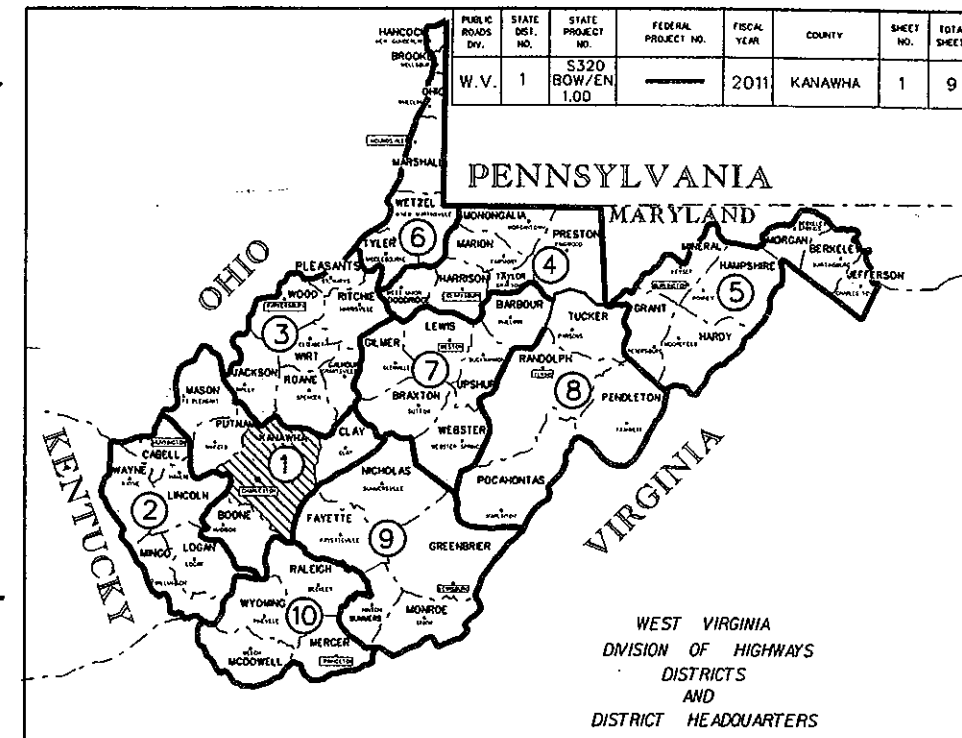


UTILITIES ENCOUNTERED
NONE

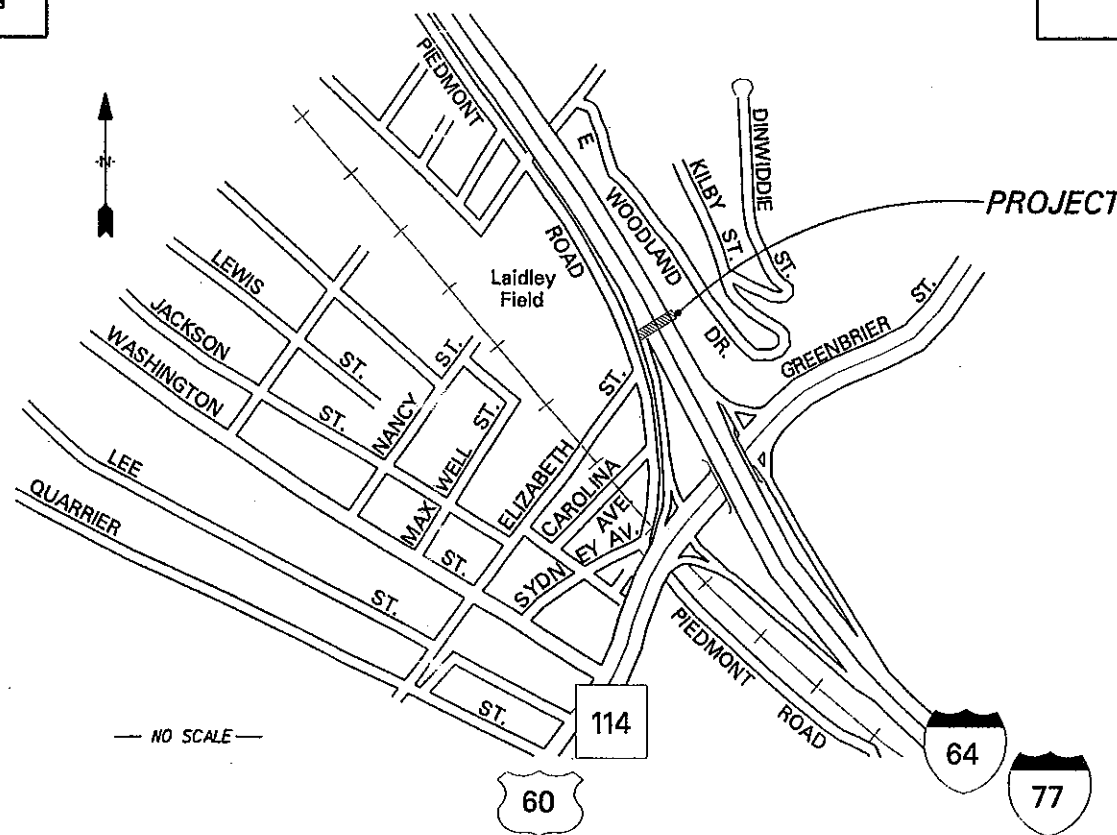
WEST VIRGINIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR CONSTRUCTION
OF
STATE HIGHWAY

STATE PROJECT NO. S320-BOW/EN-1.00
ROUTE NO. I-77
KANAWHA COUNTY

I-77 PEDESTRIAN UNDERPASS CLOSURE



TYPE OF CONSTRUCTION
PEDESTRIAN UNDERPASS CLOSURE



— NO SCALE —

DESIGN DESIGNATION

A . D . T . (19)	---
A . D . T . (20)	---
D . H . V	---
D	---
T	---
V	---

CONVENTIONAL SIGNS

---	STATE LINE
---	COUNTY LINE
---	CORPORATION LINE
---	PROPOSED R/W LINE
---	PROPERTY LINE
X X X X	EXISTING FENCE
XX XX	PROPOSED FENCE
---	EDGE OF STREAM
o o o o	PROPOSED GUARD RAIL
o o o o	EXISTING GUARD RAIL
---	RAILROAD
G G G G	GAS LINE
W W W W	WATER LINE
T T T T	TELEPHONE LINE
E E E E	ELECTRIC LINE
⊙	TELEPHONE POLE
⊙	POWER POLE
⊙	COMBINED POWER AND TELEPHONE POLE
⊙	TREE
⊙	SHRUB
⊙	RIGHT OF WAY MARKER

INDEX TO SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2	SUMMARY OF QUANTITIES
3	SEQUENCE OF CONSTRUCTION
4	SITUATION/EXISTING DETAILS
5	EXISTING SOUTH PORTAL DETAILS
6	SOUTH PORTAL CLOSURE
7	EXISTING NORTH PORTAL DETAILS
8	NORTH PORTAL CLOSURE
9	SPECIAL DETAILS

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

May 17, 2011
I HEREBY CERTIFY THAT THIS IS A CORRECT COPY OF THE PLANS OF PROJECT S320-BOW/EN-1.00
Mia Crosshanks
EXECUTIVE SECRETARY

REGISTERED PROFESSIONAL ENGINEER
CINDY L CRAMER
13216
STATE OF WEST VIRGINIA

SIGNED: *Cindy Cramer*
RESPONSIBLE CHARGE ENGINEER
DATE: 5/13/11

RECOMMENDED: *Cindy Cramer*
DIRECTOR, TRAFFIC ENGINEERING DIVISION

RECOMMENDED FOR APPROVAL: *Mark S. Meyers*
STATE HIGHWAY ENGINEER

APPROVED: *Paul A. Mattox*
COMMISSIONER OF HIGHWAYS

Public Roads Div.	State Dist. No.	State Project No.	Federal Project No.	Fiscal Year	County	Sheet No.	Total Sheets
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SUMMARY OF QUANTITIES
 PEDESTRIAN UNDERPASS CLOSURE
 CHARLESTON, KANAWHA CO.

Public Road Dist.	State Dist. No.	State Project No.	Federal Project No.	Fiscal Year	County	Sheet No.	Total Sheet
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GOVERNING SPECIFICATIONS

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION (WVDOT) DIVISION OF HIGHWAYS STANDARD SPECIFICATIONS ROADS AND BRIDGES, ADOPTED 2010, AS AMENDED BY THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS SUPPLEMENTAL SPECIFICATIONS DATED JANUARY 1, 2011, THE CONTRACT DOCUMENTS AND THE CONTRACT PLANS ARE THE GOVERNING PROVISIONS APPLICABLE TO THIS PROJECT

SCOPE OF WORK: INTENT

THE INTENT OF THIS PROJECT IS TO ACCOMPLISH A PERMANENT CLOSURE OF THE CONCRETE BOX CROSSING WHICH CARRIES PEDESTRIAN TRAFFIC UNDER I-64/77. THIS CLOSURE IS TO BE ACCOMPLISHED IN SUCH A MANNER THAT THE EXISTENCE OF THE STRUCTURE IS NOT APPARENT AT EITHER END, BUT TO MAKE IT POSSIBLE TO INSPECT THE STRUCTURE AND TO REPAIR IT IF CIRCUMSTANCES REQUIRE.

