Sheet Number	Total Sheets
1	35

32.6 - 1459.0 - 11.3

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED

C.T.H. "V" – S.T.H. 108 ROAD

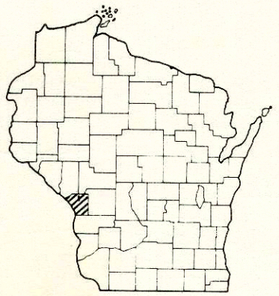
C.T.H. "Q"

LA CROSSE COUNTY

PROJECT IDENTIFICATION NUMBER	FEDERAL PROJECT DESIGNATION
7324-1-70	S 1459(3)

Scales { Plan 1 in. = 100 ft. Profile Hor. 1 in. = 100 ft. Vert. 1 in. = 10 ft. Cross Sections Hor. 1 in. = 10' Vert. 1 in. = 10'

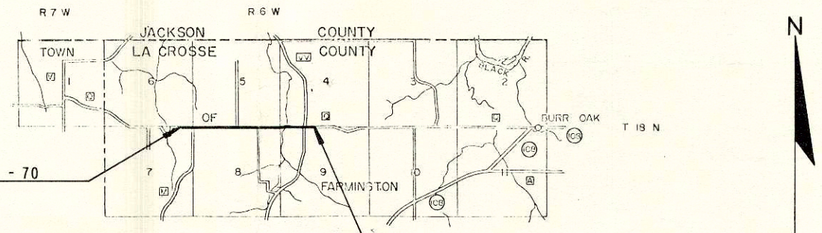
Index of Sheets



Design Designation

A.D.T. (1969)	= 95
A.D.T. (1989)	= 120
D.H.V.	= 19.2
D.	= 50%
T.	= 10.0 A.D.T.
V.	= 50 M.P.H.

DESIGN CLASS 2



BEGINNING OF PROJECT S 1459(3) / 7324 - 1 - 70
STA. 80+00
N = 751,838.36 (± 200')
E = 2,298,233.073 (± 200')
500 Feet West of the Southwest Corner of Section 5, T 18 N, R 6 W.

END OF PROJECT S1459(3) / 7324 - 1 - 70
STA. 154+50
N = 751,738.25 (± 200')
E = 2,290,781.34 (± 200')
1622 Feet East of the Southwest Corner of Section 4, T 18 N, R 6 W.

Conventional Signs

State Line
County Line
Township or Range Line
Section Line
New Right of Way Line
Present Right of Way Line
Wire Fence { Woven, Barbed
Lot Line
Corporate or City Limits
Property Line (P L + 32.6)
Traveled Way or P.E.
Railroads
Base or Survey Line

Culverts in Place
Culverts Required
Drop Inlet
Power Pole
Telephone or Telegraph Pole
Right of Way Markers
Reference Stake for Hubs Only (+61.7 / 23.9)
Marsh
Hedge
Trees
Ground Elevation (Datum Line 23.9)
Grade Elevation (Datum Line 76.16)

Layout

Scale 1 Mile

Total Net Length of Centerline = 1.411 Mi.

NOTE:
COORDINATES SHOWN ARE WISCONSIN COORDINATE SYSTEM SOUTH ZONE COORDINATES AND THEY WERE SCALED FROM U S G S. TOPOGRAPHIC MAP, NORTH BEND WISCONSIN, QUADRANGLE FOR IDENTIFICATION ONLY

APPROVED FOR
LA CROSSE COUNTY By
2/27/1969 Orval H. Smith
Date — County Highway Commissioner

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Surveyor D.E.K. Note Book LL
District Computer P.E.S. M.O. Checker IL J
District Checker Correct

Correct:
Date 3-3-69 — District Engineer

Recommended for Approval:
Date 3/5/69 E. J. Bystedt — Chief Design Engineer

Approved:
Date 3/6/69 — State Highway Engineer

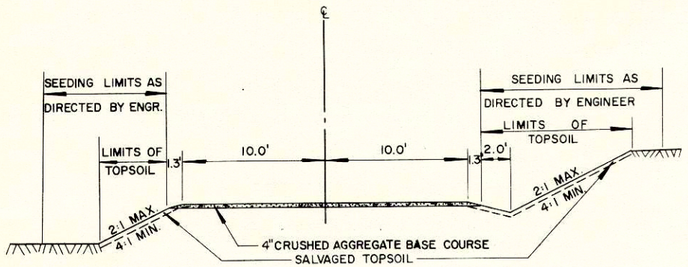
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
REGION 4 WISCONSIN DIVISION

Approved:
Date — Division Engineer

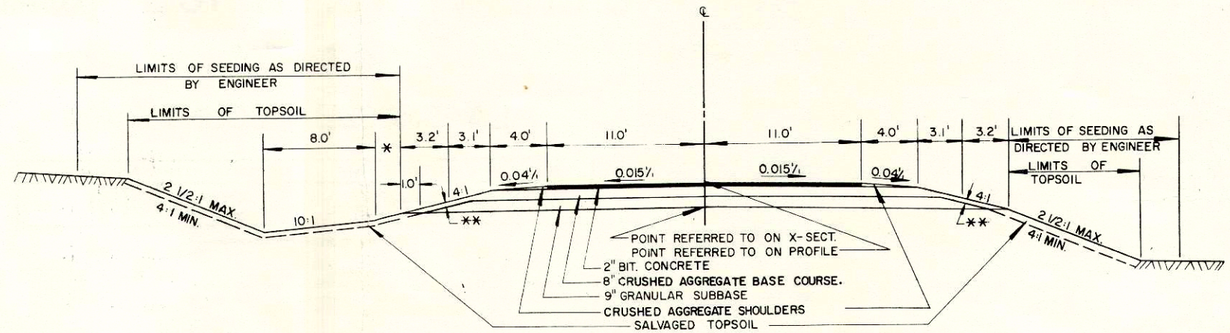
S1459(3)

PROJECT	SHEET NUMBER	TOTAL SHEETS
S 1459(3)	2	35

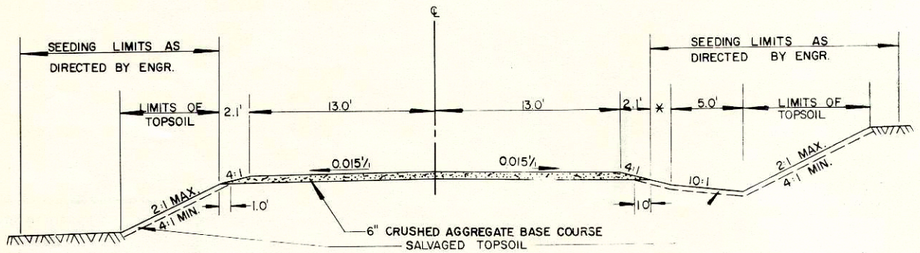
7324-1-70



PRIVATE ENTRANCE



ULTIMATE FINISHED SECTION
TANGENT ONLY
C.T.H. "Q"–"M"–"VV"



TOWN ROADS

** 4" CRUSHED AGGREGATE BASE COURSE

* NORMALLY 0 FT. INCREASE THIS DIMENSION TO ATTAIN SPECIAL DITCH GRADES.

APPLICABLE STANDARD DETAIL DRAWINGS

6-2.6.7 APRON ENDWALLS FOR CULVERT PIPE ARCH
7-1.3.5 MARKER POSTS & MARKER POSTS FOR RIGHT OF WAY
7-2.4.13 STEEL PLATE BEAM GUARD & STEEL BEAM MEDIAN GUARD
7-4.1.5 CONSTRUCTION BARRICADE
9-1.1.5 LAYOUT DETAILS FOR AT-GRADE SIDE ROAD INTERSECTIONS

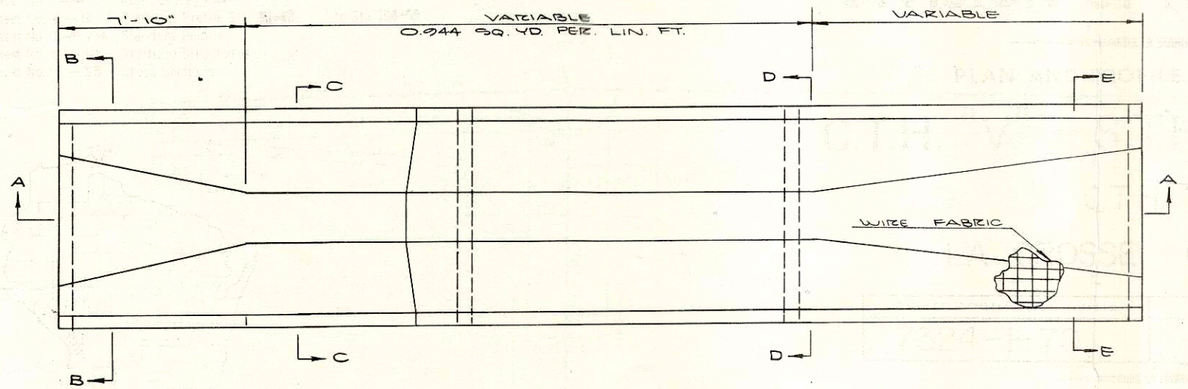
GENERAL NOTES

1. MULCH ALL SLOPES STEEPER THAN 4:1 EXCEPT SANDSTONE SLOPES
2. WHEN THE QUANTITY OF THE ITEMS OF SUBBASE, BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.
3. EXACT LOCATION OF ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD
4. SALVAGED TOPSOIL TO BE PLACED AS SHOWN ON THE TYPICAL CROSS SECTIONS TO AN APPROXIMATE DEPTH OF 4" AT THE TIME OF PLACING
5. SEEDING SHALL BE PREFORMED AS DIRECTED BY THE ENGINEER WITHIN THE LIMITS OF THE R/W

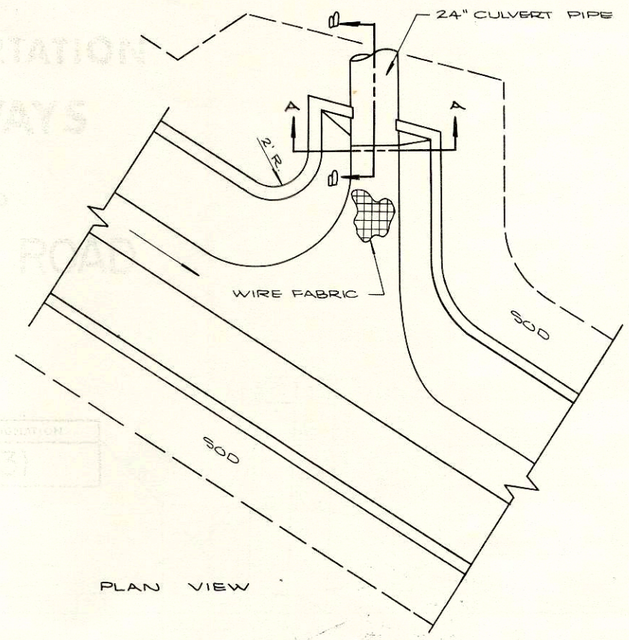
TYPICAL CROSS SECTION
FOR
C.T.H "Q"–"M"–"VV"
PRIVATE ENTRANCE
TOWN ROADS

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
7324-1-70	2.1	35
FEDERAL PROJECT DESIGNATION S1459(3)		

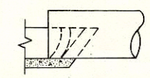
SLOPE PAVING
CONCRETE FLUME



PLAN VIEW



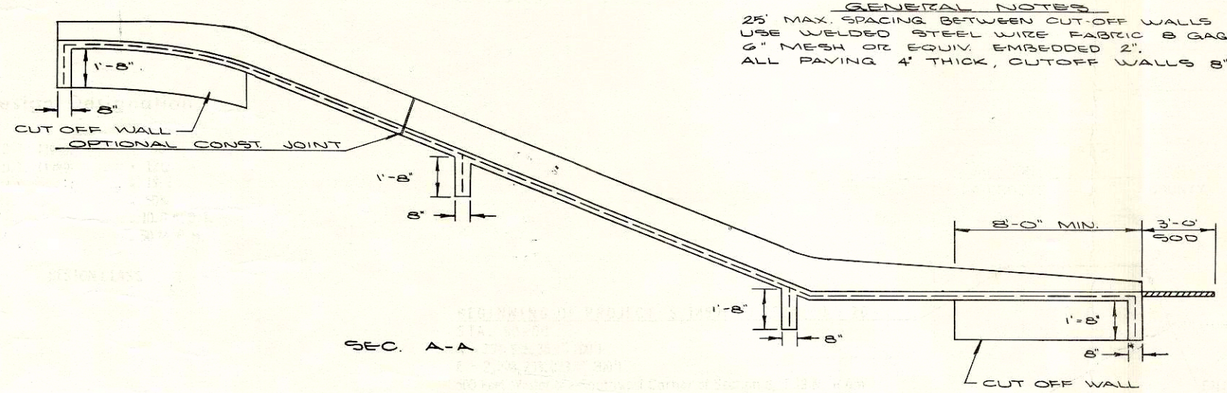
PLAN VIEW



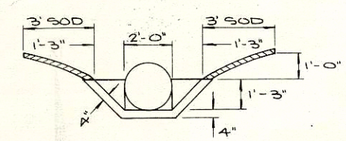
SEC. B-B

GENERAL NOTES

25' MAX. SPACING BETWEEN CUT-OFF WALLS
USE WELDED STEEL WIRE FABRIC 8 GAGE - 6" MESH OR EQUIV. EMBEDDED 2".
ALL PAVING 4" THICK, CUTOFF WALLS 8" THICK.

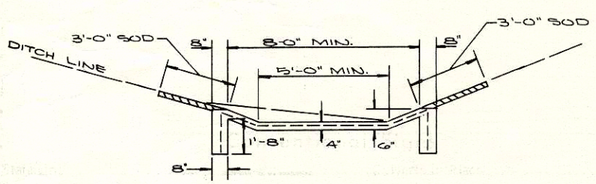


SEC. A-A

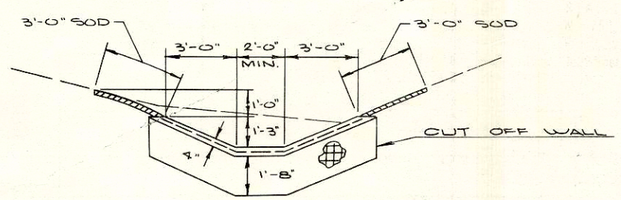


SEC. A-A

PIPE DISCHARGE FLUME FOR 24 INCH DIAMETER PIPE
STA. 143 + 70



SEC. B-B & E-E

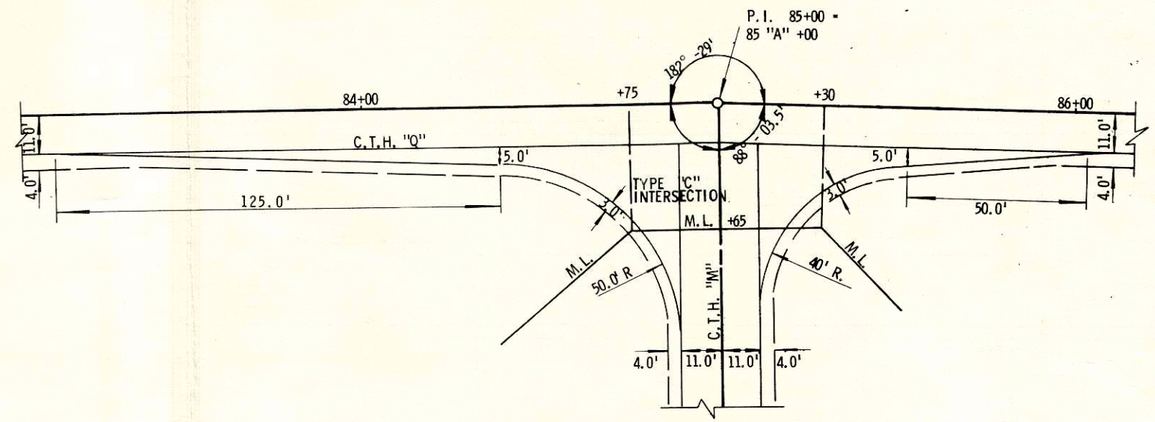


SEC. C-C & D-D

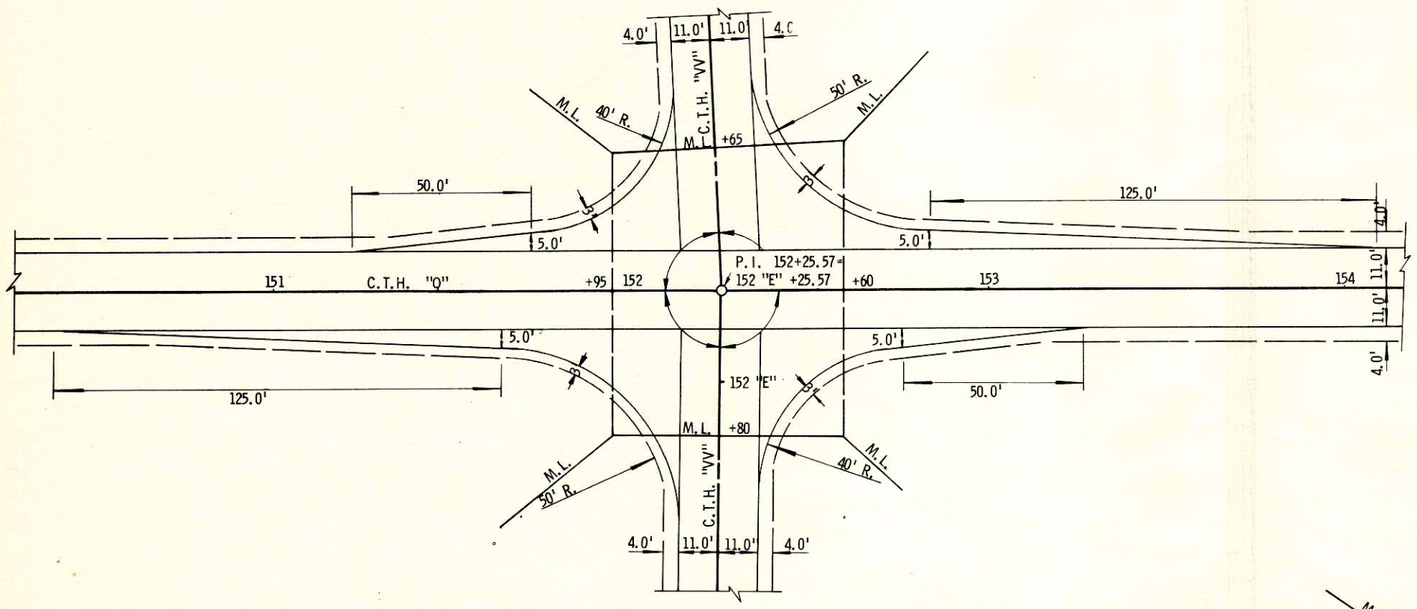
TYPICAL CONCRETE SLOPE PAVING FOR DITCHES

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
S1459 (3)	2.2	35
FEDERAL PROJECT DESIGNATION 7324-1-70		

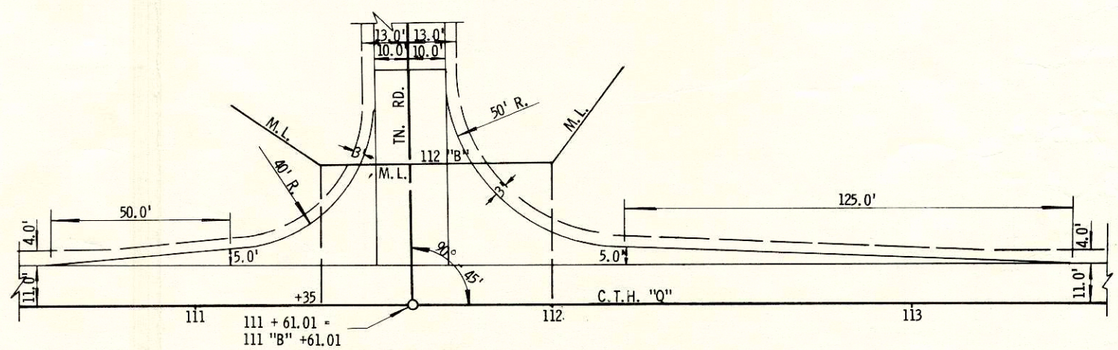
INTERSECTION MATCHLINE LAYOUT



"A" LINE INTERSECTION



"E" LINE INTERSECTION



"B" LINE INTERSECTION

ESTIMATE OF QUANTITIES

THIS PROJECT IS TO BE EXECUTED UNDER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE WISCONSIN DIVISION OF HIGHWAYS — EDITION OF 1969, SUBMITTED FOR APPROVAL OCTOBER 23, 1968, FEDERAL AID REQUIRED CONTRACT PROVISIONS APPROVED OCTOBER 29, 1963, AND SPECIAL PROVISIONS AS ATTACHED TO PROPOSALS.

CONTRACT NO. 1 - 7324-1-70
GRADING, BASE COURSE, SURFACING & STRUCTURE C - 32 - 30
7324 - 1 - 70
S 1459(3)
3 | 35

CONTRACT SEC NO	STATION TO STATION	NET LENGTH OF CENTER LINE	CLEARING	GRUBBING	UNCL. EXCAV.	PREPARATION OF FOUNDATION FOR BIT. PAVING	GRANULAR SUBBASE COURSE	FINISHING ROADWAY	CRUSHED AGGREGATE BASE COURSE	BITUMINOUS MATERIAL FOR PRIME COAT	BITUMINOUS CONCRETE PAVEMENT	BITUMINOUS MATERIAL FOR SURF. COURSE	CULVERT PIPE CLASS III 18"	CULVERT PIPE CLASS III 24"	CULVERT PIPE CLASS III 36"	APRON ENDWALLS FOR CULVERT 18"	APRON ENDWALLS FOR CULVERT 24"	APRON ENDWALLS FOR PIPE 36"	CONC. SLOPE PAVING	ANCHORAGES FOR STEEL PLATE BEAM GUARD	STEEL PLATE BEAM GUARD CLASS "A"	MARKER POSTS FOR R/W	MAINT. & REPAIR OF HAUL ROADS	SALVAGED TOPSOIL	MULCHING	FERTILIZER	SEEDING	SODDING	FIELD OFFICE TYPE "A"
	ITEM NO		20101	20104	20503	21101	21201	21301	30403	40202	40701	40702	52003	52005	52009	52061	52063	52067	60404	61406	61408	61422	61801	62505	62702	62901	63001	63101	64201
	UNIT	LIN. FT.	STA.	STA.	C.Y.	L.S.	C.Y.	L.S.	C.Y.	GAL.	TON	TON	L.F.	L.F.	L.F.	EA.	EA.	EA.	S.Y.	EA.	L.F.	EA.	L.S.	S.Y.	S.Y.	CWT.	S.Y.	S.Y.	L.S.
1	80+00 - 154+50	7450	19	19	54,646		10,240	1	11,022	5,550	2,575	155	196	264	108	14	9	4	443	4	384	68		54,515	8,671	59	64,155	435	1

CONTRACT SEC NO	BRIDGES (STRUCTURES OVER 20FT SPAN) REMOVING OLD BRIDGE STA. 142+58	EXCAVATION FOR STRUCTURES	CONCRETE MASONRY CULVERTS	BAR STEEL REINFORCEMENT	HEAVY RIPRAP	CULVERTS (STRUCTURES 20FT SPAN & UNDER)
	20351	20602	50401	50502	60602	
	L.S.	C.Y.	C.Y.	LBS.	C.Y.	
1	1	825	239	33,670	80	C - 32 - 30

SEC NO

DETAIL SUMMARY OF MISCELLANEOUS QUANITIES

GRANULAR SUBBASE

Sta. - Sta.	Location	C.Y.	Remarks
80+00 - 83+13	C/L	374	
83+13 - 86+03	C/L	346	
86+03 - 110+60	C/L	2936	
110+60 113+45	C/L	340	
113+45 - 123+26	C/L	1172	
123+26 - 126+10	C/L	339	
126+10 - 150+40	C/L	2903	
150+40 - 154+09	C/L	441	
154+09 - 154+50	C/L	49	
80+00 - 84+34	C/L	518	"A" Line
149+75 - 151+60	C/L	221	"E" Line
152+84 - 154+00	C/L	139	"E" Line
85+00	Intersection	96	"A" Line
152+25.57	"	96	"A" Line
152+25.57	"	96	"E" Line
Undistributed		174	

CLEARING & GRUBBING

Sta. - Sta.	Location	Clearing	Grubbing
81 - 85	Lt.	4	4
109 - 111	Lt.	2	2
133 - 144	Rt.	11	11
145 - 147	Lt.	2	2

CRUSHED AGGREGATE BASE COURSE

Sta. - Sta.	Location	C.Y.	Remarks
80+00 - 83+13	C/L	355	
83+13 - 86+03	C/L	409	
86+03 - 110+60	C/L	2789	
110+60 - 113+45	C/L	400	
113+45 - 123+24	C/L	1111	
123+24 - 126+09	C/L	400	
126+09 - 150+40	C/L	2760	
150+40 - 154+12	C/L	582	
154+12 - 154+50	C/L	43	
80+00 - 84+34	C/L	493	"A" Line
112+26 - 114+00	C/L	198	"B" Line
122+50 - 124+44	C/L	220	"C" Line
149+75 - 151+60	C/L	210	"E" Line
152+92 - 154+00	C/L	123	"E" Line
P.E.'s		125	
Shoulders	Shoulders	302	
Undistributed		502	

CONCRETE MASONRY & SLOPE PAVING

Sta. - Sta.	Location	Length	S.Y.
140+00 - 142+25	Lt.	250' ±	247.7
142+62 - 144+10	Lt.	148' ±	155.4
Undistributed			40.0

SODDING

Sta. - Sta.	Location	S.Y.	Remarks
140+00 - 142+25	Lt.	171	Conc.Ditch Flume
142+62 - 144+10	Lt.	106	" "
141+90 - 142+85	Rt.	158	Ditch Flume

CROSS DRAINS

Station	Location	Class	In. Dia.	Length	Type	Apron Endwalls	Skew
91+58	C/L	III	36	58'	C.P.	2	
139+80	C/L	III	36	50'	C.P.	2	15° L.H.F.
143+70	C/L	III	24	104'	C.P.	1	15° R.H.F.
152+60	C/L	III	24	64'	C.P.	2	

MINOR SIDE ROAD & PRIVATE ENTRANCE PIPE

Station	Location	Class	In.Dia.	Length	Type	Apron Endwalls
82+42	Lt.	III	18	28'	C.P.	2
88+85	Rt.	III	18	28'	C.P.	2
99+45	Rt.	III	18	28'	C.P.	2
115+58	Rt.	III	18	28'	C.P.	2
117+57	Lt.	III	18	28'	C.P.	2
124"C"+31	C/L	III	24	40'	C.P.	2
136+00	Rt.	III	24	28'	C.P.	2
138+00	Lt.	III	24	28'	C.P.	2
146+85	Rt.	III	18	28'	C.P.	2
150"E"+90		III	18	28'	C.P.	2

STEEL PLATE BEAM GUARD, CLASS "A"

Sta. - Sta.	Location	Length in Ft.	Anchors
140+30 - 142+47	Rt.	217	2
142+03 - 143+70	Lt.	167	2

BITUMINOUS CONC. PAV'T.

