

MARATHON COUNTY

DEC 10 1996

MICROFILM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

U.S.H. 51 - CTH NN
(CLOVERLAND LANE - ROBIN LANE)
C.T.H. N
MARATHON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6999-01-71	STP 9401 (7)	1

INDEX OF SHEETS

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Sheet No. 3-3.5 Estimate of Quantities
Sheet No. 3A-3J Miscellaneous Quantities
Sheet No. 4-4.4 Right of Way Plat
Sheet No. 5-5.4 Plan and Profile
Sheet No. 6-6.2b Standard Detail Drawings
Sheet No. 7-7.1c Sign Plates
Sheet No. - Structure Plans
Sheet No. - Computer Earthwork Data
Sheet No. 9-9.1c Cross Sections

TOTAL SHEETS = 128

STATE PROJECT NUMBER
6999-01-71

AS BUILT PLAN



AS BUILT PLAN

SUPERVISOR HARVEY SMEKRUD

PROJECT MGR. DICK BLOOMER

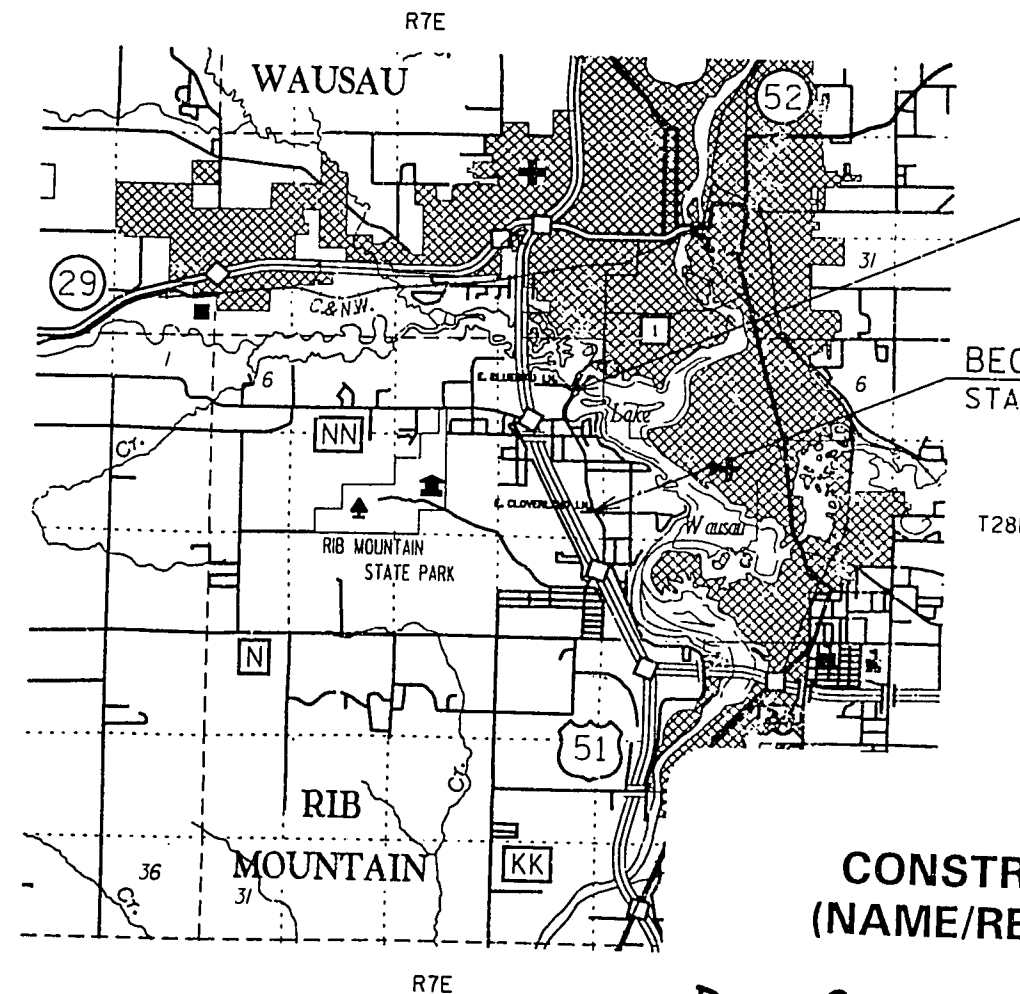
CONTRACTOR HANZ

DATE STARTED 6-3-96

DATE COMPLETED

DESIGN DESIGNATION

A.D.T. 1995 = 18,600
A.D.T. 2016 = 34,600
D. = 60-40
T. (% ADT) = 4.0%
DESIGN SPEED = 45 MPH
ESALS = 2,197,300



END PROJECT
STA. 187+34.00

BEGIN PROJECT
STA. 142+00.00

CONSTRUCTION STAFF
(NAME/RESPONSIBILITIES)

DICK BLOOMER / PROJ. MANAGER

PAUL ROMENESKO / ASSIST. PROJ. ENG.

JIM MARQUARDT / MATERIALS ? INSP.

MATT STERN / INSPECTION

PAT LEICK / INSPECTION

LAYOUT
SCALE 0 1.0 mi.

TOTAL NET LENGTH OF CENTERLINE = 0.859 MILES URBAN

ACCEPTED FOR
COUNTY OF MARATHON
BY [Signature]
DATE 2-29-96

ORIGINAL PLANS PREPARED BY

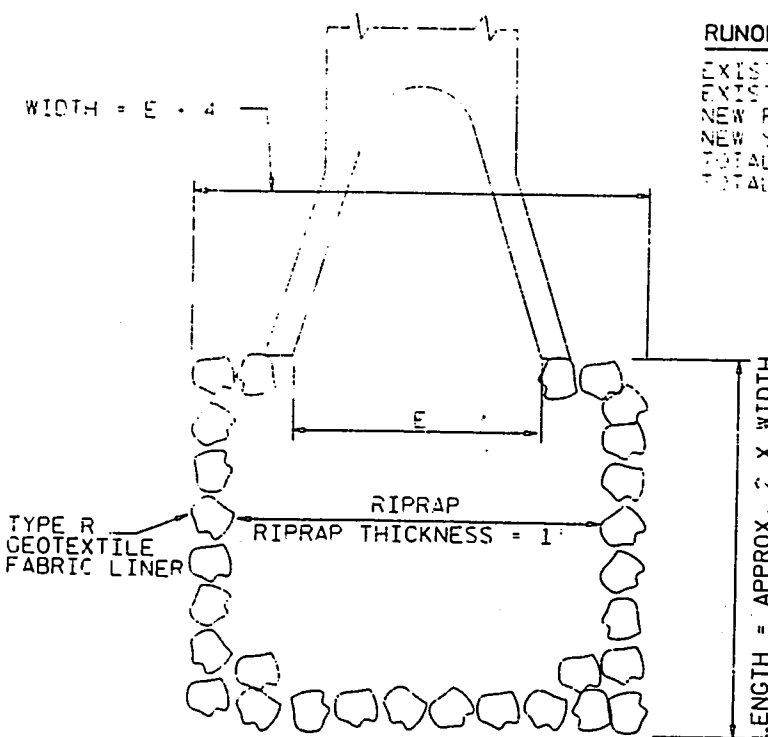
DESIGNERS & SCIENTISTS
GRAEF ANHALT SCHLOEMER
and Associates Inc.
100 SPRING LANE, SUITE 100
WISCONSIN 53001-1000
414-221-1000



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

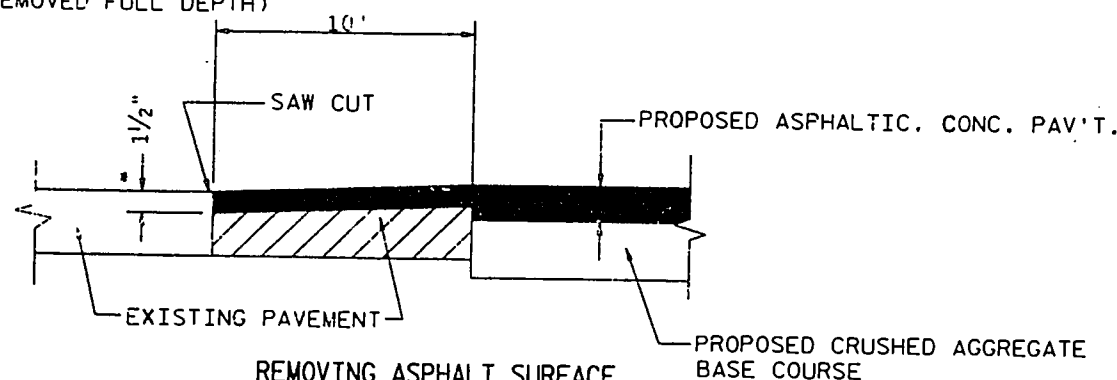
PREPARED BY
Surveyor WSB, MCJ
Designer DSC
District Examiner RAB
District Supervisor RAB
Proj. Dev. Engineer RSC
C.O. Examiner RSC

APPROVED FOR DISTRICT OFFICE
DATE 1/4/96 [Signature]
(Signature)



TYPICAL PLACEMENT OF RIPRAP
AT CULVERT ENDS

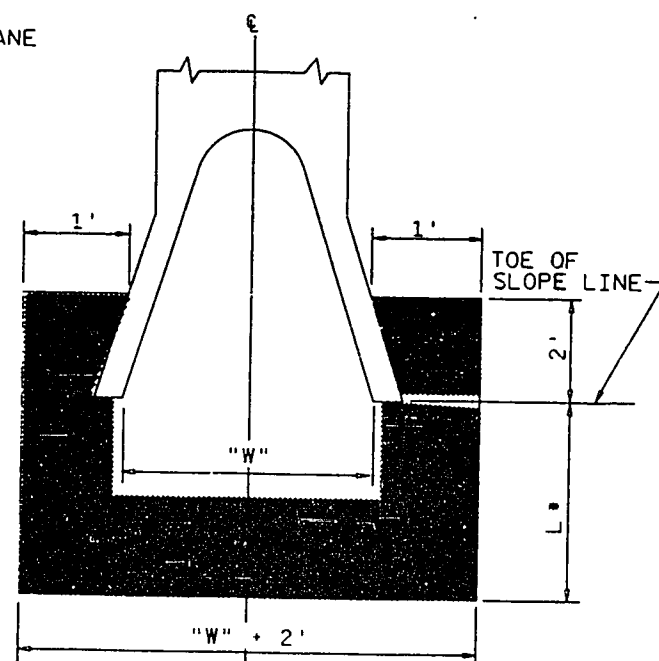
*NOTE
1 1/2" MIN. SURFACE REMOVAL
(MAY BE REMOVED FULL DEPTH)



REMOVING ASPHALT SURFACE
BUTT JOINT

E. STARLING LANE
PARROT LANE
ORIOLE LANE
WREN LANE
ROBIN LANE
CTH N

*NOTE:
TO BE DETERMINED
BY THE ENGINEER
IN THE FIELD



REINF. SOD AT PIPE END
(CONCRETE OR METAL PIPE)

RUNOFF COEFFICIENTS:

EXISTING PAVEMENT = 0.85
EXISTING SLOPES = 0.20
NEW PAVEMENT = 0.90
NEW SLOPES = 0.20
TOTAL PROJECT AREA = 10.4 ACRES
TOTAL AREA DISTURBED = 8.9 ACRES

DNR LIAISON

MR. JIM GRAFELMAN
NORTH CENTRAL DISTRICT
107 SUTLIFF AVENUE
P.O. BOX 818
RHINELANDER, WI 54501
1-715-365-8927

ABBREVIATIONS

A.H. AHEAD
ADT AVERAGE DAILY TRAFFIC
ASP ASPHALT
BK BACK
CL CENTER LINE
C.E. COMMERCIAL ENTRANCE
CONC. CONCRETE
C.T.H. COUNTY TRUNK HIGHWAY
C.P. CULVERT PIPE
C. & G. CURB & GUTTER
CR AGG CRUSHED AGGREGATE BASE COURSE
CSPA CORRUGATED STEEL PIPE ARCH
D DEGREE OF CURVE
DHV DESIGN HOUR VOLUME
ELEV. ELEVATION
IN. INCHES
LT. LEFT
L LENGTH OF CURVE
M.H. MANHOLE
MI MILE
M/L MATCHLINE
PAV'T PAVEMENT
T PERCENT OF TRUCKS
P.C.C. POINT OF COMPOUND CURVE
P.C. POINT OF CURVATURE
P.I. POINT OF INTERSECTION
P.T. POINT OF TANGENCY
P.E. PRIVATE ENTRANCE
P.L. PROPERTY LINE
R. RADIUS
R OR R/L REFERENCE LINE
RCCP REINFORCED CONCRETE CULVERT PIPE
REQ'D REQUIRED
R/W RIGHT-OF-WAY
RD. ROAD
SEC. SECTION
STA. STATION
ST. STREET
S.E. SUPERELEVATION (FT/FT)
TAN. TANGENT
T TANGENT LENGTH OF CURVE
U.S.H. UNITED STATE HIGHWAY

UTILITIES

Wisconsin Public Service Corporation
1700 Sherman Street
Wausau, WI 54402
ATTN: Dan Behm
(715) 848-7319

Wisconsin Fuel & Light
211 Forest Street
Wausau, WI 54401
ATTN: Dick White
(715) 845-2141

GTE North
202 Callon Street
Wausau, WI 54401
ATTN: Ronald Kolton
(715) 847-1511

Marcus Cable
853 McIntosh Street
Wausau, WI 54402
ATTN: Jeff Mohring
(715) 845-4222

Rib Mountain Sanitary District
5703 Lilac Avenue
Wausau, WI 54401
ATTN: Darin Westover
Director of Public Works
(715) 359-6177



DIGGERS
HOTLINE

WISCONSIN
1-800-242-8511

GENERAL NOTES:

THE EXACT LOCATIONS OF PRIVATE ENTRANCES SHALL BE DETERMINED BY THE ENGINEERS.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS, AS SHOWN ON THE PLANS, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.

CURB AND GUTTER JOINT SPACING SHALL BE 20' UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER IN THE FIELD.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

PAVEMENTS ARE TO BE SAWED OR MILLED TO PROVIDE A BUTT JOINT AT ALL ASPHALTED INTERSECTIONS, DRIVEWAYS, AND AT ALL CHANGES IN CONSTRUCTION.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM THE ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE BACKFILLED WITH GRANULAR BACKFILL. THE COST OF WHICH SHALL BE CONSIDERED IN THE COST OF THE ITEM.

AGGREGATE DRIVEWAYS SHALL BE REPLACED IN KIND, CRUSHED LIMESTONE, IF NECESSARY, WILL BE PAID FOR AS CRUSHED AGGREGATE BASE COURSE.

WHEN THE QUANTITY OF ITEMS OF BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE. THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIALS AS DIRECTED BY THE ENGINEER.

ASPHALTIC CONCRETE PAVEMENTS, WHERE INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS: 3" DEPTH

1-3/4" BINDER COURSE
1-1/4" SURFACE COURSE

4" DEPTH 2-1/2" BINDER COURSE
1-1/2" SURFACE COURSE

5-1/2" DEPTH 4" BINDER COURSE IN TWO LIFTS AND
1-1/2" SURFACE COURSE

TACK COAT HAS BEEN ESTIMATED AT AN APPROXIMATE RATE OF 0.030 GALLONS PER SQUARE YARD AND SHALL BE PLACED BETWEEN ALL LAYERS OF ASPHALTIC PAVEMENT.

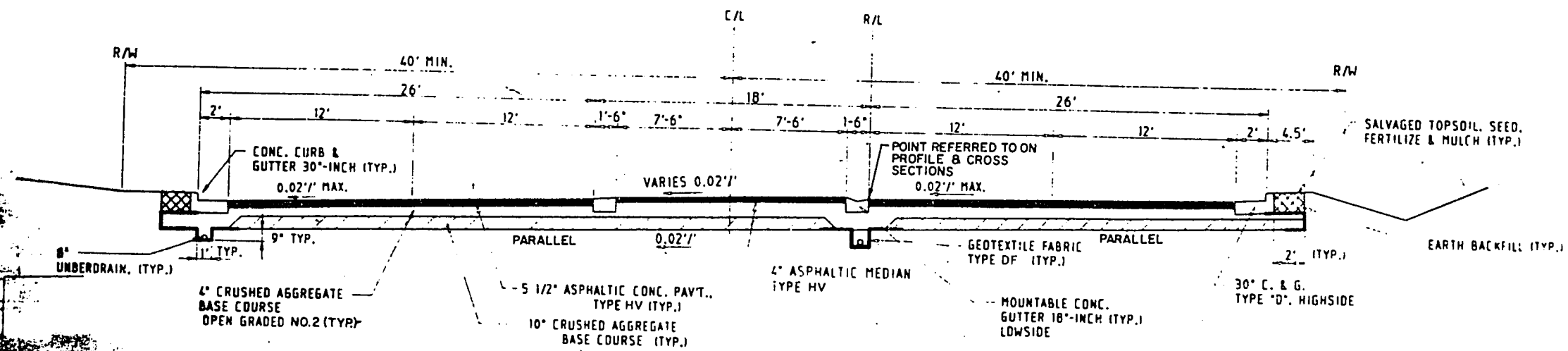
NOTIFY OWNERS TO REMOVE MAIL BOXES PRIOR TO BEGINNING CONSTRUCTION.

ALL DISTURBED AREAS NOT PAVED OR WITHIN THE FINISHED SHOULDER POINTS ARE TO RECEIVE 4 INCHES OF SALVAGED TOPSOIL, FERTILIZER, SEED AND MULCH AS DIRECTED BY THE ENGINEER IN THE FIELD. USE SEED MIX NO. 30 IN AN 6' WIDE STRIP ADJACENT TO THE CURB AND GUTTER AND SEED MIX #40 ELSEWHERE.

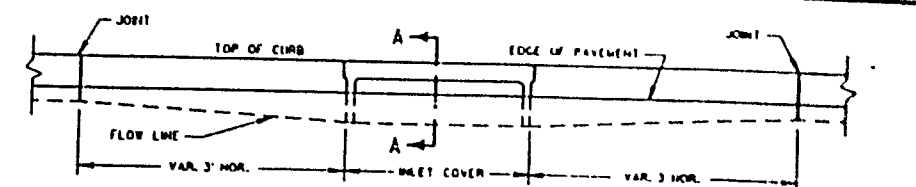
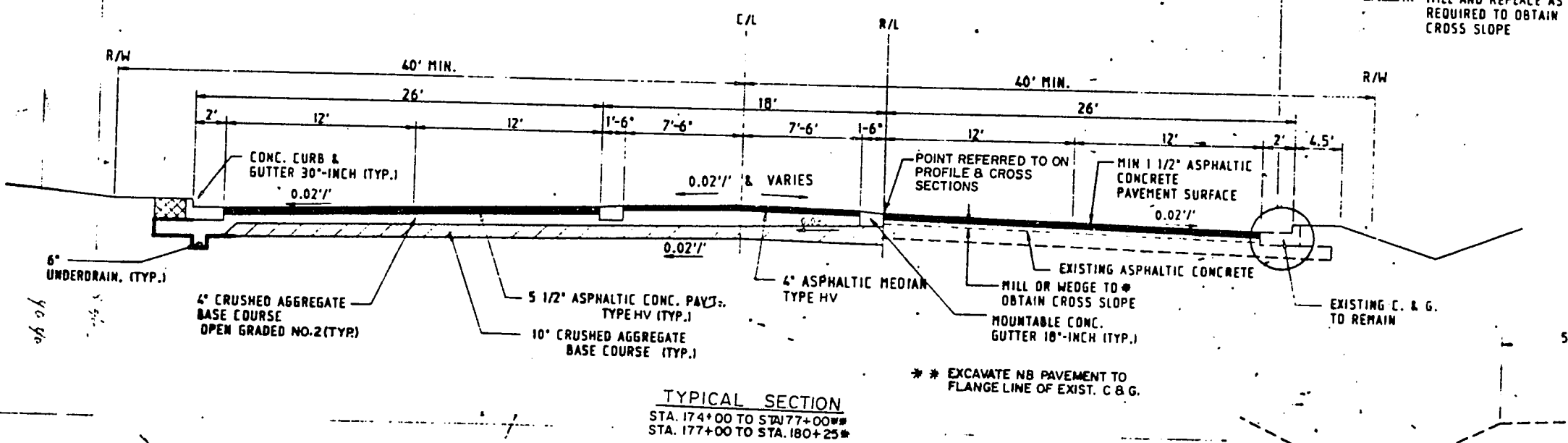
THE EROSION CONTROL FEATURES SHOWN ON THE PLANS ARE A SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

STANDARD DETAIL DRAWINGS

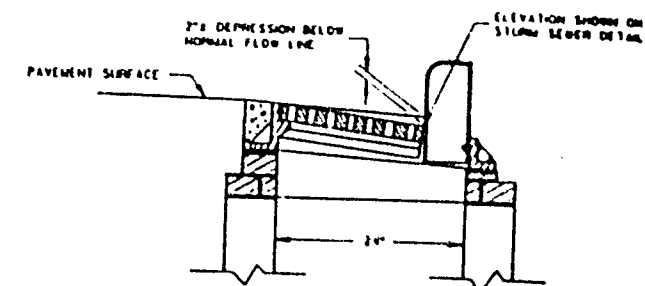
SDD NUMBER	TITLE
8A5-11a,c	INLET COVERS
8A5-11d	INLET AND MANHOLE COVERS
8B6-3	MANHOLES TYPE 1
8B7-3	MANHOLES TYPE 2 & 3
8C1-5	INLETS, TYPES 1, 2, 3 AND 4
8D1-11	CONCRETE CURB, CONCRETE CURB AND GUTTER AND PAVEMENT TIES
8D4-3	CONCRETE SURFACE DRAIN & ASPHALTIC FLUME
8D15-1a	EDGEDRAIN OUTLET DETAILS
8E6-7	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
8E9-4	SILT FENCE
8F1-11	APRON ENDWALLS FOR CULVERT PIPE
8F5-1	CLASS "B" BEDDING FOR CULVERT PIPE AND STORM SEWER
8F6-3	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAWN
9B2-5	CONDUIT
9B4-1	PULL BOX
9C2-1	CONCRETE BASES
9C3-1	CAST BASES
9C5-1	CONCRETE CONTROL CABINET BASES
9D1-1	CABINET SERVICE INSTALLATION
9D2-1	SIGNAL OR LIGHTING CONTROL CABINET
9E1-1a	POLE MOUNTINGS FOR TRAFFIC SIGNALS, TYPE 2
9E1-1e	HARDWARE DETAILS FOR POLE MOUNTINGS
9F8-1	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
15C12-2	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C2-3	BARRICADES AND SIGNS FOR ROAD CLOSURES
15C7-5a	PAVEMENT MARKING SYMBOLS
15C8-7a	PAVEMENT MARKING (MAINLINE)
15C8-7c	PAVEMENT MARKING (LEFT TURN LANE)



TYPICAL SECTION-SUPERELEVATED
CLOVERLAND TO ROBIN LANE
(NB SUPERELEVATION SHOWN, SB IS RIGHTHAND OPPOSITE)
STA. 142+00 - STA. 144+60
STA. 156+40 - STA. 166+30
STA. 169+60 - STA. 174+00

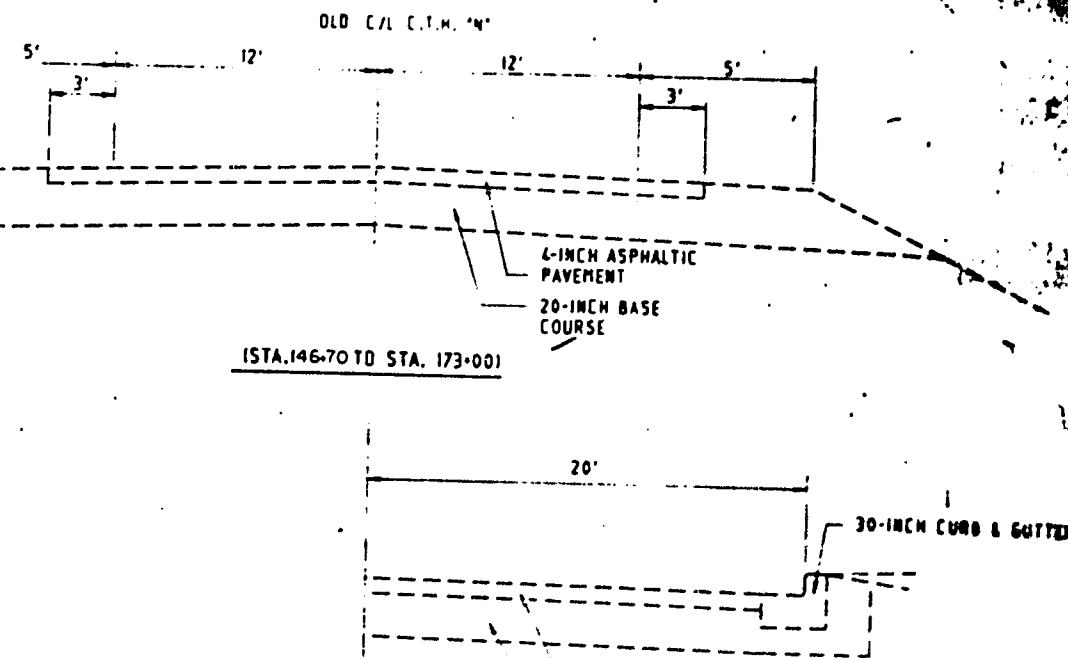


ELEVATION

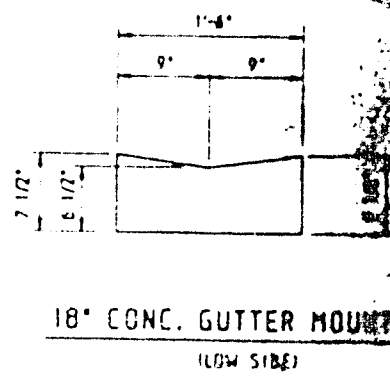
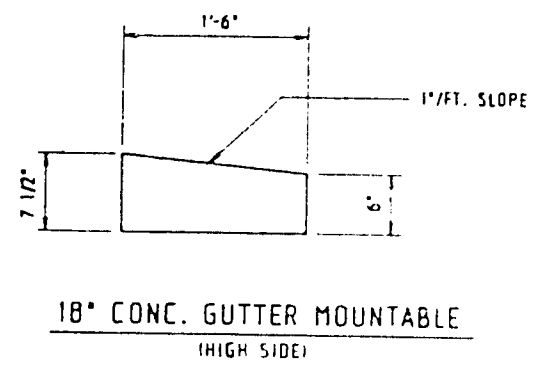
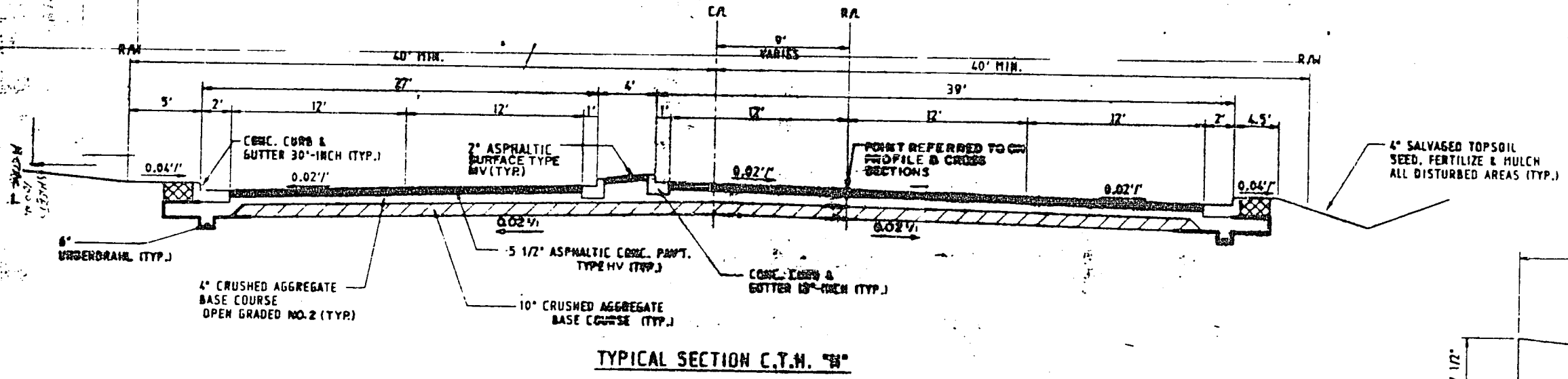
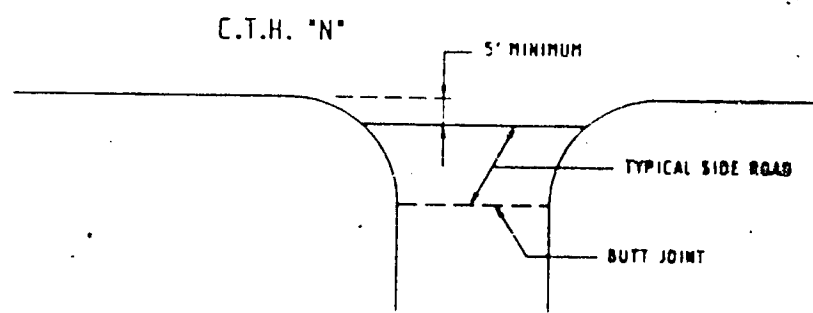
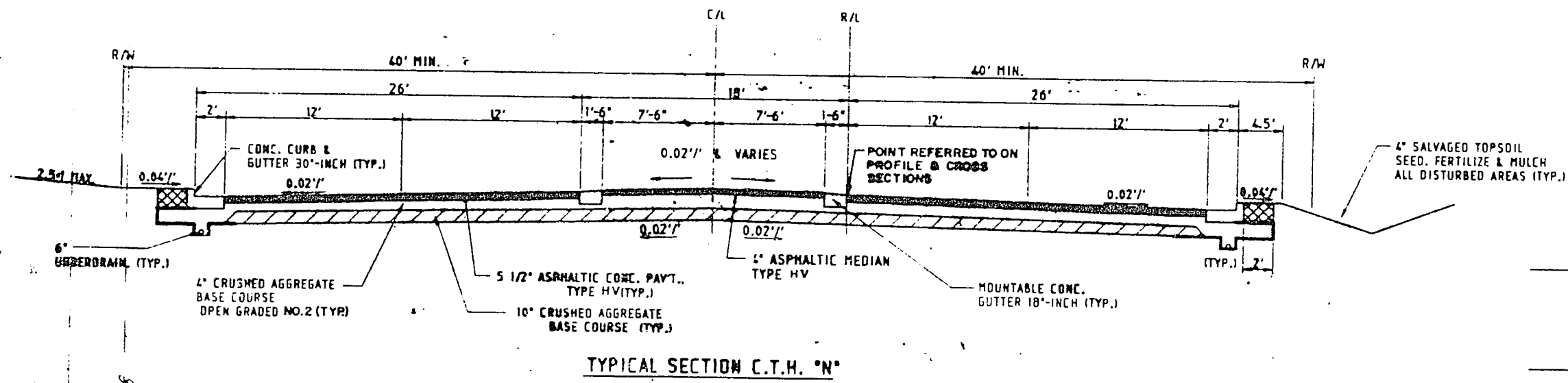
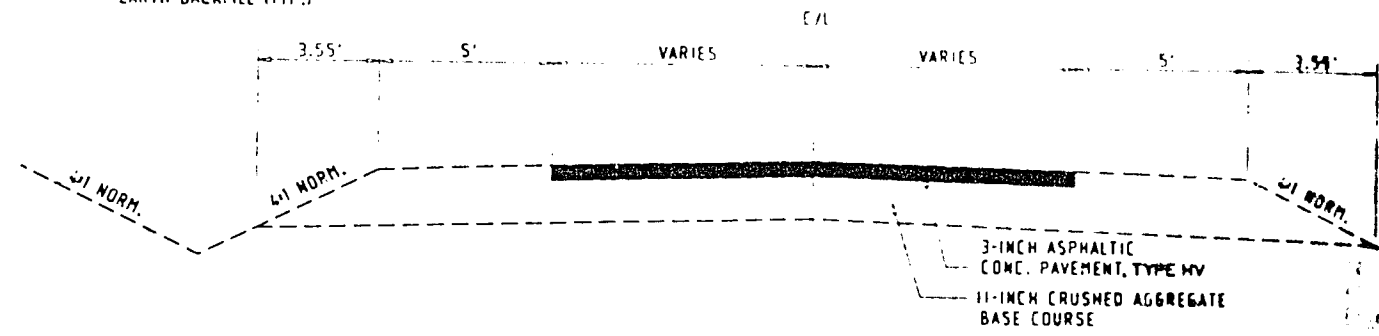
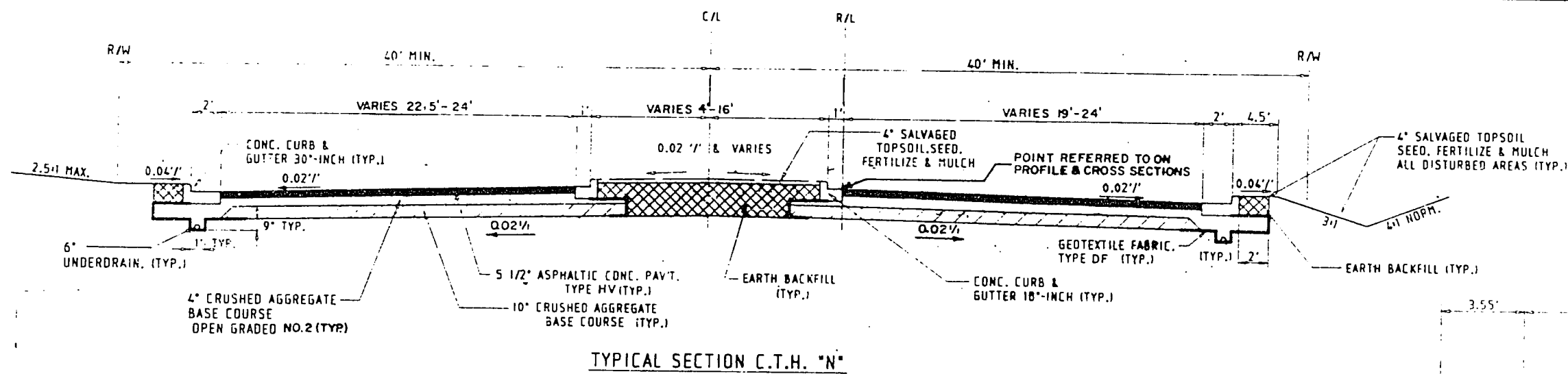


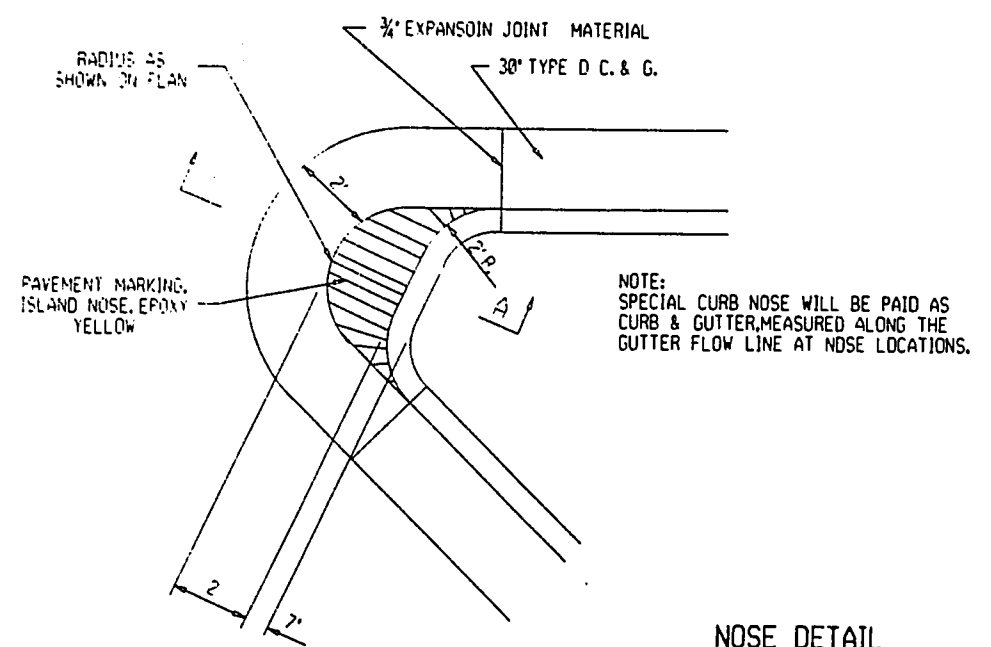
SECTION A-A

DETAIL OF CURB AND CUTTER AT INLETS

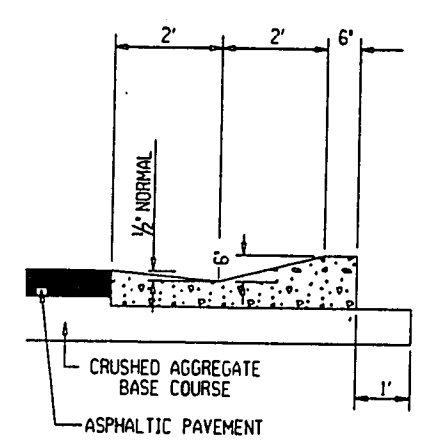


ISTA. 173-00 TO 187-34)
(LEFT SIDE SIMILAR)
EXISTING TYPICAL C.T.H. "N"

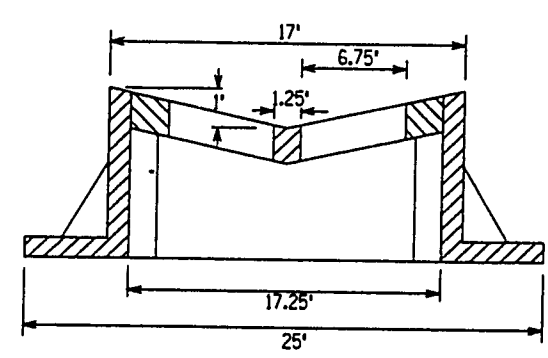
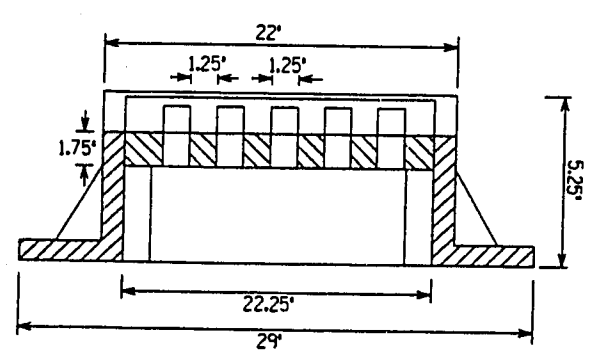




NOSE DETAIL
(TO BE CONSTRUCTED AT ALL ISLAND AND MEDIAN NOSES)

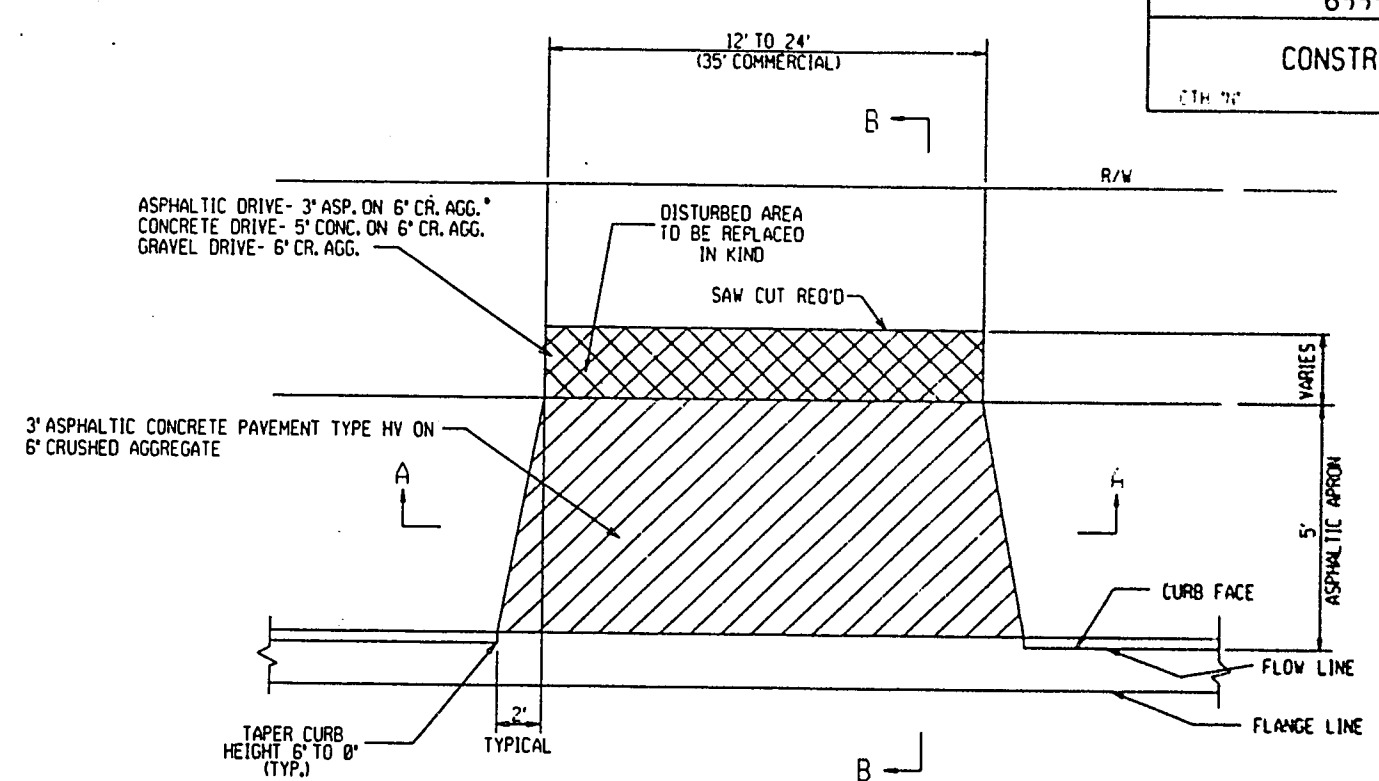


SECTION A-A

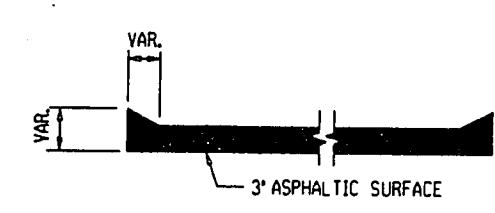


TOTAL WEIGHT = 250 POUNDS

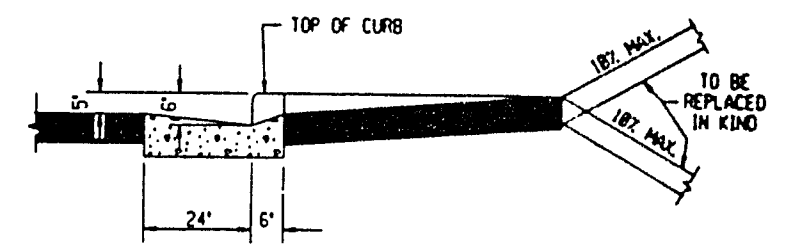
SPECIAL INLET COVER
N.T.S.