THE SCOPE OF WORK WILL INCLUDE:

WEST (PIEDMONT ROAD) PORTAL:

- REMOVAL OF ALL ELECTRICAL CONDUIT AND BOXES FROM THE PORTAL OF THE STRUCTURE
- CONCRETE REPAIRS TO THE PORTAL WHERE ELECTRICAL EQUIPMENT OR CONDUIT WAS ATTACHED, AND TO THE AREA OF THE END POST AT THE NORTH END OF THE WALL PANEL
- DESIGN, FABRICATION, TRANSPORTATION AND INSTALLATION OF A SECTIONAL PRECAST CONCRETE PANEL TO COVER AND SECURE THE EXISTING PORTAL FACE
- THE PRECAST SLAB SHALL MATCH THE ADJACENT WALL PANELS AS CLOSELY AS POSSIBLE IN DIMENSIONS, ARCHITECTURAL TREATMENT, AND FINISH.
- THE SLAB SHALL BE PROVIDED BY A MANUFACTURER WHO IS INCLUDED ON THE WVDOT LIST OF APPROVED PRECAST CONCRETE FABRICATORS.

EAST (EAST WOODLAND DRIVE) PORTAL

- CONSTRUCTION OF A STEEL MEMBER (CHANNELS AND I-SECTIONS) AND LAGGING WALL AT THE FACE OF THE PORTAL
- THE LAGGING WALL SHALL INCLUDE AN OPENING AT LEAST 60 INCHES TALL BY 42 INCHES WIDE TO ADMIT PERSONEL TO THE STRUCTURE, AS NEEDED
- CONSTRUCTION OF A MODIFIED TYPE A MANHOLE TO CONNECT THE OPENING IN THE WALL WITH THE SURFACE. THE RIM ON THIS MANHOLE SHALL BE ONE FOOT HIGHER THAN THE TOP OF THE HORIZONTAL PARAPET WALL WHICH FORMS THE EAST ENTRANCE TO THE STRUCTURE
- PLACEMENT OF SELECT BACKFILL AND TOPSOIL, PLUS SITE GRADING, SEEDING AND MULCHING TO LEAVE ONLY THE MANHOLE VISIBLE AT THE COMPLETED SITE
- REMOVAL, AND REPLACING OF GUARDRAIL AND CHAIN LINK RIGHT OF WAY FENCE AS REQUIRED FOR CONTRACTOR'S ACCESS AND TO SECURE THE SITE.

TEMPORARY TRAFFIC CONTROL

TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE WEST VIRGINIA DIVISION OF HIGHWAYS PUBLICATION, "MANUAL ON TEMPORARY TRAFFIC CONTROL FOR STREETS AND HIGHWAYS", 2006 EDITION.

THE CONTRACTOR SHALL SUBMIT A TEMPORARY TRAFFIC CONTROL PLAN TO THE ENGINEER AT LEAST 10 WORKING DAYS PRIOR TO BEGINNING OPERATIONS THAT WOULD ENCRUCH UPON OR AFFECT THE TRAFFIC FLOW ON PIEDMONT ROAD. USE CASES A2, A3, A4 OR A6 AS APPROPRIATE.

ONE LANE, TWO WAY OPERATION WILL BE PERMITTED ON PIEDMONT ROAD BETWEEN 9:00 AM AND 3:00 PM ON WEEKDAYS. DURING THESE OPERATIONS, TRAFFIC MAY BE STOPPED FOR NO MORE THAN 10 MINUTES IN EITHER DIRECTION

THE CONTRACTOR SHALL MONITOR THE SCHEDULE OF EVENTS AT LAIDLEY FIELD AND SHALL COORDINATE HIS ACTIVITIES TO AVOID INTERFERENCE WITH THE EVENTS OR ASSOCIATED TRAFFIC.

TEMPORARY TRAFFIC CONTROL SHALL BE PAID FOR AS A LUMP SUM, IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 636.09 THROUGH 636.11 OF THE SPECIFICATIONS AND PAY ITEM 636001, "TRAFFIC CONTROL DEVICES".

FLAGGERS SHALL BE PAID FOR AS ITEM 636014, "FLAGGER"

STAGING OF WORK

THE CONTRACTOR WILL BE PERMITTED TO STAGE EQUIPMENT AND PERSONNEL FOR THE OPERATIONS AT THE WEST PORTAL ON THE LAIDLEY FIELD PARKING LOT. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING WRITTEN PERMISSION FROM THE FACILITY MANAGER, LOU ANN LANHAM-HENSON, TELEPHONE (304) 348-6559, BEFORE OCCUPYING THE PROPERTY.

PRECAST CONCRETE SLAB

THE CONTRACTOR SHALL PROVIDE A PRECAST CONCRETE SLAB, FABRICATED IN THREE APPROXIMATELY EQUAL HORIZONTAL SECTIONS, IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 601 OF THE SPECIFICATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, FABRICATION, TRANSPORTATION AND INSTALLATION OF THE PRECAST CONCRETE SLAB, INCLUDING MOUNTING BRACKETS, BOLTS AND CONCRETE ANCHORS.

AT LEAST TEN DAYS PRIOR TO THE FABRICATION OF THE SLAB, THE CONTRACTOR SHALL SUBMIT THE PROPOSED DESIGN AND ANY SUPPORTING CALCULATIONS; THE TRANSPORTATION PLAN; AND THE ERECTION PLAN TO THE ENGINEER FOR APPROVAL.

HANDRAILS, RAILINGS AND ANCHOR BOLTS

THE EAST HANDRAIL THROUGH THE STRUCTURE IS TO REMAIN IN PLACE BETWEEN THE WEST PORTAL AND THE LAGGING WALL.

ALL OTHER RAILINGS AND HANDRAILS SHALL BE REMOVED AND WILL BECOME THE PROPERTY OF THE CONTRACTOR.

ANCHOR BOLTS FOR THE RAILINGS SHALL BE CUT OFF FLUSH WITH THE SURFACE.

LAGGING WALL AND MANHOLE

AT THE EAST PORTAL, INSTALL 10-FOOT CHANNELS (C12 X 25) AT THE CORNERS BETWEEN THE PORTAL AND THE PARAPET, AS SHOWN

INSTALL TWO 10 FOOT BEAMS (W12 X 25) AT THE FACE OF THE PARAPET AT THE SPACING SHOWN. STABILIZE THESE BEAMS WITH ANGLE BRACKETS (LB X 8 X 3/4) AS SHOWN

INSTALL A SUPPORT BAR AS SHOWN, BETWEEN THE CHANNEL IN THE NORTHWEST CORNER AND THE FIRST VERTICAL BEAM. INSTALL LAGGING.

ALL STEEL SHALL BE PAINTED IN ACCORDANCE WITH SECTION 614.6 OF THE SPECIFICATIONS.

LAGGING SHALL BE IN ACCORDANCE WITH SECTION 614.7 OF THE SPECIFICATIONS.

THE MANHOLE SHALL BE A TYPE A MANHOLE (MODIFIED), CAST IN PLACE AND MEETING THE APPLICABLE REQUIREMENTS OF SECTION 605 OF THE SPECIFICATIONS. THE MANHOLE COVER SHALL BE VENTED

THE MANHOLE WILL BE SUPPORTED BY THE EXISTING STAIR LANDING AND A 12-INCH THICK NON-REINFORCED CONCRETE SLAB. SAWCUT THE NORTH END OF FIVE STAIRS AS SHOWN. EXCAVATE TO 12 INCHES BELOW THE LANDING ELEVATION AND POUR A PAD 55 BY 60 BY 12 INCHES THICK OF CLASS B CONCRETE ON WHICH TO CONSTRUCT THE MANHOLE.

THE OPENING THROUGH THE LAGGING WALL BETWEEN THE MANHOLE AND THE UNDERPASS WILL BE 60 INCHES HIGH BY 48 INCHES WIDE.

THE MANHOLE CHIMNEY SHALL BE ORIENTED AWAY FROM THE PORTAL.

BACKFILLING, GRADING, SEEDING AND MULCHING

THE UNDERPASS ENTRANCE AND THE SURROUNDING SITE ARE TO BE FILLED WITH SELECT BORROW MATERIAL. THE MATERIAL AND CONSTRUCTION METHODS SHALL SATISFY THE APPLICABLE PROVISIONS IN SECTION 211 OF THE SPECIFICATIONS.

HAND COMPACTION METHODS MAY BE USED.

THE FILL MATERIAL SHALL BE PLACED SO THAT ALL PARAPET WALLS HAVE A MINIMUM COVER OF 12 INCHES. THE SITE WILL BE SLOPED TO DRAIN, AS DIRECTED BY THE ENGINEER.

FOLLOWING THE PLACEMENT OF TOPSOIL, THE EXPOSED SOIL AREA ARE TO BE SEEDED AND MULCHED IN ACCORDANCE WITH SECTIONS 652 AND 653 OF THE SPECIFICATIONS.