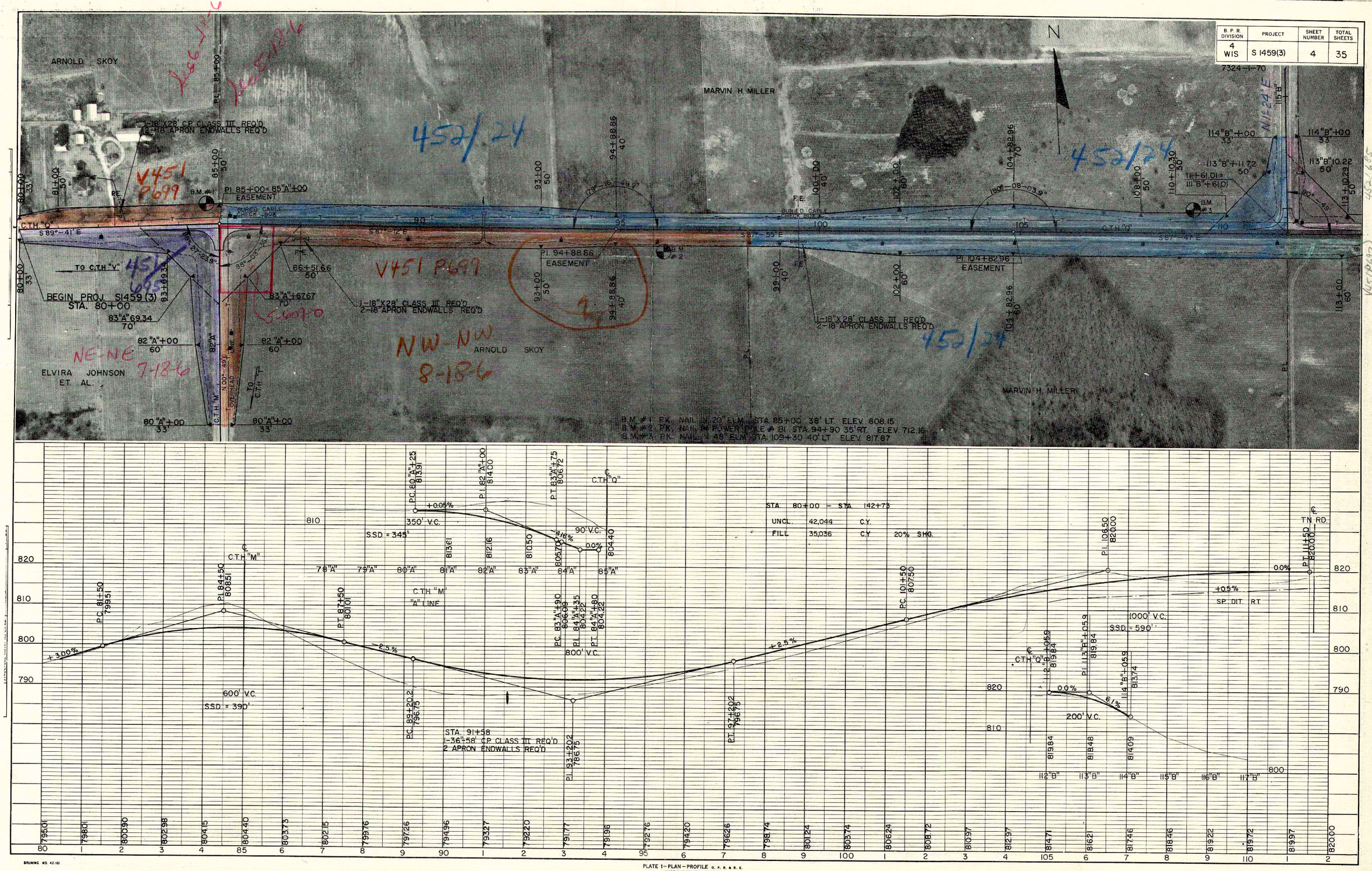
Sta. - Sta.	Ton	Prime Coat Gal.	Bit. Mat'l. Surface Cse. Ton
80+00-154+50	2113	4552	127
80"A"+00-84"A"+33	123	264	8
150"E"+43-151"E"+59	33	71	2
152"E"+89-154"E"+00	31	68	2
Intersections			
"A" Line	38	83	2
"B" Line	37	80	2
"E" Line (Lt.)	38	83	2
"E" Line (Rt.)	38	81	2
Undistributed 5%	124	268	8

7324 - 1 - 70

PROJECT	SHEET NO.	TOTAL SHEETS
S 1459(3)	3A	35

B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1459(3)	4	35

7324-1-70

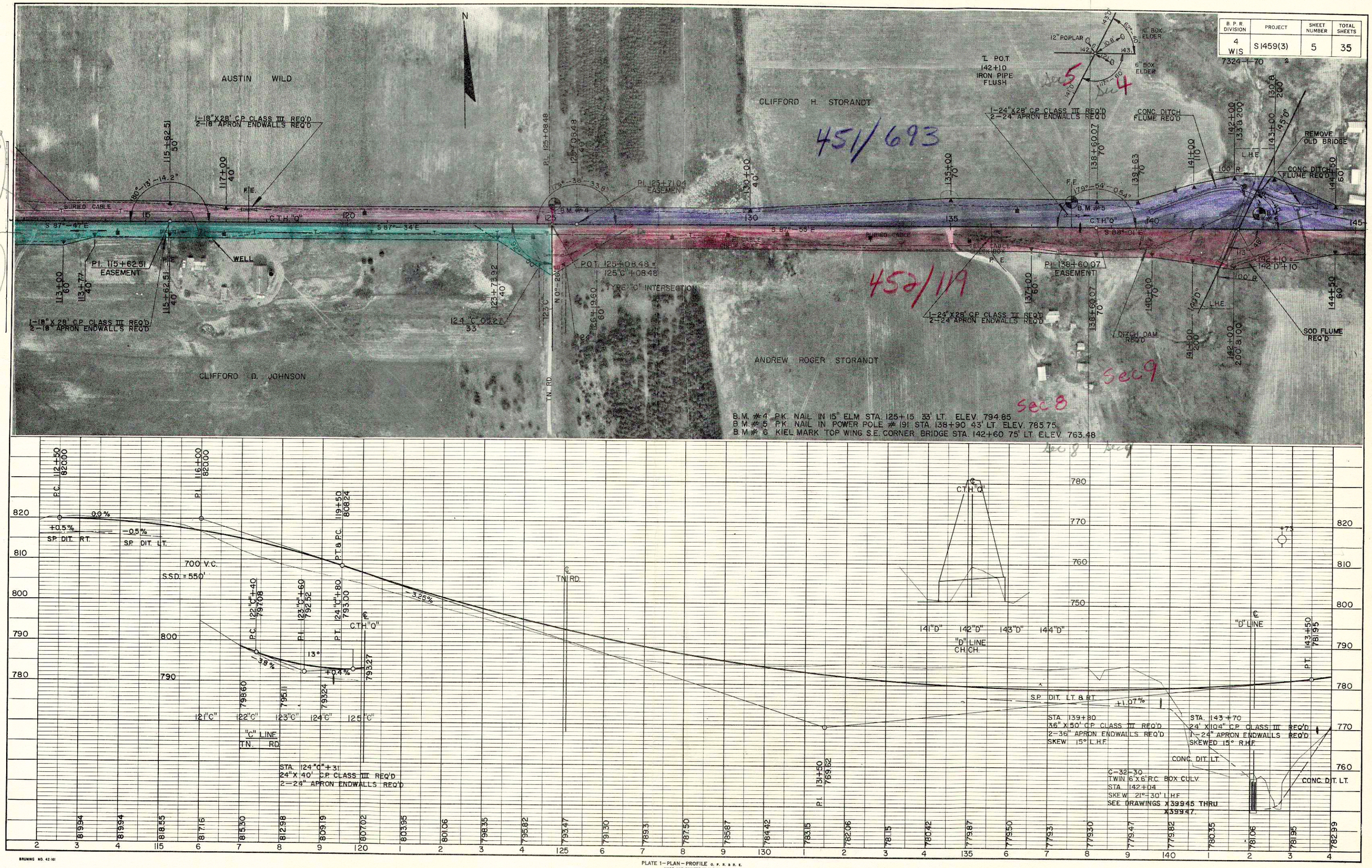


BRUNING NO. 42-161

PLATE 1—PLAN—PROFILE G. F. R. & R. E.
MADE AND PRINTED IN U.S.A.

B.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S1459(3)	5	35

7324-70 2

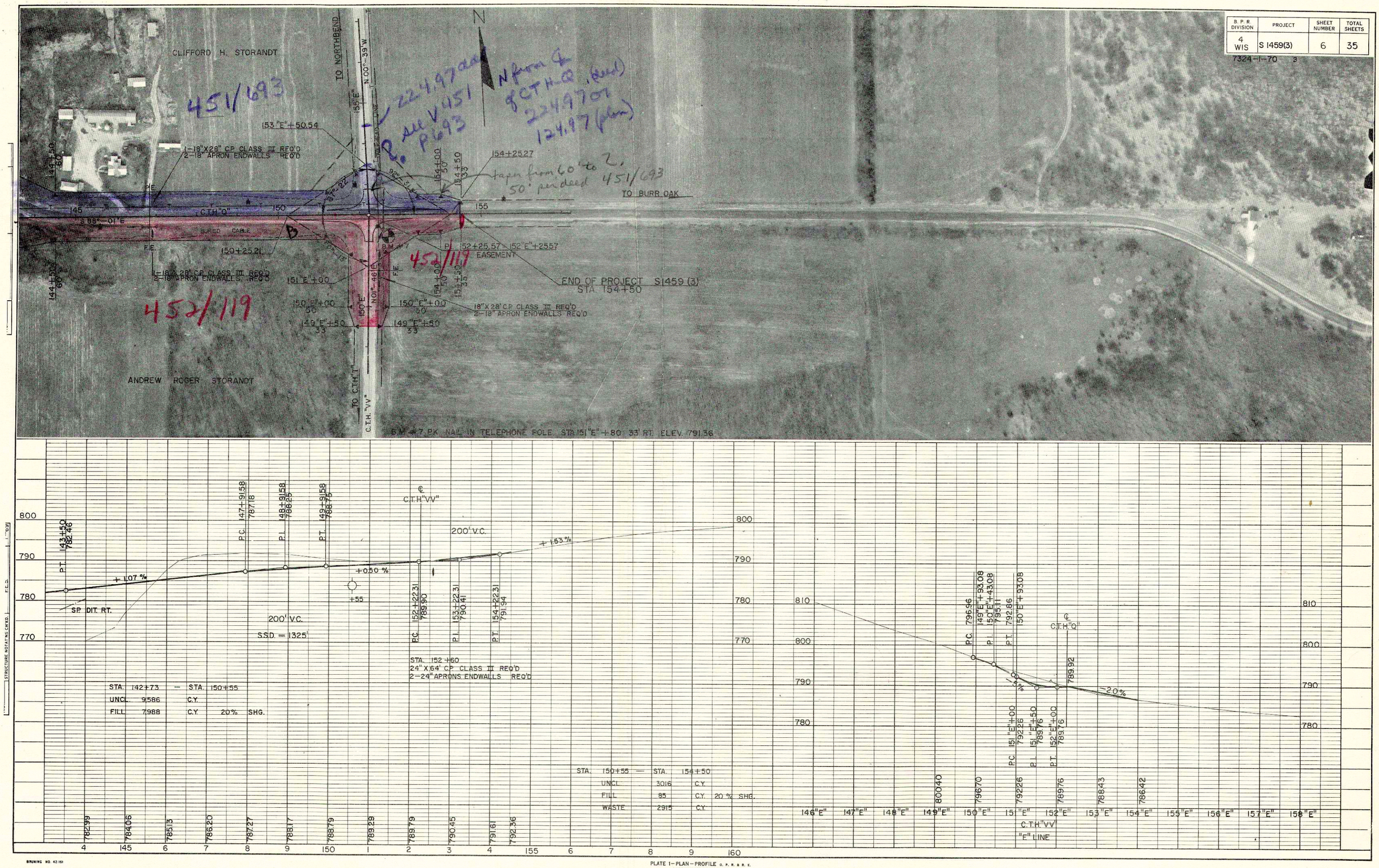


BRUNING NO. 42-161

PLATE 1—PLAN—PROFILE O. P. R. & R. E.
MADE AND PRINTED IN U.S.A.
CHARLES BRUNING COMPANY, INC.

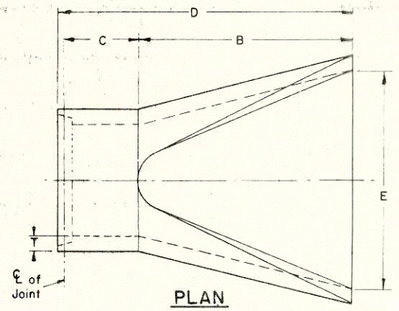
B. P. R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS	S 1459(3)	6	35

7324-1-70 3

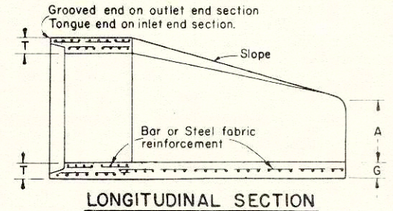


BRUNING NO. 42-161

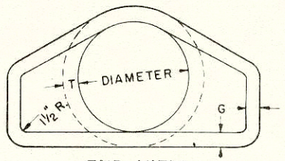
PLATE 1—PLAN—PROFILE O. P. R. & R. E.
MADE AND PRINTED IN U.S.A.



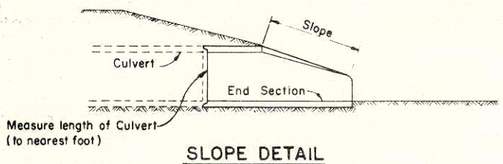
PLAN



LONGITUDINAL SECTION



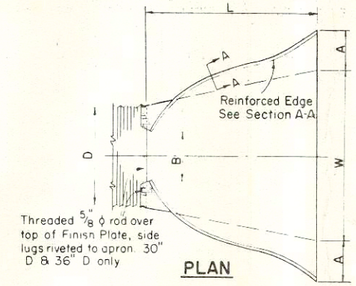
END VIEW



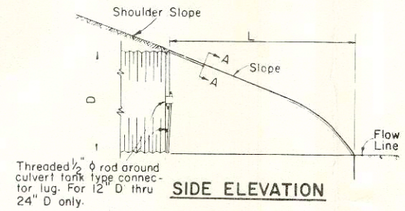
SLOPE DETAIL

DIA.	APPROX. WEIGHT/ SECTION	APPROX. SLOPE	T	A	B	C	D	E	G
12"	530	3 to 1	2"	4"	24"	48 7/8"	72 7/8"	24"	2"
15"	740	3 to 1	2¼"	6"	27"	46"	73"	30"	2¼"
18"	990	3 to 1	2½"	9"	27"	46"	73"	36"	2½"
21"	1280	3 to 1	2¾"	9"	36"	37½"	73½"	42"	2¾"
24"	1520	3 to 1	3"	9½"	43½"	30"	73½"	48"	3"
27"	1930	3 to 1	3¼"	10½"	49½"	24"	73½"	54"	3¼"
30"	2190	3 to 1	3½"	12"	54"	19¾"	73¾"	60"	3½"
36"	4100	3 to 1	4"	15"	63"	34¾"	97¾"	72"	4"
42"	5380	3 to 1	4½"	21"	63"	35"	98"	78"	4½"
48"	6550	3 to 1	5"	24"	72"	26"	98"	84"	5"
54"	8040	2⅔ to 1	5½"	27"	65"	33¼" min. 35" max.	98¼" min. 100" max.	90"	5"
60"	8730	2 to 1	6"	30" min. 33" max.	60"	39"	99"	96"	5*
66"	10,630	2 to 1	6½"	24" min. 30" max.	72" min. 78" max.	21" min. 27" max.	99"	102"	5½"
72"	12,520	2 to 1	7"	24" min. 36" max.	78"	21"	99"	108"	6"
78"	14,430	2 to 1	7½"	24" min. 36" max.	78"	21"	99"	114"	6½"
84"	18,160	1½ to 1	8"	36"	90½"	21"	111½"	120"	6½"

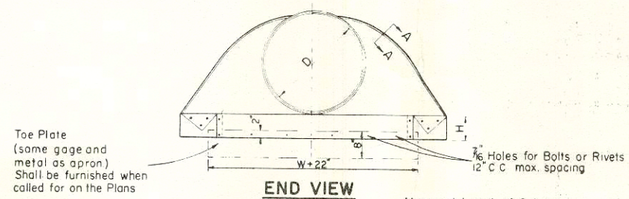
REINFORCED CONCRETE APRON ENDWALLS



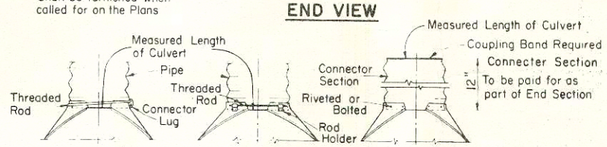
PLAN



SIDE ELEVATION



END VIEW



TYPE #1 For 12" thru 24" only

TYPE #2 For 30" and 36" only

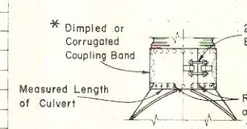
TYPE #3 For 42" thru 84"

CONNECTION DETAILS

D Pipe Diam.	Gage Min.	Dimensions A ± 1"	B Max	H ± 1"	L ± 1½"	W ± 2"	Approx. Slope
12"	16	6"	6"	6"	21"	24"	2½ to 1
15"	16	7"	8"	6"	26"	30"	"
18"	16	8"	10"	6"	31"	36"	"
21"	16	9"	12"	6"	36"	42"	"
24"	16	10"	13"	6"	41"	48"	"
30"	14	12"	16"	8"	51"	60"	"
36"	14	14"	19"	9"	60"	72"	"
42"	12	16"	22"	11"	69"	84"	"
48"	12	18"	27"	12"	78"	90"	2¼ to 1
54"	12	18"	30"	12"	84"	102"	2 to 1
60"	12	18"	33"	12"	87"	114"	1¾ to 1
66"	12	18"	36"	12"	87"	120"	1½ to 1
72"	12	18"	39"	12"	87"	126"	1⅓ to 1
78"	12	18"	42"	12"	87"	132"	1¼ to 1
84"	12	18"	45"	12"	87"	138"	1⅙ to 1

Note: All splices to be lap riveted or bolted.

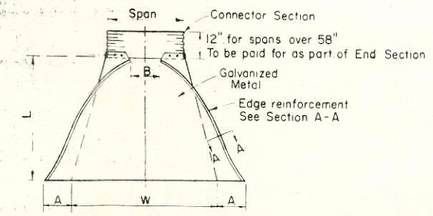
METAL APRON ENDWALLS



TYPE #5

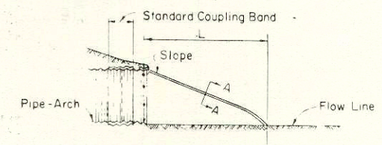
Alternate for All sizes Corrugated Pipe and Pipe Arch

*NOTE: Dimpled Band fits over Outside of Endwall, and Corr. Band fits inside Endwall. Dimpled Band may be used with Helically Corrugated Pipe.

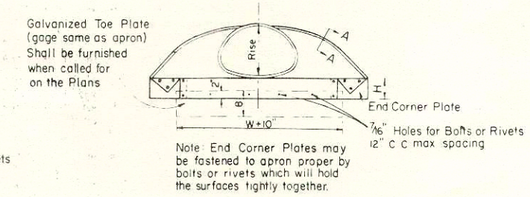


PLAN

showing alternate type with connector section

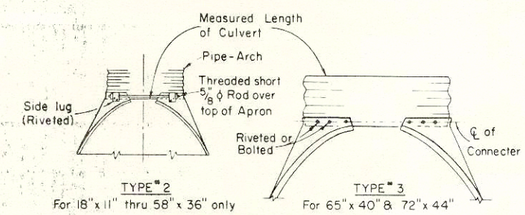


SIDE ELEVATION



Note: End Corner Plates may be fastened to apron proper by bolts or rivets which will hold the surfaces tightly together.

END VIEW



TYPE #2 For 18" x 11" thru 58" x 36" only

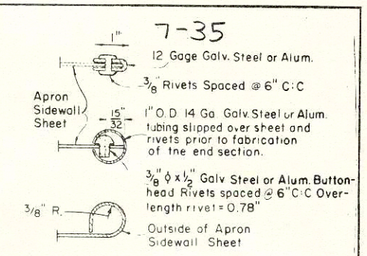
TYPE #3 For 65" x 40" & 72" x 44"

CONNECTION DETAILS

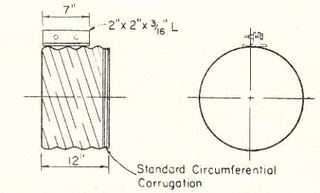
Pipe-Arch Dimensions Span	Rise	Gage Min.	Dimensions A ± 1"	B Max.	H ± 1"	L ± 1½"	W ± 2"	Approx. Slope
18"	11"	16	7"	9"	6"	19"	30"	2½ to 1
22"	13"	16	7"	10"	6"	23"	36"	"
25"	16"	16	8"	12"	6"	28"	42"	"
29"	18"	16	9"	14"	6"	32"	48"	"
36"	22"	14	10"	16"	6"	39"	60"	"
43"	27"	14	12"	18"	8"	46"	75"	"
50"	31"	12	13"	21"	9"	53"	85"	"
58"	36"	12	18"	26"	12"	63"	90"	"
65"	40"	12	18"	30"	12"	70"	102"	2¼ to 1
72"	44"	12	18"	33"	12"	77"	114"	"

Note: All splices to be lap riveted or bolted

7-35



SECTION A-A



END SECTION CONNECTION

For 12" thru 21" Diameter Helically Corrugated Metal Pipe

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

NOTE

Variations of the dimensions and designs shown hereon will be permitted providing equivalent capacity and structural integrity are attained, and prior approval of the Engineer is obtained.

