

SCALE
0 10 20 FEET

# INTERSECTION DETAIL

FOR PROFILE, SEE SHEETS 70 & 73

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 07074

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 34 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

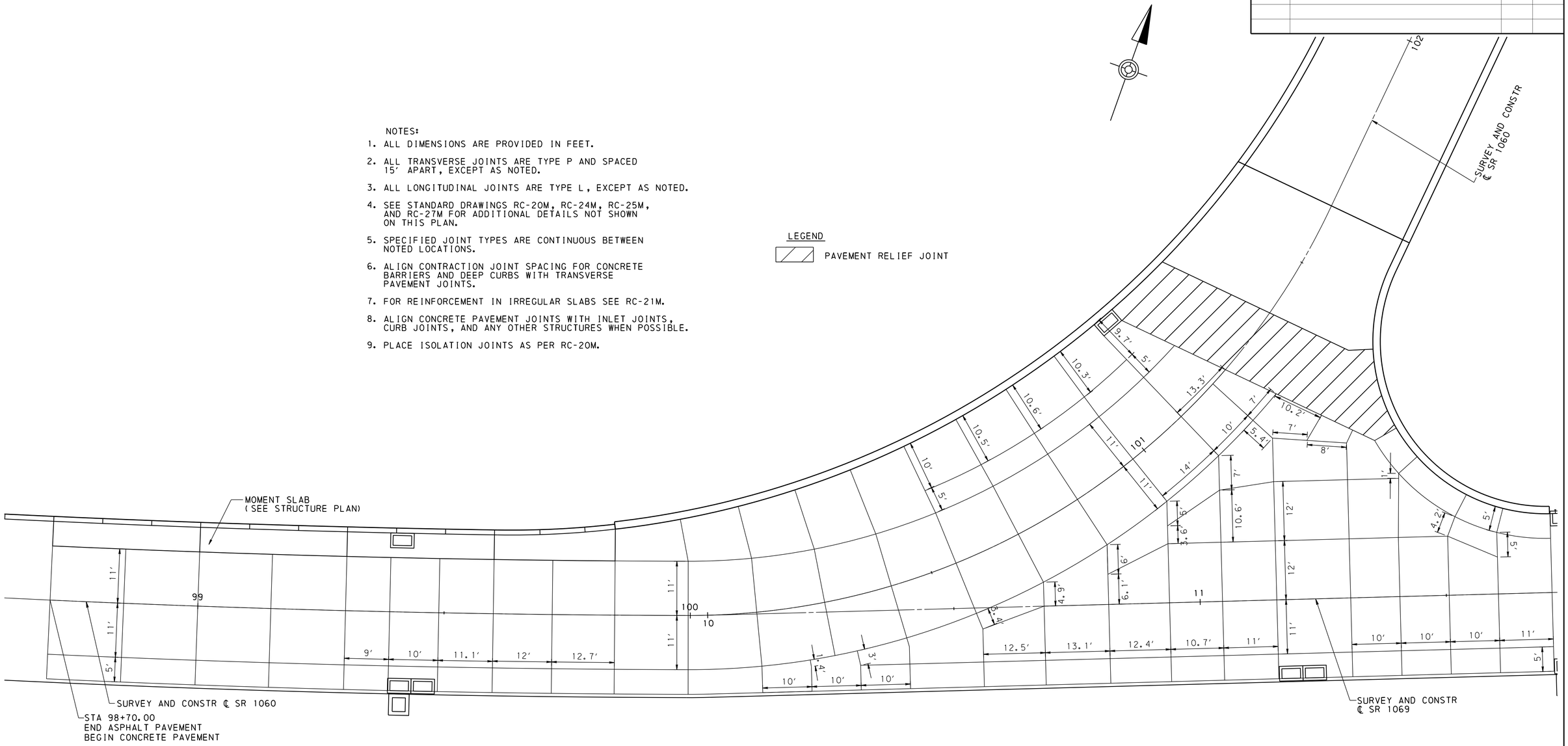
* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY

NOTES:

1. ALL DIMENSIONS ARE PROVIDED IN FEET.
2. ALL TRANSVERSE JOINTS ARE TYPE P AND SPACED 15' APART, EXCEPT AS NOTED.
3. ALL LONGITUDINAL JOINTS ARE TYPE L, EXCEPT AS NOTED.
4. SEE STANDARD DRAWINGS RC-20M, RC-24M, RC-25M, AND RC-27M FOR ADDITIONAL DETAILS NOT SHOWN ON THIS PLAN.
5. SPECIFIED JOINT TYPES ARE CONTINUOUS BETWEEN NOTED LOCATIONS.
6. ALIGN CONTRACTION JOINT SPACING FOR CONCRETE BARRIERS AND DEEP CURBS WITH TRANSVERSE PAVEMENT JOINTS.
7. FOR REINFORCEMENT IN IRREGULAR SLABS SEE RC-21M.
8. ALIGN CONCRETE PAVEMENT JOINTS WITH INLET JOINTS, CURB JOINTS, AND ANY OTHER STRUCTURES WHEN POSSIBLE.
9. PLACE ISOLATION JOINTS AS PER RC-20M.

LEGEND

PAVEMENT RELIEF JOINT




SCALE
0 10 20 FEET

DES: CJS | DWG: BSP | CKD: DLJ/CAB

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

# PAVEMENT JOINT LAYOUT PLAN

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 61 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |

* WESTMORELAND COUNTY AND ARMSTRONG COUNTY

BM-B ELEV 859.63
104.3' RT, STA 101+59.6
SURVEY AND CONSTR ℄ SR 1069
SQUARE CUT ON SOUTHEAST
EXISTING ABUTMENT

BM#2 ELEV 845.52
17.65' LT STA 13+55.94
SURVEY AND CONSTR ℄ SR 1069
BENCH TIE SPIKE SET IN UTILITY
POLE "WEST PENN SYSTEM 19834 GTE"

SEE SHEET 63

## PROPERTY OWNERS

1. PATRICK CALANDRELLA
2. BIG VISIONS CORPORATION, A CORPORATION EXISTING UNDER THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA
3. NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER TO PENNSYLVANIA LINES LLC

| CURVE DATA SR 1060 | CURVE DATA SR 1060 |
|---|---|
| PI STA 98+93.60 | PI STA 100+90.56 |
| Δ=4°02'11" LT | Δ=64°46'04" LT |
| D=1°54'35" | D=39°47'19" |
| T=105.71' | T=91.33' |
| L=211.34' | L=162.78' |
| R=3000.00' | R=144.00' |
| E=1.86' | E=26.52' |
| SE=NORMAL CROWN | SE=2.0% |
| PC STA 97+87.89 | PCC STA 99+99.23 |
| PCC STA 99+99.23 | PT STA 101+62.01 |

SEE SHEET 60

SEE SHEET 62

LEGEND:

- THRIE-BEAM TO PA BRIDGE BARRIER TRANSITION WITHOUT CURB
- —T— RELOCATED TELEPHONE
- —TU— RELOCATED UTILITY POLE
- WALLS TO REMAIN AND BE PROTECTED
- REMOVE EXISTING INLET
- A STA 101+37.98 BEGIN APPROACH SLAB
- B STA 101+62.98 END APPROACH SLAB BEGIN STRUCTURE
- 5 STA 100+03.52 SURVEY AND CONSTR ℄ SR 1060 = STA 10+00.00 SURVEY AND CONSTR ℄ SR 1069
- X X X X X REMOVE EXISTING PIPE
- G G G GROUT EXISTING PIPE
- ** PERMANENT IMPACT ATTENUATING DEVICE, TYPE II, TEST LEVEL 2, TANGENT (MASH)

| PROPOSED STRUCTURE DATA SR 1060 OVER KISKIMINETAS RIVER | |
|---|---|
| STATION | 104+95.00 |
| TYPE | 3-SPAN CONT COMP STEEL PLATE GIRDER BRIDGE |
| SPAN LENGTH | 200'-0", 250'-0", 200'-0" |
| UNDERCLEARANCE | 24'-7" |
| ROADWAY WIDTH | 32'-0" |
| SKEW | 90°00'00" |
| STRUCTURE NO | S-39414 |
| RECOMMENDED DATE | |

| EXISTING STRUCTURE DATA | |
|---|---|
| STATION | 105+60.00 |
| TYPE | 3-SPAN STEEL THRU TRUSS BRIDGE |
| SPAN LENGTH | 220'-0", 220'-0", 220'-0" |
| UNDERCLEARANCE | 20'-9" ± |
| CLEAR ROADWAY WIDTH | 18'-9" |
| SKEW | 90°00'00" |
| STRUCTURE NO | S-12902, S-17680, S-36670 |
| BUILT DATE | 1906 |

CURVE DATA SR 1069
PI STA 16+15.52
Δ=15°07'27" RT
D=3°00'56"
T=252.23'
L=501.53'
R=1900.00'
E=16.67'
SE=NORMAL CROWN
PC STA 13+63.29
PT STA 18+64.82

SCALE
0 25 50 FEET

FOR ASPHALT TO CONC PAVEMENT DETAIL SEE SHEET 11
FOR CONTOUR GRADING AND DRAINAGE PLAN, SEE SHEET 81

SURVEY BOOK #29797
FOR SURVEY REFERENCES, SEE SHEET 7
FOR INTERSECTION DETAIL, SEE SHEET 29
FOR PROFILE, SEE SHEETS 67, 68 & 71

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 62 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |

** THE OUTFALL WILL BE CONSTRUCTED BEFORE THE SOUTH ACCESS ROAD IS CONSTRUCTED. DURING THE USE OF THE SOUTH ACCESS ROAD, A 30" TEMPORARY DRAINAGE PIPE WILL BE USED TO CONVEY FLOW UNDER THE SOUTH ACCESS ROAD AND OUT TO THE KISKIMINETAS RIVER.

* WESTMORELAND COUNTY AND ARMSTRONG COUNTY

KISKIMINETAS RIVER

EDGE OF WATER

+77 190'

+65 170'

TEMPORARY CONSTRUCTION EASEMENT

CONCRETE BLOCK REVETMENT SYSTEM 2 FOR DETAIL, SEE SHEET 17

LEGAL RIGHT-OF-WAY LINE

20'

NO ID#

LEGAL DRAINAGE EASEMENT

36" WITH 48" STEEL CASING PIPE

CONC, POLES, METER & ELECTRIC BOXES TO REMAIN AND BE PROTECTED

TEMPORARY CONSTRUCTION EASEMENT +50 50'

+00 25'

LEGAL RIGHT-OF-WAY LINE ROCK PILE

+25 15'

+35 75'

+40 30'

TEMPORARY CROSSING TO BE INSTALLED BY NS

TEMPORARY FENCE AND GATE

20'

20'

+50 13'

N 68°53'11"E

N 84°00'37"E

SEE SHEET 61

CTV & E

25

5

15

11'

9'

16

17

18

9'

9'

2'

2'

2'

8"

IN S-2

SR 1069 (WALNUT STREET)

NORFOLK SOUTHERN RAILWAY COMPANY SINGLE RAILROAD TRACK

T-CUBED DUCT BANK (16 CONDUITS BY RECORD) (WINDSTREAM CONFIRMED IN ONE DUCT)

FOU

LEGAL RIGHT-OF-WAY LINE

17.2'

9.4'

PT

30'

19

STA 14+95 RT END CONC CURB

VZ #12/P28-2

SURVEY AND CONSTR ℄ SR 1069

LEGAL RIGHT-OF-WAY LINE

(3)

NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER TO PENNSYLVANIA LINES LLC

(1)

PATRICK CALANDRELLA

CURVE DATA SR 1069

PI STA 16+15.52
Δ=15°07'27" RT
D=3°00'56"
T=252.23'
L=501.53'
R=1900.00'
E=16.67'
SE=NORMAL CROWN
PC STA 13+63.29
PT STA 18+64.82

STOP WORK/END FULL DEPTH PAVEMENT
STA 18+50.00
SEGMENT 0032 OFFSET 0609
SR 1069

(1)

PATRICK CALANDRELLA

LEGEND:

—T— RELOCATED TELEPHONE

RELOCATED UTILITY POLE

SCALE

0 25 50 FEET

FOR CONTOUR GRADING AND DRAINAGE PLAN, SEE SHEET 82

SURVEY BOOK #29797

FOR SURVEY REFERENCES, SEE SHEET 7

FOR PROFILE, SEE SHEETS 71& 72

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 63 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |

* WESTMORELAND COUNTY AND ARMSTRONG COUNTY

| PROPOSED STRUCTURE DATA SR 1060 OVER KISKIMINETAS RIVER | |
|---|---|
| STATION | 104+95.00 |
| TYPE | 3-SPAN CONT COMP STEEL PLATE GIRDER BRIDGE |
| SPAN LENGTH | 200'-0", 250'-0", 200'-0" |
| UNDERCLEARANCE | 24'-7" |
| ROADWAY WIDTH | 32'-0" |
| SKEW | 90°00'00" |
| STRUCTURE NO | S-39414 |
| RECOMMENDED DATE | |

| *EXISTING STRUCTURE DATA* | |
|---|---|
| *STATION* | *105+60.00* |
| *TYPE* | *3-SPAN STEEL THRU TRUSS BRIDGE* |
| *SPAN LENGTH* | *220'-0", 220'-0", 220'-0"* |
| *UNDERCLEARANCE* | *20'-9" +/-* |
| *CLEAR ROADWAY WIDTH* | *18'-9"* |
| *SKEW* | *90°00'00"* |
| *STRUCTURE NO* | *S-12902, S-17680, S-36670* |
| *BUILT DATE* | *1906* |

BM-A ELEV 861.05
35.6' RT, STA 108+24.5
SURVEY AND CONSTR ℄ SR 1060
SQUARE CUT ON NORTHWEST
EXISTING ABUTMENT

BM-C ELEV 861.04
59.9' RT, STA 108+27.7
SURVEY AND CONSTR ℄ SR 1060
SQUARE CUT ON NORTHEAST
EXISTING ABUTMENT

## PROPERTY TABULATION

(2) *BIG VISIONS CORPORATION, A CORPORATION EXISTING UNDER THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA*

(3) *PENNSYLVANIA LINES LLC, A DELAWARE LIMITED LIABILITY COMPANY AND WHOLLY OWNED SUBSIDIARY OF GRANTOR*

(4) *ELDEN L. KING, JR., AND CINDY L. KING, TENANTS BY THE ENTIRETIES*

(5) *DUSTIN SNYDER*

(7) *JOHN O. GARTLEY AND ROSANNA GARTLEY, HIS WIFE*

(8) *EDWARD USKO, JR. AND KAREN M. USKO, HUSBAND AND WIFE*

LEGEND:

— TU — RELOCATED TELEPHONE

[A] END STRUCTURE BEGIN APPROACH SLAB STA 108+27.02

[B] END APPROACH SLAB STA 108+52.02

THRIE-BEAM GUIDE RAIL TO PA BRIDGE BARRIER TRANSITION WITH CURB AND INLET NEAR BRIDGE BARRIER

WALLS TO REMAIN AND BE PROTECTED

TREES TO BE REMOVED ( INCLUDED IN CLEARING AND GRUBBING)

CURVE DATA SR 1060/SR 2047
PI STA 109+72.61
Δ=82°38'37" RT
D=39°47'19"
T=126.60'
L=207.71'
R=144.00'
E=47.74'
SE=2.0%
PC STA 108+46.01
PT STA 110+53.71

## HYDRAULIC DATA:

DRAINAGE AREA - 1440.00 SQUARE MILES

25 YEAR FLOOD (DESIGN STORM)
DISCHARGE = 47,000 CFS
PROPOSED WATER SURFACE ELEVATION = 813.03
PROPOSED CHANNEL VELOCITY = 10.6 FPS

100 YEAR FLOOD
DISCHARGE = 65,254 CFS
PROPOSED WATER SURFACE ELEVATION = 815.92
PROPOSED CHANNEL VELOCITY = 12.0 FPS

FLOOD OF RECORD: MARCH 18, 1936 ELEVATION 852.84

SCALE 0 25 50 FEET

FOR CONTOUR GRADING AND DRAINAGE PLAN, SEE SHEET 83

FOR PROFILE, SEE SHEETS 69 & 70

SURVEY BOOK #29797

FOR SURVEY REFERENCES, SEE SHEET 7

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL CYDNEY JILL SEDLAR ENGINEER No. 07074

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 64 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |

* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY

# PROPERTY TABULATION

(4) *ELDEN L. KING, JR., AND CINDY L. KING, TENANTS BY THE ENTIRETIES*

(5) *DUSTIN SNYDER*

(7) *JOHN O. GARTLEY AND ROSANNA GARTLEY, HIS WIFE*

(8) *EDWARD USKO, JR. AND KAREN M. USKO, HUSBAND AND WIFE*

(12) *BUHL D. GARTLEY AND MARY M. GARTLEY, HIS WIFE (5/9 INTEREST)*
*THOMAS C. McMAHON AND DORIS J. McMAHON, HIS WIFE (1/9 INTEREST)*
*JOHN O. GARTLEY AND MELANIE SUE GARTLEY, HIS WIFE (2/9 INTEREST)*
*LUCINDA K. GARTLEY (1/9 INTEREST)*

(13) *RYAN MCANDREW AND KAYLA MCANDREW, TENANTS BY THE ENTIRETIES*

BM#1 ELEV 863.20
38.28' LT STA 109+56.03
SURVEY AND CONSTR ℄ SR 2047
BENCH TIE SPIKE SET IN UTILITY POLE VANDERGRIFT TELE CO #22

BM-A ELEV 861.05
35.6' RT, STA 108+24.5
SURVEY AND CONSTR ℄ SR 1060
SQUARE CUT ON NORTHWEST
EXISTING ABUTMENT

BM-C ELEV 861.04
59.9' RT, STA 108+27.7
SURVEY AND CONSTR ℄ SR 1060
SQUARE CUT ON NORTHEAST
EXISTING ABUTMENT

CURVE DATA T-345
PI STA 10+48.30
Δ=41°40'19" LT
D=45°50'12"
T=47.57'
L=90.91'
R=125.00'
E=8.75'
SE=2.0%
PC STA 10+00.72
PT STA 10+91.64

CURVE DATA SR 2047
PI STA 112+24.56
Δ=34°25'41" LT
D=19°05'55"
T=92.95'
L=180.27'
R=300.00'
E=14.07'
SE=2.0%
PC STA 111+31.61
PT STA 113+11.88

CURVE DATA SR 1060/SR 2047
PI STA 109+72.61
Δ=82°38'37" RT
D=39°47'19"
T=126.60'
L=207.71'
R=144.00'
E=47.74'
SE=2.0%
PC STA 108+46.01
PT STA 110+53.71

LIMIT OF WORK
STA 108+90.00
SEGMENT 0010 OFFSET 0772
SR 1060 SECTION A20
BELL TOWNSHIP
WESTMORELAND COUNTY

LIMIT OF WORK
STA 108+90.00
SEGMENT 0010 OFFSET 0066
SR 2047 SECTION A20
KISKIMINETAS TOWNSHIP
ARMSTRONG COUNTY

START WORK
STA 10+00.00
T-345

STOP WORK
STA 13+73.30
T-345

T-345 (HIGH STREET)

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

LEGAL RIGHT-OF-WAY LINE

UTILITY POLE TO BE RELOCATED (BY OTHERS)

WPP #554141

WPP #554140

WPP #554139

WPP #50602

WPP #50603

SURVEY AND CONSTR ℄ T-345

SURVEY AND CONSTR ℄ SR 2047

TEMPORARY CONSTRUCTION EASEMENT

TEMPORARY CONSTR EASEMENT

MAINTENANCE ACCESS ROAD

LEGAL R/W LINE

TYPE 31-S GUIDE RAIL

EXISTING GUIDE RAIL TO BE REMOVED

WIDENED SHOULDER

MH N-1

MH N-2

MH N-3

MH N-4

IN N-1 through IN N-14

OUT N-1 through OUT N-9

BM-A

BM-C

INLET TOP 864.02

SEE SHEET 65

SEE SHEET 63

LEGEND:

- THRIE-BEAM GUIDE RAIL TO PA BRIDGE BARRIER TRANSITION WITH CURB AND INLET NEAR BRIDGE BARRIER
- ** PERMANENT IMPACT ATTENUATING DEVICE, TYPE II, TEST LEVEL 2, TANGENT (MASH)
- —E— RELOCATED ELECTRIC
- —T— TU — RELOCATED TELEPHONE
- —CTV— RELOCATED CABLE
- RELOCATED UTILITY POLE
- TREES TO BE REMOVED (INCLUDED IN CLEARING AND GRUBBING)
- GRAVEL DRIVEWAY ADJUSTMENT WITH 10' ASPHALT APRON
- REMOVE EXISTING INLET
- [A] STA 108+27.02 END STRUCTURE BEGIN APPROACH SLAB
- [B] STA 108+52.02 END APPROACH SLAB
- (6) STA 110+53.71 SURVEY AND CONSTR ℄ SR 2047 = STA 14+30.65 SURVEY AND CONSTR ℄ T-345
- (7) STA 3+00.00 CONSTR ℄ T-346 = STA 111+41.92 SURVEY AND CONSTR ℄ SR 2047

SCALE
0 25 50 FEET

SURVEY BOOK #29797
FOR SURVEY REFERENCES, SEE SHEET 7
FOR INTERSECTION DETAIL, SEE SHEET 30

FOR CONTOUR GRADING AND DRAINAGE PLAN, SEE SHEET 84

FOR PROFILE, SEE SHEETS 70 & 73

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

DES: CJS | DWG: BSP | CKD: DLJ/CAB

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 67 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
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| | | | |
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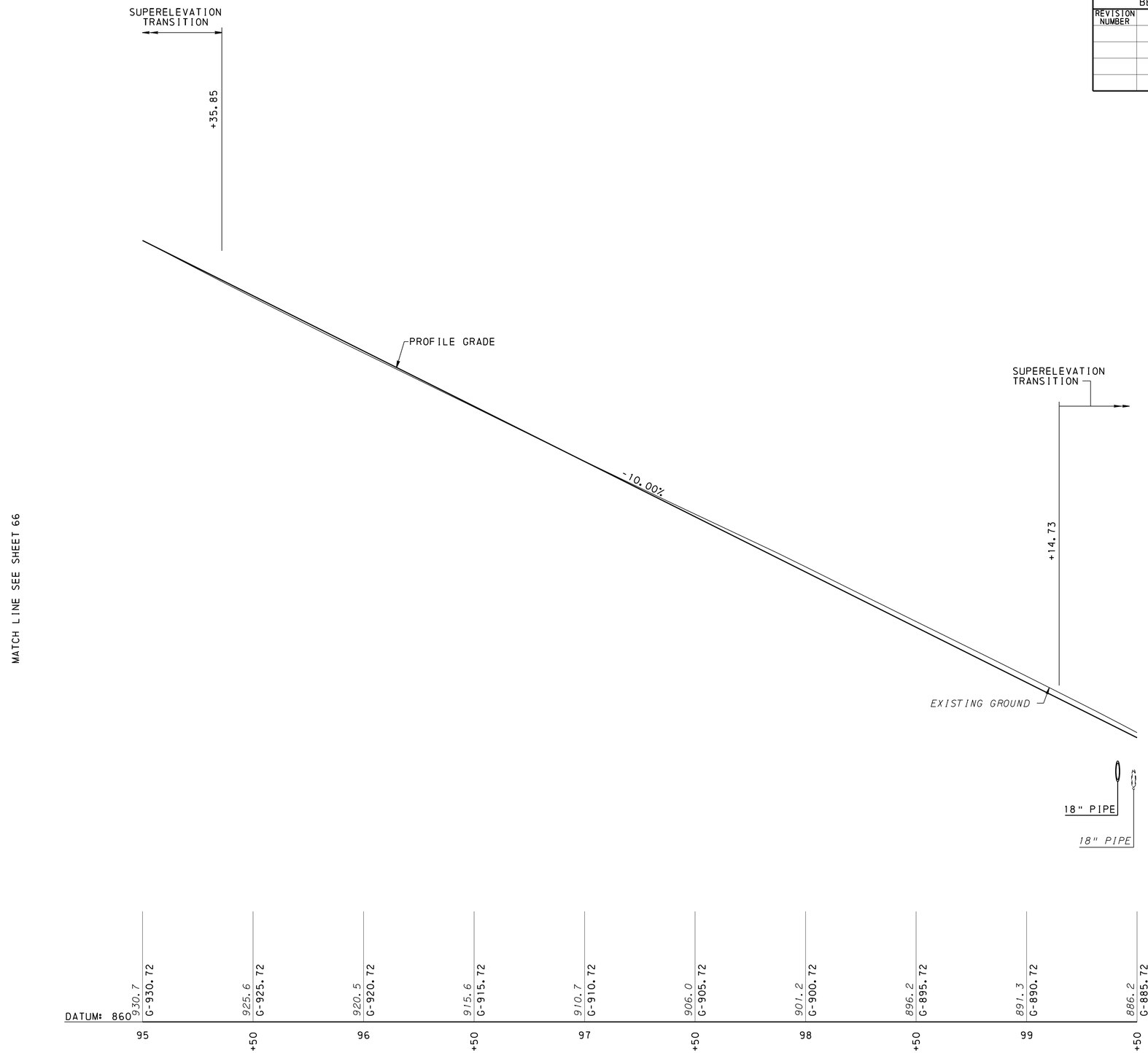
* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY




## PROFILE SR 1060

SCALE
HORIZONTAL 0 25 50
VERTICAL 0 5 10 FEET

DES: CJS | DWG: BSP | CKD: DLJ/CAB

SURVEY BOOK #29797

FOR PLAN, SEE SHEETS 60 & 61

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070174

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 68 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
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* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY

E,T,CTV

SUPERELEVATION TRANSITION

FULL SUPERELEVATION 2.0%

SUPERELEVATION TRANSITION

-10.00%

PVC +77.73

PVI STA 100+90.00
ELEV 871.72
VC 240.00'
MO +2.66'
HLSD 162'

+51.51

PROFILE GRADE

PVT +14.51

-1.12%

UT

18" PIPE

MIN VERTICAL CLEARANCE
24'-7" PROVIDED
23'-6" REQUIRED

100 YEAR FLOOD OF RECORD
MARCH 18, 1936 ELEV 852.84

EXISTING GROUND

RAILROAD TRACKS

FO

MATCH LINE SEE SHEET 67

MATCH LINE SEE SHEET 69

100 YEAR FLOOD
ELEV 815.92

25 YEAR FLOOD
ELEV 813.03

| | | |

| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 69 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
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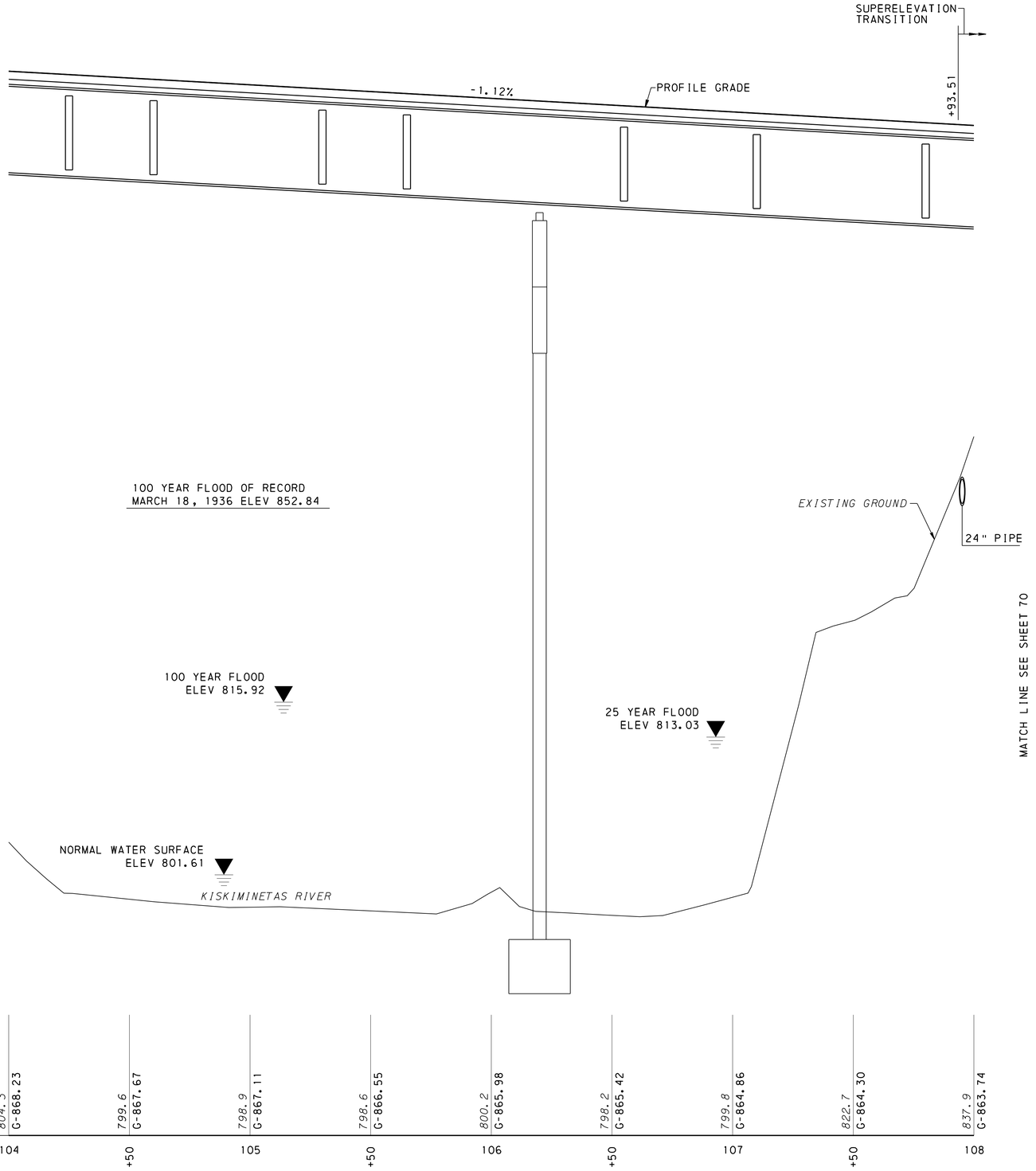
* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY




## PROFILE SR 1060

SCALE
HORIZONTAL 0 25 50
VERTICAL 0 5 10 FEET

DES: CJS | DWG: BSP | CKD: DLJ/CAB

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

SURVEY BOOK #29797

FOR PLAN, SEE SHEET 63

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 70 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
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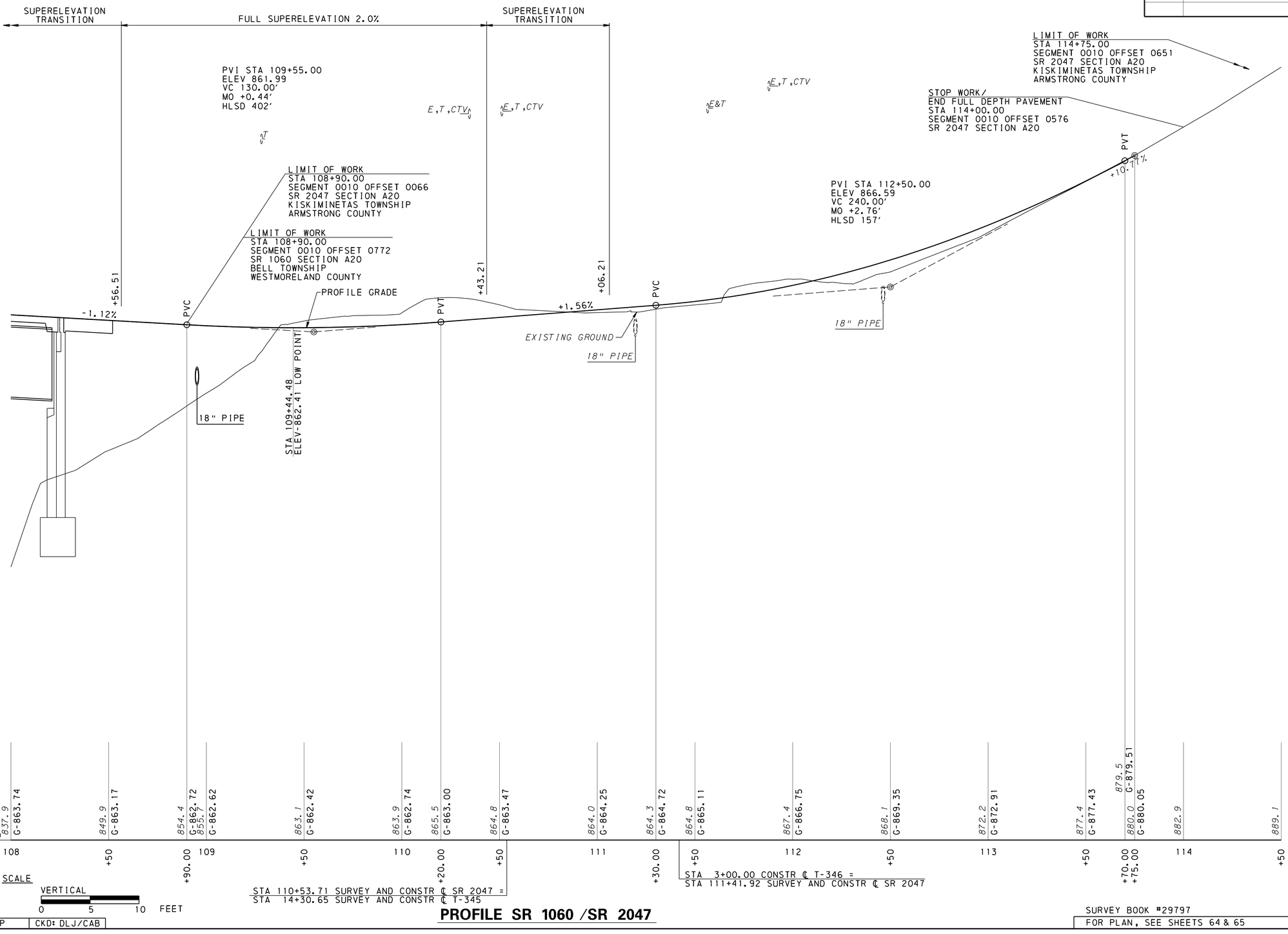
* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY




SCALE

HORIZONTAL 0 25 50

VERTICAL 0 5 10 FEET

DES: CJS | DWG: BSP | CKD: DLJ/CAB

# PROFILE SR 1060 /SR 2047

SURVEY BOOK #29797

FOR PLAN, SEE SHEETS 64 & 65

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 71 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
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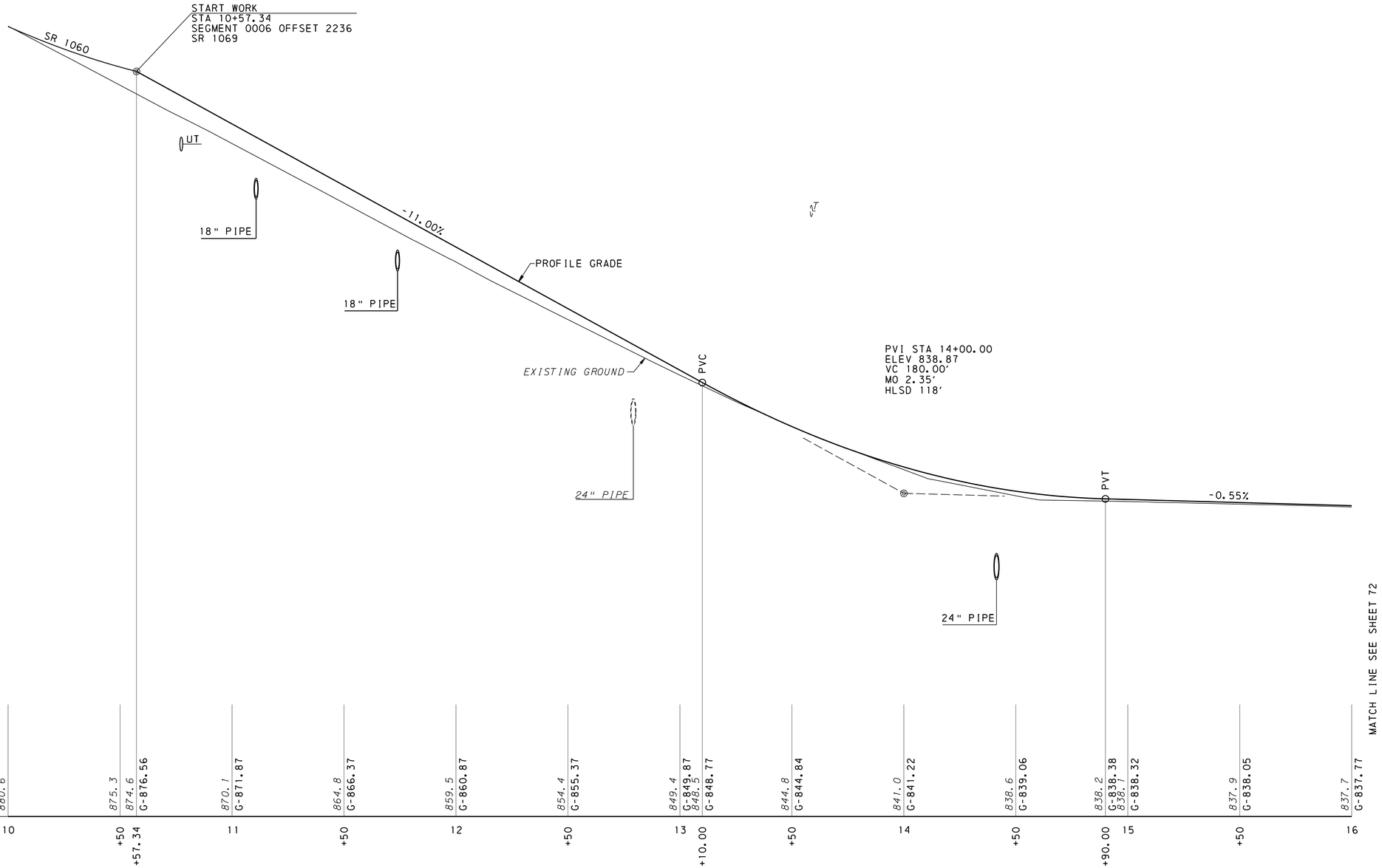
* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY




## PROFILE SR 1069

SCALE
HORIZONTAL 0 25 50
VERTICAL 0 5 10 FEET

DES: CJS | DWG: BSP | CKD: DLJ/CAB

SURVEY BOOK #29797

FOR PLAN, SEE SHEETS 61& 62

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CYDNEY JILL SEDLAR
ENGINEER
No. 070741

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 81 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |

* WESTMORELAND COUNTY AND ARMSTRONG COUNTY

SEE SHEET 83

SEE SHEET 80

SEE SHEET 82

**CURVE DATA SR 1060**
PI STA 98+93.60
Δ=4°02'11" LT
D=1°54'35"
T=105.71'
L=211.34'
R=3000.00'
E=1.86'
SE=NORMAL CROWN
PC STA 97+87.89
PCC STA 99+99.23

**CURVE DATA SR 1060**
PI STA 100+90.56
Δ=64°46'04" LT
D=39°47'19"
T=91.33'
L=162.78'
R=144.00'
E=26.52'
SE=2.0%
PCC STA 99+99.23
PT STA 101+62.01

**CURVE DATA SR 1069**
PI STA 16+15.52
Δ=15°07'27" RT
D=3°00'56"
T=252.23'
L=501.53'
R=1900.00'
E=16.67'
SE=NORMAL CROWN
PC STA 13+63.29
PT STA 18+64.82

## CGD LEGEND

| EXISTING | PROPOSED | |
|---|---|---|
| | | DRAINAGE PIPE/CULVERT |
| | | DRAINAGE INLET ( IN) |
| | | DRAINAGE MANHOLE ( MH) |
| | | TYPE D ENDWALL ( EW) |
| -570- | —570— | CONTOUR |
| | | CONCRETE BLOCK REVETMENT SYSTEM |
| | X X | REMOVE |
| | G G G | GROUT |
| | | FLOW DIRECTION |
| | | REMOVE EXISTING INLET |

LEGEND:
—T— RELOCATED TELEPHONE
—TU— RELOCATED UTILITY POLE

SCALE
0 25 50 FEET

# CONTOUR, GRADING AND DRAINAGE PLAN

SURVEY BOOK #29797

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEPHEN J. KRAMER
ENGINEER
039885-E

DES: SJK | DWG: CB | CKD: ER

6/28/2023 10:35:57 AM

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 82 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |

* WESTMORELAND COUNTY AND ARMSTRONG COUNTY

** THE OUTFALL WILL BE CONSTRUCTED BEFORE THE SOUTH ACCESS ROAD IS CONSTRUCTED. DURING THE USE OF THE SOUTH ACCESS ROAD, A 30" TEMPORARY DRAINAGE PIPE WILL BE USED TO CONVEY FLOW UNDER THE SOUTH ACCESS ROAD AND OUT TO THE KISKIMINETAS RIVER.

SEE SHEET 81

EDGE OF WATER

KISKIMINETAS RIVER

NORMAL POOL ELEV 801.87

TEMPORARY CONSTRUCTION EASEMENT

CONCRETE BLOCK ** REVETMENT SYSTEM 2

LEGAL RIGHT-OF-WAY LINE

100-YEAR WATER SURFACE ELEV 816.08

LEGAL DRAINAGE EASEMENT

36" C.M.P. OR 48" STEEL CASING PIPE

CONC. POLES, METER & ELECTRIC BOXES TO REMAIN AND BE PROTECTED

TEMPORARY CONSTRUCTION EASEMENT

LEGAL RIGHT-OF-WAY LINE

ROCK PILE

NORFOLK SOUTHERN RAILWAY COMPANY SINGLE RAILROAD TRACK

T-CUBED DUCT BANK (16 CONDUITS BY RECORD) (WINDSTREAM CONFIRMED IN ONE DUCT)

SR 1069 (WALNUT STREET)

LEGAL RIGHT-OF-WAY LINE

SURVEY AND CONSTR ℄ SR 1069

LEGAL RIGHT-OF-WAY LINE

STA 14+95 RT END CONC CURB

STOP WORK/END FULL DEPTH PAVEMENT
STA 18+50.00
SEGMENT 0032 OFFSET 0609
SR 1069

CURVE DATA SR 1069
PI STA 16+15.52
Δ=15°07'27" RT
D=3°00'56"
T=252.23'
L=501.53'
R=1900.00'
E=16.67'
SE=NORMAL CROWN
PC STA 13+63.29
PT STA 18+64.82

## CGD LEGEND

| EXISTING | PROPOSED | |
|---|---|---|
| | | DRAINAGE PIPE/CULVERT |
| | | DRAINAGE INLET ( IN) |
| | | DRAINAGE MANHOLE ( MH) |
| | | TYPE D ENDWALL ( EW) |
| -570- | 570 | CONTOUR |
| | | CONCRETE BLOCK REVETMENT SYSTEM |
| | | REMOVE |
| | | GROUT |
| | | FLOW DIRECTION |
| | | REMOVE EXISTING INLET |

LEGEND:

—T— RELOCATED TELEPHONE

RELOCATED UTILITY POLE

SCALE
0 25 50 FEET

# CONTOUR, GRADING AND DRAINAGE PLAN

SURVEY BOOK #29797

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEPHEN J. KRAMER
ENGINEER
039885-E

| DES: SJK | DWG: CB | CKD: ER |
|---|---|---|

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 83 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
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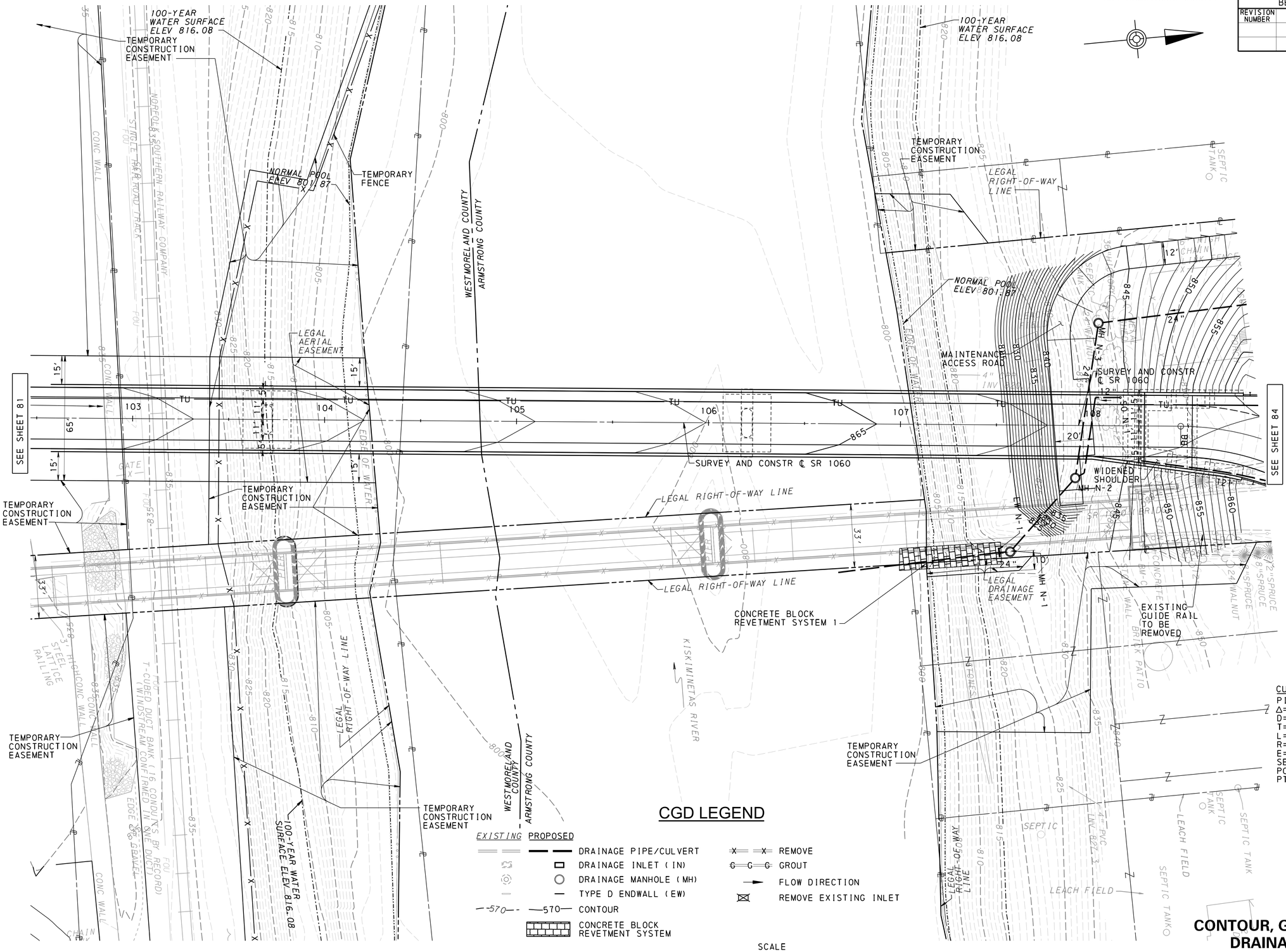
* WESTMORELAND COUNTY AND ARMSTRONG COUNTY




LEGEND:

— TU — RELOCATED TELEPHONE

CURVE DATA SR 1060/SR 2047
PI STA 109+72.61
Δ=82°38'37" RT
D=39°47'19"
T=126.60'
L=207.71'
R=144.00'
E=47.74'
SE=2.0%
PC STA 108+46.01
PT STA 110+53.71

## CGD LEGEND

| EXISTING | PROPOSED | | |
|---|---|---|---|
| | | DRAINAGE PIPE/CULVERT | REMOVE |
| | | DRAINAGE INLET ( IN) | GROUT |
| | | DRAINAGE MANHOLE ( MH) | FLOW DIRECTION |
| | | TYPE D ENDWALL ( EW) | REMOVE EXISTING INLET |
| -570- | —570— | CONTOUR | |
| | | CONCRETE BLOCK REVETMENT SYSTEM | |

SCALE
0 25 50 FEET

# CONTOUR, GRADING AND DRAINAGE PLAN

SURVEY BOOK #29797

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEPHEN J. KRAMER
ENGINEER
039885-E

| DES: SJK | DWG: CB | CKD: ER |
|---|---|---|

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| DISTRICT | COUNTY | ROUTE | SECTION | SHEET |
|---|---|---|---|---|
| 12-0 | * | 1060 | A20 | 84 OF 87 |

BELL TOWNSHIP AND KISKIMINETAS TOWNSHIP

| REVISION NUMBER | REVISIONS | DATE | BY |
|---|---|---|---|
| | | | |
| | | | |

* WESTMORELAND COUNTY
AND ARMSTRONG COUNTY

# CGD LEGEND

| EXISTING | PROPOSED | |
|---|---|---|
| | | DRAINAGE PIPE/CULVERT |
| | | DRAINAGE INLET ( IN) |
| | | DRAINAGE MANHOLE ( MH) |
| | | TYPE D ENDWALL ( EW) |
| -570- | 570 | CONTOUR |
| | | CONCRETE BLOCK REVETMENT SYSTEM |
| | | REMOVE |
| | | GROUT |
| | | FLOW DIRECTION |
| | | REMOVE EXISTING INLET |

**CURVE DATA T-345**
PI STA 10+48.30
Δ=41°40'19" LT
D=45°50'12"
T=47.57'
L=90.91'
R=125.00'
E=8.75'
SE=2.0%
PC STA 10+00.72
PT STA 10+91.64

**CURVE DATA SR 1060/SR 2047**
PI STA 109+72.61
Δ=82°38'37" RT
D=39°47'19"
T=126.60'
L=207.71'
R=144.00'
E=47.74'
SE=2.0%
PC STA 108+46.01
PT STA 110+53.71

**CURVE DATA SR 2047**
PI STA 112+24.56
Δ=34°25'41" LT
D=19°05'55"
T=92.95'
L=180.27'
R=300.00'
E=14.07'
SE=2.0%
PC STA 111+31.61
PT STA 113+11.88

T-345 (HIGH STREET)

LIMIT OF WORK
STA 108+90.00
SEGMENT 0010 OFFSET 0772
SR 1060 SECTION A20
BELL TOWNSHIP
WESTMORELAND COUNTY

LIMIT OF WORK
STA 108+90.00
SEGMENT 0010 OFFSET 0066
SR 2047 SECTION A20
KISKIMINETAS TOWNSHIP
ARMSTRONG COUNTY

START WORK
STA 10+00.00
T-345

STOP WORK
STA 13+73.30
T-345

LEGAL RIGHT-OF-WAY LINE FOR TOWNSHIP ROAD

LEGAL RIGHT-OF-WAY LINE

33'

7.6'

7.7'

WPP #554141

WPP #554140

WPP #554139

WPP #50602

WPP #50603

SURVEY AND CONSTR ℄ T-345

SURVEY AND CONSTR ℄ SR 2047 5'

CTV & E & T

E & T

48460

1 CAR GARAGE

GRAVEL

TEMPORARY CONSTRUCTION EASEMENT

REMOVE EX 15" RCP AND PLUG OUTSIDE SHOULDER

TEMPORARY CONSTRUCTION EASEMENT

2 STY DWLG

WATER WELL (BURIED 10 INCHES)

2 STORY DWELLING

18" CMP
INV 849.2

MAINTENANCE ACCESS ROAD

LEGAL RIGHT-OF-WAY LINE

MH N-4

SEPTIC TANK

LEACH FIELD

IN N-1 thru IN N-14

EW N-1

MH N-3

EW N-2

WIDENED SHOULDER

REMOVE
EX INLET & PIPE
AND PLUG
OUTSIDE
SHOULDER

INLET TOP 864.02

SURVEY AND CONSTR ℄ SR 2047 5'

TEMPORARY CONSTR EASEMENT

LEGAL R/W LINE

BLDG

2 STY DWELLING

POLE NO ID

BRICK PARKING PAD

SEPTIC TANK

TEMPORARY CONSTRUCTION EASEMENT

BRICK PATIO

SEE SHEET 85

SEE SHEET 83

LEGEND:

- —E— RELOCATED ELECTRIC
- —T— / —TU— RELOCATED TELEPHONE
- —CTV— RELOCATED CABLE
- RELOCATED UTILITY POLE
- GRAVEL DRIVEWAY ADJUSTMENT WITH 10' ASPHALT APRON

SCALE
0 25 50 FEET

## CONTOUR, GRADING AND DRAINAGE PLAN

SURVEY BOOK #29797

PLANS PREPARED BY
MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PA

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
STEPHEN J. KRAMER
ENGINEER
039885-E

| DES: SJK | DWG: CB | CKD: ER |
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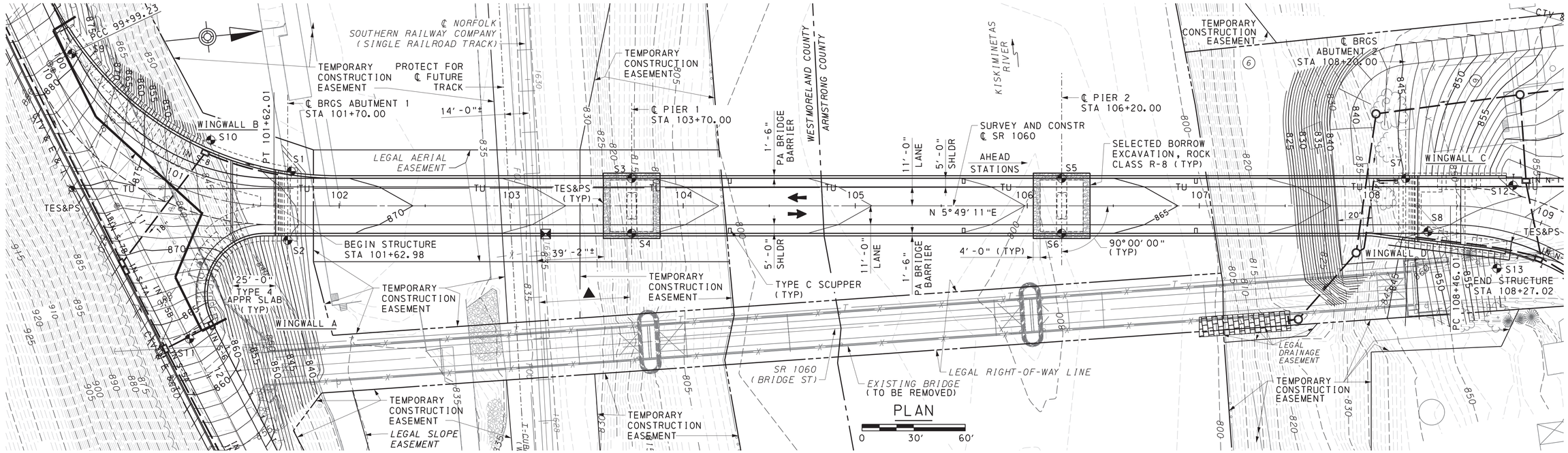


## LEGEND:

- INDICATES TRAFFIC DIRECTION
- EXISTING CONTOURS (1'-0" INTERVALS)
- PROPOSED CONTOURS (1'-0" INTERVALS)
- AS-DRILLED CORE BORING LOCATIONS
- POINT OF MINIMUM VERTICAL CLEARANCE STA 103+19.97 OFFSET 16.25' RT TOP OF RAIL ELEV 835.50
- TES&PS TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM
- MINIMUM HORIZONTAL CLEARANCE: 52'-10½" PROVIDED 25'-0" REQUIRED
- — TU — PROPOSED UTILITY
- —T— *EXISTING TELEPHONE*
- - FOU - *EXISTING FIBER OPTIC*
- — CTV — *EXISTING CABLE TV*

## AS-DRILLED CORE BORINGS

| BORING NUMBER | STATION | OFFSET | TOP OF HOLE ELEV |
|---|---|---|---|
| S1 | 101+72.00 | 20.00' LT | 835.7 |
| S2 | 101+70.00 | 20.00' RT | 837.2 |
| S3 | 103+70.00 | 16.00' LT | 814.6 |
| S4 | 103+70.00 | 16.00' RT | 816.1 |
| S5 | 106+20.00 | 16.00' LT | 800.0 |
| S6 | 106+20.00 | 16.00' RT | 800.0 |
| S7 | 108+20.00 | 16.00' LT | 846.0 |
| S8 | 108+32.93 | 15.00' RT | 847.8 |
| S9 | 99+99.46 | 14.00' LT | 879.3 |
| S10 | 101+13.89 | 32.00' LT | 837.0 |
| S11 | 11+75.00 | --- | 862.2 |
| S12 | 108+79.00 | 16.00' LT | 853.6 |
| S13 | 108+81.44 | 33.00' RT | 861.3 |

## HORIZONTAL CURVE DATA SR 1060

PI STA = 100+90.56
△ = 64°46'04" LT
D = 39°47'19"
T = 91.33'
L = 162.78'
R = 144.00'
E = 26.52'
SE = 2.0%
PCC STA 99+99.23
PT STA 101+62.01

## HORIZONTAL CURVE DATA SR 1060/SR 2047

PI STA = 109+72.61
△ = 82°38'37" RT
D = 39°47'19"
T = 126.60'
L = 207.71'
R = 144.00'
E = 47.74'
SE = 2.0%
PC STA 108+46.01
PT STA 110+53.71

## REFERENCES:

1. INDEX OF DRAWINGS AND RATINGS

## SHEET:

3

## NOTES:

THE CONTRACTOR SHALL PROVIDE OPEN ACCESS ALONG THE NORFOLK SOUTHERN MAINTENANCE WAY THROUGHOUT CONSTRUCTION.

THE ELEVATIONS OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE NORFOLK SOUTHERN PUBLIC IMPROVEMENTS ENGINEER.

EXISTING BRIDGE RAILROAD CLEARANCES:
20'-9"± VERTICAL
56'-0"± HORIZONTAL

TEMPORARY RAILROAD CLEARANCES:
22'-0" VERTICAL ABOVE TOP OF HIGHEST RAIL
13'-0" HORIZONTAL FROM ℄ TANGENT TRACK
14'-0" HORIZONTAL FROM ℄ CURVED TRACK
MEASURE VERTICAL CLEARANCE FROM A POINT 6'-0" OFFSET FROM TRACK CENTERLINE.

DESIGN REVIEWED BY:

SUCEVIC, PICCOLOMINI & KUCHAR ENGINEERING, INC.
126 KAIDER ROAD
UNIONTOWN, PA 15401

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL PERRY M. SCHWEISS ENGINEER No. PE-043260-E

06/05/2023

THE DESIGN REVIEW IS A DETAILED REVIEW FOR PROPER DEVELOPMENT AND PRESENTATION OF THE CONCEPTS IN THE TYPE, SIZE AND LOCATION PLANS APPROVED BY THE DEPARTMENT. IT IS NOT INTENDED TO RELIEVE THE DESIGNER OF FULL RESPONSIBILITY FOR THE PROPER DEVELOPMENT AND PRESENTATION OF THE DESIGN AND FOR THE ACCURACY AND COMPLETENESS OF THE PLANS.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

PREPARED BY:

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

Justin W. Boucher Digitally signed by Justin W. Boucher Date: 2023.06.09 17:08:04 -04'00'

**Michael Baker**
INTERNATIONAL
AIRSIDE BUSINESS PARK
100 AIRSIDE DRIVE
MOON TOWNSHIP, PA 15108
PHONE: (412) 269-6300

| DES: JWB | CKD: ABC | DWG: EEM | CKD: JWB |
|---|---|---|---|

| DESCRIPTION | DWG NO | RECM'D DATE |
|---|---|---|
| CLASSIFICATION OF EARTHWORK FOR STRUCTURES | RC-11M | 6/1/2010 |
| BACKFILL AT STRUCTURES | RC-12M | 11/1/2022 |
| GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS | RC-50M | 2/27/2023 |
| PROTECTIVE FENCE | BC-701M | 11/23/2022 |
| PA BRIDGE BARRIER | BC-713M | 11/23/2022 |
| PERMANENT METAL DECK FORMS | BC-732M | 11/23/2022 |
| ANCHOR SYSTEMS | BC-734M | 2/19/2021 |
| WALL CONSTRUCTION AND EXPANSION JOINT DETAILS | BC-735M | 9/30/2016 |
| REINFORCEMENT BAR FABRICATION DETAILS | BC-736M | 11/23/2022 |
| BRIDGE DRAINAGE | BC-751M | 1/31/2019 |
| CONCRETE DECK SLAB DETAILS | BC-752M | 11/23/2022 |
| STEEL GIRDER DETAILS | BC-753M | 1/31/2019 |
| STEEL DIAPHRAGMS FOR STEEL BEAM/GIRDER STRUCTURES (STRAIGHT GIRDERS ONLY) | BC-754M | 11/23/2022 |
| HIGH LOAD MULTI ROTATIONAL POT BEARINGS | BC-756M | 11/23/2022 |
| STEEL PILE TIP REINFORCEMENTS & SPLICES | BC-757M | 9/30/2016 |
| TOOTH EXPANSION DAM FOR PRESTRESSED CONCRETE & STEEL BEAM BRIDGES | BC-762M | 1/31/2019 |
| TYPICAL WATERPROOFING AND EXPANSION DETAILS | BC-788M | 11/23/2022 |

SUPPLEMENTAL DRAWINGS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

# GENERAL PLAN

RECOM Digitally signed by Richard W. Runyen Date: 2023.06.07 07:08:32 -04'00'
CHIEF BRIDGE ENGINEER

SHEET 1 OF 130
+ SUPPLEMENTAL DRAWINGS

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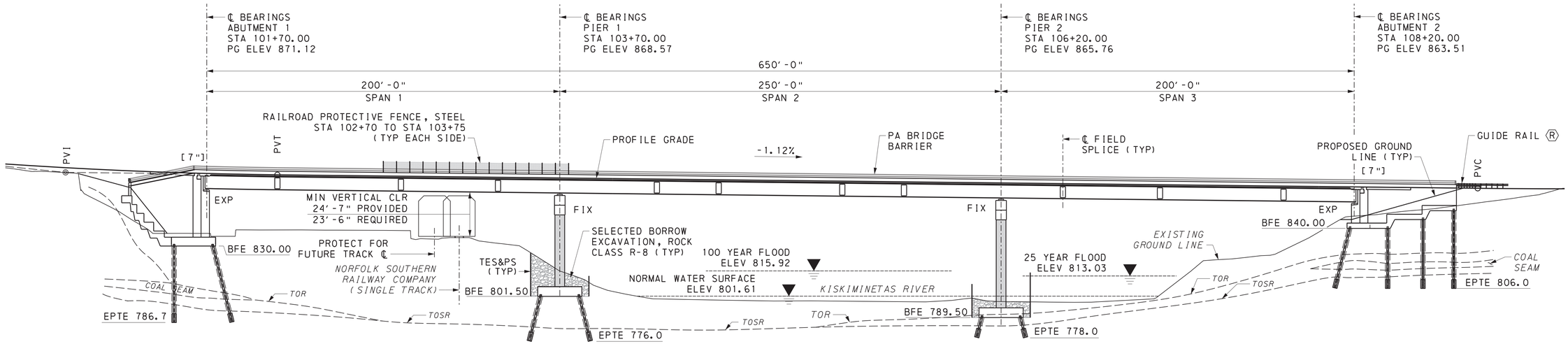


DATUM 760.00

ELEVATION

0 30' 60'

## LEGEND:

| | |
|---|---|
| [7"] | MOVEMENT CLASSIFICATION TOOTH EXPANSION DAM |
| EXP | EXPANSION POT BEARING |
| FIX | FIXED POT BEARING |
| ▼ | WATER SURFACE ELEVATION |
| BFE | BOTTOM OF FOOTING ELEVATION |
| *TOR* | TOP OF ROCK |
| *TOSR* | TOP OF SUITABLE ROCK |
| EPTE | ESTIMATED PILE TIP ELEVATION |
| Ⓡ | ROADWAY ITEM |
| TES&PS | TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM |

## HYDRAULIC DATA:

DRAINAGE AREA = 1440.00 SQUARE MILES

25 YEAR FLOOD (DESIGN STORM)

DISCHARGE = 47,000 CFS
PROPOSED WATER SURFACE ELEVATION = 813.03
PROPOSED CHANNEL VELOCITY = 10.6 FPS

100 YEAR FLOOD

DISCHARGE = 65,254 CFS
PROPOSED WATER SURFACE ELEVATION = 815.92
PROPOSED CHANNEL VELOCITY = 12.0 FPS

FLOOD OF RECORD: MARCH 18, 1936 ELEV 852.84

## VERTICAL CURVE DATA

-10.00% -1.12%

PVI STA = 100+90.00
PVI ELEV = 871.72
VC = 240.00'
MO = 2.66'

## VERTICAL CURVE DATA

-1.12% +1.56%

PVI STA = 109+55.00
PVI ELEV = 861.99
VC = 130.00'
MO = 0.44'

## NOTES:

THE CONTRACTOR SHALL PROVIDE OPEN ACCESS ALONG THE NORFOLK SOUTHERN MAINTENANCE WAY THROUGHOUT CONSTRUCTION.

THE ELEVATIONS OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE NORFOLK SOUTHERN PUBLIC IMPROVEMENTS ENGINEER.

TEMPORARY RAILROAD CLEARANCES:
22'-0" VERTICAL ABOVE TOP OF HIGHEST RAIL
13'-0" HORIZONTAL FROM ℄ TANGENT TRACK
14'-0" HORIZONTAL FROM ℄ CURVED TRACK
MEASURE VERTICAL CLEARANCE FROM A POINT 6'-0" OFFSET FROM TRACK CENTERLINE.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

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

REVISIONS

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER ELEVATION

RECOMMENDED _____

SHEET 2 OF 130

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## BRIDGE LOAD RATING (LRFD)

ADTT: 17 (2023), 19 (2043) (ONE-DIRECTIONAL)

| WITH FUTURE WEARING SURFACE | | PLATE GIRDER | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | H20 | HS20 | ML-80 | TK527 | PHL-93 | P-82 | P2016-13 |
| INVENTORY RATING (IR) | DISTRIBUTION FACTOR | 0.679 | 0.679 | 0.692 | 0.692 | 0.679 | -- | -- |
| | LOCATION (FT) | 187.50 | 187.50 | 93.00 | 93.00 | 187.50 | -- | -- |
| | SPAN | 1 | 1 | 3 | 3 | 1 | -- | -- |
| | GIRDER | G2/G4 | G2/G4 | G2/G4 | G2/G4 | G2/G4 | -- | -- |
| | LIMIT STATE | STR-I | STR-I | STR-I | STR-I | STR-I | -- | -- |
| | RATING FACTOR | 1.54M | 1.54M | 2.10M | 2.00M | 1.20M | -- | -- |
| | RATING - TONS | 30.9 | 55.6 | 76.9 | 79.9 | -- | -- | -- |
| OPERATING RATING (OR) | DISTRIBUTION FACTOR | 0.679 | 0.679 | 0.692 | 0.692 | 0.679 | 0.692 | 0.692 |
| | LOCATION (FT) | 187.50 | 187.50 | 93.00 | 93.00 | 187.50 | 93.00 | 93.00 |
| | SPAN | 1 | 1 | 3 | 3 | 1 | 3 | 3 |
| | GIRDER | G2/G4 | G2/G4 | G2/G4 | G2/G4 | G2/G4 | G2/G4 | G2/G4 |
| | LIMIT STATE | STR-II | STR-II | STR-II | STR-II | STR-IA | STR-II | STR-II |
| | RATING FACTOR | 2.00M | 2.00M | 2.72M | 2.59M | 1.56M | 1.31M | 1.00M |
| | RATING - TONS | 40.0 | 72.0 | 99.6 | 103.5 | -- | 133.9 | 165.2 |
| CRITICAL MEMBER | | FIRST INTERIOR GIRDER | | | | SPAN LENGTH (FT) | | 200.00 |
| MAX FACTORED FLEXURAL RESISTANCE (KIP-FT) | | -26,698 | | | | LOCATION (FT) | | 185.00 |
| MAXIMUM FACTORED SHEAR RESISTANCE (KIPS) | | 1,558 | | | | LOCATION (FT) | | 0.00 |

| WITHOUT FUTURE WEARING SURFACE | | PLATE GIRDER | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | H20 | HS20 | ML-80 | TK527 | PHL-93 | P-82 | P2016-13 |
| INVENTORY RATING (IR) | DISTRIBUTION FACTOR | 0.679 | 0.679 | 0.692 | 0.692 | 0.679 | -- | -- |
| | LOCATION (FT) | 187.50 | 187.50 | 93.00 | 93.00 | 187.50 | -- | -- |
| | SPAN | 1 | 1 | 3 | 3 | 1 | -- | -- |
| | GIRDER | G2/G4 | G2/G4 | G2/G4 | G2/G4 | G2/G4 | -- | -- |
| | LIMIT STATE | STR-I | STR-I | STR-I | STR-I | STR-I | -- | -- |
| | RATING FACTOR | 1.75M | 1.75M | 2.23M | 2.13M | 1.37M | -- | -- |
| | RATING - TONS | 35.0 | 63.0 | 81.8 | 85.0 | -- | -- | -- |
| OPERATING RATING (OR) | DISTRIBUTION FACTOR | 0.679 | 0.679 | 0.692 | 0.692 | 0.679 | 0.692 | 0.692 |
| | LOCATION (FT) | 187.50 | 187.50 | 93.00 | 93.00 | 187.50 | 93.00 | 93.00 |
| | SPAN | 1 | 1 | 3 | 3 | 1 | 3 | 3 |
| | GIRDER | G2/G4 | G2/G4 | G2/G4 | G2/G4 | G2/G4 | G2/G4 | G2/G4 |
| | LIMIT STATE | STR-II | STR-II | STR-II | STR-II | STR-IA | STR-II | STR-II |
| | RATING FACTOR | 2.27M | 2.27M | 2.90M | 2.75M | 1.77M | 1.40M | 1.07M |
| | RATING - TONS | 45.4 | 81.7 | 106.1 | 110.2 | -- | 142.5 | 175.9 |
| CRITICAL MEMBER | | FIRST INTERIOR GIRDER | | | | SPAN LENGTH (FT) | | 200.00 |
| MAX FACTORED FLEXURAL RESISTANCE (KIP-FT) | | -26,698 | | | | LOCATION (FT) | | 185.00 |
| MAXIMUM FACTORED SHEAR RESISTANCE (KIPS) | | 1,558 | | | | LOCATION (FT) | | 0.00 |

## LOAD RATING NOTES:

1. LIVE LOAD DISTRIBUTION FACTORS ARE COMPUTED ACCORDING TO DM-4.
2. DISTRIBUTION FACTORS GIVEN ARE VEHICULAR DISTRIBUTION FACTORS USED TO PRODUCE THE GIVEN RATING FACTORS.
3. "M" DENOTES THAT FLEXURAL RESISTANCE GOVERNS THE GIVEN RATING FACTOR.
4. "S" DENOTES THAT SHEAR RESISTANCE GOVERNS THE GIVEN RATING FACTOR.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## INDEX OF DRAWINGS AND RATINGS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 3 OF 130

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DES: ABC | CKD: RMS | DWG: EEM | CKD:ABC/JWB

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## DESIGN SPECIFICATIONS:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 2017, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, DECEMBER 2019 EDITION.

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

DESIGN IS IN ACCORDANCE WITH THE LRFD METHOD.

## DESIGN LIVE LOADS:

PHL-93, ML-80, TK527, P-82 (204 KIP PERMIT LOAD) OR P2016-13 (330 KIP PERMIT LOAD)

FATIGUE DESIGN IS BASED ON THE FOLLOWING:
STEEL STRUCTURES: ADTT 19 (2043)
(ONE DIRECTIONAL)

## DEAD LOADS:

INCLUDES SURFACE AREA DENSITY OF 0.030 KSF FOR FUTURE WEARING SURFACE ON THE DECK SLAB.

INCLUDES A SURFACE AREA DENSITY OF 0.015 KSF FOR PERMANENT METAL DECK FORMS WHICH TAKES INTO ACCOUNT THE WEIGHT OF THE FORM, PLUS THE WEIGHT OF THE CONCRETE IN THE VALLEYS OF THE FORMS.

INCLUDES 0.015 KIP/FT FOR UTILITIES.

INCLUDES 0.026 KIP/FT FOR PROTECTIVE FENCE OVER RAILROAD PROPERTY.

## GENERAL:

PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408/2020, AASHTO/AWS D1.5M/D1.5 2015 BRIDGE WELDING CODE, AND CONTRACT SPECIAL PROVISIONS (USE AASHTO/AWS D1.1M/D1.1-2015 FOR WELDING NOT COVERED IN AASHTO/AWS D1.5M/D1.5-2015).

STATIONS AND ELEVATIONS ARE GIVEN IN FEET UNLESS OTHERWISE NOTED.

SITE CLASS IS NOT CLASS E.

ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.

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

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

## CONCRETE:

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

IN ALL CONCRETE PERMANENTLY EXPOSED TO THE EXISTING SOIL: USE CORROSION RESISTANT TYPE II SULFATE RESISTANT PORTLAND CEMENT CONCRETE WITH A MAXIMUM WATER/CEMENT RATIO OF 0.45, CONTAINING NO CHLORIDE ADDITIVES.

USE CLASS AAAP CEMENT CONCRETE IN DECK SLAB AND CONCRETE END DIAPHRAGMS.

USE CLASS AA CEMENT CONCRETE IN BRIDGE BARRIERS, APPROACH SLAB BARRIERS, MOMENT SLAB BARRIERS, AND ABUTMENT CURTAIN WALLS.

AS PER PUB 408 SECTION 1001.2(a)1, USE NO. 8 COARSE AGGREGATE IN BARRIER CONCRETE.

USE CLASS AA CEMENT CONCRETE SULFATE RESISTANT IN THE PORTION OF THE FOLLOWING MEMBERS PERMANENTLY EXPOSED TO SOIL: APPROACH SLABS, SLEEPER SLABS, MOMENT SLABS, ABUTMENT BACKWALLS, ABUTMENT SUPPORT PEDESTALS ABOVE THE BRIDGE SEAT CONSTRUCTION JOINT, ABUTMENT DRAIN TROUGHS, AND U-WINGS ABOVE BRIDGE SEAT CONSTRUCTION JOINTS.

USE CLASS A CEMENT CONCRETE IN PIER CAPS AND PEDESTALS.

USE CLASS A CEMENT CONCRETE SULFATE RESISTANT IN THE PORTION OF THE FOLLOWING MEMBERS PERMANENTLY EXPOSED TO SOIL: PIERS, ABUTMENTS BELOW THE BRIDGE SEAT, WINGWALLS, RETAINING WALLS, FOOTINGS, AND PILE PRE-DRILLED HOLE BACKFILLING.

USE CLASS C CEMENT CONCRETE SULFATE RESISTANT BELOW THE BOTTOM OF FOOTINGS WHEN SPECIFIED.

## CONCRETE CONT'D:

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

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

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

ABUTMENT BACKWALLS MAY BE PLACED UP TO A CONSTRUCTION JOINT BELOW THE LEVEL OF THE BOTTOM OF DECK SLAB PRIOR TO CONSTRUCTION OF THE DECK.

PLACE CURTAIN WALL AND BACKWALL CONCRETE AFTER GIRDERS ARE SET IN POSITION.

CHAMFER EXPOSED CONCRETE EDGES ¾ INCH BY ¾ INCH, EXCEPT AS NOTED.

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

DECK SLAB THICKNESS INCLUDES A ½ INCH INTEGRAL WEARING SURFACE.

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

DO NOT USE ADHESIVE ANCHORS IN A TENSION APPLICATION FOR PERMANENT INSTALLATIONS.

DO NOT USE ADHESIVE ANCHORS IN A SUSTAINED TENSION APPLICATION FOR TEMPORARY INSTALLATIONS, INCLUDING DURING CONSTRUCTION.

SET ANCHOR BOLTS TO TEMPLATE OR IN PREFORMED HOLES. DO NOT DRILL UNLESS SPECIFICALLY INDICATED ON PLANS. FILL THE PREFORMED HOLES WITH NON-SHRINK GROUT. FILL THE CLEARANCE BETWEEN ANCHOR BOLTS AND HOLES IN MASONRY PLATES WITH APPROVED NON-HARDENING CAULKING COMPOUND CONFORMING TO PUBLICATION 408, SECTION 705.7.

APPLY PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS), IN ACCORDANCE WITH PUBLICATION 408 SECTION 1019, TO THE EXPOSED CONCRETE BRIDGE DECK SURFACE, BARRIER FACES, AND DOWN TO THE DECK DRIP NOTCH ON THE SUPERSTRUCTURE. LIMITS OF THE APPROACH SLAB AND MOMENT SLAB INCLUDE THE EXPOSED ROADWAY SURFACES INCLUDING THE FULL DEPTH OF THE OUTSIDE FACE. LIMITS OF THE SUBSTRUCTURES INCLUDE THE EXPOSED SURFACES INCLUDING DOWN TO A PLANE 3 FEET BELOW FINISHED GRADE.

## REINFORCING STEEL:

PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A615/A615M, A996/A996M OR A706/A706M. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED. GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS-SECTIONAL AREA, IF APPROVED BY THE CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL A996/A995M REINFORCEMENT BARS IN BRIDGE PIERS, ABUTMENTS, FOOTINGS, BARRIERS, OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.

USE EPOXY-COATED REINFORCEMENT BARS IN ALL CONCRETE.

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

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

## STRUCTURAL STEEL:

PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M 270M/M 270 GRADE 50W (ASTM A709/A709M) GRADE 50W DESIGNATION, EXCEPT WHEN NOTED OTHERWISE.

IF GIRDERS CANNOT BE SHIPPED IN THE LENGTHS SHOWN ON THE PLANS, FIELD SPLICE(S) WILL BE PERMITTED AT THE REQUEST OF THE CONTRACTOR, BUT NO COMPENSATION WILL BE ALLOWED FOR THE SPLICES.

IF GIRDERS CAN BE FABRICATED IN LENGTHS LONGER THAN THE SECTIONS SHOWN ON THE PLANS BY ELIMINATING FIELD SPLICES, FIELD SPLICE(S) MAY BE OMITTED AT THE REQUEST OF THE CONTRACTOR. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR SECURING A HAULING PERMIT. APPROVAL FOR ELIMINATION OF A FIELD SPLICE AT THE SHOP DRAWING STAGE DOES NOT OBLIGATE THE DEPARTMENT TO ISSUE A HAULING PERMIT.

## STRUCTURAL STEEL CONT'D:

DO NOT USE FORM SUPPORT SYSTEMS THAT WILL CAUSE UNACCEPTABLE OVERSTRESS OR DEFORMATION TO PERMANENT BRIDGE MEMBERS.

ALL FASTENERS ARE ⅞ INCH DIAMETER AASHTO F3125 GRADE A325, TYPE 3 HS BOLTS, EXCEPT AS NOTED.

EXCLUDE BOLT THREADS FROM SHEAR PLANES UNLESS OTHERWISE NOTED. WHERE FEASIBLE, PLACE BOLTS SO THE THREADED ENDS ARE PROTECTED FROM THE WEATHER.

REAM SUBDRILLED OR SUBPUNCHED HOLES FOR FIELD SPLICES IN THE FABRICATION SHOP.

PROVIDE WELDED STUD SHEAR CONNECTORS MANUFACTURED FROM STEEL CONFORMING TO ASTM A108.

PAINT STRUCTURAL STEEL IN ACCORDANCE WITH PUBLICATION 408, SECTION 1060. PAINTING LIMITS ARE SHOWN ON THE FABRICATED STRUCTURAL STEEL DRAWINGS. THE LIMITS GENERALLY INCLUDE THE FOLLOWING:

BEARINGS: PAINT ALL BEARINGS

GIRDER ENDS: PAINT THE ENTIRE GIRDER SURFACE OF EACH GIRDER, STIFFENERS, CONNECTION PLATES, AND CROSS FRAMES FOR A DISTANCE OF 11 FEET.

FIELD SECTION OVER RR: PAINT THE ENTIRE GIRDER SURFACE OF EACH GIRDER, STIFFENERS, CONNECTION PLATES, AND CROSS FRAMES TO WITHIN 6 INCHES OF FIELD SPLICE 2 FLANGE SPLICE PLATE AND FIELD SPLICE 3 FLANGE SPLICE PLATE. DO NOT PAINT THE FIELD SPLICE PLATES.

PROVIDE A FINISH COAT MATCHING FEDERAL STANDARD 595 COLOR NUMBER 20055. PROVIDE PAINT CHIPS TO THE DISTRICT BRIDGE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PERFORMING THE PAINTING OPERATIONS.

STABILITY OF PARTIAL GIRDERS AND COMPLETE GIRDERS IS TO BE MAINTAINED BY THE CONTRACTOR DURING ERECTION, UNTIL ALL GIRDERS AND DIAPHRAGMS ARE IN-PLACE AND ALL BOLTS ARE PROPERLY INSTALLED. ERECTION LOADS INCLUDING SELF WEIGHT OF THE STEEL MEMBERS, WIND LOADING AND CONSTRUCTION LIVE LOAD EFFECTS ARE TO BE EVALUATED BY THE CONTRACTOR FOR STABILITY, STRESSES AND DEFLECTIONS ON THE STEEL MEMBERS DURING ANY STAGE OF ERECTION.

AN ALTERNATE SLAB PLACEMENT SEQUENCE MAY BE PERMITTED AT THE REQUEST OF THE CONTRACTOR. SUBMIT FOR REVIEW AND APPROVAL TO THE DEPARTMENT A REVISED SLAB PLACEMENT SEQUENCE WITH SUPPORT CALCULATIONS AND COMPUTER STRESS ANALYSIS. SATISFY THE REQUIREMENTS OF THE ORIGINAL SLAB PLACEMENT SEQUENCE. OBTAIN WRITTEN APPROVAL PRIOR TO THE USE OF THE REVISED SLAB PLACEMENT SEQUENCE AND/OR CAMBER VALUES. NO COMPENSATION WILL BE ALLOWED FOR THE DEVELOPMENT AND APPROVAL OF THE REVISED SLAB PLACEMENT SEQUENCE AND CAMBER VALUES. THE DEPARTMENT WILL BE THE SOLE JUDGE OF THE ACCEPTABILITY OF THE REVISED SLAB PLACEMENT SEQUENCE AND CAMBER VALUES.

HEAT-CURVED GIRDERS ARE NOT PERMITTED.

THE STEEL SUPERSTRUCTURE SHALL BE DETAILED AND FABRICATED FOR STEEL DEAD LOAD FIT (SDLF).

BLAST CLEAN THE FAYING SURFACES OF SPLICES AND CONNECTIONS OF ALL STRUCTURAL ELEMENTS IN ACCORDANCE WITH PUBLICATION 408 SECTION 1060.3(b)3. REBLAST UNPAINTED ELEMENTS THAT REMAIN UNASSEMBLED FOR A PERIOD OF 12 MONTHS OR MORE FOLLOWING THE INITIAL CLEANING.

PROVIDE A CLASS A SLIP COEFFICIENT FOR THE CONTACT AREA OF PAINTED BOLTED PARTS. COATED JOINTS SHALL NOT BE ASSEMBLED BEFORE THE COATINGS HAVE CURED FOR THE MINIMUM TIME USED IN THE QUALIFYING TEST.

PROVIDE A CLASS B SLIP COEFFICIENT FOR THE CONTACT AREA OF UNPAINTED BOLTED PARTS.

THE COST TO FURNISH AND INSTALL ALL NUTS, BOLTS, AND WASHERS IS INCIDENTAL TO THE FABRICATED STRUCTURAL STEEL ITEM.

PERFORM CHARPY V-NOTCH (CVN) TESTS AS INDICATED AS SPECIFIED IN PUBLICATION 408, SECTION 1105.02(a)5.

PROVIDE SWEDGE ANCHOR BOLTS CONFORMING TO ASTM F1554 WITH SWEDGES PRESSED (STAMPED) OR ROLLED IN. "ALL-THREAD" BOLTS ARE NOT PERMITTED.

PROVIDE DRIP BARS FOR WEATHERING STEEL GIRDERS AT SUBSTRUCTURE UNITS AS PER BC-753M. DO NOT PROVIDE DRIP BARS AT SUBSTRUCTURE UNITS WHEN THE GIRDER SLOPE IS AWAY FROM THE SUBSTRUCTURE UNIT.

## WATERWAY REGULATIONS:

NOTIFY THE REGIONAL HEADQUARTERS OF THE FISH COMMISSION PRIOR TO CONSTRUCTION AND COORDINATE WITH FISH COMMISSION DURING CONSTRUCTION:
SOUTHWEST REGIONAL OFFICE
236 LAKE ROAD
SOMERSET, PA 15501
814-445-8974

DEP APPROVED WATERWAY PERMIT E6505122-004.

ANY PROPOSED CONSTRUCTION ACTIVITIES IN OR ADJACENT TO THE KISKIMINETAS RIVER THAT DIFFER FROM THE E&S PLAN WILL REQUIRE THE CONTRACTOR TO PREPARE REVISIONS TO THE FOLLOWING:

1. PERMIT
2. HYDROLOGIC & HYDRAULIC REPORT
3. EROSION & SEDIMENTATION POLLUTION CONTROL PLAN

SUBMIT REVISIONS TO THE APPROPRIATE AGENCIES FOR APPROVAL PRIOR TO THE COMMENCEMENT OF THE REVISED CONSTRUCTION ACTIVITIES.

## UTILITIES:

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

COORDINATE THE REQUIREMENTS FOR PROTECTION AND/OR RELOCATION OF UTILITIES WITH THE UTILITY OWNER PRIOR TO STARTING WORK. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

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

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 2 | 5 |


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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## GENERAL NOTES 1

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 4 OF 130

S - 39414

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## FABRICATION AND REPORTING REQUIREMENTS FOR TEMPORARY STRUCTURAL STEEL MEMBERS:

TEMPORARY STRUCTURAL STEEL MEMBERS TO BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN PENNSYLVANIA TO MEET DESIGN REQUIREMENTS AND SHOWN ON SIGNED AND SEALED DRAWINGS PREPARED AS SPECIFIED IN PUBLICATION 408, SECTION 105.02(C).

FABRICATE TEMPORARY STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH AASHTO/AWS D1.5M/D1.5 BRIDGE WELDING CODE.

FABRICATION IN SHOP TO BE PERFORMED BY A BULLETIN 15 CERTIFIED FABRICATOR. TEMPORARY TIE-DOWN ASSEMBLIES FOR REPLACEMENT OF THE PERMANENT TIE-DOWNS (FABRICATED STRUCTURAL STEEL REPAIR TYPE P) SHALL BE FABRICATED IN A SHOP. FABRICATION OF OTHER TEMPORARY STEEL MEMBERS MAY BE PERFORMED IN THE FIELD IF APPROVED BY THE REPRESENTATIVE.

FRACTURE CRITICAL COMPONENTS TO BE FABRICATED IN A BULLETIN 15 CERTIFIED FACILITY WITH FRACTURE CRITICAL ENDORSEMENT.

WELDING TO BE PERFORMED BY AN AWS CERTIFIED WELDER (CW) WITH CERTIFICATION APPROPRIATE TO THE METHOD, POSITION AND MATERIALS BEING USED.

INSPECT WELDS IN ACCORDANCE WITH PUBLICATION 408, SECTION 1105 AND ASNT RECOMMENDED PRACTICE NO. SNT-TC-1A.

- FOR FILLET WELDS, ENSURE PROPER WELD SIZE AND PROFILE AND PERFORM MAG PARTICLE TESTING.
- FOR PARTIAL AND FULL PENETRATION WELDS, PERFORM ULTRASONIC TESTING AND RADIOGRAPHIC TESTING AS APPROPRIATE.

WELDS TO BE INSPECTED BY QUALITY CONTROL PERSONNEL INCLUDING AN AWS CERTIFIED WELDING INSPECTOR (CWI) AS REQUIRED BY PUBLICATION 408, SECTION 1105.01(G)3.

NON-DESTRUCTIVE TESTING (NDT) TO BE PERFORMED BY AN SNT-TC-1A CERTIFIED TECHNICIAN.

THE ENGINEER RESPONSIBLE FOR DESIGN OF THE TEMPORARY MEMBERS SHALL CERTIFY THAT THE TEMPORARY STRUCTURAL STEEL MEMBERS HAVE BEEN ASSEMBLED AS SHOWN ON THE ENGINEER'S SIGNED AND SEALED DRAWINGS.

THE CONTRACTOR IS REQUIRED TO PROVIDE A WRITTEN REPORT OF FABRICATION TO THE REPRESENTATIVE PRIOR TO PLACING LOADS ON THE TEMPORARY STRUCTURAL STEEL MEMBERS. THE REPORT IS TO BE PREPARED BY THE CONTRACTORS' PROFESSIONAL ENGINEER, THE CERTIFIED WELDING INSPECTOR (CWI) AND THE CERTIFIED NDT TECHNICIAN. THE REPORT IS TO DEFINE THE FABRICATION REQUIREMENTS FOR THE TEMPORARY STRUCTURAL STEEL MEMBERS AND ADDRESS INSPECTION AND NON-DESTRUCTIVE TESTING REQUIRED BY PUBLICATION 408, SECTION 1105 AND APPLICABLE AMERICAN WELDING SOCIETY STANDARDS. AT A MINIMUM, THE REPORT IS TO INCLUDE THE FOLLOWING:

- ACCEPTED FABRICATION DRAWINGS.
- FABRICATOR NAME, FACILITY AND APPLICABLE CERTIFICATIONS. INCLUDE A COPY OF THEIR APPLICABLE AISC CERTIFICATION(S).
- WELDING METHOD(S) TO BE USED IN ACCORDANCE WITH PUBLICATION 408, SECTION 1105.03(M)6.A FOR MAIN LOAD CARRYING BRIDGE MEMBERS.
- APPROVED PROCEDURE QUALIFICATION RECORDS (PQR) AND WELDING PROCEDURE SPECIFICATIONS (WPS).
- MATERIAL CERTIFICATION: MILL TEST REPORTS (MTR) AND MILL TEST CERTIFICATIONS (MTC).
- WELDER QUALIFICATIONS.
- METHODS FOR HANDLING WELDING CONSUMABLES.
- FOR PRE-APPROVED FIELD WELDING, LIST OF QUALITY CONTROL PERSONNEL INCLUDING AN AWS CERTIFIED WELDING INSPECTOR (CWI) AS REQUIRED BY PUBLICATION 408, SECTION 1105.01(G)3.
- NON-DESTRUCTIVE TESTING (NDT) WRITTEN PRACTICE.
- RECORDS OF NON-DESTRUCTIVE TESTING THAT WAS PERFORMED AND TEST EQUIPMENT CALIBRATION DATA.
- ACCEPTANCE OF WELDS BY CWI AND NDT TECHNICIAN.
- CERTIFICATION BY THE ENGINEER THAT THE TEMPORARY STRUCTURAL STEEL MEMBERS HAVE BEEN ASSEMBLED AS SHOWN ON THE ENGINEER'S SIGNED AND SEALED DRAWINGS.

## WELDING:

DO NOT MAKE WELDS BY MANUAL SHIELDED METAL ARC PROCESS FOR PRIMARY GIRDER WELDS, SUCH AS FLANGE-TO-WEB WELDS OR FOR SHOP SPLICES OF WEBS AND FLANGES.

DO NOT FIELD-WELD ON ANY PART OF THE EXISTING OR PROPOSED BRIDGE, EXCEPT WHERE SHOWN ON THE DRAWINGS, WITHOUT PRIOR APPROVAL OF THE DISTRICT BRIDGE ENGINEER.

DO NOT WELD PERMANENT METAL DECK FORMS OR OTHER ATTACHMENTS TO GIRDER TOP FLANGES IN TENSION AREAS. TENSION AREAS OF TOP FLANGES ARE DESIGNATED ON THE PLANS. THREADED STUDS FOR THE SUPPORT OF THE OVERHANG DECK FORMING BRACKET IS PERMITTED PROVIDED THE THREADED STUD IS ATTACHED WITH THE SAME WELDING PROCESSING AS THE SHEAR STUDS.

WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.

WELDING OF EXISTING STRUCTURAL STEEL: USE THE SHIELDED METAL ARC PROCESS AND LOW HYDROGEN ELECTRODES WHICH ARE COMPATIBLE WITH THE BASE METAL AS SPECIFIED, AND IN ACCORDANCE WITH AN APPROVED WELD PROCEDURE SPECIFICATION.

MAKE TACK WELDS WITH THE SAME TYPE OF ELECTRODE AND INCORPORATE IN THE FINAL WELD. NO OTHER TACK WELDING WILL BE PERMITTED.

DO NOT WELD WHEN SURFACES TO BE WELDED ARE MOIST OR EXPOSED TO RAIN, SNOW, OR WIND, OR WHEN WELDERS ARE EXPOSED TO INCLEMENT CONDITIONS THAT WILL ADVERSELY AFFECT THE QUALITY OF THE WORK.

DO NOT WELD OR BURN WHEN THE TEMPERATURE IS BELOW 0 DEGREES F. PREHEAT AND MAINTAIN THE TEMPERATURE OF THE METAL TO AT LEAST 70 DEGREES F WHEN THE TEMPERATURE OF THE METAL IS BETWEEN 0 DEGREES F AND 32 DEGREES F DURING WELDING OR BURNING.

PREHEAT THE STEEL TO THE SPECIFIED MINIMUM TEMPERATURE FOR A DISTANCE EQUAL TO THE THICKNESS OF THE PART BEING WELDED, BUT NOT LESS THAN 3 IN. IN ALL DIRECTIONS FROM THE POINT OF WELDING.

REMOVE BY APPLICATION OF HEAT ANY MOISTURE PRESENT AT POINT OF WELD. PROVIDE WINDBREAKS FOR PROTECTION FROM DIRECT WIND.

PRIOR TO PLACING THE WELD, THOROUGHLY CLEAN ALL PORTIONS OF NEW AND EXISTING SURFACES TO RECEIVE WELDS OF ALL FOREIGN MATTER, INCLUDING PAINT FILM, FOR A DISTANCE OF 2 INCHES FROM EACH SIDE OF THE OUTSIDE LINES OF THE WELD.

TEST COMPLETED WELDS USING VISUAL AND NONDESTRUCTIVE METHODS IN ACCORDANCE WITH AASHTO/AWS D1.5M/D1.5 BRIDGE WELDING CODE CHAPTER 6.

## FOUNDATION NOTES:

SPREAD FOOTINGS MAY BE ORDERED BY THE ENGINEER TO BE AT ANY ELEVATION OR OF ANY DIMENSIONS NECESSARY TO PROVIDE A PROPER FOUNDATION.

FOUNDATION EXCAVATIONS ARE TO BE INSPECTED AND APPROVED BY THE DISTRICT GEOTECHNICAL ENGINEER. PROVIDE A MINIMUM 48-HOUR NOTICE TO THE DISTRICT GEOTECHNICAL ENGINEER.

THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF ALL EXCAVATED SLOPES. PERFORM ALL EXCAVATIONS IN ACCORDANCE WITH OSHA REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT DEWATERING, IF NECESSARY, SO THAT EXCAVATIONS ARE FREE OF DELETERIOUS MATERIAL AND DRY ENOUGH FOR INSPECTION.

UPON COMPLETION OF THE FOUNDATION EXCAVATION, THE EXCAVATIONS SHOULD BE EVALUATED AND VERIFIED BY THE DISTRICT GEOTECHNICAL ENGINEER (DGE) OR STRUCTURE CONTROL ENGINEER (SCE) TO CONFIRM SUITABLE BEARING STRATUM. REMOVE AND REPLACE ANY DELETERIOUS OR UNSUITABLE BEARING MATERIALS. USE CLASS C CEMENT CONCRETE SULFATE RESISTANT, OVER-EXCAVATION TO REPLACE UNSUITABLE MATERIALS THAT MAY BE PRESENT IN ACCORDANCE WITH SPECIAL PROVISION "5001-1140 CLASS C CEMENT CONCRETE SULFATE RESISTANT, OVER-EXCAVATION".

## FOUNDATION NOTES CONT'D:

FOR THE PORTIONS OF THE ABUTMENT 1 WINGWALLS WHICH ARE TO BE FOUNDED UPON BEDROCK, COMPLETELY REMOVE ANY PORTIONS OF THE EXISTING STRUCTURE AND/OR RETAINING WALLS THAT INTERFERE WITH CONSTRUCTION OF THE NEW STRUCTURE AND EXCAVATE TO THE NOTED BASE OF FOUNDATION ELEVATIONS. OVER-EXCAVATE UNSUITABLE MATERIAL AS DIRECTED BY THE DGE. REPLACE UNSUITABLE MATERIAL WITH CLASS C CEMENT CONCRETE. USE CLASS C CEMENT CONCRETE TO REPLACE UNSUITABLE MATERIALS THAT MAY BE PRESENT IN ACCORDANCE WITH SPECIAL PROVISION "CLASS 3 EXCAVATION INCLUDING OVEREXCAVATION AND BACKFILL WITH CLASS C CEMENT CONCRETE".

STREAM DIVERSIONS/DEWATERING IS REQUIRED. ALL STREAM DIVERSIONS/DEWATERING IS TO BE IN ACCORDANCE WITH REGULATIONS FOR KISKIMINETAS RIVER AND THE APPROVED E&S PLANS.

ALL PILES ARE TO BE PRE-DRILLED HP12X84 WITH AN ASSUMED SECTION LOSS OF 1/16 IN.

PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M 270 GRADE 50 (ASTM A 709), GRADE 50: OR ASTM A 572, GRADE 50 DESIGNATION FOR ALL H-PILES.

PREDRILL ALL PILES TO THE ESTIMATED PILE TIP ELEVATIONS PROVIDED. PILES ARE NOT TO BE DRIVEN.

PREDRILLED HOLES ARE TO BE 30-IN DIAMETER.

INSTALL PERMANENT STEEL CASING TO TOP OF ROCK SOCKET ELEVATION.

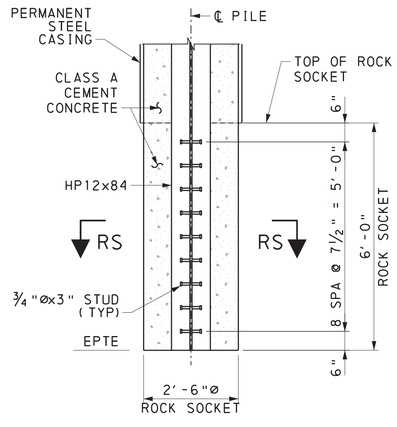
INSTALL H-PILES WITH THEIR FLANGES ORIENTED IN THE DIRECTIONS PROVIDED ON THE CONSTRUCTION PLANS.

DO NOT CUT PILE WEB, FLANGES, OR FOOTING REINFORCEMENT BARS TO ACCOMMODATE REINFORCEMENT BAR REPLACEMENT, UNLESS DIRECTED BY THE DISTRICT BRIDGE ENGINEER.

UTILIZE PARTIALLY GROUTED CLASS R-8 RIPRAP CHOKED WITH NATIVE STREAMBED MATERIAL FOR SCOUR PROTECTION AT PIER 2. PLACE AS SHOWN ON PLANS.

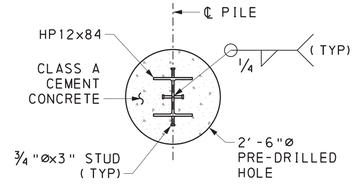
MINE GROUTING IN EACH OF THE ABUTMENT AREAS SHOULD BE COMPLETED IN ACCORDANCE WITH THE MINE GROUTING PLAN AND PROJECT SPECIAL PROVISIONS.

DO NOT BLAST TO EXCAVATE ROCK.




ROCK SOCKET STUD DETAIL

NOT TO SCALE




SECTION RS-RS

NOT TO SCALE

## EXISTING BRIDGE INFORMATION:

EXISTING BRIDGE IS POSTED FOR A WEIGHT RESTRICTION.
DO NOT STOCKPILE MATERIAL ON THE EXISTING BRIDGE.

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

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 PLANS:
BRIDGE NO. 70 SALINA, 2 SHEETS (1935)
S-12902, 9 SHEETS, 03/31/1977
S-17680, 4 SHEETS, 02/28/1989
S-36670, 2 SHEETS, 06/21/2016
S-39457, 6 SHEETS, 07/14/2020

BIDDERS ARE ADVISED TO FIELD-VERIFY INFORMATION PRESENTED. THE DATA SHOWN HEREIN IS NOT PART OF THE PLANS, PROPOSAL, OR CONTRACT, AND IS NOT TO BE CONSIDERED AS A BASIS FOR COMPUTATION FOR ANY PURPOSE.

THE EXISTING BRIDGE STRUCTURAL MEMBERS CONTAIN LEAD PAINT AND OTHER TOXIC MATERIALS BASED ON LABORATORY TESTING. OTHER TOXIC MATERIALS MAY BE PRESENT (SUCH AS ARSENIC, ETC.). THE TEST RESULTS INCLUDE:
LEAD - 125,000 PPM
CHROMIUM - 7,860 PPM
HEXAVALENT CHROMIUM - 225 PPM
CADMIUM - BELOW DETECTION

## RAILROAD:

THE CONTRACTOR SHALL PROVIDE OPEN ACCESS ALONG THE NORFOLK SOUTHERN MAINTENANCE WAY THROUGHOUT CONSTRUCTION.

TEMPORARY RAILROAD CLEARANCES:
22'-0" VERTICAL ABOVE TOP OF HIGHEST RAIL
13'-0" HORIZONTAL FROM ℄ TANGENT TRACK
14'-0" HORIZONTAL FROM ℄ CURVED TRACK
MEASURE VERTICAL CLEARANCE FROM A POINT 6'-0" OFFSET FROM TRACK CENTERLINE.

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 | 4 |


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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## GENERAL NOTES 2

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER PE062832

RECOMMENDED _____

SHEET 5 OF 130

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## ALTERNATE STRUCTURE ITEMS

| ITEM NO | DESCRIPTION | | UNIT | TOTAL |
|---|---|---|---|---|
| 8120-0001 | BRIDGE STRUCTURE, AS DESIGNED, S-39414 | (2) | LS | LUMP SUM |
| 8000-0001 | PRESTRESSED CONCRETE BRIDGE STRUCTURE | (2) | LS | LUMP SUM |
| 8100-0001 | STEEL BRIDGE STRUCTURE | (2) | LS | LUMP SUM |

## APPROXIMATE QUANTITIES - BRIDGE STRUCTURE, AS DESIGNED, S-39414

| | ITEM NO | DESCRIPTION | | UNIT | ABUT 1 | ABUT 2 | PIER 1 | PIER 2 | SUPER-STRUCTURE | APPR SLAB ABUT 1 | APPR SLAB ABUT 2 | MOMENT SLAB | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 8120-0001 | BRIDGE STRUCTURE, AS DESIGNED, S-39414 | (1)(2) | LS | | | | | | | | | LS |
| | (1) | CLASS 3 EXCAVATION | | CY | 4,300 | 750 | 780 | 490 | | | | | 6,320 |
| | (1) | STRUCTURE BACKFILL | | CY | 5,300 | 1,500 | | | | | | | 6,800 |
| | (1) | MEMBRANE WATERPROOFING SYSTEM INSTALLED ON OTHER SURFACES | | SY | 160 | 110 | 10 | 10 | | | | | 290 |
| | (1) | MECHANICAL TEXTURING WITH LONGITUDINAL SAWED GROOVES | | SY | | | | | 2,200 | 105 | 97 | | 2,402 |
| | (1) | CLASS AAAP CEMENT CONCRETE | (4) | CY | | | | | 835 | | | | 835 |
| | (1) | CLASS AA CEMENT CONCRETE | (13) | CY | 22 | 8 | | | 138 | 6 | 6 | 67 | 247 |
| | (1) | CLASS AA CEMENT CONCRETE SULFATE RESISTANT | (2) | CY | 41 | 37 | | | | 64 | 57 | 317 | 516 |
| | (1) | CLASS A CEMENT CONCRETE | | CY | | | 78 | 78 | | | | | 156 |
| | (1) | CLASS A CEMENT CONCRETE SULFATE RESISTANT | (2) | CY | 1,566 | 388 | 268 | 293 | | | | | 2,515 |
| | (1) | RAILROAD PROTECTIVE FENCE, STEEL | | LF | | | | | 221 | | | | 221 |
| | (1) | PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, REINFORCED CONCRETE SUBSTRUCTURE SURFACES) | | SY | 505 | 210 | 248 | 277 | | | | | 1,240 |
| | (1) | PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, BRIDGE SUPERSTRUCTURE) | | SY | | | | | 3,575 | 145 | 142 | 315 | 4,177 |
| | (1) | TOOTH EXPANSION DAM WITH DRAIN TROUGH | (9) | LB | 9,950 | 9,350 | | | | | | | 19,300 |
| | (1) | FABRICATED STRUCTURAL STEEL, GRADE 50W | (8)(11) | LB | | | | | 176,000 | | | | 176,000 |
| | (1) | FABRICATED STRUCTURAL STEEL, UNPAINTED GRADE 50W | (8) | LB | | | | | 1,434,000 | | | | 1,434,000 |
| | (1) | HIGH LOAD MULTI-ROTATIONAL BEARINGS - FIXED | (6) | EACH | | | | | 11 | | | | 11 |
| | (1) | HIGH LOAD MULTI-ROTATIONAL BEARINGS - GUIDED EXPANSION | (6) | EACH | | | | | 7 | | | | 7 |
| | (1) | HIGH LOAD MULTI-ROTATIONAL BEARINGS - NON-GUIDED EXPANSION | (6) | EACH | | | | | 5 | | | | 5 |
| | (1) | SHEAR CONNECTORS | (10) | EACH | | | | | 3,165 | | | | 3,165 |
| | (1) | SCUPPER, TYPE C | | EACH | | | | | 7 | | | | 7 |
| | (1) | DOWNSPOUTING | | LF | | | | | 65 | | | | 65 |
| | (1) | PA BRIDGE BARRIER | | LF | 187 | 60 | | | 1,318 | 50 | 51 | | 1,666 |
| AND | 5001-1140 | CLASS C CEMENT CONCRETE SULFATE RESISTANT, OVER-EXCAVATION | (2) | CY | 46 | | | | | | | | 46 |
| AND | 1002-0052 | REINFORCEMENT BARS, EPOXY COATED | (3)(12) | LB | 183,200 | 42,900 | 52,100 | 55,100 | 250,100 | 14,550 | 12,550 | 71,700 | 682,200 |
| AND | 1005-1830 | STEEL HP12X84 PRODUCTION PILE | | LF | 3,457 | 1,679 | 488 | 230 | | | | | 5,854 |
| AND | 9000-0300 | MANDATORY PREDRILLING FOR PILES WITH SHEAR STUDS AND CLASS A CEMENT CONCRETE SULFATE RESISTANT | (2) | LF | 3,381 | 1,636 | 470 | 212 | | | | | 5,699 |
| | 0205-0368 | SELECTED BORROW EXCAVATION ROCK, CLASS R-8 | (5)(7) | TON | | | 945 | 510 | | | | | 1,455 |
| | 5018-0048 | REMOVAL OF PORTION OF EXISTING BRIDGE, S-39414 | (2) | LS | | | | | | | | | LS |
| | 9000-0301 | OVERBURDEN STABILIZATION - SURVEY | (2) | LS | | | | | | | | | LS |
| | 9000-0302 | OVERBURDEN STABILIZATION - INJECTION HOLE DRILLING | (2) | LF | 8,997 | 3,464 | | | | | | | 12,461 |
| | 9000-0303 | OVERBURDEN STABILIZATION - CONCRETE INJECTION | (2) | CY | 259 | 175 | | | | | | | 434 |
| | 9000-0304 | OVERBURDEN STABILIZATION - GROUT INJECTION | (2) | CY | 1,036 | 699 | | | | | | | 1,735 |
| | 9000-0305 | STABILIZATION OF UNDERGROUND MINE, PERFORMANCE TESTING DRILLING | (2) | LF | 634 | 340 | | | | | | | 974 |
| | 9000-0306 | STABILIZATION OF UNDERGROUND MINE, OBSERVATION HOLE DRILLING | (2) | EACH | 14 | 10 | | | | | | | 24 |
| | 9000-0307 | STABILIZATION OF UNDERGROUND MINE, BOREHOLE TELEVISION CAMERA | (2) | EACH | 152 | 112 | | | | | | | 264 |
| | 9000-0308 | PRE AND POST CONSTRUCTION SURVEYS | (2) | LS | | | | | | | | | LS |
| | 9000-1001 | INSTALL UTILITY CONDUITS ON BRIDGE AND UNDER APPROACHES | (2) | LS | | | | | | | | | LS |
| | 9203-0101 | TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM, S-39414 ABUT 1 | (2) | LS | | | | | | | | | LS |
| | 9203-0102 | TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM, S-39414 PIER 1 | (2) | LS | | | | | | | | | LS |
| | 9203-0103 | TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM, S-39414 PIER 2 | (2) | LS | | | | | | | | | LS |
| | 9203-0104 | TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM, S-39414 ABUT 2 | (2) | LS | | | | | | | | | LS |

(1) ITEMS IN BRIDGE STRUCTURE LUMP SUM ITEM 8120-0001 GIVEN FOR INFORMATION ONLY.
(2) SEE THE CONTRACT SPECIAL PROVISIONS.
(3) FOR THE AS-DESIGNED STRUCTURE, INCLUDE IN THE BRIDGE BID ITEMS. FOR ALTERNATE DESIGNS INCLUDE IN BRIDGE STRUCTURE LUMP SUM ITEM.
(4) INCLUDES APPROXIMATELY 51 CY OF CONCRETE IN THE VALLEYS OF THE SIP FORMS.
(5) GEOTEXTILE, CLASS 4, TYPE A IS INCIDENTAL TO THIS ITEM.
(6) INCLUDES ONE ADDITIONAL BEARING FOR SAMPLING AND TESTING.
(7) QUANTITY IS BASED ON 1.5 TON/CY.
(8) HIGH STRENGTH BOLTS, NUTS AND WASHERS ARE INCIDENTAL TO THE FABRICATED STRUCTURAL STEEL.
(9) QUANTITY FOR ABUT 1 INCLUDES 610 LBS FOR TWO 1/2" BENT SLIDING PLATES AT BEGINNING OF ABUTMENT 1 APPROACH SLAB.
(10) FOR THE PURPOSES OF COMPUTATION, A LOCATION OF A PIGGY-BACKED SHEAR CONNECTOR IS CONSIDERED ONE SHEAR CONNECTOR. SEE MISC GIRDER DETAILS SHEET.
(11) FOR PAINTING LIMITS, SEE GENERAL NOTES 1, FRAMING PLAN, AND GIRDER ELEVATION SHEETS.
(12) MOMENT SLAB QUANTITY INCLUDES APPROXIMATELY 1,050 LBS OF COATED LOAD TRANSFER DOWELS.
(13) AS PER PUB 408 SECTION 1001.2(a)1, USE NO. 8 COARSE AGGREGATE IN BARRIER CONCRETE.

