

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
ROS-35-22.72
SCIOTO, SPRINGFIELD,
AND LIBERTY TOWNSHIPS
ROSS COUNTY

PROJECT DESCRIPTION

IMPROVEMENT OF 2.29 MILES OF US ROUTE 35 IN ROSS COUNTY BY REMOVING THE ASPHALT SURFACE COURSE AND REPLACING IT WITH AN ASPHALT INTERMEDIATE COURSE AND AN ASPHALT SURFACE COURSE. THIS PROJECT WILL ALSO REHABILITATE THE LEFT STRUCTURE (ROS-35-2419L) OVER THE SCIOTO RIVER BY UPGRADING THE PARAPET WALLS AND REPAIRING THE DECK USING HYDRODEMOLITION AND A MICRO SILICA OVERLAY. THE RIGHT STRUCTURE (ROS-35-2419R) WILL RECEIVE UPGRADED PARAPET WALLS. MOST OF THE EXISTING GUARDRAIL WILL ALSO BE REPLACED BY THIS PROJECT.

MAINTENANCE PROJECT

PROJECT EDA =	N/A
CONTRACTOR EDA =	N/A
NOI EDA =	N/A

LIMITED ACCESS

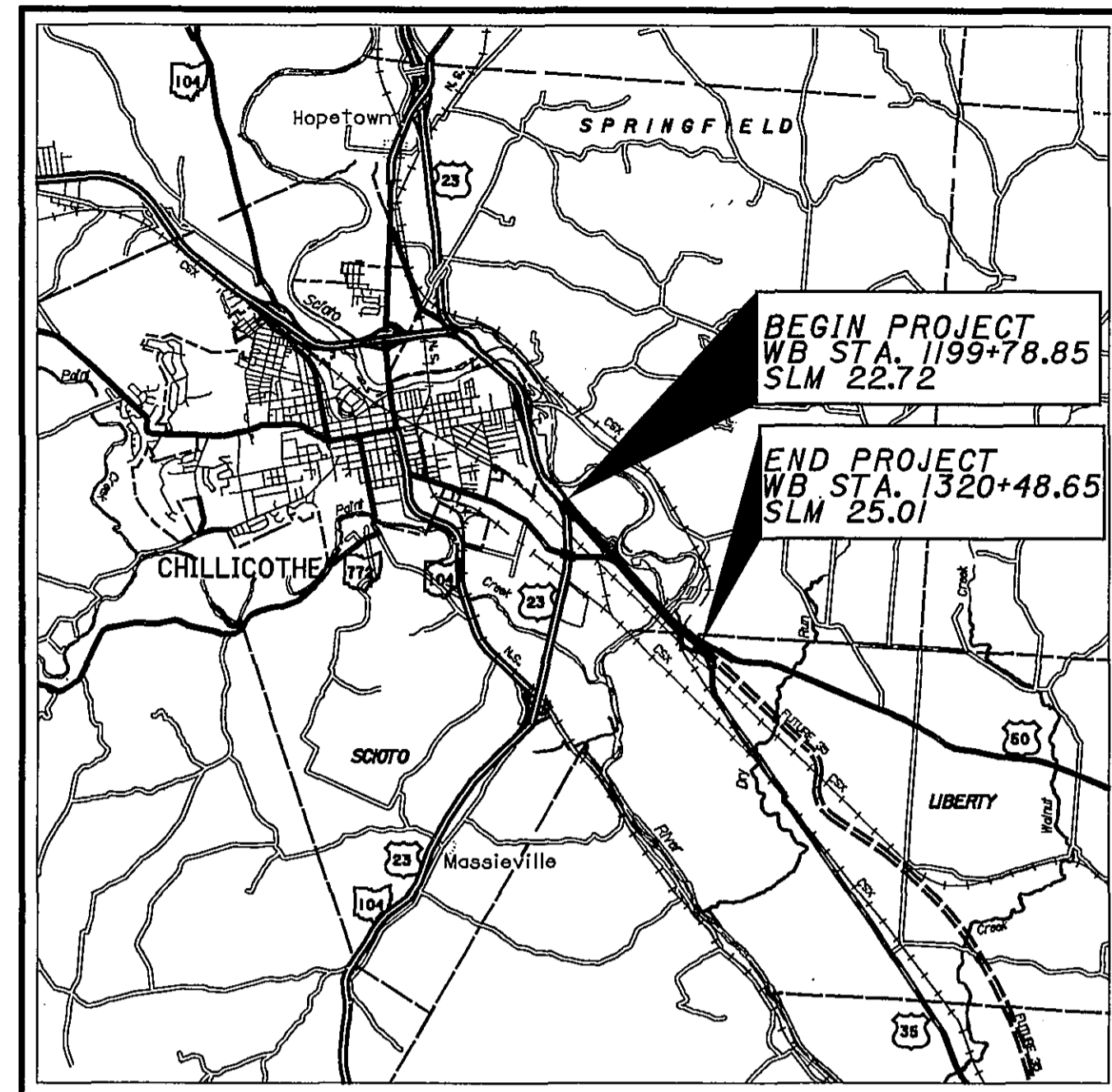
THIS IMPROVEMENT IS ESPECIALLY DESIGNATED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

2002 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATES.

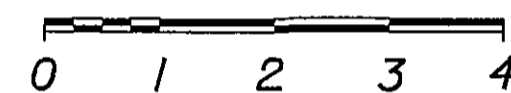
UNDER AUTHORITY OF SECTION 4511.21, DIVISION (I) OF THE REVISED CODE OF OHIO, THE REVISED PRIMA FACIE SPEED LIMITS AS INDICATED HEREIN ARE DETERMINED TO BE REASONABLE AND SAFE, AND ARE HEREBY ESTABLISHED FOR THE DURATION OF THIS PROJECT. THE PRIMA FACIE SPEED LIMIT OR LIMITS HEREBY ESTABLISHED SHALL BECOME EFFECTIVE WHEN APPROPRIATE SIGNS GIVING NOTICE THEREOF ARE ERECTED.



LATITUDE: 39°19'24"N LONGITUDE: 82°56'27"W

LOCATION MAP

SCALE IN MILES



PORTION TO BE IMPROVED	-----
STATE & FEDERAL ROUTES	=====
OTHER ROADS	-----

DESIGN DESIGNATION

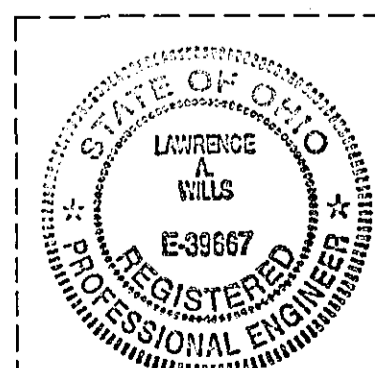
CURRENT ADT (2003)	-----	20,440
TRUCKS (24 HOUR B&C)	-----	18%
DESIGN SPEED	-----	3R PROJECT
LEGAL SPEED	-----	60 MPH

DESIGN FUNCTIONAL CLASSIFICATION - RURAL PRINCIPAL ARTERIAL

DESIGN EXCEPTIONS: NONE REQUIRED

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:
DISTRICT NO. 9
OHIO DEPARTMENT OF
TRANSPORTATION



SIGNED *Lawrence A. Willis*
DATE 2-19-2004

SEAL

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BRIDGE NO. ROS-35-2419 L&R	

STANDARD CONSTRUCTION DRAWINGS										SUPPLEMENTAL SPECIFICATIONS			
BP-3.1	7-28-00	RM-4.2	4-18-03	TC-41.20	1-19-01	MT-35.10	4-20-01	BR-1	7-19-02	832	2-12-03	902	7-19-02
BP-9.1	10-17-03	RM-4.3	4-18-03	TC-42.20	4-20-01	MT-95.30	4-19-02	PCB-91	7-19-02	833	2-12-03	908	4-18-03
		RM-4.4	4-18-03	TC-52.10	4-20-01	MT-95.40	7-18-03	SBR-1-99	7-19-02	848	2-8-02	954	9-9-97
GR-1.1	4-18-03	RM-4.5	4-18-03	TC-52.20	4-20-01	MT-98.12	4-19-02			864	7-11-00		
GR-2.1	1-16-04	RM-4.6	1-16-04	TC-65.10	10-19-01	MT-98.13	4-19-02						
GR-3.1	4-18-03			TC-65.11	10-19-01	MT-98.14	4-19-02						
GR-3.2	4-18-03			TC-72.20	1-19-01	MT-98.15	4-19-02						
GR-3.5	4-18-03	DM-4.3	7-19-02	TC-73.10	1-19-01	MT-98.16	4-19-02						
GR-4.2	10-17-03	DM-4.4	7-19-02			MT-98.17	10-18-02						
GR-5.1	4-18-03					MT-98.18	10-18-02						
GR-5.2	1-16-04					MT-99.20M	1-30-95						
GR-5.3	1-16-04					MT-101.70	10-18-02						
GR-6.1	4-18-03					MT-105.10	10-18-02						
GR-6.2	4-18-03					MT-105.11	10-18-02						

SPECIAL PROVISIONS:
NONE

APPROVED *John F. Hegan*
DATE 2/19/04 DISTRICT DEPUTY DIRECTOR

APPROVED *Jordan Proctor*
DATE 6-14-04 DIRECTOR, DEPARTMENT OF
TRANSPORTATION

ROS - USR 35-22.72
040511 PID - 23405
Dist 9 9/22/2004

19-FEB-2004 07:55

lv:\p01\lect\35r22.65\dgn\TITLE.DGN

cr:lee

FEDERAL PROJECT NO.
NON - FEDERAL

PID NO.
23405

CONSTRUCTION PROJECT NO.

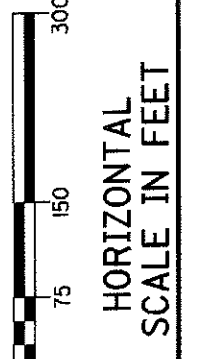
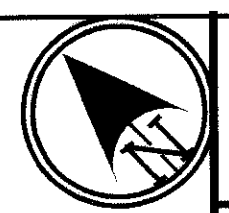
RAILROAD INVOLVEMENT
NONE

ROS-35-22.72

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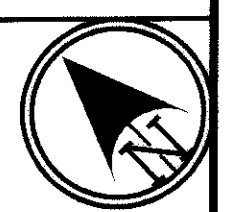
BEGIN PROJECT
WB STA. 1199+78.85
SLM 22.72

BEGIN PAVING
EB LANES
STA. 1203+28.60



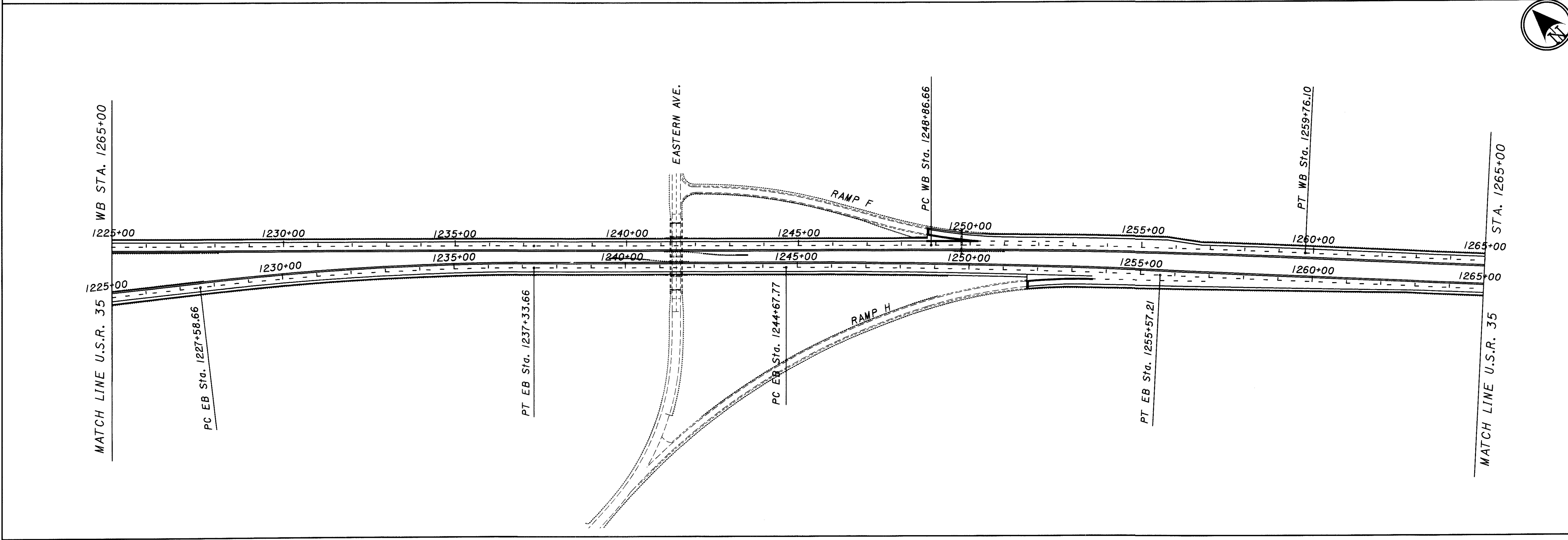
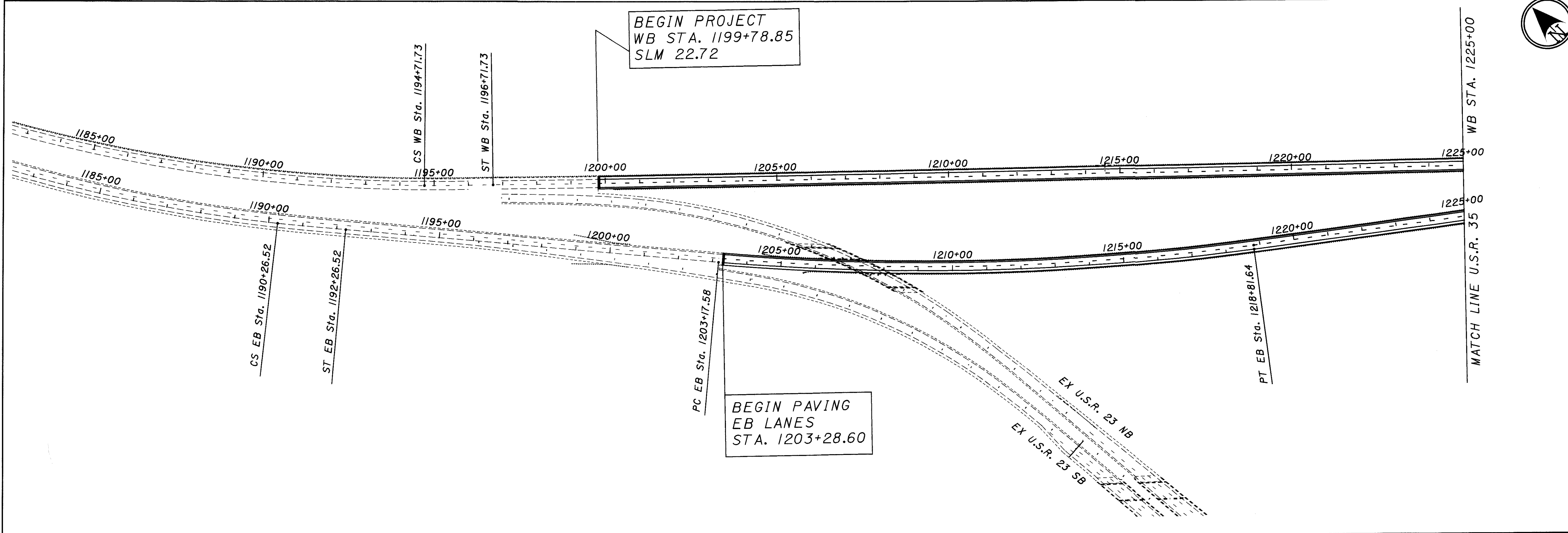
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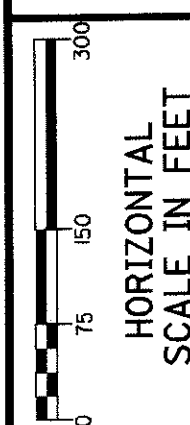
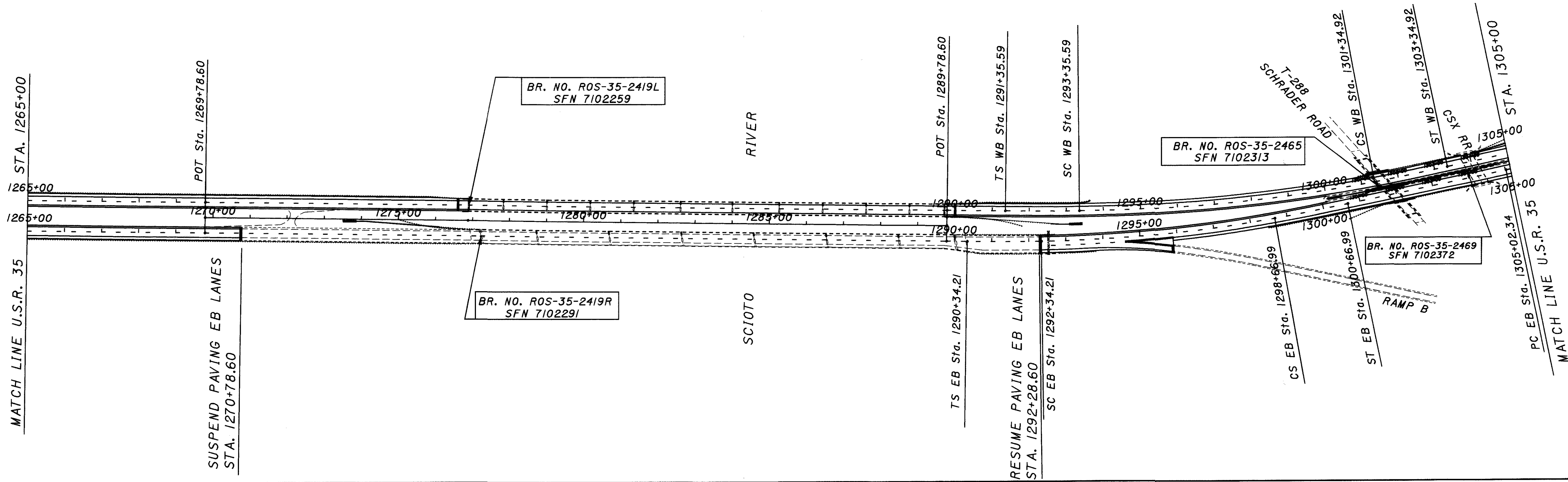
SCHEMATIC PLAN
STA. 1183+00 TO WB STA. 1265+00



ROS-35-22.72

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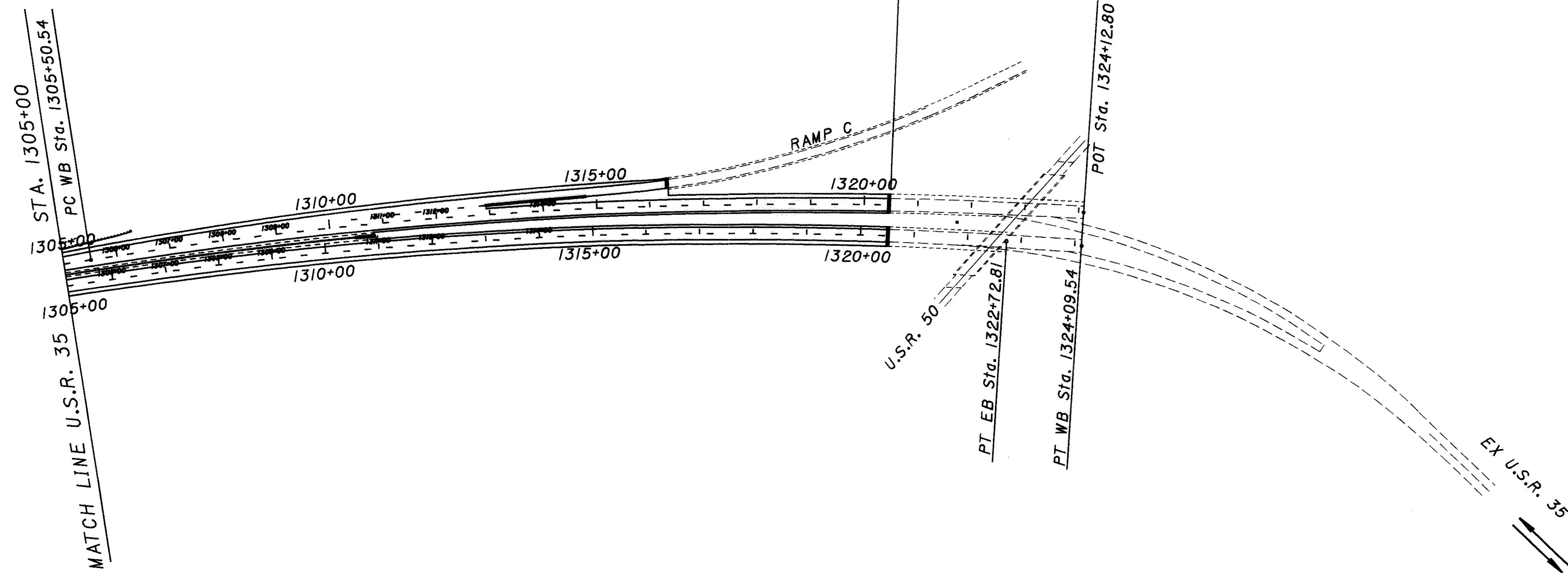




CALCULATED

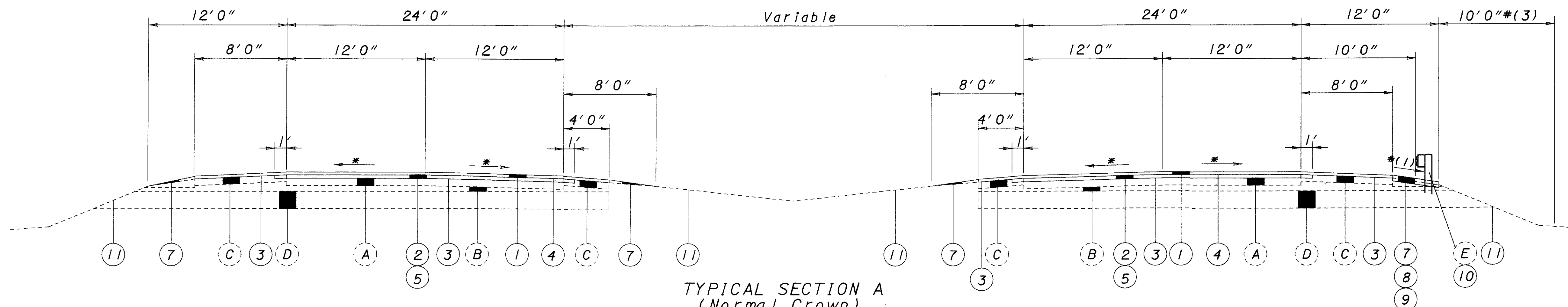
CHECKED

SCHEMATIC PLAN
WB STA. 1265+00 TO WB STA. 1324+12.80



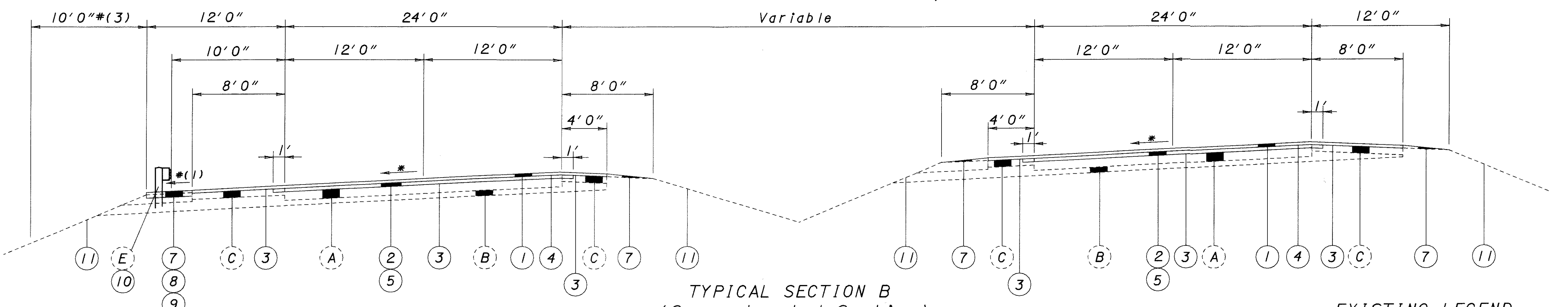
END PROJECT
 WB STA. 1320+48.65
 SLM 25.01

ROS-35-22.72



TYPICAL SECTION A
(Normal Crown)

The above Typical Section applies between the following Stations:
 Sta. 1199+78.85 to Sta. 1248+86.66 Westbound = 4,907.81 Lin. Ft.
 Sta. 1259+76.10 to Sta. 1291+35.59 Westbound = 3,159.49 Lin. Ft.
 Sta. 1303+34.92 to Sta. 1305+50.54 Westbound = 215.62 Lin. Ft.
 Sta. 1218+81.64 to Sta. 1227+58.66 Eastbound = 877.02 Lin. Ft.
 Sta. 1237+33.66 to Sta. 1244+67.77 Eastbound = 734.11 Lin. Ft.
 Sta. 1255+57.21 to Sta. 1270+78.60 Eastbound = 1,521.39 Lin. Ft.
 Sta. 1300+66.99 to Sta. 1305+02.34 Eastbound = 435.35 Lin. Ft.
 Total = 11,850.79 Lin. Ft.



TYPICAL SECTION B
(Superelevated Section)

The above Typical Section applies between the following Stations:
 Sta. 1248+86.66 to Sta. 1259+76.10 Westbound = 1,089.44 Lin. Ft.
 Sta. 1291+35.59 to Sta. 1303+34.92 Westbound = 1,199.33 Lin. Ft.
 Sta. 1305+50.54 to Sta. 1320+48.65 Westbound = 1,498.11 Lin. Ft.
 Sta. 1203+28.60 to Sta. 1218+81.64 Eastbound = 1,553.04 Lin. Ft.
 Sta. 1227+58.66 to Sta. 1237+33.66 Eastbound = 975.00 Lin. Ft.
 Sta. 1244+67.77 to Sta. 1255+57.21 Eastbound = 1,089.44 Lin. Ft.
 Sta. 1292+28.60 to Sta. 1300+66.99 Eastbound = 838.39 Lin. Ft.
 Sta. 1305+02.34 to Sta. 1320+53.60 Eastbound = 1,551.26 Lin. Ft.
 Total = 9,794.01 Lin. Ft.