Reinforced concrete apron endwalls shall be used with concrete pipe culvert installations, steel apron endwalls shall be used with corrugated steel pipe culvert installations, and aluminum apron endwalls shall be used with corrugated aluminum pipe culvert installations, except that steel apron endwalls may be used on corrugated aluminum pipe culverts when a non-metalic insulation material is placed between the steel and aluminum. The non-metalic insulation material shall be so placed between the two metals so as to prohibit galvanic action from occurring.

When two or more pipes or pipe arches with apron endwalls are to be laid adjacent to each other, they shall be separated by the following amount:

Pipes: Total width of apron endwall less the diameter of pipe plus 6 inches.

Pipe Arches: Total width of apron endwall less the span dimension of the pipe arch plus 6 inches.

APRON ENDWALLS FOR CULVERT PIPE & PIPE ARCH

State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
12/19/68 — DATE — E. J. Bykit — CHIEF DESIGN ENGINEER

APPROVED:
12/24/68 — DATE — STATE HIGHWAY ENGINEER

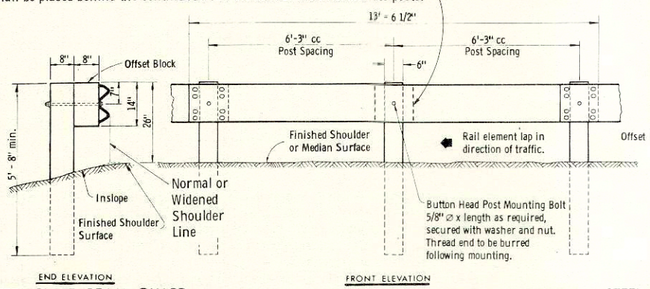
APRON ENDWALLS FOR CULVERT PIPE

APRON ENDWALLS FOR PIPE ARCH

Plate No. 6-2.6.7

Plate No. 6-2.6.7

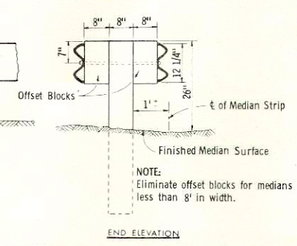
One foot long section of rail element, with a 3/4" slotted hole for mounting, shall be placed behind the continuous rail element at the intermediate posts.



STEEL PLATE BEAM GUARD

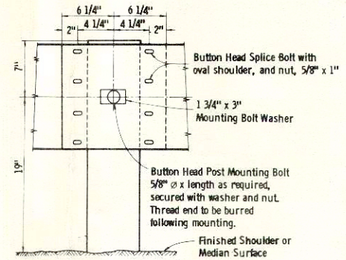
STEEL PLATE BEAM GUARD OR STEEL PLATE BEAM MEDIAN GUARD

Sawed treated timber posts 6" x 8" x 6'-0" and sawed treated timber offset blocks 6" x 8" x 14" shall be furnished and placed in accordance with Standard Specifications.

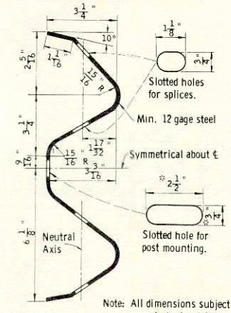


NOTE: Eliminate offset blocks for medians less than 8' in width.

STEEL PLATE BEAM MEDIAN GUARD



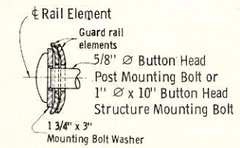
RAIL ELEMENT SPLICING AND POST MOUNTING DETAILS



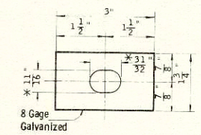
Note: All dimensions subject to manufacturing tolerance.

SECTION THRU RAIL ELEMENT

* Holes for Structure Mounting shall be 1 1/16" dia.



MOUNTING BOLT DETAIL



MOUNTING BOLT WASHER

* Hole in Structure Mounting Bolt Washer to be 1 1/16" dia.

7.2-35

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

The exact location of the beginning and end of each Guardrail installation shall be as shown on the plans or as directed by the engineer.

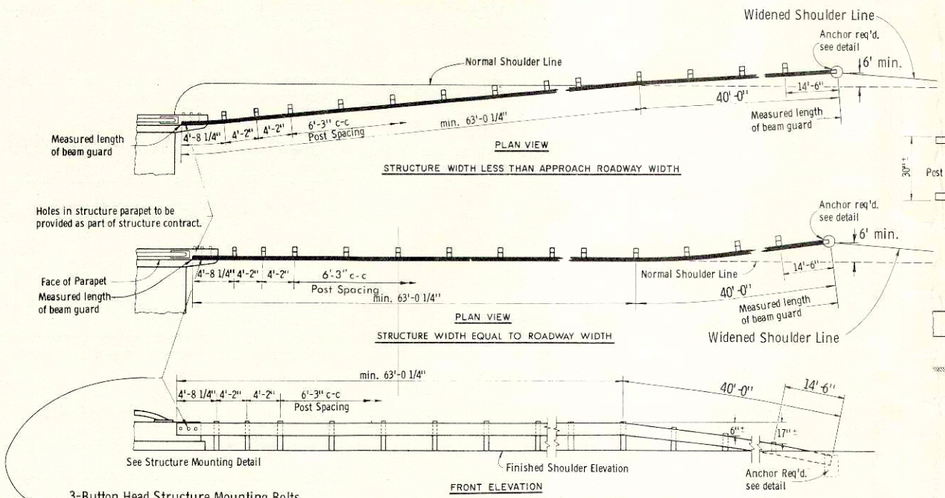
TERMINATION AT STRUCTURES NOT PROVIDED WITH A NOTCH
For those structures where a notch is not provided, the Guardrail will be terminated as directed by the engineer.

POST-FOOTING DETAIL AT PIERS
The Post-Footing Details shall be used when guard-rail posts are over structure footings and less than 3' 6" of earth is provided over the top of the footing.

STEEL PLATE BEAM MEDIAN GUARD
Eliminate offset blocks for medians less than 8 foot in width.

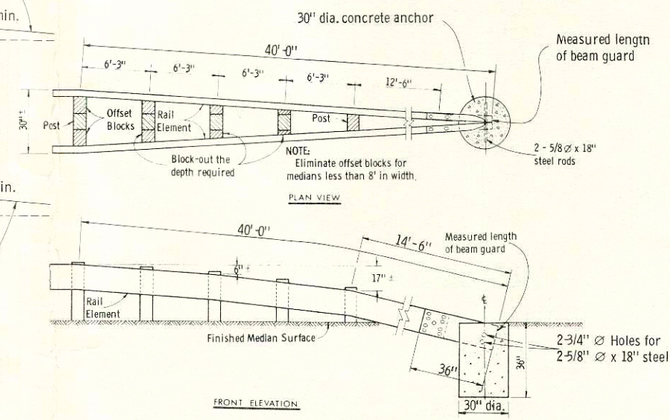
ALTERNATE ANCHORS
Square anchors will be permitted. Square anchors shall be a minimum of 24 inches x 24 inches.

SHOULDER WIDENING
The shoulder widening to accommodate the anchored end of the Guardrail shall be accomplished at a rate of widening not to exceed 50 to 1.



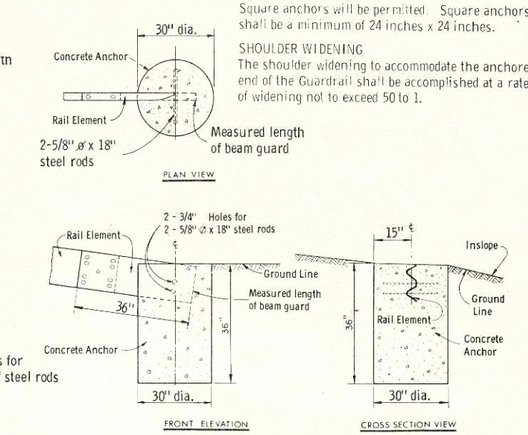
TYPICAL INSTALLATION AT STRUCTURES

For structures constructed with notch to receive beam guard. See General Notes for structures without notch.

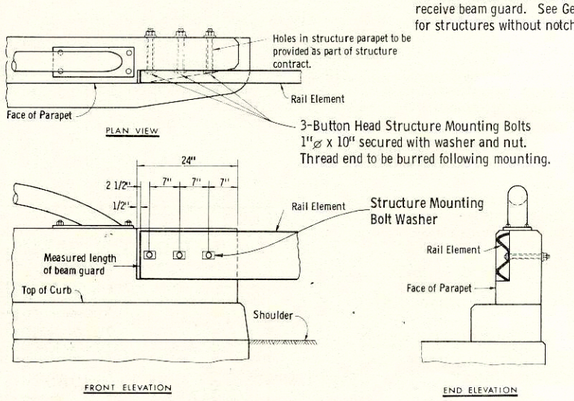


NOTE: Eliminate offset blocks for medians less than 8' in width.

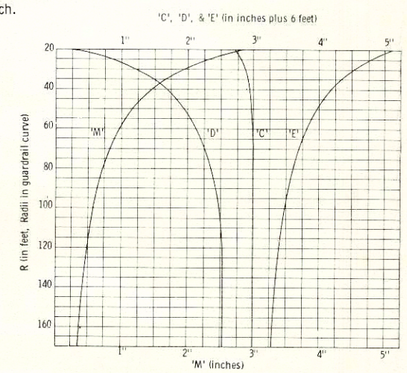
ANCHOR DETAIL FOR DOUBLE RAIL ELEMENT INSTALLATION



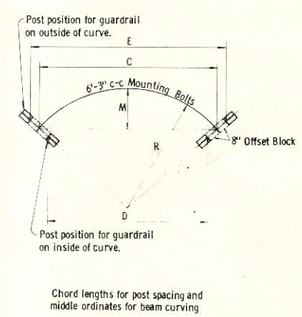
ANCHOR DETAIL FOR SINGLE RAIL ELEMENT INSTALLATION



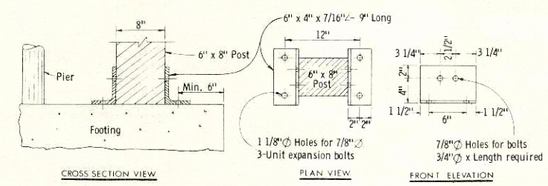
STRUCTURE MOUNTING DETAIL



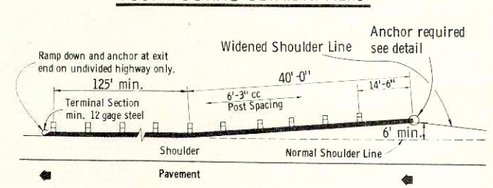
CURVE DATA FOR POST SPACING AND BEAM CURVING



Chord lengths for post spacing and middle ordinates for beam curving



POST - FOOTING DETAIL AT PIERS



TYPICAL INSTALLATION AT LOCATIONS OTHER THAN STRUCTURES

STEEL PLATE BEAM GUARD & STEEL PLATE BEAM MEDIAN GUARD

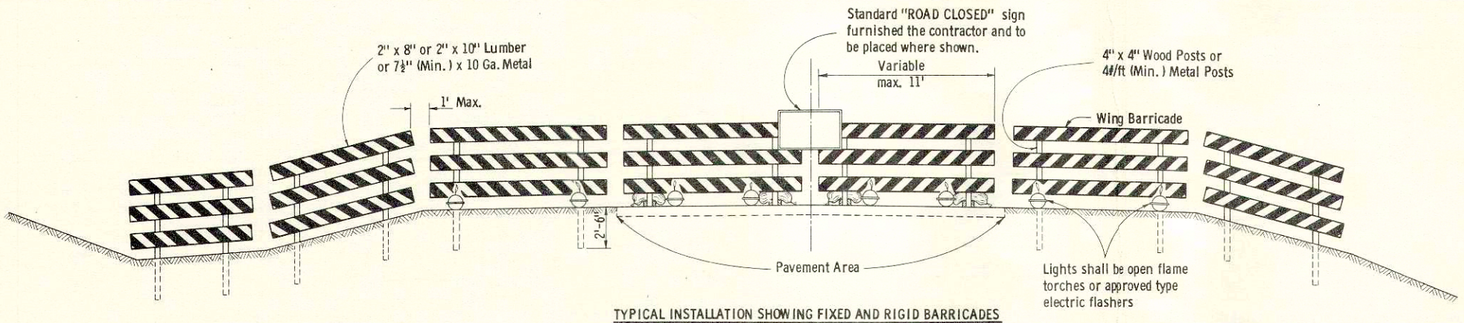
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL:
1/25/68 DATE — E. J. Bykit CHIEF DESIGN ENGINEER
APPROVED: 2/8/68 DATE — K. A. Sumnicht STATE HIGHWAY ENGINEER

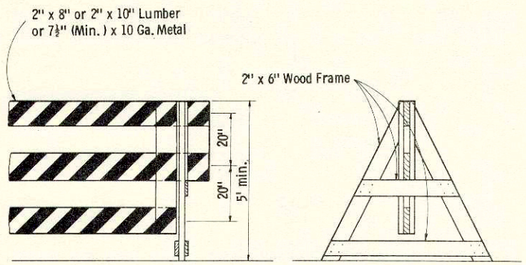
Plate No. 7-2.4.13

Plate No. 7-2.4.13

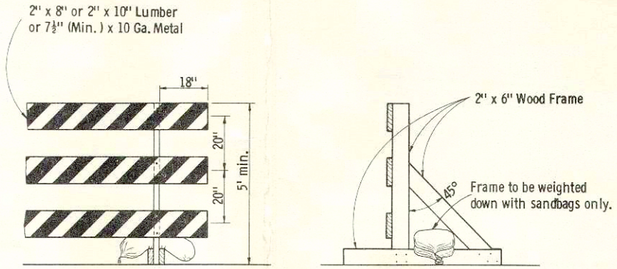
7.3-35



TYPICAL INSTALLATION SHOWING FIXED AND RIGID BARRICADES

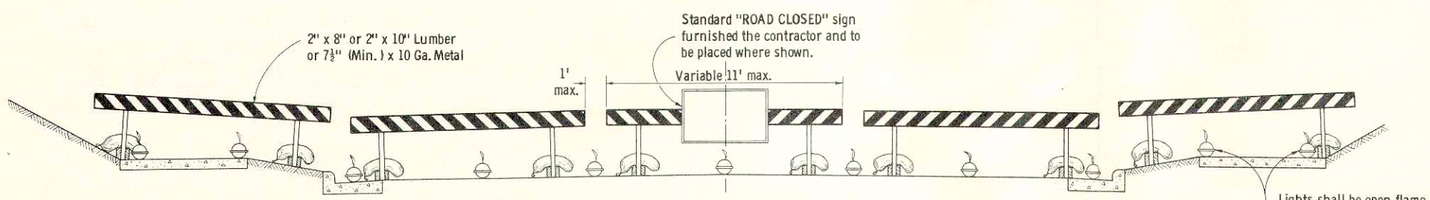


ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

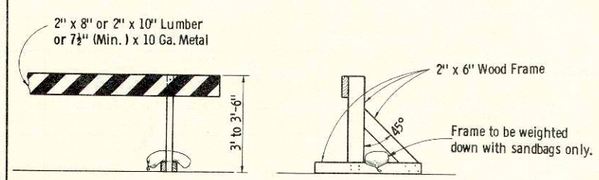


ALTERNATE TYPE INSTALLATION (RIGID)

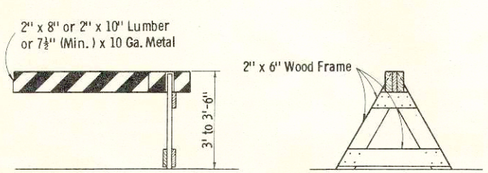
CLASS I BARRICADES



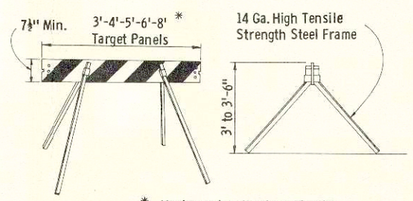
TYPICAL INSTALLATION SHOWING RIGID BARRICADES



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)



* Maximum length of combination panels 16'

ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS II BARRICADES

GENERAL NOTES

The contractor shall construct, place and maintain barricades as shown on the drawing and as required by the Standard Specifications or applicable Special Provisions.

CLASS 1 BARRICADE:

Class 1 Barricades shall be of variable length as indicated, and long barricades shall be assembled from these units. The Class 1 Barricade is the type normally required for major operations, where the barricade will remain in place for extended periods. Class 1 Barricades shall be used at points where the road is closed to traffic. Gates or movable sections of a barricade shall be provided when necessary, for access of equipment or other authorized vehicles.
Wing Barricades are Class 1 Barricades erected on the shoulder on one or both sides of the pavement to give Traffic the perceptive effect of a narrowing or restricted roadway. The ends closest to traffic of all three members of a wing barricade shall be in a vertical line. If used in a series, they should start at the outer edge of the shoulder and be brought progressively closer to the pavement. Wing Barricades may be used as a mounting for the advance warning or guide signs or for flashers. When used on two-way roadways, the back of the wing barricade shall be painted reflectorized white.

CLASS 11 BARRICADE:

Class 11 Barricades may be used only where the hazard to traffic is relatively small, and for the more or less continuous delimiting of a restricted roadway, or for temporary daytime use.

MATERIAL & FABRICATION:

Lumber shall be of a grade structurally sound and sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility.
Metal shall be sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility.
The fabrication of the barricade shall be in accord with good pertinent woodworking and metalworking practices.
All lumber or timber dimensions stated are nominal.

PAINTING:

All barricades shall be painted in alternate 4" or 6" black and white stripes at a 45° angle. The width of stripe shall be consistent for each complete barricade installation.
Black stripes shall be painted with weather resistant and durable black paint. White stripes shall be primed, followed by two coats of white reflectorized paint or reflective wide angle sheeting.

DIRECTION OF DIAGONAL STRIPES:

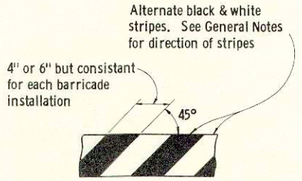
Where a barricade extends entirely across the roadway with no vehicle access provision, the stripes shall slope downward toward the highway centerline.
Where vehicle access is permitted, the stripes shall slope downward in the direction toward which vehicles must turn in detouring.
Where both right and left turns are provided for, the stripes shall slope downward in both directions from the center.
The stripes on wing barricades shall point downward toward the roadway.

LIGHTING:

Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

MEASUREMENT & PAYMENT:

All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.



TYPICAL DIAGONAL STRIPES

Applies to all Classes & Types of Barricades

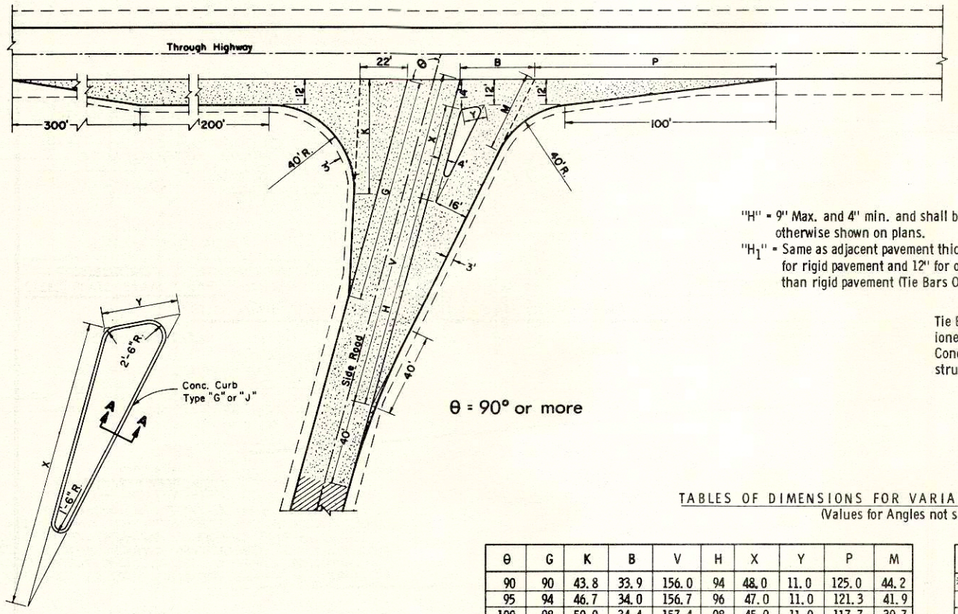
CONSTRUCTION BARRICADE

State Highway Commission of Wisconsin

RECOMMENDED FOR APPROVAL:
1/11/67 — DATE — E. J. Bydalek, CHIEF DESIGN ENGINEER
APPROVED:
1/13/67 — DATE — W. J. Burmeister, STATE HIGHWAY ENGINEER

Plate No. 7-4.1.5

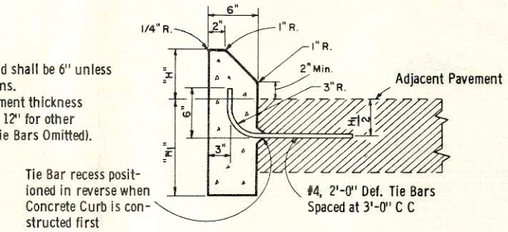
74-35



θ = 90° or more

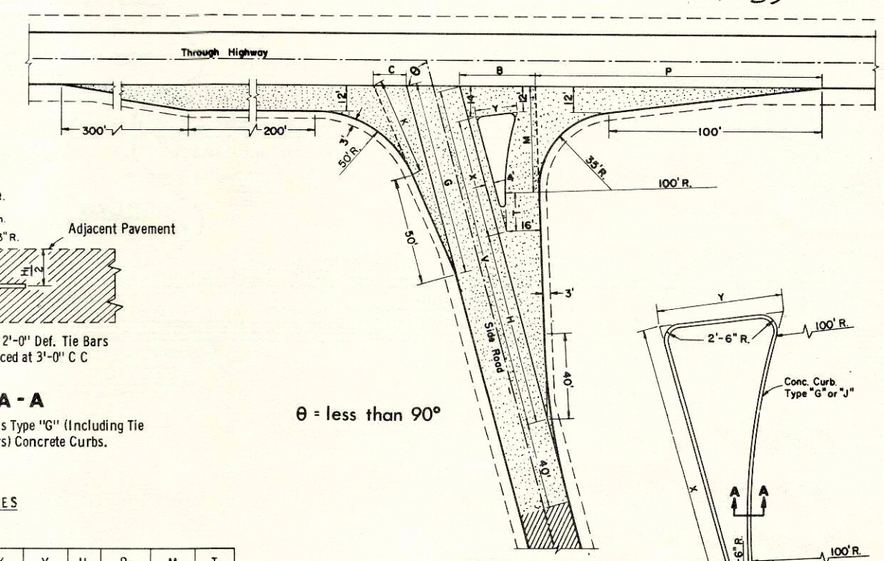
"H" = 9" Max. and 4" min. and shall be 6" unless otherwise shown on plans.

"H_1" = Same as adjacent pavement thickness for rigid pavement and 12" for other than rigid pavement (Tie Bars Omitted).

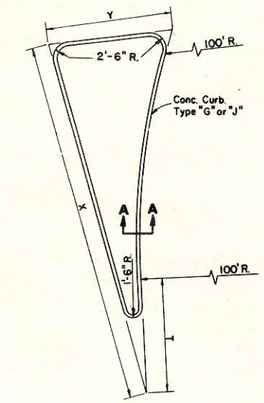


SECTION A-A

Note: To be measured and paid for as Type "G" (Including Tie Bars) or Type "J" (Excluding Tie Bars) Concrete Curbs.