### 9000-1001 - INSTALL UTILITY CONDUITS ON BRIDGE AND UNDER APPROACHES

| DESCRIPTION | FURNISH BY | INSTALL BY | UNIT | INFORMATION ONLY QUANTITY |
|---|---|---|---|---|
| 4" SW FIBERGLASS CONDUIT | UTILITY | CONTRACTOR | LF | 4,000 |
| 4" SW FIBERGLASS END CAP W/ GASKET | UTILITY | CONTRACTOR | EACH | 8 |
| 4" SW SPLIT ANCHOR RING | UTILITY | CONTRACTOR | EACH | 32 |
| 4" SW FIBERGLASS EXPANSION JOINT | UTILITY | CONTRACTOR | EACH | 16 |
| 4" SW FIBERGLASS EXPANSION JOINT WITH WOBBLE COUPLING | UTILITY | CONTRACTOR | EACH | 8 |
| 4" SW FIBERGLASS SLEEVE COUPLING | UTILITY | CONTRACTOR | EACH | 24 |
| 4" SW FIBERGLASS SLEEVE COUPLING STOCK | UTILITY | CONTRACTOR | LF | 60 |
| 4" SW FIBERGLASS SWEEP (90 DEG, CUSTOM RADIUS) | UTILITY | CONTRACTOR | EACH | 2 |
| 4" SW FIBERGLASS SWEEP (45 DEG, CUSTOM RADIUS) | UTILITY | CONTRACTOR | EACH | 16 |
| 4" FIBERGLASS CONDUIT INTERMEDIATE HANGER ASSEMBLY (HOT-DIPPED GALVANIZED HARDWARE) | UTILITY | CONTRACTOR | EACH | 56 |
| 4" FIBERGLASS CONDUIT ANCHOR HANGER ASSEMBLY (HOT-DIPPED GALVANIZED HARDWARE) | UTILITY | CONTRACTOR | EACH | 4 |
| ADHESIVE MIX GUN | UTILITY | CONTRACTOR | EACH | 1 |
| ADHESIVE MIX TIPS | UTILITY | CONTRACTOR | EACH | 20 |
| ADHESIVE CARTRIDGE | UTILITY | CONTRACTOR | EACH | 14 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## SUMMARY OF QUANTITIES

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 6 OF 130

S - 39414

DES: LTS | CKD: ABC/JWB/JWF | DWG: EEM | CKD: ABC/JWB

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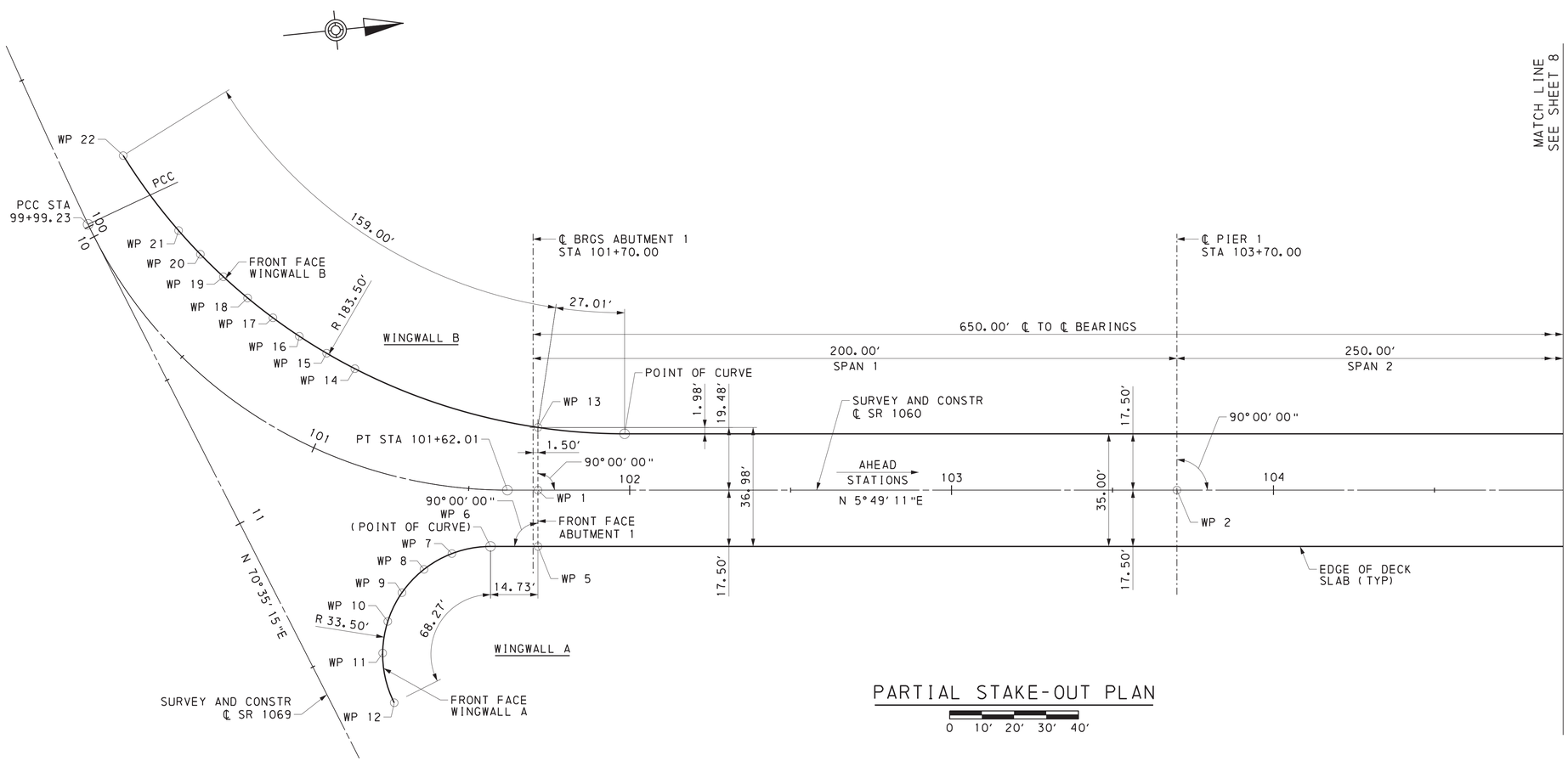


## PARTIAL STAKE-OUT PLAN

0 10' 20' 30' 40'

## STAKE-OUT PLAN WORK POINTS

| WORK POINT | STATION | OFFSET | NORTHING | EASTING |
|---|---|---|---|---|
| WP 1 | 101+71.50 | 0.00' | 438490.7229 | 1483533.5245 |
| WP 2 | 103+70.00 | 0.00' | 438688.1997 | 1483553.6525 |
| WP 3 | 106+20.00 | 0.00' | 438936.9112 | 1483579.0025 |
| WP 4 | 108+18.50 | 0.00' | 439134.3880 | 1483599.1305 |
| WP 5 | 101+71.50 | 17.50' RT | 438488.9484 | 1483550.9343 |
| WP 6 | 101+57.34 | 17.59' RT | 438474.2907 | 1483549.4403 |
| WP 7 | 101+46.90 | 20.63' RT | 438462.1333 | 1483550.4334 |
| WP 8 | 101+40.06 | 26.61' RT | 438453.0114 | 1483554.4398 |
| WP 9 | 101+35.50 | 34.90' RT | 438445.4711 | 1483560.9517 |
| WP 10 | 101+33.44 | 44.51' RT | 438440.1795 | 1483569.3931 |
| WP 11 | 101+33.72 | 54.46' RT | 438437.6044 | 1483579.0175 |
| WP 12 | 101+38.13 | 69.00' RT | 438439.6059 | 1483594.7390 |
| WP 13 | 101+71.50 | 19.48' LT | 438492.6986 | 1483514.1402 |
| WP 14 | 101+01.61 | 27.66' LT | 438437.9738 | 1483490.2077 |
| WP 15 | 100+89.21 | 28.05' LT | 438429.7352 | 1483484.5350 |
| WP 16 | 100+76.79 | 28.12' LT | 438421.8209 | 1483478.4243 |
| WP 17 | 100+64.38 | 27.88' LT | 438414.2513 | 1483471.8916 |
| WP 18 | 100+52.02 | 27.32' LT | 438407.0488 | 1483464.9563 |
| WP 19 | 100+39.77 | 26.45' LT | 438400.2347 | 1483457.6390 |
| WP 20 | 100+27.66 | 25.28' LT | 438393.8292 | 1483449.9614 |
| WP 21 | 100+15.73 | 23.83' LT | 438387.8515 | 1483441.9463 |
| WP 22 | 99+84.46 | 18.94' LT | 438373.0929 | 1483417.0177 |
| WP 23 | 108+18.50 | 17.50' LT | 439136.1625 | 1483581.7207 |
| WP 24 | 108+38.50 | 17.50' LT | 439156.0595 | 1483583.7487 |
| WP 25 | 108+57.12 | 17.98' LT | 439175.9564 | 1483585.7767 |
| WP 26 | 108+74.60 | 20.74' LT | 439195.8533 | 1483587.8047 |
| WP 27 | 108+18.50 | 19.82' RT | 439132.3779 | 1483618.8525 |
| WP 28 | 108+38.35 | 22.30' RT | 439151.8696 | 1483623.3327 |
| WP 29 | 108+60.67 | 24.16' RT | 439171.3613 | 1483627.8130 |
| WP 30 | 108+68.78 | 24.13' RT | 439177.9403 | 1483629.3252 |
| WP 31 | 108+84.49 | 23.66' RT | 439190.5349 | 1483632.9331 |

## CLOSURE DISTANCES

| WORK POINT | DISTANCE (FT) |
|---|---|
| WP 5 TO WP 23 | 648.19 |
| WP 13 TO WP 27 | 647.95 |

## LEGEND:

WP WORK POINT

## REFERENCES:

| | | SHEET: |
|---|---|---|
| 1. | GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. | STAKE-OUT PLAN 2 | 8 |
| 3. | ABUTMENT 1 PLAN 1 - 3 | 13-15 |
| 4. | PIER 1 PLAN AND ELEVATION | 44 |
| 5. | PIER 2 PLAN AND ELEVATION | 47 |
| 6. | ABUTMENT 2 PLAN | 51 |

## NOTES:

1. PROJECT COORDINATES BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (SPSC 83, PA SOUTH ZONE).
2. OFFSET IS MEASURED PERPENDICULAR TO SURVEY AND CONSTR ℄ SR 1060, LOOKING AHEAD STATIONS.
3. FOUR (4) PLACE COORDINATES ARE USED FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO (2) DECIMAL POINTS.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## STAKE-OUT PLAN 1

RECOMMENDED _____

SHEET 7 OF 130

S - 39414

DES: EEM | CKD: LTS | DWG: EEM | CKD: JMF

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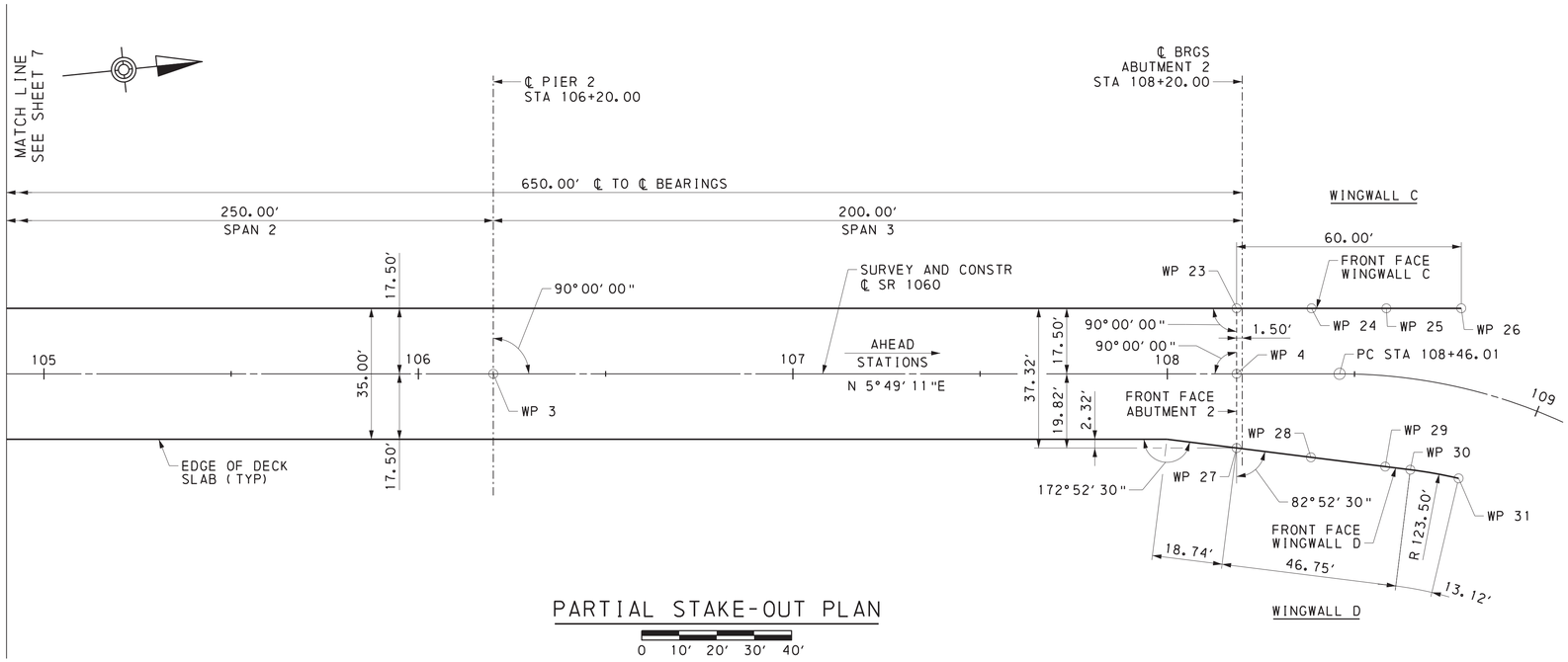


## PARTIAL STAKE-OUT PLAN

0 10' 20' 30' 40'

## LEGEND:

WP WORK POINT

## REFERENCES:

| | | SHEET: |
|---|---|---|
| 1. | GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. | STAKE-OUT PLAN 1 | 7 |
| 3. | ABUTMENT 1 PLAN 1 - 3 | 13-15 |
| 4. | PIER 1 PLAN AND ELEVATION | 44 |
| 5. | PIER 2 PLAN AND ELEVATION | 47 |
| 6. | ABUTMENT 2 PLAN | 51 |

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2. OFFSET IS MEASURED PERPENDICULAR TO SURVEY AND CONSTR ℄ SR 1060, LOOKING AHEAD STATIONS.
3. FOUR (4) PLACE COORDINATES ARE USED FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO (2) DECIMAL POINTS.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## STAKE-OUT PLAN 2

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 8 OF 130

S - 39414

DES: EEM | CKD: LTS | DWG: EEM | CKD: JMF

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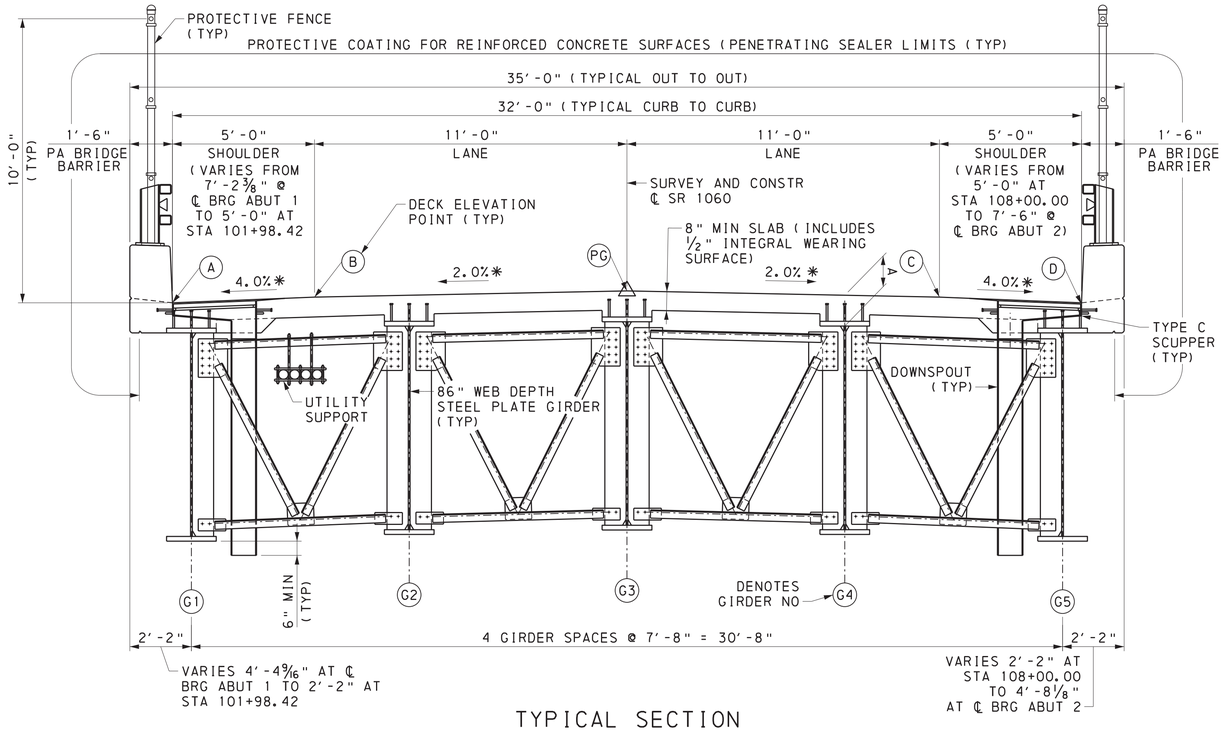
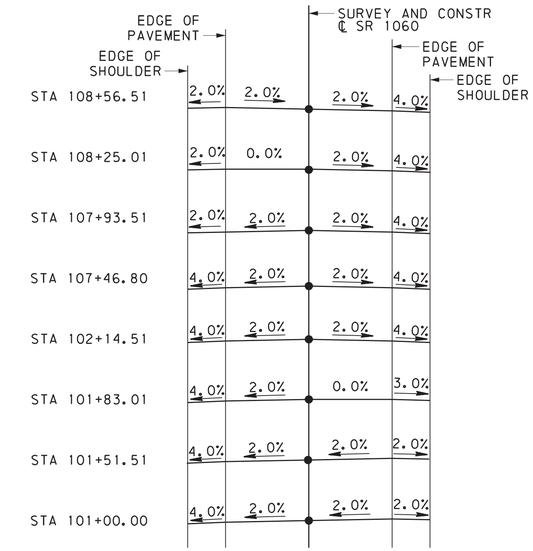



## TYPICAL SECTION

(LOOKING AHEAD STATIONS)

0 1' 2' 3' 4'




## CROSS SLOPE TRANSITIONS

SUPERELEVATION ROTATION POINT IS ABOUT THE SURVEY & CONSTR CENTERLINE

## LEGEND:

* ✳ SEE CROSS SLOPE TRANSITIONS FOR LOCATIONS WHERE CROSS SLOPE IS DIFFERENT THAN NORMAL CROWN

| 'A' - TOP OF DECK TO TOP OF WEB @ CL GIRDER (IN) | | | | | | |
|---|---|---|---|---|---|---|
| LOCATION | STATION | G1 | G2 | G3 | G4 | G5 |
| ℄ BRGS ABUT 1 | 101+70.00 | 17.55 | 17.55 | 17.55 | 20.15 | 22.01 |
| 0.05L | 101+80.00 | 16.00 | 16.00 | 16.00 | 18.01 | 19.46 |
| 0.10L | 101+90.00 | 14.89 | 14.89 | 14.89 | 16.32 | 17.35 |
| 0.15L | 102+00.00 | 14.22 | 14.22 | 14.22 | 15.07 | 15.68 |
| 0.20L | 102+10.00 | 14.00 | 14.00 | 14.00 | 14.26 | 14.45 |
| 0.25L SPAN 1 TO 0.60L SPAN 3 | 102+20.00 TO 107+40.00 | 14.00 | 14.00 | 14.00 | 14.00 | 14.00 |
| 0.65L | 107+50.00 | 14.07 | 14.00 | 14.00 | 14.00 | 14.00 |
| 0.70L | 107+60.00 | 14.29 | 14.00 | 14.00 | 14.00 | 14.00 |
| 0.75L | 107+70.00 | 14.52 | 14.00 | 14.00 | 14.00 | 14.00 |
| 0.80L | 107+80.00 | 14.74 | 14.00 | 14.00 | 14.00 | 14.00 |
| 0.85L | 107+90.00 | 14.96 | 14.00 | 14.00 | 14.00 | 14.00 |
| 0.90L | 108+00.00 | 15.58 | 14.38 | 14.00 | 14.00 | 14.00 |
| 0.95L | 108+10.00 | 16.42 | 14.96 | 14.00 | 14.00 | 14.00 |
| ℄ BRGS ABUT 2 | 108+20.00 | 17.26 | 15.55 | 14.00 | 14.00 | 14.00 |

## REFERENCES:

| | |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. DECK ELEVATIONS 2 | 10 |
| 5. TYPICAL DECK SECTION 1 & 2 | 83 & 84 |

## SHEET:

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## DECK ELEVATIONS 1

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER PE062832

RECOMMENDED _____

SHEET 9 OF 130

S - 39414

DES: ABC | CKD: JWB | DWG: EEM | CKD: ABC

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## TOP OF DECK ELEVATIONS AT BREAK POINTS AT 10 FT INTERVALS

| LOCATION | STATION | A | B | PG | C | D |
|---|---|---|---|---|---|---|
| BEGIN STRUCTURE | 101+62.98 | 870.75 | 871.09 | 871.31 | 871.45 | 871.33 |
| ℄ BRGS ABUT 1 | 101+70.00 | 870.61 | 870.90 | 871.12 | 871.21 | 871.08 |
| | 101+80.00 | 870.42 | 870.65 | 870.87 | 870.90 | 870.75 |
| | 101+90.00 | 870.24 | 870.45 | 870.67 | 870.62 | 870.46 |
| | 102+00.00 | 870.08 | 870.28 | 870.50 | 870.38 | 870.21 |
| | 102+10.00 | 869.95 | 870.15 | 870.37 | 870.18 | 869.99 |
| | 102+20.00 | 869.84 | 870.04 | 870.26 | 870.04 | 869.84 |
| | 102+30.00 | 869.73 | 869.93 | 870.15 | 869.93 | 869.73 |
| | 102+40.00 | 869.61 | 869.81 | 870.03 | 869.81 | 869.61 |
| | 102+50.00 | 869.50 | 869.70 | 869.92 | 869.70 | 869.50 |
| | 102+60.00 | 869.39 | 869.59 | 869.81 | 869.59 | 869.39 |
| | 102+70.00 | 869.28 | 869.48 | 869.70 | 869.48 | 869.28 |
| | 102+80.00 | 869.16 | 869.36 | 869.58 | 869.36 | 869.16 |
| | 102+90.00 | 869.05 | 869.25 | 869.47 | 869.25 | 869.05 |
| | 103+00.00 | 868.94 | 869.14 | 869.36 | 869.14 | 868.94 |
| | 103+10.00 | 868.83 | 869.03 | 869.25 | 869.03 | 868.83 |
| | 103+20.00 | 868.71 | 868.91 | 869.13 | 868.91 | 868.71 |
| | 103+30.00 | 868.60 | 868.80 | 869.02 | 868.80 | 868.60 |
| | 103+40.00 | 868.49 | 868.69 | 868.91 | 868.69 | 868.49 |
| | 103+50.00 | 868.38 | 868.58 | 868.80 | 868.58 | 868.38 |
| | 103+60.00 | 868.26 | 868.46 | 868.68 | 868.46 | 868.26 |
| ℄ PIER 1 | 103+70.00 | 868.15 | 868.35 | 868.57 | 868.35 | 868.15 |
| | 103+80.00 | 868.04 | 868.24 | 868.46 | 868.24 | 868.04 |
| | 103+90.00 | 867.93 | 868.13 | 868.35 | 868.13 | 867.93 |
| | 104+00.00 | 867.81 | 868.01 | 868.23 | 868.01 | 867.81 |
| | 104+10.00 | 867.70 | 867.90 | 868.12 | 867.90 | 867.70 |
| | 104+20.00 | 867.59 | 867.79 | 868.01 | 867.79 | 867.59 |
| | 104+30.00 | 867.48 | 867.68 | 867.90 | 867.68 | 867.48 |
| | 104+40.00 | 867.36 | 867.56 | 867.78 | 867.56 | 867.36 |
| | 104+50.00 | 867.25 | 867.45 | 867.67 | 867.45 | 867.25 |
| | 104+60.00 | 867.14 | 867.34 | 867.56 | 867.34 | 867.14 |
| | 104+70.00 | 867.03 | 867.23 | 867.45 | 867.23 | 867.03 |
| | 104+80.00 | 866.91 | 867.11 | 867.33 | 867.11 | 866.91 |
| | 104+90.00 | 866.80 | 867.00 | 867.22 | 867.00 | 866.80 |
| | 105+00.00 | 866.69 | 866.89 | 867.11 | 866.89 | 866.69 |
| | 105+10.00 | 866.58 | 866.78 | 867.00 | 866.78 | 866.58 |
| | 105+20.00 | 866.46 | 866.66 | 866.88 | 866.66 | 866.46 |
| | 105+30.00 | 866.35 | 866.55 | 866.77 | 866.55 | 866.35 |
| | 105+40.00 | 866.24 | 866.44 | 866.66 | 866.44 | 866.24 |
| | 105+50.00 | 866.13 | 866.33 | 866.55 | 866.33 | 866.13 |
| | 105+60.00 | 866.01 | 866.21 | 866.43 | 866.21 | 866.01 |
| | 105+70.00 | 865.90 | 866.10 | 866.32 | 866.10 | 865.90 |
| | 105+80.00 | 865.79 | 865.99 | 866.21 | 865.99 | 865.79 |
| | 105+90.00 | 865.68 | 865.88 | 866.10 | 865.88 | 865.68 |
| | 106+00.00 | 865.56 | 865.76 | 865.98 | 865.76 | 865.56 |
| | 106+10.00 | 865.45 | 865.65 | 865.87 | 865.65 | 865.45 |
| ℄ PIER 2 | 106+20.00 | 865.34 | 865.54 | 865.76 | 865.54 | 865.34 |
| | 106+30.00 | 865.23 | 865.43 | 865.65 | 865.43 | 865.23 |
| | 106+40.00 | 865.11 | 865.31 | 865.53 | 865.31 | 865.11 |
| | 106+50.00 | 865.00 | 865.20 | 865.42 | 865.20 | 865.00 |
| | 106+60.00 | 864.89 | 865.09 | 865.31 | 865.09 | 864.89 |
| | 106+70.00 | 864.78 | 864.98 | 865.20 | 864.98 | 864.78 |
| | 106+80.00 | 864.66 | 864.86 | 865.08 | 864.86 | 864.66 |
| | 106+90.00 | 864.55 | 864.75 | 864.97 | 864.75 | 864.55 |
| | 107+00.00 | 864.44 | 864.64 | 864.86 | 864.64 | 864.44 |
| | 107+10.00 | 864.33 | 864.53 | 864.75 | 864.53 | 864.33 |
| | 107+20.00 | 864.21 | 864.41 | 864.63 | 864.41 | 864.21 |
| | 107+30.00 | 864.10 | 864.30 | 864.52 | 864.30 | 864.10 |
| | 107+40.00 | 863.99 | 864.19 | 864.41 | 864.19 | 863.99 |
| | 107+50.00 | 863.88 | 864.08 | 864.30 | 864.08 | 863.88 |
| | 107+60.00 | 863.79 | 863.96 | 864.18 | 863.96 | 863.76 |
| | 107+70.00 | 863.70 | 863.85 | 864.07 | 863.85 | 863.65 |
| | 107+80.00 | 863.61 | 863.74 | 863.96 | 863.74 | 863.54 |
| | 107+90.00 | 863.52 | 863.63 | 863.85 | 863.63 | 863.43 |
| | 108+00.00 | 863.46 | 863.56 | 863.73 | 863.51 | 863.31 |
| | 108+10.00 | 863.42 | 863.52 | 863.62 | 863.40 | 863.15 |
| ℄ BRGS ABUT 2 | 108+20.00 | 863.37 | 863.47 | 863.51 | 863.29 | 862.99 |
| END STRUCTURE | 108+27.02 | 863.34 | 863.44 | 863.43 | 863.21 | 862.87 |

## TOP OF DECK ELEVATIONS ALONG GIRDERS

| LOCATION | STATION | GIRDER G1 | GIRDER G2 | GIRDER G3 | GIRDER G4 | GIRDER G5 |
|---|---|---|---|---|---|---|
| ℄ BRGS ABUT 1 | 101+70.00 | 870.72 | 870.96 | 871.12 | 871.18 | 871.09 |
| 0.1L | 101+90.00 | 870.28 | 870.52 | 870.67 | 870.64 | 870.48 |
| 0.2L/FS 1 | 102+10.00 | 869.98 | 870.22 | 870.37 | 870.24 | 870.01 |
| 0.3L | 102+30.00 | 869.75 | 869.99 | 870.15 | 869.99 | 869.75 |
| 0.4L | 102+50.00 | 869.53 | 869.77 | 869.92 | 869.77 | 869.53 |
| 0.5L | 102+70.00 | 869.30 | 869.54 | 869.70 | 869.54 | 869.30 |
| FS 2 | 102+80.00 | 869.19 | 869.43 | 869.58 | 869.43 | 869.19 |
| 0.6L | 102+90.00 | 869.08 | 869.32 | 869.47 | 869.32 | 869.08 |
| 0.7L | 103+10.00 | 868.85 | 869.09 | 869.25 | 869.09 | 868.85 |
| 0.8L | 103+30.00 | 868.63 | 868.87 | 869.02 | 868.87 | 868.63 |
| F.S. 3 | 103+35.58 | 868.56 | 868.80 | 868.96 | 868.80 | 868.56 |
| 0.9L | 103+50.00 | 868.40 | 868.64 | 868.80 | 868.64 | 868.40 |
| ℄ BRGS PIER 1 | 103+70.00 | 868.18 | 868.42 | 868.57 | 868.42 | 868.18 |
| 0.1L | 103+95.00 | 867.90 | 868.14 | 868.29 | 868.14 | 867.90 |
| 0.2L | 104+20.00 | 867.61 | 867.85 | 868.01 | 867.85 | 867.61 |
| FS 4 | 104+23.17 | 867.58 | 867.82 | 867.97 | 867.82 | 867.58 |
| 0.3L | 104+45.00 | 867.33 | 867.57 | 867.73 | 867.57 | 867.33 |
| FS 5 | 104+60.00 | 867.16 | 867.40 | 867.56 | 867.40 | 867.16 |
| 0.4L | 104+70.00 | 867.05 | 867.29 | 867.45 | 867.29 | 867.05 |
| 0.5L | 104+95.00 | 866.77 | 867.01 | 867.16 | 867.01 | 866.77 |
| 0.6L | 105+20.00 | 866.49 | 866.73 | 866.88 | 866.73 | 866.49 |
| FS 6 | 105+30.00 | 866.38 | 866.62 | 866.77 | 866.62 | 866.38 |
| 0.7L | 105+45.00 | 866.21 | 866.45 | 866.60 | 866.45 | 866.21 |
| FS 7 | 105+66.83 | 865.96 | 866.20 | 866.36 | 866.20 | 865.96 |
| 0.8L | 105+70.00 | 865.93 | 866.17 | 866.32 | 866.17 | 865.93 |
| 0.9L | 105+95.00 | 865.65 | 865.89 | 866.04 | 865.89 | 865.65 |
| ℄ BRGS PIER 2 | 106+20.00 | 865.36 | 865.60 | 865.76 | 865.60 | 865.36 |
| 0.1L | 106+40.00 | 865.14 | 865.38 | 865.53 | 865.38 | 865.14 |
| FS 8 | 106+54.42 | 864.98 | 865.22 | 865.37 | 865.22 | 864.98 |
| 0.2L | 106+60.00 | 864.92 | 865.16 | 865.31 | 865.16 | 864.92 |
| 0.3L | 106+80.00 | 864.69 | 864.93 | 865.08 | 864.93 | 864.69 |
| 0.4L | 107+00.00 | 864.47 | 864.71 | 864.86 | 864.71 | 864.47 |
| FS 9 | 107+10.00 | 864.35 | 864.59 | 864.75 | 864.59 | 864.35 |
| 0.5L | 107+20.00 | 864.24 | 864.48 | 864.63 | 864.48 | 864.24 |
| 0.6L | 107+40.00 | 864.02 | 864.26 | 864.41 | 864.26 | 864.02 |
| 0.7L | 107+60.00 | 863.81 | 864.03 | 864.18 | 864.03 | 863.79 |
| 0.8L/FS 10 | 107+80.00 | 863.63 | 863.81 | 863.96 | 863.81 | 863.57 |
| 0.9L | 108+00.00 | 863.47 | 863.61 | 863.73 | 863.58 | 863.34 |
| ℄ BRGS ABUT 2 | 108+20.00 | 863.39 | 863.48 | 863.51 | 863.36 | 863.12 |

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

REFERENCES:

1. DECK ELEVATIONS 1

SHEET:

9

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER &
NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
DECK ELEVATIONS 2

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 10 OF 130

S - 39414

DES: EEM | CKD: JWB | DWG: EEM | CKD: ABC

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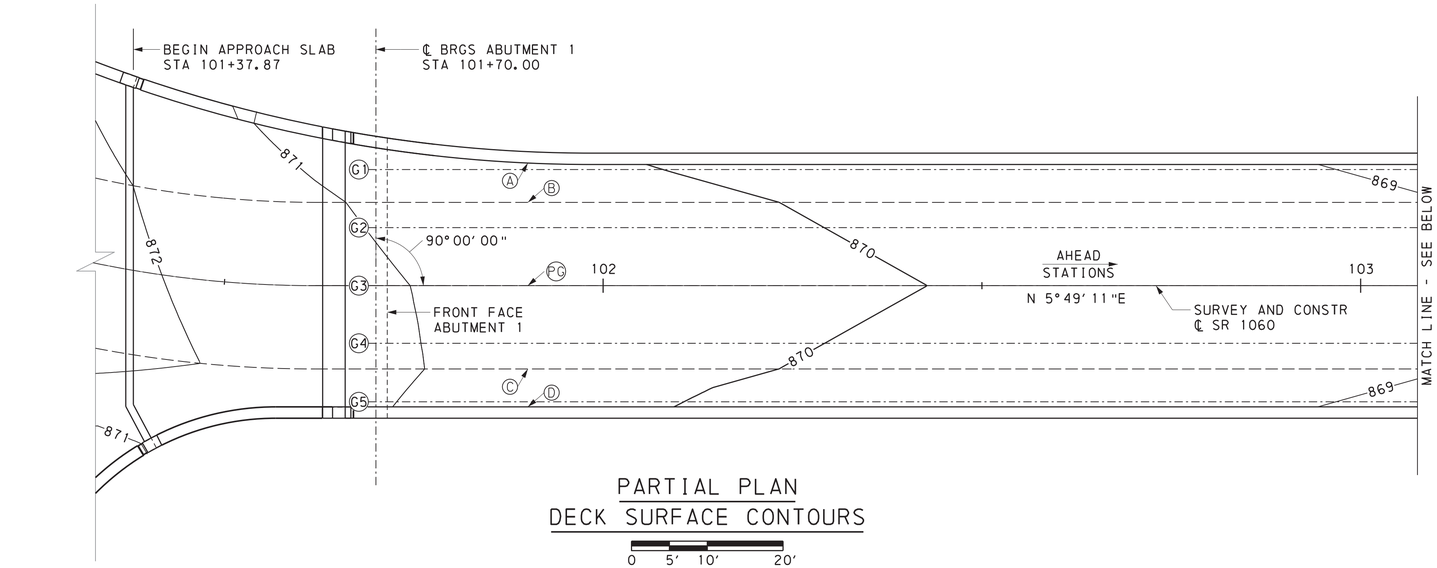
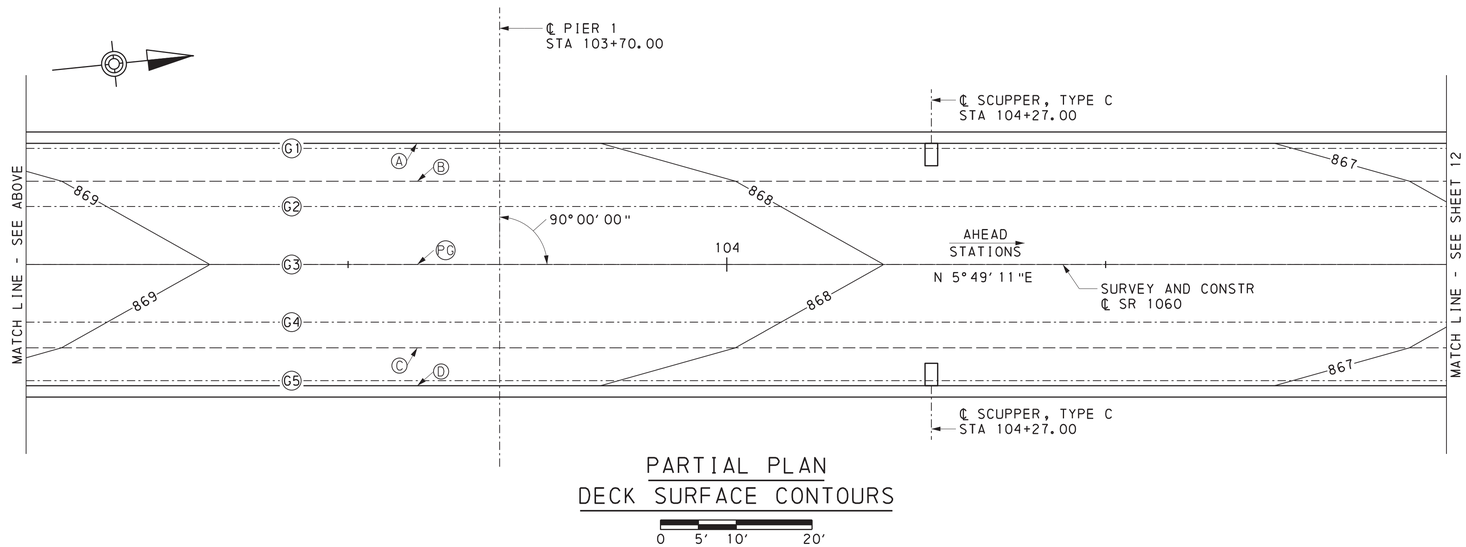



PARTIAL PLAN
DECK SURFACE CONTOURS

0 5′ 10′ 20′




PARTIAL PLAN
DECK SURFACE CONTOURS

0 5′ 10′ 20′

## LEGEND:

G1 THRU G5 ℄ GIRDER

A THRU D BREAK POINTS

PG PROFILE GRADE

## REFERENCES:

1. SUPPLEMENTAL DRAWINGS
2. INDEX OF DRAWINGS
3. GENERAL NOTES 1 & 2
4. WORK THIS SHEET WITH SHEETS

## SHEET:

1
3
4 & 5
9, 10 & 12

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## DECK CONTOUR PLAN 1

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
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ENGINEER
PE062832

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SHEET 11 OF 130

S - 39414

| DES: LTS | CKD: JWB | DWG: LTS | CKD: JWB |
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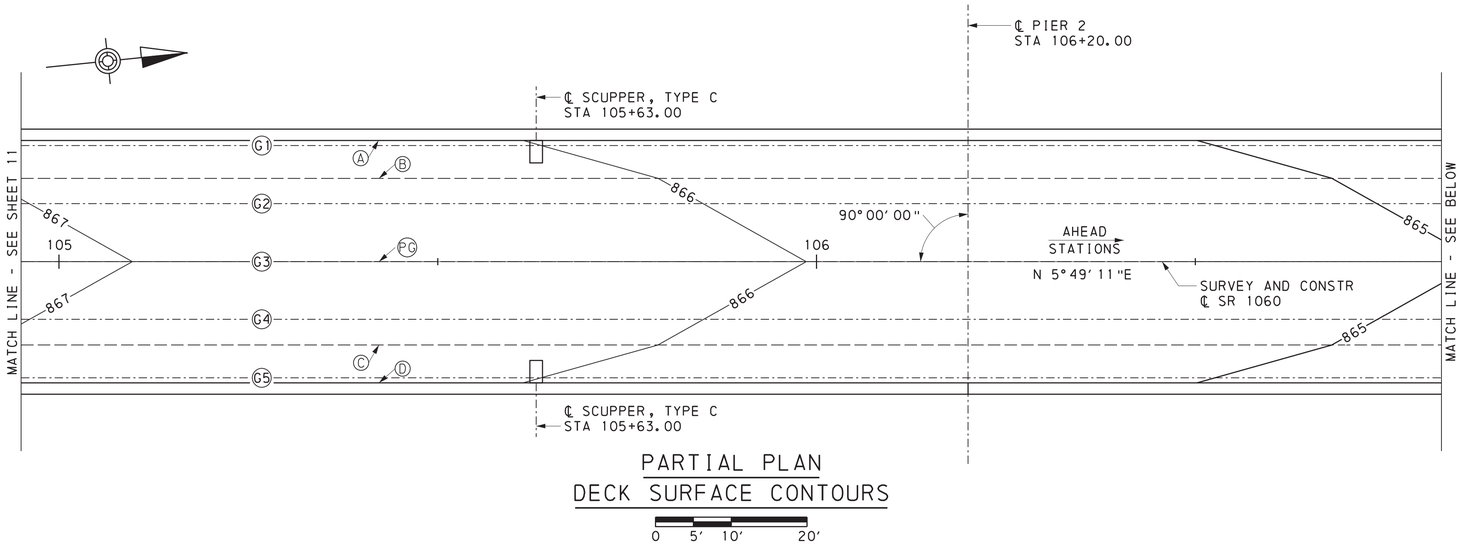
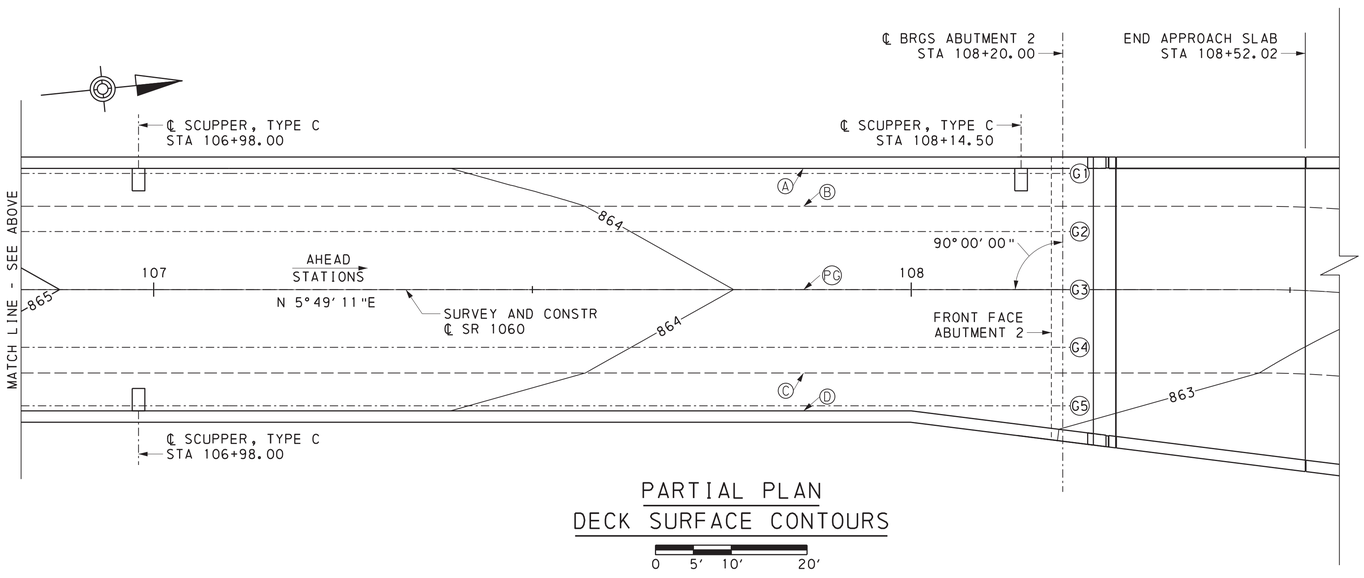



PARTIAL PLAN
DECK SURFACE CONTOURS

0 5' 10' 20'




PARTIAL PLAN
DECK SURFACE CONTOURS

0 5' 10' 20'

## LEGEND:

(G1) THRU (G5) ℄ GIRDER

(A) THRU (D) BREAK POINTS

(PG) PROFILE GRADE

| REFERENCES: | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. WORK THIS SHEET WITH SHEETS | 9, 10 & 11 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## DECK CONTOUR PLAN 2

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 12 OF 130

S - 39414

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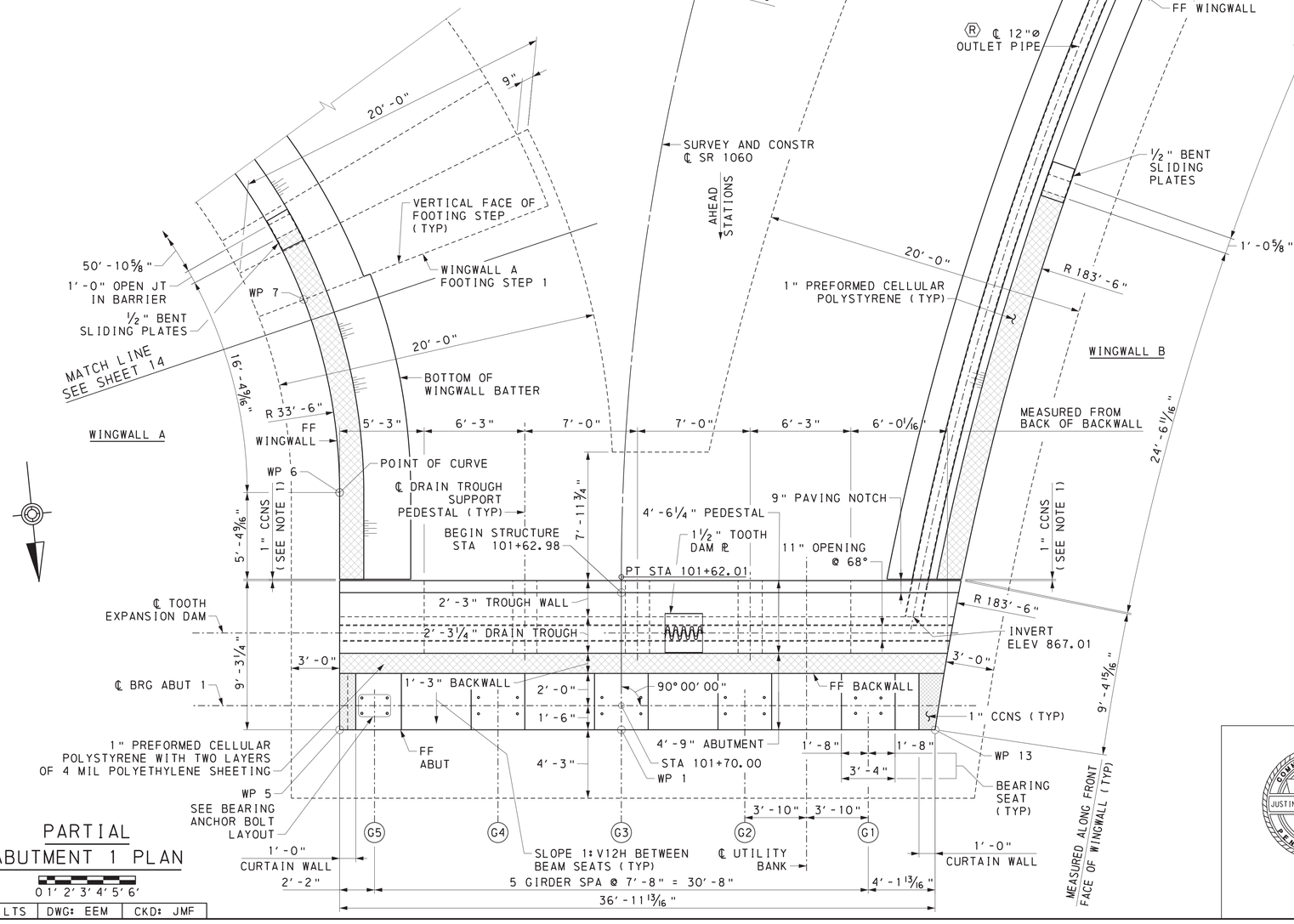
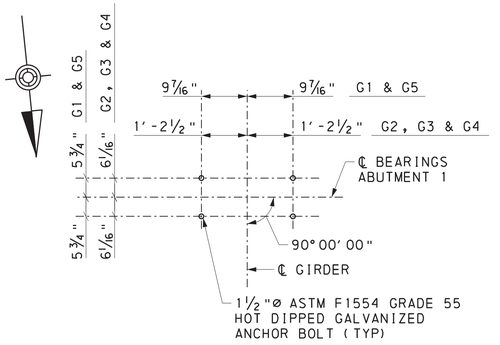
## NOTES:

1. SEE WINGWALL ELEVATION VIEW FOR ½" FLUSH EXPANSION JOINT BELOW.
2. UTILITY CONDUIT NOT SHOWN.
3. AT LEAST SEVEN DAYS PRIOR TO SETTING GIRDERS, SUBMIT TO THE DEPARTMENT REPRESENTATIVE FOR REVIEW AND APPROVAL AS-BUILT BEARING SEAT ELEVATIONS. PROVIDE DRAWING(S) AND/OR SPREADSHEET(S) STAMPED BY A PROFESSIONAL LAND SURVEYOR CURRENTLY REGISTERED IN THE COMMONWEALTH OF PENNSYLVANIA. PROVIDE AS-BUILT ELEVATIONS SHOWN ON THE STRUCTURE SHEETS. DO NOT SET GIRDERS UNTIL APPROVAL IS GRANTED BY THE DEPARTMENT REPRESENTATIVE. FOR ALL BEARING SEAT ELEVATIONS THAT DO NOT MEET THE PUB 408, SECTION 1001.3(k)9 CRITERIA, SUBMIT TO THE DEPARTMENT REPRESENTATIVE FOR REVIEW AND APPROVAL A REMEDIATION PROCEDURE. DO NOT SET GIRDERS UNTIL THE REMEDIATION PROCEDURE IS APPROVED BY THE DEPARTMENT REPRESENTATIVE. THE COST OF THIS WORK IS INCIDENTAL TO THE COST OF THE CONCRETE PLACED IN THE BEARING SEATS.




## PARTIAL ABUTMENT 1 PLAN

0 1' 2' 3' 4' 5' 6'




## BEARING SEAT ANCHOR BOLT LAYOUT

NOT TO SCALE

## LEGEND:

FF FRONT FACE
WP WORK POINT
CCNS CLOSED CELL NEOPRENE SPONGE
(G3) GIRDER NUMBER
Ⓡ ROADWAY ITEM

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. STAKE-OUT PLAN 1 & 2 | 7 & 8 |
| 3. WORK THIS SHEET WITH SHEETS | 14-35, 42 & 43 |
| 4. ABUTMENT 1 DRAIN TROUGH DETAILS | 35 |
| 5. FRAMING PLAN | 67 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUTMENT 1 PLAN 1

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 13 OF 130

S - 39414

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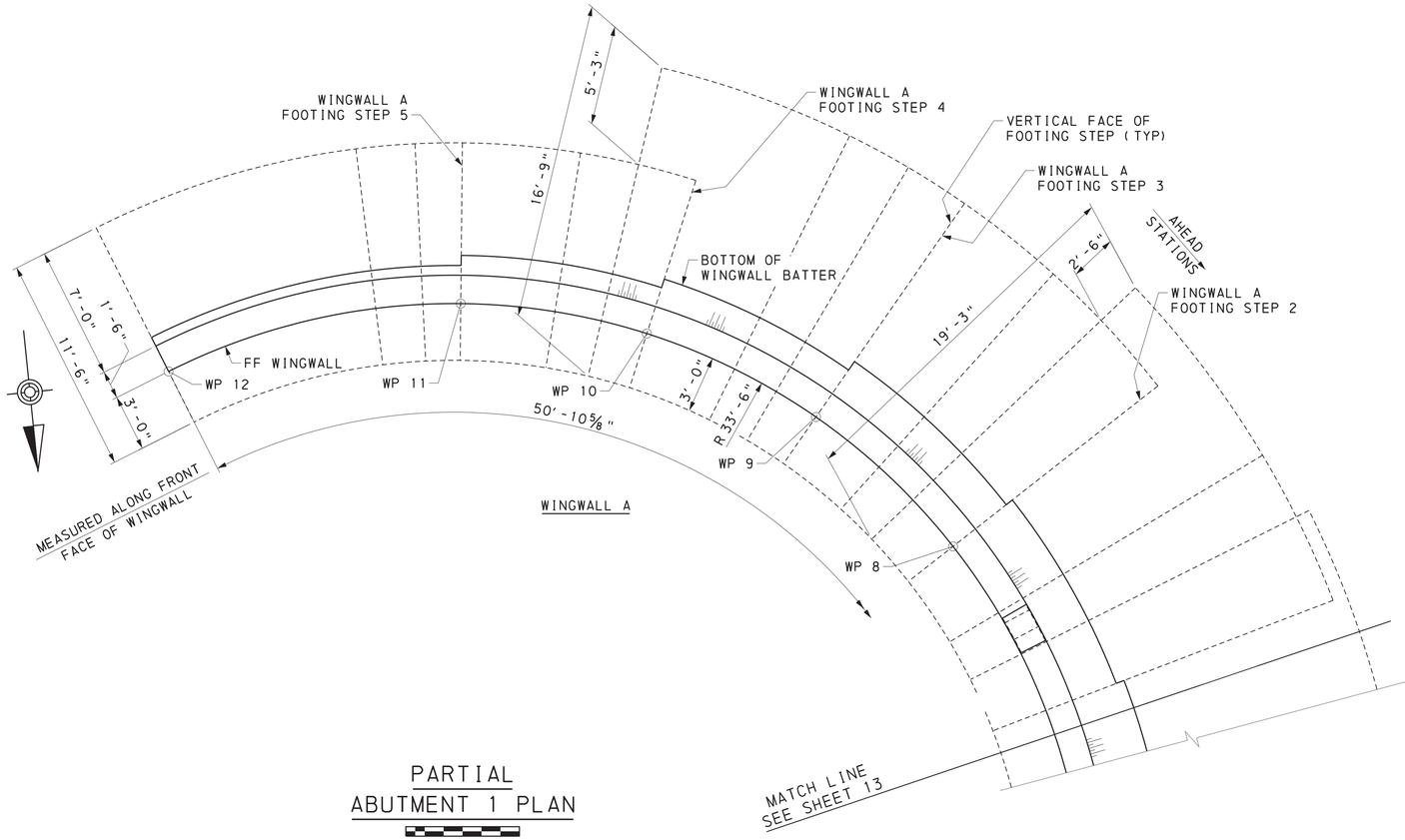


PARTIAL
ABUTMENT 1 PLAN

0 1' 2' 3' 4' 5' 6'

LEGEND:

FF FRONT FACE
WP WORK POINT

REFERENCES:

1. GENERAL NOTES 1 & 2
2. STAKE-OUT PLAN 1 & 2
3. WORK THIS SHEET WITH SHEETS

SHEET:

4 & 5
7 & 8
13, 15-35, 42 & 43

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUTMENT 1 PLAN 2

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

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SHEET 14 OF 130

S - 39414

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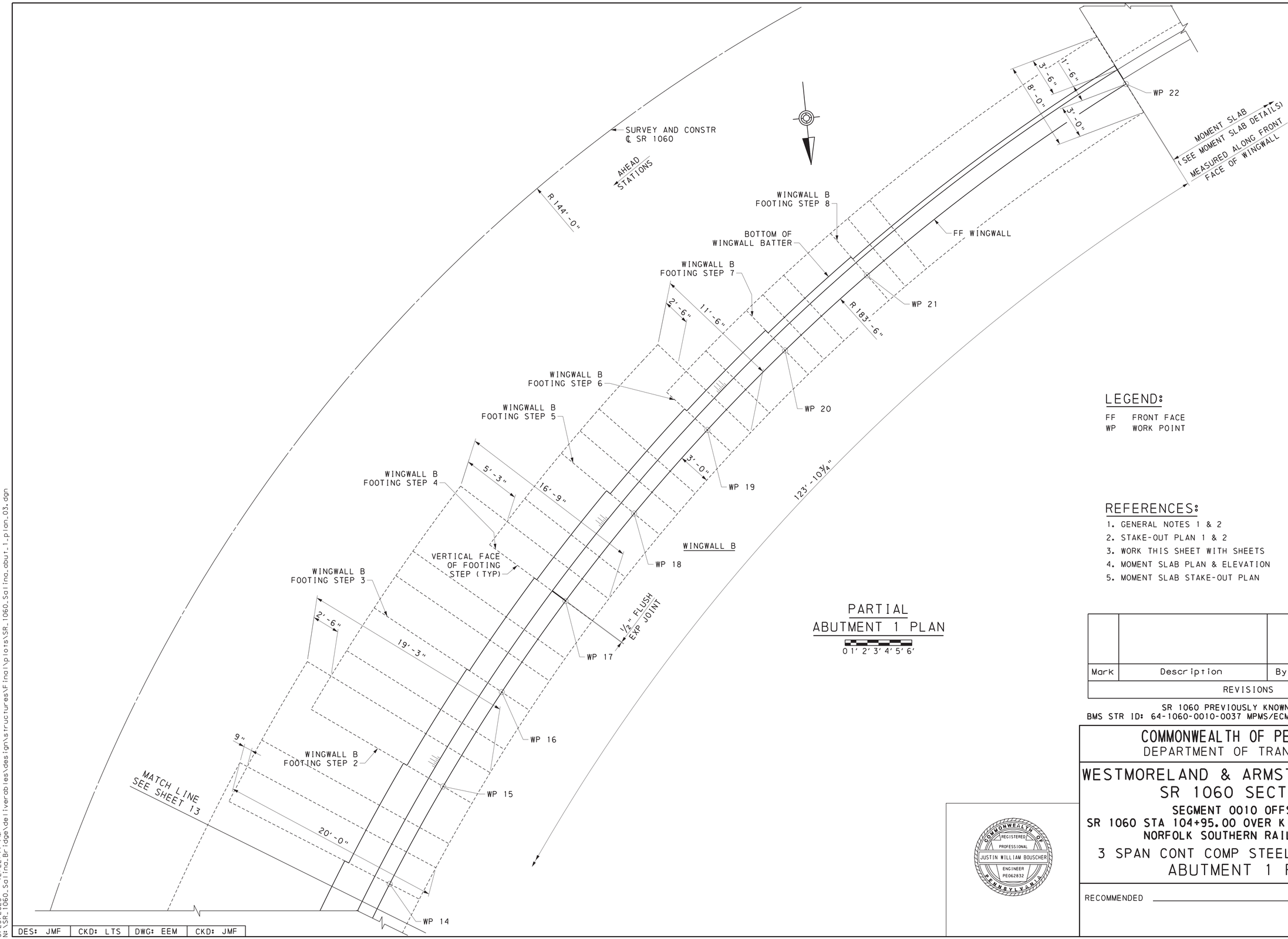


PARTIAL
ABUTMENT 1 PLAN

0 1' 2' 3' 4' 5' 6'

LEGEND:

FF FRONT FACE
WP WORK POINT

REFERENCES:

| | |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. STAKE-OUT PLAN 1 & 2 | 7 & 8 |
| 3. WORK THIS SHEET WITH SHEETS | 13 & 14, 16-35, 42 & 43 |
| 4. MOMENT SLAB PLAN & ELEVATION | 113 |
| 5. MOMENT SLAB STAKE-OUT PLAN | 114 |

SHEET:

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUTMENT 1 PLAN 3

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 15 OF 130

S - 39414

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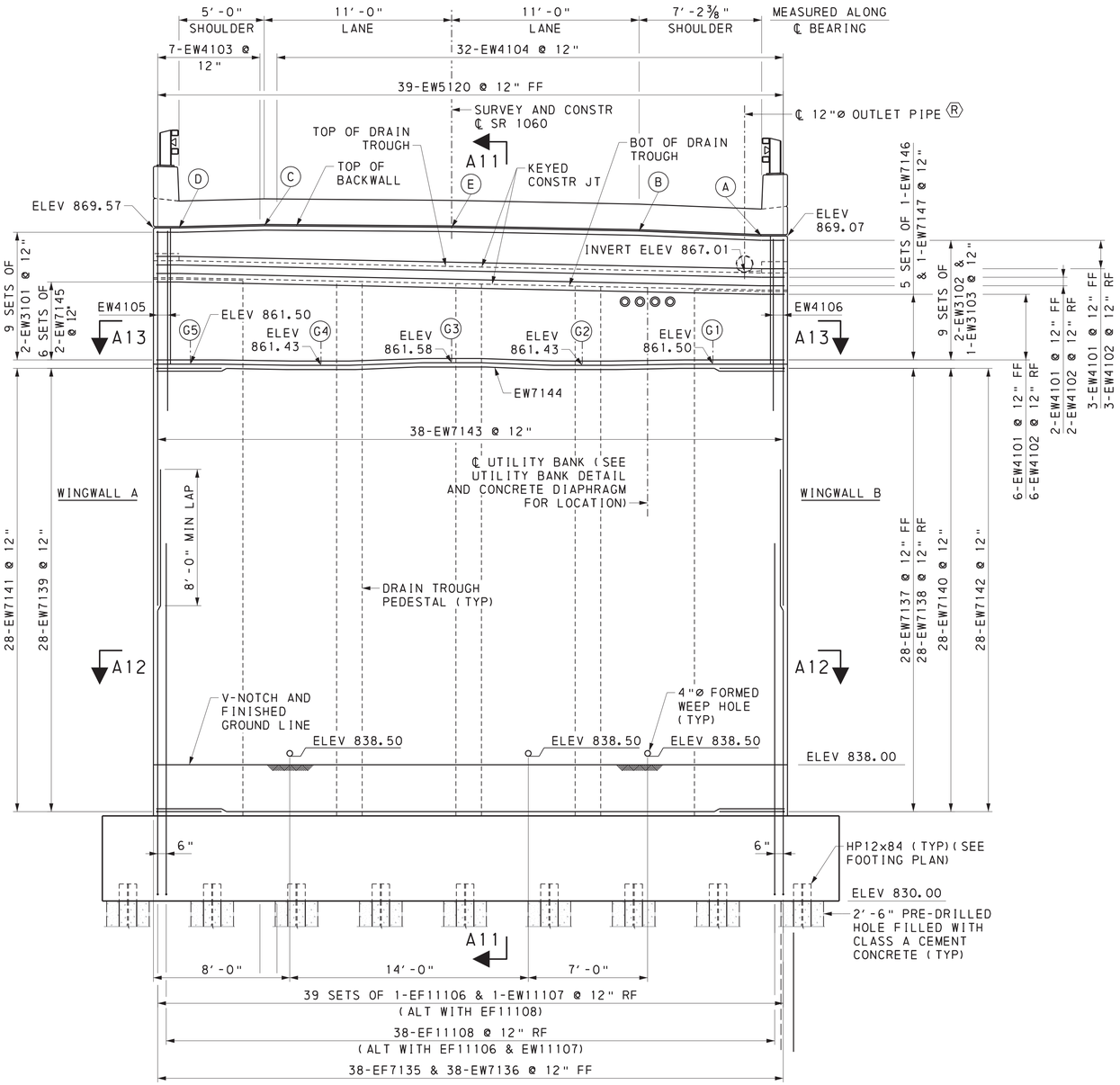
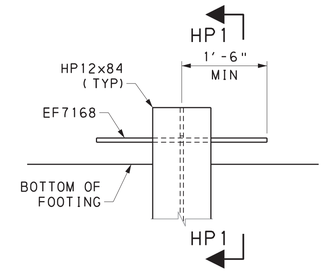



## ABUTMENT 1 ELEVATION

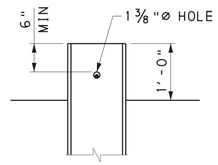
(LOOKING BACK STATIONS)

0 1' 2' 3' 4' 5' 6'




## HP-PILE ANCHORAGE DETAIL

NOT TO SCALE




## SECTION HP1-HP1

NOT TO SCALE

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| (R) | ROADWAY ITEM |
| (G2) | GIRDER NUMBER |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 13-15, 17-35, 42 & 43 |
| 3. ABUTMENT 1 DRAIN TROUGH DETAILS | 35 |
| 4. ABUTMENT 1 REINF BAR SCHEDULE 1 - 6 | 36-41 |
| 5. ABUTMENT 1 CONCRETE DIAPHRAGM DETAILS 1 & 2 | 97 & 98 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. BEARING SEAT ELEVATIONS SHOWN TAKEN AT CENTERLINE OF BEARING. CURTAIN WALL ELEVATION SHOWN TAKEN AT END OF SLAB.
3. THE BEARING SEATS ARE LEVEL IN THE LONGITUDINAL AND TRANSVERSE DIRECTIONS.
4. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
5. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

| ABUTMENT 1 PILE ELEVATIONS | |
|---|---|
| LOCATION | ELEVATION |
| TOP OF ROCK SOCKET | 792.7 |
| ESTIMATED PILE TIP ELEVATION | 786.7 |

| ABUTMENT 1 BACKWALL ELEVATIONS @ FF | | | | | |
|---|---|---|---|---|---|
| | (A) | (B) | (E) | (C) | (D) |
| STATION | 101+68.00 | 101+68.00 | 101+68.00 | 101+68.00 | 101+68.00 |
| ELEVATION | 869.07 | 869.37 | 869.59 | 869.69 | 869.57 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 1 ELEVATION

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER PE062832

RECOMMENDED _____

SHEET 16 OF 130

S - 39414

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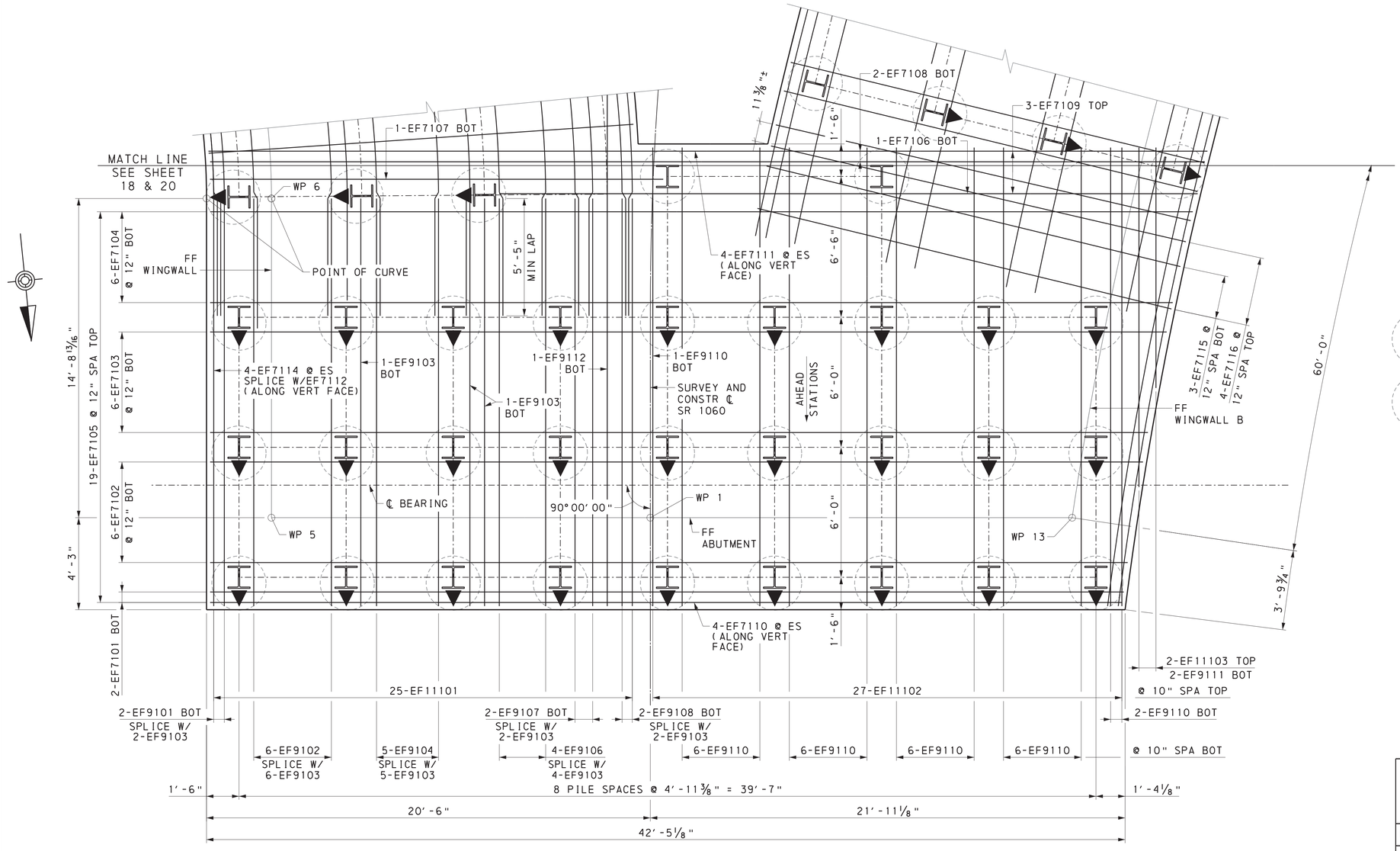


PARTIAL PLAN - PILE AND FOOTING

0 1' 2' 3' 4'

## LEGEND:

ES EQUAL SPACE
E EPOXY COATED BARS
FF FRONT FACE

VERTICAL PILE (HP 12x84)

BATTERED PILE 3:12 (HP 12x84)

## REFERENCES:

| | SHEET: |
|---|---|
| 1. ROCK SOCKET DETAIL AND FOUNDATION NOTES | 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 13-16, 18-35, 42 & 43 |
| 3. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. FOOTING DIMENSIONS ARE MEASURED ALONG FRONT FACE OF WINGWALL.
3. ALL PILES TO BE PREDRILLED AND BACKFILLED WITH CLASS A CEMENT CONCRETE.
4. SEE ABUTMENT AND WINGWALL SECTION VIEWS FOR #4 TIE BARS.

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

### ABUTMENT 1 AXIAL PILE LOADING

| LOCATION | ABUTMENT 1 | WINGWALL A | WINGWALL B |
|---|---|---|---|
| LIMIT STATE | STRENGTH - I | STRENGTH - III | STRENGTH - III |
| LOAD STATE | MAXIMUM | MAXIMUM | MAXIMUM |
| STAGE | FINAL | TEMP | TEMP |
| FACTORED AXIAL LOAD (KIP/PILE) | 434.0 | 380.0 | 380.0 |
| FACTORED AXIAL RESISTANCE (KIP/PILE) | 458.0 | 458.0 | 458.0 |
| PERFORMANCE RATIO | 1.06 | 1.21 | 1.21 |

### ABUTMENT 1 LATERAL PILE LOADING

| LOCATION | ABUTMENT 1 | WINGWALL A | WINGWALL B |
|---|---|---|---|
| LIMIT STATE | STRENGTH - I | STRENGTH - I | STRENGTH - I |
| LOAD STATE | MAXIMUM | MAXIMUM | MAXIMUM |
| STAGE | FINAL | FINAL | FINAL |
| FACTORED LATERAL LOAD (KIP/FT) | 55.9 | 54.9 | 54.9 |
| FACTORED LATERAL RESISTANCE (KIP/FT) | 60.6 | 55.5 | 55.5 |
| PERFORMANCE RATIO | 1.09 | 1.01 | 1.01 |

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 1 PILE AND FOOTING REINF PLAN 1

RECOMMENDED _____

SHEET 17 OF 130

S - 39414

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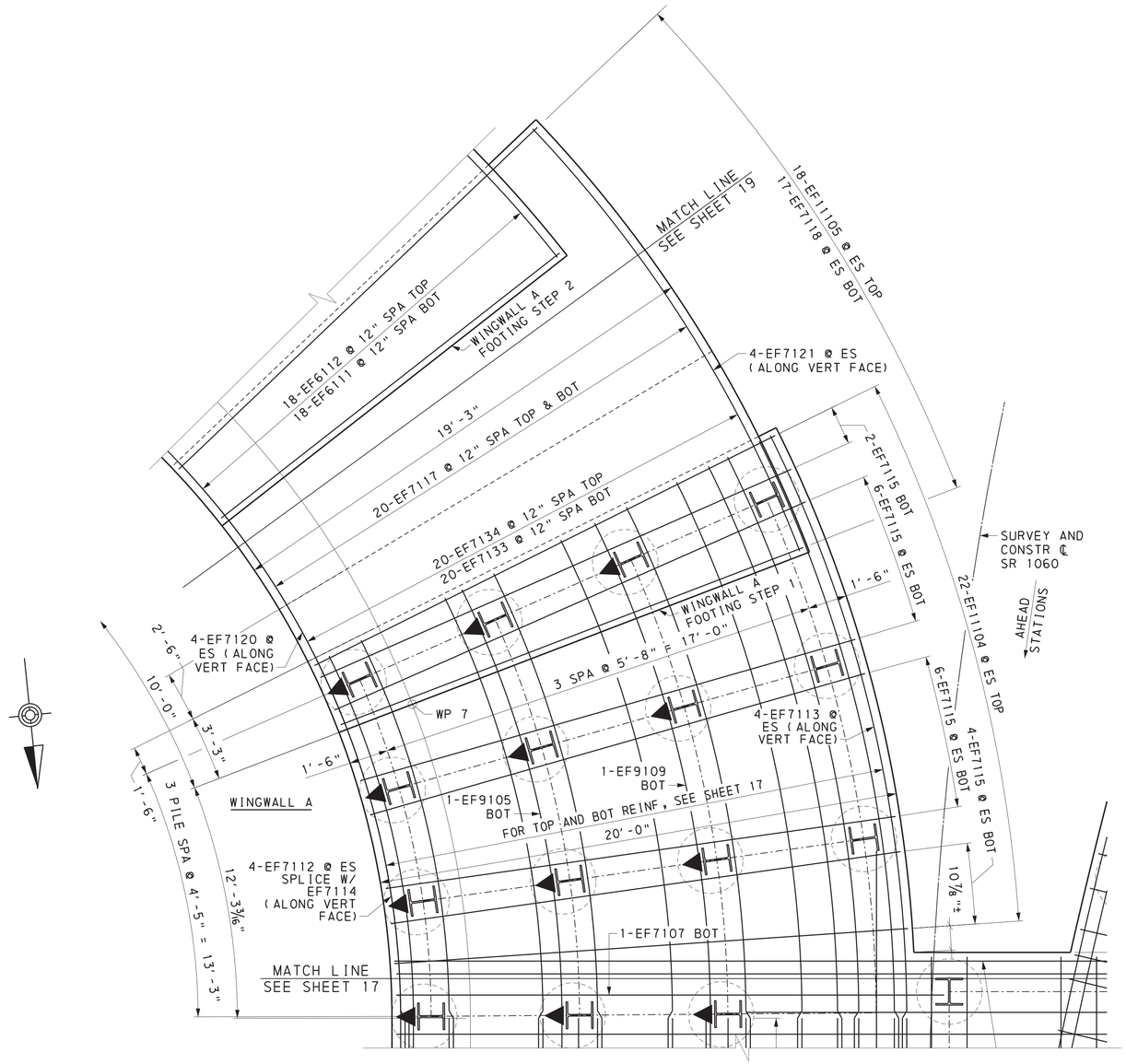


PARTIAL PLAN - PILE AND FOOTING

0 1' 2' 3' 4'

## LEGEND:

ES EQUAL SPACE
E EPOXY COATED BARS
FF FRONT FACE

VERTICAL PILE (HP 12x84)

BATTERED PILE 3:12 (HP 12x84)

## REFERENCES:

1. WORK THIS DRAWING WITH SHEETS
2. ABUTMENT 1 REINF BAR SCHEDULE

## SHEET:

13-17, 19-35, 42 & 43
36-41

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. FOOTING DIMENSIONS ARE MEASURED ALONG FRONT FACE OF WINGWALL.
3. PILES ARE MEASURED ALONG FIRST ROW.
4. ALL PILES TO BE PREDRILLED AND BACKFILLED WITH CLASS A CEMENT CONCRETE.
5. PLACE TRANSVERSE REINFORCEMENT BARS RADIALLY WITH MAXIMUM SPACING AS SHOWN.

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

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# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 1 PILE AND FOOTING REINF PLAN 2

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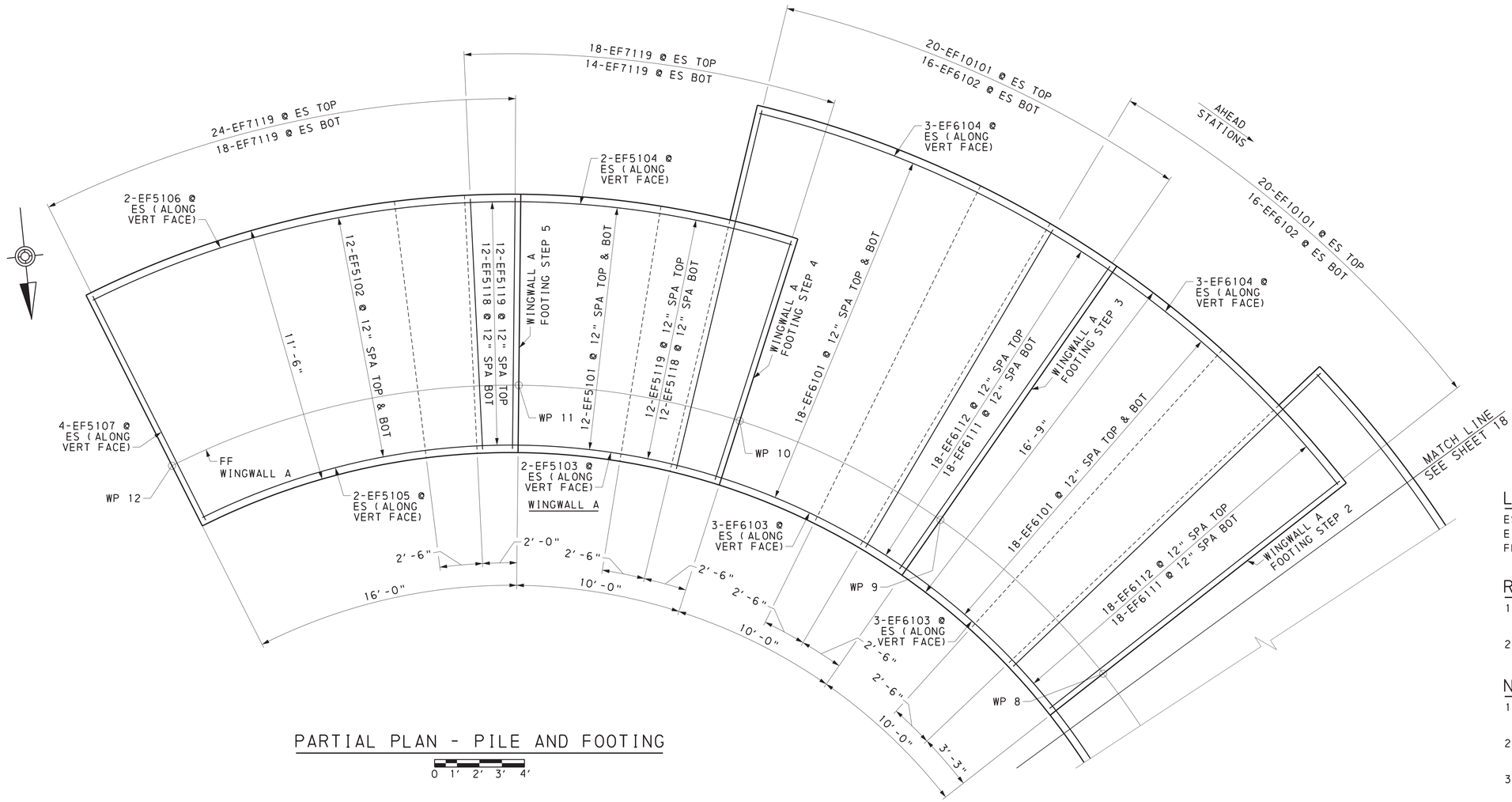


## PARTIAL PLAN - PILE AND FOOTING

0 1' 2' 3' 4'

## LEGEND:

| | |
|---|---|
| ES | EQUAL SPACE |
| E | EPOXY COATED BARS |
| FF | FRONT FACE |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. WORK THIS DRAWING WITH SHEETS | 13-18, 20-35, 42 & 43 |
| 2. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. FOOTING DIMENSIONS ARE MEASURED ALONG FRONT FACE OF WINGWALL.
3. PLACE TRANSVERSE REINFORCEMENT BARS RADIALLY WITH MAXIMUM SPACING AS SHOWN.

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 1 PILE AND FOOTING REINF PLAN 3

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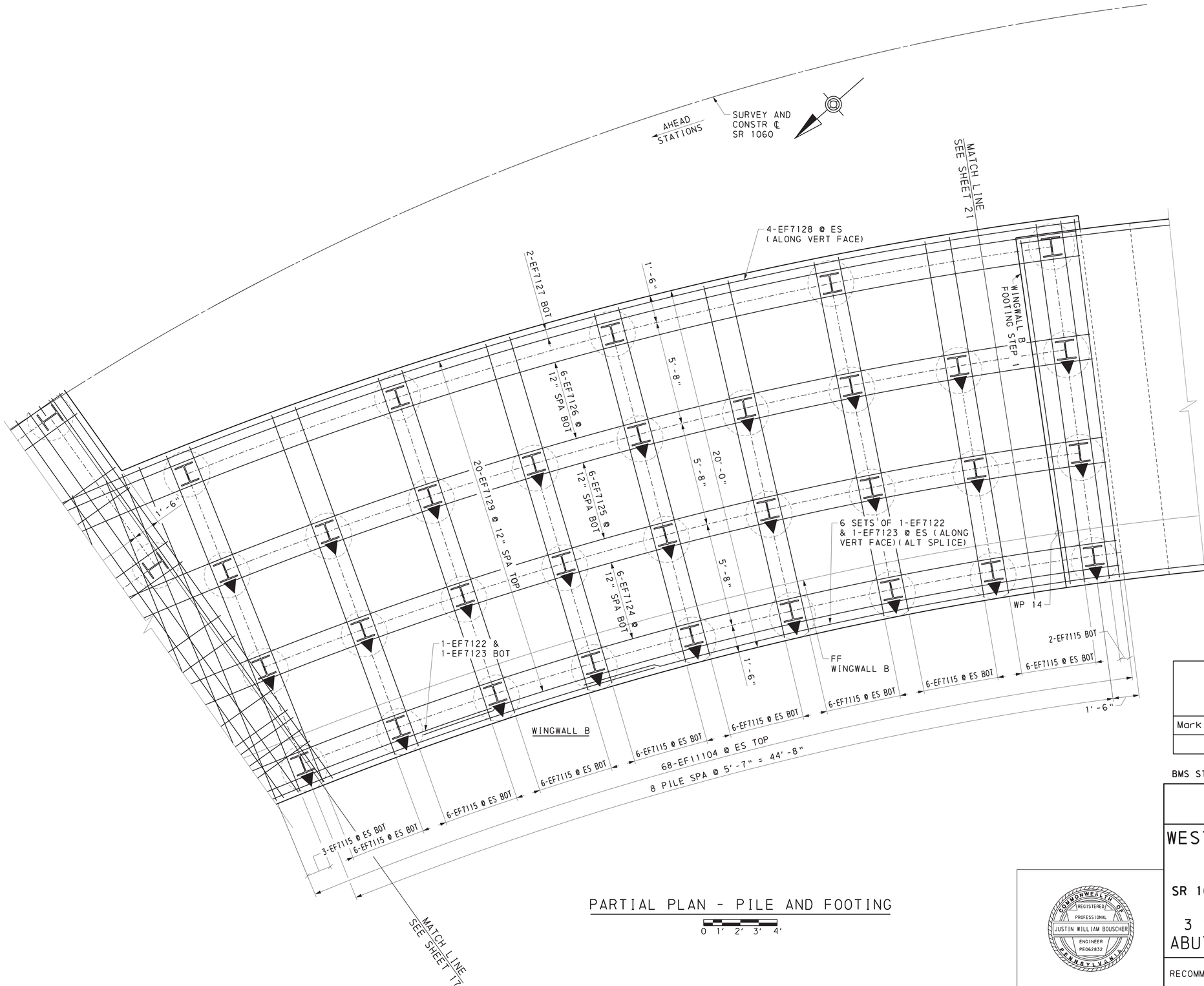


PARTIAL PLAN - PILE AND FOOTING

0 1' 2' 3' 4'

## LEGEND:

ES EQUAL SPACE
E EPOXY COATED BARS
FF FRONT FACE

VERTICAL PILE ( HP 12x84)

BATTERED PILE 3:12 ( HP 12x84)

## REFERENCES:

| | SHEET: |
|---|---|
| 1. WORK THIS DRAWING WITH SHEETS | 13-19, 21-35, 42 & 43 |
| 2. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. FOOTING DIMENSIONS ARE MEASURED ALONG FRONT FACE OF WINGWALL.
3. PILES ARE MEASURED ALONG FIRST ROW.
4. ALL PILES TO BE PREDRILLED AND BACKFILLED WITH CLASS A CEMENT CONCRETE.
5. PLACE TRANSVERSE REINFORCEMENT BARS RADIALLY WITH MAXIMUM SPACING AS SHOWN.

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

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# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 1 PILE AND FOOTING REINF PLAN 4

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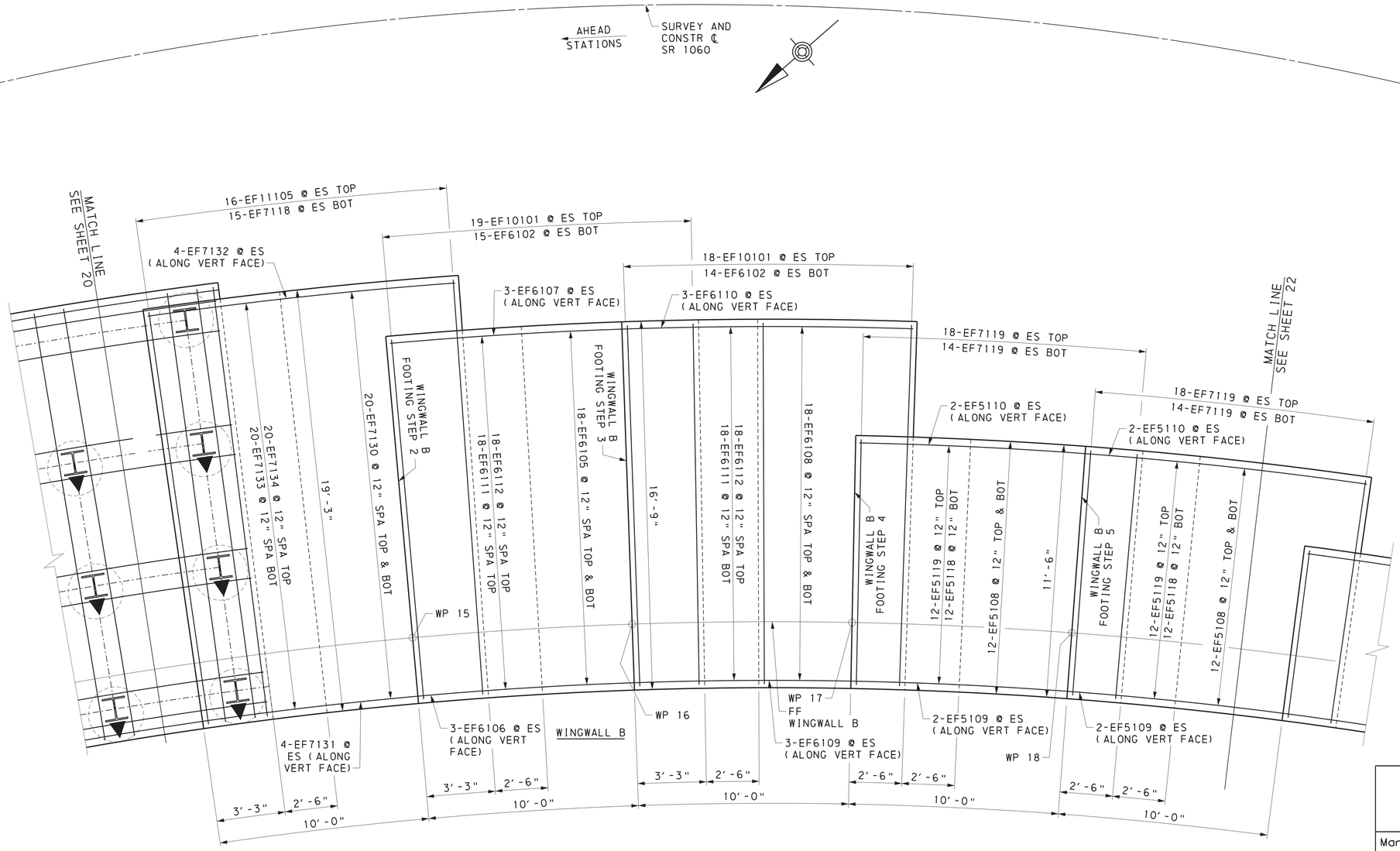


## PARTIAL PLAN - PILE AND FOOTING

0 1′ 2′ 3′ 4′

## LEGEND:

| | |
|---|---|
| ES | EQUAL SPACE |
| E | EPOXY COATED BARS |
| FF | FRONT FACE |

VERTICAL PILE (HP 12×84)

BATTERED PILE 3:12 (HP 12×84)

## REFERENCES:

| | SHEET: |
|---|---|
| 1. WORK THIS DRAWING WITH SHEETS | 13-20, 22-35, 42 & 43 |
| 2. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. FOOTING DIMENSIONS ARE MEASURED ALONG FRONT FACE OF WINGWALL.
3. ALL PILES TO BE PREDRILLED AND BACKFILLED WITH CLASS A CEMENT CONCRETE.
4. PLACE TRANSVERSE REINFORCEMENT BARS RADIALLY WITH MAXIMUM SPACING AS SHOWN.

| Mark | Description | By | Chk'd. | Recm'd. | Date |
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# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 1 PILE AND FOOTING REINF PLAN 5

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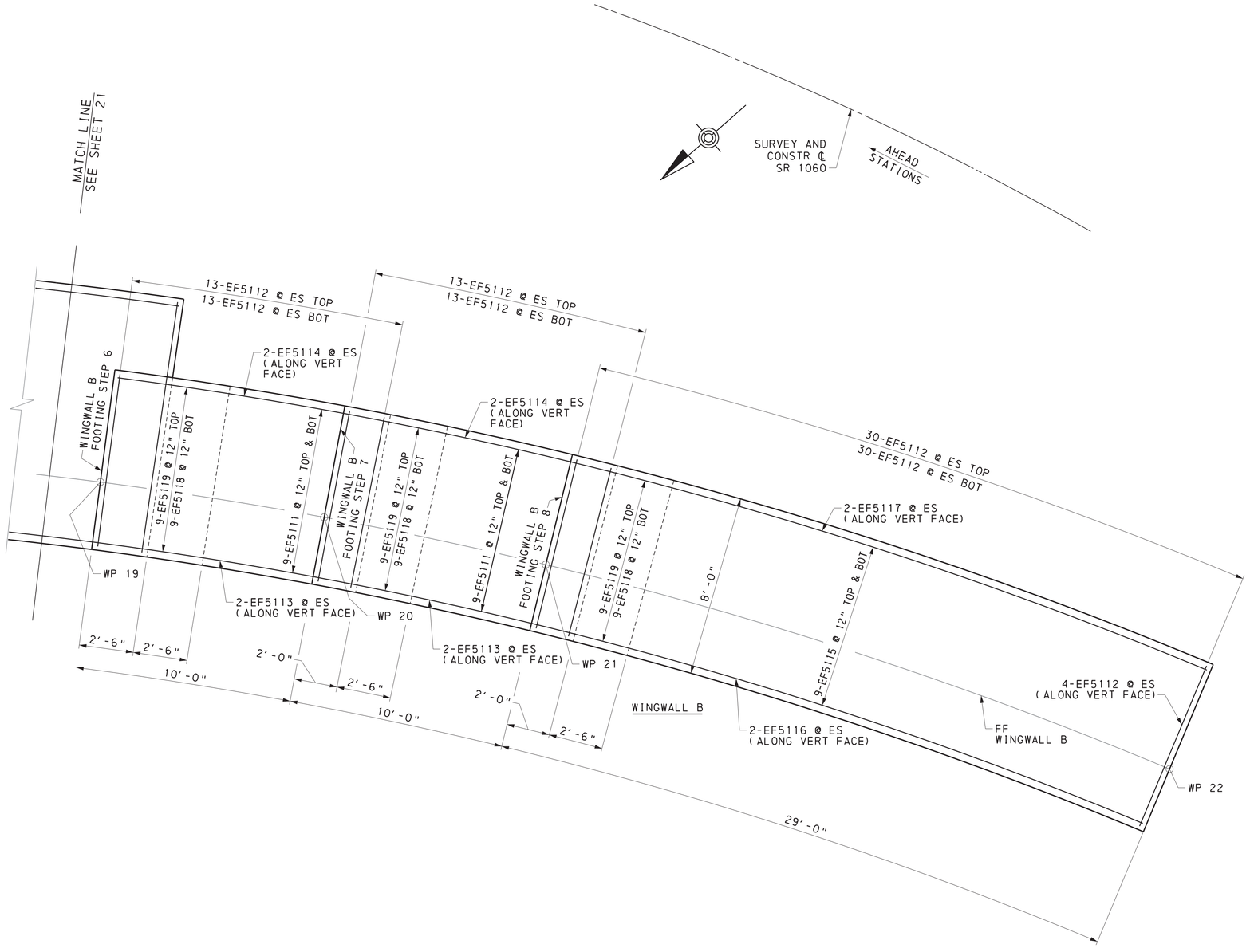


PARTIAL PLAN - PILE AND FOOTING

0 1' 2' 3' 4'

## LEGEND:

| | |
|---|---|
| ES | EQUAL SPACE |
| E | EPOXY COATED BARS |
| FF | FRONT FACE |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. WORK THIS DRAWING WITH SHEETS | 13-21, 23-35, 42 & 43 |
| 2. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. FOOTING DIMENSIONS ARE MEASURED ALONG FRONT FACE OF WINGWALL.
3. PLACE TRANSVERSE REINFORCEMENT BARS RADIALLY WITH MAXIMUM SPACING AS SHOWN.

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

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# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUT 1 PILE AND FOOTING REINF PLAN 6

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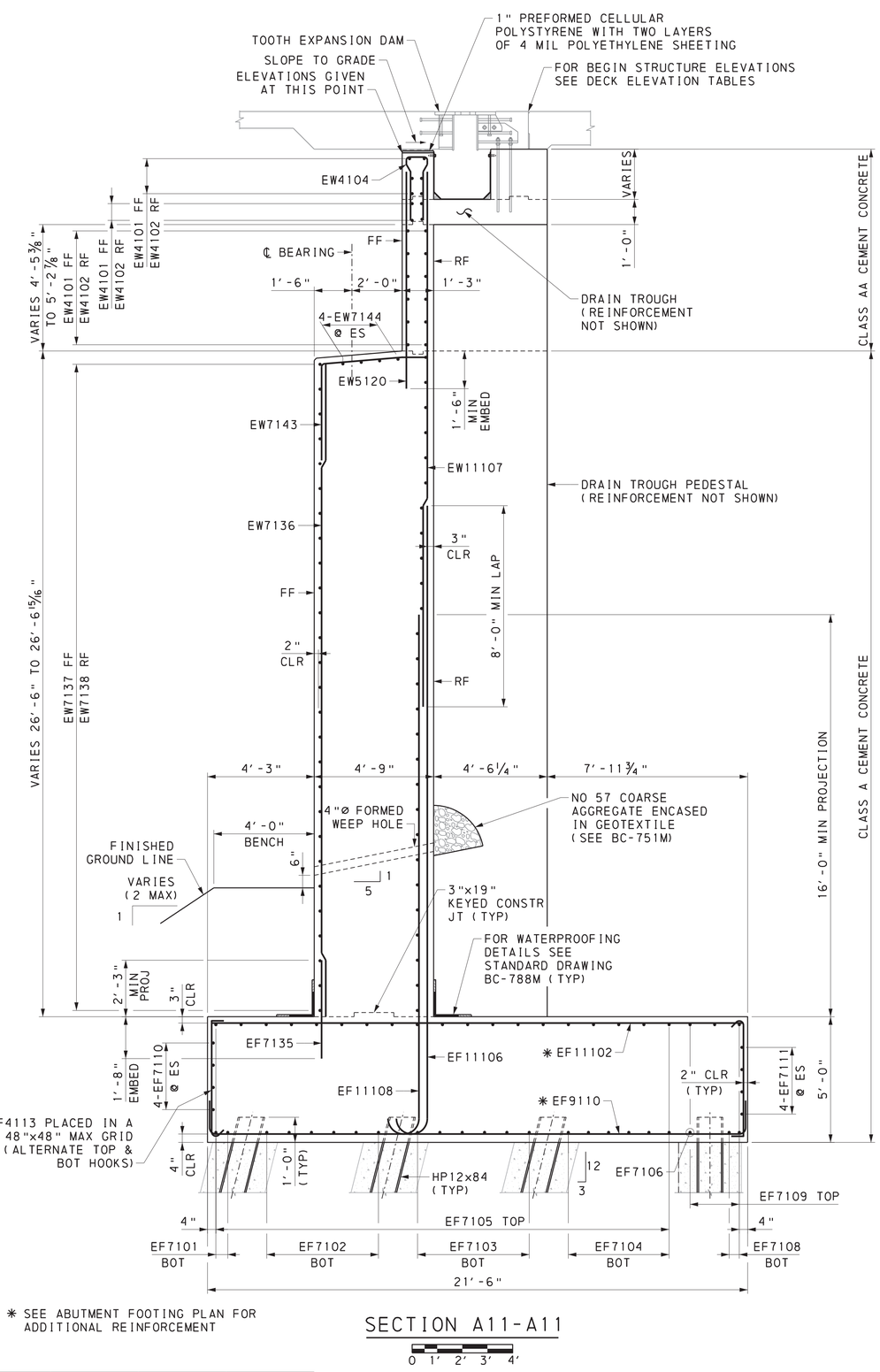
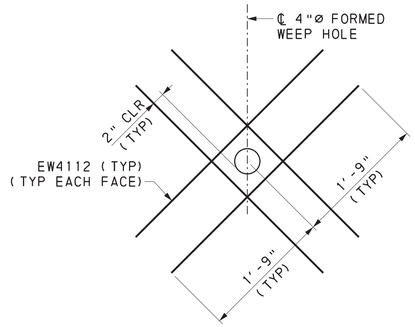



✱ SEE ABUTMENT FOOTING PLAN FOR ADDITIONAL REINFORCEMENT

## SECTION A11-A11

0 1' 2' 3' 4'




## WEEP HOLE REINFORCEMENT DETAIL

NOT TO SCALE

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| ES | EQUAL SPACE |
| EPTE | ESTIMATED PILE TOP ELEVATION |

## NOTES:

1. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
2. CONTRACTOR RESPONSIBLE TO SUPPORT ALL REINFORCEMENT PRIOR TO POURING CONCRETE.
3. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

| REFERENCES: | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. DECK ELEVATIONS 1 & 2 | 9 & 10 |
| 3. WORK THIS SHEET WITH SHEETS | 13-22, 24-35, 42 & 43 |
| 4. ABUTMENT 1 DRAIN TROUGH DETAILS | 35 |
| 5. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

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

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUTMENT 1 SECTIONS 1

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SHEET 23 OF 130

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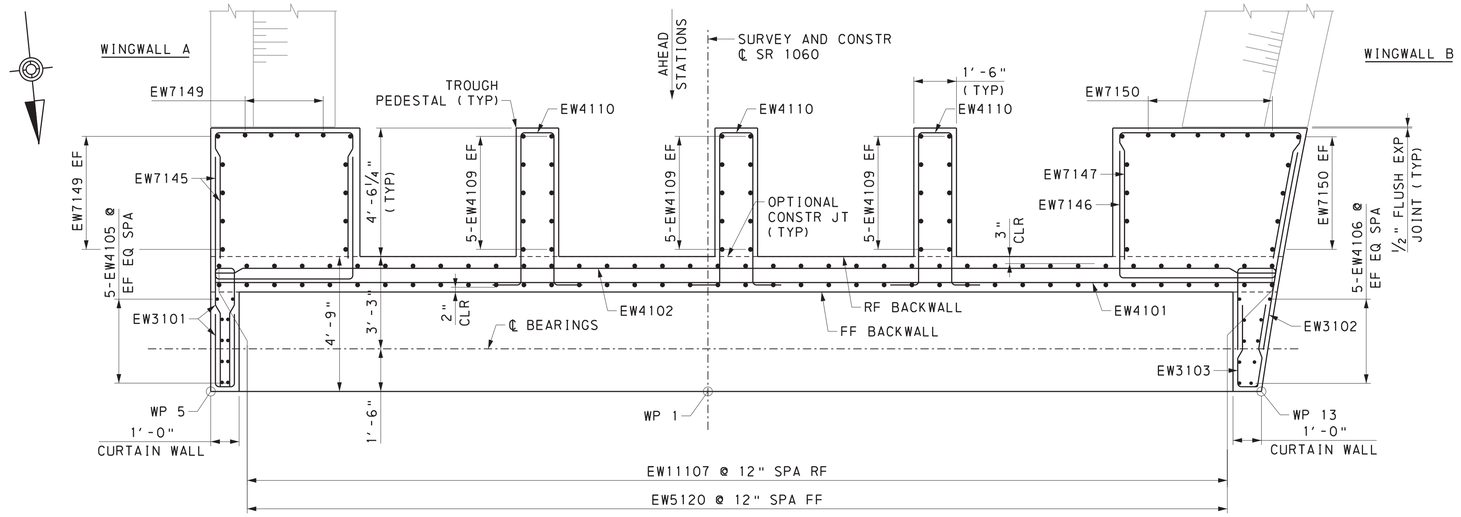
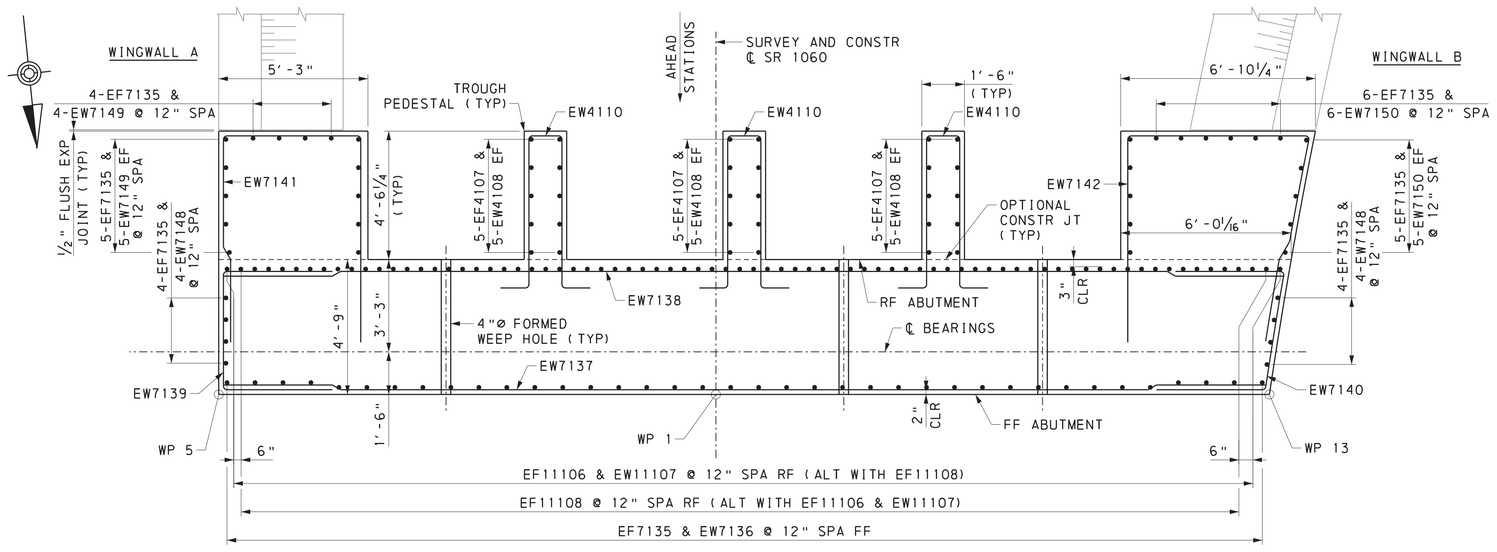



## SECTION A13-A13

0 1' 2' 3' 4'




## SECTION A12-A12

0 1' 2' 3' 4'

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| ES | EQUAL SPACE |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 13-23, 25-35, 42 & 43 |
| 3. ABUTMENT 1 DRAIN TROUGH DETAILS | 35 |
| 4. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.

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

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# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 1 SECTIONS 2

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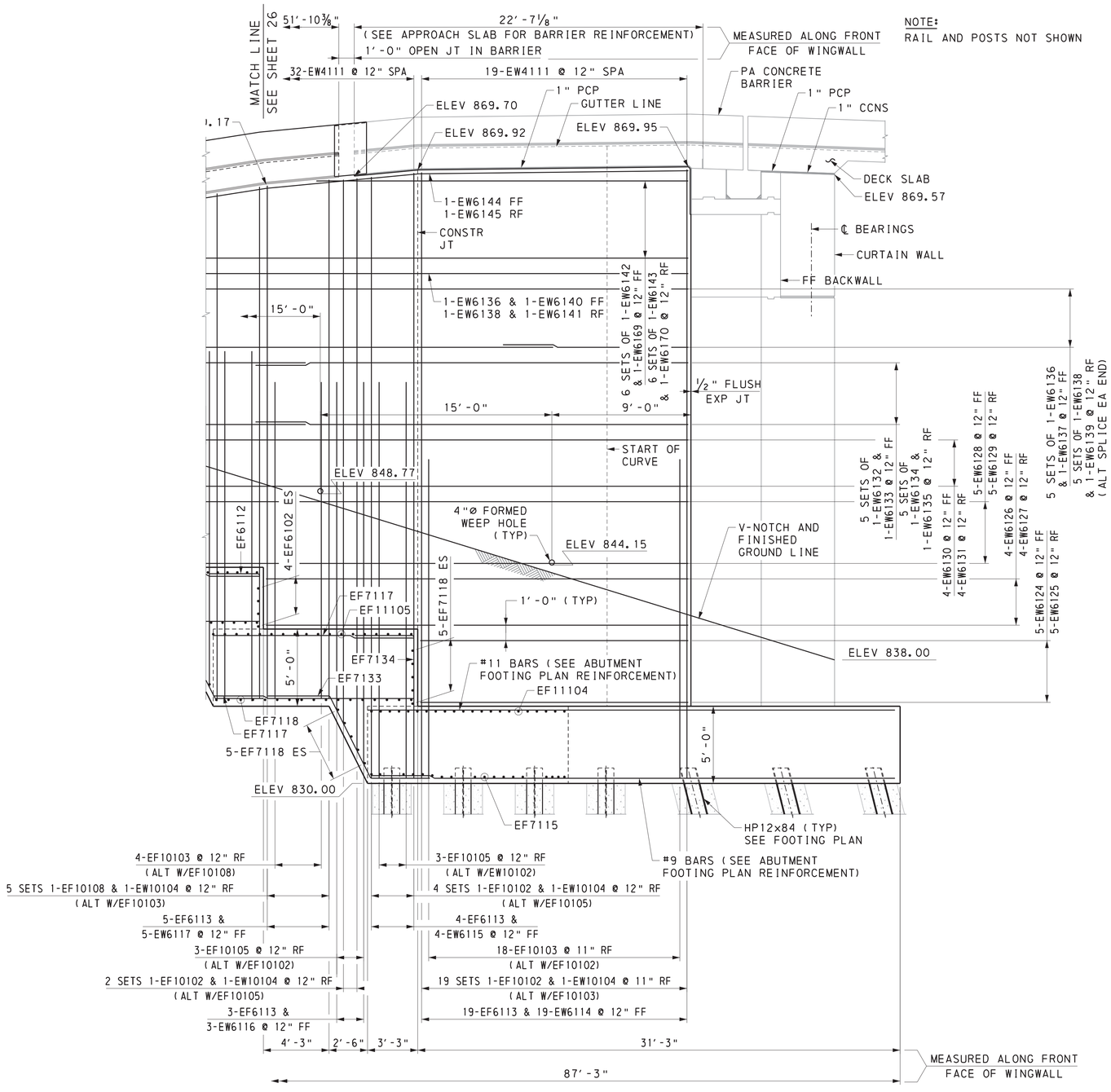


## WINGWALL A - PARTIAL ELEVATION (DEVELOPED)

0 1′ 2′ 3′ 4′ 5′ 6′

NOTE:
RAIL AND POSTS NOT SHOWN

## MINIMUM LAP LENGTHS:

#6 BARS - 3′-3"
#10 BARS - 8′-4"

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| CCNS | CLOSED CELL NEOPRENE SPONGE |
| PCP | 1" PREFORMED CELLULAR POLYSTYRENE WITH TWO LAYERS OF 4 MIL POLYETHYLENE SHEETING |

## REFERENCES:


| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 13-24, 26, 30, 42 & 43 |
| 3. WINGWALL BARRIER DETAILS | 31 & 32 |
| 4. ABUTMENT 1 DRAIN TROUGH DETAILS | 35 |
| 5. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |


## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
3. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
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# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## ABUTMENT 1 WINGWALL A - 1

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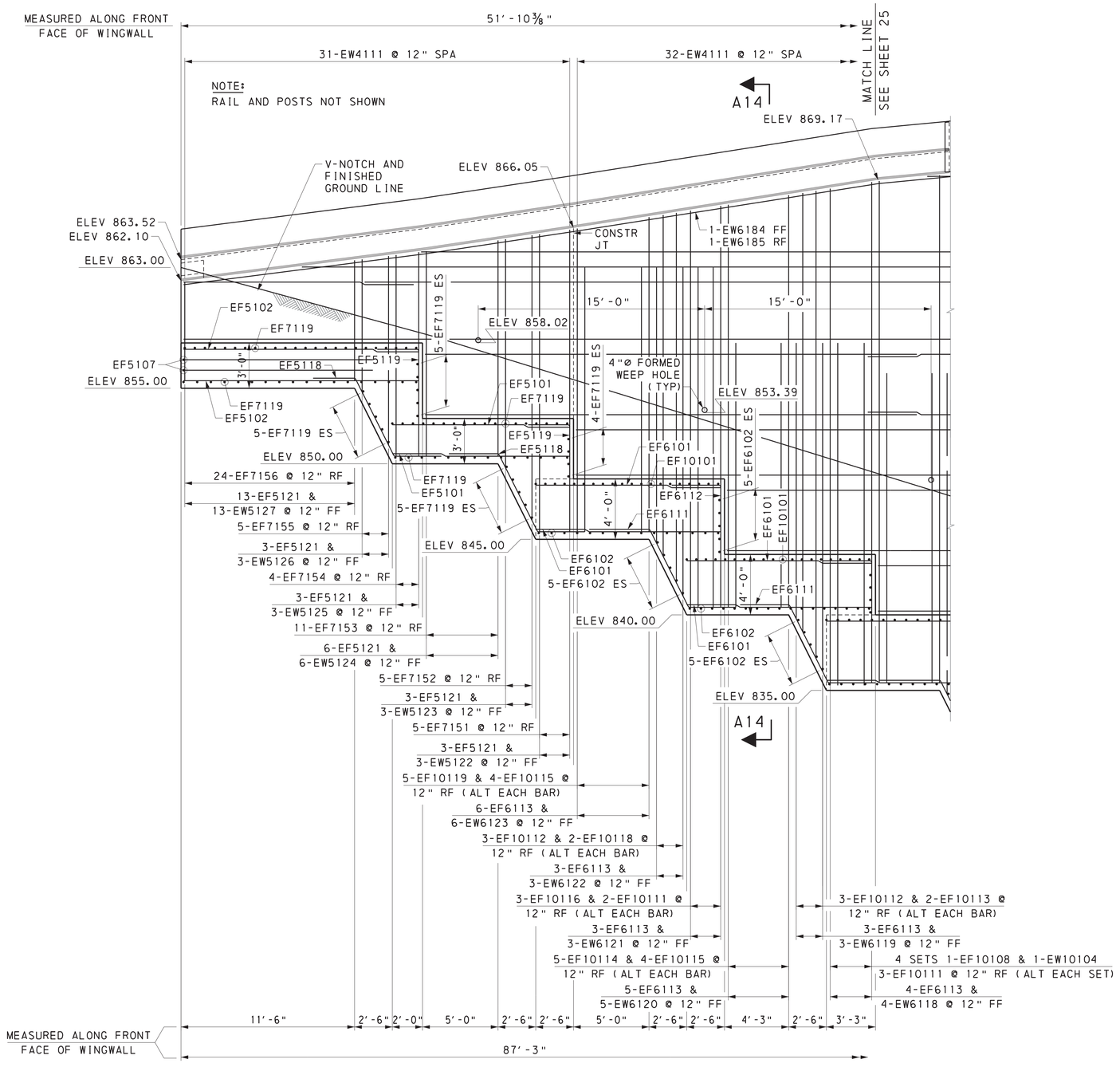


WINGWALL A - PARTIAL ELEVATION (DEVELOPED)

0 1′ 2′ 3′ 4′ 5′ 6′

## LEGEND:

FF FRONT FACE
RF REAR FACE
EF EACH FACE
E EPOXY COATED BARS
CCNS CLOSED CELL NEOPRENE SPONGE
PCP 1" PREFORMED CELLULAR POLYSTYRENE WITH TWO LAYERS OF 4 MIL POLYETHYLENE SHEETING

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 13-25, 30, 42 & 43 |
| 3. WINGWALL BARRIER DETAILS | 31 & 32 |
| 4. ABUTMENT 1 DRAIN TROUGH DETAILS | 35 |
| 5. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
3. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUTMENT 1 WINGWALL A - 2

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 26 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: EEM | CKD: JMF

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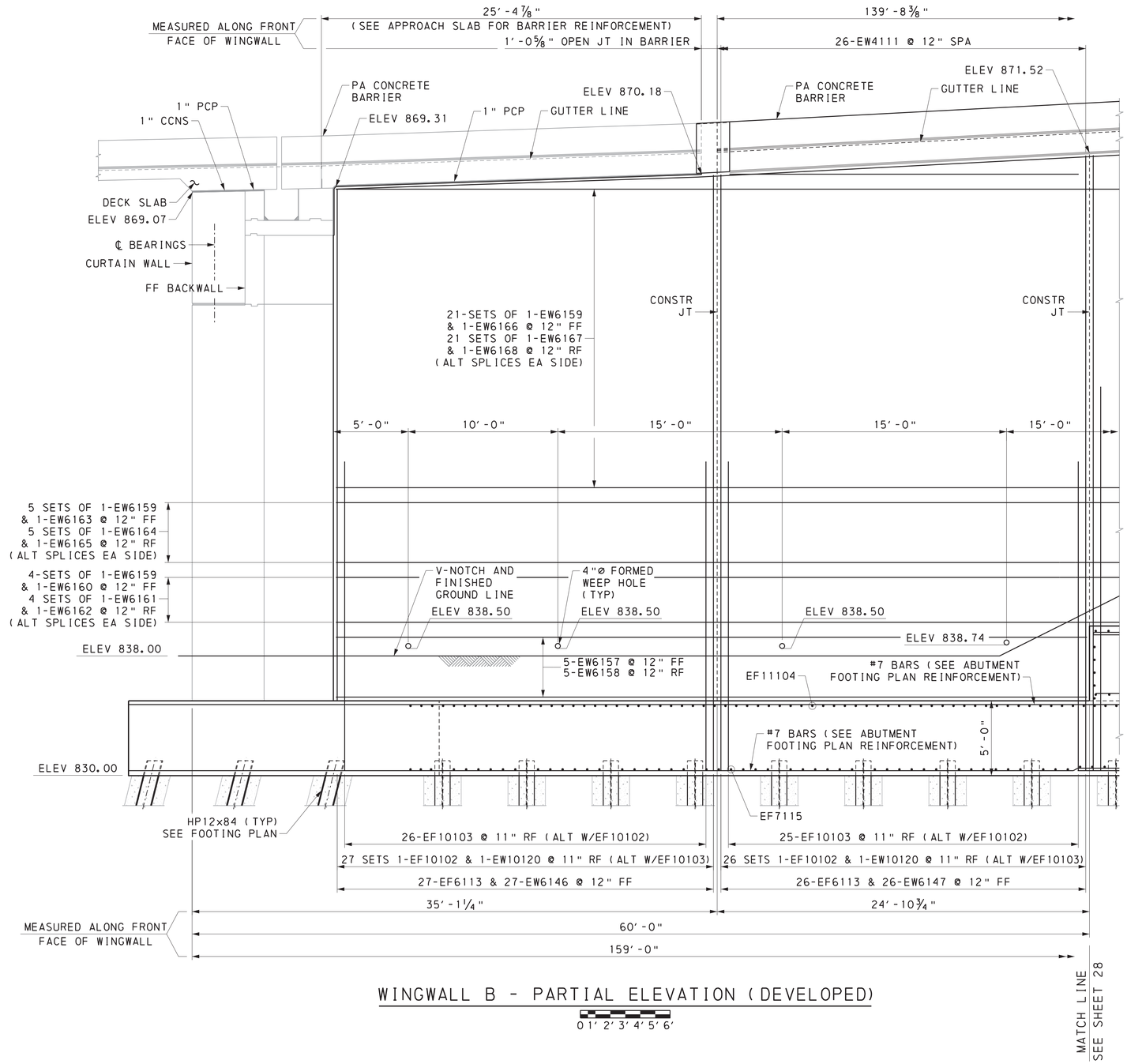


## WINGWALL B - PARTIAL ELEVATION (DEVELOPED)

0 1' 2' 3' 4' 5' 6'

## MINIMUM LAP LENGTHS:

#6 BARS - 3'-3"
#10 BARS - 8'-4"

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| CCNS | CLOSED CELL NEOPRENE SPONGE |
| PCP | 1" PREFORMED CELLULAR POLYSTYRENE WITH TWO LAYERS OF 4 MIL POLYETHYLENE SHEETING |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 13-24, 28 & 29, 30, 42 & 43 |
| 3. WINGWALL BARRIER DETAILS | 33 & 34 |
| 4. ABUTMENT 1 DRAIN TROUGH DETAILS | 35 |
| 5. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
3. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUTMENT 1 WINGWALL B - 1

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 27 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: EEM | CKD: JMF

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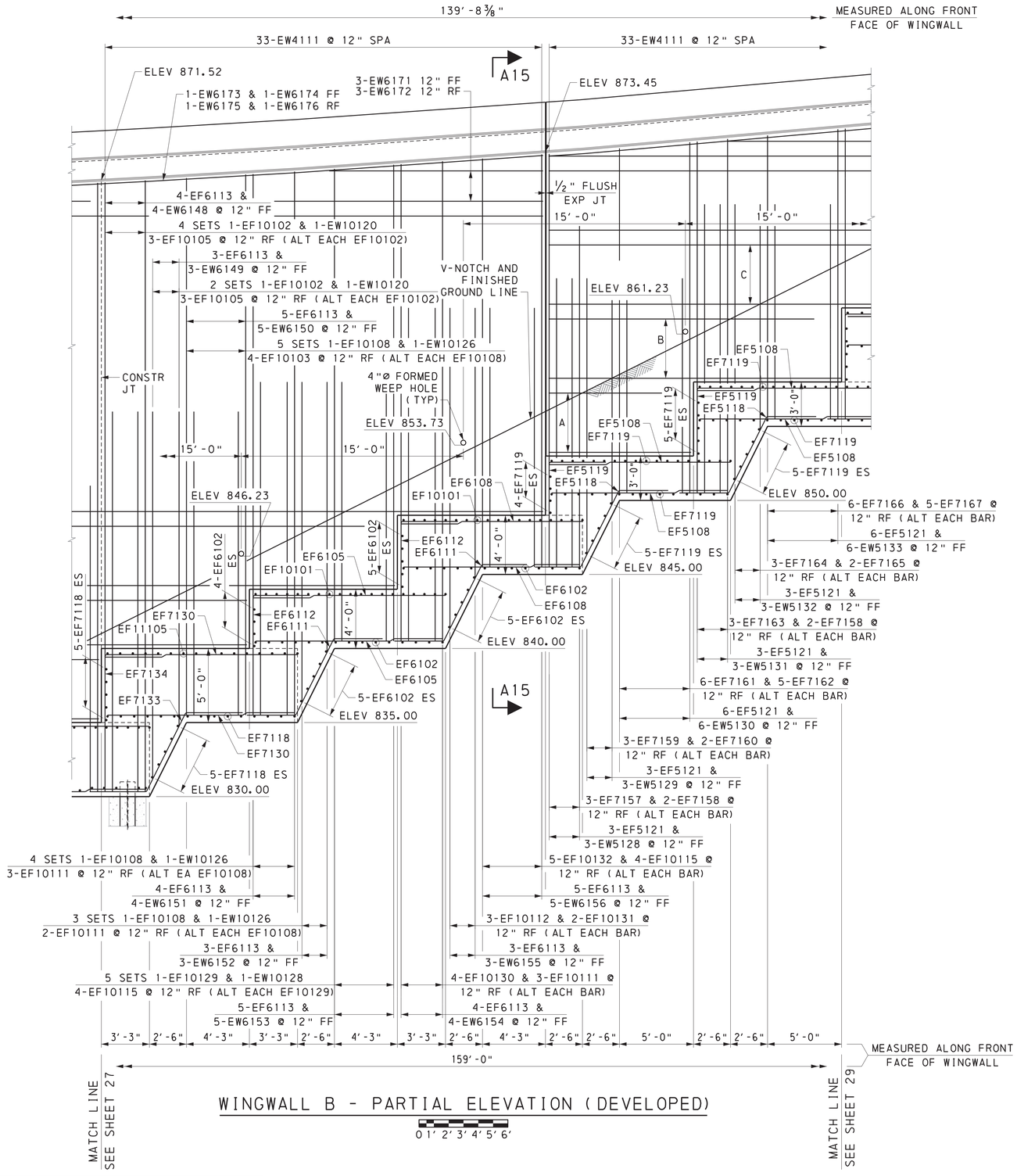


## WINGWALL B - PARTIAL ELEVATION (DEVELOPED)

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| CCNS | CLOSED CELL NEOPRENE SPONGE |
| PCP | 1" PREFORMED CELLULAR POLYSTYRENE WITH TWO LAYERS OF 4 MIL POLYETHYLENE SHEETING |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 13-24, 27, 29, 30, 42 & 43 |
| 3. WINGWALL BARRIER DETAILS | 33 & 34 |
| 4. ABUTMENT 1 DRAIN TROUGH DETAILS | 35 |
| 5. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
3. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

## LEGEND:

A = 5-EW5152 @ 12" FF
5-EW5153 @ 12" RF

B = 4-EW5154 @ 12" FF
4-EW5155 @ 12" RF

C = 5-EW5156 @ 12" FF
5-EW5157 @ 12" RF

| Mark | Description | By | Chk'd. | Recm'd. | Date |
|---|---|---|---|---|---|
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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 1 WINGWALL B - 2

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER PE062832

RECOMMENDED _____

SHEET 28 OF 130

S - 39414

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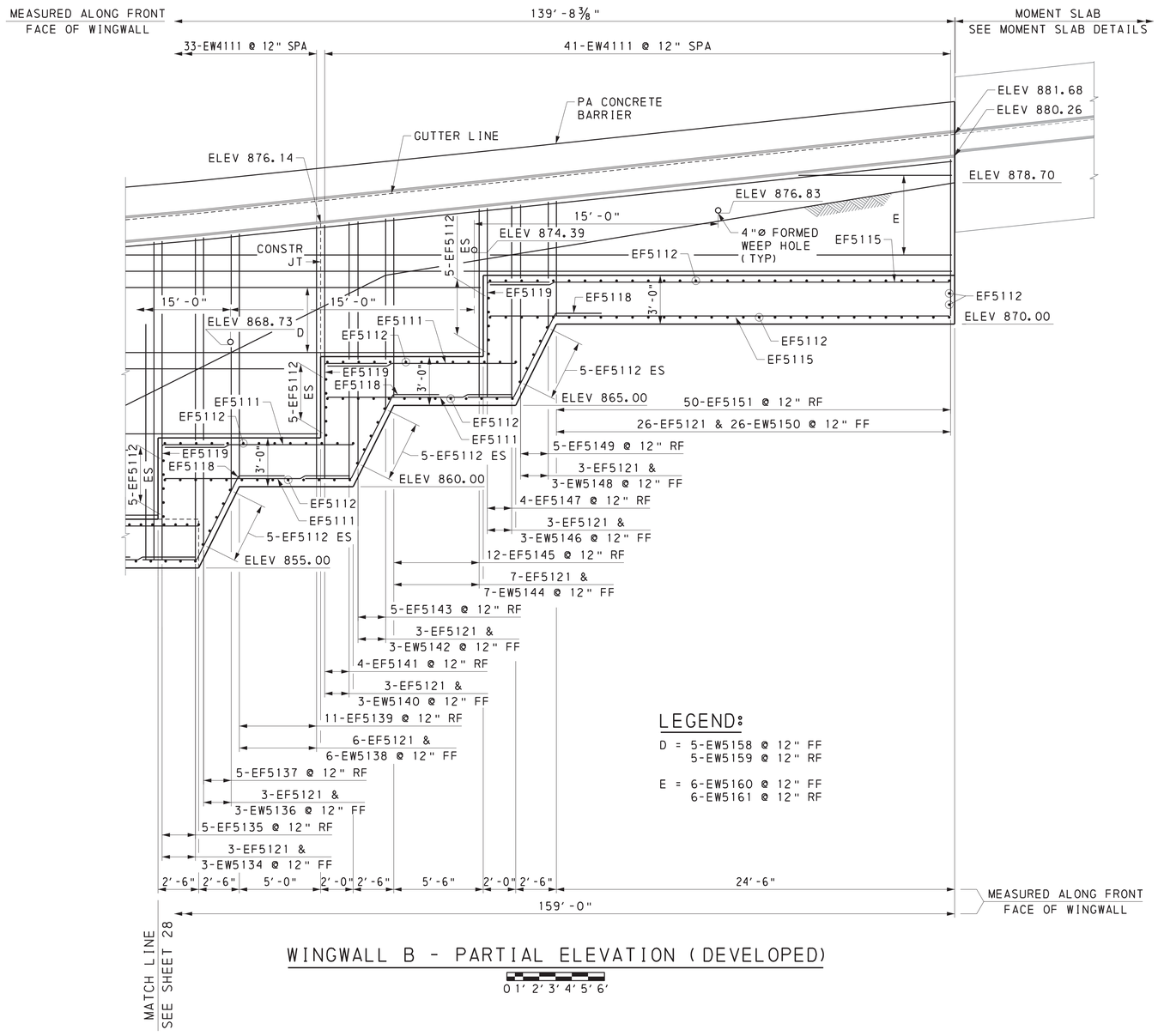


## LEGEND:

FF FRONT FACE
RF REAR FACE
EF EACH FACE
E EPOXY COATED BARS
CCNS CLOSED CELL NEOPRENE SPONGE
PCP 1" PREFORMED CELLULAR POLYSTYRENE WITH TWO LAYERS OF 4 MIL POLYETHYLENE SHEETING

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 13-24, 27 & 28, 30, 42 & 43 |
| 3. WINGWALL BARRIER DETAILS | 33 & 34 |
| 4. ABUTMENT 1 DRAIN TROUGH DETAILS | 35 |
| 5. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
3. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 1 WINGWALL B - 3

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 29 OF 130

S - 39414

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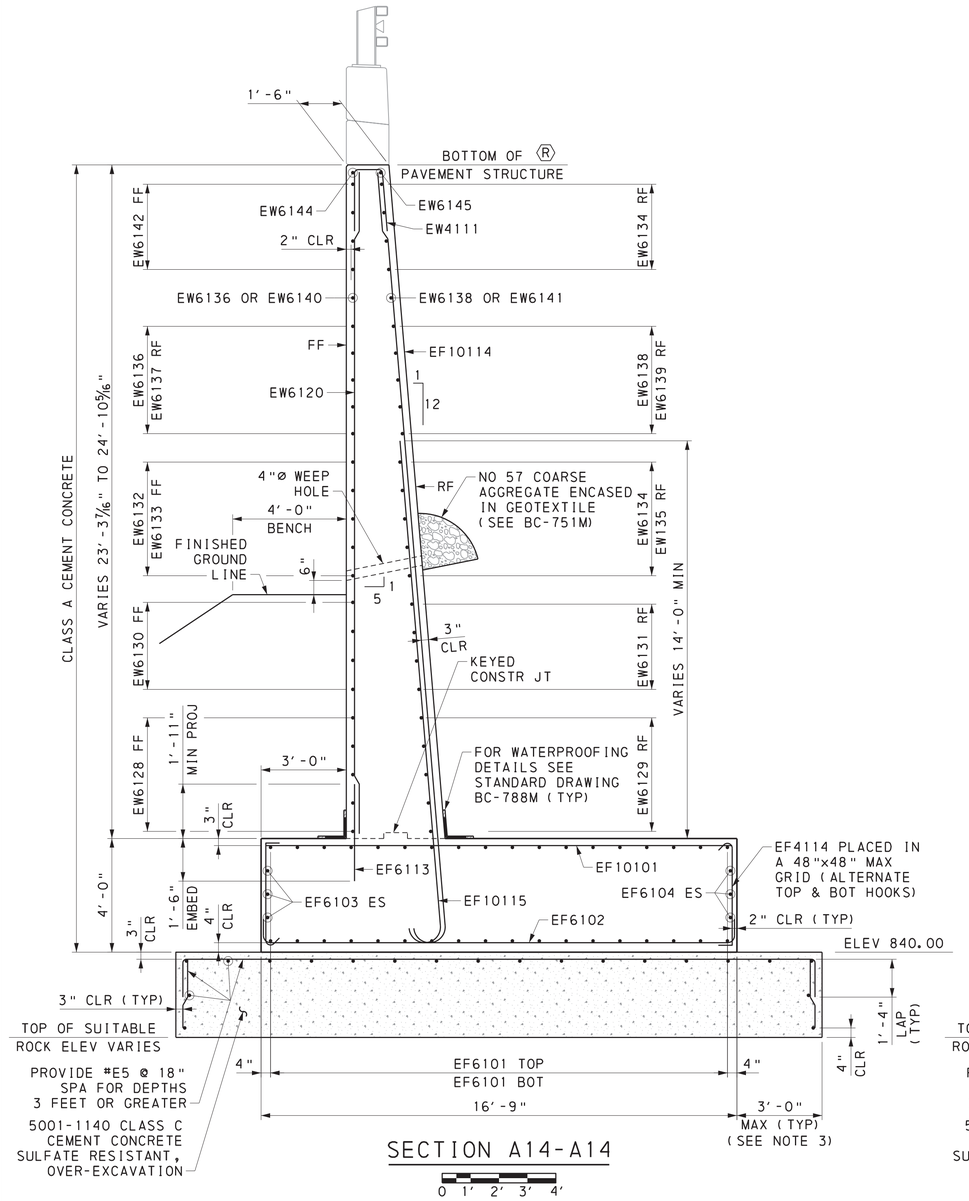
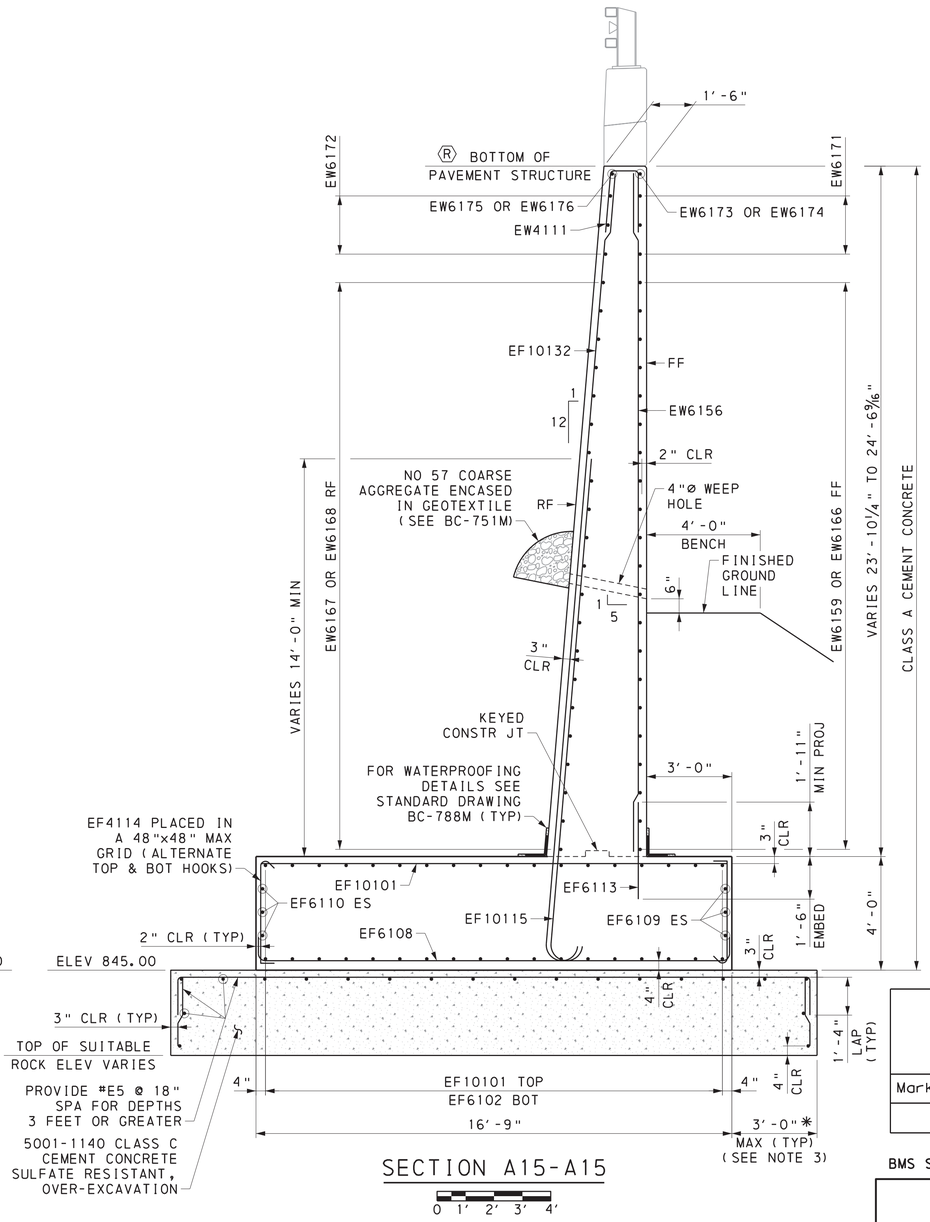



## SECTION A14-A14

0 1' 2' 3' 4'




## SECTION A15-A15

0 1' 2' 3' 4'

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| Ⓡ | ROADWAY ITEM |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. ABUTMENT 1 PLAN | 13-15 |
| 3. WINGWALL A ELEVATION | 25 & 26 |
| 4. LOCATION OF SECTION A14-A14 | 26 |
| 5. WINGWALL B ELEVATION | 27-29 |
| 6. LOCATION OF SECTION A15-A15 | 28 |
| 7. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
3. EXCAVATE A MINIMUM HORIZONTAL DISTANCE BEYOND THE EDGE OF FOOTING EQUAL TO HALF OF THE REQUIRED VERTICAL DEPTH OF OVER EXCAVATION.
4. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUTMENT 1 WINGWALL SECTIONS

RECOMMENDED _____

SHEET 30 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: EEM | CKD: JMF

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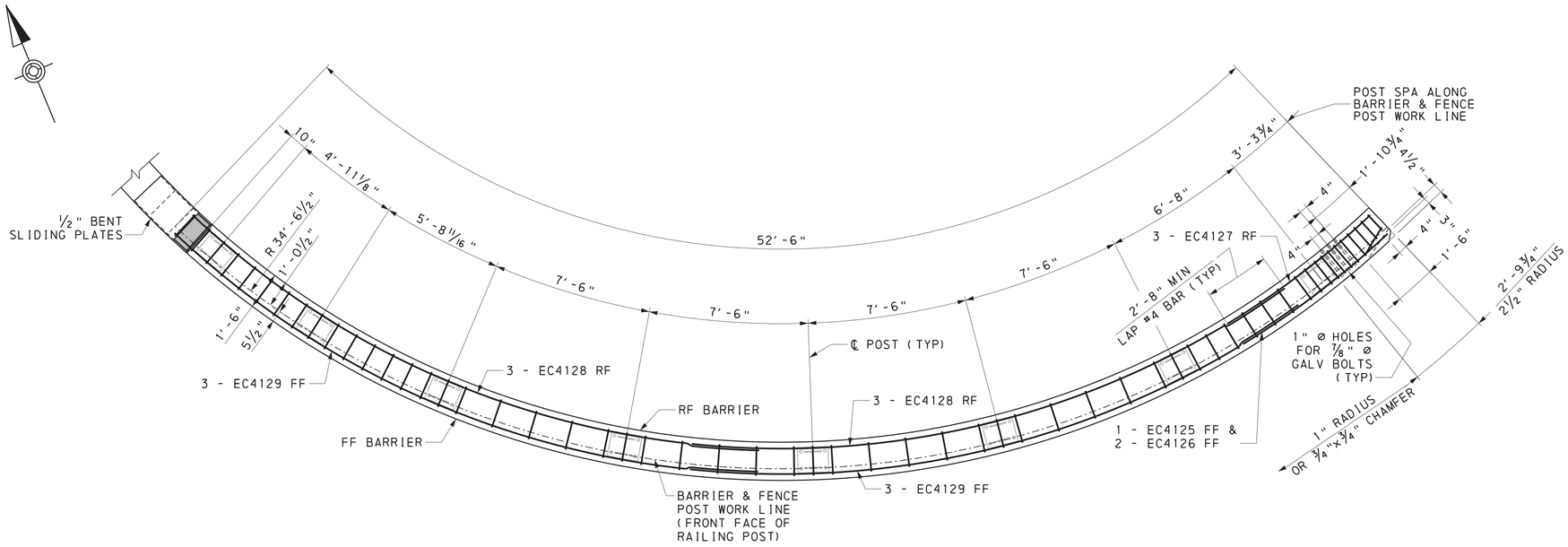
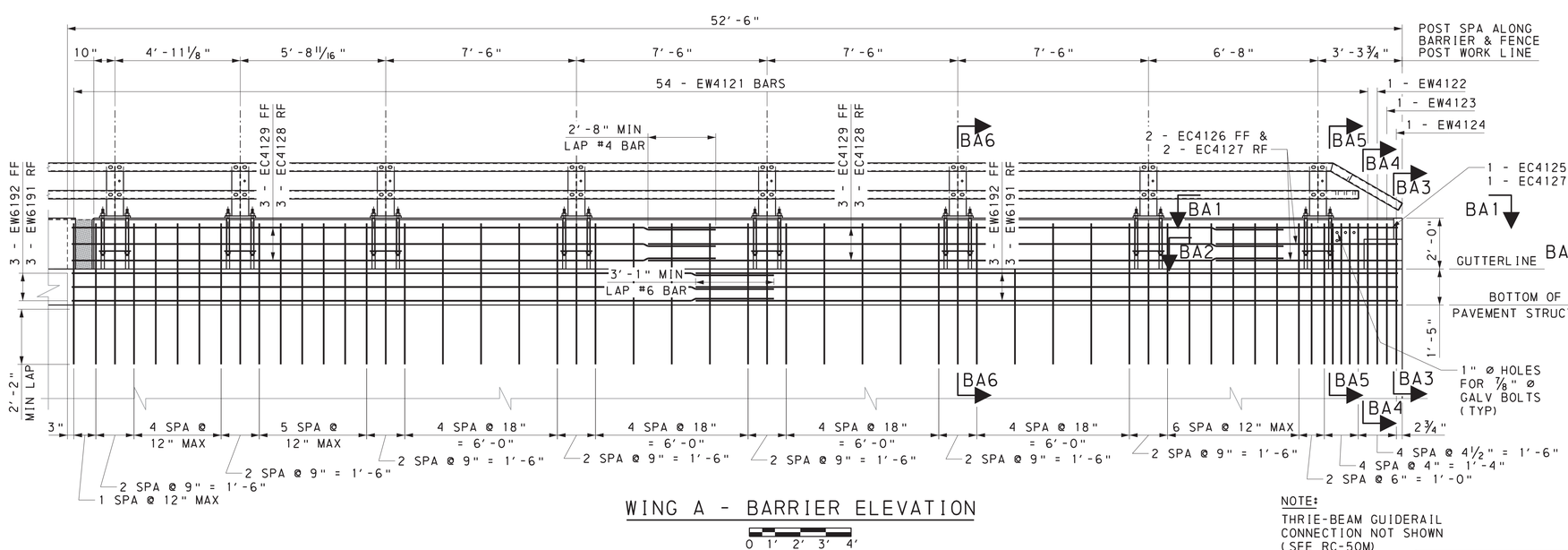