EXISTING LEGEND

- (A) Reinforced Portland Cement Concrete Pavement
- (B) Subbase
- (C) Paved Shoulder
- (D) Granular Material
- (E) Existing Guardrail

PROPOSED LEGEND

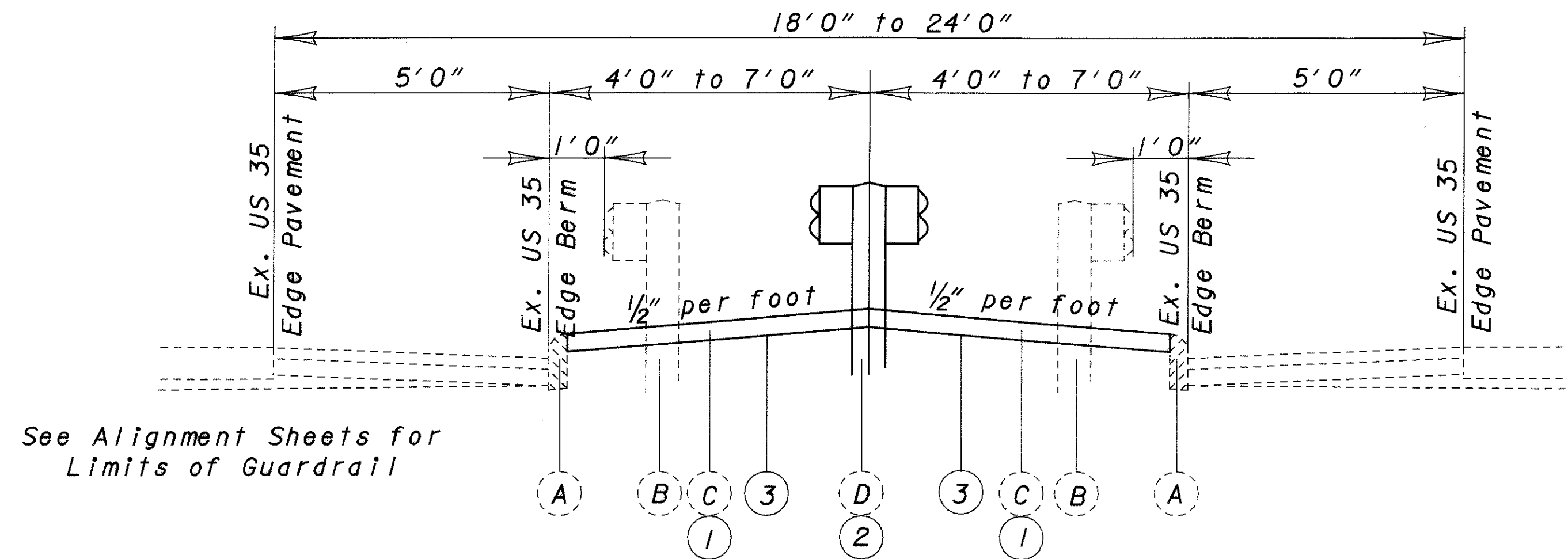
- (1) 442 1 1/2" Asphalt Concrete Surface Course, 12.5mm, Type A (446) With Supplement 1059 Warranty
- (2) 442 1 3/4" Asphalt Concrete Intermediate Course, 19mm, Type A (446)
- (3) 407 Tack Coat @ 0.075 Gal. Per Sq. Yd.
- (4) 407 Tack Coat for Intermediate Course @ 0.075 Gal. Per Sq. Yd.
- (5) 254 1 3/4" Pavement Planing, Asphalt Concrete, As Per Plan (See General Note)
- (7) 617 Shoulder Reconditioning Misc.: Compacted Aggregate, As Per Plan (See General Note)
- (8) 209 6" Deep - Preparing Subgrade For Shoulder Paving and Item Special - Soil Sterilant)
- (9) 422 Chip Seal with Polymer Binder, Misc.: Sealing Compacted Aggregate Under Guardrail (See General Note)
- (10) 606 Guardrail, Type 5
- (11) 659 Seeding and Mulching
- (12) 204 Subgrade Compaction

NOTES:

- * MATCH EXISTING PAVEMENT SLOPE
- * NOTES FOR SHOULDER PAVING AT GUARDRAIL LOCATIONS
- * (1) SLOPE OF SHOULDER RECONDITIONING MISC.: COMPACTED AGGREGATE, AS PER PLAN SHALL MATCH SLOPE OF ADJACENT COMPLETED PAVED SHOULDER AND THEIR SURFACES SHALL BE FLUSH WHERE THEY MEET.
- THE 4' WIDTH IS TYPICAL FOR THE SHOULDER RECONDITIONING MISC.: COMPACTED AGGREGATE, AS PER PLAN EXCEPT FOR LOCATIONS FOR THE ITEM 606 ANCHOR ASSEMBLY, TYPE E-98. THE ACTUAL LOCATION FOR THE ANCHOR ASSEMBLY WILL NEED TO BE FIELD ADJUSTED BY INCREASING THE ACTUAL LENGTH OF THE GUARDRAIL RUN AND THE 4' WIDTH WILL NEED TO BE INCREASED AS REQUIRED TO MEET THE SLOPE GRADING REQUIREMENTS OF STANDARD DRAWING GR-5.3 TO INTRODUCE THE GUARDRAIL USING THE OFFSET DESIGN. THE SLOPES LABELED B IN THE STANDARD DRAWING SHALL BE 3:1 OR FLATTER.

- #(3) THE 10' MAX. WIDTH IS USED TO ESTABLISH A WORK LIMIT FOR THE SHOULDER WORK AND TO ESTIMATE THE SEEDING AND MULCHING QUANTITY REQUIRED FOR THIS WORK
- 2. LENGTH AND LOCATION OF GUARDRAIL RUN SHALL BE ADJUSTED IN THE FIELD AS REQUIRED TO PROVIDE 3:1 OR FLATTER SLOPE BEHIND THE GUARDRAIL RUN FOR THE "L" DISTANCE NEEDED TO INTRODUCE THE GUARDRAIL RUN ON OUTSIDE SHOULDERS AS SHOWN ON STANDARD DRAWINGS GR-5.3 WITH "OFFSET DESIGN"

Drawing H:\projects\35r22\22.65\dgn\typical.dgn Plotted by: orlice 19-FEB-2004 07:59



This Detail applies for the following Locations:
Sta. 1300+14.32 to Sta. 1310+93.51 Eastbound

DETAIL LEGEND

(This Legend Applies To This Detail Only)

- ① 4" Non Reinforced Concrete Pavement
- ② Guardrail, Barrier Design, Type 5, As Per Plan
- ③ 204 Subgrade Compaction
- Ⓐ Existing Curb (Do Not Disturb)
- Ⓑ Existing Guardrail (To Be Removed)
- Ⓒ Existing 4" Concrete Pavement (To Be Removed)
- Ⓓ Existing Barrier Guardrail (To Be Removed)

CALCULATED	
EW	
CHECKED	
CER	

TYPICAL SECTIONS

ROS-35-22.72

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

- 659, SEEDING AND MULCHING 23500 SQ. YD.
(ESTIMATED QUANTITY TO RESTORE SLOPES AFTER GUARDRAIL INSTALLATION AS DIRECTED BY THE ENGINEER (21100' x 10' x 1/9))
- 659, COMMERCIAL FERTILIZER 3.2 TON
(FIRST APPLICATION @ 20 POUNDS PER 1000 SQ. FT. AND SECOND APPLICATION @ 10 POUNDS PER 1000 SQ. FT.)
- 659, LIME 4.9 ACRE
- 659, REPAIR SEEDING AND MULCHING 1175 SQ. YD.
(5% OF PERMANENT SEEDING AND MULCHING)
- 659, WATER 127 M. GAL.
(TWO APPLICATION @ 300 GALLONS PER 1000 SQ. FT.)

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING, ARE BASED ON THESE LIMITS.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2002 CONSTRUCTION AND MATERIAL SPECIFICATIONS. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201 CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

PROFILE AND ALIGNMENT

THE PROPOSED PAVEMENT RESURFACING SHALL FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. THE PROPOSED ASPHALT CONCRETE OVERLAY SHALL BE AS SHOWN ON THE TYPICAL SECTIONS.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

ELECTRIC:

AMERICAN ELECTRIC POWER
(DISTRIBUTION)
850 TECH CENTER DRIVE
GAHANNA, OH 43230
614-883-6829

AMERICAN ELECTRIC POWER
(TRANSMISSION)
825 TECH CENTER DRIVE
GAHANNA, OH 43230
614-552-1180

GAS:

COLUMBIA GAS OF OHIO
843 PIATT AVENUE
CHILLICOTHE, OHIO 45601
740-772-9131

COLUMBIA GAS TRANSMISSION
CORPORATION
P.O. BOX 758
WOOSTER, OHIO 44691
330-287-6634

TELEPHONE:

HORIZON CHILLICOTHE TELEPHONE COMPANY
P.O. BOX 480
CHILLICOTHE, OHIO 45601
740-772-8287

CABLE:

ADELPHIA
P.O. BOX 627
CHILLICOTHE, OHIO 45601
740-775-4288 EXT. 3077

WATER:

ROSS COUNTY WATER COMPANY
P.O. BOX 1690
CHILLICOTHE, OHIO 45601
740-774-4117

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

STREAM CHANNEL EXCAVATION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES ASSOCIATED WITH THE EXCAVATION AND HAULING OF MATERIAL FROM THE STREAM CHANNEL. THIS PERTAINS TO ANY EXCAVATION OPERATIONS SUCH AS, FOUNDATION PIER OR ABUTMENT EXCAVATION, CHANNEL CLEAN OUT, EXCAVATION FOR ROCK CHANNEL PROTECTION AND REMOVAL OF ANY TEMPORARY FILL ASSOCIATED WITH CONSTRUCTION OPERATIONS.

EXISTING PLANS

THE FOLLOWING IS A LIST OF PLANS PERTAINING TO THIS PROJECT. THEY MAY BE INSPECTED IN THE ODOT DISTRICT 9 OFFICE IN CHILLICOTHE:

ROS-35-21.23
ROS-35-25.05
ROS-35-25.32
ROS-35-26.17

ROS-35-22.82
ROS-35-25.20
ROS-35-25.37

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ITEM 617, SHOULDER RECONDITIONING, MISC.: COMPACTED AGGREGATE, AS PER PLAN

THIS ITEM OF WORK SHALL CONFORM TO ITEM 617 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS WITH EXCEPTION OF 617.02 (MATERIALS) AND 617.06 (METHOD OF MEASUREMENT).

THE MATERIAL FOR THIS ITEM SHALL BE THE ASPHALT CONCRETE GRINDINGS RESULTING FROM ITEM 254. THE GRINDINGS SHALL BE PLACED AT THE EDGE OF THE PAVED SHOULDERS (BOTH OUTSIDE AND MEDIAN LANES), APPROXIMATELY FOUR FEET WIDE THROUGHOUT THE LENGTH OF THE PROJECT IN BOTH THE EASTBOUND AND WESTBOUND LANES.

IN THE AREAS WHERE GUARDRAIL IS TO BE INSTALLED, THE GRINDINGS SHALL HAVE A MINIMUM COMPACTED THICKNESS OF SIX INCHES. THE GRINDINGS SHALL EXTEND A MINIMUM OF ONE FOOT BEHIND THE GUARDRAIL POST, OR AS MUCH AS THE EXISTING SHOULDER WILL ALLOW, AT THE SAME SLOPE AS THE ADJACENT PAVED SHOULDER BEFORE THE GRADE BREAK TO MEET THE EXISTING ROADWAY SLOPE.

ONLY THE GRINDINGS IN THE AREAS WHERE GUARDRAIL IS BEING INSTALLED, SHALL BE SEALED WITH ITEM 422 CHIP SEAL WITH POLYMER BINDER, MISC.: SEALING COMPACTED AGGREGATE UNDER GUARDRAIL WITHOUT COVER AGGREGATE, AS PER PLAN.

IN THE AREAS WHERE GUARDRAIL IS NOT BEING INSTALLED, THE GRINDINGS SHALL HAVE AN AVERAGE COMPACTED THICKNESS OF 1.50" INCHES.

THIS ITEM SHALL BE COMPACTED AS PER 617.05. 100% OF THIS MATERIAL SHALL PASS A 1/4" SIEVE AS JUDGED BY THE ENGINEER. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO MEET THE ABOVE CONDITIONS AND THE TYPICAL SECTIONS SHOWN IN THESE PLANS.

PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE PRICE BID PER SQ. YARD OF 617 SHOULDER RECONDITIONING, MISC.: COMPACTED AGGREGATE, AS PER PLAN.

CALCULATED
CER
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GENERAL NOTES

ROS-35-22.72

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ITEM SPECIAL -SOIL STERILANT

THE SOIL STERILANT USED SHALL BE AS LISTED BELOW OR AN APPROVED EQUAL. THE SOIL STERILANT SHALL BE APPLIED TO THE BOTTOM OF THE TRENCH AFTER COMPLETION OF ITEM 209, 6" DEEP - PREPARING SUBGRADE FOR SHOULDER PAVING, AND IMMEDIATELY PRIOR TO PLACING ITEM 617, SHOULDER RECONDITIONING MISC.: 6" COMPACTED AGGREGATE, AS PER PLAN.

PRAMITOL 25E
GIBA SPECIALTY CHEMICALS
MCINTOSH, ALABAMA 36553

ROUNDUP PRO L
MONSANTO COMPANY
800 N. LINDBERGH BLVD.
ST. LOUIS, MO. 63167

HYVAR XL
DUPONT CORPORATION
1007 MARKET STREET
WILMINGTON, DELAWARE 19898

COMPACTION OF THE SITE FOLLOWING PLOWING OR DISKING WILL BE REQUIRED. THE SOIL STERILANT SHOULD BE APPLIED AT THE SUGGESTED MANUFACTURER'S RATE.

THE SOIL STERILANT IDEALLY SHOULD BE APPLIED BETWEEN JUNE 15 THROUGH OCTOBER 15. VERY DRY SOIL CONDITIONS MAY RESULT IN POOR WEED CONTROL. HOWEVER, THE SOIL STERILANT SHALL NOT BE APPLIED TO SOIL OR BALLAST MATERIAL WHICH IS SATURATED WITH WATER.

THE MANUFACTURER SHALL BE CONSULTED WITH REGARD TO THE HANDLING AND PHYSICAL CHEMICAL HAZARDS ASSOCIATED WITH THE SOIL STERILANT.

PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF ITEM SPECIAL, SOIL STERILANT. A QUANTITY OF 9373 SQUARE YARDS HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

LICENSED REQUIRED: EACH SUCCESSFUL BIDDER MUST BE LICENSED BY THE STATE OF OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL APPLICATOR AND ALL PERSONS INVOLVED IN THE ACTUAL SPRAYING OF HERBICIDE SHALL BE LICENSED AS COMMERCIAL OPERATORS IN THE APPROPRIATE SPRAY CATEGORY. APPROPRIATE LICENSES SHALL BE SUBMITTED TO THE PROJECT ENGINEER, PRIOR TO COMMENCING WORK, FOR VERIFICATION.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM 422 - CHIP SEAL WITH POLYMER BINDER, MISC.: SEALING COMPACTED AGGREGATE UNDER GUARDRAIL WITHOUT COVER AGGREGATE, AS PER PLAN

SEALING UNDER GUARDRAIL SHALL CONSIST OF A SINGLE COAT APPLICATION OF POLYMER BINDER TO ITEM 617, SHOULDER RECONDITIONING MISC.: 6" COMPACTED AGGREGATE, AS PER PLAN AT AN APPLICATION RATE OF 0.37 GAL. PER SQUARE YARD IN THE AREAS WHERE GUARDRAIL HAS BEEN INSTALLED, AS SPECIFIED IN THE TYPICAL SECTIONS AND AS FOLLOWS:

- 1) PREPARE GRADED SHOULDER WITH ITEM 209. PREPARING SUBGRADE FOR SHOULDER PAVING AND ITEM 617, SHOULDER RECONDITIONING MISC.: 6" COMPACTED AGGREGATE, AS PER PLAN.
- 2) SET GUARDRAIL POSTS.
- 3) PATCH AROUND POSTS USING ADDITIONAL ASPHALT PAVEMENT GRINDINGS TO THE SATISFACTION OF THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.
- 4) PLACE ITEM 422, CHIP SEAL WITH POLYMER BINDER, MISC.: SEALING COMPACTED AGGREGATE UNDER GUARDRAIL WITHOUT COVER AGGREGATE. THE SEALING SHALL EXTEND A MINIMUM OF 25 FEET BEYOND THE START OF THE GUARDRAIL ANCHOR ASSEMBLY OR IMPACT ATTENUATOR USED TO INTRODUCE THE GUARDRAIL RUN.
- 5) REMOVE ANY POLYMER BINDER FROM THE FRONT FACE OF GUARDRAIL RUN.

THIS ITEM SHALL CONFORM TO THE REQUIREMENTS OF 422 WITH THE EXCEPTION THAT 422.08 COVER AGGREGATE AND 422.09 AGGREGATE SPREADER AND ROLLER ARE NOT REQUIRED.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE SEALING UNDER GUARDRAIL AFTER PLACEMENT OF GUARDRAIL INCLUDING PATCHING AS OUTLINED ABOVE SHALL BE INCLUDED IN THE PAYMENT FOR ITEM 422, CHIP SEAL WITH POLYMER BINDER, MISC.: SEALING COMPACTED AGGREGATE UNDER GUARDRAIL WITHOUT COVER AGGREGATE, AS PER PLAN.

ITEM 254-PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN

THE REQUIREMENTS OF 254 SHALL APPLY EXCEPT:

THE INTENT OF THE PLANING IS TO MILL 1-3/4" DEPTH AT THE EDGE LINES AND LANE LINES OF THE THRU LANES AND 1/4" (MIN.) DEPTH IN BOTTOM OF WHEEL RUTS. THE PAVEMENT CROSS SLOPE MAY VARY BETWEEN 3/16" AND 3/8" PER FOOT CONTINUOUS FOR THE LANE WIDTHS. THE MILLING DEPTH SHALL BE CONTROLLED FROM THE EDGE LINES OR LANE LINES, TO PRODUCE THE LEAST AMOUNT OF MILLING IN CONFORMANCE WITH THE ABOVE LIMITS TO LEVEL THE EXISTING PAVEMENT PROFILE AND CROSS SLOPES. FIELD WORK FOR ITEM 623, CONSTRUCTION LAYOUT STAKES AS NECESSARY FOR PROPER CONSTRUCTION WITHIN PLAN INTENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

AN AUTOMATIC MILLING HEAD PROFILE CONTROL HAVING A MINIMUM OF 30 FOOT SKI-ARM SHALL BE USED DURING THE MILLING OPERATION.

ABOVE CONDITIONS DO NOT APPLY TO PLANING PERFORMED IN AREAS AS DIRECTED BY THE ENGINEER TO ELIMINATE ADVERSE SURFACE DISTORTION, OR TO PROVIDE A SATISFACTORY GRADE AT CASTINGS. THESE AREAS INCLUDE MATERIAL DISPLACED BY PERFORMED THROUGHOUT THE PROJECT PRIOR TO PAVING. AREAS TO BE PLANED WILL BE DESIGNATED BY THE ENGINEER.

THE PROGRESSION OF THE PLANING SHALL PROCEED IN SUCH A MANNER THAT NORMAL TRAFFIC WILL NOT BE REQUIRED TO RUN OVER THE PLANED ROADWAY SURFACE MORE THAN TWENTY-ONE (21) CALENDAR DAYS. THE 21 CALENDAR DAYS SHALL BE CONSIDERED AN INTERIM COMPLETION DATE (SECTION 108) AND FOR EACH CALENDAR DAY BEYOND THE 21 DAYS THAT THE TRAFFIC REMAINS EXPOSED TO THE PLANED SURFACE, THE CONTRACTOR WILL BE ASSESSED LIQUIDATED DAMAGES AS PER 108.07. PLANED AREAS WHICH CREATE A LONGITUDINAL JOINT BETWEEN TRAVELED LANES SHALL BE COMPLETED IN SUCH A MANNER SO AS TO REMOVE THE JOINT BEFORE THE END OF EACH DAY'S WORK. BEFORE THIS JOINT IS EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL ERECT OW-171 SIGNS (UNEVEN PAVEMENT). THESE SIGNS SHALL REMAIN ONLY WHEN THE CONDITION EXISTS.

DISPOSAL OF CUTTINGS:

A PORTION OF THE GRINDINGS ARE TO BE USED FOR ITEM 617 SHOULDER RECONDITIONING, MISC.: COMPACTED AGGREGATE. ALL ADDITIONAL ASPHALT GRINDINGS FROM THIS PROJECT ARE TO BECOME THE PROPERTY OF THE CONTRACTOR.

EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH EXCEPTION OF ITEMS SEPARATELY ITEMIZED, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE TO REPAIR THE PLANED PAVEMENT AS DIRECTED BY THE ENGINEER:

251	PARTIAL DEPTH PAVEMENT REPAIR, AS PER PLAN	100 CU. YD.
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ITEM 606-GUARDRAIL, BARRIER DESIGN, TYPE 5, AS PER PLAN

THE WORK REQUIRED FOR THIS ITEM SHALL CONFORM TO THAT LISTED FOR ITEM 606 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS WITH EXCEPTION OF 606.02 (MATERIALS).

THE MATERIAL REQUIREMENTS FOR THIS ITEM SHALL BE TO UTILIZE 9 FOOT POSTS IN ACCORDANCE WITH THE SPECIFICATIONS.

CALCULATED
CER
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GENERAL NOTES

ROS-35-22.72

ITEM 606 - ANCHOR ASSEMBLY, TYPE E-98

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE ET-2000 (1997) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE ET-2000 (1997) SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF TWO 25'-0" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS265M	ET-2000 (1997) PLAN, ELEVATION & SECTIONS	6/20/97	3/6/98
SSI42	ET2000 PLUS 50'-0" PLAN, ELEVATION & SECTION 25'-0" RAIL, SLEEVE W/PL POSTS 1-4	4/12/00	7/31/00
SSI41	ET2000 PLUS PLAN, ELEVATION & SECTION 25'-0" RAIL, HBA POSTS 1-4	2/29/00	7/31/00
SSI58	ET2000 PLUS 50'-0" WITH 12'-6" PANELS & HBA POSTS 1-4 PLAN, ELEVATION & SECTION	5/22/00	7/31/00

- 2) THE SKT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224, (TELEPHONE: 330-346-0721).

THE LENGTH OF THE SKT-350 SYSTEM IS CONSIDERED TO BE 50'-0", INCLUSIVE OF FOUR 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SKT-4M	SEQUENTIAL KINKING TERMINAL (SKT-350) ASSEMBLY WITH 4 FOUNDATION TUBES	12/11/97	3/6/98

THE FACE OF THE TYPE E-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 18" X 18".

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4-INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4-INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE E-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE I-98 (BIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

- 1) THE C-A-T MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE C-A-T SYSTEM IS CONSIDERED TO BE 31'-3" LONG. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS245M	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS FOR USE AS A LONGITUDINAL MEDIAN BARRIER TERMINAL OR CRASH CUSHION ATTENUATOR	4/10/97 REV. 4	3/6/98
SS224M	C-A-T TRANSITION TO MEDIAN BARRIER GUARDRAIL PLAN, ELEVATION & SECTIONS	4/26/96	3/6/98
SS226M	C-A-T TRANSITION TO VERTICAL WALL OR PIER PLAN, ELEVATION & SECTIONS	4/26/96	3/6/98

- 2) THE BRAKEMASTER MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

THE LENGTH OF THE BRAKEMASTER SYSTEM IS CONSIDERED TO BE 32'-8" LONG. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
92-00-01	BRAKEMASTER GENERAL ASSEMBLY (UNIDIRECTIONAL SYSTEM)	3/6/97 REV. K	3/6/98
92-00-81	BRAKEMASTER (UNIDIRECTIONAL) WITH FOUNDATION TUBES	2/9/98	3/6/98
92-00-02	BRAKEMASTER GENERAL ASSEMBLY (BIDIRECTIONAL SYSTEM)	3/10/97 REV. K	3/6/98
92-00-82	BRAKEMASTER (BIDIRECTIONAL) WITH FOUNDATION TUBES	2/9/98	3/6/98
9202024	ANCHOR ASSEMBLY, FOUNDATION TUBE, 6 1/2 FT., BRS	6/12/97 REV. D	3/6/98

- 3) THE FLEAT-MT MANUFACTURED BY ROAD SYSTEMS, INC. (RSI), 3616 OLD HOWARD COUNTY AIRPORT ROAD, BIG SPRINGS, TX, 79720 (TELEPHONE: 915-263-2435) AND AVAILABLE FROM RSI'S LIST OF APPROVED DISTRIBUTORS.

THE LENGTH OF THE FLEAT-MT SYSTEM IS CONSIDERED TO BE 37'-6" LONG. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS AND THE MANUFACTURERS INSTALLATION MANUAL.

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
MEDFLT -W-US	FLARED ENERGY ABSORBING TERMINAL - FLEAT-MT ASSEMBLY FOR WOOD BREAKAWAY POST SYSTEM	4/10/02 REV. 5	1/6/03
MEDFLT -S-US	FLARED ENERGY ABSORBING TERMINAL - FLEAT-MT ASSEMBLY FOR STEEL BREAKAWAY POST SYSTEM	4/10/02 REV. 6	1/6/03
MEDFLT -W-M	FLARED ENERGY ABSORBING TERMINAL - FLEAT-MT (METRIC) ASSEMBLY FOR WOOD BREAKAWAY POST SYSTEM	4/10/02 REV. 5	1/6/03
MEDFLT -S-M	FLARED ENERGY ABSORBING TERMINAL - FLEAT-MT (METRIC) ASSEMBLY FOR STEEL BREAKAWAY POST SYSTEM	4/10/02 REV. 6	1/6/03

THE FACE OF THE TYPE I-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19, APPROXIMATELY 36" x 12". PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE I-98 (BIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED TRANSITIONS, HARDWARE, REFLECTIVE SHEETING AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606, ANCHOR ASSEMBLY, TYPE B-98:

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS.

- 1) THE SRT-350, GUARDRAIL END TERMINAL AS MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL
SS444 SS444M	SLOTTED RAIL TERMINAL POST LAYOUT AND ERECTION DETAILS SRT-350 (12.5, 8 POST)	7/12/99 Rev.1 7/12/99	8/27/99
SS425M	SLOTTED RAIL TERMINAL SRT-350 POST LAYOUT AND ERECTION DETAILS (12.5, 9 POST)	6/21/97 Rev.1	3/6/98

- 2) THE FLEAT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224 (TELEPHONE: 330-346-0721).

THE LENGTH OF THE FLEAT-350 IS CONSIDERED TO BE 37'-6", INCLUSIVE OF THREE 12'-6" LONG RAIL ELEMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. #	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL
FLT-M	FLARED ENERGY ABSORBING TERMINAL (FLEAT-350) ASSEMBLY	4/16/98	7/31/98

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4-INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27-3/4 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4-INCHES ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B-98 IMPACT HEAD SHALL BE COVERED WITH TYPE G REFLECTIVE SHEETING, PER CMS 730.19: APPROXIMATELY 36" W x 12" H FOR THE SRT-350 AND 14" W x 20" H FOR THE FLEAT.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, TYPE B-98, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

GENERAL NOTES

ROS-35-22.72

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ITEM 614 MAINTAINING TRAFFIC

TRAFFIC SHALL BE MAINTAINED ON U.S. 35 AT ALL TIMES, USING A MINIMUM OF ONE 12-FOOT WIDE LANE OF TRAVEL IN EACH DIRECTION.

THE LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. CLOSURES AND RESTRICTION SHALL BE IN CONFORMANCE WITH MT-95.30.

THE MAINTENANCE OF TRAFFIC THROUGH THE BRIDGE WORK ZONE AT ROS-35-2419L SHALL PROVIDE FOR ONE LANE OF TRAVEL AT ALL TIMES AS PER STD. DWG. MT-95.40. QUANTITIES ASSOCIATED WITH THIS M.O.T. SCHEME ARE FIGURED ON SHEET II.

THE MAINTENANCE OF TRAFFIC THROUGH THE BRIDGE WORK ZONE AT ROS-35-2419R SHALL PROVIDE FOR ONE LANE OF TRAVEL AT ALL TIMES AS PER STD. DWG. MT-95.30. QUANTITIES ASSOCIATED WITH THIS M.O.T. SCHEME ARE FIGURED ON SHEET II.

THE MAINTENANCE OF TRAFFIC FOR THE MEDIAN AND SHOULDER WORK AT OVERHEAD STRUCTURES OF ROS-35-2465 & ROS-35-2469 SHALL PROVIDE FOR ONE LANE OF TRAVEL AT ALL TIMES AS PER STD. DWG MT-95.40. QUANTITIES ASSOCIATED WITH THIS M.O.T. SCHEME ARE FIGURED ON SHEET II.

THE CONTRACTOR SHALL ARRANGE FOR ALL MAINTENANCE OF TRAFFIC OPERATIONS SUCH THAT THERE WILL BE NO OBSTRUCTION TO THE CONTINUOUS FLOW OF TRAFFIC. INTERSECTIONS AND CROSS-OVERS SHALL BE OPEN TO TRAFFIC AT ALL TIMES.