PLAN VIEW

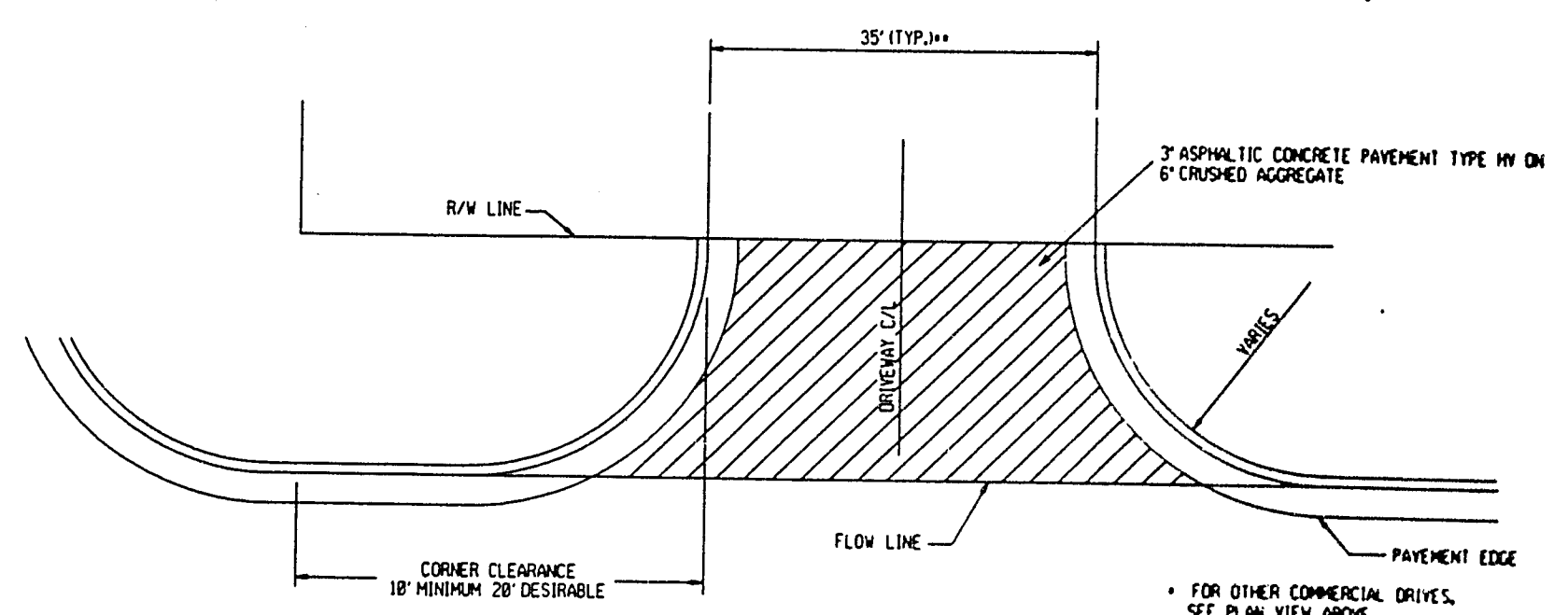


SECTION A-A



SECTION B-B

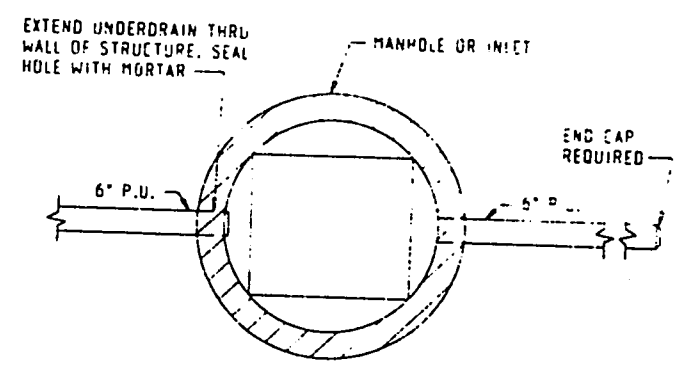
URBAN DRIVEWAY DETAILS



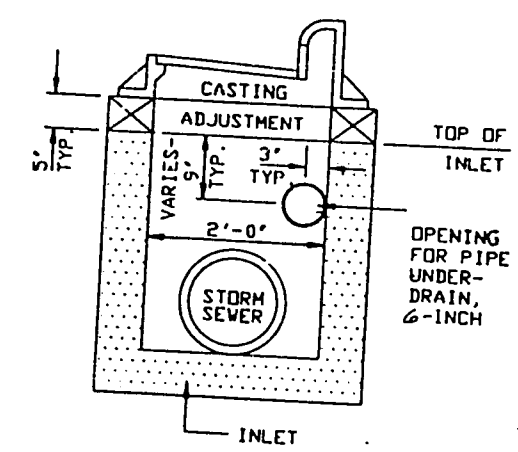
COMMERCIAL DRIVE*

STA. 146+65 LT
STA. 149+59 LT
STA. 152+35 LT
STA. 154+14 LT

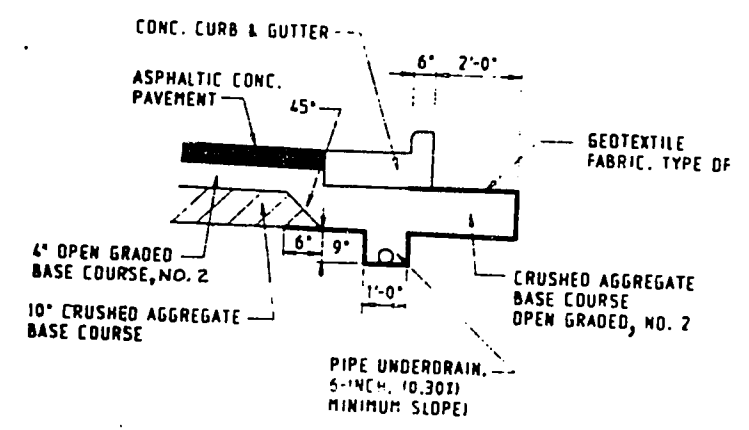
* FOR OTHER COMMERCIAL DRIVES, SEE PLAN VIEW ABOVE
** OR MATCH EXISTING AS SHOWN ON PLANS



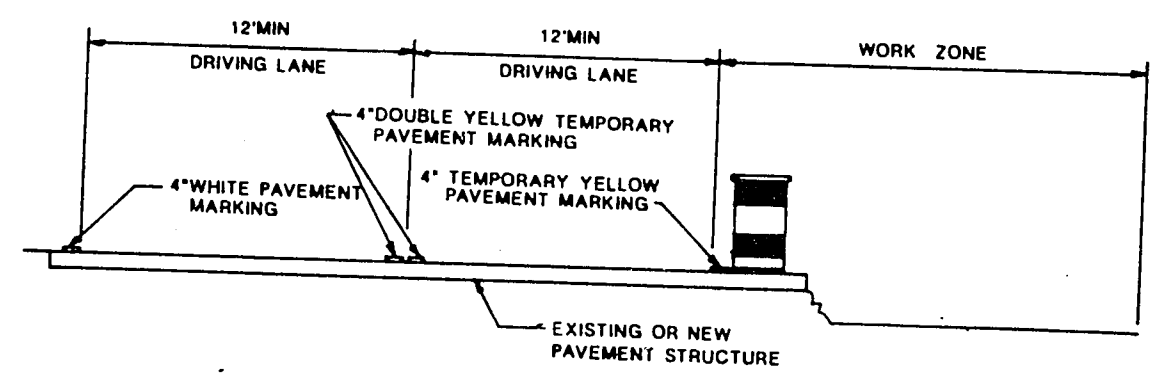
PLAN OF PIPE UNDERDRAIN
 PIPE UNDERDRAIN, 6" CONNECTION TO MANHOLE, OR INLET.
 NOTE: CONTRACT UNIT PRICE FOR 6" PIPE SHALL INCLUDE COST OF CONNECTION TO MANHOLE, INLET OR CATCH BASINS



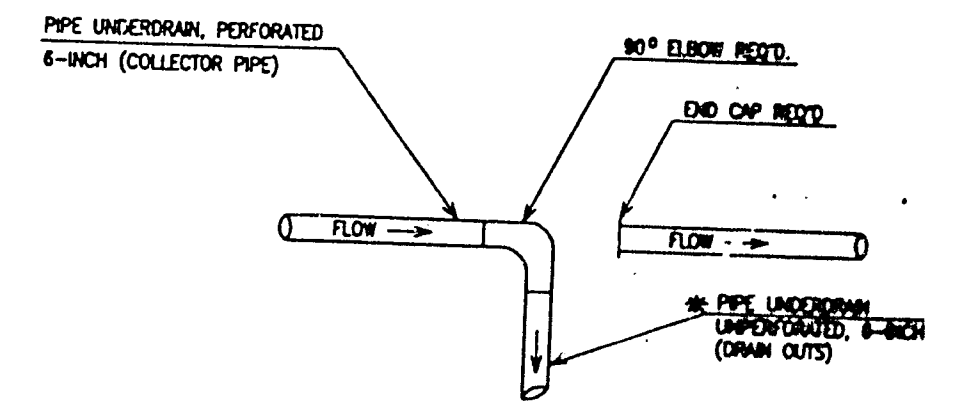
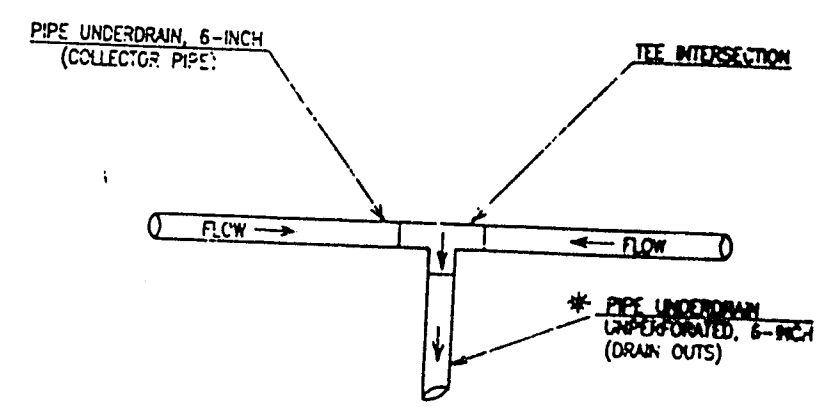
TYPICAL UNDERDRAIN CONNECTION AT INLET



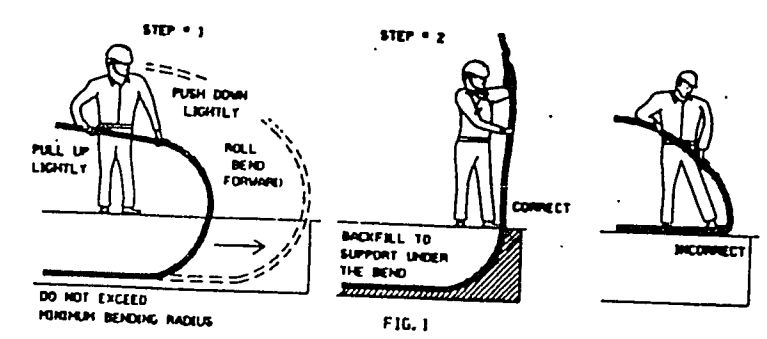
UNDERDRAIN DETAIL
 DETAILS SHOWN HERE MAY BE USED AT "MEDIAN UNDERDRAIN" AND AT "CURB & GUTTER WITHOUT UNDERDRAIN" AS IS APPROPRIATE.



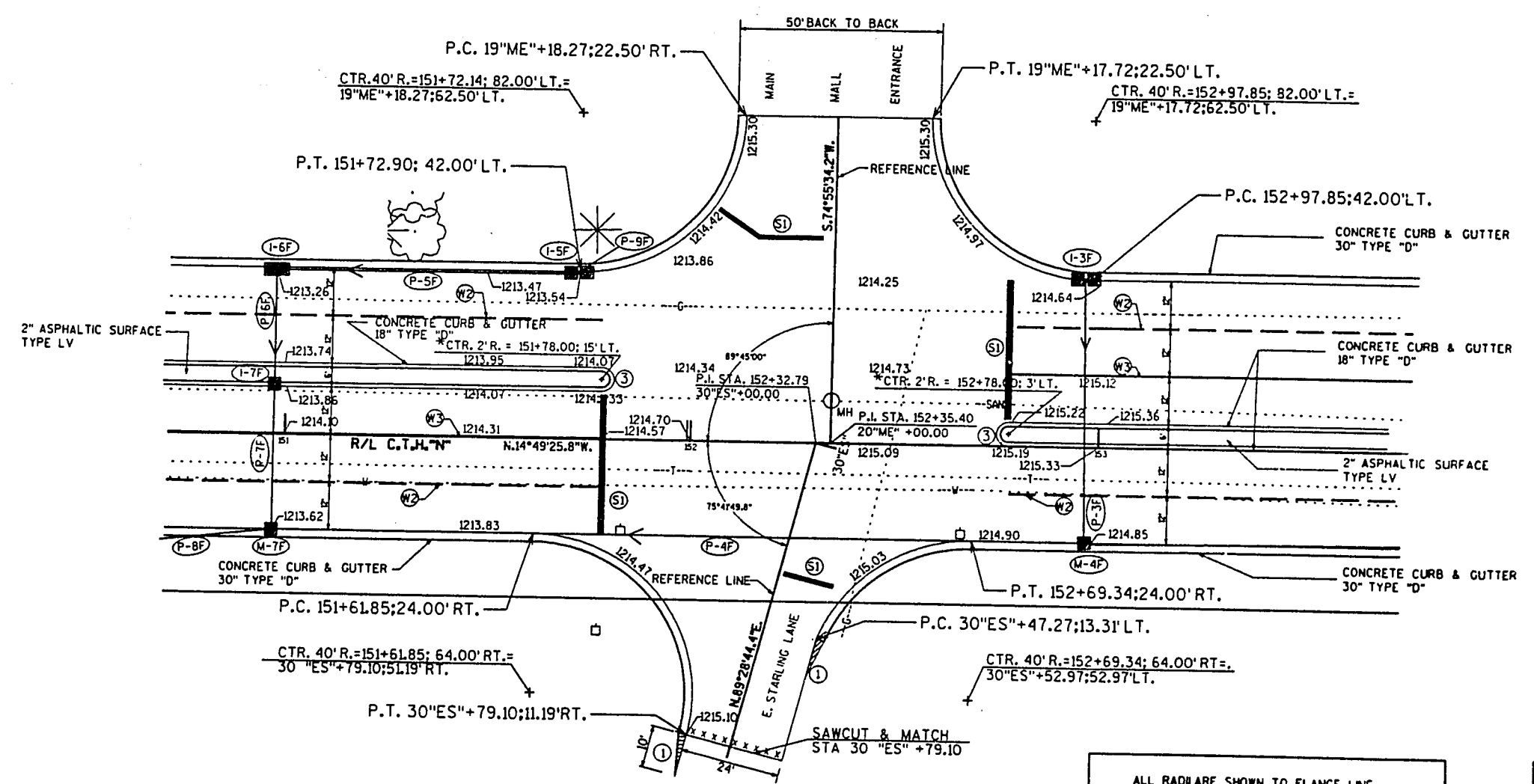
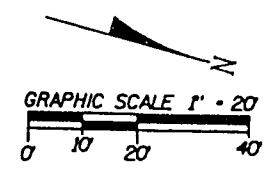
TYPICAL TRAFFIC CONTROL SECTION



TYPICAL DRAIN OUT ASSEMBLY
 TO BE USED AT ALL INTERMEDIATE AND END PIPE DRAIN OUTS



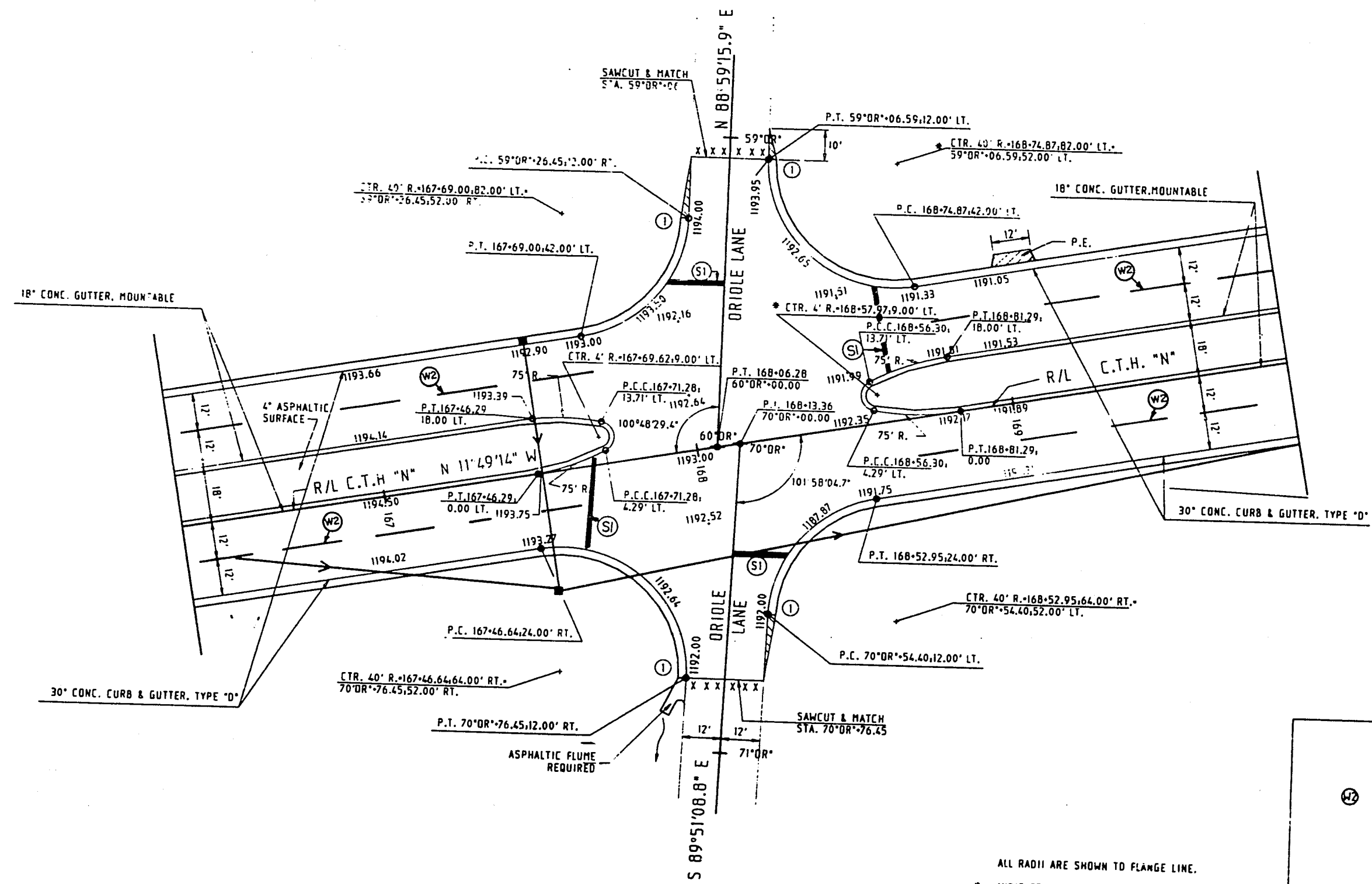
INSTALLING CONDUIT, 2 INCH (WPC)



- ALL RADII ARE SHOWN TO FLANGE LINE
- * INDICATES RADII TO FACE OF CURB
 - ① END CURB AND GUTTER, TAPER 6" TO 0" IN 10'
 - ③ SEE ISLAND NOSE DETAIL
 - ASPHALTIC SHOULDER

- LEGEND**
- ② PAVEMENT MARKING, EPOXY, 4", DASHED WHITE
 - ③ PAVEMENT MARKING, CHANNELIZING, EPOXY, 8", SOLID WHITE
 - ⑤ PAVEMENT MARKING, STOP LINE EPOXY, 12"

NOTE: FOR CONDUIT LOCATIONS SEE INTERSECTION TRAFFIC CONTROL DETAIL



ALL RADII ARE SHOWN TO FLANGE LINE.
 * INDICATES RADII TO FACE OF CURB.
 (1) END CURB AND GUTTER, TAPER 6" TO 0" IN 10'.
 [Hatched Box] ASPHALTIC SHOULDER

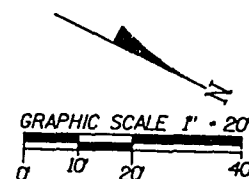
LEGEND

(W2) PAVEMENT MARKING, EPOXY, 4", DASHED WHITE

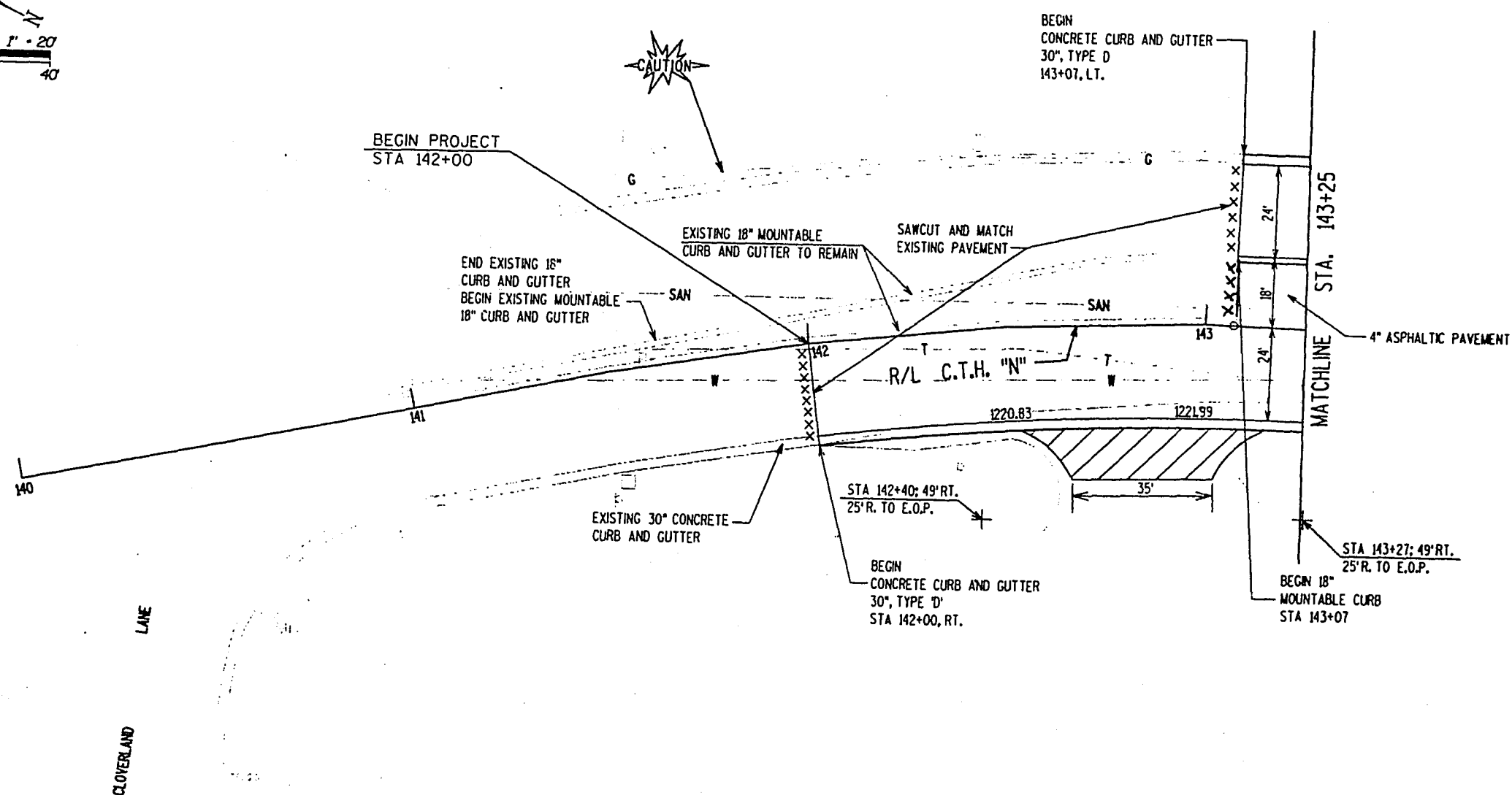
(S1) PAVEMENT MARKING, STOP LINE, EPOXY, 18"

NOTE: FOR CONDUIT LOCATION SEE INTERSECTION TRAFFIC CONTROL DETAIL

STATE PROJECT NUMBER	SHEET NO.
6999-01-71	2.8
CONSTRUCTION DETAIL	
CTH "N"	MARATHON COUNTY

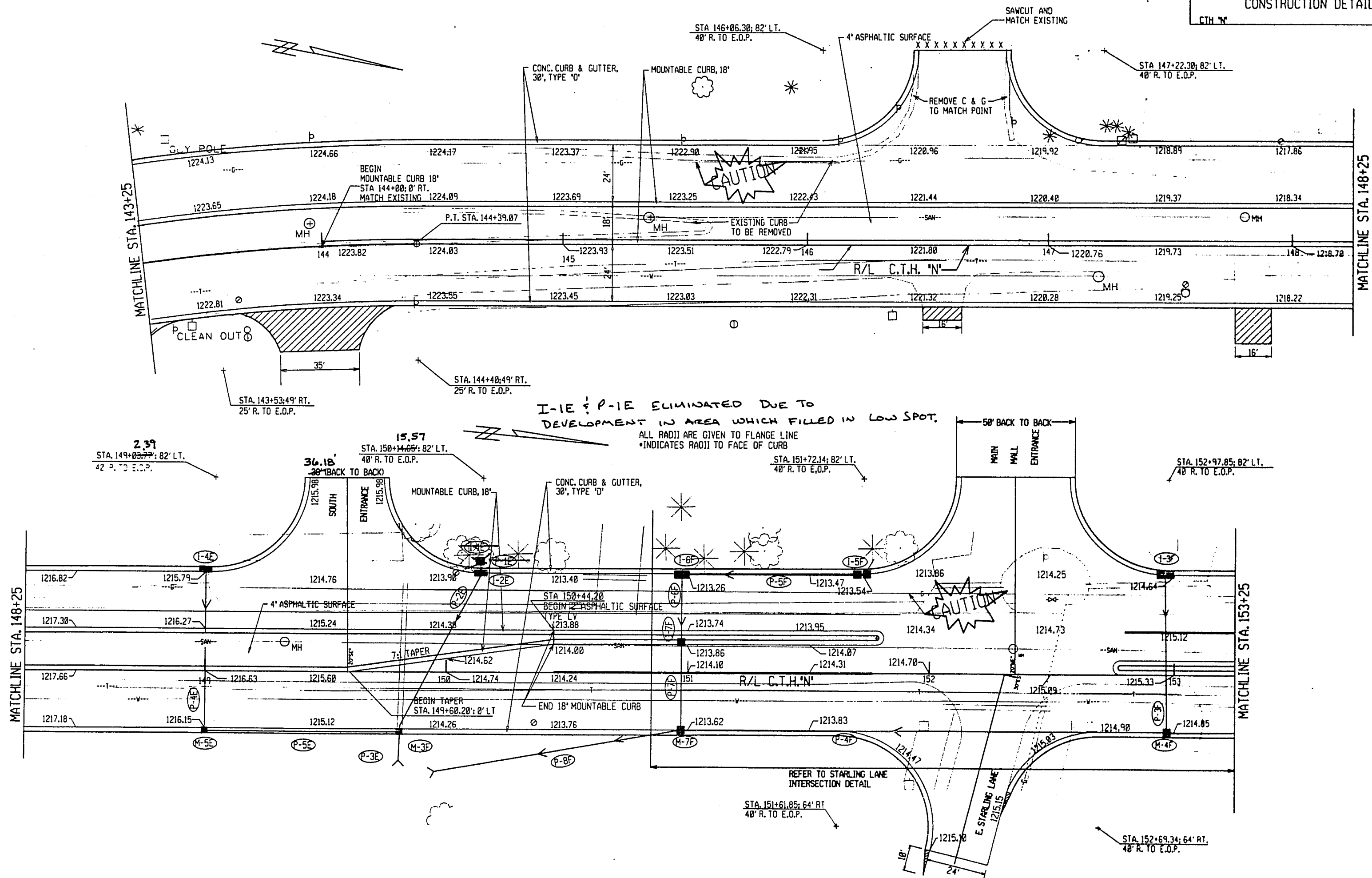


* ALL RADII ARE SHOWN TO FLANGE LINE
 * INDICATES RADII TO FACE OF CURB

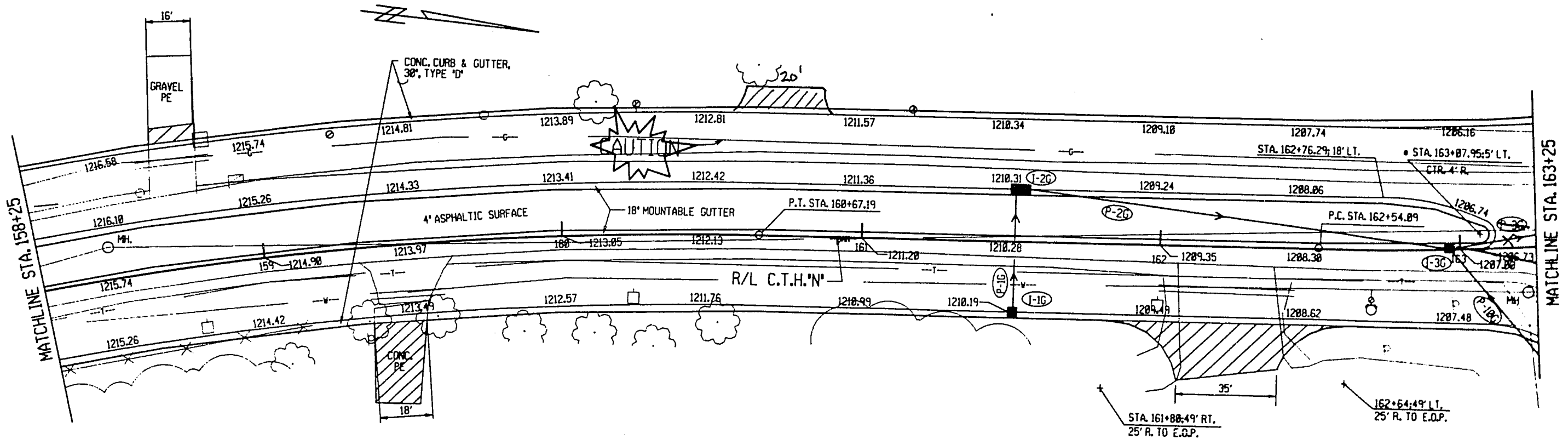
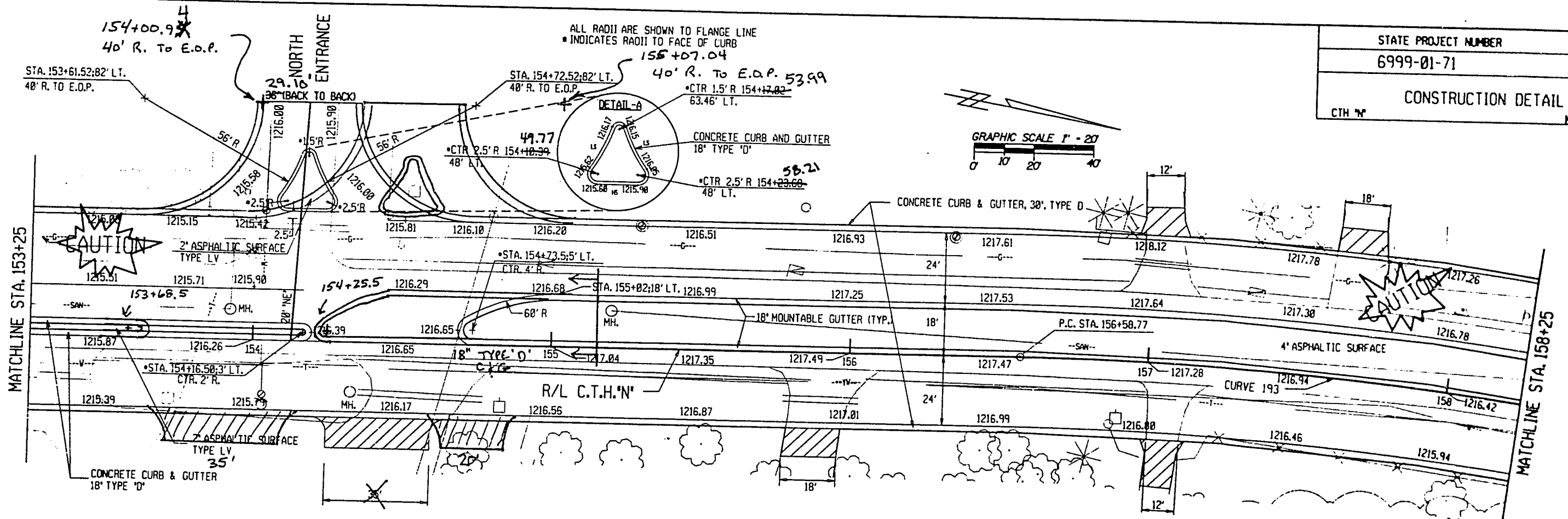


ALL RADII ARE SHOWN TO FLANGE LINE
• INDICATES RADII TO FACE OF CURB

STATE PROJECT NUMBER	SHEET NO.
6999-01-71	2.9
CONSTRUCTION DETAIL	
CTH "N"	MARATHON COUNTY

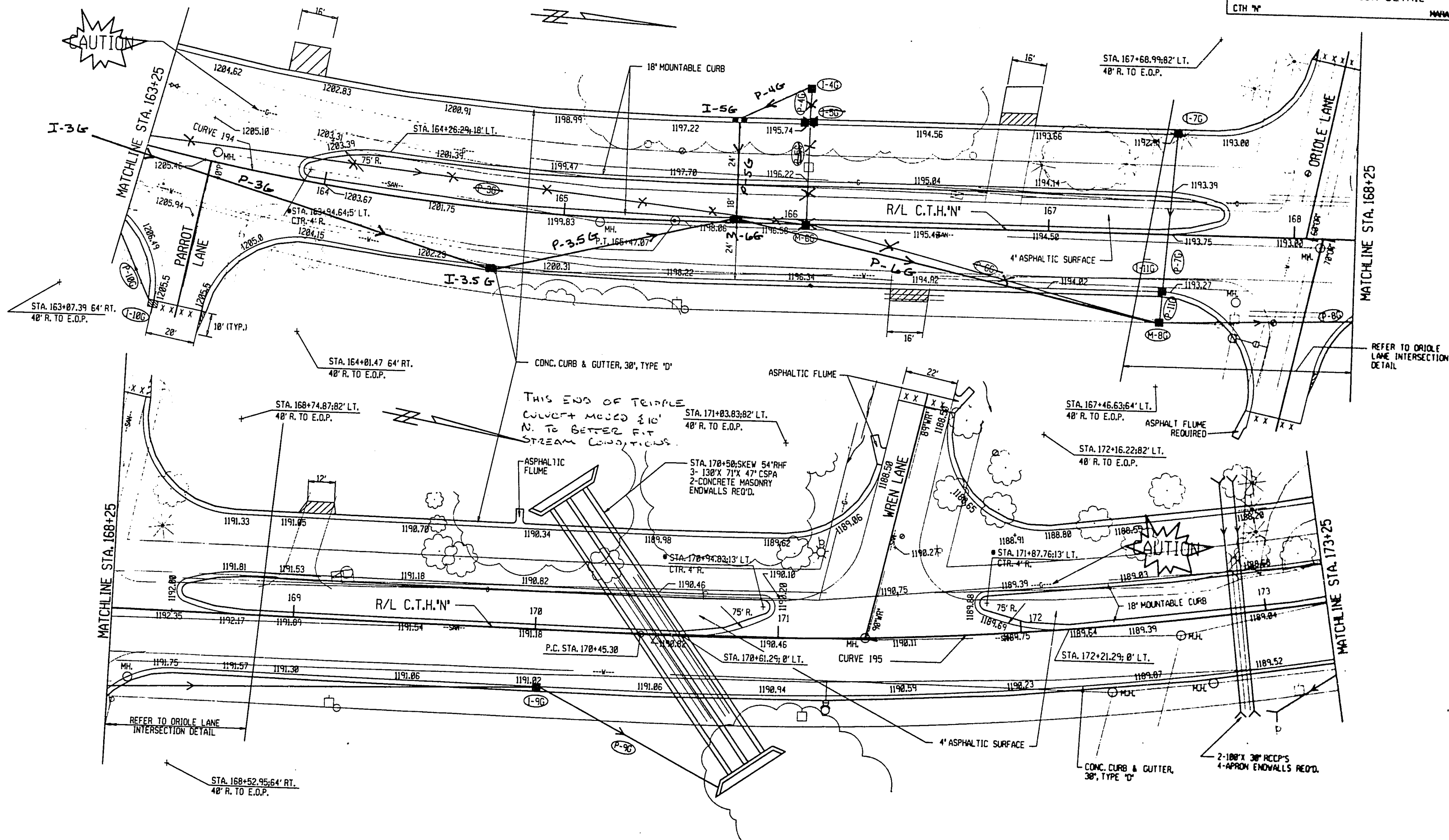


STATE PROJECT NUMBER	SHEET NO.
6999-01-71	2.10
CONSTRUCTION DETAIL	
CTH "N" MARATHON COUNTY	



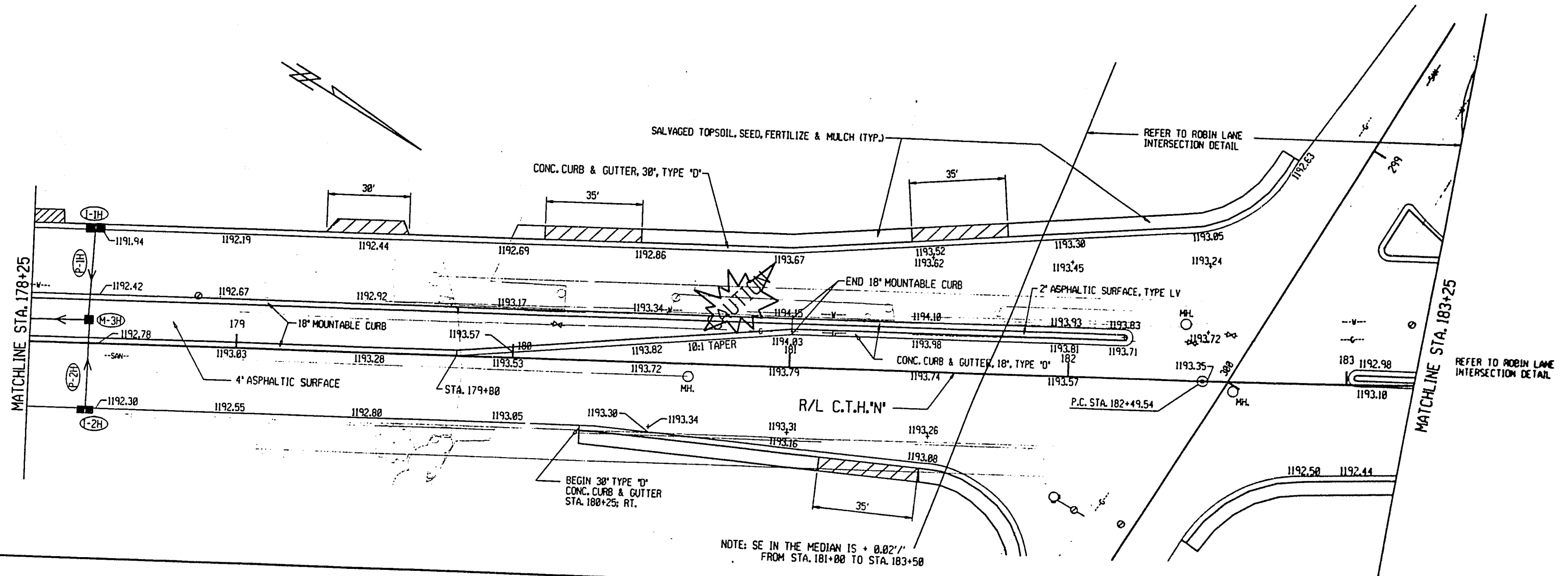
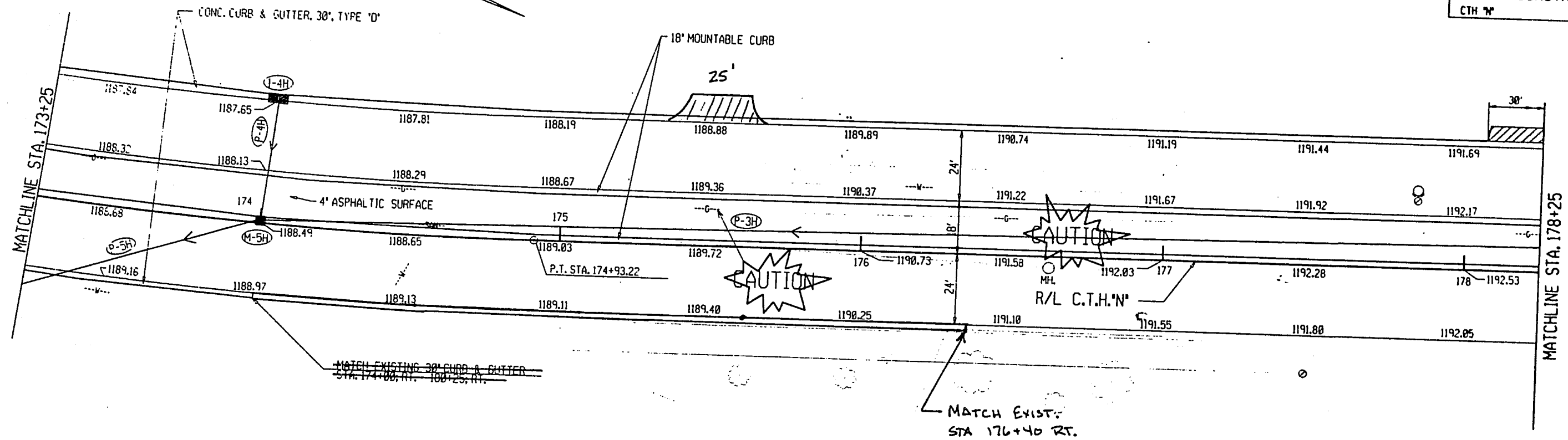
ALL RADII ARE GIVEN TO FLANGE LINE
• INDICATES RADII TO FACE OF CURB

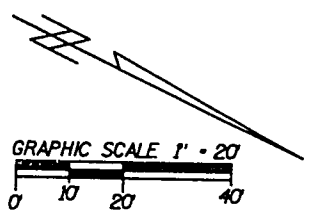
STATE PROJECT NUMBER	SHEET NO.
6999-01-71	2. 11
CONSTRUCTION DETAIL	
CTH "N"	MARATHON COUNTY