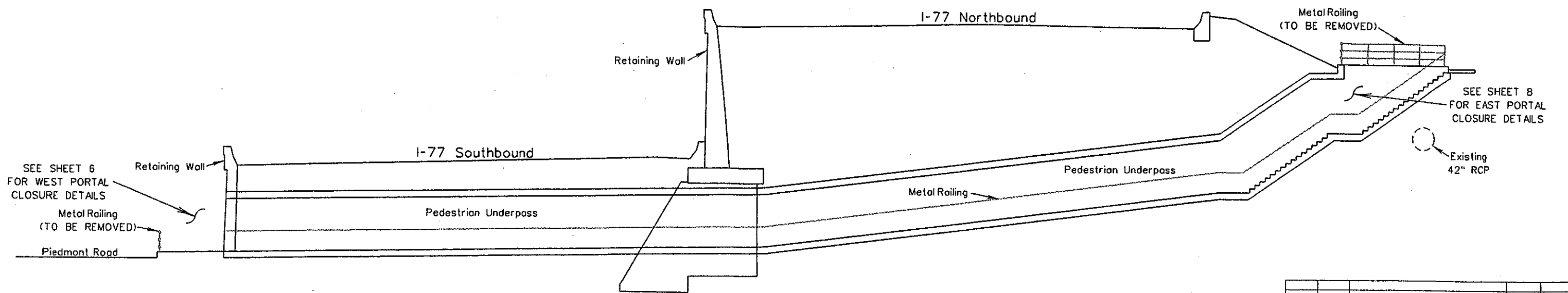
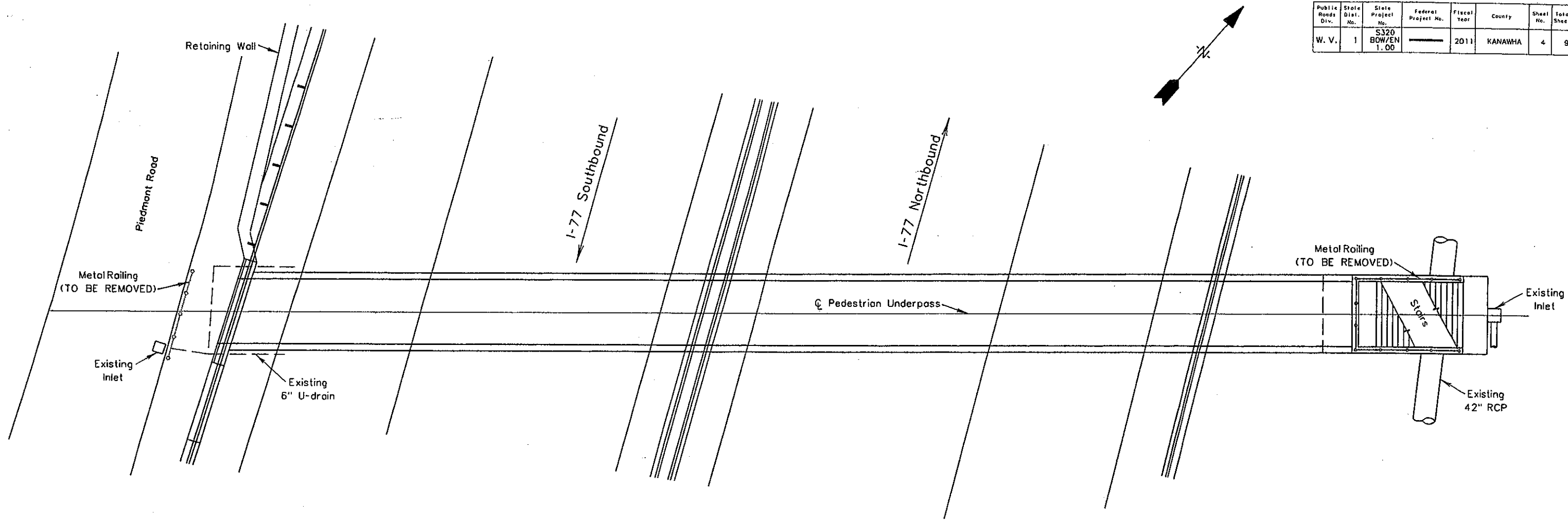
TYPE C-1 SEED MIXTURE SHALL BE USED.

TOPSOIL WILL BE PAID FOR UNDER ITEM 651001, "FURNISHING AND PLACING TOPSOIL". THE COST OF SEEDING AND MULCHING WILL BE INCLUDED IN THE UNIT BID PRICE FOR THIS ITEM.

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SEQUENCE OF CONSTRUCTION
PEDESTRIAN UNDERPASS CLOSURE

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W. V.	1	S320 BOWEN 1.00		2011	KANAWHA	4	9

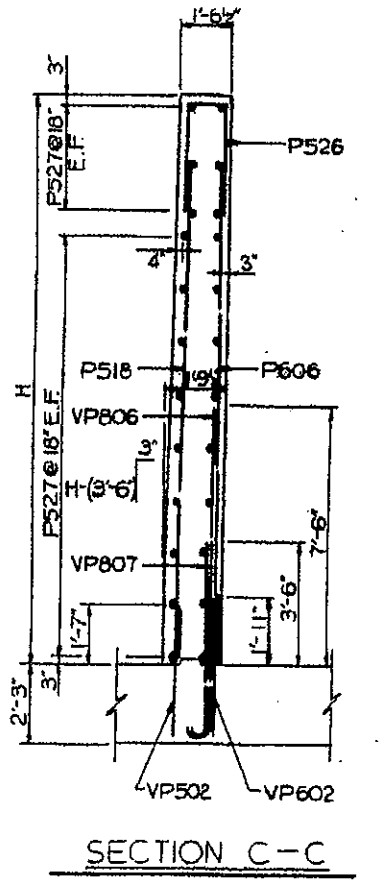
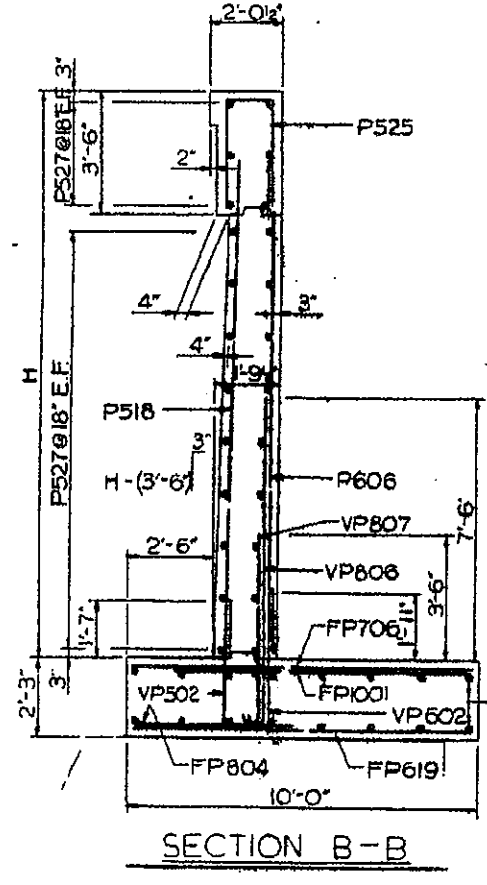
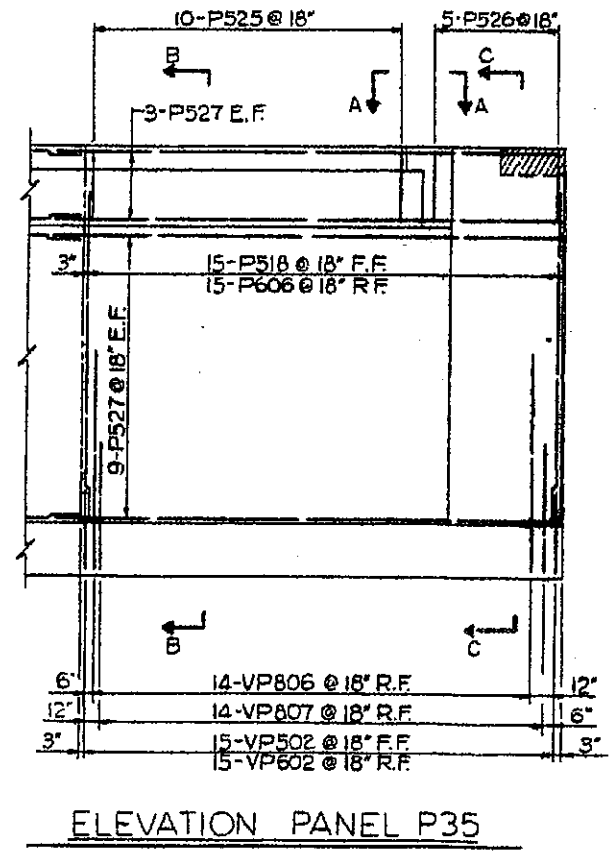
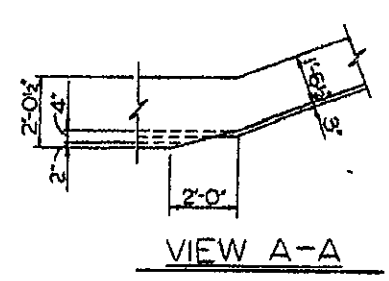
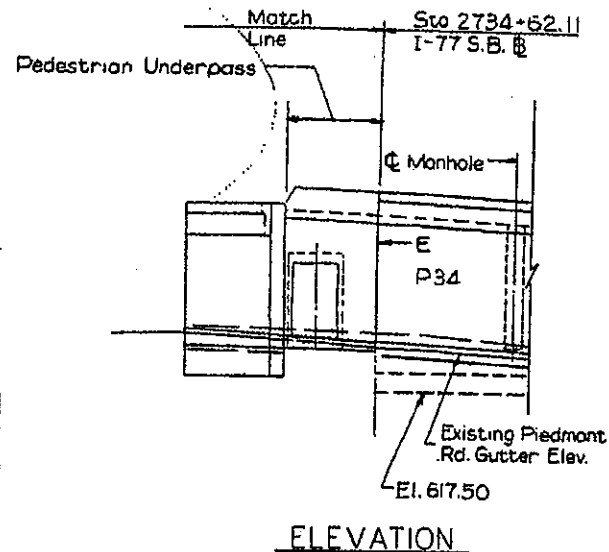
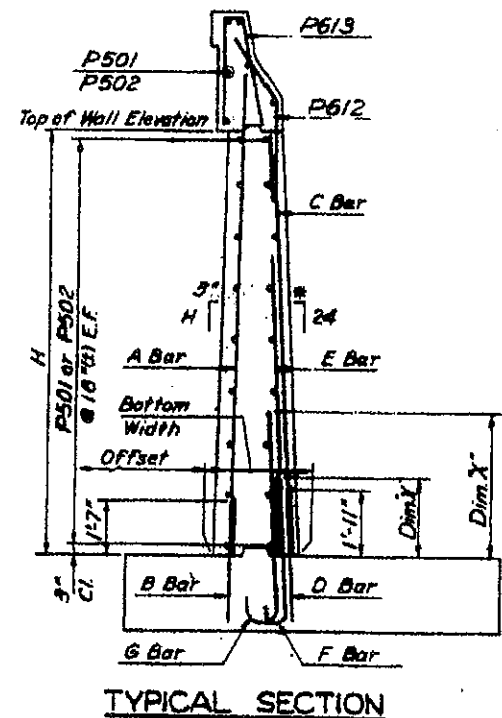
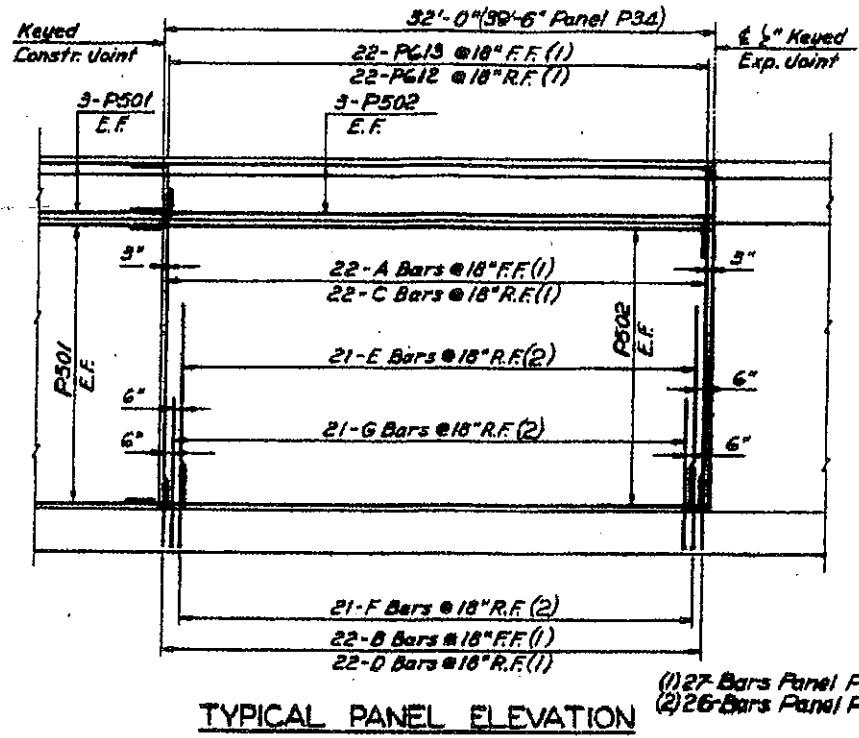


REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

SITUATION PLAN
 PEDESTRIAN UNDERPASS CLOSURE
 CHARLESTON, KANAWHA CO.

NO SCALE

Public Roads Div.	State Dist. No.	State Project No.	Federal Project No.	Fiscal Year	County	Sheet No.	Total Sheets
W. V.	1	S320 BOWEN 1.00		2011	KANAWHA	5	9

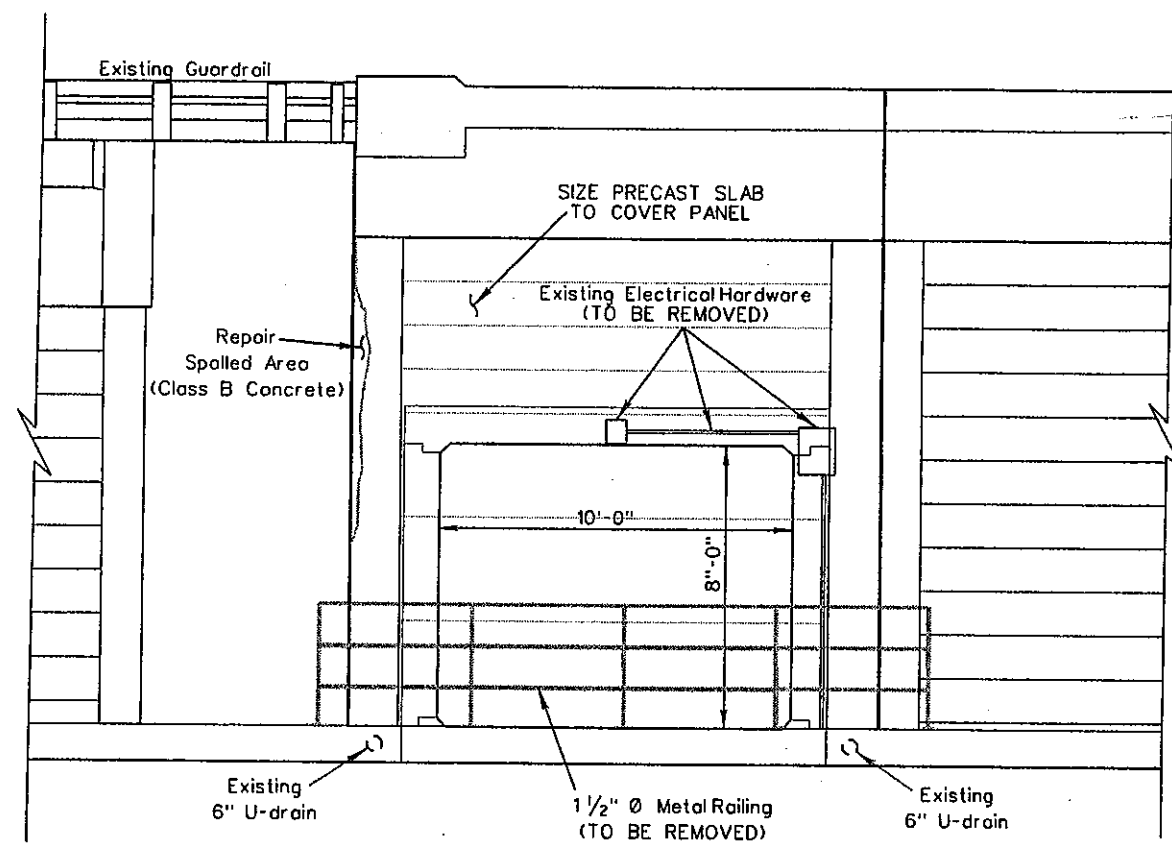


-FOR INFORMATION ONLY-

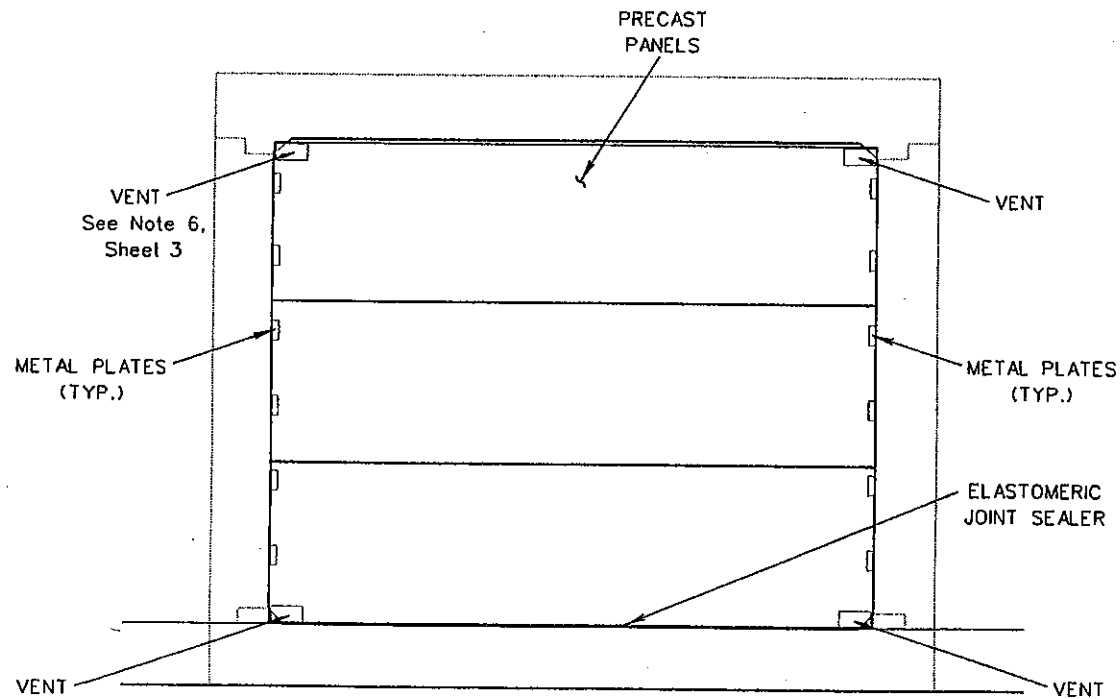
REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY
		EXISTING WEST PORTAL DETAILS PEDESTRIAN UNDERPASS		

Public Roads Div.	State Dist. No.	State Project No.	Federal Project No.	Fiscal Year	County	Sheet No.	Total Sheets
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NOTE:
REPAIR OF SPALLED AREAS AND MOUNTING HOLES FOR ELECTRICAL BOX AND CONDUIT ARE INCLUDED IN THE UNIT BID PRICE FOR THE PRECAST CONCRETE HEADWALL.