## WING A - BARRIER PLAN

0 1' 2' 3' 4'




## WING A - BARRIER ELEVATION

0 1' 2' 3' 4'

NOTE:
THRIE-BEAM GUIDERAIL CONNECTION NOT SHOWN (SEE RC-50M)

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| E | EPOXY COATED BARS |
| Ⓡ | ROADWAY ITEM |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS SHEET WITH SHEETS | 13-30 |
| 3. SECTIONS BA1-BA1 THRU BA6-BA6 | 32 |
| 4. ABUTMENT 1 REINF BAR SCHEDULE 6 | 41 |
| 5. BARRIER AND FENCE POST LAYOUT 1 | 87 |
| 6. BARRIER DEFLECTION JOINTS 1 | 89 |

| Mark | Description | By | Chk'd. | Recm'd. | Date |
|---|---|---|---|---|---|
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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## WING A BARRIER DETAILS 1

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RECOMMENDED _____

SHEET 31 OF 130

S - 39414

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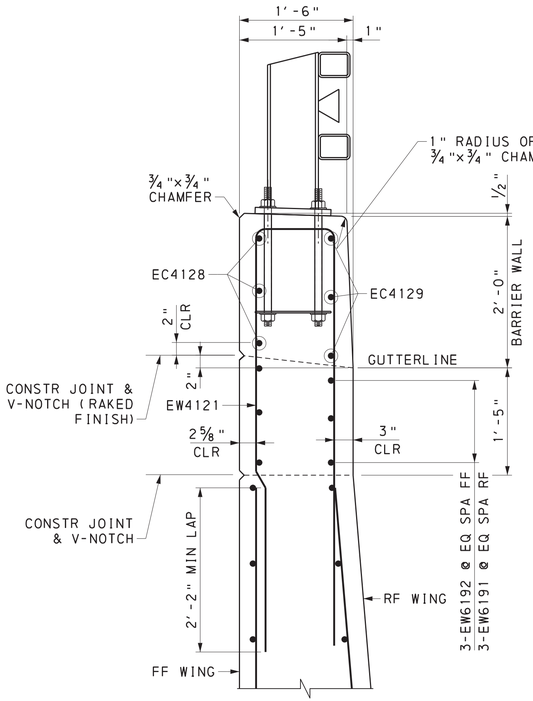
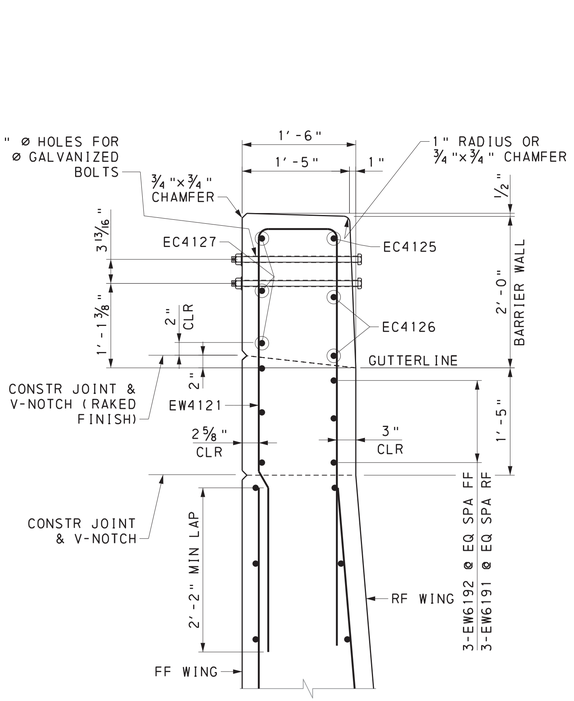


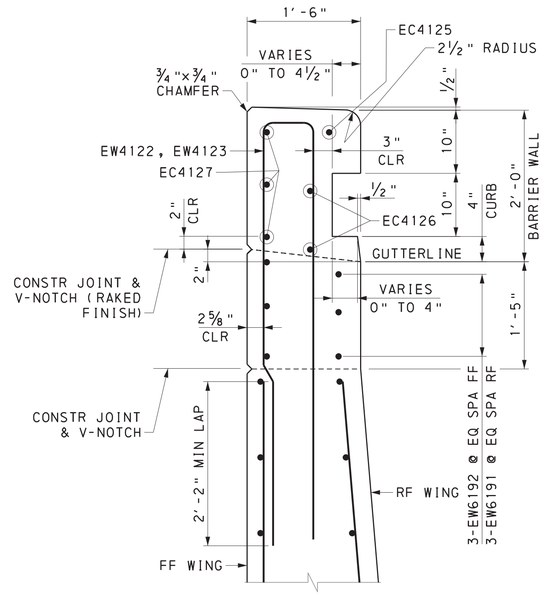

SECTION BA6-BA6

0 3 6 9 1' 2'



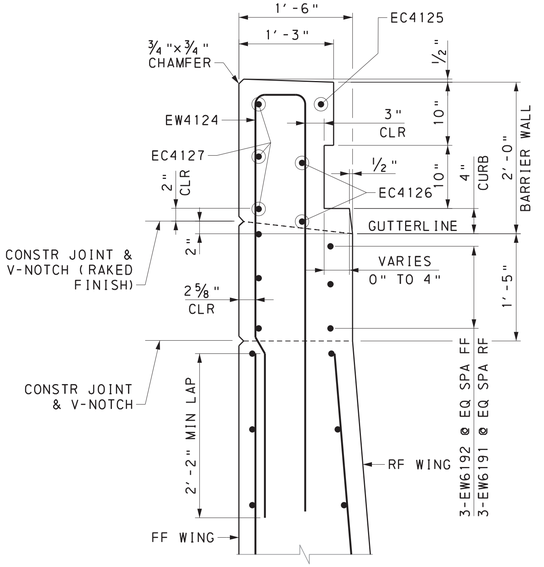

SECTION BA5-BA5

0 3 6 9 1' 2'



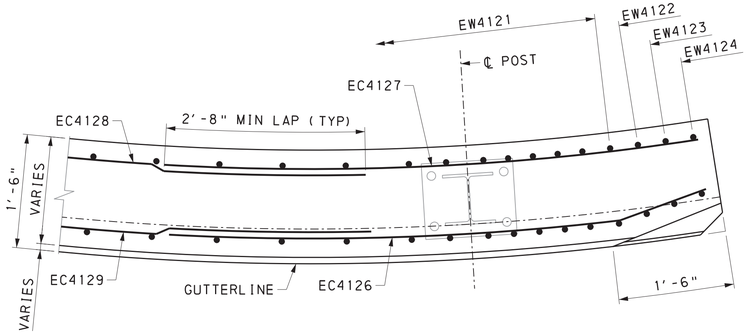

SECTION BA4-BA4

0 3 6 9 1' 2'



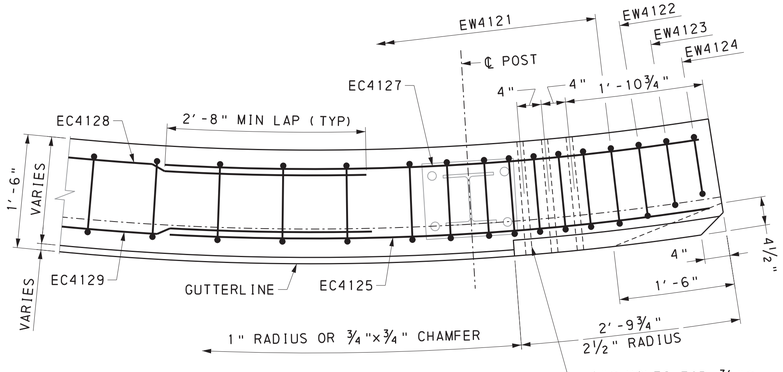

SECTION BA3-BA3

0 3 6 9 1' 2'




SECTION BA2-BA2

0 3 6 9 1' 2'




SECTION BA1-BA1

0 3 6 9 1' 2'

## REFERENCES:

| | |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS SHEET WITH SHEETS | 13-30 |
| 3. SECTION CUT LOCATIONS BA1-BA1 THRU BA6-BA6 | 31 |
| 4. ABUTMENT 1 REINF BAR SCHEDULE 6 | 41 |
| 5. BARRIER AND FENCE POST LAYOUT 1 | 87 |
| 6. BARRIER DEFLECTION JOINTS 1 | 89 |

SHEET:

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| E | EPOXY COATED BARS |

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## WING A BARRIER DETAILS 2

RECOMMENDED _____

SHEET 32 OF 130

S - 39414

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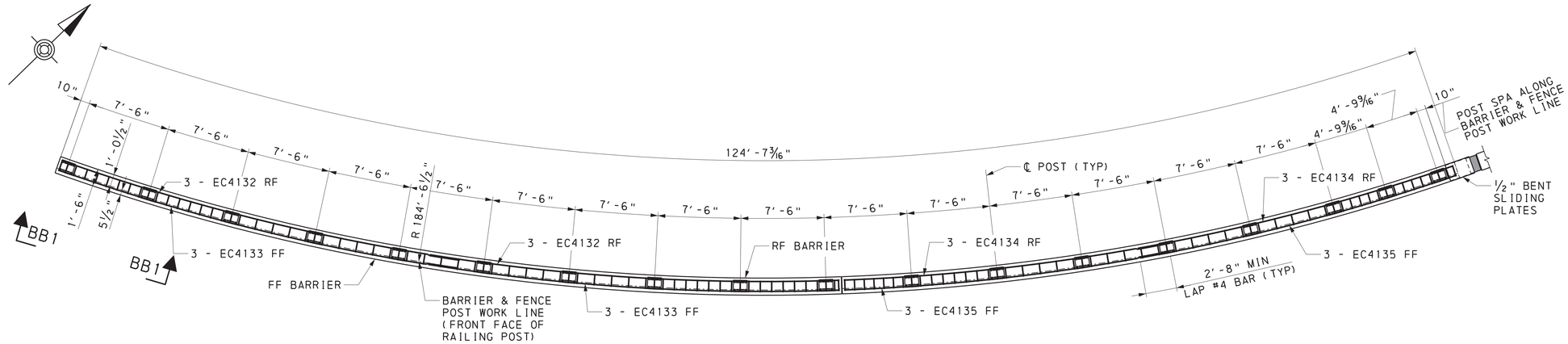
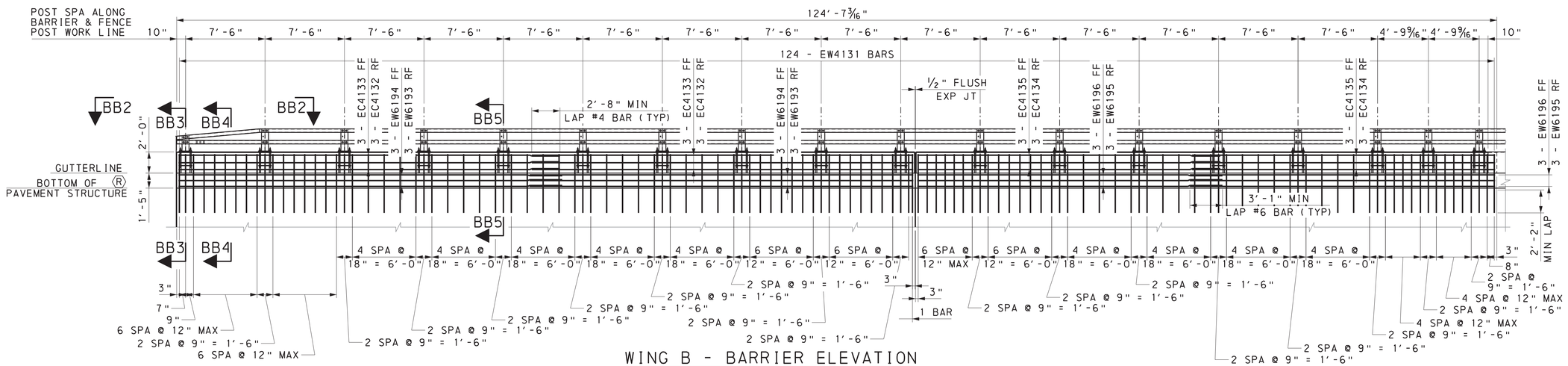



## WING B - BARRIER PLAN

0 5' 10'




## WING B - BARRIER ELEVATION

0 5' 10'

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| E | EPOXY COATED BARS |
| Ⓡ | ROADWAY ITEM |

## REFERENCES:

| | |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS SHEET WITH SHEETS | 13-30 |
| 3. SECTIONS BB1-BB1 THRU BB5-BB5 | 34 |
| 4. ABUTMENT 1 REINF BAR SCHEDULE 6 | 41 |
| 5. BARRIER AND FENCE POST LAYOUT 1 | 87 |
| 6. BARRIER DEFLECTION JOINTS 1 | 89 |

SHEET:

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
WING B BARRIER DETAILS 1

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER PE062832

RECOMMENDED _____

SHEET 33 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: LTS | CKD: JMF

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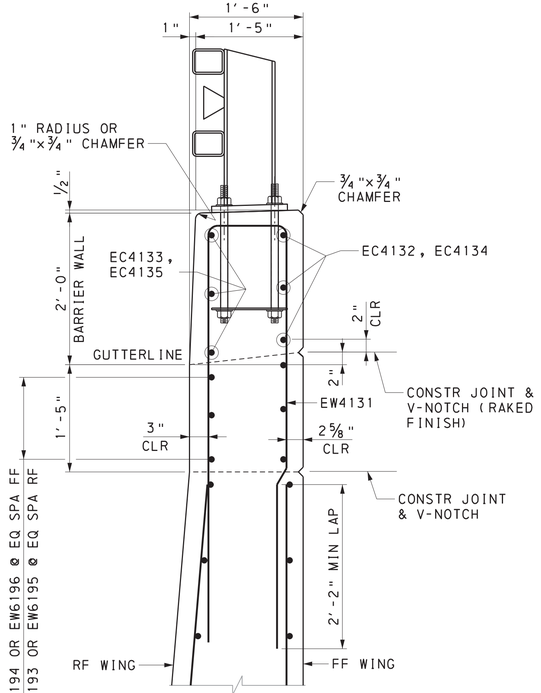


SECTION BB5-BB5

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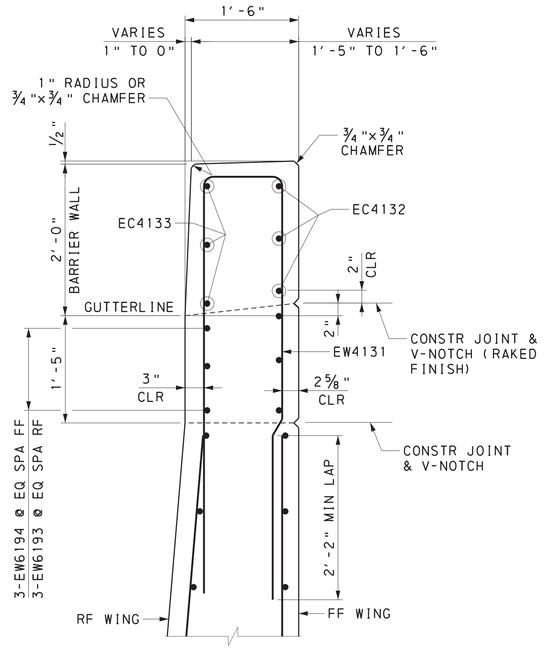
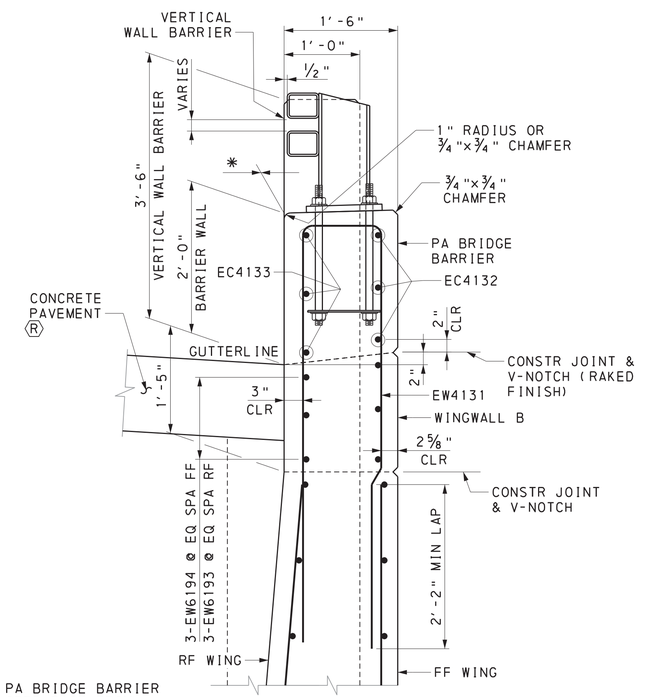



SECTION BB4-BB4

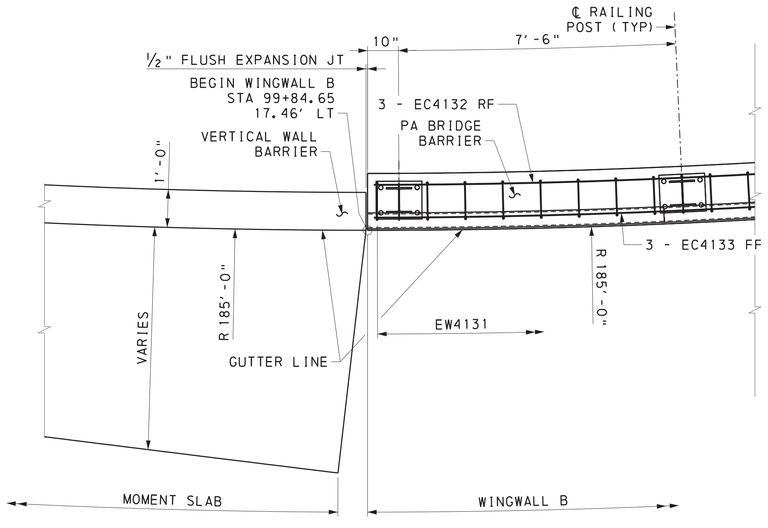
0 3 6 9 1′ 2′




* TRANSITION PA BRIDGE BARRIER CONCRETE SLOPED FACE FROM 1" TO 0" OVER THE LENGTH SHOWN ON THE ELEVATION VIEW

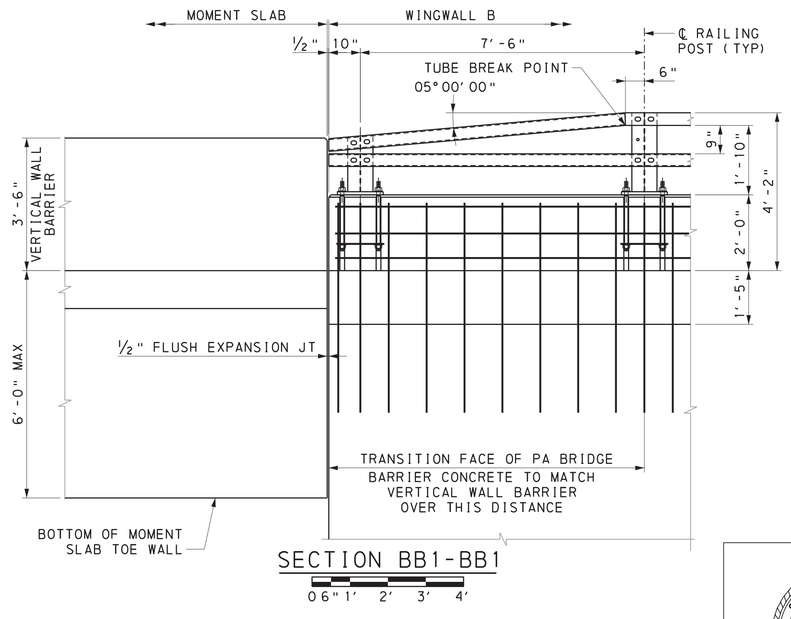
SECTION BB3-BB3

0 3 6 9 1′ 2′




SECTION BB2-BB2

0 6" 1′ 2′ 3′ 4′




SECTION BB1-BB1

0 6" 1′ 2′ 3′ 4′

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| E | EPOXY COATED BARS |
| (R) | ROADWAY ITEM |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS SHEET WITH SHEETS | 13-30 |
| 3. SECTION CUT LOCATIONS BB1-BB1 THRU BB5-BB5 | 33 |
| 4. ABUTMENT 1 REINF BAR SCHEDULE 6 | 41 |
| 5. BARRIER AND FENCE POST LAYOUT 1 | 87 |
| 6. BARRIER DEFLECTION JOINTS 1 | 89 |
| 7. MOMENT SLAB DETAILS 4 | 118 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## WING B BARRIER DETAILS 2

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 34 OF 130

S - 39414

| DES: JMF | CKD: LTS | DWG: LTS | CKD: JMF |
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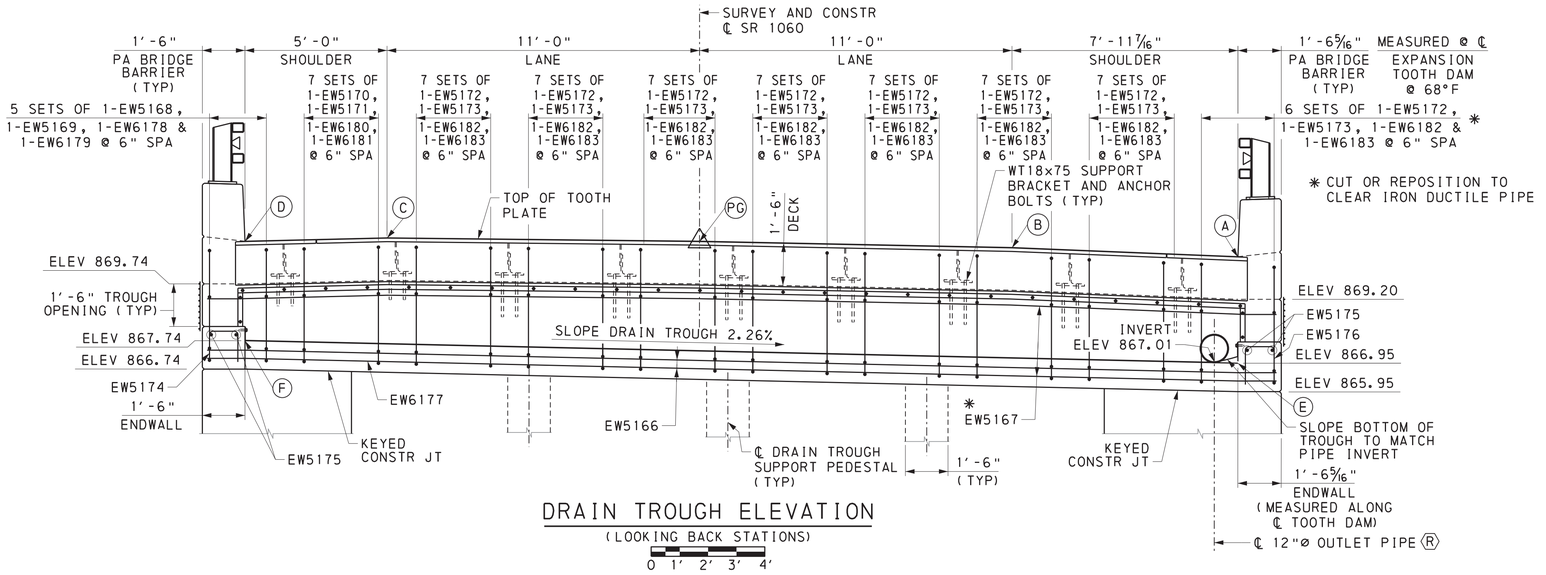
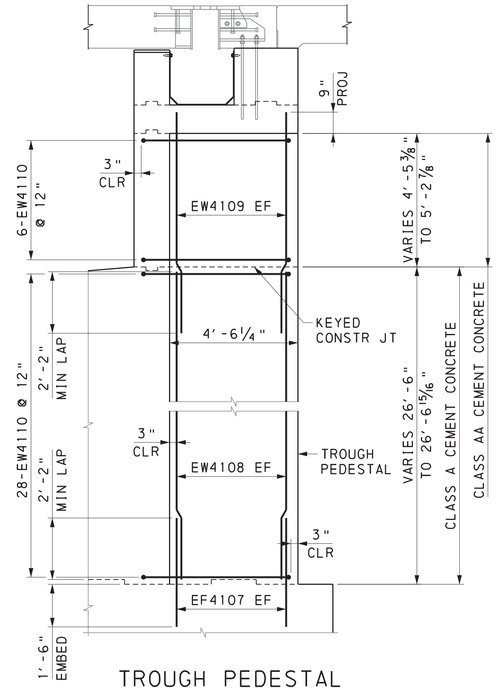



## DRAIN TROUGH ELEVATION

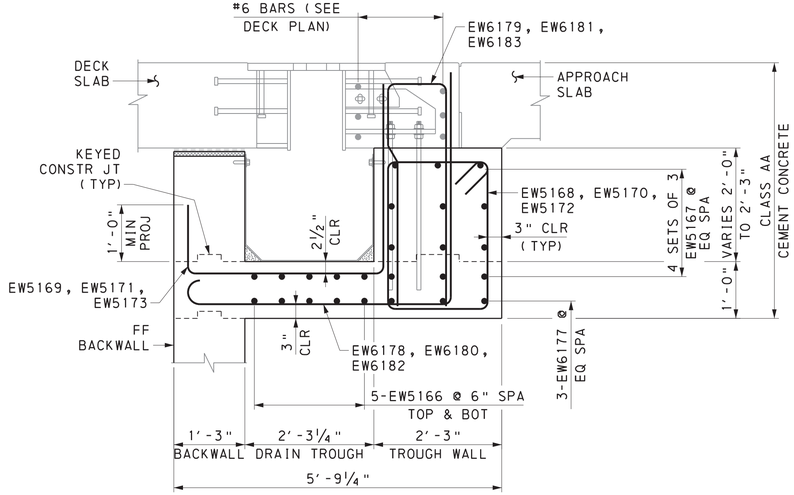
(LOOKING BACK STATIONS)

0 1′ 2′ 3′ 4′




## TROUGH PEDESTAL REINFORCEMENT DETAIL

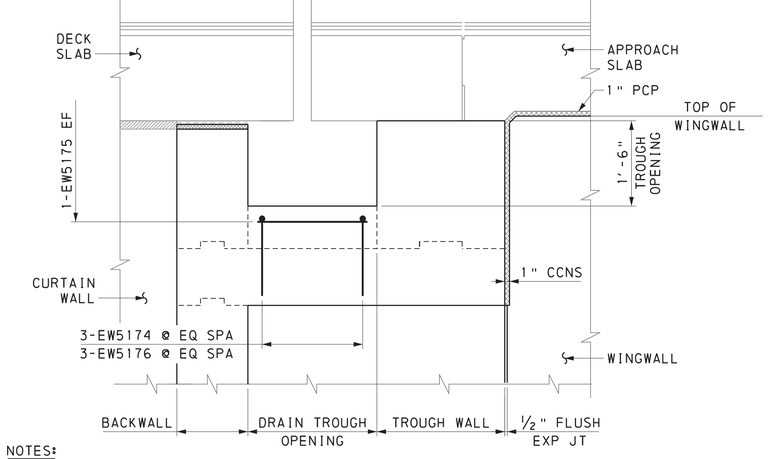
0 1′ 2′ 3′ 4′




NOTES:
BACKWALL REINFORCEMENT NOT SHOWN.
TROUGH PEDESTAL NOT SHOWN.

## DRAIN TROUGH REINFORCEMENT DETAIL

0 6 1′ 2′




NOTES:
HEAVY WELDED GALVANIZED STEEL GRATE NOT SHOWN. (SEE ABUT 1 TOOTH DAM DETAILS)

ABUTMENT & DRAIN TROUGH REINFORCEMENT NOT SHOWN.

## DRAIN TROUGH ENDWALL DETAIL

0 6 1′ 2′

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| Ⓡ | ROADWAY ITEM |
| PCP | PREFORMED CELLULAR POLYSTYRENE |
| CCNS | CLOSED CELL NEOPRENE SPONGE |

## REFERENCES:

| | |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 13-34, 42 & 43 |
| 3. ABUTMENT 1 REINF BAR SCHEDULE | 36-41 |

## NOTE:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.

## ELEVATIONS AT CENTERLINE OF TOOTH DAM

| | Ⓐ | Ⓑ | Ⓟ | Ⓒ | Ⓓ | Ⓔ | Ⓕ |
|---|---|---|---|---|---|---|---|
| STATION | 101+65.49 | 101+65.49 | 101+65.49 | 101+65.49 | 101+65.49 | 101+65.49 | 101+65.49 |
| ELEVATION | 870.70 | 871.02 | 871.24 | 871.36 | 871.24 | 866.95 | 867.74 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER ABUTMENT 1 DRAIN TROUGH DETAILS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 35 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: EEM | CKD: JMF

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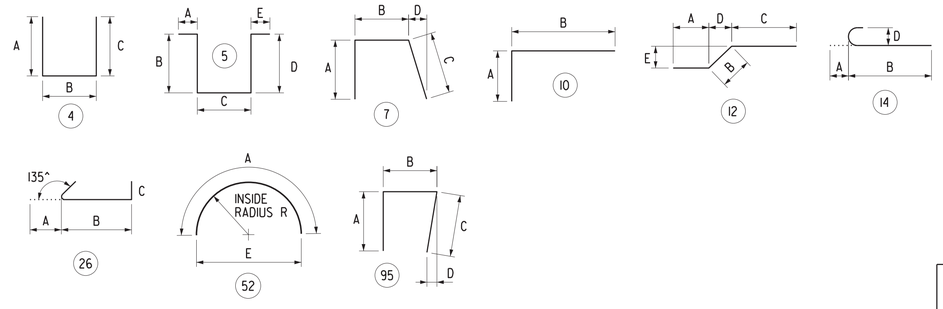
# ABUTMENT 1 REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EW3101 | 3 | 18 | 6′-6" | 4 | 2′-11" | 8" | 2′-11" | | | | |
| EW3102 | 3 | 9 | 7′-5" | 95 | 3′-0" | 1′-4 ½" | 3′-0 ½" | 5 ¾" | | | |
| EW3103 | 3 | 9 | 6′-8" | 7 | 3′-0" | 8" | 3′-0" | 5 ¾" | | | |
| | | | | | | | | | | | |
| EW4101 | 4 | 11 | 37′-3" | STR | | | | | | | |
| EW4102 | 4 | 11 | 37′-5" | STR | | | | | | | |
| EW4103 | 4 | 7 | 6′-0" TO 6′-6" | 4 | 2′-7" TO 2′-10" | 10" | 2′-7" TO 2′-10" | | | | VARY EA A & C BY ½" |
| EW4104 | 4 | 32 | 6′-6" | 4 | 2′-10" | 10" | 2′-10" | | | | |
| EW4105 | 4 | 10 | 9′-6" | STR | | | | | | | |
| EW4106 | 4 | 10 | 9′-0" | STR | | | | | | | |
| EF4107 | 4 | 30 | 4′-0" | STR | | | | | | | |
| EW4108 | 4 | 30 | 26′-1" | STR | | | | | | | |
| EW4109 | 4 | 30 | 8′-0" | STR | | | | | | | |
| EW4110 | 4 | 102 | 13′-10" | 5 | 1′-0" | 5′-4" | 1′-2" | 5′-4" | 1′-0" | | |
| EW4111 | 4 | 215 | 5′-4" | 7 | 2′-2" | 1′-0" | 2′-2" | 2 ¼" | | | |
| EW4112 | 4 | 136 | 3′-6" | STR | | | | | | | WEEP HOLES |
| EF4113 | 4 | 277 | 5′-3" | 26 | 4 ½" | 4′-6" | 4 ½" | | | | FOOTING STIRRUPS |
| EF4114 | 4 | 122 | 4′-3" | 26 | 4 ½" | 3′-6" | 4 ½" | | | | FOOTING STIRRUPS |
| EF4115 | 4 | 131 | 3′-3" | 26 | 4 ½" | 2′-6" | 4 ½" | | | | FOOTING STIRRUPS |
| | | | | | | | | | | | |
| EF5101 | 5 | 24 | 10′-9" TO 14′-7" | 52 | 10′-9" TO 14′-7" | | | | 10′-8" TO 14′-6" | 30′-10" TO 41′-8" | 2 SETS OF 12: VARY EA A BY 4 3/16", VARY EA E BY 4 3/16"- AND VARY EA R BY 11 13/16"+ |
| EF5102 | 5 | 24 | 14′-5" TO 19′-7" | 52 | 14′-5" TO 19′-7" | | | | 14′-3" TO 19′-5" | 30′-10" TO 41′-8" | 2 SETS OF 12: VARY EA A BY 5 5/8"+, VARY EA E BY 5 5/8"+ AND VARY EA R BY 11 13/16"+ |
| EF5103 | 5 | 2 | 10′-9" | 52 | 10′-9" | | | | 10′-8" | 30′-10" | |
| EF5104 | 5 | 2 | 14′-7" | 52 | 14′-7" | | | | 14′-6" | 41′-8" | |
| EF5105 | 5 | 2 | 14′-5" | 52 | 14′-5" | | | | 14′-3" | 30′-10" | |
| EF5106 | 5 | 2 | 19′-7" | 52 | 19′-7" | | | | 19′-5" | 41′-8" | |
| EF5107 | 5 | 4 | 11′-2" | STR | | | | | | | |
| EF5108 | 5 | 24 | 12′-0" TO 12′-9" | 52 | 12′-0" TO 12′-9" | | | | 12′-0" TO 12′-9" | 180′-10" TO 191′-8" | 2 SETS OF 12: VARY EA A BY 1 3/16"+, VARY EA E BY 1 3/16"+ AND VARY EA R BY 11 13/16+ |
| EF5109 | 5 | 4 | 12′-0" | 52 | 12′-0" | | | | 12′-0" | 180′-10" | 2 SETS OF 2 |
| EF5110 | 5 | 4 | 12′-9" | 52 | 12′-9" | | | | 12′-9" | 191′-8" | 2 SETS OF 2 |
| EF5111 | 5 | 36 | 11′-6" TO 12′-0" | 52 | 11′-6" TO 12′-0" | | | | 11′-6" TO 12′-0" | 180′-10" TO 188′-2" | 4 SETS OF 9: VARY EA A BY ¾", VARY EA E BY ¾" AND VARY EA R BY 11" |
| EF5112 | 5 | 146 | 7′-8" | STR | | | | | | | |
| EF5113 | 5 | 4 | 11′-6" | 52 | 11′-6" | | | | 11′-6" | 180′-10" | 2 SETS OF 2 |
| EF5114 | 5 | 4 | 12′-0" | 52 | 12′-0" | | | | 12′-0" | 188′-2" | 2 SETS OF 2 |
| EF5115 | 5 | 18 | 29′-0" TO 29′-5" | 52 | 29′-0" TO 29′-5" | | | | 29′-0" TO 29′-5" | 180′-10" TO 188′-2" | VARY EA A BY 1 1/16"+, VARY EA E BY 1 1/16"+ AND VARY EA R BY 1′-0 9/16"+ |

# ABUTMENT 1 REINFORCEMENT BAR SCHEDULE ( CONT′D)

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EF5116 | 5 | 2 | 29′-0" | 52 | 29′-0" | | | | 29′-0" | 180′-10" | |
| EF5117 | 5 | 2 | 29′-5" | 52 | 29′-5" | | | | 29′-5" | 188′-2" | |
| EF5118 | 5 | 75 | 11′-1" | 12 | 2′-9" | 5′-7" | 2′-9" | 2′-6" | 5′-0" | | |
| EF5119 | 5 | 75 | 10′-0" | 10 | 7′-3" | 2′-9" | | | | | |
| EW5120 | 5 | 39 | 9′-10" | STR | | | | | | | |
| EF5121 | 5 | 112 | 3′-6" | STR | | | | | | | |
| EW5122 | 5 | 3 | 12′-0" TO 12′-4" | STR | | | | | | | VARY EA BY 1" |
| EW5123 | 5 | 3 | 11′-8" TO 11′-10" | STR | | | | | | | VARY EA BY 1" |
| EW5124 | 5 | 6 | 10′-11" TO 11′-8" | STR | | | | | | | VARY EA BY 1 3/16"- |
| EW5125 | 5 | 3 | 5′-8" TO 6′-10" | STR | | | | | | | VARY EA BY 1" |
| EW5126 | 5 | 3 | 5′-4" TO 5′-7" | STR | | | | | | | VARY EA BY 1" |
| EW5127 | 5 | 13 | 3′-10" TO 5′-4" | STR | | | | | | | VARY EA BY 1½" |
| EW5128 | 5 | 3 | 20′-3" TO 20′-5" | STR | | | | | | | VARY EA BY 1" |
| EW5129 | 5 | 3 | 20′-5" TO 20′-7" | STR | | | | | | | VARY EA BY 1" |
| EW5130 | 5 | 6 | 20′-7" TO 21′-0" | STR | | | | | | | VARY EA BY 1" |
| EW5131 | 5 | 3 | 16′-1" TO 16′-3" | STR | | | | | | | VARY EA BY 1" |
| EW5132 | 5 | 3 | 16′-3" TO 16′-5" | STR | | | | | | | VARY EA BY 1" |
| EW5133 | 5 | 6 | 16′-6" TO 16′-11" | STR | | | | | | | VARY EA BY 1" |
| EW5134 | 5 | 3 | 11′-11" TO 12′-1" | STR | | | | | | | VARY EA BY 1" |
| EF5135 | 5 | 5 | 20′-4" TO 20′-6" | 14 | 7" | 19′-9" TO 19′-11" | | | | | VARY EA B BY ½" |
| EW5136 | 5 | 3 | 12′-2" TO 12′-4" | STR | | | | | | | VARY EA BY 1" |
| EF5137 | 5 | 5 | 16′-4" TO 19′-7" | 14 | 7" | 15′-9" TO 19′-0" | | | | | VARY EA BY 9 ¾" |
| EW5138 | 5 | 6 | 12′-5" TO 12′-11" | STR | | | | | | | VARY EA BY 1 3/16"+ |
| EF5139 | 5 | 11 | 15′-10" TO 16′-4" | 14 | 7" | 15′-3" TO 15′-9" | | | | | VARY EA B BY 5/8"- |
| EW5140 | 5 | 3 | 7′-11" TO 8′-1" | STR | | | | | | | VARY EA BY 1" |
| EF5141 | 5 | 4 | 16′-4" TO 16′-6" | 14 | 7" | 15′-9" TO 15′-11" | | | | | VARY EA B BY 5/8"+ |
| EW5142 | 5 | 3 | 8′-2" TO 8′-4" | STR | | | | | | | VARY EA BY 1" |
| EF5143 | 5 | 5 | 12′-4" TO 15′-7" | 14 | 7" | 11′-9" TO 15′-0" | | | | | VARY EA B BY 9 ¾" |
| EW5144 | 5 | 7 | 8′-4" TO 8′-11" | STR | | | | | | | VARY EA BY 1 3/16"- |
| EF5145 | 5 | 12 | 11′-9" TO 12′-4" | 14 | 7" | 11′-2" TO 11′-9" | | | | | VARY EA BY 5/8"+ |
| EW5146 | 5 | 3 | 4′-2" TO 4′-3" | STR | | | | | | | VARY EA BY ½" |
| EF5147 | 5 | 4 | 12′-5" TO 12′-6" | 14 | 7" | 11′-10" TO 11′-11" | | | | | VARY EA BY 5/16"+ |
| EW5148 | 5 | 3 | 4′-4" TO 4′-6" | STR | | | | | | | VARY EA BY 1" |
| EF5149 | 5 | 5 | 8′-4" TO 11′-7" | 14 | 7" | 7′-9" TO 11′-0" | | | | | VARY EA B BY 9 ¾" |
| EW5150 | 5 | 26 | 4′-5" TO 7′-0" | STR | | | | | | | VARY EA BY 1 ¼"- |
| EF5151 | 5 | 50 | 7′-10" TO 10′-5" | 14 | 7" | 7′-3" TO 9′-10" | | | | | VARY EA B BY 5/8"+ |
| EW5152 | 5 | 5 | 9′-8" | 52 | 9′-8" | | | | 9′-7 ½" | 183′-8" | |
| EW5153 | 5 | 5 | 9′-9" | 52 | 9′-9" | | | | 9′-8 ½" | 186′-4 ½" | |
| EW5154 | 5 | 4 | 19′-8" | 52 | 19′-8" | | | | 19′-7 ½" | 183′-8" | |
| EW5155 | 5 | 4 | 19′-11" | 52 | 19′-11" | | | | 19′-10 ½" | 185′-11" | |




## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

| Mark | Description | By | Chk′d. | App′d. | Date |
|---|---|---|---|---|---|
| REVISIONS | | | | | |

| DES: EEM | CKD: JMF | DWG: EEM | CKD: JMF |
|---|---|---|---|

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 1 REINF BAR SCHEDULE 1

RECOMMENDED _____

SHEET 36 OF 130

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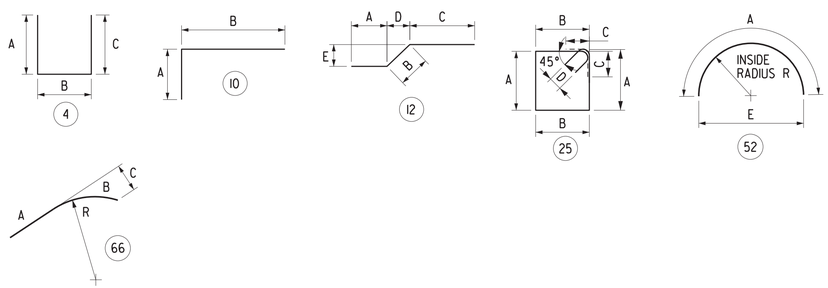
## ABUTMENT 1 REINFORCEMENT BAR SCHEDULE ( CONT' D)

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EW5156 | 5 | 5 | 29' -8" | 52 | 29' -8" | | | | 29' -7 ½" | 183' -8" | |
| EW5157 | 5 | 5 | 30' -0" | 52 | 30' -0" | | | | 29' -11 ½" | 185' -8" | |
| EW5158 | 5 | 5 | 39' -8" | 52 | 39' -8" | | | | 39' -7" | 183' -8" | |
| EW5159 | 5 | 5 | 40' -0" | 52 | 40' -0" | | | | 39' -11 ½" | 185' -4" | |
| EW5160 | 5 | 6 | 56' -9" TO 9' -6" | 52 | 56' -9" TO 9' -6" | | | | 56' -6 ½" TO 9' -6" | 183' -8" | VARY EA A BY 9' -5 ⅜"+, VARY EA E BY 9' -4 ⅞"+ |
| EW5161 | 5 | 6 | 57' -3" TO 9' -6" | 52 | 57' -3" TO 9' -6" | | | | 57' -0 ½" TO 9' -6" | 185' -1" | VARY EA A BY 9' -6 ⅝"-, VARY EA E BY 9' -6 ⅛"- |
| EW5162 | 5 | 1 | 40' -0" | 52 | 40' -0" | | | | 39' -11" | 183' -8" | |
| EW5163 | 5 | 1 | 31' -6" | 52 | 31' -6" | | | | 31' -5" | 183' -8" | |
| EW5164 | 5 | 5 | 40' -0" | 52 | 40' -0" | | | | 39' -11" | 184' -7 ½" | |
| EW5165 | 5 | 1 | 31' -10" | 52 | 31' -10" | | | | 31' -9" | 184' -7 ½" | |
| EW5166 | 5 | 10 | 37' -6" TO 37' -9" | STR | | | | | | | 2 SETS OF 5: VARY EA BY ¾" |
| EW5167 | 5 | 12 | 37' -11" TO 38' -1" | STR | | | | | | | 4 SETS OF 3: VARY EA BY 1" |
| EW5168 | 5 | 5 | 9' -6" | 25 | 2' -6" | 1' -9" | 6" | | | | |
| EW5169 | 5 | 5 | 8' -3" | 4 | 1' -3" | 3' -6" | 3' -6" | | | | |
| EW5170 | 5 | 7 | 9' -8" TO 10' -0" | 25 | 2' -7" TO 2' -9" | 1' -9" | 6" | | | | VARY EA A BY 5/16"+ |
| EW5171 | 5 | 7 | 8' -3" TO 8' -5" | 4 | 1' -3" | 3' -6" | 3' -6" TO 3' -8" | | | | VARY EA A BY 5/16"+ |
| EW5172 | 5 | 55 | 10' -2" | 25 | 2' -10" | 1' -9" | 6" | | | | |
| EW5173 | 5 | 55 | 8' -6" | 4 | 1' -3" | 3' -6" | 3' -9" | | | | |
| EW5174 | 5 | 3 | 3' -6" | 4 | 1' -2" | 1' -2" | 1' -2" | | | | |
| EW5175 | 5 | 4 | 1' -11" | STR | | | | | | | |
| EW5176 | 5 | 3 | 3' -12" | 4 | 1' -5" | 1' -2" | 1' -5" | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EF6101 | 6 | 72 | 11' -2" TO 17' -2" | 52 | 11' -2" TO 17' -2" | | | | 11' -1" TO 17' -1" | 30' -10" TO 46' -11" | 4 SETS OF 18: VARY EA A BY 4 ¼", VARY EA E BY 4 ¼", VARY EA R BY 11⅜" |
| EF6102 | 6 | 99 | 16' -5" | STR | | | | | | | |
| EF6103 | 6 | 6 | 11' -2" | 52 | 11' -2" | | | | 11' -1" | 30' -10" | |
| EF6104 | 6 | 6 | 17' -2" | 52 | 17' -2" | | | | 17' -1" | 46' -11" | |
| EF6105 | 6 | 36 | 12' -9" TO 13' -11" | 52 | 12' -9" TO 13' -11" | | | | 12' -9" TO 13' -11" | 180' -10" TO 196' -11" | 2 SETS OF 18: VARY EA A BY 13/16"+, VARY EA BY 13/16"+, VARY EA R BY 11⅜"- |
| EF6106 | 6 | 3 | 12' -9" | 52 | 12' -9" | | | | 12' -9" | 180' -10" | |
| EF6107 | 6 | 3 | 13' -11" | 52 | 13' -11" | | | | 13' -11" | 196' -11" | |
| EF6108 | 6 | 36 | 12' -0" TO 13' -1" | 52 | 12' -0" TO 13' -1" | | | | 12' -0" TO 13' -1" | 180' -10" TO 196' -11" | 2 SETS OF 18: VARY EA A BY ¾"+, VARY EA BY ¾"+, VARY EA R BY 11⅜"- |
| EF6109 | 6 | 3 | 12' -0" | 52 | 12' -0" | | | | 12' -0" | 180' -10" | |
| EF6110 | 6 | 3 | 13' -1" | 52 | 13' -1" | | | | 13' -1" | 196' -11" | |

## ABUTMENT 1 REINFORCEMENT BAR SCHEDULE ( CONT' D)

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EF6111 | 6 | 72 | 12' -3" | 12 | 3' -3" | 5' -9" | 3' -3" | 2' -6" | 5' -0" | | |
| EF6112 | 6 | 72 | 11' -7" | 10 | 3' -3" | 8' -4" | | | | | |
| EF6113 | 6 | 144 | 3' -6" | STR | | | | | | | |
| EW6114 | 6 | 19 | 34' -7" | STR | | | | | | | |
| EW6115 | 6 | 4 | 29' -1" TO 29' -5" | STR | | | | | | | VARY EA BY 15/16"+ |
| EW6116 | 6 | 3 | 28' -8" TO 28' -10" | STR | | | | | | | VARY EA BY 1" |
| EW6117 | 6 | 5 | 28' -6" TO 28' -8" | STR | | | | | | | VARY EA BY ½" |
| EW6118 | 6 | 4 | 24' -1" TO 24' -6" | STR | | | | | | | VARY EA BY 1 1/16"- |
| EW6119 | 6 | 3 | 23' -6" TO 23' -10" | STR | | | | | | | VARY EA BY 2" |
| EW6120 | 6 | 5 | 23' -0" TO 23' -7" | STR | | | | | | | VARY EA BY 1¾" |
| EW6121 | 6 | 3 | 17' -7" TO 17' -11" | STR | | | | | | | VARY EA BY 2" |
| EW6122 | 6 | 3 | 17' -3" TO 17' -6" | STR | | | | | | | VARY EA BY 1½" |
| EW6123 | 6 | 6 | 16' -5" TO 17' -2" | STR | | | | | | | VARY EA BY 1 3/16"- |
| EW6124 | 6 | 5 | 17' -5" | 66 | 5' -3" | 12' -2" | 2' -2" | | | 33' -8" | |
| EW6125 | 6 | 5 | 18' -10" | 66 | 5' -3" | 13' -7" | 2' -5" | | | 37' -7" | |
| EW6126 | 6 | 4 | 27' -6" | 66 | 5' -3" | 22' -3" | 7' -1" | | | 33' -8" | |
| EW6127 | 6 | 4 | 28' -9" | 66 | 5' -3" | 24' -6" | 7' -10" | | | 37' -1½" | |
| EW6128 | 6 | 5 | 37' -6" | 66 | 5' -3" | 32' -3" | 14' -4" | | | 33' -8" | |
| EW6129 | 6 | 5 | 40' -5" | 66 | 5' -3" | 35' -2" | 15' -7 ½" | | | 36' -8 ½" | |
| EW6130 | 6 | 4 | 47' -7" | 66 | 5' -3" | 42' -4" | 23' -3" | | | 33' -8" | |
| EW6131 | 6 | 4 | 50' -9" | 66 | 5' -3" | 45' -6" | 25' -0" | | | 36' -2" | |
| EW6132 | 6 | 5 | 35' -3" | 66 | 5' -3" | 30' -0" | 12' -6" | | | 33' -8" | |
| EW6133 | 6 | 5 | 25' -8" | 52 | 25' -8" | | | | 25' -0 ½" | 33' -8" | |
| EW6134 | 6 | 5 | 30' -3" | 66 | 5' -3" | 25' -0" | 8' -5" | | | 35' -8 ½" | |
| EW6135 | 6 | 5 | 33' -10" | 52 | 33' -10" | | | | 32' -7" | 35' -8 ½" | |
| EW6136 | 6 | 6 | 14' -1" | 66 | 5' -3" | 8' -10" | 1' -3" | | | 33' -8" | |
| EW6137 | 6 | 5 | 46' -9" | 52 | 46' -9" | | | | 43' -1" | 33' -8" | |
| EW6138 | 6 | 6 | 35' -3" | 66 | 5' -3" | 30' -0" | 12' -0 ½" | | | 35' -2" | |
| EW6139 | 6 | 5 | 44' -9" | 52 | 44' -9" | | | | 41' -9 ½" | 35' -2" | |
| EW6140 | 6 | 1 | 38' -10" | 52 | 38' -10" | | | | 36' -8 ½" | 33' -8" | |
| EW6141 | 6 | 1 | 36' -11" | 52 | 36' -11" | | | | 35' -3" | 35' -2" | |
| EW6142 | 6 | 6 | 17' -3" | 66 | 5' -3" | 12' -0" | 2' -1½" | | | 33' -8" | |
| EW6143 | 6 | 6 | 17' -3" | 66 | 5' -3" | 12' -0" | 2' -0 ½" | | | 34' -7 ½" | |
| EW6144 | 6 | 1 | 17' -7" | 66 | 5' -3" | 12' -4" | 2' -3" | | | 33' -8" | |
| EW6145 | 6 | 1 | 17' -11" | 66 | 5' -3" | 12' -8" | 2' -4" | | | 34' -7 ½" | |
| EW6146 | 6 | 27 | 34' -0" TO 34' -10" | STR | | | | | | | VARY EA BY ⅜"+ |
| EW6147 | 6 | 26 | 34' -10" TO 36' -2" | STR | | | | | | | VARY EA BY ⅝"+ |
| EW6148 | 6 | 4 | 31' -3" TO 31' -5" | STR | | | | | | | VARY EA BY ⅝"+ |
| EW6149 | 6 | 3 | 31' -7" TO 31' -8" | STR | | | | | | | VARY EA BY ½" |
| EW6150 | 6 | 5 | 31' -7" TO 31' -10" | STR | | | | | | | VARY EA BY ¾" |
| EW6151 | 6 | 4 | 27' -11" TO 28' -1" | STR | | | | | | | VARY EA BY ⅝"+ |
| EW6152 | 6 | 3 | 28' -1" TO 28' -2" | STR | | | | | | | VARY EA BY ½" |
| EW6153 | 6 | 5 | 28' -3" TO 28' -6" | STR | | | | | | | VARY EA BY ¾" |
| EW6154 | 6 | 4 | 24' -6" TO 24' -9" | STR | | | | | | | VARY EA BY 1" |
| EW6155 | 6 | 3 | 23' -7" TO 23' -9" | STR | | | | | | | VARY EA BY 1" |
| EW6156 | 6 | 5 | 23' -11" TO 24' -2" | STR | | | | | | | VARY EA BY ¾" |
| EW6157 | 6 | 5 | 50' -3" | 52 | 50' -3" | | | | 50' -1" | 183' -8" | |




## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

| Mark | Description | By | Chk'd. | App'd. | Date |
|---|---|---|---|---|---|
| REVISIONS | | | | | |

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 1 REINF BAR SCHEDULE 2

RECOMMENDED _____

SHEET 37 OF 130

S - 39414

| DES: EEM | CKD: JMF | DWG: EEM | CKD: JMF |
|---|---|---|---|

5/25/2023 12:38:04 PM
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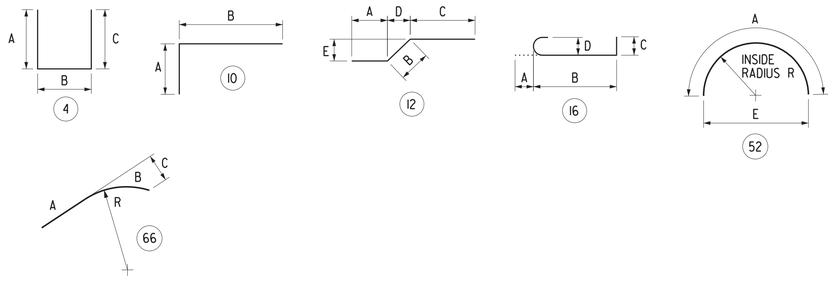
## ABUTMENT 1 REINFORCEMENT BAR SCHEDULE ( CONT' D)

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EW6158 | 6 | 5 | 52' -2" | 52 | 52' -2" | | | | 52' -0" | 187' -8" | |
| EW6159 | 6 | 30 | 50' -0" | 52 | 50' -0" | | | | 49' -10 ¼" | 183' -8" | |
| EW6160 | 6 | 4 | 13' -6" | 52 | 13' -6" | | | | 13' -6" | 183' -8" | |
| EW6161 | 6 | 4 | 50' -0" | 52 | 50' -0" | | | | 49' -10 ¼" | 187' -7" | |
| EW6162 | 6 | 4 | 15' -7" | 52 | 15' -7" | | | | 15' -7" | 187' -7" | |
| EW6163 | 6 | 5 | 23' -6" | 52 | 23' -6" | | | | 23' -6" | 183' -8" | |
| EW6164 | 6 | 5 | 50' -0" | 52 | 50' -0" | | | | 49' -10 ¼" | 187' -3" | |
| EW6165 | 6 | 5 | 25' -7" | 52 | 25' -7" | | | | 25' -7" | 187' -3" | |
| EW6166 | 6 | 21 | 33' -6" | 52 | 33' -6" | | | | 32' -5 ¾" | 183' -8" | |
| EW6167 | 6 | 21 | 50' -0" | 52 | 50' -0" | | | | 49' -10 ¼" | 184' -7 ¾" | |
| EW6168 | 6 | 21 | 34' -2" TO 35' -7" | 52 | 34' -2" TO 35' -7" | | | | 34' -1 ½" TO 35' -6 ½" | 184' -7 ¾" TO 186' -10" | VARY EA BY ⅞"- , VARY EA E BY ⅞"- , VARY EA R BY 1 5/16" |
| EW6169 | 6 | 6 | 10' -1" TO 43' -9" | 52 | 10' -1" TO 43' -9" | | | | 10' -0 ½" TO 40' -8 ½" | 33' -8" TO 33' -8" | |
| EW6170 | 6 | 6 | 10' -1" TO 45' -3" | 52 | 10' -1" TO 45' -3" | | | | 10' -0 ½" TO 42' -1 ½" | 34' -7 ½" TO 34' -7 ½" | |
| EW6171 | 6 | 3 | 14' -7" TO 54' -0" | 52 | 14' -7" TO 54' -0" | | | | 14' -7" TO 53' -9 ½" | 183' -8" TO 183' -8" | |
| EW6172 | 6 | 3 | 14' -8" TO 54' -4" | 52 | 14' -8" TO 54' -4" | | | | 14' -8" TO 54' -1 ½" | 184' -7 ½" TO 184' -7 ½" | |
| EW6173 | 6 | 1 | 60' -0" | 52 | 60' -0" | | | | 59' -9" | 183' -8" | |
| EW6174 | 6 | 1 | 23' -6" | 52 | 23' -6" | | | | 23' -6" | 183' -8" | |
| EW6175 | 6 | 1 | 60' -0" | 52 | 60' -0" | | | | 59' -9" | 184' -7 ½" | |
| EW6177 | 6 | 3 | 37' -11" TO 38' -1" | STR | | | | | | | VARY EA BY 1" |
| EW6178 | 6 | 5 | 9' -11" | 16 | 8" | 5' -3" | 4' -0" | | | | |
| EW6179 | 6 | 5 | 9' -0" | 4 | 4' -0" | 1' -0" | 4' -0" | | | | |
| EW6180 | 6 | 7 | 9' -12" TO 10' -2" | 16 | 8" | 5' -3" | 4' -1" TO 4' -3" | | | | VARY EA C BY 5/16"+ |
| EW6181 | 6 | 7 | 9' -2" TO 9' -6" | 4 | 4' -1" TO 4' -3" | 1' -0" | 4' -1" TO 4' -3" | | | | VARY A & C BY 5/16"+ |
| EW6182 | 6 | 55 | 10' -3" | 16 | 8" | 5' -3" | 4' -4" | | | | |
| EW6183 | 6 | 55 | 9' -8" | 4 | 4' -4" | 1' -0" | 4' -4" | | | | |
| EW6184 | 6 | 1 | 43' -5" | 52 | 43' -5" | | | | 40' -4 ½" | 33' -8" | |
| EW6185 | 6 | 1 | 44' -7" | 52 | 44' -7" | | | | 41' -7" | 34' -7 ½" | |
| EF7101 | 7 | 2 | 44' -6" | 4 | 1' -2" | 42' -2" | 1' -2" | | | | |
| EF7102 | 7 | 6 | 44' -9" TO 45' -5" | 4 | 1' -2" | 42' -5" TO 43' -1" | 1' -2" | | | | VARY EA B BY 2" |
| EF7103 | 7 | 6 | 45' -8" TO 46' -6" | 4 | 1' -2" | 43' -4" TO 44' -2" | 1' -2" | | | | VARY EA B BY 2" |
| EF7104 | 7 | 6 | 46' -10" TO 47' -9" | 4 | 1' -2" | 44' -6" TO 45' -5" | 1' -2" | | | | VARY EA B BY 2 3/16"+ |
| EF7105 | 7 | 19 | 42' -2" TO 45' -5" | STR | | | | | | | VARY EA BY 2 3/16"- |
| EF7106 | 7 | 1 | 33' -5" | 10 | 1' -2" | 32' -3" | | | | | |
| EF7107 | 7 | 1 | 22' -1" | 10 | 1' -2" | 20' -11" | | | | | |
| EF7108 | 7 | 2 | 48' -3" TO 48' -6" | 4 | 1' -2" | 45' -11" TO 46' -2" | 1' -2" | | | | VARY EA B BY 3" |
| EF7109 | 7 | 3 | 45' -8" TO 46' -2" | STR | | | | | | | VARY EA BY 3" |

## ABUTMENT 1 REINFORCEMENT BAR SCHEDULE ( CONT' D)

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EF7110 | 7 | 4 | 42' -2" | STR | | | | | | | |
| EF7111 | 7 | 4 | 12' -0" | STR | | | | | | | |
| EF7112 | 7 | 4 | 18' -1" | 66 | 4' -0" | 14' -1" | 3' -2" | | | 30' -10" | |
| EF7113 | 7 | 4 | 26' -1" | 66 | 3' -0" | 23' -1" | 4' -9" | | | 50' -2" | |
| EF7114 | 7 | 4 | 18' -10" | STR | | | | | | | |
| EF7115 | 7 | 74 | 22' -0" | 4 | 1' -2" | 19' -8" | 1' -2" | | | | |
| EF7116 | 7 | 4 | 19' -8" | STR | | | | | | | |
| EF7117 | 7 | 40 | 11' -10" TO 19' -3" | 52 | 11' -10" TO 19' -3" | | | | 11' -9" TO 19' -1" | 30' -10" TO 49' -6" | 2 SETS OF 20: VARY EA A BY 4 1/16"- , VARY EA E BY 4 1/16"- , VARY EA R BY 11 3/16"- |
| EF7118 | 7 | 52 | 18' -11" | STR | | | | | | | |
| EF7119 | 7 | 176 | 11' -2" | STR | | | | | | | |
| EF7120 | 7 | 4 | 11' -10" | 52 | 11' -10" | | | | 11' -9" | 30' -10" | |
| EF7121 | 7 | 4 | 19' -3" | 52 | 19' -3" | | | | 19' -1" | 49' -6" | |
| EF7122 | 7 | 7 | 40' -0" | 52 | 40' -0" | | | | 39' -11" | 180' -10" | |
| EF7123 | 7 | 7 | 30' -3" | 52 | 30' -3" | | | | 30' -3" | 180' -10" | |
| EF7124 | 7 | 6 | 53' -0" TO 54' -3" | 52 | 53' -0" TO 54' -3" | | | | 52' -10" TO 54' -1" | 182' -8" TO 187' -0" | VARY EA A BY 3", VARY EA E BY 3", VARY EA R BY 10 3/8"+ |
| EF7125 | 7 | 6 | 54' -8" TO 55' -11" | 52 | 54' -8" TO 55' -11" | | | | 54' -6" TO 55' -9" | 188' -4" TO 192' -8" | VARY EA A BY 3", VARY EA E BY 3", VARY EA R BY 10 3/8"+ |
| EF7126 | 7 | 6 | 56' -4" TO 56' -4" | 52 | 56' -4" TO 56' -4" | | | | 56' -1" TO 57' -4" | 194' -0" TO 198' -4" | VARY EA A BY 3", VARY EA E BY 3", VARY EA R BY 10 3/8"+ |
| EF7127 | 7 | 2 | 57' -11" TO 58' -3" | 52 | 57' -11" TO 58' -3" | | | | 57' -9" TO 58' -1" | 198' -8" TO 200' -2" | VARY EA A BY 4", VARY EA E BY 4", VARY EA R BY 1-6" |
| EF7128 | 7 | 4 | 58' -3" | 52 | 58' -3" | | | | 58' -3" | 200' -2" | |
| EF7129 | 7 | 20 | 52' -6" TO 58' -3" | 52 | 52' -6" TO 58' -3" | | | | 52' -4" TO 58' -1" | 180' -10" TO 200' -2" | VARY EA A BY 3 VARY EA E BY 3 VARY EA R BY 1' -0 3/16"+ |
| EF7130 | 7 | 40 | 12' -9" TO 14' -1" | 52 | 12' -9" TO 14' -1" | | | | 12' -9" TO 14' -1" | 180' -10" TO 199' -5" | 2 SETS OF 20: VARY EA A BY 3/16"+ , VARY EA E BY 3/16"+ , VARY EA R BY 11¾"- |
| EF7131 | 7 | 4 | 12' -9" | 52 | 12' -9" | | | | 12' -9" | 180' -10" | |
| EF7132 | 7 | 4 | 14' -1" | 52 | 14' -1" | | | | 14' -1" | 199' -5" | |
| EF7133 | 7 | 40 | 13' -8" | 12 | 3' -10" | 6' -0" | 3' -10" | 2' -6" | 5' -1" | | |
| EF7134 | 7 | 40 | 13' -2" | 10 | 9' -4" | 3' -10" | | | | | |
| EF7135 | 7 | 76 | 4' -1" | STR | | | | | | | |
| EW7136 | 7 | 38 | 26' -1" | STR | | | | | | | |




## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

| Mark | Description | By | Chk'd. | App'd. | Date |
|---|---|---|---|---|---|
| REVISIONS | | | | | |

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 1 REINF BAR SCHEDULE 3

RECOMMENDED _____

SHEET 38 OF 130

S - 39414

DES: EEM | CKD: JMF | DWG: EEM | CKD: JMF

5/25/2023 12:38:38 PM
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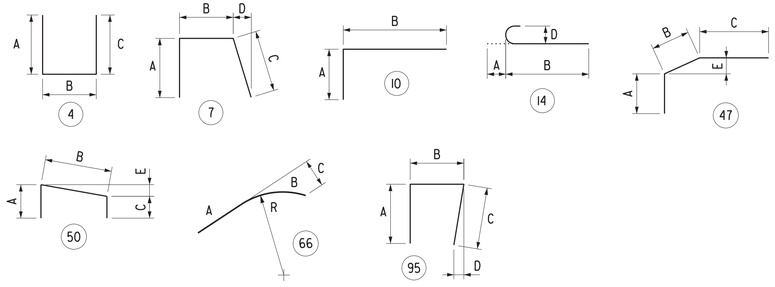
## ABUTMENT 1 REINFORCEMENT BAR SCHEDULE ( CONT' D)

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EW7137 | 7 | 28 | 36' - 8" | STR | | | | | | | |
| EW7138 | 7 | 28 | 37' - 4" | STR | | | | | | | |
| EW7139 | 7 | 28 | 11' - 10" | 4 | 3' - 10" | 4' - 2" | 3' - 10" | | | | |
| EW7140 | 7 | 28 | 11' - 3" | 50 | 3' - 10" | 4' - 3" | 3' - 10" | | | | |
| EW7141 | 7 | 28 | 19' - 6" | 4 | 7' - 4" | 4' - 10" | 7' - 4" | | | | |
| EW7142 | 7 | 28 | 21' - 2" | 95 | 7' - 4" | 6' - 5" | 7' - 5" | 1' - 4" | | | |
| EW7143 | 7 | 38 | 8' - 1" | 47 | 3' - 10" | 3' - 3" | 1' - 0" | | 3" | | |
| EW7144 | 7 | 4 | 36' - 8" TO 37' - 4" | STR | | | | | | | VARY EA BY 2 1/16"- |
| EW7145 | 7 | 12 | 14' - 3" | 4 | 4' - 8" | 4' - 11" | 4' - 8" | | | | |
| EW7146 | 7 | 5 | 14' - 10" | 7 | 4' - 8" | 5' - 6" | 4' - 8" | 10" | | | |
| EW7147 | 7 | 5 | 15' - 10" | 95 | 4' - 8" | 6' - 6" | 4' - 8" | 10" | | | |
| EW7148 | 7 | 8 | 26' - 2" | STR | | | | | | | |
| EW7149 | 7 | 14 | 32' - 6" | STR | | | | | | | |
| EW7150 | 7 | 16 | 31' - 6" | STR | | | | | | | |
| EF7151 | 7 | 5 | 20' - 8" TO 20' - 12" | 14 | 10" | 19' - 10" TO 20' - 2" | | | | | VARY EA B BY 1" |
| EF7152 | 7 | 5 | 15' - 11" TO 19' - 9" | 14 | 10" | 15' - 1" TO 18' - 11" | | | | | VARY EA B BY 11 1/2" |
| EF7153 | 7 | 11 | 14' - 7" TO 15' - 3" | 14 | 10" | 13' - 9" TO 14' - 5" | | | | | VARY EA B BY 13/16"- |
| EF7154 | 7 | 4 | 14' - 4" TO 14' - 6" | 14 | 10" | 13' - 6" TO 13' - 8" | | | | | VARY EA B BY 1 1/16"- |
| EF7155 | 7 | 5 | 9' - 8" TO 13' - 4" | 14 | 10" | 8' - 10" TO 12' - 6" | | | | | VARY EA B BY 11" |
| EF7156 | 7 | 24 | 7' - 6" TO 8' - 11" | 14 | 10" | 6' - 8" TO 8' - 1" | | | | | VARY EA BY 3/4"- |
| EF7157 | 7 | 3 | 28' - 11" TO 29' - 1" | 14 | 10" | 28' - 1" TO 28' - 3" | | | | | VARY EA B BY 1" |
| EF7158 | 7 | 2 | 20' - 6" | 14 | 10" | 19' - 8" | | | | | |
| EF7159 | 7 | 3 | 16' - 1" TO 19' - 6" | 14 | 10" | 15' - 3" TO 18' - 8" | | | | | VARY EA B BY 1' - 8 1/2" |
| EF7160 | 7 | 2 | 25' - 8" TO 27' - 3" | 14 | 10" | 24' - 10" TO 26' - 5" | | | | | VARY EA B BY 1' - 7" |
| EF7161 | 7 | 6 | 24' - 2" TO 24' - 8" | 14 | 10" | 23' - 4" TO 23' - 10" | | | | | VARY EA B BY 13/16"+ |
| EF7162 | 7 | 5 | 15' - 6" | 14 | 10" | 14' - 8" | | | | | |
| EF7163 | 7 | 3 | 24' - 9" TO 24' - 11" | 14 | 10" | 23' - 11" TO 24' - 1" | | | | | VARY EA B BY 1" |
| EF7164 | 7 | 3 | 16' - 1" TO 19' - 6" | 14 | 10" | 15' - 3" TO 18' - 8" | | | | | VARY EA B BY 1' - 8 1/2" |
| EF7165 | 7 | 2 | 21' - 6" TO 23' - 2" | 14 | 10" | 20' - 8" TO 22' - 4" | | | | | VARY EA B BY 1' - 8" |
| EF7166 | 7 | 6 | 20' - 2" TO 20' - 7" | 14 | 10" | 19' - 4" TO 19' - 9" | | | | | VARY EA B BY 1" |
| EF7167 | 7 | 5 | 15' - 6" | 14 | 10" | 14' - 8" | | | | | |
| EF7168 | 7 | 76 | 3' - 0" | STR | | | | | | | HP PILE |

## ABUTMENT 1 REINFORCEMENT BAR SCHEDULE ( CONT' D)

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EF9101 | 9 | 2 | 19' - 7" TO 19' - 10" | 66 | 5' - 6" | 14' - 1" TO 14' - 4" | 3' - 2" TO 3' - 3" | | | 30' - 10" TO 31' - 4" | VARY EA B BY 3", VARY EA C BY 1", VARY EA R BY 5" |
| EF9102 | 9 | 6 | 20' - 6" TO 22' - 2" | 66 | 5' - 6" | 15' - 0" TO 16' - 8" | 3' - 4" TO 3' - 9" | | | 32' - 8" TO 36' - 3" | VARY E AB BY 4", VARY EA C BY 1", VARY EA R BY 8 5/8"- |
| EF9103 | 9 | 24 | 20' - 5" | 10 | 1' - 7" | 18' - 10" | | | | | |
| EF9104 | 9 | 5 | 23' - 1" TO 24' - 5" | 66 | 5' - 6" | 17' - 7" TO 18' - 11" | 4' - 0" TO 4' - 3" | | | 38' - 4" TO 41' - 3" | VARY EA B BY 4", VARY EA C BY 3/4", VARY EA R BY 8 3/4" |
| EF9105 | 9 | 1 | 21' - 7" | 66 | 4' - 7" | 17' - 0" | 3' - 10" | | | 37' - 0" | |
| EF9106 | 9 | 4 | 25' - 9" TO 26' - 9" | 66 | 5' - 6" | 20' - 3" TO 21' - 3" | 4' - 7" TO 4' - 9" | | | 44' - 0" TO 46' - 2" | VARY EA B BY 4", VARY EA C BY 1 1/16", VARY EA R BY 8 1/16" |
| EF9107 | 9 | 2 | 27' - 4" TO 27' - 9" | 66 | 5' - 6" | 21' - 10" TO 22' - 3" | 4' - 11" TO 5' - 0" | | | 47' - 6" TO 48' - 4" | VARY EA B BY 5", VARY EA C BY 1", VARY EA R BY 10" |
| EF9108 | 9 | 2 | 28' - 4" TO 28' - 7" | 66 | 5' - 6" | 22' - 10" TO 23' - 1" | 5' - 2" TO 5' - 3" | | | 49' - 8" TO 50' - 2" | VARY EA B BY 3", VARY EA C BY 1", VARY EA R BY 6" |
| EF9109 | 9 | 1 | 25' - 1" | 66 | 5' - 6" | 19' - 7" | 4' - 5" | | | 42' - 8" | |
| EF9110 | 9 | 27 | 22' - 9" | 10 | 1' - 7" | 21' - 2" | | | | | |
| EF9111 | 9 | 2 | 11' - 1" TO 15' - 8" | STR | | | | | | | VARY EA BY 4' - 7" |
| EF9112 | 9 | 1 | 26' - 10" | 10 | 1' - 7" | 25' - 3" | | | | | |
| | | | | | | | | | | | |
| EF10101 | 10 | 77 | 16' - 5" | STR | | | | | | | |
| EF10102 | 10 | 84 | 26' - 5" | 14 | 1' - 5" | 25' - 0" | | | | | |
| EF10103 | 10 | 77 | 22' - 1" | 14 | 1' - 5" | 20' - 8" | | | | | |
| EW10104 | 10 | 34 | 23' - 0" | STR | | | | | | | |
| EF10105 | 10 | 6 | 27' - 1" | 14 | 1' - 5" | 25' - 8" | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EF10108 | 10 | 21 | 22' - 5" | 14 | 1' - 5" | 21' - 0" | | | | | VARY EA B BY 1 1/4" |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EF10111 | 10 | 13 | 24' - 5" | 14 | 1' - 5" | 23' - 0" | | | | | |
| EF10112 | 10 | 9 | 19' - 8" TO 23' - 2" | 14 | 1' - 5" | 18' - 3" TO 21' - 9" | | | | | 4 SETS OF 3: VARY EA B BY 1' - 9" |
| EF10113 | 10 | 2 | 30' - 6" TO 32' - 4" | 14 | 1' - 5" | 29' - 1" TO 30' - 11" | | | | | VARY EA B BY 11" |
| EF10114 | 10 | 5 | 28' - 3" TO 28' - 9" | 14 | 1' - 5" | 26' - 10" TO 27' - 4" | | | | | VARY EA B BY 1 1/2" |




## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

| Mark | Description | By | Chk'd. | App'd. | Date |
|---|---|---|---|---|---|
| REVISIONS | | | | | |

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 1 REINF BAR SCHEDULE 4

RECOMMENDED _____

SHEET 39 OF 130

S - 39414

| DES: EEM | CKD: JMF | DWG: EEM | CKD: JMF |
|---|---|---|---|

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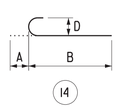
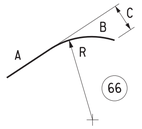
## ABUTMENT 1 REINFORCEMENT BAR SCHEDULE ( CONT' D)

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EF10115 | 10 | 16 | 19' - 1" | 14 | 1' - 5" | 17' - 8" | | | | | |
| EF10116 | 10 | 3 | 27' - 10" TO 28' - 2" | 14 | 1' - 5" | 26' - 5" TO 26' - 9" | | | | | VARY EA B BY 2" |
| | | | | | | | | | | | |
| EF10118 | 10 | 2 | 23' - 1" TO 25' - 11" | 14 | 1' - 5" | 21' - 8" TO 24' - 6" | | | | | VARY EA B BY 2' - 10" |
| EF10119 | 10 | 5 | 21' - 8" TO 22' - 5" | 14 | 1' - 5" | 20' - 3" TO 21' - 0" | | | | | VARY EA B BY 2 ¼" |
| EW10120 | 10 | 59 | 25' - 0" | STR | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EW10126 | 10 | 12 | 25' - 4" | STR | | | | | | | |
| | | | | | | | | | | | |
| EW10128 | 10 | 5 | 21' - 0" | STR | | | | | | | |
| EF10129 | 10 | 5 | 21' - 5" | 14 | 1' - 5" | 20' - 0" | | | | | |
| EF10130 | 10 | 4 | 33' - 9" TO 33' - 12" | 14 | 1' - 5" | 32' - 4" TO 32' - 7" | | | | | VARY EA B BY 1" |
| EF10131 | 10 | 2 | 30' - 7" TO 32' - 2" | 14 | 1' - 5" | 29' - 2" TO 30' - 9" | | | | | VARY E A BY 2' - 7" |
| EF10132 | 10 | 5 | 29' - 2" TO 29' - 5" | 14 | 1' - 5" | 27' - 9" TO 28' - 0" | | | | | VARY EA B BY ¾" |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EF11101 | 11 | 25 | 32' - 10" TO 41' - 11" | 66 | 18' - 10" | 14' - 0" TO 23' - 1" | 3' - 2" TO 5' - 3" | | | 30' - 10" TO 50' - 2" | VARY EA B BY 4 9/16"- , VARY C BY 1 1/16"- , VARY EA R BY 9 1/16"- |
| EF11102 | 11 | 27 | 21' - 2" | STR | | | | | | | |
| EF11103 | 11 | 2 | 11' - 1" TO 15' - 8" | STR | | | | | | | VARY EA BY 4' - 7" |
| EF11104 | 11 | 90 | 19' - 8" | STR | | | | | | | |
| EF11105 | 11 | 34 | 18' - 11" | STR | | | | | | | |
| EF11106 | 11 | 39 | 26' - 7" | 14 | 1' - 7" | 25' - 0" | | | | | |
| EW11107 | 11 | 39 | 22' - 4" | STR | | | | | | | |
| EF11108 | 11 | 38 | 22' - 3" | 14 | 1' - 7" | 20' - 8" | | | | | |
| | | | | | | | | | | | |




## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

| Mark | Description | By | Chk'd. | App'd. | Date |
|---|---|---|---|---|---|
| REVISIONS | | | | | |

| DES: EEM | CKD: JMF | DWG: EEM | CKD: JMF |
|---|---|---|---|

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 1 REINF BAR SCHEDULE 5

RECOMMENDED _____

SHEET 40 OF 130

S - 39414

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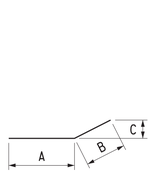
## WINGWALL A BARRIER REINFORCEMENT BAR SCHEDULE

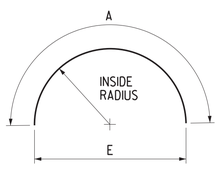
| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EW4121 | 4 | 54 | 12′-3 3/8" | 81 | 5′-6" | 4" | 7 3/8" | 5′-6" | | 2" | VERTICAL REINFORCEMENT |
| EW4122 | 4 | 1 | 12′-1 3/4" | 81 | 5′-6" | 4" | 5 3/4" | 5′-6" | | 2" | VERTICAL REINFORCEMENT |
| EW4123 | 4 | 1 | 12′-0 5/8" | 81 | 5′-6" | 4" | 4 5/8" | 5′-6" | | 2" | VERTICAL REINFORCEMENT |
| EW4124 | 4 | 1 | 11′-11 5/8" | 81 | 5′-6" | 4" | 3 5/8" | 5′-6" | | 2" | VERTICAL REINFORCEMENT |
| EC4125 | 4 | 1 | 7′-2" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| EC4126 | 4 | 2 | 7′-2 1/2" | 11 | 6′-0" | 1′-2 1/2" | 3 1/8" | | | | BEND TO REQUIRED RADIUS IN FIELD |
| EC4127 | 4 | 3 | 7′-1" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| EC4128 | 4 | 6 | 24′-8" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| EC4129 | 4 | 6 | 25′-3 1/2" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EW6191 | 6 | 6 | 27′-1" | 52 | 27′-1" | | | | 26′-4" | 33′-9 1/2" | |
| EW6192 | 6 | 6 | 27′-9" | 52 | 27′-9" | | | | 27′-0" | 34′-8 1/8" | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

## WINGWALL B BARRIER REINFORCEMENT BAR SCHEDULE

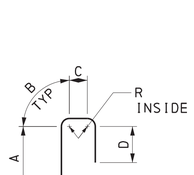
| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EW4131 | 4 | 124 | 12′-3 3/8" | 81 | 5′-6" | 4" | 7 3/8" | 5′-6" | | 2" | VERTICAL REINFORCEMENT |
| EC4132 | 4 | 6 | 35′-11" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| EC4133 | 4 | 6 | 36′-1" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| EC4134 | 4 | 6 | 28′-6" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| EC4135 | 4 | 6 | 28′-8" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EW6193 | 6 | 6 | 36′-1" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| EW6194 | 6 | 6 | 36′-3" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| EW6195 | 6 | 6 | 28′-9" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| EW6196 | 6 | 6 | 29′-10" | STR | | | | | | | BEND TO REQUIRED RADIUS IN FIELD |
| | | | | | | | | | | | |
| | | | | | | | | | | | |



11



52



81

## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

REFERENCES:

1. GENERAL NOTES 1 & 2
2. WORK THIS SHEET WITH SHEETS

SHEET:

4 & 5
31-34

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 1 REINF BAR SCHEDULE 6

RECOMMENDED _____

SHEET 41 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: LTS | CKD: JMF

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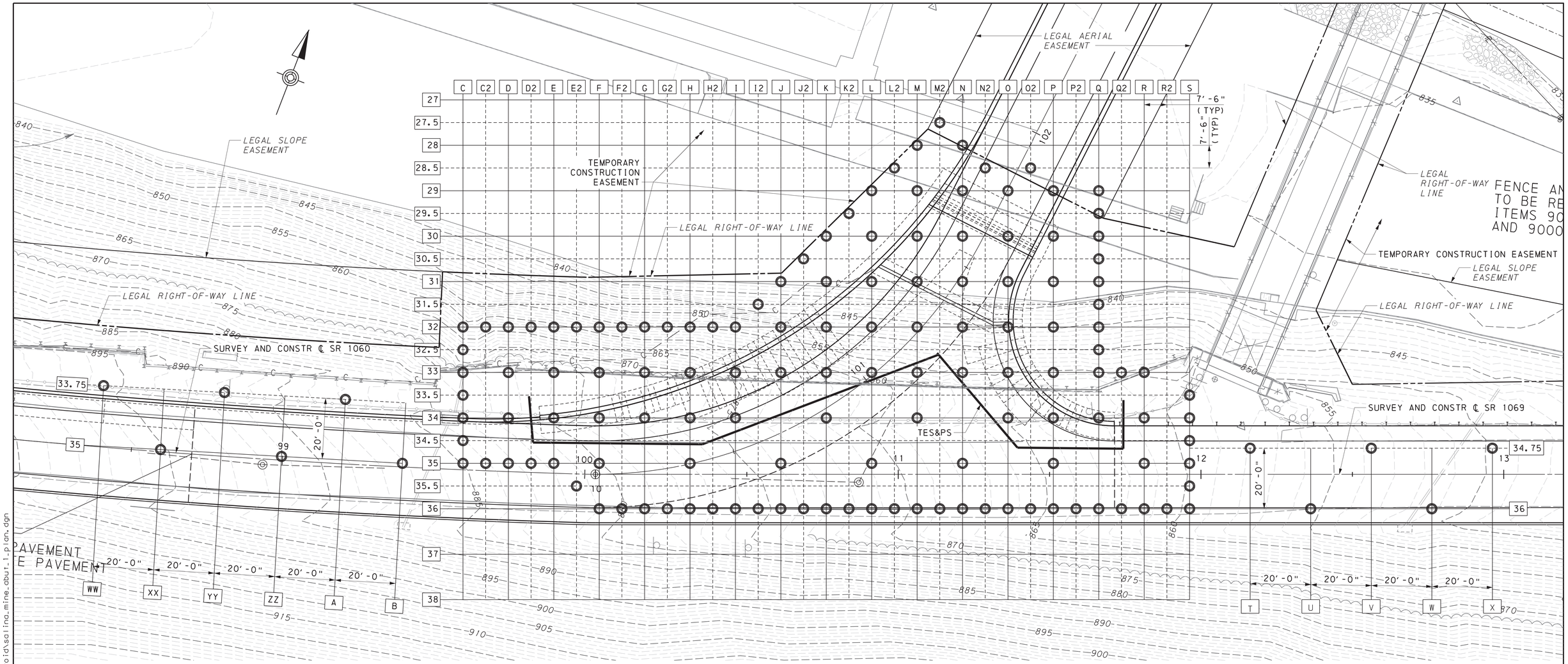


## ABUT 1 INJECTION HOLE PLAN

0 16′ 32′

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 WPMS/ECMS PROJ: 81747 BRKEY: 67409

LEGEND:

INJECTION HOLE

TES&PS TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM

REFERENCES:


| | SHEET: |
|---|---|
| 1. INDEX OF DRAWINGS | 3 |
| 2. GENERAL NOTES 1 & 2 | 4 & 5 |
| 3. ABUTMENT 1 , 2 AND 3 PLAN | 13-15 |
| 4. ABUT 1 PILE AND FOOTING REINF PLAN 1 THRU 6 | 17-22 |


COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 1 MINE INJECTION HOLE PLAN

RECOMMENDED _____

SHEET 42 OF 130

S - 39414

DES: JR | CKD: LT | DWG: JWL | CKD: JWB

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## ABUT 1 INJECTION HOLE TABLE

| HOLE | SURVEY & CONSTR ℄ | STATION | OFFSET (FT) | | NORTHING | EASTING |
|---|---|---|---|---|---|---|
| 27.5M2 | 1069 | 11+13.7 | 116.2 | LT | 438510.8817 | 1483505.4468 |
| 28M | 1069 | 11+06.2 | 108.6 | LT | 438501.1756 | 1483501.1550 |
| 28N | 1069 | 11+21.2 | 108.6 | LT | 438506.5789 | 1483515.1480 |
| 28.5L2 | 1069 | 10+98.7 | 101.2 | LT | 438491.4874 | 1483496.8623 |
| 28.5N2 | 1069 | 11+28.7 | 101.2 | LT | 438502.2920 | 1483524.8431 |
| 28.5O2 | 1069 | 11+43.7 | 101.2 | LT | 438507.6949 | 1483538.8363 |
| 29L | 1069 | 10+91.2 | 93.6 | LT | 438481.7793 | 1483492.5653 |
| 29M | 1069 | 11+06.2 | 93.6 | LT | 438487.1826 | 1483506.5583 |
| 29N | 1069 | 11+21.2 | 93.6 | LT | 438492.5859 | 1483520.5513 |
| 29O | 1069 | 11+36.2 | 93.6 | LT | 438497.9893 | 1483534.5446 |
| 29P | 1069 | 11+51.2 | 93.6 | LT | 438503.3925 | 1483548.5373 |
| 29Q | 1069 | 11+66.2 | 93.6 | LT | 438508.7958 | 1483562.5303 |
| 29.5K2 | 1069 | 10+83.7 | 86.2 | LT | 438472.0881 | 1483488.2678 |
| 29.5Q | 1069 | 11+66.2 | 86.2 | LT | 438501.8063 | 1483565.2293 |
| 30K | 1069 | 10+76.2 | 78.6 | LT | 438462.3832 | 1483483.9762 |
| 30L | 1069 | 10+91.2 | 78.6 | LT | 438467.7863 | 1483497.9686 |
| 30M | 1069 | 11+06.2 | 78.6 | LT | 438473.1896 | 1483511.9616 |
| 30N | 1069 | 11+21.2 | 78.6 | LT | 438478.5929 | 1483525.9546 |
| 30O | 1069 | 11+36.2 | 78.6 | LT | 438483.9962 | 1483539.9476 |
| 30P | 1069 | 11+51.2 | 78.6 | LT | 438489.3995 | 1483553.9406 |
| 30Q | 1069 | 11+66.2 | 78.6 | LT | 438494.8028 | 1483567.9336 |
| 30.5J2 | 1069 | 10+68.7 | 71.2 | LT | 438452.6928 | 1483479.6777 |
| 30.5Q | 1069 | 11+66.2 | 71.2 | LT | 438487.8142 | 1483570.6322 |
| 31J | 1069 | 10+61.2 | 63.6 | LT | 438442.9867 | 1483475.3859 |
| 31K | 1069 | 10+76.2 | 63.6 | LT | 438448.3900 | 1483489.3789 |
| 31L | 1069 | 10+91.2 | 63.6 | LT | 438453.7933 | 1483503.3719 |
| 31M | 1069 | 11+06.2 | 63.6 | LT | 438459.1966 | 1483517.3649 |
| 31N | 1069 | 11+21.2 | 63.6 | LT | 438464.5999 | 1483531.3579 |
| 31O | 1069 | 11+36.2 | 63.6 | LT | 438470.0030 | 1483545.3506 |
| 31P | 1069 | 11+51.2 | 63.6 | LT | 438475.4065 | 1483559.3439 |
| 31Q | 1069 | 11+66.2 | 63.6 | LT | 438480.8098 | 1483573.3369 |
| 31.5I2 | 1069 | 10+53.7 | 56.2 | LT | 438433.2964 | 1483471.0880 |
| 31.5Q | 1069 | 11+66.2 | 56.2 | LT | 438473.8212 | 1483576.0355 |
| 32C | 1060 | 99+57.7 | 47.1 | LT | 438391.1705 | 1483382.8381 |
| 32C2 | 1060 | 99+65.3 | 47.4 | LT | 438393.8722 | 1483389.8346 |
| 32D | 1060 | 99+72.9 | 47.7 | LT | 438396.5738 | 1483396.8311 |
| 32D2 | 1060 | 99+80.5 | 48.0 | LT | 438399.2755 | 1483403.8277 |
| 32E | 1060 | 99+88.1 | 48.3 | LT | 438401.9770 | 1483410.8242 |
| 32E2 | 1060 | 99+95.8 | 48.5 | LT | 438404.6772 | 1483417.8213 |
| 32F | 1069 | 10+01.2 | 48.6 | LT | 438407.3805 | 1483424.8171 |
| 32F2 | 1069 | 10+08.7 | 48.6 | LT | 438410.0821 | 1483431.8136 |
| 32G | 1069 | 10+16.2 | 48.6 | LT | 438412.7837 | 1483438.8101 |
| 32G2 | 1069 | 10+23.7 | 48.6 | LT | 438415.4854 | 1483445.8066 |
| 32H | 1069 | 10+31.2 | 48.6 | LT | 438418.1869 | 1483452.8032 |
| 32H2 | 1069 | 10+38.7 | 48.6 | LT | 438420.8887 | 1483459.7997 |
| 32I | 1069 | 10+46.2 | 48.6 | LT | 438423.5904 | 1483466.7962 |
| 32J | 1069 | 10+61.2 | 48.6 | LT | 438428.9937 | 1483480.7892 |
| 32K | 1069 | 10+76.2 | 48.6 | LT | 438434.3984 | 1483494.7816 |
| 32L | 1069 | 10+91.2 | 48.6 | LT | 438439.8003 | 1483508.7752 |
| 32M | 1069 | 11+06.2 | 48.6 | LT | 438445.2030 | 1483522.7684 |
| 32N | 1069 | 11+21.2 | 48.6 | LT | 438450.6073 | 1483536.7624 |
| 32O | 1069 | 11+36.2 | 48.6 | LT | 438456.0102 | 1483550.7542 |
| 32P | 1069 | 11+51.2 | 48.6 | LT | 438461.4142 | 1483564.7490 |
| 32Q | 1069 | 11+66.2 | 48.6 | LT | 438466.8168 | 1483578.7402 |

## ABUT 1 INJECTION HOLE TABLE (CONT'D)

| HOLE | SURVEY & CONSTR ℄ | STATION | OFFSET (FT) | | NORTHING | EASTING |
|---|---|---|---|---|---|---|
| 32.5C | 1060 | 99+58.0 | 39.6 | LT | 438384.1820 | 1483385.5367 |
| 32.5Q | 1069 | 11+66.2 | 41.2 | LT | 438459.8282 | 1483581.4388 |
| 33C | 1060 | 99+58.3 | 32.1 | LT | 438377.1775 | 1483388.2414 |
| 33D | 1060 | 99+73.5 | 32.7 | LT | 438382.5808 | 1483402.2344 |
| 33E | 1060 | 99+88.6 | 33.3 | LT | 438387.9841 | 1483416.2274 |
| 33F | 1069 | 10+01.2 | 33.6 | LT | 438393.3874 | 1483430.2204 |
| 33G | 1069 | 10+16.2 | 33.6 | LT | 438398.7907 | 1483444.2134 |
| 33H | 1069 | 10+31.2 | 33.6 | LT | 438404.1940 | 1483458.2065 |
| 33I | 1069 | 10+46.2 | 33.6 | LT | 438409.5973 | 1483472.1995 |
| 33J | 1069 | 10+61.2 | 33.6 | LT | 438415.0006 | 1483486.1925 |
| 33K | 1069 | 10+76.2 | 33.6 | LT | 438420.4039 | 1483500.1855 |
| 33L | 1069 | 10+91.2 | 33.6 | LT | 438425.8073 | 1483514.1785 |
| 33M | 1069 | 11+06.2 | 33.6 | LT | 438431.2101 | 1483528.1717 |
| 33N | 1069 | 11+21.2 | 33.6 | LT | 438436.6138 | 1483542.1645 |
| 33O | 1069 | 11+36.2 | 33.6 | LT | 438442.0172 | 1483556.1575 |
| 33P | 1069 | 11+51.2 | 33.6 | LT | 438447.4205 | 1483570.1505 |
| 33Q | 1069 | 11+66.2 | 33.6 | LT | 438452.8238 | 1483584.1436 |
| 33Q2 | 1069 | 11+73.7 | 33.6 | LT | 438455.5254 | 1483591.1400 |
| 33R | 1069 | 11+81.2 | 33.6 | LT | 438458.2271 | 1483598.1366 |
| 33.5C | 1060 | 99+58.7 | 24.6 | LT | 438370.1890 | 1483390.9400 |
| 33.5S | 1069 | 11+96.2 | 26.2 | LT | 438456.6418 | 1483614.8281 |
| 33.75WW | 1060 | 98+39.1 | 20.3 | LT | 438330.3650 | 1483279.0747 |
| 33.75YY | 1060 | 98+79.4 | 21.1 | LT | 438342.6286 | 1483317.1484 |
| 33.75A | 1060 | 99+19.7 | 21.3 | LT | 438354.8921 | 1483355.2220 |
| 34C | 1060 | 99+59.0 | 17.1 | LT | 438363.1845 | 1483393.6447 |
| 34D | 1060 | 99+74.1 | 17.7 | LT | 438368.5878 | 1483407.6377 |
| 34E | 1060 | 99+89.1 | 18.3 | LT | 438373.9911 | 1483421.6307 |
| 34F | 1069 | 10+01.2 | 18.6 | LT | 438379.3944 | 1483435.6238 |
| 34G | 1069 | 10+16.2 | 18.6 | LT | 438384.7977 | 1483449.6168 |
| 34H | 1069 | 10+31.2 | 18.6 | LT | 438390.2010 | 1483463.6098 |
| 34I | 1069 | 10+46.2 | 18.6 | LT | 438395.6043 | 1483477.6028 |
| 34K | 1069 | 10+76.2 | 18.6 | LT | 438406.4109 | 1483505.5888 |
| 34M | 1069 | 11+06.2 | 18.6 | LT | 438417.2175 | 1483533.5748 |
| 34O | 1069 | 11+36.2 | 18.6 | LT | 438428.0243 | 1483561.5608 |
| 34P | 1069 | 11+51.2 | 18.6 | LT | 438433.4274 | 1483575.5538 |
| 34Q | 1069 | 11+66.2 | 18.6 | LT | 438438.8308 | 1483589.5468 |
| 34R | 1069 | 11+81.2 | 18.6 | LT | 438444.2344 | 1483603.5408 |
| 34S | 1069 | 11+96.2 | 18.6 | LT | 438449.6374 | 1483617.5329 |
| 34.5C | 1060 | 99+59.3 | 9.7 | LT | 438356.1959 | 1483396.3433 |
| 34.5S | 1069 | 11+96.2 | 11.2 | LT | 438442.6489 | 1483620.2314 |
| 34.75T | 1069 | 12+16.2 | 8.6 | LT | 438447.5131 | 1483639.7924 |
| 34.75V | 1069 | 12+56.2 | 8.6 | LT | 438461.9219 | 1483677.1071 |
| 34.75X | 1069 | 12+96.2 | 8.6 | LT | 438476.3307 | 1483714.4218 |
| 35XX | 1060 | 98+59.6 | 0.7 | LT | 438317.4599 | 1483304.2433 |
| 35ZZ | 1060 | 98+99.6 | 1.3 | LT | 438329.7235 | 1483342.3170 |
| 35B | 1060 | 99+39.6 | 1.2 | LT | 438341.9871 | 1483380.3907 |
| 35C | 1060 | 99+59.6 | 2.1 | LT | 438349.1915 | 1483399.0480 |
| 35C2 | 1060 | 99+67.1 | 2.5 | LT | 438351.8932 | 1483406.0445 |
| 35D | 1060 | 99+74.6 | 2.8 | LT | 438354.5948 | 1483413.0410 |
| 35D2 | 1060 | 99+82.1 | 3.0 | LT | 438357.2965 | 1483420.0375 |
| 35E | 1060 | 99+89.6 | 3.3 | LT | 438359.9981 | 1483427.0340 |
| 35F | 1069 | 10+01.2 | 3.6 | LT | 438365.4014 | 1483441.0270 |
| 35H | 1069 | 10+31.2 | 3.6 | LT | 438376.2080 | 1483469.0131 |
| 35J | 1069 | 10+61.2 | 3.6 | LT | 438387.0146 | 1483496.9991 |

## ABUT 1 INJECTION HOLE TABLE (CONT'D)

| HOLE | SURVEY & CONSTR ℄ | STATION | OFFSET (FT) | | NORTHING | EASTING |
|---|---|---|---|---|---|---|
| 35L | 1069 | 10+91.2 | 3.6 | LT | 438397.8212 | 1483524.9851 |
| 35N | 1069 | 11+21.2 | 3.6 | LT | 438408.6278 | 1483552.9711 |
| 35P | 1069 | 11+51.2 | 3.6 | LT | 438419.4344 | 1483580.9571 |
| 35R | 1069 | 11+81.2 | 3.6 | LT | 438430.2410 | 1483608.9432 |
| 35S | 1069 | 11+96.2 | 3.6 | LT | 438435.6443 | 1483622.9362 |
| 35.5E2 | 1060 | 99+97.4 | 4.0 | RT | 438355.7112 | 1483436.7291 |
| 35.5S | 1069 | 11+96.2 | 3.8 | RT | 438428.6558 | 1483625.6348 |
| 36F | 1069 | 10+01.2 | 11.4 | RT | 438351.4077 | 1483446.4306 |
| 36F2 | 1069 | 10+08.7 | 11.4 | RT | 438354.1100 | 1483453.4268 |
| 36G | 1069 | 10+16.2 | 11.4 | RT | 438356.8117 | 1483460.4233 |
| 36G2 | 1069 | 10+23.7 | 11.4 | RT | 438359.5134 | 1483467.4199 |
| 36H | 1069 | 10+31.2 | 11.4 | RT | 438362.2151 | 1483474.4166 |
| 36H2 | 1069 | 10+38.7 | 11.4 | RT | 438364.9167 | 1483481.4129 |
| 36I | 1069 | 10+46.2 | 11.4 | RT | 438367.6183 | 1483488.4094 |
| 36I2 | 1069 | 10+53.7 | 11.4 | RT | 438370.3200 | 1483495.4059 |
| 36J | 1069 | 10+61.2 | 11.4 | RT | 438373.0216 | 1483502.4024 |
| 36J2 | 1069 | 10+68.7 | 11.4 | RT | 438375.7233 | 1483509.3989 |
| 36K | 1069 | 10+76.2 | 11.4 | RT | 438378.4246 | 1483516.3955 |
| 36K2 | 1069 | 10+83.7 | 11.4 | RT | 438381.1266 | 1483523.3919 |
| 36L | 1069 | 10+91.2 | 11.4 | RT | 438383.8282 | 1483530.3884 |
| 36L2 | 1069 | 10+98.7 | 11.4 | RT | 438386.5299 | 1483537.3849 |
| 36M | 1069 | 11+06.2 | 11.4 | RT | 438389.2311 | 1483544.3816 |
| 36M2 | 1069 | 11+13.7 | 11.4 | RT | 438391.9332 | 1483551.3779 |
| 36N | 1069 | 11+21.2 | 11.4 | RT | 438394.6348 | 1483558.3744 |
| 36N2 | 1069 | 11+28.7 | 11.4 | RT | 438397.3365 | 1483565.3709 |
| 36O | 1069 | 11+36.2 | 11.4 | RT | 438400.0381 | 1483572.3674 |
| 36O2 | 1069 | 11+43.7 | 11.4 | RT | 438402.7398 | 1483579.3639 |
| 36P | 1069 | 11+51.2 | 11.4 | RT | 438405.4415 | 1483586.3607 |
| 36P2 | 1069 | 11+58.7 | 11.4 | RT | 438408.1431 | 1483593.3569 |
| 36Q | 1069 | 11+66.2 | 11.4 | RT | 438410.8447 | 1483600.3534 |
| 36Q2 | 1069 | 11+73.7 | 11.4 | RT | 438413.5464 | 1483607.3500 |
| 36R | 1069 | 11+81.2 | 11.4 | RT | 438416.2480 | 1483614.3465 |
| 36R2 | 1069 | 11+88.7 | 11.4 | RT | 438418.9497 | 1483621.3430 |
| 36S | 1069 | 11+96.2 | 11.4 | RT | 438421.6511 | 1483628.3396 |
| 36U | 1069 | 12+36.2 | 11.4 | RT | 438436.0601 | 1483665.6542 |
| 36W | 1069 | 12+76.2 | 11.4 | RT | 438450.4689 | 1483702.9689 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 WPMS/ECMS PROJ: 81747 BRKEY: 67409

REFERENCES:

1. SUPPLEMENTAL DRAWINGS
2. INDEX OF DRAWINGS
3. GENERAL NOTES 1 & 2
4. ABUT 1 MINE INJECTION HOLE PLAN

SHEET:

1
3
4 & 5
42

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## ABUT 1 MINE INJECTION HOLE TABLE

RECOMMENDED _____

SHEET 43 OF 130

S - 39414

DES: JR | CKD: LT | DWG: JWL | CKD: JWB

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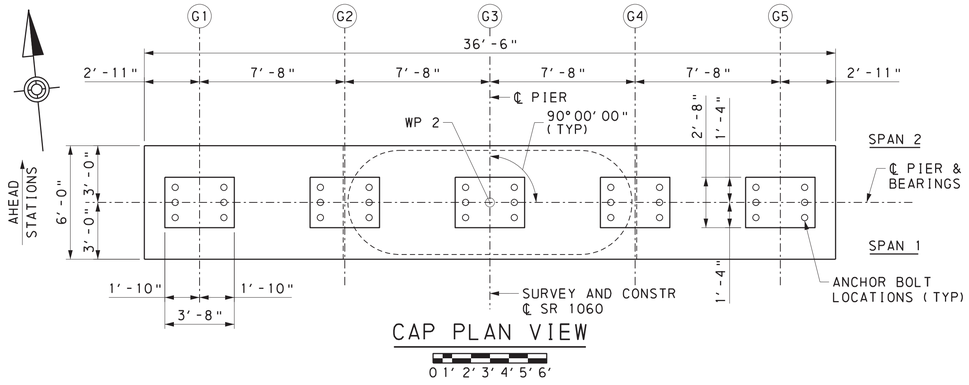
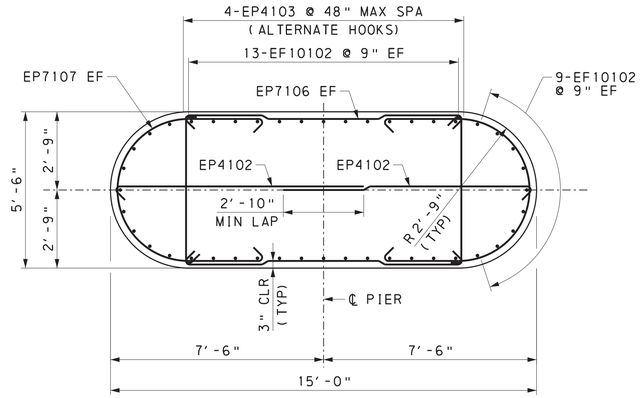


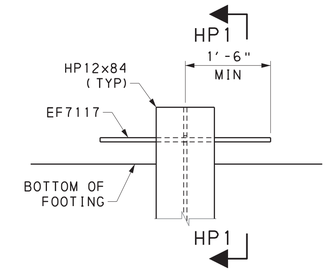

## CAP PLAN VIEW

0 1' 2' 3' 4' 5' 6'



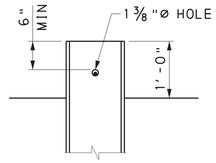

## SECTION P11-P11

0 1' 2' 3' 4'



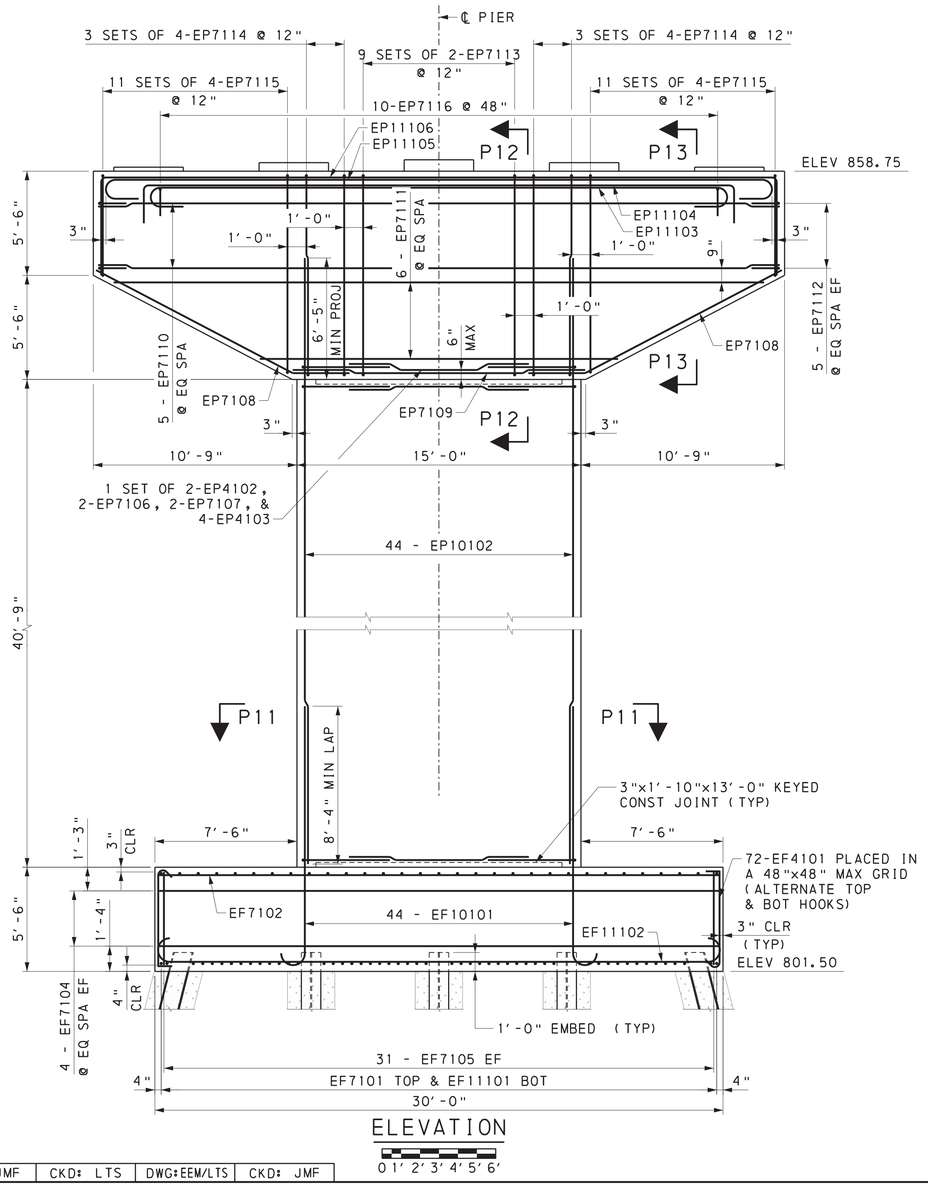

## HP-PILE ANCHORAGE DETAIL

NOT TO SCALE



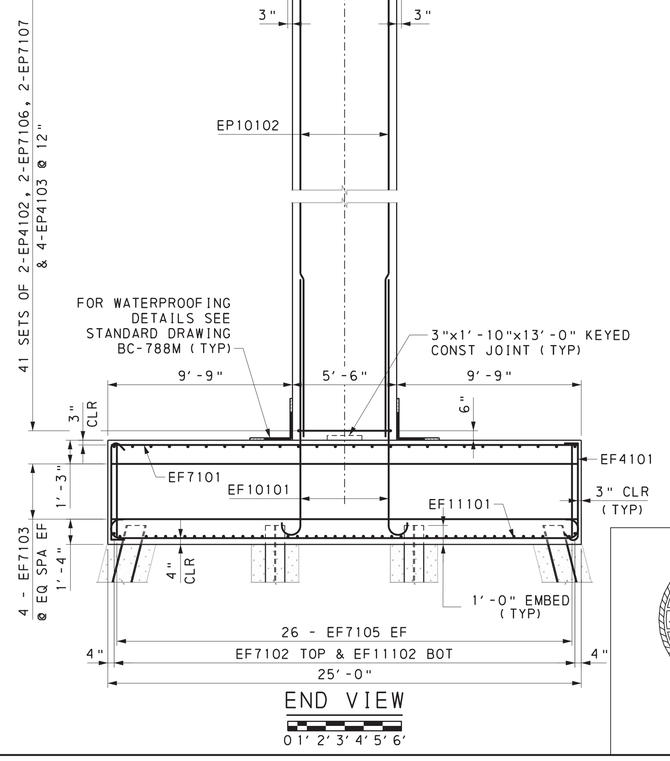

## SECTION HP1-HP1

NOT TO SCALE




## ELEVATION

0 1' 2' 3' 4' 5' 6'




## END VIEW

0 1' 2' 3' 4' 5' 6'

## NOTE:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.

## LEGEND:

EF EACH FACE
E EPOXY COATED BARS
WP WORK POINT

## REFERENCES:


| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. STAKE-OUT PLAN 1 & 2 | 7 & 8 |
| 3. PIER 1 DETAILS | 45 |
| 4. PIER 1 REINFORCEMENT BAR SCHEDULE | 46 |


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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## PIER 1 PLAN AND ELEVATION

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 44 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: EEM/LTS | CKD: JMF

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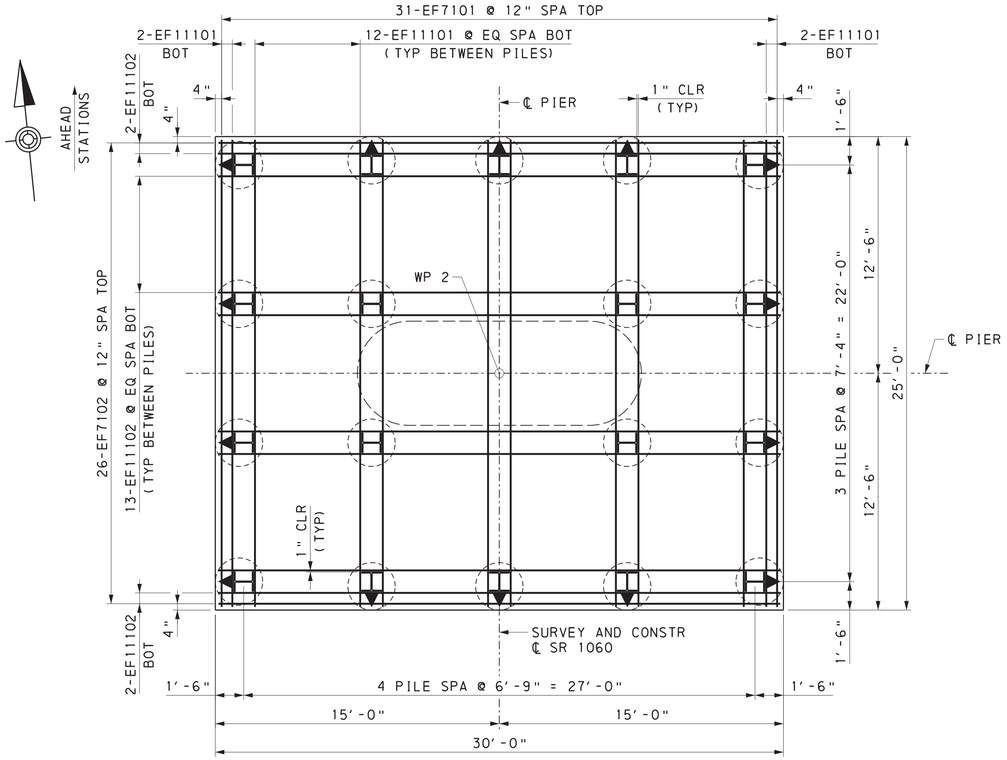
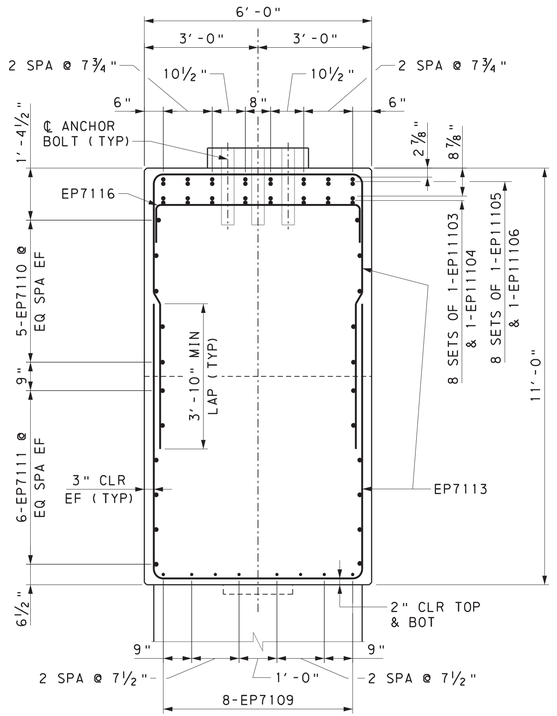


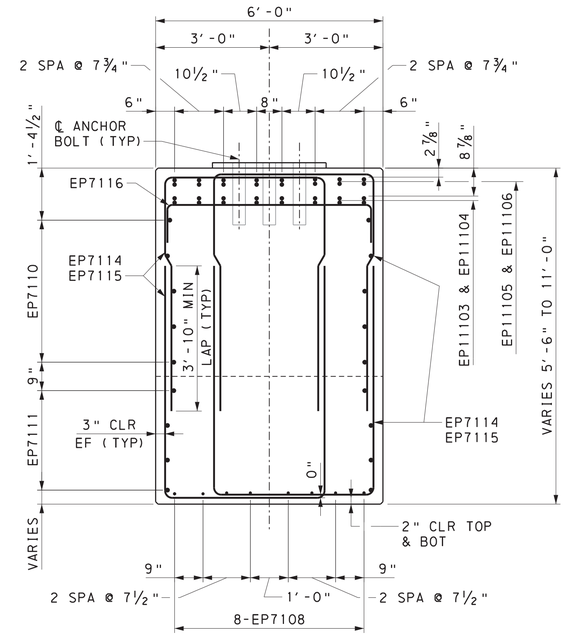

## FOOTING PILE AND REINFORCEMENT PLAN VIEW

0 1' 2' 3' 4' 5' 6'



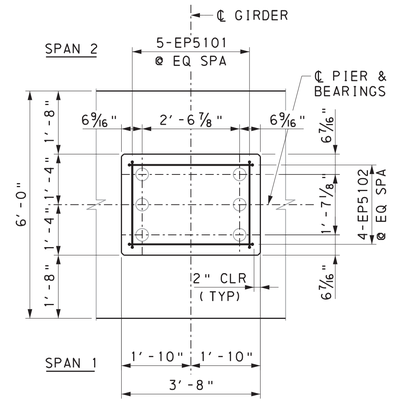

## SECTION P12-P12

0 6 1' 2' 3' 4'




## SECTION P13-P13

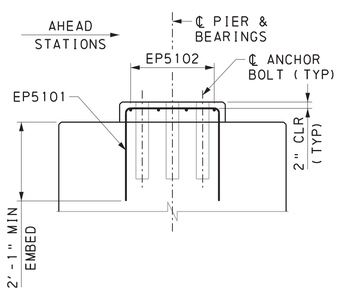
0 6 1' 2' 3' 4'




## PEDESTAL REINFORCEMENT DETAIL PLAN VIEW

(GIRDERS G2, G3 & G4)

0 6" 1' 2' 3' 4'




## PEDESTAL REINFORCEMENT DETAIL ELEVATION VIEW

0 6" 1' 2' 3' 4'

| PIER 1 PEDESTAL ELEVATIONS | | | | | |
|---|---|---|---|---|---|
| PEDESTAL LOCATION | GIRDER (G1) | GIRDER (G2) | GIRDER (G3) | GIRDER (G4) | GIRDER (G5) |
| ELEVATION | 858.95 | 859.19 | 859.34 | 859.19 | 858.95 |

| PILE LOADS | | | |
|---|---|---|---|
| LOCATION | LIMIT STATE/STAGE | AXIAL (KIPS) | |
| | | FACTORED LOAD | RESISTANCE |
| PIER 1 | SERV-I MAX/FINAL | 360 | --- |
| | STR-V MAX/FINAL | 458 | 458 |

| PIER 1 PILE ELEVATIONS | |
|---|---|
| LOCATION | ELEVATION |
| TOP OF ROCK SOCKET | 782.0 |
| ESTIMATED PILE TIP ELEVATION | 776.0 |

## NOTE:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.

## LEGEND:

EF EACH FACE
E EPOXY COATED BARS
WP WORK POINT

VERTICAL PILE (HP 12x84)

BATTERED PILE 3:12 (HP 12x84)

## REFERENCES:


| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. ROCK SOCKET DETAIL AND FOUNDATION NOTES | 5 |
| 3. PIER 1 PLAN AND ELEVATION | 44 |
| 4. PIER 1 REINFORCEMENT BAR SCHEDULE | 46 |
| 5. POT BEARING DETAILS | 77 |


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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## PIER 1 DETAILS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 45 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: EEM/LTS | CKD: JMF

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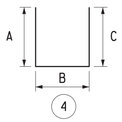
# PIER 1 REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EF4101 | 4 | 72 | 5′-8" | 26 | 4 ½" | 4′-11" | 4 ½" | | | | FOOTING TIE |
| EP4102 | 4 | 84 | 9′-0 ½" | 75 | 4 ½" | 8′-8" | | | | | COLUMN TIE |
| EP4103 | 4 | 168 | 5′-9" | 26 | 4 ½" | 5′-0" | 4 ½" | | | | COLUMN TIE |
| | | | | | | | | | | | |
| EP5101 | 5 | 15 | 7′-6" | 4 | 2′-7" | 2′-4" | 2′-7" | | | | PEDESTAL |
| EP5102 | 5 | 12 | 8′-6" | 4 | 2′-7" | 3′-4" | 2′-7" | | | | PEDESTAL |
| | | | | | | | | | | | |
| EF7101 | 7 | 31 | 24′-6" | STR | | | | | | | FOOTING FLEXURE |
| EF7102 | 7 | 26 | 29′-6" | STR | | | | | | | FOOTING FLEXURE |
| EF7103 | 7 | 8 | 24′-6" | STR | | | | | | | FOOTING |
| EF7104 | 7 | 8 | 29′-6" | STR | | | | | | | FOOTING |
| EF7105 | 7 | 114 | 4′-11" | STR | | | | | | | FOOTING |
| EP7106 | 7 | 84 | 11′-4" | 91 | 10" | 9′-8" | | | | | COLUMN TIE |
| EP7107 | 7 | 84 | 14′-8 ½" | 89A | 10" | 2′-7" | 7′-10 ½" | | | 2′-5 ¾" | COLUMN TIE |
| EP7108 | 7 | 16 | 15′-8" | 11 | 11′-8" | 4′-0" | 1′-10 ¼" | | | | CAP |
| EP7109 | 7 | 8 | 15′-2" | STR | | | | | | | CAP |
| EP7110 | 7 | 10 | 36′-0" | STR | | | | | | | CAP |
| EP7111 | 7 | 12 | 34′-4" TO 16′-10" | STR | | | | | | | CAP, 2 BARS EA SET, VARY EA SET BY 3′-6" |
| EP7112 | 7 | 10 | 10′-2" | 4 | 2′-4" | 5′-6" | 2′-4" | | | | CAP |
| EP7113 | 7 | 18 | 20′-0" | 4 | 7′-3" | 5′-6" | 7′-3" | | | | CAP STIRRUP |
| EP7114 | 7 | 24 | 18′-8 ½" | 4 | 7′-3" | 4′-2 ½" | 7′-3" | | | | CAP STIRRUP |
| EP7115 | 7 | 88 | 13′-5" TO 18′-7 ½" | 4 | 4′-7 ¼" TO 7′-2 ½" | 4′-2 ½" | 4′-7 ¼" TO 7′-2 ½" | | | | CAP STIRRUP, 8 BARS EA SET, VARY EA SET A & C BY 2 ½" |
| EP7116 | 7 | 10 | 7′-6" | 4 | 1′-0" | 5′-6" | 1′-0" | | | | CAP FLEXURE BAR SUPPORT |
| EF7117 | 7 | 18 | 3′-0" | STR | | | | | | | HP PILE |
| EF10101 | 10 | 44 | 15′-3" | 14 | 1′-5" | 13′-10" | | | | | COLUMN FLEXURE |
| EP10102 | 10 | 44 | 47′-0" | STR | | | | | | | COLUMN FLEXURE |
| | | | | | | | | | | | |
| EF11101 | 11 | 52 | 27′-8" | 15 | 1′-7" | 24′-6" | 1′-7" | | | | FOOTING FLEXURE |
| EF11102 | 11 | 43 | 32′-8" | 15 | 1′-7" | 29′-6" | 1′-7" | | | | FOOTING FLEXURE |
| EP11103 | 11 | 8 | 34′-0 ¼" | 15 | 1′-7" | 30′-10 ¼" | 1′-7" | | | | CAP FLEXURE |
| EP11104 | 11 | 8 | 35′-4 ¼" | 4 | 2′-0" | 31′-4 ¼" | 2′-0" | | | | CAP FLEXURE |
| EP11105 | 11 | 8 | 38′-6 ¼" | 15 | 1′-7" | 35′-4 ¼" | 1′-7" | | | | CAP FLEXURE |
| EP11106 | 11 | 8 | 46′-2 ¼" | 4 | 5′-2" | 35′-10 ¼" | 5′-2" | | | | CAP FLEXURE |
| | | | | | | | | | | | |
| | | | | | | | | | | | |



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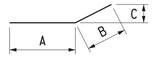

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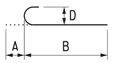

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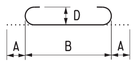

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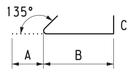

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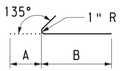

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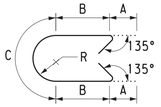

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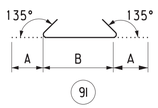

91

## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. PIER 1 PLAN AND ELEVATION | 44 |
| 3. PIER 1 DETAILS | 45 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
PIER 1 REINF BAR SCHEDULE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