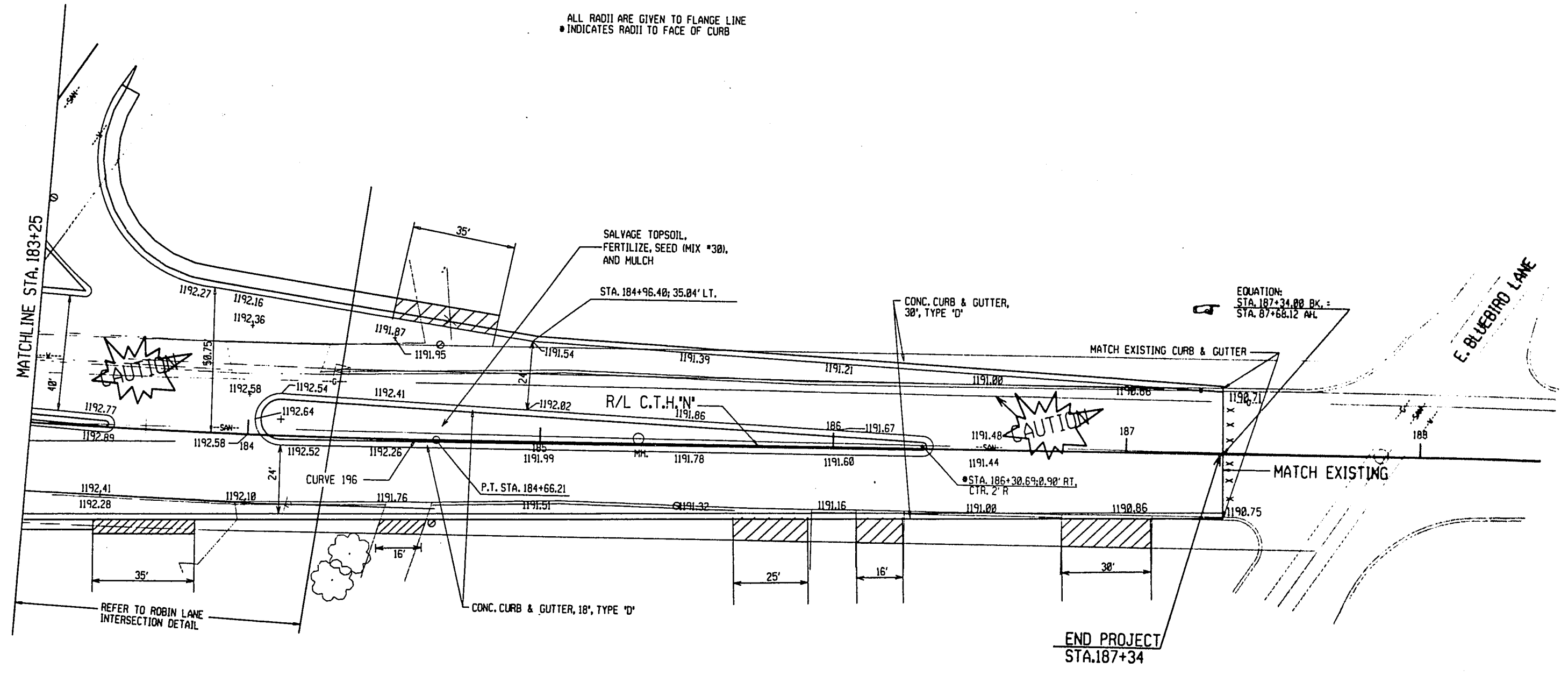
ALL RADII ARE GIVEN TO FLANGE LINE
• INDICATES RADII TO FACE OF CURB

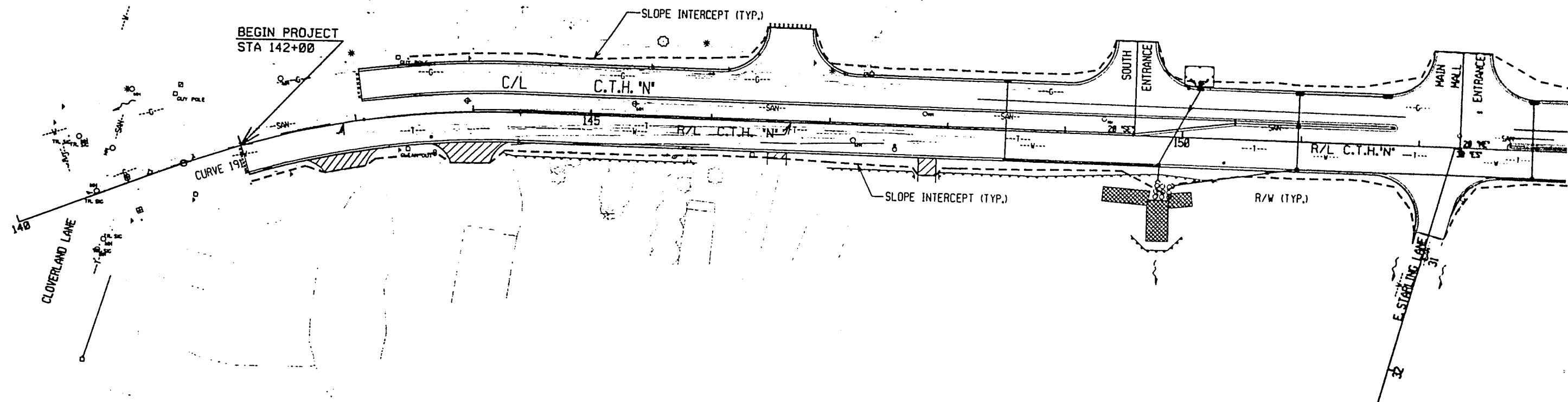
STATE PROJECT NUMBER	SHEET NO.
6999-01-71	2.12
CONSTRUCTION DETAIL	
CTH "N"	MARATHON COUNTY





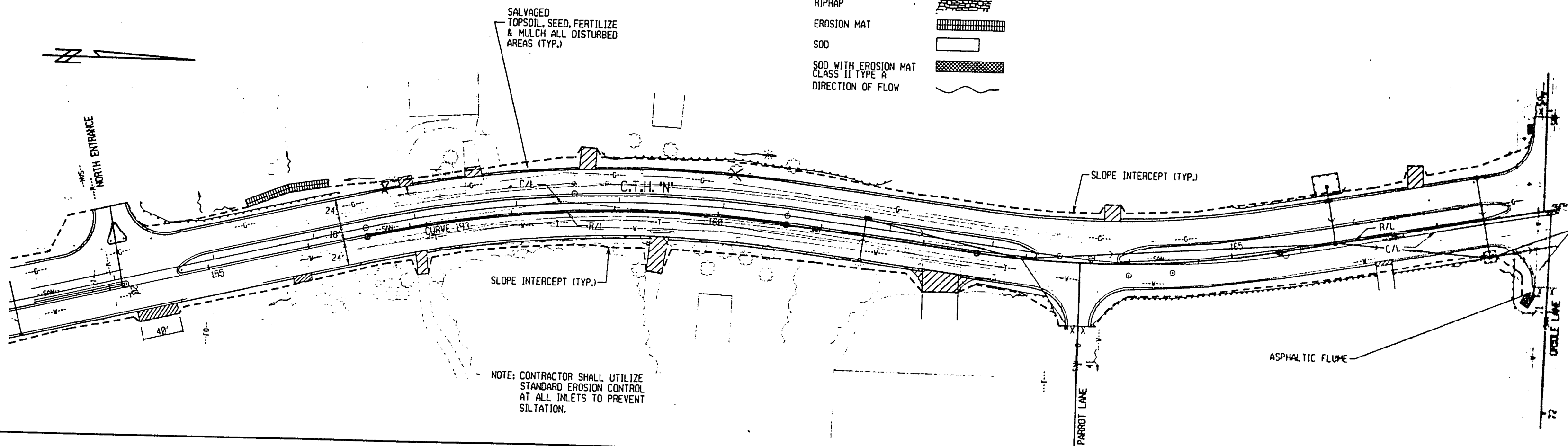
ALL RADII ARE GIVEN TO FLANGE LINE
• INDICATES RADII TO FACE OF CURB





LEGEND

- | | |
|--------------------------------------|-------------------------|
| SILT FENCE | ~ FLOW |
| RIPRAP | [Hatched pattern] |
| EROSION MAT | [Grid pattern] |
| SOD | [White box] |
| SOD WITH EROSION MAT CLASS II TYPE A | [Cross-hatched pattern] |
| DIRECTION OF FLOW | ~ |

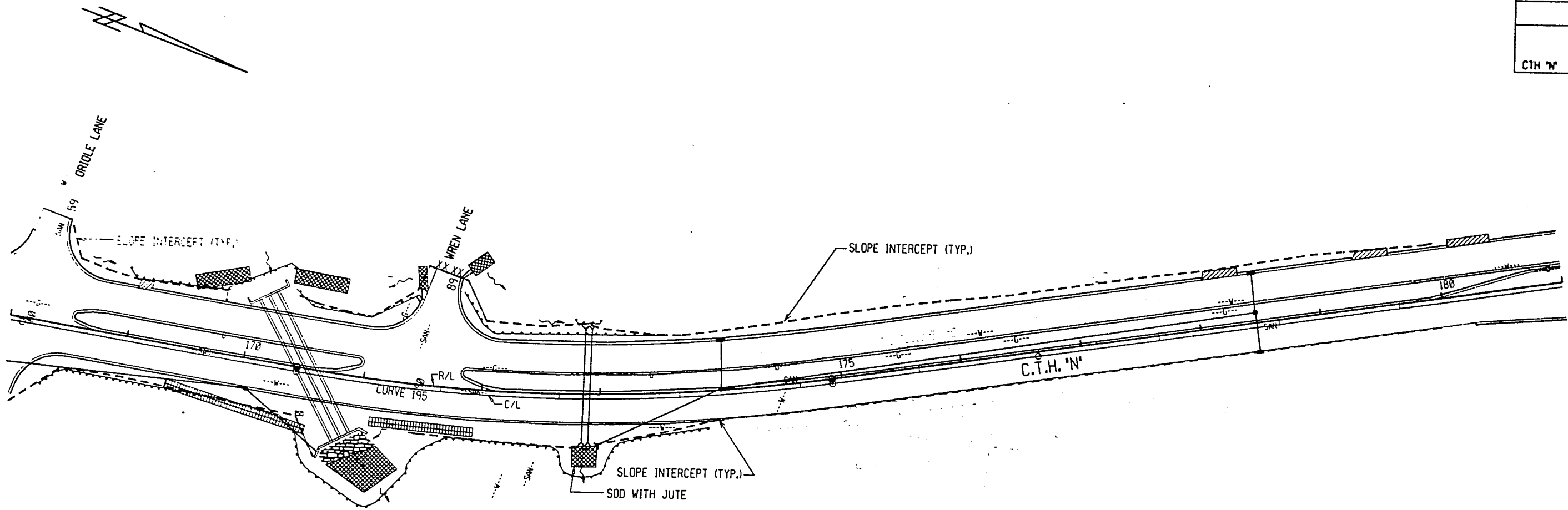


SALVAGED TOPSOIL, SEED, FERTILIZE & MULCH ALL DISTURBED AREAS (TYP.)

SLOPE INTERCEPT (TYP.)

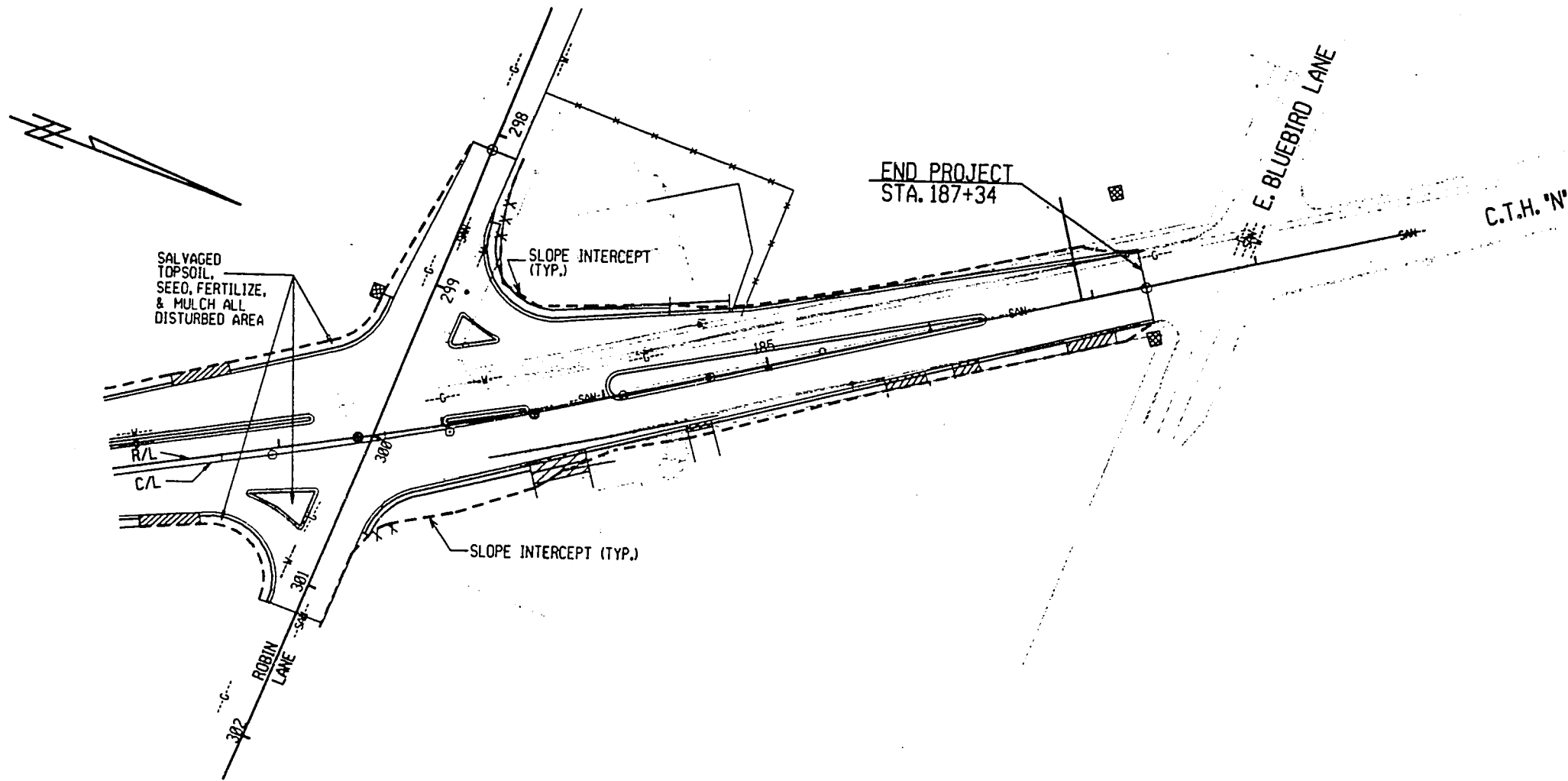
NOTE: CONTRACTOR SHALL UTILIZE STANDARD EROSION CONTROL AT ALL INLETS TO PREVENT SILTATION.

STATE PROJECT NUMBER	SHEET NO.
6999-01-71	2.15
EROSION CONTROL	
CTH 'N' MARATHON COUNTY	



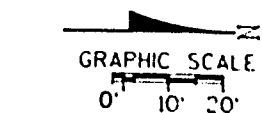
LEGEND

- SILT FENCE
- RIPRAP
- EROSION MAT
- SOD
- SOD WITH EROSION MAT
- CLASS II TYPE A
- DIRECTION OF FLOW



SALVAGED TOPSOIL, SEED, FERTILIZE, & MULCH ALL DISTURBED AREA

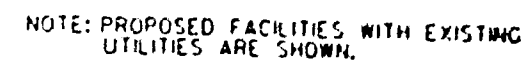
NOTE: CONTRACTOR SHALL UTILIZE STANDARD EROSION CONTROL AT ALL INLETS TO PREVENT SILTATION.



WISDOT/CADD5 SHEET 47

[illegible]

CH 101 & ROBIN LANE



WISDOT/CADDIS SHEET 47

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

FILE NAME: HDGN:

SEQUENCE OF OPERATION

HEAD NUMBERS	01				02				03				04			
	CLEAR TO				CLEAR TO											
	R/W	.	.		R/W	.	.		R/W	.	.		R/W	.	.	
01 (5,7)	-	-	-		-	-	-						-	-	-	
02 (1,2,3,4)	R	R	R		G	Y	R									
03 (~~1,2,3,4~~)													R	R	R	
04 (9,10,11)	R	R	R		R	R	R									
05 (1,4)	-	-	-		-	-	-						G	Y	R	
06 (5,6,7,8)	R	R	R		R	R	R						-	-	-	
07 (~~1,2,3,4~~)													R	R	R	
08 (12,13,14)	R	R	R		R	R	R									
P4 (15,16)	DW	DW	DW		DW	DW	DW						R	R	R	
													.	.	DW	

HEAD NUMBERS		05 CLEAR TO				06 CLEAR TO				07 CLEAR TO				08 CLEAR TO			
		R/W	.	.		R/W	.	.		R/W	.	.		R/W	.	.	
01	(5,7)	-	-	-		R/W	-	-		R/W	.	.		R/W	.	.	
02	(1,2,3,4)	R	R	R		R	R	R						R	-	-	
03	(~~5,6~~)													R	R	R	
04	(9,10,11)	R	R	R		R	R	R									
05	(1,4)	G	Y	-		-	-	-						R	-	-	
06	(5,6,7,8)	R	R	R		G	Y	R						-	-	-	
07	(~~9,10~~)													R	R	R	
08	(12,13,14)	R	R	R		R	R	R									
P4	(15,16)	DW	DW	DW		DW	DW	DW						G	Y	R	
														DW	DW	DW	

- CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE NONCONFLICT MONITORING BELOW)
- WHEN CALLED, TIMED STEADY WALK, THEN FLASHING DONT WALK, THEN GOES TO STEADY DONT WALK.

NONCONFLICT MONITORING

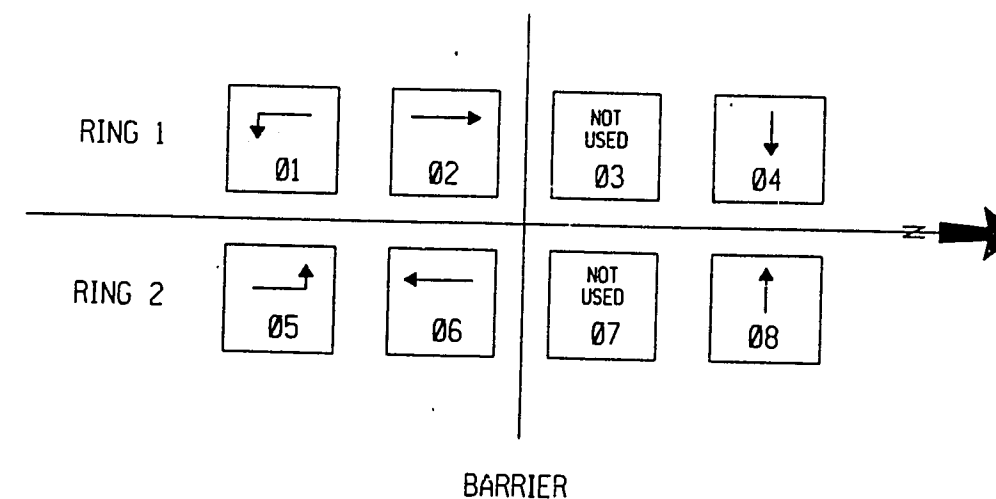
PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
Ø1	5 OR 6	2, 4, 8
Ø2	5 OR 6	1, 4, 8
Ø3	NOT USED	NOT USED
Ø4	8	1, 2, 5, 6
Ø5	1 OR 2	4, 6, 8
Ø6	1 OR 2	4, 5, 8
Ø7	NOT USED	NOT USED
Ø8	4	1, 2, 5, 6

DETECTOR LOGIC

[illegible]

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	PHASE RECALL	DUAL ENTRY	PHASE TERMINATION
1	NON		6	
2	YES	MIN	6	
3	——			
4	YES		8	
5	NON		2	
6	YES	MIN	2	
7	——			
8	YES		4	



OVERLAPS

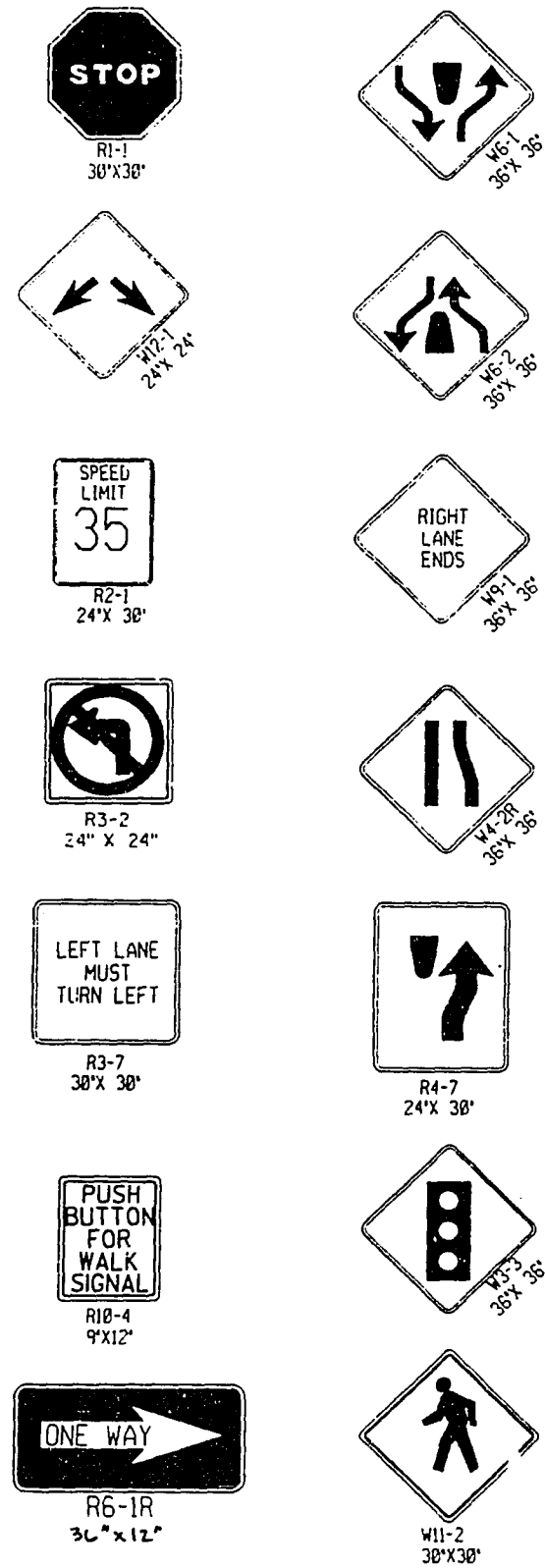
O.L.'A': NOT USED
O.L.'B': NOT USED
O.L.'C': NOT USED
O.L.'D': NOT USED

NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED
2. WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL.
(SEE NONCONFLICT MONITORING AT LEFT.)
3. IF ANY OPPOSING THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. PROVIDE FOR HAND CONTROL OPERATION.

SIGNAL NO:
REVISION:
DATE:

* INCLUDED IN CABLE CONDUCTOR NUMBER



SIGN #	CODE #	SIZE (IN.)	SIGN AREA TYPE II (S.F.)	WOOD POST (4" X 6") 14' (EA.)
1	R1-1	30X30	5.2	1
3	R1-1	30X30	5.2	1
4	R2-1	24X30	5	1
5	R1-1	30X30	---	O.S.P.
6	R4-7	24X30	5	O.S.P.
7	R4-7	24X30	5	O.S.P.
8	W3-3	36X36	9	1
9	R1-1	30X30	---	O.S.P.
10	R1-1	30X30	5.2	1
11	W3-3	36X36	9	1
12	R2-1	24X30	5	1
13	R2-1	24X30	5	1
14	R1-1	30X30	5.2	1
15	R4-7	24X30	5	1
16	R4-7	24X30	5	1
17	R4-7	24X30	5	1
18	R2-1	24X30	5	1
19	R2-1	24X30	5	1
20	R1-1	30X30	5.2	1
21	R2-1	24X30	5	1
22	R6-1R	36X12	3	1
23	R3-2	24X24	4	1
24	R3-7	30X30	6.3	O.S.
28	R2-1	24X30	5	1
29	R1-1	30X30	5.2	1
30	R1-1	30X30	5.2	1
31	R3-7	30X30	6.3	O.S.
32	R2-1	24X30	5	1
33	R4-7	24X30	5	1
34	R4-7	24X30	5	1
35	R1-1	30X30	5.2	1
36	R2-1	24X30	5	1
37	R2-1	24X30	5	1
38	R3-7	30X30	6.3	O.S.
39	W3-3	36X36	9	1
40	R1-1	30X30	---	O.S.P.
41	W12-1	24X24	4	1
42	W3-3	36X36	9	1
43	W6-1	36X36	9	1
44	R4-7	24X30	5	O.S.P.
45	R1-1	30X30	5.2	1
46	R4-7	24X30	5	O.S.P.
47	R4-7	24X30	5	1
48	W12-1	24X24	4	1
49	R1-1	30X30	6.3	1
50	R1-1	30X30	---	O.S.P.
51	R2-1	24X30	5	1
52	W9-1	36X36	9	1
53	W4-2R	36X36	9	1
54	W6-2	36X36	9	1
55	R10-4	9X12	0.75	O.S.P.
56	R10-4	9X12	0.75	O.S.P.
57	W11-2	30X30	6.3	1
58	W11-2	30X30	6.3	1

■ DENOTES FOLDING STOP SIGN, COUNTY FURNISHED, CONTRACTOR INSTALLED
O.S.P. = ON SIGNAL POST
D.S. = DOUBLE SIGN; INSTALL ON COMMON POST



~~ZZ~~

-
- Diagram illustrating a traffic intersection layout. A vehicle is shown stopped at a red light. The distance from the stop line to the vehicle is 25'. The intersection width is 32'. The vehicle's width is 8'. The distance from the vehicle to the intersection edge is 8'. The distance from the intersection edge to the vehicle's front is 32'. The distance from the vehicle's front to the intersection edge is 8'.

- FOLDING SIGN-COUNTY FURNISHED, CONTRACTOR INSTALLED
 ⑤ - SIGN NUMBER

25' 8' 32' 8' 32' 8'

TYPICAL PAVEMENT MARKING
 LEFT TURN LANES

NORTH ENTRANCE

C.I.H. N

PARROT LANE

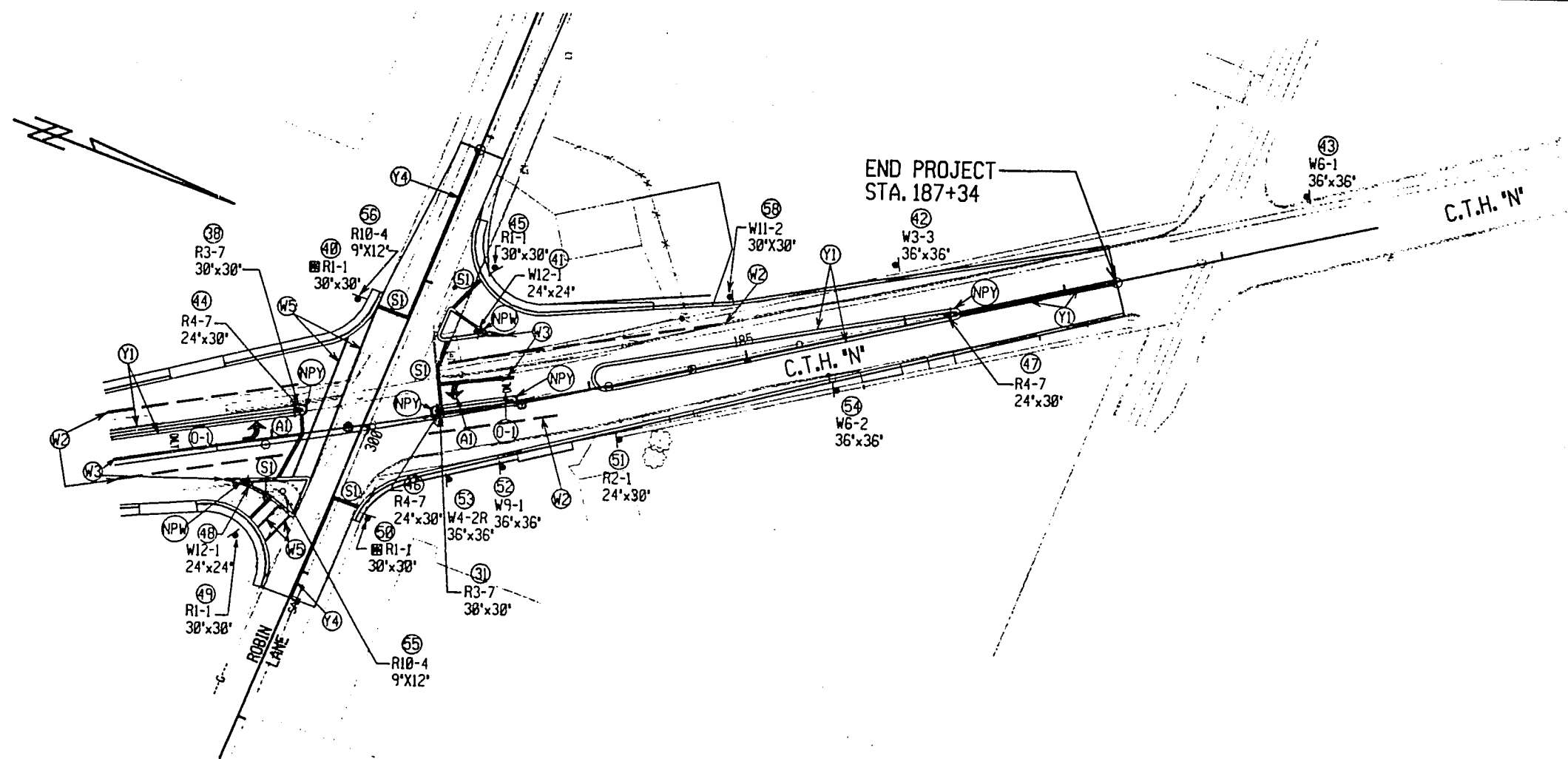
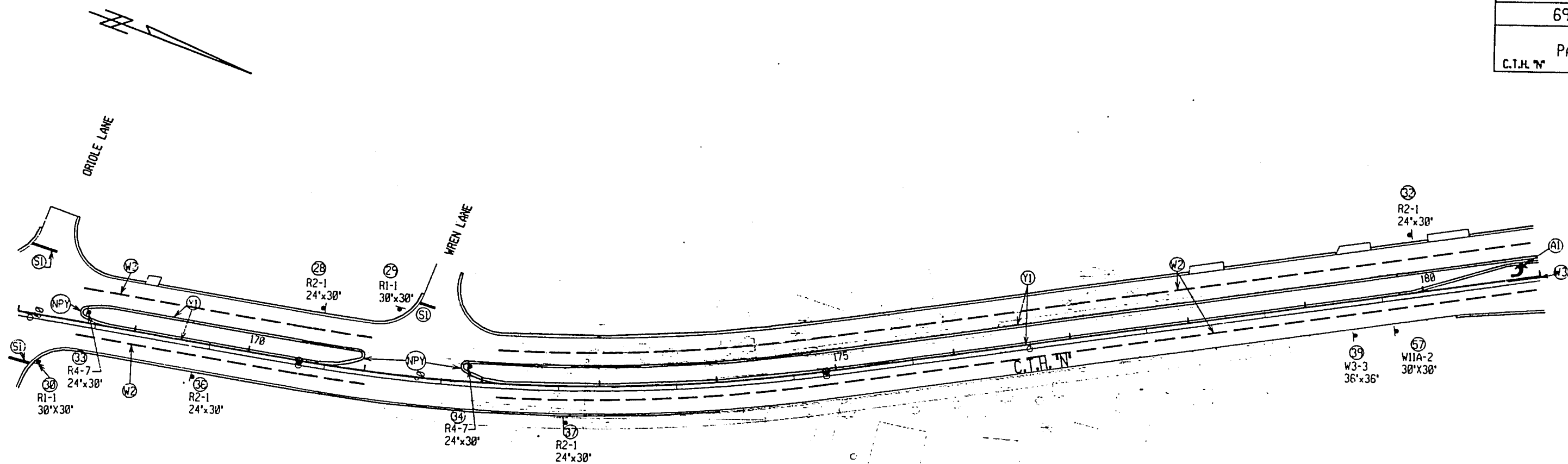
ORIOLE LANE

23 R3-2 24'x24'
 10 R1-1 30'x30'
 11 W3-3 36'x36'
 12 R2-1 24'x30'
 13 R2-1 24'x30'
 14 R1-1 30'x30'
 15 R4-7 24'x30'
 16 R4-7 24'x30'
 17 R4-7 24'x30'
 18 R2-1 24'x30'
 19 R2-1 24'x30'
 20 R1-1 30'x30'
 21 R2-1 24'x30'
 22 R6-1 36'x12'
 23 R6-1 36'x12'

155 160 165

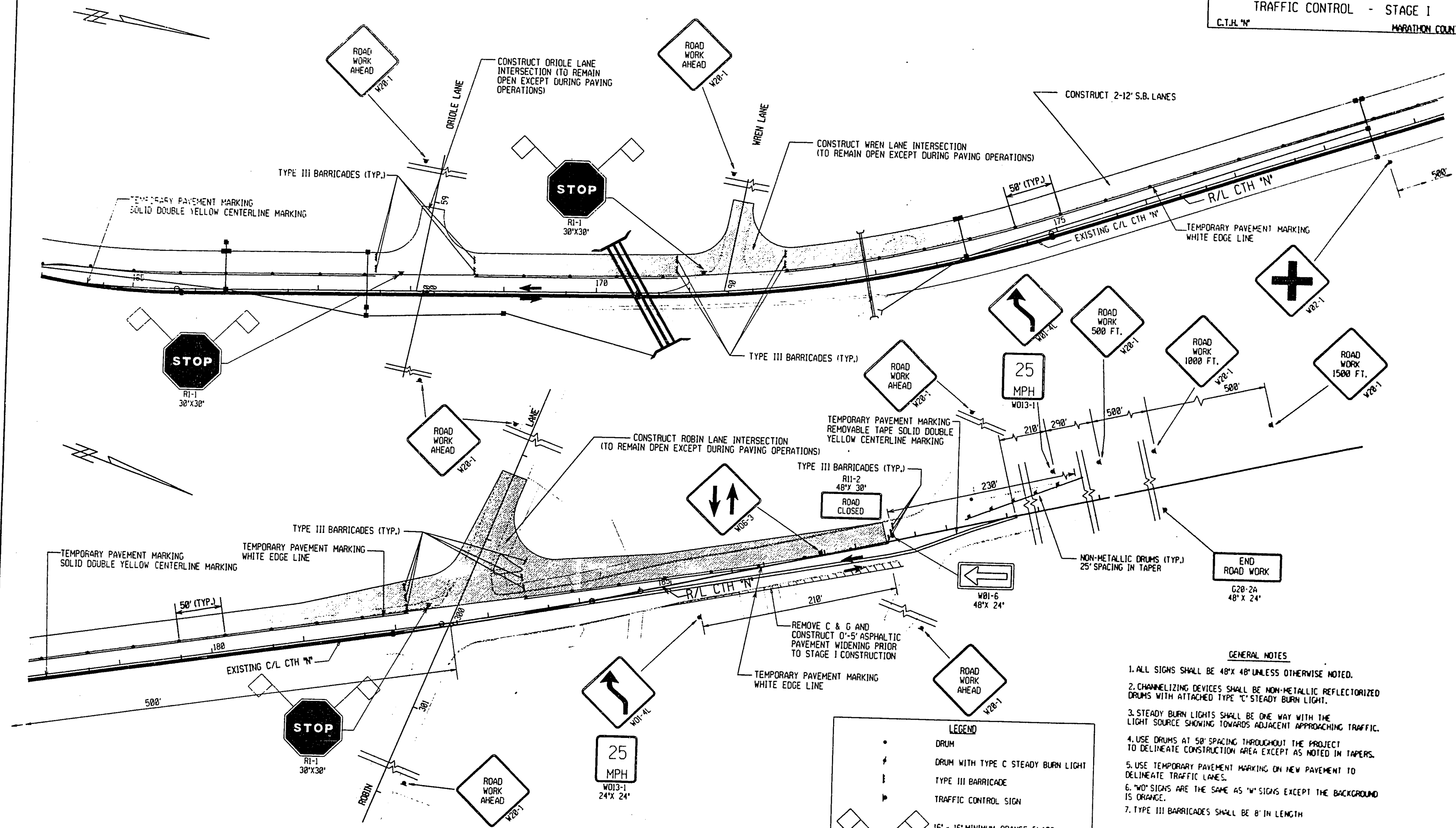
41 72

STATE PROJECT NUMBER	SHEET NO.
6999-01-71	224
PERMANENT PAVEMENT MARKING & SIGNING C.T.H. 'N' MARATHON COUNTY	



LEGEND

- W2 - PAVEMENT MARKING, EPOXY, 4" DASHED WHITE
- W3 - PAVEMENT MARKING, CHANNELIZING, EPOXY, 8" SOLID WHITE
- W5 - PAVEMENT MARKING, PEDESTRIAN X-WALK, EPOXY, 6" SOLID WHITE
- Y1 - PAVEMENT MARKING, EPOXY, 4" SOLID YELLOW
- A1 - PAVEMENT MARKING, ARROWS, EPOXY, TYPE 2
- O1 - PAVEMENT MARKING, "ONLY", EPOXY (TYPICAL)
- S1 - PAVEMENT MARKING, STOP LINE, EPOXY, 18" SOLID WHITE
- NPW - PAVEMENT MARKING, ISLAND NOSE, EPOXY, WHITE
- NPY - PAVEMENT MARKING, ISLAND NOSE, EPOXY, YELLOW
- SI - FOLDING SIGN-COUNTY FURNISHED, CONTRACTOR INSTALLED
- 5 - SIGN NUMBER

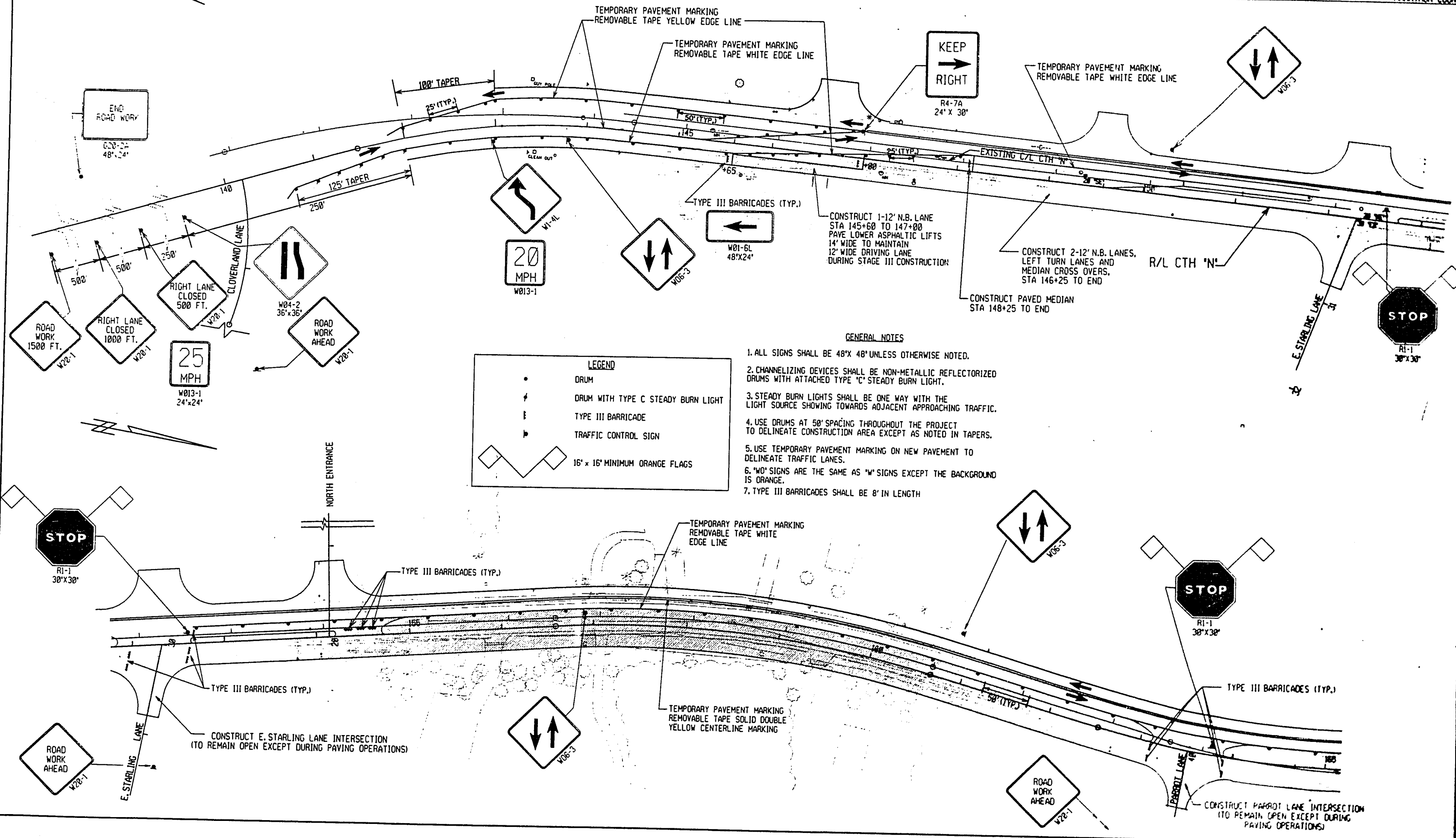


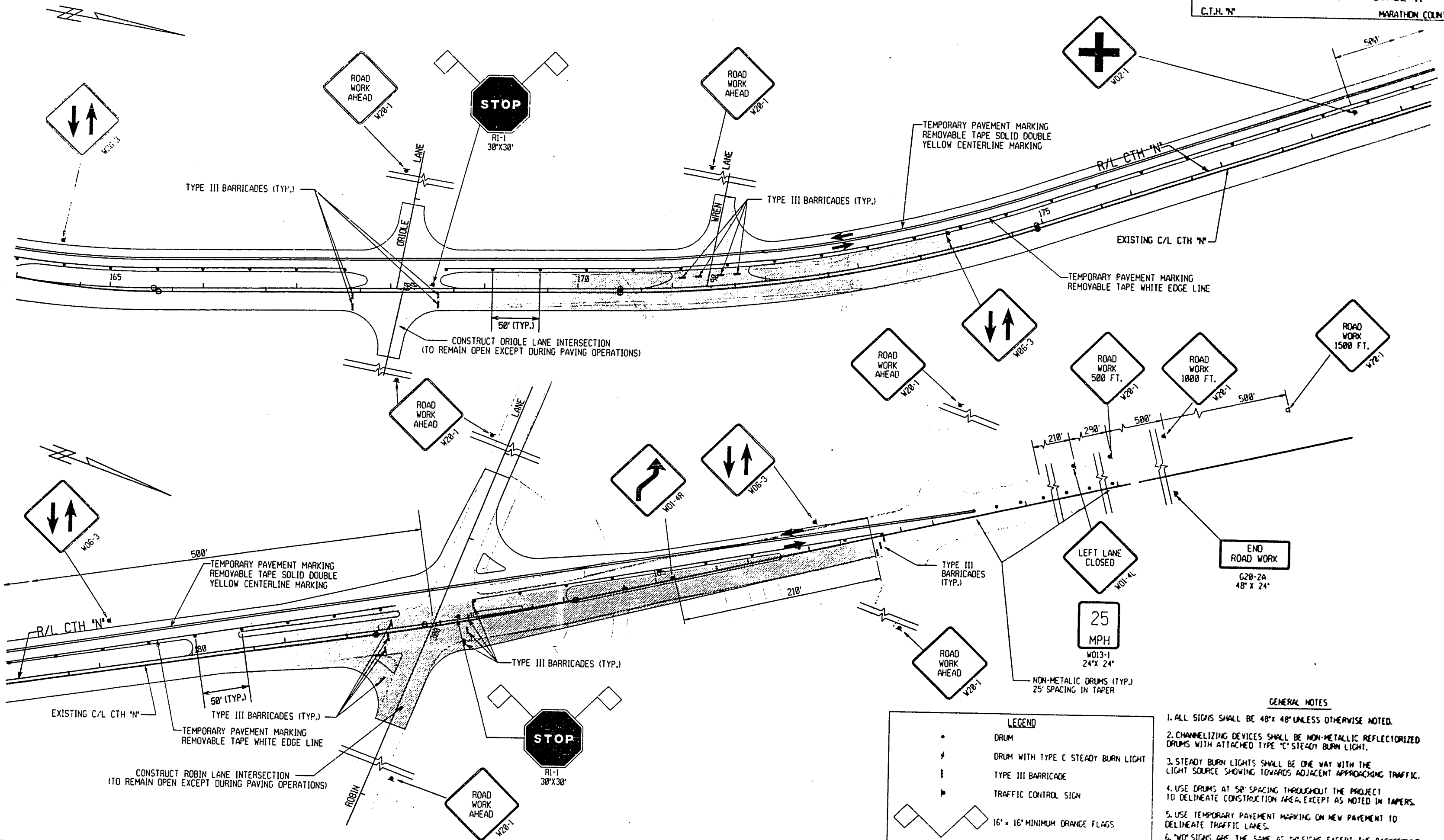
LEGEND

- DRUM
- ⚡ DRUM WITH TYPE C STEADY BURN LIGHT
- ▬ TYPE III BARRICADE
- ▶ TRAFFIC CONTROL SIGN
- ◊ 16" x 16" MINIMUM ORANGE FLAGS

- GENERAL NOTES**
1. ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED.
 2. CHANNELIZING DEVICES SHALL BE NON-METALLIC REFLECTORIZED DRUMS WITH ATTACHED TYPE 'C' STEADY BURN LIGHT.
 3. STEADY BURN LIGHTS SHALL BE ONE WAY WITH THE LIGHT SOURCE SHOWING TOWARDS ADJACENT APPROACHING TRAFFIC.
 4. USE DRUMS AT 50' SPACING THROUGHOUT THE PROJECT TO DELINEATE CONSTRUCTION AREA EXCEPT AS NOTED IN TAPERS.
 5. USE TEMPORARY PAVEMENT MARKING ON NEW PAVEMENT TO DELINEATE TRAFFIC LANES.
 6. "W" SIGNS ARE THE SAME AS "R" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
 7. TYPE III BARRICADES SHALL BE 8' IN LENGTH.