PRIOR TO THE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAME(S) AND TELEPHONE NUMBER(S) OF A LOCAL REPRESENTATIVE OR REPRESENTATIVE(S) WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED LAW ENFORCEMENT AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR PLACING OR REPLACING ANY TRAFFIC CONTROL DEVICES AS ARE NECESSARY TO SAFELY MAINTAIN THE TRAVELED WAY. IN EMERGENCY SITUATIONS, THE CONTRACTOR SHALL, WITHIN ONE HOUR OF INITIAL NOTIFICATION OR KNOWLEDGE OF THE EMERGENCY, ADDRESS ANY DAMAGES TO AND/OR FAILURES AND MALFUNCTIONS OF THE TRAFFIC CONTROL DEVICES AND OTHERWISE PROTECT AND PROVIDE MAINTENANCE TO THE TRAVELING PUBLIC. IF, IN THE ESTIMATION OF THE ENGINEER, PROPER RESPONSE IS NOT BEING PROVIDED BY THE CONTRACTOR OR THE CONTRACTOR'S REPRESENTATIVE(S) CANNOT BE REACHED, THE DEPARTMENT MAY TAKE THE NECESSARY STEPS TO PROTECT THE TRAVELING PUBLIC AND/OR PLACE THE TRAFFIC CONTROL DEVICES IN PROPER WORKING ORDER WITH THE COST OF ANY SUCH SERVICES BEING DEDUCTED FROM ANY MONEY DUE OR TO BECOME DUE THE CONTRACTOR.

PRIOR TO REOPENING ANY SEGMENT OF ROADWAY TO TRAFFIC, PERMANENT OR TEMPORARY MARKINGS SHALL BE IN PLACE.

HOLIDAY RESTRICTIONS

NO WORK SHALL BE PERFORMED AND ALL LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING PERIODS WHEN A HOLIDAY (MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING) IS ON:

- MONDAY OR TUESDAY:
FROM 12 NOON THE FRIDAY BEFORE THE ACTUAL HOLIDAY UNTIL 12 NOON THE DAY FOLLOWING THE HOLIDAY
- WEDNESDAY:
FROM 12 NOON ON THE DAY BEFORE UNTIL 12 NOON ON THE DAY FOLLOWING
- THURSDAY OR FRIDAY:
FROM 12 NOON ON THE DAY BEFORE UNTIL 12 NOON ON THE MONDAY FOLLOWING
- SATURDAY OR SUNDAY:
12 NOON ON FRIDAY UNTIL 12 NOON ON MONDAY

THERE SHALL BE NO EXTENSIONS FOR HOLIDAY REQUIREMENTS DUE TO MATERIAL DELAYS, UNLESS SUCH DELAYS ARE NATION-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE. SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH 108.07.

DROP-OFFS

THERE SHALL BE NO OVERNIGHT DROP-OFFS OF GREATER THAN 2". REFER TO SHEET 12 FOR DETAILED INFORMATION ON MAINTENANCE AND PROTECTION OF TRAFFIC FOR DROP-OFFS.

MAINTENANCE OF TRAFFIC FOR WORK ON STRUCTURES

A. SUGGESTED PHASING

- ROS-35-2419L
PHASE I SHALL CONSIST OF CLOSING THE RIGHT LANE AND MAINTAINING ONE 12-FOOT LANE OF ONE-DIRECTION TRAVEL ON THE REMAINING ROADWAY AND PORTIONS OF THE LEFT SHOULDER OF US 35 BY USE OF PORTABLE CONCRETE BARRIER, DRUMS AND OTHER PROVISIONS OF MT-95.40.

PHASE II SHALL CONSIST OF CLOSING THE LEFT LANE WHILE MAINTAINING ONE 12-FOOT LANE OF ONE DIRECTION TRAVEL ON THE REMAINING ROADWAY AND PORTIONS OF THE RIGHT SHOULDER OF US 35 BY USE OF PORTABLE CONCRETE BARRIER, DRUMS AND OTHER PROVISIONS OF MT-95.40.

- ROS-35-2419R
PHASE I SHALL CONSIST OF CLOSING THE RIGHT LANE AND MAINTAINING ONE 12-FOOT LANE OF ONE-DIRECTION TRAVEL ON THE REMAINING ROADWAY AND PORTIONS OF THE LEFT SHOULDER OF US 35 BY USE OF DRUMS AND OTHER PROVISIONS OF MT-95.40 AND MT-98.J3.

PHASE II SHALL CONSIST OF CLOSING THE LEFT LANE WHILE MAINTAINING ONE 12-FOOT LANE OF ONE DIRECTION TRAVEL ON THE REMAINING ROADWAY AND PORTIONS OF THE RIGHT SHOULDER OF US 35 BY USE OF DRUMS AND OTHER PROVISIONS OF MT-95.40 AND MT-98.J3.

- SHOULDER WORK AT OVERHEAD STRUCTURES OF ROS-35-2465 & ROS-35-2469
PHASE I
THIS WORK SHALL BE DONE DURING PHASE I OF THE WORK ON STRUCTURES ROS-35-2419L & ROS-35-2419R AND SHALL CONSIST OF CLOSING THE SHOULDER LANES. ONE 12-FOOT LANE OF ONE DIRECTION OF TRAVEL IN THE WEST BOUND AND EAST BOUND LANES OF US 35 SHALL BE MAINTAINED BY USE OF PORTABLE CONCRETE BARRIER, DRUMS AND OTHER PROVISIONS OF MT-95.40.

- MEDIAN WORK AT OVERHEAD STRUCTURES OF ROS-35-2465 & ROS-35-2469
PHASE II
THIS WORK SHALL BE DONE DURING PHASE II OF THE WORK ON STRUCTURES ROS-35-2419L & ROS-35-2419R AND SHALL CONSIST OF CLOSING THE MEDIAN LANES. ONE 12-FOOT LANE OF ONE DIRECTION OF TRAVEL IN THE WEST BOUND AND EAST BOUND LANES OF US 35 SHALL BE MAINTAINED BY USE OF PORTABLE CONCRETE BARRIER, DRUMS AND OTHER PROVISIONS OF MT-95.40.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC:

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	10 CU. YD.
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ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLANS.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR DUST CONTROL PURPOSES:

ITEM 616 WATER	50 M. GAL.
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TEMPORARY MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR TEMPORARY WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS 614.04 AND 614.10.

ITEM 614 WORK ZONE LANE LINE, CLASS II	13.7 MI.
ITEM 614 WORK ZONE MARKING SIGN	12 EACH

ITEM SPECIAL REPLACEMENT DRUM

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL THAT BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT UNIT PRICE PER EACH FOR ITEM SPECIAL, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVAL AND DISPOSAL OF THE OLD DRUM AS WELL AS PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY

ITEM SPECIAL REPLACEMENT DRUM	100 EACH
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ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF 614 AND THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER AND OFFICIAL PATROL CAR WITH WORKING TOP-MOUNTED LIGHTS SHALL BE PROVIDED FOR CONTROLLING THE FOLLOWING TASKS:

- LANE CLOSURES DURING INITIAL SET UP PERIODS
- LANE CLOSURES DURING TEAR-DOWN PERIODS
- SUBSTANTIAL SHIFTS OF A CLOSURE POINT
- INITIATION OF NEW CLOSURE ARRANGEMENTS

LAW ENFORCEMENT OFFICERS (LEOS) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS ARE TO BE USED. THE LEOS ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT.

THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

INFORMATION REGARDING ARRANGEMENT AND PAYMENTS BY THE CONTRACTOR FOR SPECIAL DUTY LEO WITH PATROL CAR MAY BE OBTAINED BY CONTACTING THE OHIO STATE HIGHWAY PATROL, 660 EAST MAIN STREET, COLUMBUS, OHIO 43205, PH. (614)-466-2660.

LAW ENFORCEMENT OFFICERS WITH PATROL CARS REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID AT THE UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR	40 HOUR
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THE HOURS PAID SHALL INCLUDE THE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEOS FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN THAT REQUIRED IN THIS PLAN, HE MAY DO SO AT HIS OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614, MAINTAINING TRAFFIC.

ITEM SPECIAL REPLACEMENT SIGN

FLAT SHEET SIGNS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND PROPOSAL THAT BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND AT THE DIRECTION OF THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED BUT GOOD CONDITION SUBJECT TO THE APPROVAL OF THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT UNIT PRICE PER EACH FOR ITEM SPECIAL, REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVAL AND DISPOSAL OF DAMAGED SIGNS, HARDWARE AND SUPPORTS AS WELL AS PROVIDING AND MAINTAINING THE REPLACEMENT SIGNS, HARDWARE, SUPPORTS, ETC.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY

ITEM SPECIAL REPLACEMENT SIGN	10 EACH
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ITEM 614 BARRIER REFLECTORS AND OBJECT MARKERS

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE CONCRETE BARRIER USED FOR TRAFFIC CONTROL. BARRIER REFLECTORS AND THEIR INSTALLATION SHALL CONFORM TO THE PROPOSAL NOTE AND ITEM 626. SPACING AND LOCATION FOR BARRIER REFLECTORS AND OBJECT MARKERS SHALL CONFORM TO STANDARD DRAWING MT-95.41M FOR THE MAINTENANCE OF TRAFFIC AT BRIDGES

TEMPORARY BARRIER REFLECTORS FOR GUARDRAIL AND PARAPET

EXISTING AND NEW GUARDRAIL, NEW BRIDGE PARAPET AND NEW PARAPET TRANSITIONS ADJACENT TO TEMPORARY TRAVEL LANES UTILIZING ANY PORTION OF THE SHOULDER SHALL BE OUTFITTED WITH BARRIER REFLECTORS AS PER SECTION 626 OF THE CMS. SPACING OF THE REFLECTORS SHALL BE 50 FT. CENTER-TO-CENTER.

ALTERNATIVE METHODS

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATIVE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED. NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC SHALL BE ALLOWED. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE DIRECTOR.

ITEM 614 WORK ZONE SPEED LIMIT SIGN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, COVER DURING SUSPENSION OF THE WORK, AND SUBSEQUENTLY REMOVE WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS (R-10) (50 MPH SPEED LIMIT) WITHIN THE WORK LIMITS IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS.

THE CONTRACTOR SHALL COVER OR REMOVE ANY EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS WITHIN THE REDUCED SPEED ZONE. THESE SIGNS SHALL BE RESTORED DURING SUSPENSION OR TERMINATION OF THE REDUCED SPEED LIMIT. THE EXPENSE OF COVERING OR REMOVAL AND RESTORATION OF EXISTING SPEED LIMIT OR MINIMUM SPEED SIGNS SHALL BE INCLUDED IN THE PAY ITEM FOR THE WORK ZONE SPEED LIMIT SIGNS.

THE WORK ZONE SPEED LIMIT SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN 4 HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN 4 HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL ERECT A WORK ZONE SPEED LIMIT SIGN IN ADVANCE OF ANY LANE RESTRICTION EXPECTED TO LAST AT LEAST 30 DAYS, OR AS DIRECTED BY THE ENGINEER. THE SIGN SHALL BE MOUNTED ON BOTH SIDES OF DIVIDED HIGHWAYS, 500 FEET IN ADVANCE OF THE LANE REDUCTION TAPER. THE SIGN SHALL BE MOUNTED ON THE RIGHT SIDE, 250 FEET IN ADVANCE OF THE LANE REDUCTION TAPER ON UNDIVIDED HIGHWAYS. THE SIGN SHALL BE REPEATED, ON THE SIDE NEAREST TRAFFIC, EVERY 1/2 MILE FOR 55 MPH ZONES AND EVERY 1/4 MILE FOR 45 MPH ZONES. THESE SIGNS SHALL ALSO BE ERECTED IMMEDIATELY AFTER EACH OPEN ENTRANCE RAMP WITHIN THE ZONE. A SIGN TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE.

A SIGN TO INDICATE THE RESUMPTION OF THE STATUTORY SPEED LIMIT SHALL BE ERECTED AT THE END OF ANY REDUCED SPEED ZONE. R-10 SIGNS (SPEED LIMIT) SHALL BE USED ON UNDIVIDED ROADWAY, R-10 (SPEED LIMIT) AND R-9A SIGNS (SPEED LIMIT) SHALL BE USED ON DIVIDED ROADWAYS. WHEN USED THE R-10 AND R-9A SIGNS SHALL BE MOUNTED SIDE-BY-SIDE ON SEPARATE SUPPORTS.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED BUT GOOD CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF 730.19 AND U.S. DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATION FOR TYPE III-C SHEETING, FP-85. WORK ZONE SPEED LIMIT SIGNS SHALL BE MOUNTED ON TWO(2) ITEM 630 GROUND MOUNTED SUPPORTS, NO. 3 POSTS.

WORK ZONE SPEED LIMIT SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGNS AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION WITHIN THE PROJECT DUE TO CHANGES IN THE SPEED ZONE DIRECTED BY THE ENGINEER IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE IN PLACE, WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVING THE SIGNS AND SUPPORTS.

- ITEM 614 WORK ZONE SPEED LIMIT SIGN 24 EA.
- ITEM 614 RESUME LEGAL SPEED SIGN 4 EA.

ITEM 614 DOUBLED FINES IN WORK ZONE SIGN

R-180-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS SHALL BE COVERED OR REMOVED WHEN THE CONSTRUCTION ZONE IS DISCONTINUED FOR 30 DAYS OR MORE.

THE SIGNS SHALL BE DUAL MOUNTED. THE FIRST SIGN SHALL BE PLACED BETWEEN THE "ROAD CONSTRUCTION AHEAD" (OW-128) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY TWO MILES THROUGH THE CONSTRUCTION WORK LIMITS.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED BUT GOOD CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE REFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF 730.19 AND U.S. DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATION FOR TYPE III-C SHEETING, FP-85.

DOUBLE FINES IN WORK ZONES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGN AND SUPPORT.

- ITEM 614 - DOUBLED FINES IN WORK ZONE SIGN 8 EACH

ITEM 614 - WORK ZONE IMPACT ATTENUATOR, (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING IMPACT ATTENUATORS:

- 1) THE QUADGUARD CZ, (24" WIDE 6-BAY) WORK ZONE IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, INC., ONE EAST WACKER DRIVE, CHICAGO, IL 60601 (TELEPHONE: 312-467-6750).

THE LENGTH OF THE 6-BAY QUADGUARD CZ IS 20'-9". INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
QSCZCVR-T4	QUADGUARD CZ SYSTEM FOR	5/13/99	8/27/99
35-40-10	QUADGUARD SYSTEM	11/19/97	8/27/99
35-40-16	QUADGUARD SYSTEM BACKUP ASSEMBLY, CZ, QG	7/30/99 Rev. F	8/27/99
354051Z	QUADGUARD CZ SYSTEM NOSE ASSEMBLY, CZ, QG, 24, 30, 36	5/17/99	8/27/99
35-40-18	TRANSITION ASSEMBLY, 4 OFFSET, QG	6/25/99 Rev. F	8/27/99
35400260	QUADGUARD SYSTEM PCMB ANCHOR ASSEMBLY	11/19/97 Rev. C	8/27/99

- 2) THE TRACC (TRINITY ATTENUATING CRASH CUSHION) MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).

THE TRACC IS 21'-0" LONG AND 2'-7" WIDE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DWG. NO.	DRAWING NAME	DWG./REV. DATE	ODOT APPROVAL DATE
SS450	CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS	3/12/99 Rev. I	8/27/99
SS455	TRACC TRANSITION TO W-BEAM MEDIAN BARRIER PLAN, ELEVATION & SECTIONS	2/18/99	8/27/99
SS461	TRACC TRANSITION TO CONCRETE SAFETY SHAPE BARRIER PLAN, ELEVATION & SECTIONS	6/30/99 Rev. I	8/27/99
SS462	TRACC TRANSITION TO CONCRETE BARRIER SINGLE SLOPE PLAN, ELEVATION & SECTIONS	6/30/99	8/27/99

- 3) THE GREAT CZ IMPACT ATTENUATOR MANUFACTURED BY ENERGY ABSORPTION SYSTEMS INC. THIS ATTENUATOR MAY BE USED UNTIL JANUARY 1, 2007 IF THE ITEM WAS PURCHASED BEFORE OCTOBER 1, 1998 AND IS IN THE CONTRACTOR'S INVENTORY.

THE CONTRACTOR SHALL PROVIDE A REPLACEMENT UNIT WHEN AN IMPACT IS SEVERE ENOUGH TO REQUIRE COMPLETE REPLACEMENT OF THE ATTENUATOR. THE CONTRACTOR SHALL HAVE A SPARE PARTS PACKAGE AVAILABLE ON THE PROJECT SITE AT ALL TIMES WHEN AN ATTENUATOR IS IN PLACE. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE COMPLETE SPARE PARTS PACKAGE FOR EVERY 1 TO 6 UNITS INSTALLED ON THE PROJECT SITE. FOR EXAMPLE, 5 INSTALLED UNITS REQUIRE 1 SPARE PARTS PACKAGE AND 7 INSTALLED UNITS REQUIRE 2 SPARE PARTS PACKAGES.

WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 614, WORK ZONE IMPACT ATTENUATOR, (UNIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT, MAINTAIN, REPAIR, REPLACE OR RELOCATE A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

STATION							614		622			
FROM	TO	SIDE					WORK ZONE IMPACT ATTENUATOR UNIDIRECTIONAL	OBJECT MARKER ONE-WAY	BARRIER REFLECTOR, TYPE B	PORTABLE CONCRETE BARRIER 32"	PORTABLE CONCRETE BARRIER 32" BRIDGE MOUNTED	
							MILE	EACH	EACH	FT	FT	
ROS-35-2419L												
PHASE I												
1276+52.50	1292+16	L					0.30	32	32	226	1337.50	
1292+16	1300+96	L					0.17	1				
PHASE II												
1276+52.50	1292+40	L					0.30	33	33	250	1337.50	
1292+40	1301+05	L					0.16	1				
ROS-35-2419R												
PHASE I												
1266+85	1289+41	R					0.43					
PHASE II												
1266+85	1288+80	R					0.42					
SHOULDER PHASE I												
EAST BOUND												
1289+41	1299+36						0.19	1				
1299+36	1302+57						0.06	8	8	250	70	
WEST BOUND												
1300+96	1304+17						0.06	8	8	250	70	
1304+17	1314+12						0.19	1				
MEDIAN PHASE II												
EAST BOUND												
1301+05	1307+15	L					0.12	13	13	250	360	
1307+15	1317+10	L					0.19	1				
WEST BOUND												
1288+80	1298+75	R					0.19	1				
1298+75	1304+85	R					0.12	13	13	250	360	
TOTAL CARRIED TO GENERAL SUMMARY							2.90	6	107	107	1476	3535

MAINTENANCE OF TRAFFIC SUB-SUMMARY

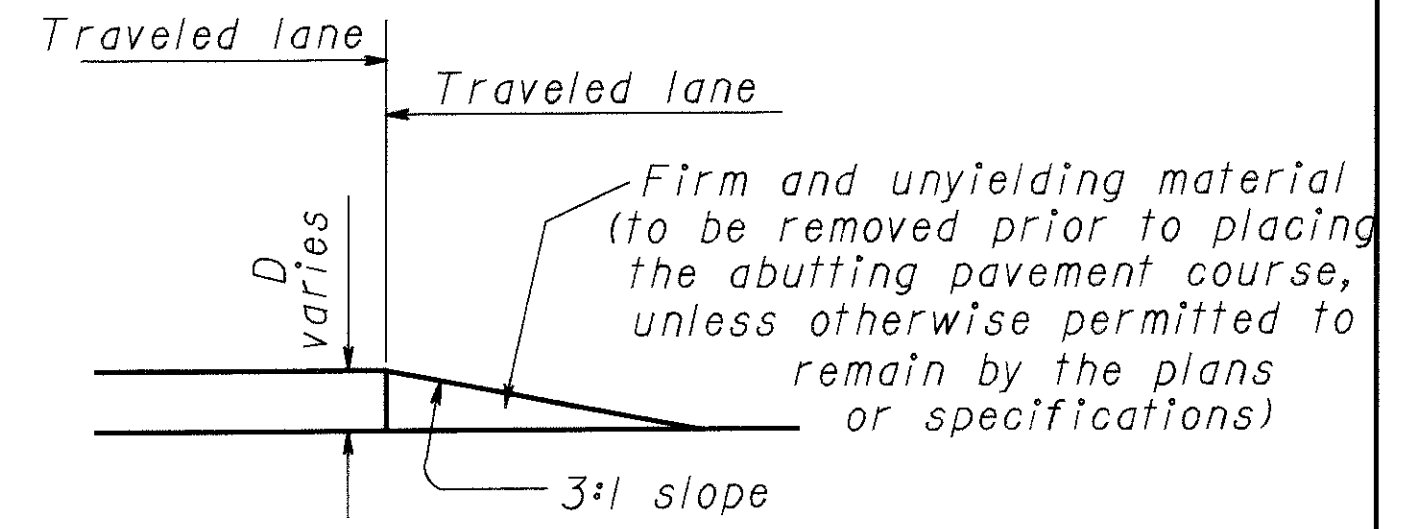
ROS-35-22.72

GENERAL NOTES

- It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified hereon, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.
- While the need for certain advisory signing is noted hereon, it is not intended that this be indicative of all signing that may be required to advise or warn motorists, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.
- In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown hereon may be required.
- The drop-off treatment selected for use at any given location shall be as appropriate for the prevailing conditions at the site.
- Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing MC-9.2 and Item 622.
- When drums are specified for a dropoff condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.
- When OW-151 (Low Shoulder) signs or OW-171 (Uneven Lanes) and OWP-171 signs are required, they shall be placed 750' in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the dropoff condition extends more than one-half mile, additional signs should be erected at intervals of one mile or less.
- For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate any difference in elevation between pavements, a 3:1 slope treatment similar to the Optional Wedge Treatment shall be provided.
- Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10', drums may be placed on the opposite level from that of traffic provided the dropoff depth does not exceed 5" and approval is granted by the Project Engineer.
- Pavement Repairs (or similar work):
 - Lengths greater than 60 feet - utilize appropriate treatment from Condition I.
 - Lengths of 60 feet or less - repairs shall be effected in accordance with 255.08. Drums may be used as a separator adjacent to the traveled lane.

**OPTIONAL WEDGE TREATMENT
(MILLING OR RESURFACING)**

- This treatment may be used when permitted for Condition I only.
- OW-171 and OWP-171 signs required.

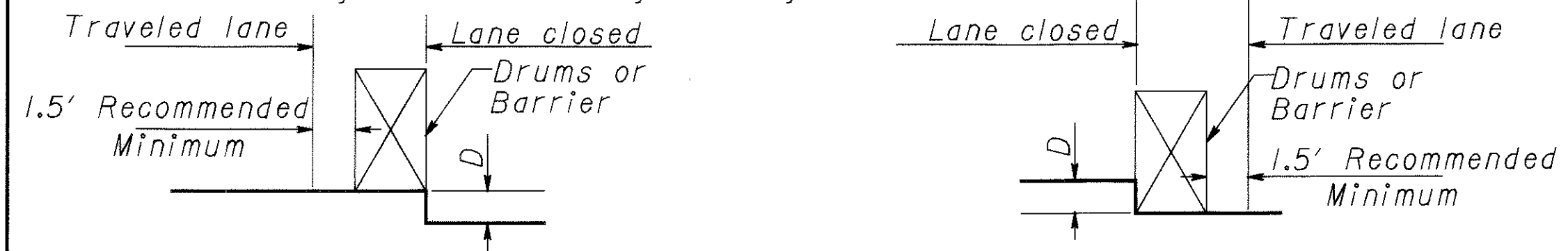


**CONDITION I
DROPOFFS BETWEEN TRAVELED LANES**

- These treatments are to be used for resurfacing, pavement planing, excavation, etc. between or within traveled lanes.

D (In.)	Treatment
≤ 1 1/2	Erect OW-171 and OWP-171 signs.
> 1 1/2 - 3	1) Lane closure utilizing drums* as shown below OR 2) Optional Wedge Treatment
> 3 - 5	Lane closure utilizing drums as shown below.
> 5	Lane closure utilizing portable concrete barrier as shown below.

*Cones may be used for daytime only conditions.

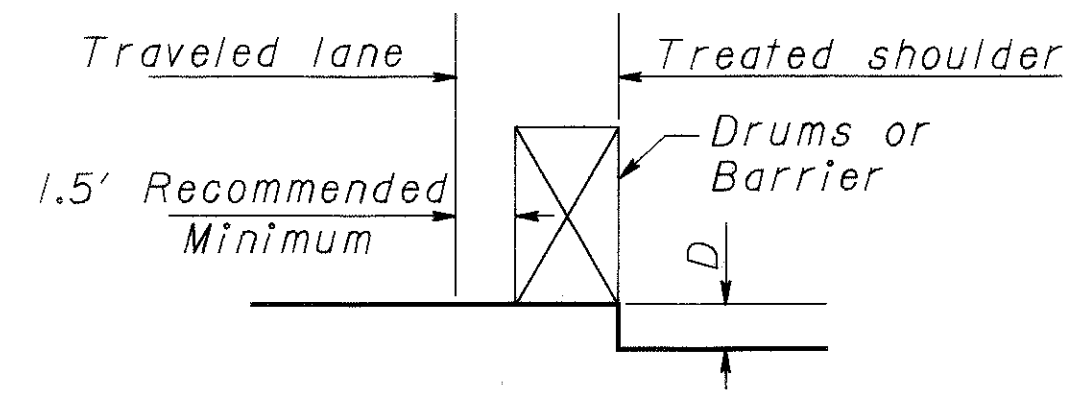


**CONDITION II
DROPOFFS WITHIN GRADED SHOULDER AREA**

- The treatments indicated below are for use in conjunction with resurfacing, planing, or excavations within the graded shoulder area.
- The graded shoulder area is that flat or gradually sloping area between the edge of a normally traveled lane and the more steeply sloping ditch foreslope or embankment slope. Its surface may be soil or turf, and/or it may be inclusive of a "treated" area (improved with aggregates, asphaltic materials, or concrete). For the purposes herein, its maximum width shall be considered to be twelve (12) feet.

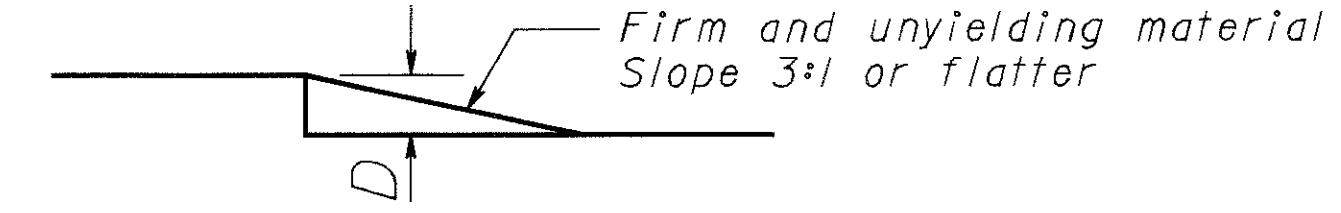
D (In.)	Treatment
≤ 1 1/2	1) If edgelines are present, no treatment necessary OR 2) Erect OW-171 and OWP-171 signs.
> 1 1/2 - 5	1) If min. lane width* requirements can be met, maintain lanes utilizing drums as shown below OR 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums OR 3) Optional Shoulder Treatment.
> 5 - 12 Daylight only	If min. lane width* requirements can be met, maintain lanes utilizing drums as shown below.
> 5 - 24	1) If min. lane width* requirements can be met, maintain lanes utilizing portable concrete barrier as shown below. OR 2) If min. lane width* requirements cannot be met, close adjacent lane utilizing drums.
> 24	Lane closure utilizing portable concrete barrier as shown below.

*Minimum lane widths shall be 10' unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

- This treatment may not be used within a bituminous shoulder where a hot longitudinal joint per 401.15 is required.
- OW-151 signs required.

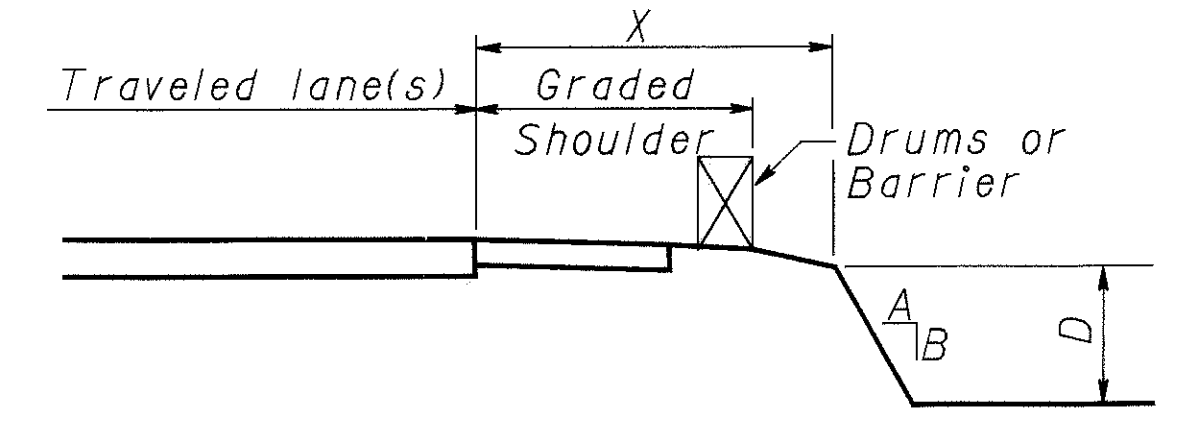


**CONDITION III
DROPOFFS BEYOND GRADED SHOULDER OR BACK OF CURB**

- See Note 2 under Condition II.
- Use Chart A or B below, as applicable.