θ = less than 90°



TABLES OF DIMENSIONS FOR VARIABLE SIDE ROAD INTERSECTION ANGLES

(Values for Angles not shown shall be interpolated)

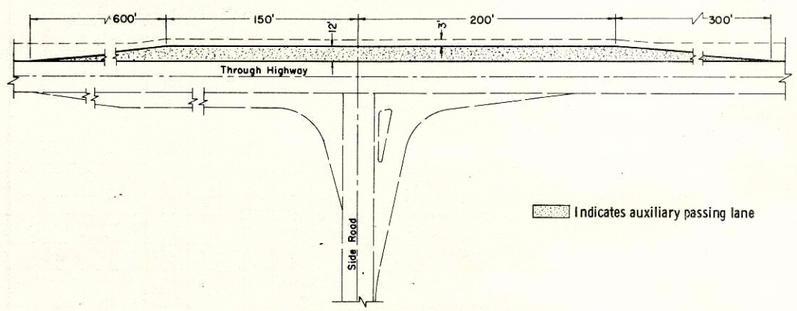
θ	G	K	B	V	H	X	Y	P	M
90	90	43.8	33.9	156.0	94	48.0	11.0	125.0	44.2
95	94	46.7	34.0	156.7	96	47.0	11.0	121.3	41.9
100	98	50.0	34.4	157.4	98	45.9	11.0	117.7	39.7
105	102	53.8	35.2	158.3	100	44.9	11.2	114.2	37.8
110	106	58.2	36.4	159.2	102	43.7	11.4	110.6	36.2
115	110	63.4	38.4	161.8	104	42.6	11.7	107.1	34.8
*120	114	69.4	40.1	161.2	106	41.4	12.2	103.4	33.7

*Maximum angle of intersection

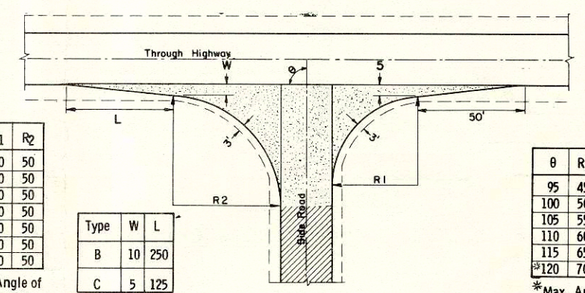
θ	C	G	K	B	V	X	Y	H	P	M	T
*60	19.7	76.3	38.6	41.5	169.9	67.4	29.3	84	144.5	58.8	21.6
65	17.8	82.6	40.6	39.4	166.9	63.6	25.0	86	141.2	54.9	20.7
70	15.8	87.2	43.1	37.4	164.1	59.7	21.9	88	136.8	51.4	19.2
75	15.7	90.9	45.6	35.7	161.4	55.9	19.3	90	132.7	48.2	17.4
80	15.9	94.9	48.3	34.4	158.9	51.9	17.0	92	128.8	45.3	14.9
85	16.2	99.3	51.4	33.4	156.4	48.0	15.0	94	125.2	42.7	10.4

*Desirable Minimum angle of intersection

TYPE "A" SIDE ROAD INTERSECTION DETAILS



PASSING LANE DETAIL



θ	R_1	R_2
*60	40	50
65	40	50
70	40	50
75	40	50
80	40	50
85	40	50
90	40	50

*Min. Angle of Intersection

Type	W	L
B	10	250
C	5	125

θ	R_1	R_2
95	45	49
100	50	48
105	55	47
110	60	46
115	65	45
*120	70	44

*Max. Angle of Intersection

TYPE "B" & "C" SIDE ROAD INTERSECTION DETAILS

GENERAL NOTES

Designs may be used interchangeably in combination or separately for any one complete intersection depending upon intersection angle and surfacing of each approach roadway.

Details on this drawing are for minimum design only, and not applicable to special conditions, as shown elsewhere on the plans.

SIDE ROAD SURFACING NOTE

If the side road is not presently paved, pavement shall be placed to the limits shown. In the case where the construction limits are beyond the paving limits, gravel or crushed stone surfacing shall be placed between the paving limits and construction limits.

If the side road is presently paved, new pavement shall be placed to the limits of design as shown and beyond, if necessary, to meet existing pavement.

If side road is the construction project, the intersection surfacing shall be the same as for the project.

New Pavement

Existing Surface

LAYOUT DETAILS FOR AT-GRADE SIDE ROAD INTERSECTIONS

State Highway Commission of Wisconsin

RECOMMENDED FOR APPROVAL: 8/9/67 DATE — E. J. Bechtel CHIEF DESIGN ENGINEER

APPROVED: 8/9/67 DATE — STATE HIGHWAY ENGINEER

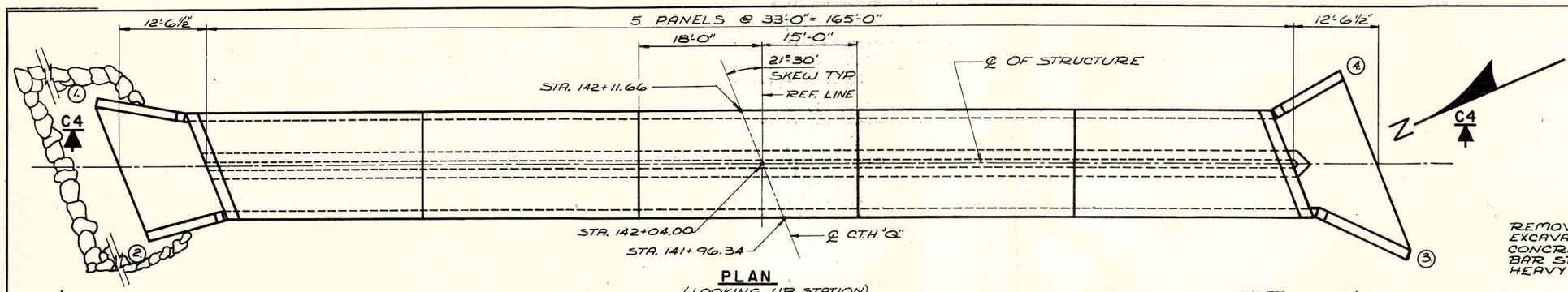
Plate No. 9-1.1.5

Plate No. 9-1.1.5

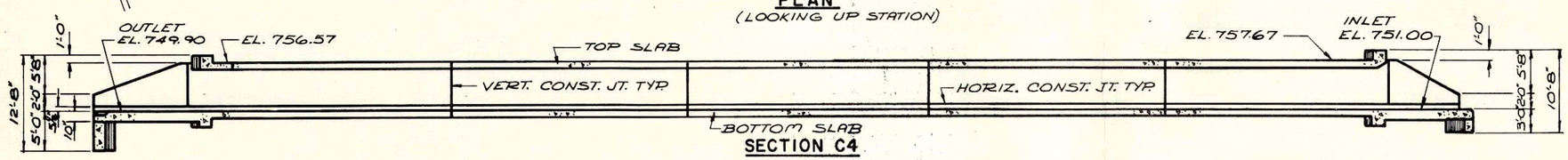
Form E-8-11-67

County & Highway	Route & Section	Class & Agreement State	Class & Agreement Federal	B.R.R. Division	Project	Sheet No.	Total Sheets
32.6	1459.0		11.3	4	S1459(3)	8	35

7324-1-70



PLAN
(LOOKING UP STATION)



SECTION C4

LIST OF DRAWINGS

1. DETAILS — X39945
2. DETAILS — X39946
3. DETAILS — X39947

TOTAL ESTIMATED QUANTITIES

BID ITEMS

REMOVING OLD BRIDGE	1 L.S.
EXCAVATION FOR STRUCTURE	825 C.Y.
CONCRETE MASONRY	239.0 C.Y.
BAR STEEL REINFORCEMENT	33,670 LBS.
HEAVY RIPRAP	80 C.Y.

NON-BID ITEMS

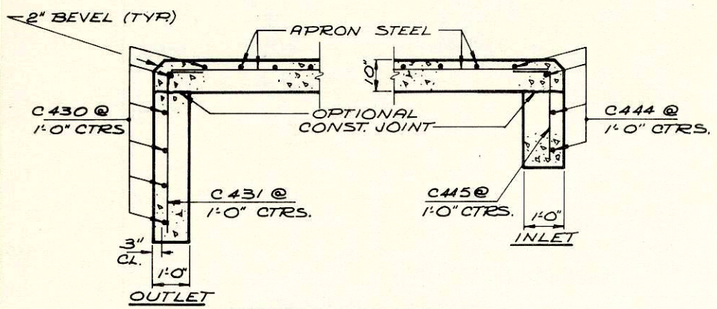
FILLER	3/4" SIZE
POLYVINYL CHLORIDE WATERSTOP	27 L.F.

DESIGN DATA

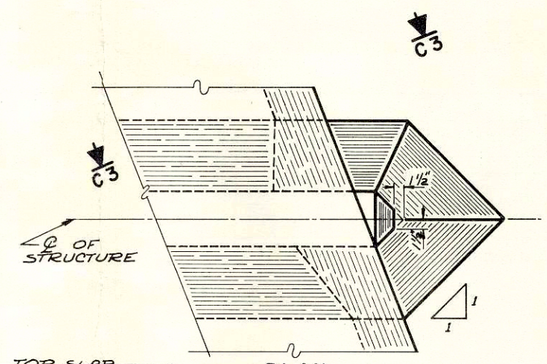
LIVELOAD- H-20
EARTHLOAD- DESIGNED FOR 24'-0" OF FILL.
ALLOWABLE DESIGN STRESSES:
CONCRETE MASONRY, GRADE "AA" — fc. 1400 P.S.I.
BAR STEEL REINFORCEMENT — fs. 20,000 P.S.I.

GENERAL NOTES

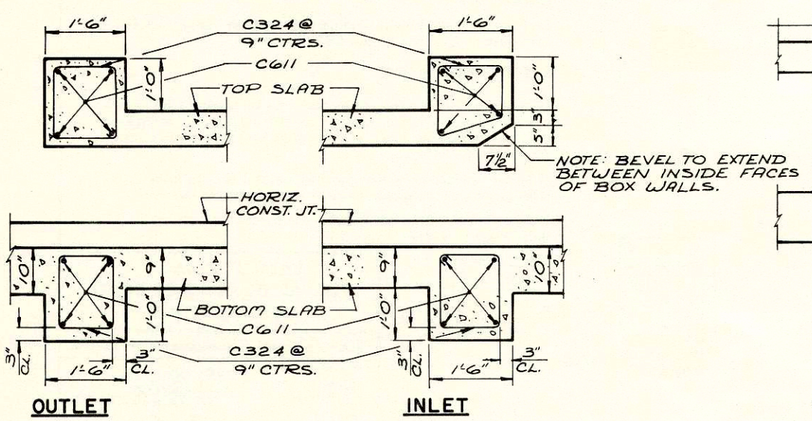
DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
THE EXISTING GROUND LINE WAS USED AS THE UPPER LIMITS FOR COMPUTATION OF EXCAVATION FOR STRUCTURES QUANTITIES.



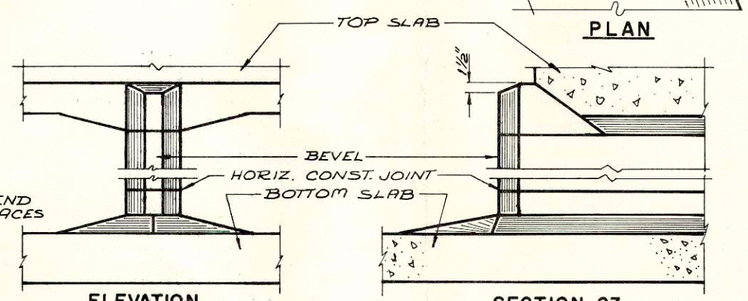
CUT OFF WALL DETAILS



PLAN



HEADER DETAILS



ELEVATION

SECTION C3

INLET NOSE CENTERWALL DETAILS

BENCH MARKS

No.	STATION	DESCRIPTION	ELEV.
6	142+60	KIEL MARK TOP WING S.E. CORNER BRIDGE 75' LT.	763.48

HYDRAULIC DATA

Q 25 — 850 C.F.S.
V — 12.5 F.P.S.

LAYOUT

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE C-32-30

C.T.H. "Q" OVER BOX CULVERT

County LA CROSSE — City Village TN. FARMINGTON
Design Spec. A.A.S.H.O. 1965 — Load H-20 — Const. Spec. 1969
Designed By IBM — Design Checked IBM — Drawn By FLC — Plans Checked A.G.
Approved W. A. Kline — Chief Bridge Engineer — Date 3-5-69

DETAILS

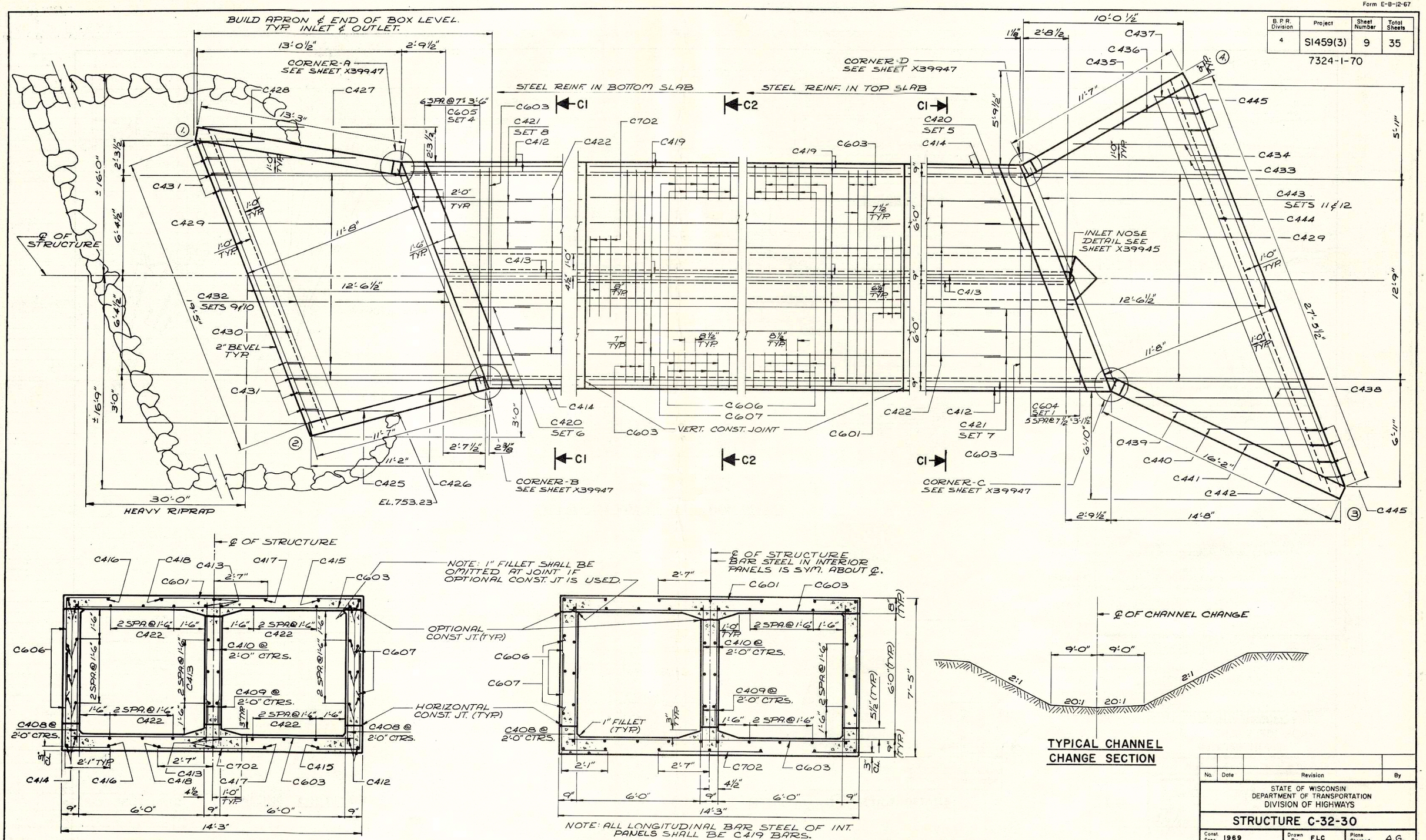
SHEET 1 OF 3

X39945

Form E-B-12-67

B.P.R. Division	Project	Sheet Number	Total Sheets
4	S1459(3)	9	35

7324-1-70



No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE C-32-30

Const. Spec.	Drawn By	Plans Checked
1969	FLC	A.G.

DETAILS

SHEET 2 OF 3

X39946

Form E-8-12-67

7324-1-70

B.P.R. Division	Project	Sheet Number	Total Sheets
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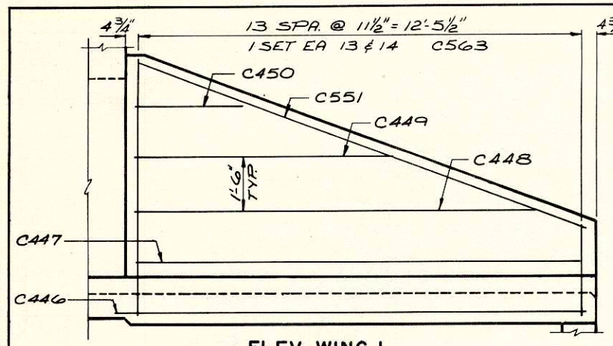
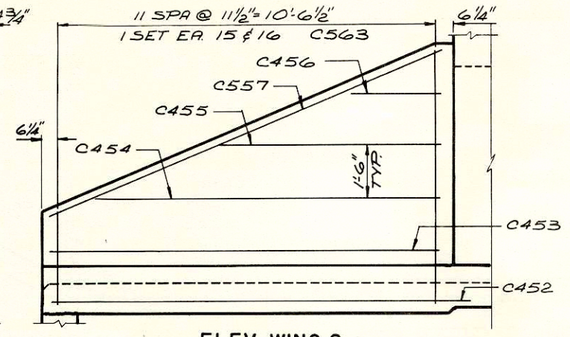


ELEV. WING 1



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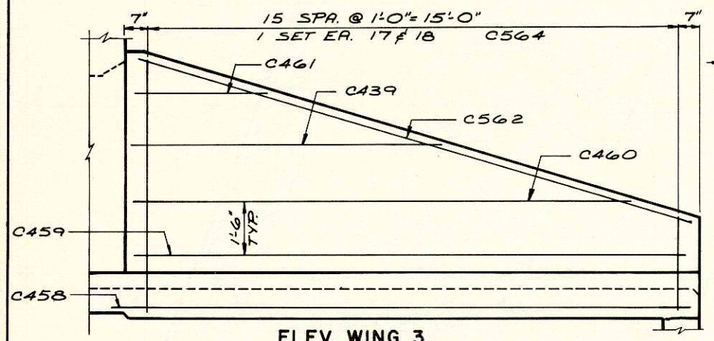

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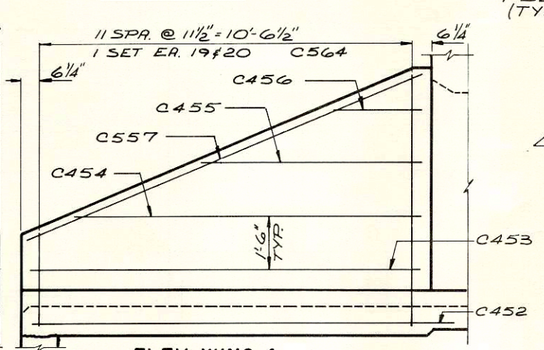
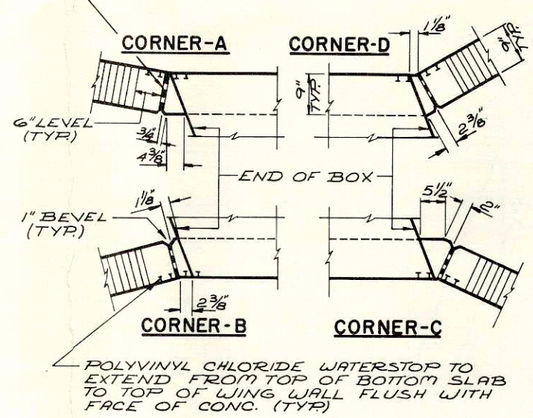


ELEV. WING 4



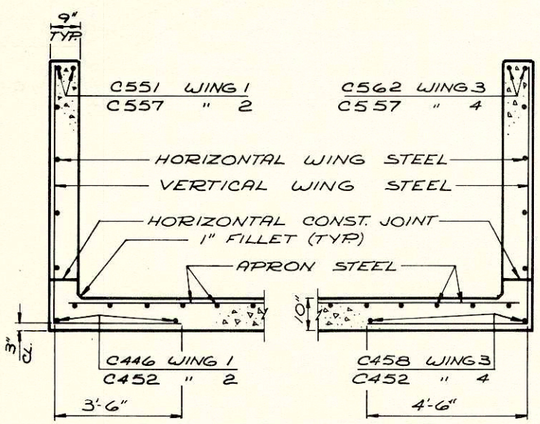
BILL OF BARS

MARK	No. REQ'D	LENGTH	BEND	CUT. DIA.	LOCATION
C601	305	5-2			BOX-TOP SLAB TRANS.
C702	248	5-2			" -BOT. " "
C603	530	13-6			" - " & TOP SLAB "
C604	6	14-8		X	" - TOP SLAB END PANEL " SET 1&2
C605	7	14-4		X	" - BOT. " " " " " 3&4
C606	468	6-5	X		" - CORNERS
C607	464	4-0	X		" "
C408	166	6-9			" - EXT. WALLS VERT.
C409	166	2-0			" - INT. WALL DOWELS "
C410	166	5-10			" " " "
C611	16	14-10			" - HEADERS TRANS.
C412	40	18-2			" - EXT. WALL END PANEL LONGIT.
C413	48	16-9			" - INT. " " " "
C414	20	29-9			" - EXT. WALL " " "
C415	8	17-10			" - TOP & BOT. SLAB " " "
C416	8	15-9			" " " " " " "
C417	8	17-4			" " " " " " "
C418	8	16-3			" " " " " " "
C419	312	16-10			" - WALLS, TOP & BOT. SLAB INT. PANELS
C420	6	7-3		X	" - TOP & BOT. SLAB END PANEL SET 5&6
C421	6	12-6		X	" " " " " " " 7&8
C422	24	28-9			" " " " " "
C523	184	4-0			" - VERT. CONST. JOINT
C324	80	5-8			" - HEADER STIRRUPS (BEND IN FIELD)
C425	1	5-9			APRON - OUTLET
C426	1	10-0			" "
C427	1	9-3			" "
C428	1	4-0			" "
C429	28	14-6			" " & INLET
C430	6	19-9			" " CUT OFF WALL
C431	18	5-6	X		" " & " " "
C432	5	34-0		X	" " SET 9&10
C433	1	10-9			" - INLET
C434	1	8-6			" "
C435	1	6-6			" "
C436	1	4-3			" "
C437	1	2-3			" "
C438	1	10-6			" "
C439	2	8-9			" " & WING 3
C440	1	7-0			" "
C441	1	5-3			" "
C442	1	3-6			" "
C443	5	41-3		X	" " SET 11&12
C444	4	27-3			" " & CUT OFF WALL
C445	25	3-6	X		" " " " "
C446	2	13-3			WING 1 @ APRON
C447	1	12-6			" " HORIZ.
C448	1	11-3			" " "
C449	1	7-3			" " "
C450	1	3-0			" " "
C551	2	13-6			" " TOP
C452	4	11-9			" 2&4 @ APRON
C453	2	11-0			" " " HORIZ.
C454	2	9-9			" " " "
C455	2	6-3			" " " "
C456	2	2-6			" " " "
C557	4	12-0			" " " TOP
C458	2	16-3			" 3 @ APRON
C459	1	15-6			" " HORIZ.
C460	1	14-0			" " "
C461	1	3-9			" " "
C562	2	16-3			" " TOP
C563	13	16-3	X	X	" 1&2 SETS 13, 14, 15 & 16 VERT.
C564	14	18-3	X	X	" 3&4 " 17, 18, 19 & 20 "

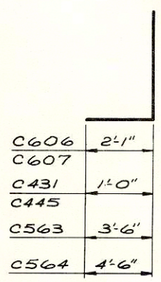
CUTTING DIAGRAM

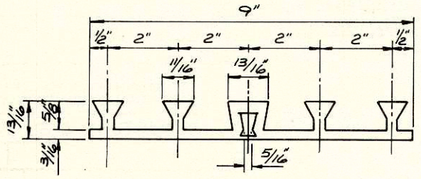
"H" IS No. OF BARS REQ'D. BEFORE CUTTING.