NOTE: DRAINAGE STRUCTURES SHOWN FOR INFORMATION ONLY

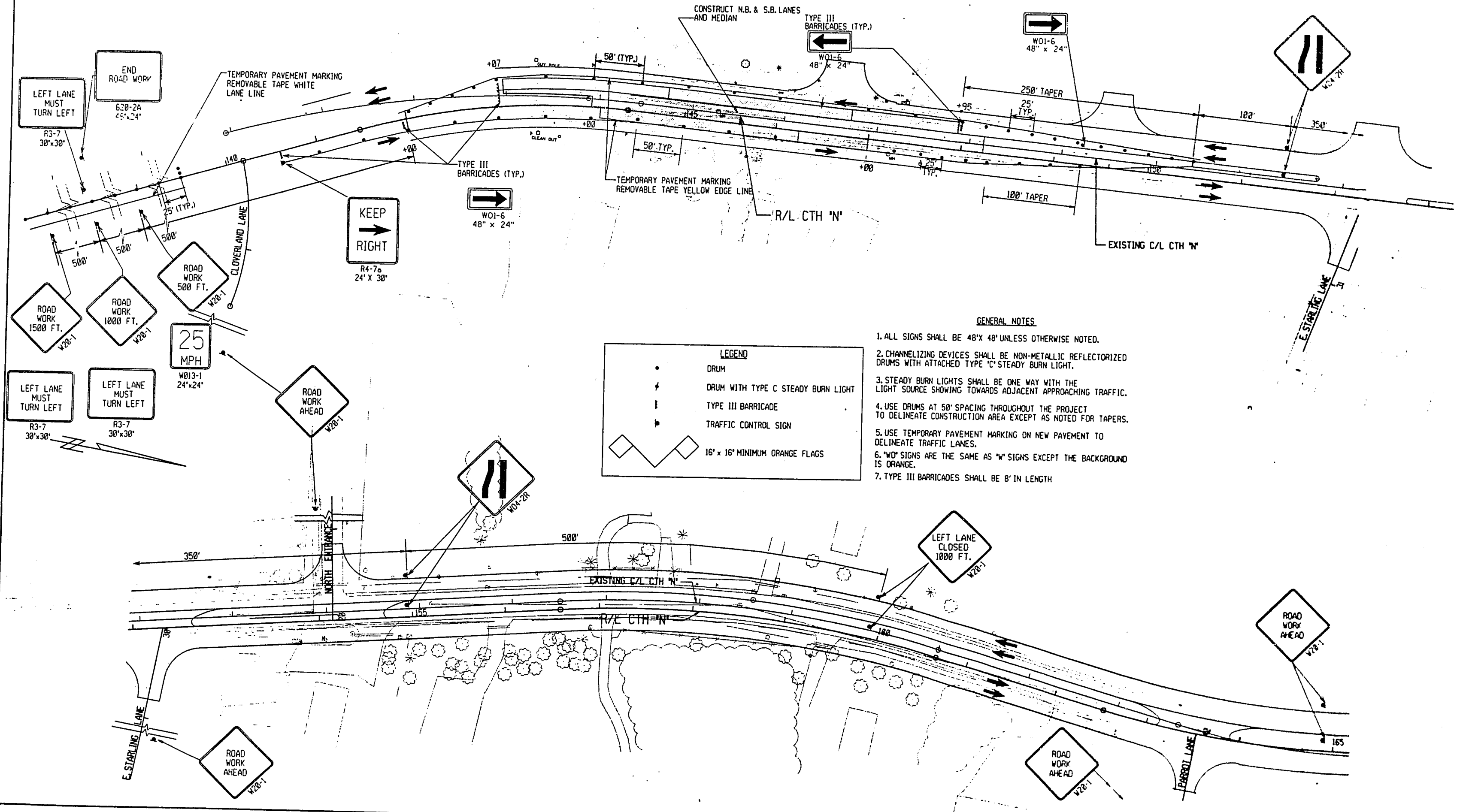




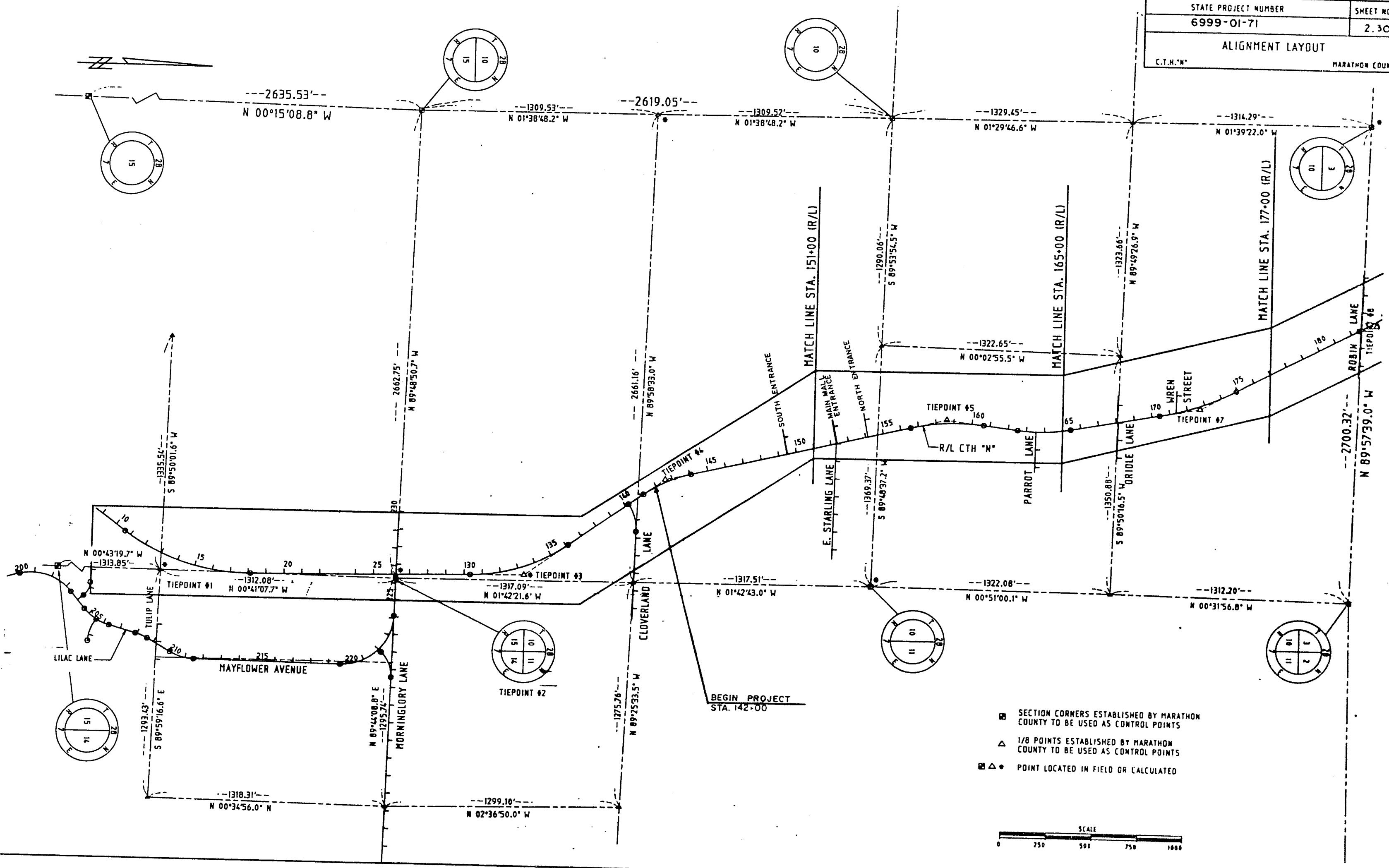
LEGEND

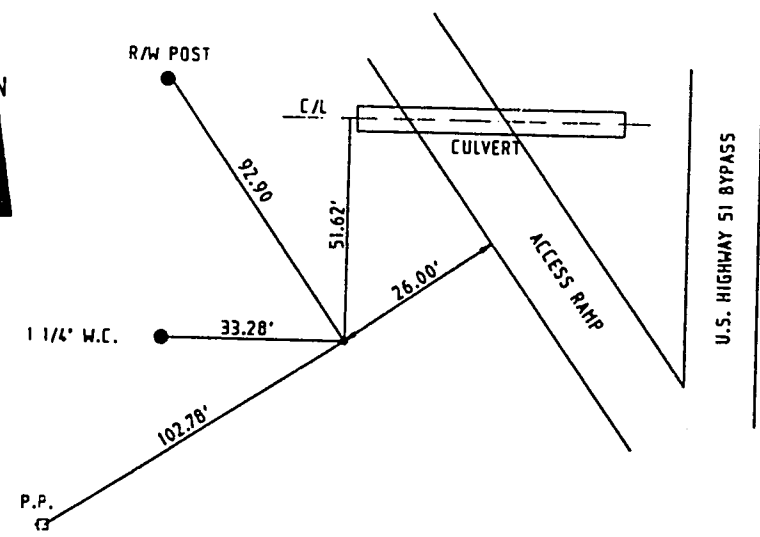
- DRUM
- ⚡ DRUM WITH TYPE C STEADY BURN LIGHT
- ▬ TYPE III BARRICADE
- ▶ TRAFFIC CONTROL SIGN
- ◊ 16" x 16" MINIMUM ORANGE FLAGS

- GENERAL NOTES**
1. ALL SIGNS SHALL BE 48" x 48" UNLESS OTHERWISE NOTED.
 2. CHANNELIZING DEVICES SHALL BE NON-METALLIC REFLECTORIZED DRUMS WITH ATTACHED TYPE "C" STEADY BURN LIGHT.
 3. STEADY BURN LIGHTS SHALL BE ONE WAY WITH THE LIGHT SOURCE SHOWING TOWARDS ADJACENT APPROACHING TRAFFIC.
 4. USE DRUMS AT 50' SPACING THROUGHOUT THE PROJECT TO DELINEATE CONSTRUCTION AREA, EXCEPT AS NOTED IN TAPERS.
 5. USE TEMPORARY PAVEMENT MARKING ON NEW PAVEMENT TO DELINEATE TRAFFIC LANES.
 6. "W" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
 7. TYPE III BARRICADES SHALL BE 8' IN LENGTH.

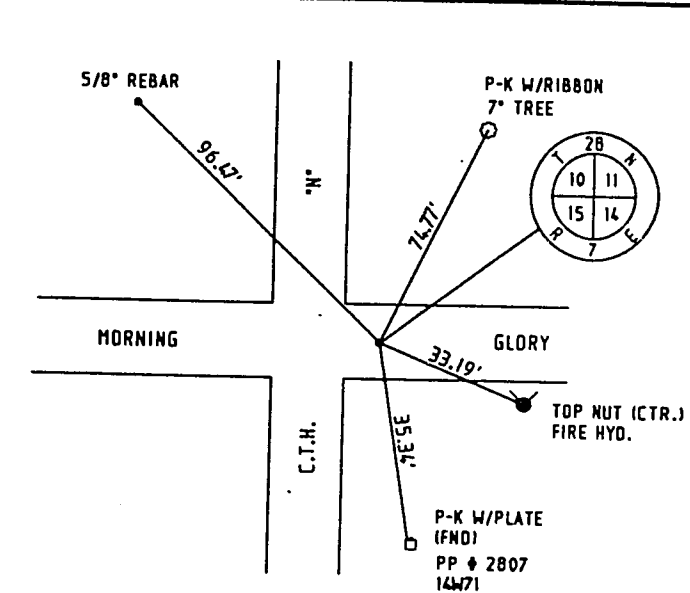


STATE PROJECT NUMBER	SHEET NO.
6999-01-71	2.30
ALIGNMENT LAYOUT	
C.T.M."M"	MARATHON COUNTY

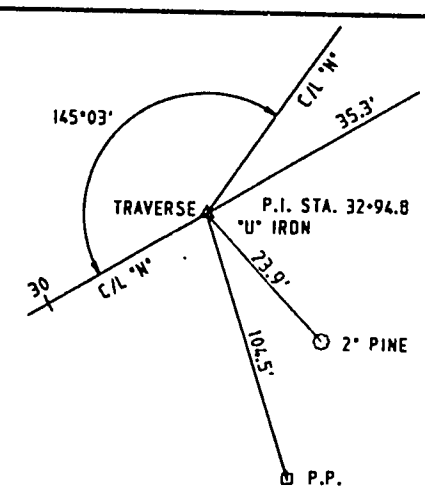




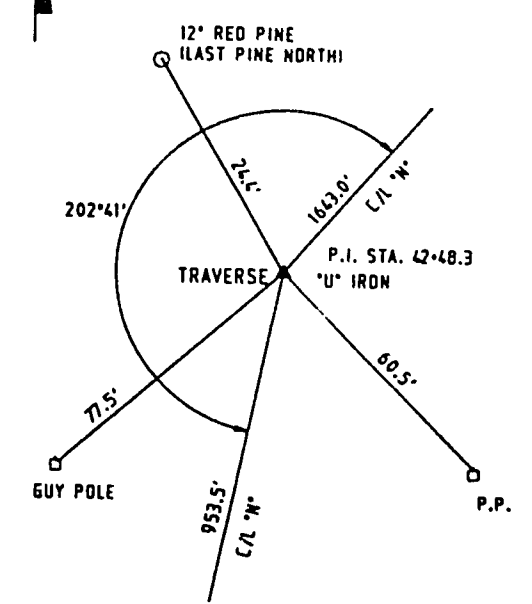
TIEPOINT #1



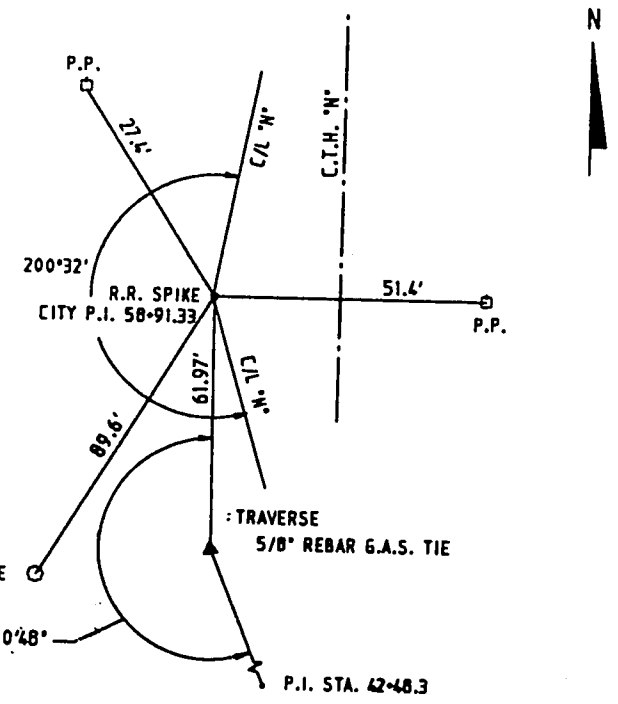
TIEPOINT #2



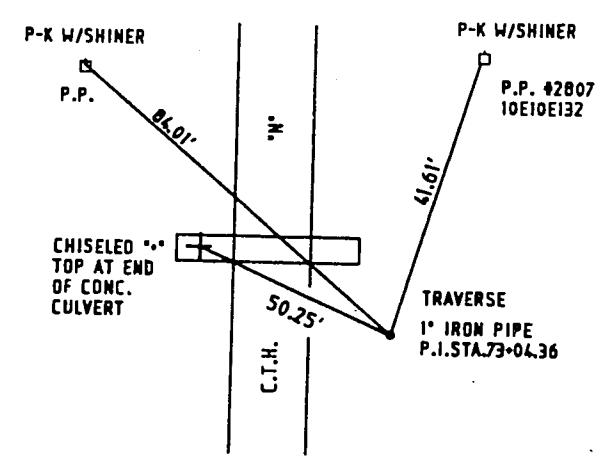
TIEPOINT #3



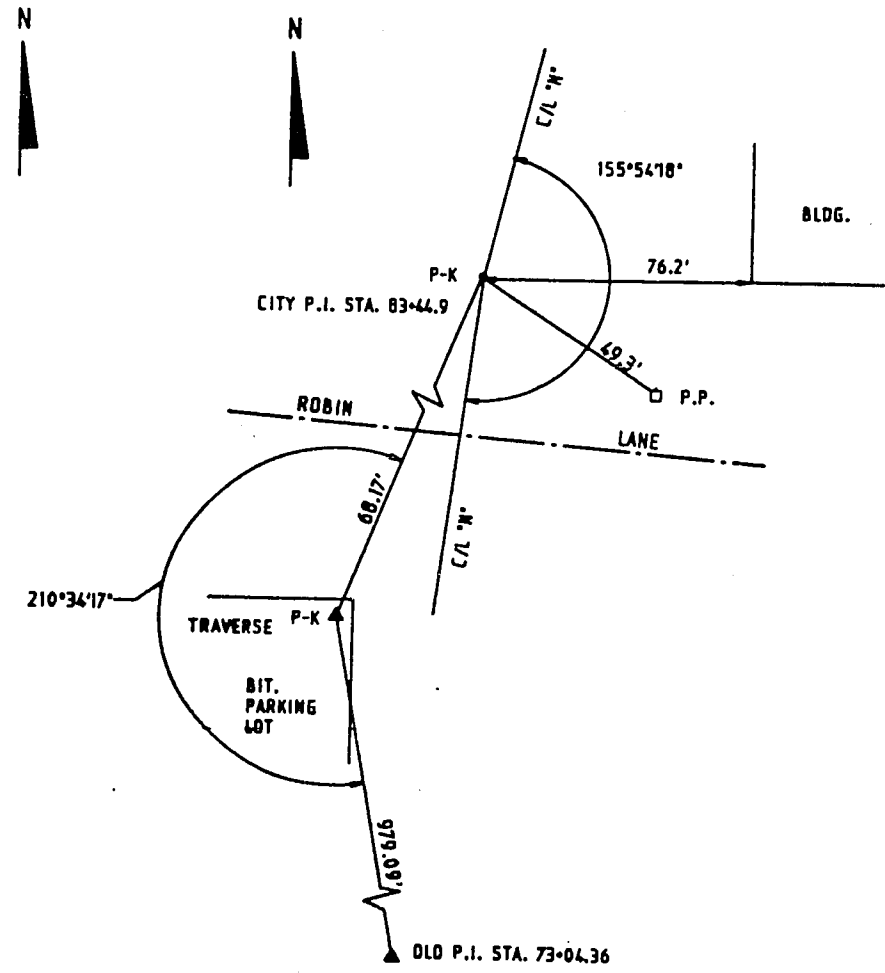
TIEPOINT #4



TIEPOINT #5



TIEPOINT #7



TIEPOINT #8

LEVELS ON - 12.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.26.27.28.29.30.31.32.33.34.35.36.37.38.39.40.41.42.43.44.45.46.47.48.49.50.51.52.53.54.55.56.57.58.59.60.61.62.63

EXISTING C/L ALIGNMENT TABLE CTH "N"					
ALIGN	POINT	STATION	BEARING	NORTH	EAST
A025	PC 3	39+94.21	N 37°18'49.9"W	396197.98	2058836.45
	PI 3	42+22.04		396379.18	2058698.34
	PT 3	44+44.01	N 14°49'25.8"W	396599.43	2058640.05
	PC 4	56+50.91	N 14°49'25.8"W	397766.16	2058331.27
	PI 4	58+58.97		397967.30	2058278.04
	PT 4	60+62.56	N 05°45'31.8"E	398174.32	2058298.91
	6	60+62.56		398174.32	2058298.91
A026			STATION EQUATION		
	6	61+00.00		398174.32	2058298.91
	PC 5	63+65.46	N 05°45'31.8"E	398438.45	2058325.55
	PI 5	64+76.20		398548.63	2058336.66
	PT 5	65+85.20	N 11°49'13.5"W	398657.02	2058313.98
	PC 6	70+77.92	N 11°49'13.5"W	399139.29	2058213.05
	PI 6	73+04.36		399360.93	2058166.66
	PT 6	75+27.09	N 29°47'13.5"W	399557.45	2058054.17
	PC 7	82+30.62	N 29°47'13.5"W	400168.04	2057704.67
	PI 7	83+39.01		400262.10	2057650.82
	PT 7	84+47.29	N 34°07'13.5"W	400351.83	2057590.03
	10	92+86.31		401046.42	2057119.40

EXISTING C/L CURVE TABLE (CTH "N")						
NO.	RADIUS	DELTA	ARC	TANGENT	CHORD	BEARING
3	1145.92	22°29'24"	449.80	227.83	446.92	N 26°04'08"W
4	1145.92	20°34'58"	411.65	208.07	409.44	N 04°31'57"W
5	716.20	17°24'45"	219.74	110.74	218.88	N 03°01'51"W
6	1432.39	17°58'00"	449.17	226.44	447.33	N 20°48'14"W
7	2864.79	04°20'00"	216.67	108.39	216.62	N 31°57'14"W

PROPOSED R/L ALIGNMENT TABLE (CTH "N")					
ALIGN	POINT	STATION	BEARING	NORTH	EAST
A028	PC191	141+48.88	N 37°18'49.9"W	396330.36	2058778.74
	PI191	142+95.87		396447.26	2058689.63
	PT191	144+39.07	N 14°49'25.8"W	396589.36	2058652.03
	PC193	156+58.77	N 14°49'25.8"W	397768.46	2058339.97
	PI193	158+65.20		397968.03	2058287.15
	PT193	160+67.19	N 05°45'31.8"E	398173.42	2058307.87
	PC194	162+54.09	N 05°45'31.8"E	398359.37	2058326.62
	PI194	164+01.74		398506.28	2058341.44
	PT194	165+47.07	N 11°49'13.5"W	398650.81	2058311.19
	PC195	170+45.30	N 11°49'13.5"W	399138.47	2058209.13
	PI195	172+71.11		399359.49	2058162.88
	PT195	174+93.22	N 29°47'13.5"W	399555.46	2058050.70
	PC196	182+49.54	N 29°47'13.5"W	400211.86	2057674.97
	PI196	183+57.92		400305.93	2057621.13
	PT196	184+66.21	N 34°07'13.5"W	400395.65	2057560.33

PROPOSED R/L CURVE TABLE (CTH "N")						
NO.	RADIUS	DELTA	ARC	TANGENT	CHORD	BEARING
191	739.30	22°29'24"	290.19	146.99	288.33	N 26°04'08"W
193	1136.92	20°34'58"	408.42	206.43	406.23	N 04°31'57"W
194	954.93	17°34'45"	292.99	147.65	291.84	N 03°01'51"W
195	1428.39	17°58'00"	447.91	225.81	446.08	N 20°48'14"W
196	2864.79	04°20'00"	216.67	108.39	216.62	N 31°57'14"W

STATE PROJECT NUMBER
6999-01-71

SHEET
2.33

ALIGNMENT DETAIL
CTH#N

CONSTRUCTION C/L SOUTH ENTRANCE (SE)
19"SE"

EXISTING C/L CTH#N

R/L CTH#N

9' (TYP.)
89°24'00"

20"SE" 150

STA. 149+59.20 (R/L)
STA. 20+00.00 (SE)

MATCH LINE STA. 151+00 (R/L)

BEGIN PROJECT
STA. 142+00

PT STA. 11+56.26 (CL)

PI STA. 10+80.30 (CL)

11"CL"

363.43'

CONSTRUCTION C/L (CL)
EAST CLOVERLAND LANE

1317.09'

1317.51'

PT STA. 44+44.006 (C/L) - STA. 144+51.87 (R/L)
9.00' LT.

PI STA. 142+95.87 (R/L)

07°13'12.1"

TIEPOINT #4

PI STA. 42+22.038 (C/L) - STA. 142+32.20 (R/L)
39.28' LT.

W 89°48'50.7" H
2153.37'

81.46'

43.28'

CURVE 3

PC STA. 141+48.879 (R/L)

PT STA. 144+39.07 (R/L)

45

145

PC STA. 39+94.205 (C/L) - STA. 140+08.61 (R/L)
34.35' LT.

10.87'

ON TAN.

34.29'

84°55'19.1"

10°CL"

101.17'

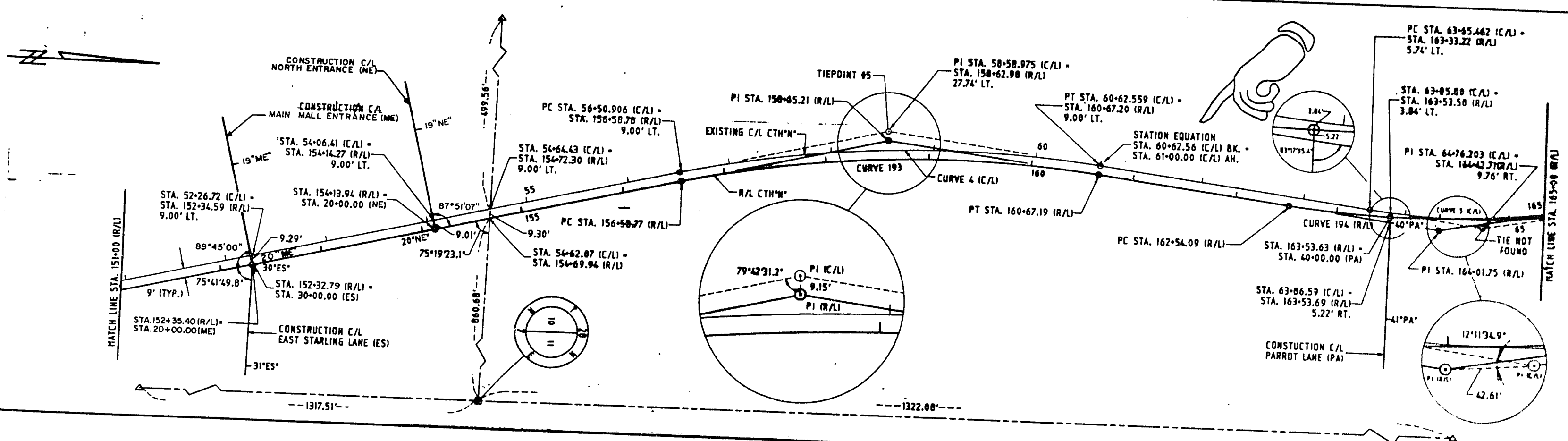
STA. 40+05.08 (C/L) - STA. 140+20.35 (R/L)
34.29' LT.

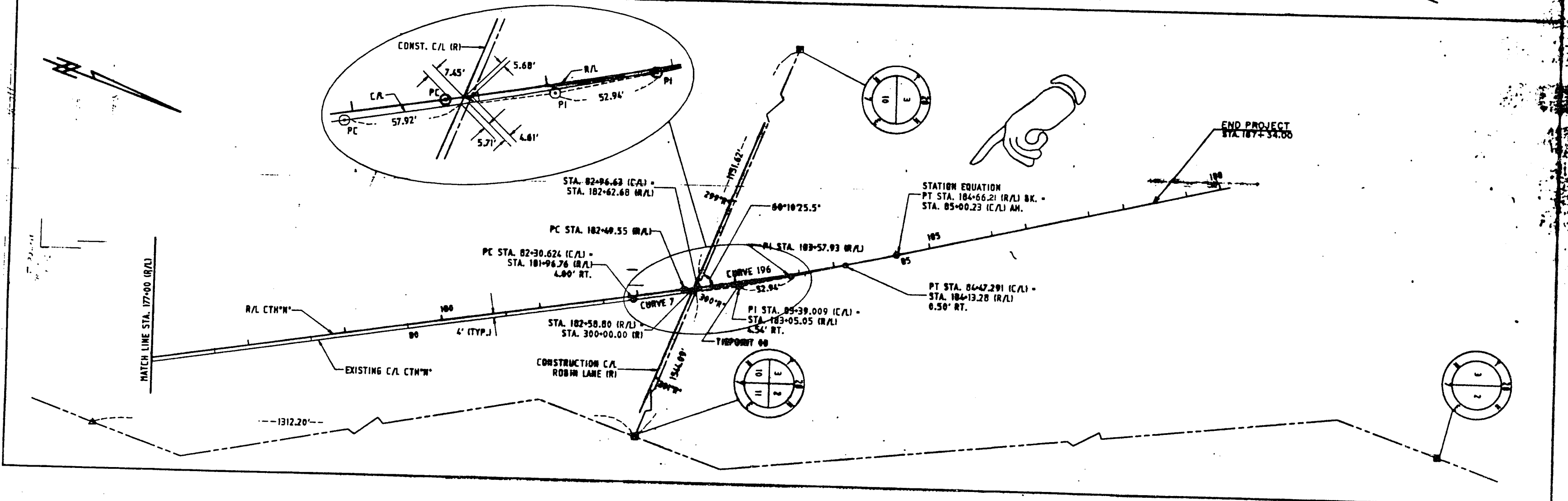
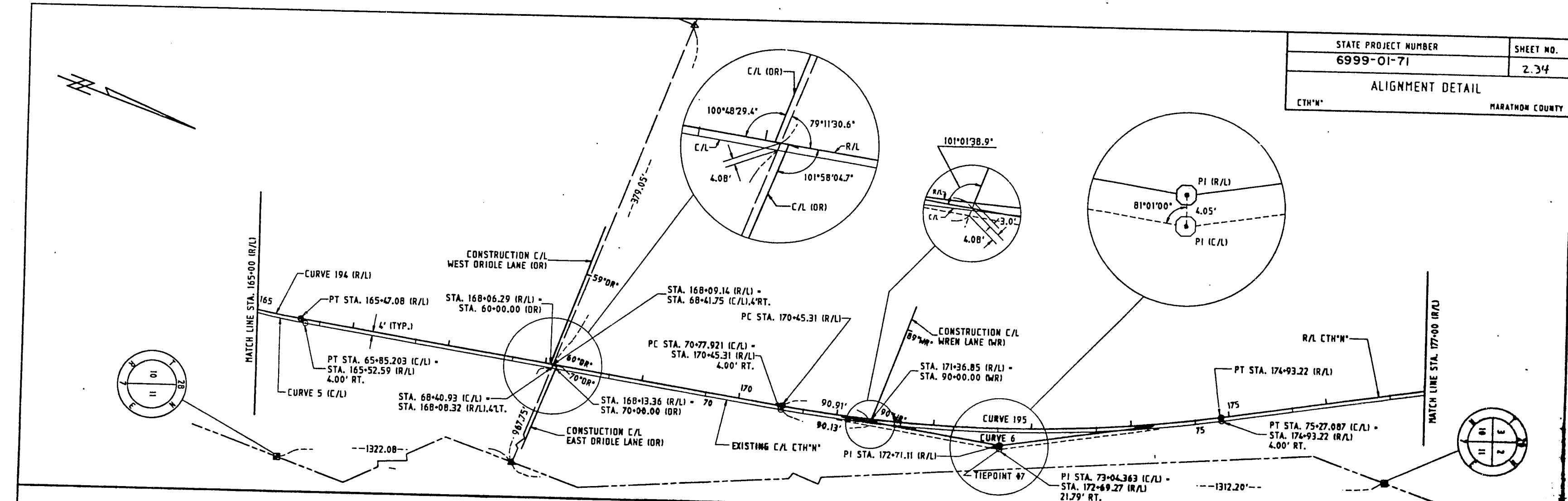
STA. 40+84.62 (C/L) - STA. 141+00.94 (R/L)
34.35' LT.

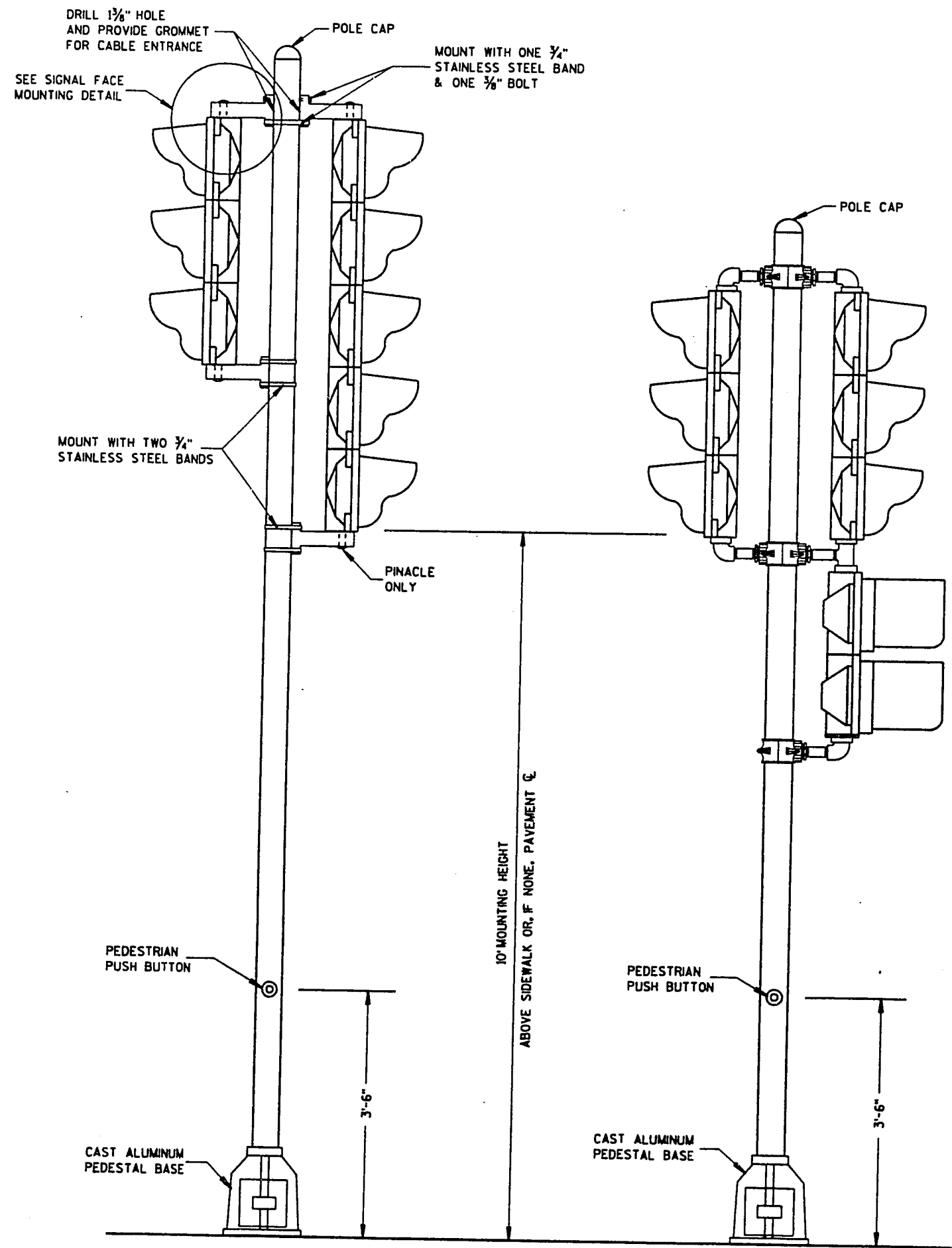
STA. 140+19.16 (R/L) - PC STA. 10+00.00 (CL)

CURVE 191

CURVE 645





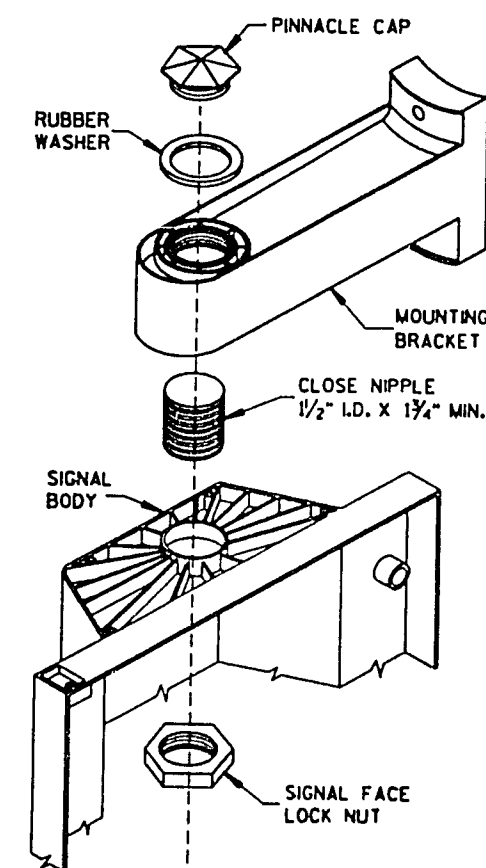


TRAFFIC SIGNAL STANDARD-15'

TRAFFIC SIGNAL STANDARD-13'

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.