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SHEET 46 OF 130

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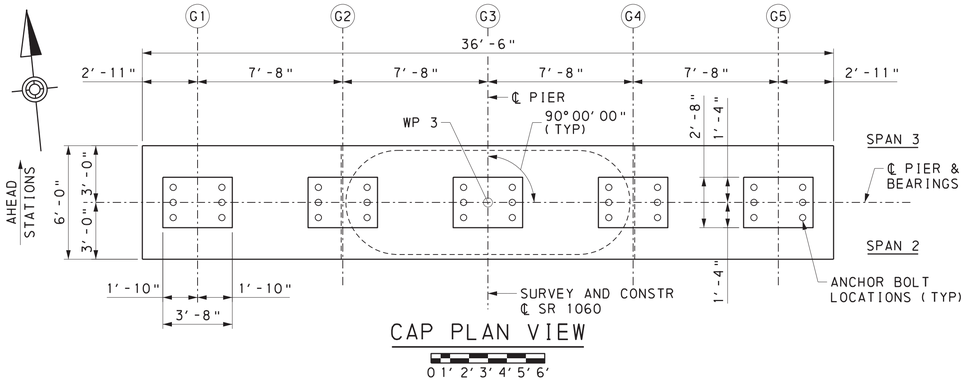
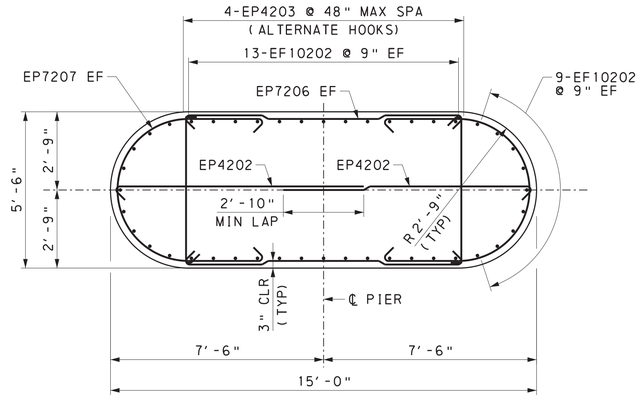


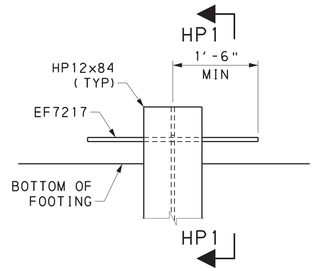

## CAP PLAN VIEW

0 1' 2' 3' 4' 5' 6'



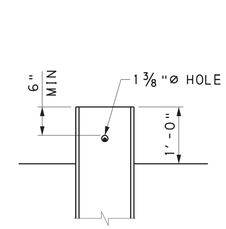

## SECTION P21-P21

0 1' 2' 3' 4'



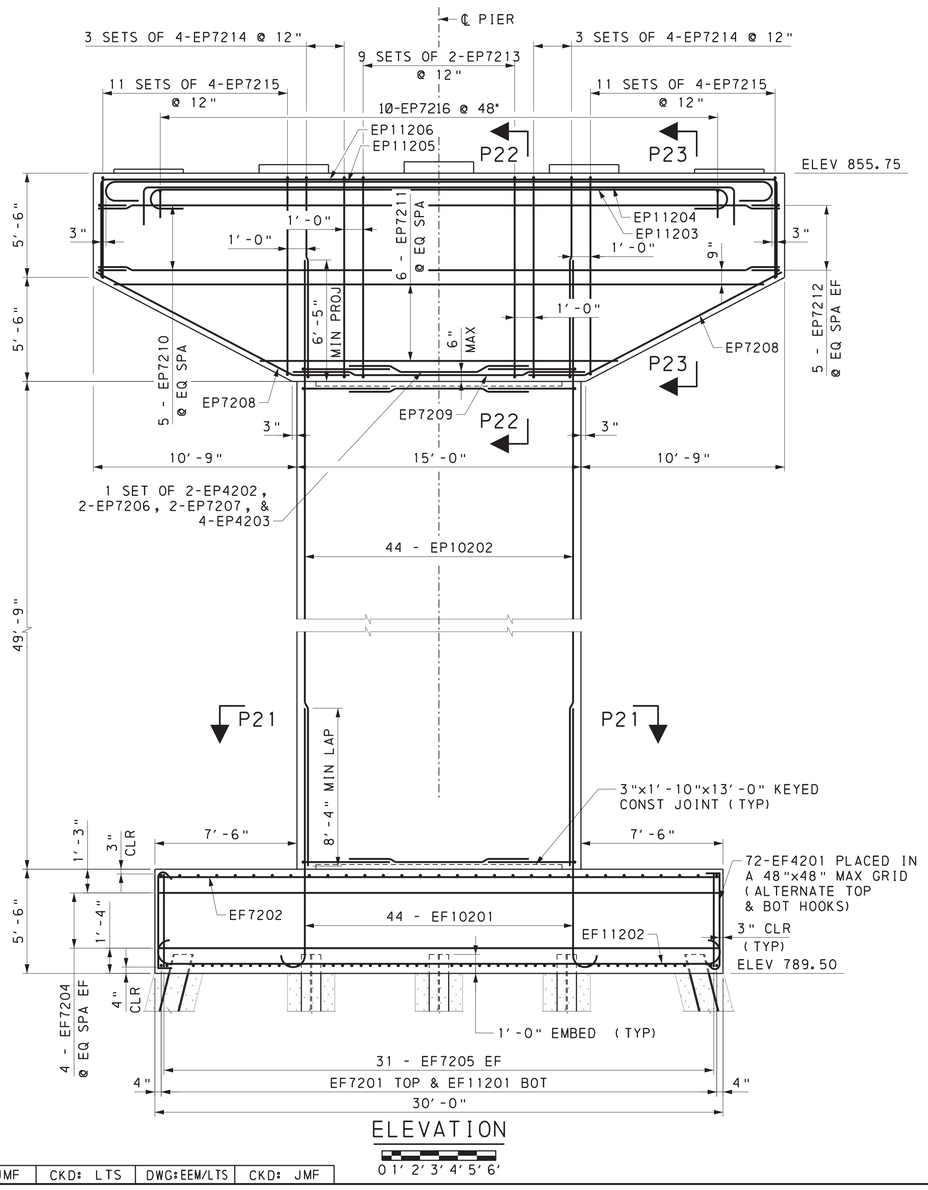

## HP-PILE ANCHORAGE DETAIL

NOT TO SCALE



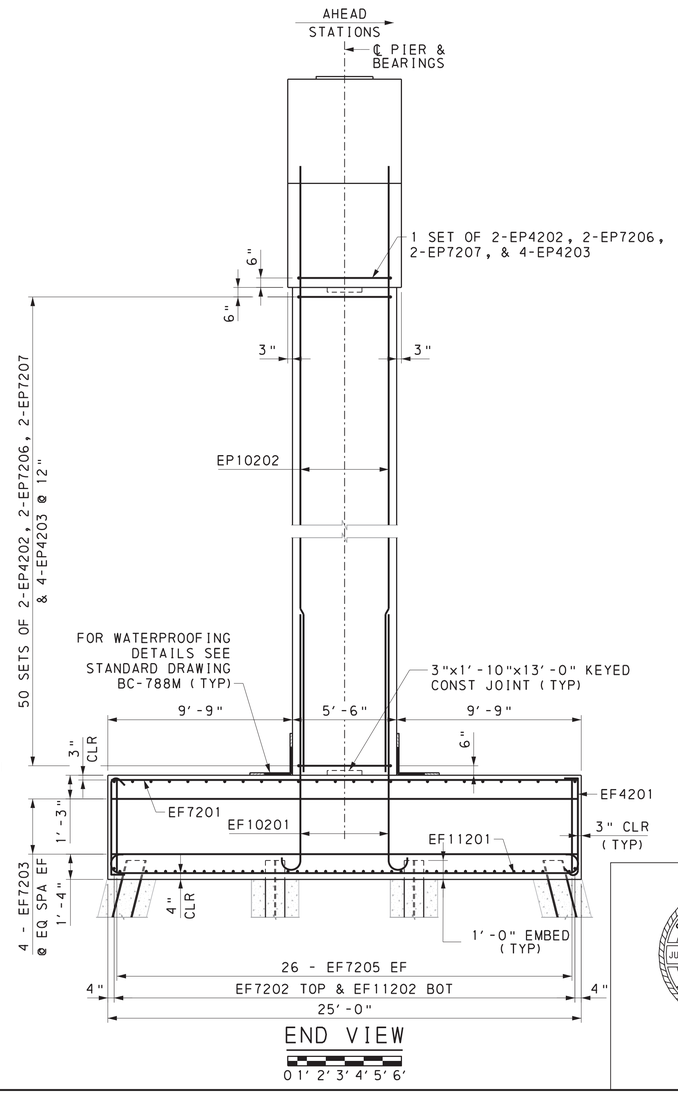

## SECTION HP1-HP1

NOT TO SCALE




## ELEVATION

0 1' 2' 3' 4' 5' 6'




## END VIEW

0 1' 2' 3' 4' 5' 6'

### NOTE:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.

### LEGEND:

EF EACH FACE
E EPOXY COATED BARS
WP WORK POINT

### REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. STAKE-OUT PLAN 1 & 2 | 7 & 8 |
| 3. PIER 2 DETAILS | 48 |
| 4. PIER 2 REINFORCEMENT BAR SCHEDULE | 49 |

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
## PIER 2 PLAN AND ELEVATION

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

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SHEET 47 OF 130

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DES: JMF | CKD: LTS | DWG: EEM/LTS | CKD: JMF

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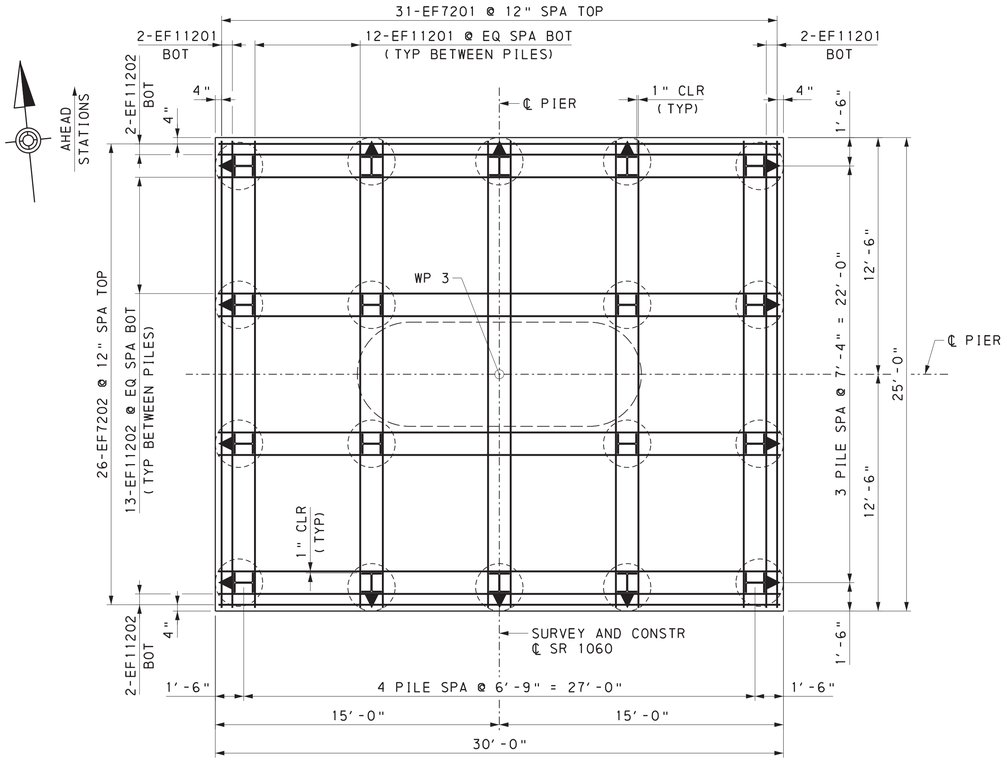
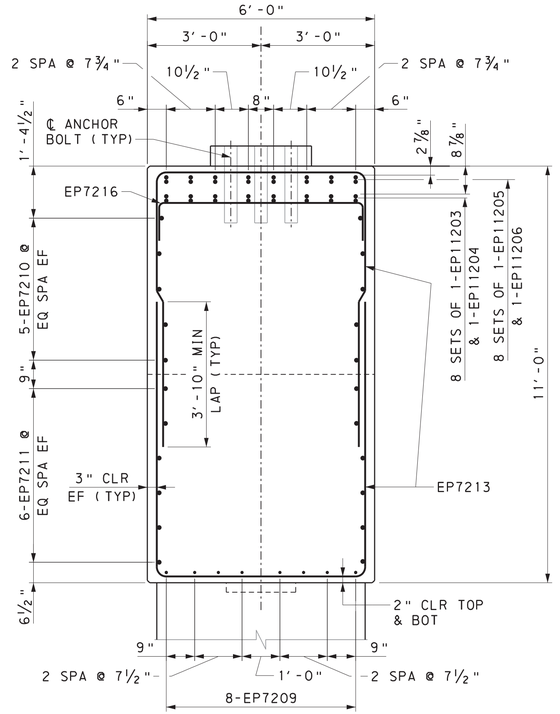


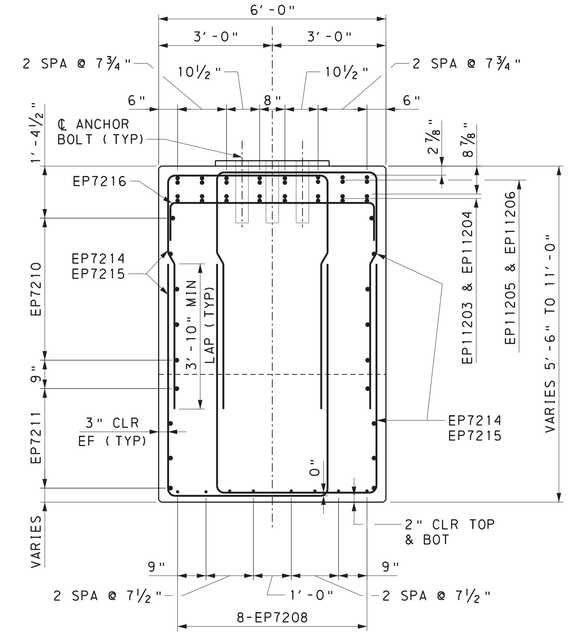

## FOOTING PILE AND REINFORCEMENT PLAN VIEW

0 1' 2' 3' 4' 5' 6'




## SECTION P22-P22

0 6 1' 2' 3' 4'




## SECTION P23-P23

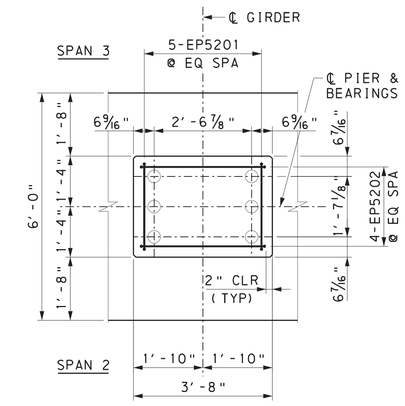
0 6 1' 2' 3' 4'

| PILE LOADS | | | |
|---|---|---|---|
| LOCATION | LIMIT STATE/STAGE | AXIAL (KIPS) | |
| | | FACTORED LOAD | RESISTANCE |
| PIER 2 | SERV-I MAX/FINAL | 341 | --- |
| | STR-V MAX/FINAL | 441 | 458 |

| PIER 2 PILE ELEVATIONS | |
|---|---|
| LOCATION | ELEVATION |
| TOP OF ROCK SOCKET | 784.0 |
| ESTIMATED PILE TIP ELEVATION | 778.0 |

## REFERENCES:

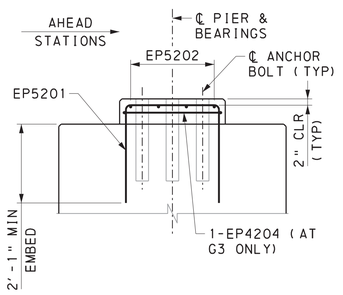

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. ROCK SOCKET DETAIL AND FOUNDATION NOTES | 5 |
| 3. PIER 2 PLAN AND ELEVATION | 47 |
| 4. PIER 2 REINFORCEMENT BAR SCHEDULE | 49 |
| 5. POT BEARING DETAILS | 77 |


## PEDESTAL REINFORCEMENT DETAIL PLAN VIEW

(GIRDERS G2, G3 & G4)

0 6" 1' 2' 3' 4'




## PEDESTAL REINFORCEMENT DETAIL ELEVATION VIEW

0 6" 1' 2' 3' 4'

| PIER 2 PEDESTAL ELEVATIONS | | | | | |
|---|---|---|---|---|---|
| PEDESTAL LOCATION | GIRDER (G1) | GIRDER (G2) | GIRDER (G3) | GIRDER (G4) | GIRDER (G5) |
| ELEVATION | 856.13 | 856.37 | 856.53 | 856.37 | 856.13 |

## NOTE:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.

## LEGEND:

EF EACH FACE
E EPOXY COATED BARS
WP WORK POINT

VERTICAL PILE (HP 12x84)

BATTERED PILE 3:12 (HP 12x84)

| Mark | Description | By | Chk'd. | Recm'd. | Date |
|---|---|---|---|---|---|
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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## PIER 2 DETAILS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

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DES: JMF | CKD: LTS | DWG: EEM/LTS | CKD: JMF

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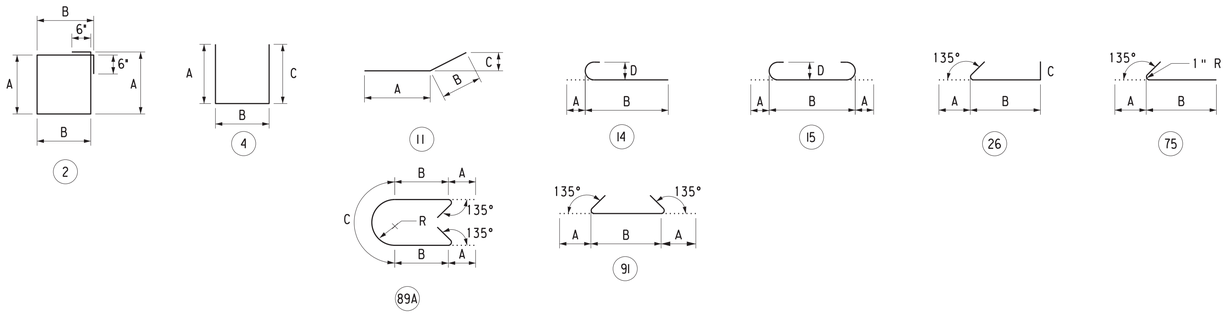
# PIER 2 REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EF4201 | 4 | 72 | 5′-8" | 26 | 4 ½" | 4′-11" | 4 ½" | | | | FOOTING TIE |
| EP4202 | 4 | 102 | 9′-0 ½" | 75 | 4 ½" | 8′-8" | | | | | COLUMN TIE |
| EP4203 | 4 | 204 | 5′-9" | 26 | 4 ½" | 5′-0" | 4 ½" | | | | COLUMN TIE |
| EP4204 | 4 | 1 | 12′-8" | 2 | 2′-5" | 3′-5" | | | | | G3 PEDESTAL |
| EP5201 | 5 | 15 | 7′-6" | 4 | 2′-7" | 2′-4" | 2′-7" | | | | PEDESTAL |
| EP5202 | 5 | 12 | 8′-6" | 4 | 2′-7" | 3′-4" | 2′-7" | | | | PEDESTAL |
| | | | | | | | | | | | |
| EF7201 | 7 | 31 | 24′-6" | STR | | | | | | | FOOTING FLEXURE |
| EF7202 | 7 | 26 | 29′-6" | STR | | | | | | | FOOTING FLEXURE |
| EF7203 | 7 | 8 | 24′-6" | STR | | | | | | | FOOTING |
| EF7204 | 7 | 8 | 29′-6" | STR | | | | | | | FOOTING |
| EF7205 | 7 | 114 | 4′-11" | STR | | | | | | | FOOTING |
| EP7206 | 7 | 102 | 11′-4" | 91 | 10" | 9′-8" | | | | | COLUMN TIE |
| EP7207 | 7 | 102 | 14′-8 ½" | 89A | 10" | 2′-7" | 7′-10 ½" | | | 2′-5 ¾" | COLUMN TIE |
| EP7208 | 7 | 16 | 15′-8" | 11 | 11′-8" | 4′-0" | 1′-10 ¼" | | | | CAP |
| EP7209 | 7 | 8 | 15′-2" | STR | | | | | | | CAP |
| EP7210 | 7 | 10 | 36′-0" | STR | | | | | | | CAP |
| EP7211 | 7 | 12 | 34′-4" TO 16′-10" | STR | | | | | | | CAP, 2 BARS EA SET, VARY EA SET BY 3′-6" |
| EP7212 | 7 | 10 | 10′-2" | 4 | 2′-4" | 5′-6" | 2′-4" | | | | CAP |
| EP7213 | 7 | 18 | 20′-0" | 4 | 7′-3" | 5′-6" | 7′-3" | | | | CAP STIRRUP |
| EP7214 | 7 | 24 | 18′-8 ½" | 4 | 7′-3" | 4′-2 ½" | 7′-3" | | | | CAP STIRRUP |
| EP7215 | 7 | 88 | 13′-5" TO 18′-7 ½" | 4 | 4′-7 ¼" TO 7′-2 ½" | 4′-2 ½" | 4′-7 ¼" TO 7′-2 ½" | | | | CAP STIRRUP, 8 BARS EA SET, VARY EA SET A & C BY 2 ½" |
| EP7216 | 7 | 10 | 7′-6" | 4 | 1′-0" | 5′-6" | 1′-0" | | | | CAP FLEXURE BAR SUPPORT |
| EF7217 | 7 | 18 | 3′-0" | STR | | | | | | | HP PILE |
| EF10201 | 10 | 44 | 15′-3" | 14 | 1′-5" | 13′-10" | | | | | COLUMN FLEXURE |
| EP10202 | 10 | 44 | 56′-0" | STR | | | | | | | COLUMN FLEXURE |
| | | | | | | | | | | | |
| EF11201 | 11 | 52 | 27′-8" | 15 | 1′-7" | 24′-6" | 1′-7" | | | | FOOTING FLEXURE |
| EF11202 | 11 | 43 | 32′-8" | 15 | 1′-7" | 29′-6" | 1′-7" | | | | FOOTING FLEXURE |
| EP11203 | 11 | 8 | 34′-0 ¼" | 15 | 1′-7" | 30′-10 ¼" | 1′-7" | | | | CAP FLEXURE |
| EP11204 | 11 | 8 | 35′-4 ¼" | 4 | 2′-0" | 31′-4 ¼" | 2′-0" | | | | CAP FLEXURE |
| EP11205 | 11 | 8 | 38′-6 ¼" | 15 | 1′-7" | 35′-4 ¼" | 1′-7" | | | | CAP FLEXURE |
| EP11206 | 11 | 8 | 46′-2 ¼" | 4 | 5′-2" | 35′-10 ¼" | 5′-2" | | | | CAP FLEXURE |
| | | | | | | | | | | | |
| | | | | | | | | | | | |




## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

| REFERENCES: | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. PIER 2 PLAN AND ELEVATION | 47 |
| 3. PIER 2 DETAILS | 48 |

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

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WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
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3 SPAN CONT COMP STEEL PLATE GIRDER
PIER 2 REINF BAR SCHEDULE

COMMONWEALTH OF PENNSYLVANIA
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ENGINEER
PE062832

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SHEET 49 OF 130

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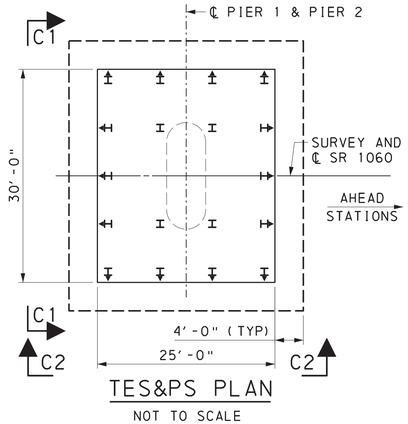
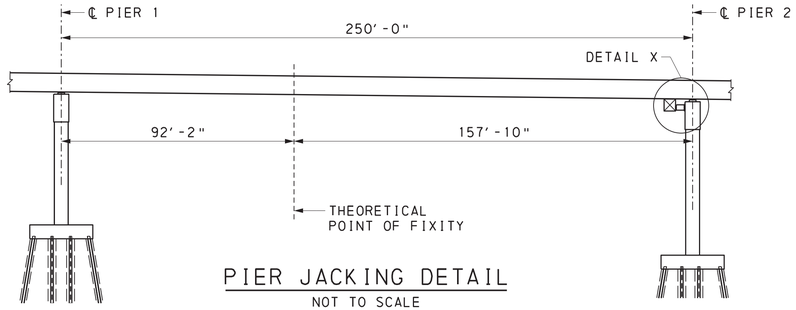


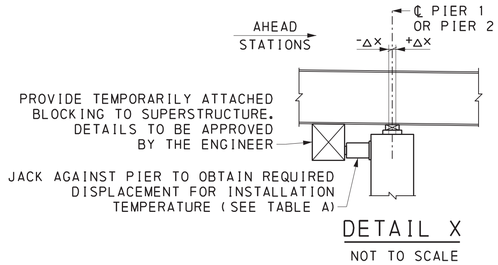

TES&PS PLAN

NOT TO SCALE




PIER JACKING DETAIL

NOT TO SCALE




DETAIL X

NOT TO SCALE

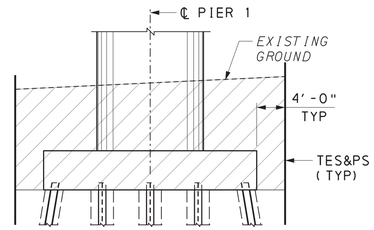
| TABLE A | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | TEMPERATURE (°F) | 30 | 40 | 50 | 60 | 68 | 70 | 80 | 90 | 100 |
| PIER 1 | ANTICIPATED DISPLACEMENT Δx (IN) | 0.3 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | -0.1 | -0.2 | -0.2 |
| PIER 2 | ANTICIPATED DISPLACEMENT Δx (IN) | -0.5 | -0.3 | -0.2 | -0.1 | 0.0 | 0.0 | 0.1 | 0.3 | 0.4 |

## PIER JACKING NOTES:

1. SUBMIT JACKING DETAILS AND CALCULATIONS FOR APPOVAL PRIOR TO STARTING ANY WORK ASSOCIATED WITH PIER JACKING.
2. DISPLACEMENTS DETERMINED BASED OF THEORETICAL POINT OF FIXITY.
3. DO NOT JACK PIERS IF TEMPERATURE IS BELOW 30 OR ABOVE 100 DEGREES F.

## SUGGESTED PIER JACKING PROCEDURE:

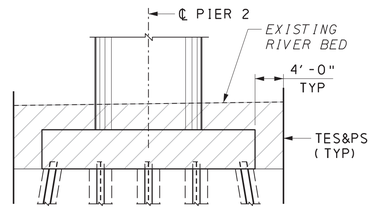
1. ERECT ALL GIRDERS AND CROSS FRAMES AFTER ANCHOR BOLTS AT CENTERLINE BEARINGS HAVE BEEN GROUTED AND THE GROUT HAS CURED. JACK THE PIERS PRIOR TO PLACEMENT OF DECK CONCRETE.
2. ALIGN THE BEARING STIFFENERS WITH CENTER OF THE BEARINGS AT PIER 1 OR PIER 2. FIELD WELD THE BOTTOM FLANGE OF THE GIRDERS TO THE SOLE PLATES OF THE POT BEARINGS.
3. JACK ALL GIRDERS AT THE OPPOSITE PIER SIMULTANEOUSLY UNTIL CORRESPONDING DISPLACEMENTS REQUIRED FOR INSTALLATION TEMPERATURE SHOWN IN TABLE A ARE ACHIEVED. FIELD WELD THE BOTTOM FLANGE OF THE GIRDERS TO THE SOLE PLATES OF THE POT BEARINGS.




SECTION C1-C1 - PIER 1

CLASS 3 EXCEDAVATION

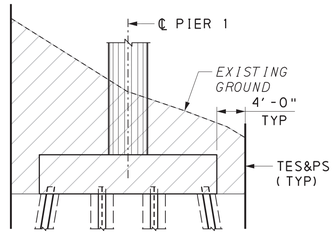
NOT TO SCALE




SECTION C1-C1 - PIER 2

CLASS 3 EXCAVATION

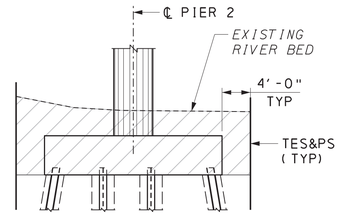
NOT TO SCALE




SECTION C2-C2 - PIER 1

CLASS 3 EXCAVATION

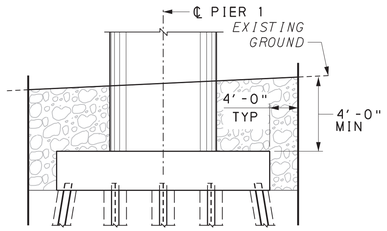
NOT TO SCALE




SECTION C2-C2 - PIER 2

CLASS 3 EXCAVATION

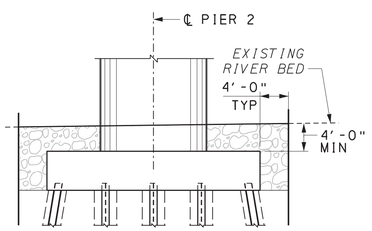
NOT TO SCALE




SECTION C1-C1 - PIER 1

FINAL PROTECTION DETAIL

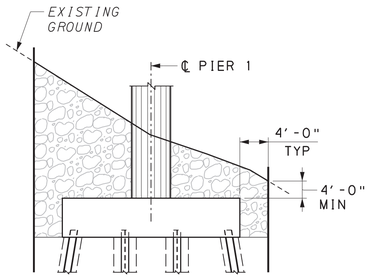
LOOKING AHEAD STATIONS
NOT TO SCALE




SECTION C1-C1 - PIER 2

FINAL PROTECTION DETAIL

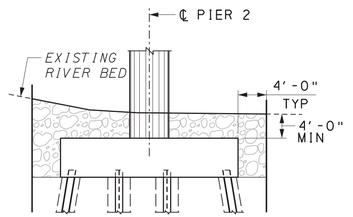
LOOKING AHEAD STATIONS
NOT TO SCALE




SECTION C2-C2 - PIER 1

FINAL PROTECTION DETAIL

LOOKING AHEAD STATIONS
NOT TO SCALE




SECTION C2-C2 - PIER 2

FINAL PROTECTION DETAIL

LOOKING AHEAD STATIONS
NOT TO SCALE

## NOTES:

1. ADJUST TES&PS LOCATION AND DEPTH AS REQUIRED TO AVOID INTERFERENCE WITH PIER PILES AND PREDRILLING.

## LEGEND:

TES&PS TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM

SELECTED BORROW EXCAVATION ROCK, CLASS R-8

CLASS 3 EXCAVATION

## REFERENCES:


| | SHEET: |
|---|---|
| 1. ELEVATION | 2 |
| 2. GENERAL NOTES 1 & 2 | 4 & 5 |
| 3. PIER 1 DETAILS | 45 |
| 4. PIER 2 DETAILS | 48 |
| 5. GIRDER ELEVATION | 68 |
| 6. POT BEARING DETAILS | 77 |


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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
PIER 1 AND 2 DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 50 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: CLG | CKD:JWB/JMF

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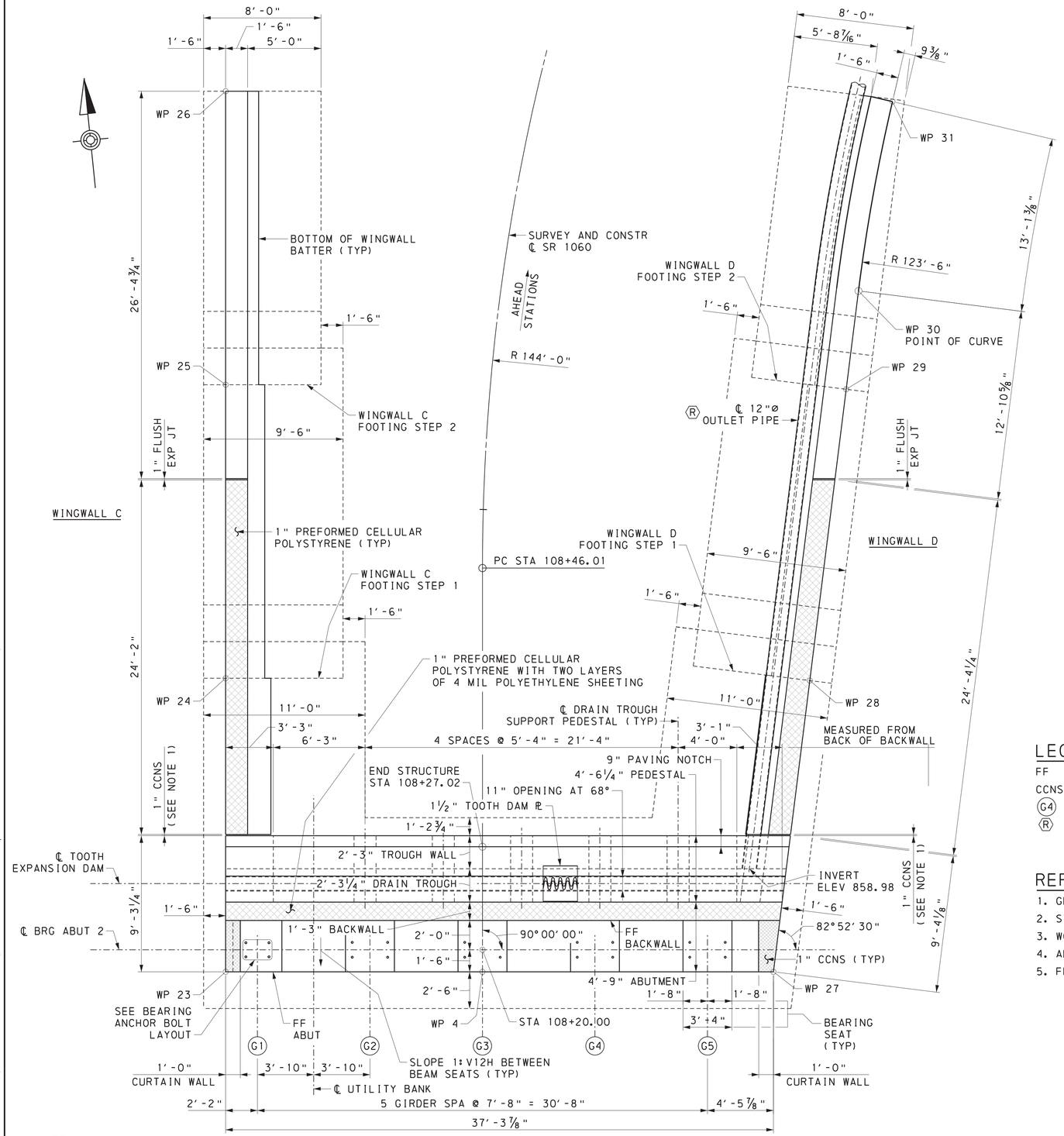
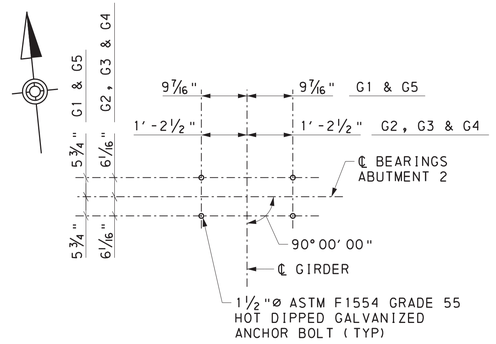



NOTE:
UTILITY CONDUIT NOT SHOWN

## ABUTMENT 2 PLAN

0 1′ 2′ 3′ 4′ 5′ 6′




## BEARING SEAT ANCHOR BOLT LAYOUT

NOT TO SCALE

## NOTES:

1. SEE WINGWALL ELEVATION VIEW FOR ½" FLUSH EXPANSION JOINT BELOW.
2. UTILITY CONDUIT NOT SHOWN.
3. AT LEAST SEVEN DAYS PRIOR TO SETTING GIRDERS, SUBMIT TO THE DEPARTMENT REPRESENTATIVE FOR REVIEW AND APPROVAL AS-BUILT BEARING SEAT ELEVATIONS. PROVIDE DRAWING(S) AND/OR SPREADSHEET(S) STAMPED BY A PROFESSIONAL LAND SURVEYOR CURRENTLY REGISTERED IN THE COMMONWEALTH OF PENNSYLVANIA. PROVIDE AS-BUILT ELEVATIONS SHOWN ON THE STRUCTURE SHEETS. DO NOT SET GIRDERS UNTIL APPROVAL IS GRANTED BY THE DEPARTMENT REPRESENTATIVE. FOR ALL BEARING SEAT ELEVATIONS THAT DO NOT MEET THE PUB 408, SECTION 1001.3(k)9 CRITERIA, SUBMIT TO THE DEPARTMENT REPRESENTATIVE FOR REVIEW AND APPROVAL A REMEDIATION PROCEDURE. DO NOT SET GIRDERS UNTIL THE REMEDIATION PROCEDURE IS APPROVED BY THE DEPARTMENT REPRESENTATIVE. THE COST OF THIS WORK IS INCIDENTAL TO THE COST OF THE CONCRETE PLACED IN THE BEARING SEATS.

## LEGEND:

FF FRONT FACE
CCNS CLOSED CELL NEOPRENE SPONGE
(G4) GIRDER NUMBER
(R) ROADWAY ITEM

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. STAKE-OUT PLAN | 7 & 8 |
| 3. WORK THIS SHEET WITH SHEETS | 52-61 |
| 4. ABUTMENT 2 DRAIN TROUGH DETAILS | 62 |
| 5. FRAMING PLAN | 67 |

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUTMENT 2 PLAN

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 51 OF 130

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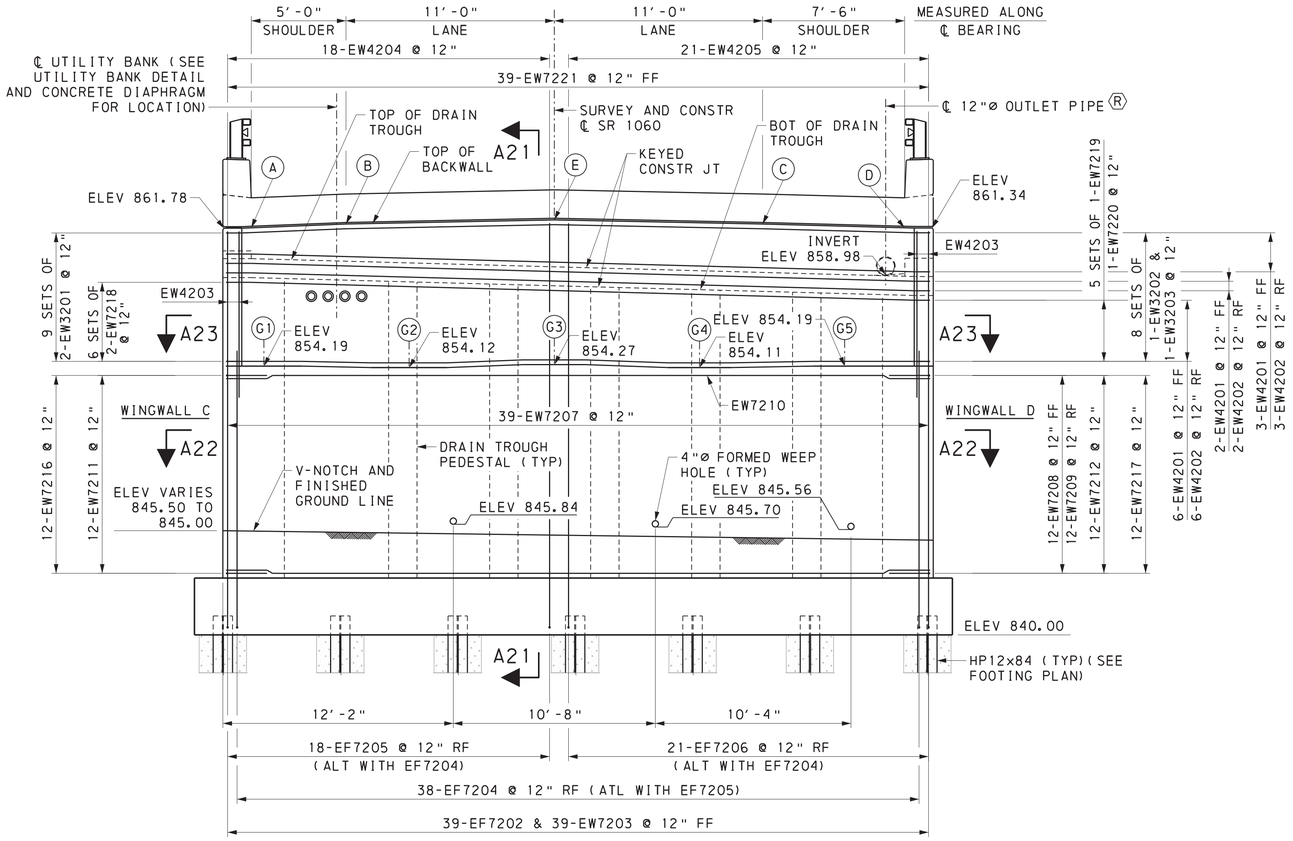


## ABUTMENT 2 ELEVATION

(LOOKINNG AHEAD STATIONS)

0 1' 2' 3' 4' 5' 6'

| ABUTMENT 2 PILE ELEVATIONS | |
|---|---|
| LOCATION | ELEVATION |
| TOP OF ROCK SOCKET | 812.0 |
| ESTIMATED PILE TIP ELEVATION | 806.0 |

| ABUTMENT 2 BACKWALL ELEVATIONS @ FF | | | | | |
|---|---|---|---|---|---|
| | (A) | (B) | (E) | (C) | (D) |
| STATION | 108+22.00 | 108+22.00 | 108+22.00 | 108+22.00 | 108+22.00 |
| ELEVATION | 861.49 | 861.69 | 861.91 | 861.69 | 861.49 |

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| ES | EQUAL SPACE |
| E | EPOXY COATED BARS |
| (R) | ROADWAY ITEM |
| (G2) | GIRDER NUMBER |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 51, 53-61 |
| 3. ABUTMENT 2 DRAIN TROUGH DETAILS | 62 |
| 4. ABUTMENT 2 REINF BAR SCHEDULE | 63 & 64 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. BEARING SEAT ELEVATIONS SHOWN TAKEN AT CENTERLINE OF BEARING. CURTAIN WALL ELEVATION SHOWN TAKEN AT END OF SLAB.
3. THE BEARING SEATS ARE LEVEL IN THE LONGITUDINAL AND TRANSVERSE DIRECTIONS.
4. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
5. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 2 ELEVATION

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 52 OF 130

S - 39414

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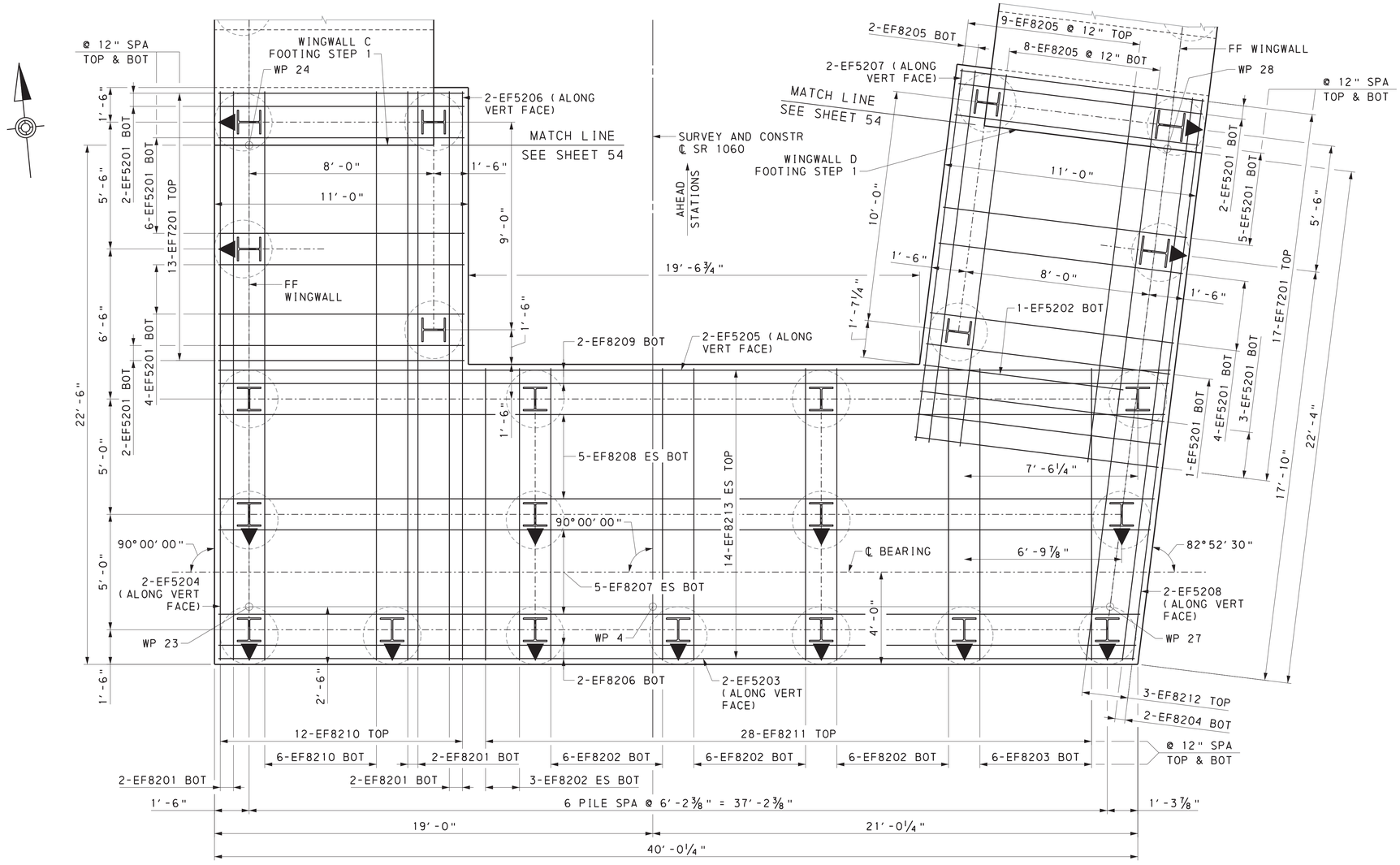


## PARTIAL PLAN - PILE AND FOOTING

0 1' 2' 3' 4'

## LEGEND:

ES EQUAL SPACE
E EPOXY COATED BARS

VERTICAL PILE (HP 12x84)

BATTERED PILE 3:12 (HP 12x84)

## REFERENCES:

| | SHEET: |
|---|---|
| 1. ROCK SOCKET DETAIL AND FOUNDATION NOTES | 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 51-52, 54-61 |
| 3. ABUTMENT 2 REINF BAR SCHEDULE | 63 & 64 |

## NOTE:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.

### ABUTMENT 2 AXIAL PILE LOADING

| LOCATION | ABUTMENT 2 | WINGWALL C | WINGWALL D |
|---|---|---|---|
| LIMIT STATE | STRENGTH - I | STRENGTH - III | STRENGTH - III |
| LOAD STATE | MAXIMUM | MAXIMUM | MAXIMUM |
| STAGE | FINAL | TEMP | TEMP |
| FACTORED AXIAL LOAD (KIP/PILE) | 382.0 | 208.0 | 208.0 |
| FACTORED AXIAL RESISTANCE (KIP/PILE) | 458.0 | 458.0 | 458.0 |
| PERFORMANCE RATIO | 1.20 | 2.20 | 2.20 |

### ABUTMENT 2 LATERAL PILE LOADING

| LOCATION | ABUTMENT 2 | WINGWALL C | WINGWALL D |
|---|---|---|---|
| LIMIT STATE | STRENGTH - I | STRENGTH - I | STRENGTH - I |
| LOAD STATE | MAXIMUM | MAXIMUM | MAXIMUM |
| STAGE | FINAL | FINAL | FINAL |
| FACTORED LATERAL LOAD (KIP/FT) | 23.2 | 18.4 | 18.4 |
| FACTORED LATERAL RESISTANCE (KIP/FT) | 25.6 | 20.2 | 20.2 |
| PERFORMANCE RATIO | 1.10 | 1.10 | 1.10 |

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 2 PILE AND FOOTING REINF PLAN 1

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 53 OF 130

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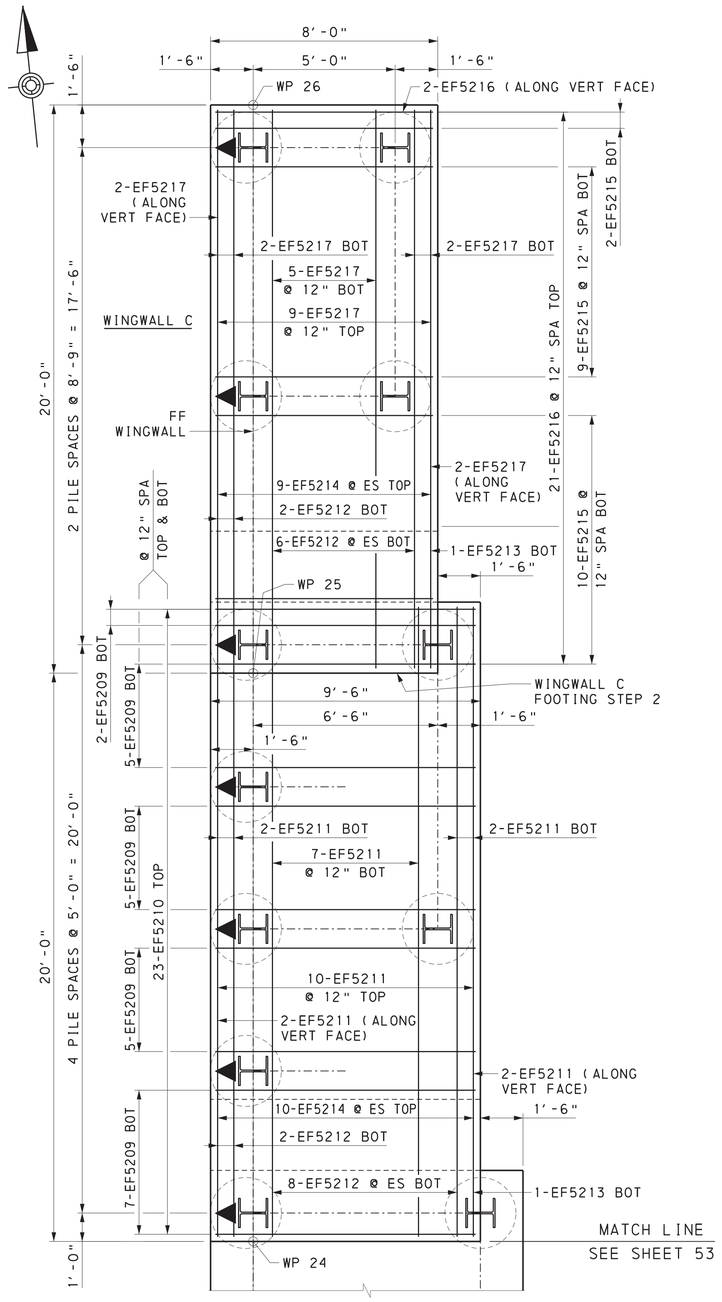
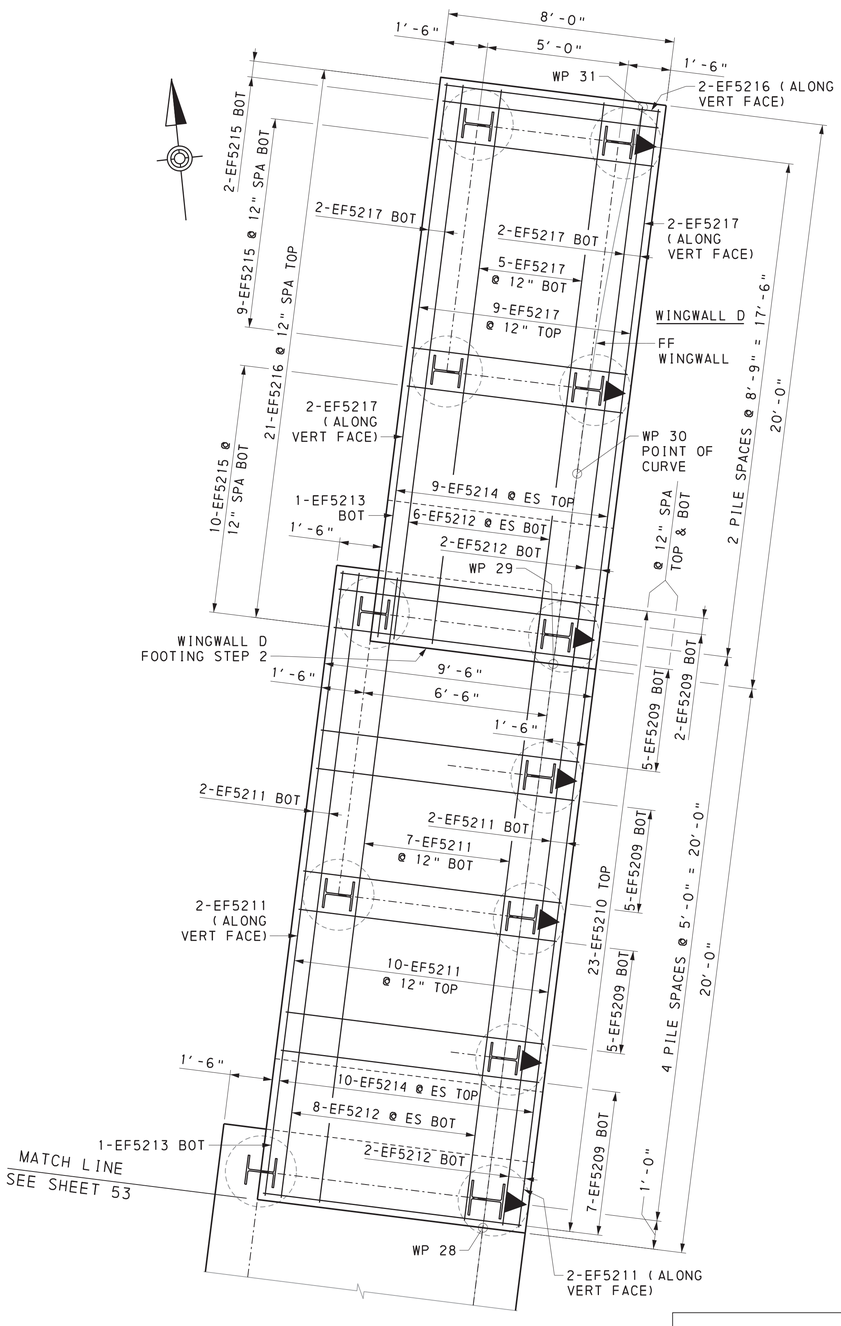



PARTIAL PLAN - WINGWALL C PILE AND FOOTING

0 1' 2' 3' 4'




PARTIAL PLAN - WINGWALL D PILE AND FOOTING

0 1' 2' 3' 4'

## LEGEND:

ES EQUAL SPACE
E EPOXY COATED BARS

VERTICAL PILE (HP 12x84)

BATTERED PILE 3:12 (HP 12x84)

## REFERENCES:

| | SHEET: |
|---|---|
| 1. WORK THIS DRAWING WITH SHEETS | 51-53, 55-61 |
| 2. ABUTMENT 2 REINF BAR SCHEDULE | 63 & 64 |

## NOTE:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 2 PILE AND FOOTING REINF PLAN 2

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 54 OF 130

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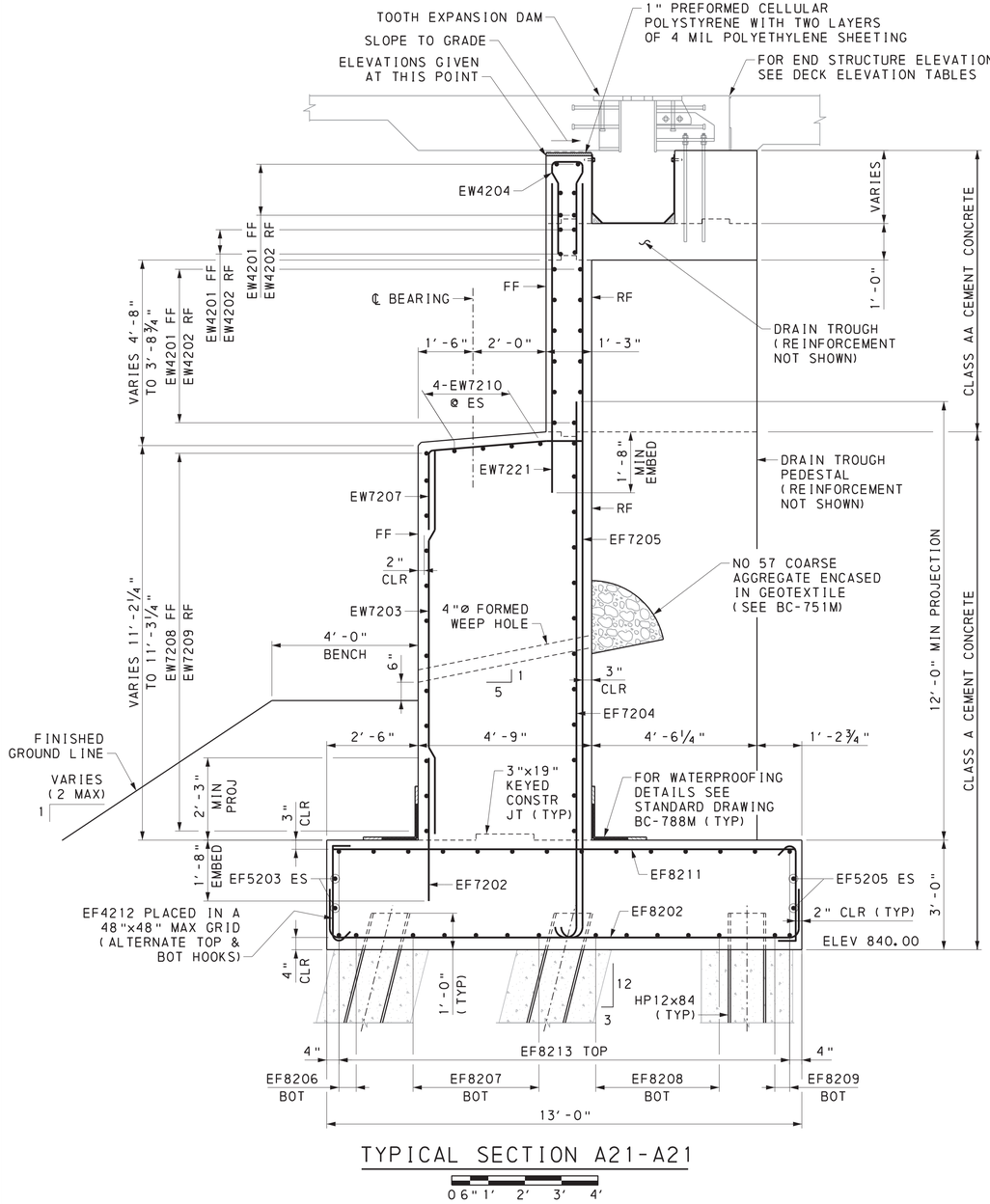
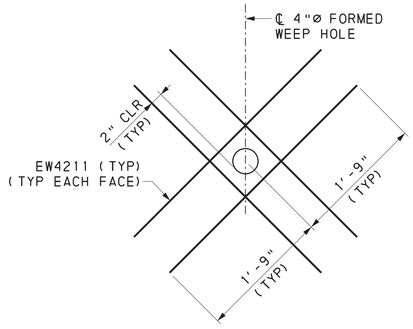



TYPICAL SECTION A21-A21

0 6" 1' 2' 3' 4'




WEEP HOLE REINFORCEMENT DETAIL

NOT TO SCALE

## LEGEND:

FF FRONT FACE
RF REAR FACE
EF EACH FACE
E EPOXY COATED BARS

## NOTES:

1. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
2. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS SHEET WITH SHEETS | 51-54, 55-61 |
| 3. ABUTMENT 2 DRAIN TROUGH DETAILS | 62 |
| 4. ABUTMENT 2 REINF BAR SCHEDULE | 63 & 64 |

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 2 SECTIONS 1

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

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SHEET 55 OF 130

S - 39414

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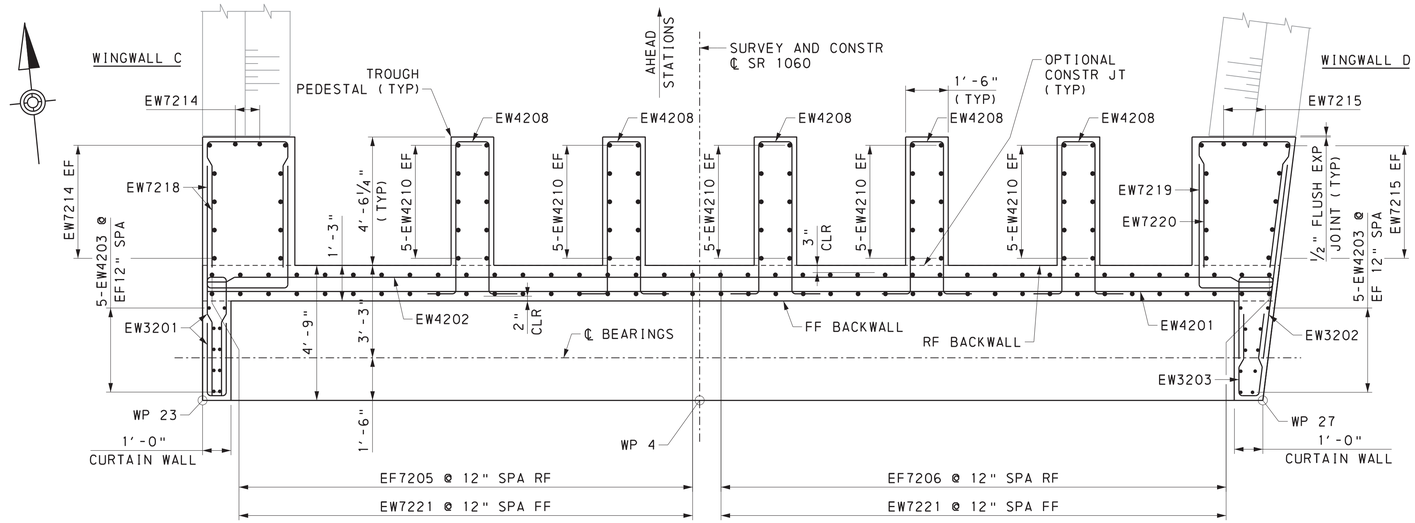


## SECTION A23-A23

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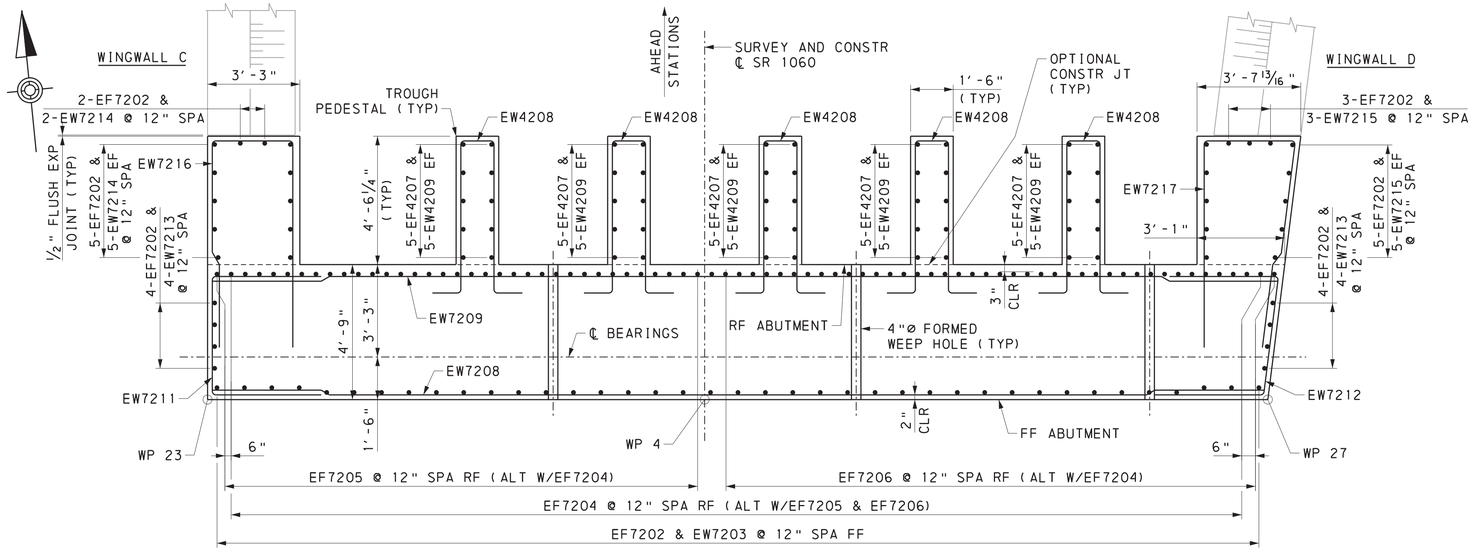


## SECTION A22-A22

0 1′ 2′ 3′ 4′

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 51-55, 57-61 |
| 3. ABUTMENT 2 DRAIN TROUGH DETAILS | 62 |
| 4. ABUTMENT 2 REINF BAR SCHEDULE | 63 & 64 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 2 SECTIONS 2

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 56 OF 130

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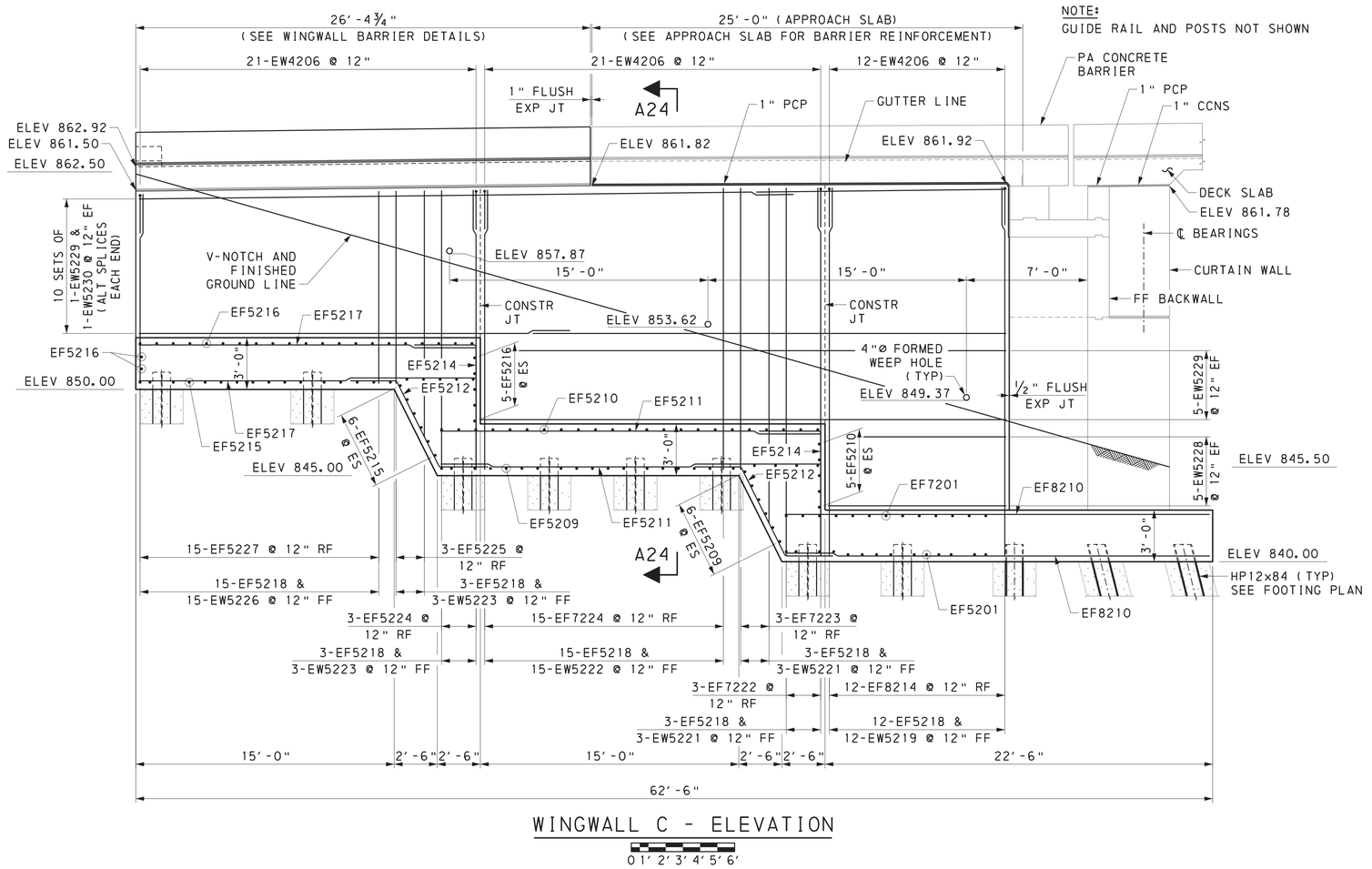
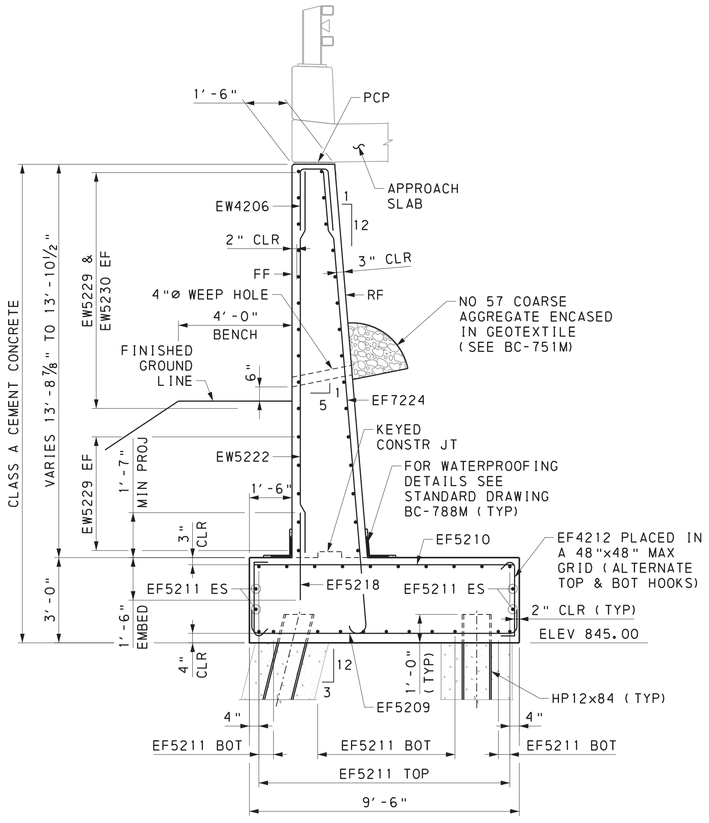



WINGWALL C - ELEVATION

0 1′ 2′ 3′ 4′ 5′ 6′




SECTION A24-A24

0 1′ 2′ 3′ 4′

NOTE:
GUIDE RAIL AND POSTS NOT SHOWN

## MINIMUM LAP LENGTHS:

#5 BARS - 2′-9"

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| CCNS | CLOSED CELL NEOPRENE SPONGE |
| PCP | 1" PREFORMED CELLULAR POLYSTYRENE WITH TWO LAYERS OF 4 MIL POLYETHYLENE SHEETING |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 51-56, 58 |
| 3. WINGWALL BARRIER DETAILS | 59-61 |
| 4. ABUTMENT 2 DRAIN TROUGH DETAILS | 62 |
| 5. ABUTMENT 2 REINF BAR SCHEDULE | 63 & 64 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
3. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

| DES: JMF | CKD: LTS | DWG: EEM | CKD: JMF |
|---|---|---|---|

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 2 WINGWALL C

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 57 OF 130

S - 39414

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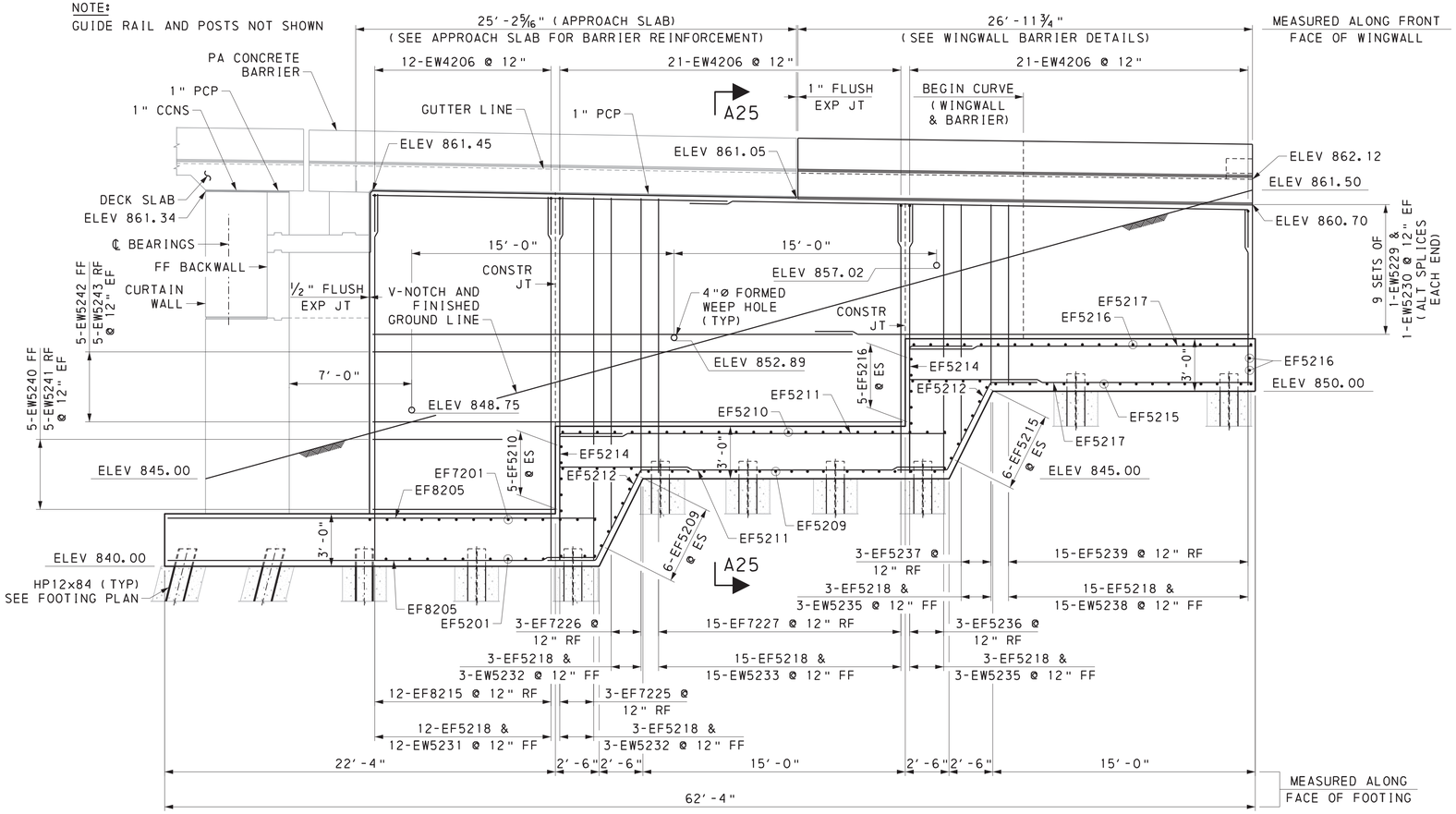
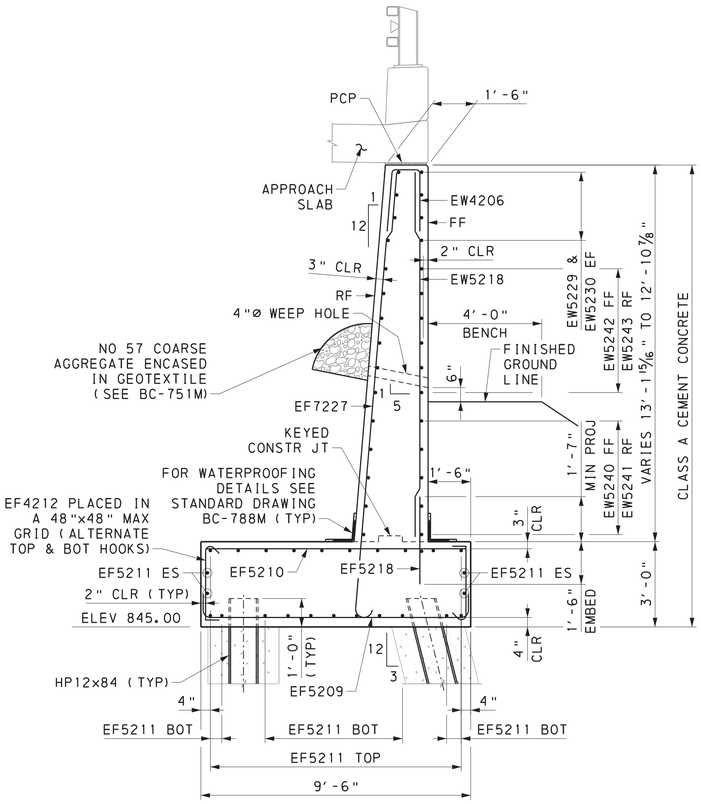



WINGWALL D - ELEVATION

0 1′ 2′ 3′ 4′ 5′ 6′




SECTION A25-A25

0 1′ 2′ 3′ 4′

## MINIMUM LAP LENGTHS:

#5 BARS - 2′-9"

## LEGEND:

FF FRONT FACE
RF REAR FACE
EF EACH FACE
E EPOXY COATED BARS
CCNS CLOSED CELL NEOPRENE SPONGE
PCP 1" PREFORMED CELLULAR POLYSTYRENE WITH TWO LAYERS OF 4 MIL POLYETHYLENE SHEETING

## REFERENCES:

1. GENERAL NOTES 1 & 2
2. WORK THIS DRAWING WITH SHEETS
3. WINGWALL BARRIER DETAILS
4. ABUTMENT 2 DRAIN TROUGH DETAILS
5. ABUTMENT 2 REINF BAR SCHEDULE

## SHEET:

4 & 5
51-57
59-61
62
63 & 64

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. MINOR ADJUSTMENTS ARE PERMITTED TO WEEP HOLE LOCATIONS TO AVOID STEM REINFORCEMENT.
3. PROVIDE VERTICAL V-NOTCH IN CONCRETE BELOW ALL WEEP HOLES.

| DES: JMF | CKD: LTS | DWG: EEM | CKD: JMF |
|---|---|---|---|

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 2 WINGWALL D

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 58 OF 130

S - 39414

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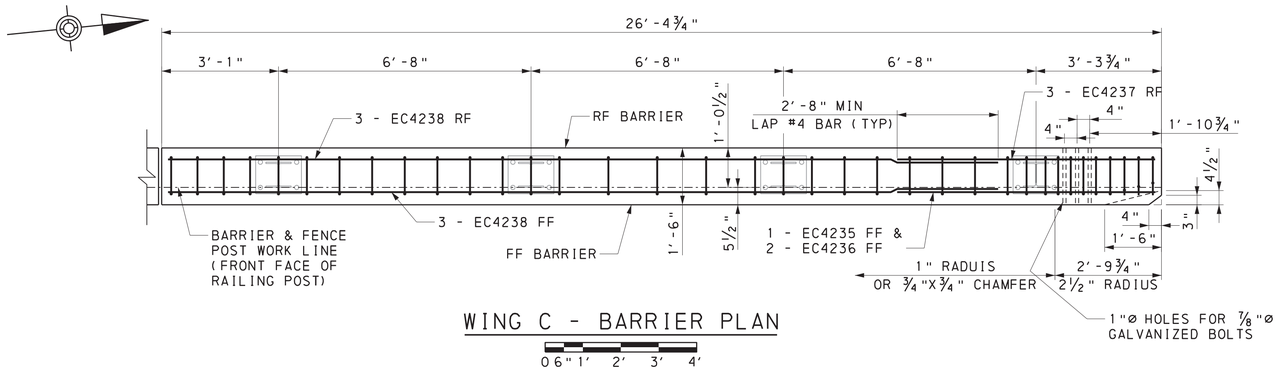
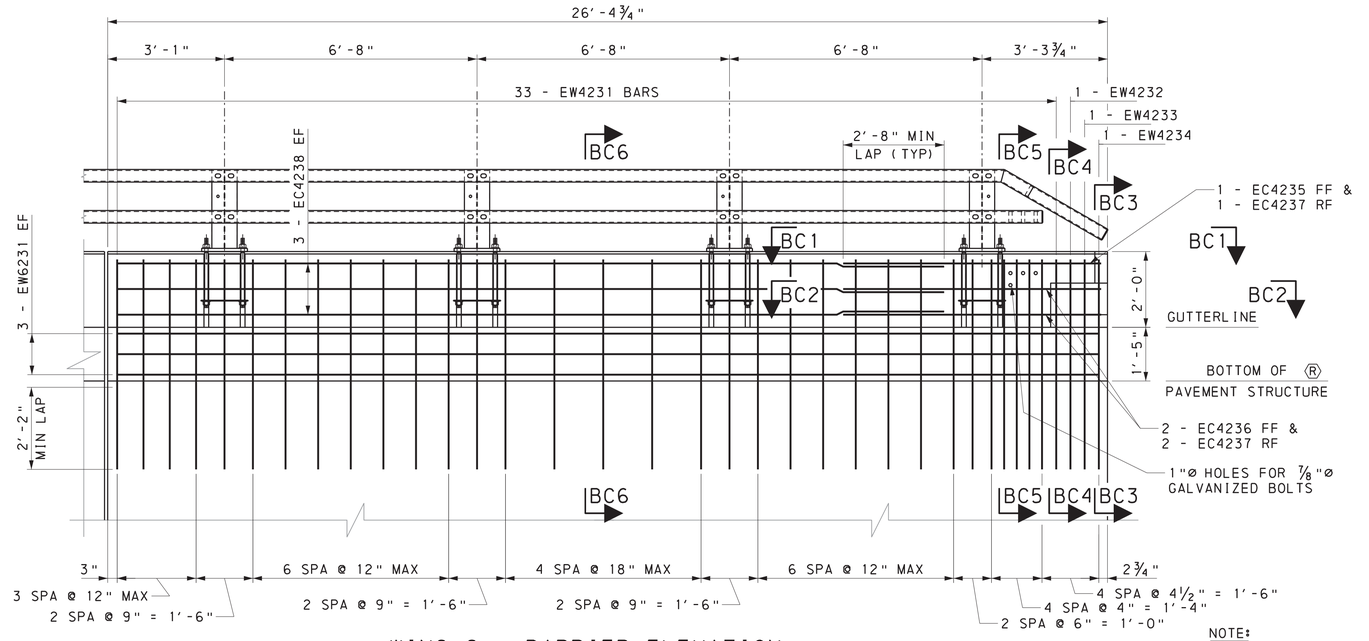



## WING C - BARRIER PLAN

0 6" 1′ 2′ 3′ 4′




## WING C - BARRIER ELEVATION

0 6" 1′ 2′ 3′ 4′

NOTE:
THRIE-BEAM GUIDERAIL
CONNECTION NOT SHOWN
(SEE RC-50M)

## LEGEND:

E EPOXY COATED BARS
EF EACH FACE
FF FRONT FACE
RF REAR FACE
Ⓡ ROADWAY ITEM

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS SHEET WITH SHEETS | 51-58 |
| 3. SECTIONS BC1-BC1 THRU BC6-BC6 | 60 |
| 4. ABUTMENT 2 REINF BAR SCHEDULE 2 | 64 |
| 5. BARRIER AND FENCE POST LAYOUT 2 | 88 |
| 6. BARRIER DEFLECTION JOINTS 2 | 90 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
WING C BARRIER DETAILS 1

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 59 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: LTS | CKD: JMF

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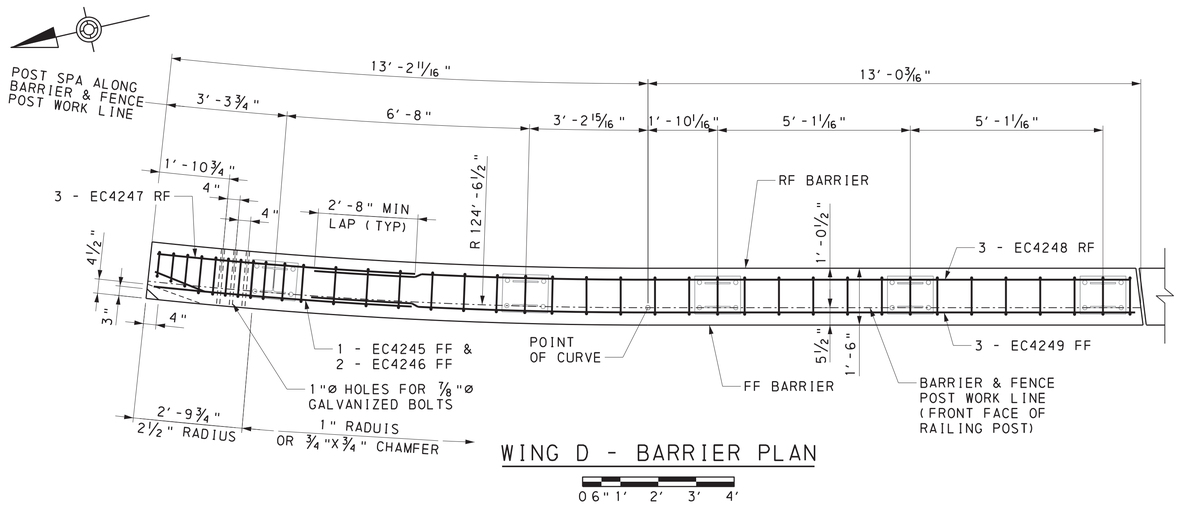
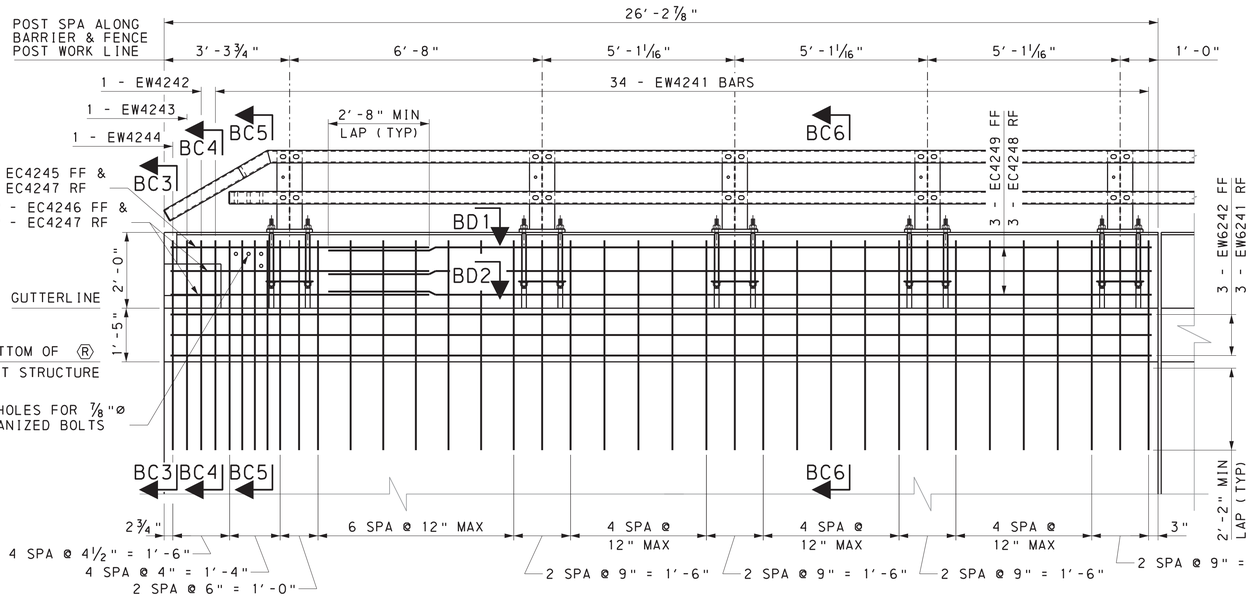



## WING D - BARRIER PLAN

0 6″ 1′ 2′ 3′ 4′




## WING D - BARRIER ELEVATION

0 6″ 1′ 2′ 3′ 4′

NOTE:
THRIE-BEAM GUIDERAIL CONNECTION NOT SHOWN (SEE RC-50M)

## LEGEND:

E EPOXY COATED BARS
EF EACH FACE
FF FRONT FACE
RF REAR FACE
Ⓡ ROADWAY ITEM

## REFERENCES:

| | | SHEET: |
|---|---|---|
| 1. | GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. | WORK THIS SHEET WITH SHEETS | 51-58 |
| 3. | SECTIONS BD1-BD1, BD2-BD2 | 59 |
| 4. | SECTIONS BC3-BC3 THRU BC5-BC5 | 61 |
| 5. | ABUTMENT 2 REINF BAR SCHEDULE 2 | 64 |
| 6. | BARRIER AND FENCE POST LAYOUT 2 | 88 |
| 7. | BARRIER DEFLECTION JOINTS 2 | 90 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
WING D BARRIER DETAILS 1

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 60 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: LTS | CKD: JMF

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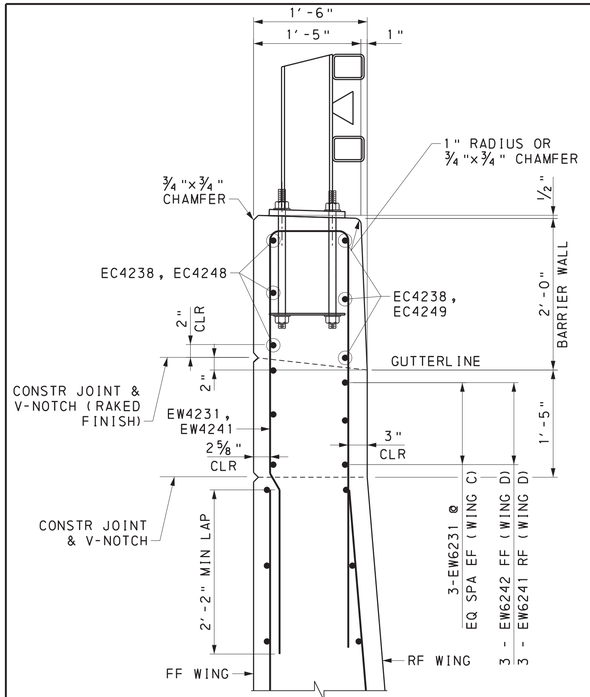
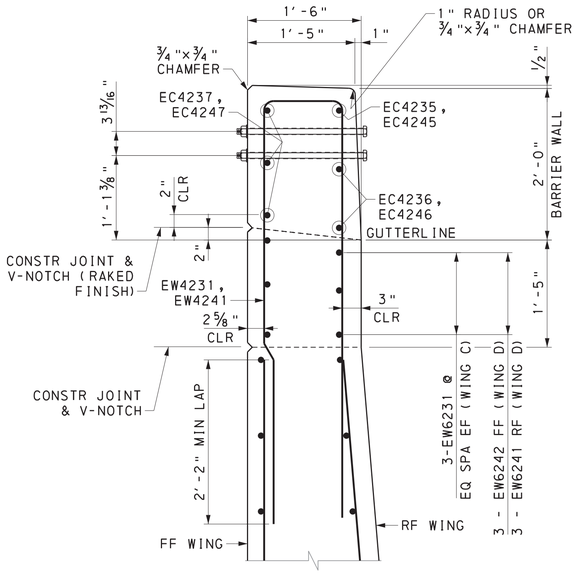
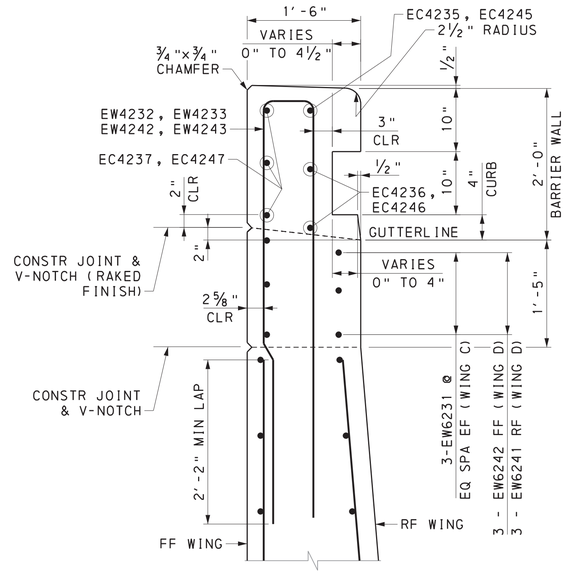


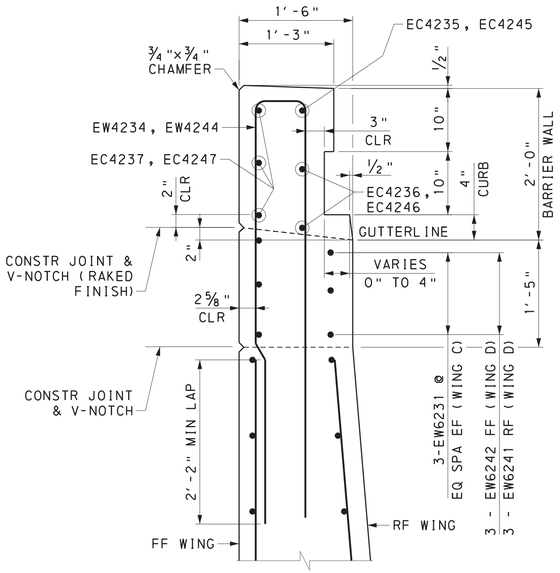

SECTION BC6-BC6



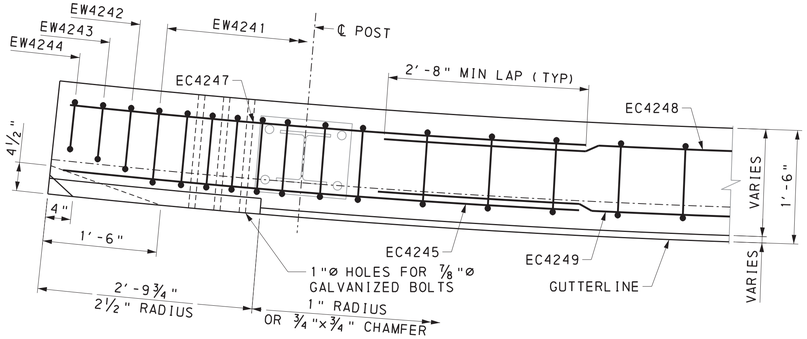

SECTION BC5-BC5




SECTION BC4-BC4

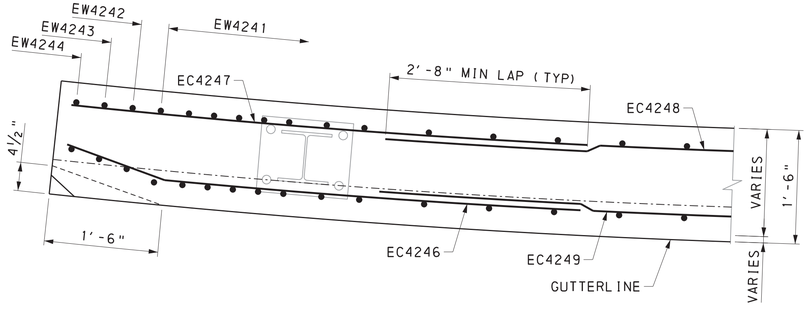



SECTION BC3-BC3



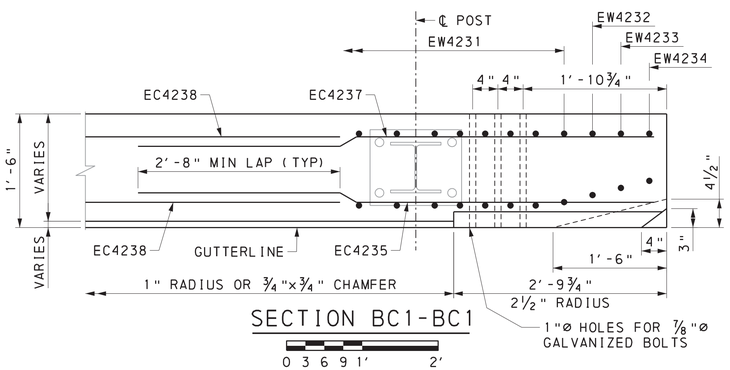

SECTION BD1-BD1

0 3 6 9 1′ 2′



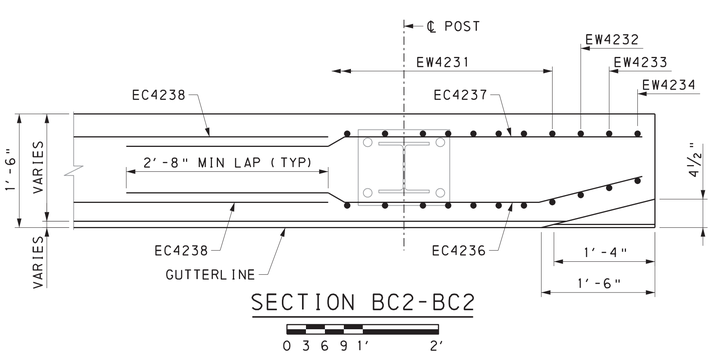

SECTION BD2-BD2

0 3 6 9 1′ 2′




SECTION BC1-BC1

0 3 6 9 1′ 2′




SECTION BC2-BC2

0 3 6 9 1′ 2′

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS SHEET WITH SHEETS | 51-58 |
| 3. SECTION CUT LOCATIONS BC1-BC1, BC2-BC2 | 59 |
| 4. SECTION CUT LOCATIONS BC3-BC3 THRU BC5-BC5 | 59 |
| 5. SECTION CUT LOCATIONS BD1-BD1, BD2-BD2 | 60 |
| 6. ABUTMENT 2 REINF BAR SCHEDULE 2 | 64 |
| 7. BARRIER AND FENCE POST LAYOUT 2 | 88 |
| 8. BARRIER DEFLECTION JOINTS 2 | 90 |

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

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## WING C AND D BARRIER DETAILS

RECOMMENDED _____

SHEET 61 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: LTS | CKD: JMF

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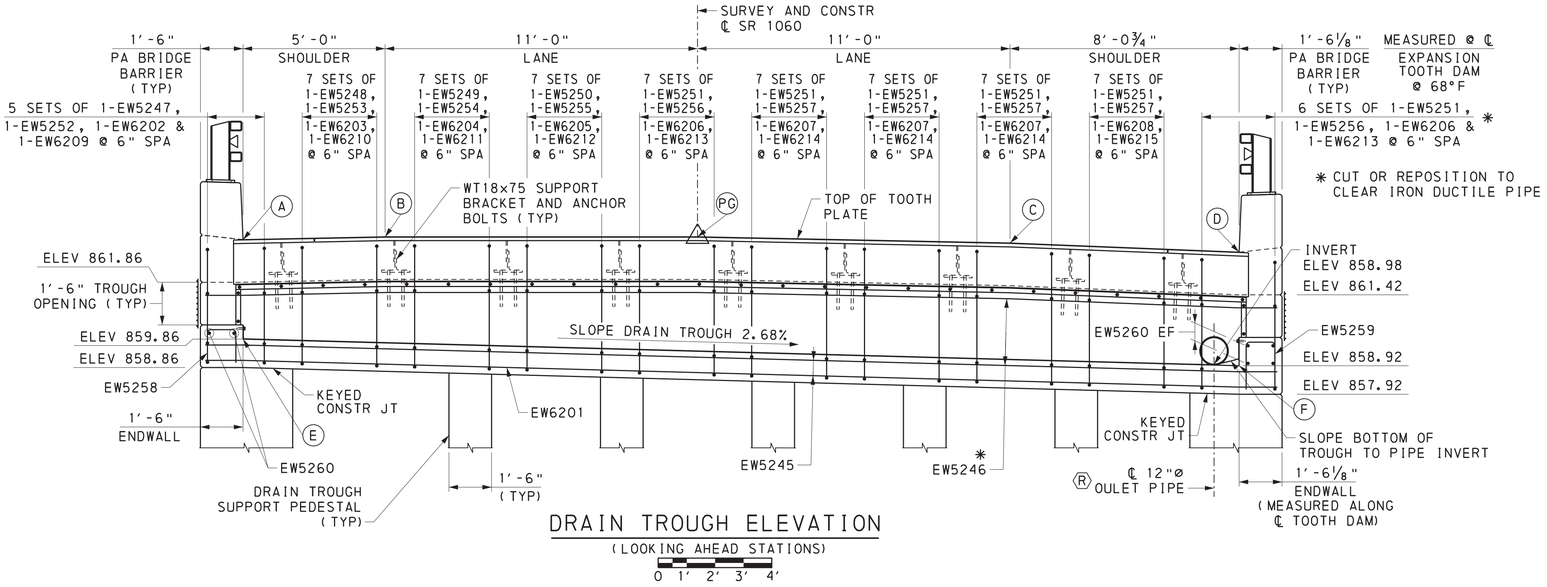
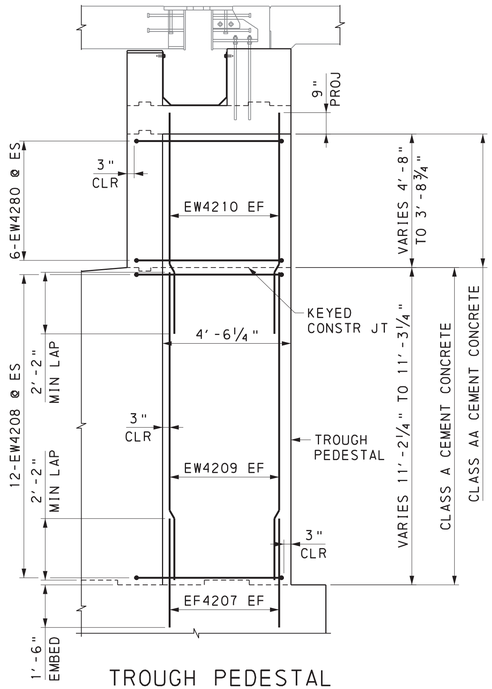



## DRAIN TROUGH ELEVATION

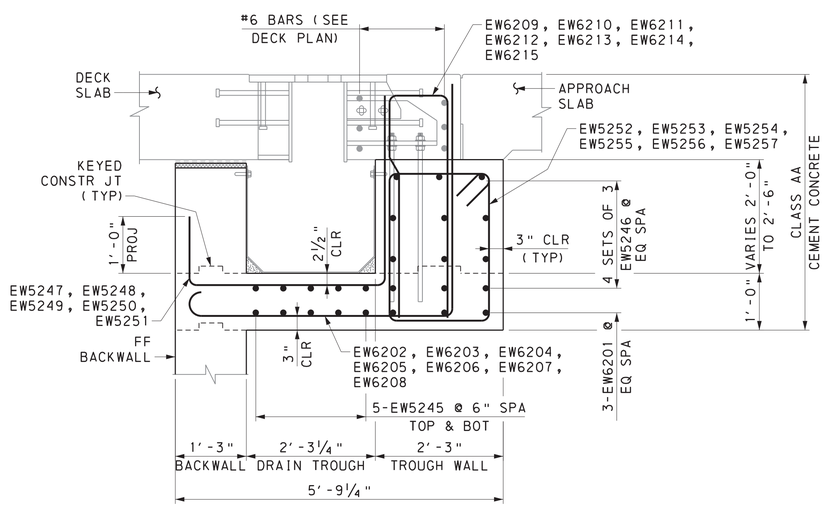
(LOOKING AHEAD STATIONS)

0 1′ 2′ 3′ 4′




## TROUGH PEDESTAL REINFORCEMENT DETAIL

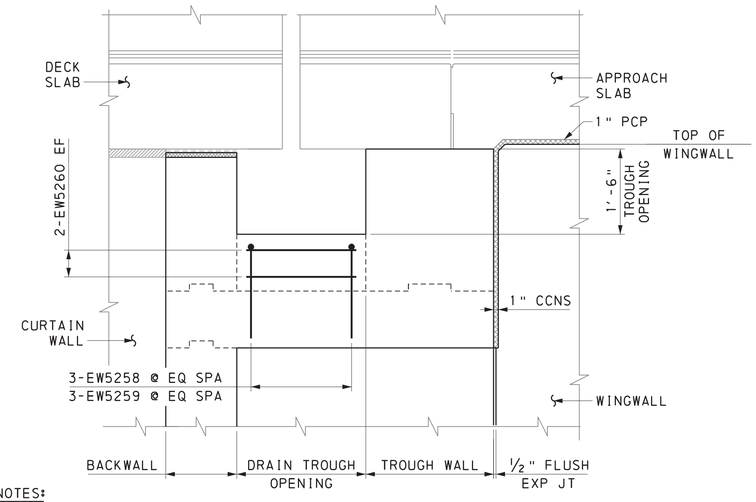
0 1′ 2′ 3′ 4′




NOTES:
BACKWALL REINFORCEMENT NOT SHOWN.
TROUGH PEDESTAL NOT SHOWN.

## DRAIN TROUGH REINFORCEMENT DETAIL

0 6 1′ 2′




NOTES:
HEAVY WELDED GALVANIZED STEEL GRATE NOT SHOWN. (SEE ABUT 2 TOOTH DAM DETAILS)

ABUTMENT & DRAIN TROUGH REINFORCEMENT NOT SHOWN.

## DRAIN TROUGH ENDWALL DETAIL

0 6 1′ 2′

## LEGEND:

FF FRONT FACE
EF EACH FACE
E EPOXY COATED BARS
Ⓡ ROADWAY ITEM
PCP PREFORMED CELLULAR POLYSTYRENE
CCNS CLOSED CELL NEOPRENE SPONGE

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES | 4 & 5 |
| 2. WORK THIS DRAWING WITH SHEETS | 51-58 |
| 3. ABUTMENT 2 REINF BAR SCHEDULE | 63 & 64 |

## ELEVATIONS AT CENTERLINE OF TOOTH DAM

| | A | B | PG | C | D | E | F |
|---|---|---|---|---|---|---|---|
| STATION | 108+24.51 | 108+24.51 | 108+24.51 | 108+24.51 | 108+24.51 | 108+24.51 | 108+24.51 |
| ELEVATION | 863.36 | 863.45 | 863.46 | 863.24 | 862.91 | 859.85 | 858.91 |

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER ABUTMENT 2 DRAIN TROUGH DETAILS

RECOMMENDED _____

SHEET 62 OF 130

S - 39414

DES: JMF | CKD: LTS | DWG: EEM | CKD: JMF

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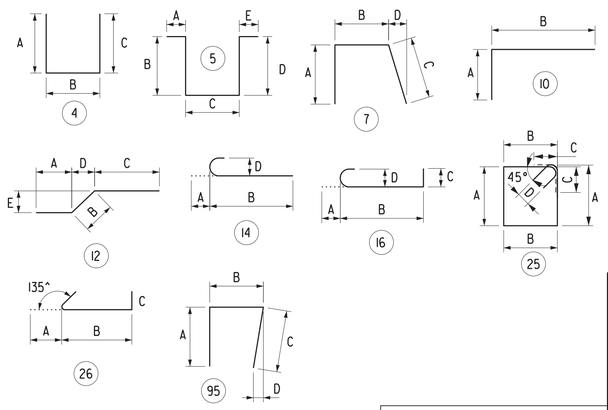
# ABUTMENT 2 REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EW3201 | 3 | 18 | 6′-6" | 4 | 2′-11" | 8" | 2′-11" | | | | |
| EW3202 | 3 | 8 | 7′-1" | 95 | 2′-11" | 1′-3" | 2′-11" | 4 ½" | | | |
| EW3203 | 3 | 8 | 6′-6" | 7 | 2′-11" | 8" | 2′-11" | 5" | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EW4201 | 4 | 11 | 37′-5" | STR | | | | | | | |
| EW4202 | 4 | 11 | 37′-7" | STR | | | | | | | |
| EW4203 | 4 | 20 | 8′-10" | STR | | | | | | | |
| EW4204 | 4 | 18 | 5′-6" TO 7′-2" | 4 | 2′-3" TO 3′-1" | 1′-0" | 2′-3" TO 3′-1" | | | | VARY EA A & C BY 9/16"+ |
| EW4205 | 4 | 21 | 7′-2" TO 7′-6" | 4 | 3′-1" TO 3′-3" | 1′-0" | 3′-1" TO 3′-3" | | | | VARY EA A & C BY 1/8"- |
| EW4206 | 4 | 108 | 5′-4" | 7 | 2′-2" | 1′-0" | 2′-2" | 2 ¼" | | | |
| EF4207 | 4 | 50 | 3′-8" | STR | | | | | | | |
| EW4208 | 4 | 90 | 13′-10" | 5 | 1′-0" | 5′-4" | 1′-2" | 5′-4" | 1′-0" | | |
| EW4209 | 4 | 50 | 14′-8" | STR | | | | | | | |
| EW4210 | 4 | 50 | 8′-6" | STR | | | | | | | |
| EW4211 | 4 | 72 | 3′-6" | STR | | | | | | | WEEP HOLES |
| EW4212 | 4 | 188 | 3′-2" | 26 | 4 ½" | 2′-5" | 4 ½" | | | | |
| | | | | | | | | | | | |
| EF5201 | 5 | 29 | 12′-4" | 4 | 10" | 10′-8" | 10" | | | | |
| EF5202 | 5 | 1 | 10′-5" | 4 | 10" | 8′-9" | 10" | | | | |
| EF5203 | 5 | 2 | 39′-9" | STR | | | | | | | |
| EF5204 | 5 | 2 | 24′-8" | STR | | | | | | | |
| EF5205 | 5 | 2 | 25′-1" | STR | | | | | | | |
| EF5206 | 5 | 2 | 14′-7" | STR | | | | | | | |
| EF5207 | 5 | 2 | 15′-9" | STR | | | | | | | |
| EF5208 | 5 | 2 | 24′-6" | STR | | | | | | | |
| EF5209 | 5 | 60 | 10′-10" | 4 | 10" | 9′-2" | 10" | | | | |
| EF5210 | 5 | 56 | 9′-2" | STR | | | | | | | |
| EF5211 | 5 | 50 | 22′-2" | STR | | | | | | | |
| EF5212 | 5 | 36 | 11′-1" | 12 | 2′-9" | 5′-7" | 2′-9" | 2′-6" | 5′-0" | | |
| EF5213 | 5 | 4 | 9′-2" | 12 | 2′-9" | 5′-7" | 10" | 2′-6" | 5′-0" | | |
| EF5214 | 5 | 38 | 10′-1" | 10 | 7′-4" | 2′-9" | | | | | |
| EF5215 | 5 | 54 | 9′-4" | 4 | 10" | 7′-8" | 10" | | | | |
| EF5216 | 5 | 56 | 7′-8" | STR | | | | | | | |
| EF5217 | 5 | 44 | 19′-8" | STR | | | | | | | |
| EF5218 | 5 | 108 | 3′-3" | STR | | | | | | | |
| EW5219 | 5 | 12 | 18′-7" | STR | | | | | | | |
| | | | | | | | | | | | |
| EW5221 | 5 | 6 | 13′-6" | STR | | | | | | | |
| EW5222 | 5 | 15 | 13′-4" TO 13′-6" | STR | | | | | | | VARY EA BY 1/8"+ |
| EW5223 | 5 | 6 | 8′-4" | STR | | | | | | | |
| EF5224 | 5 | 3 | 16′-9" | 14 | 7" | 16′-2" | | | | | |
| EF5225 | 5 | 3 | 11′-10" TO 14′-10" | 14 | 7" | 11′-3" TO 14′-3" | | | | | VARY EA B BY 1′-6" |
| EW5226 | 5 | 15 | 8′-2" TO 8′-4" | STR | | | | | | | VARY EA BY 1/8"+ |
| EF5227 | 5 | 15 | 11′-7" TO 11′-9" | 14 | 7" | 11′-0" TO 11′-2" | | | | | VARY EA B BY 1/8"+ |
| EW5228 | 5 | 10 | 10′-4" | STR | | | | | | | |
| EW5229 | 5 | 48 | 30′-4" | STR | | | | | | | BEND IN FIELD |
| EW5230 | 5 | 38 | 23′-10" | STR | | | | | | | BEND IN FIELD |
| EW5231 | 5 | 12 | 17′-11" TO 18′-2" | STR | | | | | | | VARY EA BY 1/4"+ |
| EW5232 | 5 | 6 | 12′-11" | STR | | | | | | | |
| EW5233 | 5 | 15 | 12′-6" TO 12′-10" | STR | | | | | | | VARY EA BY 5/16"- |
| | | | | | | | | | | | |
| EW5235 | 5 | 6 | 7′-6" | STR | | | | | | | |
| EF5236 | 5 | 3 | 15′-11" | 14 | 7" | 15′-4" | | | | | |
| EF5237 | 5 | 3 | 10′-10" TO 14′-1" | 14 | 7" | 10′-3" TO 13′-6" | | | | | VARY EA B BY 1′-7 ½" |
| EW5238 | 5 | 15 | 7′-4" TO 7′-6" | STR | | | | | | | VARY EA BY 1/8"+ |
| EF5239 | 5 | 15 | 10′-9" TO 10′-11" | 14 | 7" | 10′-2" TO 10′-4" | | | | | VARY EA BY 1/8"+ |
| EW5240 | 5 | 5 | 10′-3" | STR | | | | | | | |
| EW5241 | 5 | 5 | 10′-5" | STR | | | | | | | |
| EW5242 | 5 | 5 | 30′-3" | STR | | | | | | | |
| EW5243 | 5 | 5 | 30′-5" | STR | | | | | | | |

# ABUTMENT 2 REINFORCEMENT BAR SCHEDULE ( CONT′D)

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EW5245 | 5 | 10 | 37′-7" TO 37′-10" | STR | | | | | | | 2 SETS OF 5: VARY EA BY 3/4" |
| EW5246 | 5 | 12 | 37′-11" TO 38′-1" | STR | | | | | | | 4 SETS OF 3: VARY EA BY 1" |
| EW5247 | 5 | 5 | 8′-3" | 4 | 1′-3" | 3′-6" | 3′-6" | | | | |
| EW5248 | 5 | 7 | 8′-5" | 4 | 1′-3" | 3′-6" | 3′-8" | | | | |
| EW5249 | 5 | 7 | 8′-6" | 4 | 1′-3" | 3′-6" | 3′-9" | | | | |
| EW5250 | 5 | 7 | 8′-8" | 4 | 1′-3" | 3′-6" | 3′-11" | | | | |
| EW5251 | 5 | 41 | 8′-9" | 4 | 1′-3" | 3′-6" | 4′-0" | | | | |
| EW5252 | 5 | 5 | 9′-5" | 25 | 2′-6" | 1′-9" | 5 ½" | | | | |
| EW5253 | 5 | 7 | 9′-7" TO 9′-11" | 25 | 2′-7" TO 2′-9" | 1′-9" | 5 ½" | | | | |
| EW5254 | 5 | 7 | 10′-1" | 25 | 2′-10" | 1′-9" | 5 ½" | | | | |
| EW5255 | 5 | 7 | 10′-3" | 25 | 2′-11" | 1′-9" | 5 ½" | | | | |
| EW5256 | 5 | 13 | 10′-5" | 25 | 3′-0" | 1′-9" | 5 ½" | | | | |
| EW5257 | 5 | 28 | 10′-7" | 25 | 3′-1" | 1′-9" | 5 ½" | | | | |
| EW5258 | 5 | 3 | 3′-6" | 4 | 1′-2" | 1′-2" | 1′-2" | | | | |
| EW5259 | 5 | 3 | 4′-6" | 4 | 1′-8" | 1′-2" | 1′-8" | | | | |
| EW5260 | 5 | 6 | 1′-11" | STR | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EW6201 | 6 | 3 | 37′-11" TO 38′-1" | STR | | | | | | | VARY EA BY 1" |
| EW6202 | 6 | 5 | 9′-2" | 16 | 8" | 4′-6" | 4′-0" | | | | |
| EW6203 | 6 | 7 | 9′-3" TO 9′-5" | 16 | 8" | 4′-6" | 4′-1" TO 4′-3" | | | | VARY EA B BY 5/16"+ |
| EW6204 | 6 | 7 | 9′-6" | 16 | 8" | 4′-6" | 4′-4" | | | | |
| EW5205 | 5 | 7 | 9′-7" | 16 | 8" | 4′-6" | 4′-5" | | | | |
| EW6206 | 6 | 13 | 9′-8" | 16 | 8" | 4′-6" | 4′-6" | | | | |
| EW6207 | 6 | 21 | 9′-9" | 16 | 8" | 4′-6" | 4′-7" | | | | |
| EW6208 | 6 | 7 | 9′-7" TO 9′-9" | 16 | 8" | 4′-6" | 4′-5" TO 4′-7" | | | | VARY EA C BY 5/16"+ |
| EW6209 | 6 | 5 | 9′-2" | 4 | 4′-1" | 1′-0" | 4′-1" | | | | |
| EW6210 | 6 | 7 | 9′-4" TO 9′-8" | 4 | 4′-2" TO 4′-4" | 1′-0" | 4′-2" TO 4′-4" | | | | VARY EA A & C BY 5/16"+ |
| EW6211 | 6 | 7 | 9′-10" | 4 | 4′-5" | 1′-0" | 4′-5" | | | | |
| EW6212 | 6 | 7 | 10′-0" | 4 | 4′-6" | 1′-0" | 4′-6" | | | | |
| EW6213 | 6 | 13 | 10′-2" | 4 | 4′-7" | 1′-0" | 4′-7" | | | | |
| EW6214 | 6 | 21 | 10′-4" | 4 | 4′-8" | 1′-0" | 4′-8" | | | | |
| EW6215 | 6 | 7 | 10′-0" TO 10′-4" | 4 | 4′-6" TO 4′-8" | 1′-0" | 4′-6" TO 4′-8" | | | | VARY EA A & C BY 5/16"+ |
| | | | | | | | | | | | |




REFERENCES:
1. REINFORCEMENT NOTES

SHEET:
64

| Mark | Description | By | Chk′d. | Recm′d. | Date |
|---|---|---|---|---|---|
| REVISIONS | | | | | |

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 2 REINF BAR SCHEDULE 1

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 63 OF 130

S - 39414

DES: EEM | CKD: LTS | DWG: EEM | CKD: JMF

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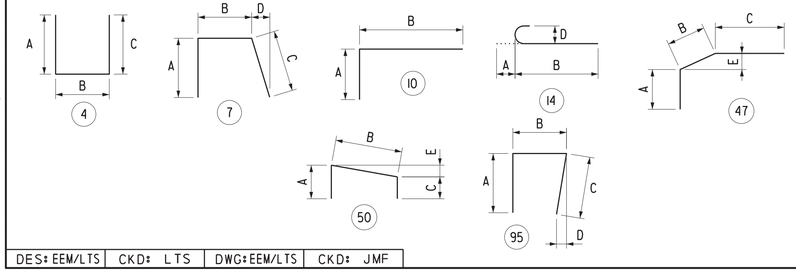
## ABUTMENT 2 REINFORCEMENT BAR SCHEDULE ( CONT' D)

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EF7201 | 7 | 30 | 10'-8" | STR | | | | | | | |
| EF7202 | 7 | 72 | 4'-1" | STR | | | | | | | |
| EW7203 | 7 | 39 | 10'-10" | STR | | | | | | | |
| EF7204 | 7 | 38 | 15'-6" | 14 | 10" | 14'-8" | | | | | |
| EF7205 | 7 | 18 | 21'-10" TO 22'-3" | 14 | 10" | 21'-0" TO 21'-5" | | | | | VARY EA B BY 5/16"- |
| EF7206 | 7 | 21 | 21'-10" TO 22'-3" | 14 | 10" | 21'-0" TO 21'-5" | | | | | VARY EA B BY 1/4" |
| EW7207 | 7 | 39 | 8'-1" | 47 | 3'-10" | 3'-3" | 1'-0" | | 3 1/4" | | |
| EW7208 | 7 | 12 | 37'-0" | STR | | | | | | | |
| EW7209 | 7 | 12 | 37'-7" | STR | | | | | | | |
| EW7210 | 7 | 4 | 37'-1" TO 37'-5" | STR | | | | | | | VARY EA BY1 5/16"+ |
| EW7211 | 7 | 12 | 11'-11" | 4 | 3'-10" | 4'-3" | 3'-10" | | | | |
| EW7212 | 7 | 12 | 11'-12" | 50 | 3'-10" | 4'-4" | 3'-10" | | 6 1/2" | | |
| EW7213 | 7 | 8 | 10'-10" | STR | | | | | | | |
| EW7214 | 7 | 12 | 16'-6" | STR | | | | | | | |
| EW7215 | 7 | 13 | 15'-7" | STR | | | | | | | |
| EW7216 | 7 | 12 | 17'-6" | 4 | 7'-4" | 2'-10" | 7'-4" | | | | |
| EW7217 | 7 | 12 | 17'-11" | 95 | 7'-4" | 3'-3" | 7'-4" | 10 3/4" | | | |
| EW7218 | 7 | 12 | 11'-10" | 4 | 4'-6" | 2'-10" | 4'-6" | | | | |
| EW7219 | 7 | 5 | 12'-3" | 95 | 4'-6" | 3'-3" | 4'-6" | 7" | | | |
| EW7220 | 7 | 5 | 11'-6" | 7 | 4'-6" | 2'-6" | 4'-6" | 7" | | | |
| EW7221 | 7 | 39 | 9'-5" | STR | | | | | | | |
| EW7222 | 7 | 3 | 22'-2" | 14 | 10" | 21'-4" | | | | | |
| EF7223 | 7 | 3 | 17'-2" TO 20'-2" | 14 | 10" | 16'-4" TO 19'-4" | | | | | VARY EA B BY 1'-6" |
| EF7224 | 7 | 15 | 16'-12" TO 17'-2" | 14 | 10" | 16'-2" TO 16'-4" | | | | | VARY EA B BY 1/8"+ |
| EF7225 | 7 | 3 | 21'-7" | 14 | 10" | 20'-9" | | | | | |
| EF7226 | 7 | 3 | 16'-6" TO 19'-9" | 14 | 10" | 15'-8" TO 18'-11" | | | | | VARY EA B BY 1'-7 1/2" |
| EF7227 | 7 | 15 | 16'-2" TO 16'-6" | 14 | 10" | 15'-4" TO 15'-8" | | | | | VARY EA B BY 5/16"- |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EF8201 | 8 | 12 | 26'-0" | 10 | 1'-4" | 24'-8" | | | | | |
| EF8202 | 8 | 21 | 15'-4" | 4 | 1'-4" | 12'-8" | 1'-4" | | | | |
| EF8203 | 8 | 6 | 14'-0" | 10 | 1'-4" | 12'-8" | | | | | |
| EF8204 | 8 | 2 | 25'-10" | 10 | 1'-4" | 24'-6" | | | | | |
| EF8205 | 8 | 19 | 16'-3" | STR | | | | | | | |
| EF8206 | 8 | 2 | 42'-5" | 4 | 1'-4" | 39'-9" | 1'-4" | | | | |
| EF8207 | 8 | 5 | 42'-8" TO 43'-1" | 4 | 1'-4" | 40'-0" TO 40'-5" | 1'-4" | | | | VARY EA B BY 1 1/4" |
| EF8208 | 8 | 5 | 43'-3" TO 43'-9" | 4 | 1'-4" | 40'-7" TO 41'-1" | 1'-4" | | | | VARY EA B BY 1 1/2" |
| EF8209 | 8 | 2 | 43'-11" | 4 | 1'-4" | 41'-3" | 1'-4" | | | | |
| EF8210 | 8 | 12 | 24'-8" | STR | | | | | | | |
| EF8211 | 8 | 28 | 12'-8" | STR | | | | | | | |
| EF8212 | 8 | 3 | 24'-6" TO 24'-9" | STR | | | | | | | VARY EA BY 1 1/2" |
| EF8213 | 8 | 14 | 39'-9" TO 41'-3" | STR | | | | | | | VARY EA BY 1 3/8" |
| EF8214 | 8 | 12 | 22'-4" | 14 | 11" | 21'-5" | | | | | |
| EF5215 | 5 | 12 | 21'-8" TO 21'-11" | 14 | 11" | 20'-9" TO 21'-0" | | | | | VARY EA B BY 1/4"+ |