MARK	SET No.	C	D	E	F	G	H	SETS REQ'D
C604	SET 1	3-4		14-8		11-4	6	1 SET 1
	" 2		11-4		3-4			1 " 2
C605	" 3	2-9		14-4		11-7	7	1 " 3
	" 4		11-7		2-9			1 " 4
C420	" 5	3-0		7-3		4-3	3	2 " 5
	" 6		4-3		3-0			2 " 6
C421	" 7	5-8		12-6		6-10	3	2 " 7
	" 8		6-10		5-8			2 " 8
C432	" 9	17-0		34-0		19-3	5	1 " 9
	" 10		17-0		14-9			1 " 10
C443	" 11	20-6		41-3		26-3	5	1 " 11
	" 12		20-9		15-0			1 " 12
C563	" 13	8-3		16-3		10-6	7	1 " 13
	" 14		8-0		5-9			1 " 14
	" 15	8-3		16-3		10-6	6	1 " 15
	" 16		8-0		5-9			1 " 16
C564	" 17	9-3		18-3		11-6	8	1 " 17
	" 18		9-0		6-9			1 " 18
	" 19	9-3		18-3		11-6	6	1 " 19
	" 20		9-0		6-9			1 " 20

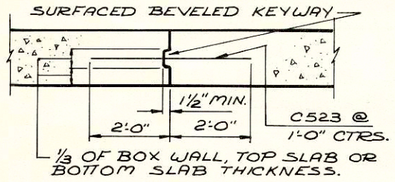


SECTION THRU WING WALLS

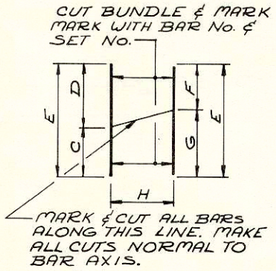




POLYVINYL CHLORIDE WATERSTOP DETAILS



VERTICAL CONST. JOINT



NOTE: BENT BARS IF USED IN THE CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.
ALL BENDING DIMENSIONS ARE OUT TO OUT OF BARS.
THE FIRST DIGIT OF A THREE DIGIT MARK SIGNIFIES THE BAR SIZE.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

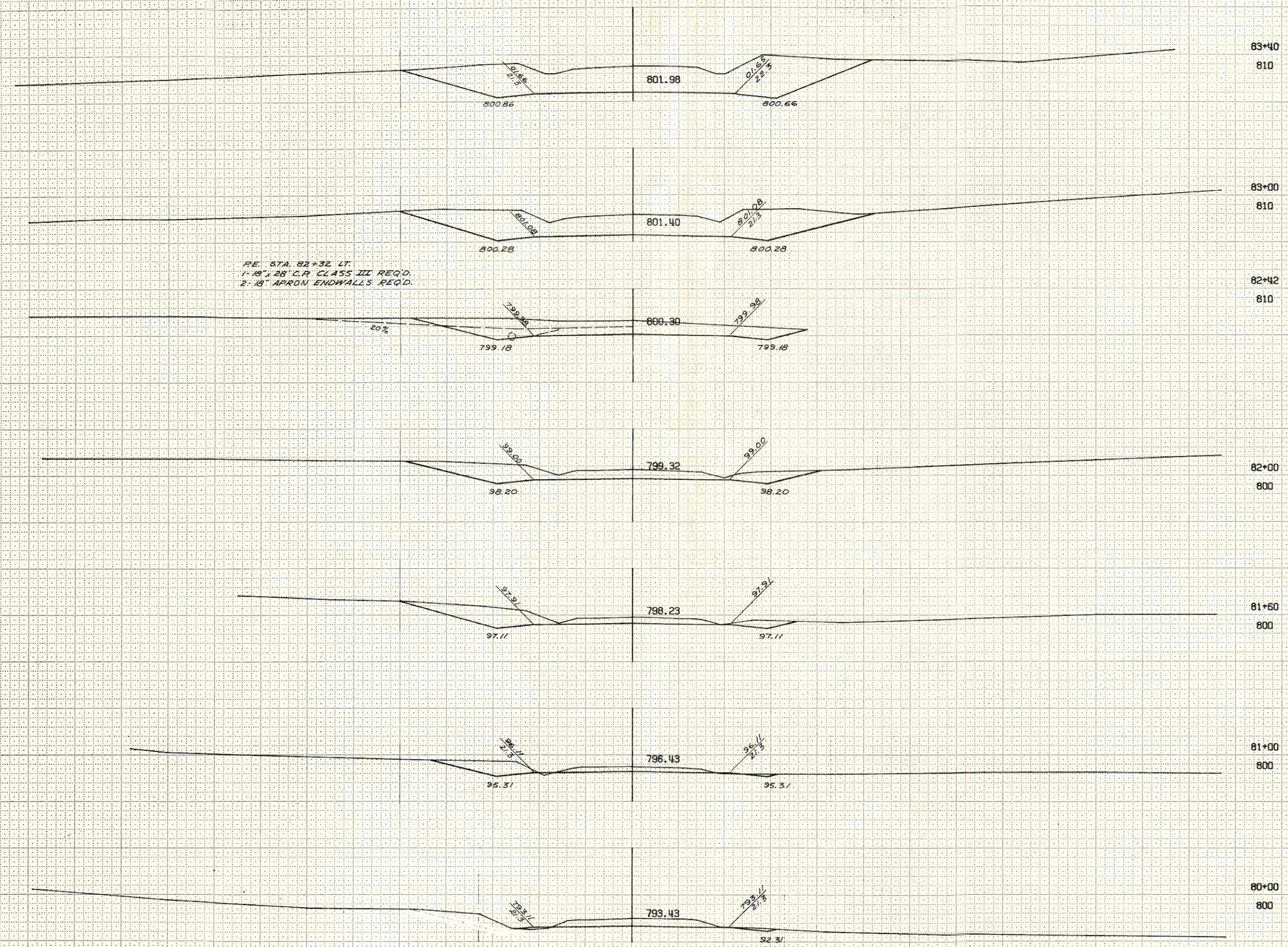
STRUCTURE C-32-30

Const. Spec. 1969 | Drawn By FLC | Plans Checked A.G.

DETAILS

SHEET 3 OF 3

X39947



BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 WIS	S.1459 (3)	11	35

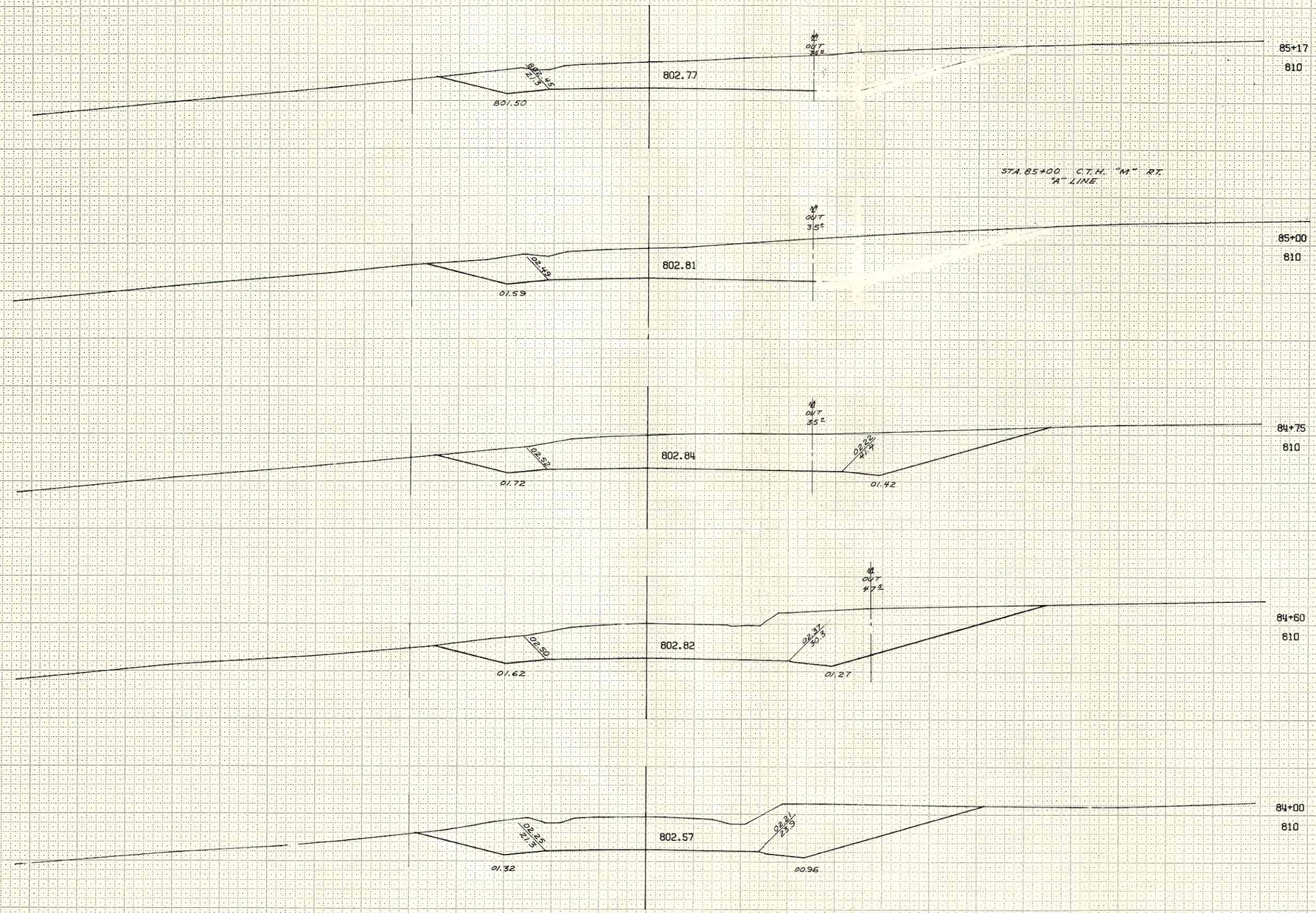
STATION	DISTANCE	YARDAGE EXCAVATION UNC.					FILL
83+40							
	40	683					0
83+00							
	58	681					0
82+42							
	42	307					0
82+00							
	40	227					0
81+60							
	60	231					2
81+00							
	100	222					9
80+00							

STA. 80+00 BEGINNING PROJ. S 1459 (3)

1 = 10 HOR
1 = 10 VER

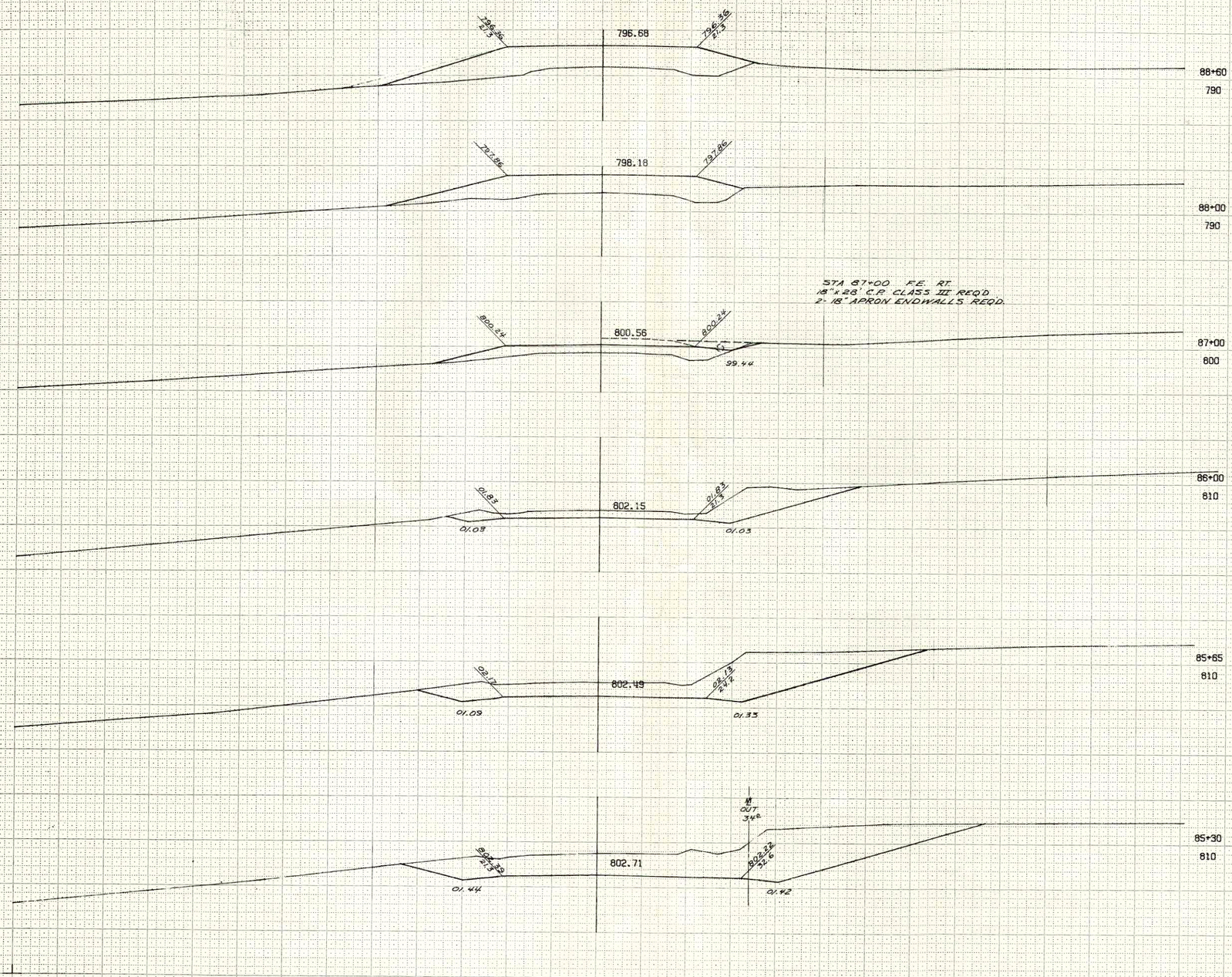
5006 1

BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEET
4 WIS	S1459 (3)	12	35



STATION	DISTANCE	YARDAGE EXCAVATION UNC					FILL
85+17							
	17	283					0
85+00							
	25	454					0
84+75							
	15	322					0
84+60							
	60	1552					0
84+00							
	60	1390					0
83+40							

1 = 10 HOR
1 = 10 VER
5006 2

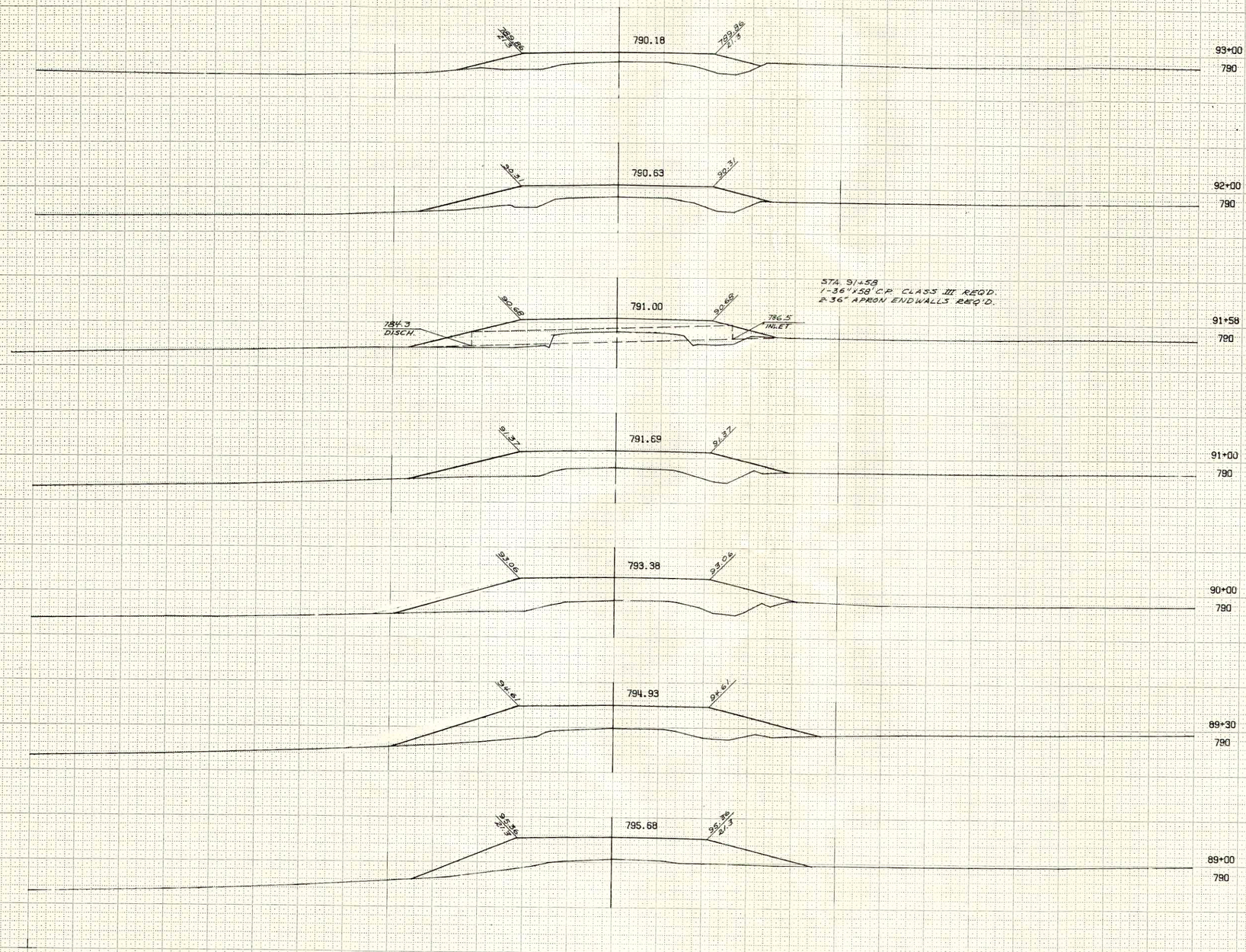


BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W/5	S1459 (3)	13	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC.				FILL
88+60						
	60	0				760
88+00						
	100	3				753
87+00						
	100	398				221
86+00						
	35	442				0
85+65						
	35	538				0
85+30						
	13	187				0
85+17						

1 = 10 HOR
1 = 10 VER

5006 3

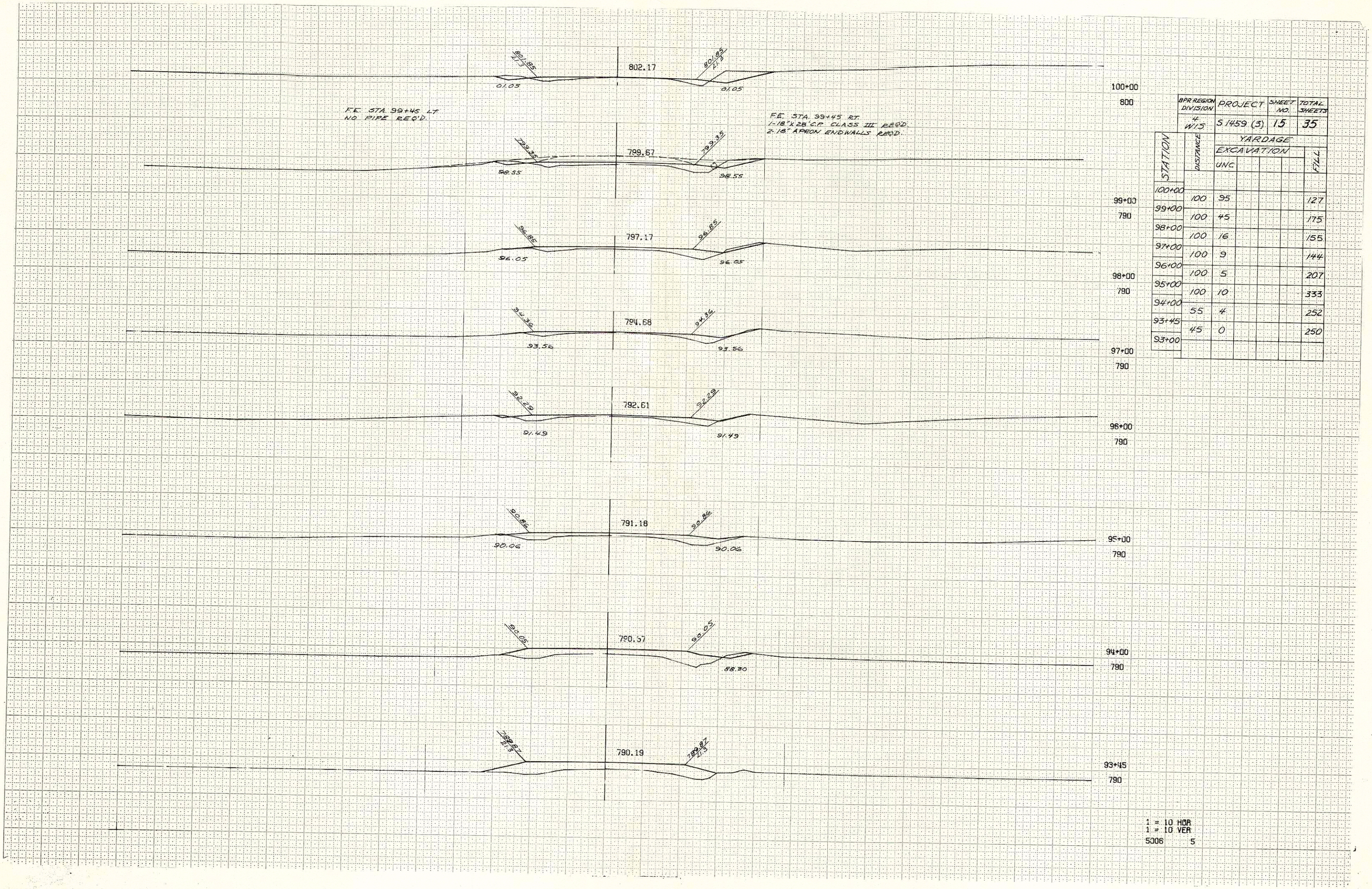


BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W15	S1459 (3)	14	45

STATION	DISTANCE	YARDAGE EXCAVATION UNC.				FILL
93+00						
	100	0				730
92+00						
	42	0				396
91+58						
	58	0				638
91+00						
	100	0				1393
90+00						
	70	0				1192
89+30						
	30	0				478
89+00						
	40	0				575
88+60						

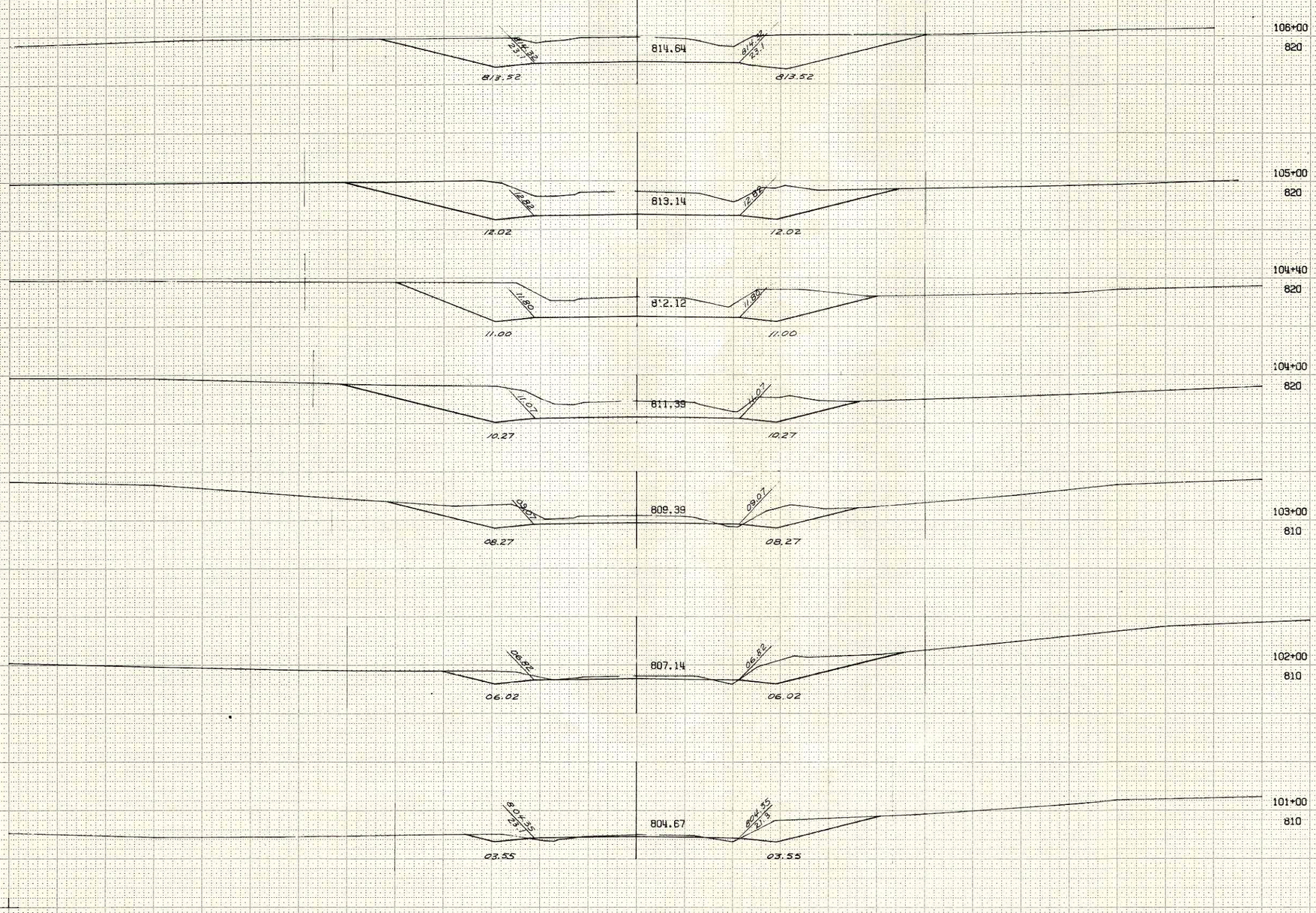
1 = 10 HOR
1 = 10 VER

5006 4



BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W15	S 1459 (3)	15	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC					FILL
100+00							
	100	95					127
99+00							
	100	45					175
98+00							
	100	16					155
97+00							
	100	9					144
96+00							
	100	5					207
95+00							
	100	10					333
94+00							
	55	4					252
93+45							
	45	0					250
93+00							