SIGNAL FACE MOUNTING DETAIL

LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

DATE 03/05/96

ESTIMATE OF QUANTITIES

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-71 QUANTITY
20101	CLEARING	STA.	25.00	25.00
20102	CLEARING	I.D.	40.00	40.00
20104	GRUBBING	STA.	25.00	25.00
20105	GRUBBING	I.D.	40.00	40.00
20401	REMOVING PAVEMENT	S.Y.	58.00	58.00
20405	REMOVING CURB AND GUTTER	L.F.	3,190.00	3,190.00
20412	REMOVING FENCE	L.F.	30.00	30.00
20419	REMOVING ASPHALTIC SURFACE, BUTT JOINTS	S.Y.	245.00	245.00
20420	REMOVING ASPHALTIC PAVEMENT, MILLING	S.Y.	867.00	867.00
20501	COMMON EXCAVATION	C.Y.	23,950.00	23,950.00
20502	ROCK EXCAVATION	C.Y.	1,279.00	1,279.00
20504	STONE PILES AND STONE FENCES	C.Y.	30.00	30.00
20901	GRANULAR BACKFILL	C.Y.	406.00	406.00
21132	PREPARATION OF FOUNDATION FOR CRUSHED AGGREGATE BASE COURSE, OPEN GRADED	STA.	45.30	45.30
21301	FINISHING ROADWAY	L.S.	1.00	1.00
30404	CRUSHED AGGREGATE BASE COURSE	TON	22,540.00	22,540.00
30420	CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, NUMBER 2	TON	9,750.00	9,750.00
40204	ASPHALTIC MATERIAL FOR TACK COAT	GAL.	1,875.00	1,875.00
40501	ASPHALTIC MATERIAL FOR PLANT MIXES	TON	631.00	631.00
40712	ASPHALTIC CONCRETE PAVEMENT, TYPE HV	TON	9,386.00	9,386.00
40714	ASPHALTIC CONCRETE PAVEMENT, TYPE LV	TON	1,130.00	1,130.00
41531	CONCRETE DRIVEWAY	S.Y.	40.00	40.00
41571	PAVEMENT TIES	EACH	8.00	8.00
50409	CONCRETE MASONRY, ENDWALLS	C.Y.	7.00	7.00
52144	CORRUGATED STEEL PIPE ARCH, 71X47-INCH	L.F.	390.00	390.00
52231	REINFORCED CONCRETE CULVERT PIPE, CLASS IV, 30-INCH	L.F.	200.00	200.00
52264	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 24-INCH	EACH	3.00	3.00

SHEET 3

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-71 QUANTITY
52266	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 30-INCH	EACH	5.00	5.00
60120	CONCRETE CURB AND GUTTER, 18-INCH, TYPE D	L.F.	1,450.00	1,450.00
60133	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	L.F.	8,455.00	8,455.00
60136	CONCRETE CURB AND GUTTER, 30-INCH, TYPE J	L.F.	160.00	160.00
60601	RIPRAP	C.Y.	35.00	35.00
60720	ROCK EXCAVATION FOR STORM SEWER	C.Y.	1,544.00	1,544.00
60827	REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 18-INCH	L.F.	154.00	154.00
60829	REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 24-INCH	L.F.	341.00	341.00
60850	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 12-INCH	L.F.	451.00	451.00
60851	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 15-INCH	L.F.	1,004.00	1,004.00
60852	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 18-INCH	L.F.	347.00	347.00
60854	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 24-INCH	L.F.	208.00	208.00
60856	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 30-INCH	L.F.	100.00	100.00
61110	MANHOLES, TYPE 1	EACH	1.00	1.00
61112	MANHOLES, TYPE 3	EACH	7.00	7.00
61121	INLETS, TYPE 1	EACH	5.00	5.00
61122	INLETS, TYPE 3	EACH	17.00	17.00
61147	INLETS, TYPE 2	EACH	7.00	7.00
61162	INLET COVERS, TYPE B	EACH	1.00	1.00
61163	INLET COVERS, TYPE C	EACH	3.00	3.00
61167	INLET COVERS, TYPE H	EACH	14.00	14.00
61168	INLET COVERS, TYPE Z	EACH	1.00	1.00
61171	INLET COVERS, TYPE WM	EACH	13.00	13.00

SHEET 3.1

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-71 QUANTITY
61201	PIPE UNDERDRAIN, 6-INCH	L.F.	7,027.00	7,027.00
61211	PIPE UNDERDRAIN, UNPERFORATED, 6-INCH	L.F.	110.00	110.00
61254	REINFORCED CONCRETE APRON ENDWALLS FOR UNDERDRAIN, 6-INCH	EACH	6.00	6.00
61310	METALLIC CONDUIT, 1-INCH	L.F.	686.00	686.00
61313	METALLIC CONDUIT, 2-INCH	L.F.	193.00	193.00
61315	METALLIC CONDUIT, 3-INCH	L.F.	708.00	708.00
61910	MOBILIZATION	L.S.	1.00	1.00
62203	ASPHALTIC FLUMES	S.Y.	28.00	28.00
62301	CALCIUM CHLORIDE SURFACE TREATMENT	TON	26.00	26.00
62401	WATER	MGAL	225.00	225.00
62505	SALVAGED TOPSOIL	S.Y.	5,195.00	5,195.00
62702	MULCHING	S.Y.	5,195.00	5,195.00
62817	SILT FENCE MAINTENANCE	L.F.	3,200.00	3,200.00
62821	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	3.00	3.00
62824	EROSION MAT, DELIVERED, CLASS I, TYPE B	S.Y.	220.00	220.00
62825	EROSION MAT, INSTALLED, CLASS I, TYPE B	S.Y.	220.00	220.00
62830	EROSION MAT, DELIVERED, CLASS II, TYPE A	S.Y.	460.00	460.00
62831	EROSION MAT, INSTALLED, CLASS II, TYPE A	S.Y.	460.00	460.00
62848	SILT FENCE, SILTY SOIL, DELIVERED	L.F.	3,200.00	3,200.00
62850	SILT FENCE, SILTY SOIL, INSTALLED	L.F.	3,200.00	3,200.00
62905	FERTILIZER, TYPE B	CWT.	3.30	3.30
63002	SEEDING	LB.	140.00	140.00
63101	SODDING	S.Y.	502.00	502.00
63411	WOOD POSTS, 4X6-INCH X 14-FT.	EACH	41.00	41.00
63702	SIGNS, TYPE II, REFLECTIVE	S.F.	284.30	284.30
63827	REMOVING SIGNS, TYPE II	EACH	6.00	6.00
63837	ERECTING STATE-OWNED SIGNS, TYPE II	EACH	4.00	4.00

SHEET 3.2

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-71 QUANTITY
64002	POLES, TYPE 2	EACH	4.00	4.00
64012	CONCRETE BASES, TYPE 1	EACH	12.00	12.00
64013	CONCRETE BASES, TYPE 2	EACH	4.00	4.00
64202	FIELD OFFICE, TYPE B	L.S.	1.00	1.00
64210	FIELD LABORATORY	L.S.	1.00	1.00
64311	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE	DAYS	60.00	60.00
64313	TRAFFIC CONTROL, DRUMS	DAYS	6,432.00	6,432.00
64318	TRAFFIC CONTROL, BARRICADES, TYPE III	DAYS	1,669.00	1,669.00
64321	TRAFFIC CONTROL, WARNING LIGHTS, TYPE A	DAYS	3,338.00	3,338.00
64323	TRAFFIC CONTROL, WARNING LIGHTS, TYPE C	DAYS	1,696.00	1,696.00
64326	TRAFFIC CONTROL, SIGNS	DAYS	2,249.00	2,249.00
64406	PAVEMENT MARKING, EPOXY, 4-INCH	L.F.	9,885.00	9,885.00
64414	PAVEMENT MARKING, CHANNELIZING, EPOXY, 8-INCH	L.F.	590.00	590.00
64437	PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH	L.F.	367.00	367.00
64457	PAVEMENT MARKING, CROSSWALK, EPOXY, 6-INCH	L.F.	125.00	125.00
64472	PAVEMENT MARKING, ARROWS, EPOXY, TYPE 2	EACH	8.00	8.00
64479	PAVEMENT MARKING, WORDS, EPOXY	EACH	4.00	4.00
64481	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE	L.F.	14,834.00	14,834.00
64484	TEMPORARY PAVEMENT MARKING	L.F.	14,985.00	14,985.00
64487	REMOVING PAVEMENT MARKINGS	L.F.	1,240.00	1,240.00
64496	PAVEMENT MARKING, ISLAND NOSE, EPOXY	S.F.	126.00	126.00
64503	GEOTEXTILE FABRIC, TYPE DF	S.Y.	8,350.00	8,350.00
64505	GEOTEXTILE FABRIC, TYPE R	S.Y.	110.00	110.00
64601	SAWING EXISTING PAVEMENT	L.F.	1,022.00	1,022.00
65010	CONSTRUCTION STAKING, SUBGRADE	STA.	45.30	45.30

SHEET 3.3

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-71 QUANTITY
65020	CONSTRUCTION STAKING, CRUSHED AGGREGATE BASE COURSE	STA.	45.30	45.30
65030	CONSTRUCTION STAKING, CURB AND CURB AND GUTTER	L.F.	16,245.00	16,245.00
90001	INLET COVER, SPECIAL	EACH	5.00	5.00
90002	CONCRETE GUTTER, MOUNTABLE 18-INCH	L.F.	6,185.00	6,185.00
90003	INSTALLING CONDUIT, 2-INCH	L.F.	4,685.00	4,685.00
90004	LOOP DETECTOR AMPLIFIERS, CTH N AT ROBIN LANE	L.S.	1.00	1.00
90005	REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 8-INCH	L.F.	15.00	15.00
90006	PAVEMENT MARKING, OUTFALL MARKER, NON-REFLECTORIZED COLD PAINT, 8X8-INCH	EACH	6.00	6.00
90007	TRAFFIC SIGNAL CABLE, 11 CONDUCTOR, NO. 14	L.F.	180.00	180.00
90008	CONSTRUCTION STAKING, PIPE CULVERTS	EACH	2.00	2.00
90009	CONSTRUCTION STAKING, CRUSHED AGGREGATE BASE COURSE, OPEN GRADED	STA.	45.30	45.30
90010	ELECTRICAL SERVICE, TRAFFIC SIGNALS, CTH N & STARLING	L.S.	1.00	1.00
90011	ELECTRICAL SERVICE, TRAFFIC SIGNALS, CTH N & ROBIN LN.	L.S.	1.00	1.00
90365	QUALITY MANAGEMENT PROGRAM, BASE COURSES	TON	32,290.00	32,290.00
90402	QUALITY MANAGEMENT PROGRAM, ASPHALTIC MIXTURE	TON	10,205.00	10,205.00
90660	ELECTRICAL WIRE, TRAFFIC SIGNALS, NO. 10	L.F.	1,007.00	1,007.00
90785	CONCRETE CONTROL CABINET BASES, TYPE 9	EACH	2.00	2.00
90795	PULL BOXES, 18X36-INCH	EACH	4.00	4.00
90797	PULL BOXES, 24X36-INCH	EACH	14.00	14.00
90800	PEDESTAL BASES	EACH	12.00	12.00
90801	TRANSFORMER BASES	EACH	4.00	4.00
90810	TRAFFIC SIGNAL STANDARDS, STEEL, 13-FT.	EACH	8.00	8.00

SHEET 3.4

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-71 QUANTITY
90811	TRAFFIC SIGNAL STANDARDS, STEEL, 15-FT	EACH	4.00	4.00
90813	MAST ARMS, TRAFFIC SIGNAL TROMBONE, 15-FT.	EACH	4.00	4.00
90817	TRAFFIC SIGNAL FACES, 3-12 VERTICAL	EACH	16.00	16.00
90819	TRAFFIC SIGNAL FACES, 5-12 VERTICAL	EACH	8.00	8.00
90823	TRAFFIC SIGNAL FACES, 3-12 HORIZONTAL	EACH	4.00	4.00
90830	PEDESTRIAN SIGNAL FACES, 12-INCH	EACH	2.00	2.00
90833	PEDESTRIAN PUSH BUTTONS	EACH	2.00	2.00
90834	TRAFFIC SIGNAL MOUNTING HARDWARE, CTH N & STARLING LANE	L.S.	1.00	1.00
90835	TRAFFIC SIGNAL MOUNTING HARDWARE, CTH N & ROBIN LANE	L.S.	1.00	1.00
90838	BACKPLATES	EACH	8.00	8.00
90845	TRAFFIC SIGNAL CABLE, 19 CONDUCTOR, NO. 14	L.F.	1,027.00	1,027.00
90846	TRAFFIC SIGNAL CABLE, 21 CONDUCTOR, NO. 14	L.F.	749.00	749.00
90859	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8 PHASE	EACH	2.00	2.00
90870	LOOP DETECTOR AMPLIFIER, CTH N AT STARLING LANE	L.S.	1.00	1.00
90871	LOOP DETECTOR CONDUIT, 1-INCH	L.F.	1,165.00	1,165.00
90872	LOOP DETECTOR WIRE	L.F.	2,568.00	2,568.00
90873	LOOP DETECTOR LEAD IN CABLE	L.F.	2,474.00	2,474.00
90999	ON-THE-JOB TRAINING	HRS.	200.00	200.00

SHEET 3.5

CLEARING AND GRUBBING

LOCATION	CLEARING I.D.	GRUBBING I.D.	CLEARING STA.	GRUBBING STA.
144+00 - 146+00; RT.	---	---	2	2
147+00; RT.	14	14	---	---
150+00 - 152+00; LT.	---	---	2	2
153+00 - 154+00; LT.	---	---	1	1
156+70; LT.	8	8	---	---
159+00 - 162+00; RT.	---	---	3	3
161+00; RT.	8	8	---	---
163+90; RT.	6	6	---	---
164+00 - 166+00; RT.	---	---	2	2
165+00 - 178+00; LT.	---	---	13	13
170+00 - 172+00; RT.	---	---	2	2
184+35; RT.	4	4	---	---
TOTAL	40	40	25	25

SALVAGED TOPSOIL, SEEDING, FERTILIZER, AND MULCH

LOCATION	SALVAGED TOPSOIL (S.Y.)	SEED MIX #30 (LB.)	SEED MIX #40 (LB.)	TYPE B FERTILIZER (CWT.)	MULCH (S.Y.)
142+00 - 152+00	1035	24	4	0.7	1035
152+00 - 168+00	1865	38	12	1.2	1865
168+00 - 182+00	1980	34	19	1.2	1980
182+00 - 187+34	315	9	0	0.2	315
TOTAL	5195	105	35	3.3	5195

REMOVING CURB AND GUTTER

LOCATION	L.F.
143+07 - 146+85; 42' LT.	400
143+07 - 145+60; 18' LT.	255
144+00 - 145+60; 0' LT.	160
173+00 - 174+00; RT.	100
173+00 - 182+75; LT.	1000
180+25 - 182+15; RT.	225
182+50 - 187+50; RT.	550
183+10 - 187+34; LT.	500
TOTAL	3190

REMOVING FENCE

LOCATION	L.F.	REMARKS
184+70 ; LT.	30	WOODEN

ASPHALTIC FLUMES

LOCATION	S.Y.
167+79; 72' RT.	7
171+39; 73' LT.	7
171+69; 93' LT.	7
169+92; 42' LT.	7
	28

REMOVING PAVEMENT

LOCATION	S.Y.
159+40; RT.	58

PAVEMENT TIES

LOCATION	EACH
174+00; 24' RT.	2
180+25; 24' RT.	2
187+34; 22' RT.	2
187+34; 22' LT.	2
TOTAL	8

REMOVING SIGNS - TYPE II,

	EA.
138+25 RT.	1
139+00 RT.	1
141+50 RT.	1
142+30 RT.	1
143+30 RT.	1
144+40 RT.	1
TOTAL	6

SALVAGED ASPHALTIC PAVEMENT, MILLING

LOCATION	S.Y.
177+00 - 180+25	867

STONE PILE AND STONE FENCES

STATION	LOCATION	C.Y.
149+50	45' LT	30

CRUSHED AGGREGATE BASE COURSE

LOCATION	TONS
142+00 - 152+00	3695
152+00 - 168+34	7715
168+00 - 182+00	7010
182+00 - 187+34	3335
DRIVEWAYS (LISTED ELSEWHERE)	785
TOTAL	22,540

REMOVING ASPHALTIC SURFACE, BUTT JOINTS

LOCATION	S.Y.
EXIST. WALL ENTRANCE	40
30' ES'+80	30
40' PA'+60	25
70' OR'+75	25
59' OR'+05	25
89' WR'+00	25
298' R'+10	35
301' R'+20	40
TOTAL	245

EARTHWORK SUMMARY TABLE

LOCATION	COMMON EXCAVATION (C.Y.)	* FILL (C.Y.)	CUMULATIVE BALANCE (C.Y.)	ROCK EXCAVATION (C.Y.)	ROCK EXCAVATION FOR STORM SEWER (C.Y.)
STA. 142+00 - STA. 152+00	5,028	525	4,503	433	175
STA. 152+00 - STA. 168+00	10,163	525	14,141	846	976
STA. 168+00 - STA. 182+00	5,279	1,525	17,895	0	393
STA. 182+00 - STA. 187+34	3,170	32	21,030	0	0
ROBIN LANE	310	7	21,333	0	0
TOTAL	23,950			1,279	1,544

* FILL FACTOR OF 1.30 INCLUDED

<u>CONCRETE CURB AND GUTTER, 18-INCH, TYPE 'D'</u>	
<u>LOCATION</u>	<u>L.F.</u>
150+44 - 151+78; 12' & 18' LT.	275
152+78 - 154+17; 0' & 12' LT.	290
181+00 - 182+20; 12' & 18' LT.	245
183+04 - 183+50; 0' & 6' LT.	105
184+00 - 186+31; 0' & 14' LT.	465
154+20 ; LT.	70
TOTAL =	1450

<u>LOCATION</u>	<u>L.F.</u>
<u>STAGE I</u>	
145+60 - 148+00; OLD C/L	240
161+00 - 166+00; OLD C/L	500
184+00 - 189+00; OLD C/L	500
TOTAL	1240

LOCATION	L.F.
143+07 - 150+44; 18' LT.	740
144+00 - 150+44; R/L	645
154+74 - 163+08; R/L	845
154+74 - 163+08; 18' LT.	845
163+95 - 167+69; R/L	385
163+95 - 167+69; 18' LT.	385
168+56 - 170+95; R/L	250
168+56 - 170+95; 18' LT.	250
171+88 - 181+00; R/L	920
171+88 - 181+00; 18' LT.	920
TOTAL	6185

<u>LOCATION</u>	<u>L.F.</u>
142*00 - 152*00; RT.	1,025
143*07 - 149*40; LT.	660
149*76 - 152*12; LT.	285
152*32 - 163*55; RT.	1,150
152*58 - 154*05; LT.	190
154*35 - 168*05; LT.	1,425
163*65 - 167*85; RT.	470
168*10 - 174*00; RT.	610
168*35 - 171*40; LT.	355
171*70 - 182*75; LT.	1,130
180*25 - 181*25; RT.	210
182*43 - 187*34; RT.	515
183*40 - 187*34; LT.	430
TOTAL =	8,455

<u>LOCATION</u>	<u>TONS</u>
142*00 - 152*00	1945
152*00 - 168*00	3555
168*00 - 182*00	3110
182*00 - 187*34	1140
	<u>TOTAL = 9750</u>

<u>LOCATION</u>	<u>L.F.</u>
142+00 - 0 - 24' RT.	25
143+07 - 16.5 - 44.5' LT.	30
146+50 - 146+86; 82' LT.	35
154+23 - 154+60; 40' RT.	40
156+96 - 157+14; 31' RT.	18
157+00 - 157+12; 47' LT.	15
157+60 - 157+78; 52' LT.	20
168+94 - 169+06; 49' LT.	12
178+08 - 178+38; 50' LT.	30
179+35 - 179+60; 47' LT.	25
180+10 - 180+45; 50' LT.	35
181+00; 45' LT. - 182+73; 85' LT.	180
181+12; 37' RT. - 181+65; 90' RT.	120
182+50; 63' RT. - 183+85; 40' RT.	130
184+46 - 184+62; 40' RT.	15
185+67 - 185+92; 40' RT.	25
186+06 - 186+22; 40' RT.	15
186+78 - 187+08; 32' RT.	30
187+34; 22' LT - 22' RT	44
EAST STARLING LANE 30 'ES'+80	24
PARROT LANE 40 'PA'+60	20
ORIOLE LANE 70 'OR'+75	24
ORIOLE LANE 59 'OR'+05	24
WREN LANE 89 'WR'+00	22
ROBIN LANE 298 'R'+00	30
ROBIN LANE 301 'R'+20	34
TOTAL = 1022	

<u>LOCATION</u>	<u>TONS</u>	<u>TONS</u>	<u>TONS</u>
142+00 - 154+74	2,345	250	156
154+74 - 181+00	4,900	865	345
181+00 - 187+34	1,560	15	95
DRIVEWAYS (LISTED ELSEWHERE)	270	-	16
* <u>TEMPORARY WIDENING</u>			
<u>STAGE 1</u>			
145+00 - 152+00	115	---	7
152+60 - 163+25	185	---	11
185+00 - 187+40	11	---	1
TOTAL *	9386	1130	631
* 3" ASPHALTIC PAVEMENT FOR TEMPORARY LANE			

<u>LOCATION</u>	<u>GAL</u>
142+00 - 187+34	1695
WALL ENTRANCES	30
MEDIANS	150
	<u>TOTAL - 1875</u>

LOCATION	L.F.
STA. 182+00; RT.	80
STA. 183+00; LT.	80
TOTAL *	160

<u>LOCATION</u>	<u>STATION</u>
142+00 - 187+34	45.3

PIPE UNDERDRAIN, 6-INCH						
STATION	PIPE UNDERDRAIN 6-INCH	PIPE UNDERDRAIN UNPERFORATED 6-INCH	APRON ENDWALL FOR UNDERDRAIN 6-INCH	GEOTEXTILE FABRIC, TYPE DF (S.Y.)	*SODDING (S.Y.)	REMARKS
144+60; 42' LT. - 149+00; 42' LT.	440'			515		CONNECT INLET 4E
144+60; 24' RT. - 149+00; 24' RT.	440'			515		CONNECT MANHOLE 5E
149+00; 42' LT. - 150+15; 42' LT.	115'			135		CONNECT INLET 2E
149+00; 24' RT. - 149+85; 24' RT.	85'			100		CONNECT MANHOLE 3E
149+85; 24' RT. - 150+95; 24' RT.	110'			130		CONNECT MANHOLE 7F
150+20; 42' LT. - 150+95; 42' LT.	75'			90		CONNECT INLET 6F
151+73; 42' LT. - 150+95; 42' LT.	78'			90		CONNECT INLET 6F
152+97; 24' RT. - 150+95; 24' RT.	202'			235		CONNECT MANHOLE 7F
152+97; 42' LT. - 151+73; 42' LT.	124'			145		CONNECT INLET 5F
156+35; 42' LT. - 152+98; 42' LT.	337'			395		CONNECT INLET 3F
156+10; 24' RT. - 152+97; 24' RT.	313'			365		CONNECT MANHOLE 4F
156+35; 18' LT. - 161+50; 18' LT.	515'			600		CONNECT INLET 2G
156+50; 24' RT. - 161+50; 24' RT.	500'			585		CONNECT INLET 1G
161+50 - 162+97; RT.	147'			170		CONNECT INLET 3G
161+50; 42' LT. - 166+00; 42' LT.	450'			525		CONNECT INLET 5G
164+00 - 166+00; RT.	200'			235		CONNECT MANHOLE 6G
166+00; 42' LT. - 168+00; 80' LT.	210'	40'	1	290	7	END WEST END OF RADIUS, OUTLET TO DITCH
166+00; 24' RT. - 167+46; 24' RT.	146'			170		CONNECT INLET 11G
168+20; 40' RT. - 170+50; 24' RT.	230'			270		BEGIN MIDDLE OF RADIUS
168+50; 60' LT. - 171+30; 70' LT.	300'	10'	1	360	7	BEGIN MIDDLE RADIUS, END WEST END RADIUS (WREN LN.)
170+50; 24' RT. - 170+50; 34' RT.		10'	1	15	7	OUTLET TO DITCH
171+75; 80' LT. - 174+00'; 42' LT.	240'			280		OUTLET TO DITCH
						BEGIN MIDDLE OF RADIUS (WREN LN.)
						CONNECT INLET 4H
178+42; 42' LT. - 174+00; 42' LT.	442'			515		CONNECT INLET 4H
181+00; 42' LT. - 178+47; 42' LT.	253'			295		CONNECT INLET 1H
181+10; 42' LT. - 182+70; 90' LT.	190'	10'	1	235	7	END WEST END RADIUS, OUTLET TO DITCH
182+80; 34' RT. - 187+30; 20' RT.	500'			585		CONNECT PERFORATED TO
183+50; 75' LT. - 187+30; 22' LT.	385'	20'		475		UNPERFORATED AT 187+30
187+30; 20' RT. - 187+30; 30' RT.		10'	1	15	7	OUTLET TO DITCH
187+30; 42' LT. - 187+30; 52' LT.		10'	1	15	7	OUTLET TO DITCH
TOTAL =	7027'	110'	6	8350	42"	

*ADDITIONAL SODDING SHOWN IN EROSION CONTROL TABLE

CONCRETE DRIVEWAY

STATION	LOCATION	S.Y.
159+44	RT	40

EROSION CONTROL

LOCATION	EROSION MAT, CL 1, TYPE B (DELIVERED, INSTALLED) (S.Y.)	**SODDING (S.Y.)	EROSION MAT, CLASS II, TYPE A (DELIVERED, INSTALLED) (S.Y.)	*RIPRAP (C.Y.)	GEOTEXTILE* FABRIC, TYPE R (S.Y.)
149+30 - 149+75; RT.	---	50	50	---	---
149+80; RT.	---	50	50	10	35
149+90 - 150+20; RT.	---	35	35	---	---
155+50 - 156+30; LT.	60	---	---	---	---
168+00; 80' RT.	---	5	5	---	---
169+50 - 170+70 ;LT.	---	135	135	---	---
169+50 - 170+75; RT.	90	---	---	---	---
171+00 - 172+00	70	---	---	---	---
171+00; 70' RT.	---	130	130	---	---
171+50; 80' LT.	---	5	5	---	---
171+75; 100' LT.	---	5	5	---	---
172+90; 45' RT.	---	45	45	---	---
TOTAL*	220	**460	460	10*	35*

* ADDITIONAL RIPRAP AND GEOTEXTILE FABRIC SHOWN ELSEWHERE IN MISC. TABLES
**ADDITIONAL SODDING SHOWN IN PIPE UNDERDRAIN TABLES

*SILT FENCE, SILTY SOIL

LOCATION	L.F.
144+30 - 145+75; LT.	145
147+00 - 150+25; RT.	325
150+10; LT.	60
149+70 - 150+00; RT.	40
154+30 - 156+50; LT.	290
158+90 - 161+50; LT.	280
162+50 - 163+30; RT.	150
165+00 - 166+10; LT.	120
163+60 - 167+40; RT.	390
166+00; LT.	60
167+50; RT.	60
167+70 - 168+00	50
168+30 - 174+00; RT.	650
168+95 - 171+50; LT.	270
171+70 - 174+00; LT.	230
172+90; RT.	50
172+90; LT.	30
TOTAL*	3200

*DELIVERED, INSTALLED, AND MAINTAINED (SILTY TYPE)

WOOD POSTS, 4"X6"X 14'

CTH N 41 EACH

*THIS IS SUMMARY, BREAKDOWN IS ON PERMANENT PAVEMENT MARKING
AND SIGNING SHEET

SIGNS, TYPE II, REFLECTIVE

CTH N 284.3 S.F.

*THIS IS SUMMARY, BREAKDOWN IS ON PERMANENT PAVEMENT MARKING
AND SIGNING SHEET

TRAFFIC CONTROL, BARRICADE TYPE III AND WARNING LIGHTS, TYPE A

LOCATION	TYPE III BARRICADES		LIGHTS TYPE A	
	*EACH	DAYS	*EACH	DAYS
STAGE I				
142+00; RT	1	23	2	46
143+07; LT.	1	23	2	46
145+65; RT.	1	23	2	46
146+30; LT.	1	23	2	46
146+90; LT.	1	23	2	46
147+95; LT	1	23	2	46
MAIN WALL ENTRANCE	4	92	8	184
ORIOLE LANE	4	92	8	184
WREN LANE	4	92	8	184
ROBIN LANE	6	138	12	276
187+34; LT	3	69	6	138
STAGE II				
145+60; RT.	1	30	2	60
147+00; RT.	1	30	2	60
148+25; LT.	1	30	2	60
EAST STARLING LANE	5	150	10	300
154+50; LT.	3	90	6	180
PARROT LANE	4	120	8	240
ORIOLE LANE	4	120	8	240
WREN LANE	4	120	8	240
ROBIN LANE	8	240	16	480
187+34; RT.	3	90	6	180
STAGE III				
140+50; RT.	1	7	2	14
142+00; RT.	1	7	2	14
143+07; LT.	1	7	2	14
147+95; LT.	1	7	2	14
TOTAL*	59	1669	130	3338

*FOR INFORMATION ONLY

TRAFFIC CONTROL, DRUMS, AND WARNING LIGHTS, TYPE C

LOCATION	*EACH	DRUM DAYS	LIGHT DAYS
STAGE I			
140+50 - 142+00; RT. (TAPER)	6	138	138
142+57 - 143+07; LT. (TAPER)	6	138	
142+00 - 145+65; RT.	7	161	
143+00 - 147+00; LT.	8	184	
147+00 - 148+00; LT. (TAPER)	4	92	
148+00 - 187+34	71	1,633	
188+25 - 189+50; LT. (TAPER)	6	138	138
STAGE II			
140+50 - 142+00; RT. (TAPER)	6	180	180
142+00 - 143+00; LT. (TAPER)	4	120	
142+00 - 145+60; RT.	7	210	210
143+00 - 147+00; LT.	8	240	240
145+60; RT. - 148+25; LT. (TAPER)	11	330	330
145+25 - 147+00; LT. (TAPER)	7	210	
148+25 - 187+34	70	2,100	
188+25 - 189+50; LT (TAPER)	6	180	180
STAGE III			
137+50 - 139+25 (TAPER)	7	49	49
140+50 - 147+00; RT.	13	91	91
142+00 - 143+00; LT. (TAPER)	4	28	
143+00 - 147+95; LT.	10	70	70
147+00 - 149+50; RT. (TAPER)	10	70	
147+95 - 150+50; LT. (TAPER)	10	70	70
*FOR INFORMATION ONLY	TOTAL = 281	6432	1696

DRIVEWAYS

STATION	3-INCH* ASPHALTIC APRON (TON)	3-INCH* ASPHALTIC DRIVE (TON)	6-INCH CRUSHED AGGREGATE DRIVE (TON)	(5-INCH) CONCRETE DRIVE (S.Y.)	CRUSHED AGGREGATE BASE COURSE (TON)
143+00; RT.	4	---	---	---	20
144+00; RT.	4	---	---	---	25
146+60; RT.	2	---	---	---	5
146+65; LT.	8**	33**	---	---	147
147+85; RT.	2	---	5	---	10
149+59; LT.	7**	31**	---	---	98
152+35; LT.	10**	39**	---	---	170
154+14; LT.	7**	31**	---	---	135
154+40; RT.	4	4	---	---	15
155+90; RT.	2	---	---	---	5
157+05; LT.	1	2	---	---	5
157+05; RT.	1	4	---	---	10
157+70; LT.	2	2	---	---	5
158+75; LT.	2	---	15	---	5
159+44; RT.	2	---	---	40	5
162+20; RT.	6	7	---	---	25
163+85; LT.	2	---	10	---	5
166+43; RT.	2	---	5	---	5
166+85; LT.	2	---	15	---	5
169+00; LT.	1	---	---	---	5
178+20; LT.	4	---	---	---	5
179+50; LT.	4	---	---	---	5
180+25; LT.	4	---	---	---	5
181+30; RT.	4	---	---	---	5
181+50; LT.	4	---	---	---	5
183+65; RT.	7	---	---	---	15
184+55; RT.	2	---	---	---	5
184+70; LT.	7	---	---	---	15
185+80; RT.	4	---	---	---	5
186+20; RT.	2	---	---	---	5
187+00; RT.	4	---	---	---	5

*ASPHALTIC CONCRETE PAVEMENT, TYPE HV ON 6-INCH CRUSHED AGGREGATE BASE EXCEPT AS NOTED

** 3-INCH ASPHALTIC CONCRETE PAVEMENT, TYPE HV ON 10-INCH CRUSHED AGGREGATE BASE

NOTE: THESE QUANTITIES ARE BREAKDOWNS AND HAVE BEEN SUMMARIZED ELSEWHERE

PAVEMENT MARKING, EPOXY, 4-INCH

STATION TO STATION	LOCATION	YELLOW	WHITE
		SOLID (L.F.)	DASHED (L.F.)
<u>CTH 'N'</u>			
142+00 - 152+00	LT + RT	1847	460
152+00 - 168+00	LT + RT	3016	705
168+00 - 182+50	LT + RT	2552	640
182+50 - 187+34	LT + RT	600	65
TOTAL =		8015	1870

TEMPORARY PAVEMENT MARKING

LOCATION	REMOVABLE TAPE			
	SINGLE YELLOW SOLID (L.F.)	SINGLE WHITE SOLID (L.F.)	SINGLE YELLOW SOLID (L.F.)	SINGLE WHITE SOLID (L.F.)
STAGE I				
140+60 - 145+65; 12 - 30' RT.	---	---	---	505
141+90 - 143+07; 30 - 42' LT.	---	---	---	117
145+65 - 152+10; 12' - 14' RT.	---	645	---	---
143+07 - 167+65; 18 - 30' LT.	---	2458	---	---
145+60 - 187+34; 15' RT. - 9' LT.	8348	---	---	---
152+45 - 163+30; 12 - 14' RT.	---	1085	---	---
168+70 - 170+85; 15' LT.	---	215	---	---
172+00 - 182+15; 15' LT.	---	1015	---	---
183+40 - 187+34; 2' RT. - 15' LT.	---	394	---	---
184+85 - 187+50; 22 - 30' RT.	---	265	---	---
187+34 - 188+75; 0 - 15' RT.	---	---	282	---
STAGE II				
145+65 - 148+25; 12' RT. - 18' LT.	260	---	---	---
141+85 - 147+00; 6 - 30' LT.	---	---	515	---
144+00 - 147+00; 0 - 30' LT.	300	---	---	---
147+00 - 188+45; 6 - 30' LT.	---	---	8290	---
148+25 - 152+00; 18' LT.	---	---	---	375
152+75 - 163+15; 18' LT.	---	---	---	1040
163+90 - 167+60; 18' LT.	---	---	---	370
168+60 - 182+20; 0' - 18' LT.	---	---	---	1360
183+05 - 187+45; 0 - 18' LT.	---	---	---	440
STAGE III				
136+50 - 139+40; R/L	---	---	---	290
140+60 - 149+60; 0 - 12' RT.	---	---	900	---
147+00 - 150+50; 18 - 30' RT.	---	---	350	---
TOTAL =		8908	6077	10337
				4497

PAVEMENT MARKING, CHANNELIZING, EPOXY, 8-INCH WHITE

STATION TO STATION	LOCATION	L.F.
150+45 - 151+80	R/L	135
152+80 - 154+15	18' LT	135
154+25 - 154+35	47' LT	20
181+00 - 182+25	RT	125
181+65 - 181+95	24' RT.	60
183+00 - 183+55	LT	55
183+40 - 183+75	40' LT	60
TOTAL =		590

PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH WHITE

STATION TO STATION	LOCATION	L.F.
151+80 - (C.T.H. 'N')	12' LT - 26' RT	38
152+00 - 152+36 (MAIN MALL ENTRANCE)	52' LT	36
152+22 - 152+37 (EAST STARLING LANE)	36' RT	15
152+80 - (C.T.H. 'N')	6' LT - 42' LT	36
153+92 - 154+08 (NORTH ENTRANCE)	52' LT	16
163+52 - 163+72 (PARROT LANE)	34' RT	20
168+05 - 168+18 (ORIOLE LANE)	52' LT	18
168+05 - 168+25 (ORIOLE LANE)	35' RT	16
171+40 - 171+54 (WREN LANE)	52' LT	14
181+90 - (C.T.H. 'N')	46' RT	18
182+20 - 182+00 (C.T.H. 'N')	25' RT	42
182+35 - 182+50 (ROBIN LANE)	45' RT	18
182+75 - 182+90 (ROBIN LANE)	60' RT	22
183+62 - 183+12 (C.T.H. 'N')	42' LT	40
183+35 - (C.T.H. 'N')	75' RT	18
TOTAL =		367

PAVEMENT MARKING, PEDESTRIAN CROSSWALK, EPOXY, 6-INCH WHITE

STATION TO STATION	LOCATION	L.F.
182+30	LT + RT	125

INSTALLING CONDUIT, 2-INCH (NON-PARTICIPATING)

STA. 142+00 - STA. 187+34	4,685 L.F.
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* NOTE: CONDUIT TO BE INSTALLED IN 180 FT. INCREMENTS ON WEST SIDE OF CTH 'N', 2 - FEET BEHIND THE CURB

STATE PROJECT NUMBER

6999-01-71

SHEET NO.

3F

MISCELLANEOUS QUANTITIES

CTH 'N'

MARATHON COUNTY

PAVEMENT MARKING, ISLAND NOSE, EPOXY

STATION	LOCATION	WHITE	YELLOW
		(S.F.)	(S.F.)
CTH 'N'			
151+80	14' LT		7
152+75	2' LT		7
154+10	70' LT		7
154+14	2' LT		7
154+25	47' LT	7	
154+70	5' LT		7
163+10	5' LT		7
163+90	5' LT		7
167+75	8' LT		7
168+55	8' LT		7
170+95	14' LT		7
171+85	16' LT		7
181+70	27' RT	7	
182+20	14' LT		7
183+00	2' LT		7
183+50	47' LT	7	
183+55	1' LT		7
186+35	1' LT		7
TOTAL =		21	105

PAVEMENT MARKING, WORDS, EPOXY

STATION	LOCATION	EACH
150+10	6' LT	1
153+40	12' LT	1
181+40	6' LT	1
183+55	12' LT	1
TOTAL =		4

PAVEMENT MARKING, ARROWS, EPOXY, TYPE 2

STATION	LOCATION	EACH
150+70	6' LT	1
151+50	6' LT	1
153+00	12' LT	1
153+80	12' LT	1
154+05	53' LT	1
180+90	6' LT	1
181+90	6' LT	1
183+15	12' LT	1
TOTAL =		8

TRAFFIC CONTROL, SIGNS			
LOCATION	SIGN	* NO. (EACH)	DAYS
STAGE I			
CTH 'N' SOUTH OF CLOVERLAND LANE	G20-2A	1	23
CTH 'N' SOUTH OF CLOVERLAND LANE	W20-1	1	23
CTH 'N' SOUTH OF CLOVERLAND LANE	W013-1	1	23
CTH 'N' SOUTH OF CLOVERLAND LANE	W20-5	2	46
CTH 'N' SOUTH OF CLOVERLAND LANE CLOVERLAND LANE	W04-2	1	23
142+00; RT.	W20-1	1	23
	W01-6L	1	23
145+50; LT.	R4-7	1	23
147+10; LT.	W02-2L	1	23
147+65; RT.	W06-3	1	23
150+80; LT.	W01-4R	1	23
150+80; LT.	W013-1	1	23
151+25; RT.	W06-3	1	23
E. STARLING LANE	W20-1	1	23
PARROT LANE	W20-1	1	23
ORIOLE LANE	W20-1	2	46
WREN LANE	W20-1	1	23
178+50; RT.	W02-1	1	23
ROBIN LANE	W20-1	2	46
185+00; RT.	W01-4L	1	23
185+00; RT.	W013-1	1	23
186+60; LT.	W06-3	1	23
187+40; LT.	R11-2	1	23
187+40; LT	W01-6L	1	23
188+00; LT. & RT.	W020-1	2	46
CTH 'N' NORTH OF BLUEBIRD LN.	W01-4L	1	23
CTH 'N' NORTH OF BLUEBIRD LN.	W013-1	1	23
CTH 'N' NORTH OF BLUEBIRD LN.	W20-1	3	69
CTH 'N' NORTH OF BLUEBIRD LN.	G20-2A	1	23
167+85; LT.	R1-1	1	23
171+25; LT.	R1-1	1	23
182+40; LT.	R1-1	1	23

* FOR INFORMATION ONLY

TRAFFIC CONTROL, SIGNS (CONT.)			
LOCATION	SIGN	*NO. EACH	DAYS
STAGE II			
CTH 'N' SOUTH OF CLOVERLAND LN.	G20-2A	1	30
CTH 'N' SOUTH OF CLOVERLAND LN.	W20-1	1	30
CTH 'N' SOUTH OF CLOVERLAND LN.	W20-5	2	60
CTH 'N' SOUTH OF CLOVERLAND LN.	W013-1	1	30
CTH 'N' SOUTH OF CLOVERLAND LN. CLOVERLAND LANE	W04-2	1	30
142+95; RT.	W020-1	1	30
	W01-4L	1	30
142+95; RT.	W013-1	1	30
143+80; RT.	W06-3	1	30
147+00; LT.	R4-7a	1	30
150+25; LT.	W06-3	1	30
145+50; RT.	W01-6L	1	30
E. STARLING LANE	W20-1	1	30
156+90; LT.	W06-3	1	30
161+00; LT.	W06-3	1	30
PARROT LANE	W20-1	1	30
164+50; LT.	W06-3	1	30
ORIOLE LANE	W20-1	2	60
WREN LANE	W20-1	1	30
174+00; LT.	W06-3	1	30
178+50; LT.	W02-1	1	30
179+00; LT.	W06-3	1	30
ROBIN LANE	W20-1	2	60
185+20; RT.	W01-4R	1	30
187+00; LT.	W06-3	1	30
188+00; LT. & RT.	W20-1	2	60
CTH 'N' NORTH OF BLUEBIRD LANE	W01-4L	1	30
CTH 'N' NORTH OF BLUEBIRD LANE	W013-1	1	30
CTH 'N' NORTH OF BLUEBIRD LANE	W20-1	3	90
CTH 'N' NORTH OF BLUEBIRD LANE	G20-2A	1	30
152+70; LT.	R1-1	1	30
163+75; RT.	R1-1	1	30
168+50; LT.	R1-1	1	30
182+90; LT.	R1-1	1	30

STAGE III

CTH 'N' SOUTH OF CLOVERLAND LN.	G20-2A	1	7
CTH 'N' SOUTH OF CLOVERLAND LN.	W20-1	3	21
CTH 'N' SOUTH OF CLOVERLAND LN.	R3-7	3	21
CTH 'N' SOUTH OF CLOVERLAND LN. CLOVERLAND LANE	W013-1	1	7
140+60; RT.	W20-1	1	7
	R4-7a	1	7
142+60; RT.	W01-6	1	7
147+95; LT.	W01-6	1	7
149+40; LT	W01-6	1	7
151+50; LT.	W04-2R	2	14
E. STARLING LANE	W20-1	1	7
NORTH ENTRANCE	W20-1	1	7
154+80; LT.	W04-2R	2	14
159+90; LT.	W20-1	2	14
PARROT LANE	W20-1	1	7
164+50; LT	W20-1	2	14
CTH 'N' NORTH	G20-2	1	7
TOTAL			2,249

STATE PROJECT NUMBER	SHEET NO.
6999-01-71	3.6
MISCELLANEOUS QUANTITIES	
CTH 'N'	MARATHON COUNTY

⊗ - P-10G, 8" - SOR 35 PVC SEWER PIPE WAS USED.

STATE PROJECT NUMBER 6999-01-71	SHEET NO. 34
DRAINAGE TABLES	
C.T.H. 'N'	MARATHON COUNTY

STORM SEWER PIPES

REINFORCED CONCRETE PIPE, CL. III, STORM SEWER						REINFORCED CONCRETE PIPE, CL. IV, STORM SEWER					REINFORCED CONCRETE ENDWALLS							C.T.H. 'N'
CODE	FROM	TO	8" L.F.	18" L.F.	24" L.F.	12" L.F.	15" L.F.	18" L.F.	24" L.F.	30" L.F.	GRADE PERCENT	INLET	DISCHARGE	TYPE OF PIPE	24" EACH	30" EACH	REMARKS	
P-1E	I-1E	I-2E	5	---	---	---	---	---	---	---	5.00	1210.00	1209.75	RCP SS	---	---	CL. III	
P-2E	I-2E	M-3E	---	---	---	---	---	---	---	---	1.39	1209.50	1208.50	RCP SS	---	---	CL. IV	
P-4E	I-4E	M-5E	---	---	---	---	62	72	---	---	1.61	1210.54	1209.54	RCP SS	---	---	CL. IV	
P-5E	M-5E	M-3E	---	---	---	---	---	---	---	---	0.92	1209.54	1208.75	RCP SS	---	---	CL. IV	
P-3E	M-3E	OUTFALL	---	---	---	---	86	---	20	---	2.50	1208.00	1207.50	RCP SS	1	---	CL. IV	
P-3F	I-3F	M-4F	---	---	---	---	---	---	---	---	0.50	1211.09	1210.77	RCP SS	---	---	CL. IV. 1-ENDWALL	
P-4F	M-4F	M-7F	---	---	---	---	64	---	---	---	0.99	1210.52	1208.50	RCP SS	---	---	CL. IV	
P-5F	I-5F	I-6F	---	---	---	---	---	204	---	---	0.52	1210.19	1209.82	RCP SS	---	---	CL. IV	
P-6F	I-6F	I-7F	---	---	---	---	---	71	---	---	1.30	1209.32	1208.97	RCP SS	---	---	CL. IV	
P-7F	I-7F	M-7F	---	---	---	---	---	---	27	---	1.27	1208.99	1208.50	RCP SS	---	---	CL. IV	
P-8F	M-7F	OUTFALL	---	---	---	---	---	---	37	100	0.50	1208.50	1208.00	RCP SS	---	---	CL. IV. 1-ENDWALL	
P-1G	I-1G	I-2G	---	---	---	40	---	---	---	---	1.25	1206.00	1205.50	RCP SS	---	---	CL. IV	
P-2G	I-2G	I-3G	---	---	---	150	---	---	---	---	1.70	1205.50	1202.95	RCP SS	---	---	CL. IV	
P-3G	I-3G	M-6G	---	---	---	---	---	---	---	---	3.80	1202.70	1191.30	RCP SS	---	---	CL. IV	
P-3.5G	I-3.5G	M-6G	---	---	---	---	300	182	---	---	3.74	1195.40	1192.16	RCP SS	---	---	CL. IV	
P-4G	I-4G	I-5G	---	---	---	---	100	---	---	---	5.00	1193.00	1193.50	RCP SS	---	---	CL. III	
P-5G	I-5G	M-6G	---	---	---	40	---	---	---	---	0.50	1191.74	1191.54	RCP SS	---	---	CL. IV	
P-6G	M-6G	M-8G	---	---	---	---	---	---	---	---	1.94	1191.04	1188.05	RCP SS	---	---	CL. III	
P-7G	I-7G	I-11G	---	---	---	65	---	---	---	---	0.50	1188.95	1188.62	RCP SS	---	---	CL. IV	
P-8G	M-8G	I-9G	---	---	---	---	---	---	---	---	1.00	1187.55	1185.00	RCP SS	---	---	CL. III	
P-9G	I-9G	OUTFALL	---	---	255	---	---	---	---	---	1.16	1185.00	1184.00	RCP SS	1	---	CL. IV. 1-ENDWALL	
P-10G	I-10G	I-3G	---	---	86	---	---	---	---	---	0.35	1203.22	1202.95	RCP SS	---	---	CL. III	
P-11G	I-11G	M-8G	---	---	---	77	---	---	---	---	0.50	1188.62	1188.55	RCP SS	---	---	CL. IV	
P-1H	I-1H	M-3H	---	---	---	15	---	---	---	---	0.78	1187.50	1187.25	RCP SS	---	---	CL. IV	
P-2H	I-2H	M-3H	---	---	---	32	---	---	---	---	0.78	1187.50	1187.25	RCP SS	---	---	CL. IV	
P-3H	M-3H	M-5H	---	---	---	32	---	---	---	---	0.68	1187.00	1183.95	RCP SS	---	---	CL. IV	
P-4H	I-4H	M-5H	---	---	---	---	42	---	---	---	0.50	1184.16	1183.95	RCP SS	---	---	CL. IV	
P-5H	M-5H	OUTFALL	---	---	---	---	---	---	124	---	0.60	1183.20	1182.45	RCP SS	1	---	CL. IV. 1-ENDWALL	
TOTALS			15 L.F.	154 L.F.	341 L.F.	451 L.F.	1004 L.F.	347 L.F.	208 L.F.	100 L.F.								
															3 EA.	1 EA.		