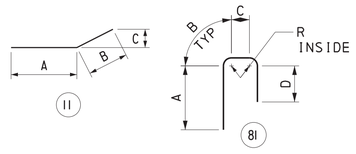



## WINGWALL C BARRIER REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EW4231 | 4 | 33 | 12'-3 3/8" | 81 | 5'-6" | 4" | 7 3/8" | 5'-6" | | 2" | VERTICAL REINFORCEMENT |
| EW4232 | 4 | 1 | 12'-1 3/4" | 81 | 5'-6" | 4" | 5 3/4" | 5'-6" | | 2" | VERTICAL REINFORCEMENT |
| EW4233 | 4 | 1 | 12'-0 5/8" | 81 | 5'-6" | 4" | 4 5/8" | 5'-6" | | 2" | VERTICAL REINFORCEMENT |
| EW4234 | 4 | 1 | 11'-11 5/8" | 81 | 5'-6" | 4" | 3 5/8" | 5'-6" | | 2" | VERTICAL REINFORCEMENT |
| EC4235 | 4 | 1 | 6'-10" | STR | | | | | | | |
| EC4236 | 4 | 2 | 6'-10 1/2" | 11 | 5'-8" | 1'-2 1/2" | 3 1/2" | | | | |
| EC4237 | 4 | 3 | 6'-10" | STR | | | | | | | |
| EC4238 | 4 | 6 | 22'-0" | STR | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EW6231 | 6 | 6 | 26'-0" | STR | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

## WINGWALL D BARRIER REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EW4241 | 4 | 34 | 12'-3 3/8" | 81 | 5'-6" | 4" | 7 3/8" | 5'-6" | | 2" | VERTICAL REINFORCEMENT |
| EW4242 | 4 | 1 | 12'-1 3/4" | 81 | 5'-6" | 4" | 5 3/4" | 5'-6" | | 2" | VERTICAL REINFORCEMENT |
| EW4243 | 4 | 1 | 12'-0 5/8" | 81 | 5'-6" | 4" | 4 5/8" | 5'-6" | | 2" | VERTICAL REINFORCEMENT |
| EW4244 | 4 | 1 | 11'-11 5/8" | 81 | 5'-6" | 4" | 3 5/8" | 5'-6" | | 2" | VERTICAL REINFORCEMENT |
| EC4245 | 4 | 1 | 6'-10" | STR | | | | | | | BEND BAR IN FIELD TO REQUIRED RADIUS |
| EC4246 | 4 | 2 | 6'-10 1/2" | 11 | 5'-8" | 1'-2 1/2" | 3 1/2" | | | | BEND BAR IN FIELD TO REQUIRED RADIUS |
| EC4247 | 4 | 3 | 6'-10" | STR | | | | | | | BEND BAR IN FIELD TO REQUIRED RADIUS |
| EC4248 | 4 | 3 | 21'-8" | STR | | | | | | | BEND BAR IN FIELD TO REQUIRED RADIUS |
| EC4249 | 4 | 3 | 21'-10" | STR | | | | | | | BEND BAR IN FIELD TO REQUIRED RADIUS |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EW6241 | 6 | 6 | 25'-8" | STR | | | | | | | BEND BAR IN FIELD TO REQUIRED RADIUS |
| EW6242 | 6 | 6 | 25'-11" | STR | | | | | | | BEND BAR IN FIELD TO REQUIRED RADIUS |
| | | | | | | | | | | | |
| | | | | | | | | | | | |




## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

## REFERENCES:

1. GENERAL NOTES 1 & 2
2. WORK THIS SHEET WITH SHEETS

SHEET:
4 & 5
51-62

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUTMENT 2 REINF BAR SCHEDULE 2

RECOMMENDED _____

SHEET 64 OF 130

S - 39414

| DES: EEM/LTS | CKD: LTS | DWG: EEM/LTS | CKD: JMF |
|---|---|---|---|

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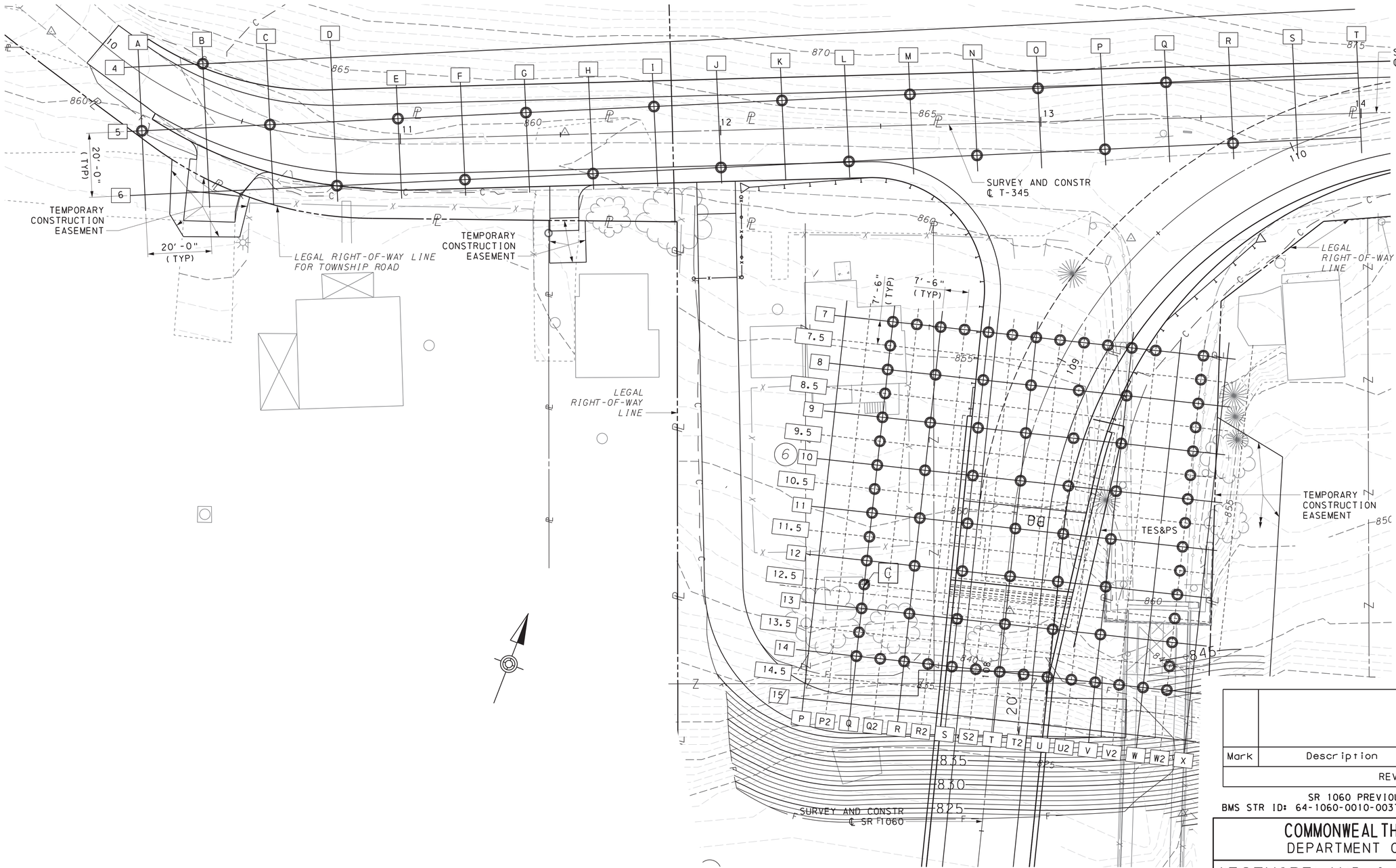


## ABUT 2 INJECTION HOLE PLAN

0 16' 32'

**LEGEND:**

INJECTION HOLE

TES&PS TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM

| REFERENCES: | SHEET: |
|---|---|
| 1. INDEX OF DRAWINGS | 3 |
| 2. GENERAL NOTES 1 & 2 | 4 & 5 |
| 3. ABUTMENT 2 PLAN | 51 |
| 4. ABUT 2 PILE AND FOOTING REINF PLAN 1 AND 2 | 53 & 54 |

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|---|---|---|---|---|---|
| REVISIONS | | | | | |

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## ABUT 2 MINE INJECTION HOLE PLAN

RECOMMENDED _____

SHEET 65 OF 130

S - 39414

| DES: JR | CKD: LT | DWG: JWL | CKD: JWB |
|---|---|---|---|

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## ABUT 2 INJECTION HOLE TABLE

| HOLE | SURVEY & CONSTR ℄ | STATION | OFFSET (FT) | | NORTHING | EASTING |
|---|---|---|---|---|---|---|
| 4B | T345 | 10+31.0 | 12.1 | LT | 439305.7377 | 1483349.159 |
| 5A | T345 | 10+24.1 | 15.3 | RT | 439284.8133 | 1483330.128 |
| 5C | T345 | 10+58.7 | 1.3 | LT | 439286.707 | 1483370.083 |
| 5E | T345 | 10+99.4 | 6.4 | LT | 439288.6007 | 1483410.039 |
| 5G | T345 | 11+39.4 | 7.2 | LT | 439290.4944 | 1483449.994 |
| 5I | T345 | 11+79.4 | 8 | LT | 439292.3882 | 1483489.949 |
| 5K | T345 | 12+19.4 | 8.8 | LT | 439294.2819 | 1483529.904 |
| 5M | T345 | 12+59.4 | 9.7 | LT | 439296.1756 | 1483569.859 |
| 5O | T345 | 12+99.4 | 10.5 | LT | 439298.0693 | 1483609.814 |
| 5Q | T345 | 13+39.4 | 11.3 | LT | 439299.9631 | 1483649.77 |
| 6D | T345 | 10+81.1 | 14.5 | RT | 439267.6763 | 1483391.008 |
| 6F | T345 | 11+19.8 | 13.2 | RT | 439269.57 | 1483430.963 |
| 6H | T345 | 11+59.8 | 12.4 | RT | 439271.4637 | 1483470.918 |
| 6J | T345 | 11+99.8 | 11.6 | RT | 439273.3575 | 1483510.873 |
| 6L | T345 | 12+39.8 | 10.7 | RT | 439275.2512 | 1483550.828 |
| 6N | T345 | 12+79.8 | 9.9 | RT | 439277.1449 | 1483590.784 |
| 6P | T345 | 13+19.8 | 9.1 | RT | 439279.0386 | 1483630.739 |
| 6R | T345 | 13+59.8 | 8.3 | RT | 439280.9323 | 1483670.694 |
| 7Q | 1060 | 108+90.1 | 52.8 | LT | 439225.1946 | 1483564.547 |
| 7Q2 | 1060 | 108+91.8 | 45.6 | LT | 439224.3788 | 1483572.003 |
| 7R | 1060 | 108+93.6 | 38.5 | LT | 439223.5634 | 1483579.458 |
| 7R2 | 1060 | 108+95.5 | 31.4 | LT | 439222.7478 | 1483586.914 |
| 7S | 1060 | 108+97.7 | 24.3 | LT | 439221.9321 | 1483594.369 |
| 7S2 | 1060 | 109+00.0 | 17.3 | LT | 439221.1165 | 1483601.825 |
| 7T | 1060 | 109+02.5 | 10.3 | LT | 439220.3009 | 1483609.281 |
| 7T2 | 1060 | 109+05.2 | 3.4 | LT | 439219.4853 | 1483616.736 |
| 7U | 1060 | 109+08.3 | 3.5 | RT | 439218.6697 | 1483624.192 |
| 7U2 | 1060 | 109+11.6 | 10.3 | RT | 439217.8541 | 1483631.647 |
| 7V | 1060 | 109+15.3 | 17 | RT | 439217.0385 | 1483639.103 |
| 7V2 | 1060 | 109+19.4 | 23.6 | RT | 439216.2229 | 1483646.558 |
| 7W2 | 1060 | 109+29.0 | 36.5 | RT | 439214.5916 | 1483661.469 |
| 7.5Q | 1060 | 108+84.8 | 50.7 | LT | 439217.7391 | 1483563.732 |
| 7.5W2 | 1060 | 109+20.3 | 40.4 | LT | 439207.1361 | 1483660.654 |
| 8Q | 1060 | 108+79.4 | 48.9 | LT | 439210.2835 | 1483562.916 |
| 8R | 1060 | 108+82.1 | 34.3 | LT | 439208.6523 | 1483577.827 |
| 8S | 1060 | 108+85.3 | 19.8 | LT | 439207.0211 | 1483592.738 |
| 8T | 1060 | 108+89.1 | 5.4 | LT | 439205.3899 | 1483607.649 |
| 8U | 1060 | 108+93.7 | 8.9 | RT | 439203.7587 | 1483622.56 |
| 8V | 1060 | 108+99.3 | 23.1 | RT | 439202.1274 | 1483637.471 |
| 8W2 | 1060 | 109+10.8 | 43.8 | RT | 439199.6806 | 1483659.838 |
| 8.5Q | 1060 | 108+73.9 | 47.4 | LT | 439202.828 | 1483562.101 |
| 8.5W2 | 1060 | 109+00.8 | 46.8 | RT | 439192.2251 | 1483659.022 |
| 9Q | 1060 | 108+68.3 | 46.1 | LT | 439195.3725 | 1483561.285 |
| 9R | 1060 | 108+70.1 | 31.3 | LT | 439193.7413 | 1483576.196 |
| 9S | 1060 | 108+72.3 | 16.5 | LT | 439192.1101 | 1483591.107 |
| 9T | 1060 | 108+74.8 | 1.7 | LT | 439190.4788 | 1483606.018 |
| 9U | 1060 | 108+78.0 | 12.9 | RT | 439188.8476 | 1483620.929 |
| 9V | 1060 | 108+82.0 | 27.6 | RT | 439187.2164 | 1483635.84 |
| 9W2 | 1060 | 108+90.2 | 49.2 | RT | 439184.7696 | 1483658.207 |
| 9.5Q | 1060 | 108+62.7 | 45.2 | LT | 439187.917 | 1483560.469 |

## ABUT 2 INJECTION HOLE TABLE (CONT'D)

| HOLE | SURVEY & CONSTR ℄ | STATION | OFFSET (FT) | | NORTHING | EASTING |
|---|---|---|---|---|---|---|
| 9.5W2 | 1060 | 108+79.0 | 51.2 | RT | 439177.314 | 1483657.391 |
| 10Q | 1060 | 108+57.0 | 44.5 | LT | 439180.4615 | 1483559.654 |
| 10R | 1060 | 108+57.8 | 29.5 | LT | 439178.8302 | 1483574.565 |
| 10S | 1060 | 108+58.8 | 14.6 | LT | 439177.199 | 1483589.476 |
| 10T | 1060 | 108+60.1 | 0.4 | RT | 439175.5678 | 1483604.387 |
| 10U | 1060 | 108+61.6 | 15.3 | RT | 439173.9366 | 1483619.298 |
| 10V | 1060 | 108+63.5 | 30.2 | RT | 439172.3054 | 1483634.209 |
| 10W2 | 1060 | 108+67.5 | 52.5 | RT | 439169.8585 | 1483656.576 |
| 10.5Q | 1060 | 108+51.2 | 44.1 | LT | 439173.0059 | 1483558.838 |
| 10.5W2 | 1060 | 108+55.7 | 53.3 | RT | 439162.403 | 1483655.76 |
| 11Q | 1060 | 108+45.3 | 44.1 | LT | 439165.5504 | 1483558.023 |
| 11R | 1060 | 108+45.2 | 29.1 | LT | 439163.9192 | 1483572.934 |
| 11S | 1060 | 108+45.1 | 14.1 | LT | 439162.288 | 1483587.845 |
| 11T | 1060 | 108+45.0 | 0.9 | RT | 439160.6568 | 1483602.756 |
| 11U | 1060 | 108+44.9 | 15.9 | RT | 439159.0255 | 1483617.667 |
| 11V | 1060 | 108+44.8 | 30.9 | RT | 439157.3943 | 1483632.578 |
| 11W2 | 1060 | 108+44.6 | 53.4 | RT | 439154.9475 | 1483654.944 |
| 11.5Q | 1060 | 108+37.8 | 44.1 | LT | 439158.0949 | 1483557.207 |
| 11.5W2 | 1060 | 108+37.1 | 53.4 | RT | 439147.492 | 1483654.129 |
| 12Q | 1060 | 108+30.3 | 44.2 | LT | 439150.6394 | 1483556.391 |
| 12R | 1060 | 108+30.2 | 29.2 | LT | 439149.0082 | 1483571.302 |
| 12S | 1060 | 108+30.1 | 14.2 | LT | 439147.3769 | 1483586.213 |
| 12T | 1060 | 108+30.0 | 0.8 | RT | 439145.7457 | 1483601.124 |
| 12U | 1060 | 108+29.9 | 15.8 | RT | 439144.1145 | 1483616.035 |
| 12V | 1060 | 108+29.8 | 30.8 | RT | 439142.4833 | 1483630.946 |
| 12W2 | 1060 | 108+29.6 | 53.3 | RT | 439140.0364 | 1483653.313 |
| 12.5Q | 1060 | 108+22.8 | 44.2 | LT | 439143.1839 | 1483555.576 |
| 12.5W2 | 1060 | 108+22.1 | 53.3 | RT | 439132.5809 | 1483652.497 |
| 13Q | 1060 | 108+15.3 | 44.3 | LT | 439135.7283 | 1483554.76 |
| 13R | 1060 | 108+15.2 | 29.3 | LT | 439134.0971 | 1483569.671 |
| 13S | 1060 | 108+15.1 | 14.3 | LT | 439132.4659 | 1483584.582 |
| 13T | 1060 | 108+15.0 | 0.7 | RT | 439130.8347 | 1483599.493 |
| 13U | 1060 | 108+14.9 | 15.7 | RT | 439129.2035 | 1483614.404 |
| 13V | 1060 | 108+14.8 | 30.7 | RT | 439127.5722 | 1483629.315 |
| 13W2 | 1060 | 108+14.6 | 53.2 | RT | 439125.1254 | 1483651.682 |
| 13.5Q | 1060 | 108+07.8 | 44.3 | LT | 439128.2728 | 1483553.944 |
| 13.5W2 | 1060 | 108+07.1 | 53.2 | RT | 439117.6699 | 1483650.866 |
| 14Q | 1060 | 108+00.3 | 44.4 | LT | 439120.8173 | 1483553.129 |
| 14Q2 | 1060 | 108+00.3 | 36.9 | LT | 439120.0017 | 1483560.584 |
| 14R | 1060 | 108+00.2 | 29.4 | LT | 439119.1861 | 1483568.04 |
| 14R2 | 1060 | 108+00.2 | 21.9 | LT | 439118.3705 | 1483575.495 |
| 14S | 1060 | 108+00.1 | 14.4 | LT | 439117.5549 | 1483582.951 |
| 14S2 | 1060 | 108+00.1 | 6.9 | LT | 439116.7393 | 1483590.406 |
| 14T | 1060 | 108+00.0 | 0.6 | RT | 439115.9236 | 1483597.862 |
| 14T2 | 1060 | 107+99.9 | 8.1 | RT | 439115.108 | 1483605.317 |
| 14U | 1060 | 107+99.9 | 15.6 | RT | 439114.2924 | 1483612.773 |
| 14U2 | 1060 | 107+99.8 | 23.1 | RT | 439113.4768 | 1483620.229 |
| 14V | 1060 | 107+99.8 | 30.6 | RT | 439112.6612 | 1483627.684 |
| 14V2 | 1060 | 107+99.7 | 38.1 | RT | 439111.8456 | 1483635.14 |
| 14W | 1060 | 107+99.7 | 45.6 | RT | 439111.03 | 1483642.595 |

REFERENCES:


| | |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. ABUT 2 MINE INJECTION HOLE PLAN | 65 |


SHEET:

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER &
NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 2 MINE INJECTION HOLE TABLE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 66 OF 130

S - 39414

| DES: JR | CKD: LT | DWG: JWL | CKD: JWB |
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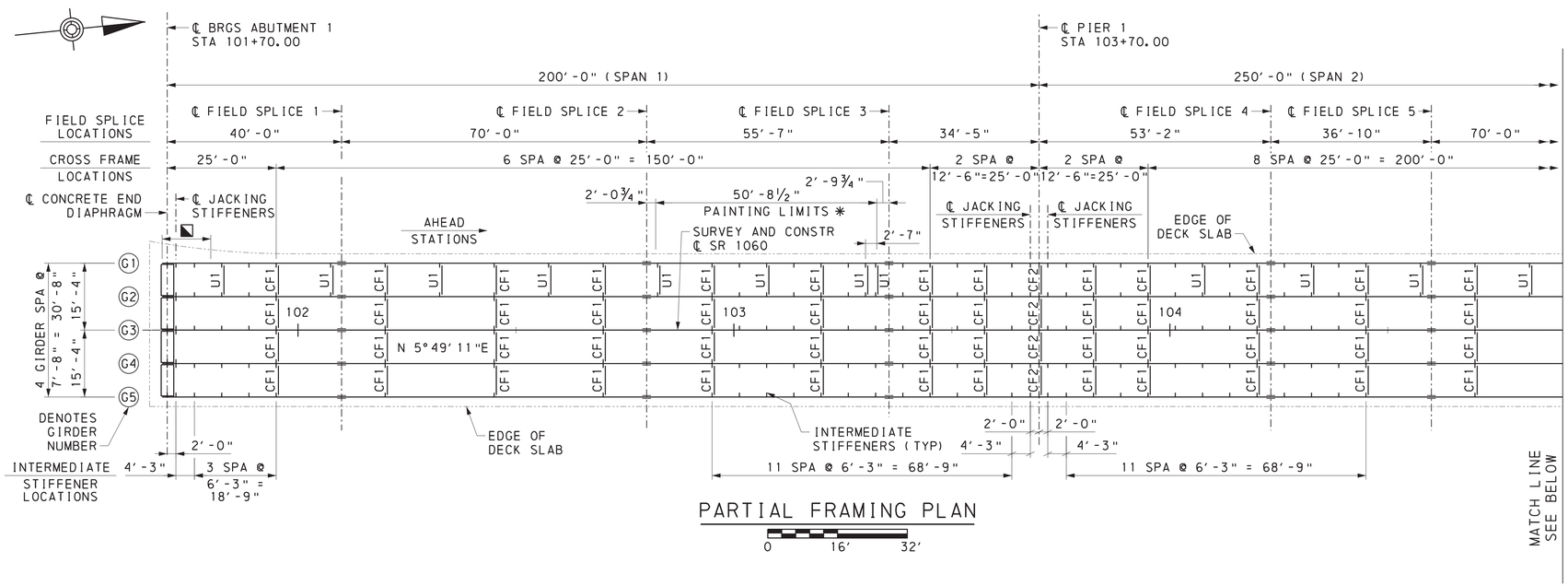
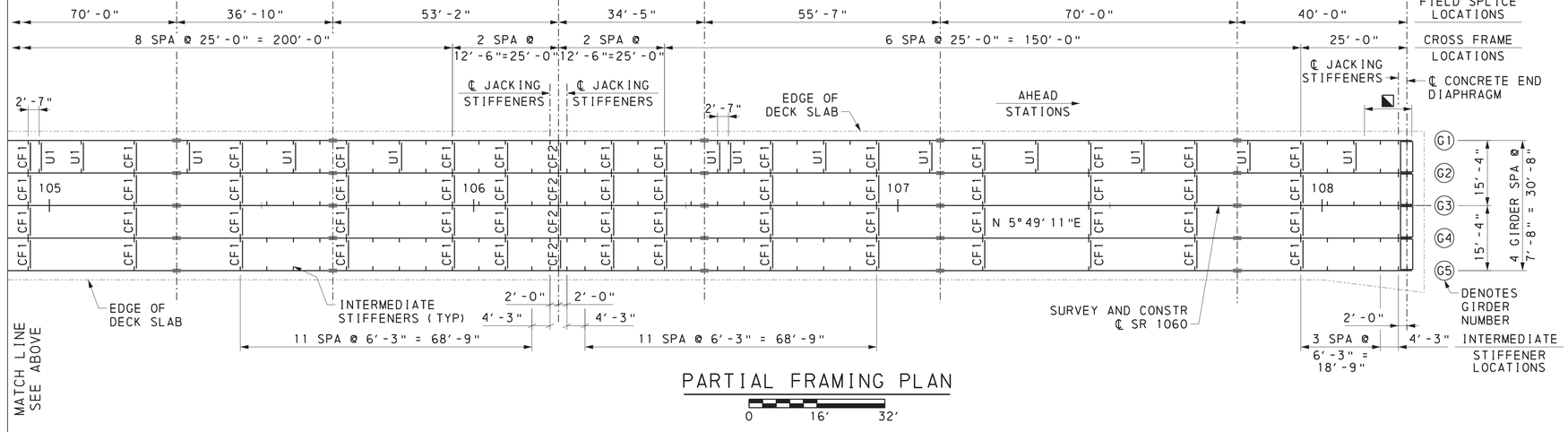



## PARTIAL FRAMING PLAN

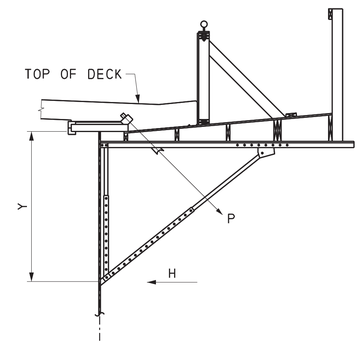
0 16′ 32′




## PARTIAL FRAMING PLAN

0 16′ 32′

| Y (IN) | HORIZONTAL LOAD (H) KIP/FT (SEE NOTE 2) |
|---|---|
| 76 | 0.29 |




## TYPICAL OVERHANG FORMING DETAIL

(NOT TO SCALE)

## NOTES:

1. THE FASCIA GIRDERS ARE DESIGNED FOR A TEMPORARY CONSTRUCTION LOAD APPLIED TO THE WEB AT A MAXIMUM 4′-0" INTERVAL. THIS LOAD (SEE TABLE) APPROXIMATES THE HORIZONTAL COMPONENT OF A DECK OVERHANG FORM SUPPORT BRACKET AND CONSISTS OF AN ALLOWANCE FOR THE WEIGHT OF THE CONCRETE, FORMS AND INCIDENTAL LOADS, PLUS THE DECK FINISHING MACHINE. THE SPACING OF THE TRANSVERSE STIFFENERS FOR THE FINAL DESIGN SHEAR ARE ADEQUATE FOR CONSTRUCTABILITY BASED ON THE OVERHANG FORM SUPPORT BRACKET LOCATION AND FORCE AS INDICATED. THE CONTRACTOR HAS THE OPTION TO MODIFY THE OVERHANG BRACKET FROM THAT DESCRIBED HEREIN PROVIDED WORKING DRAWINGS INCLUDING CALCULATIONS, SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA, ARE SUBMITTED FOR REVIEW AND ACCEPTANCE AND SHOW THE MODIFICATIONS DO NOT CAUSE UNACCEPTABLE DEFORMATIONS OR STRESSES IN THE BRIDGE AND IT IS UNDERSTOOD THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF THE BRIDGE.
2. THE VARYING PORTIONS OF THE DECK OVERHANGS (LEFT SIDE, STA. 101+65.95 TO STA. 101+98.42 AND RIGHT SIDE, STA. 107+99.91 TO STA. 108+24.05) CANNOT BE SUPPORTED USING STANDARD DECK OVERHANG BRACKETS. THE CONTRACTOR SHALL DESIGN THE DECK OVERHANG FORMING SYSTEM IN THESE AREAS ACCORDING TO THE CONTRACTOR'S MEANS AND METHODS. THE DIAGONAL OR LOWER-MOST MEMBER OF THE DECK OVERHANG BRACKET SHALL BEAR ON THE GIRDER WEB WITHIN 8 INCHES OF THE TOP OF THE BOTTOM FLANGE.
3. PAINT FABRICATED STRUCTURAL STEEL AS INDICATED AND DESCRIBED IN THE GENERAL NOTES.

## LEGEND:

CF1 INTERMEDIATE CROSS FRAME
CF2 PIER CROSS FRAME
◪ PAINT END 11′-0" INCLUDING: GIRDERS, CROSS FRAMES, CONNECTION PLATES, AND STIFFENERS.
* PAINT ALL GIRDERS, CROSS FRAMES, CONNECTION PLATES AND STIFFENERS.
U1 UTILITY SUPPORT AT 12′-6" SPA (TYP)(UNO)

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. GIRDER ELEVATION | 68 |
| 5. MISCELLANEOUS GIRDER DETAILS | 69 |
| 6. GIRDER SPLICES 1 & 2 | 70 & 71 |
| 7. CROSS FRAME DETAILS | 72-74 |
| 8. POT BEARING DETAILS & TABLES | 77 & 78 |
| 9. CONCEPTUAL ERECTION DETAILS | 79 & 80 |
| 10. TYPICAL DECK SECTIONS 1 & 2 | 83 & 84 |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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER FRAMING PLAN

RECOMMENDED _____

SHEET 67 OF 130

S - 39414

DES: RMS | CKD: ABC | DWG: EEM | CKD: ABC

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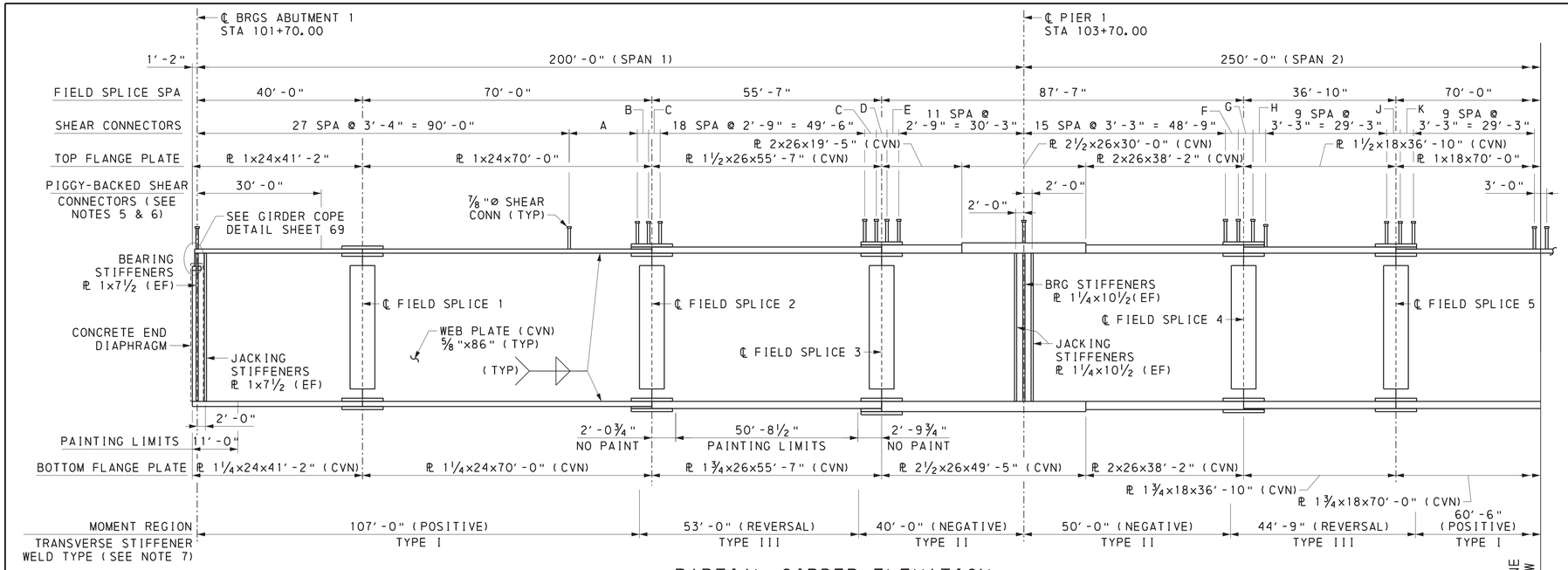
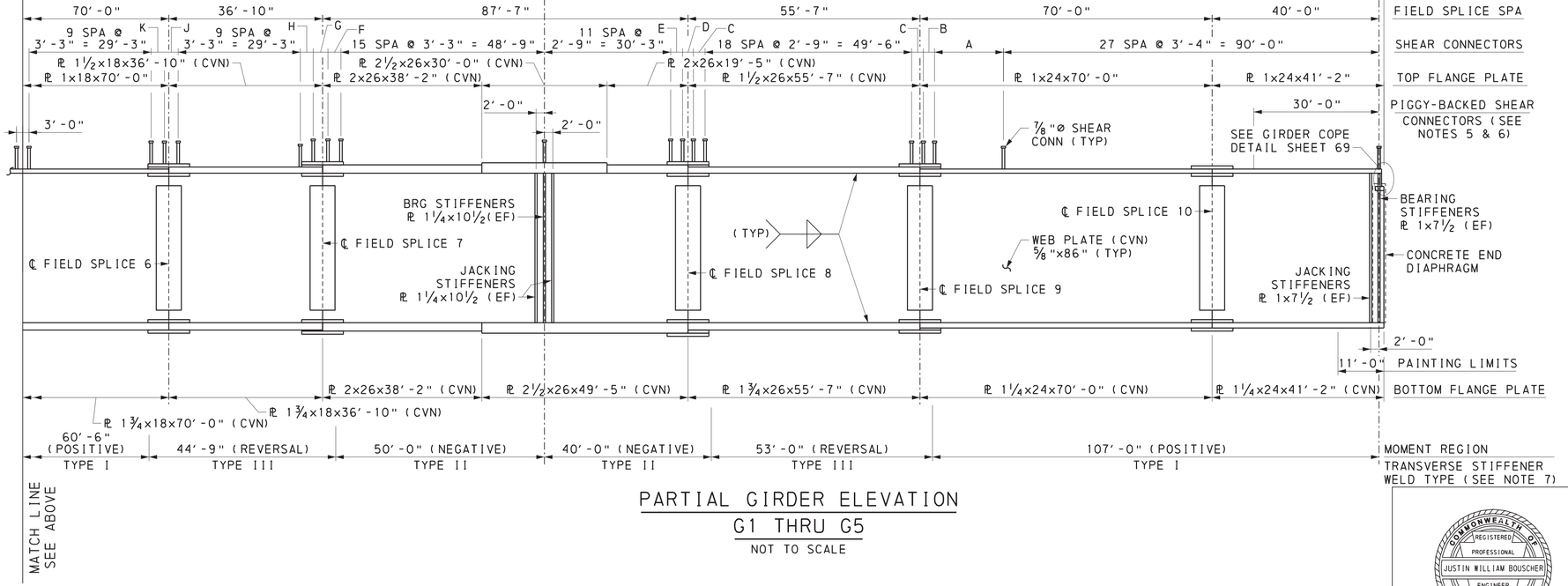



## PARTIAL GIRDER ELEVATION
### G1 THRU G5
NOT TO SCALE




## PARTIAL GIRDER ELEVATION
### G1 THRU G5
NOT TO SCALE

## SHEAR STUD SPACINGS:

A = 6 SPA @ 2'-9" = 16-6"
B = 1 SPA @ 2'-8½"
C = 1 SPA @ 2'-9½"
D = 1 SPA @ 2'-7"
E = 1 SPA @ 2'-10½"
F = 1 SPA @ 3'-1½"
G = 1 SPA @ 3'-6¼"
H = 1 SPA @ 3'-1¼"
J = 1 SPA @ 3'-3½"
K = 1 SPA @ 3'-2½"

## NOTES:

1. INTERMEDIATE TRANSVERSE STIFFENERS OMITTED FOR CLARITY. SEE FRAMING PLAN FOR INTERMEDIATE STIFFENER LOCATIONS.
2. ALL GIRDER PLATE MATERIAL IS AASHTO M270 GRADE 50W (ASTM A709 GRADE 50W) UNLESS NOTED OTHERWISE.
3. SEE SHEETS 4 AND 67 FOR STRUCTURAL STEEL PAINTING NOTES.
4. PROVIDE DRIP BARS ON ALL GIRDERS PER STANDARD DRAWING BC-753M. DRIP BARS ARE NOT REQUIRED AT ABUTMENT 1.
5. REGIONS INDICATED ARE ASSUMED TO REQUIRE PIGGY-BACKED SHEAR CONNECTORS TO MEET PENETRATION AND COVER REQUIREMENTS OF STANDARD DRAWING BC-753M. REFER TO THE PIGGY-BACKED SHEAR CONNECTOR DETAIL ON SHEET 69.
6. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING REQUIRED SHEAR CONNECTOR LENGTHS AND LOCATIONS REQUIRING PIGGY-BACKED SHEAR CONNECTORS BASED ON AS-ERECTED GIRDER CAMBERS. SHEAR CONNECTORS SHALL BE DESIGNED TO MEET THE PENETRATION AND COVER REQUIREMENTS OF STANDARD DRAWING BC-753M. PROVIDE FULL-PENETRATION WELDS BETWEEN PIGGY-BACKED STUDS.
7. PROVIDE TRANSVERSE STIFFENER WELDS CONFORMING TO THE DETAILS ON STANDARD DRAWING BC-753M AS INDICATED.

## LEGEND:

CVN CHARPY V-NOTCH TESTING REQUIRED

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
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| 5. MISCELLANEOUS GIRDER DETAILS | 69 |
| 6. GIRDER SPLICES 1 AND 2 | 70 & 71 |
| 7. CROSS FRAME DETAILS | 72-74 |
| 8. POT BEARING DETAILS & TABLES | 77 & 78 |
| 9. CONCEPTUAL ERECTION DETAILS | 79 & 80 |
| 10. TYPICAL DECK SECTIONS 1 & 2 | 83 & 84 |


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BMS STR ID: 64-1060-0010-0037 WPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20
**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## GIRDER ELEVATION

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ENGINEER
PE062832

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SHEET 68 OF 130

S - 39414

| DES: RMS | CKD: ABC | DWG: EEM | CKD: ABC |
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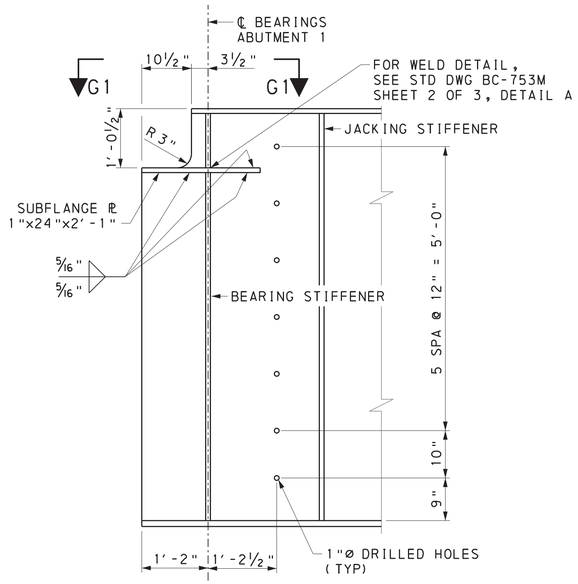
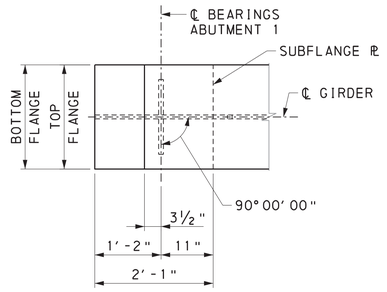


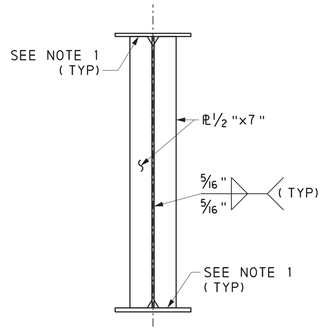

ELEVATION AT WEB




VIEW G1-G1

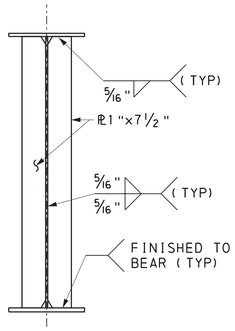
GIRDER COPE AND WEB HOLE DETAIL
ABUTMENT 1 (SHOWN)
ABUTMENT 2 (SIMILAR)

0 6 1' 2'



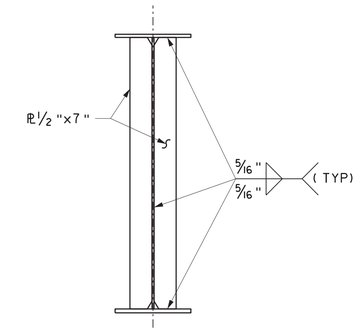

TYPICAL INTERMEDIATE STIFFENER

NOT TO SCALE



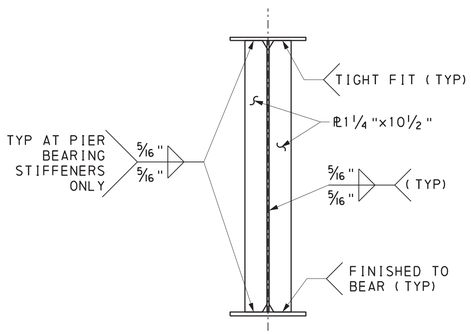

TYPICAL ABUTMENT BEARING AND JACKING STIFFENER

NOT TO SCALE



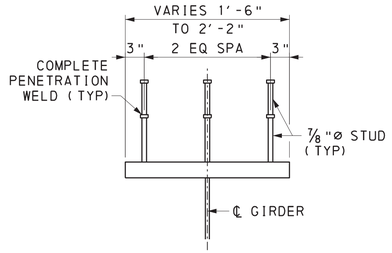

CROSSFRAME CONNECTION PLATE

NOT TO SCALE



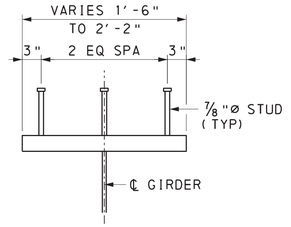

TYPICAL PIER BEARING AND JACKING STIFFENER

NOT TO SCALE




PIGGY-BACK SHEAR CONNECTOR DETAIL

NOT TO SCALE




SHEAR CONNECTOR DETAIL

NOT TO SCALE

## NOTES:

1. PROVIDE STIFFENER FIT AND WELDS PER THE INTERMEDIATE STIFFENER DETAILS SHOWN ON SHEET 1 OF 3 ON STANDARD DRAWING BC-753M. GIRDER FLANGE TENSION & COMPRESSION ZONES ARE DENOTED ON THE TYPICAL GIRDER ELEVATION.
2. PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M270 GRADE 50W FOR STIFFENER AND CONNECTION PLATE MATERIAL.
3. PORTIONS OF THE GIRDER HAUNCHES ARE TOO DEEP TO PERMIT USE OF SINGLE SHEAR CONNECTORS TO MEET THE PENETRATION AND COVER REQUIREMENTS OF STANDARD DRAWING BC-753M. WHERE HAUNCHES ARE TOO DEEP TO USE SINGLE SHEAR CONNECTORS, PROVIDE PIGGY-BACKED STUDS AS INDICATED IN THE DETAIL ON THIS SHEET. REGIONS OF HAUNCHES THAT ARE ASSUMED TO REQUIRE PIGGY-BACKED SHEAR CONNECTORS ARE INDICATED ON THE GIRDER ELEVATION ON SHEET 68. THE CONTRACTOR IS REQUIRED TO DETERMINE THE FINAL LIMITS OF PIGGY-BACKED SHEAR STUDS BASED ON THE AS-ERECTED GIRDER CAMBERS.
4. FOR PURPOSES OF DETERMINING ESTIMATED QUANTITIES, A LOCATION OF PIGGY-BACKED SHEAR CONNECTORS IS COUNTED AS ONE SHEAR CONNECTOR.

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. FRAMING PLAN | 67 |
| 5. GIRDER ELEVATION | 68 |
| 6. CROSS FRAME DETAILS | 72-74 |

| Mark | Description | By | Chk'd. | Recm'd. | Date |
|---|---|---|---|---|---|
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WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY

3 SPAN CONT COMP STEEL PLATE GIRDER
MISC GIRDER DETAILS

COMMONWEALTH OF PENNSYLVANIA
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ENGINEER
PE062832

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SHEET 69 OF 130

S - 39414

DES: RMS | CKD: ABC | DWG: EEM | CKD: ABC

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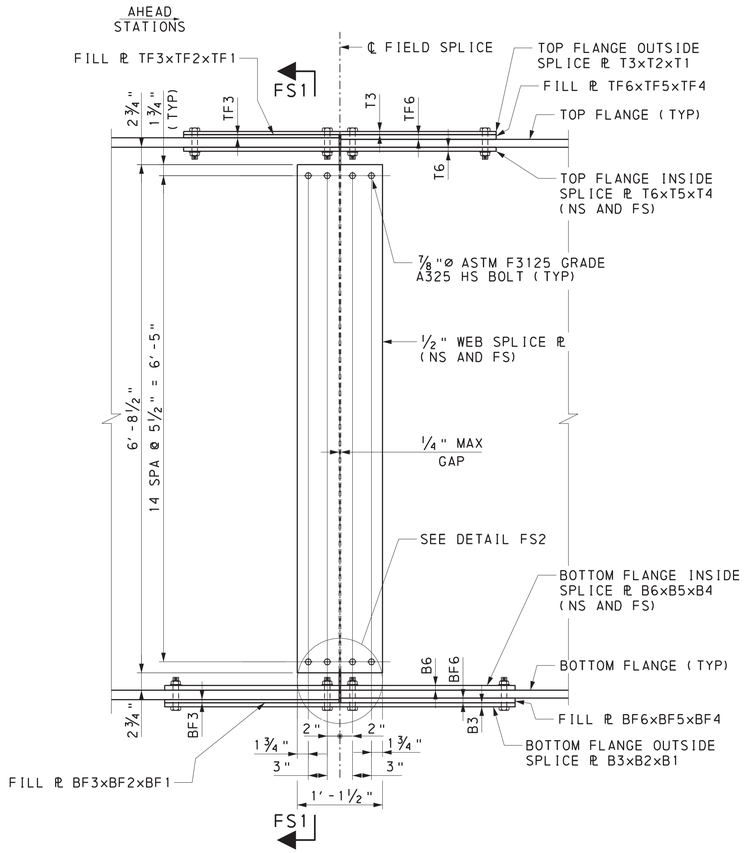
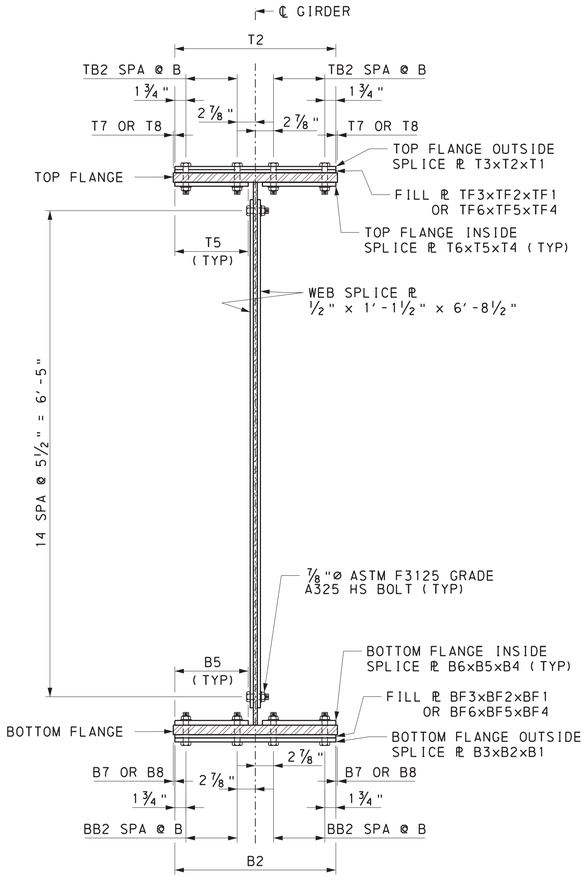


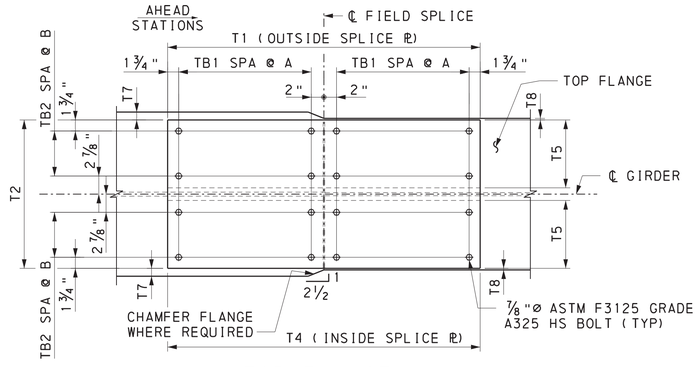

## WEB PLATE
## FIELD SPLICE DETAILS

0 3 6 9 1' 2'




## SECTION FS1-FS1

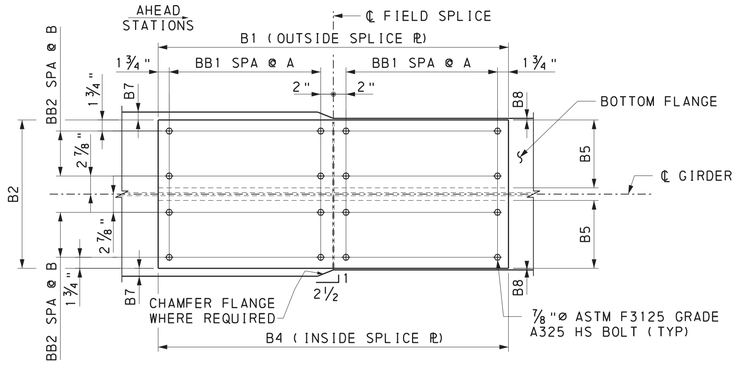
0 3 6 9 1' 2'




## TOP FLANGE
## FIELD SPLICE DETAILS

( TOP, LOOKING DOWN)

0 3 6 9 1' 2'




## BOTTOM FLANGE
## FIELD SPLICE DETAILS

( UNDERSIDE, LOOKING UP)

0 3 6 9 1' 2'

## NOTES:

1. PROVIDE STEEL FOR FIELD SPLICES CONFORMING TO AASHTO M270 GR 50W. ALL MATERIAL SHALL BE DESIGNATED ( CVN).
2. REFERENCE THE GIRDER ELEVATION FOR FIELD SPLICE LOCATIONS AND TOP AND BOTTOM FLANGE DIMENSIONS.
3. PLACE NUTS ON THE INSIDE FACE OF WEB SPLICE ON FASICA GIRDERS. PLACE NUTS ON INSIDE FACE OF TOP AND BOTTOM FLANGES AT ALL GIRDER SPLICES. SEE BC-753M, SHEET 2.
4. PROVIDE CLASS B SLIP SURFACE CONDITION FOR ALL FIELD SPLICES.
5. ALL HOLES 15/16"ø FOR ⅞"ø F3125 GRADE A325 HIGH STRENGTH BOLTS.
6. FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING BC-753M.
7. WEB AND FLANGE SPLICES DESIGNED WITH BOLT THREADS INCLUDED IN THE SHEAR PLANE(S).

## LEGEND:

NS NEAR SIDE
FS FAR SIDE
ES EACH SIDE

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. FRAMING PLAN | 67 |
| 5. GIRDER ELEVATION | 68 |
| 6. GIRDER SPLICES 2 | 71 |
| 7. DETAIL FS2 | 71 |


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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
GIRDER SPLICES 1

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ENGINEER
PE062832

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SHEET 70 OF 130

S - 39414

DES: WAR | CKD: RMS | DWG: LTS | CKD: ABC

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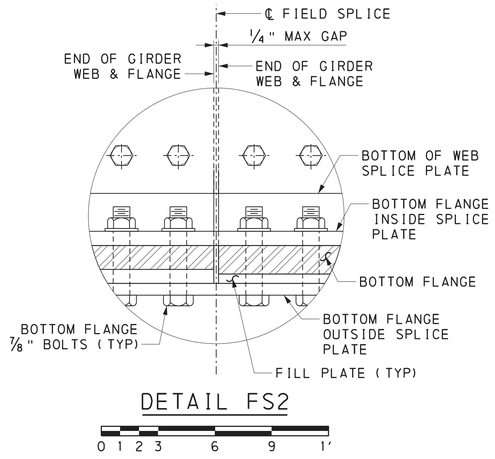
## TOP FLANGE - FIELD SPLICE DIMENSIONS ( IN)

| FIELD SPLICE LOCATION | TOP FLANGE SPLICE PLATES | | | | | | | | | | | | FILL PLATES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OUTSIDE SPLICE PLATE | | | INSIDE SPLICE PLATE | | | FLANGE OFFSET | | BOLT INFORMATION | | | | | | | | | |
| | T1 | T2 | T3 | T4 | T5 | T6 | T7 | T8 | TB1 | A | TB2 | B | TF1 | TF2 | TF3 | TF4 | TF5 | TF6 |
| | LENGTH | WIDTH | THICKNESS | LENGTH | WIDTH | THICKNESS | WIDTH | WIDTH | # OF SPA | SPA | # OF SPA | SPA | LENGTH | WIDTH | THICKNESS | LENGTH | WIDTH | THICKNESS |
| FS1 | 31.500 | 24.000 | 0.8750 | 31.500 | 10.875 | 0.875 | --- | --- | 4 | 3.0000 | 2 | 3.6875 | --- | --- | --- | --- | --- | --- |
| FS2 | 31.500 | 24.000 | 0.8750 | 31.500 | 10.875 | 0.875 | --- | 1.000 | 4 | 3.0000 | 2 | 3.6875 | 15.625 | 24.000 | 0.500 | --- | --- | --- |
| FS3 | 49.500 | 26.000 | 1.0000 | 49.500 | 11.875 | 1.000 | --- | --- | 7 | 3.0000 | 2 | 4.1875 | 24.625 | 26.000 | 0.500 | --- | --- | --- |
| FS4 | 49.500 | 18.000 | 0.8750 | 49.500 | 7.875 | 1.000 | 4.000 | --- | 7 | 3.0000 | 1 | 4.3750 | --- | --- | --- | 24.625 | 18.000 | 0.500 |
| FS5 | 37.500 | 18.000 | 0.8750 | 37.500 | 7.875 | 0.875 | --- | --- | 5 | 3.0000 | 1 | 4.3750 | --- | --- | --- | 18.625 | 18.000 | 0.500 |
| FS6 | 37.500 | 18.000 | 0.8750 | 37.500 | 7.875 | 0.875 | --- | --- | 5 | 3.0000 | 1 | 4.3750 | 18.625 | 18.000 | 0.500 | --- | --- | --- |
| FS7 | 49.500 | 18.000 | 0.8750 | 49.500 | 7.875 | 1.000 | --- | 4.000 | 7 | 3.0000 | 1 | 4.3750 | 24.625 | 18.000 | 0.500 | --- | --- | --- |
| FS8 | 49.500 | 26.000 | 1.0000 | 49.500 | 11.875 | 1.000 | --- | --- | 7 | 3.0000 | 2 | 4.1875 | --- | --- | --- | 24.625 | 26.000 | 0.500 |
| FS9 | 31.500 | 24.000 | 0.8750 | 31.500 | 10.875 | 0.875 | 1.000 | --- | 4 | 3.0000 | 2 | 3.6875 | --- | --- | --- | 15.625 | 24.000 | 0.500 |
| FS10 | 31.500 | 24.000 | 0.8750 | 31.500 | 10.875 | 0.875 | --- | --- | 4 | 3.0000 | 2 | 3.6875 | --- | --- | --- | --- | --- | --- |

## BOTTOM FLANGE - FIELD SPLICE DIMENSIONS ( IN)

| FIELD SPLICE LOCATION | BOTTOM FLANGE SPLICE PLATES | | | | | | | | | | | | FILL PLATES | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OUTSIDE SPLICE PLATE | | | INSIDE SPLICE PLATE | | | FLANGE OFFSET | | BOLT INFORMATION | | | | | | | | | |
| | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | BB1 | A | BB2 | B | BF1 | BF2 | BF3 | BF4 | BF5 | BF6 |
| | LENGTH | WIDTH | THICKNESS | LENGTH | WIDTH | THICKNESS | WIDTH | WIDTH | # OF SPA | SPA | # OF SPA | SPA | LENGTH | WIDTH | THICKNESS | LENGTH | WIDTH | THICKNESS |
| FS1 | 37.500 | 24.000 | 0.8750 | 37.500 | 10.875 | 0.875 | --- | --- | 5 | 3.0000 | 2 | 3.6875 | --- | --- | --- | --- | --- | --- |
| FS2 | 37.500 | 24.000 | 0.8750 | 37.500 | 10.875 | 0.875 | --- | 1.000 | 5 | 3.0000 | 2 | 3.6875 | 18.625 | 24.000 | 0.500 | --- | --- | --- |
| FS3 | 55.500 | 26.000 | 1.2500 | 55.500 | 11.875 | 1.250 | --- | --- | 8 | 3.0000 | 2 | 4.1875 | 27.625 | 26.000 | 0.750 | --- | --- | --- |
| FS4 | 49.500 | 18.000 | 1.0000 | 49.500 | 7.875 | 1.250 | 4.000 | --- | 7 | 3.0000 | 1 | 4.3750 | --- | --- | --- | 24.625 | 18.000 | 0.250 |
| FS5 | 49.500 | 18.000 | 1.0000 | 49.500 | 7.875 | 1.250 | --- | --- | 7 | 3.0000 | 1 | 4.3750 | --- | --- | --- | --- | --- | --- |
| FS6 | 49.500 | 18.000 | 1.0000 | 49.500 | 7.875 | 1.250 | --- | --- | 7 | 3.0000 | 1 | 4.3750 | --- | --- | --- | --- | --- | --- |
| FS7 | 49.500 | 18.000 | 1.0000 | 49.500 | 7.875 | 1.250 | --- | 4.000 | 7 | 3.0000 | 1 | 4.3750 | 24.625 | 18.000 | 0.250 | --- | --- | --- |
| FS8 | 55.500 | 26.000 | 1.2500 | 55.500 | 11.875 | 1.250 | --- | --- | 8 | 3.0000 | 2 | 4.1875 | --- | --- | --- | 27.625 | 26.000 | 0.750 |
| FS9 | 37.500 | 24.000 | 0.8750 | 37.500 | 10.875 | 0.875 | 1.000 | --- | 5 | 3.0000 | 2 | 3.6875 | --- | --- | --- | 18.625 | 24.000 | 0.500 |
| FS10 | 37.500 | 24.000 | 0.8750 | 37.500 | 10.875 | 0.875 | --- | --- | 5 | 3.0000 | 2 | 3.6875 | --- | --- | --- | --- | --- | --- |

1. ALL DIMENSIONS ARE IN INCHES, UNLESS NOTED OTHERWISE.




DETAIL FS2

0 1 2 3 6 9 1'

| DES: WAR | CKD: RMS | DWG: LTS | CKD: ABC |
|---|---|---|---|

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REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. FRAMING PLAN | 67 |
| 5. GIRDER ELEVATION | 68 |
| 6. GIRDER SPLICES 1 | 70 |


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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## GIRDER SPLICES 2

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SHEET 71 OF 130

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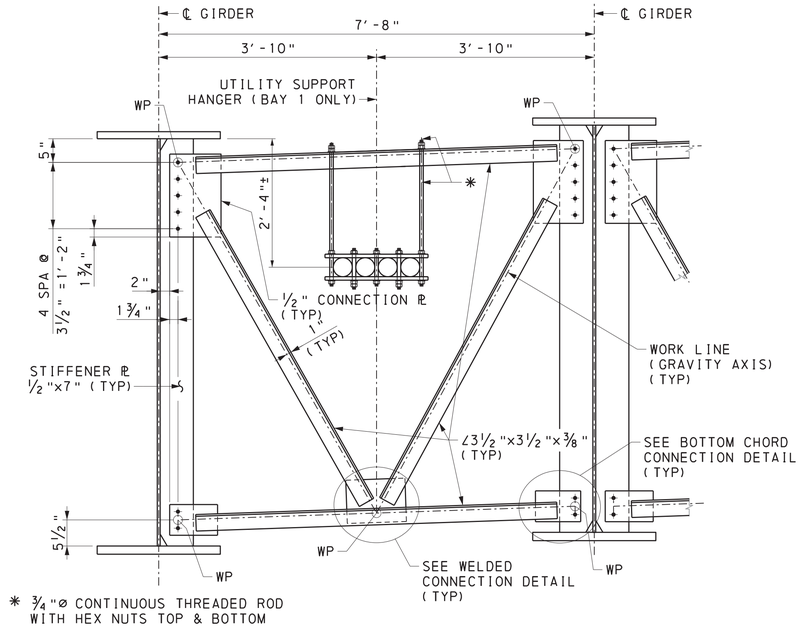
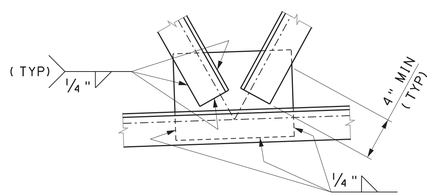



* ¾"⌀ CONTINUOUS THREADED ROD
WITH HEX NUTS TOP & BOTTOM

## CROSS FRAME CF1

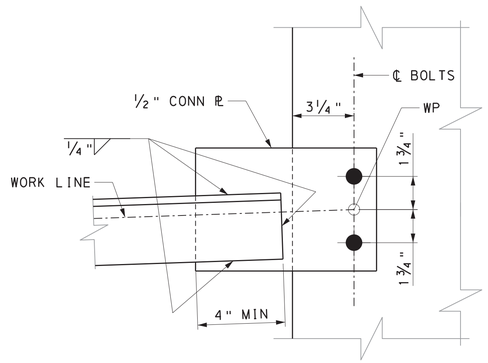
0 6 1′ 2′




## WELDED CONNECTION DETAIL

(CENTER CONNECTION SHOWN
OTHER CONNECTIONS SIMILAR)

0 3 6 9 1′




## BOTTOM CHORD CONNECTION DETAIL

0 1 2 3 6 9 1′

## LEGEND:

WP WORK POINT

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. PIER CROSS FRAMES | 73 |
| 5. MISC CROSS FRAME DETAILS | 74 |


## NOTES:

1. FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING BC-754M.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 WPMS/ECMS PROJ: 81747 BRKEY: 67409

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DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## INTERMEDIATE CROSS FRAMES

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PE062832

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SHEET 72 OF 130

S - 39414

DES: ABC | CKD: RMS | DWG: EEM | CKD: ABC

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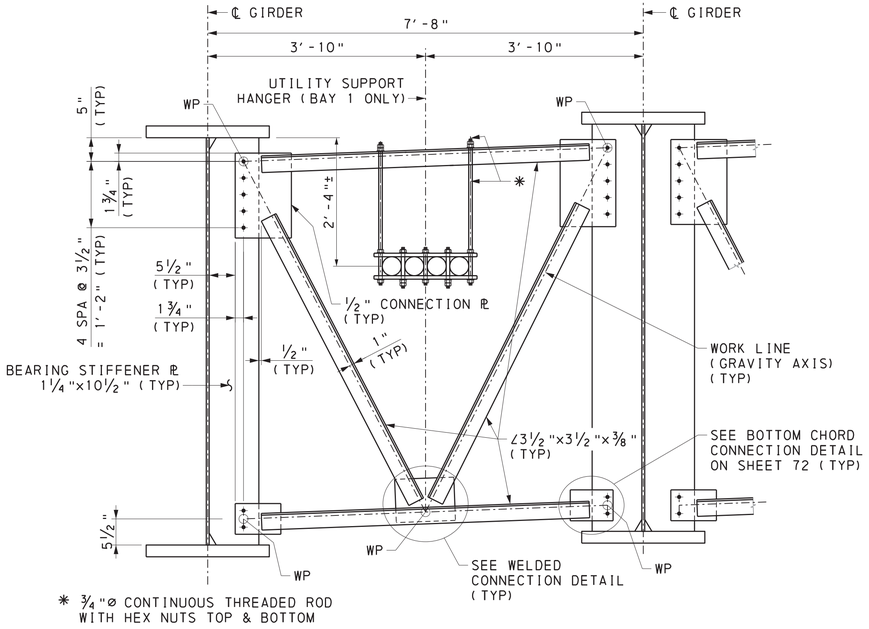
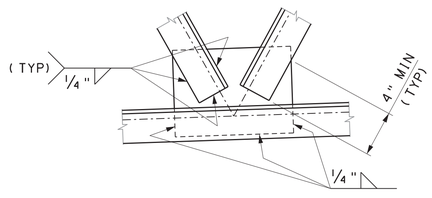



## CROSS FRAME CF2

0 6 1′ 2′




## WELDED CONNECTION DETAIL

(CENTER CONNECTION SHOWN
OTHER CONNECTIONS SIMILAR)

0 3 6 9 1′

## LEGEND:

WP WORK POINT

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. INTERMEDIATE CROSS FRAMES | 72 |
| 5. MISC CROSS FRAME DETAILS | 74 |


## NOTES:

1. FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING BC-754M.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

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# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## PIER CROSS FRAMES

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SHEET 73 OF 130

S - 39414

| DES: ABC | CKD: RMS | DWG: EEM | CKD: ABC |
|---|---|---|---|

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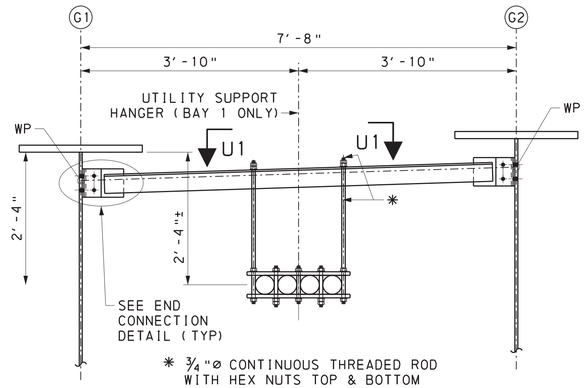
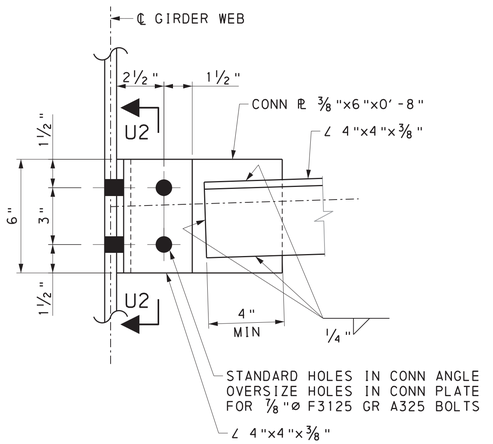


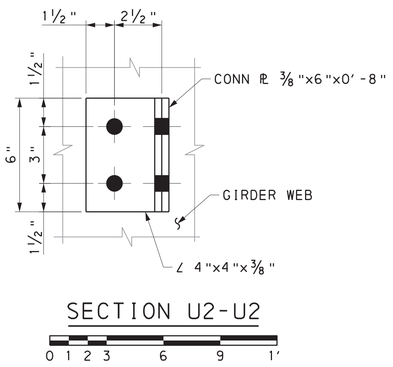

## UTILITY SUPPORT HANGER BRACKET DETAIL

0 6 1′ 2′



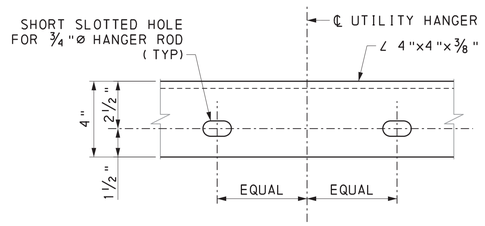

## END CONNECTION DETAIL

0 1 2 3 6 9 1′




## SECTION U2-U2

0 1 2 3 6 9 1′




## VIEW U1-U1

0 1 2 3 6 9 1′

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. INTERMEDIATE CROSS FRAMES | 72 |
| 5. PIER CROSS FRAMES | 73 |

## NOTES:

1. PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M270 GRADE 50W FOR ALL UTILITY SUPPORT MATERIAL.
2. PAINT UTILITY SUPPORT MEMBERS ACCORDING TO THE GENERAL NOTES.
3. PROVIDE TYPE 316 STAINLESS STEEL UTILITY SUPPORT HARDWARE (THREADED RODS, NUTS AND WASHERS).

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

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# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## MISC CROSS FRAME DETAILS

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SHEET 74 OF 130

S - 39414

DES: ABC | CKD: RMS | DWG: EEM | CKD: ABC

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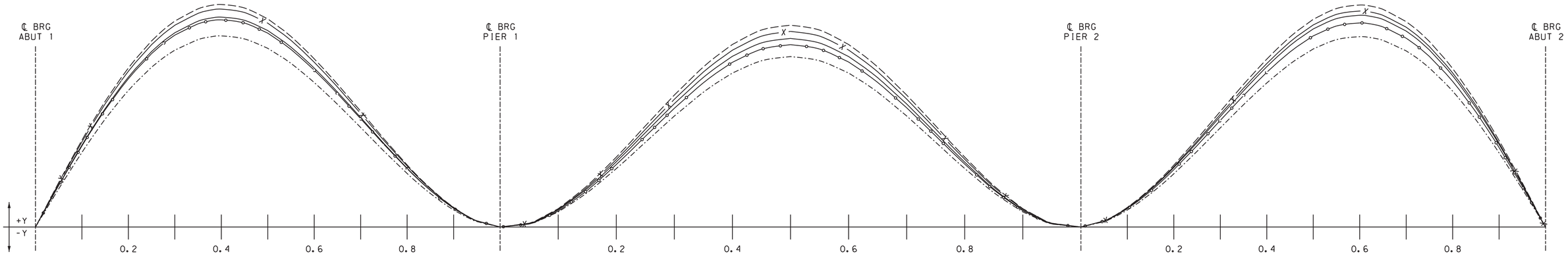
## GIRDER CAMBER COORDINATES - "Y" INCHES

| GIRDER NUMBER | TYPE OF CAMBER | CL BRG ABUT 1 | SPAN 1 | | | | | | | | | | | CL BRG PIER 1 | SPAN 2 | | | | | | | | | | | | | CL BRG PIER 2 | SPAN 3 | | | | | | | | | | CL BRG PIER 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0.1 | 0.2/FS1 | 0.3 | 0.4 | 0.5 | FS 2 | 0.6 | 0.7 | 0.8 | FS 3 | 0.9 | | 0.1 | 0.2 | FS 4 | 0.3 | FS 5 | 0.4 | 0.5 | 0.6 | FS 6 | 0.7 | FS 7 | 0.8 | 0.9 | | 0.1 | FS 8 | 0.2 | 0.3 | 0.4 | FS 9 | 0.5 | 0.6 | 0.7 | 0.8/FS10 | 0.9 | |
| G1 | STEEL DEAD LOAD | 0.00 | 0.56 | 1.03 | 1.34 | 1.45 | 1.37 | 1.27 | 1.13 | 0.79 | 0.44 | 0.35 | 0.15 | 0.00 | 0.09 | 0.38 | 0.42 | 0.74 | 0.93 | 1.03 | 1.15 | 1.03 | 0.93 | 0.74 | 0.42 | 0.38 | 0.09 | 0.00 | 0.15 | 0.35 | 0.44 | 0.79 | 1.13 | 1.27 | 1.37 | 1.45 | 1.34 | 1.03 | 0.56 | 0.00 |
| | DECK DEAD LOAD | 0.00 | 1.02 | 1.87 | 2.42 | 2.60 | 2.42 | 2.21 | 1.94 | 1.33 | 0.70 | 0.55 | 0.22 | 0.00 | 0.23 | 0.84 | 0.93 | 1.58 | 1.98 | 2.19 | 2.42 | 2.19 | 1.97 | 1.58 | 0.93 | 0.84 | 0.22 | 0.00 | 0.22 | 0.56 | 0.72 | 1.35 | 1.97 | 2.24 | 2.46 | 2.64 | 2.46 | 1.90 | 1.04 | 0.00 |
| | SUPERIMPOSED DL | 0.00 | 0.24 | 0.44 | 0.57 | 0.61 | 0.57 | 0.52 | 0.46 | 0.32 | 0.17 | 0.13 | 0.05 | 0.00 | 0.06 | 0.23 | 0.25 | 0.41 | 0.51 | 0.56 | 0.62 | 0.56 | 0.51 | 0.41 | 0.25 | 0.23 | 0.06 | 0.00 | 0.05 | 0.13 | 0.17 | 0.32 | 0.46 | 0.52 | 0.57 | 0.61 | 0.57 | 0.44 | 0.24 | 0.00 |
| | UTILITY DL | 0.00 | 0.05 | 0.10 | 0.13 | 0.14 | 0.13 | 0.12 | 0.10 | 0.07 | 0.04 | 0.03 | 0.01 | 0.00 | 0.01 | 0.05 | 0.05 | 0.09 | 0.11 | 0.12 | 0.13 | 0.12 | 0.11 | 0.09 | 0.05 | 0.05 | 0.01 | 0.00 | 0.01 | 0.03 | 0.04 | 0.07 | 0.10 | 0.12 | 0.13 | 0.14 | 0.13 | 0.10 | 0.05 | 0.00 |
| | TOTAL | 0.00 | 1.88 | 3.43 | 4.44 | 4.80 | 4.49 | 4.11 | 3.63 | 2.50 | 1.34 | 1.05 | 0.43 | 0.00 | 0.39 | 1.49 | 1.66 | 2.82 | 3.53 | 3.90 | 4.31 | 3.90 | 3.52 | 2.81 | 1.65 | 1.48 | 0.38 | 0.00 | 0.44 | 1.07 | 1.36 | 2.53 | 3.66 | 4.15 | 4.53 | 4.84 | 4.48 | 3.46 | 1.89 | 0.00 |
| G2 | STEEL DEAD LOAD | 0.00 | 0.56 | 1.03 | 1.34 | 1.45 | 1.37 | 1.27 | 1.13 | 0.79 | 0.44 | 0.35 | 0.15 | 0.00 | 0.09 | 0.38 | 0.42 | 0.74 | 0.93 | 1.03 | 1.15 | 1.03 | 0.93 | 0.74 | 0.42 | 0.38 | 0.09 | 0.00 | 0.15 | 0.35 | 0.44 | 0.79 | 1.13 | 1.27 | 1.37 | 1.45 | 1.34 | 1.03 | 0.56 | 0.00 |
| | DECK DEAD LOAD | 0.00 | 1.15 | 2.10 | 2.71 | 2.92 | 2.71 | 2.48 | 2.18 | 1.48 | 0.79 | 0.61 | 0.24 | 0.00 | 0.26 | 0.96 | 1.06 | 1.80 | 2.25 | 2.49 | 2.75 | 2.49 | 2.25 | 1.80 | 1.06 | 0.96 | 0.26 | 0.00 | 0.24 | 0.61 | 0.78 | 1.48 | 2.17 | 2.47 | 2.70 | 2.90 | 2.70 | 2.09 | 1.14 | 0.00 |
| | SUPERIMPOSED DL | 0.00 | 0.23 | 0.42 | 0.54 | 0.58 | 0.55 | 0.50 | 0.44 | 0.30 | 0.16 | 0.12 | 0.05 | 0.00 | 0.06 | 0.22 | 0.24 | 0.40 | 0.49 | 0.54 | 0.59 | 0.54 | 0.49 | 0.40 | 0.24 | 0.22 | 0.06 | 0.00 | 0.05 | 0.12 | 0.16 | 0.30 | 0.44 | 0.50 | 0.55 | 0.58 | 0.54 | 0.42 | 0.23 | 0.00 |
| | UTILITY DL | 0.00 | 0.05 | 0.10 | 0.13 | 0.14 | 0.13 | 0.12 | 0.10 | 0.07 | 0.04 | 0.03 | 0.01 | 0.00 | 0.01 | 0.05 | 0.05 | 0.09 | 0.11 | 0.12 | 0.13 | 0.12 | 0.11 | 0.09 | 0.05 | 0.05 | 0.01 | 0.00 | 0.01 | 0.03 | 0.04 | 0.07 | 0.10 | 0.12 | 0.13 | 0.14 | 0.13 | 0.10 | 0.05 | 0.00 |
| | TOTAL | 0.00 | 1.99 | 3.64 | 4.71 | 5.09 | 4.76 | 4.36 | 3.85 | 2.65 | 1.42 | 1.11 | 0.45 | 0.00 | 0.42 | 1.60 | 1.77 | 3.02 | 3.77 | 4.18 | 4.62 | 4.18 | 3.78 | 3.02 | 1.78 | 1.60 | 0.42 | 0.00 | 0.45 | 1.11 | 1.42 | 2.64 | 3.84 | 4.35 | 4.75 | 5.08 | 4.70 | 3.63 | 1.98 | 0.00 |
| G3 | STEEL DEAD LOAD | 0.00 | 0.56 | 1.03 | 1.34 | 1.45 | 1.37 | 1.27 | 1.13 | 0.79 | 0.44 | 0.35 | 0.15 | 0.00 | 0.09 | 0.38 | 0.42 | 0.74 | 0.93 | 1.03 | 1.15 | 1.03 | 0.93 | 0.74 | 0.42 | 0.38 | 0.09 | 0.00 | 0.15 | 0.35 | 0.44 | 0.79 | 1.13 | 1.27 | 1.37 | 1.45 | 1.34 | 1.03 | 0.56 | 0.00 |
| | DECK DEAD LOAD | 0.00 | 1.15 | 2.10 | 2.71 | 2.92 | 2.71 | 2.48 | 2.18 | 1.48 | 0.79 | 0.61 | 0.24 | 0.00 | 0.26 | 0.96 | 1.06 | 1.80 | 2.25 | 2.49 | 2.75 | 2.49 | 2.25 | 1.80 | 1.06 | 0.96 | 0.26 | 0.00 | 0.24 | 0.61 | 0.78 | 1.48 | 2.17 | 2.46 | 2.70 | 2.90 | 2.69 | 2.09 | 1.14 | 0.00 |
| | SUPERIMPOSED DL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | TOTAL | 0.00 | 1.71 | 3.12 | 4.05 | 4.37 | 4.09 | 3.74 | 3.30 | 2.28 | 1.22 | 0.96 | 0.39 | 0.00 | 0.34 | 1.34 | 1.48 | 2.54 | 3.18 | 3.52 | 3.90 | 3.52 | 3.18 | 2.54 | 1.49 | 1.34 | 0.35 | 0.00 | 0.39 | 0.95 | 1.22 | 2.27 | 3.29 | 3.73 | 4.07 | 4.35 | 4.03 | 3.11 | 1.70 | 0.00 |
| G4 | STEEL DEAD LOAD | 0.00 | 0.56 | 1.03 | 1.34 | 1.45 | 1.37 | 1.27 | 1.13 | 0.79 | 0.44 | 0.35 | 0.15 | 0.00 | 0.09 | 0.38 | 0.42 | 0.74 | 0.93 | 1.03 | 1.15 | 1.03 | 0.93 | 0.74 | 0.42 | 0.38 | 0.09 | 0.00 | 0.15 | 0.35 | 0.44 | 0.79 | 1.13 | 1.27 | 1.37 | 1.45 | 1.34 | 1.03 | 0.56 | 0.00 |
| | DECK DEAD LOAD | 0.00 | 1.16 | 2.12 | 2.74 | 2.95 | 2.74 | 2.50 | 2.20 | 1.50 | 0.80 | 0.62 | 0.25 | 0.00 | 0.25 | 0.95 | 1.05 | 1.79 | 2.24 | 2.47 | 2.74 | 2.48 | 2.24 | 1.79 | 1.06 | 0.96 | 0.26 | 0.00 | 0.24 | 0.61 | 0.78 | 1.48 | 2.17 | 2.47 | 2.70 | 2.90 | 2.70 | 2.09 | 1.14 | 0.00 |
| | SUPERIMPOSED DL | 0.00 | 0.23 | 0.42 | 0.54 | 0.58 | 0.55 | 0.50 | 0.44 | 0.30 | 0.16 | 0.12 | 0.05 | 0.00 | 0.06 | 0.22 | 0.24 | 0.40 | 0.49 | 0.54 | 0.59 | 0.54 | 0.49 | 0.40 | 0.24 | 0.22 | 0.06 | 0.00 | 0.05 | 0.12 | 0.16 | 0.30 | 0.44 | 0.50 | 0.55 | 0.58 | 0.54 | 0.42 | 0.23 | 0.00 |
| | TOTAL | 0.00 | 1.95 | 3.56 | 4.62 | 4.98 | 4.66 | 4.27 | 3.77 | 2.60 | 1.39 | 1.09 | 0.45 | 0.00 | 0.40 | 1.54 | 1.71 | 2.92 | 3.66 | 4.04 | 4.48 | 4.05 | 3.66 | 2.93 | 1.72 | 1.55 | 0.41 | 0.00 | 0.44 | 1.08 | 1.38 | 2.57 | 3.74 | 4.23 | 4.62 | 4.94 | 4.57 | 3.53 | 1.93 | 0.00 |
| G5 | STEEL DEAD LOAD | 0.00 | 0.56 | 1.03 | 1.34 | 1.45 | 1.37 | 1.27 | 1.13 | 0.79 | 0.44 | 0.35 | 0.15 | 0.00 | 0.09 | 0.38 | 0.42 | 0.74 | 0.93 | 1.03 | 1.15 | 1.03 | 0.93 | 0.74 | 0.42 | 0.38 | 0.09 | 0.00 | 0.15 | 0.35 | 0.44 | 0.79 | 1.13 | 1.27 | 1.37 | 1.45 | 1.34 | 1.03 | 0.56 | 0.00 |
| | DECK DEAD LOAD | 0.00 | 1.06 | 1.93 | 2.49 | 2.67 | 2.49 | 2.27 | 2.00 | 1.37 | 0.73 | 0.57 | 0.23 | 0.00 | 0.22 | 0.83 | 0.91 | 1.57 | 1.96 | 2.17 | 2.41 | 2.18 | 1.97 | 1.58 | 0.93 | 0.84 | 0.22 | 0.00 | 0.22 | 0.55 | 0.71 | 1.33 | 1.95 | 2.21 | 2.42 | 2.60 | 2.42 | 1.87 | 1.02 | 0.00 |
| | SUPERIMPOSED DL | 0.00 | 0.24 | 0.44 | 0.57 | 0.61 | 0.57 | 0.52 | 0.46 | 0.32 | 0.17 | 0.13 | 0.05 | 0.00 | 0.06 | 0.23 | 0.25 | 0.41 | 0.51 | 0.56 | 0.62 | 0.56 | 0.51 | 0.41 | 0.25 | 0.23 | 0.06 | 0.00 | 0.05 | 0.13 | 0.17 | 0.32 | 0.46 | 0.52 | 0.57 | 0.61 | 0.57 | 0.44 | 0.24 | 0.00 |
| | TOTAL | 0.00 | 1.86 | 3.39 | 4.39 | 4.74 | 4.43 | 4.06 | 3.59 | 2.48 | 1.33 | 1.05 | 0.43 | 0.00 | 0.36 | 1.43 | 1.59 | 2.72 | 3.40 | 3.77 | 4.17 | 3.77 | 3.41 | 2.73 | 1.60 | 1.44 | 0.37 | 0.00 | 0.42 | 1.03 | 1.31 | 2.44 | 3.54 | 4.00 | 4.37 | 4.67 | 4.32 | 3.33 | 1.82 | 0.00 |




GIRDER CAMBER DIAGRAM
(NOT TO SCALE)

### LEGEND:

FS FIELD SPLICE

—— GIRDER G1

— — GIRDER G2

—·—·— GIRDER G3

—X— GIRDER G4

—○—○— GIRDER G5

### NOTES:

1. CAMBER DUE TO STEEL DEAD LOAD (DC1S) INCLUDES STEEL SELF WEIGHT, CROSS FRAMES, AND STIFFENERS.
2. CAMBER DUE TO DECK DEAD LOAD (DC1) INCLUDES DECK, HAUNCHES, OVERHANGS AND STAY-IN-PLACE FORMS.
3. SUPERIMPOSED DEAD LOAD (DC2) INCLUDES BARRIERS, BUT DOES NOT INCLUDE FUTURE WEARING SURFACE.
4. POSITIVE CAMBER IS UPWARD.
5. FOR CALCULATION OF DECK FORM ELEVATIONS, SUBTRACT THE STEEL DEAD LOAD CAMBER VALUE FROM THE TOTAL CAMBER VALUE.

### REFERENCES:

| | |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. FRAMING PLAN | 67 |
| 3. GIRDER ELEVATIONS | 68 |
| 4. GIRDER SPLICES 1 & 2 | 70 & 71 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER CAMBER TABLE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 75 OF 130

S - 39414

DES: RMS | CKD: ABC | DWG: LTS | CKD: JMF

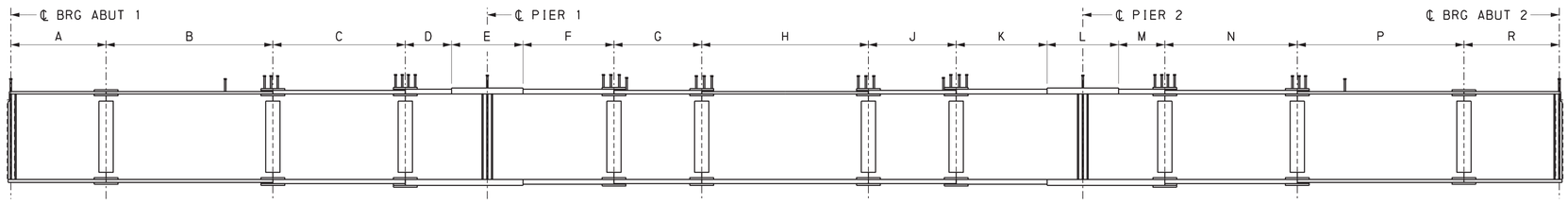
5/25/2023 1:05:50 PM
N:\SR_1060_Salina_Bridge\deliverables\design\structures\Final\plots\SR_1060_Salina_camber_table_01.dgn

# GIRDER SECTION PROPERTIES

| GIRDER NUMBER | GIRDER SEGMENT | SEGMENT LENGTH (FT) | As ($IN^2$) | TOTAL DEPTH OF STEEL SECTION (IN) | DISTANCE TO NEUTRAL AXIS FROM BOTTOM (IN) | | | | MOMENT OF INERTIA ($IN^4$) | | | | SECTION MODULUS BOTTOM ($IN^3$) | | | | SECTION MODULUS TOP ($IN^3$) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | NON-COMP | 3N | N | NEG | NON-COMP | 3N | N | NEG | NON-COMP | 3N | N | NEG | NON-COMP | 3N | N | NEG |
| G1 & G5 | A | 40.000 | 107.75 | 88.25 | 41.793 | 50.466 | 61.131 | 43.508 | 134992 | 182016 | 239923 | 144106 | 3230 | 3607 | 3925 | 3312 | 2906 | 4817 | 8847 | 3221 |
| | B | 70.000 | 107.75 | 88.25 | 41.793 | 50.466 | 61.131 | 43.508 | 134992 | 182016 | 239923 | 144106 | 3230 | 3607 | 3925 | 3312 | 2906 | 4817 | 8847 | 3221 |
| | C | 55.583 | 138.25 | 89.25 | 42.652 | 49.699 | 59.170 | 45.731 | 194775 | 243933 | 310064 | 216230 | 4567 | 4908 | 5240 | 4728 | 4180 | 6168 | 10308 | 4969 |
| | D | 19.417 | 170.75 | 90.50 | 42.055 | 48.132 | 56.843 | 44.669 | 259099 | 313365 | 391208 | 282426 | 6161 | 6511 | 6882 | 6323 | 5348 | 7396 | 11623 | 6162 |
| | E | 30.000 | 183.75 | 91.00 | 45.500 | 50.873 | 58.731 | 47.801 | 287744 | 336471 | 407800 | 308590 | 6324 | 6614 | 6943 | 6456 | 6324 | 8385 | 12638 | 7143 |
| | F | 38.167 | 157.75 | 90.00 | 45.000 | 51.085 | 59.609 | 47.633 | 234507 | 281410 | 347169 | 254776 | 5211 | 5509 | 5824 | 5349 | 5211 | 7231 | 11423 | 6013 |
| | G | 36.833 | 112.25 | 89.25 | 42.961 | 51.316 | 61.752 | 46.677 | 145099 | 192136 | 250961 | 165997 | 3377 | 3744 | 4064 | 3556 | 3135 | 5065 | 9126 | 3899 |
| | H | 70.000 | 103.25 | 88.75 | 38.948 | 48.530 | 60.118 | 40.856 | 124360 | 177446 | 241731 | 134737 | 3193 | 3656 | 4021 | 3298 | 2497 | 4412 | 8443 | 2813 |
| | J | 36.833 | 112.25 | 89.25 | 42.961 | 51.316 | 61.752 | 46.677 | 145099 | 192136 | 250961 | 165997 | 3377 | 3744 | 4064 | 3556 | 3135 | 5065 | 9126 | 3899 |
| | K | 38.167 | 157.75 | 90.00 | 45.000 | 51.085 | 59.609 | 47.633 | 234507 | 281410 | 347169 | 254776 | 5211 | 5509 | 5824 | 5349 | 5211 | 7231 | 11423 | 6013 |
| | L | 30.000 | 183.75 | 91.00 | 45.500 | 50.873 | 58.731 | 47.801 | 287744 | 336471 | 407800 | 308590 | 6324 | 6614 | 6943 | 6456 | 6324 | 8385 | 12638 | 7143 |
| | M | 19.417 | 170.75 | 90.50 | 42.055 | 48.132 | 56.843 | 44.669 | 259099 | 313365 | 391208 | 282426 | 6161 | 6511 | 6882 | 6323 | 5348 | 7396 | 11623 | 6162 |
| | N | 55.583 | 138.25 | 89.25 | 42.652 | 49.699 | 59.170 | 45.731 | 194775 | 243933 | 310064 | 216230 | 4567 | 4908 | 5240 | 4728 | 4180 | 6168 | 10308 | 4969 |
| | P | 70.000 | 107.75 | 88.25 | 41.793 | 50.466 | 61.131 | 43.508 | 134992 | 182016 | 239923 | 144106 | 3230 | 3607 | 3925 | 3312 | 2906 | 4817 | 8847 | 3221 |
| | R | 40.000 | 107.75 | 88.25 | 41.793 | 50.466 | 61.131 | 43.508 | 134992 | 182016 | 239923 | 144106 | 3230 | 3607 | 3925 | 3312 | 2906 | 4817 | 8847 | 3221 |
| G2 - G4 | A | 40.000 | 107.75 | 88.25 | 41.793 | 52.368 | 64.114 | 43.863 | 134992 | 192334 | 256151 | 146036 | 3230 | 3673 | 3995 | 3329 | 2906 | 5360 | 10613 | 3290 |
| | B | 70.000 | 107.75 | 88.25 | 41.793 | 52.368 | 64.114 | 43.863 | 134992 | 192334 | 256151 | 146036 | 3230 | 3673 | 3995 | 3329 | 2906 | 5360 | 10613 | 3290 |
| | C | 55.583 | 138.25 | 89.25 | 42.652 | 51.320 | 61.995 | 46.584 | 194775 | 255243 | 329820 | 222201 | 4567 | 4974 | 5320 | 4770 | 4180 | 6729 | 12101 | 5208 |
| | D | 19.417 | 170.75 | 90.50 | 42.055 | 49.577 | 59.572 | 45.405 | 259099 | 326271 | 415619 | 289013 | 6161 | 6581 | 6977 | 6365 | 5348 | 7973 | 13438 | 6409 |
| | E | 30.000 | 183.75 | 91.00 | 45.500 | 52.163 | 61.233 | 48.451 | 287744 | 348179 | 430524 | 314506 | 6324 | 6675 | 7031 | 6491 | 6324 | 8965 | 14463 | 7392 |
| | F | 38.167 | 157.75 | 90.00 | 45.000 | 52.515 | 62.232 | 48.369 | 234507 | 292435 | 367433 | 260473 | 5211 | 5569 | 5904 | 5385 | 5211 | 7801 | 13232 | 6257 |
| | G | 36.833 | 112.25 | 89.25 | 42.961 | 53.164 | 64.703 | 47.689 | 145099 | 202543 | 267628 | 171710 | 3377 | 3810 | 4136 | 3601 | 3135 | 5613 | 10903 | 4131 |
| | H | 70.000 | 103.25 | 88.75 | 38.948 | 50.612 | 63.322 | 41.250 | 124360 | 188987 | 259534 | 136924 | 3193 | 3734 | 4099 | 3319 | 2497 | 4955 | 10207 | 2883 |
| | J | 36.833 | 112.25 | 89.25 | 42.961 | 53.164 | 64.703 | 47.689 | 145099 | 202543 | 267628 | 171710 | 3377 | 3810 | 4136 | 3601 | 3135 | 5613 | 10903 | 4131 |
| | K | 38.167 | 157.75 | 90.00 | 45.000 | 52.515 | 62.232 | 48.369 | 234507 | 292435 | 367433 | 260473 | 5211 | 5569 | 5904 | 5385 | 5211 | 7801 | 13232 | 6257 |
| | L | 30.000 | 183.75 | 91.00 | 45.500 | 52.163 | 61.233 | 48.451 | 287744 | 348179 | 430524 | 314506 | 6324 | 6675 | 7031 | 6491 | 6324 | 8965 | 14463 | 7392 |
| | M | 19.417 | 170.75 | 90.50 | 42.055 | 49.577 | 59.572 | 45.405 | 259099 | 326271 | 415619 | 289013 | 6161 | 6581 | 6977 | 6365 | 5348 | 7973 | 13438 | 6409 |
| | N | 55.583 | 138.25 | 89.25 | 42.652 | 51.320 | 61.995 | 46.584 | 194775 | 255243 | 329820 | 222201 | 4567 | 4974 | 5320 | 4770 | 4180 | 6729 | 12101 | 5208 |
| | P | 70.000 | 107.75 | 88.25 | 41.793 | 52.368 | 64.114 | 43.863 | 134992 | 192334 | 256151 | 146036 | 3230 | 3673 | 3995 | 3329 | 2906 | 5360 | 10613 | 3290 |
| | R | 40.000 | 107.75 | 88.25 | 41.793 | 52.368 | 64.114 | 43.863 | 134992 | 192334 | 256151 | 146036 | 3230 | 3673 | 3995 | 3329 | 2906 | 5360 | 10613 | 3290 |

LEGEND:

| | |
|---|---|
| As | AREA OF BARE STEEL SECTION |
| NON-COMP | NON-COMPOSITE STEEL SECTION |
| 3N | LONG-TERM COMPOSITE STEEL SECTION (POSITIVE FLEXURE) |
| N | SHORT-TERM COMPOSITE STEEL SECTION (POSITIVE FLEXURE) |
| NEG | COMPOSITE SECTION (NEGATIVE FLEXURE) |




GIRDER SECTION PROPERTIES KEY ELEVATION

NOT TO SCALE

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER &
NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
GIRDER SECTION PROPERTIES

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 76 OF 130

S - 39414

| DES: RMS | CKD: ABC | DWG: LTS | CKD: JMF |
|---|---|---|---|

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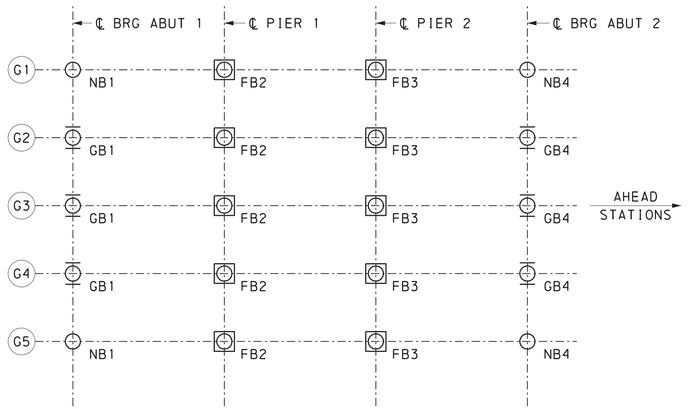
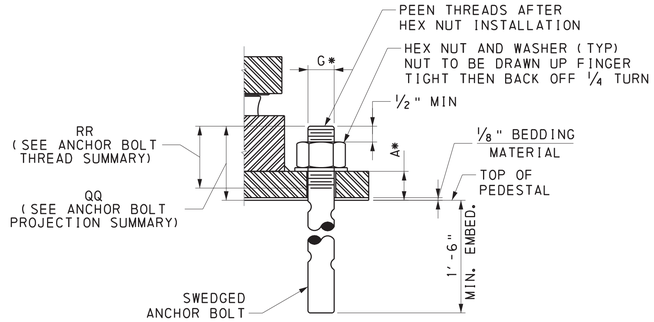



## POT BEARING LAYOUT SCHEMATIC

(NOT TO SCALE)




## ANCHOR BOLT DETAIL

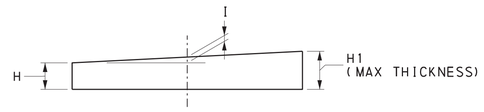
(NOT TO SCALE)

| ANCHOR BOLT PROJECTION SUMMARY (QQ) | |
|---|---|
| SUBSTRUCTURE UNIT | PROJECTION (IN) |
| ABUTMENT 1 | 5.25 |
| PIER 1 | 6.00 |
| PIER 2 | 6.00 |
| ABUTMENT 2 | 5.25 |

| ANCHOR BOLT THREAD LENGTH SUMMARY (RR) | |
|---|---|
| SUBSTRUCTURE UNIT | THREAD LENGTH (IN) |
| ABUTMENT 1 | 3.00 |
| PIER 1 | 4.00 |
| PIER 2 | 4.00 |
| ABUTMENT 2 | 3.00 |

## NOTES:

1. FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING BC-756M.

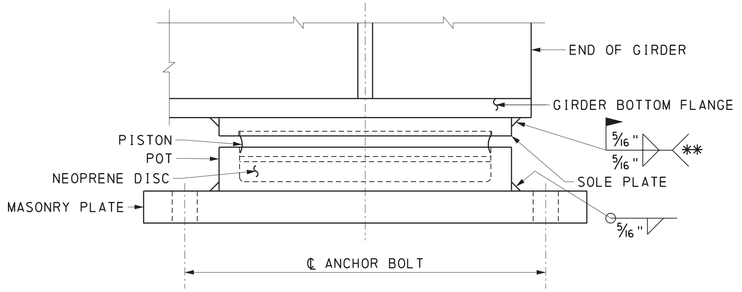



## BEVELED SOLE PLATE DETAIL

(NOT TO SCALE)

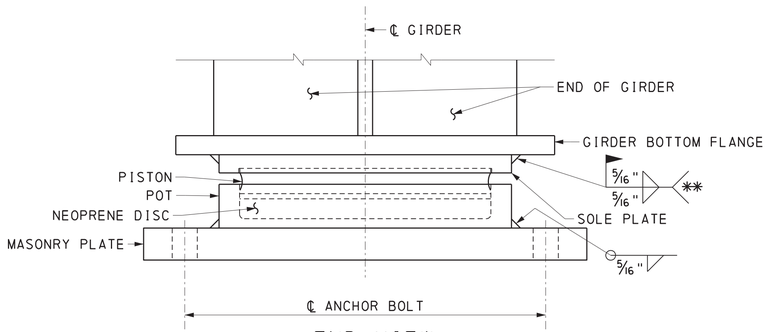
## LEGEND:

| | |
|---|---|
| * | SEE BEARING TABLES FOR DIMENSION "A, G, H, H1, AND P". |
| ** | WELD FULL LENGTH WITH 1" HOLD-BACK EACH END. |
| *** | SHOWN FOR ILLUSTRATION ONLY. SEE ANCHOR BOLT LAYOUT IN STANDARD DRAWING BC-756M. |
| ◎ | GUIDED EXPANSION POT BEARING |
| ○ | NON-GUIDED EXPANSION POT BEARING |
| ⊡ | FIXED POT BEARING |




## SIDE VIEW

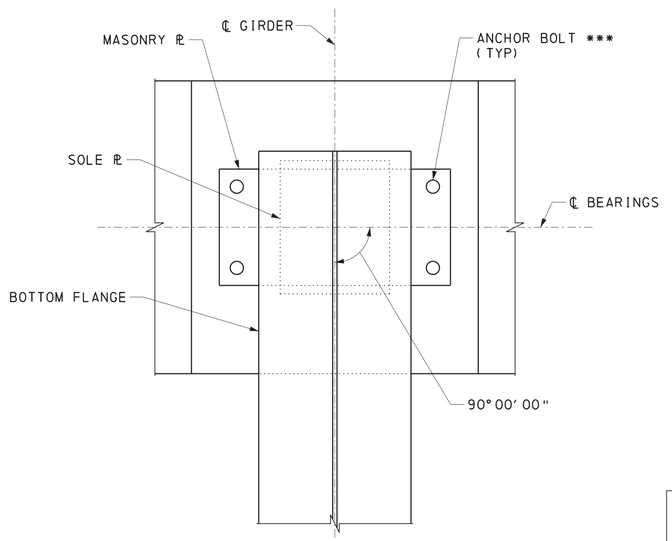
(NOT TO SCALE)




## END VIEW

(NOT TO SCALE)

## WELDED CONNECTION DETAIL




## TYPICAL POT BEARING ORIENTATION PLAN

(NOT TO SCALE)

## REFERENCES:

| | | |
|---|---|---|
| 1. | SUPPLEMENTAL DRAWINGS | 1 |
| 2. | INDEX OF DRAWINGS | 3 |
| 3. | GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. | FRAMING PLAN | 67 |
| 5. | POT BEARING TABLES | 78 |

## SHEET:

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
POT BEARING DETAILS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 77 OF 130

S - 39414

DES: WAR | CKD: RMS | DWG: LTS | CKD:WAR/ABC

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## DESIGN TABLE FOR GUIDED POT BEARINGS ( MARK GBx)

| LOCATION | ROTATION (RADIANS) | MASONRY PLATE | | | | | | ANCHOR BOLTS | | SOLE PLATE | | | | POT | | | | | | NEOPRENE DISC | | | PISTON | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | F | G | QTY | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X |
| GB1 | 0.03 | 2.5 | 17.375 | 34.25 | 14.5 | 6.0625 | --- | 1.50 | 4 | 0.8125 | 0.136 | 24.25 | 25.00 | 2.75 | 15.875 | 2.125 | 0.625 | --- | 1.75 | 1.25 | 12.375 | 0.375 | 1.5 | 12.335 | 0.50 | 0.25 |
| GB4 | 0.03 | 2.5 | 17.375 | 34.25 | 14.5 | 6.0625 | --- | 1.50 | 4 | 0.8125 | 0.140 | 25.00 | 25.00 | 2.75 | 15.875 | 2.125 | 0.625 | --- | 1.75 | 1.25 | 12.375 | 0.375 | 1.5 | 12.335 | 0.50 | 0.25 |

## DESIGN TABLE FOR GUIDED POT BEARINGS ( MARK GBx) ( CONT' D)

| LOCATION | GUIDE PLATE | | GUIDE BARS | | | | | | | PTFE | | | | STAINLESS STEEL | | | | BEARING HEIGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Y | Z | AA | BB | CC | DD | EE | FF | GG | HH | II | JJ | KK | LL | MM | NN | OO | PP |
| GB1 | 2.75 | 15.875 | 3.00 | 3.00 | 24.25 | 0.375 | 0.50 | 0.375 | 8.184 | 10.75 | 0.1875 | 2.25 | 15.625 | 24.125 | 11.75 | 24.125 | 2.50 | 9.636 |
| GB4 | 2.75 | 15.875 | 3.00 | 3.00 | 25.00 | 0.375 | 0.50 | 0.375 | 8.184 | 10.75 | 0.1875 | 2.25 | 15.625 | 24.875 | 11.75 | 24.875 | 2.50 | 9.640 |

## DESIGN TABLE FOR NON-GUIDED POT BEARINGS ( MARK NBx)

| LOCATION | ROTATION (RADIANS) | MASONRY PLATE | | | | | | ANCHOR BOLTS | | SOLE PLATE | | | | POT | | | | | | NEOPRENE DISC | | | PISTON | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | F | G | QTY | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W |
| NB1 | 0.03 | 1.625 | 16.25 | 23.625 | 9.4375 | 5.75 | --- | 1.50 | 4 | 0.8125 | 0.117 | 20.875 | 14.375 | 2.625 | 13.875 | 1.9375 | 0.6875 | --- | 0.75 | 1.25 | 12.375 | 0.375 | 1.0625 | 12.335 | 0.375 |
| NB4 | 0.03 | 1.625 | 16.25 | 23.625 | 9.4375 | 5.75 | --- | 1.50 | 4 | 0.8125 | 0.121 | 21.625 | 14.375 | 2.625 | 13.875 | 1.9375 | 0.6875 | --- | 0.75 | 1.25 | 12.375 | 0.375 | 1.0625 | 12.335 | 0.375 |

## DESIGN TABLE FOR NON-GUIDED POT BEARINGS ( MARK NBx) ( CONT' D)

| LOCATION | PTFE | STAINLESS STEEL | | BEARING HEIGHT |
|---|---|---|---|---|
| | HH | LL | MM | PP |
| NB1 | 12.125 | 20.625 | 14.125 | 5.867 |
| NB4 | 12.125 | 21.375 | 14.125 | 5.871 |

## DESIGN TABLE FOR FIXED POT BEARINGS ( MARK FBx)

| LOCATION | ROTATION (RADIANS) | MASONRY PLATE | | | | | | ANCHOR BOLTS | | SOLE PLATE | | | | POT | | | | | | NEOPRENE DISC | | | PISTON | | | | BEARING HEIGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | F | G | QTY | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | PP |
| FB2 & FB3 | 0.03 | 2.1875 | 25.875 | 37.625 | 15.4375 | 9.5625 | --- | 2.00 | 6 | 0.8125 | 0.135 | 24.125 | 24.125 | 4.1875 | 24.125 | 3.1875 | 1 | --- | 2.625 | 2 | 18.875 | 0.5 | 2 | 18.835 | 0.75 | 0.375 | 8.260 |

## FACTORED BEARING DESIGN LOADS

| LOCATION | BEARING TYPE | LOAD COMBINATION | FACTORED LOADS (KIPS) | | | | | | | | | | | | MAXIMUM MOVEMENT (INCHES) | NUMBER OF BEARINGS REQUIRED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | VERTICAL | | | | | | | | HORIZONTAL | | | | | |
| | | | DL | | LL+I | | FROM HORIZ LOADS | | TOTAL | | TRANSVERSE | | LONGITUDINAL | | | |
| | | | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | | |
| ABUTMENT 1 | GUIDED EXP | SERVICE I | 137 | 173 | -22 | 136 | -16 | 16 | 99 | 325 | -75 | 75 | -7 | 7 | 6.41 | 3 |
| | | EXTREME EVENT I | 150 | 173 | 0 | 0 | 0 | 0 | 150 | 173 | -45 | 45 | -7 | 7 | | |
| | NON-GUIDED EXP | SERVICE I | 137 | 173 | -22 | 136 | -16 | 16 | 99 | 325 | -13 | 13 | -13 | 13 | 6.41 | 2 |
| | | EXTREME EVENT I | 150 | 173 | 0 | 0 | 0 | 0 | 150 | 173 | -7 | 7 | -7 | 7 | | |
| PIER 1 | FIXED | SERVICE I | 380 | 508 | -25 | 254 | -35 | 35 | 320 | 797 | -167 | 167 | -153 | 153 | --- | 5 |
| | | EXTREME EVENT I | 429 | 508 | 0 | 0 | 0 | 0 | 429 | 508 | -85 | 85 | -153 | 153 | | |
| PIER 2 | FIXED | SERVICE I | 380 | 507 | -25 | 254 | -35 | 35 | 320 | 796 | -167 | 167 | -104 | 104 | --- | 5 |
| | | EXTREME EVENT I | 429 | 507 | 0 | 0 | 0 | 0 | 429 | 507 | -85 | 85 | -89 | 89 | | |
| ABUTMENT 2 | GUIDED EXP | SERVICE I | 135 | 172 | -22 | 136 | -16 | 16 | 97 | 324 | -75 | 75 | -7 | 7 | 7.21 | 3 |
| | | EXTREME EVENT I | 150 | 172 | 0 | 0 | 0 | 0 | 150 | 172 | -45 | 45 | -7 | 7 | | |
| | NON-GUIDED EXP | SERVICE I | 135 | 172 | -22 | 136 | -16 | 16 | 97 | 324 | -13 | 13 | -13 | 13 | 7.21 | 2 |
| | | EXTREME EVENT I | 150 | 172 | 0 | 0 | 0 | 0 | 150 | 172 | -7 | 7 | -7 | 7 | | |

## NOTES:

1. ALL BEARING DIMENSIONS ARE IN INCHES, UNLESS NOTED OTHERWISE.
2. BEARING HEIGHTS "PP" ARE MEASURED AT ℄ OF BEARING.
3. BEARING HEIGHTS "PP" INCLUDE 1/8" BEDDING MATERIAL.
4. LONGITUDINAL SOLE PLATES SHALL INCLUDE ACCOMMODATION FOR LONGITUDINAL GRADE.
5. FOR DETAILS AND DIMENSIONS NOT SHOWN, SEE STANDARD DRAWING BC-756M.

| MAXIMUM BEARING THICKNESS ( H1) | |
|---|---|
| GB1 | 9.772" |
| GB4 | 9.780" |
| NB1 | 5.984" |
| NB4 | 5.992" |
| FB2 & FB3 | 8.395" |

## REFERENCES:


| | | SHEET: |
|---|---|---|
| 1. | SUPPLEMENTAL DRAWINGS | 1 |
| 2. | INDEX OF DRAWINGS | 3 |
| 3. | GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. | PIER 1 AND 2 JACKING DETAILS | 50 |
| 5. | FRAMING PLAN | 67 |
| 6. | POT BEARING DETAILS | 77 |


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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## POT BEARING TABLES

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

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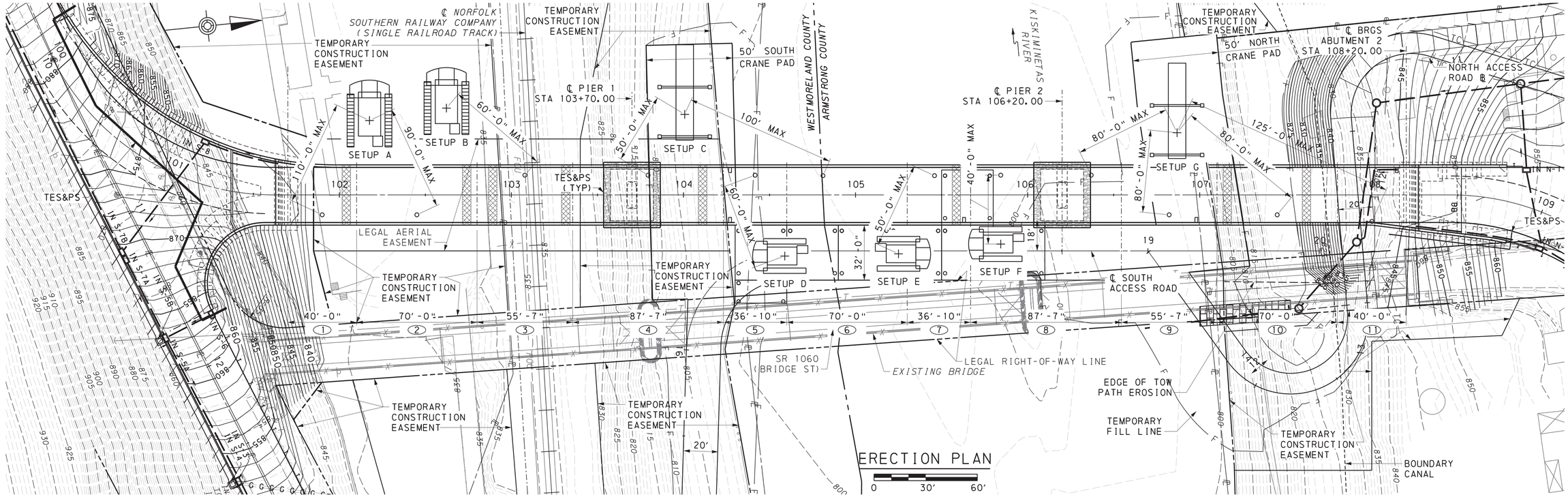


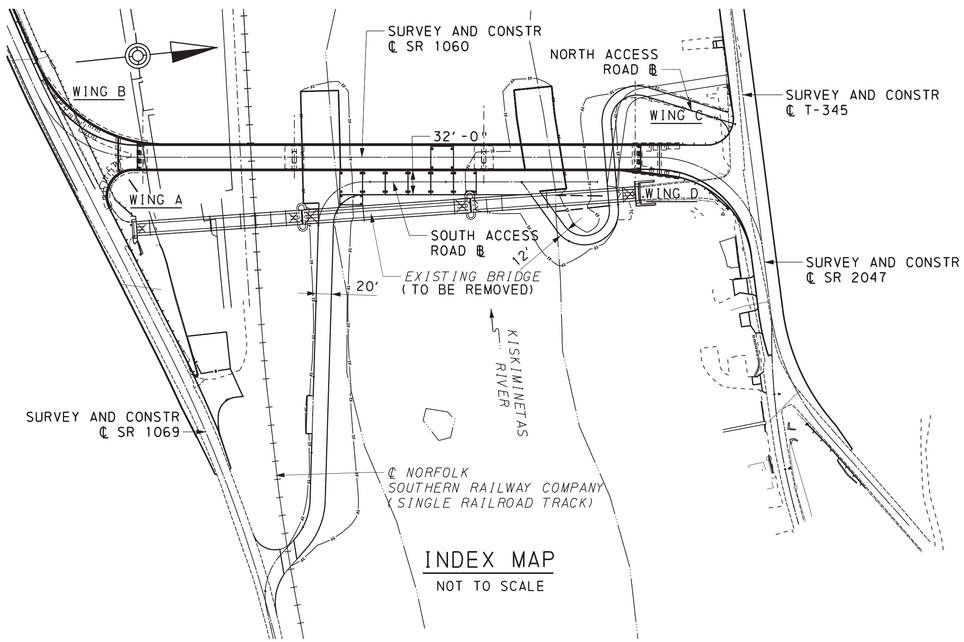


INDEX MAP
NOT TO SCALE

## NOTES:

CRANE SETUP A: FOR GIRDER SEGMENTS 1, 2
CRANE SETUP B: FOR GIRDER SEGMENT 3
CRANE SETUP C: FOR GIRDER SEGMENTS 4, 6 & 7 (TANDEM)
CRANE SETUP D: FOR GIRDER SEGMENT 5
CRANE SETUP E: FOR GIRDER SEGMENTS 6 & 7 (TANDEM)
CRANE SETUP F: FOR GIRDER SEGMENTS 8 (TANDEM)
CRANE SETUP G: FOR GIRDER SEGMENTS 8 (TANDEM), 9, 10, 11

THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND INSTALLING GROUND PROTECTION FOR UNDERGROUND UTILITIES, PIPES, AND OTHER ITEMS REQUIRING PROTECTION FROM ALL EQUIPMENT LOADING.

THIS IS A CONCEPTUAL ERECTION PLAN. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING A FINAL ERECTION PLAN BASED ON THE AVAILABLE EQUIPMENT NEEDED TO ERECT THE BRIDGE. DETAILED TEMPORARY TOWER DESIGNS MUST BE SUBMITTED ALONG WITH THE ERECTION PLAN SUBMISSION.

GIRDER ERECTION OVER RAILROAD TRACKS SHALL ADHERE TO "NORFOLK SOUTHERN - SPECIAL PROVISIONS FOR PROTECTION OF RAILWAY INTERESTS" APPENDIX E SECTION 5., SUBPART G. "ERECTION & HOISTING REQUIREMENTS."

SEE THE GENERAL NOTES 1 AND 2 FOR ADDITIONAL NOTES AND REQUIREMENTS.

## LEGEND:

DENOTES MANITIWOC 2250 (OR EQUIVALENT)

DENOTES GROVE GMK7550 (OR EQUIVALENT)

DENOTES MANITOWOC 777 (OR EQUIVELNT)

TEMPORARY SHORING TOWER

TES&PS

(1) GIRDER FIELD SEGMENT DESIGNATION

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES | 4 & 5 |
| 2. WORK THIS SHEET WITH SHEET | 80 |

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DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## CONCEPTUAL ERECTION PLAN

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

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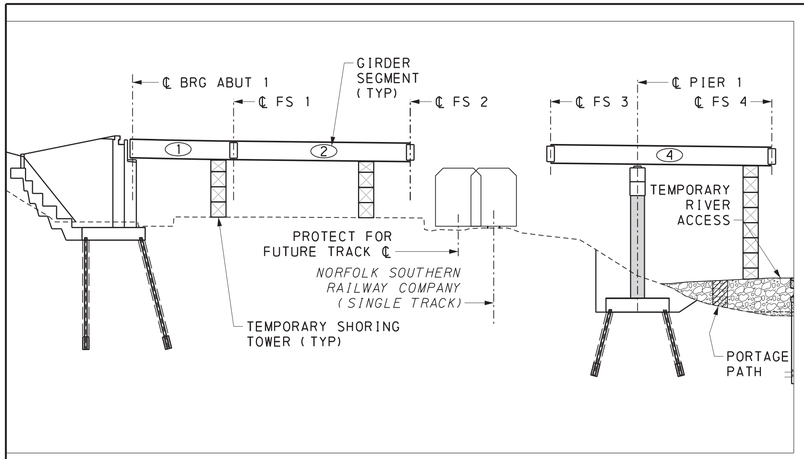



## PHASE 1:

ERECT TEMPORARY SHORING TOWERS UNDER SEGMENTS 1, 2, AND 4.

SET BEARINGS ON ABUT 1, PIER 1, AND TEMPORARY SHORING TOWERS.

UNLOAD AND ASSEMBLE SEGMENT 1 GIRDERS G4 AND G5. CONNECT FIELD SPLICE 1 AND BOLT UP CROSS FRAMES. PROVIDE TEMPORARY BRACING AND TEMPORARY BEARING LOCK AS REQUIRED TO ENSURE STABILITY.

ERECT ASSEMBLED GIRDER PAIR.

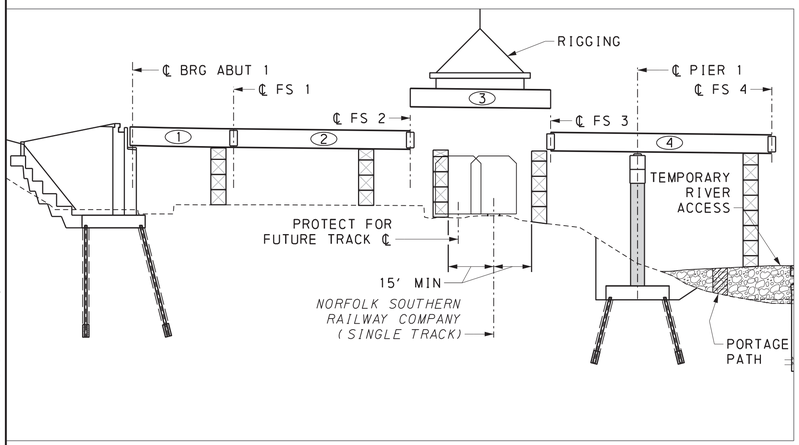
COMPLETE ERECTION OF SEGMENT 1 GIRDERS G3 THRU G1.

REPEAT PREVIOUS STEPS FOR SEGMENT 2 GIRDERS.

UNLOAD AND ASSEMBLE SEGMENT 4 GIRDERS G1 AND G2. CONNECT FIELD SPLICES 3 AND 4 AND BOLT UP CROSS FRAMES. PROVIDE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY.

ERECT ASSEMBLED GIRDER PAIR.

COMPLETE ERECTION OF SEGMENT 4 GIRDERS G3 THRU G5.




## PHASE 2:

UNLOAD AND ASSEMBLE SEGMENT 3 GIRDERS G1 AND G2. BOLT UP CROSS FRAMES. PROVIDE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY.

AS PER NS, INSTALL SEGMENT 3 SUCH THAT IT IS NOT HELD IN PLACE SOLELY BY A CRANE OVER THE TRACKS DURING ERECTION. SUPPORT SEGMENT 3 USING TEMPORARY SHORING TOWERS OR OTHER METHODS ACCEPTABLE TO NS PRIOR TO SPLICING.

ERECT ASSEMBLED GIRDER PAIR.

COMPLETE ERECTION OF SEGMENT 3 GIRDERS G3 THRU G5.

RELEASE TEMPORARY BEARING LOCK FROM PHASE 1.




## PHASE 3:

ERECT TEMPORARY SHORING TOWERS UNDER SEGMENT 7.

SET BEARINGS ON TEMPORARY SHORING TOWER.

UNLOAD AND ASSEMBLE SEGMENT 5 GIRDERS G1 AND G2. CONNECT FIELD SPLICE 5 AND BOLT UP CROSS FRAMES. PROVIDE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY WHEN LIFTING.

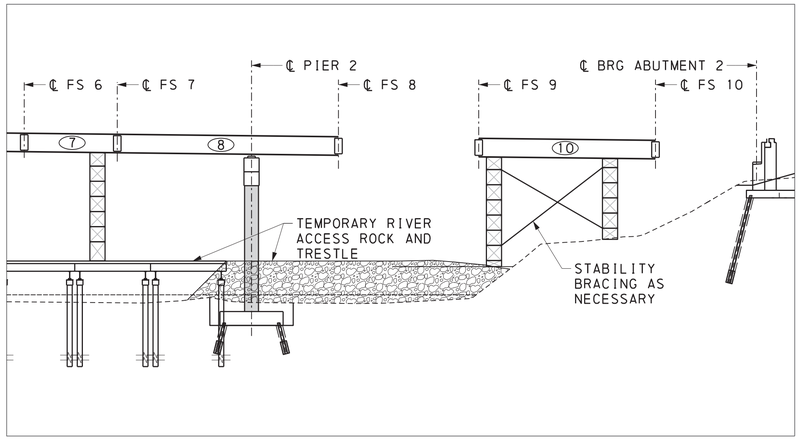
ERECT ASSEMBLED GIRDER PAIR.

COMPLETE ERECTION OF SEGMENT 5 GIRDERS G3 THRU G5.

UNLOAD AND ASSEMBLE SEGMENTS 6 AND 7 GIRDERS G1 AND G2. CONNECT FIELD SPLICES 6 AND 7 AND BOLT UP CROSS FRAMES. SEGMENTS 6 AND 7 GIRDERS ARE ASSEMBLED AS ONE FULL-LENGTH GIRDER.

ERECT ASSEMBLED GIRDER PAIR AS TANDEM PICK WITH TWO CRANES.

COMPLETE ERECTION OF BOLTED SEGMENTS 6 AND 7 GIRDERS G3 THRU G5.




## PHASE 4:

ERECT TEMPORARY SHORING TOWERS UNDER SEGMENT 10.

SET BEARINGS ON ABUT 2, PIER 2, AND TEMPORARY SHORING TOWERS.

UNLOAD AND ASSEMBLE SEGMENT 8 GIRDERS G1 AND G2. CONNECT FIELD SPLICE 8 AND BOLT UP CROSS FRAMES. PROVIDE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY WHEN LIFTING.

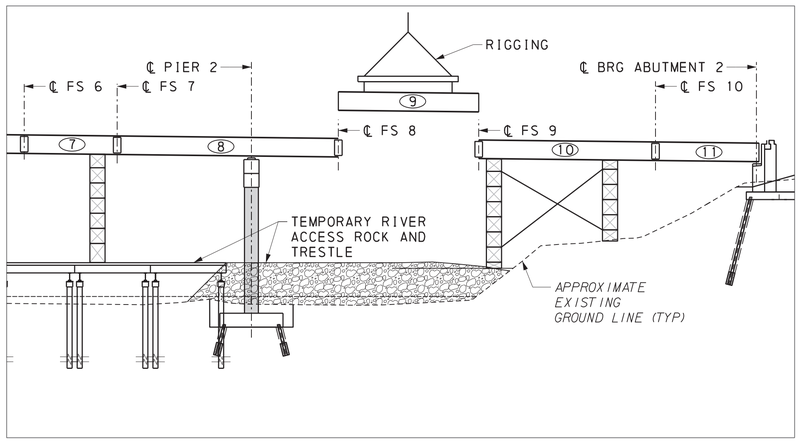
ERECT ASSEMBLED GIRDER PAIRS AS TANDEM PICK WITH TWO CRANES.

COMPLETE ERECTION OF SEGMENT 8 GIRDERS G3 THRU G5.

UNLOAD AND ASSEMBLE SEGMENT 10 GIRDERS G1 AND G2. CONNECT FIELD SPLICES 9 AND 10 AND BOLT UP CROSS FRAMES. PROVIDE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY WHEN LIFTING.

ERECT ASSEMBLED GIRDER PAIR.

COMPLETE ERECTION OF SEGMENT 10 GIRDERS G3 THRU G5.




## PHASE 5:

UNLOAD AND ASSEMBLE SEGMENT 9 GIRDERS G4 AND G5. BOLT UP CROSS FRAMES. PROVIDE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY WHEN LIFTING.

ERECT ASSEMBLED GIRDER PAIR.

UNLOAD AND ERECT SEGMENT 9 GIRDER G3.

UNLOAD AND ASSEMBLE SEGMENT 11 GIRDER G5. BOLT UP CROSS FRAMES. PROVIDE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY WHEN LIFTING. ERECT GIRDER.

REPEAT PREVIOUS STEP FOR SEGMENT 11 GIRDERS G4 THRU G1. GIRDER G1 DOES NOT REQUIRE CROSS FRAME BOLTING.

UNLOAD AND ASSEMBLE SEGMENT 9 GIRDERS G1 AND G2. BOLT UP CROSS FRAMES. PROVIDE TEMPORARY BRACING AS REQUIRED TO ENSURE STABILITY WHEN LIFTING.