CHART A

- USE FOR:
- Uncurbed Facilities.
 - Curbed Facilities, where:
 - Curbs are less than 6" in height.
 - Curbs are 6" or greater in height and the legal speed is greater than 40 mph.

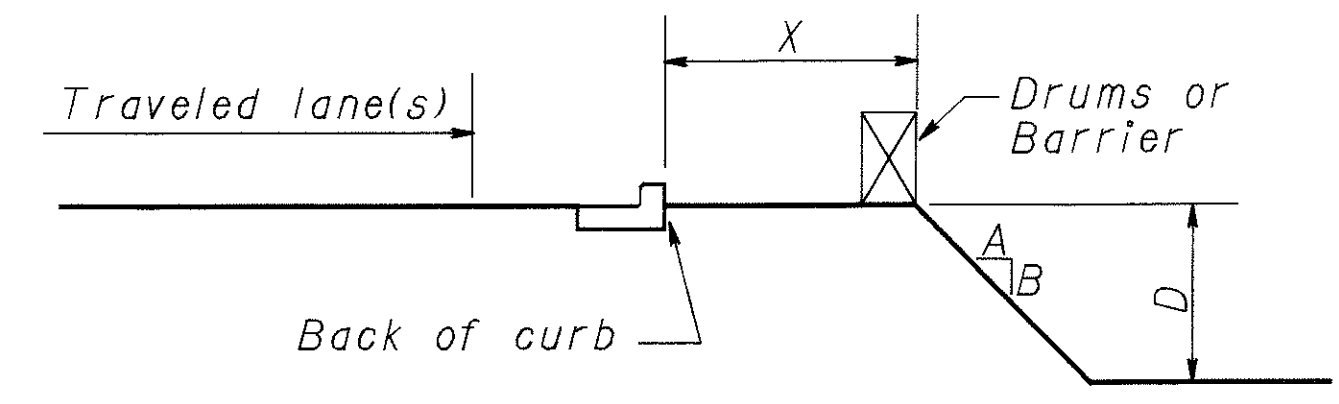


X (Ft.)	D (In.)	A/B	Treatment Required	
			Day	Night
0-4	Any	Any	(a)	(a)
4-30	Any	3:1 or Flatter	None	None
4-12	< 3	Steeper than 3:1	None	None
4-12	> 3 - < 12	Steeper than 3:1	Drums	Drums
4-12	> 12	Steeper than 3:1	Drums	Barrier
> 12 - 20	< 12	Steeper than 3:1	None	None
> 12 - 20	> 12 - < 24	Steeper than 3:1	Drums	Drums
> 12 - 20	> 24	Steeper than 3:1	Drums	Barrier
> 20 - 30	< 24	Steeper than 3:1	None	Drums
> 20 - 30	> 24	Steeper than 3:1	Drums	Barrier
> 30	Any	Any	None	None

(a) Use treatment specified under Condition II.

CHART B

- USE FOR: Curbed facilities, where the curb is 6" or greater in height and the legal speed is 40 mph or less.



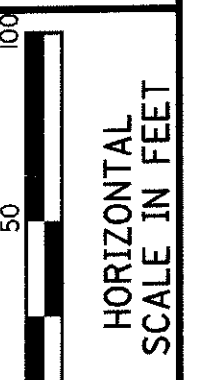
X (Ft.)	D (In.)	A/B	Treatment Required	
			Day	Night
0-10	< 12	Any	None	Drums
0-10	> 12	Any	Drums	Drums
> 10	Any	Any	None	None

ROUTE	STATION TO STATION	LENGTH	PAVEMENT WIDTH	PAVEMENT AREA	254		407		442		442		617		618		CALCULATED EWW CHECKED CER
					PAVEMENT PLANING ASPHALT CONCRETE, AS PER PLAN		TACK COAT @ 0.075 GAL./SQ.YD.	TACK COAT FOR INTERMEDIATE COURSE @ 0.075 GAL./SQ.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (446)	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446) WITH SUPPLEMENT 1059 WARRANTY	SHOULDER RECONDITIONING MISC.: COMPACTED AGGREGATE, AS PER PLAN	RUMBLE STRIPS, TYPE 2, (ASPHALT CONCRETE)	RUMBLE STRIPS, TYPE 2, (CONCRETE)				
					1.75"	1.50"								1.75"	1.50"	1.50"	
		LIN. FT.	FT.	SQ. YD.	SQ. YD.	SQ. YD.	GALLON	GALLON	CU. YD.	CU. YD.	SQ. YD.						
US 35 WESTBOUND	1199+78.85 to 1276+63.00	7,684.15	26	22,198.66	22,198.66			1,664.90	1,079.10								
	1276+63.00 to 1289+98.25		36	30,736.60			2,305.25			1,280.69							
	1289+98.25 to 1320+48.65		26	8,812.27	8,812.27			660.92	428.37								
ADDITIONAL PLANING AT OVERHEAD STRUCTURES		3050.40	36	12,201.60			915.12			508.40							
	1240+75 to 1242+25 150' x 36" / 9 -							600									
	1300+75 to 1302+25 150' x 36" / 9 -							600									
	1303+25 to 1304+75 150' x 36" / 9 -							600									
617 COMPACTED AGGREGATE, AS PER PLAN (FOR AREAS WITHOUT GUARDRAIL) OUTSIDE AND MEDIAN WB LANES	8300' x 4" / 9 -										3688.89						
US 35 EASTBOUND	1203+28.60 to 1270+78.60	6,750.00	26	19,500.00	19,500.00			1,462.50	947.92								
	1270+78.60 to 1292+28.60		36	27,000.00			2,025.00			1,125.00							
	1292+28.60 to 1320+48.65		26	8,146.81	8,146.81			611.01	396.03								
ADDITIONAL PLANING AT OVERHEAD STRUCTURES		2,820.05	36	11,280.20			846.02			470.01							
	1206+25 to 1208+50 225' x 36" / 9 -							900									
	1240+75 to 1242+25 150' x 36" / 9 -							600									
	1301+25 to 1302+75 150' x 36" / 9 -							600									
	1303+50 to 1305+00 150' x 36" / 9 -							600									
617 COMPACTED AGGREGATE, AS PER PLAN (FOR AREAS WITHOUT GUARDRAIL) OUTSIDE AND MEDIAN WB LANES	8500' x 4' / 9 -										3777.78						
RAMPS: US 35 @ EASTERN AVE.																	
RAMP F	1248+75.29 to 1256+75.42			1,853.70 *			139.03			77.24							
				1,309.24 *	1,309.24			98.19	63.64								
RAMP H	1251+70.39 to 1263+28.60			2,673.52 *			200.51			111.40							
				1,804.33 *	1,804.33			135.32	87.71								
RAMPS: US 35 AND US 50 INTERCHANGE																	
RAMP B	1292+28.60 to 1295+88.00			974.43 *			73.08			40.60							
				766.19 *	766.19			57.46	37.25								
RAMP C	1304+15.50 to 1316+35.16			3,152.11 *			236.41			131.34							
				2,299.56 *	2,299.56			172.47	111.78								
	* - Obtained using Microstation																
RUMBLE STRIPS (ASPHALT CONCRETE): US 35 WESTBOUND																	
	1199+78.85 to 1271+92.83 Rt.	7,213.98															
	1273+53.57 to 1276+62.55 Rt.	308.98															
	1289+98.29 to 1320+48.65 Rt.	3,050.36															
	1199+78.85 to 1276+62.55 Lt.	7,683.70															
	1289+98.29 to 1320+48.65 Lt.	3,050.36															
	TOTAL WESTBOUND	21,307.38													4.04		
RUMBLE STRIPS (ASPHALT CONCRETE): US 35 EASTBOUND																	
	1203+28.60 to 1270+78.60 Rt.	6,750.00															
	1292+28.60 to 1320+48.65 Rt.	2,820.05															
	1203+28.60 to 1269+76.36 Lt.	6,647.76															
	1292+28.60 to 1320+48.65 Lt.	2,820.05															
	TOTAL EASTBOUND	19,037.86													3.61		
RUMBLE STRIPS (CONCRETE): US 35 EASTBOUND																	
	1270+78.60 to 1276+99.27 Rt.	620.67															
	1290+35.97 to 1292+28.60 Rt.	192.63															
	1272+37.12 to 1276+92.88 Lt.	455.76															
	1290+28.19 to 1292+28.60 Lt.	200.41															
	TOTAL EASTBOUND	1,469.47														0.28	
					64,837.06	4500											
					69,337.06		6,740.42	4,862.77	3,151.80	3,744.68	7,466.67	7.65	0.28				
					69,338		6,741	4,863	3,152	3,745	7,467	7.65	0.28				
	SUB-TOTAL TO SHEET																

PAVEMENT CALCULATIONS

ROS-35-22.72

15
34

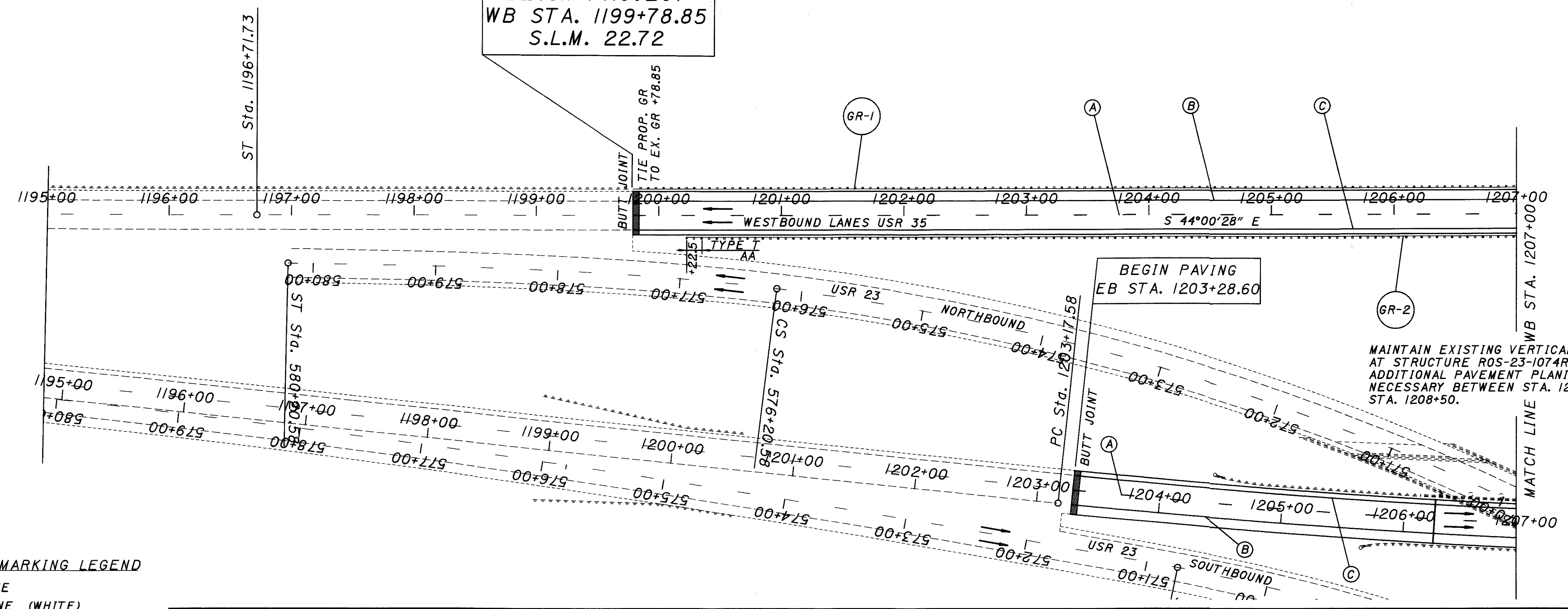


CALCULATED
CHECKED

PLAN AND PAVEMENT MARKING SHEET
STA. 1195+00 TO STA. 1219+00

ROS-35-22.72

BEGIN PROJECT
WB STA. 1199+78.85
S.L.M. 22.72



PAVEMENT MARKING LEGEND

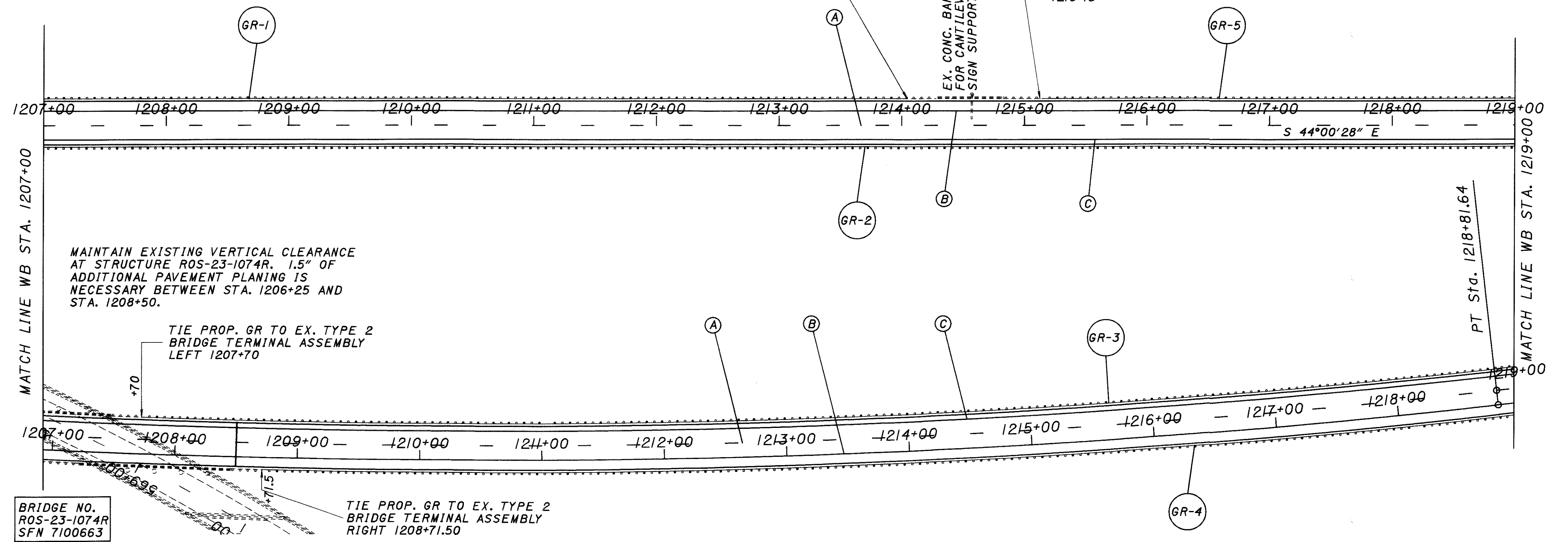
- (A) LANE LINE
- (B) EDGE LINE (WHITE)
- (C) EDGE LINE (YELLOW)
- (D) CHANNELIZING LINE

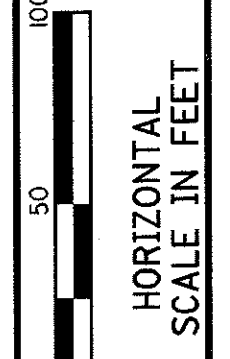
FOR ESTIMATED ROADWAY QUANTITIES, SEE SHEETS 15-17.

TIE PROP. GR TO EX. TYPE 2
BRIDGE TERMINAL ASSEMBLY
1214+05

EX. CONC. BARRIER FOR CANTILEVER SIGN SUPPORT

TIE PROP. GR TO EX. TYPE 1
BRIDGE TERMINAL ASSEMBLY
1215+15



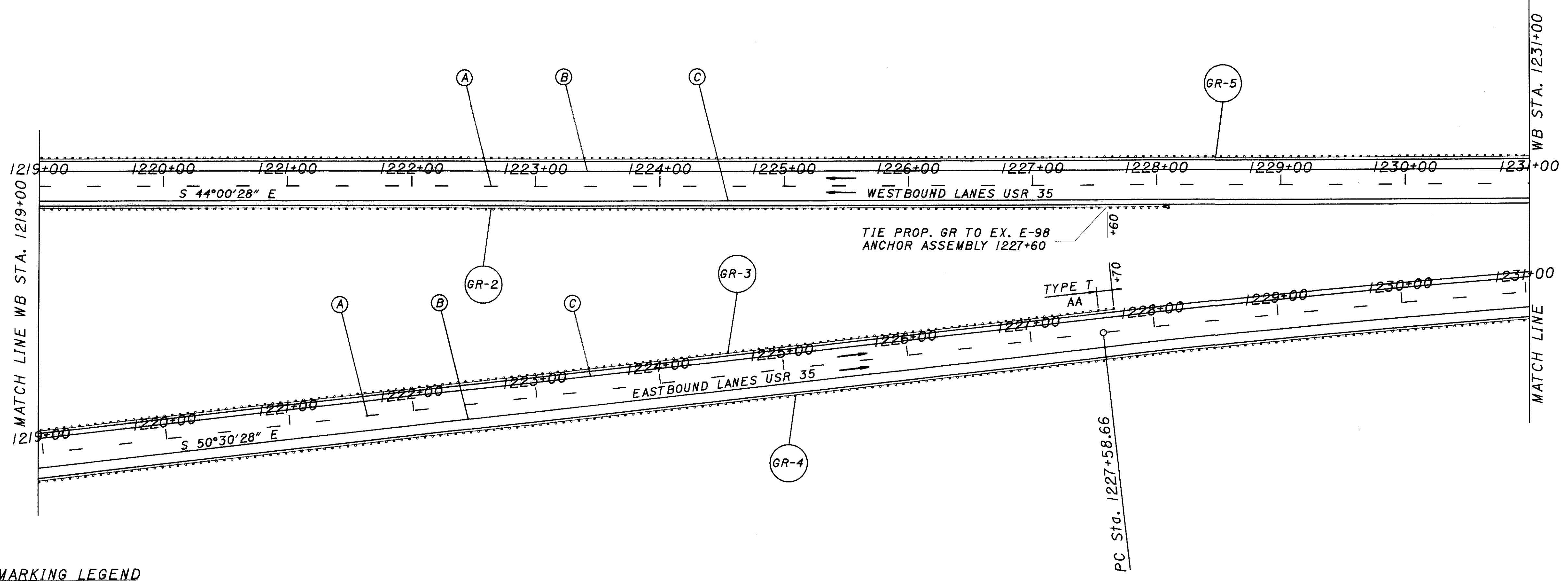


CALCULATED
CHECKED

PLAN AND PAVEMENT MARKING SHEET
STA. 1219+00 TO STA. 1243+00

ROS-35-22.72

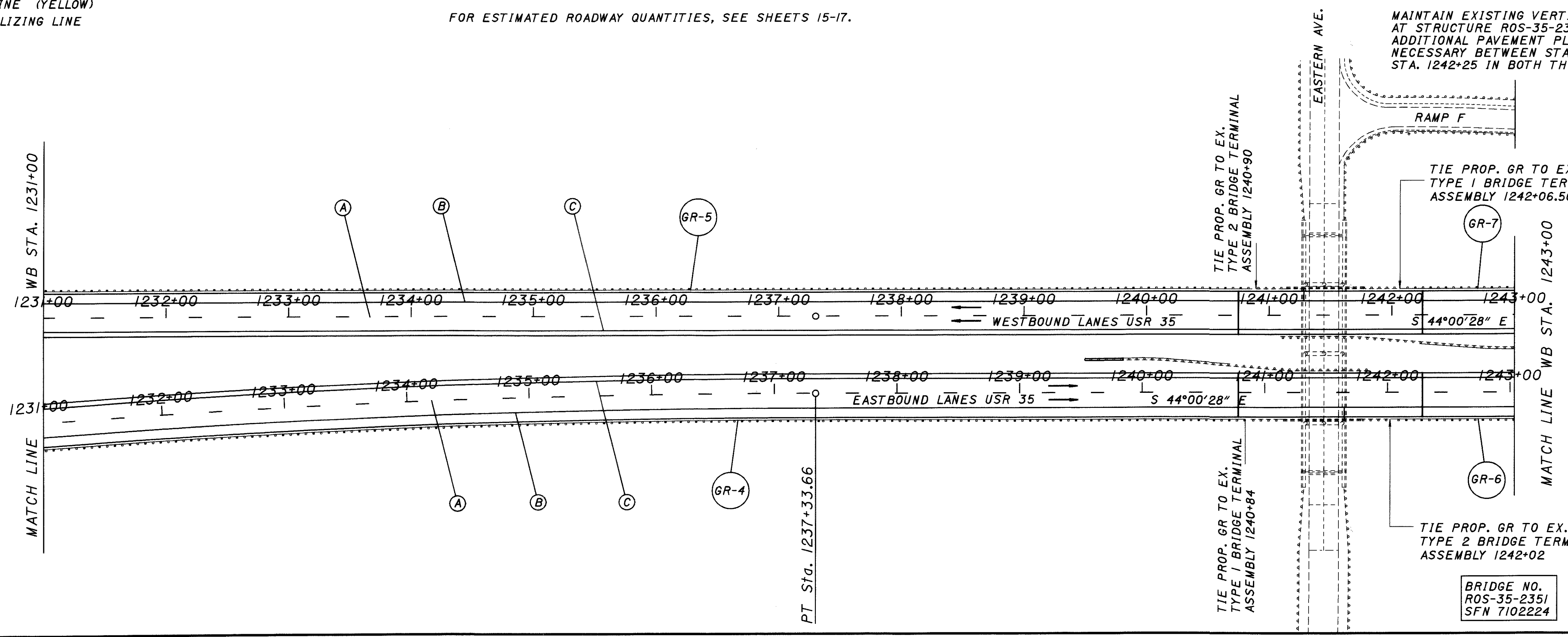
19
34



PAVEMENT MARKING LEGEND

- (A) LANE LINE
- (B) EDGE LINE (WHITE)
- (C) EDGE LINE (YELLOW)
- (D) CHANNELIZING LINE

FOR ESTIMATED ROADWAY QUANTITIES, SEE SHEETS 15-17.



MAINTAIN EXISTING VERTICAL CLEARANCE AT STRUCTURE ROS-35-2351. 1.5\"/>

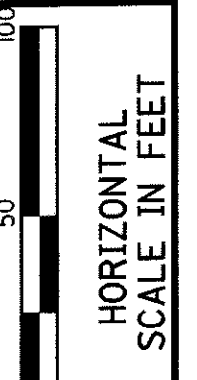
TIE PROP. GR TO EX. TYPE 2 BRIDGE TERMINAL ASSEMBLY 1240+90

TIE PROP. GR TO EX. TYPE 1 BRIDGE TERMINAL ASSEMBLY 1240+84

TIE PROP. GR TO EX. TYPE 1 BRIDGE TERMINAL ASSEMBLY 1242+06.50

TIE PROP. GR TO EX. TYPE 2 BRIDGE TERMINAL ASSEMBLY 1242+02

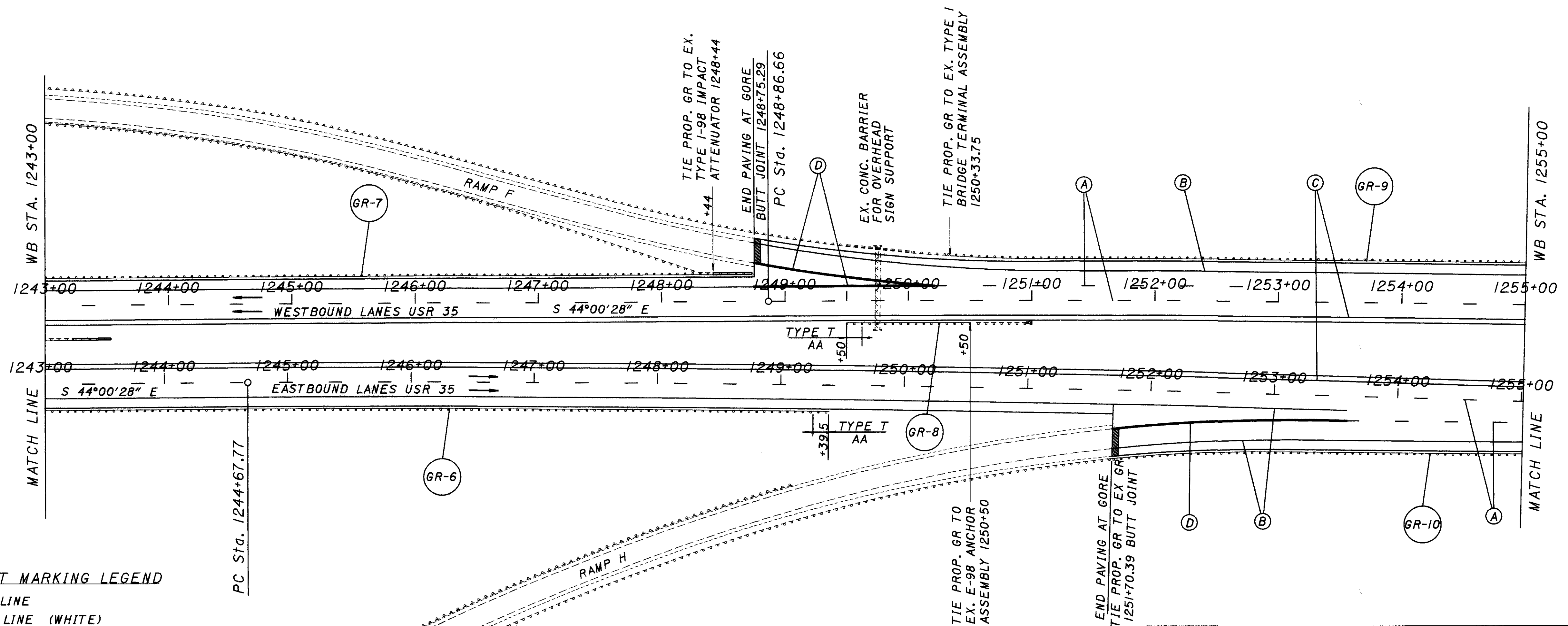
BRIDGE NO. ROS-35-2351 SFN 7102224



CALCULATED
CHECKED

PLAN AND PAVEMENT MARKING SHEET
STA. 1243+00 TO STA. 1267+00

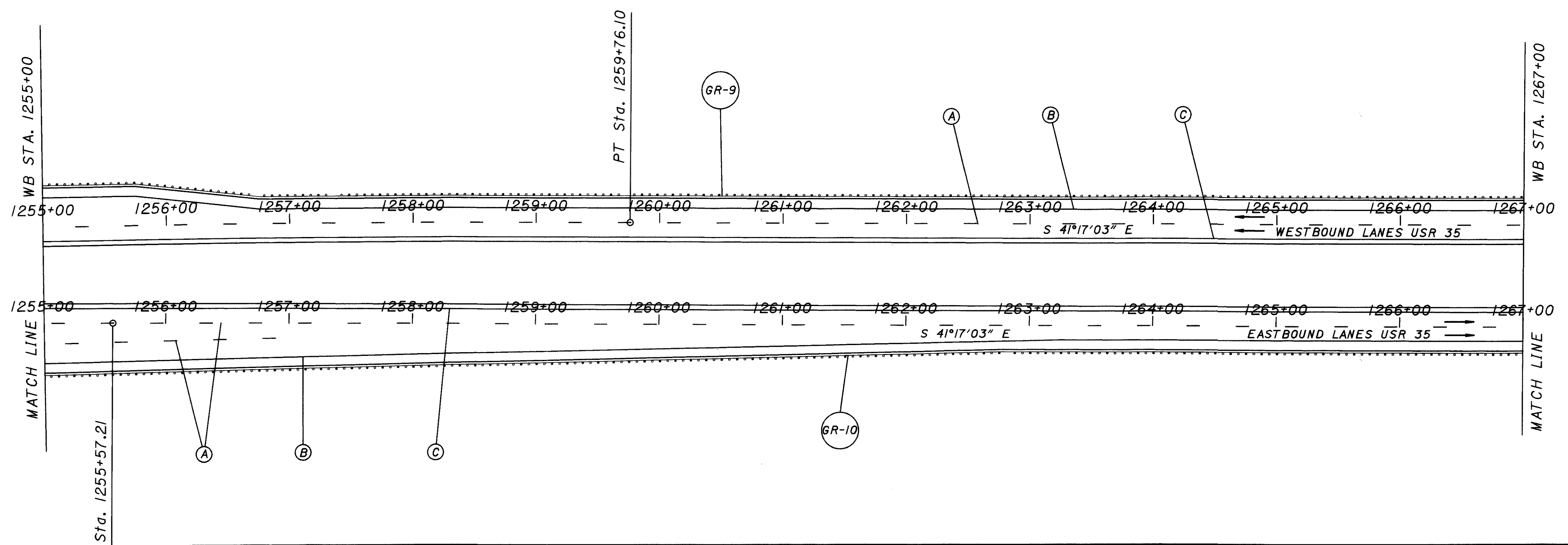
ROS-35-22.72

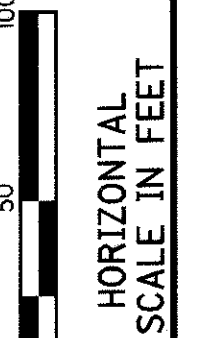
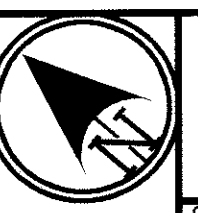


PAVEMENT MARKING LEGEND

- (A) LANE LINE
- (B) EDGE LINE (WHITE)
- (C) EDGE LINE (YELLOW)
- (D) CHANNELIZING LINE

FOR ESTIMATED ROADWAY QUANTITIES, SEE SHEETS 15-17.