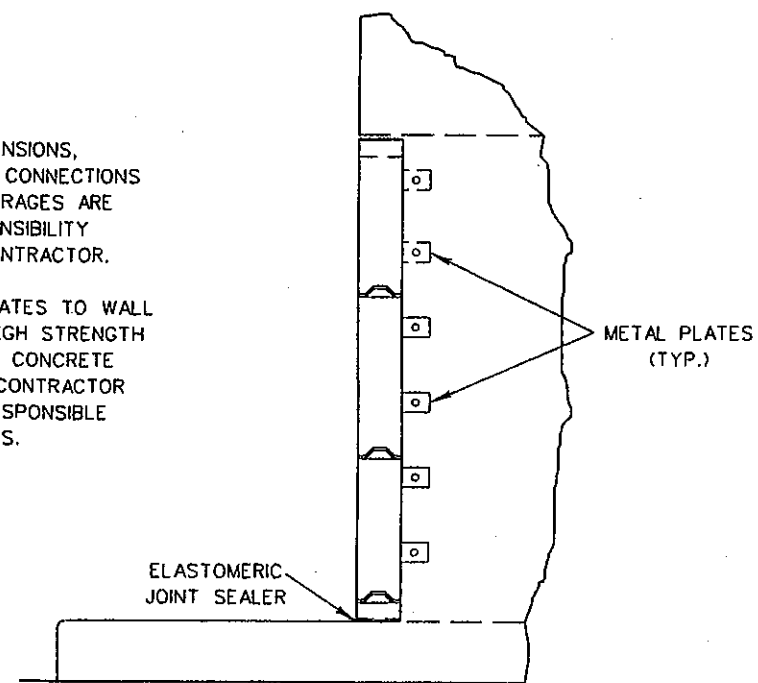
SOUTH PORTAL



DETAIL 'A'

NOTE:

- PANEL DIMENSIONS, DESIGN OF CONNECTIONS AND ANCHORAGES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- ATTACH PLATES TO WALL WITH 3/4" HIGH STRENGTH BOLTS AND CONCRETE ANCHORS. CONTRACTOR WILL BE RESPONSIBLE FOR DETAILS.



DETAIL 'B'

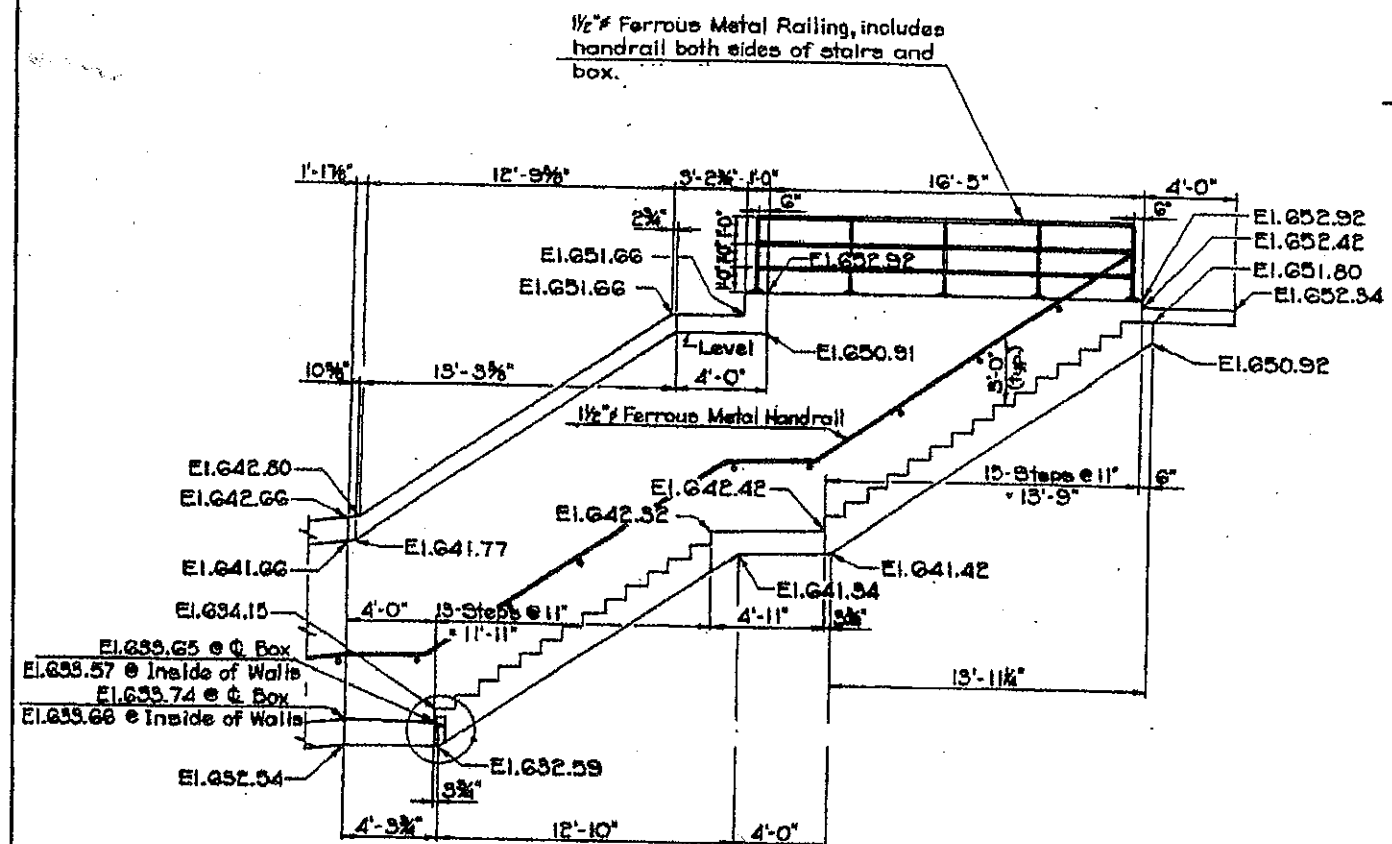
REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

WEST PORTAL CLOSURE
PEDESTRIAN UNDERPASS
CHARLESTON, KANAWHA CO.

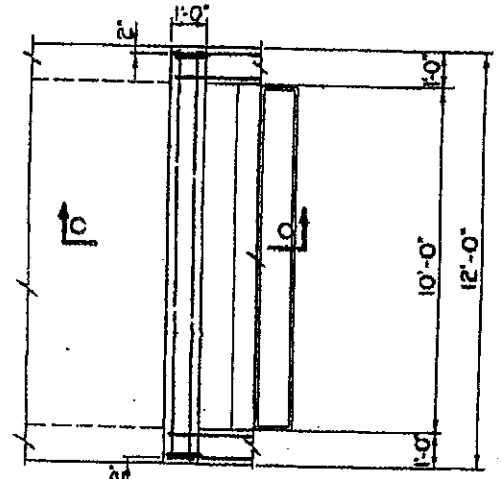
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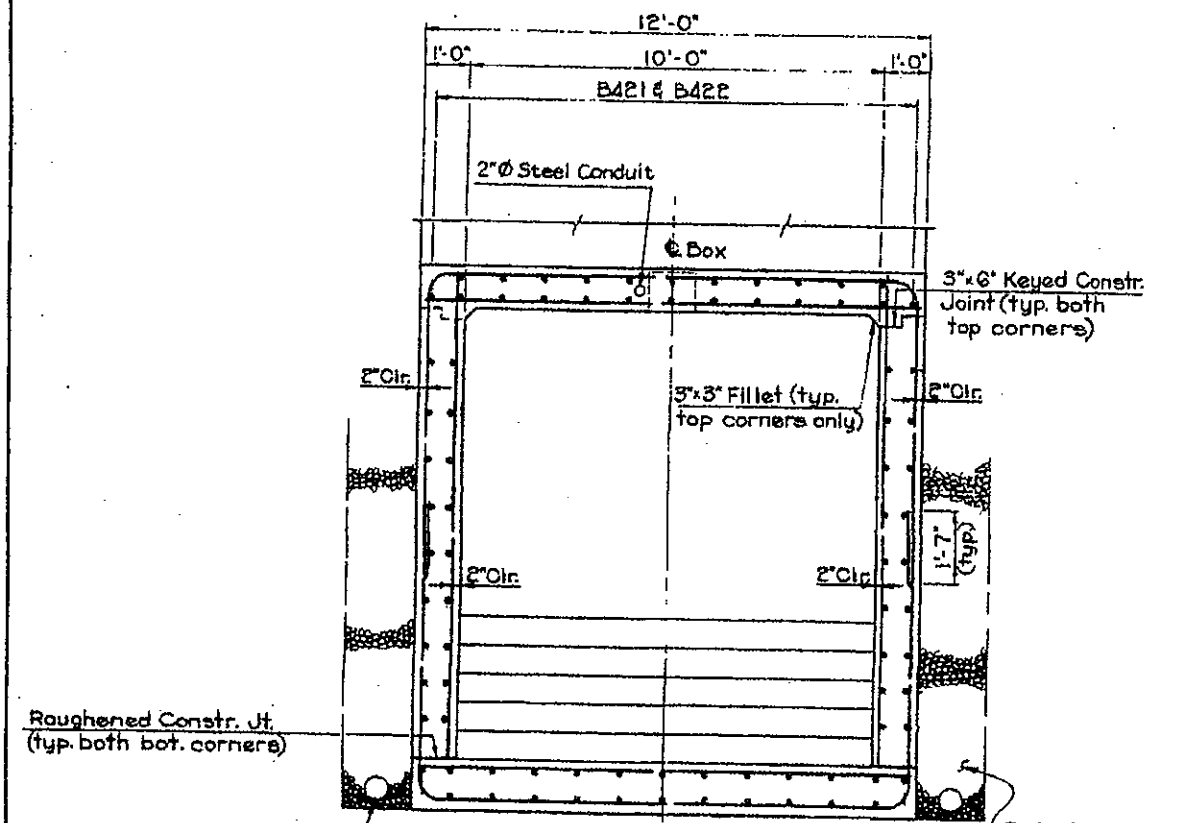
Public Roads Dist.	State Dist. No.	State Project No.	Federal Project No.	Fiscal Year	County	Sheet No.	Total Sheets
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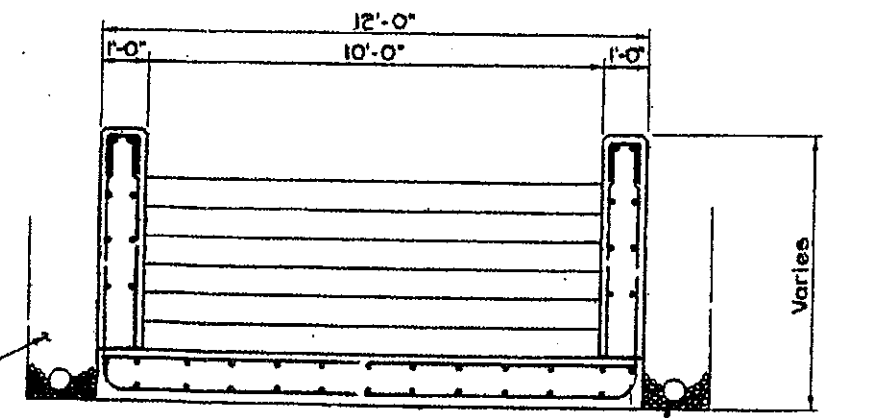
DIMENSIONS & ELEVATIONS FOR STAIRS