ERECT ASSEMBLED GIRDER PAIR.

## REFERENCES:

| | SHEET: |
|---|---|
| 1. GENERAL NOTES 1 & 2 | 4 & 5 |
| 2. WORK THIS SHEET WITH SHEET | 79 |

## NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR STABILITY OF ASSEMBLED AND ERECTED GIRDERS AT ALL STAGES OF CONSTRUCTION. ADDITIONAL TEMPORARY BRACING, HYDRAULIC JACKS, TIE-DOWNS, OR HOLD CRANES MAY BE REQUIRED. THE CONTRACTOR SHALL PREPARE A DETAILED ERECTION PLAN AND SUBMIT TO THE ENGINEER FOR REVIEW SHOWING THE SEQUENCE OF ERECTION AND ALL TEMPORARY SUPPORTS REQUIRED TO ENSURE STABILITY OF THE ERECTED GIRDERS AT ALL STAGES OF CONSTRUCTION.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## CONCEPTUAL ERECTION ELEVATION

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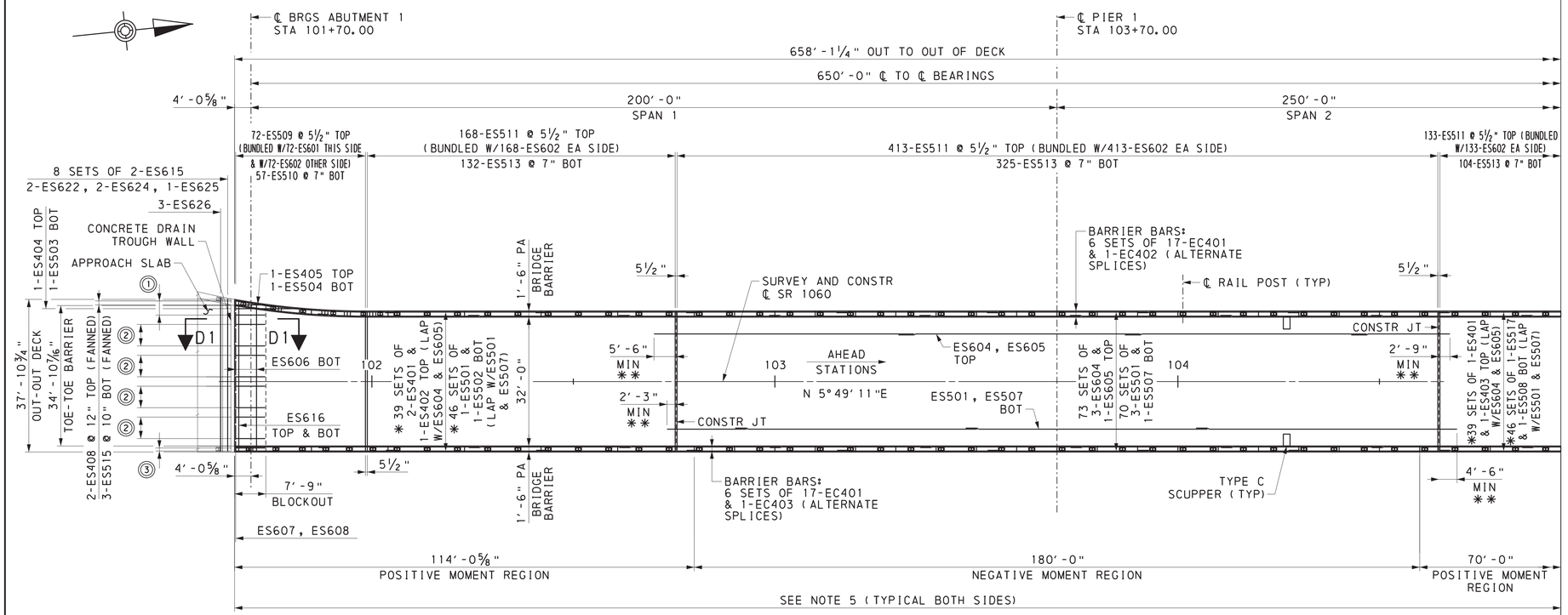
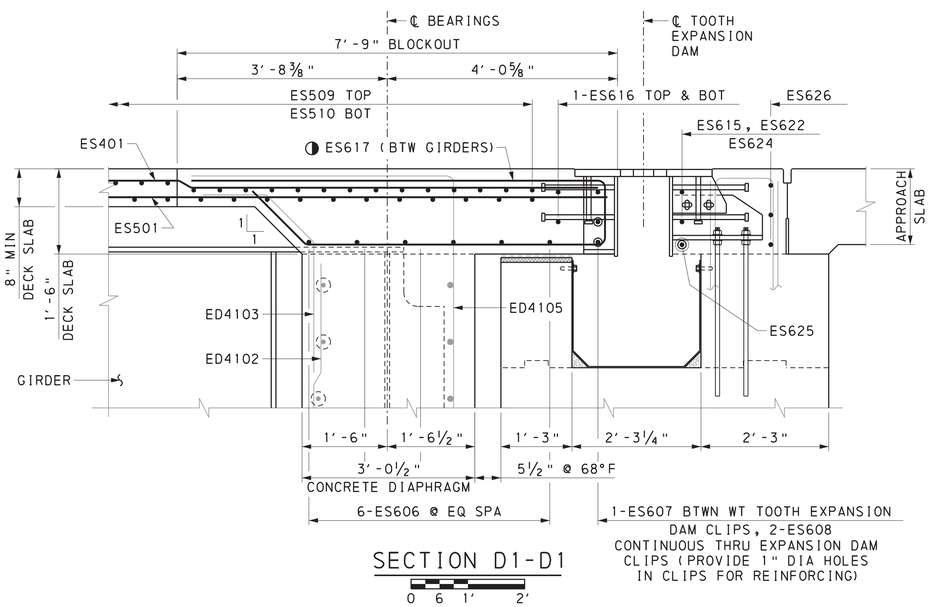



## PARTIAL DECK PLAN

0 16' 32'

MATCH LINE SEE SHEET 82




## SECTION D1-D1

0 6 1' 2'

## LEGEND:

* ALTERNATE SPLICES
** ALTERNATE LAP LENGTH EVERY OTHER BAR
◑ PLACED PARALLEL TO & CENTERED BETWEEN LONGIT TOP REINFORCEMENT
E EPOXY COATED BARS
① 5-ES617 @ 12" SPA
② 7-ES617 @ 12" SPA
③ 2-ES617 @ 12" SPA

## MINIMUM LAP LENGTH:

DECK BARS:
#4 BARS - 1'-11"
#5 BARS - 3'-0"
#6 BARS - 3'-7"

BARRIER BARS:
#4 BARS - 2'-8"

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. PLACE RAILING POSTS, PROTECTIVE FENCE POSTS AND ANCHOR BOLTS TRULY VERTICAL. PLACE RAILS PARALLEL TO GRADE.
3. CUT AND/OR REPOSITION DECK REINFORCEMENT TO ACCOMMODATE SCUPPERS AND TOOTH DAM BRACKETS.
4. REPAIR DAMAGED EPOXY COATING WITH AN APPROVED EPOXY PAINT AT NO COST TO THE DEPARTMENT.
5. SEE BARRIER REBAR DETAILS FOR APPLICABLE REINFORCING BARS AND SPACINGS.
6. WORK THIS SHEET WITH SHEETS 82-84.

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. DECK PLAN 2 | 82 |
| 5. POSITIVE MOMENT DECK SECTION | 83 |
| 6. NEGATIVE MOMENT DECK SECTION | 84 |
| 7. SCUPPER REINFORCEMENT DETAIL | 84 |
| 8. BARRIER AND FENCE POST LAYOUT 1 AND 2 | 87 & 88 |
| 9. BARRIER DEFLECTION JOINT DETAILS 1 AND 2 | 89 & 90 |
| 10. BARRIER REBAR DETAILS 1, 2 & 3 | 91-93 |
| 11. DECK REINF BAR SCHEDULE | 94 |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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
DECK PLAN 1

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

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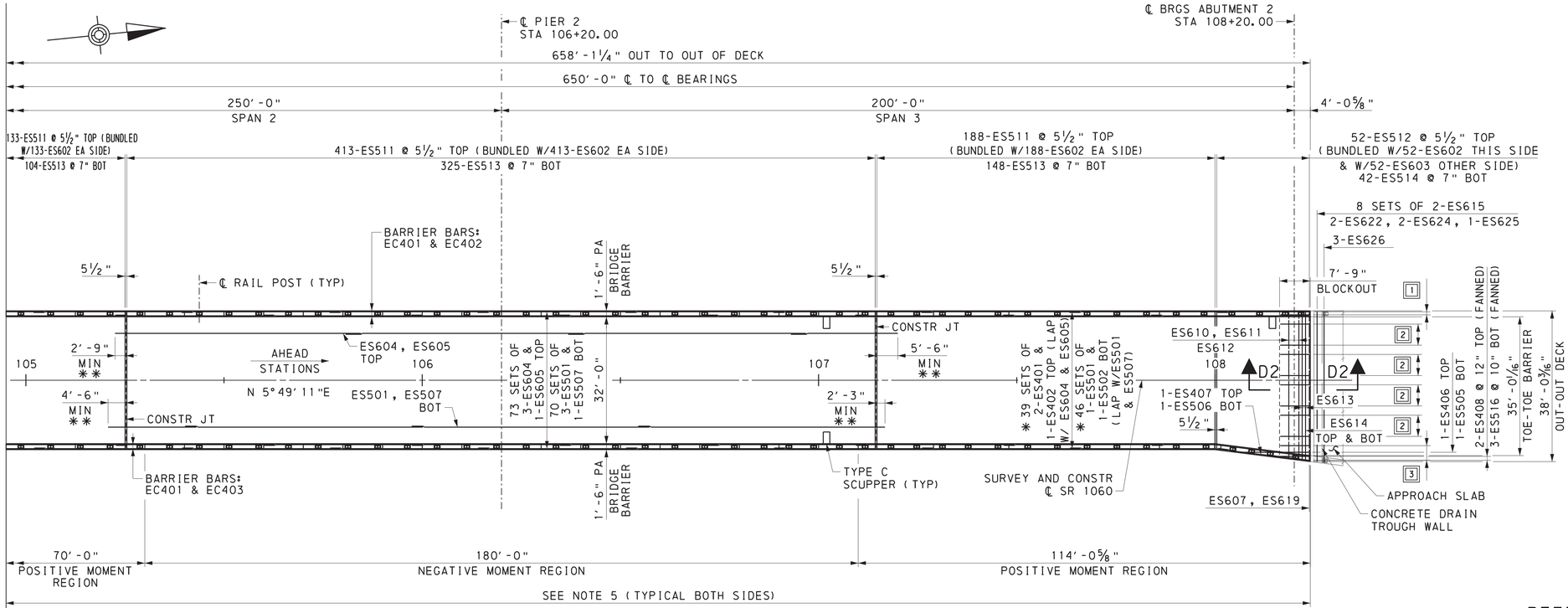
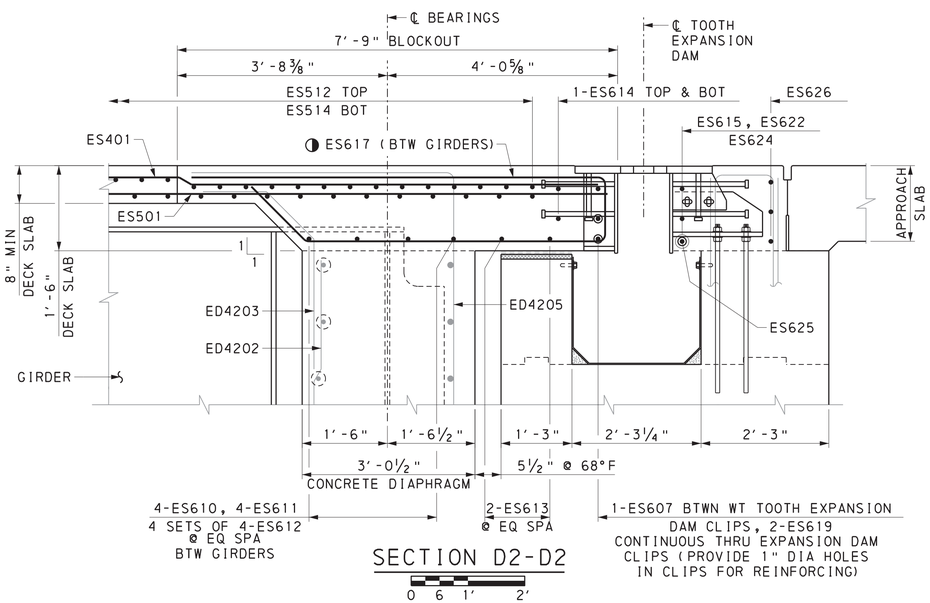



PARTIAL DECK PLAN

0 16′ 32′




SECTION D2-D2

0 6 1′ 2′

## LEGEND:

* ALTERNATE SPLICES
** ALTERNATE LAP LENGTH EVERY OTHER BAR
E EPOXY COATED BARS

[1] 2-ES617 @ 12" SPA
[2] 7-ES617 @ 12" SPA
[3] 5-ES617 @ 12" SPA

## MINIMUM LAP LENGTH:

DECK BARS:
#4 BARS - 1′-11"
#5 BARS - 3′-0"
#6 BARS - 3′-7"

BARRIER BARS:
#4 BARS - 2′-8"

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. PLACE RAILING POSTS, PROTECTIVE FENCE POSTS AND ANCHOR BOLTS TRULY VERTICAL. PLACE RAILS PARALLEL TO GRADE.
3. CUT AND/OR REPOSITION DECK REINFORCEMENT TO ACCOMMODATE SCUPPERS AND TOOTH DAM BRACKETS.
4. REPAIR DAMAGED EPOXY COATING WITH AN APPROVED EPOXY PAINT AT NO COST TO THE DEPARTMENT.
5. SEE BARRIER REBAR DETAILS FOR APPLICABLE REINFORCING BARS AND SPACINGS.
6. WORK THIS SHEET WITH SHEETS 81, 83 & 84.

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. DECK PLAN 1 | 81 |
| 5. POSITIVE MOMENT DECK SECTION | 83 |
| 6. NEGATIVE MOMENT DECK SECTION | 84 |
| 7. SCUPPER REINFORCEMENT DETAIL | 84 |
| 8. BARRIER AND FENCE POST LAYOUT 1 & 2 | 87 & 88 |
| 9. BARRIER DEFLECTION JOINT DETAILS 1 & 2 | 89 & 90 |
| 10. BARRIER REBAR DETAILS 1, 2 & 3 | 91-93 |
| 11. DECK REINF BAR SCHEDULE | 94 |


| Mark | Description | By | Chk'd. | Recm'd. | Date |
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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## DECK PLAN 2

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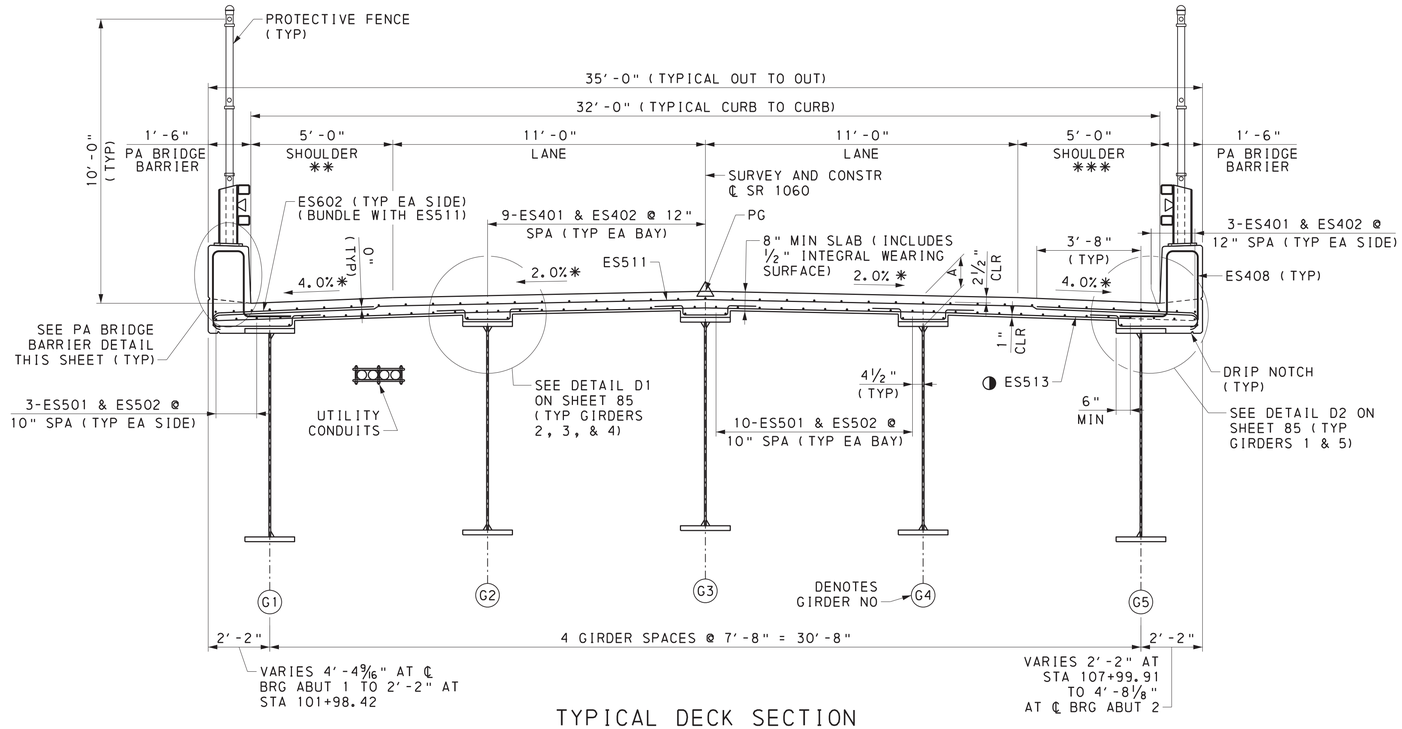
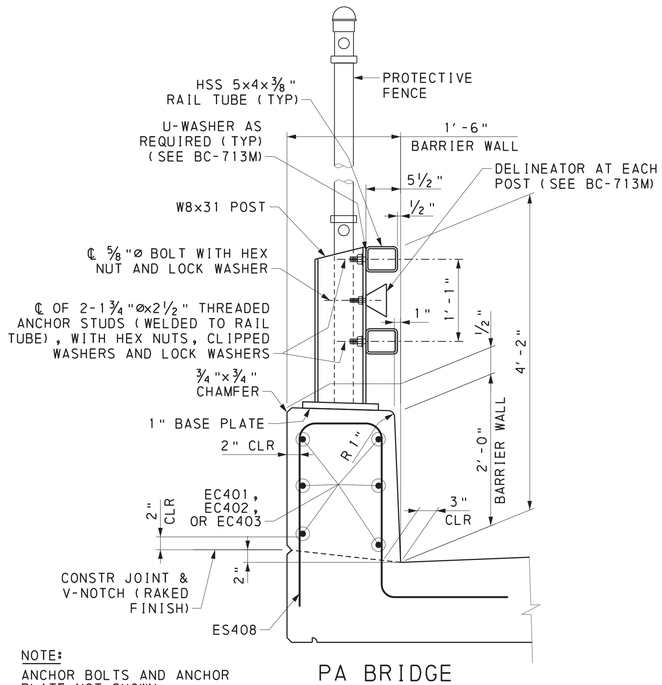



## TYPICAL DECK SECTION
## SPANS 1, 2 & 3
## (POSITIVE MOMENT REGION)

(SPAN 1 AT STA 102+25 SHOWN)
(LOOKING AHEAD STATIONS)

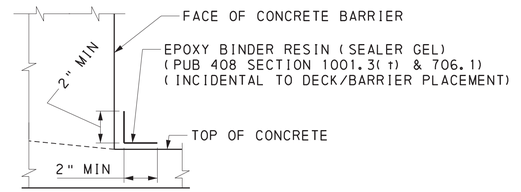
0 1' 2' 3' 4'




NOTE:
ANCHOR BOLTS AND ANCHOR PLATE NOT SHOWN

## PA BRIDGE BARRIER DETAIL

0 3 6 9 1' 2'




## GUTTERLINE SEALANT DETAIL

NOT TO SCALE

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|---|---|---|---|---|---|
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## LEGEND:

E EPOXY COATED BARS

* SEE CROSS SLOPE TRANSITIONS FOR LOCATIONS WHERE CROSS SLOPE IS DIFFERENT THAN NORMAL CROWN

** (VARIES FROM 7'-2 5/16" @ ℄ BRG ABUT 1 TO 5'-0" AT STA 101+98.42

*** (VARIES FROM 5'-0" AT STA 108+00.00 TO 7'-6" @ ℄ BRG ABUT 2)

◑ EXTEND ONE HALF OF THE BOTTOM TRANSVERSE BARS ACROSS THE FULL WIDTH OF THE OVERHANG. THE ALTERNATE BARS WHICH DO NOT EXTEND INTO THE OVERHANG SHALL EXTEND 6" MIN BEYOND THE INTERIOR EDGE OF THE FLANGE OF THE FASCIA BEAM. (ES513 BARS ONLY)

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. TYPICAL 'A' DIMENSION IS 14 INCHES FROM TOP OF DECK TO TOP OF WEB. SEE DECK ELEVATIONS 1 SHEET FOR LOCATIONS WHERE 'A' VARIES.

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. DECK ELEVATIONS 1 | 9 |
| 5. DECK PLANS 1 & 2 | 81 & 82 |
| 6. TYPICAL DECK SECTION 2 | 84 |
| 7. DETAILS D1 & D2 | 85 |
| 8. BARRIER DETAILS | 87-93 |
| 9. DECK REINF BAR SCHEDULE | 94 |


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# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
TYPICAL DECK SECTION 1

RECOMMENDED _____

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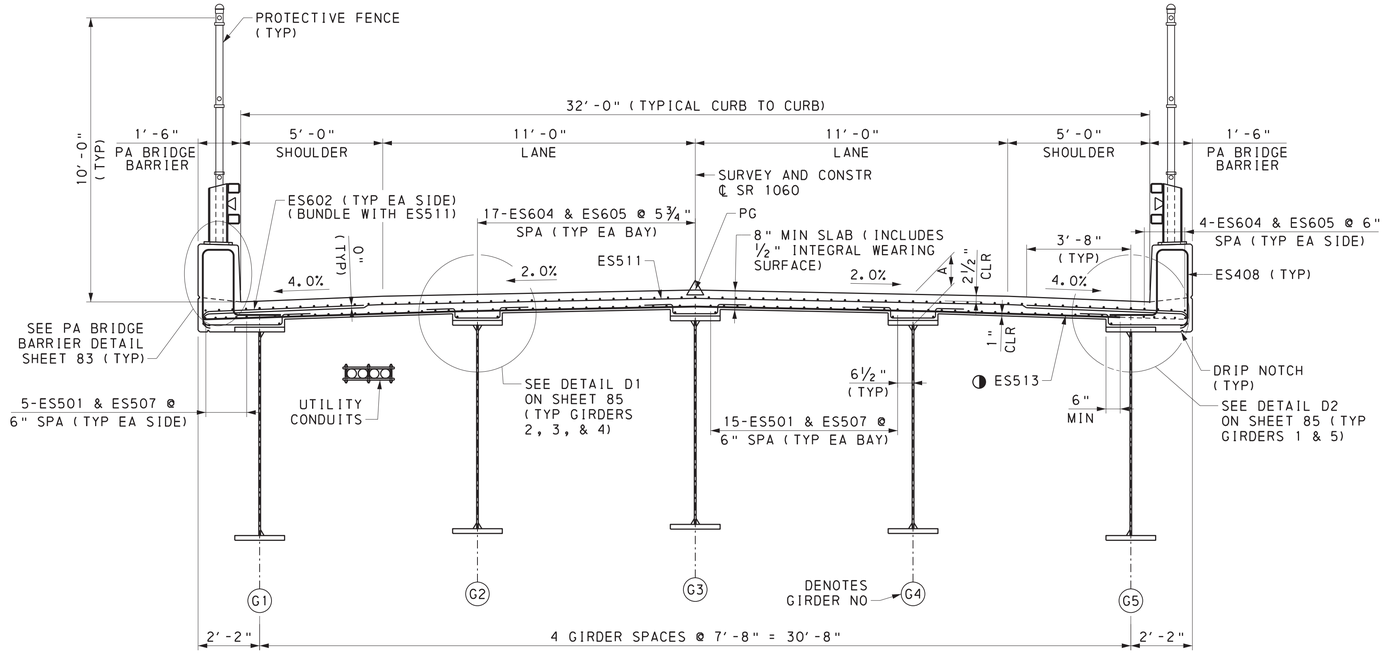
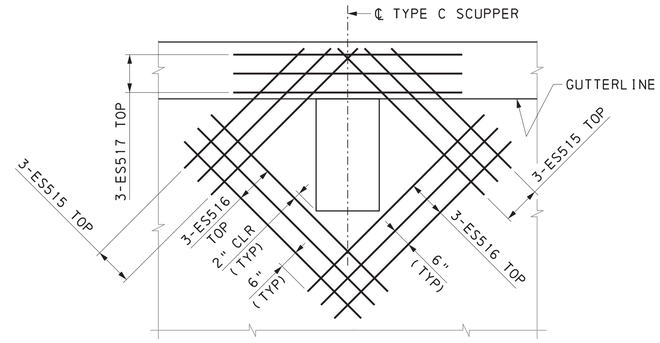



## TYPICAL DECK SECTION @ PIERS 1 & 2 (NEGATIVE MOMENT REGION)

(SHOWN AT ℄ PIER 1 STA 103+70)
(LOOKING AHEAD STATIONS)

0 1' 2' 3' 4'




## SCUPPER REINFORCEMENT DETAIL

(SEE NOTE 2)

0 6" 1' 2' 3' 4'

### LEGEND:

E EPOXY COATED BARS

◑ EXTEND ONE HALF OF THE BOTTOM TRANVERSE BARS ACROSS THE FULL WIDTH OF THE OVERHANG. THE ALTERNATE BARS WHICH DO NOT EXTEND INTO THE OVERHANG SHALL EXTEND 6" MIN BEYOND THE INTERIOR EDGE OF THE FLANGE OF THE FASCIA BEAM. (ES513 BARS ONLY)

### NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS
2. CUT AND/OR REPOSITION REINFORCING AS REQUIRED TO CLEAR SCUPPERS. REPAIR DAMAGED EPOXY COATING WITH AN APPROVED EPOXY PAINT AT NO COST TO THE DEPARTMENT.
3. TYPICAL 'A' DIMENSION IS 14 INCHES FROM TOP OF DECK TO TOP OF WEB. SEE DECK ELEVATIONS 1 SHEET FOR LOCATIONS WHERE 'A' VARIES.

### REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. DECK ELEVATIONS 1 | 9 |
| 5. DECK PLANS 1 & 2 | 81 & 82 |
| 6. PA BRIDGE BARRIER DETAIL | 83 |
| 7. TYPICAL DECK SECTION 1 | 83 |
| 8. DETAILS D1 & D2 | 85 |
| 9. PA BRIDGE BARRIER DETAILS | 87-93 |
| 10. DECK REINF BAR SCHEDULE | 94 |


| Mark | Description | By | Chk'd. | Recm'd. | Date |
|---|---|---|---|---|---|
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DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## TYPICAL DECK SECTION 2

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## GIRDER G1 HAUNCH TRANSVERSE REINFORCEMENT LAYOUT

| SPAN | SPAN 1 | | | | | | |
|---|---|---|---|---|---|---|---|
| RANGE (FT) | 0.00 TO 40.00 | 40.00 TO 110.00 | 110.00 TO 165.58 | 165.58 TO 185.00 | 185.00 TO 200.00 | --- | --- |
| REINF. | 36 - ES301 (SEE NOTE 5) | 60 - ES302 | 48 - ES303 | 17 - ES304 | 13 - ES305 | --- | --- |
| SPAN | SPAN 2 | | | | | | |
| RANGE (FT) | 0.00 TO 15.00 | 15.00 TO 53.17 | 53.17 TO 90.00 | 90.00 TO 160.00 | 160.00 TO 196.83 | 196.83 TO 235.00 | 235.00 TO 250.00 |
| REINF. | 13 - ES305 | 33 - ES304 | 32 - ES306 | 60 - ES307 | 32 - ES306 | 33 - ES304 | 13 - ES305 |
| SPAN | SPAN 3 | | | | | | |
| RANGE (FT) | 0.00 TO 15.00 | 15.00 TO 34.42 | 34.42 TO 90.00 | 90.00 TO 130.00 | 130.00 TO 200.00 | --- | --- |
| REINF. | 13 - ES305 | 17 - ES304 | 48 - ES303 | 35 - ES302 | 60 - ES308 | --- | --- |

## GIRDER G2 HAUNCH TRANSVERSE REINFORCEMENT LAYOUT

| SPAN | SPAN 1 | | | | | | |
|---|---|---|---|---|---|---|---|
| RANGE (FT) | 0.00 TO 40.00 | 40.00 TO 110.00 | 110.00 TO 165.58 | 165.58 TO 185.00 | 185.00 TO 200.00 | --- | --- |
| REINF. | 36 - ES311 | 60 - ES312 | 48 - ES313 | 17 - ES314 | 13 - ES315 | --- | --- |
| SPAN | SPAN 2 | | | | | | |
| RANGE (FT) | 0.00 TO 15.00 | 15.00 TO 53.17 | 53.17 TO 90.00 | 90.00 TO 160.00 | 160.00 TO 196.83 | 196.83 TO 235.00 | 235.00 TO 250.00 |
| REINF. | 13 - ES315 | 33 - ES314 | 32 - ES316 | 60 - ES317 | 32 - ES316 | 33 - ES314 | 13 - ES315 |
| SPAN | SPAN 3 | | | | | | |
| RANGE (FT) | 0.00 TO 15.00 | 15.00 TO 34.42 | 34.42 TO 90.00 | 90.00 TO 170.00 | 170.00 TO 200.00 | --- | --- |
| REINF. | 13 - ES315 | 17 - ES314 | 48 - ES313 | 69 - ES312 | 26 - ES318 | --- | --- |

## GIRDER G3 HAUNCH TRANSVERSE REINFORCEMENT LAYOUT

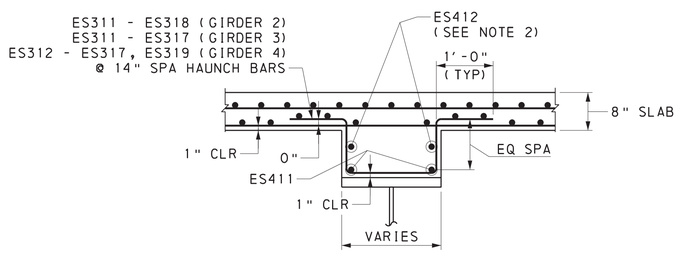
| SPAN | SPAN 1 | | | | | | |
|---|---|---|---|---|---|---|---|
| RANGE (FT) | 0.00 TO 40.00 | 40.00 TO 110.00 | 110.00 TO 165.58 | 165.58 TO 185.00 | 185.00 TO 200.00 | --- | --- |
| REINF. | 36 - ES311 | 60 - ES312 | 48 - ES313 | 17 - ES314 | 13 - ES315 | --- | --- |
| SPAN | SPAN 2 | | | | | | |
| RANGE (FT) | 0.00 TO 15.00 | 15.00 TO 53.17 | 53.17 TO 90.00 | 90.00 TO 160.00 | 160.00 TO 196.83 | 196.83 TO 235.00 | 235.00 TO 250.00 |
| REINF. | 13 - ES315 | 33 - ES314 | 32 - ES316 | 60 - ES317 | 32 - ES316 | 33 - ES314 | 13 - ES315 |
| SPAN | SPAN 3 | | | | | | |
| RANGE (FT) | 0.00 TO 15.00 | 15.00 TO 34.42 | 34.42 TO 90.00 | 90.00 TO 200.00 | --- | --- | -- |
| REINF. | 13 - ES315 | 17 - ES314 | 48 - ES313 | 95 - ES312 | --- | --- | --- |

## GIRDER G4 HAUNCH TRANSVERSE REINFORCEMENT LAYOUT

| SPAN | SPAN 1 | | | | | | |
|---|---|---|---|---|---|---|---|
| RANGE (FT) | 0.00 TO 50.00 | 50.00 TO 110.00 | 110.00 TO 165.58 | 165.58 TO 185.00 | 185.00 TO 200.00 | --- | --- |
| REINF. | 44 - ES319 | 52 - ES312 | 48 - ES313 | 17 - ES314 | 13 - ES315 | --- | --- |
| SPAN | SPAN 2 | | | | | | |
| RANGE (FT) | 0.00 TO 15.00 | 15.00 TO 53.17 | 53.17 TO 90.00 | 90.00 TO 160.00 | 160.00 TO 196.83 | 196.83 TO 235.00 | 235.00 TO 250.00 |
| REINF. | 13 - ES315 | 33 - ES314 | 32 - ES316 | 60 - ES317 | 32 - ES316 | 33 - ES314 | 13 - ES315 |
| SPAN | SPAN 3 | | | | | | |
| RANGE (FT) | 0.00 TO 15.00 | 15.00 TO 34.42 | 34.42 TO 90.00 | 90.00 TO 200.00 | --- | --- | --- |
| REINF. | 13 - ES315 | 17 - ES314 | 48 - ES313 | 95 - ES312 | --- | --- | --- |

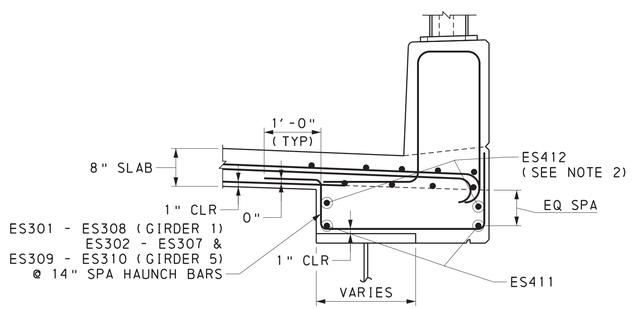
## GIRDER G5 HAUNCH TRANSVERSE REINFORCEMENT LAYOUT

| SPAN | SPAN 1 | | | | | | |
|---|---|---|---|---|---|---|---|
| RANGE (FT) | 0.00 TO 50.00 | 50.00 TO 110.00 | 110.00 TO 165.58 | 165.58 TO 185.00 | 185.00 TO 200.00 | --- | --- |
| REINF. | 44 - ES309 | 52 - ES302 | 48 - ES303 | 17 - ES304 | 13 - ES305 | --- | --- |
| SPAN | SPAN 2 | | | | | | |
| RANGE (FT) | 0.00 TO 15.00 | 15.00 TO 53.17 | 53.17 TO 90.00 | 90.00 TO 160.00 | 160.00 TO 196.83 | 196.83 TO 235.00 | 235.00 TO 250.00 |
| REINF. | 13 - ES305 | 33 - ES304 | 32 - ES306 | 60 - ES307 | 32 - ES306 | 33 - ES304 | 13 - ES305 |
| SPAN | SPAN 3 | | | | | | |
| RANGE (FT) | 0.00 TO 15.00 | 15.00 TO 34.42 | 34.42 TO 90.00 | 90.00 TO 180.00 | 180.00 TO 200.00 | --- | --- |
| REINF. | 13 - ES305 | 17 - ES304 | 48 - ES303 | 78 - ES302 | 18 - ES310 | --- | --- |




DETAIL D1

REQUIRED THE FULL LENGTH OF GIRDERS 2, 3, & 4
(NOT TO SCALE)




DETAIL D2

REQUIRED THE FULL LENGTH OF GIRDERS 1 & 5
(NOT TO SCALE)

## HAUNCH LONGITUDINAL REINFORCEMENT

| GIRDER NUMBER | NUMBER OF BARS | MIN LAP |
|---|---|---|
| G1 | 36 - ES411<br>4 - ES411 (2 EA END) | 1'-11" |
| G2 | 36 - ES411<br>4 - ES411 (2 EA END) | 1'-11" |
| G3 | 36 - ES411<br>4 - ES411 (2 EA END) | 1'-11" |
| G4 | 36 - ES411<br>4 - ES411 (2 EA END) | 1'-11" |
| G5 | 36 - ES411<br>4 - ES411 (2 EA END) | 1'-11" |

## NOTES:

1. TIE #3 HAUNCH BARS TO EVERY OTHER TRANSVERSE BOTTOM MAT BAR WITHIN RANGE SPECIFED. ALL HAUNCH BARS SPACED AT 14" MAX.
2. LONGITUDINAL HAUNCH REINFORCEMENT BARS ES411 RUN THE FULL LENGTH OF EACH GIRDER BETWEEN ABUTMENT CENTERLINES OF BEARING. LONGITUDINAL BARS ES412 ARE TO BE PLACED MIDWAY BETWEEN THE ES411 BARS AND THE BOTTOM OF THE CONCRETE DECK. PLACE 2 - ES412 BARS AT EACH END OF EACH GIRDER WITHIN THE REGIONS OF THE VARIABLE-DEPTH HAUNCH.
3. PLACE INDICATED HAUNCH TRANSVERSE REINFORCEMENT BARS WITHIN THE RANGES SPECIFIED IN THE TABLES. RANGES ARE GIVEN IN FEET, BEGINNING AT THE ABUTMENT 1 CENTERLINE OF BEARINGS AND ENDING AT THE ABUTMENT 2 CENTERLINE OF BEARINGS. SPACE TRANSVERSE BARS EVENLY WITHIN THE RANGES SPECIFIED.
4. HAUNCH TRANSVERSE REINFORCEMENT BAR BENDS MAY BE ADJUSTED TO CONFORM TO THE DECK SLAB TRANSVERSE REINFORCEMENT.
5. VARY THE "C" DIMENSION OF THE ES301 BARS FROM 5'-1½" TO 2'-11", WORKING STATIONS AHEAD, FOLLOWING THE CIRCULAR CURVE OF THE OUTSIDE DECK EDGE. SEE SHEET 95.

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. TYPICAL DECK SECTION 1 | 83 |
| 5. TYPICAL DECK SECTION 2 | 84 |
| 6. HAUNCH REINFORCEMENT BAR SCHEDULE | 95 |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|---|---|---|---|---|---|
| REVISIONS | | | | | |

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DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER HAUNCH REINFORCEMENT LAYOUT

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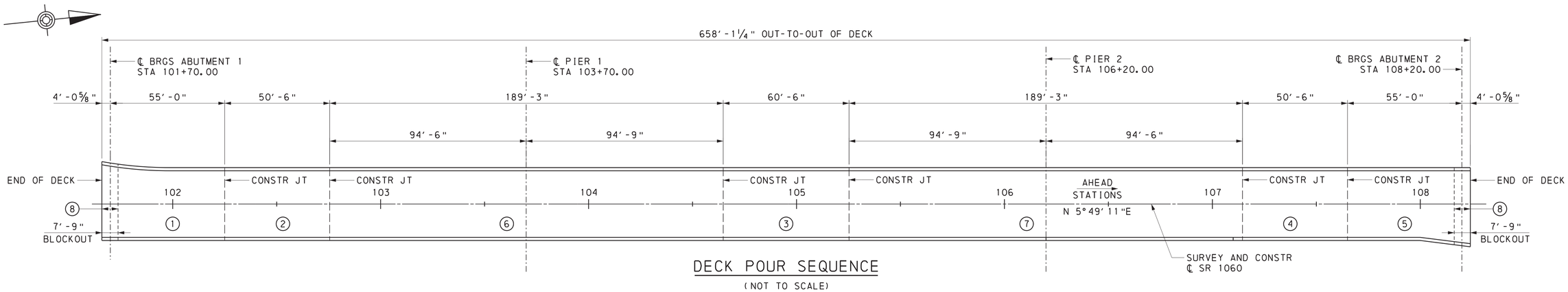


## DECK POUR SEQUENCE

(NOT TO SCALE)

## DECK POUR SEQUENCE NOTES:

1. PROVIDE TEMPORARY BRACING AT THE ENDS OF THE GIRDERS NEAR THE ABUTMENT CENTERLINES OF BEARINGS. TEMPORARY SUPPORT SHALL REMAIN IN PLACE UNTIL THE END DIAPHRAGMS (REGION 8) ARE TO BE PLACED.

2. CAST POSITIVE MOMENT REGIONS 1, 2, 3, 4, AND 5 MOVING FROM ABUTMENT 1 TO ABUTMENT 2.

3. CAST NEGATIVE MOMENT REGIONS 6 AND 7 MOVING FROM ABUTMENT 1 TO ABUTMENT 2.

4. CAST CLOSURE POURS, 8, INCLUDING CONCRETE GIRDER END DIAPHRAGMS AND ENDS OF DECK SLAB. PLACE PORTIONS OF DIAPHRAGMS UP TO THE CONSTRUCTION JOINT AS INDICATED. WAIT TWO HOURS MINIMUM BEFORE PLACING DECK CONCRETE.

5. THE CONTRACTOR MAY SUBMIT ALTERNATE POUR SEQUENCES FOR REVIEW. APPROVAL OF ALTERNATE POUR SEQUENCE IS NOT GUARANTEED.

6. CAST DECK FULL-WIDTH BETWEEN CONSTRUCTION JOINTS. LONGITUDINAL JOINTS IN THE DECK SLAB ARE NOT PERMITTED.

7. A MINIMUM WAITING PERIOD OF 2 CURING DAYS IS REQUIRED BETWEEN POURS IN IMMEDIATELY ADJACENT SPANS AND BETWEEN ADJACENT POSITIVE MOMENT PLACEMENTS IN THE SAME SPAN.

8. AT LOCATIONS WHERE THE TOTAL DECK SLAB + HAUNCH THICKNESS EXCEEDS 15 INCHES (MEASURED FROM TOP OF DECK TO TOP OF TOP FLANGE, TOP OF SPLICE PLATE, OR TOP OF SIP FORMS), PLACE CONCRETE IN THE HAUNCHES UP TO THE ELEVATION OF THE BOTTOM OF THE DECK AND VIBRATE. PLACE THE OVERLYING SLAB CONCRETE WHILE THE HAUNCH CONCRETE IS STILL PLASTIC AND VIBRATE SO THAT THE TWO POURS BECOME ONE COHESIVE MASS. DO NOT EXCEED A TOTAL PLACEMENT DEPTH OF 15 INCHES PER PUB. 408 SECTION 1001.3(K)1.

## LEGEND:

(1) DECK PLACEMENT NUMBER

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. DECK PLANS 1 & 2 | 81 & 82 |
| 5. TYPICAL DECK SECTIONS 1 & 2 | 83 & 84 |


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## 3 SPAN CONT COMP STEEL PLATE GIRDER
## DECK POUR SEQUENCE

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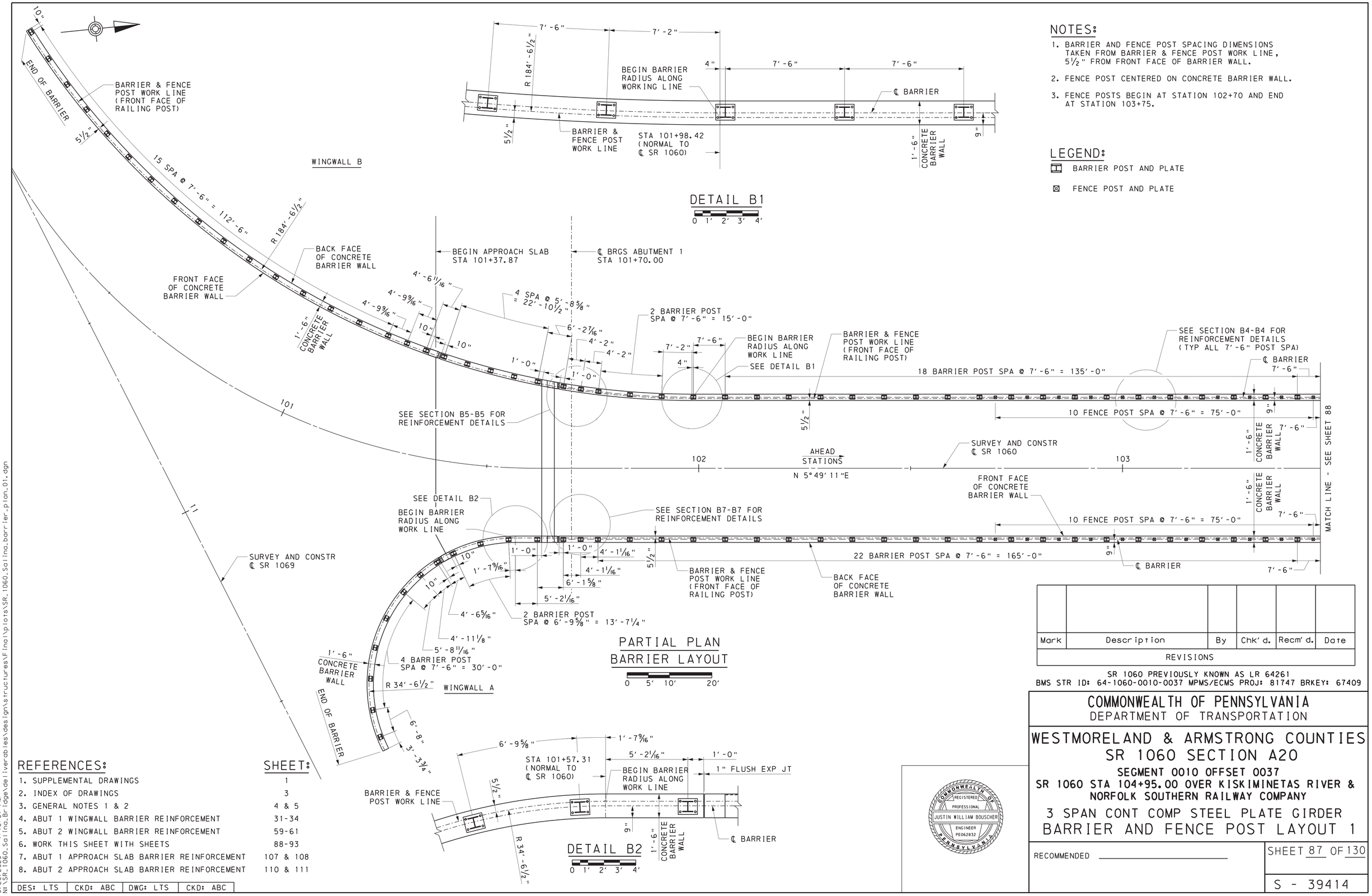


## NOTES:

1. BARRIER AND FENCE POST SPACING DIMENSIONS TAKEN FROM BARRIER & FENCE POST WORK LINE, 5½" FROM FRONT FACE OF BARRIER WALL.
2. FENCE POST CENTERED ON CONCRETE BARRIER WALL.
3. FENCE POSTS BEGIN AT STATION 102+70 AND END AT STATION 103+75.

## LEGEND:

- BARRIER POST AND PLATE
- FENCE POST AND PLATE

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. ABUT 1 WINGWALL BARRIER REINFORCEMENT | 31-34 |
| 5. ABUT 2 WINGWALL BARRIER REINFORCEMENT | 59-61 |
| 6. WORK THIS SHEET WITH SHEETS | 88-93 |
| 7. ABUT 1 APPROACH SLAB BARRIER REINFORCEMENT | 107 & 108 |
| 8. ABUT 2 APPROACH SLAB BARRIER REINFORCEMENT | 110 & 111 |

| DES: LTS | CKD: ABC | DWG: LTS | CKD: ABC |
|---|---|---|---|

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
## BARRIER AND FENCE POST LAYOUT 1

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 87 OF 130

S - 39414

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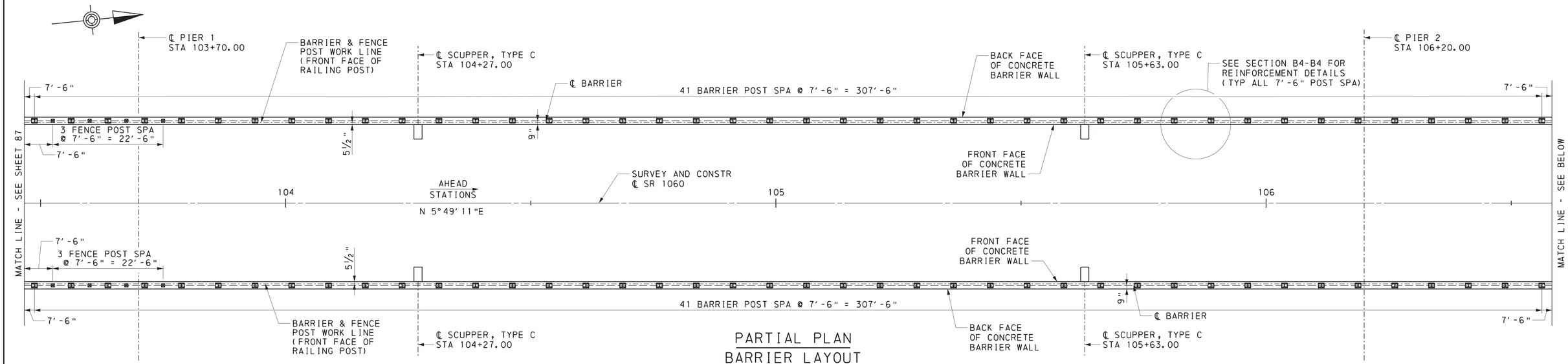
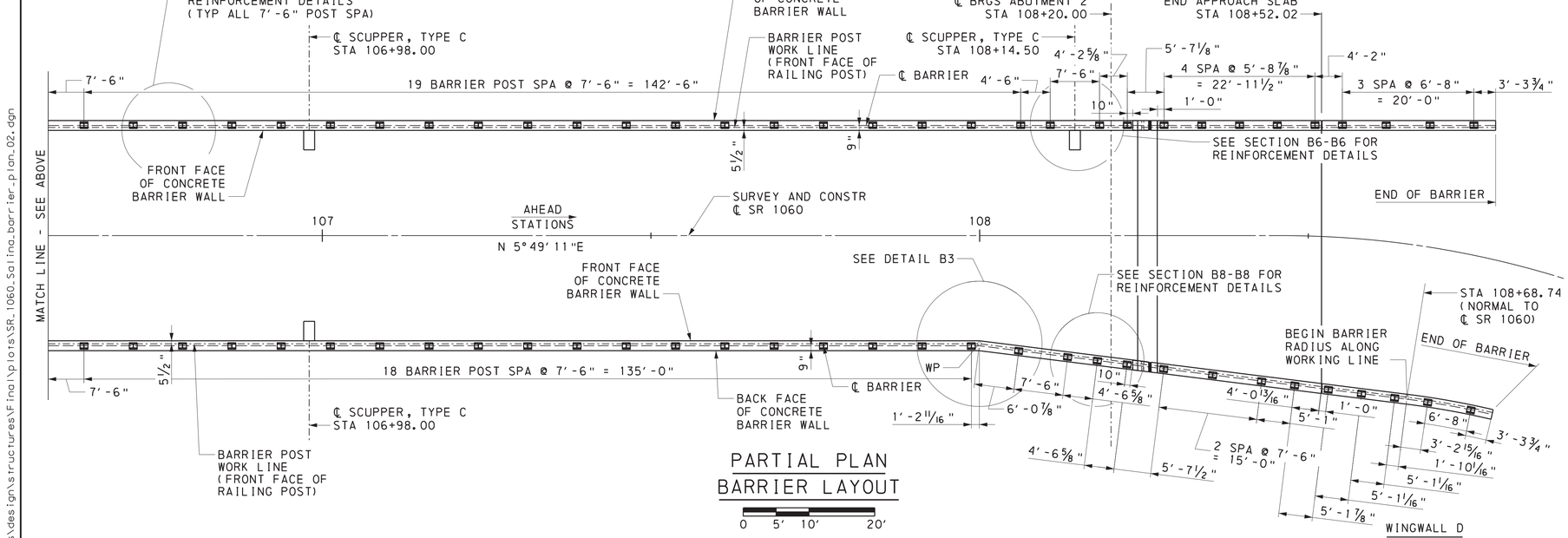


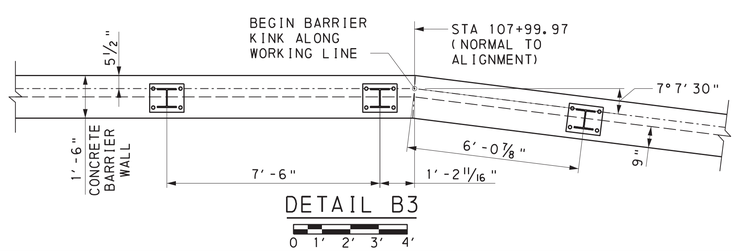

## PARTIAL PLAN
## BARRIER LAYOUT

0 5′ 10′ 20′




## PARTIAL PLAN
## BARRIER LAYOUT

0 5′ 10′ 20′




## DETAIL B3

0 1′ 2′ 3′ 4′

## LEGEND:

- BARRIER POST AND PLATE
- FENCE POST AND PLATE

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. ABUT 1 WINGWALL BARRIER REINFORCEMENT | 31-34 |
| 5. ABUT 2 WINGWALL BARRIER REINFORCEMENT | 59-61 |
| 6. WORK THIS SHEET WITH SHEETS | 87, 89-93 |
| 7. ABUT 1 APPROACH SLAB BARRIER REINFORCEMENT | 107 & 108 |
| 8. ABUT 2 APPROACH SLAB BARRIER REINFORCEMENT | 110 & 111 |

| Mark | Description | By | Chk'd. | Recm'd. | Date |
|---|---|---|---|---|---|
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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
## BARRIER AND FENCE POST LAYOUT 2

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER PE062832

RECOMMENDED _____

SHEET 88 OF 130

S - 39414

DES: LTS | CKD: ABC | DWG: LTS | CKD: ABC

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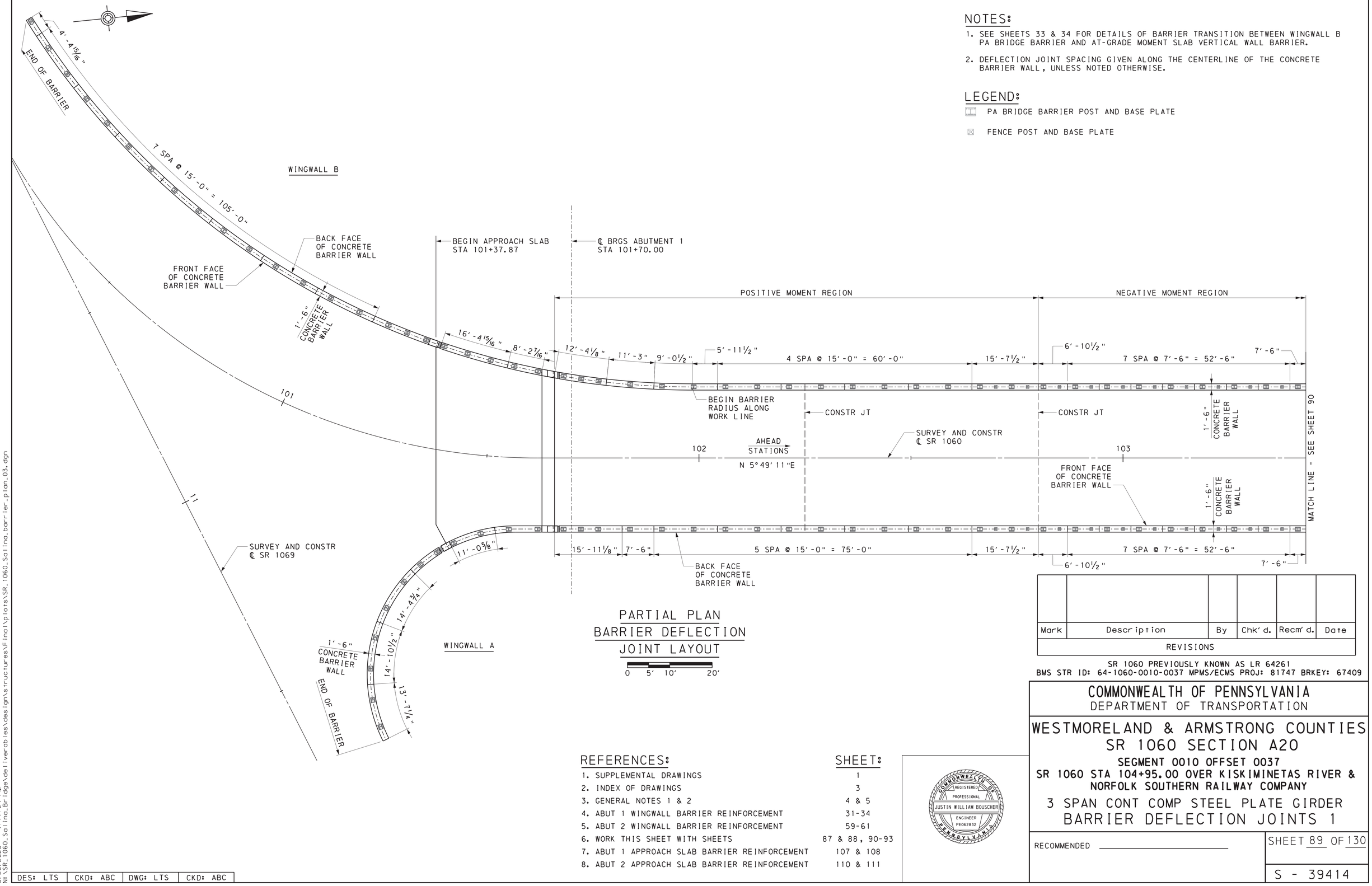
## NOTES:

1. SEE SHEETS 33 & 34 FOR DETAILS OF BARRIER TRANSITION BETWEEN WINGWALL B PA BRIDGE BARRIER AND AT-GRADE MOMENT SLAB VERTICAL WALL BARRIER.
2. DEFLECTION JOINT SPACING GIVEN ALONG THE CENTERLINE OF THE CONCRETE BARRIER WALL, UNLESS NOTED OTHERWISE.

## LEGEND:

PA BRIDGE BARRIER POST AND BASE PLATE

FENCE POST AND BASE PLATE




## PARTIAL PLAN
## BARRIER DEFLECTION JOINT LAYOUT

0 5' 10' 20'

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

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|---|---|---|---|---|---|
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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
BARRIER DEFLECTION JOINTS 1

RECOMMENDED _____

SHEET 89 OF 130

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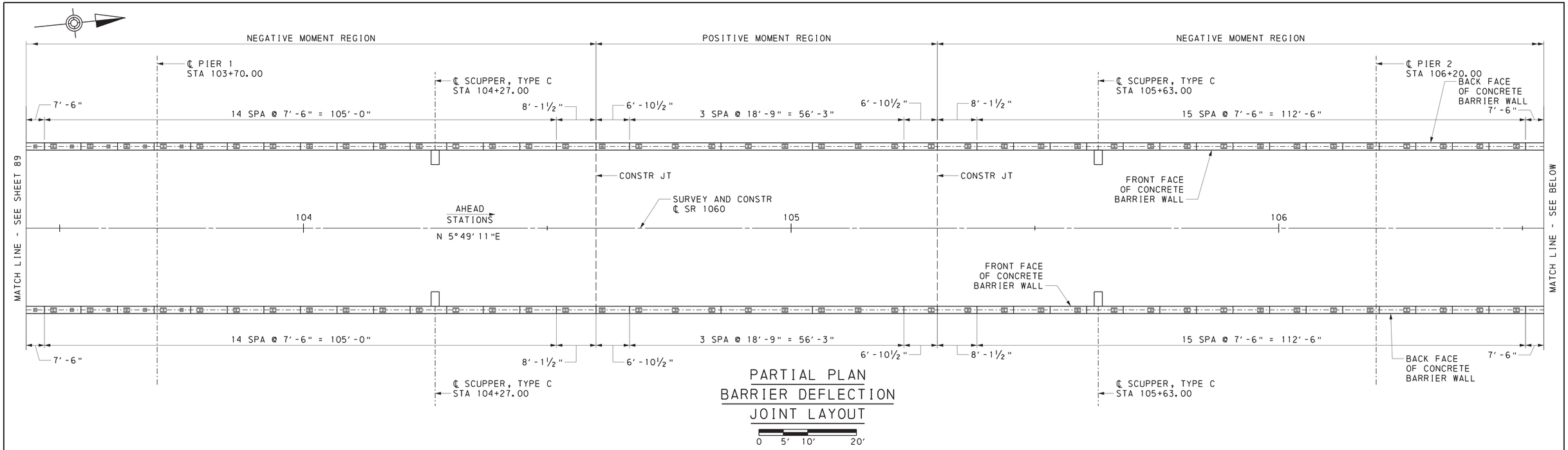
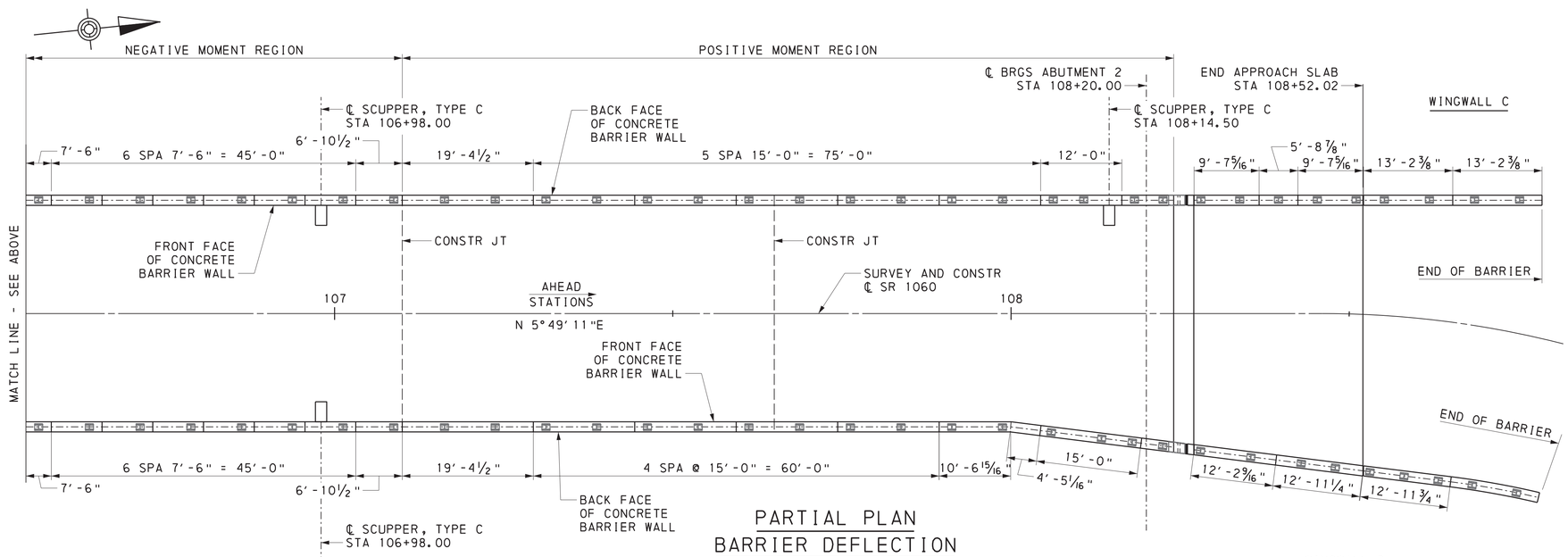



PARTIAL PLAN
BARRIER DEFLECTION
JOINT LAYOUT

0 5′ 10′ 20′




PARTIAL PLAN
BARRIER DEFLECTION
JOINT LAYOUT

0 5′ 10′ 20′

WINGWALL D

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
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| 6. WORK THIS SHEET WITH SHEETS | 87-89, 91-93 |
| 7. ABUT 1 APPROACH SLAB BARRIER REINFORCEMENT | 107 & 108 |
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| Mark | Description | By | Chk'd. | Recm'd. | Date |
|---|---|---|---|---|---|
| REVISIONS | | | | | |

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## BARRIER DEFLECTION JOINTS 2

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

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SHEET 90 OF 130

S - 39414

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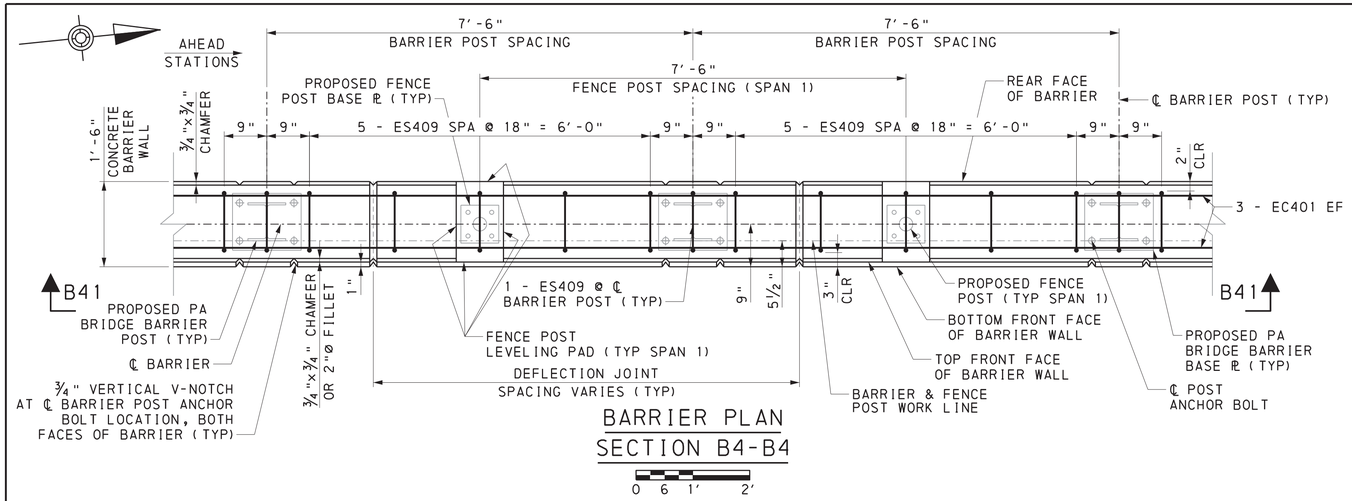
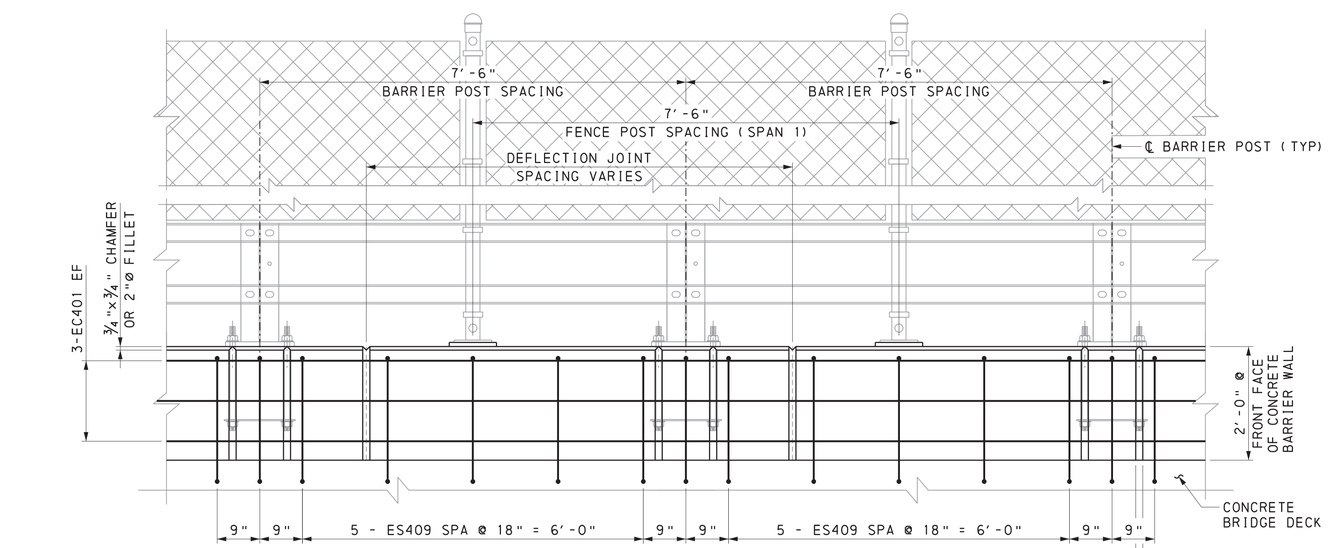


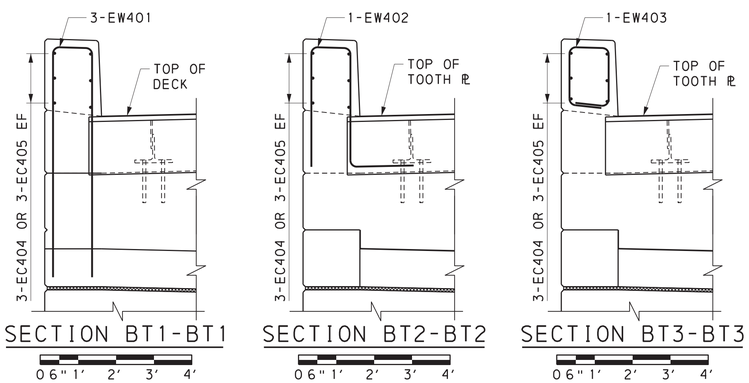

## BARRIER PLAN
## SECTION B4-B4

0 6 1' 2'




## BARRIER ELEVATION
## VIEW B41-B41

0 6 1' 2'




## SECTION BT1-BT1

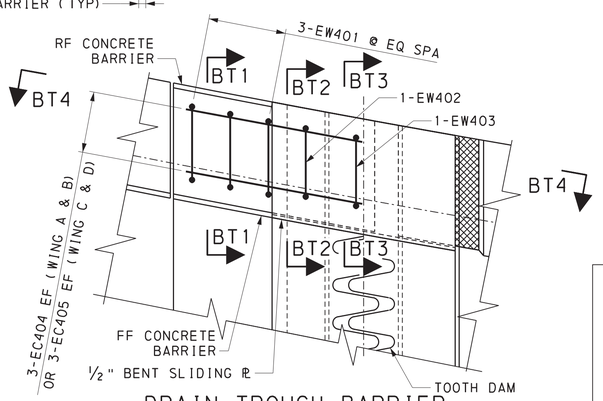
0 6" 1' 2' 3' 4'

## SECTION BT2-BT2

0 6" 1' 2' 3' 4'

## SECTION BT3-BT3

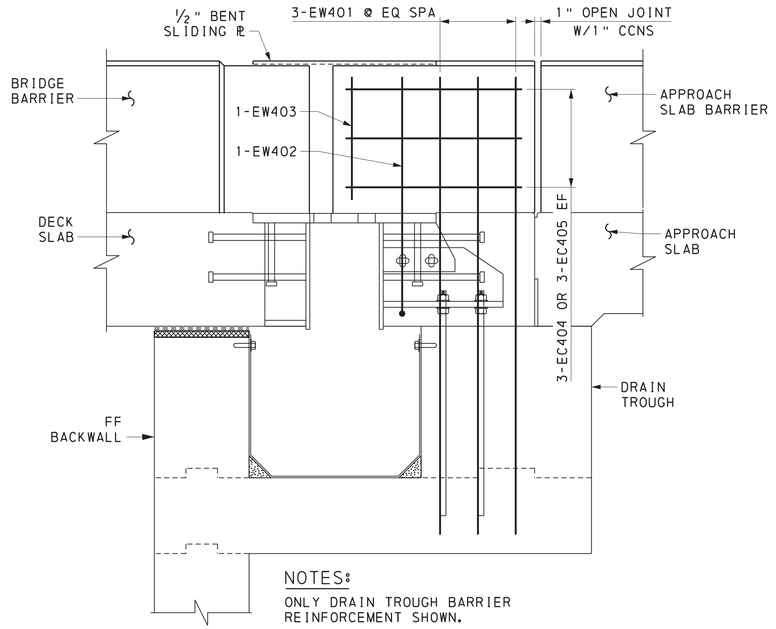
0 6" 1' 2' 3' 4'




## DRAIN TROUGH BARRIER

(WING B SHOWN, WINGS A, C & D SIMILAR)

0 3 6 9 1' 2'




NOTES:

ONLY DRAIN TROUGH BARRIER REINFORCEMENT SHOWN.

## SECTION BT4-BT4
## TYPICAL DRAIN TROUGH BARRIER SECTION

0 3 6 9 1' 2'

LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |

REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. BARRIER AND FENCE POST LAYOUT 1 AND 2 | 87 & 88 |
| 5. BARRIER REBAR DETAILS 2 AND 3 | 92 & 93 |
| 6. DECK REINF BAR SCHEDULE | 94 |


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

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

SEGMENT 0010 OFFSET 0037

SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY

3 SPAN CONT COMP STEEL PLATE GIRDER

## BARRIER REBAR DETAILS 1

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SHEET 91 OF 130

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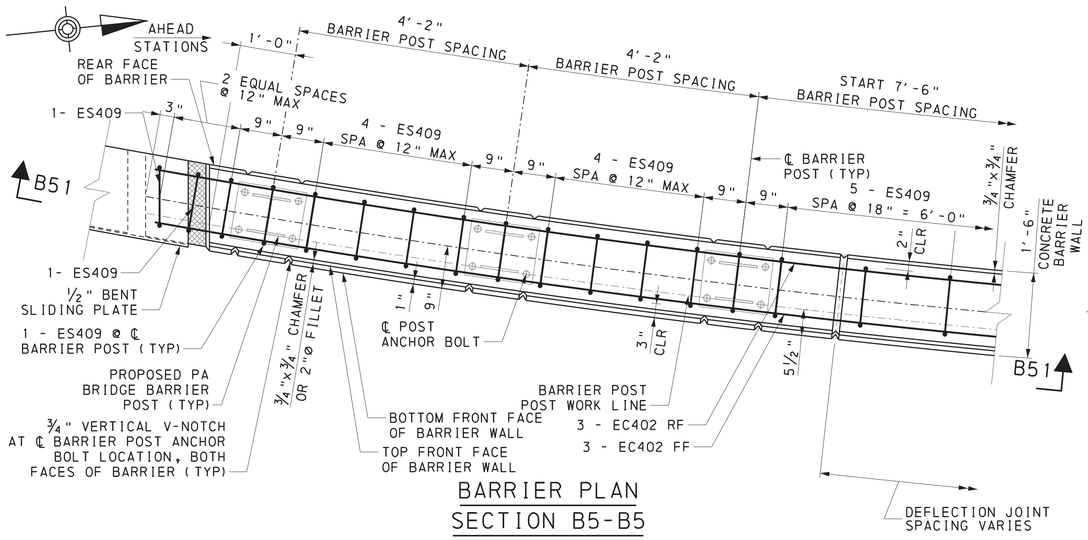
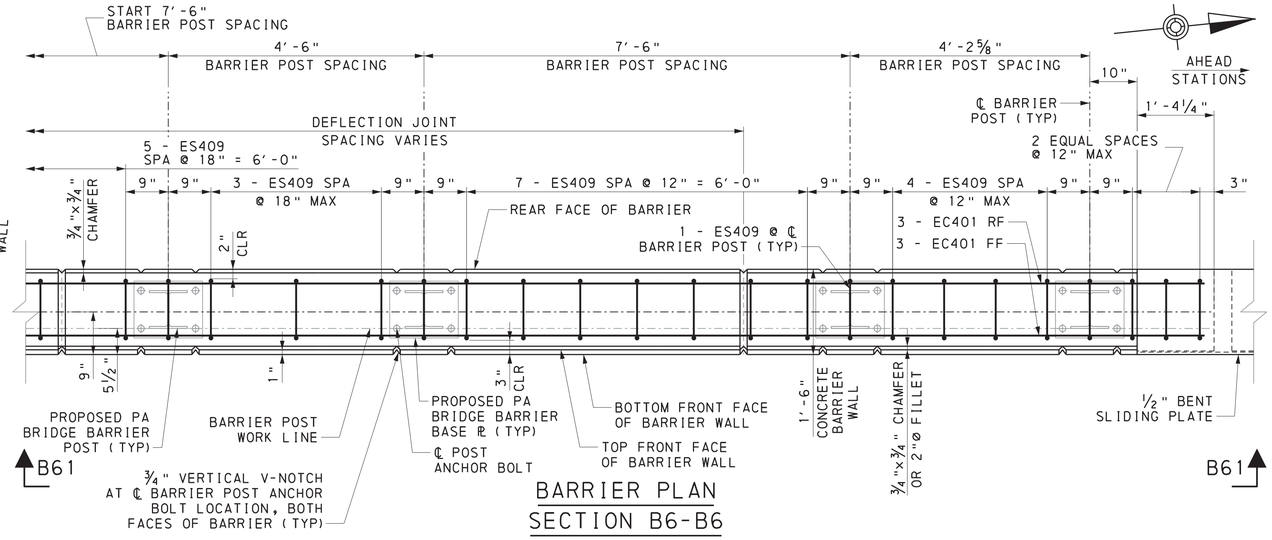


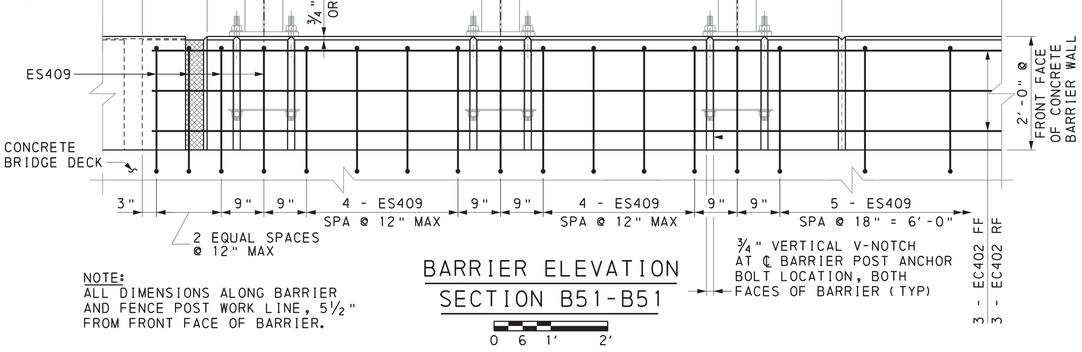

BARRIER PLAN
SECTION B5-B5

0 6 1' 2'




BARRIER PLAN
SECTION B6-B6

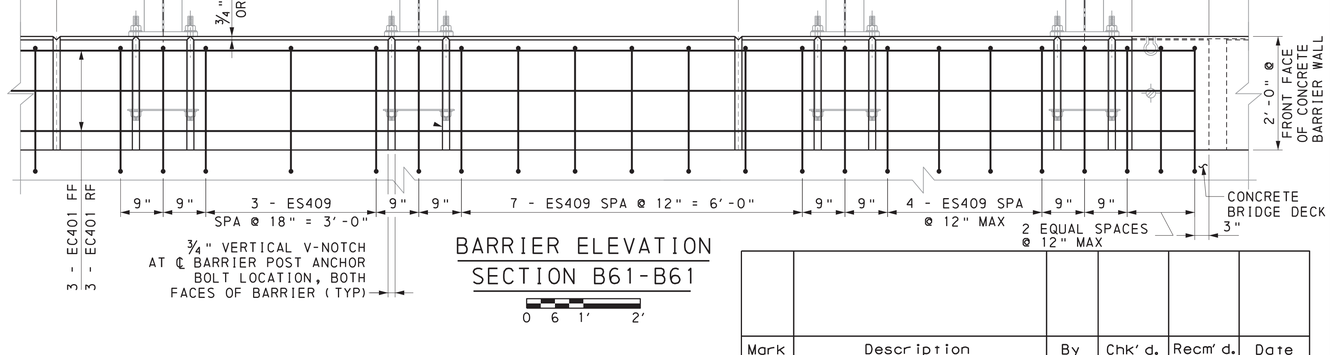
0 6 1' 2'




BARRIER ELEVATION
SECTION B51-B51

0 6 1' 2'

NOTE:
ALL DIMENSIONS ALONG BARRIER AND FENCE POST WORK LINE, 5½" FROM FRONT FACE OF BARRIER.




BARRIER ELEVATION
SECTION B61-B61

0 6 1' 2'

## LEGEND:

FF FRONT FACE
RF REAR FACE
E EPOXY COATED BARS

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. BARRIER AND FENCE POST LAYOUT 1 & 2 | 87 & 88 |
| 5. BARRIER REBAR DETAILS 1 & 3 | 91 & 93 |
| 6. DECK REINF BAR SCHEDULE | 94 |


## NOTES:

1. BARRIER AND FENCE POST SPACING DIMENSIONS MEASURED ALONG BARRIER & FENCE POST WORK LINE, 5½" FROM FRONT FACE OF BARRIER WALL.
2. REBAR DIMENSIONS MEASURED ALONG BARRIER ℄.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832
PENNSYLVANIA

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER

## BARRIER REBAR DETAILS 2

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SHEET 92 OF 130

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| DES: LTS | CKD: ABC | DWG: LTS | CKD: ABC |
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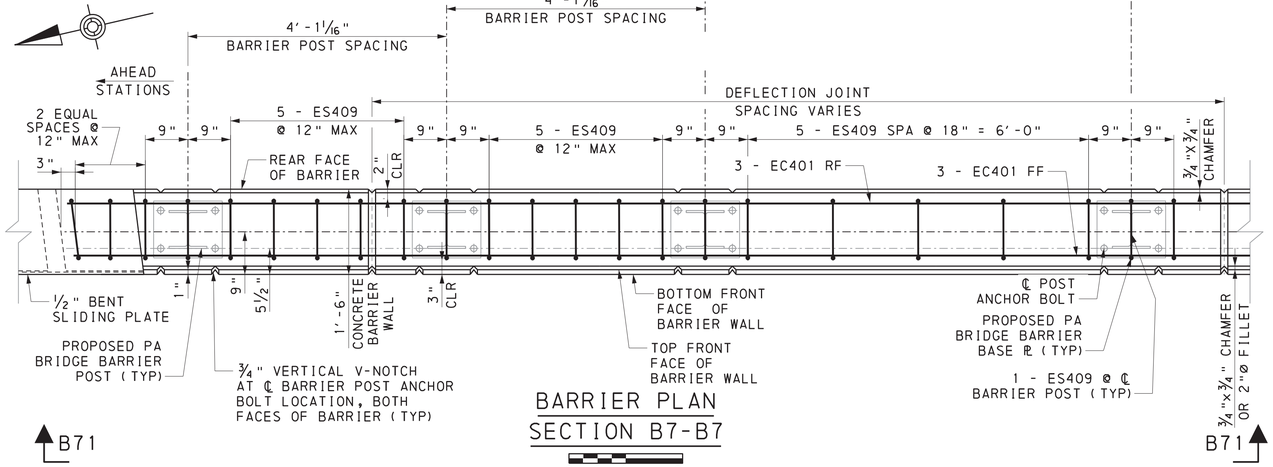
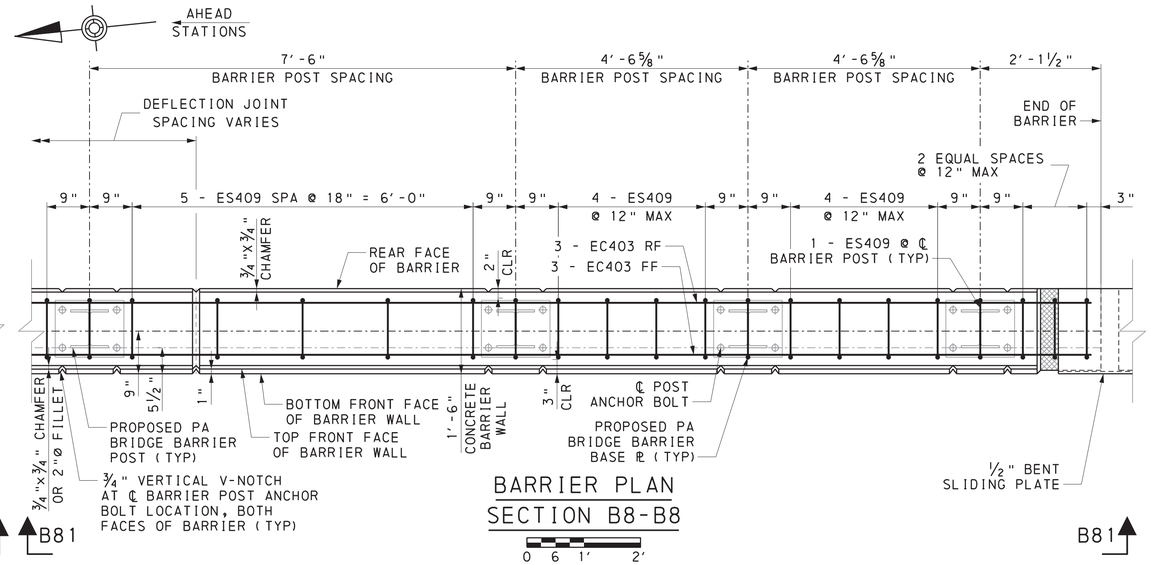


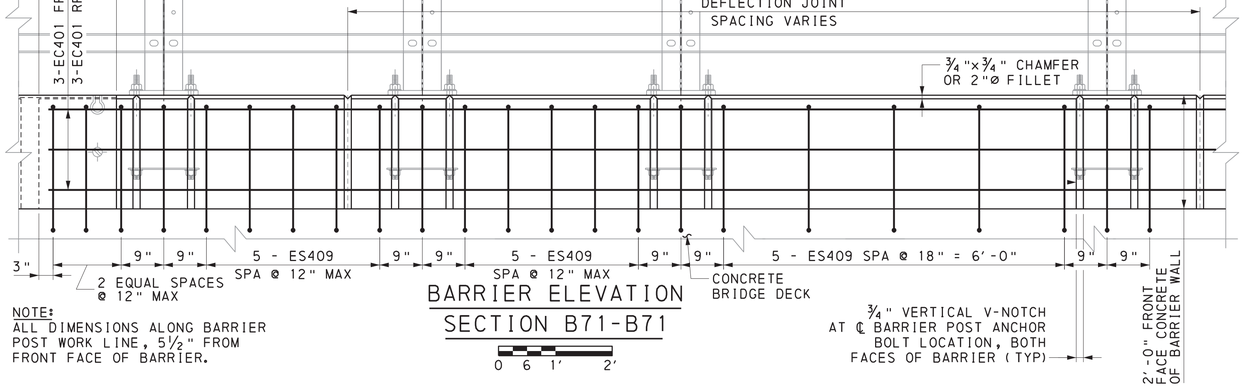

## BARRIER PLAN
## SECTION B7-B7

0 6 1′ 2′




## BARRIER PLAN
## SECTION B8-B8

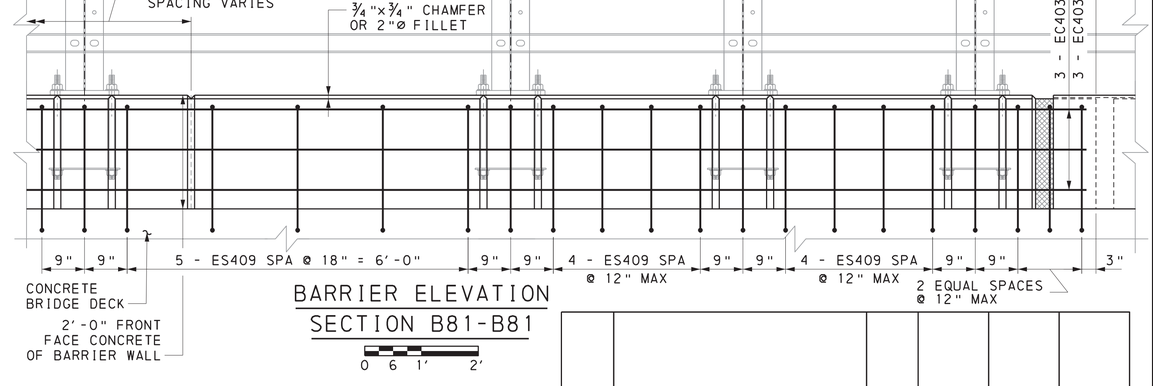
0 6 1′ 2′




## BARRIER ELEVATION
## SECTION B71-B71

0 6 1′ 2′

NOTE:
ALL DIMENSIONS ALONG BARRIER POST WORK LINE, 5 1/2" FROM FRONT FACE OF BARRIER.




## BARRIER ELEVATION
## SECTION B81-B81

0 6 1′ 2′

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

REVISIONS

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

### LEGEND:

FF FRONT FACE
RF REAR FACE
E EPOXY COATED BARS

### REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
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| 4. BARRIER AND FENCE POST LAYOUT 1 & 2 | 87 & 88 |
| 5. BARRIER REBAR DETAILS 1 & 2 | 91 & 92 |
| 6. DECK REINF BAR SCHEDULE | 94 |


### NOTES:

1. BARRIER AND FENCE POST SPACING DIMENSIONS MEASURED ALONG BARRIER & FENCE POST WORK LINE, 5 1/2" FROM FRONT FACE OF BARRIER WALL.
2. REBAR DIMENSIONS MEASURED ALONG BARRIER ℄.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## BARRIER REBAR DETAILS 3

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SHEET 93 OF 130

S - 39414

| DES: LTS | CKD: ABC | DWG: LTS | CKD: ABC |
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## DECK SLAB REINFORCEMENT BAR SCHEDULE

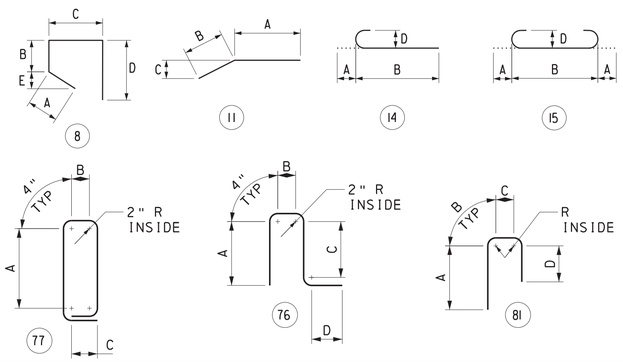
| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ES401 | 4 | 195 | 40′-0" | STR | | | | | | | |
| ES402 | 4 | 78 | 33′-0" | STR | | | | | | | |
| ES403 | 4 | 39 | 22′-1" | STR | | | | | | | |
| ES404 | 4 | 1 | 15′-0" | STR | | | | | | | |
| ES405 | 4 | 1 | 33′-0" | STR | | | | | | | BEND IN FIELD |
| ES406 | 4 | 1 | 17′-4" | STR | | | | | | | |
| ES407 | 4 | 1 | 25′-10" | STR | | | | | | | |
| ES408 | 4 | 32 | 9′-2" | STR | | | | | | | FANNED AT DECK CORNERS |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| ES501 | 5 | 558 | 60′-0" | STR | | | | | | | |
| ES502 | 5 | 92 | 52′-2" | STR | | | | | | | |
| ES503 | 5 | 1 | 15′-9" | STR | | | | | | | |
| ES504 | 5 | 1 | 35′-6" | STR | | | | | | | BEND IN FIELD |
| ES505 | 5 | 1 | 17′-3" | STR | | | | | | | |
| ES506 | 5 | 1 | 26′-3" | STR | | | | | | | |
| ES507 | 5 | 140 | 25′-0" | STR | | | | | | | |
| ES508 | 5 | 46 | 23′-2" | STR | | | | | | | |
| ES509 | 5 | 72 | 35′-10" TO 38′-8" | 15 | 7" | 34′-8" TO 37′-6" | | | | | VARY EA B BY ½"- |
| ES510 | 5 | 57 | 34′-8" TO 37′-6" | STR | | | | | | | VARY EA BY 9/16"+ |
| ES511 | 5 | 1315 | 35′-10" | 15 | 7" | 34′-8" | | | | | |
| ES512 | 5 | 52 | 35′-10" TO 38′-10" | 15 | 7" | 34′-8" TO 37′-8" | | | | | VARY EA B BY 1 1/16"+ |
| ES513 | 5 | 1034 | 32′-5" | STR | | | | | | | |
| ES514 | 5 | 42 | 34′-8" TO 37′-8" | STR | | | | | | | VARY EA BY ⅞"- |
| ES515 | 5 | 3 | 7′-7" | STR | | | | | | | FANNED AT DECK CORNER |
| ES516 | 5 | 3 | 10′-6" | STR | | | | | | | FANNED AT DECK CORNER |
| ES517 | 5 | 46 | 40′-0" | STR | | | | | | | |
| | | | | | | | | | | | |
| ES601 | 6 | 72 | 6′-4" TO 8′-7" | 14 | 8" | 5′-8" TO 7′-11" | | | | | VARY EA B BY ⅜" |
| ES602 | 6 | 2754 | 6′-4" | 14 | 8" | 5′-8" | | | | | |
| ES603 | 6 | 52 | 6′-4" TO 8′-10⅛" | 14 | 8" | 5′-8" TO 8′-2⅛" | | | | | VARY EA B BY 9/16"+ |
| ES604 | 6 | 438 | 60′-0" | STR | | | | | | | |
| ES605 | 6 | 146 | 28′-3" | STR | | | | | | | |
| ES606 | 6 | 6 | 36′-8" TO 37′-4½" | STR | | | | | | | VARY EA BY 1 7/16"- |
| ES607 | 6 | 16 | 3′-8" | STR | | | | | | | TOOTH DAM SLAB TRANS BAR |
| ES608 | 6 | 2 | 37′-6¾" | STR | | | | | | | TOOTH DAM SLAB TRANS BAR |
| | | | | | | | | | | | |
| ES610 | 6 | 4 | 1′-10" | STR | | | | | | | |
| ES611 | 6 | 4 | 4′-0" TO 4′-7" | STR | | | | | | | VARY EA BY 1¾" |
| ES612 | 6 | 16 | 7′-4" | STR | | | | | | | |
| ES613 | 6 | 2 | 37′-4" TO 37′-5" | STR | | | | | | | VARY EA BY 1" |
| ES614 | 6 | 2 | 37′-5" | STR | | | | | | | TOOTH DAM SLAB TRANS BAR |
| ES615 | 6 | 32 | 3′-6" | STR | | | | | | | TOOTH DAM SLAB TRANS BAR |
| ES616 | 6 | 2 | 37′-4" | STR | | | | | | | TOOTH DAM SLAB TRANS BAR |
| ES617 | 6 | 70 | 15′-1⅝" | 8 | 1′-2⅛" | 5′-3" | 1′-2½" | 7′-6" | 10" | | DECK SLAB END BAR |
| | | | | | | | | | | | |
| ES619 | 6 | 2 | 37′-2" | STR | | | | | | | TOOTH DAM SLAB TRANS BAR |

## DECK SLAB REINFORCEMENT BAR SCHEDULE ( CONT′D)

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| ES622 | 6 | 4 | 3′-3" | STR | | | | | | | TOOTH DAM SLAB TRANS BAR |
| | | | | | | | | | | | |
| ES624 | 6 | 4 | 2′-6" | STR | | | | | | | TOOTH DAM SLAB TRANS BAR |
| ES625 | 6 | 2 | 37′-9" | STR | | | | | | | TOOTH DAM SLAB TRANS BAR |
| ES626 | 6 | 6 | 38′-0" | STR | | | | | | | TOOTH DAM SLAB TRANS BAR |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

## BARRIER REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EC401 | 4 | 204 | 39′-4" | STR | | | | | | | LONGITUDINAL BARRIER BAR |
| EC402 | 4 | 6 | 36′-5" | STR | | | | | | | BEND IN FIELD TO RADIUS |
| EC403 | 4 | 6 | 35′-3" | 11 | 10′-6" | 24′-9" | 3′-0" | | | | LONGITUDINAL BARRIER BAR |
| EC404 | 4 | 12 | 2′-3" | STR | | | | | | | LONGITUDINAL BARRIER BAR |
| EC405 | 4 | 12 | 1′-8" | STR | | | | | | | LONGITUDINAL BARRIER BAR |
| ES409 | 4 | 1077 | 7′-3½" | 76 | 2′-2½" | 8" | 1′-11" | 1′-6" | | | VERTICAL BARRIER BAR |
| | | | | | | | | | | | |
| EW401 | 4 | 12 | 13′-8" | 81 | 6′-2" | 4" | 8" | 6′-2" | | 2" | VERTICAL BARRIER BAR |
| EW402 | 4 | 4 | 9′-0" | 76 | 3′-0" | 8" | 2′-10" | 1′-6" | | | VERTICAL BARRIER BAR |
| EW403 | 4 | 4 | 6′-0" | 77 | 1′-2" | 8" | 10" | | | | VERTICAL BARRIER BAR |
| | | | | | | | | | | | |
| | | | | | | | | | | | |




## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. BARRIER DETAILS | 81-93 |

| Mark | Description | By | Chk′d. | Recm′d. | Date |
|---|---|---|---|---|---|
| | REVISIONS | | | | |

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY

3 SPAN CONT COMP STEEL PLATE GIRDER
DECK REINF BAR SCHEDULE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 94 OF 130

S - 39414

| DES: EEM | CKD: ABC | DWG: EEM | CKD: ABC |
|---|---|---|---|

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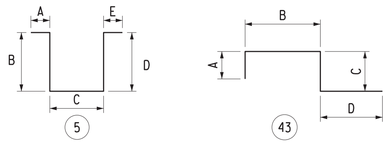
# HAUNCH REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ES301 | 3 | 36 | 5′-5 7/16" TO 8′-3" | 43 | 1′-0" | 5 7/16" TO 9" | 2′-11" TO 5′-1½" | 1′-1" TO 1′-4½" | | | GIRDER G1 TRANSVERSE BAR<br>VARY EA "B" BY 1/16" (+)<br>VARY EA "D" BY 1/16" (+)<br>VARY EA "C" PER NOTE 5<br>ON SHEET 85 |
| ES302 | 3 | 225 | 5′-5 7/16" | 43 | 1′-0" | 5 7/16" | 2′-11" | 1′-1" | | | EXTERIOR GIRDER TRANSVERSE BAR |
| ES303 | 3 | 192 | 5′-5½" | 43 | 1′-0" | 5" | 3′-0" | 1′-0½" | | | EXTERIOR GIRDER TRANSVERSE BAR |
| ES304 | 3 | 200 | 5′-4½" | 43 | 1′-0" | 4½" | 3′-0" | 1′-0" | | | EXTERIOR GIRDER TRANSVERSE BAR |
| ES305 | 3 | 104 | 5′-3½" | 43 | 1′-0" | 4" | 3′-0" | 11½" | | | EXTERIOR GIRDER TRANSVERSE BAR |
| ES306 | 3 | 128 | 5′-1 5/16" | 43 | 1′-0" | 4 13/16" | 2′-8" | 1′-0½" | | | EXTERIOR GIRDER TRANSVERSE BAR |
| ES307 | 3 | 120 | 5′-2 5/16" | 43 | 1′-0" | 5 5/16" | 2′-8" | 1′-1" | | | EXTERIOR GIRDER TRANSVERSE BAR |
| ES308 | 3 | 60 | 5′-5 7/16" TO 5′-11¾" | 43 | 1′-0" | 5 7/16" TO 8½" | 2′-11" | 1′-1" TO 1′-4¼" | | | GIRDER G1 TRANSVERSE BAR<br>VARY EA "B" BY 1/16" (-)<br>VARY EA "D" BY 1/16" (-) |
| ES309 | 3 | 44 | 5′-5 7/16" TO 6′-9 5/16" | 43 | 1′-0" | 5 7/16" TO 1′-1 5/16" | 2′-11" | 1′-1" TO 1′-9" | | | GIRDER G5 TRANSVERSE BAR<br>VARY EA "B" BY 3/16" (-)<br>VARY EA "D" BY 3/16" (-) |
| ES310 | 3 | 18 | 5′-5 7/16" TO 7′-11 1/16" | 43 | 1′-0" | 5 7/16" | 2′-11" TO 5′-5¼" | 1′-1" | | | GIRDER G5 TRANSVERSE BAR<br>VARY EA "C" BY 1¾" (-) |
| ES311 | 3 | 72 | 4′-7 15/16" TO 5′-3" | 5 | 1′-0" | 4¾" TO 8¼" | 1′-10" | 5 3/16" TO 8¾" | 1′-0" | | INTERIOR GIRDER TRANSVERSE BAR<br>VARY EA "B" BY 1/16" (+)<br>VARY EA "D" BY 1/16" (+) |
| ES312 | 3 | 431 | 4′-7 15/16" | 5 | 1′-0" | 4¾" | 1′-10" | 5 3/16" | 1′-0" | | INTERIOR GIRDER TRANSVERSE BAR |
| ES313 | 3 | 288 | 4′-8 15/16" | 5 | 1′-0" | 4 3/16" | 2′-0" | 4¾" | 1′-0" | | INTERIOR GIRDER TRANSVERSE BAR |
| ES314 | 3 | 300 | 4′-7 15/16" | 5 | 1′-0" | 3 11/16" | 2′-0" | 4¼" | 1′-0" | | INTERIOR GIRDER TRANSVERSE BAR |
| ES315 | 3 | 156 | 4′-6 15/16" | 5 | 1′-0" | 3 3/16" | 2′-0" | 3¾" | 1′-0" | | INTERIOR GIRDER TRANSVERSE BAR |
| ES316 | 3 | 192 | 4′-0 15/16" | 5 | 1′-0" | 4 5/16" | 1′-4" | 4⅝" | 1′-0" | | INTERIOR GIRDER TRANSVERSE BAR |
| ES317 | 3 | 180 | 4′-1 15/16" | 5 | 1′-0" | 4 13/16" | 1′-4" | 5⅛" | 1′-0" | | INTERIOR GIRDER TRANSVERSE BAR |
| ES318 | 3 | 26 | 4′-7 15/16" TO 4′-11 1/16" | 5 | 1′-0" | 4¾" TO 6½" | 1′-10" | 5 3/16" TO 6 9/16" | 1′-0" | | GIRDER G2 TRANSVERSE BAR<br>VARY EA "B" BY 1/16" (+)<br>VARY EA "D" BY 1/16" (-) |
| ES319 | 3 | 44 | 4′-7 15/16" TO 5′-8 3/16" | 5 | 1′-0" | 4¾" TO 11" | 1′-10" | 5 3/16" TO 11 3/16" | 1′-0" | | GIRDER G4 TRANSVERSE BAR<br>VARY EA "B" BY ⅛" (+)<br>VARY EA "D" BY ⅛" (+) |
| | | | | | | | | | | | |
| ES410 | 4 | 180 | 38′-1" | STR | | | | | | | LONGITUDINAL HAUNCH BARS |
| ES411 | 4 | 20 | 32′-0" | STR | | | | | | | LONGITUDINAL HAUNCH BARS |




## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. TYPICAL DECK SECTION 1 | 83 |
| 5. TYPICAL DECK SECTION 2 | 84 |
| 6. HAUNCH REINFORCEMENT LAYOUT | 85 |


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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 WPMS/ECMS PROJ: 81747 BRKEY: 67409

## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

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PE062832
PENNSYLVANIA

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DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## HAUNCH REINF BAR SCHEDULE

RECOMMENDED _____

SHEET 95 OF 130

S - 39414

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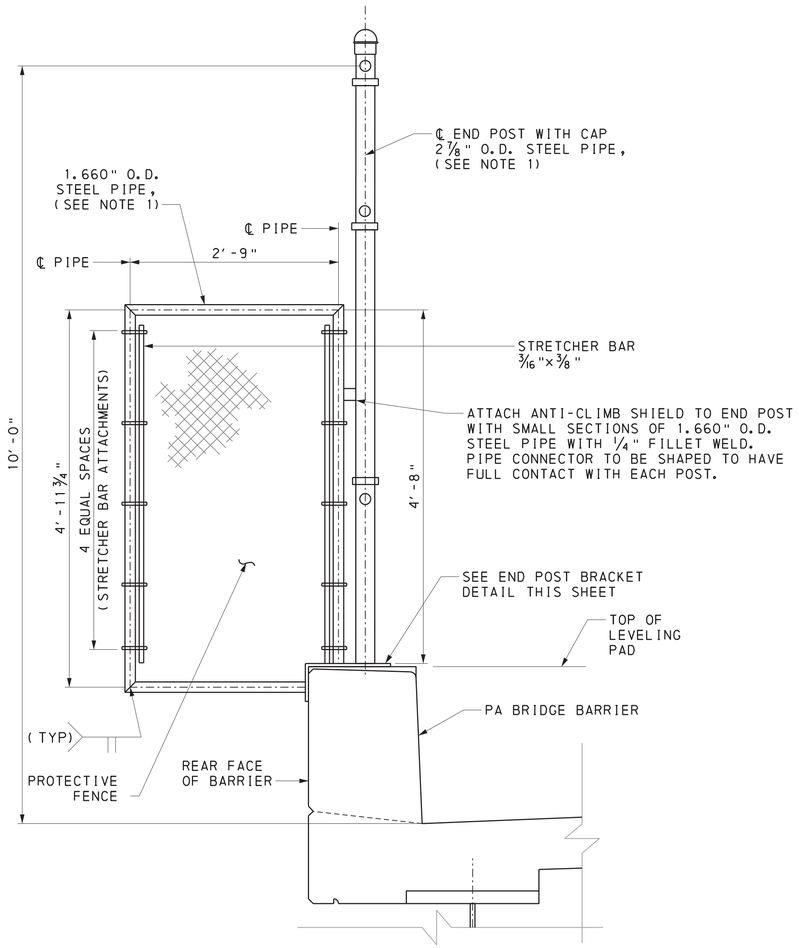
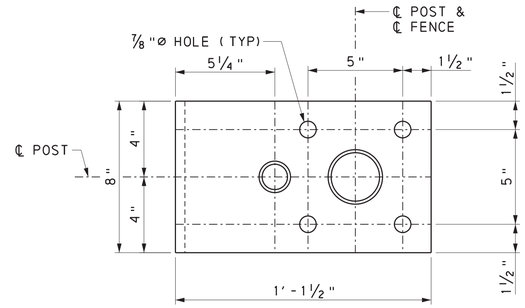


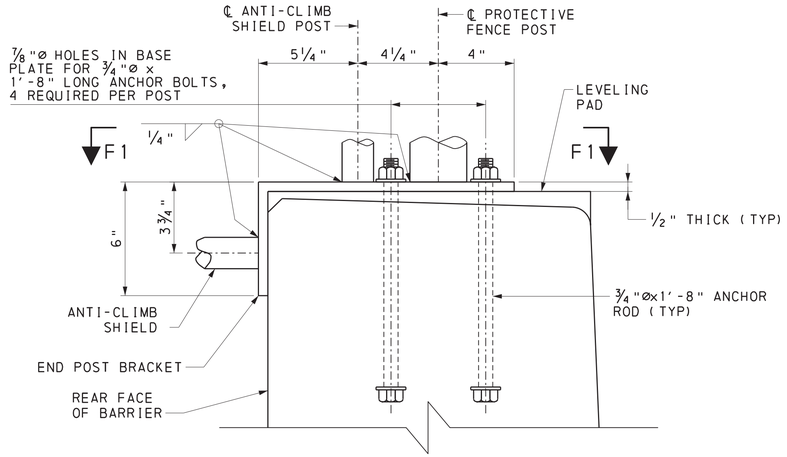

## ANTI-CLIMB SHIELD DETAILS

(ONE REQUIRED FOR EACH END OF FENCE)
(NOT TO SCALE)




## SECTION F1-F1

(NOT TO SCALE)




## END POST BRACKET DETAIL

(AT ANTI-CLIMB SHIELD)
(NOT TO SCALE)

## NOTES:

1. USE POSTS AND RAIL MATERIAL PER PUBLICATION 408, SECTION 1016.2(a)3.
2. FOR DETAILS NOT SHOWN, SEE STANDARD DRAWING BC-701M.

## REFERENCES:


| REFERENCES: | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. BARRIER AND FENCE POST LAYOUT 1 & 2 | 87 & 88 |
| 5. BARRIER DEFLECTION JOINTS 1 & 2 | 89 & 90 |
| 6. BARRIER DETAILS 1, 2 & 3 | 91-93 |


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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 WPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
FENCE DETAILS

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ENGINEER
PE062832

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SHEET 96 OF 130

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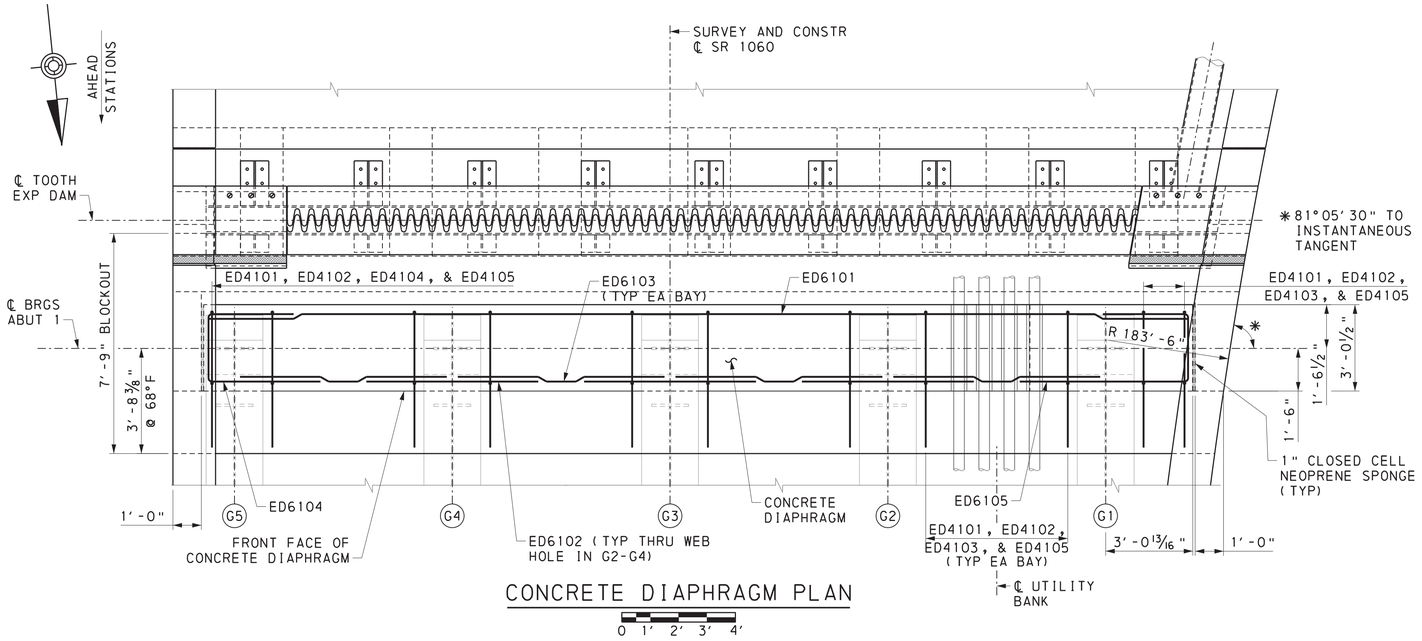
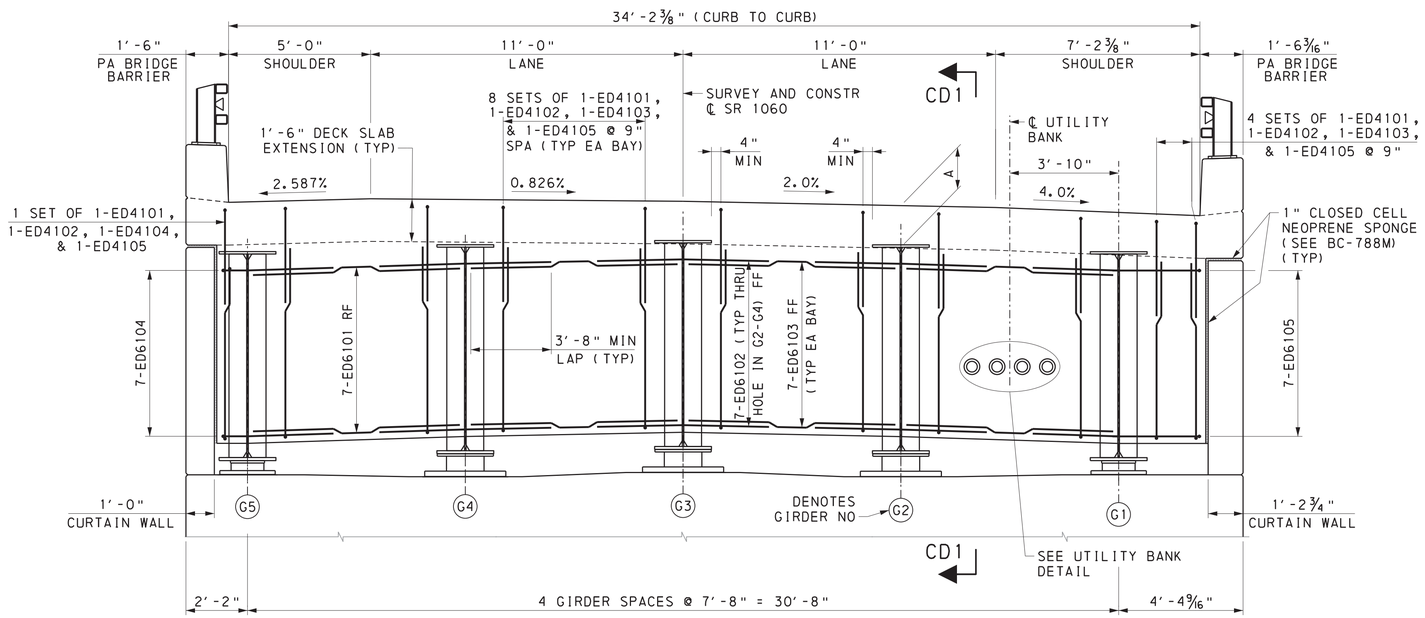



## CONCRETE DIAPHRAGM PLAN

0 1' 2' 3' 4'




## CONCRETE END DIAPHRAGM ELEVATION @ ℄ BEARINGS ABUTMENT 1

(LOOKING BACK STATIONS)

0 1' 2' 3' 4'

| A - ABUT 1 TOP OF DECK TO TOP OF WEB @ CL BRG (IN) | | | | |
|---|---|---|---|---|
| G1 | G2 | G3 | G4 | G5 |
| 17 9/16" | 17 9/16" | 17 9/16" | 20 1/8" | 22" |

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. CROSS SLOPE TRANSITIONS TABLE | 9 |
| 5. SECTION CD1-CD1 | 98 |
| 6. UTILITY BANK DETAIL | 98 |
| 7. CONC END DIAPH REINF BAR SCHEDULE | 101 |


## NOTES:

1. DECK SLAB REINFORCEMENT AND SHEAR CONNECTORS NOT SHOWN.
2. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
3. CUT AND REPOSITION REINFORCEMENT AS REQUIRED TO CLEAR UTILITY BANK BLOCKOUT.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER ABUT 1 CONCRETE END DIAPHRAGM DETAILS 1

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RECOMMENDED _____

SHEET 97 OF 130

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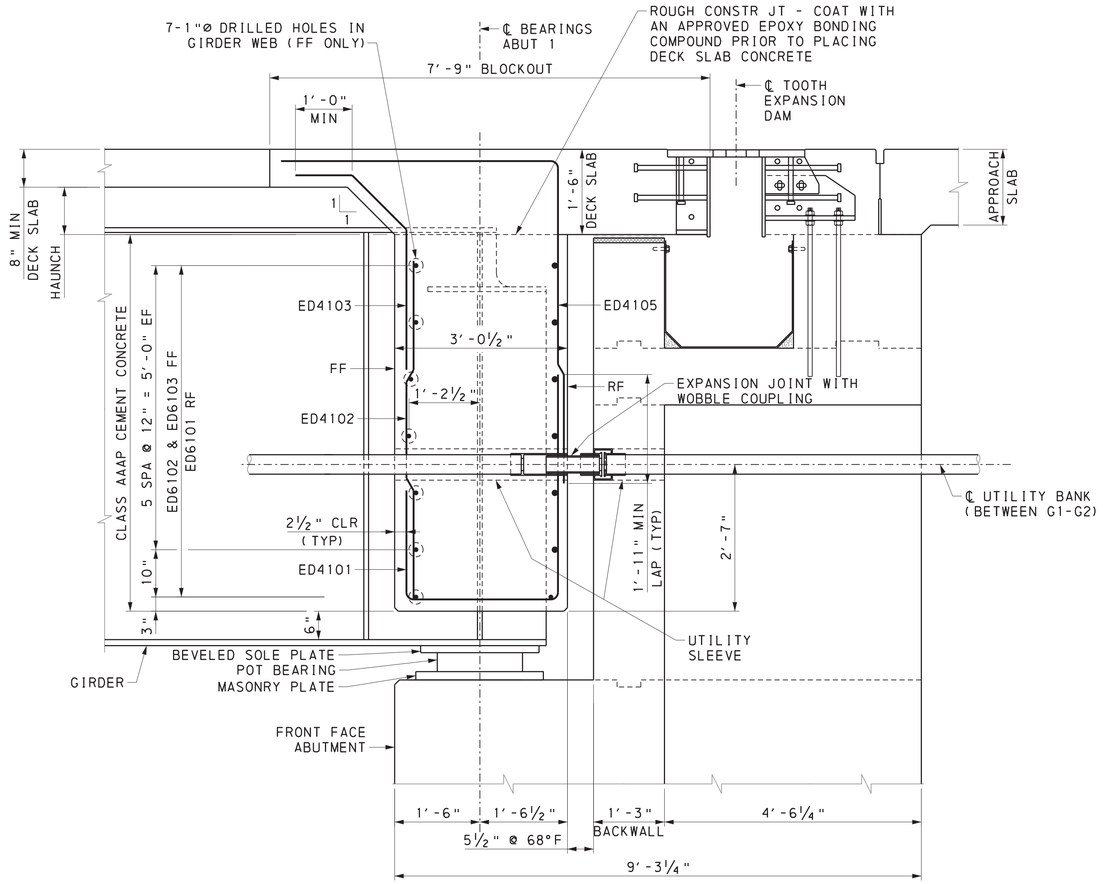
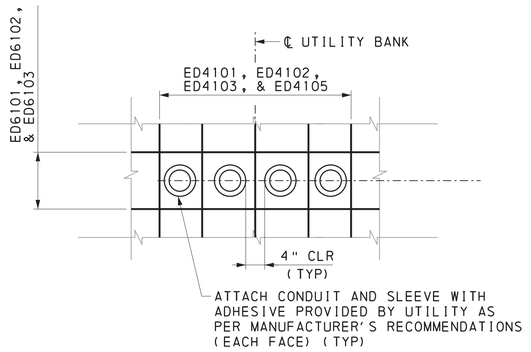



SECTION CD1-CD1
CONCRETE END DIAPHRAGM DETAIL

0 6 1' 2'




UTILITY BANK DETAIL
(BETWEEN G1 AND G2)

0 6 1' 2'

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. LOCATION CD1-CD1 | 97 |
| 5. CONC END DIAPH REINF BAR SCHEDULE | 101 |


## NOTES:

1. DECK SLAB REINFORCEMENT AND SHEAR CONNECTORS NOT SHOWN.
2. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
3. UTILITY CONDUIT INSTALLATION IS INCLUDED IN ITEM 9000-1001.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 1 CONCRETE END DIAPHRAGM DETAILS 2

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER PE062832

RECOMMENDED _____

SHEET 98 OF 130

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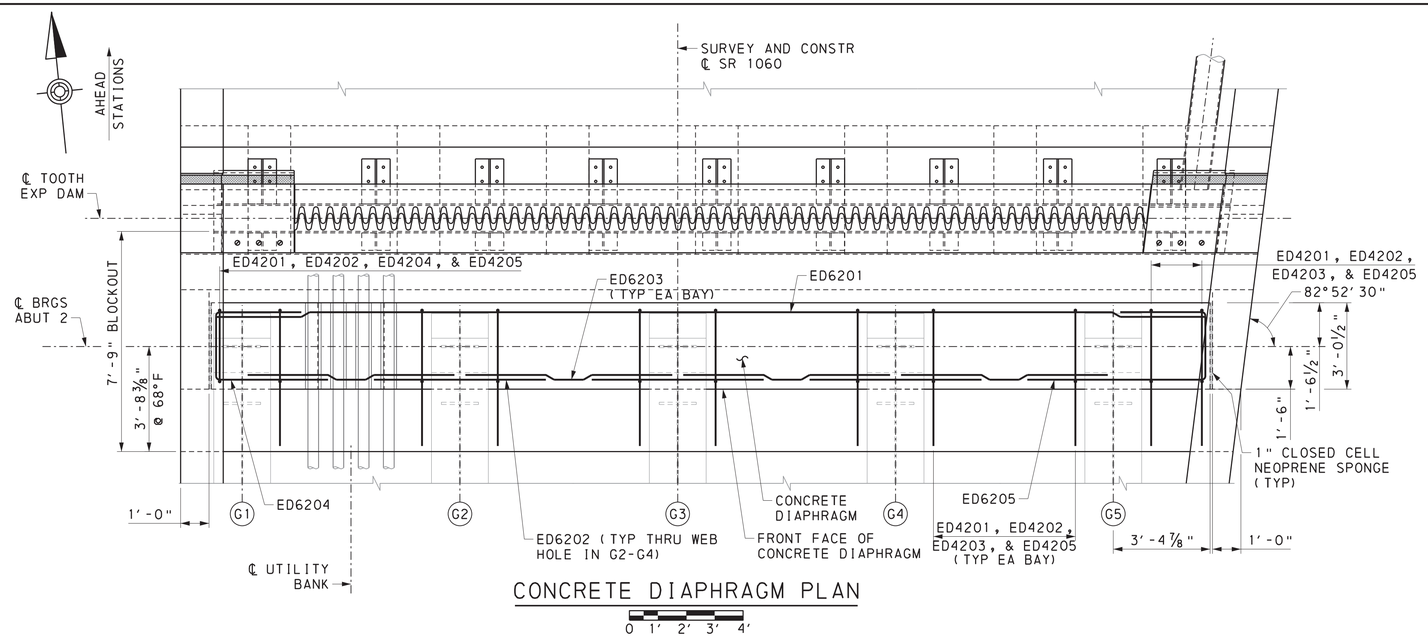
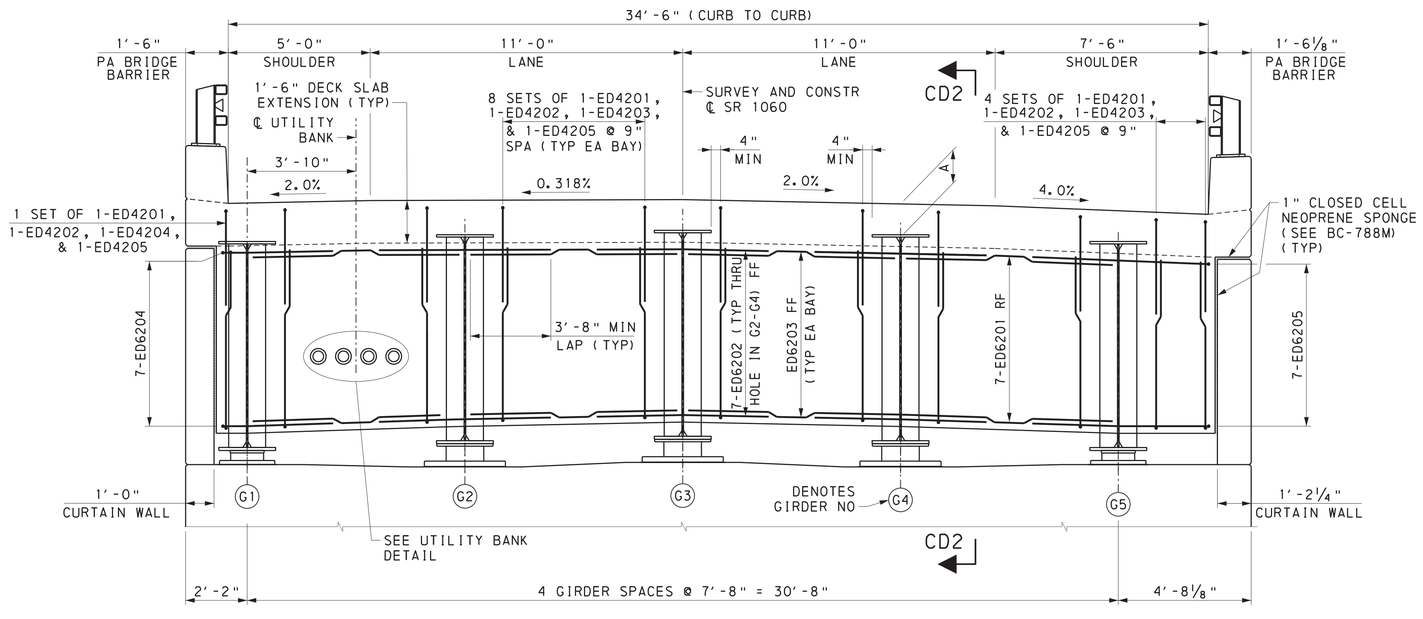



## CONCRETE DIAPHRAGM PLAN

0 1' 2' 3' 4'




## CONCRETE DIAPHRAGM ELEVATION
## @ ℄ BEARINGS ABUTMENT 2

(LOOKING AHEAD STATIONS)

0 1' 2' 3' 4'

| A - ABUT 2 TOP OF DECK TO TOP OF WEB @ CL BRG (IN) | | | | |
|---|---|---|---|---|
| G1 | G2 | G3 | G4 | G5 |
| 17 1/4" | 15 9/16" | 14" | 14" | 14" |

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. CROSS SLOPE TRANSITIONS TABLE | 9 |
| 5. SECTION CD2-CD2 | 100 |
| 6. UTILITY BANK DETAIL | 100 |
| 7. CONC END DIAPH REINF BAR SCHEDULE | 101 |


## NOTES:

1. DECK SLAB REINFORCEMENT AND SHEAR CONNECTORS NOT SHOWN.
2. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
3. CUT AND REPOSITION REINFORCEMENT AS REQUIRED TO CLEAR UTILITY BANK BLOCKOUT.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUT 2 CONCRETE END DIAPHRAGM DETAILS 1

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 99 OF 130

S - 39414

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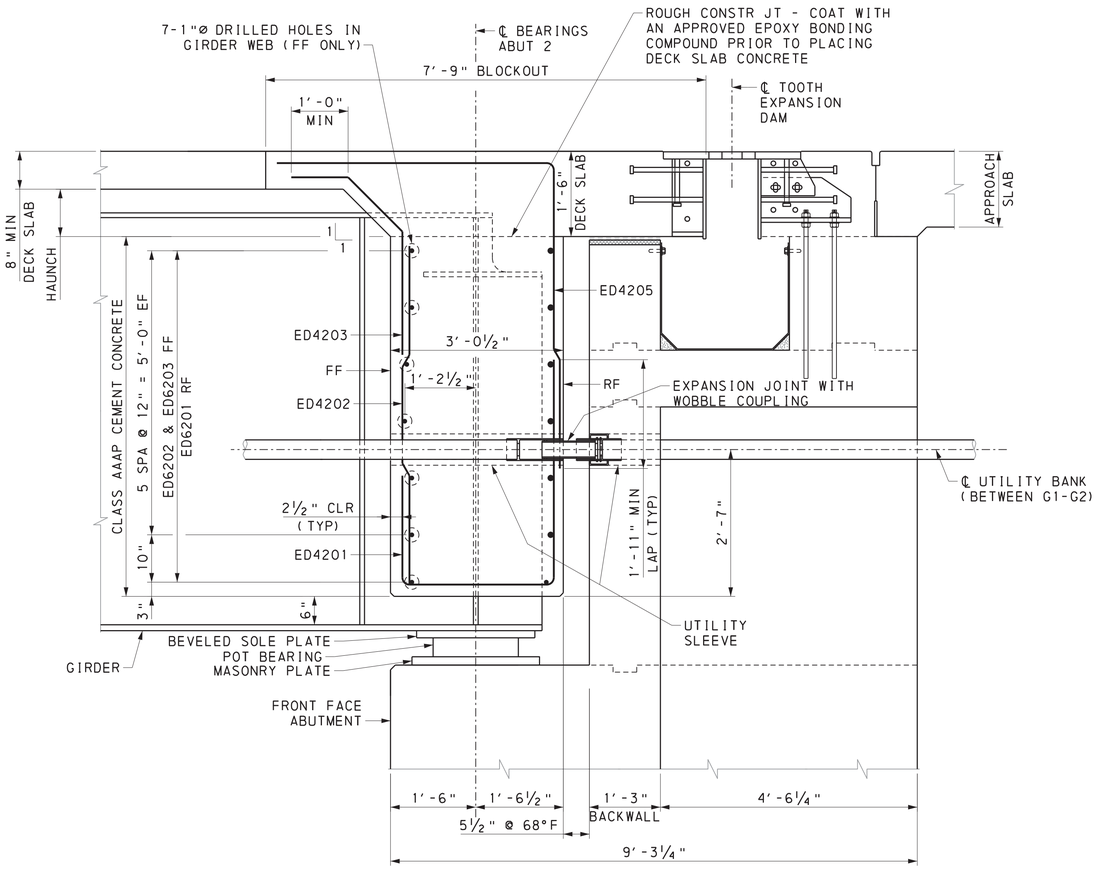
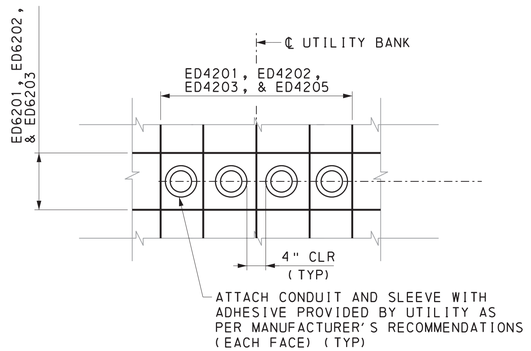



## SECTION CD2-CD2
## CONCRETE DIAPHRAGM DETAIL




## UTILITY BANK DETAIL
(BETWEEN G1 AND G2)

0 6 1' 2'

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. LOCATION CD2-CD2 | 99 |
| 5. CONC END DIAPHRAGM REINF BAR SCHEDULE | 101 |


## NOTES:

1. DECK SLAB REINFORCEMENT AND SHEAR CONNECTORS NOT SHOWN.
2. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
3. UTILITY CONDUIT INSTALLATION IS INCLUDED IN ITEM 9000-1001.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 2 CONCRETE END DIAPHRAGM DETAILS 2

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 100 OF 130

S - 39414

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## ABUTMENT 1 CONCRETE END DIAPHRAGM REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ED4101 | 4 | 37 | 8′-5 ½" | 4 | 1′-11" | 2′-7 ½" | 3′-11" | | | | |
| ED4102 | 4 | 37 | 6′-3" | STR | | | | | | | |
| ED4103 | 4 | 36 | 5′-6" | 48 | 2′-10" | 1′-8" | 1′-0" | | | | |
| ED4104 | 4 | 1 | 5′-1" | 10 | 2′-6" | 2′-7" | | | | | |
| ED4105 | 4 | 37 | 10′-11" | 10 | 4′-10" | 6′-1" | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| ED6101 | 6 | 7 | 34′-6" | STR | | | | | | | |
| ED6102 | 6 | 21 | 7′-9" | STR | | | | | | | |
| ED6103 | 6 | 28 | 7′-3" | STR | | | | | | | |
| ED6104 | 6 | 7 | 11′-0 ½" | 4 | 3′-8" | 2′-6 ½" | 4′-10" | | | | |
| ED6105 | 6 | 7 | 13′-0 ½" | 4 | 6′-10" | 2′-6 ½" | 3′-8" | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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| | | | | | | | | | | | |
| | | | | | | | | | | | |

## ABUTMENT 2 CONCRETE END DIAPHRAGM REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ED4201 | 4 | 37 | 8′-5 ½" | 4 | 1′-11" | 2′-7 ½" | 3′-11" | | | | |
| ED4202 | 4 | 37 | 6′-3" | STR | | | | | | | |
| ED4203 | 4 | 36 | 5′-2" | 48 | 2′-10" | 1′-4" | 1′-0" | | | | |
| ED4204 | 4 | 1 | 5′-1" | 10 | 2′-6" | 2′-7" | | | | | |
| ED4205 | 4 | 37 | 10′-11" | 10 | 4′-10" | 6′-1" | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| ED6201 | 6 | 7 | 34′-10" | STR | | | | | | | |
| ED6202 | 6 | 21 | 7′-9" | STR | | | | | | | |
| ED6203 | 6 | 28 | 7′-3" | STR | | | | | | | |
| ED6204 | 6 | 7 | 11′-0 ½" | 4 | 3′-8" | 2′-6 ½" | 4′-10" | | | | |
| ED6205 | 6 | 7 | 13′-5 ½" | 4 | 7′-3" | 2′-6 ½" | 3′-8" | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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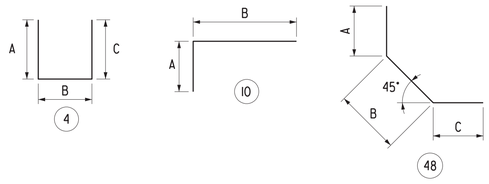


## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. ABUT 1 CONCRETE END DIAPHRAGM DETAILS 1 & 2 | 97 & 98 |
| 5. ABUT 2 CONCRETE END DIAPHRAGM DETAILS 1 & 2 | 99 & 100 |

## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
CONC END DIAPH REINF BAR SCHEDULE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 101 OF 130

S - 39414

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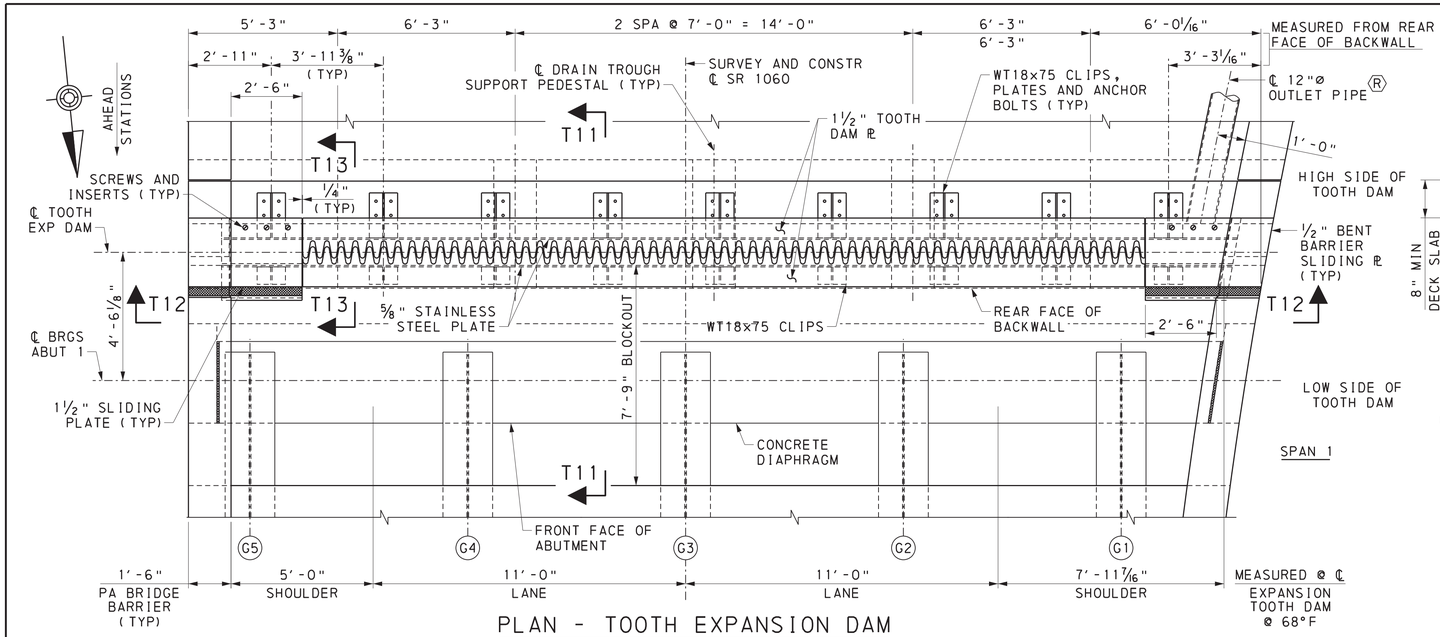
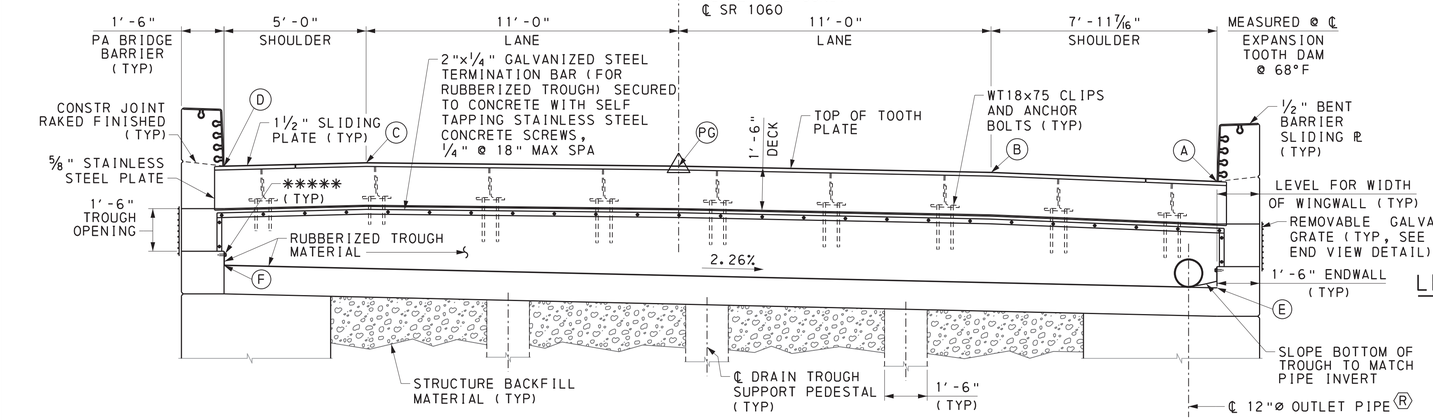



## PLAN - TOOTH EXPANSION DAM

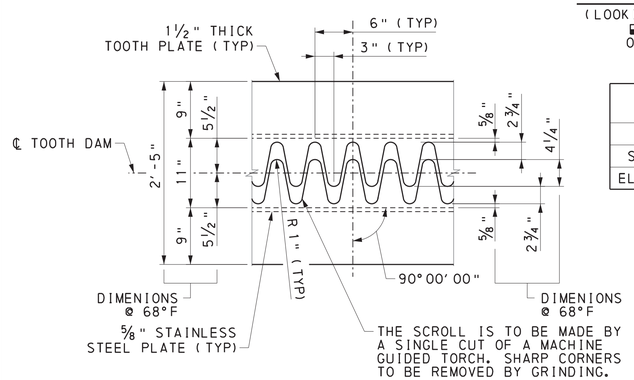
0 1' 2' 3' 4'




## SECTION T12-T12

(LOOKING BACK STATIONS)

0 1' 2' 3' 4'




## TOOTH PLATE DETAIL

0 3 6 9 1' 2'

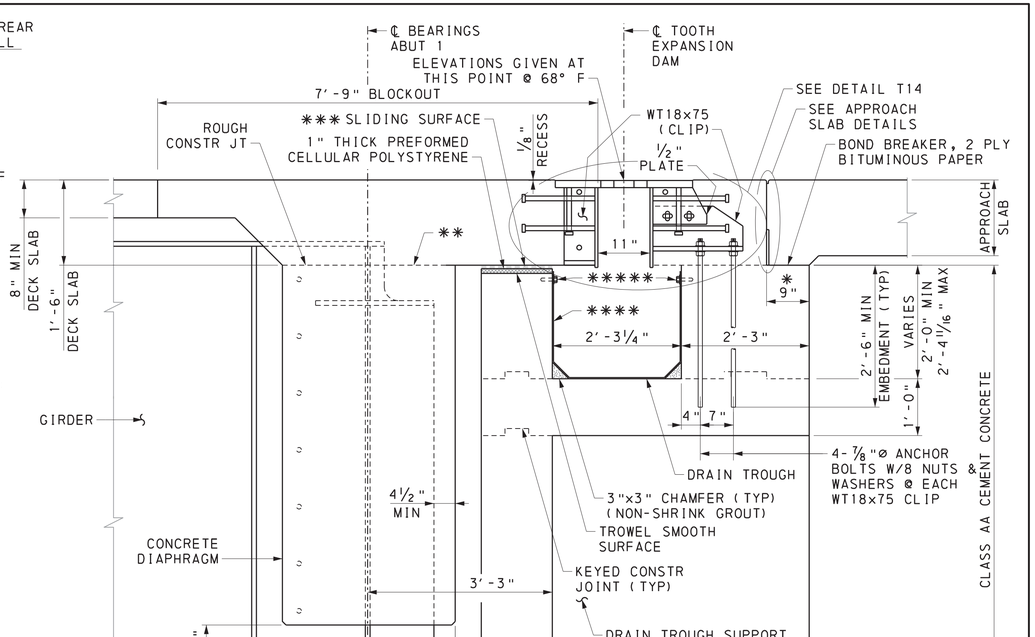
| ELEVATIONS AT CENTERLINE OF TOOTH DAM | | | | | | | |
|---|---|---|---|---|---|---|---|
| | A | B | PG | C | D | E | F |
| STATION | 101+65.49 | 101+65.49 | 101+65.49 | 101+65.49 | 101+65.49 | 101+65.49 | 101+65.49 |
| ELEVATION | 870.70 | 871.02 | 871.24 | 871.36 | 871.24 | 866.95 | 867.74 |

## NOTES:

1. FOR ADDITIONAL INFORMATION AND DETAILS NOT SHOWN, SEE BC-762M.
2. STAINLESS STEEL PLATES, STUDS, ANCHOR BOLTS, RUBBERIZED TROUGH MATERIAL, GALVANIZED STEEL TERMINATION BARS, SELF-TAPPING STAINLESS STEEL CONCRETE SCREWS, NON-SHRINK GROUT AND ALL OTHER ITEMS SHOWN ARE INCIDENTAL TO THE COST OF THE TOOTH EXPANSION DAM.