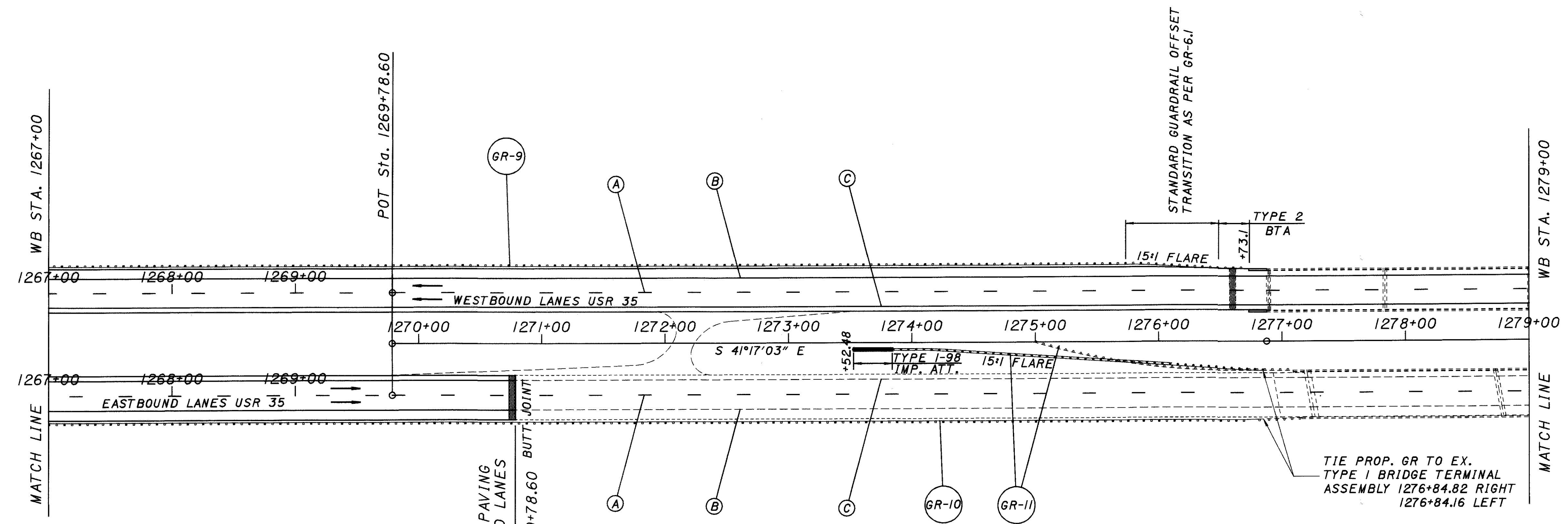




CALCULATED
CHECKED

PLAN AND PAVEMENT MARKING SHEET
STA. 1267+00 TO STA. 1291+00

ROS-35-22.72

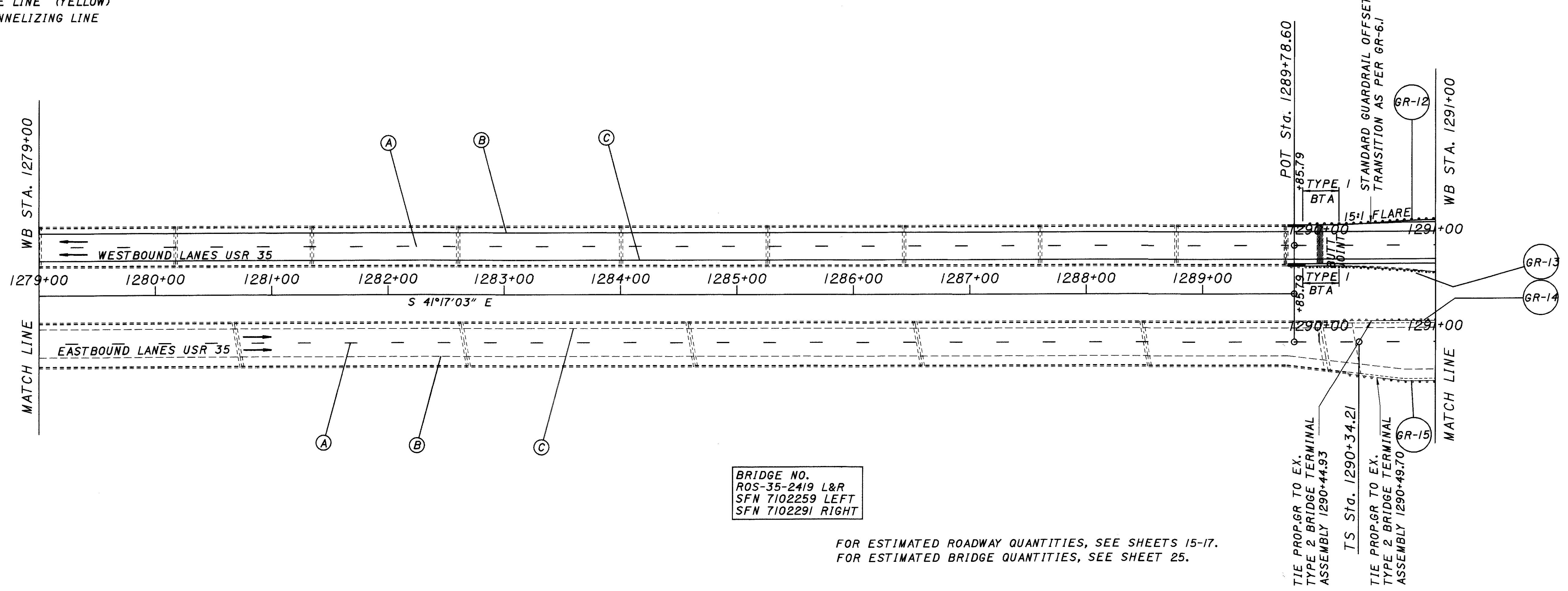


BRIDGE NO.
ROS-35-2419 L&R
SFN 7102259 LEFT
SFN 7102291 RIGHT

TIE PROP. GR TO EX.
TYPE 1 BRIDGE TERMINAL
ASSEMBLY 1276+84.82 RIGHT
1276+84.16 LEFT

PAVEMENT MARKING LEGEND

- (A) LANE LINE
- (B) EDGE LINE (WHITE)
- (C) EDGE LINE (YELLOW)
- (D) CHANNELIZING LINE



BRIDGE NO.
ROS-35-2419 L&R
SFN 7102259 LEFT
SFN 7102291 RIGHT

TIE PROP. GR TO EX.
TYPE 2 BRIDGE TERMINAL
ASSEMBLY 1290+44.93

TIE PROP. GR TO EX.
TYPE 2 BRIDGE TERMINAL
ASSEMBLY 1290+49.70

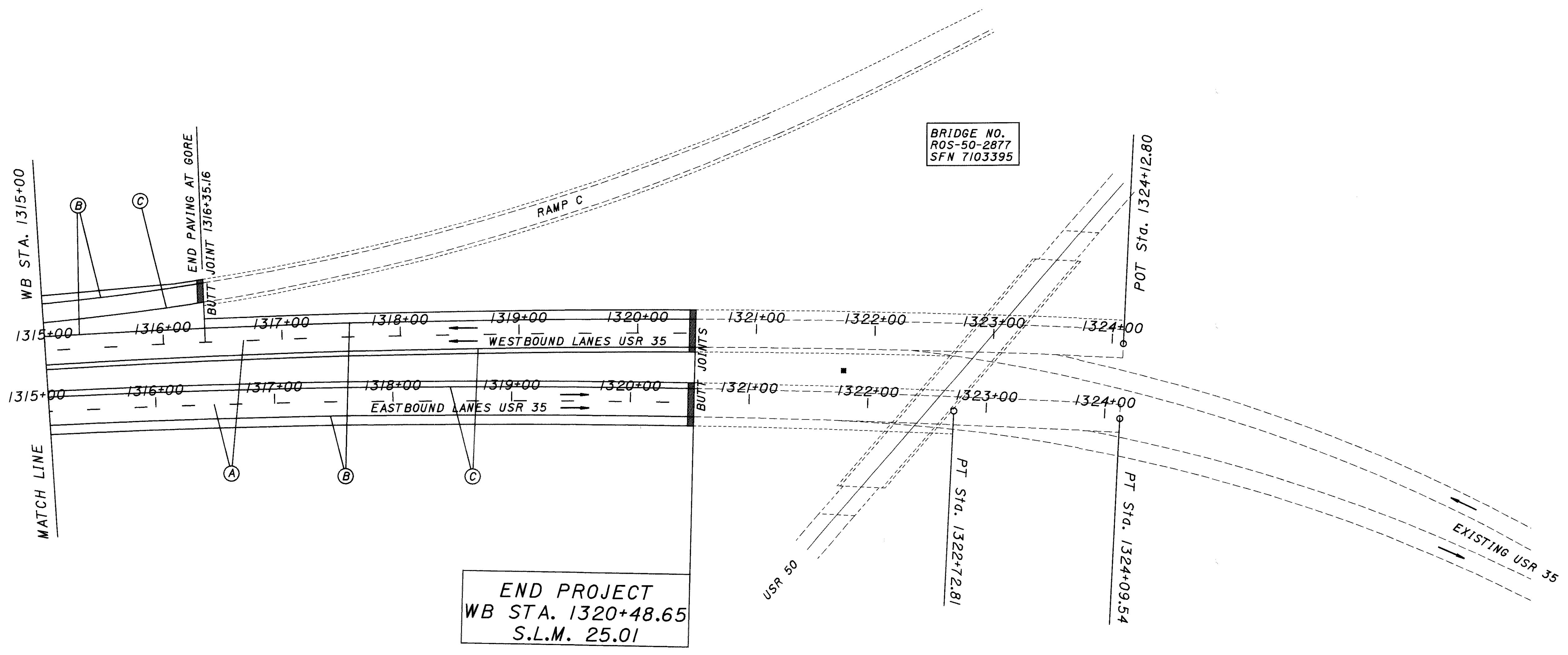
FOR ESTIMATED ROADWAY QUANTITIES, SEE SHEETS 15-17.
FOR ESTIMATED BRIDGE QUANTITIES, SEE SHEET 25.



CALCULATED
CHECKED

PLAN AND PAVEMENT MARKING SHEET
STA. 1315+00 TO STA. 1324+00

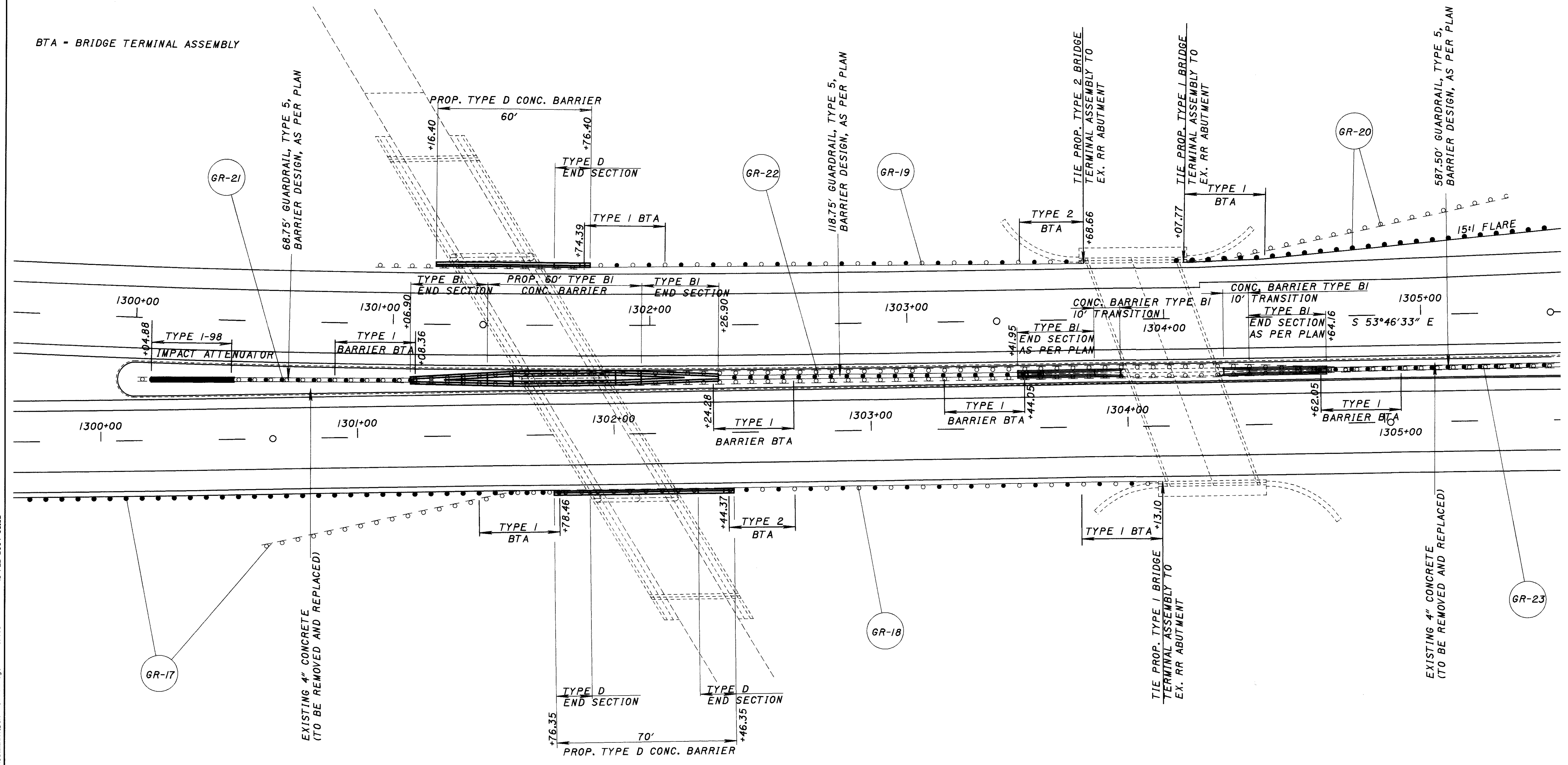
ROS-35-22.72

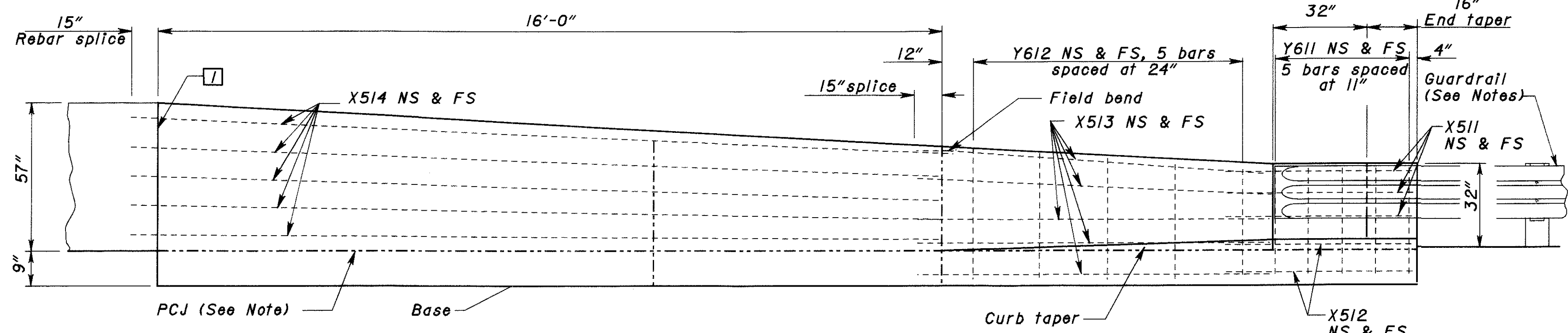
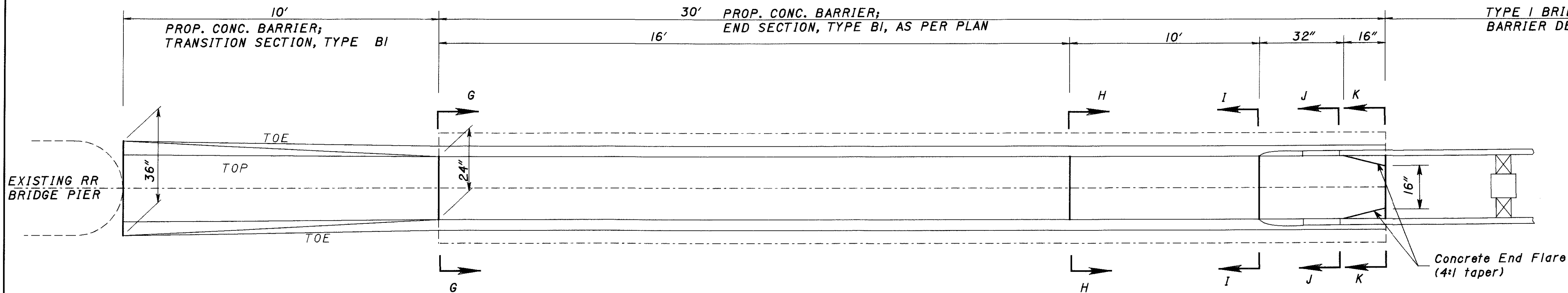


- PAVEMENT MARKING LEGEND**
- (A) LANE LINE
 - (B) EDGE LINE (WHITE)
 - (C) EDGE LINE (YELLOW)
 - (D) CHANNELIZING LINE

FOR ESTIMATED ROADWAY QUANTITIES, SEE SHEETS 15-17.

BTA - BRIDGE TERMINAL ASSEMBLY





ELEVATION
BARRIER END SECTION TYPE BI, AS PER PLAN

NOTES

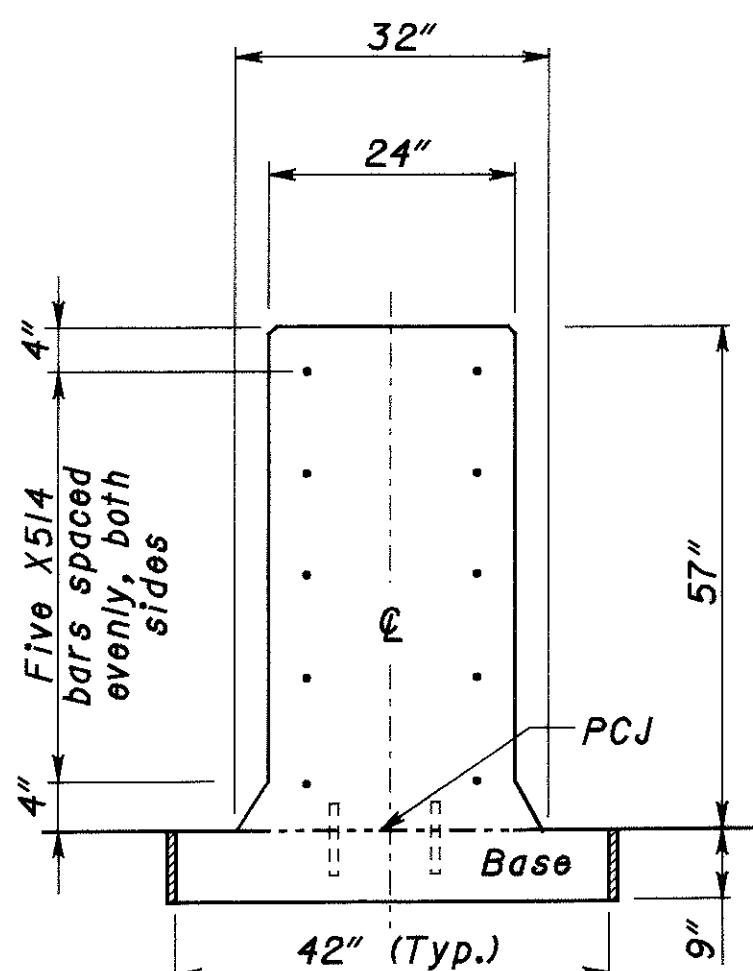
GENERAL: This End Section is to be used in median applications when traffic is on both sides and attaches to a Single Slope Concrete Barrier, Type AI or BI. See SCD RM-4.3 for Single Slope Barrier details and materials. Provide 2" concrete cover over rebars, except where noted.

GUARDRAIL: For Bridge Terminal Assembly and attachment details see SCD GR-3.5.

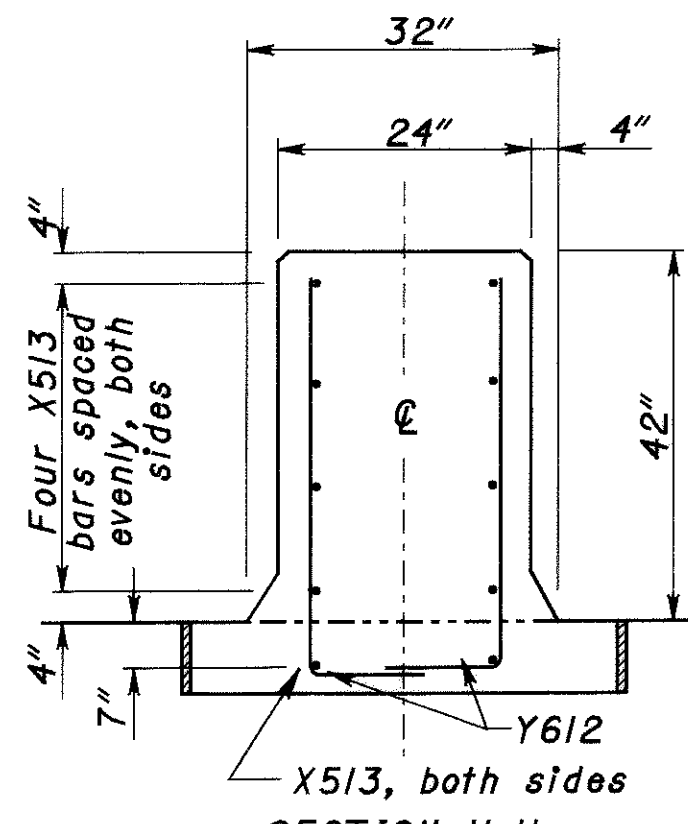
PCJ: Permissible Construction Joint. In the unreinforced base section, barrier may be placed on top of concrete base if doweled as shown on SCD RM-4.3.

PAYMENT: Payment for the Concrete End Section shall be made at the unit price for Item 622 - Concrete Barrier End Section, Type BI, As Per Plan, Each, and shall include all materials, labor, and reinforcing steel required to construct the barrier end section as shown.