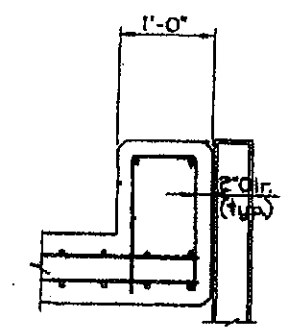
PLAN-HEADWALL AT STAIRS



SECTION A-A



SECTION B-B



SECTION C-C

Roughened Constr. Jt. (typ. both bot. corners)
6" Perf. U-Drain Continuous along both sides of Box.

Selected Mat'l. for Backfill (typ.)

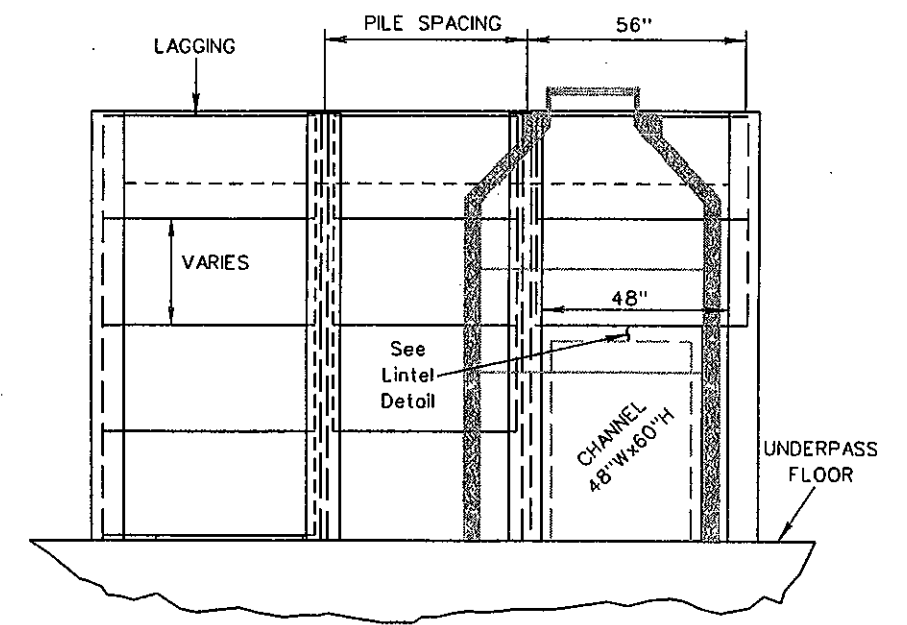
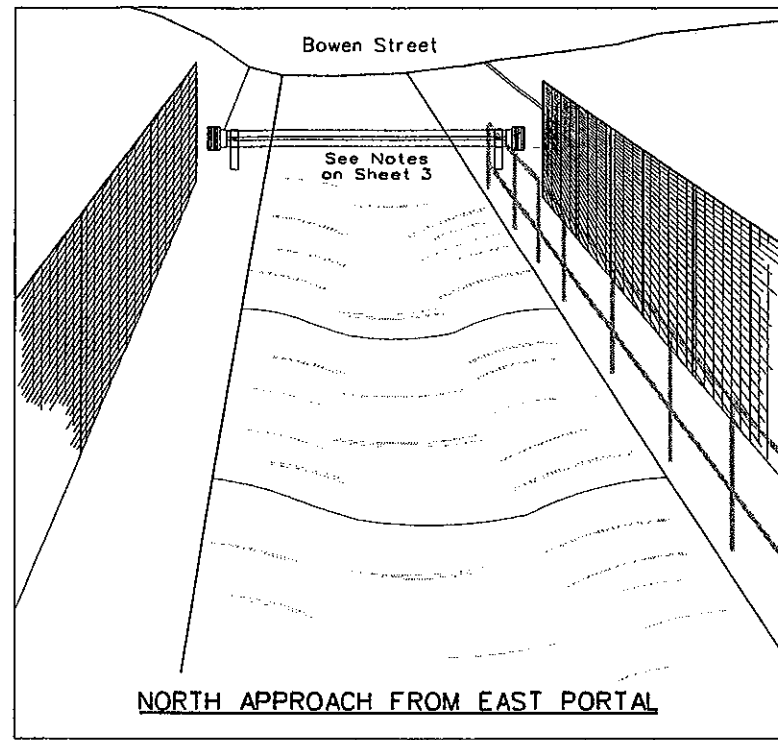
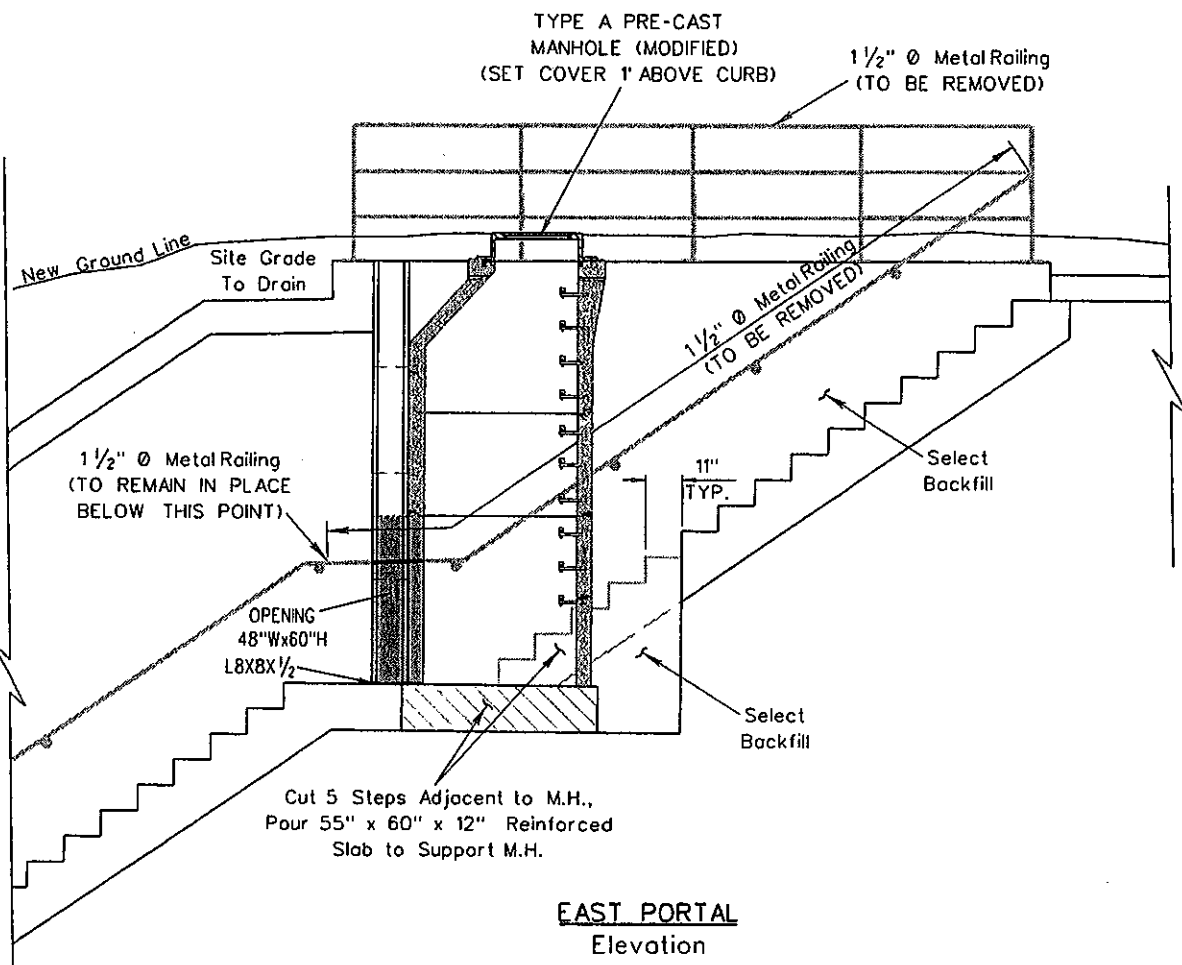
Selected Mat'l. for Backfill (typical)

6" Perf. U-Drain Continuous along both sides of Box.