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. TOOTH DAM ELEVATION TABLE | 35 |
| 5. TOOTH DAM SECTION T13-T13 | 103 |
| 6. TOOTH DAM DETAIL T14 | 103 |
| 7. DRAIN TROUGH END VIEW DETAIL | 103 |
| 8. CONCEPTUAL INSTALLATION SCHEME | 103 |


## SECTION T11-T11

0 6 1' 2'

## LEGEND:

- * MEASURED NORMAL TO ABUTMENT
- ** COAT WITH AN APPROVED EPOXY BONDING COMPOUND PRIOR TO PLACING DECK SLAB CONCRETE
- *** 2 LAYERS OF 4 MIL POLYETHYLENE SHEETING
- **** RUBBERIZED TROUGH MATERIAL (SECTION 1020.2(h) PUB 408) ATTACHED TO CONCRETE WITH APPROVED ADHESIVE
- ***** 2"x1/4" GALVANIZED STEEL (ASTM A709, GR 36 OR 50) BATTEN SECURED TO CONCRETE WITH SELF-TAPPING STAINLESS STEEL CONCRETE SCREWS, 1/4"@18" MAX SPA (TYP)(ATTACHMENT INCIDENTIAL TO PERMANENT STRUCTURE)
- Ⓡ ROADWAY ITEM

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261

BMS STR ID: 64-1060-0010-0037 WPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**

**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUT 1 TOOTH DAM PLAN & ELEVATION

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

RECOMMENDED _____

SHEET 102 OF 130

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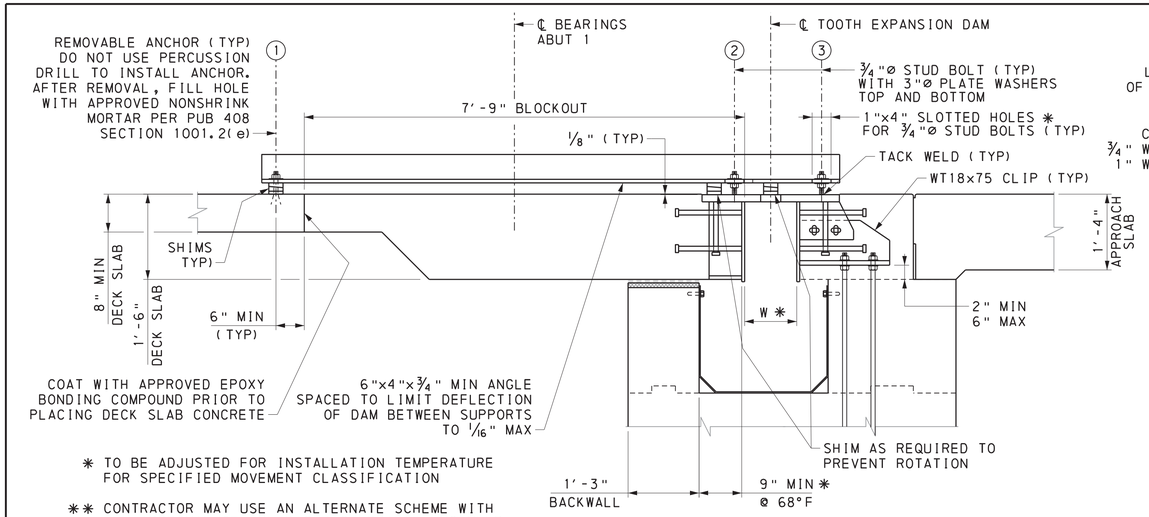



* TO BE ADJUSTED FOR INSTALLATION TEMPERATURE FOR SPECIFIED MOVEMENT CLASSIFICATION

** CONTRACTOR MAY USE AN ALTERNATE SCHEME WITH THE APPROVAL OF THE DISTRICT BRIDGE ENGINEER OR DISTRICT STRUCTURE CONTROL ENGINEER

## CONCEPTUAL INSTALLATION SCHEME **

0 6 1' 2'

## JOINT INSTALLATION NOTES:

CAST ANCHOR BOLTS INTO INTEGRAL CONCRETE DRAIN TROUGH.

INSTALL AND ADJUST FIXED PORTION OF TOOTH DAM ON TROUGH WALL TO THE PROPER LINE AND GRADE.

THE SURFACE OF THE BLOCKOUT MUST BE COMPLETELY CLEAN WHEN THE JOINT IS INSTALLED.

SUPPORT MOVEABLE PORTION OF TOOTH DAM IN THE BLOCKOUT FROM THE DECK SLAB AND FIXED PORTION OF THE TOOTH DAM (SEE CONCEPTUAL INSTALLATION SCHEME).

ADJUST MOVEABLE PORTION OF TOOTH DAM TO THE PROPER LINE AND GRADE WITH THE JOINT OPENING (W) SET WITH RESPECT TO THE INSTALLATION TEMPERATURE SHOWN ON THE PLANS.

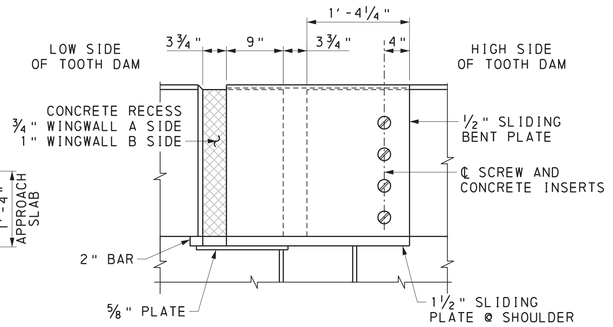
DURING ASSEMBLY INSTALLATION TIGHTEN ANCHOR (1) AND BOTH NUTS ON STUD BOLTS (2) AND (3) MAKING SURE THE JOINT OPENING (W) REFLECTS THE INSTALLATION TEMPERATURE.

IMMEDIATELY AFTER BLOCKOUT IS CAST, LOOSEN TOP NUT ON STUD BOLT (3) TO PERMIT TEMPERATURE MOVEMENT IN THE ASSEMBLY. ALTERNATE THE PATTERN BETWEEN THE NEAR SIDE AND FAR SIDE OF JOINT ON SUCCESSIVE ASSEMBLIES, I.E. LOOSEN TOP NUT ON STUD BOLT (2) IMMEDIATELY AFTER BLOCKOUT IS CAST TO PREVENT MOVEMENT.

PROVIDE LOW FRICTION INTERFACE BETWEEN BOTTOM NUT AND WASHER ON STUD BOLTS AND ANGLE.

AFTER THE CONCRETE OF THE BLOCKOUT ACHIEVES THE MINIMUM COMPRESSIVE STRENGTH SPECIFIED IN PUBLICATION 408, SECTION 1001.3(q)1, REMOVE THE TEMPORARY SUPPORT ASSEMBLY AND GRIND OFF THE TACK WELDS UNTIL SMOOTH.

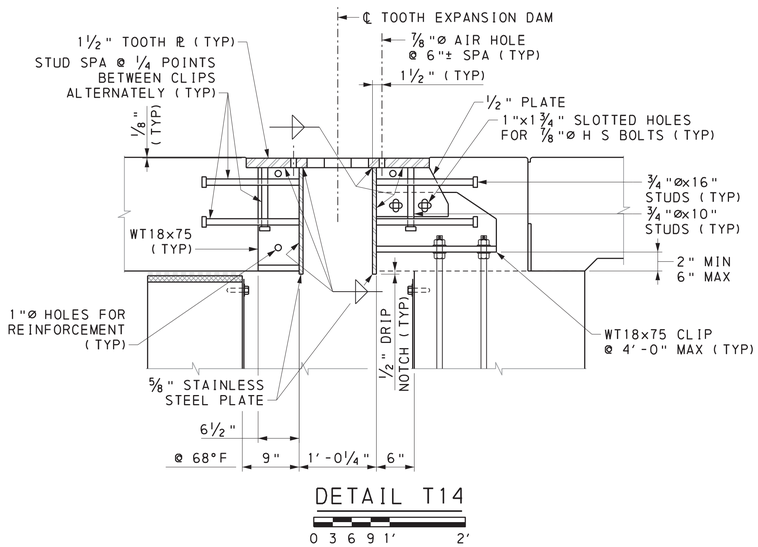
APPLY TOUCH-UP PAINT.




## SECTION T13-T13

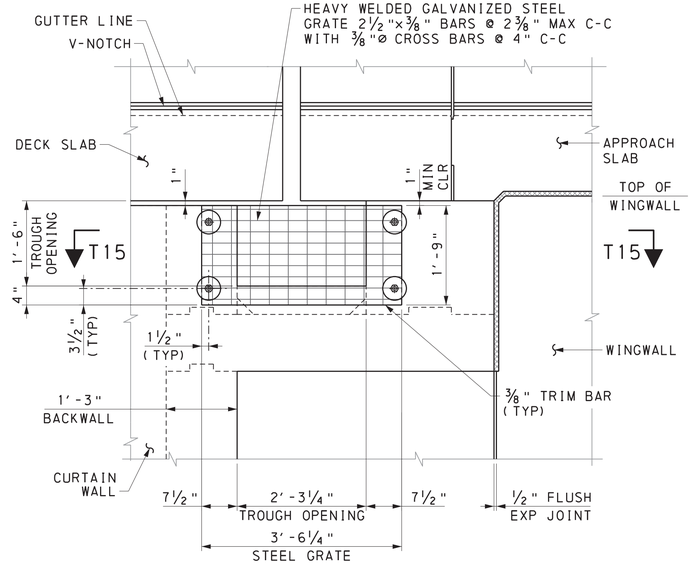
(PA BARRIER RAILING POST AND TUBE RAILS NOT SHOWN)

0 3 6 9 1' 2'



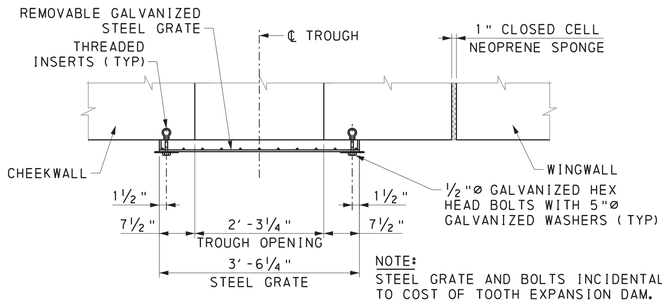

## DETAIL T14

0 3 6 9 1' 2'




## DRAIN TROUGH END VIEW DETAIL

0 6 1' 2'




NOTE:
STEEL GRATE AND BOLTS INCIDENTAL TO COST OF TOOTH EXPANSION DAM.

## SECTION T15-T15

0 6 1' 2'

## NOTES:

1. FOR ADDITIONAL INFORMATION AND DETAILS NOT SHOWN, SEE BC-762M.
2. STAINLESS STEEL PLATES, STUDS, ANCHOR BOLTS, RUBBERIZED TROUGH MATERIAL, GALVANIZED STEEL TERMINATION BARS, SELF-TAPPING STAINLESS STEEL CONCRETE SCREWS, NON-SHRINK GROUT AND ALL OTHER ITEMS SHOWN ARE INCIDENTAL TO THE COST OF THE TOOTH EXPANSION DAM.

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. TOOTH DAM PLAN & ELEVATION | 102 |
| 5. LOCATION OF SECTION T13-T13 | 102 |
| 6. LOCATION OF DETAIL T14 | 102 |
| 7. LOCATION OF DRAIN TROUGH END VIEW DETAIL | 102 |

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

| Mark | Description | By | Chk'd. | Recm'd. | Date |
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SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 1 TOOTH DAM DETAILS

RECOMMENDED _____

SHEET 103 OF 130

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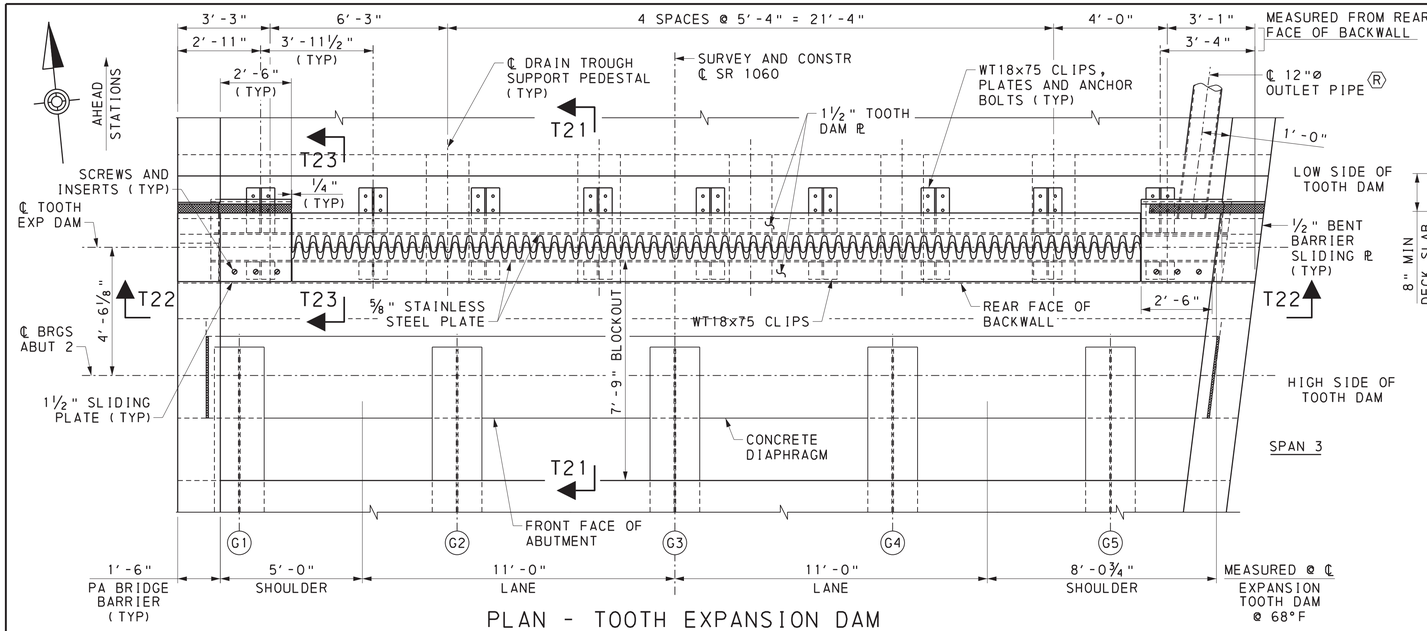
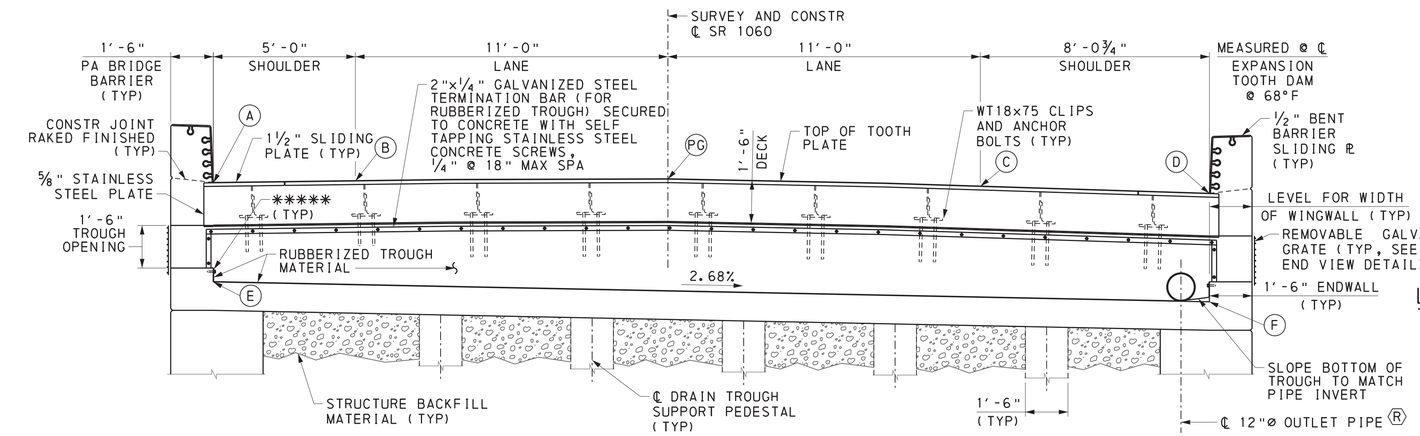


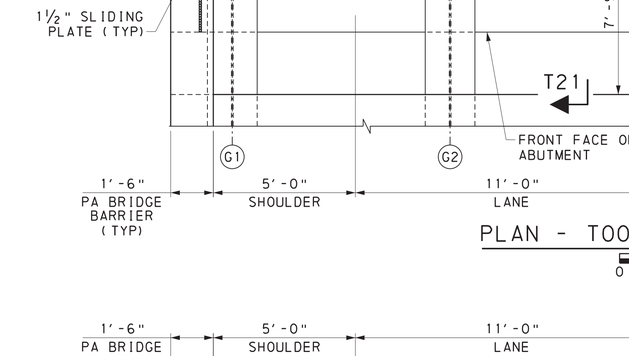

## PLAN - TOOTH EXPANSION DAM




## SECTION T22-T22

(LOOKING AHEAD STATIONS)

0 1' 2' 3' 4'




## TOOTH PLATE DETAIL

0 3 6 9 1' 2'

| ELEVATIONS AT CENTERLINE OF TOOTH DAM | | | | | | | |
|---|---|---|---|---|---|---|---|
| | A | B | PG | C | D | E | F |
| STATION | 108+24.51 | 108+24.51 | 108+24.51 | 108+24.51 | 108+24.51 | 108+24.51 | 108+24.51 |
| ELEVATION | 863.35 | 863.45 | 863.46 | 863.24 | 862.91 | 859.85 | 858.91 |

## NOTES:

1. FOR ADDITIONAL INFORMATION AND DETAILS NOT SHOWN, SEE BC-762M.
2. STAINLESS STEEL PLATES, STUDS, ANCHOR BOLTS, RUBBERIZED TROUGH MATERIAL, GALVANIZED STEEL TERMINATION BARS, SELF-TAPPING STAINLESS STEEL CONCRETE SCREWS, NON-SHRINK GROUT AND ALL OTHER ITEMS SHOWN ARE INCIDENTAL TO THE COST OF THE TOOTH EXPANSION DAM.

## REFERENCES:

| | |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. TOOTH DAM ELEVATION TABLE | 62 |
| 5. TOOTH DAM SECTION T23-T23 | 105 |
| 6. TOOTH DAM DETAILS T24 | 105 |
| 7. DRAIN TROUGH END VIEW DETAIL | 105 |
| 8. CONCEPTUAL INSTALLATION SCHEME | 105 |

## SHEET:

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| 4 & 5 |
| 62 |
| 105 |
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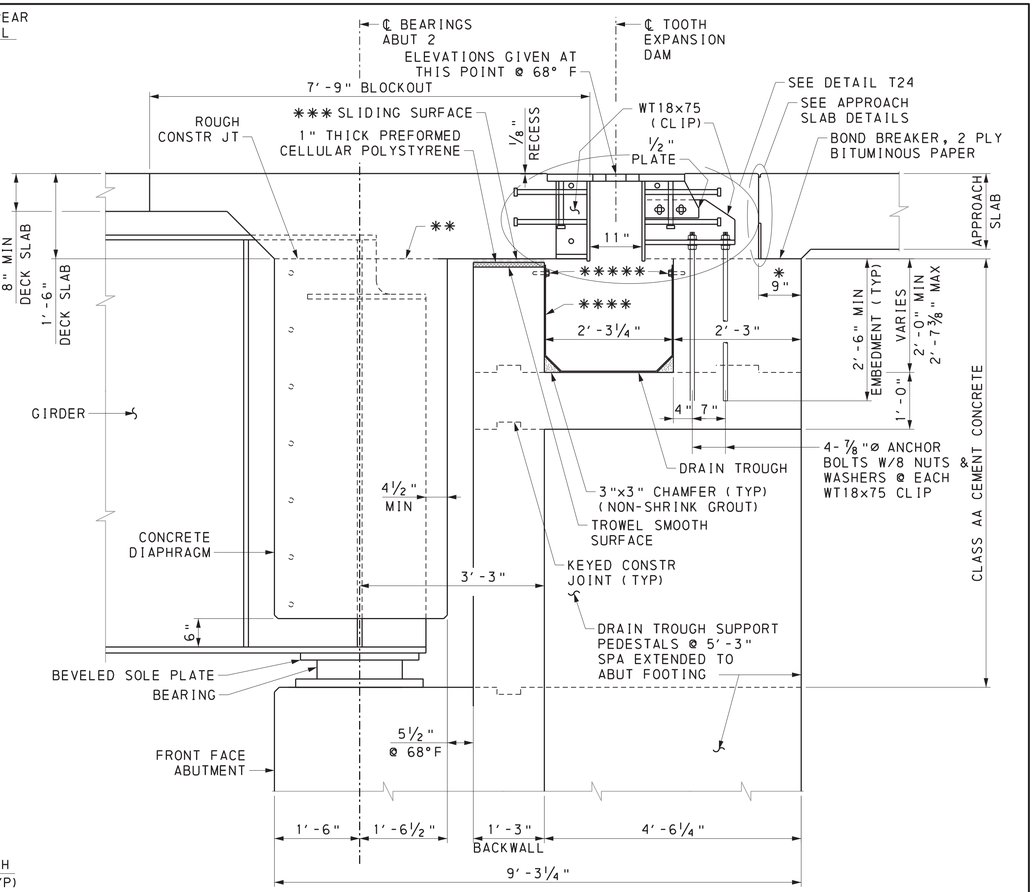
| 105 |




## SECTION T21-T21

0 6 1' 2'

## LEGEND:

* MEASURED NORMAL TO ABUTMENT

** COAT WITH AN APPROVED EPOXY BONDING COMPOUND PRIOR TO PLACING DECK SLAB CONCRETE

*** 2 LAYERS OF 4 MIL POLYETHYLENE SHEETING

**** RUBBERIZED TROUGH MATERIAL (SECTION 1020.2(h) PUB 408) ATTACHED TO CONCRETE WITH APPROVED ADHESIVE

***** 2"x¼" GALVANIZED STEEL (ASTM A709, GR 36 OR 50) BATTEN SECURED TO CONCRETE WITH SELF-TAPPING STAINLESS STEEL CONCRETE SCREWS, ¼"@18" MAX SPA (TYP)(ATTACHMENT INCIDENTAL TO PERMANENT STRUCTURE)

Ⓡ ROADWAY ITEM

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER ABUT 2 TOOTH DAM PLAN & ELEVATION

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 104 OF 130

S - 39414

DES: JWB/JMF | CKD: MJB | DWG: EEM | CKD: MJB

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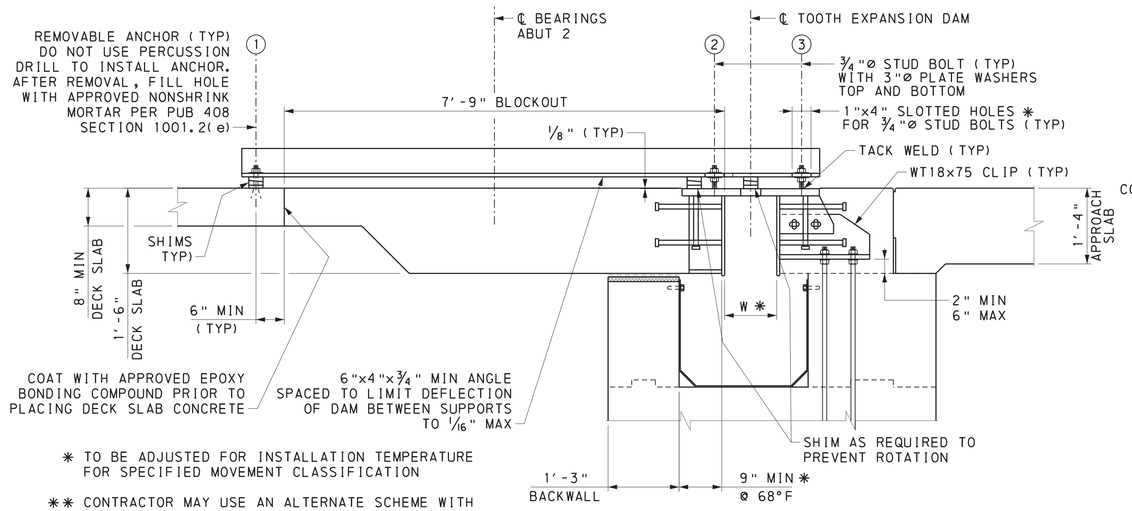



* TO BE ADJUSTED FOR INSTALLATION TEMPERATURE FOR SPECIFIED MOVEMENT CLASSIFICATION

** CONTRACTOR MAY USE AN ALTERNATE SCHEME WITH THE APPROVAL OF THE DISTRICT BRIDGE ENGINEER OR DISTRICT STRUCTURE CONTROL ENGINEER

## CONCEPTUAL INSTALLATION SCHEME **

0 6 1' 2'

## JOINT INSTALLATION NOTES:

CAST ANCHOR BOLTS INTO INTEGRAL CONCRETE DRAIN TROUGH.

INSTALL AND ADJUST FIXED PORTION OF TOOTH DAM ON TROUGH WALL TO THE PROPER LINE AND GRADE.

THE SURFACE OF THE BLOCKOUT MUST BE COMPLETELY CLEAN WHEN THE JOINT IS INSTALLED.

SUPPORT MOVEABLE PORTION OF TOOTH DAM IN THE BLOCKOUT FROM THE DECK SLAB AND FIXED PORTION OF THE TOOTH DAM (SEE CONCEPTUAL INSTALLATION SCHEME).

ADJUST MOVEABLE PORTION OF TOOTH DAM TO THE PROPER LINE AND GRADE WITH THE JOINT OPENING (W) SET WITH RESPECT TO THE INSTALLATION TEMPERATURE SHOWN ON THE PLANS.

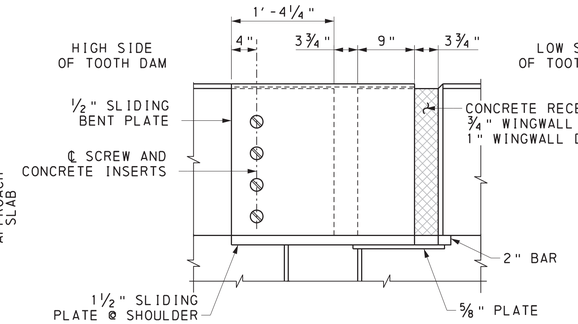
DURING ASSEMBLY INSTALLATION TIGHTEN ANCHOR (1) AND BOTH NUTS ON STUD BOLTS (2) AND (3) MAKING SURE THE JOINT OPENING (W) REFLECTS THE INSTALLATION TEMPERATURE.

IMMEDIATELY AFTER BLOCKOUT IS CAST, LOOSEN TOP NUT ON STUD BOLT (3) TO PERMIT TEMPERATURE MOVEMENT IN THE ASSEMBLY. ALTERNATE THE PATTERN BETWEEN THE NEAR SIDE AND FAR SIDE OF JOINT ON SUCCESSIVE ASSEMBLIES, I.E. LOOSEN TOP NUT ON STUD BOLT (2) IMMEDIATELY AFTER BLOCKOUT IS CAST TO PREVENT MOVEMENT.

PROVIDE LOW FRICTION INTERFACE BETWEEN BOTTOM NUT AND WASHER ON STUD BOLTS AND ANGLE.

AFTER THE CONCRETE OF THE BLOCKOUT ACHIEVES THE MINIMUM COMPRESSIVE STRENGTH SPECIFIED IN PUBLICATION 408, SECTION 1001.3(q)1, REMOVE THE TEMPORARY SUPPORT ASSEMBLY AND GRIND OFF THE TACK WELDS UNTIL SMOOTH.

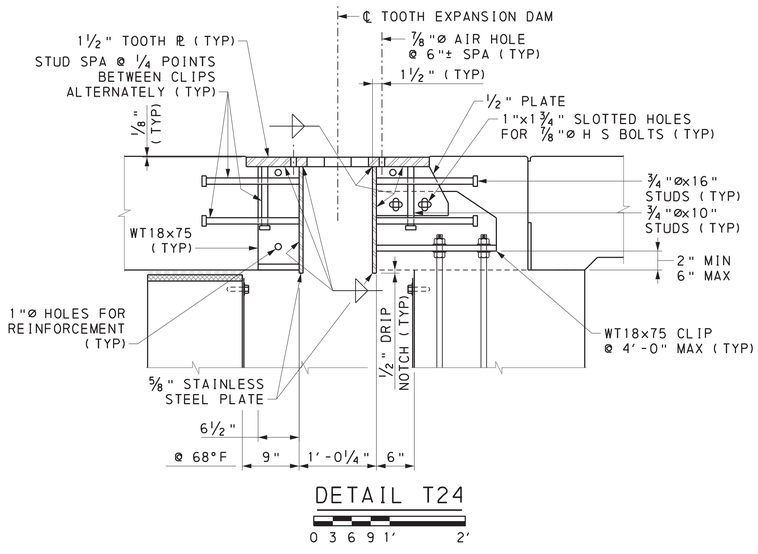
APPLY TOUCH-UP PAINT.




## SECTION T23-T23

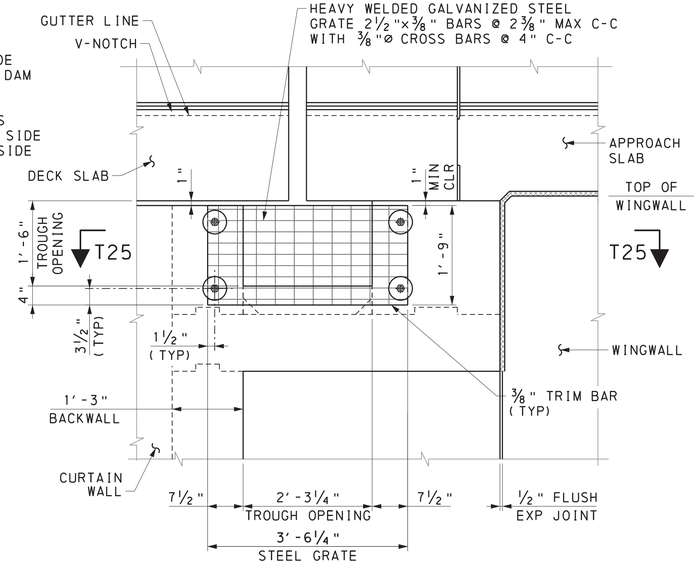
(PA BARRIER RAILING POST AND TUBE RAILS NOT SHOWN)

0 3 6 9 1' 2'



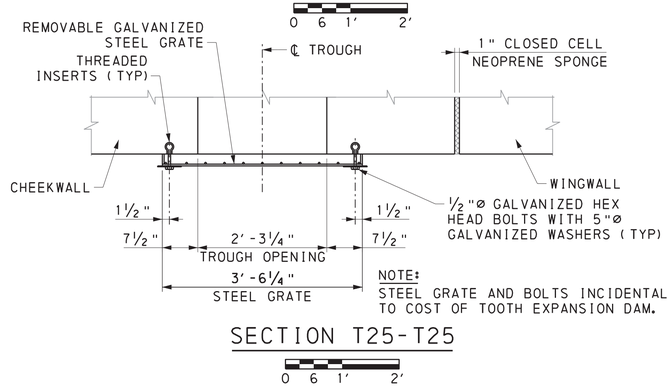

## DETAIL T24

0 3 6 9 1' 2'




## DRAIN TROUGH END VIEW DETAIL

0 6 1' 2'




## SECTION T25-T25

0 6 1' 2'

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

## NOTES:

1. FOR ADDITIONAL INFORMATION AND DETAILS NOT SHOWN, SEE BC-762M.
2. STAINLESS STEEL PLATES, STUDS, ANCHOR BOLTS, RUBBERIZED TROUGH MATERIAL, GALVANIZED STEEL TERMINATION BARS, SELF-TAPPING STAINLESS STEEL CONCRETE SCREWS, NON-SHRINK GROUT AND ALL OTHER ITEMS SHOWN ARE INCIDENTAL TO THE COST OF THE TOOTH EXPANSION DAM.

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. TOOTH DAM PLAN & ELEVATION | 104 |
| 5. LOCATION OF SECTION T23-T23 | 104 |
| 6. LOCATION OF DETAIL T24 | 104 |
| 7. LOCATION OF DRAIN TROUGH END VIEW DETAIL | 104 |

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 2 TOOTH DAM DETAILS

RECOMMENDED _____

SHEET 105 OF 130

S - 39414

DES: JWB/JMF | CKD: MJB | DWG: EEM | CKD: MJB

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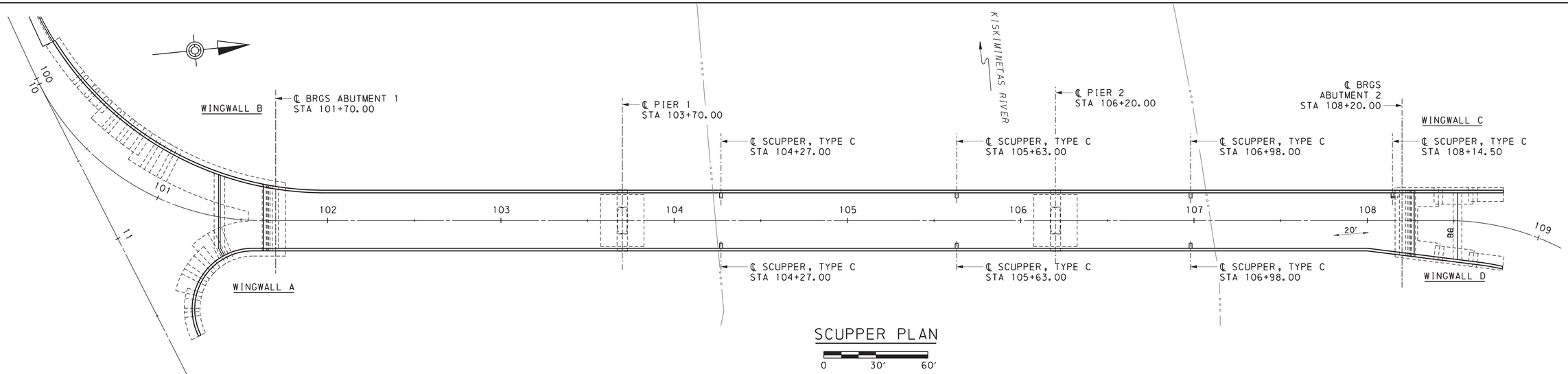
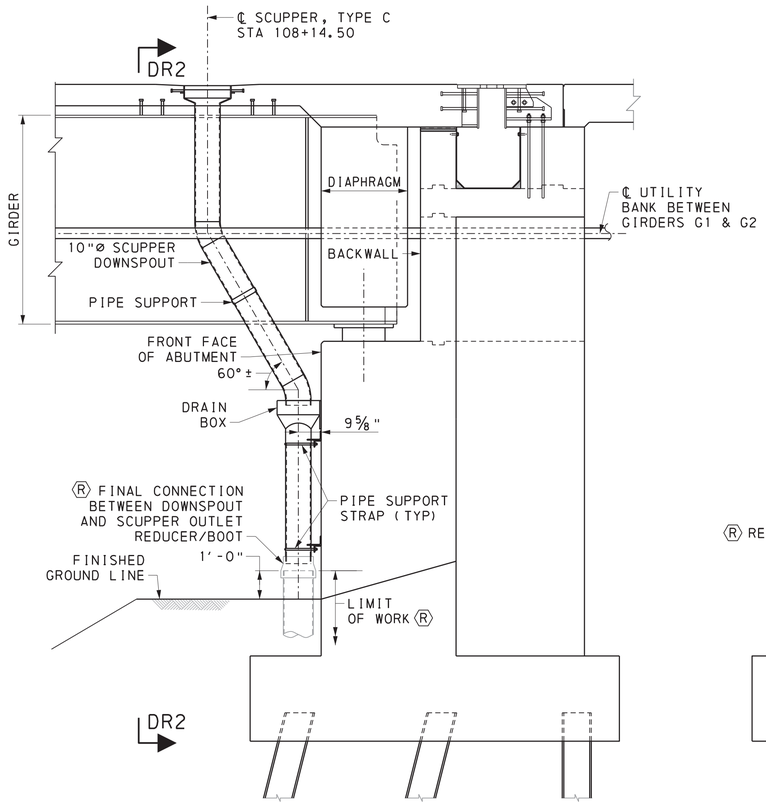


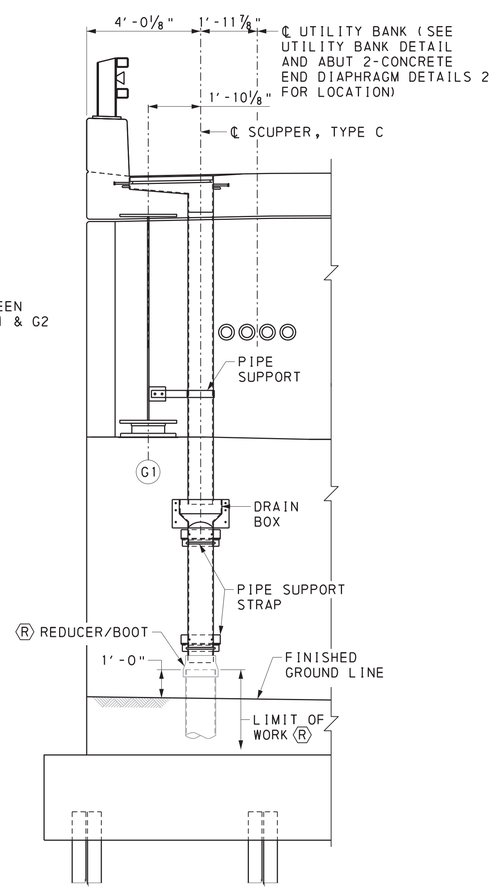

## SCUPPER PLAN

0 30' 60'



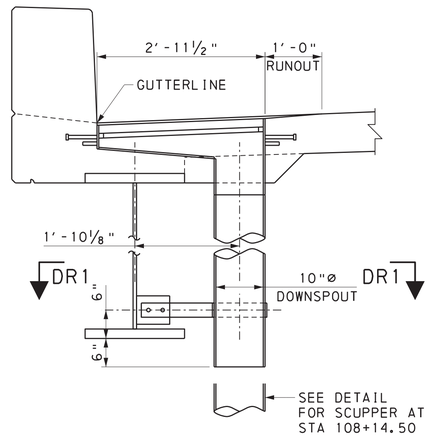

## BRIDGE DRAINAGE AT ABUTMENT 2

0 1' 2' 3' 4'



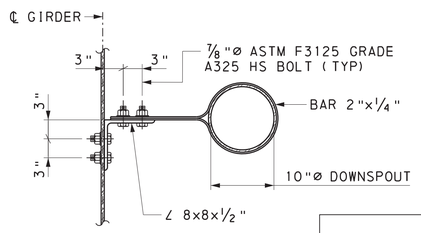

## SECTION DR2-DR2

0 1' 2' 3' 4'




## TYPICAL SCUPPER SECTION

0 6 1' 2'




## SECTION DR1-DR1

DOWNSPOUT CONNECTION TO GIRDER
IS TYPICAL FOR ALL SCUPPERS
NOT TO SCALE

## LEGEND:

Ⓡ ROADWAY ITEM

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. ABUTMENT 2 PLAN | 51 |
| 5. ABUTMENT 2 ELEVATION | 52 |
| 6. ABUT 2 CONCRETE END DIAPHRAGM DETAILS 1 & 2 | 99 & 100 |
| 7. BRIDGE DRAINAGE | BC-751M |

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

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
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3 SPAN CONT COMP STEEL PLATE GIRDER
## SCUPPER AND DRAINAGE DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 106 OF 130

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DES: JWB | CKD: CLG | DWG: CLG | CKD: JWB

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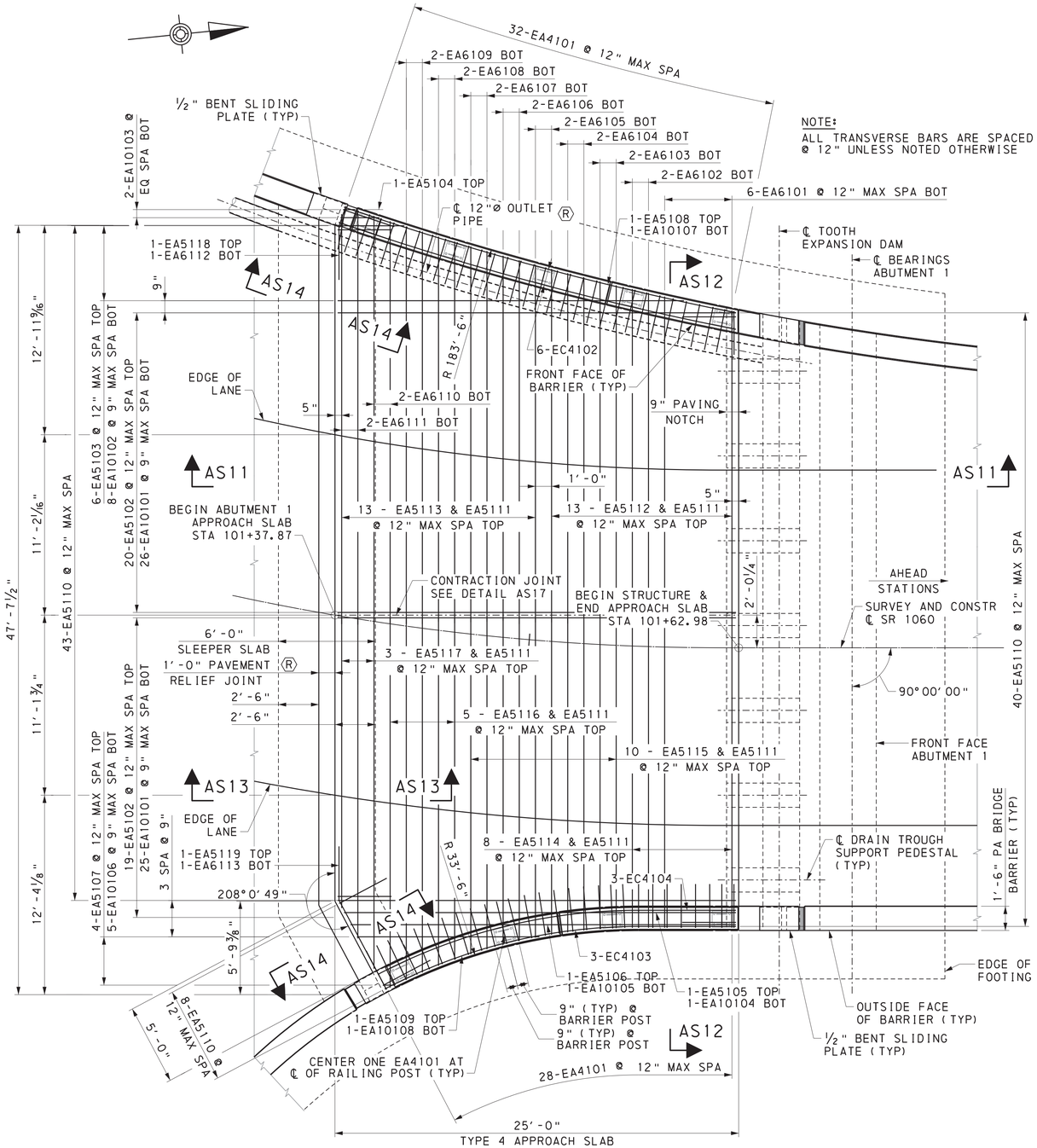
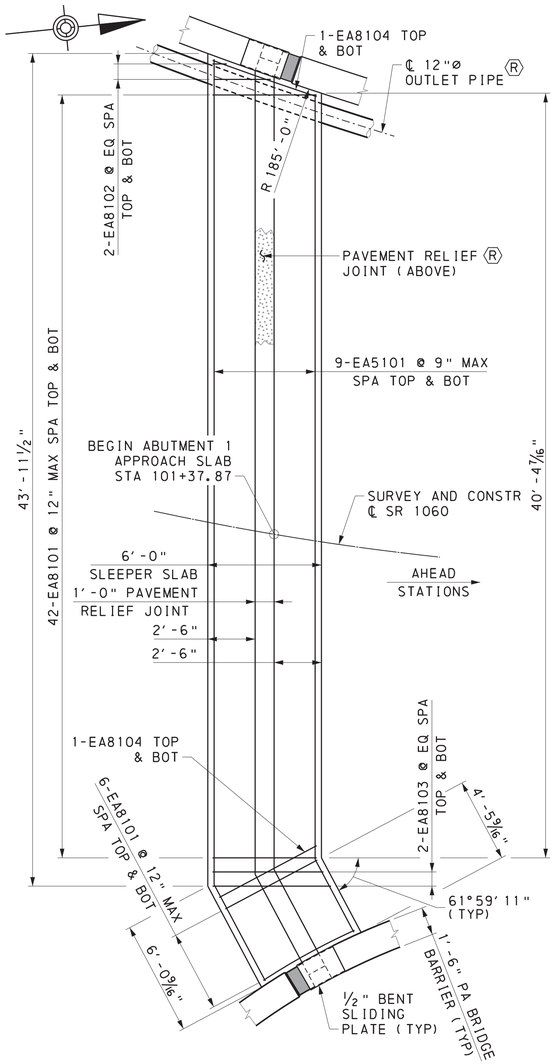
## TOP OF APPROACH SLAB ELEVATIONS AT BREAK POINTS

| LOCATION | STATION | A | B | PG | C | D |
|---|---|---|---|---|---|---|
| START LT GUTTER LINE | 101+33.04 | 871.60 | --- | --- | --- | --- |
| START LT SHLDR/LANE LINE | 101+35.85 | 871.50 | 872.00 | --- | --- | --- |
| BEG APPROACH SLAB | 101+37.87 | 871.44 | 871.92 | 872.14 | --- | --- |
| START RT SHLDR/LANE LINE | 101+39.59 | 871.38 | 871.86 | 872.08 | 872.30 | --- |
| 10 FT LOCATION | 101+40.00 | 871.37 | 871.84 | 872.06 | 872.28 | --- |
| START RT GUTTER LINE | 101+43.09 | 871.27 | 871.73 | 871.95 | 872.17 | 871.11 |
| 10 FT LOCATION | 101+50.00 | 871.07 | 871.49 | 871.71 | 871.93 | 871.45 |
| 10 FT LOCATION | 101+60.00 | 870.82 | 871.17 | 871.39 | 871.56 | 871.36 |
| END APPROACH SLAB | 101+62.98 | 870.75 | 871.09 | 871.31 | 871.45 | 871.33 |




ABUTMENT 1 APPROACH SLAB PLAN

0 1' 2' 3' 4' 5' 6'




ABUTMENT 1 SLEEPER SLAB PLAN

0 1' 2' 3' 4' 5' 6'

### LEGEND:

E EPOXY COATED BARS
Ⓡ ROADWAY ITEM

### REFERENCES:

1. SUPPLEMENTAL DRAWINGS
2. INDEX OF DRAWINGS
3. GENERAL NOTES 1 & 2
4. BARRIER DETAILS
5. ABUT 1 APPROACH SLAB DETAILS
6. ABUT 1 APPROACH SLAB REINF SCHEDULE
7. ABUT 1 TOOTH DAM PLAN & ELEVATION
8. ABUT 1 TOOTH DAM DETAILS

### SHEET:

1
3
4 & 5
91-95
108
109
102
103

| Mark | Description | By | Chk'd. | Recm'd. | Date |
|---|---|---|---|---|---|
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3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 1 APPROACH SLAB

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER — PE062832

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| DES: EEM | CKD: LTS | DWG: EEM/LTS | CKD: MEM |
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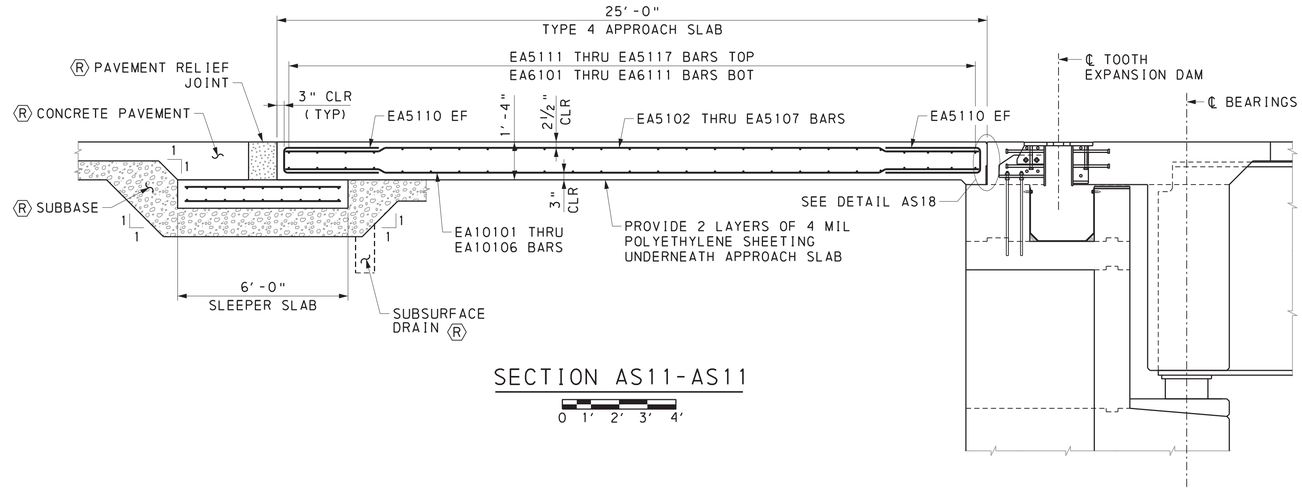
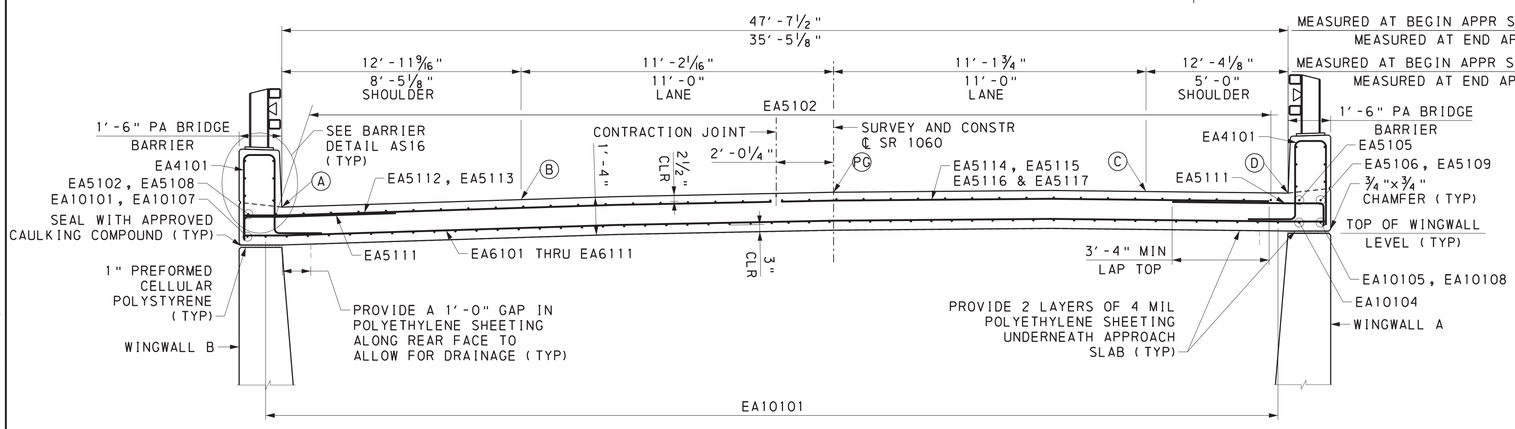



## SECTION AS11-AS11

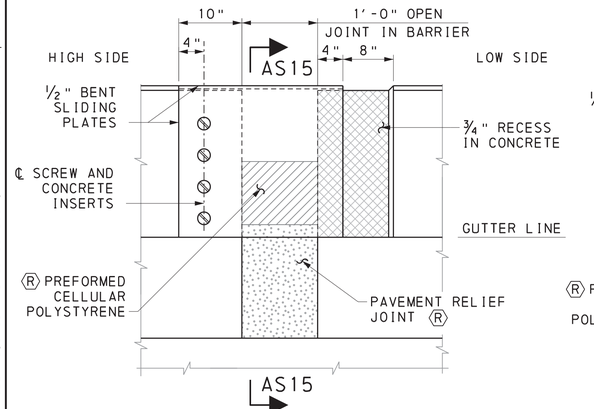
0 1' 2' 3' 4'




## SECTION AS12-AS12

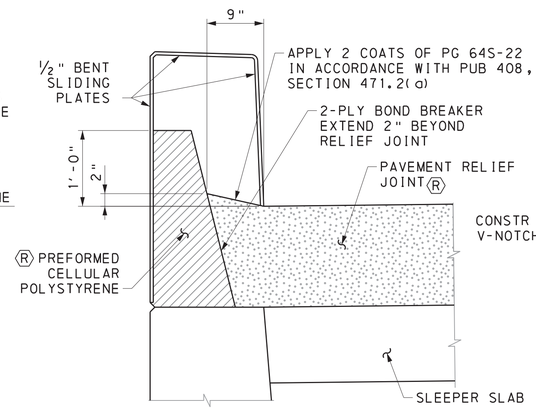
(SHOWN AT END APPROACH SLAB)
LOOKING AHEAD STATIONS

0 1' 2' 3' 4'



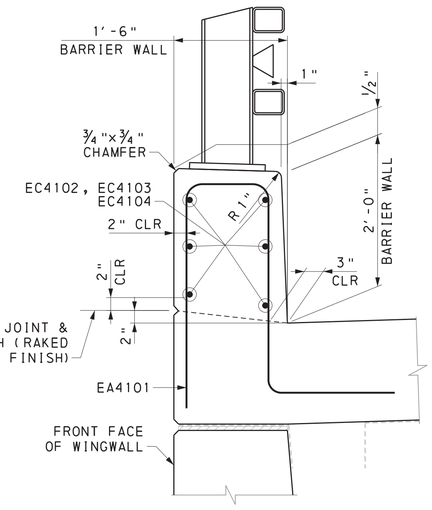

## SECTION AS14-AS14

0 3 6 9 1' 2'



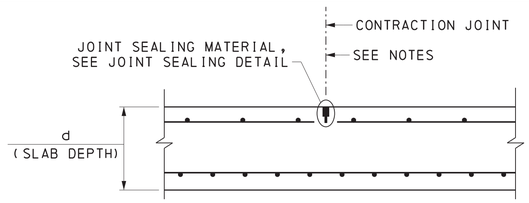

## SECTION AS15-AS15

0 3 6 9 1' 2'



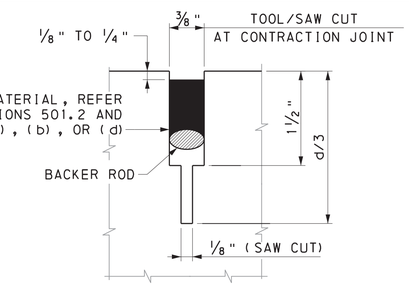

## BARRIER DETAIL AS16

0 3 6 9 1' 2'




NOTES:

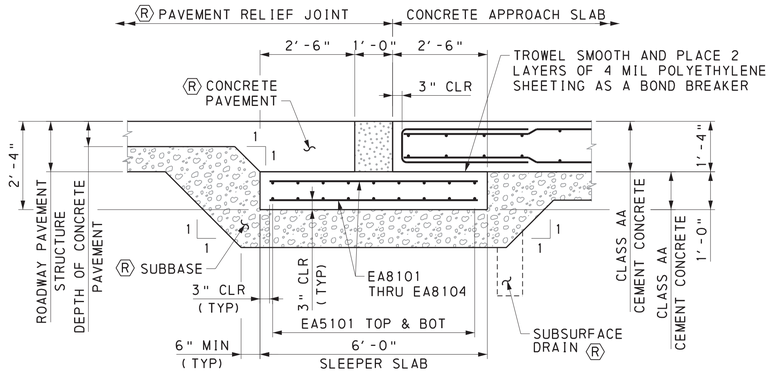
1. TOP REINFORCEMENT NOT CONTINUOUS THRU JOINT.
2. BOTTOM REINFORCEMENT CONTINUOUS THRU JOINT.




JOINT SEALING DETAIL

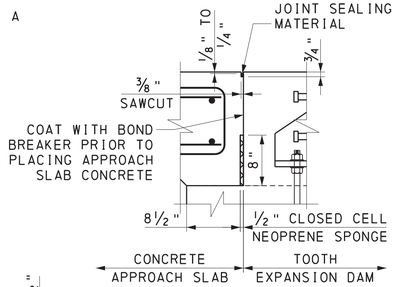
## DETAIL AS17 - CONTRACTION JOINT

(NOT TO SCALE)




## SECTION AS13-AS13

0 6" 1' 2' 3' 4'




## JOINT DETAIL AS18

0 3 6 9 1' 2'

## LEGEND:

| | |
|---|---|
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| Ⓡ | ROADWAY ITEM |

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

## REFERENCES:

| | |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. BARRIER DETAILS | 91-94 |
| 5. ABUT 1 TOOTH DAM PLAN & ELEVATION | 102 |
| 6. ABUT 1 APPROACH SLAB | 107 |
| 7. ABUT 1 APPR SLAB REINF SCHEDULE | 112 |

SHEET:

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUT 1 APPROACH SLAB DETAILS

RECOMMENDED _____

SHEET 108 OF 130

S - 39414

DES: EEM | CKD: LTS | DWG: EEM/LTS | CKD: MEM

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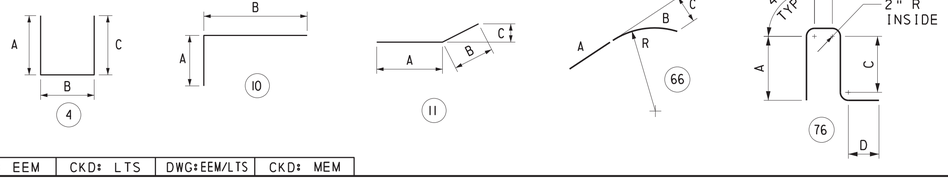
# ABUTMENT 1 APPROACH SLAB REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EA4101 | 4 | 60 | 7′-3½" | 76 | 2′-2½" | 8" | 1′-11" | 1′-6" | | | |
| EC4102 | 4 | 6 | 25′-4" | STR | | | | | | | BEND IN FIELD |
| EC4103 | 4 | 3 | 22′-4½" | 66 | 6′-0½" | 16′-4" | 3′-10½" | | | | RADIUS 33′-9" |
| EC4104 | 4 | 3 | 22′-9½" | 66 | 6′-0½" | 16′-9" | 3′-11½" | | | | RADIUS 34′-9" |
| EA5101 | 5 | 18 | 44′-9" TO 49′-3" | 11 | 40′-5" TO 43′-6" | 4′-4" TO 5′-9" | 2′-0½" TO 2′-8½" | | | | VARY EA SET OF 9, EA A BY 4⅝", EA B BY 2⅛", EA C BY 1" |
| EA5102 | 5 | 39 | 24′-6" | STR | | | | | | | |
| EA5103 | 5 | 6 | 4′-2" TO 21′-5" | STR | | | | | | | VARY EA BY 3′-5⅜"(+) |
| EA5104 | 5 | 1 | 9" | STR | | | | | | | |
| EA5105 | 5 | 1 | 24′-3" | STR | | | | | | | |
| EA5106 | 5 | 1 | 23′-10" | STR | | | | | | | |
| EA5107 | 5 | 4 | 9" TO 11′-4" | STR | | | | | | | VARY EA BY 3′-6 5/16"(+) |
| EA5108 | 5 | 1 | 25′-2" | STR | | | | | | | BEND IN FIELD |
| EA5109 | 5 | 1 | 22′-4½" | 66 | 6′-0½" | 16′-4" | 3′-10½" | | | | RADIUS 33′-9" |
| EA5110 | 5 | 91 | 7′-6½" | 4 | 3′-4" | 10½" | 3′-4" | | | | |
| EA5111 | 5 | 52 | 6′-2" | 10 | 10" | 5′-4" | | | | | |
| EA5112 | 5 | 13 | 18′-8¼" TO 21′-4½" | STR | | | | | | | VARY EA BY 2 1/16" |
| EA5113 | 5 | 13 | 21′-7¾" TO 24′-7¾" | STR | | | | | | | VARY EA BY 3" |
| EA5114 | 5 | 8 | 17′-2¼" | STR | | | | | | | |
| EA5115 | 5 | 10 | 17′-2¾" TO 18′-9⅞" | STR | | | | | | | VARY EA BY 2⅛" |
| EA5116 | 5 | 5 | 19′-1⅞" TO 20′-10⅝" | STR | | | | | | | VARY EA BY 5 3/16" |
| EA5117 | 5 | 3 | 15′-11½" TO 19′-8¾" | STR | | | | | | | VARY EA BY 1′-10⅝" |
| EA5118 | 5 | 1 | 4′-7" | 11 | 3′-4" | 1′-3" | 5" | | | | |
| EA5119 | 5 | 1 | 9′-7" | 11 | 3′-4" | 6′-3" | 2′-11⅜" | | | | |
| EA6101 | 6 | 6 | 38′-1" TO 39′-1" | STR | | | | | | | VARY EA BY 2⅜"(+) |
| EA6102 | 6 | 2 | 39′-3½" TO 39′-6½" | STR | | | | | | | VARY EA BY 3" |
| EA6103 | 6 | 2 | 39′-9¼" TO 40′-1¼" | STR | | | | | | | VARY EA BY 4" |
| EA6104 | 6 | 2 | 40′-5½" TO 40′-9½" | STR | | | | | | | VARY EA BY 4" |
| EA6105 | 6 | 2 | 41′-3" TO 41′-8" | STR | | | | | | | VARY EA BY 5" |
| EA6106 | 6 | 2 | 42′-2" TO 42′-8" | STR | | | | | | | VARY EA BY 6" |
| EA6107 | 6 | 2 | 43′-3" TO 43′-10" | STR | | | | | | | VARY EA BY 7" |
| EA6108 | 6 | 2 | 44′-5½" TO 45′-1½" | STR | | | | | | | VARY EA BY 8" |
| EA6109 | 6 | 2 | 45′-10½" TO 46′-7½" | STR | | | | | | | VARY EA BY 9" |
| EA6110 | 6 | 2 | 46′-7" TO 47′-5" | STR | | | | | | | VARY EA BY 10" |
| EA6111 | 6 | 2 | 43′-0" TO 45′-1" | STR | | | | | | | VARY EA BY 2′-1" |
| EA6112 | 6 | 1 | 5′-2" | 11 | 3′-11" | 1′-3" | 5" | | | | |
| EA6113 | 6 | 1 | 10′-2" | 11 | 3′-11" | 6′-3" | 2′-11⅜" | | | | |
| EA8101 | 8 | 96 | 5′-6" | STR | | | | | | | |
| EA8102 | 8 | 4 | 9" TO 3′-0" | STR | | | | | | | VARY EA SET OF 2 BY 2′-3" |
| EA8103 | 8 | 4 | 5′-10" TO 6′-3" | STR | | | | | | | VARY EA SET OF 2 BY 5" |
| EA8104 | 8 | 2 | 5′-10" | STR | | | | | | | |
| EA10101 | 10 | 51 | 24′-6" | STR | | | | | | | |
| EA10102 | 10 | 8 | 4′-2" TO 21′-5" | STR | | | | | | | VARY EA BY 2′-5 9/16"(+) |
| EA10103 | 10 | 2 | 9" TO 2′-5" | STR | | | | | | | VARY EA BY 1′-8" |
| EA10104 | 10 | 1 | 24′-3" | STR | | | | | | | |
| EA10105 | 10 | 1 | 23′-10" | STR | | | | | | | |
| EA10106 | 10 | 5 | 9" TO 11′-4" | STR | | | | | | | VARY EA BY 2′-7¾" |
| EA10107 | 10 | 1 | 25′-2" | STR | | | | | | | BEND IN FIELD |
| EA10108 | 10 | 1 | 22′-4½" | 66 | 6′-0½" | 16′-4" | 3′-10½" | | | | RADIUS 33′-9" |




| DES: EEM | CKD: LTS | DWG: EEM/LTS | CKD: MEM |
|---|---|---|---|

## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 4 |
| 4. ABUT 1 APPROACH SLAB | 107 |
| 5. ABUT 1 APPROACH SLAB DETAILS | 108 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 1 APPR SLAB REINF SCHEDULE

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SHEET 109 OF 130

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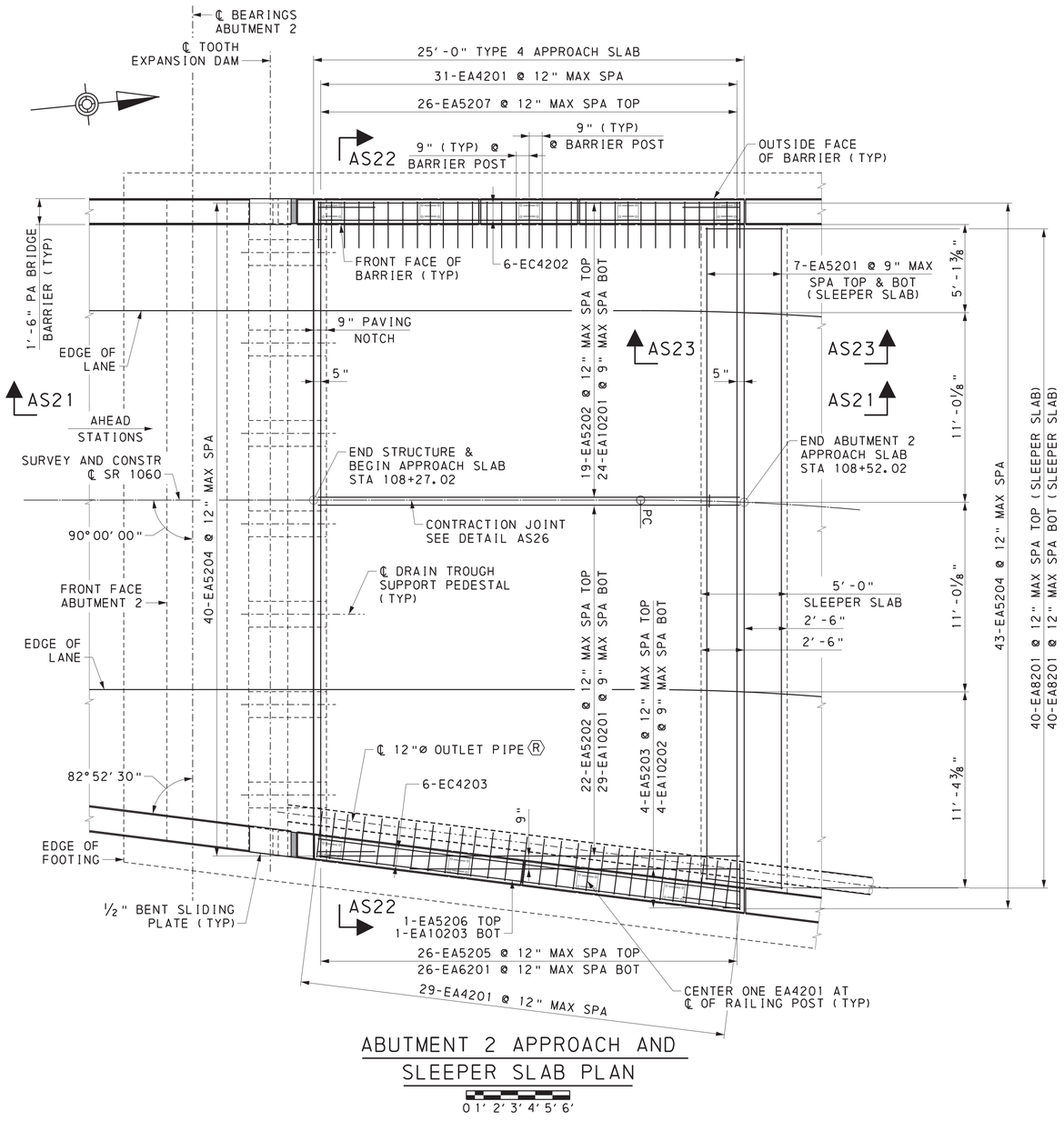


## ABUTMENT 2 APPROACH AND SLEEPER SLAB PLAN

0 1' 2' 3' 4' 5' 6'

## TOP OF APPROACH SLAB ELEVATIONS AT BREAK POINTS

| LOCATION | STATION | A | B | PG | C | D |
|---|---|---|---|---|---|---|
| BEG APPROACH SLAB | 108+27.02 | 863.34 | 863.44 | 863.43 | 863.21 | 862.87 |
| 10 FT LOCATION | 108+30.00 | 863.33 | 863.43 | 863.40 | 863.18 | 862.83 |
| 10 FT LOCATION | 108+40.00 | 863.29 | 863.39 | 863.28 | 863.06 | 862.66 |
| 10 FT LOCATION | 108+50.00 | 863.24 | 863.35 | 863.17 | 862.95 | 862.51 |
| END LT GUTTER LINE | 108+51.42 | 863.24 | 863.34 | 863.16 | 862.94 | 862.49 |
| END LT SHLDR/LANE LINE | 108+51.60 | --- | 863.34 | 863.15 | 862.93 | 862.48 |
| END APPROACH SLAB | 108+52.02 | --- | --- | 863.15 | 862.93 | 862.48 |
| END RT SHLDR/LANE LINE | 108+52.52 | --- | --- | --- | 862.92 | 862.47 |
| END RT GUTTER LINE | 108+53.13 | --- | --- | --- | --- | 862.46 |

## LEGEND:

ES EACH SIDE
E EPOXY COATED BARS
Ⓡ ROADWAY ITEM

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. BARRIER DETAILS | 91-93 |
| 5. ABUT 2 TOOTH DAM PLAN & ELEVATION | 104 |
| 6. ABUT 2 TOOTH DAM DETAILS | 105 |
| 7. ABUT 2 APPROACH SLAB DETAILS | 111 |
| 8. ABUT 2 APPR SLAB REINF SCHEDULE | 112 |

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

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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

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# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUT 2 APPROACH SLAB

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SHEET 110 OF 130

S - 39414

DES: EEM | CKD: LTS | DWG: EEM/LTS | CKD: MEM

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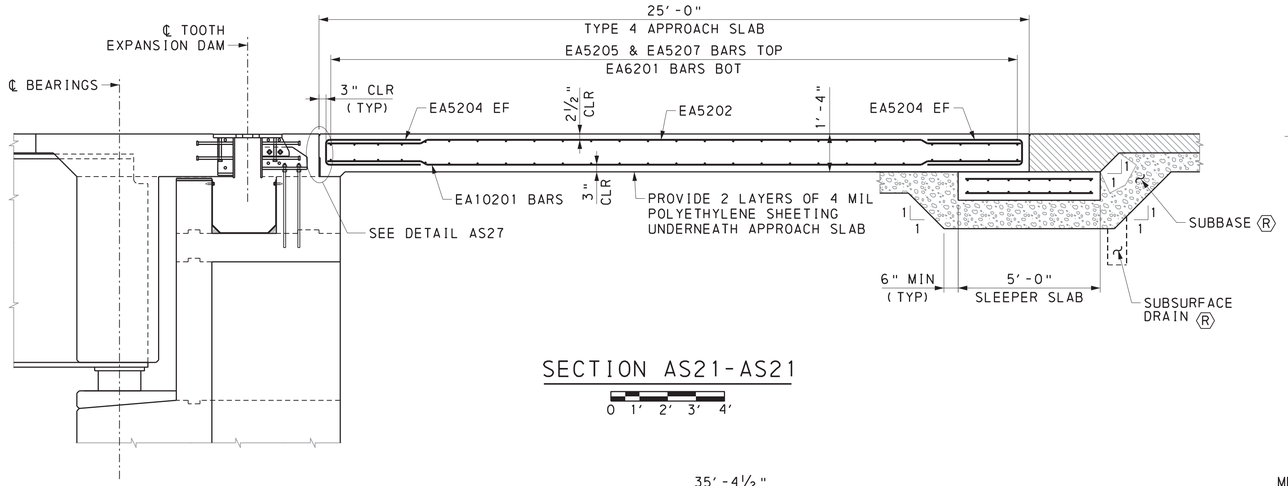
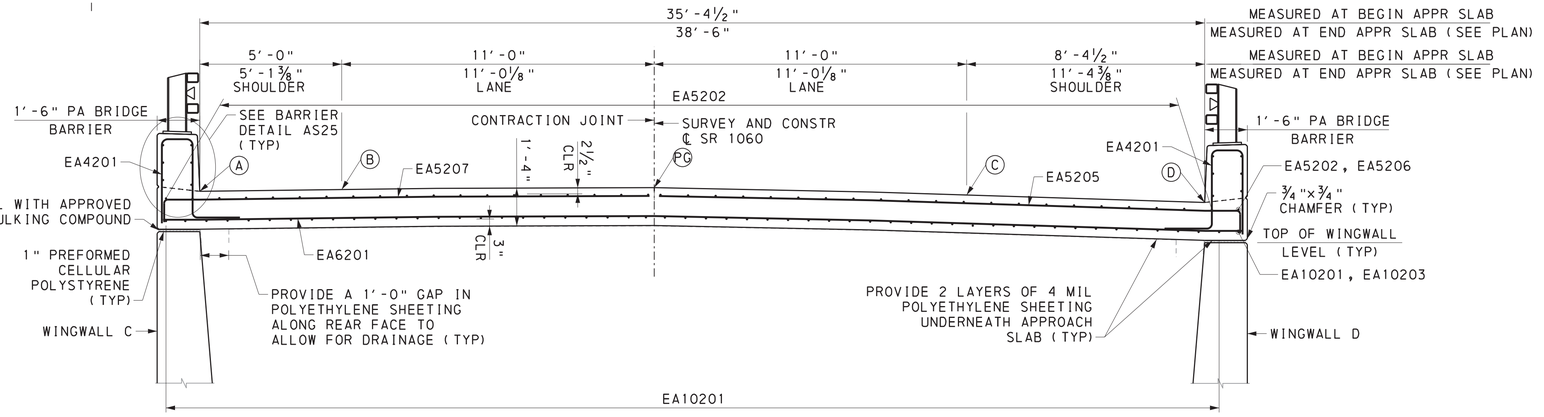



## SECTION AS21-AS21

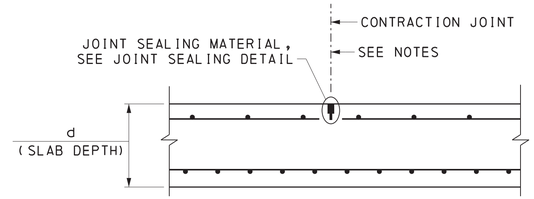
0 1′ 2′ 3′ 4′




## SECTION AS22-AS22

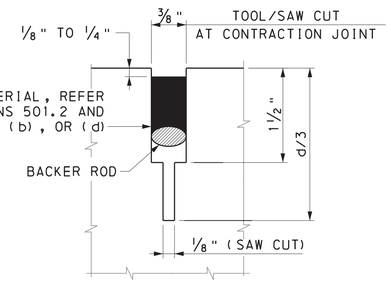
(SHOWN AT BEGIN APPROACH SLAB)
LOOKING AHEAD STATIONS

0 1′ 2′ 3′ 4′




NOTES:

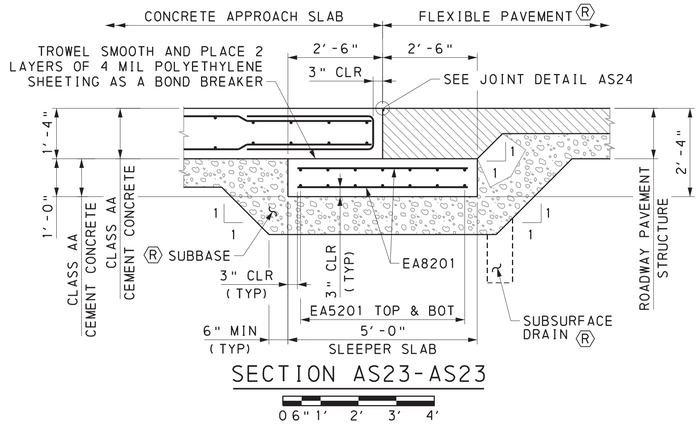
1. TOP REINFORCEMENT NOT CONTINUOUS THRU JOINT.
2. BOTTOM REINFORCEMENT CONTINUOUS THRU JOINT.




JOINT SEALING DETAIL

## DETAIL AS26 - CONTRACTION JOINT

(NOT TO SCALE)




## SECTION AS23-AS23

0 6" 1′ 2′ 3′ 4′

LEGEND:

| | |
|---|---|
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| Ⓡ | ROADWAY ITEM |

REFERENCES:

| | |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. ABUT 2 TOOTH DAM PLAN & ELEVATION | 104 |
| 5. ABUT 2 TOOTH DAM DETAILS | 105 |
| 6. ABUT 2 APPROACH SLAB PLAN | 110 |
| 7. ABUT 2 APPR SLAB REINF SCHEDULE | 112 |

SHEET:

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

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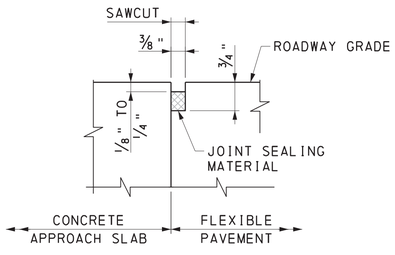
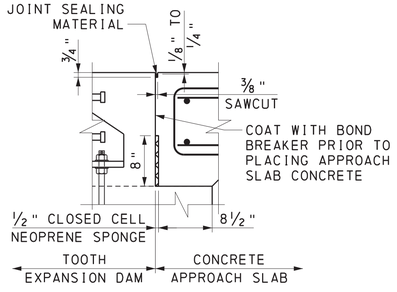
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409



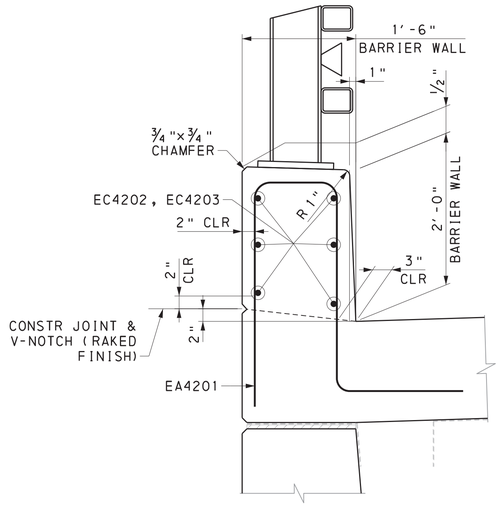

## JOINT DETAIL AS24

(NOT TO SCALE)




## JOINT DETAIL AS27

0 3 6 9 1′ 2′




## BARRIER DETAIL AS25

0 3 6 9 1′ 2′

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DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## ABUT 2 APPROACH SLAB DETAILS

RECOMMENDED _____

SHEET 111 OF 130

S - 39414

DES: EEM | CKD: LTS | DWG: EEM/LTS | CKD: MEM

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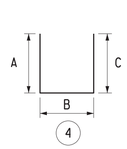
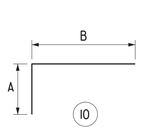
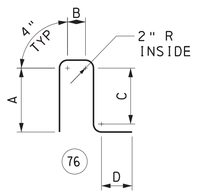
# ABUTMENT 2 APPROACH SLAB REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EA4201 | 4 | 60 | 7′-3 ½" | 76 | 2′-2 ½" | 8" | 1′-11" | 1′-6" | | | |
| EC4202 | 4 | 6 | 24′-6" | STR | | | | | | | |
| EC4203 | 4 | 6 | 24′-8" | STR | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EA5201 | 5 | 14 | 37′-10 ½" TO 38′-5 ¼" | STR | | | | | | | VARY 2 SETS OF 7 BY 1⅛" |
| EA5202 | 5 | 41 | 24′-6" | STR | | | | | | | |
| EA5203 | 5 | 4 | 1′-2" TO 19′-0" | STR | | | | | | | VARY EA BAR BY 5′-11⅝(d+)" |
| EA5204 | 5 | 83 | 7′-6 ½" | 4 | 3′-4" | 10 ½" | 3′-4" | | | | |
| EA5205 | 5 | 26 | 21′-2⅝" TO 24′-4 ⅛" | 10 | 10" | 20′-4⅝" TO 23′-6 ⅛" | | | | | VARY EA B BY 1½" |
| EA5206 | 5 | 1 | 24′-8" | STR | | | | | | | |
| EA5207 | 5 | 26 | 18′-0" | 10 | 10" | 17′-2" | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EA6201 | 6 | 26 | 38′-0 ½" TO 41′-2" | STR | | | | | | | VARY EA B BY 1½" |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EA8201 | 8 | 80 | 4′-6" | STR | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| EA10201 | 10 | 53 | 24′-6" | STR | | | | | | | |
| EA10202 | 10 | 4 | 1′-2" TO 19′-0" | STR | | | | | | | VARY EA BAR BY 5′-11⅝(d+)" |
| EA10203 | 10 | 1 | 24′-8" | STR | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |




## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

| REFERENCES: | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. ABUT 2 APPROACH SLAB | 110 |
| 5. ABUT 2 APPROACH SLAB DETAILS | 111 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

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WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
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3 SPAN CONT COMP STEEL PLATE GIRDER
ABUT 2 APPR SLAB REINF SCHEDULE

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REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

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SHEET 112 OF 130

S - 39414

DES: EEM | CKD: LTS | DWG: EEM/LTS | CKD: MEM

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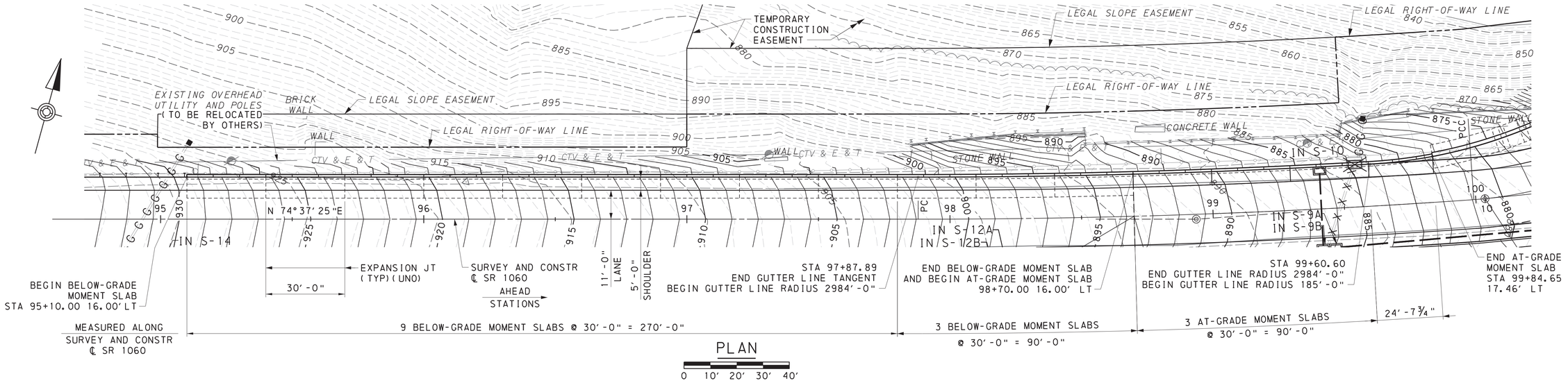
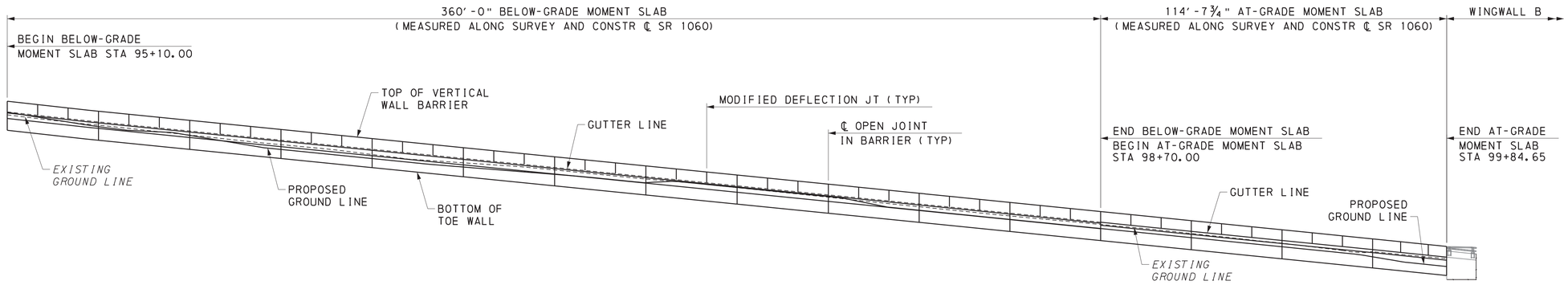



PLAN

0 10' 20' 30' 40'




DATUM 870.00

ELEVATION

0 10' 20' 30' 40'

## HORIZONTAL CURVE DATA SR 1060

| | |
|---|---|
| PI STA 98+93.60 | PI STA 100+90.56 |
| △=4°02'11" LT | △=64°46'04" LT |
| D=1°54'35" | D=39°47'19" |
| T=105.71' | T=91.33' |
| L=211.34' | L=162.78' |
| R=3000.00' | R=144.00' |
| E=1.86' | E=26.52' |
| SE=NORMAL CROWN | SE=2.0% |
| PC STA 97+87.89 | PCC STA 99+99.23 |
| PCC STA 99+99.23 | PT STA 101+62.01 |

## VERTICAL CURVE DATA SR 1060

-6.88% to -10.00%

PVI STA = 93+60.00
PVI ELEV = 944.72
VC = 60.00'
MO = -0.23'

-10.00% to -1.12%

PVI STA = 100+90.00
PVI ELEV = 871.72
VC = 240.00'
MO = 2.66'

-1.12% to +1.56%

PVI STA = 109+55.00
PVI ELEV = 861.99
VC = 130.00'
MO = 0.44'

## LEGEND:

EXISTING CONTOURS (1'-0" INTERVALS)
PROPOSED CONTOURS (1'-0" INTERVALS)

## REFERENCES:

1. SUPPLEMENTAL DRAWINGS
2. INDEX OF DRAWINGS
3. GENERAL NOTES 1 & 2
4. MOMENT SLAB STAKE-OUT PLAN
5. WORK THIS SHEET WITH SHEETS

## SHEET:

| | |
|---|---|
| 1 | |
| 3 | |
| 4 & 5 | |
| 114 | |
| 115-120 | |

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| Mark | Description | By | Chk'd. | Recm'd. | Date |
|---|---|---|---|---|---|
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BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

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# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER MOMENT SLAB PLAN & ELEVATION

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SHEET 113 OF 130

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DES: EEM | CKD: JWB | DWG: EEM | CKD: JWB

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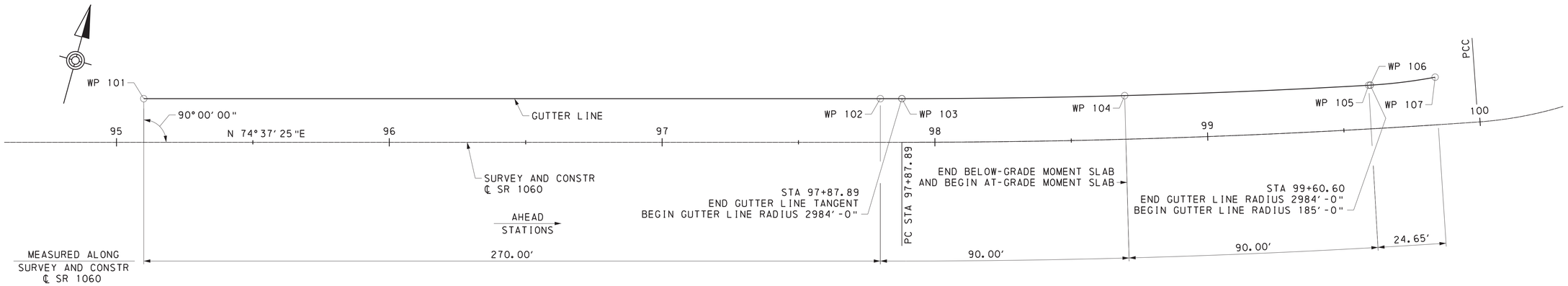


## STAKE-OUT PLAN

0 10′ 20′ 30′ 40′

### STAKE-OUT PLAN WORK POINTS

| WORK POINT | STATION | OFFSET | NORTHING | EASTING |
|---|---|---|---|---|
| WP 101 | 95+10.00 | 16.00′ LT | 438238.6449 | 1482963.3463 |
| WP 102 | 97+80.00 | 16.00′ LT | 438310.2372 | 1483223.6818 |
| WP 103 | 97+87.89 | 16.00′ LT | 438312.3293 | 1483231.2897 |
| WP 104 | 98+70.00 | 16′ 00′ LT | 438335.0600 | 1483309.7318 |
| WP 105 | 99+60.00 | 16.00′ LT | 438362.4306 | 1483394.9615 |
| WP 106 | 99+60.60 | 16.00′ LT | 438362.6214 | 1483395.5260 |
| WP 107 | 99+84.65 | 17.46′ LT | 438371.7458 | 1483417.6776 |

REFERENCES:

1. SUPPLEMENTAL DRAWINGS
2. INDEX OF DRAWINGS
3. GENERAL NOTES 1 & 2
4. MOMENT SLAB PLAN & ELEVATION

SHEET:

1
3
4 & 5
113

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER &**
**NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## MOMENT SLAB STAKE-OUT PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 114 OF 130

S - 39414

DES: EEM | CKD: JWB | DWG: EEM | CKD: JWB

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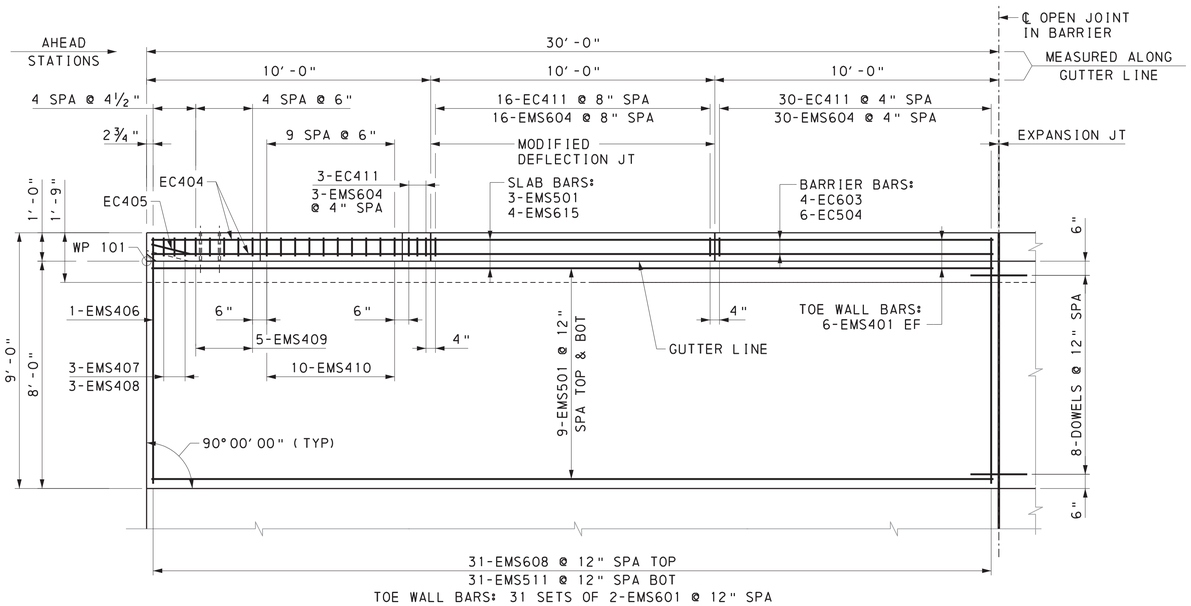
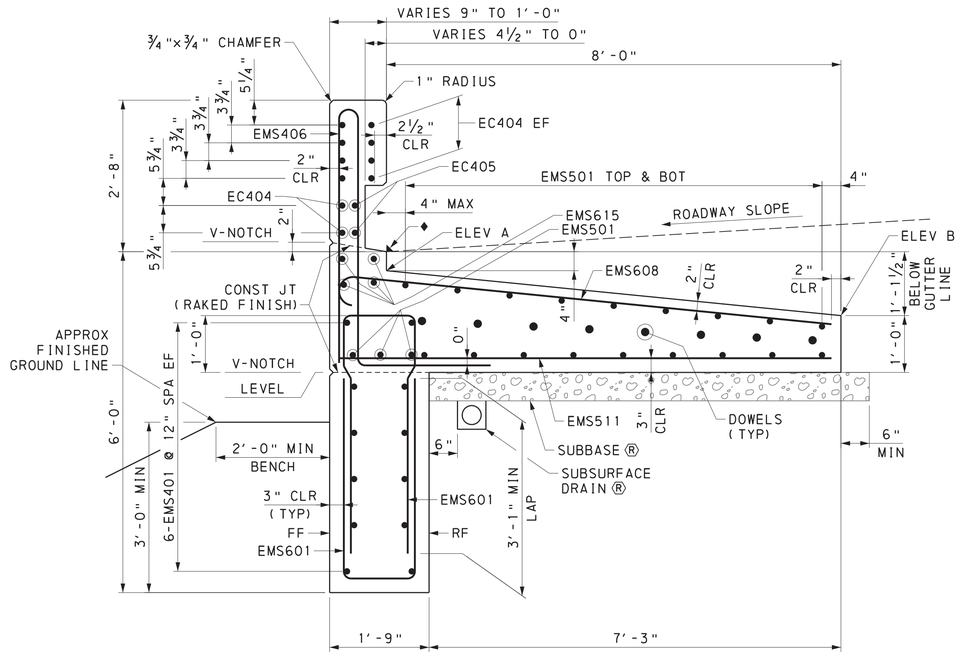



PLAN
BELOW-GRADE MOMENT SLAB
(STA 95+10.00 TO STA 95+40.00)
0 1' 2' 3' 4'



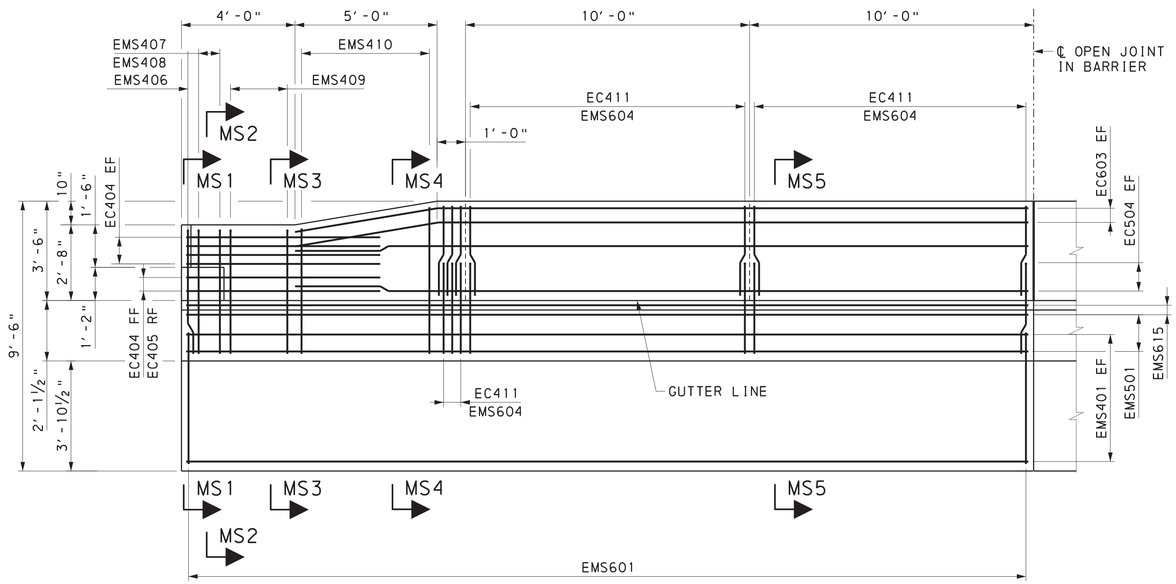

SECTION MS1-MS1
0 6 1' 2'

## LEGEND:

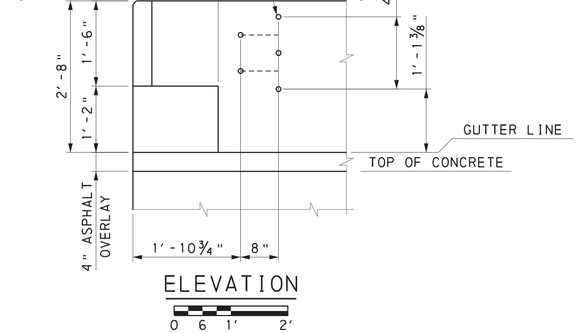
| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| Ⓡ | ROADWAY ITEM |
| ◆ | ASPHALT RUBBER SEALING COMPOUND [PUB. 408, SECTION 705.4(g)] |

## NOTES:

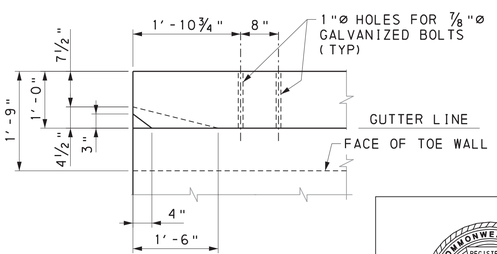
1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. SEE BC-752M FOR BARRIER OPEN JOINT AND MODIFIED DEFLECTION JOINT DETAILS.
3. SEE RC-20M AND RC-27M FOR MOMENT SLAB EXPANSION JOINT DETAILS. DO NOT USE NEOPRENE COMPRESSION SEAL.




ELEVATION
BELOW-GRADE MOMENT SLAB
SHOWN AT GUTTER LINE FACE
(STA 95+10.00 TO STA 95+40.00)
0 1' 2' 3' 4'




ELEVATION
0 6 1' 2'




SECTION MS11-MS11
0 6 1' 2'

VERTICAL WALL @
END TRANSITION

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. SECTIONS MS2-MS2 THRU MS5-MS5 | 116 |
| 5. MOMENT SLAB REINF BAR SCHEDULE | 121 |

| DES: EEM | CKD: JWB | DWG: EEM | CKD: JWB |
|---|---|---|---|

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER MOMENT SLAB DETAILS 1

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JUSTIN WILLIAM BOUSCHER
ENGINEER
PE062832

RECOMMENDED _____

SHEET 115 OF 130

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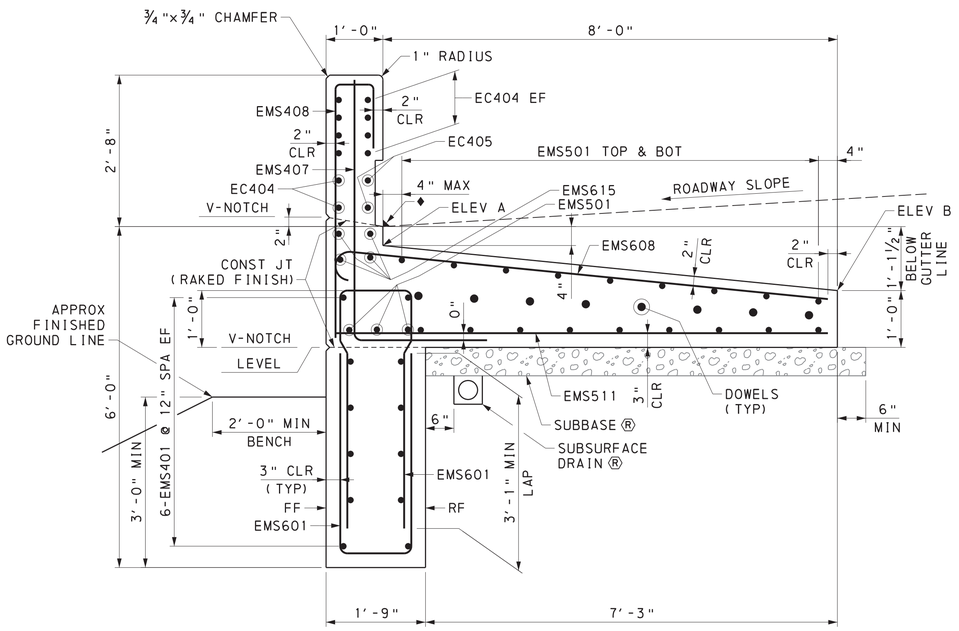
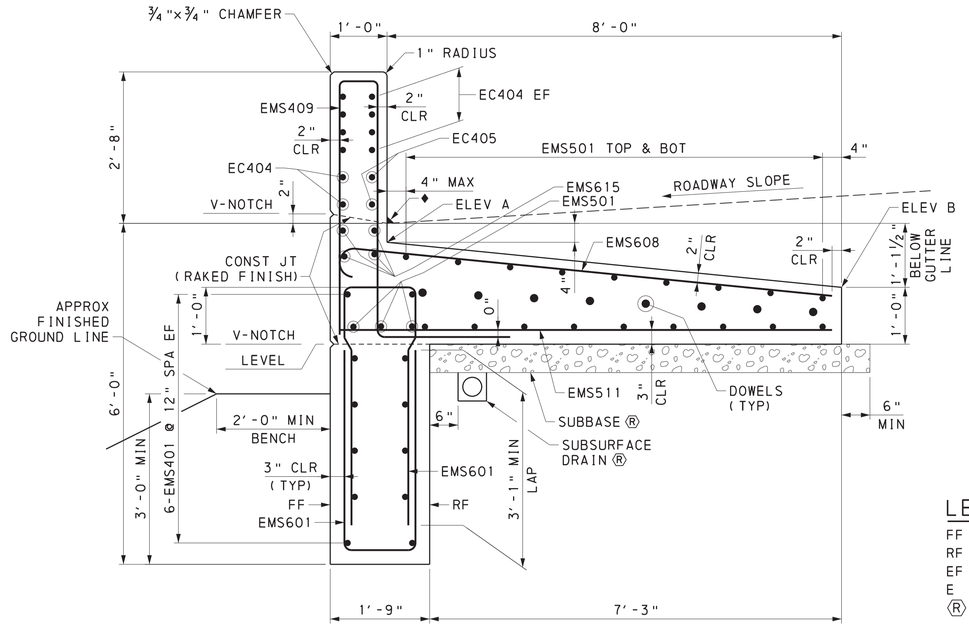


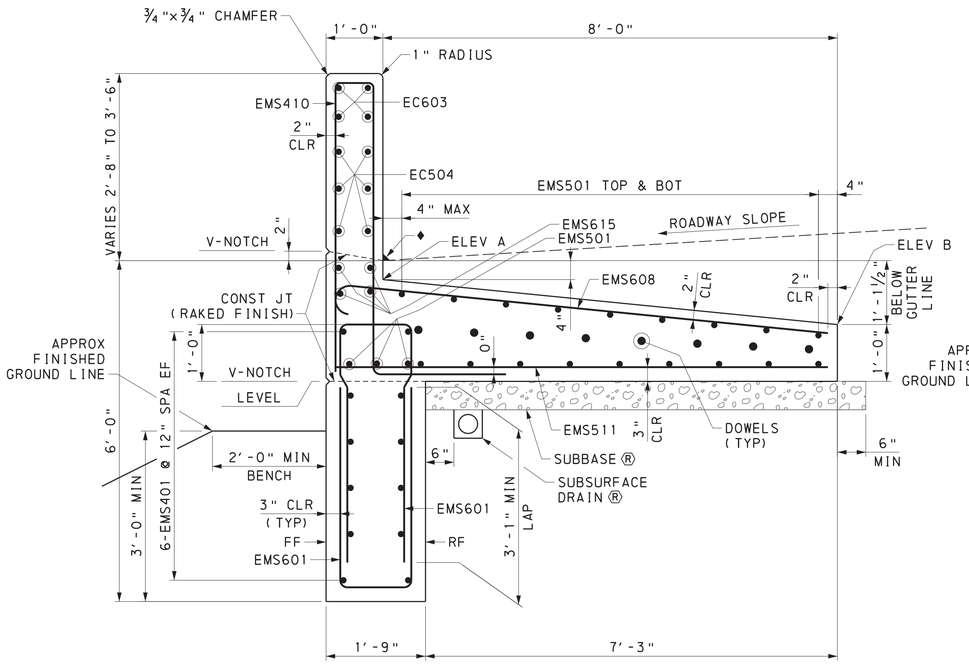

## SECTION MS2-MS2

0 6 1' 2'



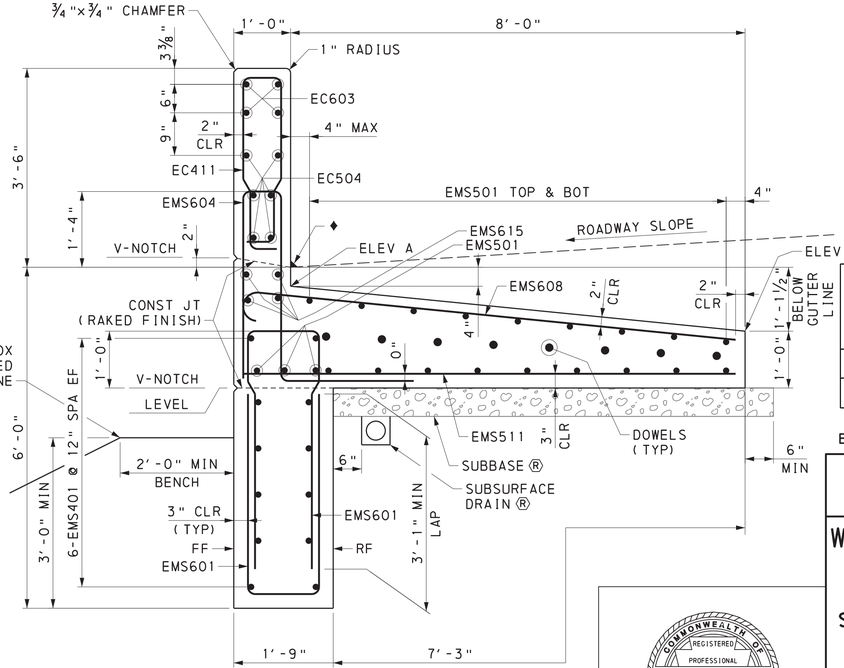

## SECTION MS3-MS3

0 6 1' 2'




## SECTION MS4-MS4

0 6 1' 2'




## SECTION MS5-MS5

0 6 1' 2'

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| Ⓡ | ROADWAY ITEM |
| ♦ | ASPHALT RUBBER SEALING COMPOUND [PUB. 408, SECTION 705.4(g)] |

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. LOCATION SECTIONS MS2-MS2 THRU MS5-MS5 | 115 |
| 5. MOMENT SLAB REINF BAR SCHEDULE | 121 |


## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. SEE BC-752M FOR BARRIER OPEN JOINT AND MODIFIED DEFLECTION JOINT DETAILS.
3. SEE RC-20M AND RC-27M FOR MOMENT SLAB EXPANSION JOINT DETAILS. DO NOT USE NEOPRENE COMPRESSION SEAL.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## MOMENT SLAB DETAILS 2

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER PE062832

RECOMMENDED _____

SHEET 116 OF 130

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| DES: EEM | CKD: JWB | DWG: EEM | CKD: JWB |
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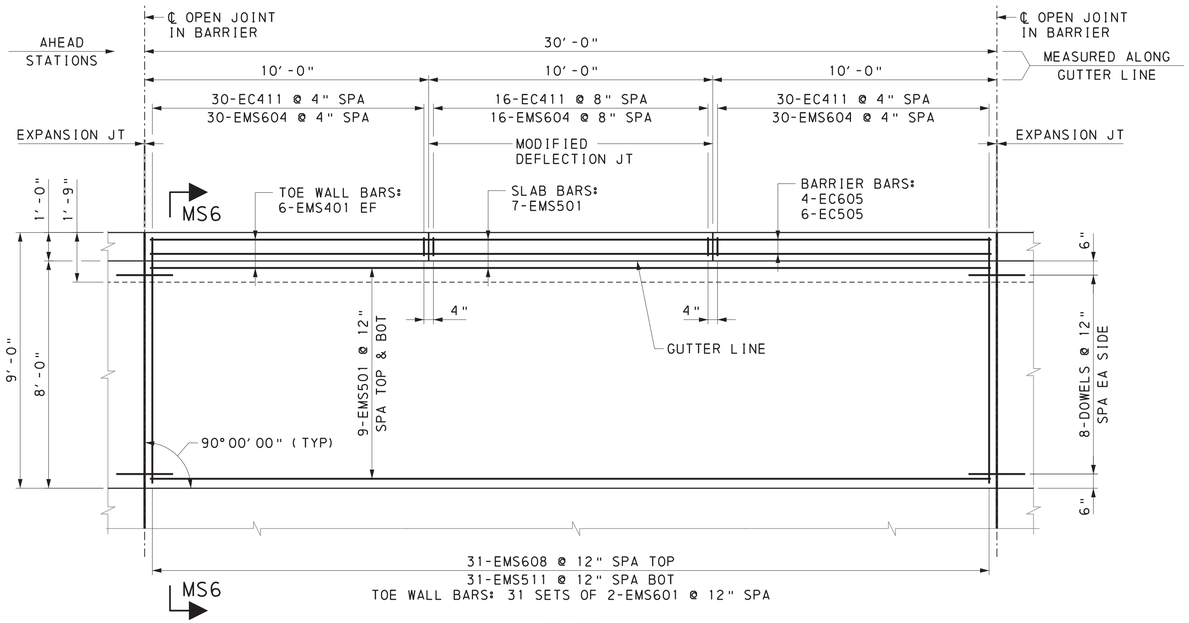
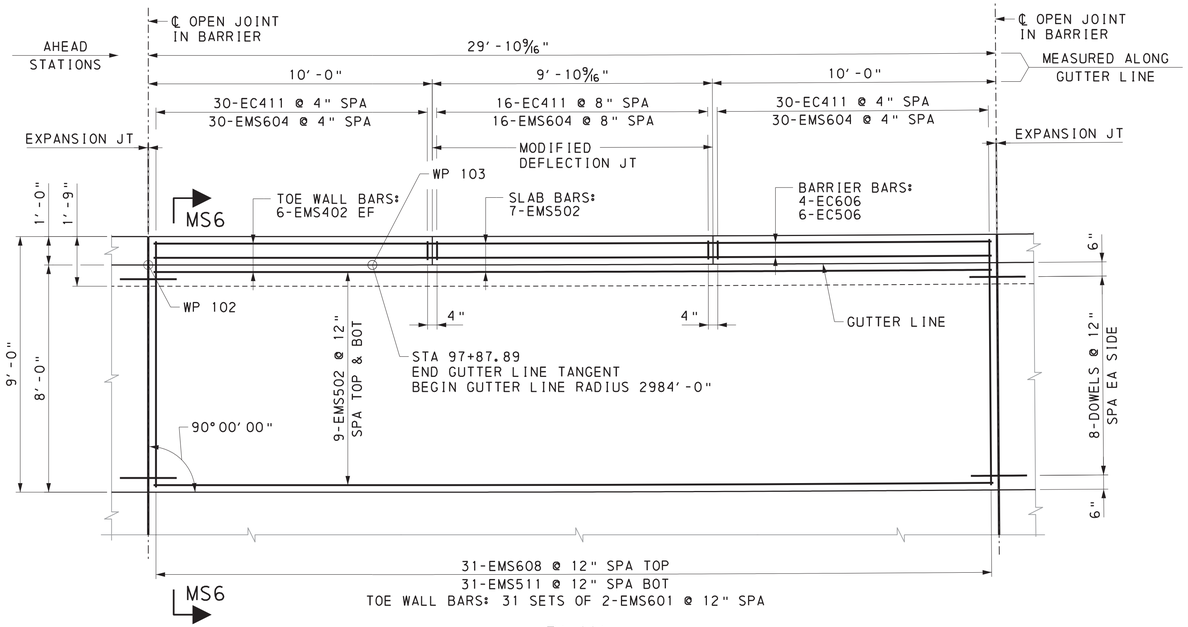



PLAN

BELOW-GRADE MOMENT SLAB

(STA 95+40.00 TO STA 97+80.00)

0 1' 2' 3' 4'

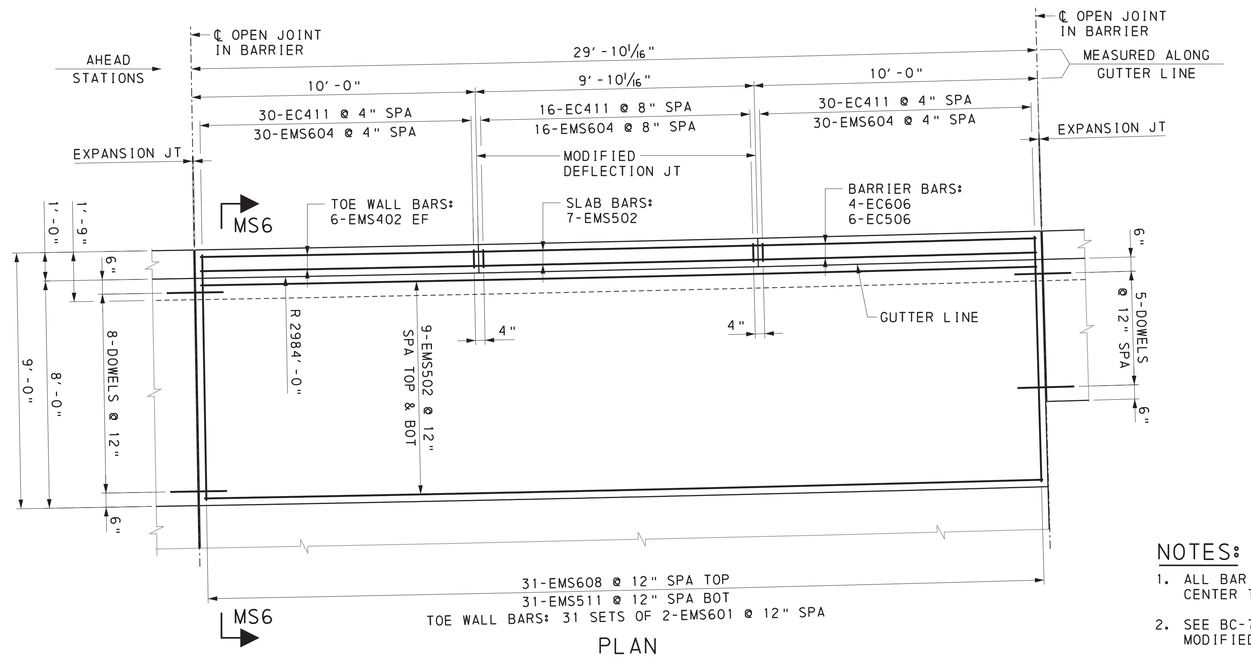



PLAN

BELOW-GRADE MOMENT SLAB

(STA 97+80.00 TO STA 98+10.00)

0 1' 2' 3' 4'




PLAN

BELOW-GRADE MOMENT SLAB

(STA 98+10.00 TO 98+40.00 SIMILAR)
(STA 98+40.00 TO STA 98+70.00 SHOWN)

0 1' 2' 3' 4'

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. SEE BC-752M FOR BARRIER OPEN JOINTS AND MODIFIED DEFLECTION JOINT DETAILS.
3. SEE RC-20M AND RC-27M FOR MOMENT SLAB EXPANSION JOINT DETAILS. DO NOT USE NEOPRENE COMPRESSION SEAL.