MANHOLES AND INLETS

CODE	STRUCTURE LOCATION	INLET TYPE	INLET (EACH)	MH TYPE	MH (EACH)	COVER EACH*	ELEVATION	DEPTH (FEET)**	REMARKS
I-1E	150+15; 47' LT.	1	1	---	---	C	1213.15	3.15	
I-2E	150+15; 42' LT.	3	2	---	---	H-RT	1213.62	4.12	DOUBLE INLET
I-4E	149+00; 24' LT.	3	2	---	---	H-RT	1216.50	5.96	DOUBLE INLET
M-5E	149+00; 24' RT.	---	---	3Δ	1	WM	1216.02	6.48	
M-3E	149+85; 42' RT.	---	---	3Δ	1	WM	1214.48	6.48	
I-3F	152+97; 42' LT.	3	2	---	---	H-LT	1214.52	3.42	DOUBLE INLET
M-4F	152+97; 24' RT.	---	---	3Δ	1	WM	1214.73	4.21	
I-5F	151+73; 42' LT.	3	2	---	---	H-LT	1213.42	3.23	DOUBLE INLET
I-6F	150+95; 42' LT.	3	2	---	---	WM	1213.14	3.82	DOUBLE INLET
I-7F	150+95; 12' LT.	2	1	---	---	Z	1213.74	4.76	
M-7F	150+95; 24' RT.	---	---	3Δ	1	WM	1213.50	5.00	
I-1G	161+50; 24' RT.	2	1	---	---	WM	1210.06	4.06	
I-2G	161+50; 18' LT.	1	2	---	---	SPECIAL	1210.18	4.68	DOUBLE INLET
I-3G	162+97 0' R/L	1	1	---	---	SPECIAL	1206.88	4.18	
I-3.5G	164+75 26.5' RT.	3	1	---	---	H-LT	1201.15	5.25	

MANHOLES AND INLETS

CODE	STRUCTURE LOCATION	INLET TYPE	INLET (EACH)	MH TYPE	MH (EACH)	COVER EACH*	ELEVATION	DEPTH (FEET)**	REMARKS
I-4G	166+00; 57' LT.	1	1	---	---	C	1195.00	2.00	
I-5G	166+00; 42' LT.	3	2	---	---	H-RT	1195.62	4.03	DOUBLE INLET
M-6G	166+00; 0' R/L	---	---	3	1	SPECIAL	1196.46	5.42	2' DIAMETER OPENING
I-11G	167+46; 24' RT.	2	1	---	---	WM	1193.14	4.52	
I-7G	167+52; 42' LT.	2	1	---	---	WM	1192.78	3.84	
M-8G	167+45; 40' RT.	---	---	3	1	C	1193.25	5.70	
I-9G	170+00; 24' RT.	3	1	---	---	WM	1190.90	5.90	
I-10G	38+36P; 10' LT.	2	1	---	---	WM	1205.38	2.16	
I-1H	178+47; 42' LT.	3	2	---	---	H-LT	1191.82	4.32	DOUBLE INLET
I-2H	178+47; 24' RT.	3	2	---	---	H-RT	1192.18	4.68	DOUBLE INLET
M-3H	178+47; 9' LT.	---	---	1	1	BC	1192.80	5.80	2' OPENING
I-4H	174+00; 42' LT.	2	2	---	---	WM	1187.52	3.36	DOUBLE INLET
M-5H	174+00; 9' R/L	---	---	3	1	SPECIAL	1188.36	5.16	2' DIAMETER OPENING
OUTFALL	173+00; 43' RT.	---	---	---	---	---	---	---	

* SPECIAL CONCAVE INLET FRAME AND GRATE (SEE CONSTRUCTION DETAIL)
* FLANGE ELEVATION - 0.125'
** DEPTH IS FLOWLINE AT CURB TO FLOWLINE OF DISCHARGE PIPE
Δ USE 2' DIAMETER OPENING

PIPE CULVERTS

STATION	DIAMETER (INCHES)	LENGTH (LF)	TYPE	CLASS	APRON ENDWALLS	CONCRETE MASONRY ENDWALLS (C.Y.)	*RIPRAP (C.Y.)	GEOTEXTILE FABRIC TYPE 'R' (S.Y.)	GRANULAR BACKFILL (C.Y.)
170+50, 172+90	SKEW 54° RH 71 x 47 30	130 100	3 - CSPA 2 - RCCP	IV	---	2 - 3.5	15 10	45 30	308 98

* ADDITIONAL RIPRAP SHOWN IN EROSION CONTROL TABLE

LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

FILE NAME: HDGN:

CONDUIT SCHEDULE

FROM	TO	CONDUIT SCHEDULE		ELECTRIC WIRE	
		3" CONDUIT (L. F.)	2" CONDUIT (L. F.)	1" CONDUIT (L. F.)	TRAFFIC SIGNALS # 10 (L. F.)
CB - 1	PBS - 1	10	--	--	10
PB - 1	PBS - 5	86	--	--	--
PBS - 1	PBS - 2	--	--	210	216
PBS - 1	PBS - 3	47	--	--	--
PBS - 1	TS - 1	--	6	--	11
PBS - 3	PBS - 4	38	--	--	--
PBS - 3	TS - 2	--	5	--	10
PBS - 4	TS - 3	--	18	--	23
PBS - 4	TS - 4	--	19	--	24
PBS - 5	PBS - 6	46	--	--	--
PBS - 5	TS - 5	--	14	--	19
PBS - 5	TS - 6	--	16	--	21
PBS - 6	PBS - 7	45	--	--	--
PBS - 6	TS - 7	--	6	--	11
PBS - 7	PBS - 8	--	--	131	137
PBS - 7	TS - 8	--	8	--	13
		272	92	341	495

SIGNAL WIRE RUNS

POLE NUMBER	HEAD NUMBER	ROUTING	TRAFFIC SIGNALS CABLE		
			11 - CONDUCTOR # 14 (L. F.)	19 - CONDUCTOR # 14 (L. F.)	21 - CONDUCTOR # 14 (L. F.)
TS - 1	4	PB1 - CB1	--	--	21
TS - 2	3	PB3 - PB1 - CB1	--	73	--
TS - 3	6	PB4 - TS4	47	--	--
TS - 4	11	PB4 - PB3 - PB1 - CB1	--	--	131
TS - 5	9	PB5 - PB1 - CB1	--	--	121
TS - 6	2	PB5 - TS5	40	--	--
TS - 7	1	PB6 - PB5 - PB1 - CB1	--	165	--
TS - 8	8	PB7 - PB6 - TS5 - TS1 - CB1	--	218	--
			87	456	273

PULL BOXES

NAME	EACH	PULL BOXES	
		18 X 36-INCH EACH	24 X 36-INCH LOCATION
PBS 1	--	--	151+69, 30' RT
PBS 2	1	--	149+61, 20' RT
PBS 3	--	1	151+69, 15' LT
PBS 4	--	1	151+83, 50' LT
PBS 5	--	1	152+55, 31' RT
PBS 6	--	1	152+88, 3' LT
PBS 7	--	1	152+88, 40' LT
PBS 8	1	--	154+16, 40' LT
		2	6

SIGNAL HEAD CHART					
SIGNAL BASE NO.	HEAD NO.	3-12 VERTICAL EACH	3-12 HORIZONTAL EACH	5-12 VERTICAL EACH	BACKPLATES EACH
T-1	4	1	--	--	--
T-1	10	1	--	--	--
T-2	3	--	--	1	1
T-2	5	--	--	1	--
T-3	6	--	1	--	1
T-4	11	1	--	--	--
T-4	12	1	--	--	--
T-5	9	1	--	--	--
T-5	14	1	--	--	--
T-6	2	--	1	--	1
T-7	1	--	--	1	1
T-7	7	--	--	1	--
T-8	8	1	--	--	--
T-8	13	1	--	--	--
		8	2	4	4

NOTES: VERTICAL SIGNAL FACES ARE POST MOUNTED.
HORIZONTAL SIGNAL FACES ARE MAST ARM MOUNTED.

CONTROLLER AND POLE CHART

REFERENCE NUMBER	BASE LOCATION	CONTROLLER AND POLE CHART		TRAFFIC SIGNAL		PEDESTAL BASE EACH	MAST ARM TRAFFIC SIGNAL TROMBONE 15' EACH	CONCRETE CONTROL CABINET BASE TYPE 9 EACH	TRANSFORMER BASE EACH	CONCRETE BASE	
		POLE TYPE 2 EACH	STANDARDS (STEEL) 13' 15' EACH EACH							TYPE 1 EACH	TYPE 2 EACH
CB-1	151+69, 37' LT	2	-- --	--	--	1	--	--	--	--	--
T-1	151+77, 32' LT	--	1 --	1	--	--	--	--	--	1	--
T-2	151+75, 15' LT	--	-- 1	1	--	--	--	--	--	1	--
T-3	151+66, 47' LT	1	-- --	--	1	--	--	1	--	--	1
T-4	151+99, 61' LT	--	1 --	1	--	--	--	--	--	1	--
T-5	152+49, 39' RT	--	1 --	1	--	--	--	--	--	1	--
T-6	152+72, 27' LT	1	-- --	--	1	--	--	1	--	--	1
T-7	152+81, 3' LT	--	-- 1	1	--	--	--	--	--	1	--
T-8	152+81, 53' LT	--	1 --	1	--	--	--	--	--	1	--
		2	4 2	6	2	1	2	6	2		

LOOP DETECTOR SCHEDULE

LOOP	SIZE (FEET)	CHANNEL CONNECTION	LOOP DETECTOR		NUMBER OF TURNS	LOOP DETECTOR LEAD IN CABLE (L. F.)
			CONDUIT, 1 - INCH (L. F.)	WIRE (L. F.)		
11	6 X 30	PARALLEL	81	216	3	60
21	6 X 18	PARALLEL	57	144	3	183
41	6 X 20	PARALLEL	94	156	3	132
42	6 X 20	PARALLEL	81	156	3	119
51	6 X 30	PARALLEL	80	216	3	65
61	6 X 30	PARALLEL	81	216	3	317
81	6 X 20	PARALLEL	116	156	3	146
			590	1,260		1,822

CONDUIT SCHEDULE				ELECTRIC WIRE	
FROM	TO	3" CONDUIT (L. F.)	2" CONDUIT (L. F.)	1" CONDUIT (L. F.)	TRAFFIC SIGNALS # 10 (L. F.)
CB - 2	PBS - 10	10	--	--	10
PBS - 10	PBS - 1	53	--	--	--
PBS - 10	PBS - 7	82	--	--	--
PBS - 10	PBS - 9	--	--	210	220
PBS - 1	PBS - 2	64	--	--	--
PBS - 1	TS - 1	--	7	--	12
PBS - 2	PBS - 3	66	--	--	--
PBS - 2	TS - 2	--	15	--	20
PBS - 2	TS - 3	--	16	--	21
PBS - 3	PBS - 4	52	--	--	--
PBS - 3	TS - 4	--	5	--	10
PBS - 4	PBS - 5	36	--	--	--
PBS - 4	TS - 5	--	9	--	14
PBS - 5	PBS - 6	--	--	135	141
PBS - 7	PBS - 8	73	--	--	--
PBS - 7	TS - 6	--	7	--	12
PBS - 8	TS - 7	--	31	--	36
PBS - 8	TS - 8	--	11	--	16
		436	101	345	512

SIGNAL WIRE RUNS					
TRAFFIC SIGNALS CABLE					
POLE NUMBER	HEAD NUMBER	ROUTING	11 - CONDUCTOR # 14 (L. F.)	19 - CONDUCTOR # 14 (L. F.)	21 - CONDUCTOR # 14 (L. F.)
TS - 1	8	PB1 - PB10 - CB2	--	81	--
TS - 2	13				
	11	PB2 - PB1 - PB10 - CB2	--	159	--
	12				
	16				
TS - 3	6	PD2 - TS2	41	--	--
	PPB				
TS - 4	4	PB3 - PB2 - PB1 - PB10 - CB2	--	221	--
	5				
TS - 5	3	PB4 - PB3 - PB2 - PB1 - PB10 - CB2	--	--	283
	10				
	15				
	PPB				
TS - 6	1	PB7 - PB10 - CB2	--	110	--
	4				
TS - 7	2	PB8 - TS8	52	--	193
TS - 8	9	PB8 - PB7 - PB10 - CB2			
	14				
			93	571	476

PULL BOXES			
NAME	18 X 36-INCH EACH	24 X 36-INCH EACH	LOCATION
PBS 1	--	1	183+18, 52' LT
PBS 2	--	1	299R+42, 33' RT
PBS 3	--	1	182+13, 15' LT
PBS 4	--	1	300R+55, 23' RT
PBS 5	--	1	300R+92, 38' RT
PBS 6	1	--	180+23, 32' RT
PBS 7	--	1	183+13, 3' LT
PBS 8	--	1	300R+38, 29' LT
PBS 9	1	--	185+07, 38' LT
PBS 10	--	1	183+80, 59' LT
		2	8

SIGNAL HEAD CHART						
SIGNAL BASE NO.	HEAD NO.	3-12 VERTICAL EACH	3-12 HORIZONTAL EACH	5-12 VERTICAL EACH	BACKPLATES EACH	2-12 PEDESTRIAN EACH
T-1	8	1	--	--	--	--
T-1	13	1	--	--	--	--
T-2	11	1	--	--	--	--
T-2	12	1	--	--	--	--
T-2	16	--	--	--	--	1
T-3	6	--	1	--	1	--
T-4	4	--	--	1	1	--
T-4	5	--	--	1	--	--
T-5	3	1	--	--	--	--
T-5	10	1	--	--	--	--
T-5	15	--	--	--	--	1
T-6	1	--	--	1	1	--
T-6	7	--	--	1	--	--
T-7	2	--	1	--	1	--
T-8	9	1	--	--	--	--
T-8	14	1	--	--	--	--
		8	2	4	4	2

NOTES: VERTICAL SIGNAL FACES ARE POST MOUNTED.
HORIZONTAL SIGNAL FACES ARE MAST ARM MOUNTED.
PEDESTRIAN SIGNAL FACES ARE POST MOUNTED.
SIGNAL POSTS T-2 & T-5 WILL ALSO HAVE
PEDESTRIAN PUSH BUTTONS.

CONTROLLER AND POLE CHART

REFERENCE NUMBER	BASE LOCATION	POLE TYPE 2 EACH	TRAFFIC SIGNAL STANDARDS (STEEL)		PEDESTAL BASE EACH	MAST ARM TRAFFICSIGNAL TROMBONE 15' EACH	CONCRETE CONTROL CABINET BASE TYPE 9 EACH	TRANSFORMER BASE EACH	CONCRETE BASES	
			13' EACH	15' EACH					TYPE 1 EACH	TYPE 2 EACH
CB-2	183+80, 64' LT	--	--	--	--	--	1	--	--	--
T-1	183+28, 50' LT	--	1	--	1	--	--	--	1	--
T-2	299R+32, 27' RT	--	1	--	1	--	--	--	1	--
T-3	182+34, 61' LT	1	--	--	--	1	--	1	--	1
T-4	182+19, 15' LT	--	--	1	1	--	--	--	1	--
T-5	182+01, 32' RT	--	1	--	1	--	--	--	1	--
T-6	183+07.8, 3.0' LT	--	--	1	1	--	--	--	1	--
T-7	182+92, 40' RT	1	--	--	--	1	--	1	--	1
T-8	300R+47, 24' LT	--	1	--	1	--	--	--	1	--
		2	4	2	6	2	1	2	6	2

LOOP DETECTOR SCHEDULE						
LOOP	SIZE (FEET)	CHANNEL CONNECTION	LOOP DETECTOR CONDUIT, 1 - INCH (L. F.)	LOOP DETECTOR WIRE (L. F.)	NUMBER OF TURNS	LOOP DETECTOR LEAD IN CABLE (L. F.)
11	6 X 30	PARALLEL	78	216	3	100
21	6 X 18	PARALLEL	57	144	3	292
41	5 X 20	PARALLEL	86	150	3	165
42	5 X 20	PARALLEL	75	150	3	156
51	6 X 30	PARALLEL	78	216	3	201
61	6 X 18	PARALLEL	57	144	3	156
81	4 X 20	PARALLEL	77	144	3	196
82	4 X 20	PARALLEL	67	144	3	186
			575	1,308		1,452

STATE LINE	----
COUNTY LINE	----
TOWN AND RANGE LINES	----
SECTION LINE	----
QUARTER LINE	----
SIXTEEN LINE	----
NEW REFERENCE LINE	----
NEW R/W LINE	----
EXISTING R/W LINE	----
PROPERTY LINE	P.L. ----
CORPORATE LIMITS	NAME
LOT, TIE AND OTHER MINOR LINES	----
SLOPE INTERCEPT	SLOPE INTERCEPTS
UNDERGROUND FACILITY (GAS, TELEPHONE, ELECTRIC, ETC.)	G (TYPE)
FENCE	x-x-x-x
TEMPORARY LIMITED EASEMENT	-----
PERMANENT LIMITED EASEMENT	-----
BEAM GUARD	-----
TRANSMISSION TOWER AND LINE	-----
NON-MONUMENTED R/W POINT	○

A.C.	ACCESS CONTROL	M.I.	MILE
AC.	ACRE	P.	PAGE
AH.	AHEAD	P.C.	POINT OF CURVATURE
ALUM. MON.	ALUMINUM MONUMENT	P.E.	PRIVATE ENTRANCE
ANT.	ANTENNA	PERM.	PERMANENT
A.P.	ACCESS POINT	P.T.	POINT OF TANGENCY
B.	BUILDING	P.I.	POINT OF INTERSECTION
B.K.	BACK	P.L.E.	PERMANENT LIMITED EASEMENT
B.M.	BENCH MARK	R.	RADIUS
C.	CHURCH	R.D.E.	RESTRICTED DEVELOPMENT EASEMENT
C/L	CENTERLINE	REM.	REMAINING
CONC. MON.	CONCRETE MONUMENT	REST.	RESTAURANT
CONST.	CONSTRUCTION	RT.	RIGHT
C.P.	CULVERT PIPE	R/W	RIGHT OF WAY
C.S.M.	CERTIFIED SURVEY MAP	S.	SHED
D.	DEGREE OF CURVE	S.D.	STORM DRAINAGE
ETAL	AND OTHERS	S.F.	SQUARE FEET
FRL.	FRACTIONAL	STA.	STATION
FT.	FEET	T	TANK
G.	GARAGE	TAV.	TAVERN
H.	HOUSE	TEMP.	TEMPORARY
L.	LENGTH OF CURVE	T.L.E.	TEMPORARY LIMITED EASEMENT
L.C.	LONG CHORD OF CURVE	VOL.	VOLUME
L.C.B.	LONG CHORD BEARING	W.	WALL
LT.	LEFT		

NOTES
 DIMENSIONING FOR THE NEW R/W IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.
 GOVERNMENTAL LAND LINE AND REFERENCE LINE ARE NOT COINCIDENTAL.
 DISTANCE FROM REFERENCE LINE ARE
 DISTANCE FROM GOVERNMENTAL LAND LINE ARE OR XX'G
 COORDINATES AND BEARINGS ON THIS PLAT ARE ORIENTED TO THE WISCONSIN COORDINATE SYSTEM CENTRAL ZONE. ALL PLAT DISTANCES ARE GROUND LENGTH AND MAY BE CONVERTED TO GRID LENGTH BY MULTIPLYING THE DISTANCE BY THE GRID FACTOR PROVIDED ON THE DETAIL SHEETS.
 RIGHT OF WAY MONUMENTS ARE SET BY COUNTY.
 RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

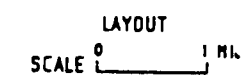
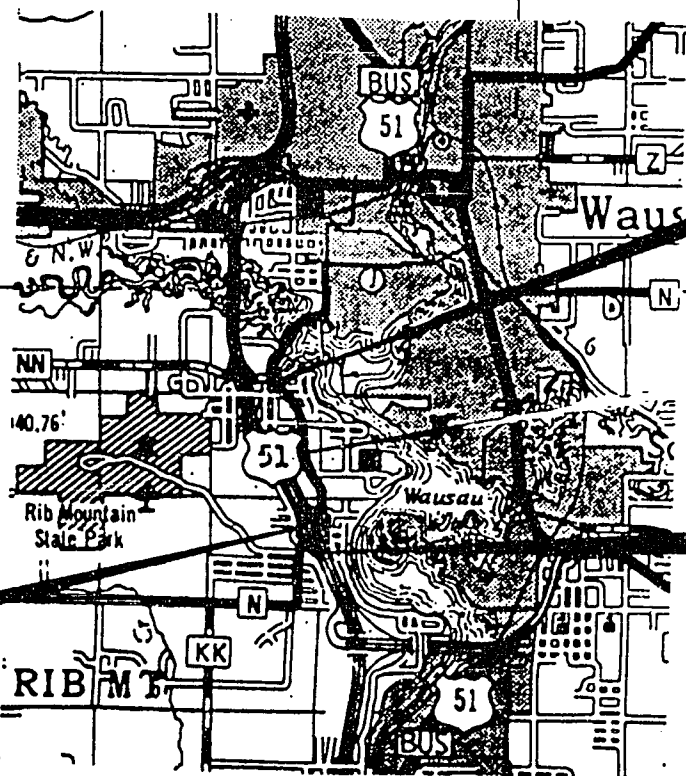
CONVENTIONAL SIGNS AND ABBREVIATIONS

FOUNDATION OR RUIN	FND.
BUILDING	(TYPE)
CEMETERY	+
GAS MARKER OR TELEPHONE PEDESTAL	□ T.P. (TYPE)
IRON PIPE	I.P.
R/W MONUMENT	●
WINDMILL	⋈
VALVE	⊗ GAS (TYPE)
SILD. MANHOLE, SEPTIC VENT, WELL, ETC.	○ MH. (TYPE)
GAS PUMPS	G.P.
BUSHES	○○○○
TREES (DECIDUOUS)	⊕
TREES (CONIFERUS)	★
WOODS	~~~~~
CULVERT (BDX. PIPE OR CATTLE PASS)	(TYPE)
RAIL LINE	(SMALL SCALE) (LARGE SCALE)
POWER POLE	■
TELEPHONE POLE	⊙
SIGN	⌞
NO ACCESS (BY ACQUISITION)	A.C.
NO ACCESS (BY STATUTORY AUTHORITY)	●●●●● A.C.
NO ACCESS (BY PREVIOUS PROJECT)	◆◆◆◆◆ A.C.

BEGIN RELOCATION ORDER
 1,172.95' N. OF AND 184.79' W.
 OF THE SE. 1/4 COR. OF THE NE. 1/4
 OF SEC. 15, T28N, R7E.
 1,452.78' S. AND 152.54' W
 OF THE SE. COR. OF SEC. 10, T28N, R7E.

END RELOCATION ORDER
 395.15' N. OF AND 1,807.03' W.
 OF THE SE 1/4 COR. OF THE
 SE 1/4 OF SEC. 3, T28N, R7E.

BEGIN NEW ORDER
 529.49' N. OF AND 42.25' W.
 OF THE SE. 1/4 COR. OF NE. 1/4
 OF SEC. 15, T28N, R7E.



TOTAL NET LENGTH OF CENTERLINE = 0.669 MI.

RAW PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.0	
PLAT OF RIGHT OF WAY REQUIRED FOR		
C.T.H. - N		
U.S.H. 51 TO CLOVERLAND		
(RIB MOUNTAIN ROAD)		
C.T.H. "N" U.S. 51	MARATHON COUNTY	
0999-01-71	4.0	

PLATS OF RIGHT OF WAY WITHIN	
COUNTY	MARATHON
APPROVED:	
9/10/92	
ORIGINAL PLANS PREPARED BY	
WISCONSIN GRAEF, ARNOLD, SCHLEDERER PROFESSIONAL ENGINEERS	WISCONSIN BURT J. NAUMANN 5-1950 LAND SURVEYOR
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED:	
DISTRICT TRANSPORTATION DIRECTOR	

SCHEDULE OF LANDS & INTERESTS REQUIRED

AREA SHOWN IN TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

REVISION DATE
4/13/93
5/11/93 PARCEL 32 & 33
6/8/95 PARCEL 19

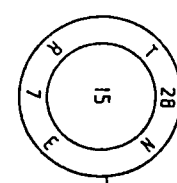
ROUTE COUNTY DATE
C.T.H. "N" MARATHON 3-15-92

STATE PROJECT NUMBER
FEDERAL PROJECT NUMBER
6999-01-71
SHEET NUMBER
4.1

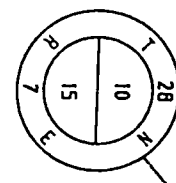
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	TOTAL EXIST. (ACRES)	NEW (ACRES)	RIGHT-OF-WAY EXIST. (ACRES)	TOTAL (ACRES)	TOTAL REMAIN. (ACRES)	T.L.E. (ACRES)	P.L.E. (ACRES)	PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	TOTAL EXIST. (ACRES)	NEW (ACRES)	RIGHT-OF-WAY EXIST. (ACRES)	TOTAL (ACRES)	TOTAL REMAIN. (ACRES)	T.L.E. (ACRES)	P.L.E. (ACRES)
1	4.3	PAUL & PLAUTZ, INC.	FEE & AC	1.553	0.020	-----	0.020	1.533	-----	-----	38	4.7	MINNIE GUNZEL	FEE & TLE & AC	0.959	0.099	-----	0.099	0.860	0.018	-----
2	4.3	MARION NIELSON	FEE & TLE & AC	0.399	0.019	-----	0.019	0.382	0.025	-----	39	4.7	IRENE BALZ	FEE & TLE & AC	0.669	0.138	0.017	0.155	0.514	0.028	-----
3	4.3	RONALD C. WIMMER	FEE & PLE & AC	0.368	0.017	-----	0.017	0.351	-----	0.031	40	4.7	ROBERT NICHOLSON & DEBORAH NICHOLSON	FEE & AC	0.304	0.013	-----	0.013	0.291	-----	-----
4	4.3	RIB MOUNTAIN TRAVEL INN	FEE & PLE & AC	7.114	0.153	-----	0.153	6.961	0.149	0.065	41	4.7	JOHN BORUCH, SANDRA MARSON & RALPH BORUCH	FEE & TLE & AC	10.726	0.072	-----	0.072	10.654	0.084	-----
5	4.3	GALEN G. OLSON & RONALD D. OLSON	TLE & AC	1.525	-----	-----	-----	1.525	0.064	-----	42	4.7	RANDALL GRIEL & JAIN GRIEL	FEE & TLE & AC	0.815	0.125	0.015	0.150	0.665	0.042	-----
6	4.3	WAUSAU TRUCK CENTER (VENDEE) GALEN G. OLSON & RONALD D. OLSON	TLE & AC	1.335	-----	-----	-----	1.335	0.102	-----	43	4.7	THOMAS W. BITTNER	FEE & TLE & AC	0.317	0.039	-----	0.039	0.278	0.016	-----
8	4.3	WAUSAU TRUCK CENTER	TLE & AC	4.693	-----	-----	-----	4.673	0.338	-----	44	4.7	ROBERT THURBER & MARGARET THURBER	FEE & TLE & AC	0.500	0.050	-----	0.050	0.450	0.027	-----
9	4.4, 4.10	JOHN A. DAMITZ & DIANNA C. DAMITZ	FEE & TLE & AC	2.576	0.312	-----	0.312	2.264	0.077	-----	45	4.7	DONALD GEIGER & CAROL GEIGER	FEE & TLE & AC	0.983	0.036	-----	0.036	0.947	0.018	-----
11	4.4, 4.10	DOUGLAS SEEGER & SUE SEEGER	FEE & TLE & AC	1.007	0.167	-----	0.167	0.840	0.031	-----	46	4.7	EVA BUSKA	FEE & TLE & AC	2.045	0.087	-----	0.087	1.958	0.044	-----
12	4.4	RONALD C. WIMMER	FEE & TLE & AC	7.140	0.375	-----	0.375	6.765	0.091	-----	47	4.7	PEOPLE'S STATE BANK	FEE & TLE & AC	2.018	0.096	-----	0.096	1.922	0.036	-----
13	4.4, 4.5	JAMES C. CARTER	FEE & AC	35.703	0.479	-----	0.479	35.224	-----	-----	48	4.8	TK ENTERPRISES	FEE & TLE & AC	1.938	0.199	-----	0.199	1.739	0.016	-----
14	4.4, 4.5	RONALD C. WIMMER	FEE & TLE & AC	24.044	1.278	-----	1.278	22.766	0.249	-----	49	4.8	WAYNE K. MYERS (VENDEE)	FEE & TLE & AC	0.587	0.026	-----	0.026	0.561	0.029	-----
15	4.5	JOHN HEISLER & RUTH HEISLER	FEE & TLE & AC	4.819	0.022	-----	0.022	4.797	0.063	-----	50	4.8	S&S INSURANCE SERVICES	FEE & AC	0.486	0.151	-----	0.151	0.335	-----	-----
16	4.5	BILLY Y.F. MOY & MARIA Y.H. MOY	FEE & TLE & AC	6.014	0.048	-----	0.048	5.966	0.096	-----	51	4.8	GERALD TAMBORINO & ALLAN WOLDT	FEE & AC	1.053	0.067	-----	0.067	0.986	-----	-----
17	4.5		FEE & TLE & AC	-----	0.002	-----	0.002	-----	0.008	-----	53	4.8	HERBERT HANKE & DELLA HANKE	FEE & AC	0.377	0.054	-----	0.054	0.323	-----	-----
18	4.5, 4.6	RANDALL JAEGER & KATHY JAEGER	FEE & TLE & AC	3.863	0.086	-----	0.086	3.777	0.163	-----	54	4.8	GLENN DRAEGER & SUSAN DRAEGER	FEE & TLE & AC	0.513	0.062	-----	0.062	0.451	0.020	-----
19	4.6	JOHN DAMITZ & DIANNA DAMITZ	PLE & TLE & AC	±0.856	0.0	-----	0.0	±0.826 ±0.411	0.042 0.024	0.030 0.004	~~55~~	~~4.8~~	~~JAMES M. RUETHER & CAROL J. RUETHER~~	~~FEE & TLE & AC~~	~~0.400~~	~~0.011~~	~~0.011~~	~~0.389~~	~~0.011~~	~~0.011~~	
20	4.5	THOMAS A. RIISER	FEE & TLE & AC	1.039	0.120	-----	0.120	0.919	0.105	-----	~~56~~	~~4.8~~	~~JANET M. KENNEDY~~	~~FEE & TLE~~	~~0.111~~	~~0.012~~	~~0.012~~	~~0.099~~	~~0.007~~	~~0.007~~	
21	4.5	DELMAR KLUYER	FEE & TLE & AC	0.890	0.023	-----	0.023	0.867	0.119	-----	~~57~~	~~4.8~~	~~HAROLD W. SOUTHARD & ROSELYN E. SOUTHARD~~	~~TLE & AC~~	~~0.293~~	~~0.000~~	~~0.000~~	~~0.293~~	~~0.010~~	~~0.010~~	
22	4.5	ROLAND M. SCHRADER	FEE & TLE & AC	4.184	0.046	-----	0.046	4.138	0.066	-----	~~58~~	~~4.8~~	~~R.J. GROUP, INC.~~	~~TLE & AC~~	~~0.233~~	~~0.000~~	~~0.000~~	~~0.233~~	~~0.017~~	~~0.017~~	
23	4.5	GERALD RICHTER & MARY RICHTER	FEE & TLE & AC	2.826	0.032	-----	0.032	2.794	0.046	-----	59	4.9	CARL A. GOTHMAN	FEE & TLE	0.408	0.021	-----	0.021	0.387	0.048	-----
24	4.5, 4.6	HDRAK REFRIGERATION, INC.	FEE & TLE & AC	1.702	0.100	-----	0.100	1.602	0.017	-----	60	4.9	TIMBERLAKE LAND CO.	FEE	1.388	0.999	-----	0.999	0.389	-----	-----
25	4.6	AMBROSE F. GROSNEK	FEE & TLE & AC	3.728	0.069	-----	0.069	3.659	0.038	-----	62	4.9	RAYMOND N. BLAUBACH & PATRICIA D. BLAUBACH	FEE	0.993	0.019	-----	0.019	0.974	0.005	-----
27	4.6	JOHN P. KORDUS	FEE & TLE & AC	1.598	0.045	-----	0.045	1.553	0.041	-----	63	4.9	NORTH COUNTY INVESTMENT CORP.	FEE	0.404	0.404	-----	0.404	0.000	-----	-----
28	4.6	ELIZABETH J. JANSEN	FEE & TLE & AC	2.349	0.041	-----	0.041	2.308	0.065	-----	64	4.9	ROBERT L. REISSMANN & FRANCES REISSMANN	FEE	0.404	0.020	-----	0.020	0.384	-----	-----
29	4.6	ROBERT SIEWERS & DOROTHY SIEWERS	FEE & TLE & AC	1.317	0.024	-----	0.024	1.293	0.050	-----	65	4.9	MINE W. DAHLBACKA	FEE	1.333	0.528	-----	0.528	0.805	-----	-----
30	4.6	JOHN G. KENT	FEE & TLE & AC	1.767	0.032	-----	0.032	1.735	0.056	-----	66	4.9	ARTHUR SCHNECK & LAURETTA SCHNECK	FEE & TLE	1.342	0.097	-----	0.097	1.245	0.200	-----
31	4.6, 4.7	HENRY YACH & SANDRA YACH	FEE & TLE & AC	5.081	0.160	-----	0.160	4.921	0.069	-----	67	4.3, 4.4, 4.9	G.T.E. NORTH TELEPHONE	RELEASE OF RIGHTS	-----	-----	-----	-----	-----	-----	-----
33	4.6	TIMOTHY MURPHY & LOIS MURPHY	FEE & TLE & AC	1.128	0.038	-----	0.038	1.090	0.028	-----											
34	4.6	ROBERT W. ZASTROW	FEE & TLE & AC	4.579	0.036	-----	0.036	4.543	0.055	-----											
35	4.6	RICHARD C. NITZSCHE	FEE & TLE & AC	7.011	0.116	0.024	0.140	6.871	0.076	-----											
36	4.6, 4.7	VIOLET CHEREK	FEE & TLE & AC	6.559	0.048	-----	0.048	6.507	0.052	-----											
32	4.7	JAMES LANG & LINDA LANG	FEE & TLE & AC	0.430	0.073	-----	0.073	0.357	0.036	-----											
32	4.6	DOROTHY KLUYER	FEE & TLE	1.138	0.003	-----	0.003	1.138	0.002	-----											

* REMAIN (ACRES) WITHOUT PLE

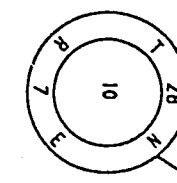
REVISION DATE 2/4/93 4/13/93 5/11/93 6/8/93	ROUTE CTH M SCALE	COUNTY MARATHON	DATE 3-15-92	R/W PROJECT NUMBER	SHEET NUMBER
			GRID FACTOR 0.999981	FEDERAL PROJECT NUMBER 6944-1-71	4.2
					4.2



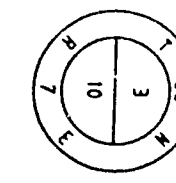
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X = 2,056,676.4032



Y = 394,963.3312
X = 2,056,664.7911



Y = 397,581.3018
X = 2,056,589.5280



Y = 400,224.0443
X = 2,056,516.8293

TOWN OF RIB MOUNTAIN

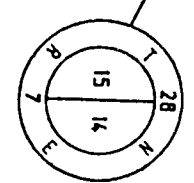
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STA. 11+40
Y = 393,501.9124
X = 2,059,174.9849

BEGIN NEW ORDER
LILAC LANE REALIGNMENT
STA. 200+17

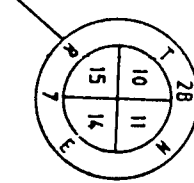
BEGIN PROJECT
STA. 142+00.00

BEGIN NEW ORDER
W. STARLING LANE REALIGNMENT

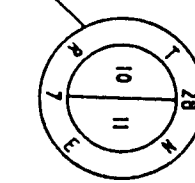
END RELOCATION ORDER
STA. 287+34
Y = 400,617.3498
X = 2,057,410.1181



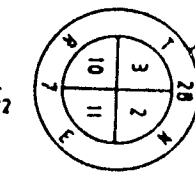
LILAC LANE REALIGNMENT
Y = 392,328.9604
X = 2,059,359.7823



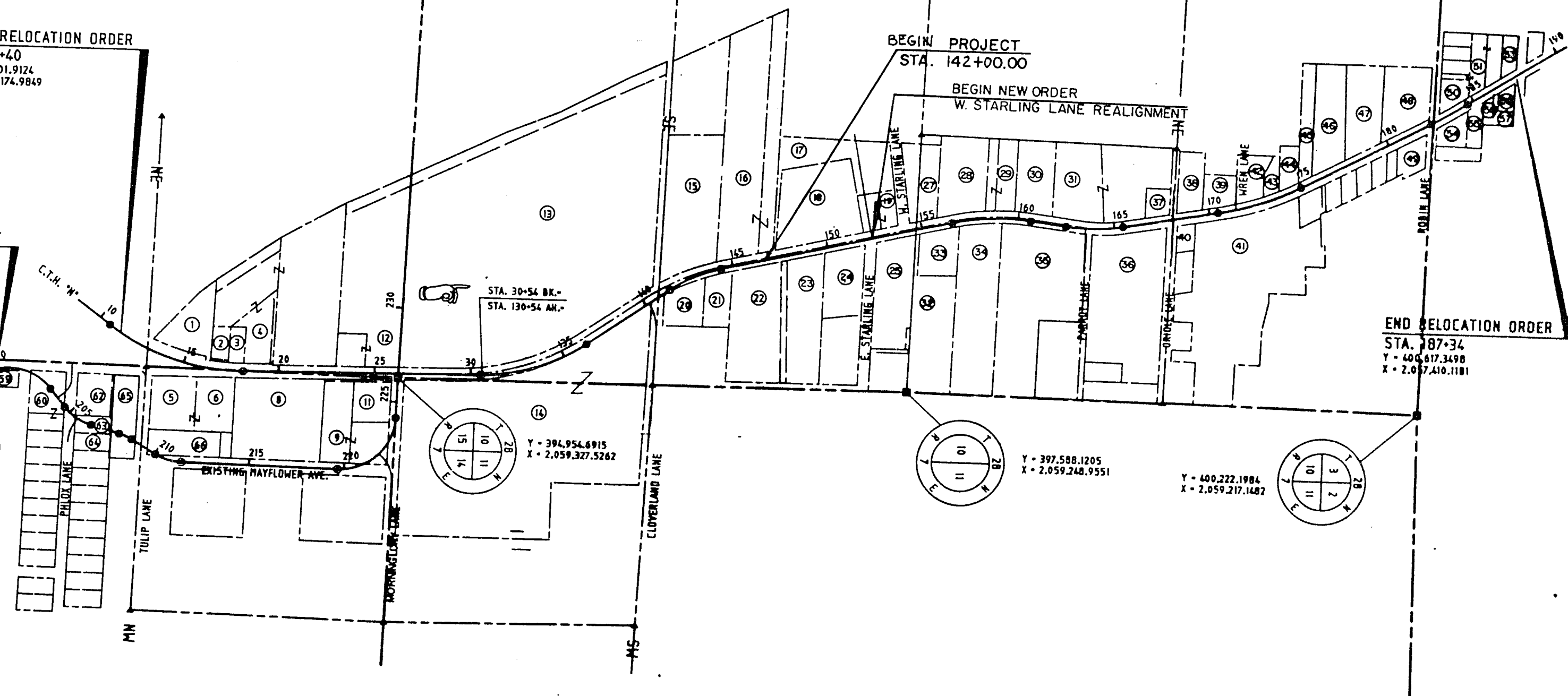
Y = 394,954.6915
X = 2,059,327.5262



Y = 397,588.1205
X = 2,059,248.9551



Y = 400,222.1984
X = 2,059,217.1482



ARC TABLE ON R/L

PC 191 TO PARCEL	ARC LENGTH	LONG CHORD LENGTH	LONG CHORD BEARING
15	51.12'	51.11'	N 35°19'59" E
16	273.20'	271.65'	N 26°43'39" E
21	196.64'	196.06'	N 29°41'39" E

REVISION DATE
4/13/93

ROUTE
CTH M

COUNTY
MARATHON

DATE
3-15-92

R/W PROJECT NUMBER

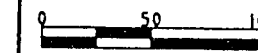
SHEET
NUMBER

SCALE

GRID FACTOR

FEDERAL PROJECT NUMBER

4.3



0.999981

0999-1-71

4.3

TOWN OF RIB MOUNTAIN

(15) JOHN W. HEISLER &
JANE RUTH HEISLER

(16) BILLY Y.F. MOY
MARIA Y.H. MOY
C.S.M. 1654
VOL.7 PG.401

(18) RANDALL W. JAEGER
KATHY JO JAEGER
C.S.M. 1111
VOL. 5 PG.39

(13) NORTH CO. INVESTMENT CORP.
C.S.M. 4285
VOL. 16 PG.53

LCB = S 29°46'52" E
LC = 183.58'
L = 184.09'
R = 708.30'

T.L.E.
0.063 ACRES

LCB = S 15°24'24" E
LC = 16.04'
L = 16.04'
R = 788.30'

T.L.E. 0.096 AC.