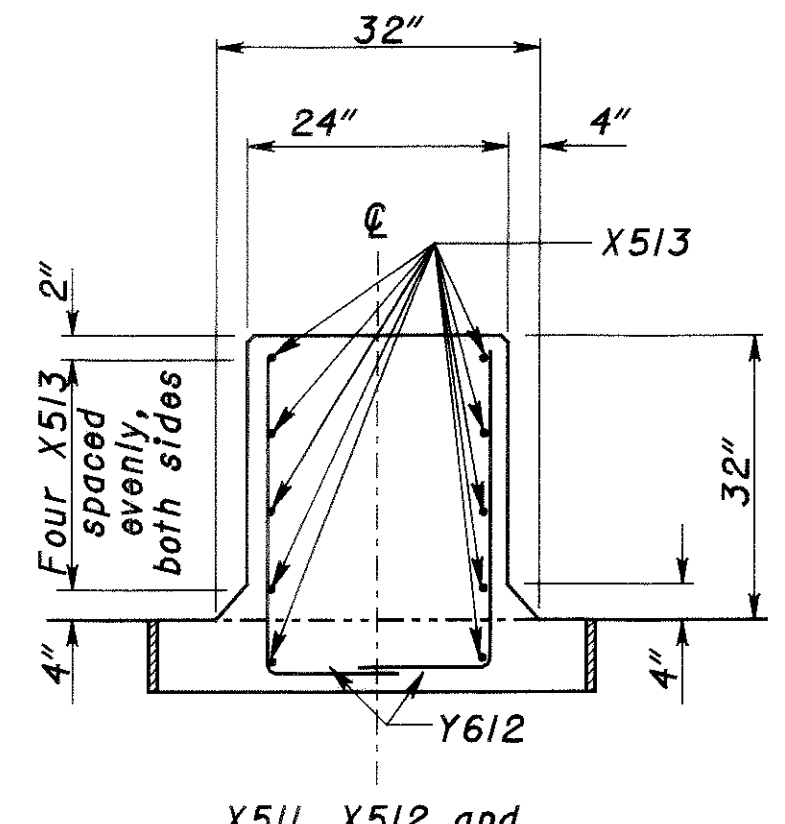
Types AI & BI STEEL LIST				
Mark	Bar	Shape	No.	Length
X511	#5 [#16M]	Bent	6	5'-6"
X512	#5 [#16M]	Str.	4	5'-6"
X513	#5 [#16M]	Str.	10	11'-1"
X514	#5 [#16M]	Str.	10	17'-2"
Y611	#6 [#19M]	Bent	10	4'-2"
Y612	#6 [#19M]	Bent	2 series of 5	Varies: 4'-3" to 5'-3"



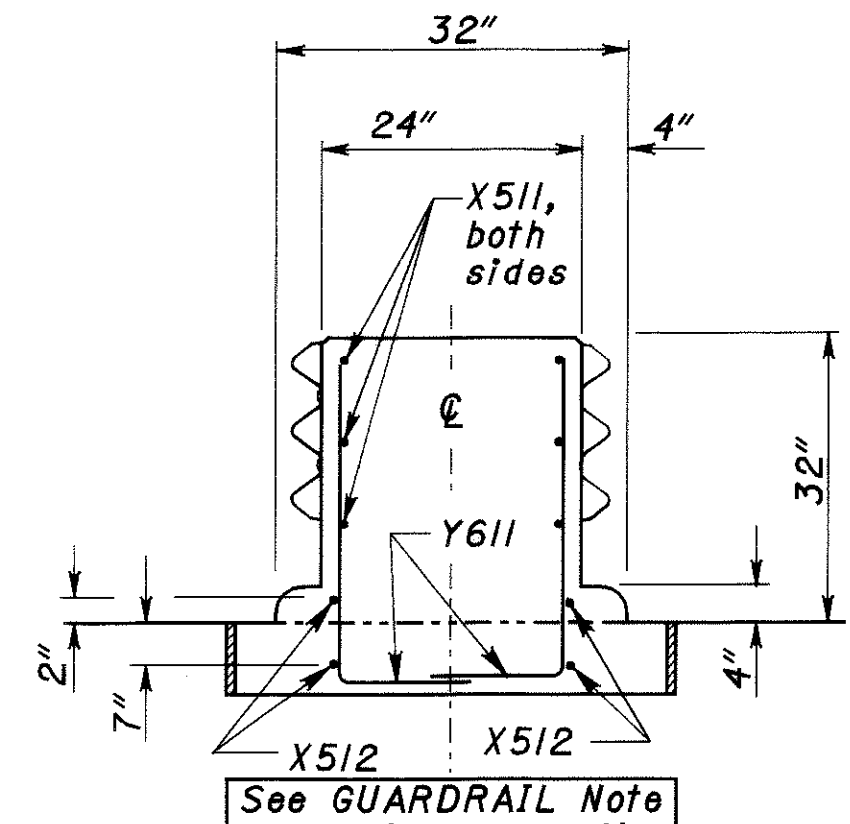
SECTION G-G



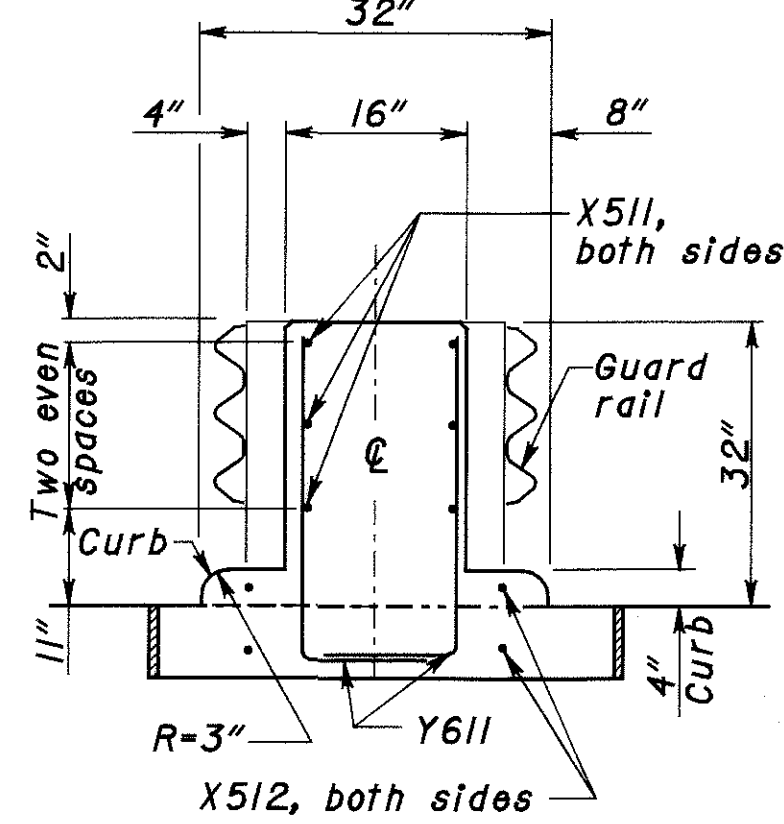
SECTION H-H



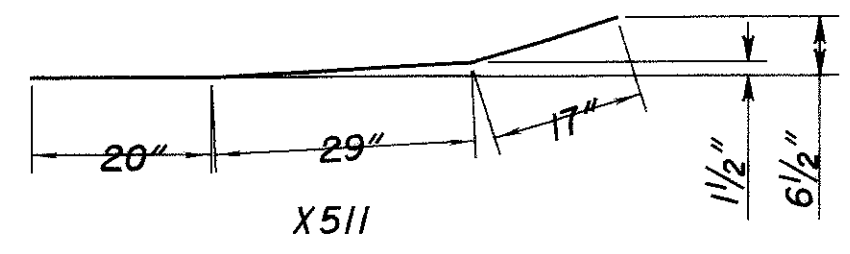
SECTION I-I



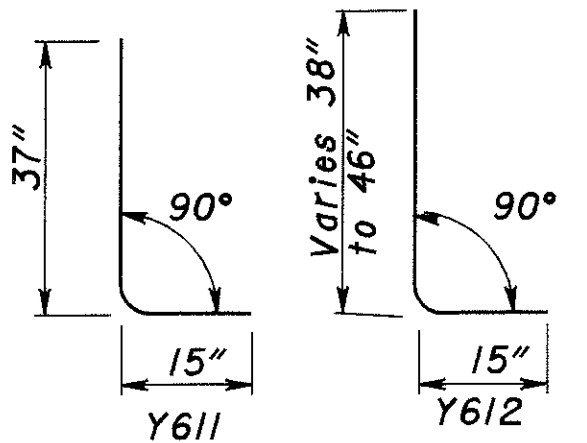
SECTION J-J



SECTION K-K



BENDING DIAGRAMS

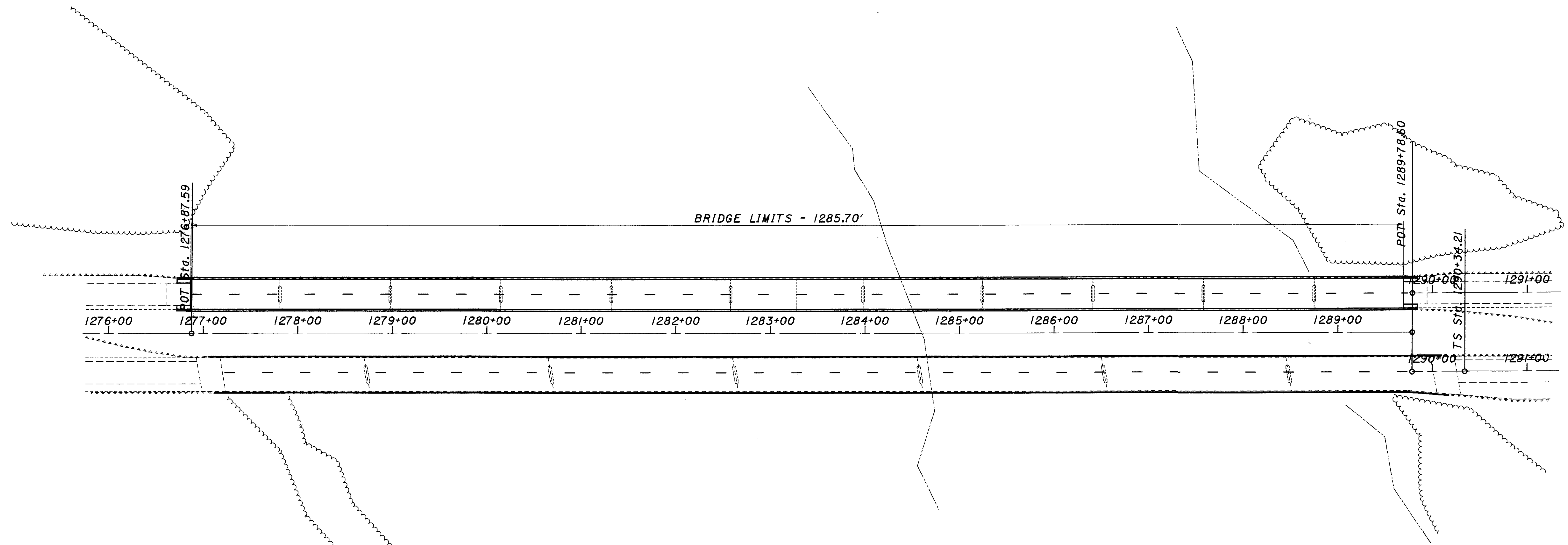


HORIZONTAL SCALE IN FEET
CALCULATED
CHECKED

BARRIER END SECTION DETAILS

ROS-35-22.72

Drawing (K:\projects\35-22.65.dgn)\GRSUMMARY.DGN Plotted by: orlce 19-FEB-2004 08:52



ITEM	ITEM EXT.	TOTAL	UNIT	ESTIMATED QUANTITIES				SEE SHEET NO.
				DESCRIPTION	GENERAL	SUPERSTRUCTURE	PARAPETS	
BRIDGE NO. ROS-35-2149L (S.F.N. 7102259)								
516	01301	128	FOOT	ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN		128		2/10
517	76201	2570	FOOT	RAILING FACED, AS PER PLAN			2570	2/10
622	25000	4	EACH	CONCRETE BARRIER END SECTION, TYPE D	4			
848	10000	4715	SQ. YD.	MICRO SILICA MODIFIED CONCRETE OVERLAY USING HYDRODEMOLITION (3.5" THICK)		4715		
848	20000	4715	SQ. YD.	SURFACE PREPARATION USING HYDRODEMOLITION		4715		
848	30000	235	CU. YD.	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY		158		
848	50000	150	SQ. YD.	HAND CHIPPING		150		
848	50100	LUMP		TEST SLAB	LUMP			
848	50200	118	CU. YD.	FULL DEPTH REPAIR		118		
848	50320	4715	SQ. YD.	EXISTING CONCRETE OVERLAY REMOVED, 1 3/4" NOMINAL THICKNESS		4715		
848	50340	1400	SQ. YD.	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY		1400		
864	10100	3023	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			3023	
BRIDGE NO. ROS-35-2149R (S.F.N. 7102291)								
517	75401	2625	FOOT	RAILING (UPGRADING EXISTING), AS PER PLAN			2625	3/10
864	10100	2868	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			2868	

EXISTING WEST BOUND STRUCTURE	EXISTING EAST BOUND STRUCTURE
TYPE: WELDED HINGE GIRDER CONCRETE DECK AND SUBSTRUCTURE SPANS: 93'-6", 3@117'-0", 126'-0", 140'-0", 126'-0" 3@117'-0", 93'6" ROADWAY: 33'-0" F/F RAILING LOAD: CF-2000 SKEW: NONE WEARING SURFACE: 1 3/4" MICRO SILICA OVERLAY APPROACH SLABS: 24'-0" (PARTIAL WIDTH) ALIGNMENT: TANGENT SFN: 7102259 LATITUDE: 39°18'22"N LONGITUDE: 82°55'13"W	TYPE: 5 SPAN CONTINUOUS COMPOSITE STEEL BEAM & CONCRETE DECK SPAN: 5 @ 195' & 2 @ 148' ROADWAY: 36'-0" F/F RAILING LOAD: HS-20-44 SKEW: 10° RF WEARING SURFACE: 1 3/4" DENSE CONCRETE OVERLAY APPROACH SLABS: 36'-0" (FULL WIDTH) ALIGNMENT: TANGENT SFN: 7102291 LATITUDE: 39°18'22"N LONGITUDE: 82°55'13"W

PROPOSED WORK	PROPOSED WORK
<ul style="list-style-type: none"> REMOVE EXISTING ALUMINUM RAILING REMOVE EXISTING GUARDRAIL AND CONCRETE WALLS OFF OF STRUCTURE HYDRO DEMOLITION THE DECK TO TOP MAT OF REINFORCING STEEL PLACE 3 1/2" THICK MICRO-SILICA CONCRETE OVERLAY ON DECK, BACKWALLS, APPROACH SLABS, AND ADJACENT 9" PLAIN CONCRETE CONSTRUCT PROPOSED 42" PARAPETS AND TRANSITIONS, AS PER PLAN REMOVE AND REPLACE PREFORMED STRIP SEAL GLAND AT EXPANSION JOINTS SEAL PARAPETS, AND TRANSITIONS WITH EPOXY-URETHANE SEALER CONSTRUCT PROPOSED BRIDGE TERMINAL ASSEMBLES & GUARDRAIL 	<ul style="list-style-type: none"> CONSTRUCT PROPOSED 10" CAP ON EXISTING 32" PARAPETS AND TRANSITIONS SEAL PARAPETS, AND TRANSITIONS WITH EPOXY-URETHANE SEALER

GENERAL NOTES

BRIDGE NUMBER ROS-35-2419L

ITEM 517 - RAILING FACED, AS PER PLAN

DESCRIPTION: THIS WORK CONSISTS OF FACING CURB STYLE PARAPETS, USING CAST IN PLACE CONCRETE, TO OBTAIN THE DEFLECTOR SHAPE AS SHOWN IN THE PLANS.

REMOVAL: CAREFULLY REMOVE THE EXISTING ALUMINUM RAILING AND THE EXISTING REINFORCED CONCRETE WALL OFF THE END OF THE STRUCTURE. REMOVE ALL LOOSE OR UNSOUND CONCRETE. REMOVE SOUND CONCRETE, AS NECESSARY, TO OBTAIN A MINIMUM 4 INCH THICKNESS OF NEW CONCRETE.

DOWEL HOLES AND REINFORCING STEEL: DRILL DOWEL HOLES WHERE SHOWN IN THE PLANS. INSTALL REINFORCING STEEL ACCORDING TO ITEM 510 USING EPOXY GROUT, 705.20. PRIOR TO DRILLING DOWEL HOLES, LOCATE ALL EXISTING REINFORCING STEEL BARS IN THE AREA OF THE HOLE WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, MOVE THE DOWEL HOLE TO EITHER SIDE OF THE EXISTING BAR. THE DEPARTMENT WILL PAY FOR ALL REINFORCING STEEL, DOWEL HOLES AND GROUTING WITH ITEM 517.

SCUPPERS: THE TOE OF THE PROPOSED FACED PARAPET WILL EXTEND ONTO THE EXISTING SCUPPERS. PRIOR TO FACING OF THE PARAPET A 7"x6³/₄"x1/4" STEEL PLATE SHALL BE WELDED TO THE EXISTING SCUPPERS AS DETAILED ON SHEET 6710.

SURFACE PREPARATION: THOROUGHLY CLEAN THE PARAPET SURFACE IN CONTACT WITH THE REFACING WITH DETERGENT TO REMOVE SURFACE CONTAMINANTS. AFTER DETERGENT CLEANING AND WITHIN 24 HOURS OF PLACING CONCRETE, BLAST CLEAN AND AIR BROOM OR POWER SWEEP ALL SURFACES IN CONTACT WITH THE REFACING TO REMOVE ALL SPALLS, LAITANCE, AND OTHER CONTAMINANTS DETRIMENTAL TO THE ACHIEVEMENT OF AN ADEQUATE BOND. ACCEPTABLE BLAST CLEANING METHODS ARE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN WATER, ABRASIVE BLASTING WITH CONTAINMENT OR VACUUM ABRASIVE BLASTING. USE HAND TOOLS AS NECESSARY TO REMOVE SCALE FROM ANY EXPOSED REINFORCING STEEL. MATERIALS: CONCRETE SHALL BE CLASS HP WITH A COMPRESSIVE STRENGTH OF 4500 PSI. FURNISH REINFORCING STEEL ACCORDING TO 709.00, GRADE 60, WITH A MINIMUM YIELD STRENGTH OF 60,000 PSI.

CONTROL JOINTS: SAWCUT 1/4 INCH DEEP CONTROL JOINTS ALONG THE PERIMETER OF THE PARAPET AS SOON AS THE SAW CAN BE OPERATED WITHOUT DAMAGING THE CONCRETE. PLACE THE JOINT SAW CUTS AT THE SAME LOCATION AS THE EXISTING DEFLECTION JOINTS. USE AN EDGE GUIDE, FENCE OR JIG TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE AND ALIGNED ON ALL FACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 1/4 INCH. SEAL THE PERIMETER OF THE CONTROL JOINT TO A MINIMUM DEPTH OF ONE INCH WITH A POLYURETHANE OR POLYMERIC MATERIAL CONFORMING TO ASTM C920, TYPE S. LEAVE THE BOTTOM ONE-HALF INCH OF BOTH THE INSIDE AND OUTSIDE FACES OF THE PARAPET UNSEALED TO ALLOW ANY WATER WHICH MAY ENTER THE JOINT TO ESCAPE.

METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THIS ITEM IN FEET BY THE ACTUAL LENGTH OF RAILING FACED BETWEEN THE ENDS OF THE EXISTING CONCRETE PARAPET.

BASIS OF PAYMENT: PAYMENT FOR THIS ITEM INCLUDES ALL COSTS OF REMOVAL OF ALUMINUM RAIL, DOWEL HOLES, REINFORCING STEEL, SCUPPER MODIFICATION, CONCRETE, SHRINKAGE CONTROL JOINTS, EPOXY INJECTION AND INSPECTION PLATFORMS. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 517, RAILING FACED, AS PER PLAN.

ITEM - 516 ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN

THIS ITEM OF WORK INCLUDES THE REMOVAL OF THE EXISTING STRIP SEAL GLAND, CLEANING AND PREPARING THE STEEL EXTRUSIONS, AND PROVIDING AND INSTALLING A NEW GLAND IN THE EXISTING STEEL EXTRUSIONS IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION PROCEDURES AND REQUIREMENTS.

THE PROPOSED GLAND SHALL BE THE WABO STRIPSEAL SE-500 MANUFACTURED BY WATSON BOWMAN ACME, 95 PINEVIEW DR., AMHERST, NY 14228, PHONE (716) 691-7566.

ALL MATERIALS AND LABOR NECESSARY TO COMPLETE THE DESCRIBED WORK SHALL BE INCLUDED IN CONTRACT PRICE BID PER FOOT FOR ITEM - 516 ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS, AS PER PLAN.

DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.

REFERENCE SHALL BE MADE TO THE FOLLOWING STANDARD DRAWINGS:

SBR-1-99 REVISED 7-19-02

AND TO SUPPLEMENTAL SPECIFICATIONS:

848 DATED 2-8-02
864 DATED 7-11-00
954 DATED 9-9-97

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996 INCLUDING THE 1997, 1998 1999, 2000, AND 2002 INTERIM SPECIFICATIONS AND THE O.D.O.T BRIDGE DESIGN MANUAL.

DESIGN LOADING HS 20 AND THE ALTERNATE MILITARY LOADING FUTURE WEARING SURFACE (FWS) OF 60 psf

DESIGN DATA:

CONCRETE CLASS HP CONCRETE FOR SUPERSTRUCTURE - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL.
2-1/2" CONCRETE COVER.
SEALING OF CONCRETE SURFACES
3/2" MICRO-SILICA CONCRETE OVERLAY

EXISTING BRIDGE PLANS

DETAIL DRAWINGS OF THE EXISTING BRIDGES MAY BE INSPECTED AT THE DISTRICT 9 BRIDGE OFFICE AT 650 EASTERN AVENUE IN CHILLICOTHE, OHIO.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM THE PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON THE RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THE PROJECT.

ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

THE COLOR OF THE URETHANE FINISH COAT SHALL BE FEDERAL COLOR NUMBER 17778 (LIGHT NEUTRAL).

DESIGN AGENCY
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT 9 PRODUCTION

REVIEWED DATE
LAW 2-13-04
STRUCTURE FILE NO.
7102259

DRAWN CAJ
CHECKED GEC
REVISOR

GENERAL NOTES
BRIDGE NO. ROS-35-2419L
OVER SCIOTO RIVER

ROS-35-22.72

2 / 10

26
34

GENERAL NOTES

BRIDGE NUMBER ROS-35-2419R

REFERENCE SHALL BE MADE TO THE FOLLOWING STANDARD DRAWINGS:

BR-1 REVISED 7-19-02

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996 INCLUDING THE 1997, 1998, 1999, 2000, AND 2002 INTERIM SPECIFICATIONS AND THE O.D.O.T BRIDGE DESIGN MANUAL.

DESIGN LOADING

HS 20 AND THE ALTERNATE MILITARY LOADING FUTURE WEARING SURFACE (FWS) OF 60 psf

DESIGN DATA:

CONCRETE CLASS HP CONCRETE FOR SUPERSTRUCTURE - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)
 REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL.
 2-1/2" CONCRETE COVER.
 SEALING OF CONCRETE SURFACES

EXISTING BRIDGE PLANS

DETAIL DRAWINGS OF THE EXISTING BRIDGES MAY BE INSPECTED AT THE DISTRICT 9 BRIDGE OFFICE AT 650 EASTERN AVENUE IN CHILLICOTHE, OHIO.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM THE PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON THE RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THE PROJECT.

ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

THE COLOR OF THE URETHANE FINISH COAT SHALL BE FEDERAL COLOR NUMBER 17778 (LIGHT NEUTRAL).

ITEM - 517 RAILING (UPGRADING EXISTING), AS PER PLAN

DESCRIPTION: THIS WORK CONSISTS OF ADDING A 10" HEIGHT EXTENSION ON THE EXISTING PARAPET, USING CAST IN PLACE CONCRETE, TO OBTAIN THE DEFLECTOR SHAPE AS SHOWN IN THE PLANS.

DOWEL HOLES AND REINFORCING STEEL: DRILL DOWEL HOLES WHERE SHOWN IN THE PLANS. INSTALL REINFORCING STEEL ACCORDING TO ITEM 510 USING EPOXY GROUT, 705.20. PRIOR TO DRILLING DOWEL HOLES, LOCATE ALL EXISTING REINFORCING STEEL BARS IN THE AREA OF THE HOLE WITH THE AID OF A REINFORCING STEEL BAR LOCATOR (PACHOMETER). IF AN EXISTING BAR IS ENCOUNTERED AT THE SAME LOCATION AS A PROPOSED DOWEL HOLE, MOVE THE DOWEL HOLE TO EITHER SIDE OF THE EXISTING BAR. THE DEPARTMENT WILL PAY FOR ALL REINFORCING STEEL, DOWEL HOLES AND GROUTING WITH ITEM 517.

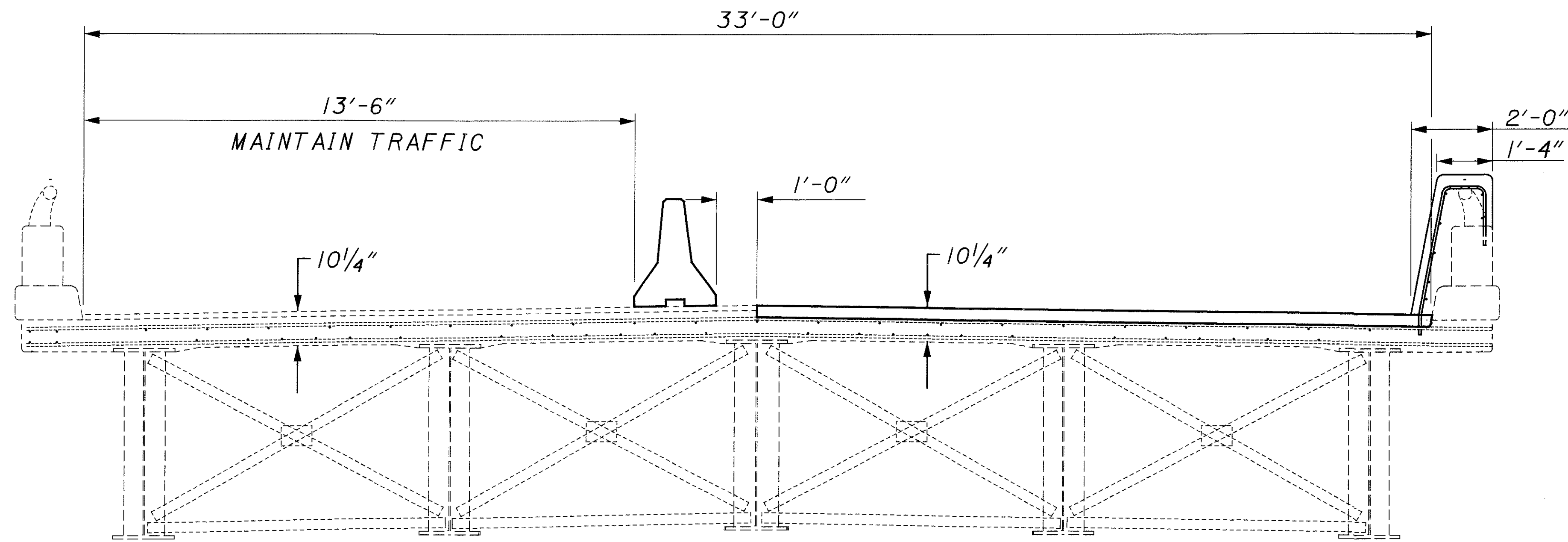
SURFACE PREPARATION: THOROUGHLY CLEAN THE PARAPET SURFACE IN CONTACT WITH THE PROPOSED CAP WITH DETERGENT TO REMOVE SURFACE CONTAMINANTS. AFTER DETERGENT CLEANING AND WITHIN 24 HOURS OF PLACING CONCRETE, BLAST CLEAN AND AIR BROOM OR POWER SWEEP ALL SURFACES IN CONTACT WITH THE REFACING TO REMOVE ALL SPALLS, LAITANCE, AND OTHER CONTAMINANTS DETRIMENTAL TO THE ACHIEVEMENT OF AN ADEQUATE BOND. ACCEPTABLE BLAST CLEANING METHODS ARE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN WATER, ABRASIVE BLASTING WITH CONTAINMENT OR VACUUM ABRASIVE BLASTING. USE HAND TOOLS AS NECESSARY TO REMOVE SCALE FROM ANY EXPOSED REINFORCING STEEL. MATERIALS: CONCRETE SHALL BE CLASS HP WITH A COMPRESSIVE STRENGTH OF 4500 PSI. FURNISH REINFORCING STEEL ACCORDING TO 709.00, GRADE 60, WITH A MINIMUM YIELD STRENGTH OF 60,000 PSI.

CONTROL JOINTS: SAWCUT 1/4 INCH DEEP CONTROL JOINTS ALONG THE PERIMETER OF THE PARAPET AS SOON AS THE SAW CAN BE OPERATED WITHOUT DAMAGING THE CONCRETE. PLACE THE JOINT SAW CUTS AT THE SAME LOCATION AS THE EXISTING DEFLECTION JOINTS. USE AN EDGE GUIDE, FENCE OR JIG TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE AND ALIGNED ON ALL FACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 1/4 INCH. SEAL THE PERIMETER OF THE CONTROL JOINT TO A MINIMUM DEPTH OF ONE INCH WITH A POLYURETHANE OR POLYMERIC MATERIAL CONFORMING TO ASTM C920, TYPE S. LEAVE THE BOTTOM ONE-HALF INCH OF BOTH THE INSIDE AND OUTSIDE FACES OF THE PARAPET UNSEALED TO ALLOW ANY WATER WHICH MAY ENTER THE JOINT TO ESCAPE.

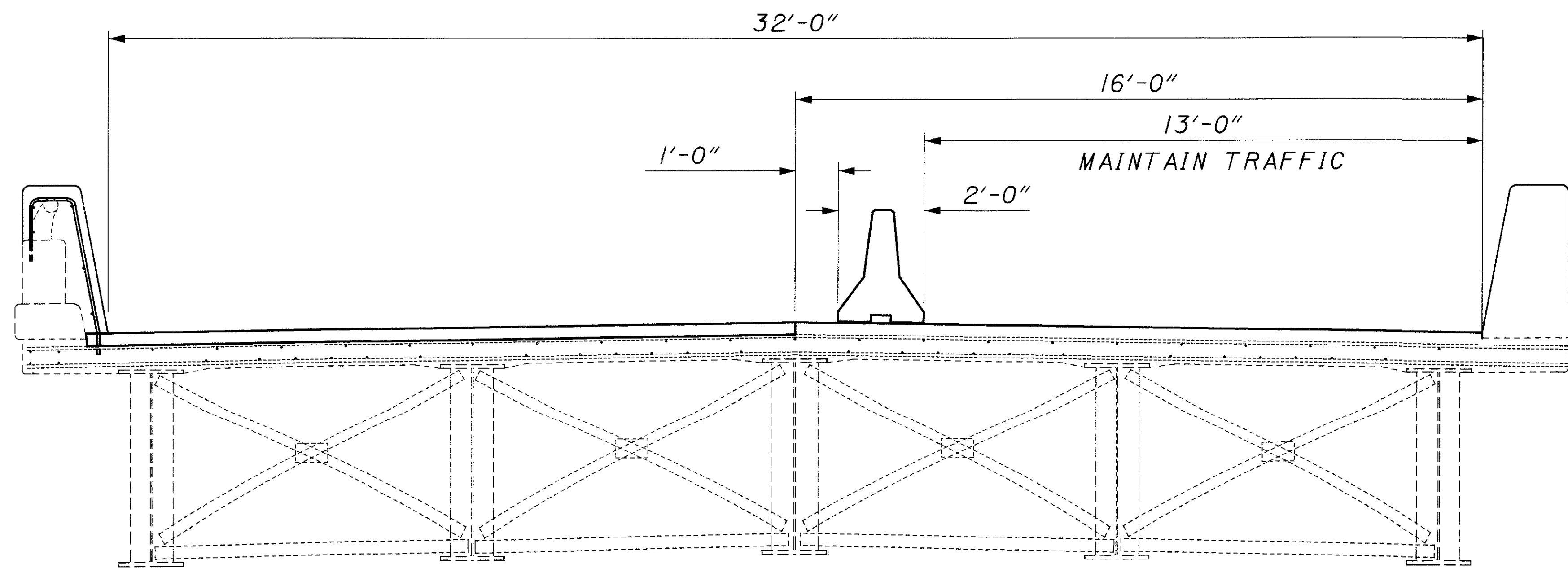
METHOD OF MEASUREMENT: THE DEPARTMENT WILL MEASURE THIS ITEM IN FEET BY THE ACTUAL LENGTH OF RAILING TO WHICH THE HEIGHT EXTENSION IS PALCED BETWEEN THE ENDS OF THE EXISTING CONCRETE PARAPET.