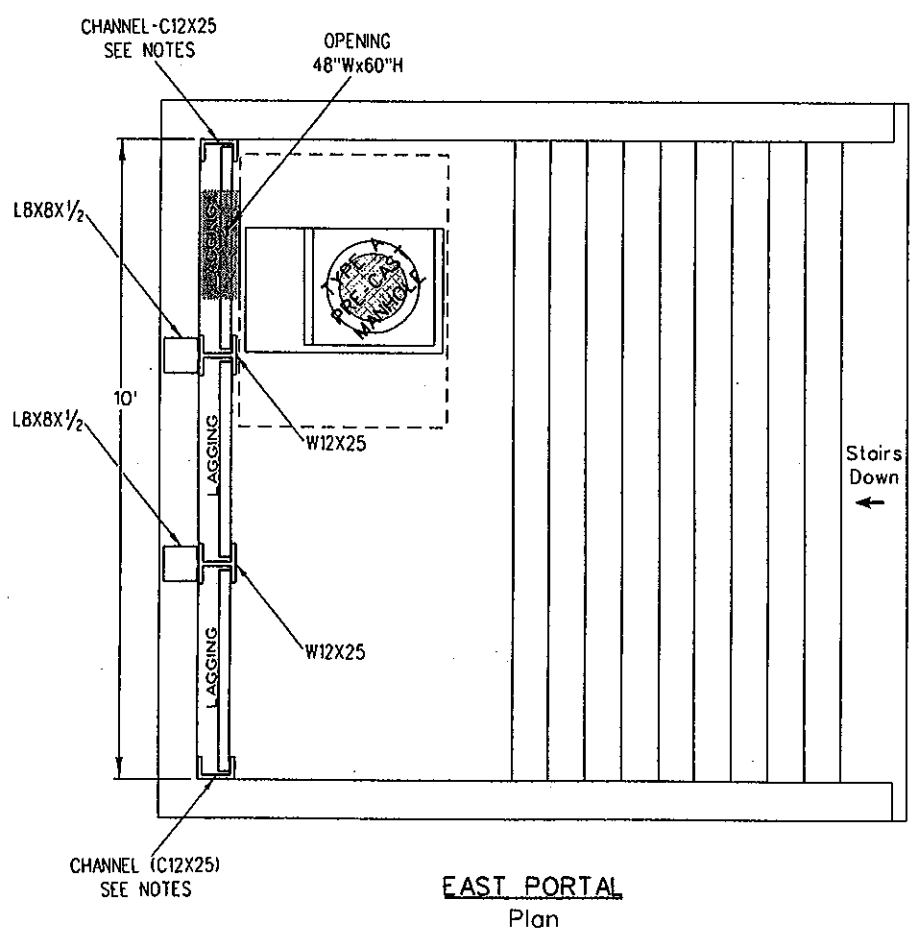
REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

EXISTING EAST PORTAL DETAILS
PEDESTRIAN UNDERPASS
CLADESTON, KANAWHA CO.

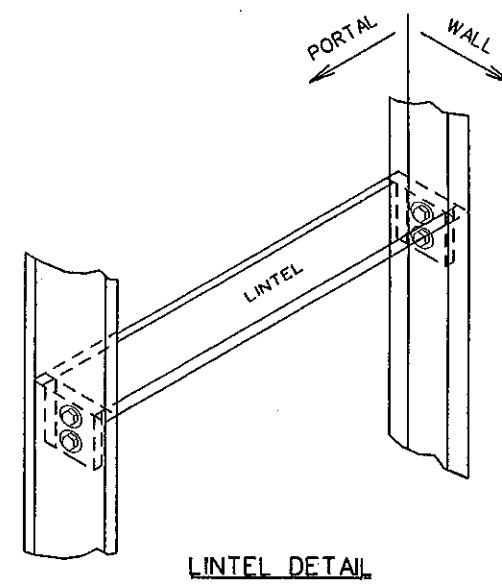
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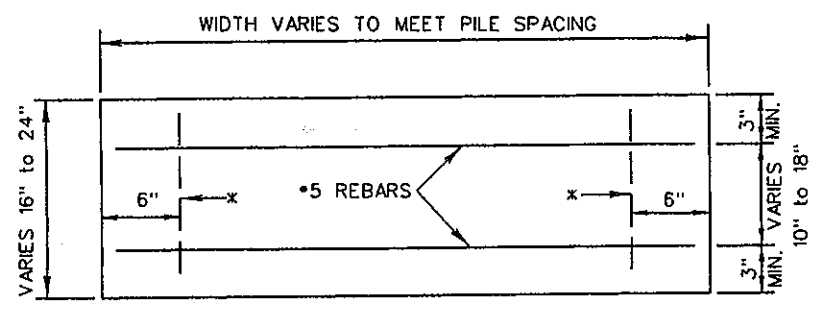
PILING DETAILS



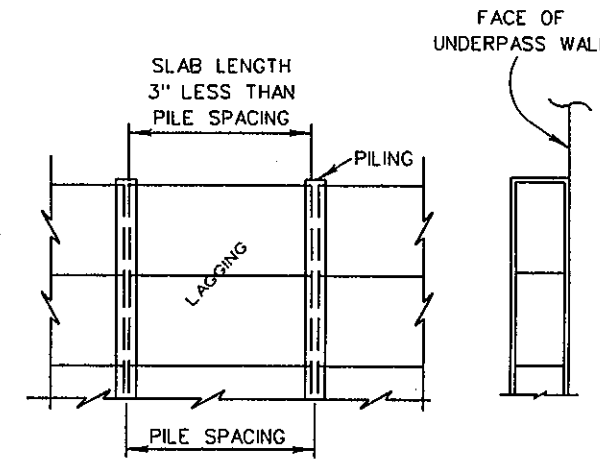
EAST PORTAL Plan



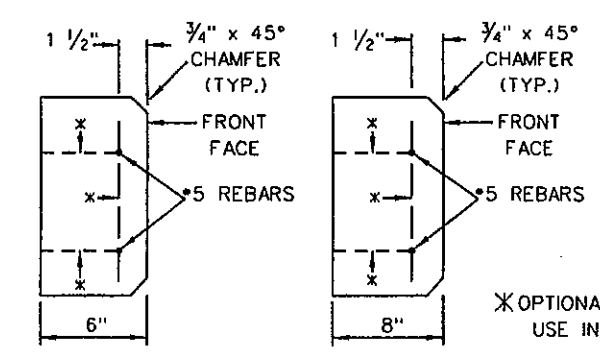
LINTEL DETAIL



PRECAST CONCRETE VIEW ELEVATION VIEW



LAGGING DETAILS



SOLID CONCRETE LAGGING

NOTE:
CONNECT CHANNELS AND W SECTIONS TO THE WALL AND PORTAL, AND ANGLES TO FLOOR, USING 3/4" x 2" ASTM A325 BOLTS AND CONCRETE ANCHORS. CONNECT W12 x 25 PILES TO ANGLES AND LINTEL FOR OPENING TO CHANNEL AND PILING USING ASTM A325 BOLTS AND NUTS.