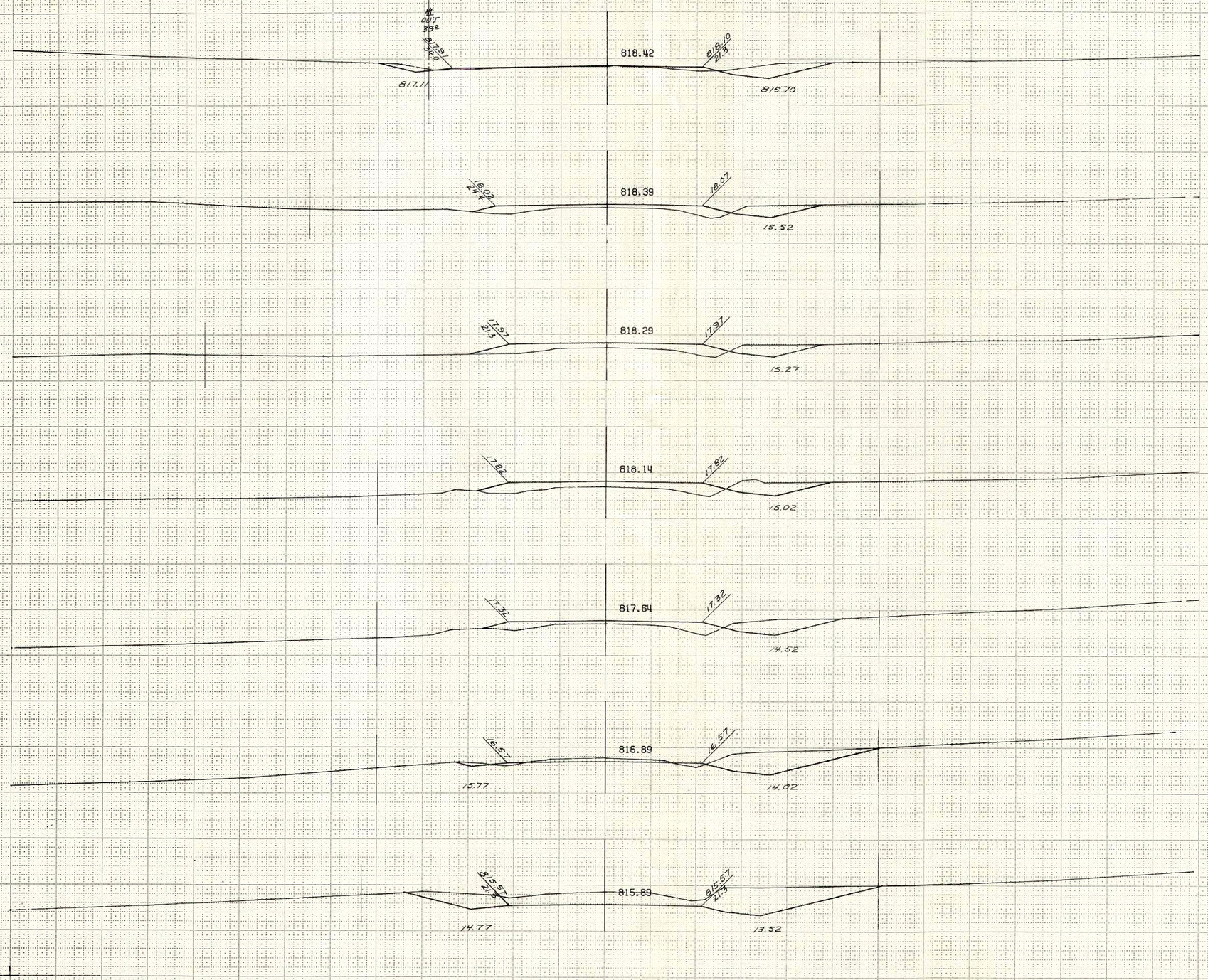


APR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W/S	S 1459(3)	16	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC.	FILL
106+00			
	100	1766	0
105+00			
	60	984	0
104+40			
	40	574	0
104+00			
	100	1017	3
103+00			
	100	592	8
102+00			
	100	412	17
101+00			
	100	220	56
100+00			

1 = 10 HOR
1 = 10 VER

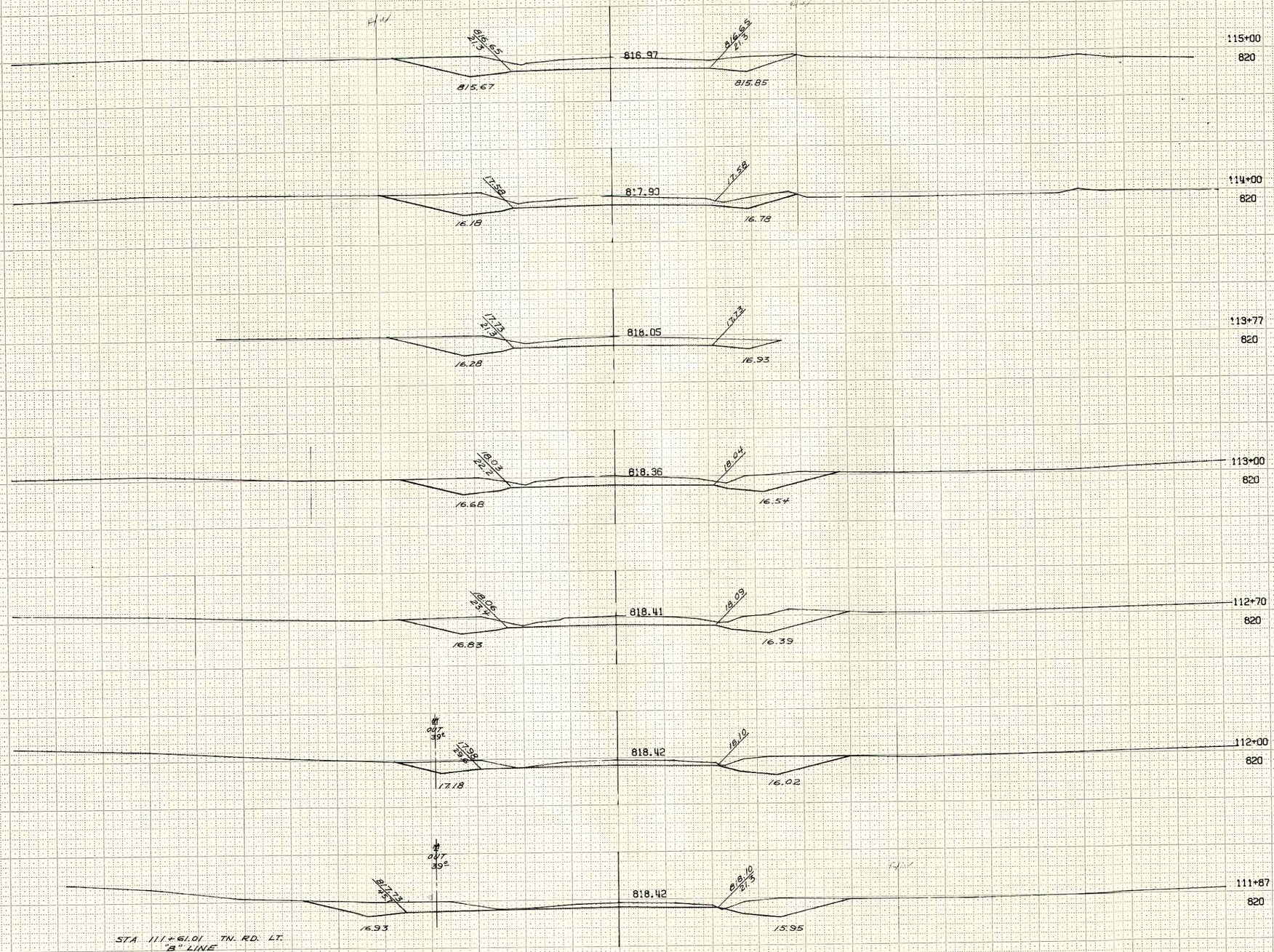
5006 6



BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 WIS	S 1459 (3)	17	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC.					FILL
111+35							
	35	46					51
111+00							
	50	57					134
110+50							
	50	68					155
110+00							
	100	174					263
109+00							
	100	337					117
108+00							
	100	784					12
107+00							
	100	1426					0
106+00							

1 = 10 HOR
1 = 10 VER
5006 7

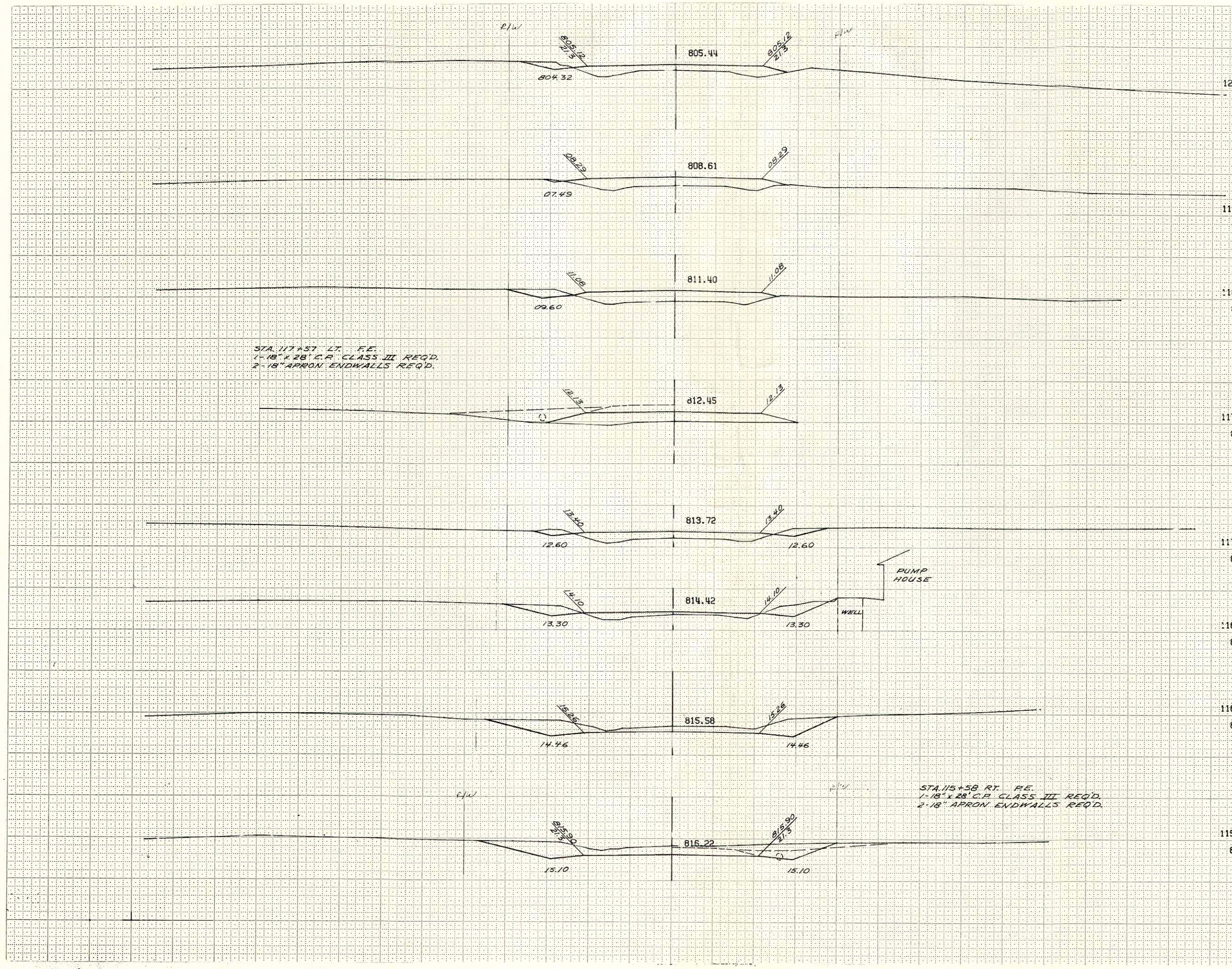


BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W15	S 1459(3)	18	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC.					FILL
115+00							
	100	676					0
114+00							
	23	141					0
113+77							
	77	476					0
113+00							
	30	204					0
112+70							
	70	406					0
112+00							
	13	57					0
111+87							
	52	150					15
111+35							

1 = 10 HOR
1 = 10 VER

5006 8

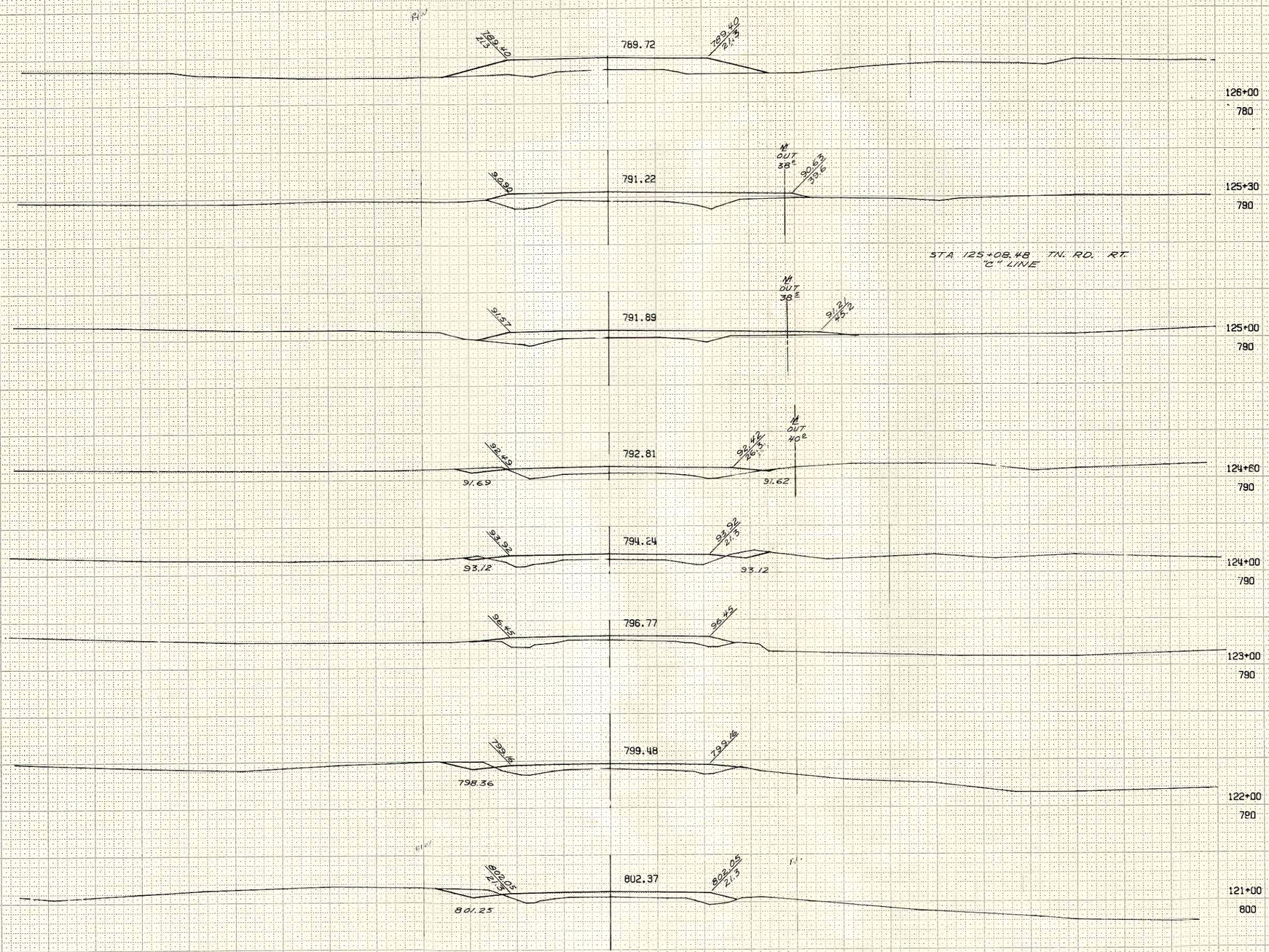


BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
# W1.5	S1459 (3)	19	35

STATION	DIVISION	YARDAGE EXCAVATION UNC.					FILL
120+00							
	100	23					362
119+00							
	100	36					423
118+00							
	43	15					192
117+57							
	57	24					214
117+00							
	35	50					76
116+65							
	65	248					47
116+00							
	42	273					0
115+58							
	58	420					0
115+00							

1 = 10 HOR
1 = 10 VER

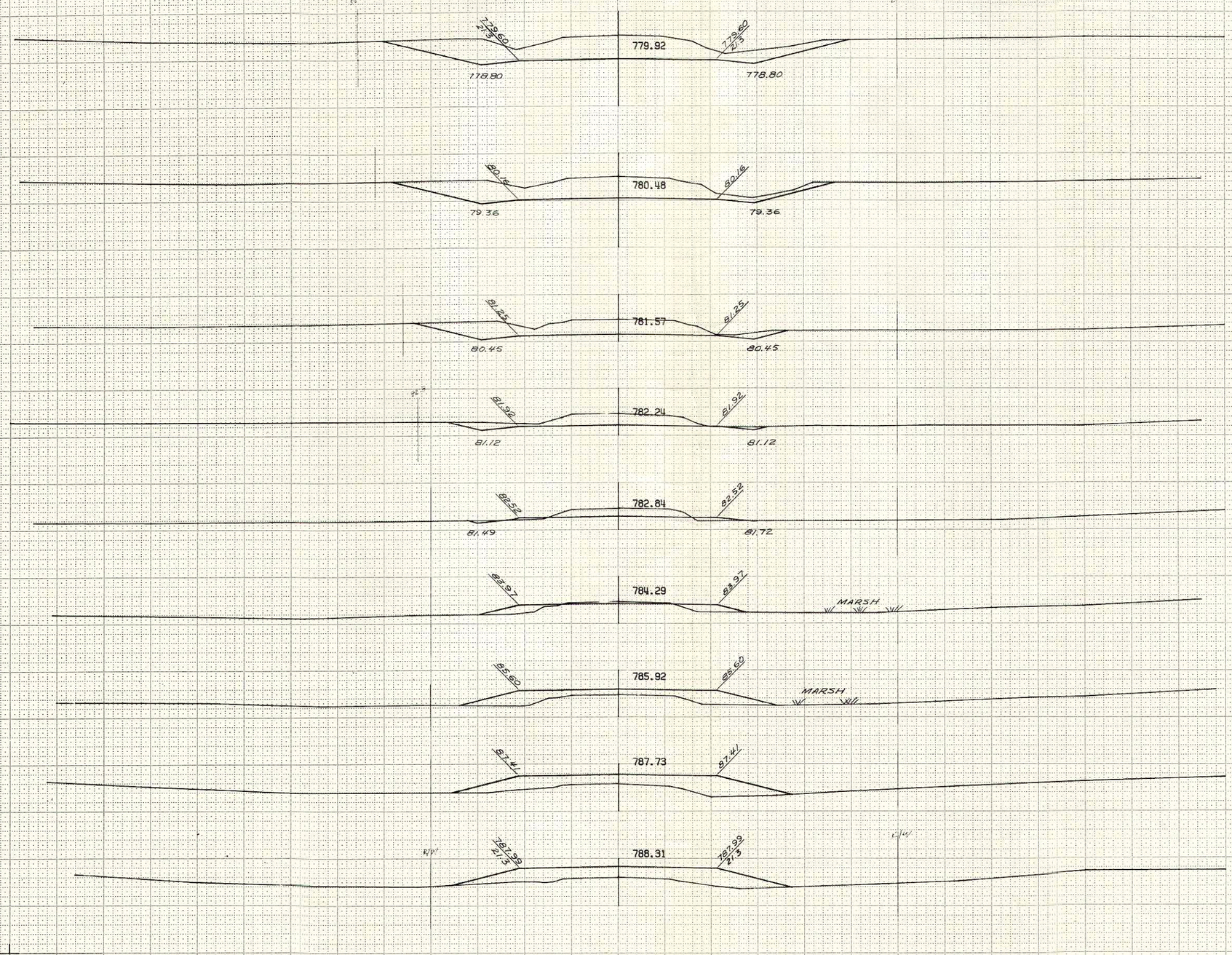
5006 9



BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W15	S 1459(3)	20	35

STATION	DIVISION	YARDAGE EXCAVATION UNC					FILL
126+00							
	70	0					383
125+30							
	30	0					76
125+00							
	40	5					141
124+60							
	60	19					167
124+00							
	100	19					248
123+00							
	100	20					244
122+00							
	100	47					244
121+00							
	100	48					272
120+00							