## LEGEND:

EF EACH FACE
E EPOXY COATED BARS

## REFERENCES:


| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. SECTION MS6-MS6 | 119 |
| 5. MOMENT SLAB REINF BAR SCHEDULE | 121 |


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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER MOMENT SLAB DETAILS 3

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER PE062832

RECOMMENDED _____

SHEET 117 OF 130

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| DES: EEM | CKD: JWB | DWG: EEM | CKD: JWB |
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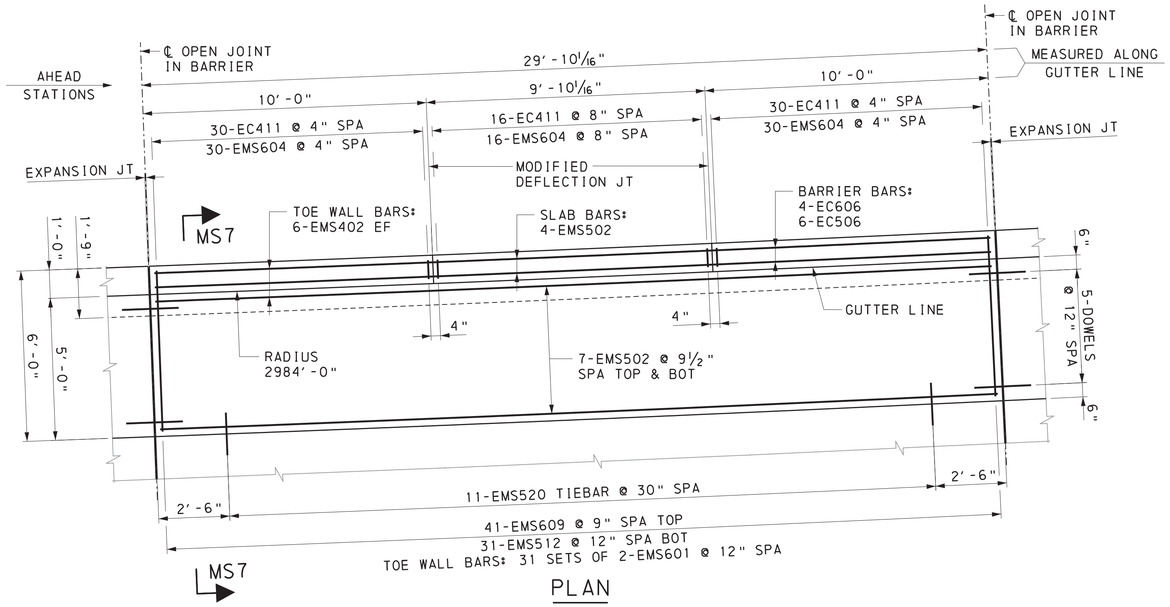
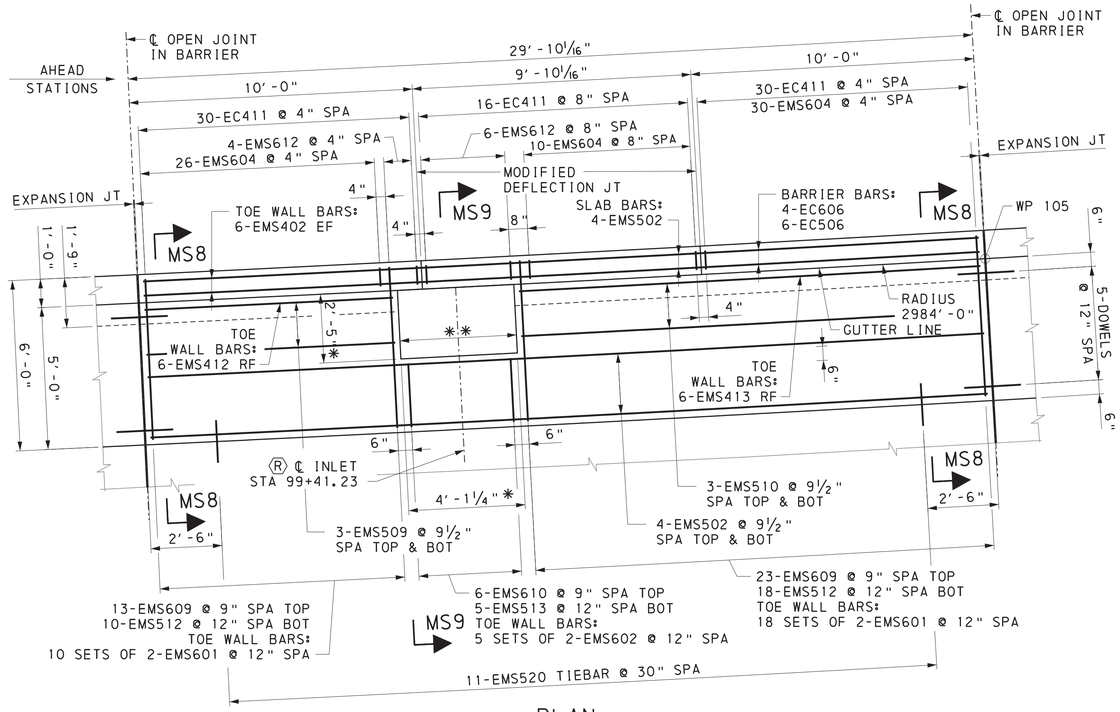



PLAN

AT-GRADE MOMENT SLAB

(STA 98+70.00 TO 99+00.00 SIMILAR)
(STA 99+00.00 TO STA 99+30.00 SHOWN)

0 1′ 2′ 3′ 4′




* APPROXIMATE MOMENT SLAB BLOCKOUT FOR ROADWAY INLET

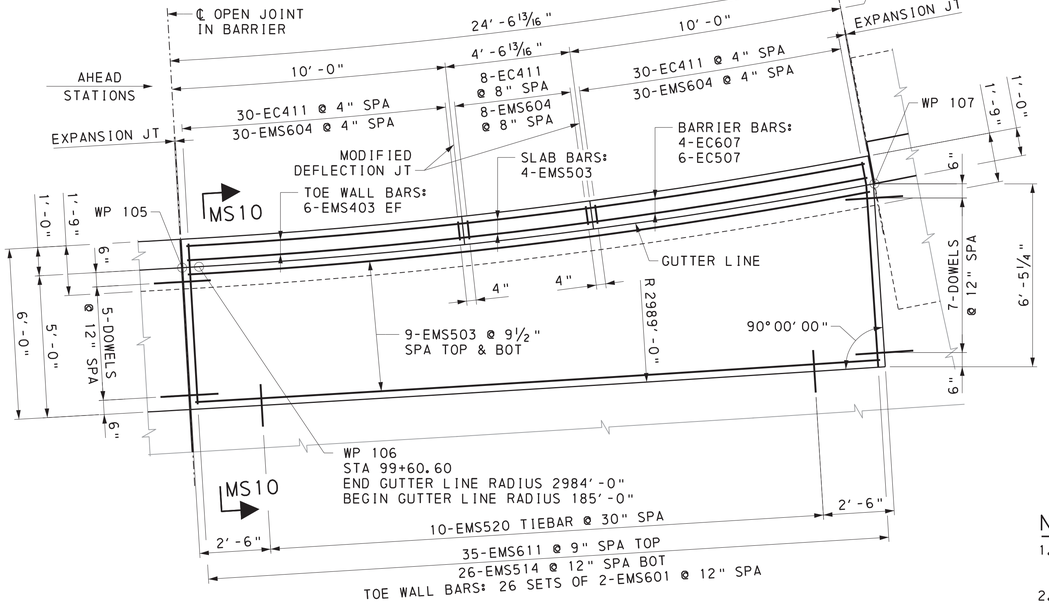
** SEE INLET REINFORCEMENT DETAIL

PLAN

AT-GRADE MOMENT SLAB

(STA 99+30.00 TO 99+60.00)

0 1′ 2′ 3′ 4′

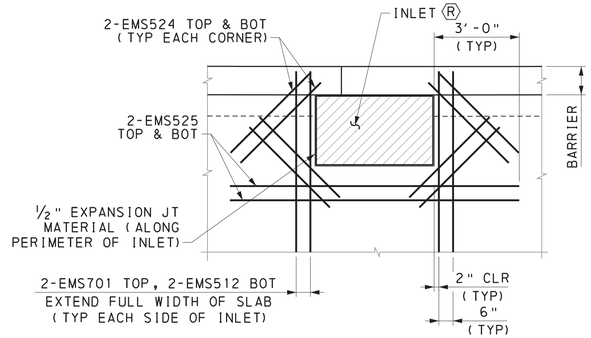



PLAN

AT-GRADE MOMENT SLAB

STA 99+60.00 TO 99+84.65

0 1′ 2′ 3′ 4′




INLET REINFORCING DETAIL

0 1′ 2′ 3′ 4′

## LEGEND:

| | |
|---|---|
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| ES | EQUAL SPACE |
| ℞ | ROADWAY ITEM |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. SEE BC-752M FOR BARRIER OPEN JOINT AND MODIFIED DEFLECTION JOINT DETAILS.
3. SEE RC-20M AND RC-27M FOR MOMENT SLAB EXPANSION JOINT DETAILS. DO NOT USE NEOPRENE COMPRESSION SEAL.
4. USE LONGITUDINAL SHOULDER CONSTRUCTION JOINT WITH NO KEYWAY AS PER RC-20M SHEET 2 OF 15 BETWEEN AT-GRADE MOMENT SLAB AND PCCP.

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. SECTIONS MS7-MS7 THRU MS9-MS9 | 119 |
| 5. SECTION MS10-MS10 | 120 |
| 6. MOMENT SLAB REINF BAR SCHEDULE | 121 |
| 7. WING B BARRIER DETAILS 2 | 34 |

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER MOMENT SLAB DETAILS 4

RECOMMENDED _____

SHEET 118 OF 130

S - 39414

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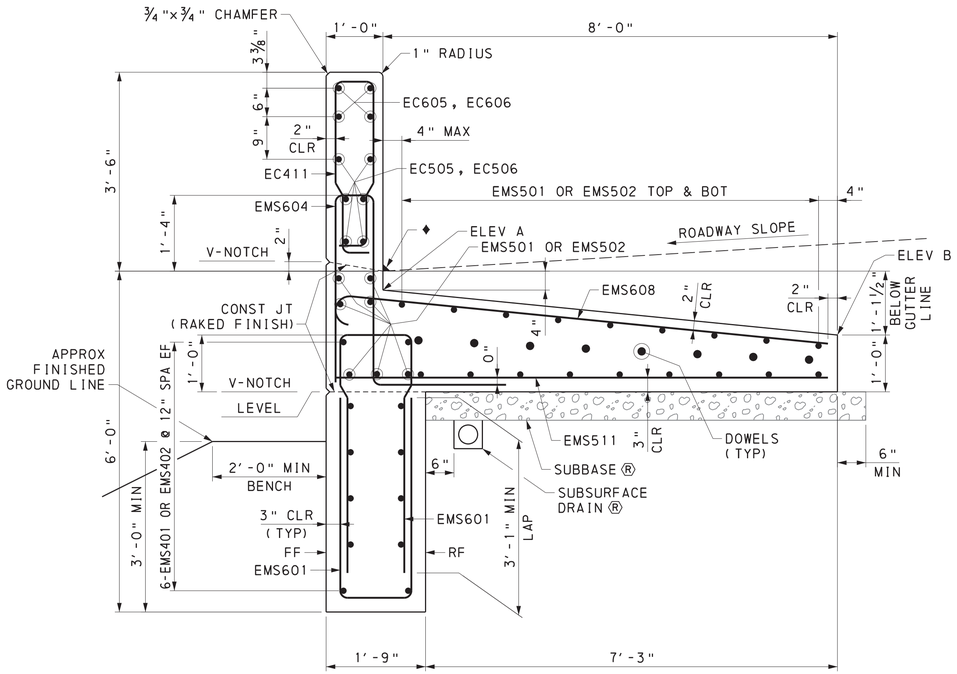
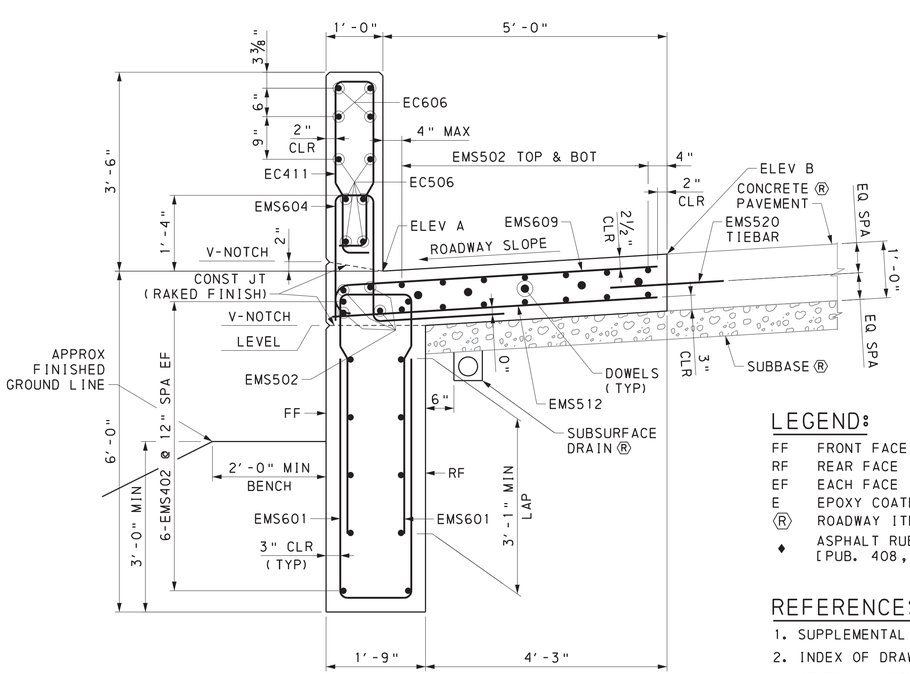



SECTION MS6-MS6

0 6 1' 2'




SECTION MS7-MS7

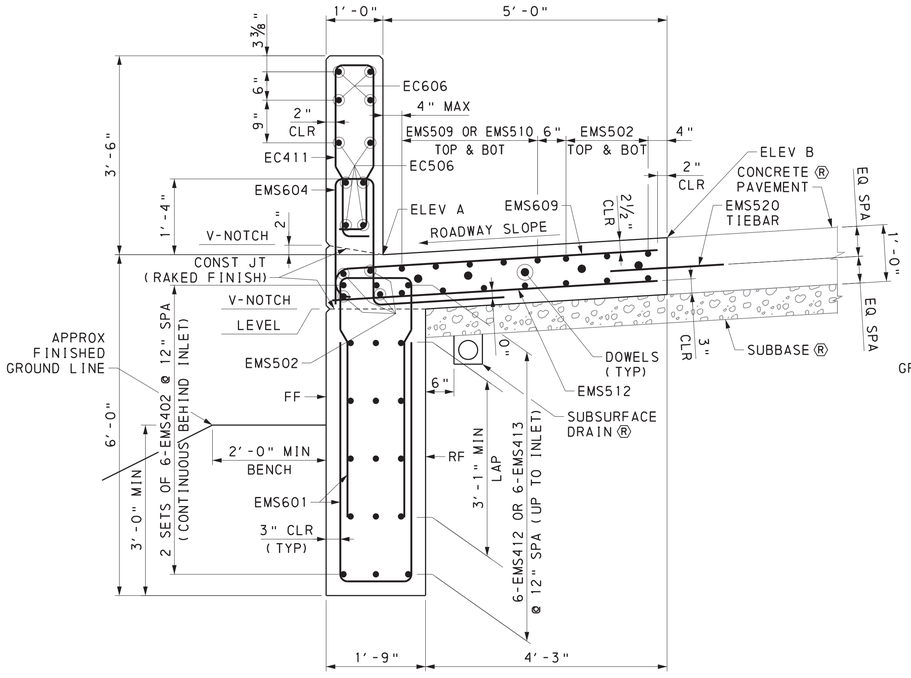
0 6 1' 2'

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| Ⓡ | ROADWAY ITEM |
| ♦ | ASPHALT RUBBER SEALING COMPOUND [PUB. 408, SECTION 705.4(g)] |

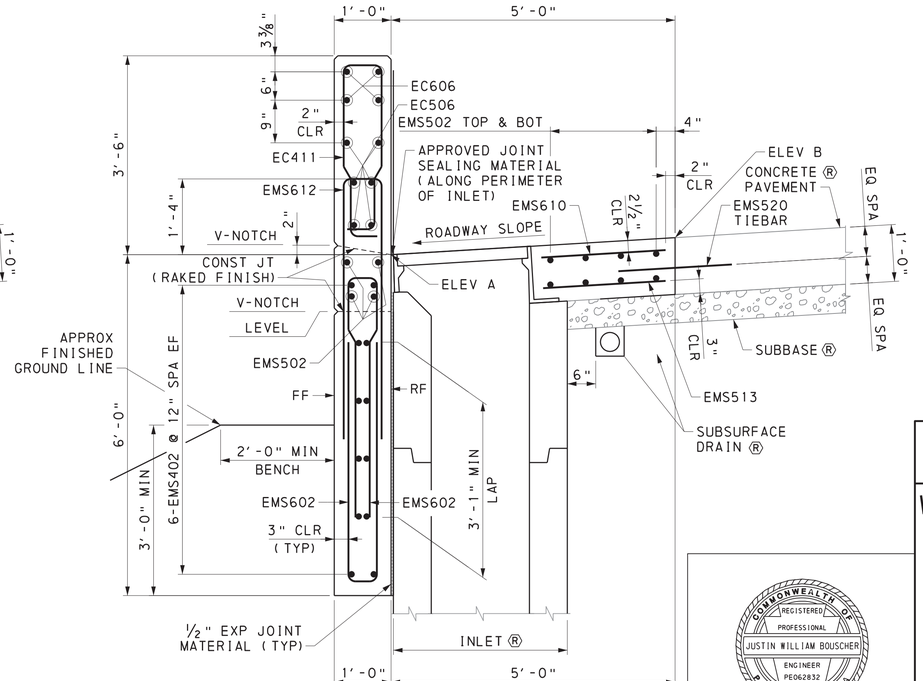
## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES | 4 & 5 |
| 4. LOCATION OF MS6-MS6 | 117 |
| 5. LOCATION OF MS7-MS7 THRU MS9-MS9 | 118 |




SECTION MS8-MS8

0 6 1' 2'




SECTION MS9-MS9

0 6 1' 2'

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. SEE BC-752M FOR BARRIER OPEN JOINT AND MODIFIED DEFLECTION JOINT DETAILS.
3. SEE RC-20M AND RC-27M FOR MOMENT SLAB EXPANSION JOINT DETAILS. DO NOT USE NEOPRENE COMPRESSION SEAL.
4. USE LONGITUDINAL SHOULDER CONSTRUCTION JOINT WITH NO KEYWAY AS PER RC-20M SHEET 2 OF 15 BETWEEN AT-GRADE MOMENT SLAB AND PCCP.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## MOMENT SLAB DETAILS 5

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 119 OF 130

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| DES: EEM | CKD: JWB | DWG: EEM | CKD: JWB |
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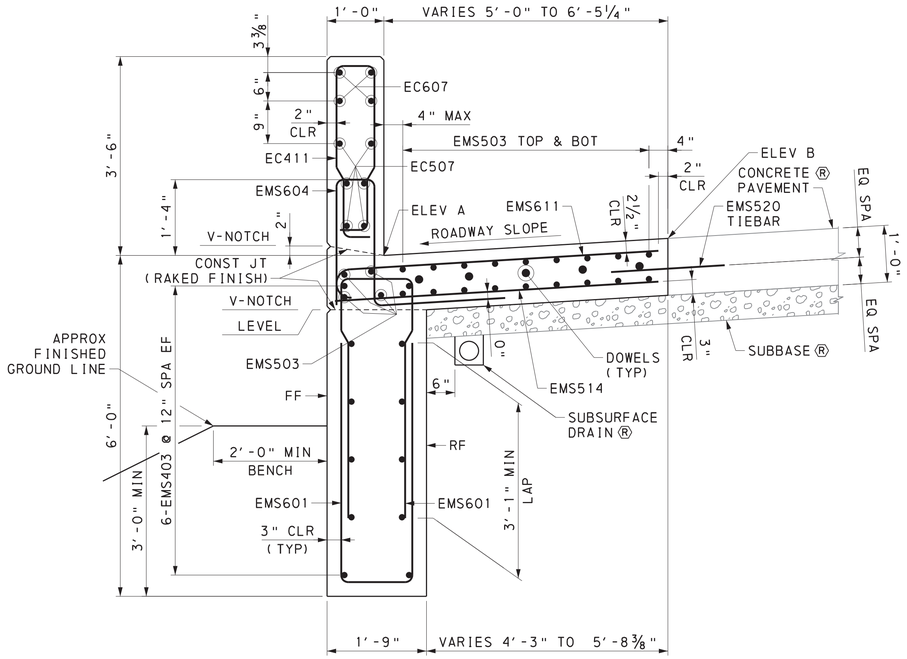
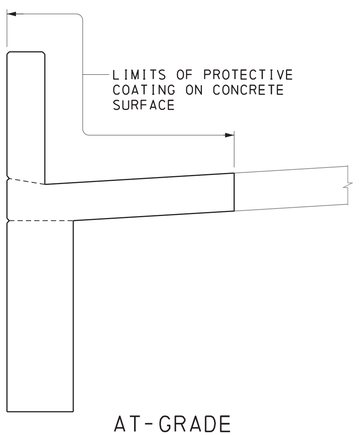


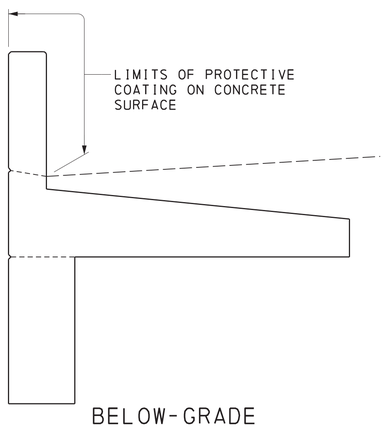

## SECTION MS10-MS10

0 6 1' 2'




## AT-GRADE PROTECTIVE COATING LIMITS

NOT TO SCALE




## BELOW-GRADE PROTECTIVE COATING LIMITS

NOT TO SCALE

## LEGEND:

| | |
|---|---|
| FF | FRONT FACE |
| RF | REAR FACE |
| EF | EACH FACE |
| E | EPOXY COATED BARS |
| Ⓡ | ROADWAY ITEM |

## TOP OF MOMENT SLAB ELEVATIONS AT GUTTERLINE, FREE EDGE, AND PG AT TRANSVERSE JOINTS

| LOCATION | STATION | A | B | PG |
|---|---|---|---|---|
| BEGIN BELOW-GRADE | 95+10.00 | 929.13 | 928.34 | 929.72 |
| 30 FT DOWELED JOINT | 95+40.00 | 925.86 | 925.07 | 926.72 |
| 30 FT DOWELED JOINT | 95+70.00 | 922.86 | 922.07 | 923.72 |
| 30 FT DOWELED JOINT | 96+00.00 | 919.86 | 919.07 | 920.72 |
| 30 FT DOWELED JOINT | 96+30.00 | 916.86 | 916.07 | 917.72 |
| 30 FT DOWELED JOINT | 96+60.00 | 913.86 | 913.07 | 914.72 |
| 30 FT DOWELED JOINT | 96+90.00 | 910.86 | 910.07 | 911.72 |
| 30 FT DOWELED JOINT | 97+20.00 | 907.86 | 907.07 | 908.72 |
| 30 FT DOWELED JOINT | 97+50.00 | 904.87 | 904.07 | 905.72 |
| 30 FT DOWELED JOINT | 97+80.00 | 901.87 | 901.07 | 902.72 |
| 30 FT DOWELED JOINT | 98+10.00 | 898.87 | 898.07 | 899.72 |
| 30 FT DOWELED JOINT | 98+40.00 | 895.87 | 895.07 | 896.72 |
| END BELOW-GRADE | 98+70.00 | 892.87 | 892.07 | 893.72 |
| BEGIN AT-GRADE | 98+70.00 | 893.20 | 893.50 | 893.72 |
| 30 FT DOWELED JOINT | 99+00.00 | 890.20 | 890.50 | 890.72 |
| 30 FT DOWELED JOINT | 99+30.00 | 887.20 | 887.50 | 887.72 |
| 30 FT DOWELED JOINT | 99+60.00 | 884.20 | 884.50 | 884.72 |
| END AT-GRADE | 99+84.65 | 881.69 | 882.07 | 882.29 |

## REFERENCES:

| | SHEET: |
|---|---|
| 1. SUPPLEMENTAL DRAWINGS | 1 |
| 2. INDEX OF DRAWINGS | 3 |
| 3. GENERAL NOTES 1 & 2 | 4 & 5 |
| 4. LOCATION OF MS10-MS10 | 118 |

## NOTES:

1. ALL BAR SPACINGS INDICATED ARE MAXIMUMS CENTER TO CENTER OF BARS.
2. SEE BC-752M FOR BARRIER OPEN JOINT AND MODIFIED DEFLECTION JOINT DETAILS.
3. SEE RC-20M AND RC-27M FOR MOMENT SLAB EXPANSION JOINT DETAILS. DO NOT USE NEOPRENE COMPRESSION SEAL.
4. USE LONGITUDINAL SHOULDER CONSTRUCTION JOINT WITH NO KEYWAY AS PER RC-20M SHEET 2 OF 15 BETWEEN AT-GRADE MOMENT SLAB AND PCCP.
5. SEE ROADWAY CONSTRUCTION PLAN TYPICAL SECTION SHEETS FOR CROSS-SLOPE TRANSITIONS.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER MOMENT SLAB DETAILS 6

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JUSTIN WILLIAM BOUSCHER ENGINEER PE062832

RECOMMENDED _____

SHEET 120 OF 130

S - 39414

DES: EEM | CKD: JWB | DWG: EEM | CKD: JWB

5/25/2023 1:41:58 PM
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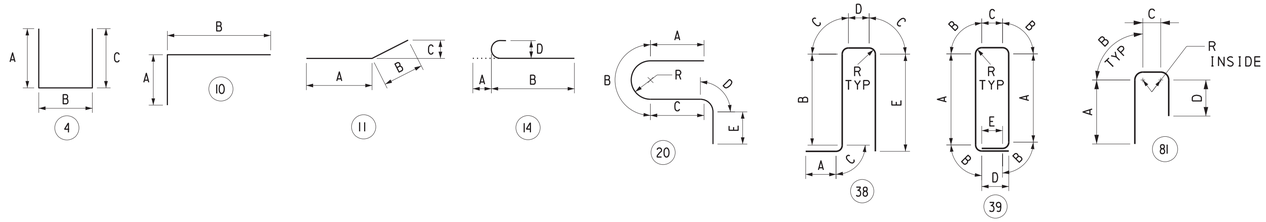
# MOMENT SLAB REINFORCEMENT BAR SCHEDULE

| MARK | SIZE | NUMBER | LENGTH | TYPE | A | B | C | D | E | R | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EMS401 | 4 | 108 | 29′-7" | STR | | | | | | | |
| EMS402 | 4 | 72 | 29′-6" | STR | | | | | | | |
| EMS403 | 4 | 12 | 24′-2" | STR | | | | | | | |
| EC404 | 4 | 10 | 6′-10" | STR | | | | | | | |
| EC405 | 4 | 2 | 6′-10 5/8" | 11 | 5′-5 5/8" | 1′-5" | 4 1/8" | | | | |
| EMS406 | 4 | 1 | 12′-3 3/4" | 20 | 4′-5" | 6 1/4" | 4′-0 1/2" | 4" | 3′-0" | 1 1/2" | |
| EMS407 | 4 | 3 | 7′-4 1/2" | 10 | 4′-4 1/2" | 3′-0" | | | | | |
| EMS408 | 4 | 3 | 6′-2 1/4" | 81 | 4′-4" | 2 3/8" | 5" | 1′-0 1/2" | | 1" | |
| EMS409 | 4 | 5 | 12′-4 5/8" | 38 | 3′-0" | 4′-1 1/2" | 2 3/8" | 5" | 4′-3" | 1" | |
| EMS410 | 4 | 10 | 12′-5 5/8" TO 13′-11 5/8" | 38 | 3′-0" | 4′-2" TO 4′-11" | 2 3/8" | 5" | 4′-3 1/2" TO 5′-0 1/2" | 1" | VARY EA B & E BY 1" |
| EC411 | 4 | 1181 | 7′-5 1/2" | 39 | 2′-7" | 4" | 3" | 5 1/2" | 3" | 2" | |
| EMS412 | 4 | 6 | 8′-5" | STR | | | | | | | |
| EMS413 | 4 | 6 | 15′-11" | STR | | | | | | | |
| | | | | | | | | | | | |
| EMS501 | 5 | 221 | 29′-7" | STR | | | | | | | |
| EMS502 | 5 | 123 | 29′-6" | STR | | | | | | | |
| EMS503 | 5 | 22 | 24′-2" | STR | | | | | | | |
| EC504 | 5 | 6 | 26′-0" | STR | | | | | | | |
| EC505 | 5 | 48 | 29′-7 1/2" | STR | | | | | | | |
| EC506 | 5 | 36 | 29′-6" | STR | | | | | | | |
| EC507 | 5 | 6 | 24′-2" | STR | | | | | | | |
| | | | | | | | | | | | |
| EMS509 | 5 | 6 | 8′-9" | STR | | | | | | | |
| EMS510 | 5 | 6 | 16′-3" | STR | | | | | | | |
| EMS511 | 5 | 372 | 8′-8" | STR | | | | | | | |
| EMS512 | 5 | 94 | 5′-8" | STR | | | | | | | 4 INLET BARS |
| EMS513 | 5 | 5 | 2′-3" | STR | | | | | | | |
| EMS514 | 5 | 26 | 5′-8" TO 7′-1 1/2" | STR | | | | | | | VARY EA BY 1 1/16"+ |
| EMS520 | 5 | 43 | 2′-6" | STR | | | | | | | TIEBAR |
| EMS524 | 5 | 16 | 4′-0" | STR | | | | | | | INLET BARS |
| EMS525 | 5 | 4 | 10′-3" | STR | | | | | | | INLET BARS |
| | | | | | | | | | | | |
| EMS601 | 6 | 976 | 9′-7" | 4 | 4′-2" | 1′-3" | 4′-2" | | | | |
| EMS602 | 6 | 10 | 8′-10" | 4 | 4′-2" | 6" | 4′-2" | | | | |
| EC603 | 6 | 4 | 25′-10 1/2" | 11 | 20′-9 1/2" | 5′-1" | 10" | | | | |
| EMS604 | 6 | 1171 | 10′-1" | 38 | 3′-0" | 2′-9" | 4 3/4" | 2" | 2′-11 3/4" | 2 1/4" | |
| EC605 | 6 | 32 | 29′-7 1/2" | STR | | | | | | | |
| EC606 | 6 | 24 | 29′-6" | STR | | | | | | | |
| EC607 | 6 | 4 | 24′-2" | STR | | | | | | | |
| EMS608 | 6 | 372 | 9′-4 1/2" | 14 | 8" | 8′-8 1/2" | | | | | |
| EMS609 | 6 | 118 | 6′-4" | 14 | 8" | 5′-8" | | | | | |
| EMS610 | 6 | 6 | 2′-3" | STR | | | | | | | |
| EMS611 | 6 | 35 | 6′-4" TO 7′-9 1/2" | 14 | 8" | 5′-8" TO 7′-1 1/2" | | | | | VARY EA B BY 1/2"+ |
| EMS612 | 6 | 10 | 10′-1 1/2" | 81 | 4′-7" | 4 3/4" | 2" | 4′-7" | | 2 1/4" | |
| EMS615 | 6 | 4 | 29′-7" | STR | | | | | | | |
| | | | | | | | | | | | |
| EMS701 | 7 | 4 | 6′-6" | 14 | 10" | 5′-8" | | | | | INLET BARS |
| | | | | | | | | | | | |
| | | 115 | | | | | | | | | 1 1/2" DIAMETER x 18" LOAD TRANSFER COATED DOWELS PER PUB 408 SECTION 705.3 |




## REINFORCEMENT NOTES:

1. FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
2. NUMBERS IN CIRCLES DENOTE TYPES.
3. "D" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS TO THE INSIDE OF THE BAR.
5. "E" PREFIX DENOTES EPOXY COATED BARS.

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

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

## 3 SPAN CONT COMP STEEL PLATE GIRDER
## MOMENT SLAB REINF BAR SCHEDULE

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JUSTIN WILLIAM BOUSCHER — ENGINEER PE062832

RECOMMENDED _____

SHEET 121 OF 130

S - 39414

| DES: EEM | CKD: JWB | DWG: EEM | CKD: JWB |
|---|---|---|---|

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SUBSTRUCTURE UNIT: LOG 1 OF 1

# ABUTMENT 1 WINGWALL B

| BORING NUMBER: | BORING LOCATION | START: 08/25/2020 11:14 AM | HAMMER: AUTOMATIC |
|---|---|---|---|
| S-09 | STATION: 99+99.5<br>OFFSET: 14.0 FT. LT. | FINISH: 08/25/2020 1:20 PM | EFFICIENCY: 0.8 ERa |

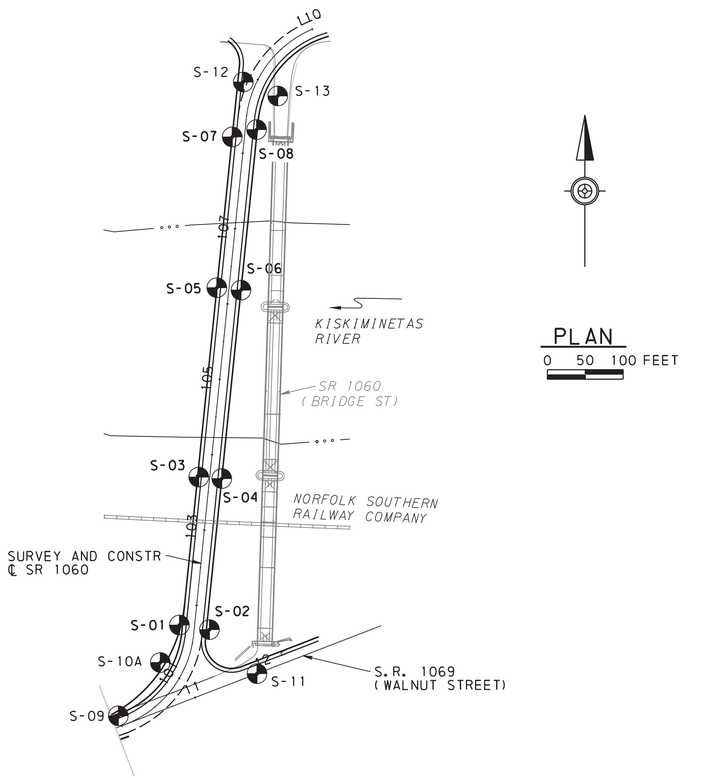
| DRILLING METHOD AND EQUIPMENT: | SIZE OF CORE: | VERTICAL SCALE: | TOP OF BORING ELEVATION: |
|---|---|---|---|
| DOUBLE TUBE-NQ, AUTOMATIC,<br>ACKER TRUCK RIG | 2.000 IN. | 0 FT. 5 FT. | 879.3 FT. |

DRILLING INSPECTOR: CLAYTON KALMAR
DRILLER & DRILLING COMPANY: L.VICTOR
ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 859.3 ft.– – 12.0 hr.
▼ 24 HR. READING – ELAPSED TIME: El. 858.0 ft. – 360.4 hr.

| 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 (N60) ▲ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | BITUMINOUS CONCRETE. 0.2'/El. 879.1 | | | PC-1 | | | 0.2 | 13 | |
| | | subbase. 1.5'/El. 877.8 | a-7-6 / cl | 1.5 | S-1 | 5-8-7 / 2.00 | 20 | 0.9 | 60 | |
| 875 | | CLAY, some Gravel, some Sand, little Silt, very stiff, damp, angular, low plastic fines, brown, fill. 3.0'/El. 876.3 | A-2-4 / SC | 3.0 | S-2 | 11-17-25 / 3.00 | 56 | 1.1 | 73 | |
| | | GRAVEL, some Silt, some Sand, trace Clay, very stiff, dry, medium plastic fines, brown tan, residuum. 6.1'/El. 873.2 | | 4.5 | S-3 | 12-18-50 / 3.50 | 91 | 1.0 | 67 | |
| 870 | | BFE 870.00 | | 6.0 | S-4 | 50/.1' | >67 | 0.1 | 100 | |
| | | Argillaceous SHALE interbedded with CLAYSTONE, brown gray, soft to very soft, weathered to slightly weathered, indistinct bedding, jointed, narrow to moderate spacing, flat to steep dip, tight to open joints, RQD=20%. | | 6.1 | R-1 | | 20% | 2.0 | 100 | |
| | | | | 8.1 | R-2 | | 47% | 2.6 | 87 | |
| 865 | | 18.4'/El. 860.9 | | 11.1 | R-3 | | 14% | 3.5 | 70 | |
| | | SANDSTONE, brown gray, coarse to fine grained, medium hard, slightly weathered, narrow to moderate bedding with flat to shallow dip, bedding joints, narrow to moderate spacing, flat to shallow dip, tight to narrow joint openings, RQD=43%. | | 16.1 | R-4 | | 20% | 5.0 | 100 | |
| 860 | | | | 21.1 | R-5 | | 46% | 4.9 | 98 | |
| 855 | | 26.1'/El. 853.2 | | | | | | | | |

**SAMPLE NO. shading indicates lab testing performed.




PLAN
0 50 100 FEET

## 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 |
| BPCE | BOTTOM OF PILE CAP ELEVATION |
| EPTE | ESTIMATED PILE TIP ELEVATION |
| TOR | ESTIMATED TOP OF ROCK ELEVATION |
| ⊕ | TEST BORING LOCATION |

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.
TRB

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.

Theodore R Bair — 9/3/2021
GEOTECHNICAL ENGINEER/ENGINEERING GEOLOGIST — DATE:

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
## STRUCTURE BORING PLAN

PLAN PROVIDED BY:
MICHAEL BAKER
INTERNATIONAL ADDRESS
500 GRANT ST #5400
PITTSBURGH, PA 15219

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — THEODORE RICHARD BAIR — ENGINEER — PE089615

RECOMMENDED _____

SHEET 122 OF 130

S - 39414

8/17/2022
Z:\2 - (E or D) PennDOT\Dist 12-0\E03351- Michael Baker\CADD\Geotech\SR1060_StructureBoringSheet - No Lab Results.dgn

SUBSTRUCTURE UNIT: LOG 1 OF 1

# ABUTMENT 1 WINGWALL B

| BORING NUMBER: | BORING LOCATION | START: 09/17/2020 10:15 AM | HAMMER: AUTOMATIC |
|---|---|---|---|
| S-10A | STATION: 101+13.9<br>OFFSET: 32.0 FT. LT. | FINISH: 09/17/2020 4:00 PM | EFFICIENCY: 0.8 ERa |

| DRILLING METHOD AND EQUIPMENT: | SIZE OF CORE: | VERTICAL SCALE: | TOP OF BORING ELEVATION: |
|---|---|---|---|
| DOUBLE TUBE-NQ, AUTOMATIC,<br>ACKER TRUCK RIG | 2.000 IN. | 0 FT. 5 FT. | 837.0 FT. |

DRILLING INSPECTOR: NICK KOPROWICZ
DRILLER & DRILLING COMPANY: L.VICTOR
ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 821.7 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: El. 819.9 ft. – 19.0 hr.

| 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. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 835 | | CEMENT CONCRETE, interbedded with railroad tie.<br>1.5'/El. 835.5 | | 1.5 | PC-1 | | | | 0.6 | 40 | |
| | | SAND, some Gravel, little Silt, trace Clay, loose, dry, homogeneous, poorly graded, sub-rounded, non-plastic, brown, fill.<br>6.0'/El. 831.0 | A-1-b / SM | 3.0<br>4.5<br>6.0 | S-1<br>S-2<br>S-3 | 16-7-WOR<br>WOR-3-4<br>7-4-2 | | 9<br>9<br>8 | 1.1<br>0.5<br>1.5 | 73<br>33<br>100 | |
| 830 | | SAND, some Gravel, little Clay, dense to very dense, dry, heterogeneous, well graded, sub-angular, non-plastic, brown, fill.<br>10.5'/El. 826.5 | a-1-b / sw | 7.5<br>9.0<br>10.5 | S-4<br>S-5<br>S-6 | 7-16-15<br>17-16-24<br>24-28-30 | | 41<br>53<br>77 | 1.5<br>1.5<br>1.5 | 100<br>100<br>100 | |
| BFE* 830.00 | | GRAVEL, little Sand, little Clay, medium dense to very dense, dry, homogeneous, poorly graded, sub-angular, non-plastic, brown, residuum.<br>17.1'/El. 819.9 | a-1-a / gp | 12.0<br>13.5<br>15.0<br>16.5 | S-7<br>S-8<br>S-9<br>S-10 | 8-11-9<br>3-3-3<br>17-12-14<br>17-9-32 | | 27<br>8<br>35<br>55 | 1.5<br>0.6<br>1.5<br>1.1 | 100<br>40<br>100<br>73 | |
| 825 | | SANDSTONE, gray, coarse grained, medium hard, slightly weathered to weathered, indistinct bedding, bedding joints, close to moderate spacing, shallow to steep dip, open joints, RQD=37%.<br>22.8'/El. 814.2 | | 17.1<br>19.1 | S-11<br>R-1 | 50-50/.1" | | >67<br>0% | 0.6<br>1.6 | 100<br>80 | |
| 820 | | CLAYSTONE, gray, soft, slightly weathered to fresh, indistinct bedding, jointed, close to medium spacing, flat to shallow dip, narrow to open joints, RQD=32%.<br>27.1'/El. 809.9 | | 22.1 | R-2 | | | 70% | 2.5 | 83 | |
| 815 | | COAL, black, soft, highly weathered, indistinct bedding, fracture zone, RQD=0<u>PPER FREEPORT COAL</u><br>– poor recovery.<br>30.1'/El. 806.9 | | 27.1 | R-3 | | | 52% | 4.3 | 86 | |
| 810 | | CLAYSTONE, gray, soft, slightly weathered, indistinct bedding, jointed, close to medium spacing, flat to shallow dip, narrow to open joints, RQD=0%.<br>31.0'/El. 806.0 | | 31.6 | R-4 | | | 13% | 2.6 | 58 | |
| 805 | | SILTSTONE, gray, medium hard, slightly weathered to fresh, indistinct bedding, jointed, close to moderate spacing, flat to sheer dip, narrow to open joints, RQD=41%.<br>38.1'/El. 798.9 | | 36.6 | R-5 | | | 46% | 4.3 | 86 | |
| 800 | | CLAYSTONE, gray, soft, slightly weathered to fresh, indistinct bedding, jointed, close to medium spacing, flat to shallow dip, narrow to open joints, RQD=84%.<br>50.0'/El. 787.0 | | 41.6 | R-6 | | | 40% | 5.0 | 100 | |
| 795 | | | | 46.6 | R-7 | | | 96% | 5.0 | 100 | |
| 790 | | | | 51.6 | R-8 | | | 64% | 5.0 | 100 | |
| 785 | | SANDSTONE, gray, coarse grained, hard, fresh, indistinct bedding, jointed, moderate to medium spacing, flat dip, narrow joint opening, RQD=70%.<br>55.0'/El. 782.0 | | | R-9 | | | 100% | 3.5 | 100 | |

* BORING DRILLED FROM TOE OF SLOPE. LOCATION IS OFFSET FROM THE WINGWALL

**SAMPLE NO. shading indicates lab testing performed.

SUBSTRUCTURE UNIT: LOG 1 OF 1

# ABUTMENT 1 WINGWALL A

| BORING NUMBER: | BORING LOCATION | START: 08/21/2020 7:53 AM | HAMMER: AUTOMATIC |
|---|---|---|---|
| S-11 | STATION: 11+75.0<br>OFFSET: 0.0 FT. | FINISH: 08/21/2020 8:18 AM | EFFICIENCY: 0.8 ERa |

| DRILLING METHOD AND EQUIPMENT: | SIZE OF CORE: | VERTICAL SCALE: | TOP OF BORING ELEVATION: |
|---|---|---|---|
| DRILLING METHOD-NO RECORD, AUTOMATIC,<br>ACKER TRUCK RIG | "NO RECORD" | 0 FT. 5 FT. | 862.2 FT. |

DRILLING INSPECTOR: CLAYTON KALMAR
DRILLER & DRILLING COMPANY: L.VICTOR
ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 860.9 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: El. 860.3 ft. – 170.5 hr.

| 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. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ▽ 860 | | BITUMINOUS CONCRETE.<br>0.8'/El. 861.4 | | | PC-1 | | | | 0.8 | 53 | |
| BFE 855.00 NTS | | subbase.<br>1.5'/El. 860.7 | a-7-6 / cl | 1.5 | S-1 | 9-14-50/.1"<br>3.50 | | 85 | 0.8 | 73 | |
| | | CLAY, some Gravel, some coarse Sand, very stiff, damp, angular, medium plastic fines, brown black, fill.<br>2.4'/El. 859.8 | | | | | | | | | |
| | | SANDSTONE, tan, weathered.<br>2.6'/El. 859.6 | | | | | | | | | |

BFE OF 855.0 IS BELOW THE BORING TERMINATION DEPTH

## 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 |
| BPCE | BOTTOM OF PILE CAP ELEVATION |
| EPTE | ESTIMATED PILE TIP ELEVATION |
| TOR | ESTIMATED TOP OF ROCK ELEVATION |

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

TRB

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
STRUCTURE BORINGS 1

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL THEODORE RICHARD BAIR ENGINEER PE089615

RECOMMENDED _____

SHEET 123 OF 130

S - 39414

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8/17/2022

SUBSTRUCTURE UNIT: ABUTMENT 1 — LOG 1 OF 2

| BORING NUMBER: | BORING LOCATION | START: 09/16/2020 10:08 AM | HAMMER: AUTOMATIC |
|---|---|---|---|
| S-01 | STATION: 101+72.0<br>OFFSET: 20.0 FT. LT. | FINISH: 09/17/2020 1:12 PM | EFFICIENCY: 0.8 ERa |

| DRILLING METHOD AND EQUIPMENT: | SIZE OF CORE: | VERTICAL SCALE: | TOP OF BORING ELEVATION: |
|---|---|---|---|
| DOUBLE TUBE-NQ, AUTOMATIC, HETAGER TRUCK | 2.000 IN. | 0 FT. 5 FT. | 835.7 FT. |

DRILLING INSPECTOR: CLAYTON KALMAR
DRILLER & DRILLING COMPANY: J. STEELE
ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 804.1 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: NR – NR

| 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. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40) |
|---|---|---|---|---|---|---|---|---|---|---|
| 835 | | CEMENT CONCRETE, brick. 0.5'/El. 835.2 | | 1.5 | | | | | | |
| | | MASONRY. 0.7'/El. 835.0 | a-1-b / sp | 3.0 | S-1 | 12-13-15 | 37 | 1.5 | 100 | |
| | | UNSAMPLED, timber (probably a railroad tie, smells like grease). 1.3'/El. 834.4 | | 4.5 | S-2 | 8-10-13 | 31 | 1.5 | 100 | |
| 830 | | BPCE 830.00 | | 6.0 | S-3 | 7-8-10 | 24 | 1.5 | 100 | |
| | | Medium and coarse SAND, trace fine Gravel, trace Clay, trace Silt, medium dense, damp, homogeneous, poorly graded, angular, brown white and mottled blue black, fill. 7.5'/El. 828.2 | a-1-b / sp | 7.5 | S-4 | 6-9-12 | 28 | 1.2 | 80 | |
| | | | | 9.0 | S-5 | 2-10-11 | 28 | 1.5 | 100 | |
| 825 | | Medium and coarse SAND, little fine and medium Gravel, trace Clay, trace Silt, medium dense to very loose, wet, heterogeneous, poorly graded, sub-angular, dark brown to black, fill, – shale fragments in gravel. 11.6'/El. 824.1 | | 10.5 | S-6 | 4-2-2 | 5 | 1.0 | 67 | |
| | | | | 12.0 | S-7 | 1-2-1 1.00 | 4 | 1.5 | 100 | |
| | | | | 13.5 | S-8 | 2-4-5 1.50 | 12 | 1.1 | 73 | |
| | | | | 15.0 | S-9 | 2-3-4 | 9 | 0.0 | 0 | |
| 820 | | SILT, some Sand, some Clay, trace Gravel, stiff to very stiff, damp, homogeneous, poorly graded, sub-angular, medium plastic fines, brown to black, alluvium, – traps added after no recovery. | A-6 / CL | 16.5 | S-10 | 5-5-5 2.75 | 13 | 0.7 | 47 | |
| | | | | 18.0 | S-11 | 2-4-5 3.00 | 12 | 1.0 | 67 | |
| | | | | 19.5 | S-12 | 7-7-10 2.50 | 23 | 1.5 | 100 | |
| | | | | 21.0 | S-13 | 4-5-8 2.00 | 17 | 1.5 | 100 | |
| | | | | 22.5 | S-14 | 9-10-12 2.25 | 29 | 1.4 | 93 | |
| | | | | 24.0 | S-15 | 5-8-11 3.50 | 25 | 1.5 | 100 | |
| | | 25.0'/El. 810.7 | | | | | | | | |
| 815 | | | | 25.5 | S-16 | 5-8-7 2.00 | 20 | 1.5 | 100 | |
| | | | | 27.0 | S-17 | 3-5-3 0.75 | 11 | 1.4 | 93 | |
| | | | | 28.5 | S-18 | 4-4-4 0.50 | 11 | 1.5 | 100 | |
| | | | | 30.0 | S-19 | WOH-3-4 0.50 | 9 | 1.5 | 100 | |
| 810 | | SILT, some Clay, little Sand, trace Gravel, medium dense, damp, homogeneous, poorly graded, sub-angular, high plastic fines, dark gray, alluvium. | A-6 / CL | 31.5 | S-20 | 2-3-22 3.00 | 33 | 1.2 | 80 | |
| | | | | 33.0 | S-21 | 11-10-9 | 25 | 0.6 | 40 | |
| | | 31.0'/El. 804.7 | | | | | | | | |
| 805 | | Medium and coarse GRAVEL and CLAY, little fine to coarse Sand, medium dense to very dense, moist, stratified, poorly graded, angular, medium plastic fines, dark blue gray, residuum, UPPER FREEPORT COAL. 35.0'/El. 800.7 | a-2-7 / gc | 34.5 | S-22 | 6-10-11 2.50 | 28 | 0.9 | 60 | |
| | | | | 35.0 | S-23 | 50-50/.0" | >67 | 0.5 | 100 | |
| 800 | | TOR 800.70 | | 36.8 | R-1 | | 0% | 0.9 | 50 | |
| | | Argillaceous SANDSTONE interbedded with CLAYSTONE, gray to dark gray, coarse grained, medium hard to very soft, slightly weathered, moderate bedding with flat dip, fracture zone, narrow to close spacing, flat to sheer dip, narrow to open joints, RQD=0%. | | 38.8 | R-2 | | 0% | 0.8 | 40 | |
| | | | | 40.8 | R-3 | | 0% | 1.2 | 60 | |
| | | | | 41.8 | R-4 | | 0% | 0.8 | 80 | |
| | | 43.0'/El. 792.7 | | | | | | | | |
| 795 | | SILTSTONE, gray to black, fissile, dull luster, soft, slightly weathered, laminated to thin bedding with flat to shallow dip, jointed, narrow to moderate spacing, flat to shallow dip, tight to narrow joint openings, RQD=16% – steep, slickensided joint @ 47.9'. | | 43.8 | R-5 | | 0% | 1.4 | 70 | |
| | | | | 46.8 | R-6 | | 27% | 2.9 | 97 | |
| | | 48.0'/El. 787.7 | | | | | | | | |
| 790 | | EPTE 786.70 | | 51.8 | R-7 | | 68% | 5.0 | 100 | |
| | | SANDSTONE, light gray, fine grained, medium hard, slightly weathered to fresh, indistinct to narrow bedding with flat dip, jointed, close to wide spacing, flat to moderate dip, tight to narrow joints, RQD=83% – clay seam 51.8'–52.0'. | | 56.8 | R-8 | | 74% | 4.9 | 98 | |
| 785 | | | | 61.8 | R-9 | | 90% | 5.0 | 100 | |
| | | 62.8'/El. 772.9 | | | | | | | | |
| 780 | | | | | | | | | | |
| 775 | | | | | | | | | | |

FENNDOT STRUCTURE BORING LOG – FENNDOT_GINT_HTOSPKA_12-23-3_8-21-2014.GDT – 12/29/21 13:28 – Z:\2 – (E or D) PENNDOT\DIST 12-0\E03351 – MICHAEL BAKER\GEOTECH\DRILLING\LOGS\SAMA TYPES LOGS – WITHOUT LAB TESTING.GPJ

SUBSTRUCTURE UNIT: ABUTMENT 1 — LOG 2 OF 2

| BORING NUMBER: | BORING LOCATION | VERTICAL SCALE: | |
|---|---|---|---|
| S-01 | STATION: 101+72.0<br>OFFSET: 20.0 FT. LT. | 0 FT. 5 FT. | ▽ 0 HR.: El. 804.1 ft. – 0.0 hr.<br>▼ 24 HR.: NR – NR |

| 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. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40) |
|---|---|---|---|---|---|---|---|---|---|---|
| 770 | | Micaceous SANDSTONE, light gray to banded gray, coarse grained, medium hard, slightly weathered to fresh, laminated to narrow bedding with flat to shallow dip, jointed, close to wide spacing, flat to shallow dip, tight to narrow joints, RQD=82% – water return lost from 67.0'–68.0' – clay seam @ 66.2', 67.6', and 70.0'.(Layer continued from the previous log page) – plant fossiles @ 66.1'. | | 66.8 | R-10 | | 72% | 5.0 | 100 | |
| 765 | | | | 71.8 | R-11 | | 82% | 5.0 | 100 | |
| 760 | | 77.0'/El. 758.7 Argillaceous SANDSTONE, light gray to banded gray, fine grained, medium hard, slightly weathered, laminated to thin bedding with flat to shallow dip, jointed, narrow to moderate spacing, flat to moderate dip, tight to open joints, RQD=18% – clay seam @ 77.1', 77.6', and 78.9'. | | 76.8 | R-12 | | 92% | 5.0 | 100 | |
| 755 | | 80.8'/El. 754.9 | | | R-13 | | 18% | 4.0 | 100 | |

**SAMPLE NO. shading indicates lab testing performed.

FENNDOT STRUCTURE BORING LOG – FENNDOT_GINT_HTOSPKA_12-23-3_8-21-2014.GDT – 12/29/21 13:28 – Z:\2 – (E or D) PENNDOT\DIST 12-0\E03351 – MICHAEL BAKER\GEOTECH\DRILLING\LOGS\SAMA TYPES LOGS – WITHOUT LAB TESTING.GPJ

## 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 |
| BPCE | BOTTOM OF PILE CAP ELEVATION |
| EPTE | ESTIMATED PILE TIP ELEVATION |
| TOR | ESTIMATED TOP OF ROCK ELEVATION |

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.
TRB

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
STRUCTURE BORINGS 2

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — THEODORE RICHARD BAIR — ENGINEER — PE089615

RECOMMENDED _____

SHEET 124 OF 130

S - 39414

Z:\2 – (E or D) PennDOT\Dist 12-0\E03351– Michael Baker\CADD\Geotech\SR1060_StructureBoringSheet – No Lab Results.dgn
8/17/2022

SUBSTRUCTURE UNIT: ABUTMENT 1 — LOG 1 OF 2

| BORING NUMBER: | BORING LOCATION | START: 09/14/2020 11:03 AM | HAMMER: AUTOMATIC |
|---|---|---|---|
| S-02 | STATION: 101+70.0<br>OFFSET: 20.0 FT. RT. | FINISH: 09/15/2020 4:04 PM | EFFICIENCY: 0.8 ERa |

| DRILLING METHOD AND EQUIPMENT: | SIZE OF CORE: | VERTICAL SCALE: | TOP OF BORING ELEVATION: |
|---|---|---|---|
| DOUBLE TUBE-NQ, AUTOMATIC, HETAGER TRUCK | 2.000 IN. | 0 FT. 5 FT. | 837.2 FT. |

DRILLING INSPECTOR: CLAYTON KALMAR
DRILLER & DRILLING COMPANY: J. STEELE
ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 802.0 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: El. 801.8 ft. – 22.4 hr.

| ELEV. | GRAPHIC | MATERIAL DESCRIPTION | AASHTO/ USCS | SAMPLE DEPTH | SAMPLE NO. ** | BLOW COUNT / PP/T TSF | N 60 / %RQD | REC (ft.) | REC (%) |
|---|---|---|---|---|---|---|---|---|---|
| | | CEMENT CONCRETE. 0.5'/El. 836.7 | | 0.7 | S-1 | 15-7-8 | 20 | 1.5 | 100 |
| 835 | | Coarse SAND, little fine Gravel, medium dense to very dense, damp, heterogeneous, sub-rounded to sub-angular, white and blue black, fill, (slag/foundry sand) | a-1-b / sp | 2.2 | S-2 | 11-16-20 | 48 | 1.5 | 100 |
| | | – blue foundry sand @ 4.9'. 6.3'/El. 830.9 | | 3.7 | S-3 | 9-18-31 | 65 | 1.5 | 100 |
| | | | | 5.2 | S-4 | 18-15-16 | 41 | 1.5 | 100 |
| 830 | | BPCE 830.00 | | 6.7 | S-5 | 9-9-10 / 0.75 | 25 | 1.3 | 87 |
| | | GRAVEL, some Silt, some Sand, little Clay, very soft to soft, damp to wet, laminated, sub-angular, medium plastic fines, gray brown and black, alluvium, – spoon wet in S-7 | | 8.2 | S-6 | 2-2-2 / 0.50 | 5 | 1.5 | 100 |
| | | – traps added in S-9. | | 9.7 | S-7 | WOH-3-6 / 1.25 | 12 | 1.0 | 67 |
| 825 | | | A-6 / GC | 11.2 | S-8 | 2-3-4 / 0.25 | 9 | 0.5 | 33 |
| | | | | 12.7 | S-9 | 5-5-6 / 0.25 | 15 | 0.7 | 47 |
| | | | | 14.2 | S-10 | 4-5-8 / 1.50 | 17 | 1.1 | 73 |
| 820 | | | | 15.7 | S-11 | 5-24-25 / 2.50 | 65 | 0.9 | 60 |
| | | 18.7'/El. 818.5 | | 17.2 | S-12 | 10-12-10 | 29 | 0.6 | 40 |
| | | SILT, some Clay, little Sand, trace Gravel, medium to very stiff, damp to moist, homogeneous, sub-rounded to sub-angular, high plastic fines, brown and dark gray, alluvium. | | 18.7 | S-13 | 5-5-5 / 0.75 | 13 | 1.2 | 80 |
| | | | A-6 / CL | 20.2 | S-14 | WOH-WOH-2 / 0.50 | 3 | 1.3 | 87 |
| 815 | | | | 21.7 | S-15 | WOH-2-5 / 0.75 | 9 | 0.6 | 40 |
| | | 24.7'/El. 812.5 | | 23.2 | S-16 | 7-8-10 / 2.25 | 24 | 1.3 | 87 |
| | | SAND, some Sand, some Gravel, little Clay, medium to very soft, damp to moist, homogeneous, sub-angular to sub-rounded, medium plastic fines, dark gray and brown, alluvium. | | 24.7 | S-17 | 7-5-6 / 1.00 | 15 | 0.8 | 53 |
| 810 | | | | 26.2 | S-18 | 6-8-6 / 0.75 | 19 | 1.2 | 80 |
| | | | A-4 / CL | 27.7 | S-19 | 2-3-6 / 0.50 | 12 | 1.3 | 87 |
| | | | | 29.2 | S-20 | 7-13-18 / 3.00 | 41 | 1.1 | 73 |
| | | 31.8'/El. 805.4 | | 30.7 | S-21 | 11-19-20 / 3.50 | 52 | 1.5 | 100 |
| 805 | | Fine and medium GRAVEL, some Clay, some fine to coarse Sand, dense, dry, stratified, poorly graded, angular to elongated, black, residuum, (weathered coal) UPPER FREEPORT COAL. | a-2-7 / gc<br>a-7-6 / cl | 32.2 | S-22 | 29-50/.3 / 4.50 | >67 | 0.1 | 100 |
| | | TOR 803.40 | | 33.0 | S-23 | 50/.1 / 4.50 | >67 | 0.1 | 100 |
| | | 32.3'/El. 804.9 | | 33.7 | R-1 | | 0% | 1.6 | 80 |
| | | CLAY, little Silt, trace fine Gravel, hard, dry, heterogeneous, angular, medium plastic fines, gray, residuum, (weathered claystone). | | 35.8 | R-2 | | 0% | 1.3 | 65 |
| | | 33.8'/El. 803.4 | | 37.8 | R-3 | | 20% | 2.0 | 100 |
| | | LIMESTONE interbedded with CLAYSTONE, gray, waxy luster, hard to very soft, weathered, narrow to moderate bedding with shallow dip, jointed, narrow to close spacing, flat to steep dip, narrow to open joints, RQD=7%. | | 39.8 | R-4 | | 85% | 1.3 | 100 |
| 795 | | 39.7'/El. 797.5 | | 41.1 | R-5 | | 10% | 3.0 | 100 |
| | | SILTSTONE, light gray to banded gray, fissile, soft, slightly weathered, indistinct to laminated bedding with shallow dip, jointed, narrow to moderate spacing, flat to steep dip, narrow joint opening, RQD=30%. | | 44.1 | R-6 | | 55% | 1.8 | 90 |
| | | | | 46.1 | R-7 | | 24% | 5.0 | 100 |
| 790 | | EPTE 786.70 | | | | | | | |
| | | 52.2'/El. 785.0 | | 51.1 | R-8 | | 64% | 4.6 | 92 |
| | | SANDSTONE, gray, cross bedded, fine-coarse grained, medium hard, slightly weathered to fresh, indistinct to thin bedding with flat to shallow dip, jointed, close to wide spacing, flat to shallow dip, tight to narrow joint openings, RQD=87% | | 56.1 | R-9 | | 86% | 5.0 | 100 |
| | | – bedding becomes more distinct with depth | | | | | | | |
| 785 | | – dark gray-black beds at lower depths. | | 61.1 | | | | | |
| 780 | | | | | | | | | |
| 775 | | | | | | | | | |

◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40)

SUBSTRUCTURE UNIT: ABUTMENT 1 — LOG 2 OF 2

| BORING NUMBER: | BORING LOCATION | VERTICAL SCALE: | |
|---|---|---|---|
| S-02 | STATION: 101+70.0<br>OFFSET: 20.0 FT. RT. | 0 FT. 5 FT. | ▽ 0 HR.: El. 802.0 ft. – 0.0 hr.<br>▼ 24 HR.: El. 801.8 ft. – 22.4 hr. |

| ELEV. | GRAPHIC | MATERIAL DESCRIPTION | AASHTO/ USCS | SAMPLE DEPTH | SAMPLE NO. ** | BLOW COUNT / PP/T TSF | N 60 / %RQD | REC (ft.) | REC (%) |
|---|---|---|---|---|---|---|---|---|---|
| 770 | | SANDSTONE, gray, cross bedded, fine-coarse grained, medium hard, slightly weathered to fresh, indistinct to thin bedding with flat to shallow dip, jointed, close to wide spacing, flat to shallow dip, tight to narrow joint openings, RQD=87% | | 66.1 | R-10 | | 78% | 5.0 | 100 |
| | | – bedding becomes more distinct with depth | | | R-11 | | 96% | 5.0 | 100 |
| 765 | | – dark gray-black beds at lower depths.(Layer continued from the previous log page) | | 71.1 | R-12 | | 92% | 5.0 | 100 |
| | | | | 76.1 | R-13 | | 84% | 4.9 | 98 |
| 760 | | – water return lost mid-run in R-13; did not return. 81.1'/El. 756.1 | | | | | | | |

◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40)

**SAMPLE NO. shading indicates lab testing performed.

## 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 |
| BPCE | BOTTOM OF PILE CAP ELEVATION |
| EPTE | ESTIMATED PILE TIP ELEVATION |
| TOR | ESTIMATED TOP OF ROCK ELEVATION |

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.
TRB

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20
**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**
## 3 SPAN CONT COMP STEEL PLATE GIRDER
## STRUCTURE BORINGS 3

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — THEODORE RICHARD BAIR — ENGINEER — PE089615

RECOMMENDED _____

SHEET 125 OF 130

S - 39414

8/17/2022
Z:\2 - (E or D) PennDOT\Dist 12-0\E03351- Michael Baker\CADD\Geotech\SR1060_StructureBoringSheet - No Lab Results.dgn

SUBSTRUCTURE UNIT: PIER 1 — LOG 1 OF 2

BORING NUMBER: S-03

BORING LOCATION: STATION: 103+70.0; OFFSET: 16.0 FT. LT.

START: 09/23/2020 9:00 AM

FINISH: 09/24/2020 9:20 AM

HAMMER: AUTOMATIC

EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT: DOUBLE TUBE-NQ, AUTOMATIC, CME 45C

SIZE OF CORE: 2.000 IN.

VERTICAL SCALE: 0 FT. [redacted] 5 FT.

TOP OF BORING ELEVATION: 814.6 FT.

DRILLING INSPECTOR: CLAYTON KALMAR

DRILLER & DRILLING COMPANY: S.KELLY ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 802.4 ft. – 0.0 hr.

▼ 24 HR. READING – ELAPSED TIME: El. 802.2 ft. – 288.7 hr.

| 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. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 814.6 | | TOPSOIL. 0.5'/El. 814.1 | | 1.5 | S-1 | WOH-1-3 | | 5 | 0.7 | 47 | |
| | | Fine to coarse SAND, little fine and medium Gravel, trace Silt, trace Clay, very loose to medium dense, damp to wet, heterogeneous, poorly graded, sub-angular, dark brown to black, alluvium, – stratified. | a-1-b / sp | 3.0 | S-2 | 1-1-3 | | 5 | 0.6 | 40 | |
| | | | | 4.5 | S-3 | 2-3-3 | | 8 | 1.2 | 80 | |
| | | | | 6.0 | S-4 | 5-3-5 | | 11 | 0.7 | 47 | |
| | | | | 7.5 | S-5 | 2-3-2 | | 7 | 1.5 | 100 | |
| | | | | 9.0 | S-6 | 1-2-4 | | 8 | 0.9 | 60 | |
| | | | | 10.5 | S-7 | 2-1-3 | | 5 | 1.0 | 67 | |
| | | – spoon is wet in S-8. | | 12.0 | S-8 | 2-1-2 | | 4 | 0.0 | 0 | |
| | | 12.0'/El. 802.6 | | 13.5 | S-9 | 2-2-2 | | 5 | 0.9 | 60 | |
| BPCE 801.50 | | SAND, some Silt, little Gravel, trace Clay, very loose to loose, moist to wet, homogeneous, poorly graded, sub-angular, dark gray, alluvium. | A-2-4 / SM | 15.0 | S-10 | WOH-WOH-WOH | | 0 | 1.5 | 100 | |
| | | | | 16.5 | S-11 | WOH-WOH-4 | | 5 | 1.5 | 100 | |
| | | | | 18.0 | S-12 | WOH-WOH-4 | | 5 | 1.5 | 100 | |
| | | 18.0'/El. 796.6 | | 19.5 | S-13 | 4-14-48 | | 83 | 0.8 | 53 | |
| | | Fine to coarse GRAVEL, some fine to coarse Sand, little Silt, very dense, wet to moist, stratified, well graded, flat, dark gray to dark blue, residuum. | a-2-7 / gm | 21.0 | S-14 | 29-18-30 | | 64 | 1.0 | 67 | |
| | | | | 22.5 | S-15 | 6-23-31 | | 72 | 0.9 | 60 | |
| | | 22.6'/El. 792.0 | | 22.6 | S-16 | 50/.1' | | >67 | 0.1 | 100 | |
| TOR 792.00 | | SANDSTONE, light gray to dark brown, coarse-fine grained, medium hard, weathered, narrow to moderate bedding with flat to steep dip, bedding joints, narrow to moderate spacing, flat to sheer dip, narrow to wide joint openings, RQD=16%. | | 25.3 | R-1 | | | 15% | 1.8 | 67 | |
| | | 27.0'/El. 787.6 | | 27.5 | R-2 | | | 0% | 2.0 | 91 | |
| | | SANDSTONE interbedded with CLAYSTONE, gray, coarse grained, friable, very soft to medium hard, slightly weathered, moderate to medium bedding with flat to shallow dip, jointed, narrow to close spacing, flat to moderate dip, narrow to open joints, RQD=0%. | | 30.0 | R-3 | | | 0% | 2.3 | 92 | |
| | | – lost water return @ 32.5'. | | 32.5 | R-4 | | | 0% | 4.4 | 88 | |
| | | 36.4'/El. 778.2 | | 35.0 | R-5 | | | 34% | 5.0 | 100 | |
| EPTE 776.00 | | SANDSTONE, light gray to dark gray, cross bedded, coarse-fine grained, medium hard, slightly weathered to fresh, laminated to moderate bedding with flat to steep dip, jointed, narrow to moderate spacing, flat to moderate dip, tight to narrow joint openings, RQD=48%. | | 40.0 | R-6 | | | 34% | 4.6 | 92 | |
| | | | | 45.0 | R-7 | | | 32% | 5.0 | 100 | |
| | | 55.2'/El. 759.4 | | 50.0 | R-8 | | | 82% | 5.0 | 100 | |
| | | Micaceous SANDSTONE, light gray to black, concretions, coarse grained, medium hard, fresh, indistinct to laminated bedding with flat to moderate dip, jointed, close to medium spacing, flat to moderate dip, tight joints, RQD=72%. | | 55.0 | R-9 | | | 72% | 5.0 | 100 | |
| | | | | 60.0 | R-10 | | | 72% | 5.0 | 100 | |

SUBSTRUCTURE UNIT: PIER 1 — LOG 2 OF 2

BORING NUMBER: S-03

BORING LOCATION: STATION: 103+70.0; OFFSET: 16.0 FT. LT.

VERTICAL SCALE: 0 FT. [redacted] 5 FT.

▽ 0 HR.: El. 802.4 ft. – 0.0 hr.

▼ 24 HR.: El. 802.2 ft. – 288.7 hr.

| 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. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 750 | | Micaceous SANDSTONE, light gray to black, concretions, coarse grained, medium hard, fresh, indistinct to laminated bedding with flat to moderate dip, jointed, close to medium spacing, flat to moderate dip, tight joints, RQD=72%.(Layer continued from the previous log page) – small coal veins from 65.5'-66.8'. | | 65.0 | R-11 | | | 70% | 5.0 | 100 | |
| 745 | | 70.0'/El. 744.6 | | | | | | | | | |

**SAMPLE NO. shading indicates lab testing performed.

## 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 |
| BPCE | BOTTOM OF PILE CAP ELEVATION |
| EPTE | ESTIMATED PILE TIP ELEVATION |
| TOR | ESTIMATED TOP OF ROCK ELEVATION |

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

TRB

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY

3 SPAN CONT COMP STEEL PLATE GIRDER
STRUCTURE BORINGS 4

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — THEODORE RICHARD BAIR — ENGINEER — PE089615

RECOMMENDED _____

SHEET 126 OF 130

S - 39414

Z:\2 – (E or D) PennDOT\Dist 12-0\E03351- Michael Baker\CADD\Geotech\SR1060_StructureBoringSheet – No Lab Results.dgn
8/17/2022

SUBSTRUCTURE UNIT: PIER 1 — LOG 1 OF 2

BORING NUMBER: S-04

BORING LOCATION: STATION: 103+70.0; OFFSET: 16.0 FT. RT.

START: 10/02/2020 12:15 PM; FINISH: 10/05/2020 1:55 PM

HAMMER: AUTOMATIC; EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT: DOUBLE TUBE-NQ, AUTOMATIC, CME 45C

SIZE OF CORE: 2.000 IN.

VERTICAL SCALE: 0 FT. 5 FT.

TOP OF BORING ELEVATION: 816.1 FT.

DRILLING INSPECTOR: CLAYTON KALMAR

DRILLER & DRILLING COMPANY: S.KELLY ARMSTRONG DRILLING, INC.

▽ 0 HR. READING - ELAPSED TIME: El. 802.9 ft. - 0.0 hr.

▼ 24 HR. READING - ELAPSED TIME: El. 803.1 ft. - 20.2 hr.

| 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. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40) |
|---|---|---|---|---|---|---|---|---|---|---|
| 815 | | TOPSOIL. 1.0'/El. 815.1 | | 1.5 | S-1 | 9-6-1 | 9 | 1.0 | 67 | |
| | | Fine SAND, trace Silt, trace Clay, trace Cobbles, trace fine to coarse Gravel, very loose, damp, homogeneous, poorly graded, dark brown, fill, (colluvium) | a-1-b / sm | 3.0 | S-2 | WOH-WOH-WOH | 0 | 0.0 | 0 | |
| | | | | 4.5 | S-3 | WOH-WOH-WOH | 0 | 0.0 | 0 | |
| | | | | 6.0 | S-4 | WOH-WOH-WOH | 0 | 0.7 | 47 | |
| | | - tool drop from 1.5'-4.5', once spoon was pounded to end of first sample. 6.5'/El. 809.6 | | 7.5 | S-5 | 1-WOH-WOH | 0 | 1.2 | 80 | |
| | | SAND, some Silt, little Clay, very loose, wet, homogeneous, poorly graded, sub-angular, non-plastic, gray to dark gray, alluvium. | A-4 / SM | 9.0 | S-6 | 0.25 WOH-WOH-WOH | 0 | 0.0 | 0 | |
| | | | | 10.5 | S-7 | WOH-WOH-WOH | 3 | 1.2 | 80 | |
| | | | | 12.0 | S-8 | WOH-WOH-2 | 1 | 1.5 | 100 | |
| | | | | 13.5 | S-9 | 0.25 WOH-WOH-1 | 0 | 1.5 | 100 | |
| BPCE 801.50 | | | | 15.0 | S-10 | 0.50 WOH-WOH-WOH | 0 | 1.5 | 100 | |
| | | | | 16.5 | S-11 | WOH-WOH-WOH | 3 | 1.4 | 93 | |
| | | Fine and medium SAND, some fine to coarse Gravel, little Cobbles, little Clay, medium dense to very dense, wet to moist, heterogeneous, poorly graded, sub-angular, blue red to mottled brown, alluvium. | a-2-7 / sc | 18.0 | S-12 | WOH-WOH-WOH | 27 | 1.0 | 67 | |
| | | | | 19.5 | S-13 | WOH-1-1 0.50 | 21 | 1.0 | 67 | |
| | | | | 21.0 | S-14 | 6-8-12 2.00 5-7-9 | 41 | 1.0 | 67 | |
| | | | | 22.5 | S-15 | 29-19-12 4-10-40 | 67 | 0.6 | 40 | |
| | | | | 24.0 | S-16 | 39-42-49 | 121 | 0.9 | 60 | |
| | | | | 25.5 | S-17 | 50-25-34 | 79 | 1.1 | 73 | |
| | | | | 27.0 | S-18 | 32-28-48 | 101 | 1.3 | 87 | |
| | | | | 28.5 | S-19 | 5-6-23 | 39 | 0.3 | 20 | |
| | | | | 30.0 | S-20 | 47-40-23 | 84 | 1.1 | 73 | |
| | | | | 30.2 | S-21 | 50/.2" | >67 | 0.2 | 100 | |
| | | | | 32.5 | R-1 | | 0% | 1.4 | 61 | |
| | | | | 35.5 | R-2 | | 10% | 2.8 | 93 | |
| | | | | 40.5 | R-3 | | 44% | 5.0 | 100 | |
| | | | | 45.5 | R-4 | | 58% | 4.9 | 98 | |
| | | | | 50.5 | R-5 | | 76% | 4.8 | 96 | |
| | | | | 55.5 | R-6 | | 74% | 5.0 | 100 | |
| | | | | 60.5 | R-7 | | 86% | 4.9 | 98 | |
| | | | | | R-8 | | 78% | 5.0 | 100 | |
| TOR 785.90 | | Fine to coarse GRAVEL and CLAY, some fine and medium Sand, very dense, dry to wet, stratified, poorly graded, flat, medium plastic fines, dark blue gray, residuum, (weathered bedrock). 30.2'/El. 785.9 | a-2-7 / gc | | | | | | | |
| | | Argillaceous SANDSTONE interbedded with CLAYSTONE, light gray to brown, fine grained, friable, medium hard to very soft, fresh, narrow to moderate bedding with flat dip, jointed, narrow to close spacing, flat to sheer dip, narrow to open joints, RQD=0%. 33.2'/El. 782.9 | | | | | | | | |
| EPTE 776.00 | | Argillaceous SHALEY SANDSTONE, light gray to dark gray, fissile, fine grained, medium hard to soft, slightly weathered to fresh, thin to indistinct bedding with flat to moderate dip, jointed, narrow to medium spacing, flat to moderate dip, tight to narrow joint openings, RQD=61%. | | | | | | | | |
| | | - vertical fracture @ 44.7'. | | | | | | | | |
| | | 57.6'/El. 758.5 | | | | | | | | |
| | | (Layer description on next log page) | | | | | | | | |

NOTE: BORING OFFSET 5.0' DOWNSTATION FOR LESS STEEP GROUND

SUBSTRUCTURE UNIT: PIER 1 — LOG 2 OF 2

BORING NUMBER: S-04

BORING LOCATION: STATION: 103+70.0; OFFSET: 16.0 FT. RT.

VERTICAL SCALE: 0 FT. 5 FT.

▽ 0 HR.: El. 802.9 ft. - 0.0 hr.

▼ 24 HR.: El. 803.1 ft. - 20.2 hr.

| 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. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40) |
|---|---|---|---|---|---|---|---|---|---|---|
| 750 | | Micaceous SANDSTONE, light gray to banded black, coarse grained, medium hard to soft, slightly weathered to fresh, laminated to thick bedding with flat to shallow dip, bedding joints, narrow to wide spacing, flat to moderate dip, tight to narrow joint openings, RQD=74% | | 65.5 | R-9 | | 88% | 5.0 | 100 | |
| 745 | | - water loast in R-8 | | 70.5 | R-10 | | 72% | 5.0 | 100 | |
| 740 | | - coal veins throughout.(Layer continued from the previous log page) - shelly and pitted from 72.7'-72.9' | | 75.5 | R-11 | | 88% | 5.0 | 100 | |
| 735 | | - hard limestone from 73.2'-73.4'. | | 80.5 | R-12 | | 68% | 4.6 | 92 | |
| 730 | | - vertical fracture @ 83.6' - most of REC in R-13 did not break off the first time, inner barrel sent backdown. Remaining REC retrieved but a little damaged after spinning the barrel back over it. 90.5'/El. 725.6 | | 85.5 | R-13 | | 46% | 5.0 | 100 | |

**SAMPLE NO. shading indicates lab testing performed.

NOTE: BORING OFFSET 5.0' DOWNSTATION FOR LESS STEEP GROUND

## 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 |
| BPCE | BOTTOM OF PILE CAP ELEVATION |
| EPTE | ESTIMATED PILE TIP ELEVATION |
| TOR | ESTIMATED TOP OF ROCK ELEVATION |

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

TRB

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
STRUCTURE BORINGS 5

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — THEODORE RICHARD BAIR — ENGINEER — PE089615

RECOMMENDED _____

SHEET 127 OF 130

S - 39414

8/17/2022
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SUBSTRUCTURE UNIT: PIER 2 — LOG 1 OF 1

| BORING NUMBER: | BORING LOCATION | START: | HAMMER: |
|---|---|---|---|
| S-05 | STATION: 106+20.0<br>OFFSET: 16.0 FT. LT. | 09/29/2020 1:18 PM<br>FINISH: 09/30/2020 9:02 AM | AUTOMATIC<br>EFFICIENCY: 0.8 ERa |

| DRILLING METHOD AND EQUIPMENT: | SIZE OF CORE: | VERTICAL SCALE: | TOP OF BORING ELEVATION: |
|---|---|---|---|
| DOUBLE TUBE-NQ, AUTOMATIC, CME 45C | 2.000 IN. | 0 FT. [redacted] 5 FT. | 800.0 FT. |

DRILLING INSPECTOR: CLAYTON KALMAR
DRILLER & DRILLING COMPANY: S.KELLY
ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 800.0 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: NR – NR

| 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 (N60) ▲ |
|---|---|---|---|---|---|---|---|---|---|---|
| 795 | | Fine and medium GRAVEL, some fine to coarse Sand, little Cobbles, little Silt, medium dense to dense, wet, heterogeneous, poorly graded, sub-angular to sub-rounded, brown to black, alluvium. | a-2-7 / gm | 1.5 | S-1 | 4-9-11 | 27 | 0.8 | 53 | |
| | | 6.5'/El. 793.5 | | 3.0 | S-2 | 5-8-12 | 27 | 1.2 | 80 | |
| | | | | 4.5 | S-3 | 8-10-13 | 31 | 0.8 | 53 | |
| | | | | 6.0 | S-4 | 27-17-17 | 45 | 1.0 | 67 | |
| | | | | 7.5 | S-5 | 6-12-18 | 40 | 0.8 | 53 | |
| TOR 792.30 | | SILT, little Clay, trace fine Sand, very stiff, moist to damp, homogeneous, poorly graded, low plastic fines, gray, residuum. | a-5 / ml | 7.7 | S-6 | 3.00 / 50/.2 | >67 | 0.2 | 100 | |
| | | 7.7'/El. 792.3 | | 10.2 | R-1 | | 0% | 1.8 | 72 | |
| 790 BPCE 789.50 | | SILTSTONE, gray, friable, soft to very soft, slightly weathered, indistinct bedding, jointed, narrow to close spacing, flat to shallow dip, narrow to open joints, RQD=5% | | | | | | | | |
| | | – mineral veins. | | 15.2 | R-2 | | 8% | 4.9 | 98 | |
| | | 15.4'/El. 784.6 | | | | | | | | |
| 785 | | Micaceous SANDSTONE, gray, fine-coarse grained, mineral veins, medium hard, slightly weathered to fresh, indistinct bedding, jointed, close to moderate spacing, flat to steep dip, tight to narrow joint openings, RQD=73%. | | 20.2 | R-3 | | 74% | 4.7 | 94 | |
| | | 25.0'/El. 775.0 | | | | | | | | |
| 780 EPTE 778.00 | | SANDSTONE, light gray to dark gray, banded, fine-coarse grained, medium hard, slightly weathered to fresh, laminated to narrow bedding with flat to moderate dip, bedding joints, close to medium spacing, flat to steep dip, tight to narrow joint openings, RQD=68%. | | 25.2 | R-4 | | 74% | 5.0 | 100 | |
| | | 35.2'/El. 764.8 | | | | | | | | |
| 775 | | SANDSTONE interbedded with SHALE, light gray to dark gray, banded, fissle, fine-coarse grained, medium hard to soft, slightly weathered to fresh, laminated to medium bedding with flat to moderate dip, bedding joints, narrow to medium spacing, flat to moderate dip, tight to narrow joint openings, RQD=60%. | | 30.2 | R-5 | | 66% | 5.0 | 100 | |
| | | | | 35.2 | R-6 | | 68% | 5.0 | 100 | |
| 770 | | | | | | | | | | |
| 765 | | | | 40.2 | R-7 | | 38% | 5.0 | 100 | |
| 760 | | | | | R-8 | | 82% | 5.0 | 100 | |
| | | 45.2'/El. 754.8 | | | | | | | | |
| 755 | | | | | | | | | | |

**SAMPLE NO. shading indicates lab testing performed.

NOTE: RIVER BORING, NOT GROUTED AND NO 24 HR READING

SUBSTRUCTURE UNIT: PIER 2 — LOG 1 OF 2

| BORING NUMBER: | BORING LOCATION | START: | HAMMER: |
|---|---|---|---|
| S-06 | STATION: 106+20.0<br>OFFSET: 16.0 FT. RT. | 09/30/2020 9:50 AM<br>FINISH: 09/30/2020 2:30 PM | AUTOMATIC<br>EFFICIENCY: 0.8 ERa |

| DRILLING METHOD AND EQUIPMENT: | SIZE OF CORE: | VERTICAL SCALE: | TOP OF BORING ELEVATION: |
|---|---|---|---|
| DOUBLE TUBE-NQ, AUTOMATIC, CME 45C | 2.000 IN. | 0 FT. [redacted] 5 FT. | 800.0 FT. |

DRILLING INSPECTOR: CLAYTON KALMAR
DRILLER & DRILLING COMPANY: S.KELLY
ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 800.0 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: NR – NR

| 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 (N60) ▲ |
|---|---|---|---|---|---|---|---|---|---|---|
| 795 | | GRAVEL, some Sand, little Silt, trace Clay, medium dense to dense, wet, heterogeneous, poorly graded, rounded to flat, brown to black, alluvium, – cobbles @ 0.5'. | A-1-a / GP-GM | 1.5 | S-1 | 6-50-32 | 109 | 0.7 | 47 | |
| | | 6.5'/El. 793.5 | | 3.0 | S-2 | 8-10-12 | 29 | 0.9 | 60 | |
| | | | | 4.5 | S-3 | 14-18-23 | 55 | 0.5 | 33 | |
| | | | | 6.0 | S-4 | 9-9-18 | 36 | 0.3 | 20 | |
| | | | | 7.5 | S-5 | 7-7-9 | 21 | 0.8 | 53 | |
| TOR 791.40 | | SILT, some Clay, trace fine to coarse Sand, hard, dry, homogeneous, low plastic fines, gray, residuum, (weathered siltstone). | a-4 / ml | 8.6 | S-6 | 27-48-50/.1 / 4.50 | 131 | 1.0 | 91 | |
| | | 8.6'/El. 791.4 | | 10.6 | R-1 | | 25% | 1.7 | 85 | |
| 790 BPCE 789.50 | | SILTSTONE interbedded with CLAYSTONE, gray to dark gray, fissile, friable, soft to very soft, slightly weathered, indistinct to laminated bedding with shallow dip, jointed, narrow to moderate spacing, flat to shallow dip, narrow to open joints, RQD=8%. | | 13.6 | R-2 | | 0% | 3.0 | 100 | |
| | | 15.0'/El. 785.0 | | | | | | | | |
| 785 | | SANDSTONE, light gray, fine grained, medium hard, slightly weathered to fresh, indistinct bedding, jointed, close to wide spacing, flat to sheer dip, tight to narrow joint openings, RQD=49%. | | 15.6 | R-3 | | 0% | 2.0 | 100 | |
| | | 30.4'/El. 769.6 | | 20.6 | R-4 | | 18% | 5.0 | 100 | |
| EPTE 778.00 | | SANDSTONE interbedded with SHALE, light gray to dark gray, fissile, fine grained, medium hard to soft, weathered to fresh, thin to medium bedding with flat to shallow dip, jointed, laminated to moderate spacing, flat to steep dip, tight to narrow joint openings, RQD=28%. | | 25.6 | R-5 | | 48% | 5.0 | 100 | |
| 775 | | 34.7'/El. 765.3 | | | | | | | | |
| | | SANDSTONE, light gray, fine-coarse grained, medium hard, fresh, laminated to medium bedding with flat dip, jointed, close to wide spacing, flat to shallow dip, tight to narrow joint openings, RQD=85%. | | 30.6 | R-6 | | 86% | 5.0 | 100 | |
| 770 | | | | 35.6 | R-7 | | 36% | 5.0 | 100 | |
| 765 | | | | 40.6 | R-8 | | 78% | 5.0 | 100 | |
| | | 43.9'/El. 756.1 | | 45.6 | R-9 | | 84% | 5.0 | 100 | |
| 760 | | Micaceous SANDSTONE, light gray to black, coarse grained, medium hard to soft, fresh, laminated to medium bedding with flat to moderate dip, bedding joints, close to medium spacing, flat to moderate dip, tight to narrow joint openings, RQD=80% | | 50.6 | R-10 | | 88% | 5.0 | 100 | |
| 755 | | – veins of coal & carbonaceous shale throughout. | | 55.6 | R-11 | | 80% | 4.9 | 98 | |
| 750 | | 56.0'/El. 744.0 | | 60.6 | R-12 | | 84% | 5.0 | 100 | |
| 745 | | SANDSTONE interbedded with CONGLOMERATE, light gray to gray tan, mottled, coarse grained, medium hard to soft, slightly weathered to fresh, moderate bedding with flat to shallow dip, bedding joints, moderate spacing, flat to shallow dip, tight to narrow joint openings, RQD=87%. | | | R-13 | | 36% | 4.0 | 80 | |
| 740 | | 59.8'/El. 740.2 | | | | | | | | |
| 735 | | SILTSTONE, light gray, soft, slightly weathered to fresh, indistinct bedding, jointed, close to moderate spacing, flat to moderate dip, tight to narrow joint openings, RQD=40%. | | | | | | | | |
| | | 65.6'/El. 734.4 | | | | | | | | |

NOTE: RIVER BORING, NOT GROUTED AND NO 24 HR READING

## GENERAL NOTES

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FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

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### LEGEND

| | |
|---|---|
| PP | POCKET PENETROMETER |
| T | TORVANE |
| NTS | NOT TO SCALE |
| BFE | BOTTOM OF FOOTING ELEVATION |
| BPCE | BOTTOM OF PILE CAP ELEVATION |
| EPTE | ESTIMATED PILE TIP ELEVATION |
| TOR | ESTIMATED TOP OF ROCK ELEVATION |

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.
TRB

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
STRUCTURE BORINGS 6

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — THEODORE RICHARD BAIR — ENGINEER — PE089615

RECOMMENDED _____

SHEET 128 OF 130

S - 39414

8/17/2022
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SUBSTRUCTURE UNIT: ABUTMENT 2 — LOG 1 OF 1

| BORING NUMBER: | BORING LOCATION | START: | HAMMER: |
|---|---|---|---|
| S-07 | STATION: 108+20.0<br>OFFSET: 16.0 FT. LT. | 09/08/2020 12:34 PM<br>FINISH: 09/09/2020 10:32 AM | AUTOMATIC<br>EFFICIENCY: 0.8 ERa |

| DRILLING METHOD AND EQUIPMENT: | SIZE OF CORE: | VERTICAL SCALE: | TOP OF BORING ELEVATION: |
|---|---|---|---|
| DOUBLE TUBE-NQ, AUTOMATIC,<br>CME 45C | 2.000 IN. | 0 FT. 5 FT. | 846.0 FT. |

DRILLING INSPECTOR: CLAYTON KALMAR
DRILLER & DRILLING COMPANY: S.KELLY
ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 820.9 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: El. 823.8 ft. – 27.2 hr.

| ELEV. | GRAPHIC | MATERIAL DESCRIPTION | AASHTO/ USCS | SAMPLE DEPTH | SAMPLE NO. ** | BLOW COUNT / PP/T TSF | N 60 / %RQD | REC (ft.) | REC (%) |
|---|---|---|---|---|---|---|---|---|---|
| 845 | | TOPSOIL. 0.5'/El. 845.5 | a-6 / cl | 1.5 | S-1 | 1-1-2 2.00 | 4 | 0.8 | 53 |
| | | CLAY, some Silt, trace Sand, very stiff, damp, homogeneous, medium plastic fines, gray and mottled orange, alluvium. 3.0'/El. 843.0 | | 3.0 | S-2 | 2-4-4 4.00 | 11 | 0.8 | 53 |
| 840 | BPCE 840.00 | SILT, some Sand, some Gravel, little Clay, stiff to hard, damp to moist, heterogeneous, medium plastic fines, black to brown, alluvium, – boulder, water pumped down hole, samples wet. | A-6 / SC | 4.5 | S-3 | 12-20-22 4.50 | 56 | 1.3 | 87 |
| | | | | 6.0 | S-4 | 13-14-14 | 37 | 0.3 | 20 |
| | | | | 7.5 | S-5 | 8-7-13 4.50 | 27 | 1.1 | 73 |
| | | | | 9.0 | S-6 | 5-10-8 | 24 | 0.5 | 33 |
| 835 | | 11.5'/El. 834.5 | | 10.5 | S-7 | 4-5-6 1.75 | 15 | 1.3 | 87 |
| | | SAND and GRAVEL, little Silt, trace Clay, stiff, damp to dry, heterogeneous, sub-rounded to sub-angular, medium plastic fines, brown, alluvium. | A-1-b / SC-SM | 12.0 | S-8 | 6-12-15 1.25 | 36 | 1.3 | 87 |
| | | | | 13.5 | S-9 | 11-9-11 1.75 | 27 | 1.0 | 67 |
| | | 15.0'/El. 831.0 | | 15.0 | S-10 | 16-18-19 1.00 | 49 | 1.1 | 73 |
| 830 | | Coarse SAND, some fine and medium Gravel, trace Silt, trace Clay, medium dense, damp, heterogeneous, poorly graded, sub-angular to sub-rounded, brown and white, alluvium. | a-1-b / sp | 16.5 | S-11 | 13-15-10 | 33 | 1.4 | 93 |
| | | 18.0'/El. 828.0 | | 18.0 | S-12 | 6-5-14 | 25 | 1.2 | 80 |
| | | CLAY, some fine and medium Gravel, little coarse Sand, stiff, damp, heterogeneous, sub-rounded to sub-angular, medium plastic fines, brown to mottled orange black, alluvium. | a-7-6 / cl | 19.5 | S-13 | 10-10-8 1.50 | 24 | 1.3 | 87 |
| 825 | TOR 825.40 | 20.6'/El. 825.4 | | 20.6 | S-14 | 8-19-50/.1 2.00 | 92 | 0.9 | 82 |
| | | SANDSTONE, brown to gray, coarse grained, medium hard, weathered, narrow bedding with shallow dip, jointed, close spacing, flat to shallow dip, open joints, RQD=0%. | | 22.6 | R-1 | | 0% | 2.0 | 100 |
| | | 21.8'/El. 824.2 | | | | | | | |
| | | COAL, black, metallic luster, soft, slightly weathered, indistinct bedding, jointed, narrow to close spacing, flat to sheer dip, narrow joint opening, RQD=0%, UPPER FREEPORT COAL – black (coal) water return @ 22.6'. | | 26.5 | R-2 | | 0% | 3.7 | 95 |
| 820 | | 26.0'/El. 820.0 | | | | | | | |
| | | CLAYSTONE, gray, very soft, slightly weathered to fresh, indistinct bedding, jointed, close to moderate spacing, flat to shallow dip, narrow joint opening, RQD=0% – coal interbed @ 28.9'. | | 31.5 | R-3 | | 0% | 4.6 | 92 |
| 815 | | 30.8'/El. 815.2 | | | | | | | |
| | | LIMESTONE, gray, medium hard to hard, slightly weathered to fresh, indistinct bedding, jointed, close to moderate spacing, flat to very steep dip, tight to narrow joint openings, RQD=41%. | | 36.5 | R-4 | | 52% | 5.0 | 100 |
| 810 | | | | | | | | | |
| | | | | 41.5 | R-5 | | 46% | 5.0 | 100 |
| 805 | EPTE 806.00 | 42.6'/El. 803.4 | | | | | | | |
| | | SILTSTONE, gray, waxy luster, friable, soft to very soft, slightly weathered to fresh, indistinct bedding, jointed, narrow to close spacing, flat to sheer dip, narrow to open joints, RQD=13%. | | 46.5 | R-6 | | 0% | 4.7 | 94 |
| 800 | | 52.2'/El. 793.8 | | | | | | | |
| | | SANDSTONE, gray, fine grained, medium hard, fresh to slightly weathered, indistinct bedding, jointed, close to moderate spacing, flat to shallow dip, tight to narrow joint openings, RQD=68%. | | 51.5 | R-7 | | 24% | 4.8 | 96 |
| 795 | | 56.5'/El. 789.5 | | | | | | | |
| 790 | | | | 56.5 | R-8 | | 58% | 4.5 | 90 |

◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40)

**SAMPLE NO. shading indicates lab testing performed.

NOTE: BORING MOVED 10.0'L FOR CLEARENCE FROM CAMPER

SUBSTRUCTURE UNIT: ABUTMENT 2 — LOG 1 OF 1

| BORING NUMBER: | BORING LOCATION | START: | HAMMER: |
|---|---|---|---|
| S-08 | STATION: 108+32.9<br>OFFSET: 15.0 FT. RT. | 09/09/2020 11:50 AM<br>FINISH: 09/10/2020 10:40 AM | AUTOMATIC<br>EFFICIENCY: 0.8 ERa |

| DRILLING METHOD AND EQUIPMENT: | SIZE OF CORE: | VERTICAL SCALE: | TOP OF BORING ELEVATION: |
|---|---|---|---|
| DOUBLE TUBE-NQ, AUTOMATIC,<br>CME 45C | 2.000 IN. | 0 FT. 5 FT. | 847.8 FT. |

DRILLING INSPECTOR: CLAYTON KALMAR
DRILLER & DRILLING COMPANY: S.KELLY
ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 815.5 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: NR – NR

| ELEV. | GRAPHIC | MATERIAL DESCRIPTION | AASHTO/ USCS | SAMPLE DEPTH | SAMPLE NO. ** | BLOW COUNT / PP/T TSF | N 60 / %RQD | REC (ft.) | REC (%) |
|---|---|---|---|---|---|---|---|---|---|
| 845 | | TOPSOIL. 0.5'/El. 847.3 | A-6 / CL | 1.5 | S-1 | 1-1-2 2.25 | 4 | 0.7 | 47 |
| | | SILT, some Gravel, some Sand, little Clay, very stiff to hard, damp to dry, heterogeneous, sub-rounded, medium plastic fines, brown and mottled gray black, alluvium. | | 3.0 | S-2 | 2-2-3 2.75 | 7 | 0.5 | 33 |
| 840 | BPCE 840.00 | | | 4.5 | S-3 | 3-4-6 3.75 | 13 | 1.2 | 80 |
| | | | | 6.0 | S-4 | 7-9-11 3.50 | 27 | 1.5 | 100 |
| | | | | 7.5 | S-5 | 6-10-8 4.50 | 24 | 1.0 | 67 |
| | | | | 9.0 | S-6 | 5-8-9 3.75 | 23 | 1.3 | 87 |
| 835 | | 10.0'/El. 837.8 | | 10.5 | S-7 | 5-7-7 2.50 | 19 | 1.5 | 100 |
| | | CLAY, some Silt, some fine and medium Sand, soft, damp, homogeneous, medium plastic fines, brown and mottled gray, alluvium. | a-7-6 / cl | 12.0 | S-8 | 3-5-7 0.50 | 16 | 1.5 | 100 |
| | | | | 13.5 | S-9 | 5-17-17 2.00 | 45 | 1.5 | 100 |
| | | 12.7'/El. 835.1 | | 15.0 | S-10 | 17-22-22 | 59 | 1.5 | 100 |
| | | Fine and medium GRAVEL and CLAY, some fine to coarse Sand, little Silt, dense, damp, heterogeneous, poorly graded, angular, brown, alluvium. | a-2-7 / gc | 16.5 | S-11 | 14-14-17 | 41 | 0.9 | 60 |
| 830 | | 16.5'/El. 831.3 | | 18.0 | S-12 | 14-22-9 | 41 | 1.4 | 93 |
| | | Medium and coarse SAND, some fine to coarse Gravel, little Silt, trace Clay, medium dense to dense, damp to moist, laminated, well graded, rounded to sub-rounded, brown and gray, alluvium. | A-2-4 / SM | 19.5 | S-13 | 7-9-9 | 24 | 1.2 | 80 |
| | | | | 21.0 | S-14 | 9-7-8 | 20 | 1.0 | 67 |
| | | 22.3'/El. 825.5 | | 22.5 | S-15 | 9-29-50 | 105 | 1.3 | 87 |
| 825 | TOR 825.20 | MECHANICALLY BROKEN ROCK, red brown and white, (sandstone), coarse. | | 22.6 | S-16 | 50/.1' | >67 | 0.1 | 100 |
| | | 22.6'/El. 825.2 | | 24.6 | R-1 | | 0% | 1.2 | 60 |
| | | Argillaceous SANDSTONE, brown, coarse grained, medium hard, weathered, indistinct bedding, fracture zone, open joints, RQD=0%. | | | | | | | |
| | | 22.9'/El. 824.9 | | 27.6 | R-2 | | 0% | 2.2 | 73 |
| 820 | | SILTSTONE, gray, fissile, soft, slightly weathered, thin bedding with flat dip, foliation joints, narrow to close spacing, flat to shallow dip, narrow joint opening, RQD=0%. | | | | | | | |
| | | 26.8'/El. 821.0 | | 32.6 | R-3 | | 0% | 1.3 | 26 |
| | | VOID, UPPER FREEPORT COAL – water lost, no resistance; rods pushed – resistance, rods pushed; no recovery @ 30.1'. | | | | | | | |
| 815 | | 31.3'/El. 816.5 | | 37.0 | R-4 | | 18% | 4.2 | 95 |
| | | Carbonaceous CLAYSTONE interbedded with COAL, dark gray to black, waxy luster, very soft to soft, slightly weathered, medium bedding with flat dip, fracture zone, narrow joint opening, RQD=0%. | | | | | | | |
| 810 | | 35.7'/El. 812.1 | | 42.0 | R-5 | | 62% | 4.8 | 96 |
| | | LIMESTONE, gray, hard to medium hard, slightly weathered to fresh, indistinct bedding, jointed, close to moderate spacing, flat to steep dip, narrow joint opening, RQD=45%. – vertical fracture from 42.2'–42.8'. | | | | | | | |
| 805 | EPTE 806.00 | | | 47.0 | R-6 | | 28% | 5.0 | 100 |
| | | 48.2'/El. 799.6 | | | | | | | |
| 800 | | SILTSTONE, gray to dark gray, fissile, waxy luster, soft to very soft, slightly weathered to fresh, thin to indistinct bedding with flat to shallow dip, jointed, close to moderate spacing, flat to shallow dip, tight to narrow joint openings, RQD=56%. | | 52.0 | R-7 | | 54% | 4.5 | 90 |
| 795 | | 56.0'/El. 791.8 | | 57.0 | R-8 | | 50% | 3.6 | 90 |

◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40)

**SAMPLE NO. shading indicates lab testing performed.

## 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 |
| BPCE | BOTTOM OF PILE CAP ELEVATION |
| EPTE | ESTIMATED PILE TIP ELEVATION |
| TOR | ESTIMATED TOP OF ROCK ELEVATION |

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.
TRB

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

WESTMORELAND & ARMSTRONG COUNTIES
SR 1060 SECTION A20
SEGMENT 0010 OFFSET 0037
SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY
3 SPAN CONT COMP STEEL PLATE GIRDER
STRUCTURE BORINGS 7

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — THEODORE RICHARD BAIR — ENGINEER — PE089615

RECOMMENDED _____

SHEET 129 OF 130

S - 39414

8/17/2022
Z:\2 - (E or D) PennDOT\Dist 12-0\E03351- Michael Baker\CADD\Geotech\SR1060_StructureBoringSheet - No Lab Results.dgn
PENNDOT STRUCTURE BORING LOG - PENNDOT_GINT_VERSION_1.2.3.6_P-21-2016.GDT - 12/20/21 13:43 - Z:\2 - (E or D) PENNDOT\DIST 12-0\E03351 - MICHAEL BAKER\GEOTECH\DRILLING\LOGS\KALMAN_TYPE3 LOGS - WITHOUT LAB TESTING.GPJ

SUBSTRUCTURE UNIT: LOG 1 OF 1

# ABUTMENT 2 WINGWALL C

| BORING NUMBER: | BORING LOCATION | START: | HAMMER: |
|---|---|---|---|
| S-12 | STATION: 108+79.0<br>OFFSET: 16.0 FT. LT. | 09/04/2020 9:15 AM | SAFETY |
| | | FINISH: 09/04/2020 4:15 PM | EFFICIENCY: 0.6 ERa |

| DRILLING METHOD AND EQUIPMENT: | SIZE OF CORE: | VERTICAL SCALE: | TOP OF BORING ELEVATION: |
|---|---|---|---|
| DOUBLE TUBE-NQ, SAFETY,<br>ACKER TRUCK RIG | 2.000 IN. | 0 FT. 5 FT. | 853.6 FT. |

DRILLING INSPECTOR: NICK KOPROWICZ
DRILLER & DRILLING COMPANY: L.VICTOR
ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 836.5 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: El. 821.0 ft. – 137.5 hr.

| 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. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40) |
|---|---|---|---|---|---|---|---|---|---|---|
| 850 | | TOPSOIL. 1.5'/El. 852.1 | | 1.5 | S-1 | 1-2-7 | 9 | 0.8 | 53 | |
| | | SAND and SILT, little Gravel, medium dense to very dense, dry, homogeneous, poorly graded, sub-rounded, non-plastic, brown orange, fill. | a-2-4 / sm | 3.0 | S-2 | 5-5-5 | 10 | 1.3 | 87 | |
| | | | | 4.5 | S-3 | 6-12-18 | 30 | 1.5 | 100 | |
| | | | | 6.0 | S-4 | 1-12-16 | 28 | 0.7 | 47 | |
| | | – S-5 pushed cobble, caused poor recovery. | | 7.5 | S-5 | 7-15-11 | 26 | 0.0 | 0 | |
| | | 9.0'/El. 844.6 | | 9.0 | S-6 | 14-50-21 | 71 | 1.5 | 100 | |
| 845 | | SILT, some Clay, little Sand, trace Gravel, medium, dry to damp, homogeneous, poorly graded, sub-rounded, low plastic fines, brown, residuum. | | 10.5 | S-7 | 3-8-6 | 14 | 0.7 | 47 | |
| | | | | 12.0 | S-8 | 9-12-14 | 26 | 0.7 | 47 | |
| | | | | 13.5 | S-9 | 9-15-21 | 36 | 0.1 | 7 | |
| 840 | | | A-4 / CL | 15.0 | S-10 | 4-7-10 | 17 | 0.6 | 40 | |
| | | | | 16.5 | S-11 | 3-5-7 2.75 | 12 | 1.5 | 100 | |
| | | | | 18.0 | S-12 | 4-5-8 1.25 | 13 | 1.0 | 67 | |
| | | | | 19.5 | S-13 | 8-21-34 | 55 | 0.4 | 27 | |
| 835 ▽ | | 22.5'/El. 831.1 | | 20.9 | S-14 | 8-31-50/.4' | 81 | 1.1 | 79 | |
| | | SAND, little Silt, trace Gravel, dense to very dense, dry, homogeneous, uniformly graded, sub-rounded, non-plastic, brown, residuum. | a-1-b / sp | 21.0 | S-15 | 50-39-23 | 62 | 1.5 | 100 | |
| | | | | 22.5 | S-16 | 18-28-35 | 63 | 1.3 | 87 | |
| | | | | 24.0 | S-17 | 18-15-22 | 37 | 1.5 | 100 | |
| | | | | 25.5 | S-18 | 13-13-18 | 31 | 0.8 | 53 | |
| 830 | | 28.0'/El. 825.6 | | 27.0 | S-19 | 21-50/.3' | >50 | 0.7 | 87 | |
| | | CLAYSTONE interbedded with COAL, gray, soft, slightly weathered, narrow to moderate bedding with flat dip, random fractures, narrow to moderate spacing, shallow to moderate dip, open joints, RQD=17%, UPPER FREEPORT COAL. | | 27.8 | S-20 | 50/.2' | >50 | 0.2 | 100 | |
| | | | | 28.0 | R-1 | | 0% | 0.7 | 35 | |
| | | | | 30.0 | R-2 | | 0% | 0.7 | 35 | |
| | | | | 32.0 | R-3 | | 65% | 1.8 | 90 | |
| 825 ▼ | | 35.8'/El. 817.8 | | 34.0 | | | | | | |
| | | LIMESTONE interbedded with CLAYSTONE, gray, dull luster, medium hard, fresh to slightly weathered, thin bedding with shallow to flat dip, bedding joints, close to wide spacing, flat to moderate dip, tight to open joints, RQD=70%. | | 39.0 | R-4 | | 62% | 5.0 | 100 | |
| | | | | 44.0 | R-5 | | 74% | 5.0 | 100 | |
| 820 | | | | 49.0 | R-6 | | 48% | 5.0 | 100 | |
| | | 49.0'/El. 804.6 | | | | | | | | |
| 815 | | SILTSTONE interbedded with CLAYSTONE, gray, soft, fresh, thin bedding with flat to shallow dip, bedding joints, moderate to narrow spacing, flat to shallow dip, narrow to open joints, RQD=56%. | | 54.0 | R-7 | | 62% | 5.0 | 100 | |
| 810 | | | | 59.0 | R-8 | | 40% | 2.0 | 100 | |
| EPTE 806.00 | | 56.0'/El. 797.6 | | | | | | | | |
| 805 | | | | | | | | | | |
| 800 | | | | | | | | | | |

**SAMPLE NO. shading indicates lab testing performed.

SUBSTRUCTURE UNIT: LOG 1 OF 2

# ABUTMENT 2 WINGWALL D

| BORING NUMBER: | BORING LOCATION | START: | HAMMER: |
|---|---|---|---|
| S-13 | STATION: 108+81.4<br>OFFSET: 33.0 FT. RT. | 09/11/2020 8:33 AM | AUTOMATIC |
| | | FINISH: 09/14/2020 9:35 AM | EFFICIENCY: 0.8 ERa |

| DRILLING METHOD AND EQUIPMENT: | SIZE OF CORE: | VERTICAL SCALE: | TOP OF BORING ELEVATION: |
|---|---|---|---|
| DOUBLE TUBE-NQ, AUTOMATIC,<br>ACKER TRUCK RIG | 2.000 IN. | 0 FT. 5 FT. | 861.3 FT. |

DRILLING INSPECTOR: CLAYTON KALMAR
DRILLER & DRILLING COMPANY: S.KELLY
ARMSTRONG DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: Dry – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: NR – NR

| 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. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40) |
|---|---|---|---|---|---|---|---|---|---|---|
| 860 | | BITUMINOUS CONCRETE. 0.2'/El. 861.1 | | 1.5 | S-1 | 50-30-20 | 67 | 0.7 | 47 | |
| | | subbase. 1.5'/El. 859.8 | | 3.0 | S-2 | 5-7-5 1.75 | 16 | 0.6 | 40 | |
| | | SILT, some Sand, some Clay, trace Gravel, stiff to very stiff, dry to damp, heterogeneous, angular, medium plastic fines, black and brown, fill, | A-6 / CL | 4.5 | S-3 | 2-2-5 | 9 | 0.2 | 13 | |
| | | | | 6.0 | S-4 | 4-4-5 | 12 | 0.4 | 27 | |
| | | – gravel clogging spoons in S-4, poor recovery | | 7.5 | S-5 | 3-3-3 3.00 | 8 | 0.7 | 47 | |
| | | bag samples collected from 1.5'-10.5'. | | 9.0 | S-6 | 2-4-5 1.75 | 12 | 1.1 | 73 | |
| | | 9.5'/El. 851.8 | | 10.5 | S-7 | 2-3-3 1.00 | 8 | 1.5 | 100 | |
| 850 | | SILT, some Sand, some Clay, trace Gravel, hard, damp, sub-angular to sub-rounded, medium plastic fines, orange and mottled gray, alluvium. | A-6 / CL | 12.0 | S-8 | 7-8-9 4.50 | 23 | 1.5 | 100 | |
| | | 13.6'/El. 847.7 | | 13.5 | S-9 | 11-17-18 4.50 | 47 | 1.4 | 93 | |
| | | LNS auger refusal, switched to casing. | | 13.6 | S-10 | 50/.1' | >67 | 0.1 | 100 | |
| | | UNSAMPLED, thick boulder or bedrock outcrop. 15.0'/El. 846.3 | | 15.9 | R-1 | | 61% | 1.6 | 70 | |
| | | CLAY and COBBLES, some fine to coarse Gravel, little Sand, medium to stiff, damp to moist, heterogeneous, medium plastic fines, orange brown and mottled black, residuum, (weathered claystone). | | 17.9 | R-2 | | 0% | 2.0 | 100 | |
| 845 | | | | 20.9 | R-3 | | 0% | 0.4 | 13 | |
| | | – core barrel didn't seat, switched back to augers and spoons. Auger refusal switched to casing and spoons. samples are wet. | a-7-6 / cl | 22.4 | S-11 | 2-3-5 1.75 | 11 | 1.4 | 93 | |
| | | | | 23.9 | S-12 | 3-6-5 1.25 | 15 | 1.2 | 80 | |
| | | | | 25.4 | S-13 | 3-3-11 0.50 | 19 | 1.5 | 100 | |
| | | | | 26.9 | S-14 | 9-11-16 2.00 | 36 | 0.8 | 53 | |
| 840 | | 28.4'/El. 832.9 | | 28.4 | S-15 | 11-7-9 | 21 | 0.3 | 20 | |
| | | Medium and coarse SAND, some fine and medium Gravel, little Silt, medium dense to very dense, moist to wet, heterogeneous, poorly graded, rounded to sub-angular, dark brown and black, residuum. | | 29.9 | S-16 | 7-11-13 | 32 | 0.9 | 60 | |
| | | | | 31.4 | S-17 | 4-8-9 | 23 | 1.0 | 67 | |
| | | | | 32.9 | S-18 | 7-8-9 1.75 | 23 | 1.1 | 73 | |
| | | | a-2-5 / sm | 34.4 | S-19 | 32-22-17 | 52 | 1.3 | 87 | |
| 835 | | | | 35.9 | S-20 | 19-33-40 | 97 | 1.3 | 87 | |
| | | | | 36.0 | S-21 | 50/.1' | >67 | 0.1 | 100 | |
| | | | | 38.0 | R-4 | | 0% | 2.0 | 100 | |
| | | | | 41.0 | R-5 | | 0% | 2.0 | 67 | |
| 830 | | 35.9'/El. 825.4 | | 46.0 | R-6 | | 0% | 2.0 | 40 | |
| | | Fine and medium MECHANICALLY BROKEN ROCK, little fine and medium Sand, very dense, dry, elongated, dark gray gray and orange, residuum, (weathered siltstone) –orange staining. | a-1-a / gp | 51.0 | R-7 | | 30% | 4.6 | 92 | |
| | | 36.0'/El. 825.3 | | 56.0 | R-8 | | 78% | 4.8 | 96 | |
| 825 | | VOID VOID VOID SILTSTONE, dark gray, fissile, dull luster, soft, slightly weathered, indistinct bedding, foliation joints, narrow to close spacing, flat to shallow dip, tight to narrow joint openings, RQD=0% – coal @ 40.0'. | | | | | | | | |
| | | 40.2'/El. 821.1 | | | | | | | | |
| | | VOID, UPPER FREEPORT COAL – no resistance, rods pushed – soft resistance @ 43.3, rods spun – hard resistance @ 43.5'. | | | | | | | | |
| 820 | | 43.5'/El. 817.8 | | | | | | | | |
| | | Carbonaceous CLAYSTONE interbedded with SILTSTONE, gray to black, fissile, waxy luster, very soft to soft, moderate bedding with flat dip, foliation joints, laminated to close spacing, flat to sheer dip, narrow to open joints, RQD=0%. | | | | | | | | |
| | | 48.7'/El. 812.6 | | | | | | | | |
| 815 | | LIMESTONE interbedded with SANDSTONE, gray, hard to medium hard, slightly weathered, indistinct bedding, jointed, close to medium spacing, flat to shallow dip, narrow joint opening, RQD=73%. | | | | | | | | |
| | | 58.9'/El. 802.4 | | | | | | | | |
| EPTE 806.00 | | SILTSTONE, gray, dull luster, soft, slightly weathered, indistinct bedding, jointed, close to moderate spacing, shallow to moderate dip, tight to narrow joint openings, RQD=33%. | | | | | | | | |
| 805 | | 61.0'/El. 800.3 | | | | | | | | |
| | | – coring rods pulled, hole collapsed @ 45.0'. | | | | | | | | |

**SAMPLE NO. shading indicates lab testing performed.

NOTE: OFFSET 7.0' RT FOR RIG ACCESS. DRILLED ON SHOULDER

## 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 |
| BPCE | BOTTOM OF PILE CAP ELEVATION |
| EPTE | ESTIMATED PILE TIP ELEVATION |
| TOR | ESTIMATED TOP OF ROCK ELEVATION |

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.
TRB

SR 1060 PREVIOUSLY KNOWN AS LR 64261
BMS STR ID: 64-1060-0010-0037 MPMS/ECMS PROJ: 81747 BRKEY: 67409

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

# WESTMORELAND & ARMSTRONG COUNTIES
# SR 1060 SECTION A20

**SEGMENT 0010 OFFSET 0037**
**SR 1060 STA 104+95.00 OVER KISKIMINETAS RIVER & NORFOLK SOUTHERN RAILWAY COMPANY**

3 SPAN CONT COMP STEEL PLATE GIRDER
STRUCTURE BORINGS 8

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
THEODORE RICHARD BAIR
ENGINEER
PE089615

RECOMMENDED _____

SHEET 130 OF 130

S - 39414

8/17/2022
Z:\2 - (E or D) PennDOT\Dist 12-0\E03351- Michael Baker\CADD\Geotech\SR1060_StructureBoringSheet - No Lab Results.dgn

**BEFORE THE**
**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

| | |
|---|---|
| Application of the Department of Transportation of the Commonwealth of Pennsylvania for approval to remove and replace on a new alignment the existing overhead bridge where State Route 1060, Section A20 crosses over the tracks of Norfolk Southern Railway Company (DOT No. 545 164 X) in Bell Township, Westmoreland County and Kiskiminetas Township, Armstrong County and the allocation of costs incident thereto. | Application<br>Docket No. A-2021-3024204<br><br>**Electronically Filed** |

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document upon the participants listed below by electronic mail pursuant to the Emergency Order at Docket Number M-2020-3019262:

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Dated this 26th Day of June 2023

Thomas A Ryczek Jr.
Grade Crossing Administrator