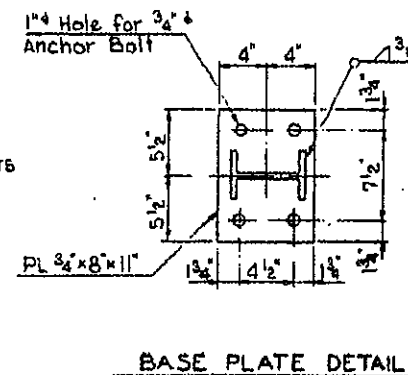
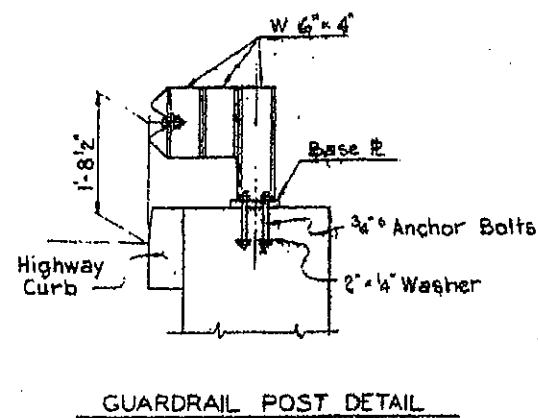
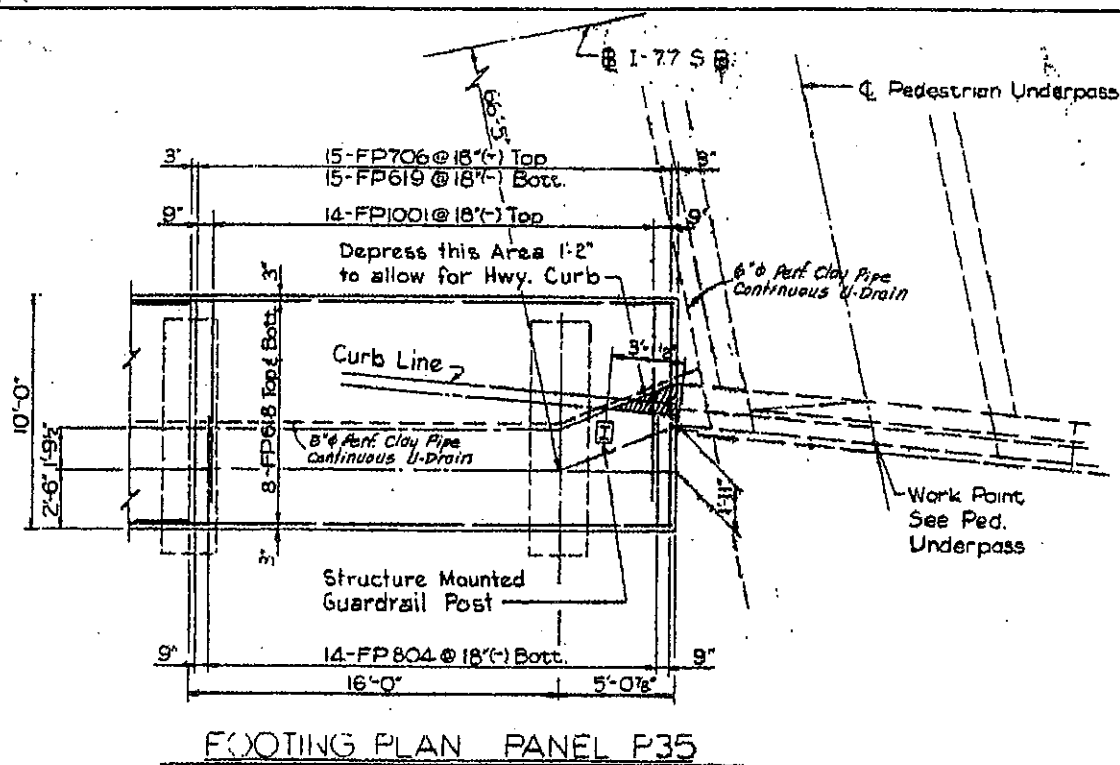
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REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

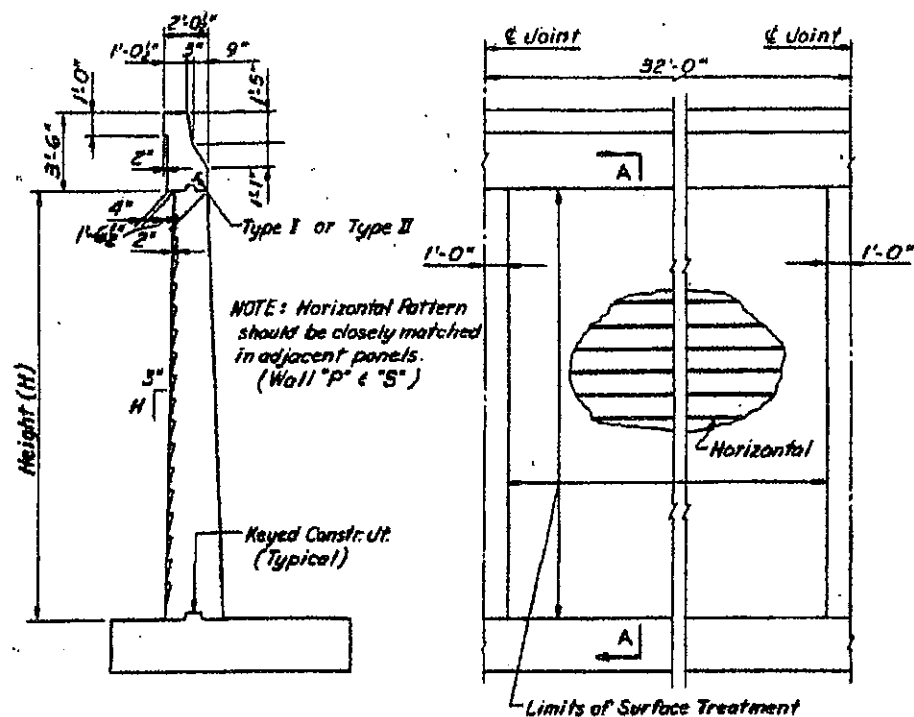
EAST PORTAL CLOSURE PEDESTRIAN UNDERPASS CHARLESTON, KANAWHA CO.

NO SCALE

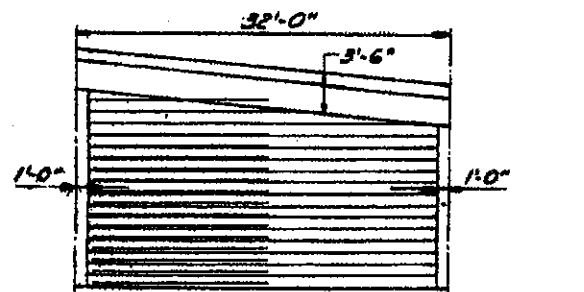
Public Roads Div.	State Dist. No.	State Project No.	Federal Project No.	Fiscal Year	County	Sheet No.	Total Sheets
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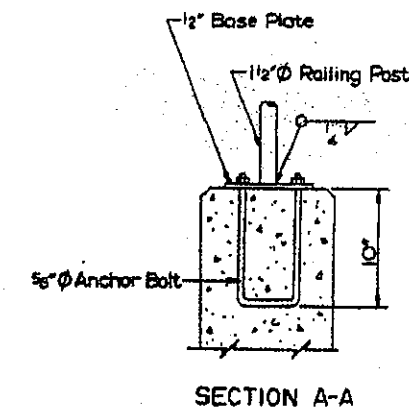
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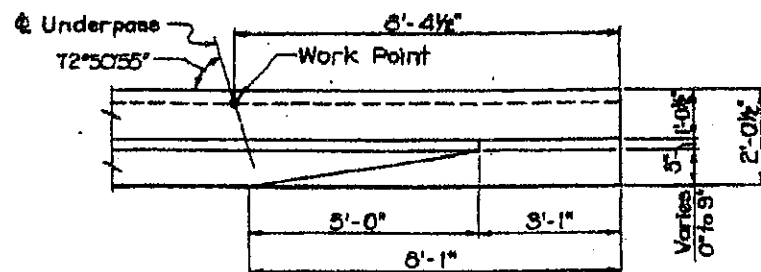
NOTE: Horizontal Pattern should be closely matched in adjacent panels. (Wall "P" & "S")



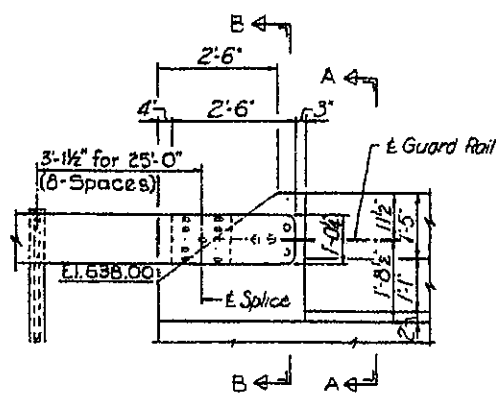
HORIZONTAL TREATMENT WITH VARYING HEIGHT WALL "P" & "S"



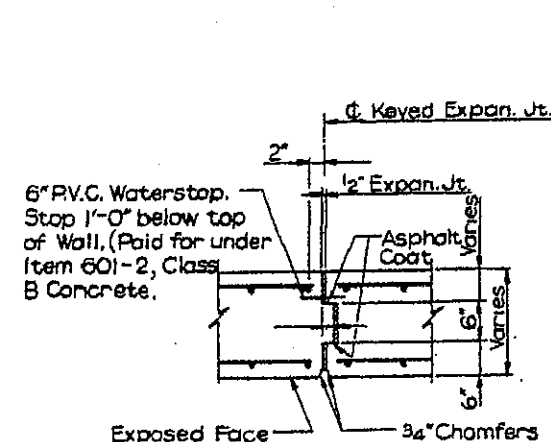
SECTION A-A



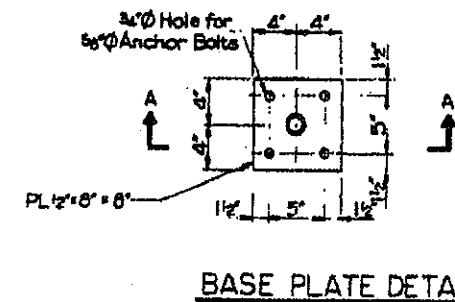
PLAN-PARAPET END POST



TYPICAL PARAPET END POST DETAIL



KEYED EXPANSION JOINT



BASE PLATE DETAIL

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SPECIAL DETAILS
PEDESTRIAN UNDERPASS