1 = 10 HOR
1 = 10 VER
5006 10

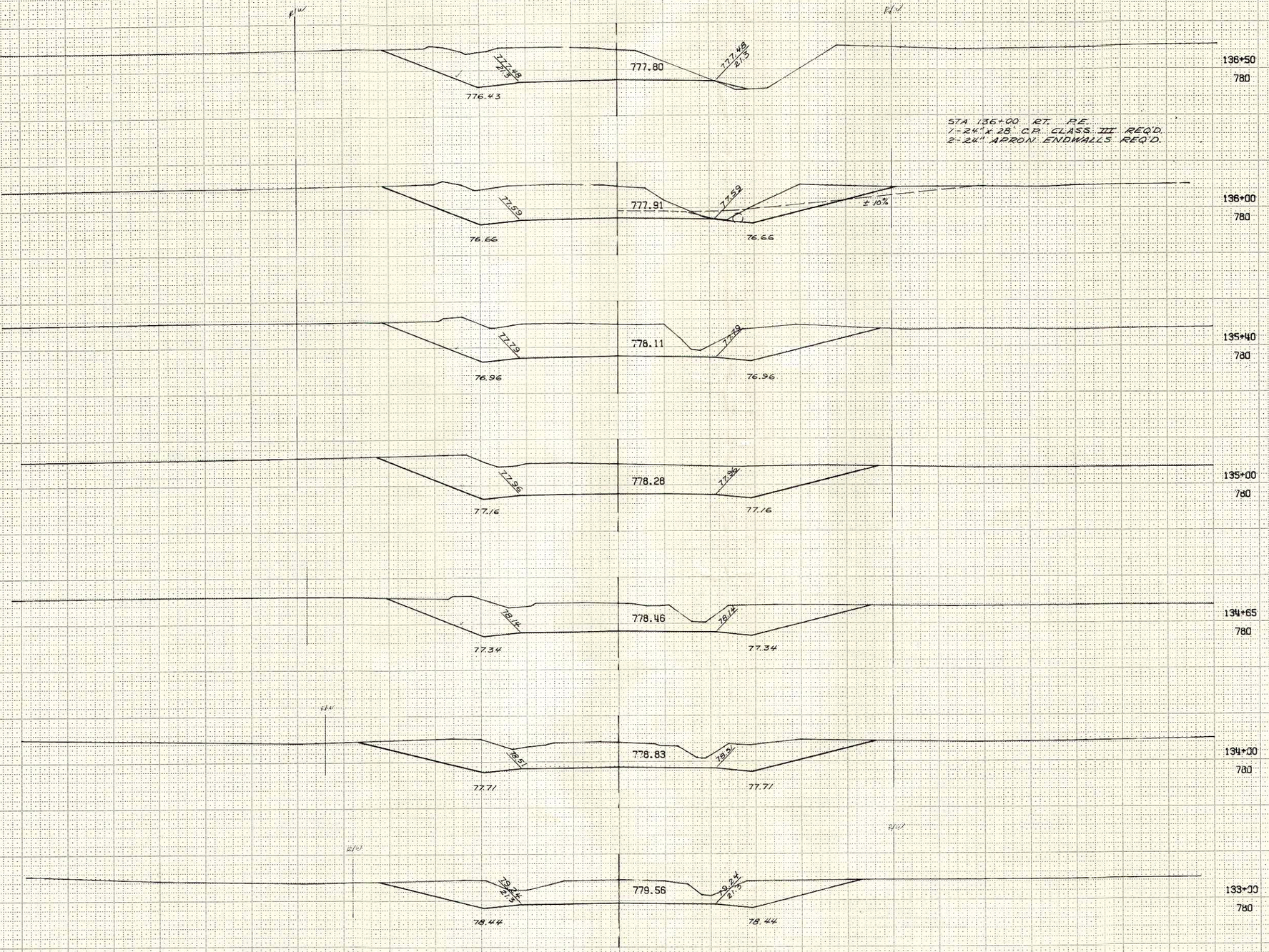


SPR. REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W/S	S.1459 (3)	21	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC	FILL
132+60			
	60	647	0
132+00			
	100	809	0
131+00			
	55	267	0
130+45			
	45	113	6
130+00			
	100	101	73
129+00			
	100	13	274
128+00			
	100	0	530
127+00			
	30	0	190
126+70			
	70	0	439
126+00			

1 = 10 HOR
1 = 10 VER

5006 11



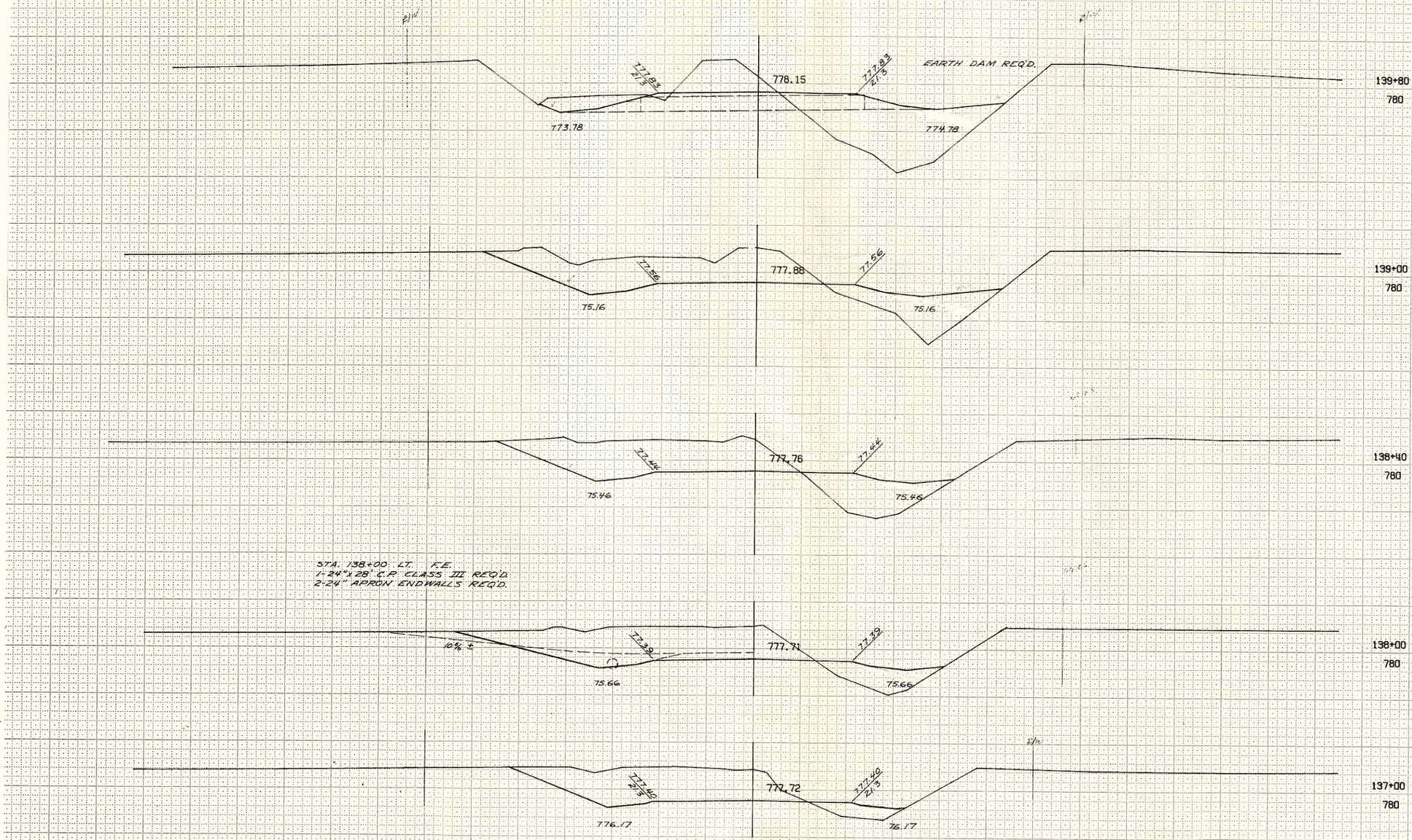
STA. 136+00 RT. R.E.
1-24" x 28' C.P. CLASS III REQ'D.
2-24" APRON ENDWALLS REQ'D.

BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W/S	S 1459 (3)	22	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC.	FILL
136+50			
	50	836	3
136+00			
	60	1212	0
135+40			
	40	864	0
135+00			
	35	705	0
134+65			
	65	1176	0
134+00			
	100	1606	0
133+00			
	40	523	0
132+60			

1 = 10 HOR
1 = 10 VER
5006 12

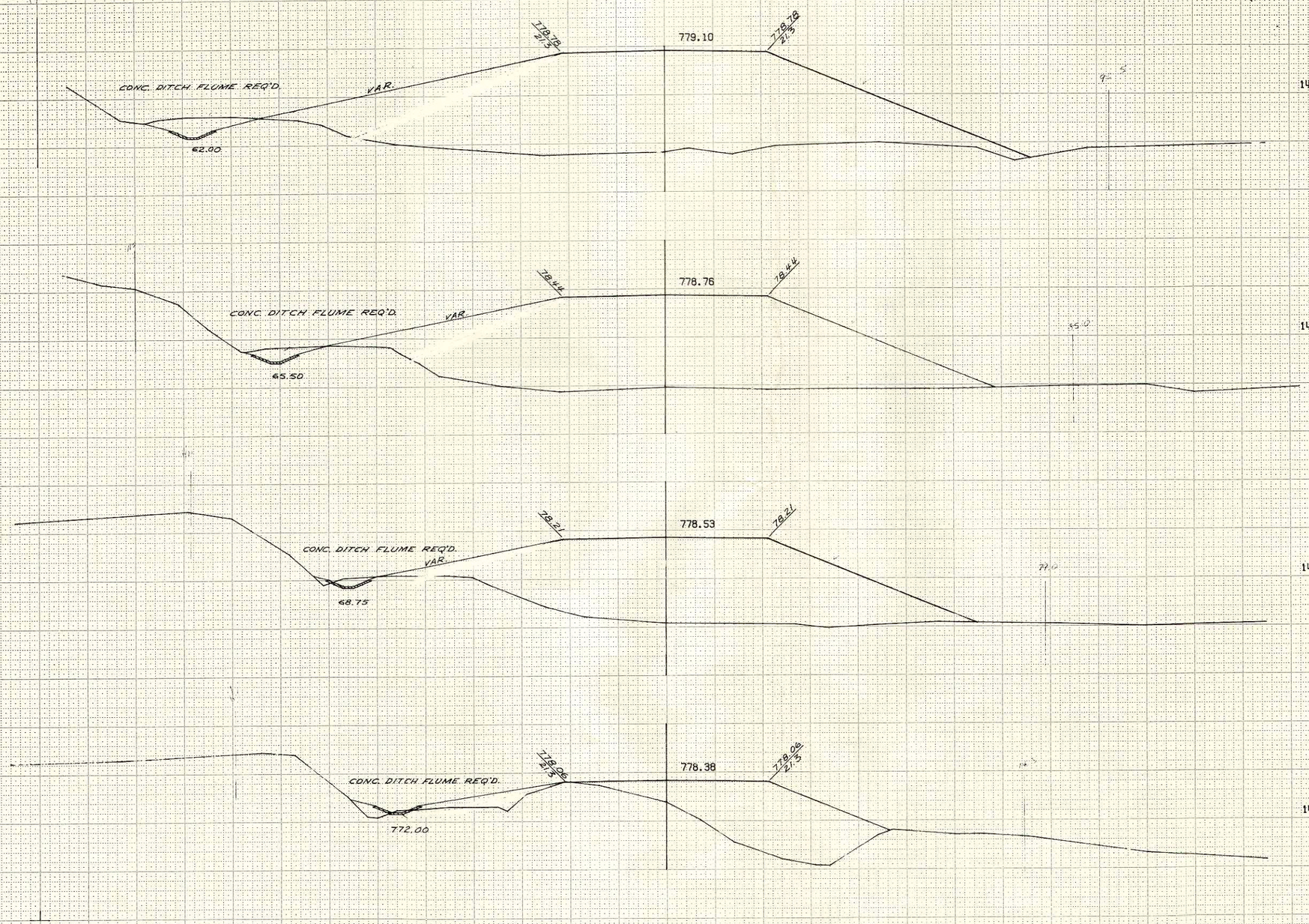
STA. 139+80
36" x 50' C.P. CLASS III REQ'D.
2-36" APRON ENDWALLS REQ'D.
SKEW 15° L.H.F.



BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W15	S 1459 (3)	23	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC				FILL
139+80						
	80	788				860
139+00						
	60	837				381
138+40						
	40	593				193
138+00						
	100	1438				248
137+00						
	50	680				41
136+50						

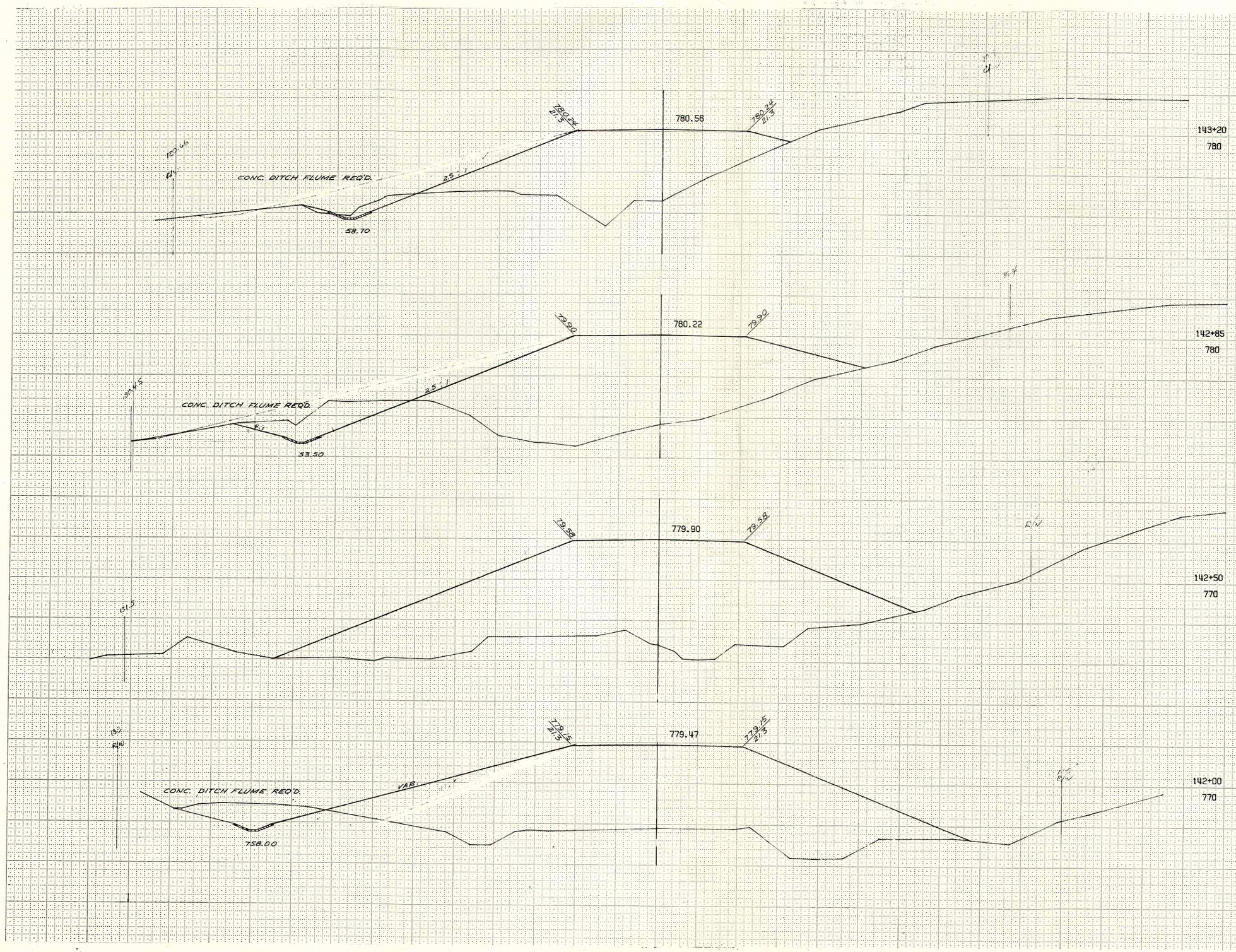
1 = 10 HOR
1 = 10 VER
5006 13



BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W/S	S1459 (3)	24	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC				FILL
141+50						
	50	65				3554
141+00						
	40	24				2304
140+60						
	30	18				1063
140+30						
	50	143				904
139+80						

1 = 10 HOR
1 = 10 VER
5006 14



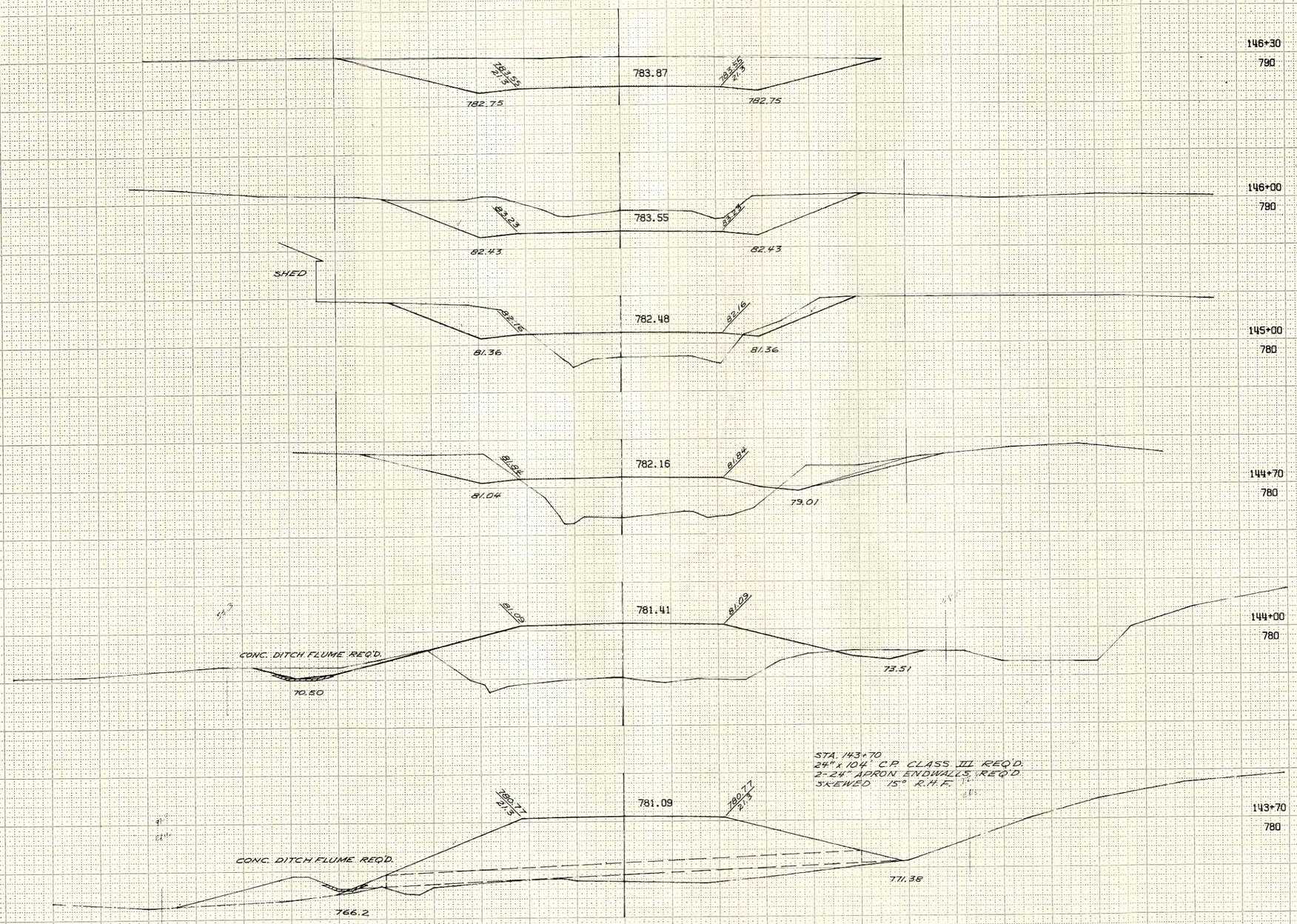
BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W/S	S 1459 (3)	25	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC.					FILL
143+20							
	35	120					1800
142+85							
	35	104					2797
142+50							
	50	117					4554
142+00							
	50	161					4089
141+50							

1 = 10 HOR
1 = 10 VER

5006 15

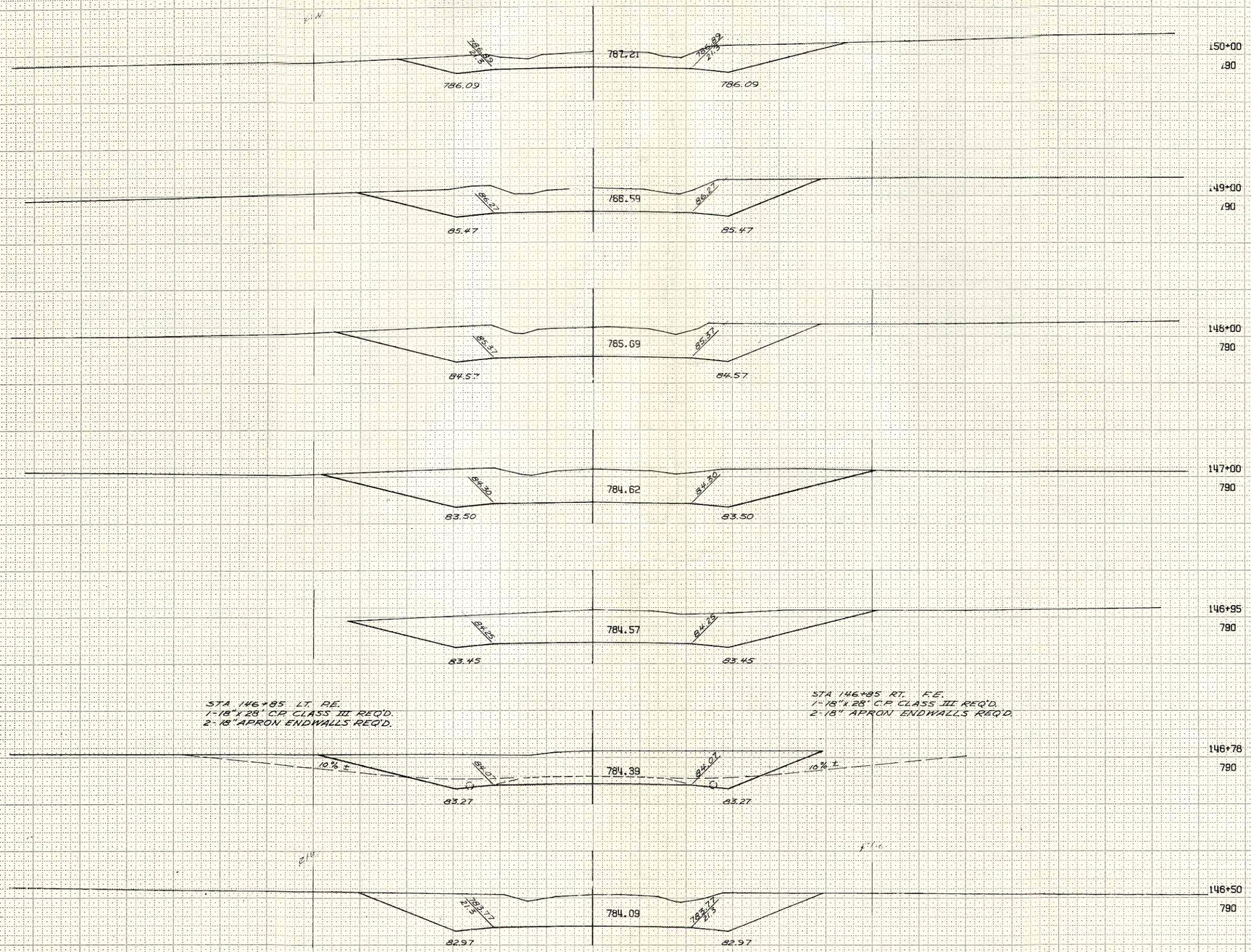
BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W15	S.1459(3)	26	35



STATION	DISTANCE	YARDAGE EXCAVATION UNC	FILL
146+30			
	30	569	
146+00			
	100	1103	400
145+00			
	30	178	323
144+70			
	70	300	1501
144+00			
	30	30	1088
143+70			
	50	24	2040
143+20			

1 = 10 HOR
1 = 10 VER

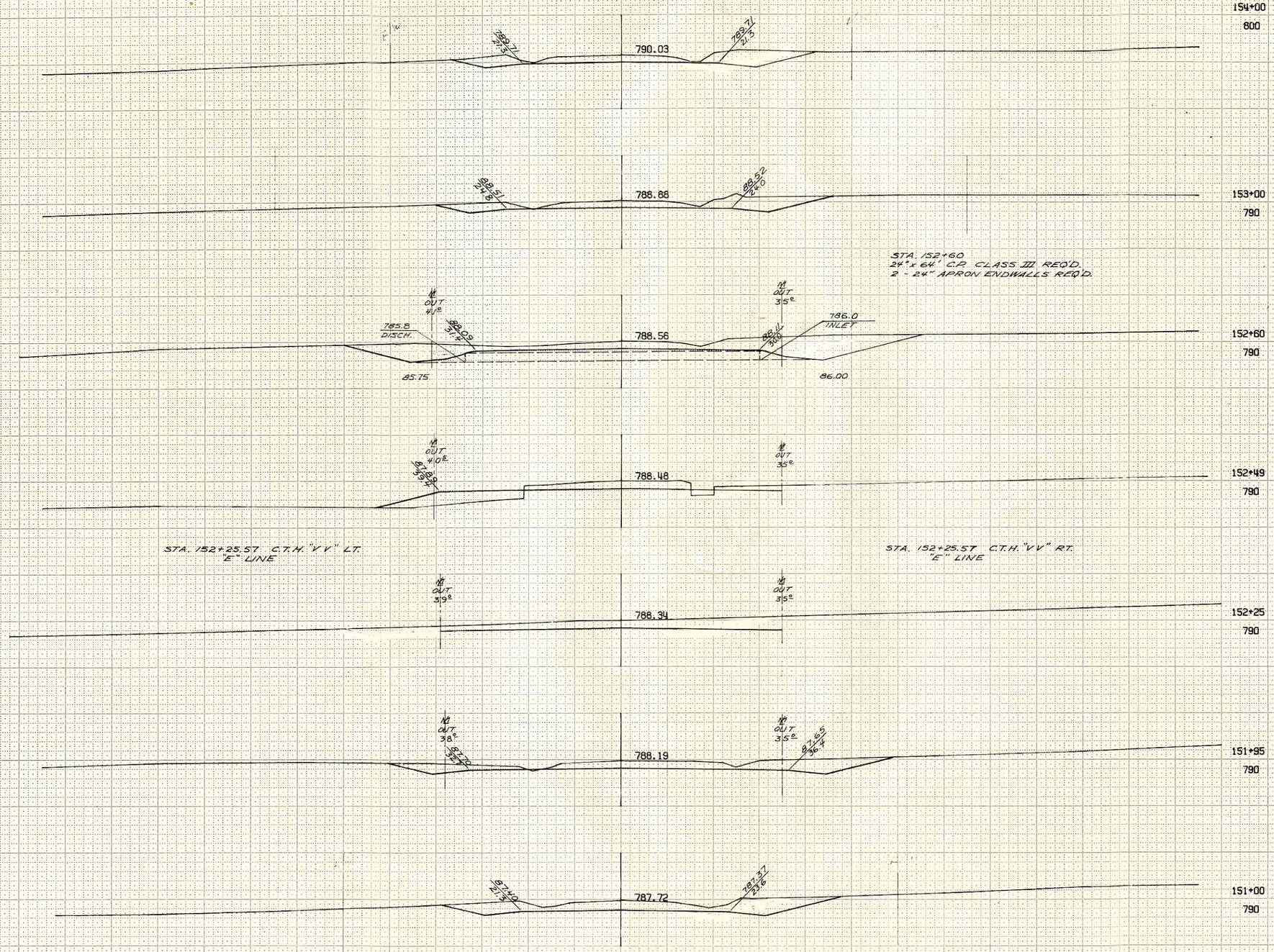
5006 16



BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W15	S 1459(3)	27	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC.					FILL
150+00							
	100	1331					0
149+00							
	100	1821					0
148+00							
	100	2239					0
147+00							
	5	116					0
146+95							
	17	375					0
146+78							
	28	595					0
146+50							
	20	416					0
146+30							

1 = 10 HOR
1 = 10 VER
5006 17



APR. REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W/S	S.1459(3)	28	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC.				FILL
154+00						
	100	428				0
153+00						
	40	181				0
152+60						
	11	37				11
152+49						
	24	68				24
152+25						
	30	126				0
151+95						
	95	433				1
151+00						
	100	815				0
150+00						

1 = 10 HOR.
1 = 10 VER.