T.L.E.
0.163 AC.

T.L.E. 0.066 AC.

T.L.E. 0.046 AC.

(20) THOMAS A. RIISER

(21) DELMER KLUEVER

(22) ROLAND M. SCHROEDER

(23) GERALD B. RICHTER &
MARY A. RICHTER
C.S.M.
VOL. 2 PG.273

(24) HORAK REFRIGERATION, INC.
C.S.M.
VOL. 2 PG.273

CURVE 191 DATA

P.I. = 142°95.87'
Δ = 22°29'24.1"
D = 07°45'00"
T = 146.99'
L = 290.19'
R = 739.30'
P.C. = 141°48.88'
P.T. = 144°39.07'
LCB = N 26°04'08" W
LC = 208.34'

PRIVATE EASEMENT

TOWN OF RIB MOUNTAIN

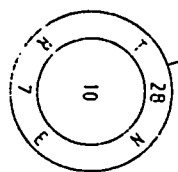
(14) RONALD C. WIMMER
C.S.M. 4064
VOL.15 PG.44

NOTE: 12' G.T.E.
EASEMENT CENTERED
ON THIER LINE

Y = 394,954.6915
X = 2,059,327.5262

Y = 397,588.1205
X = 2,059,248.9551

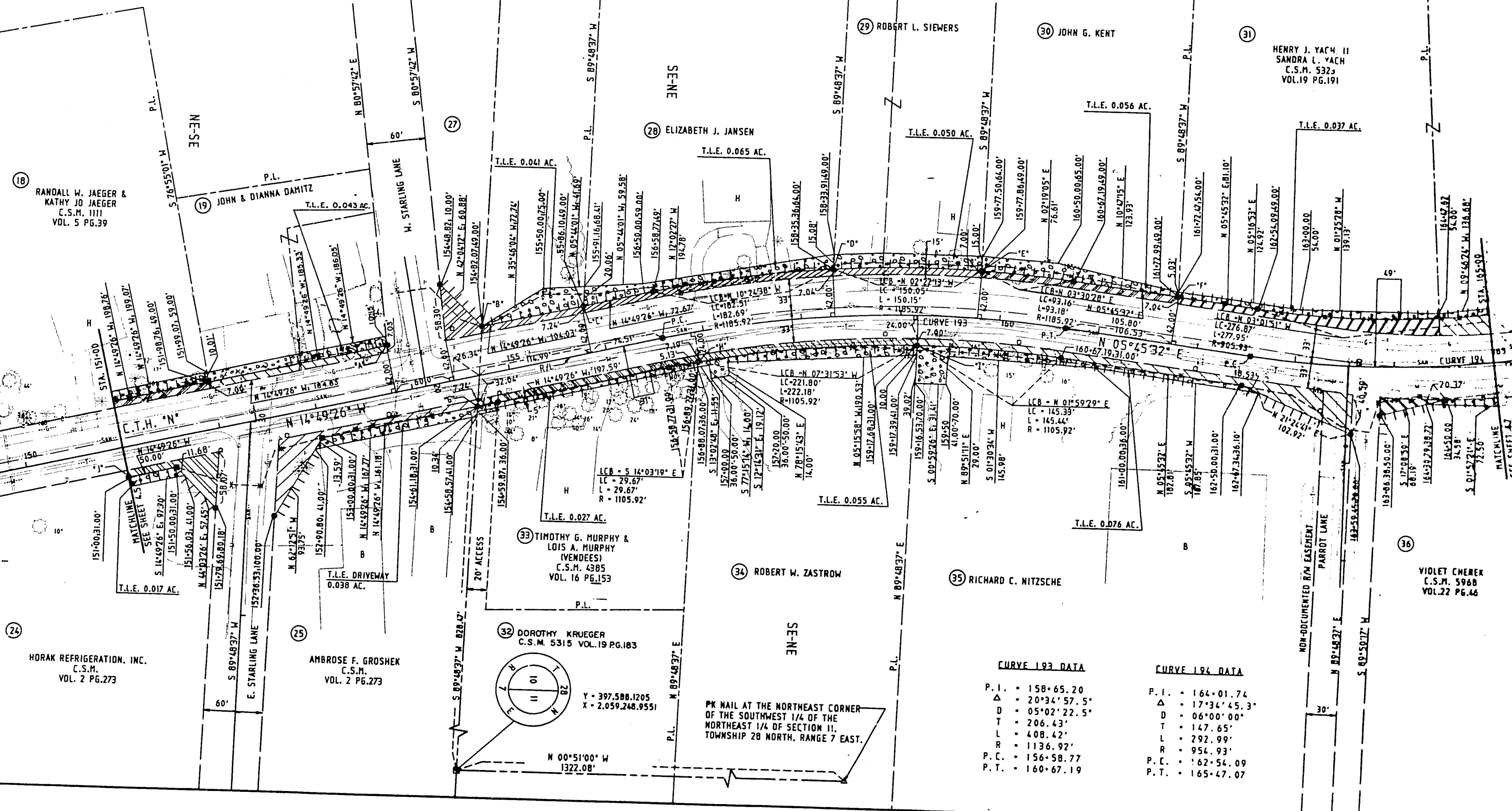
Y = 397,581.3018
X = 2,056,589.5280



REVISION DATE 4/13/93 5/11/93 6/8/95 10/6/95	ROUTE CTH M	COUNTY MARATHON	DATE 3-15-92	R/W PROJECT NUMBER	SHEET NUMBER
	SCALE 0 50 100		GRID FACTOR 0.999981	FEDERAL PROJECT NUMBER 6747-1-71	44

PC 193 TO PARCEL	ARC LENGTH	LONG CHORD LENGTH	LONG CHORD BEARING
29	174.46'	174.29'	N 10°25'40" W
30	319.26'	318.21'	N 06°46'45" W
31	32.17'	32.17'	N 14°00'45" W
32	259.11'	258.55'	N 08°17'42" W

TOWN OF RIB MOUNTAIN



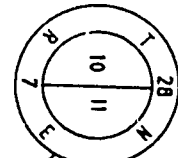
PK NAIL AT THE NORTHEAST CORNER
OF THE SOUTHWEST 1/4 OF THE
NORTHEAST 1/4 OF SECTION 11,
TOWNSHIP 28 NORTH, RANGE 7 EAST.

CURVE 193 DATA

P.I. = 158°65.20
Δ = 20°34'57.5"
D = 05°02'22.5"
T = 206.43'
L = 408.42'
R = 1136.92'
P.C. = 156°58.77
P.T. = 160°67.19

CURVE 194 DATA

P.I. = 164°01.74
Δ = 17°34'45.3"
D = 06°00'00"
T = 147.65'
L = 292.99'
R = 954.93'
P.C. = 162°54.09
P.T. = 165°47.07



ARC TABLE ON R/L

PC 195 TO PARCEL	ARC LENGTH	LONG CHORD LENGTH	LONG CHORD BEARING
41	4.70'	4.70'	N 11°34'45" W
42	131.90'	131.90'	N 11°34'45" W
43	246.14'	246.14'	N 11°34'45" W
44	333.72'	333.72'	N 11°34'45" W
45	444.98'	444.98'	N 11°34'45" W

CURVE 195 DATA

PI = STA. 172+71.11
 Δ = 17°58'00.0"
D = 04°00'40.3"
T = 225.81'
L = 447.91'
R = 1428.39'
PC = 170+45
PT = 174+93.22

REVISION DATE
4/13/93

ROUTE
CTH N

COUNTY
MARATHON

DATE
3-15-92

R/W PROJECT NUMBER

SHEET
NUMBER

SCALE
0 50 100

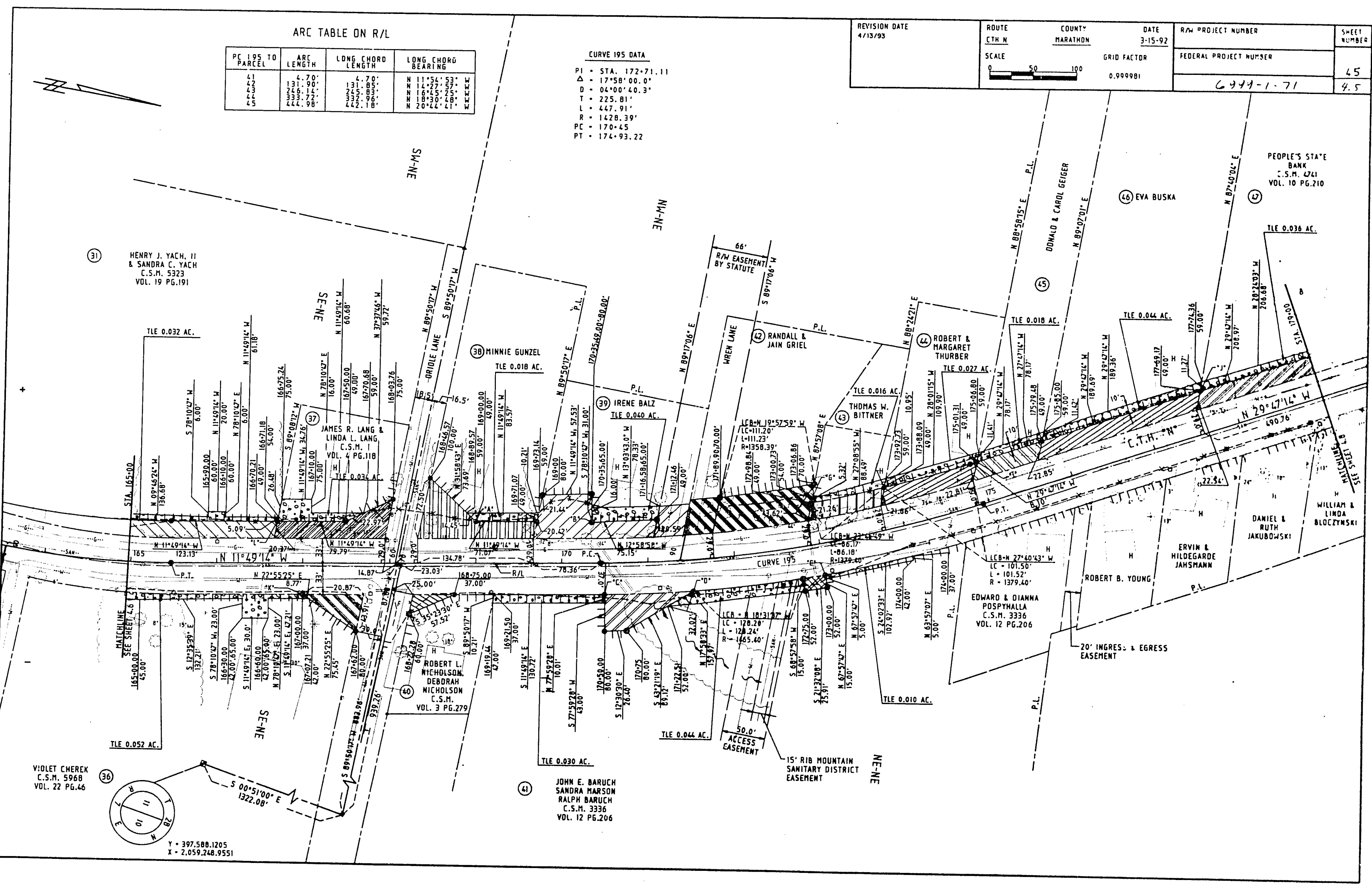
GRID FACTOR
0.999981

FEDERAL PROJECT NUMBER

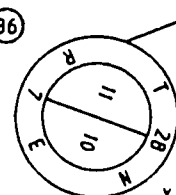
6944-1-71

45

4.5



VIOLET CHEREK
C.S.M. 5968
VOL. 22 PG.46



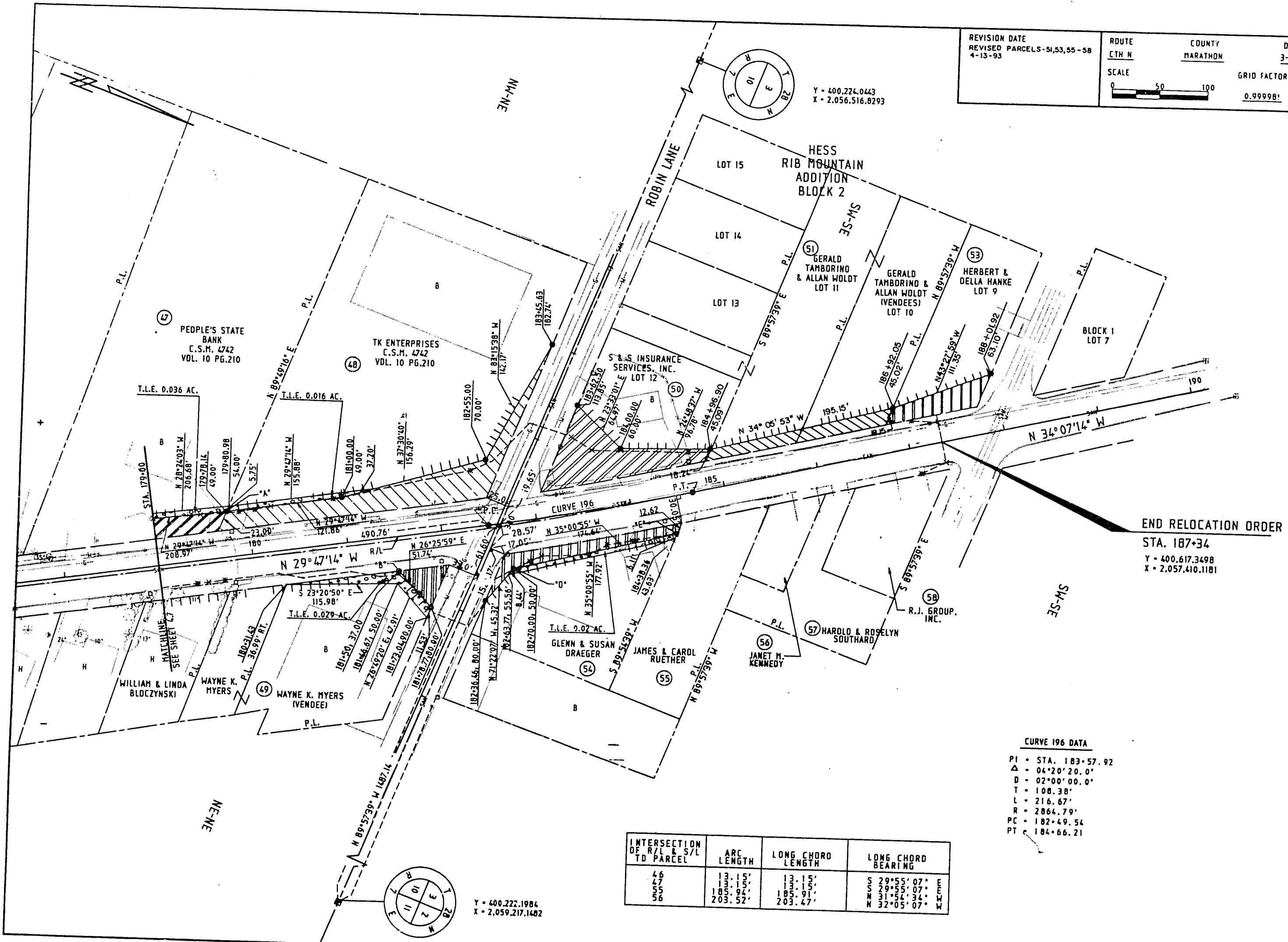
Y = 397,588.1205
X = 2,059,248.9551

REVISION DATE
REVISED PARCELS-51,53,55-58
4-13-93

ROUTE
CTH N
SCALE
0 50 100

COUNTY
MARATHON
DATE
3-15-92
GRID FACTOR
0.999981

R/W PROJECT NUMBER	SHEET NUMBER
FEDERAL PROJECT NUMBER	4.6
6444-1-71	4.6



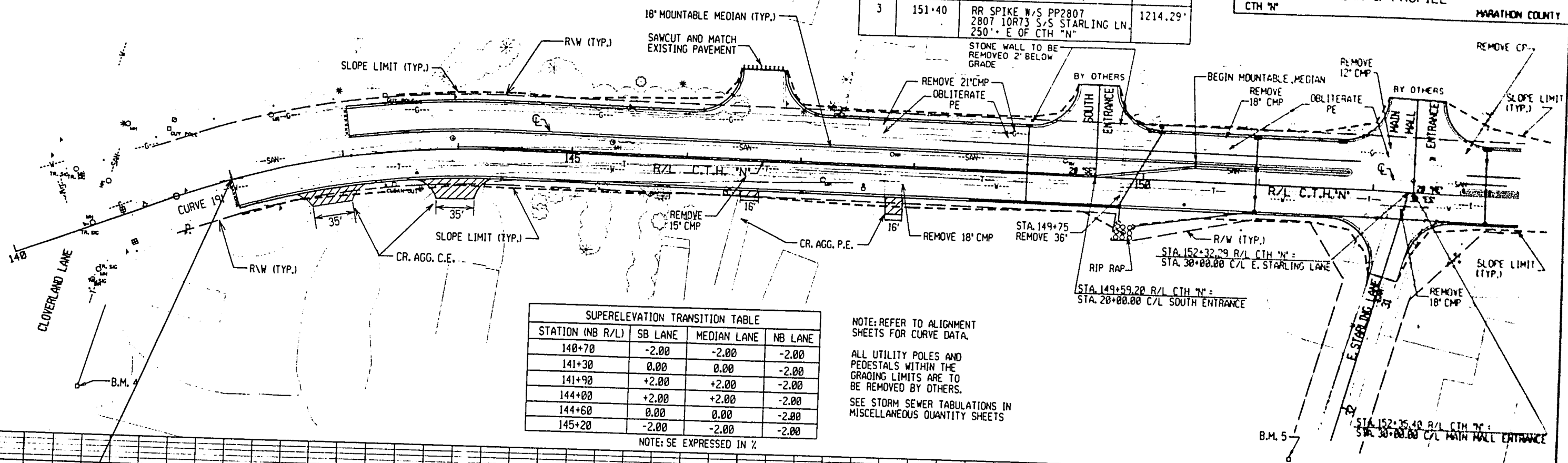
END RELOCATION ORDER
STA. 187+34
Y = 400.617.3498
X = 2,057,410.1181

CURVE 196 DATA
PI = STA. 183+57.92
Δ = 04°20'20.0"
D = 02°00'00.0"
T = 108.38'
L = 216.67'
R = 2864.79'
PC = 182+49.54
PT = 184+66.21

INTERSECTION OF R/L & S/L TO PARCEL	ARC LENGTH	LONG CHORD LENGTH	LONG CHORD BEARING
46	13.15'	13.15'	S 29°55'07" W
47	13.15'	13.15'	S 29°55'07" W
55	185.94'	185.91'	N 31°54'34" W
56	203.52'	203.47'	N 32°05'07" W

Y = 400.222.1984
X = 2,059,217.1482

NO	STATION	DESCRIPTION	ELEV.
4	140+10	RR SPIKE SW/S PP2807 10R70 N/S CLOVERLAND LN. 180' ± E OF CTH "N"	1213.29'
3	151+40	RR SPIKE W/S PP2807 2807 10R73 S/S STARLING LN. 250' ± E OF CTH "N"	1214.29'



SUPERELEVATION TRANSITION TABLE			
STATION (NB R/L)	SB LANE	MEDIAN LANE	NB LANE
140+70	-2.00	-2.00	-2.00
141+30	0.00	0.00	-2.00
141+90	+2.00	+2.00	-2.00
144+00	+2.00	+2.00	-2.00
144+60	0.00	0.00	-2.00
145+20	-2.00	-2.00	-2.00

NOTE: REFER TO ALIGNMENT SHEETS FOR CURVE DATA.

ALL UTILITY POLES AND PEDESTALS WITHIN THE GRADING LIMITS ARE TO BE REMOVED BY OTHERS.

SEE STORM SEWER TABULATIONS IN MISCELLANEOUS QUANTITY SHEETS

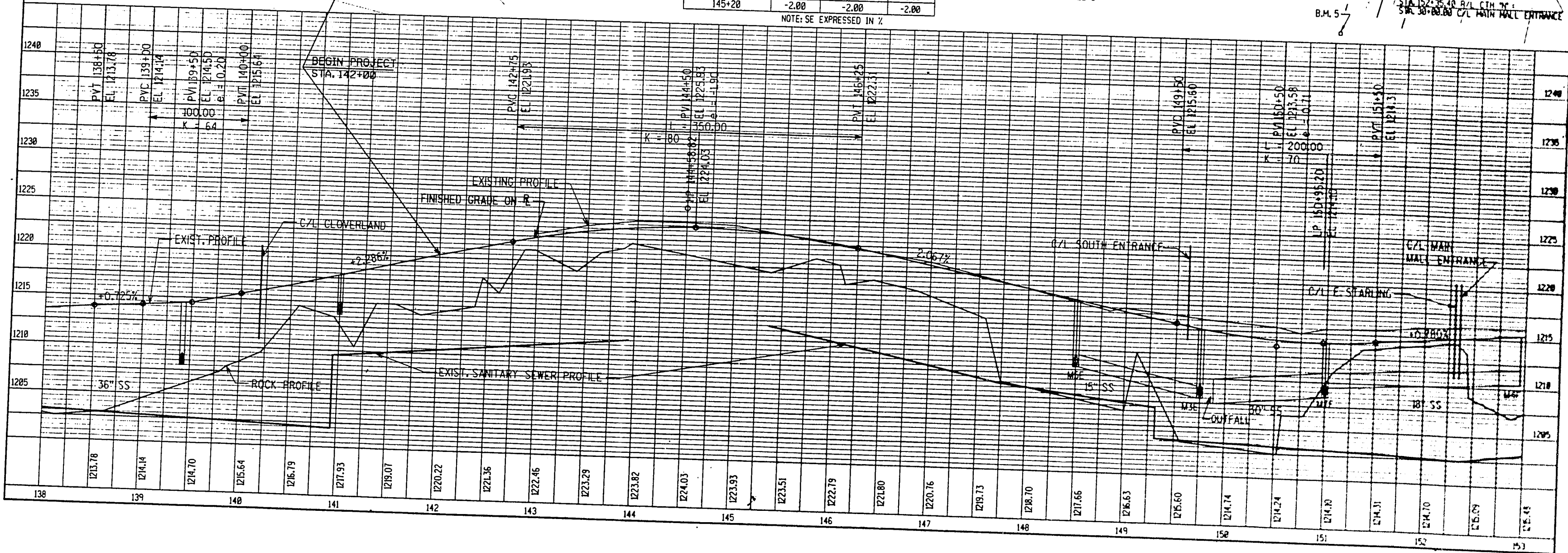
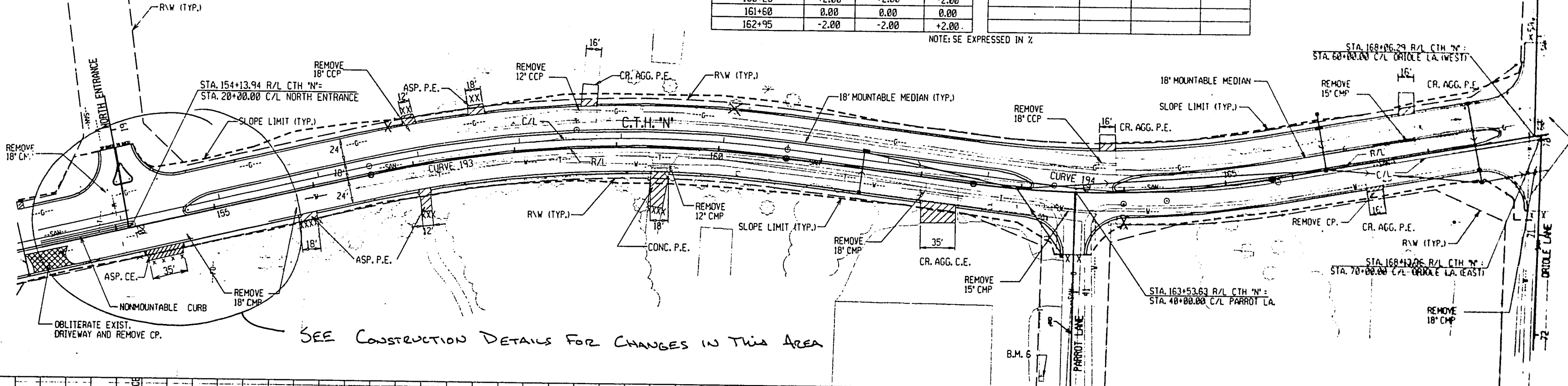


Table with 4 columns: NO., STATION, DESCRIPTION, ELEV. Row 1: 6, 163+20, RR SPIKE W/S PP2807 10E118 S/S PARROT LN. 250'+ E OF CTH 'N', 1205.23

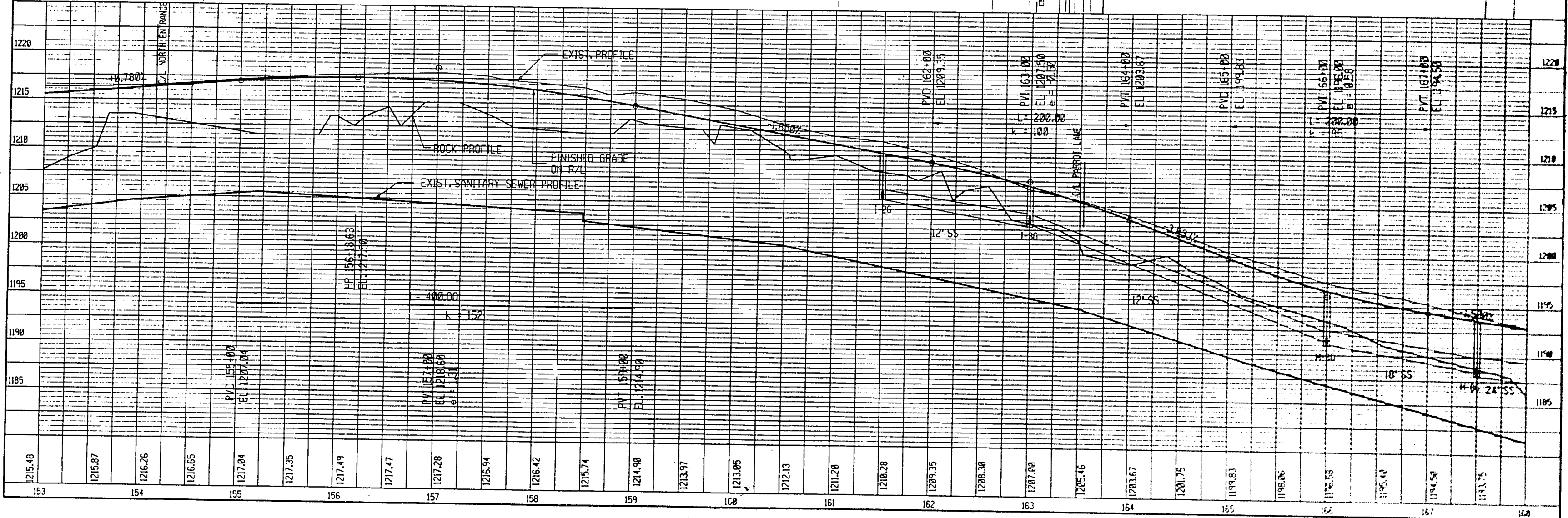
NOTE: REFER TO ALIGNMENT SHEETS FOR CURVE DATA. ALL UTILITY POLES AND PEDESTALS WITHIN THE GRADING LIMITS ARE TO BE REMOVED BY OTHERS. SEE STORM SEWER TABULATIONS IN MISCELLANEOUS QUANTITY SHEET

Table with 4 columns: STATION (NB R/L), SB LANE, MEDIAN LANE, NB LANE. Rows show stationing from 155+80 to 162+95 with corresponding lane elevations.

Table with 4 columns: STATION (NB R/L), SB LANE, MEDIAN LANE, NB LANE. Rows show stationing from 165+10 to 166+30 with corresponding lane elevations.



SEE CONSTRUCTION DETAILS FOR CHANGES IN THIS AREA



BENCH MARKS

SUPERELEVATION TRANSITION TABLE

ALL UTILITY POLES AND
PEDESTALS WITHIN THE
GRADING LIMITS ARE TO
BE REMOVED BY OTHERS.

NOTE: SE EXPRESSED IN %

STATE PROJECT NUMBER

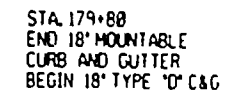
SHEET NO.

6999-01-71

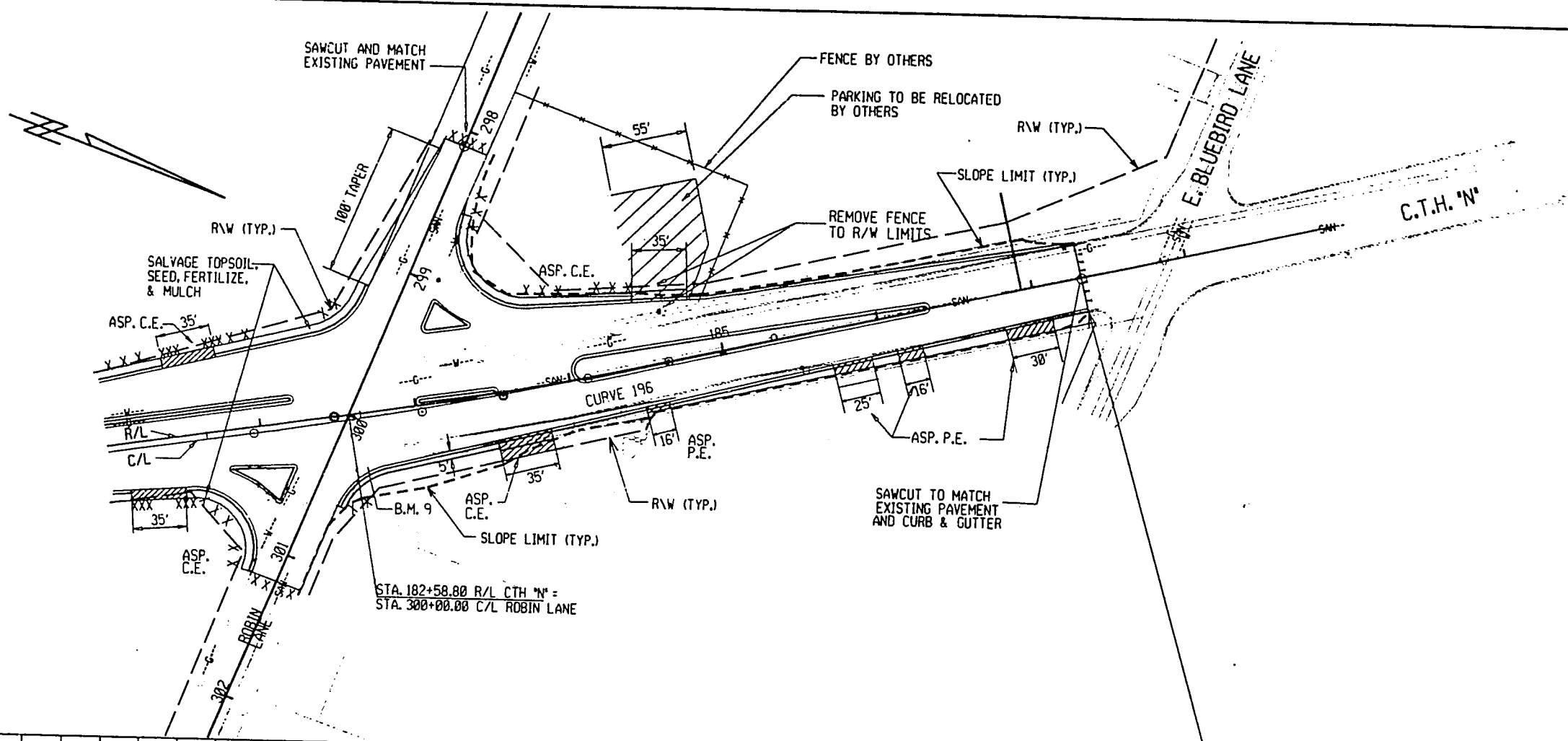
5.2

PLAN & PROFILE

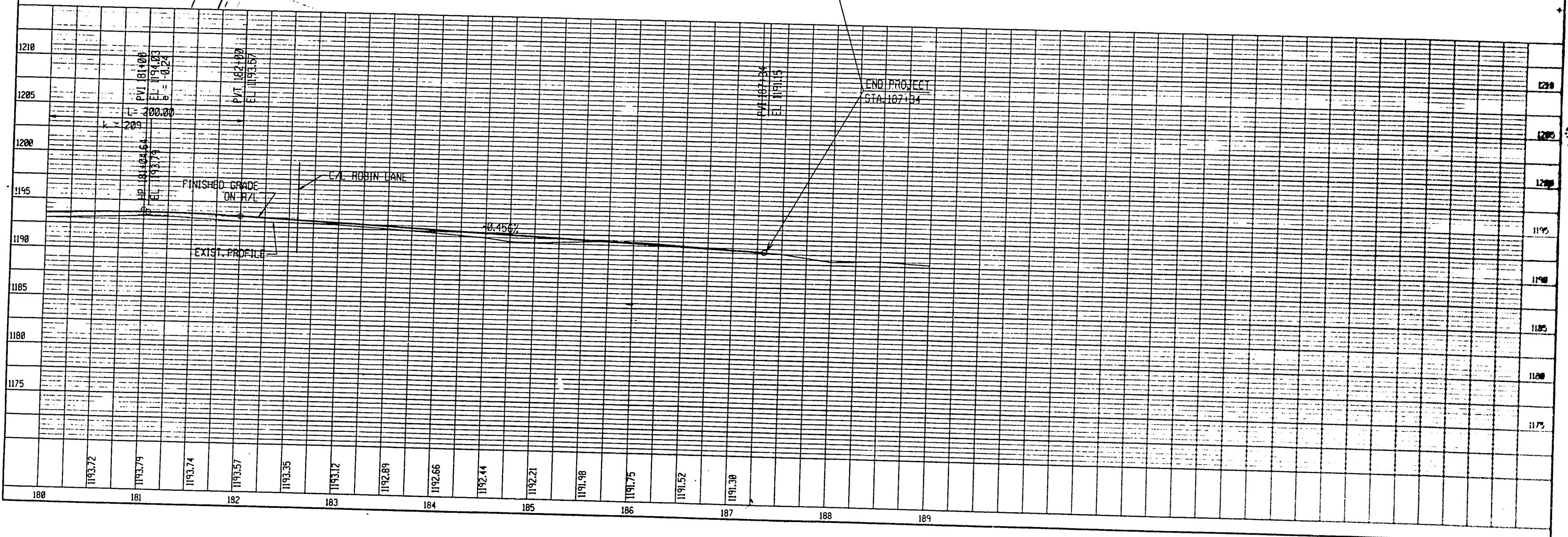
MARATHON COUNTY

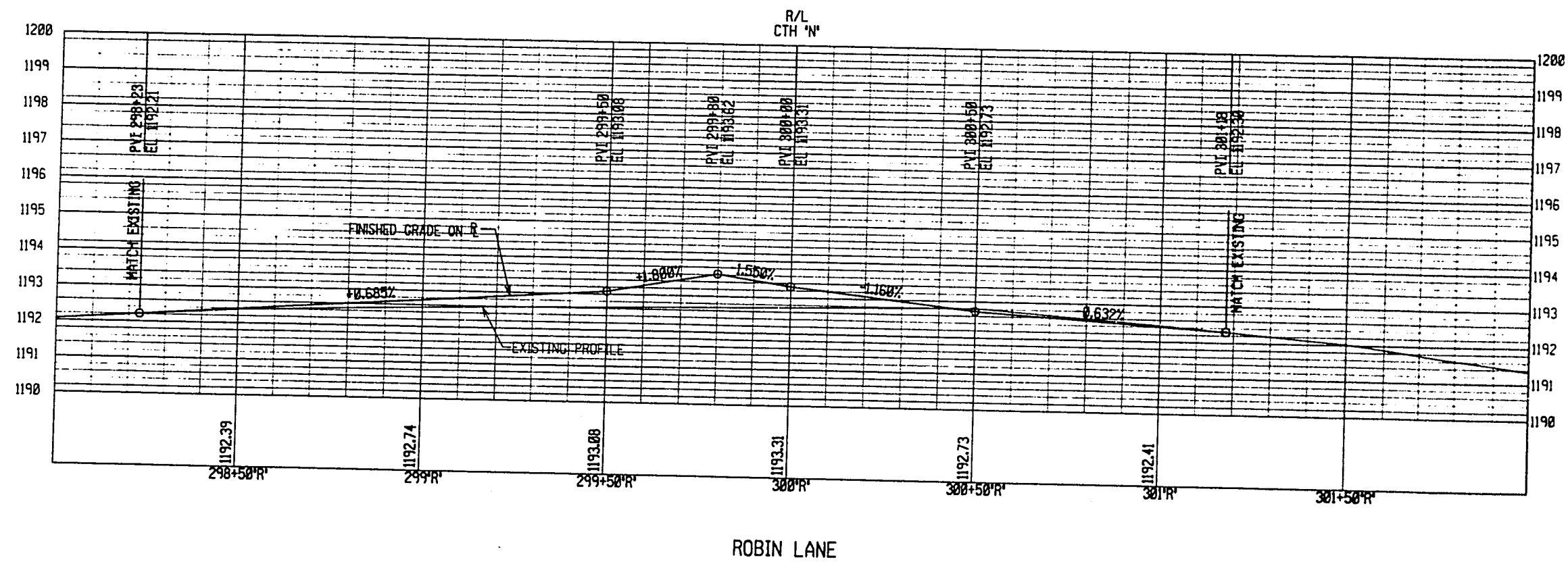


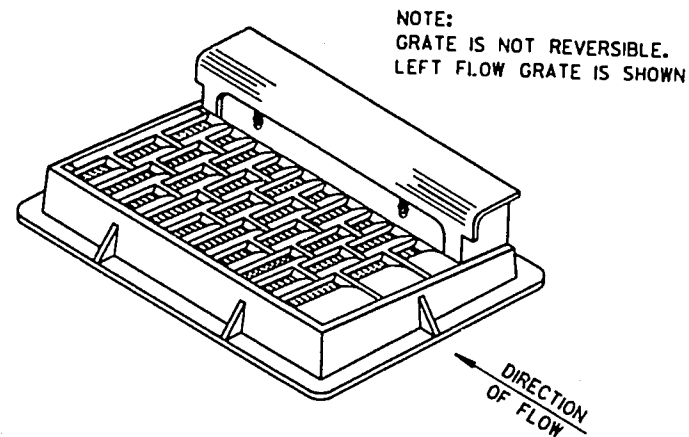
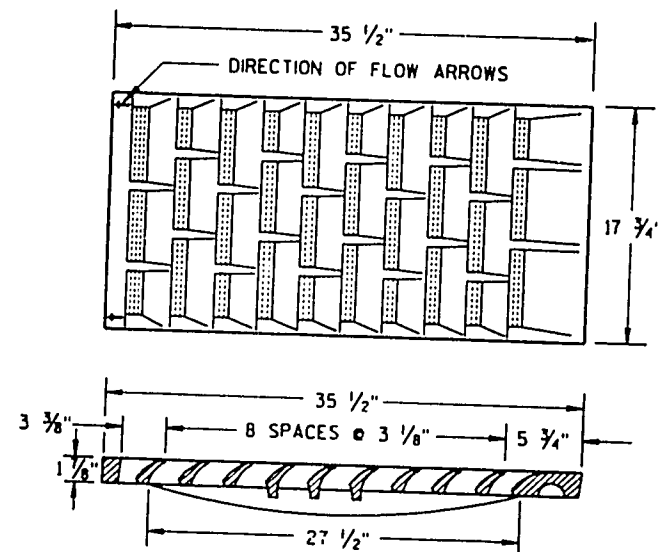
NOTE: REFER TO ALIGNMENT SHEETS FOR CURVE DATA.
ALL UTILITY POLES AND PEDESTALS WITHIN THE GRADING LIMITS ARE TO BE REMOVED BY OTHERS.



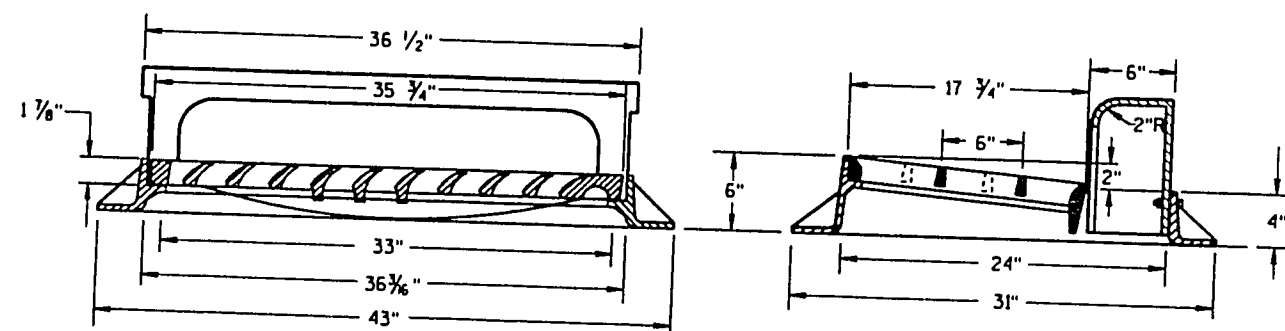
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
9	182+65	RR SPIKE S/S PP2807 3RI NE COR. ROBIN LN. & CTH 'N'	1193+58'



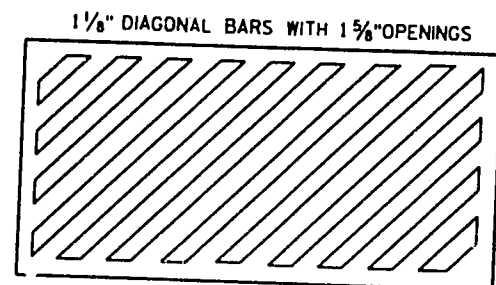




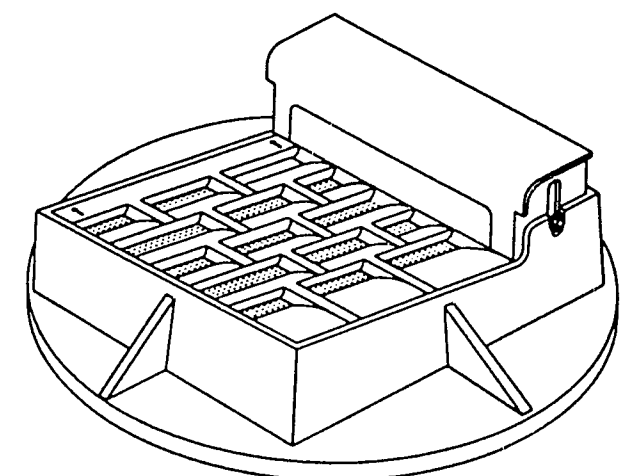
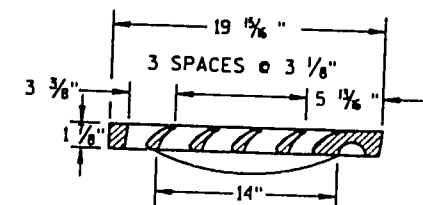
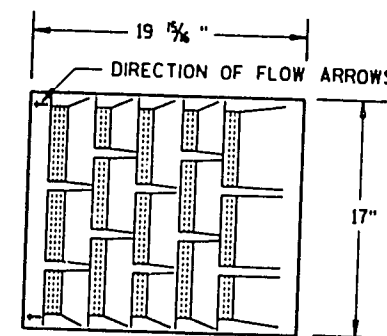
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



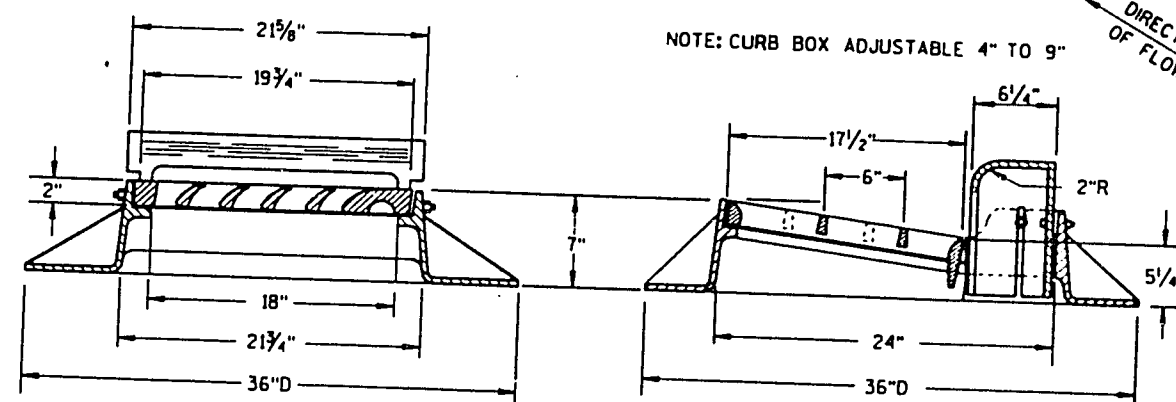
TYPE "H"
(APPROXIMATE WEIGHT 420 LBS.)
FRAME..... 170 LBS.
GRATE..... 135 LBS.
CURB BOX..... 115 LBS.