BASIS OF PAYMENT: PAYMENT FOR THIS ITEM INCLUDES ALL COSTS OF DOWEL HOLES, REINFORCING STEEL, CONCRETE, SHRINKAGE CONTROL JOINTS, AND EPOXY INJECTION. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 517, RAILING (UPGRADING EXISTING), AS PER PLAN.

GENERAL NOTES BRIDGE NO. ROS-35-2419R OVER SCIOTO RIVER	DESIGN AGENCY STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 9 PRODUCTION
ROS-35-22.72	DATE 2-13-04
3/10	REVIEWED LAW
27 34	STRUCTURE FILE NUMBER 7102291
DRAWN CAJ	REVISIONS REVISIONS
DESIGNED CAJ	CHECKED GEC



WEST BOUND
PHASE I
(LOOKING UPSTATION)



WEST BOUND
PHASE II
(LOOKING UPSTATION)

DESIGN AGENCY
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT 9 PRODUCTION

REVIEWED
LAW
DATE
2/13/04
STRUCTURE FILE NUMBER
7102259

DRAWN
CAJ
REVISED

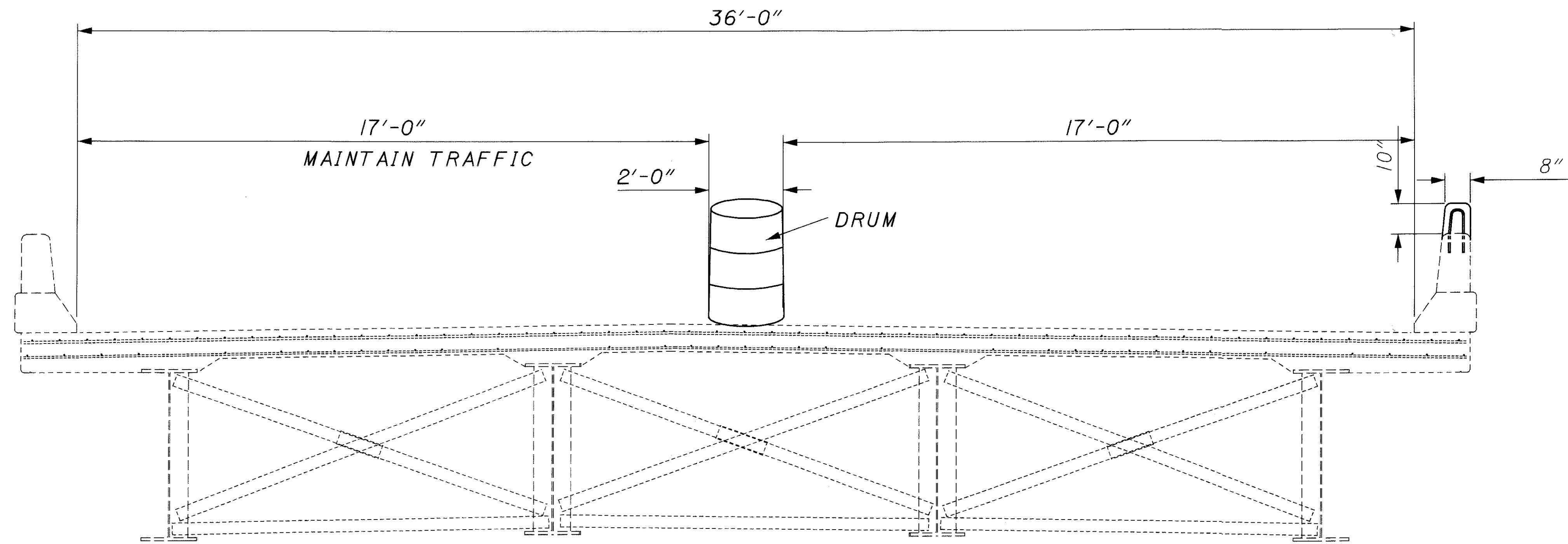
DESIGNED
CAJ
CHECKED
GEC

MAINTENANCE OF TRAFFIC PHASING
BRIDGE NO. ROS-35-24/9L
OVER SCIOTO RIVER

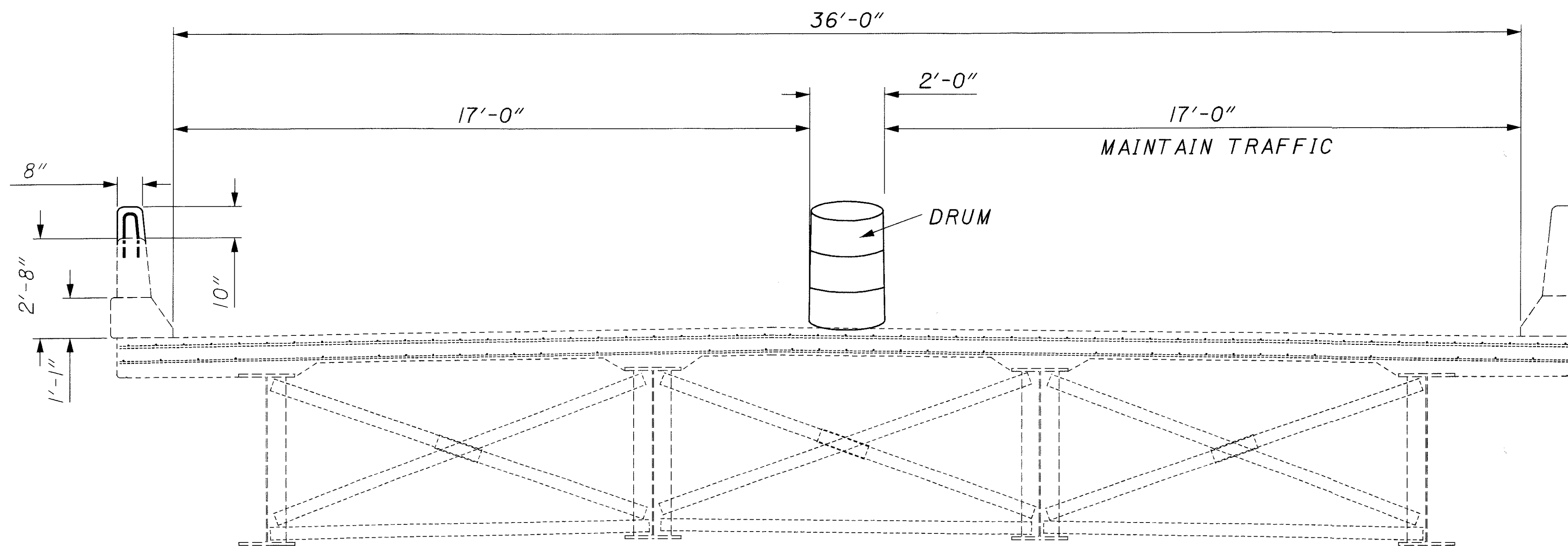
ROS-35-22.7.2

4/10

28
34

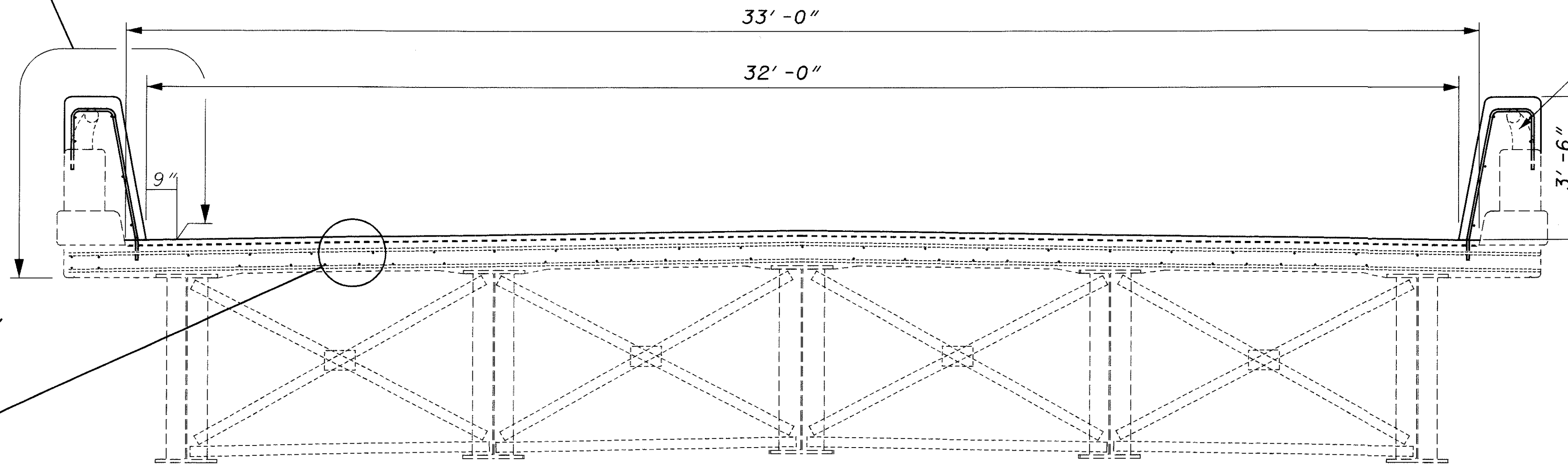


EAST BOUND
PHASE I
(LOOKING UPSTATION)



EAST BOUND
PHASE II
(LOOKING UPSTATION)

LIMITS OF SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) TYPICAL



TRANSVERSE SECTION
ROS-35-2149L

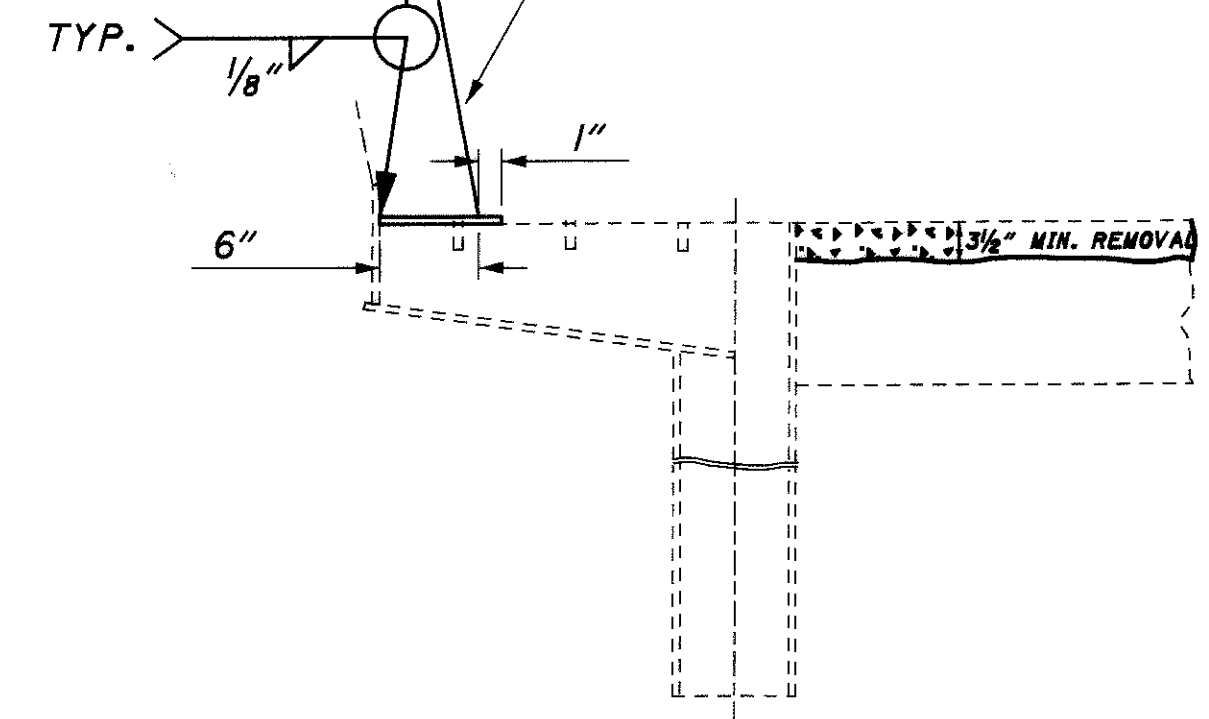
EXISTING ALUMINUM RAILING TO BE REMOVED

TYP. $\frac{1}{8}''$

7" X 6 3/4" X 1/4" PLATE
SCUPPER DETAIL

TYP. $\frac{1}{8}''$

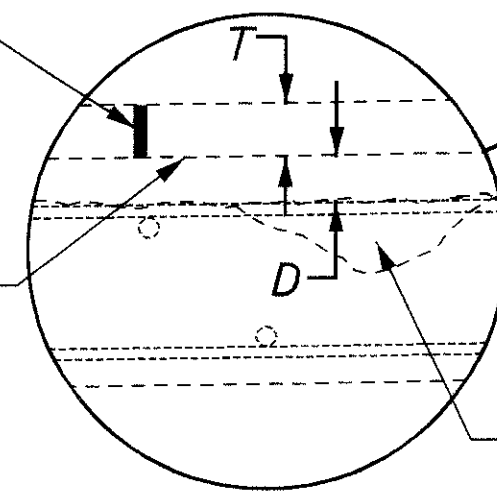
TOE OF PROPOSED PARAPET



SECTION A-A
SCUPPER MODIFICATION DETAILS

EXISTING 1 3/4" CONCRETE OVERLAY

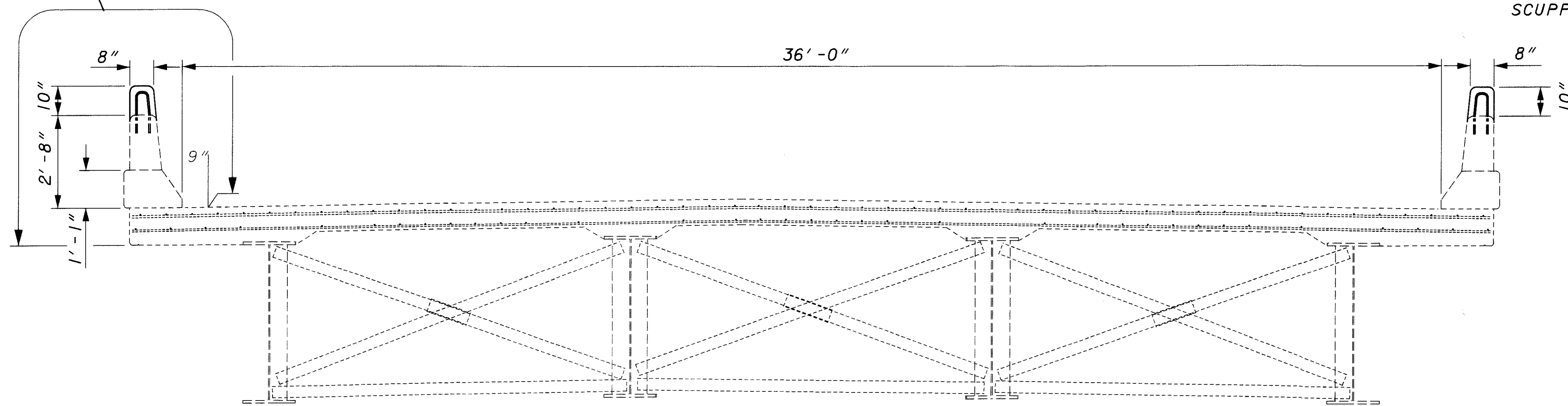
TOP OF DECK



VARIABLE THICKNESS AREA

T = 1 3/4"
D = 1 3/4"

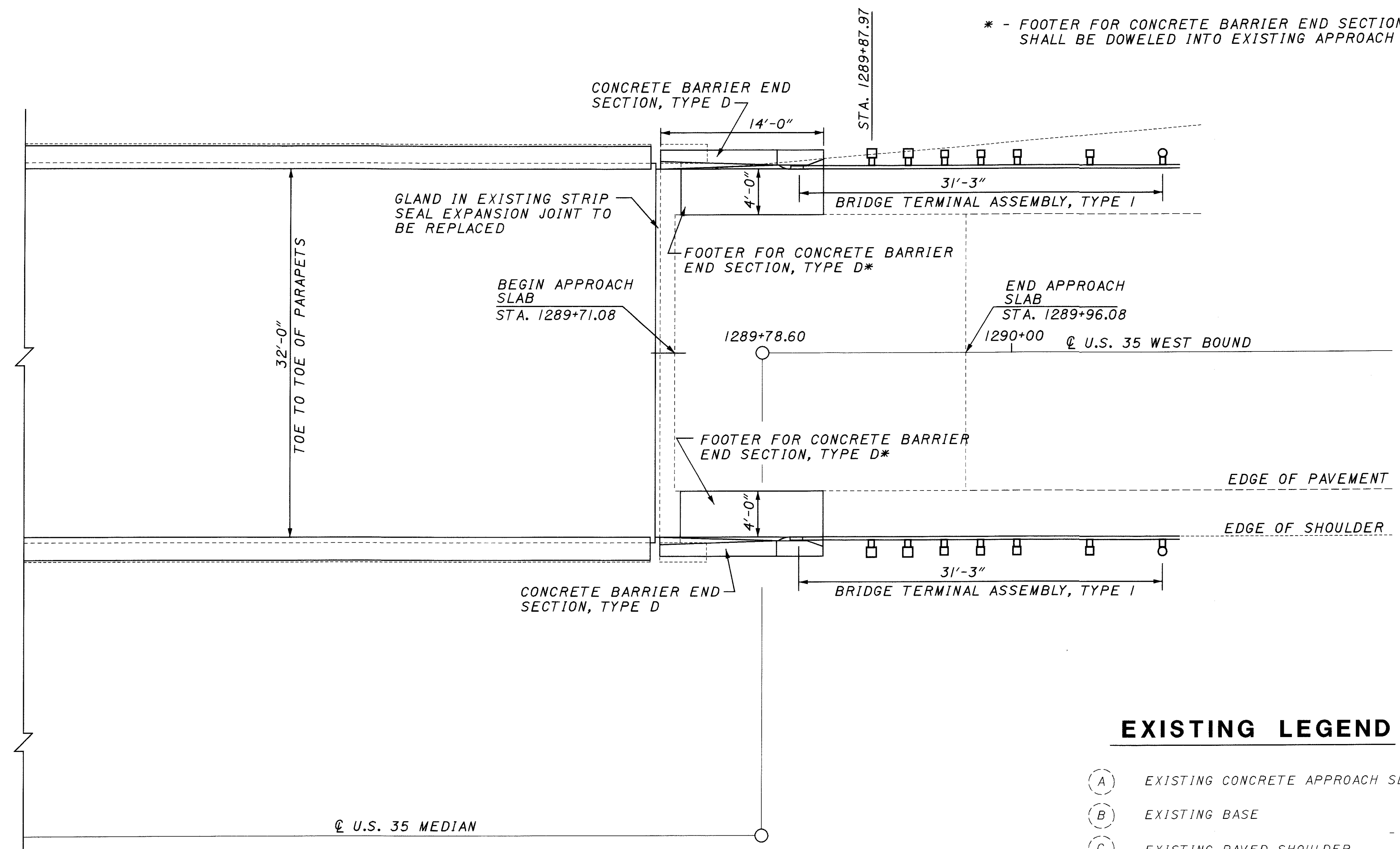
LIMITS OF SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) TYPICAL



TRANSVERSE SECTION
ROS-35-2149R

DESIGNED	CAJ	CHECKED	GEC
DRAWN	CAJ	REVISED	
REVIEWED	LAW	STRUCTURE FILE NUMBER	7102259 PL. 1/02/2011
DATE	2-13-04		
DESIGN AGENCY	STATE OF OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 9 PRODUCTION		
TRANSVERSE SECTION BRIDGE NO. ROS-35-2149L & ROS-35-2419R OVER SCIOTO RIVER			
ROS-35-22.72			
6 / 10			
30 34			

* - FOOTER FOR CONCRETE BARRIER END SECTION, TYPE D SHALL BE DOWELED INTO EXISTING APPROACH SLAB

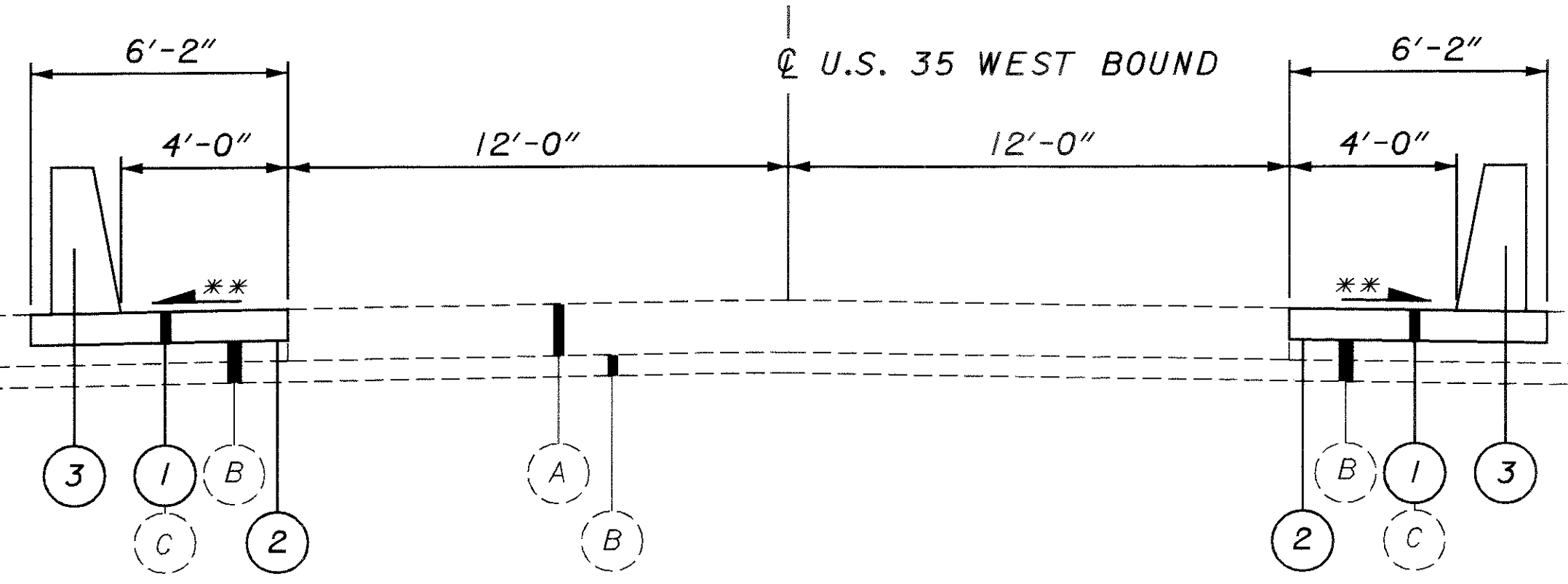


EXISTING LEGEND

- (A) EXISTING CONCRETE APPROACH SLAB
- (B) EXISTING BASE
- (C) EXISTING PAVED SHOULDER

PROPOSED LEGEND

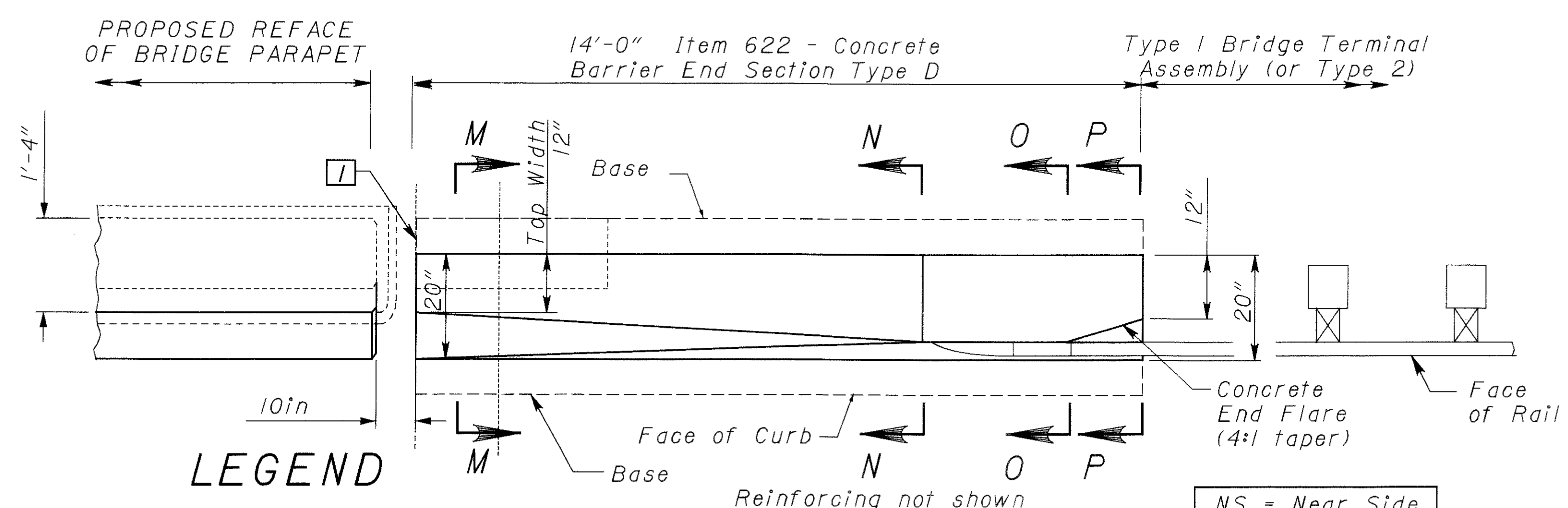
- (1) 202 EXCAVATION
- (2) 204 SUBGRADE COMPACTION
- (3) 622 CONCRETE BARRIER END SECTION, TYPE D



APPROACH SLAB TYPICAL SECTION

STA. 849+41.25 to STA. 849+56.25 = 25.00 FT.
STA. 1289+71.08 to STA. 1289+96.08 = 25.00 FT.