5006 18

BPR REGION DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4 W/S	S.1459 (3)	29	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC					FILL
154+50							
	50	151					1
154+00							

STA. 154+50 END PROJ. S.1459 (3)

1 = 10 HOR
1 = 10 VER

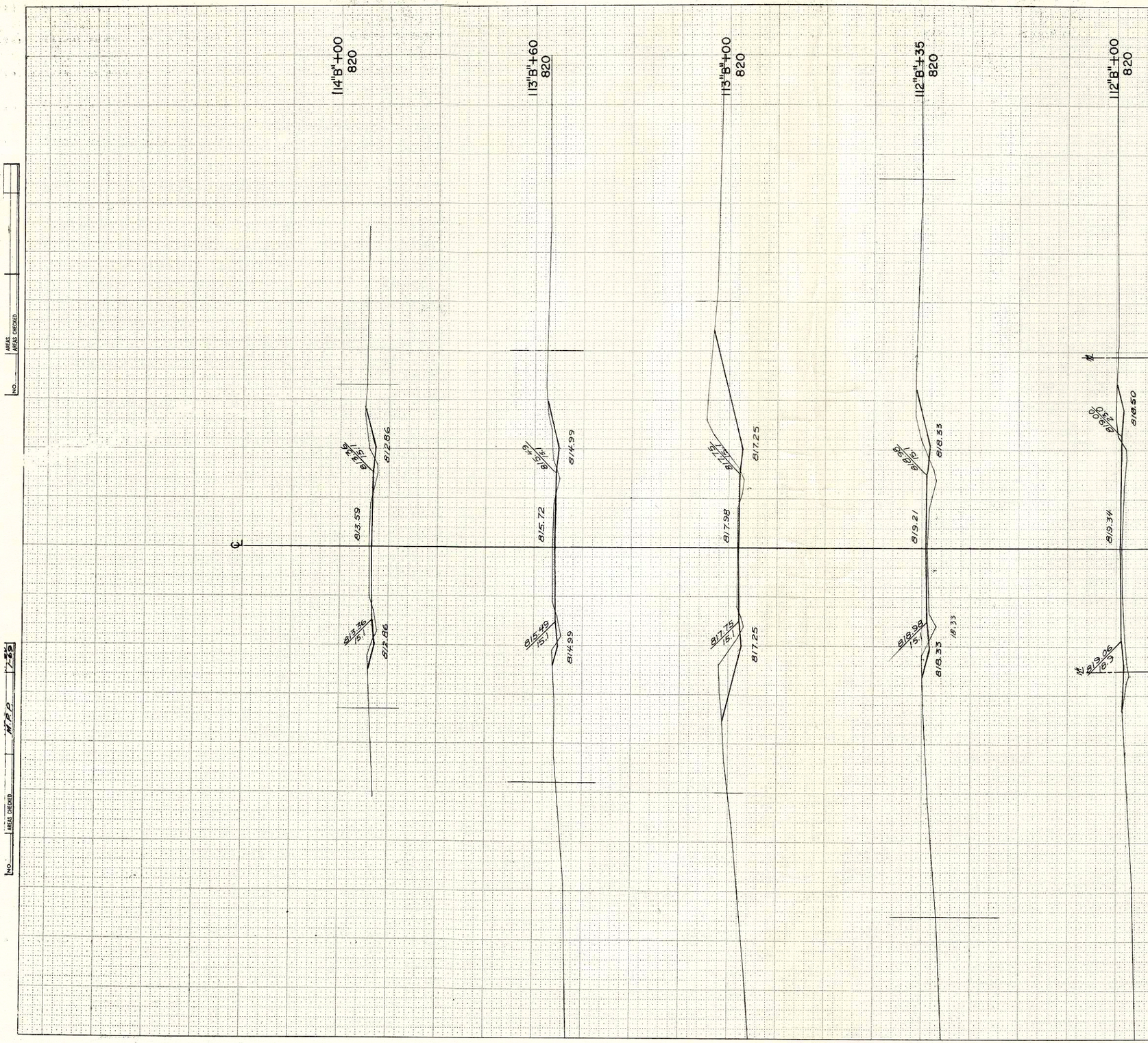
5006 19

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S1459(3)	30	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC.					FILL
84"A"+65							
84"A"+00	65	2011					0
83"A"+00	100	2726					0
82"A"+50	50	1033					0
82"A"+00	50	874					0
81"A"+00	100	952					0
80"A"+00	100	183					0
"A" LINE SHEET TOTAL		7779					

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S1459(3)	31	35



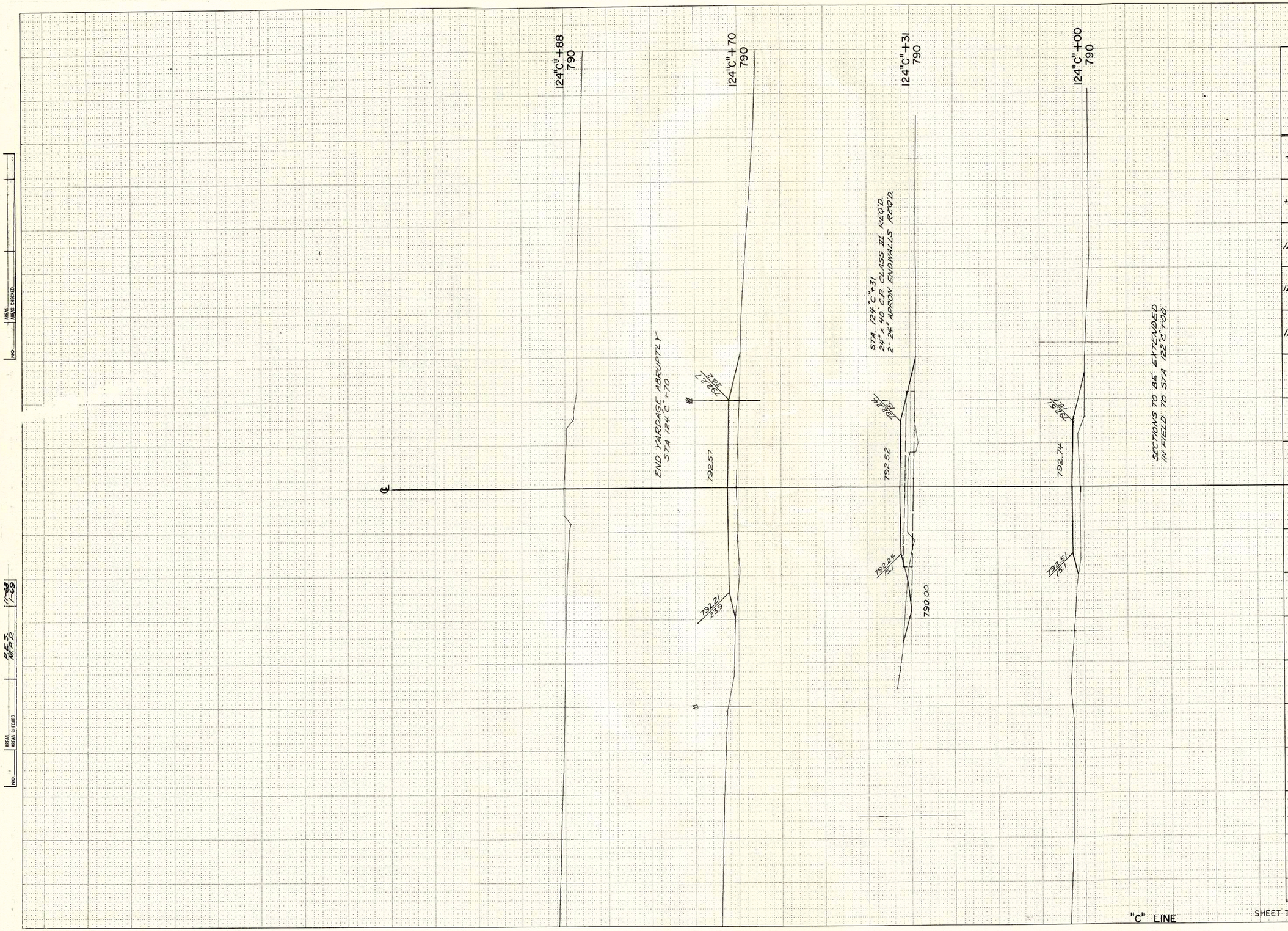
STATION	DISTANCE	YARDAGE EXCAVATION UNC.				FILL
+50						
	50	18				8
114"B"						
	40	28				11
+60						
	60	154				13
113"B"						
	65	168				32
+35						
	35	19				33
112"B"						
	18	0				0
+82						
"B" LINE SHEET TOTAL		387				97

NO. AREAS AREAS CHECKED

NO. MEAS. CHECKED M.P.P. 7-59

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S1459(3)	32	35



STATION	DISTANCE	YARDAGE EXCAVATION UNC				FILL
+70						
	39	13				167
+31						
	31	5				106
124"C"						
	100	0				187
123"C"						
	100	0				63
122"C"						
SHEET TOTAL		18				523

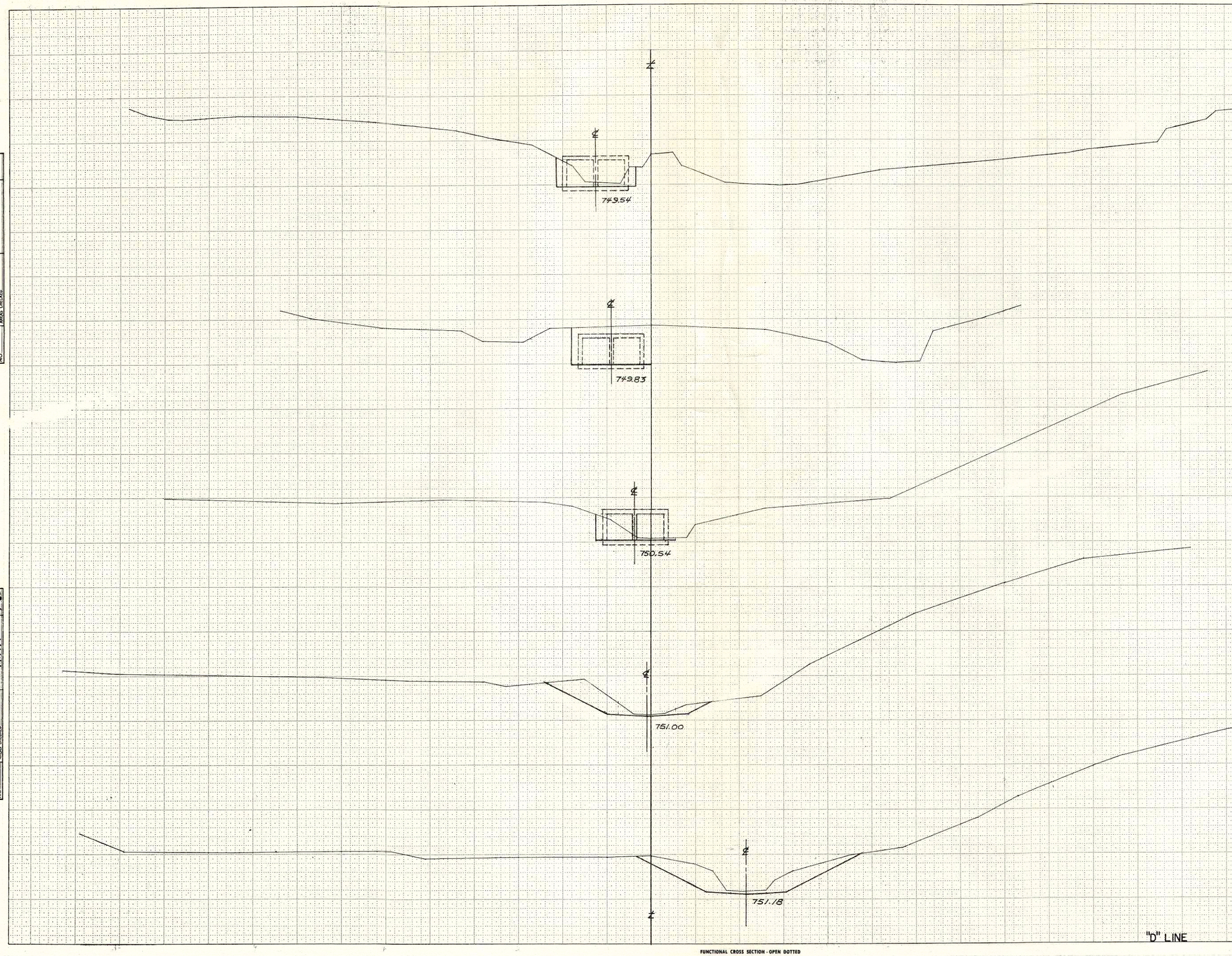
NO. | AREAS | AREAS CHECKED

NO. | MEAS. | MEAS CHECKED

BES 1/-68 MSS 1/-69

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S1459(3)	33	35



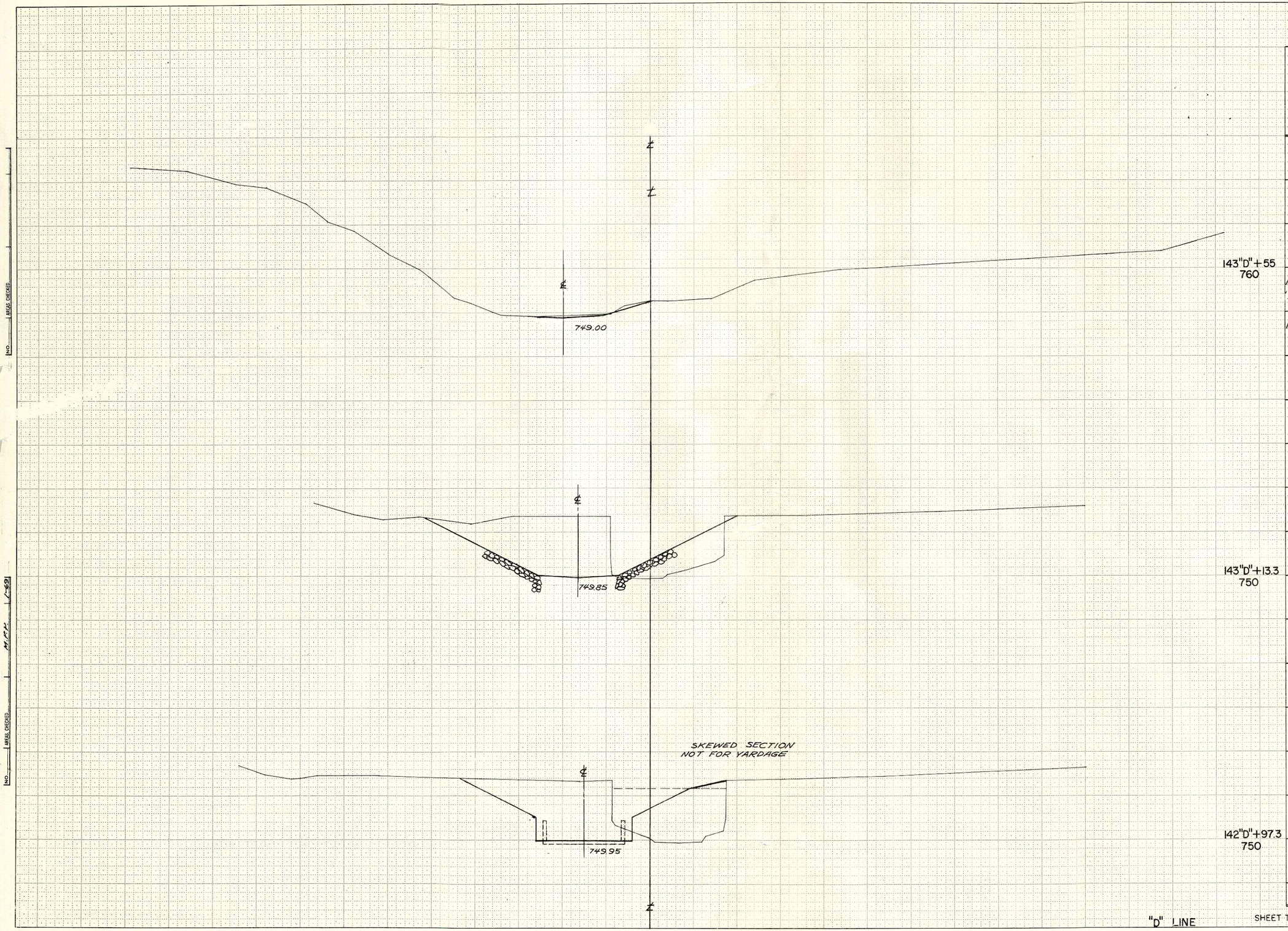
STATION	DISTANCE	YARDAGE EXCAVATION UNC	YARDAGE EXCAVATION	YARDAGE EXCAVATION	YARDAGE EXCAVATION	YARDAGE FILL
+11						
	11	30				
141"D"						
	70	246				
+30						
	30	65				
140"D"						
SHEET TOTAL		341				

NOTE BOOK NO. | TEMPLATE | LENGTHS | AREAS | AREAS CHECKED

NOTE BOOK NO. | TEMPLATE | LENGTHS | AREAS | AREAS CHECKED | P.E.S. | M.P.P. | 1-49 | 1-50

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.

B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	S1459(3)	34	35



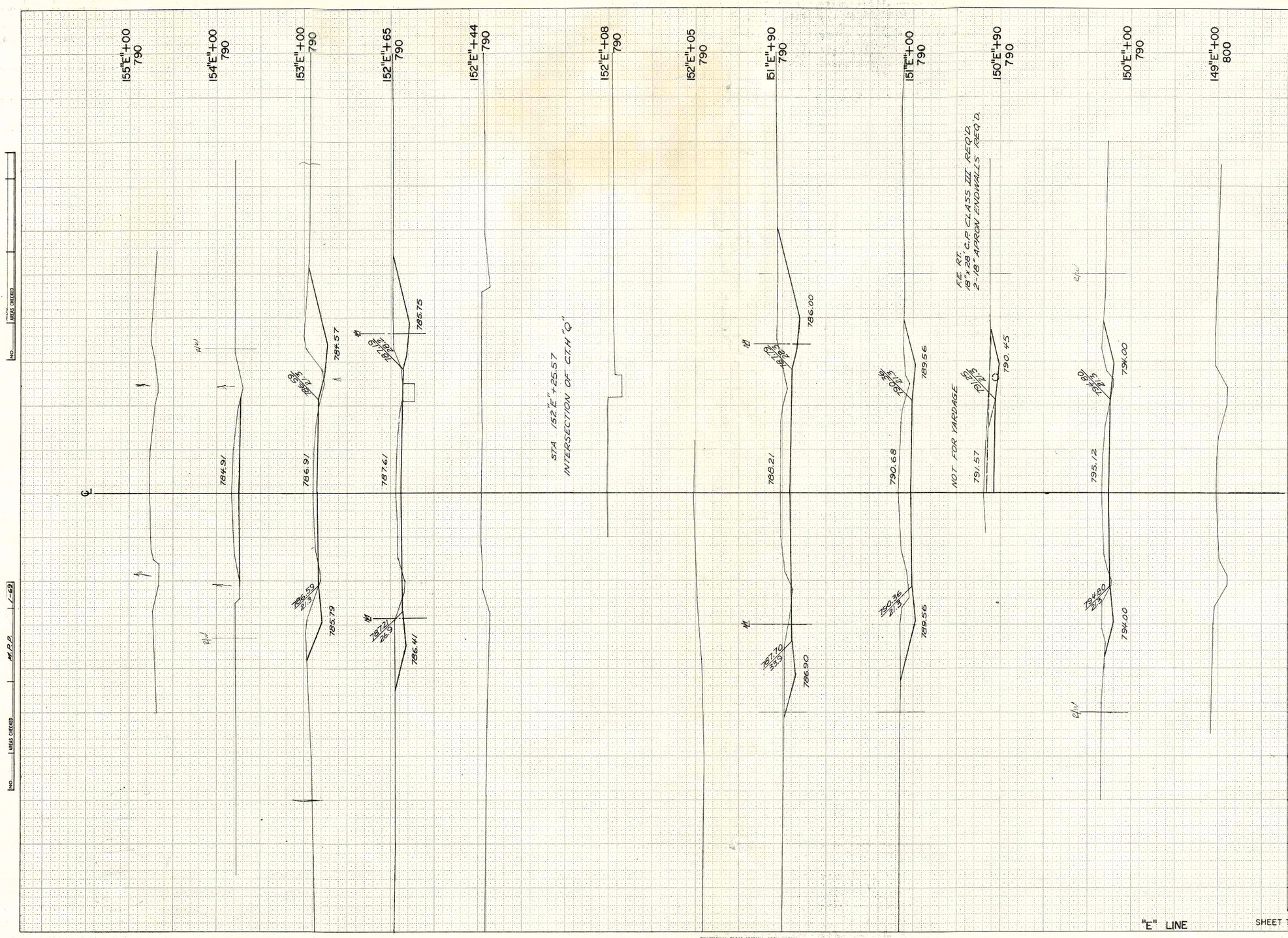
STATION	DISTANCE	YARDAGE EXCAVATION UNC.				FILL
+55						
143"D"	41^{2}	237				61
+13.3						
142"D"	16^{3}	309				26
+97						
"D" LINE SHEET TOTAL		546				87

AREAS CHECKED NO.

AREAS CHECKED NO.

M.F.H. 1-69

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.



B.P.R. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4. WIS.	S1459(3)	35	35

STATION	DISTANCE	YARDAGE EXCAVATION UNC.				FILL
154"E"						
100	215					0
153"E"						
35	80					0
+65						
+90						
90	466					0
151"E"						
100	464					0
150"E"						
SHEET TOTAL		1225				

NO. MEAS. CHECKED

NO. MEAS. CHECKED 11.12.2 1-69

FUNCTIONAL CROSS SECTION - OPEN DOTTED
CHARLES BRUNING COMPANY, INC.