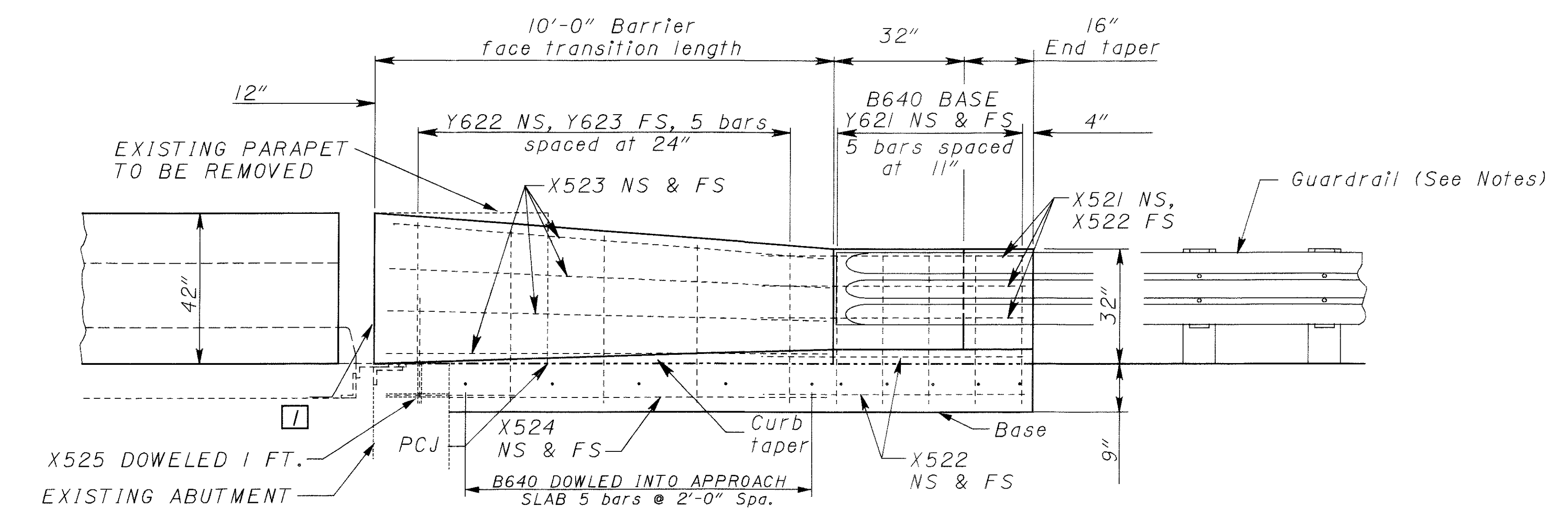
** - 3/16" PER FT. SLOPE



LEGEND

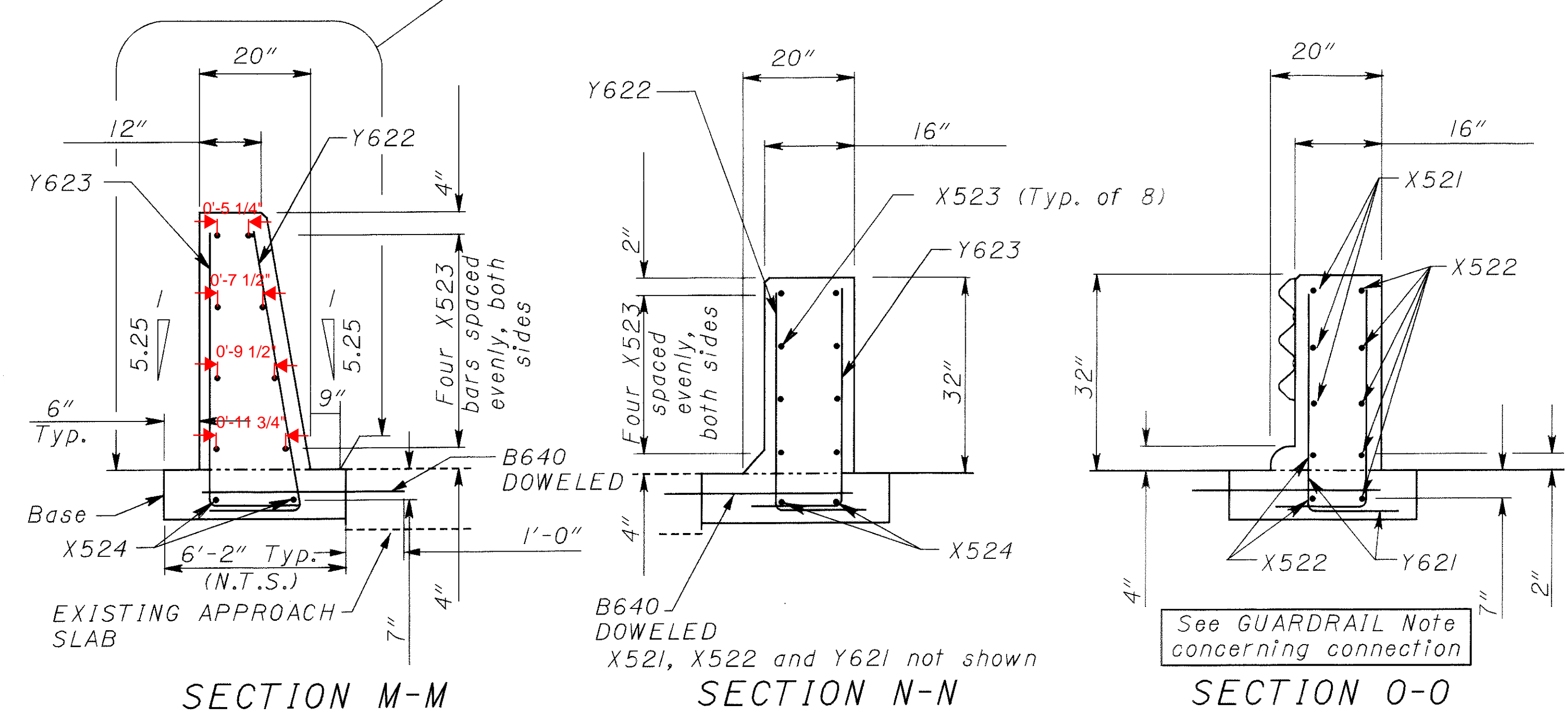
1 Contraction Joint. See NOTES on SCD RM-4.3, Provide rebar cover of 3 1/2"

NS = Near Side
FS = Far Side



**ELEVATION
BARRIER END SECTION TYPE D**

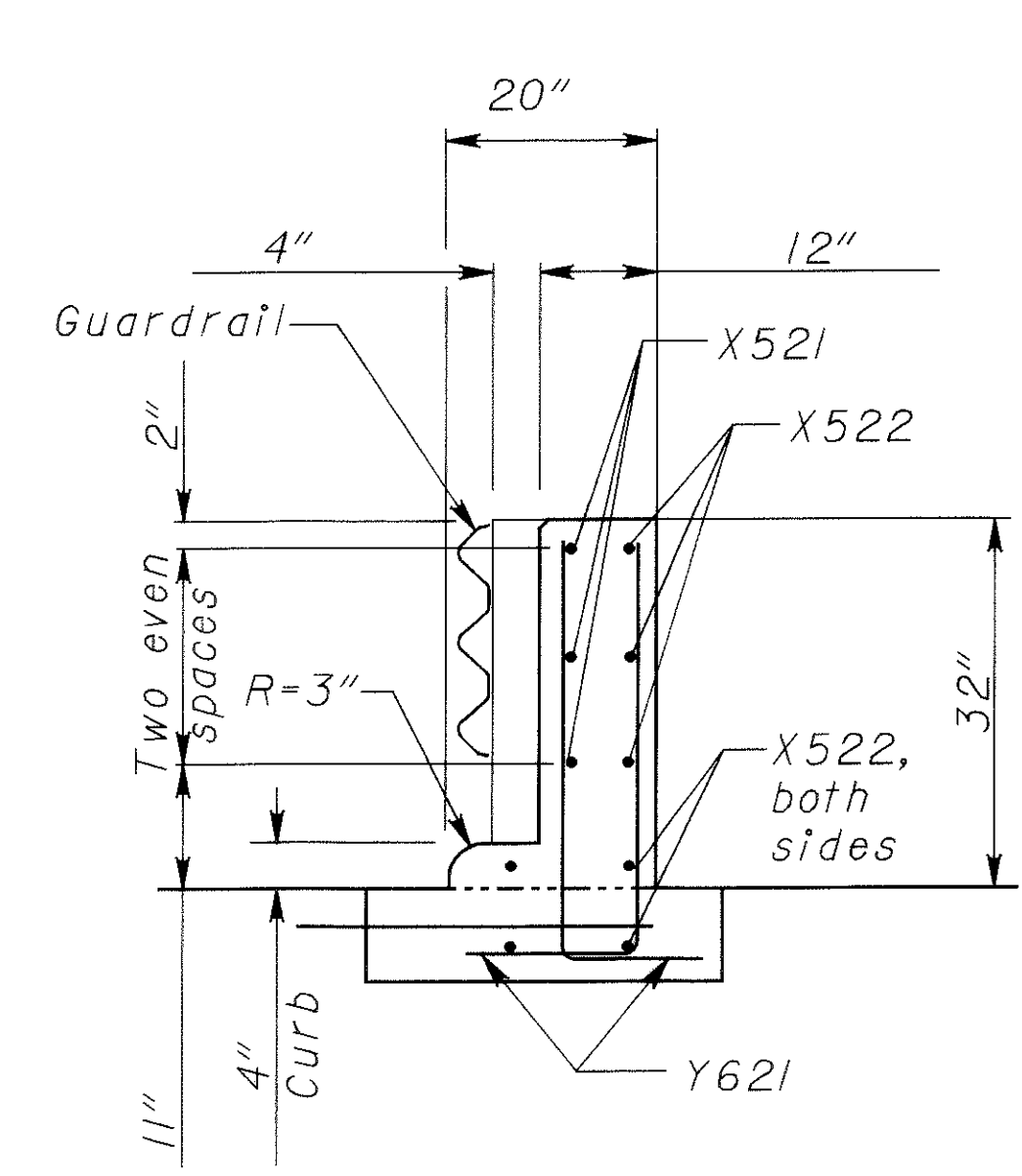
LIMITS OF SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)



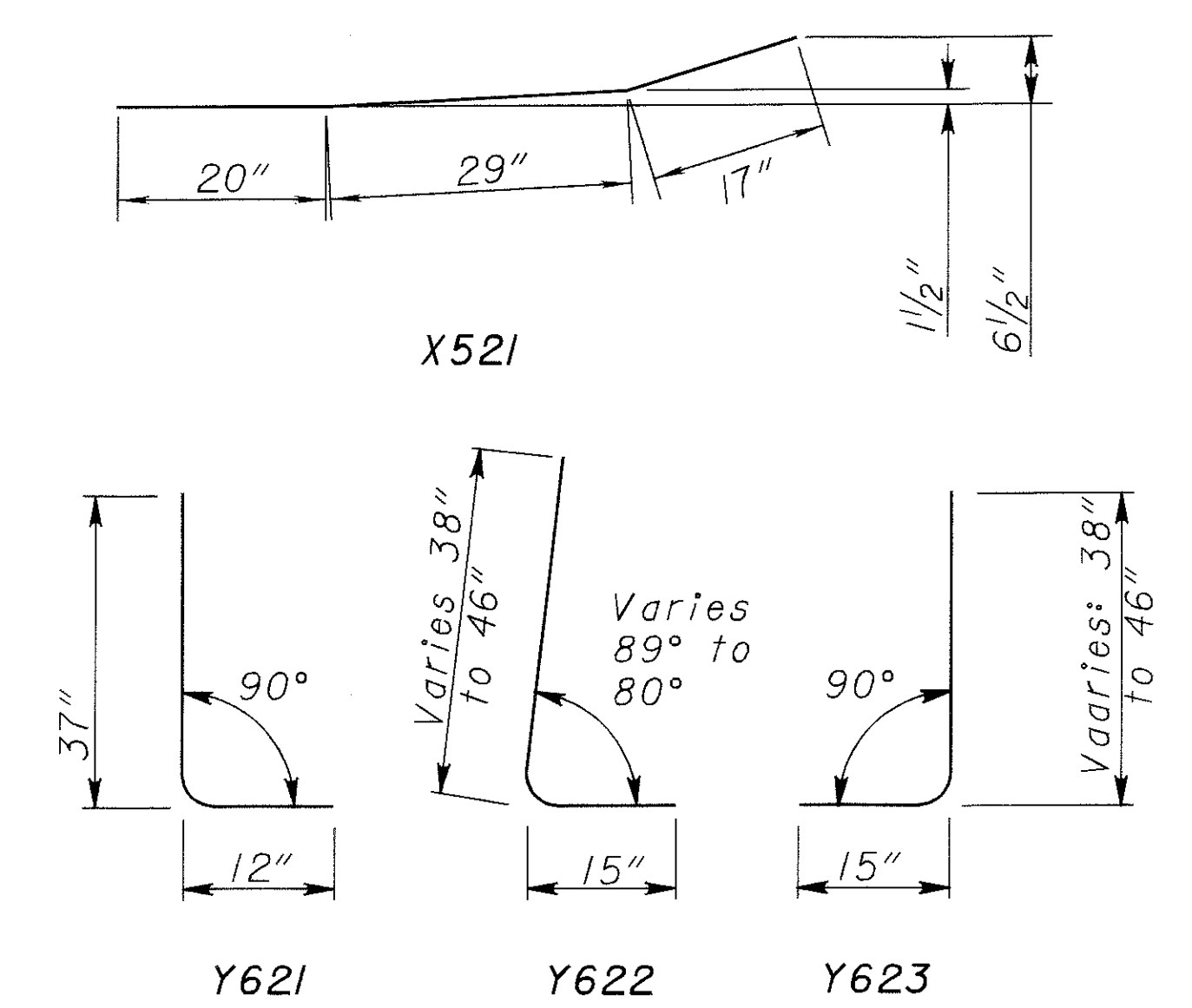
SECTION M-M

SECTION N-N

SECTION O-O



SECTION P-P



BENDING DIAGRAMS

NOTES

GENERAL: This End Section is to be used in roadside applications when traffic is only on one side. This section attaches to a Single Slope Concrete Barrier, Type D, as shown on SCD RM-4.5. See SCD RM-4.3 for Single Slope Barrier materials and other details. Provide 2" concrete cover over rebar, except as noted.

GUARDRAIL: For Bridge Terminal Assembly and attachment details see SCD GR-3.1 (or GR-3.2).

BARRIER FACE TRANSITION: To prevent vehicle snagging, a smooth transition from the vertical face to the single slope face are made over a 10' distance.

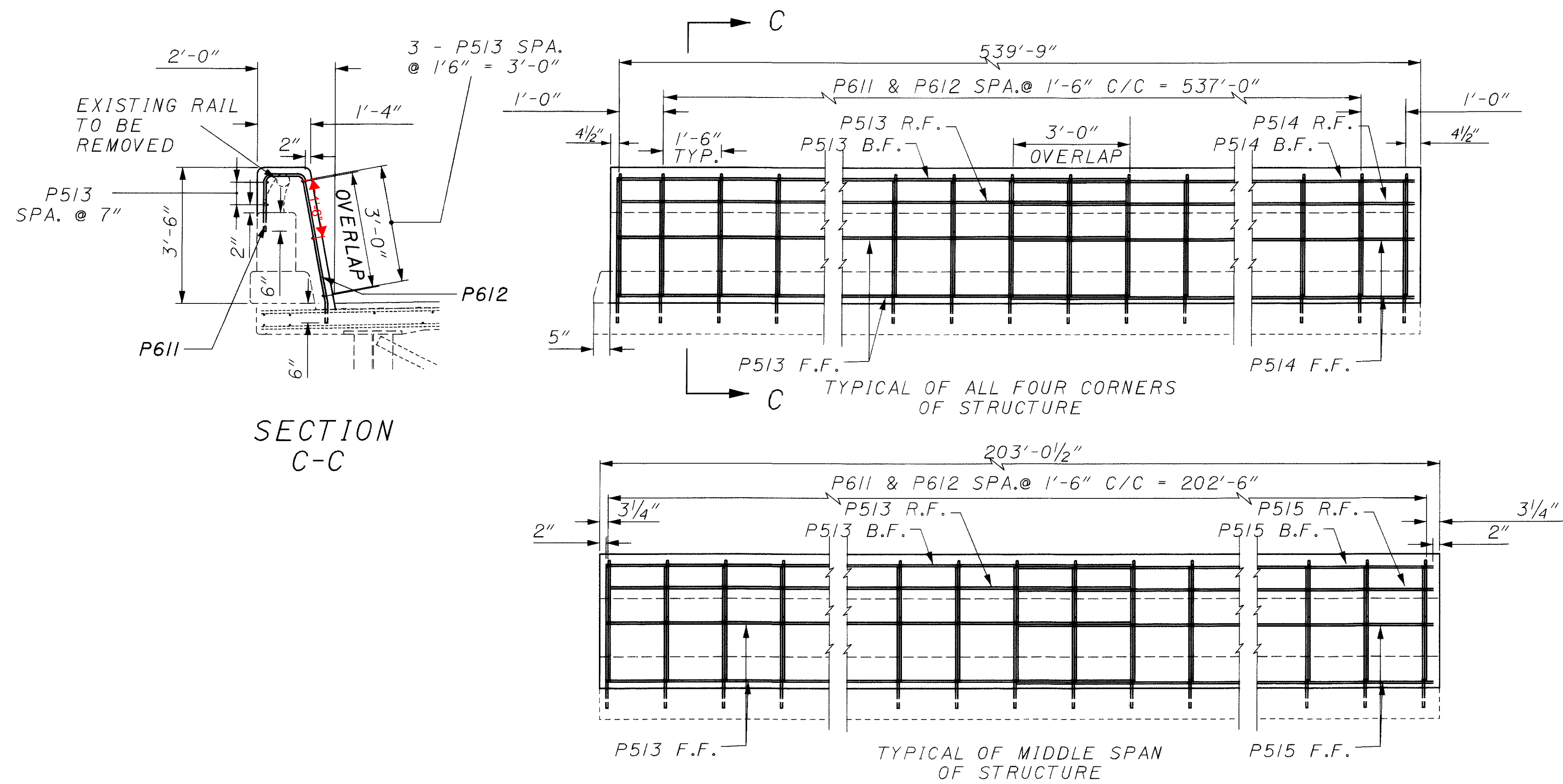
PCJ: Permissible Construction Joint.

SEALING OF CONCRETE SURFACES: All exposed concrete surfaces shall be sealed with an Epoxy - Urethane sealer. Payment shall be included in Item - 864 Sealing of Concrete Surfaces (Epoxy-Urethane).

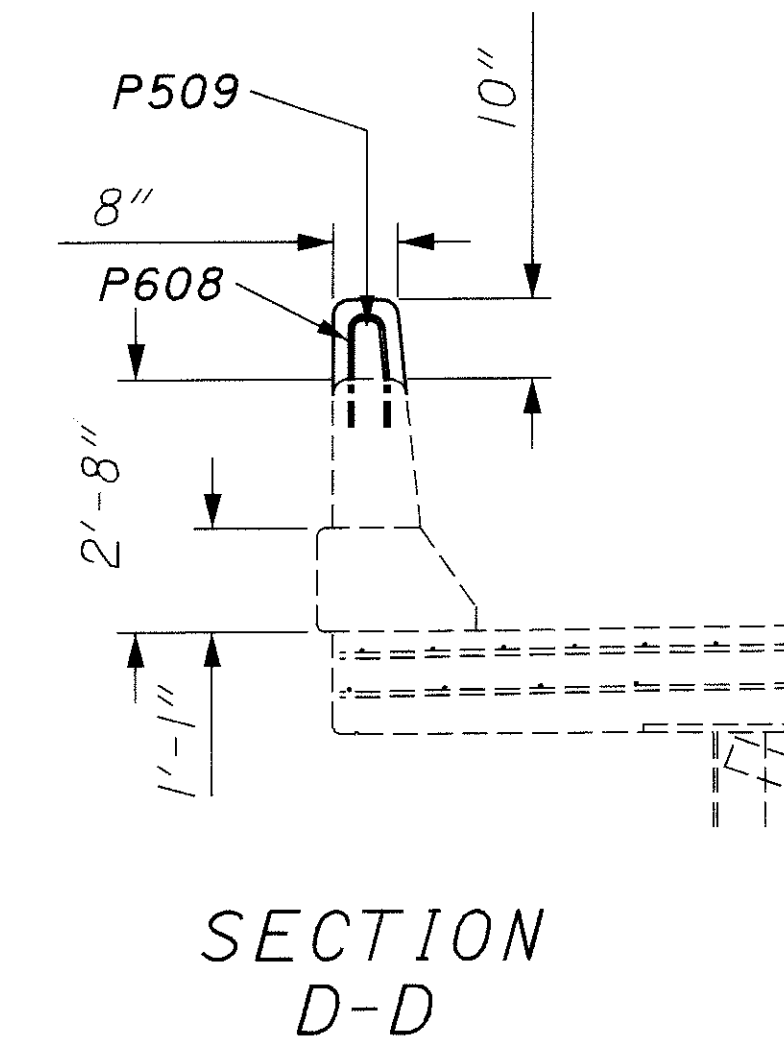
PAYMENT: Payment for the Concrete End Section shall be made at the unit price for Item 622 - Concrete Barrier End Section, Type D, Each, and shall include all materials, labor, and reinforcing steel required to construct the barrier end as shown.

Type D STEEL LIST				
Mark	Bar	Shape	No.	Length
X521	#5	Bent	3	5'-6"
X522	#5	Str.	7	5'-6"
X523	#5	Str.	8	11'-1"
X524	#5	Str.	2	7'-9"
X525	#5	Str.	2	3'-0"
Y621	#6	Bent	10	3'-11"
Y622	#6	Bent	Series of 5	Varies: 4'-3" to 5'-3"
Y623	#6	Bent	Series of 5	Varies: 4'-3" to 5'-3"
B640	#6	Str.	10	6'-8"

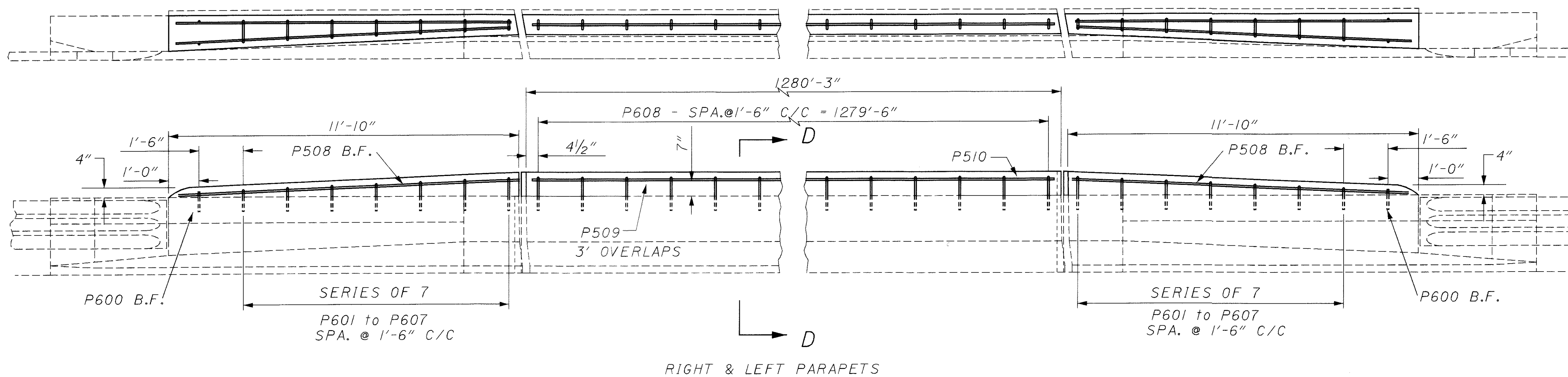
WEST BOUND PARAPET DETAILS



N.F. - NEAR FACE
 F.F. - FAR FACE
 B.F. - BOTH FACES



EAST BOUND PARAPET DETAILS



DESIGN AGENCY	STATE OF OHIO
DEPARTMENT OF TRANSPORTATION	DISTRICT 9 PRODUCTION
REVIEWED	DATE
LAW	02/13/04
STRUCTURE FILE NUMBER	10329 51
DESIGNED	CHECKED
CAJ	GEC
REVISER	
CAJ	
PARAPET DETAILS	
ROS-35-2419L & ROS-35-2419R	
OVER SCIOTO RIVER	
ROS-35-22.72	
9 / 10	
33	
34	

EPOXY COATED REINFORCING STEEL LIST

NOTES:

PAYMENT FOR REINFORCING STEEL FOR PARAPET REFACING ON STRUCTURE NO. ROS-35-2419L IS INCLUDED INT ITEM - 517 RAILING FACED, AS PER PLAN.

PAYMENT FOR REINFORCING STEEL FOR PARAPET TRANSITIONS ON STRUCTURE NO. ROS-35-2419L IS INCLUDED INT ITEM - 622 CONCRETE BARRIER END SECTION, TYPE D.

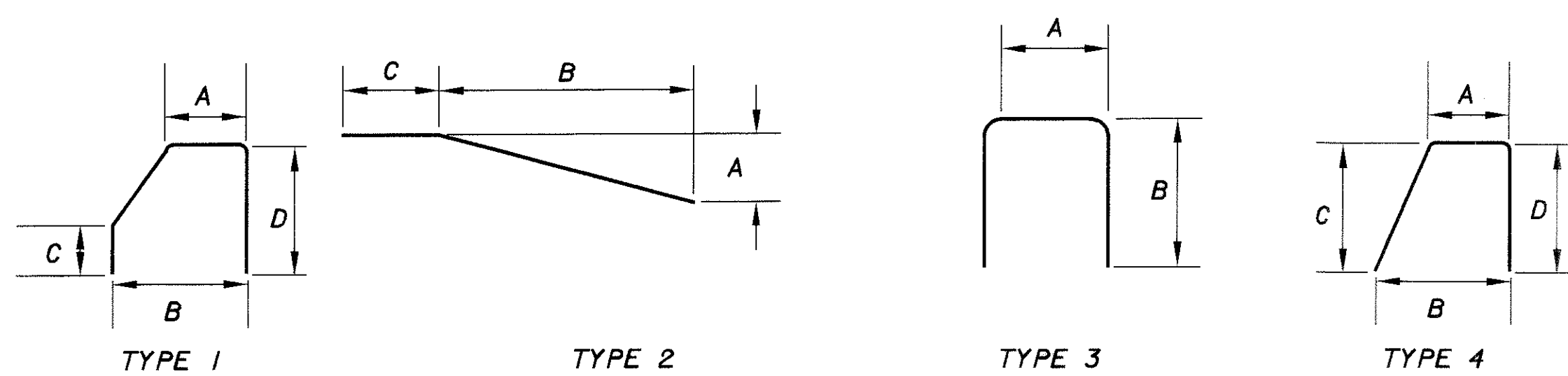
PAYMENT FOR REINFORCING STEEL FOR PARAPET EXTENSIONS ON STRUCTURE NO. ROS-35-2419R IS INCLUDED INT ITEM - 517 RAILING (UPGRADE EXISTING), AS PER PLAN.

FOR THE STEEL LIST FOR CONCRETE BARRIER END SECTIONS, TYPE D SEE SHEET 8/10.

THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, W601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.

ALL REINFORCING STEEL TO BE EPOXY COATED.

MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	INCR
PARAPET EAST BOUND STRUCTURE (ROS-35-2419R)									
P508	8	11'-4"	95	STR					
P509	94	30'-0"	2941	STR					
P510	2	13'-9"	29	STR					
P600	8	8"	8	STR					
P601	4	1'-11"	12	3	9"	9"			
P602	4	2'-0 ¹ / ₄ "	12	3	8 ¹ / ₄ "	10"			
P603	4	2'-1 ¹ / ₂ "	13	3	7 ¹ / ₂ "	11"			
P604	4	2'-2"	13	3	7"	11 ¹ / ₂ "			
P605	4	2'-2"	13	3	5 ⁷ / ₈ "	1'-0 ¹ / ₄ "			
P606	4	2'-3"	14	3	5"	1'-1"			
P607	4	2'-1"	13	1	4 ¹ / ₄ "	5"	6"	1'-1 ³ / ₄ "	
P608	1708	2'-1"	5345	1	4"	5"	6"	1'-2"	
PARAPET WEST BOUND STRUCTURE (ROS-35-2419L)									
P513	450	30'-0"	14081	STR					
P514	20	27'-4"	570	STR					
P515	10	13'-6"	141	STR					
P611	1716	5'-5"	13961	4	1'-1"	1'-6"	3'-2"	1'-6"	
P612	1716	3'-8"	6294	2	5"	3'-2"	6"		



BENDING DIAGRAMS

S.O. - SERIES OF

DESIGN AGENCY
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT 9 PRODUCTION

DATE
02/13/04
REVIEWED
LAW
STRUCTURE FILE NUMBER
710629 LT.
710629 LRT.

DRAWN
CAJ
REVIS
DESIGNED
CAJ
CHECKED
GEC

REINFORCING STEEL LIST
ROS-35-2419L & ROS-35-2419R
OVER SCIOTO RIVER

ROS-35-22.72