SPECIAL GRATE FOR TYPE "H" COVER
(MEASURES 35 1/2" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 170 LBS.)
GRATE..... 170 LBS.
(NOTED AS TYPE H-S ON DRAINAGE TABLE)



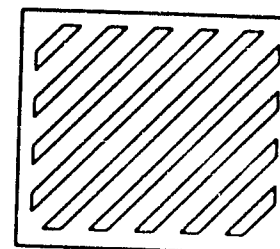
NOTE: CURB BOX ADJUSTABLE 4" TO 9"



TYPE "A"

(APPROXIMATE WEIGHT 355 LBS.)
FRAME..... 185 LBS.
GRATE..... 85 LBS.
CURB BOX..... 85 LBS.

1" DIAGONAL BARS WITH 1 1/2" OPENINGS



SPECIAL GRATE FOR TYPE "A" COVER
(MEASURES 19 1/8" X 17" X 1 1/8")
GRATE..... 85 LBS.
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

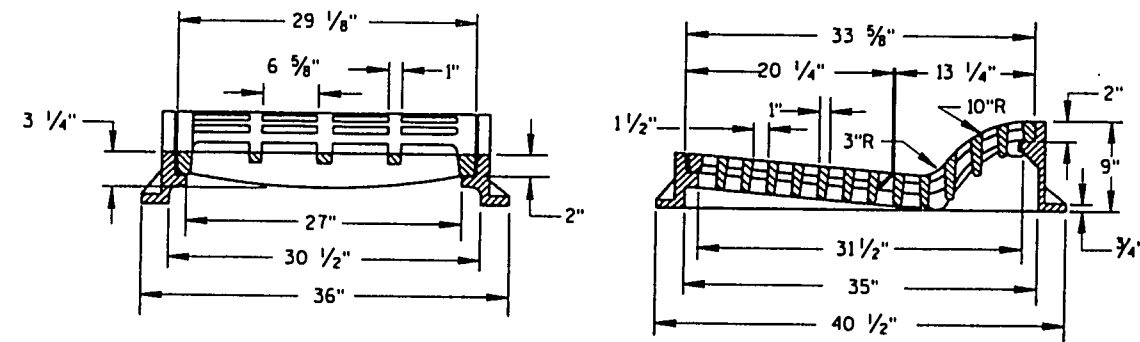
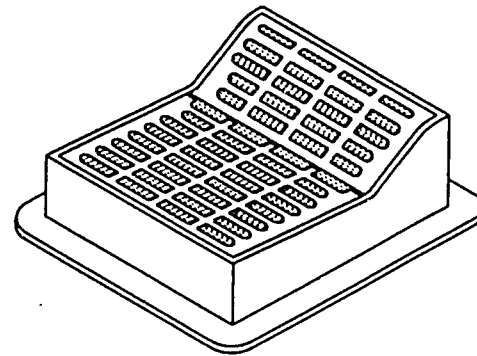
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH. ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 02/01/95
GREGG H. HARRIS, DESIGN ENGINEER



TYPE "F"

(APPROXIMATE WEIGHT 645 LBS.)

FRAME.....300 LBS.

GRATE.....165 LBS.

GRATE.....180 LBS.

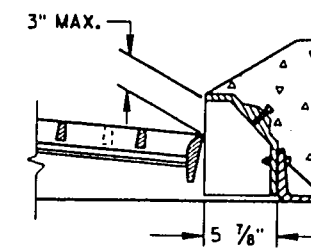
USE WITH CONCRETE CURB & GUTTER, 36 INCH.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

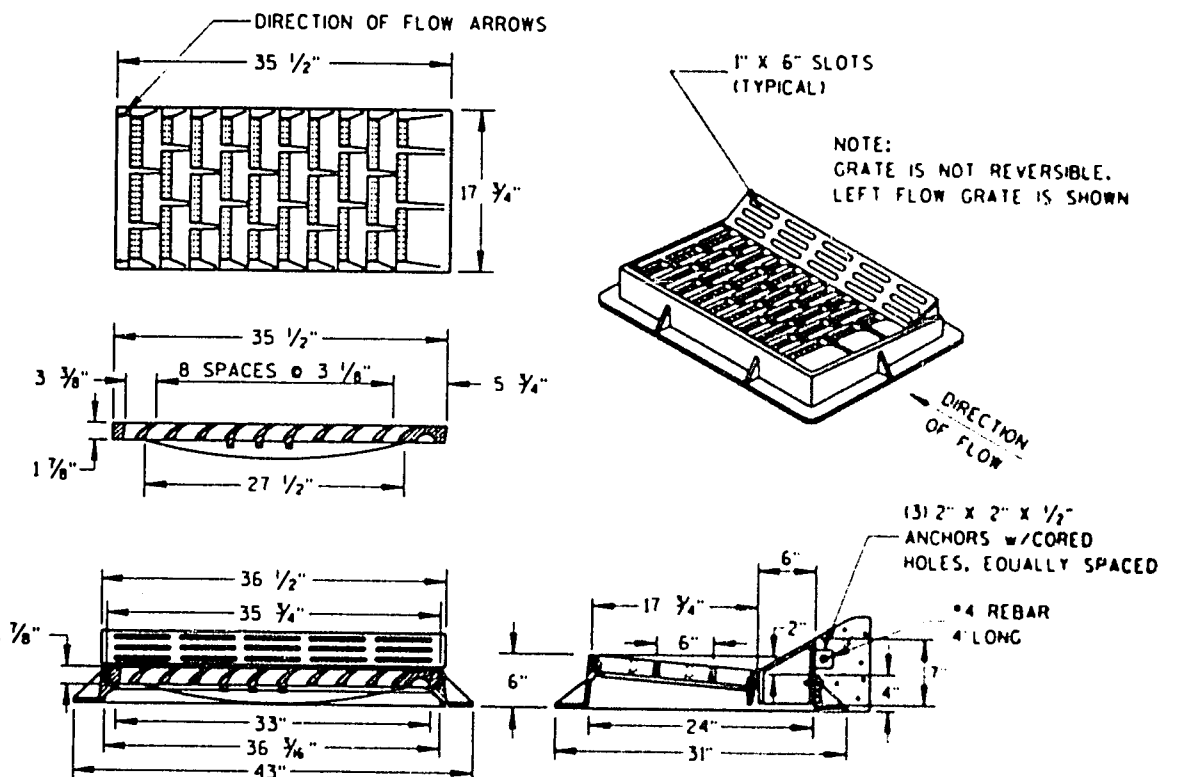


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT 60 LBS.)

CURB BOX.....60 LBS.

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE



TYPE "HM"

(APPROXIMATE WEIGHT 395 LBS.)

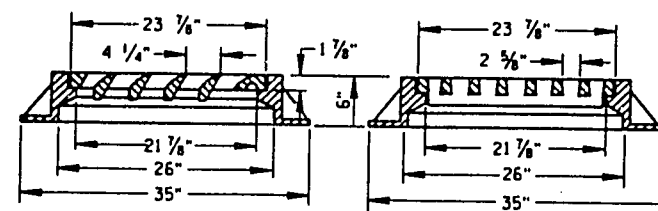
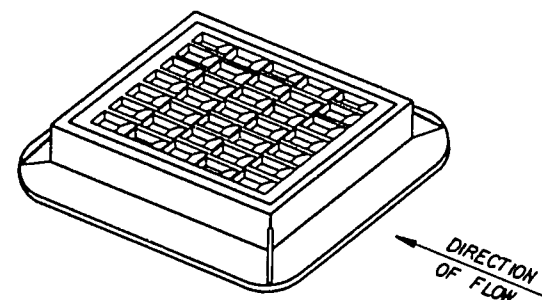
FRAME.....170 LBS.

GRATE.....135 LBS.

CURB BOX.....90 LBS.

USE WITH CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

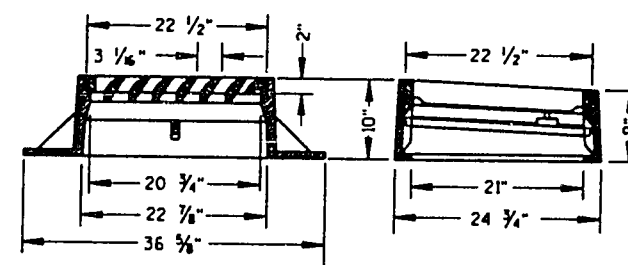
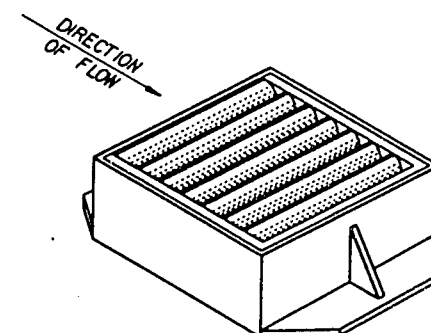


TYPE "S"

(APPROXIMATE WEIGHT 400 LBS.)

FRAME.....245 LBS.

GRATE.....155 LBS.



TYPE "V"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME.....270 LBS.

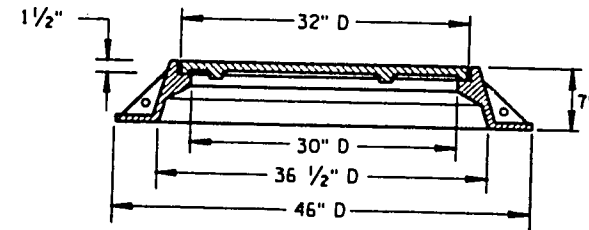
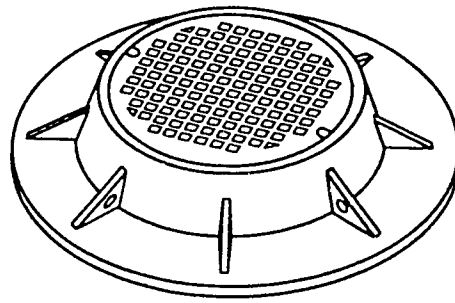
GRATE.....130 LBS.

SAFETY BAR.....5 LBS.

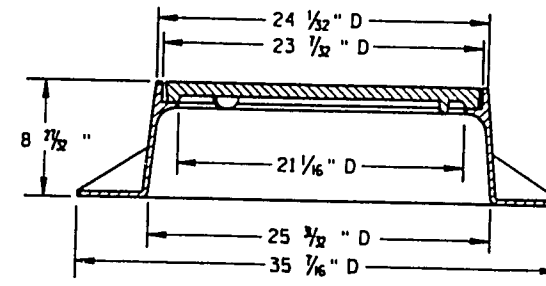
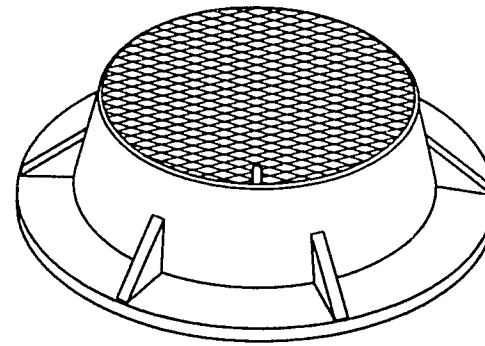
INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

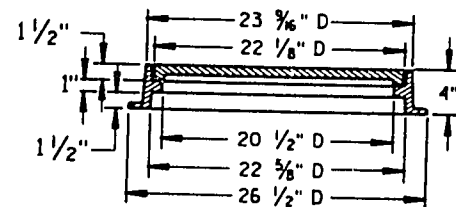
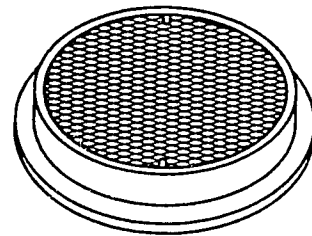
APPROVED
00/07/95
DATE
CHIEF ROADWAY DESIGN ENGINEER



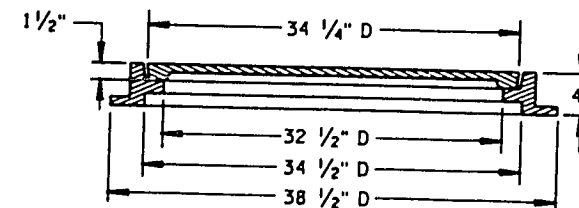
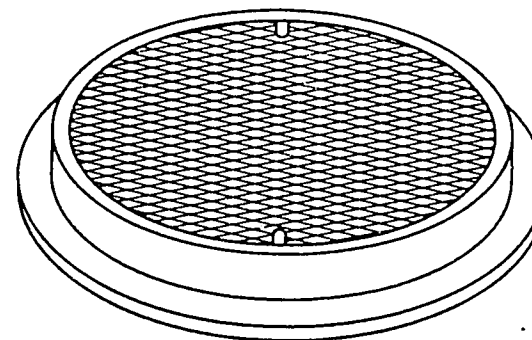
TYPE "K"
(APPROXIMATE WEIGHT 535 LBS.)
FRAME..... 330 LBS.
LID..... 205 LBS.



TYPE "J"
(APPROXIMATE WEIGHT 255 LBS.)
FRAME..... 140 LBS.
LID..... 115 LBS.



TYPE "L"
(APPROXIMATE WEIGHT 145 LBS.)
FRAME..... 75°
LID..... 70°



TYPE "M"
(APPROXIMATE WEIGHT 385 LBS.)
FRAME..... 125°
LID..... 260°

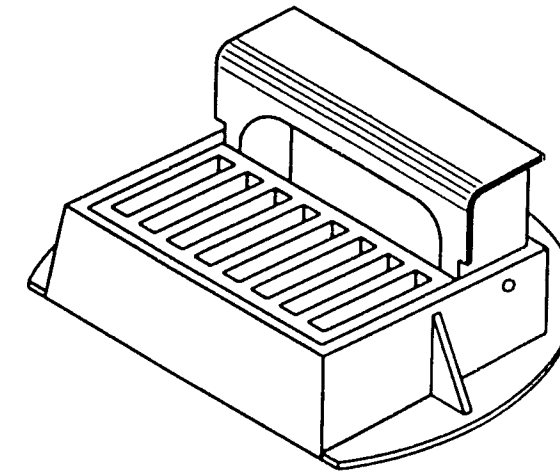
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

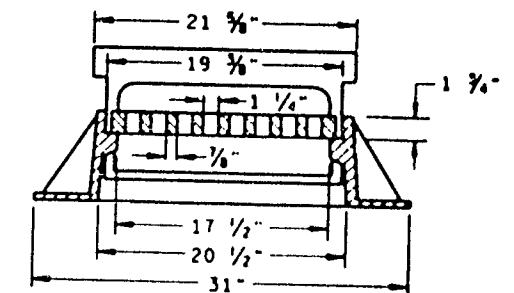
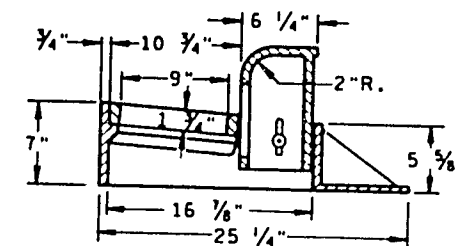
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



CURB BOX ADJUSTABLE 4" TO 10"



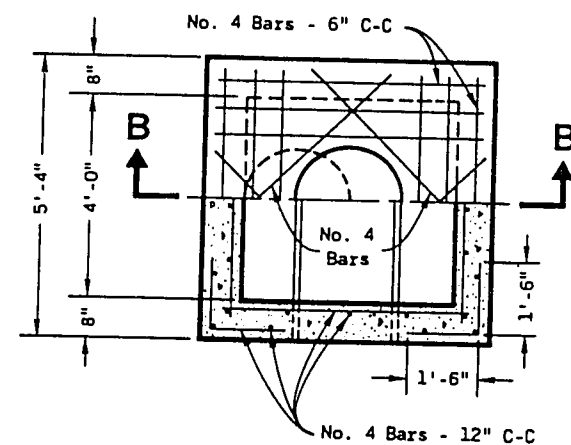
INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 280 LBS.)
FRAME..... 145 LBS.
GRATE..... 50 LBS.
CURB BOX..... 85 LBS.

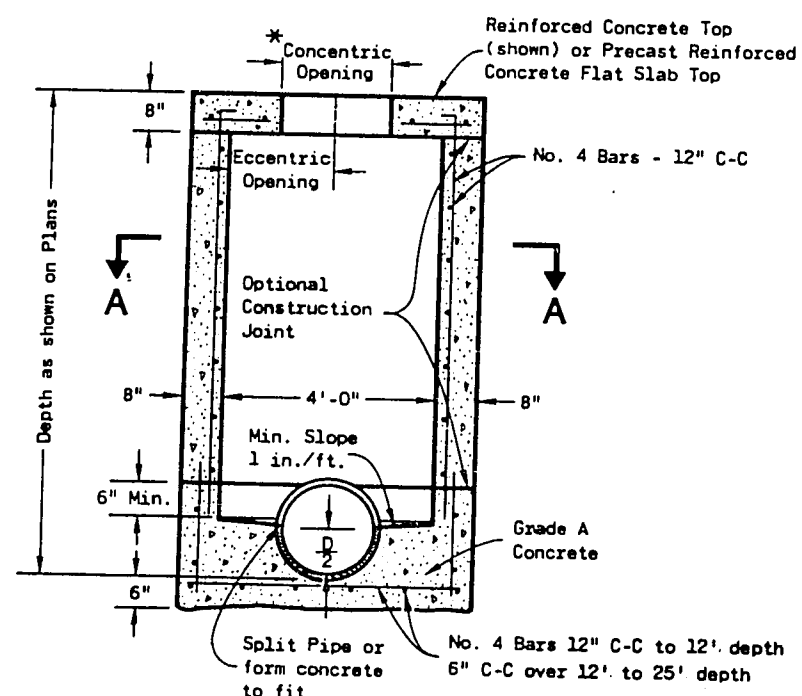
INLET AND MANHOLE COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

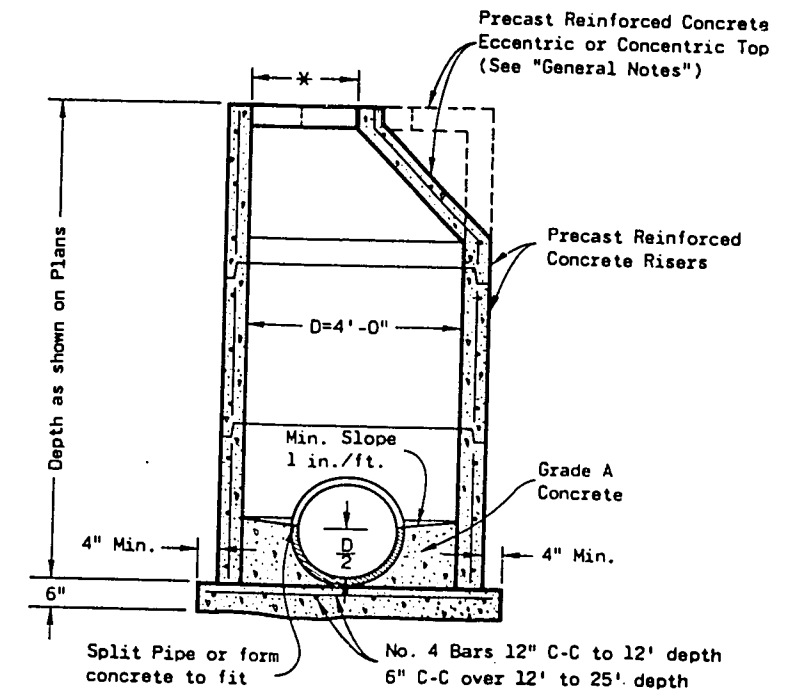
APPROVED
08/07/95
DATE
CHIEF ROADWAY DESIGN ENGINEER



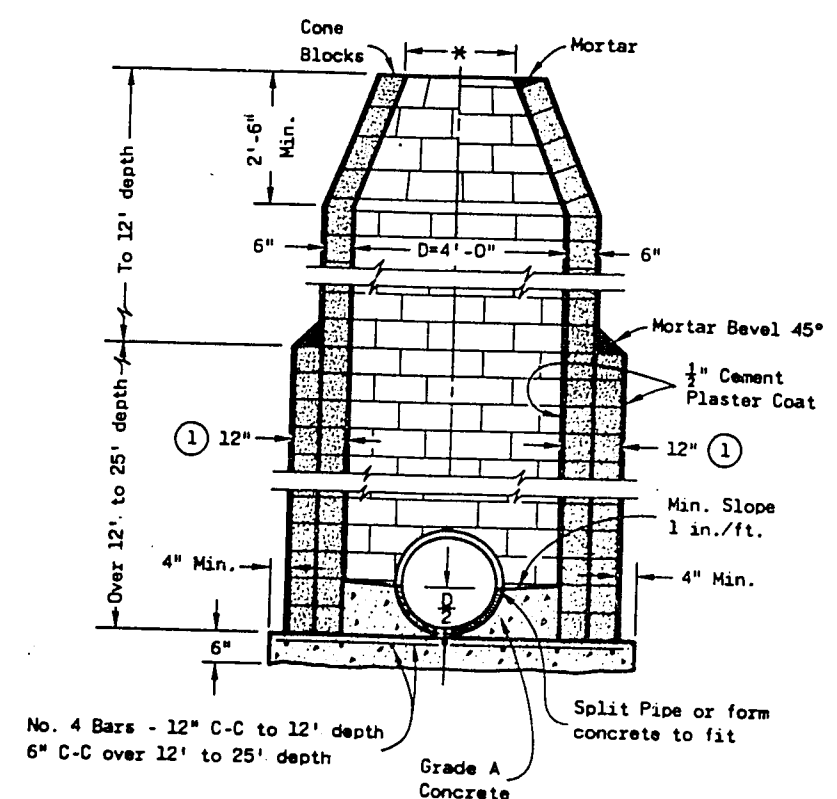
HALF SECTION A-A



SECTION B-B
REINFORCED CONCRETE



PRECAST REINFORCED CONCRETE



CONCRETE BLOCK

GENERAL NOTES

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

Detailed drawings for proposed alternate designs for underground drainage structures shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

All drainage structures are designated on the plans as "Manholes 1-C", "Catch Basins 1-B", "Inlets 3-H", etc. The first digit designates the masonry portion of the structure, and the following letter designates the type of cover to be used to comprise the complete unit.

Precast Reinforced Bases shall be placed on a bed of material at least 6 inches in depth, which meets the requirements for Granular Backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Precast Reinforced Concrete Cone Tops (Eccentric or Concentric) may be used on concrete block structures. The Cone Tops shall be installed on a bed of mortar.

Eccentric Cone Tops may be used on all structures, and Concentric Cone Tops shall be used only on structures 5 feet or less in depth, unless otherwise directed by the Engineer.

Steps meeting the following requirements shall be installed in all structures over 5 feet in depth: 16 inch C-C maximum spacing, project a minimum clear distance of 4 inches from the wall at the point of embedment, minimum length of 10 inches; minimum wall embedment of 3 inches, and be capable of supporting a concentrated load of 300 lbs. Ferrous metal steps not painted or treated to resist corrosion shall have a minimum cross sectional dimension of 1 inch.

Solid Aluminum steps shall have a minimum cross sectional dimension of 0.75 inch. Aluminum surfaces to be embedded in concrete shall be given one coat of suitable quality paint, such as zinc chromate primer conforming to Federal Specification TT-P-645 or equivalent. Steps of approved Polypropylene plastic coated reinforcement bar will be acceptable.

All bar steel reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.

Precast Reinforced Concrete Risers may be placed with tongue up or down.

All Precast Inlet Units shall conform to the pertinent requirements of AASHTO Designation M 199.

* Use 2'-0" diameter opening with Type "C", "L" and "J" covers, or 3'-0" diameter with Type "K" and "M" covers.

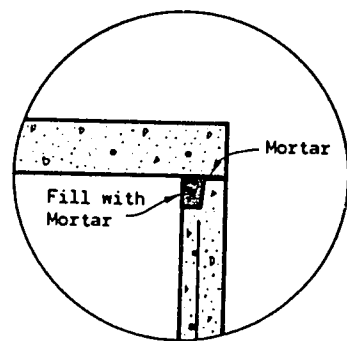
① 2 courses 6" block.

MANHOLES TYPE 1

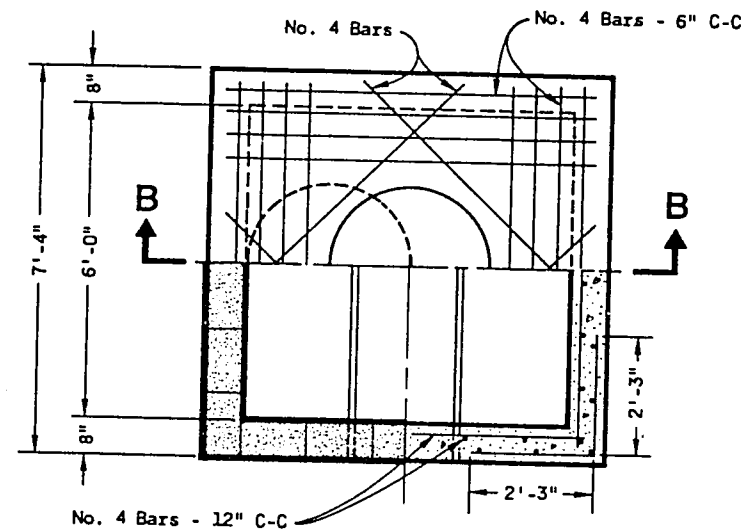
State of Wisconsin
Department of Transportation

APPROVED
4-13-82

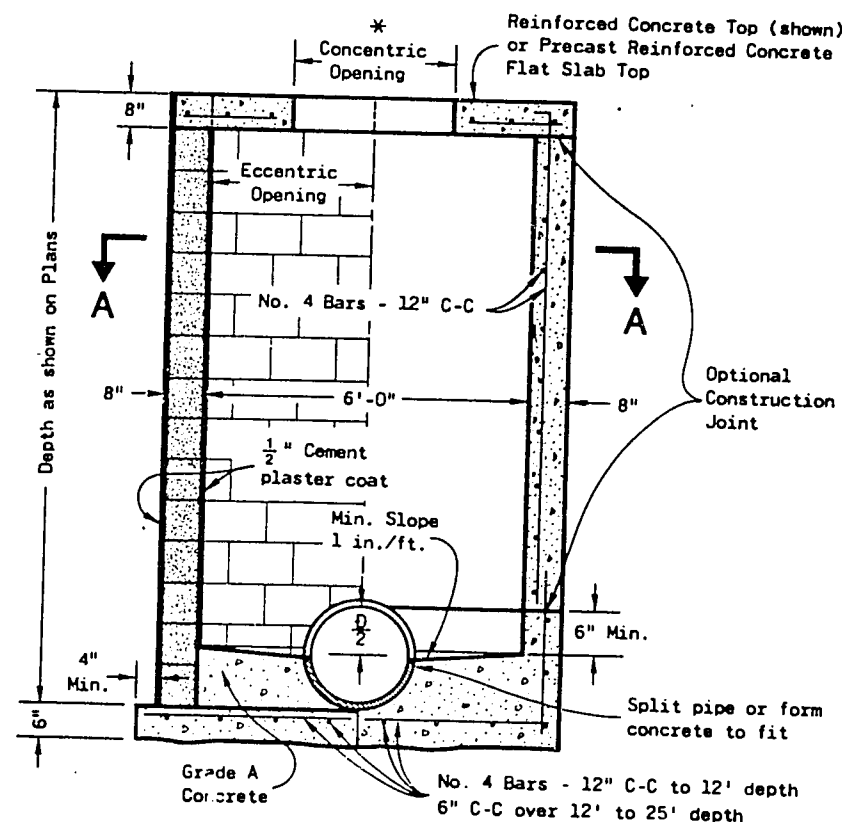
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MANHOLES TYPE 1



DETAIL "A"

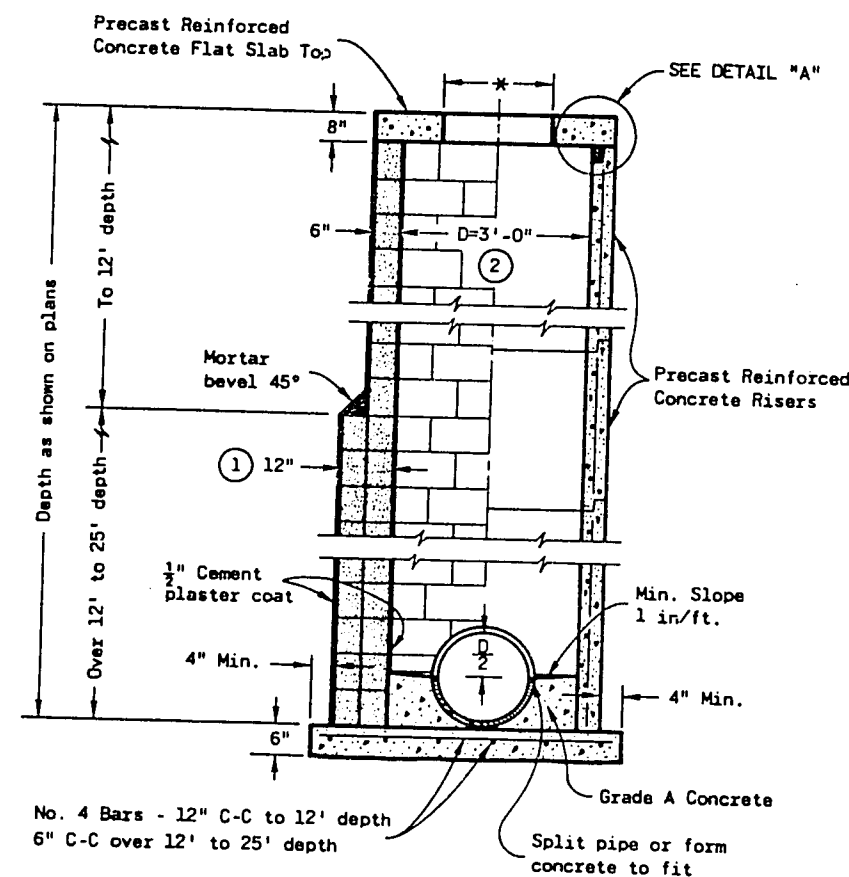


HALF SECTION A-A



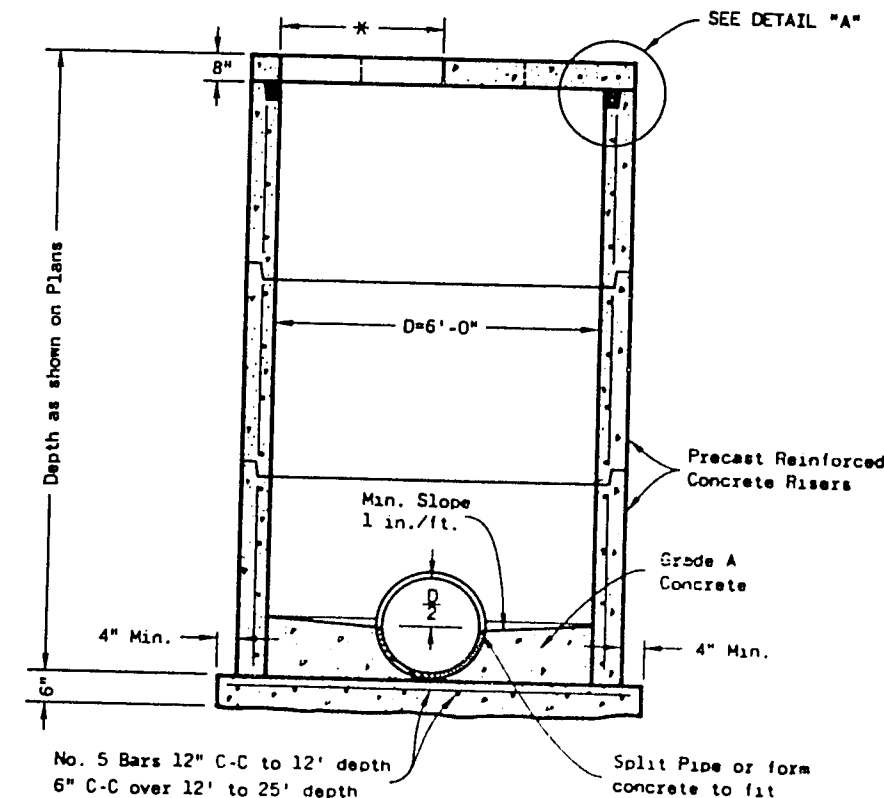
SECTION B-B

CONCRETE BLOCK REINFORCED CONCRETE



CONCRETE BLOCK PRECAST REINFORCED CONCRETE

MANHOLES TYPE 2



PRECAST REINFORCED CONCRETE

GENERAL NOTES

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

Detailed drawings for proposed alternate designs for underground drainage structures shall be submitted to the Engineer for approval providing that such alternate designs make provision for equivalent capacity and strength.

All drainage structures are designated on the plans as "Manholes 1-C", "Catch Basins 1-B", "Inlets 3-H", etc. The first digit designates the masonry portion of the structure, and the following letter designates the type of cover to be used to comprise the complete unit.

Precast Reinforced Bases shall be placed on a bed of material at least 6" in depth, which meets the requirements for Granular Backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Steps meeting the following requirements shall be installed in all structures over 5 feet in depth: 16 inch C-C maximum spacing, project a minimum clear distance of 4 inches from the wall at the point of embedment, minimum length of 10 inches, minimum wall embedment of 3 inches, and capable of supporting a concentrated load of 300 lbs. Ferrous metal steps not painted or treated to resist corrosion shall have a minimum cross sectional dimension of 1 inch.

Solid Aluminum steps shall have a minimum cross sectional dimension of 0.75 inch. Aluminum surfaces to be embedded in concrete shall be given one coat of suitable quality paint, such as zinc chromate primer conforming to federal specification TT-P-645 or equivalent. Steps of approved Polypropylene plastic coated reinforcement bar are acceptable.

All bar steel reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.

Precast Reinforced Concrete Risers shall be placed with tongue down.

All precast inlet units shall conform to the pertinent requirements of AASHTO Designation M 199.

* Use 2'-0" diameter opening with type "C", "L", and "J" covers, or 3'-0" diameter with type "K" and "M" covers.

① 2 courses 6" block.

② When connecting pipes are 24" or larger the Precast Manholes may be increased to 42" diameter.

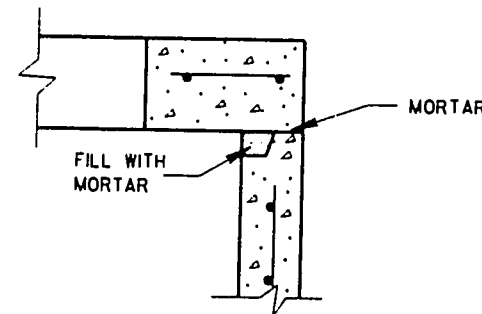
MANHOLES TYPE 2 & 3

State of Wisconsin
Department of Transportation

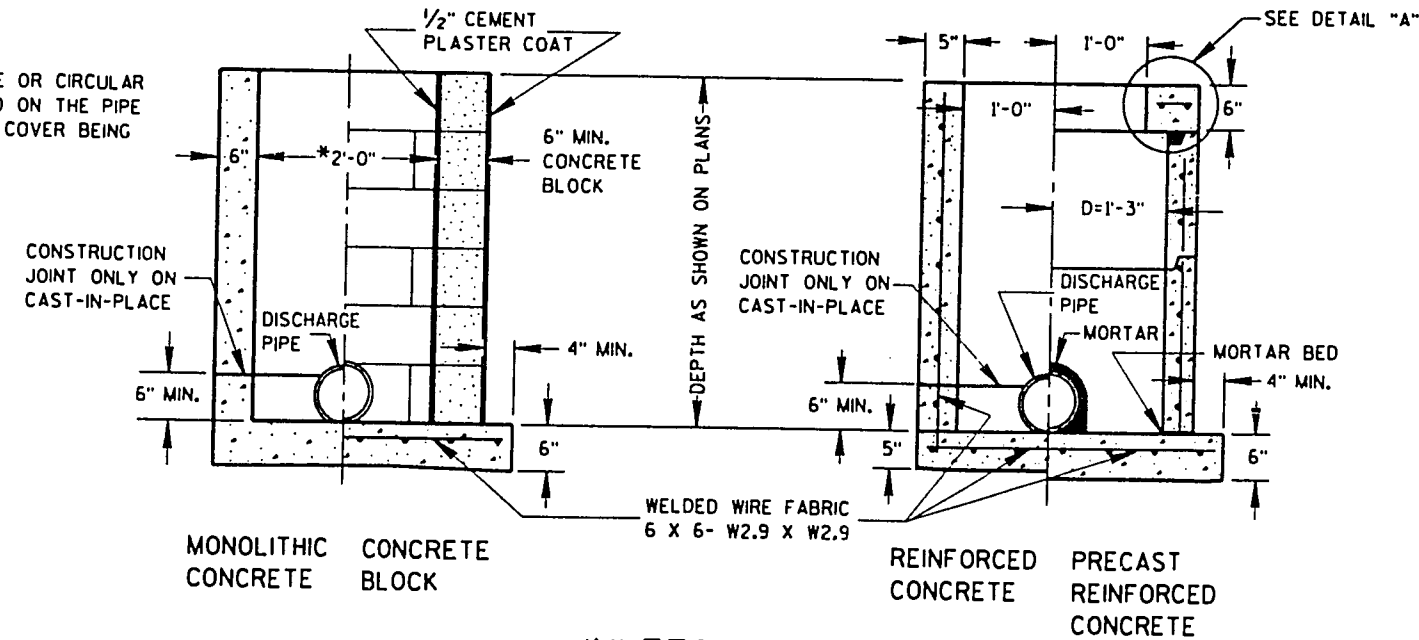
APPROVED
4-13-82

[Signature]

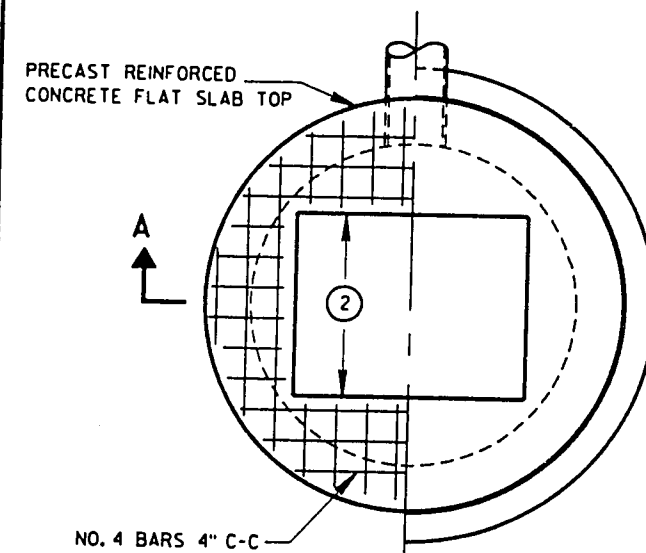
*SELECTION OF SQUARE OR CIRCULAR DESIGN WILL BE BASED ON THE PIPE SIZES AND THE INLET COVER BEING UTILIZED



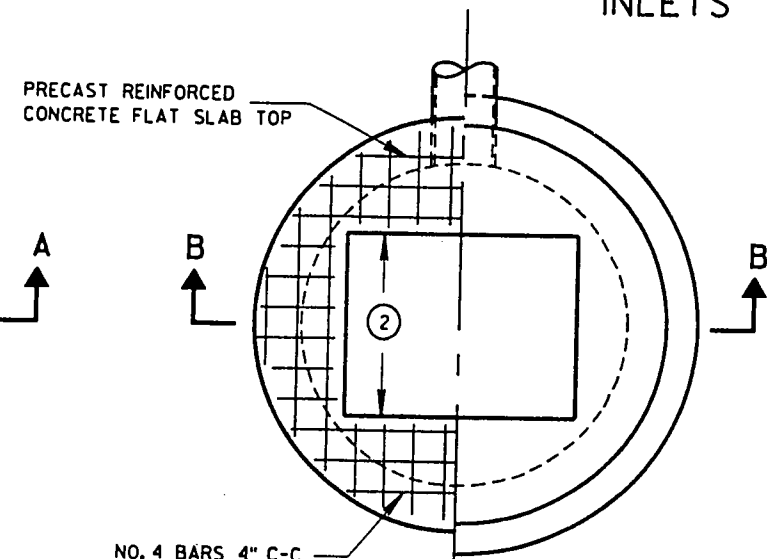
DETAIL "A"



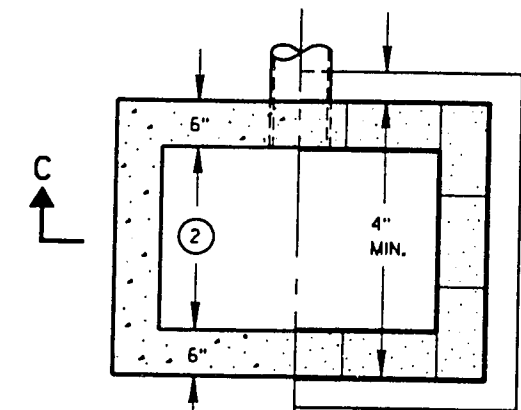
INLETS TYPE 1



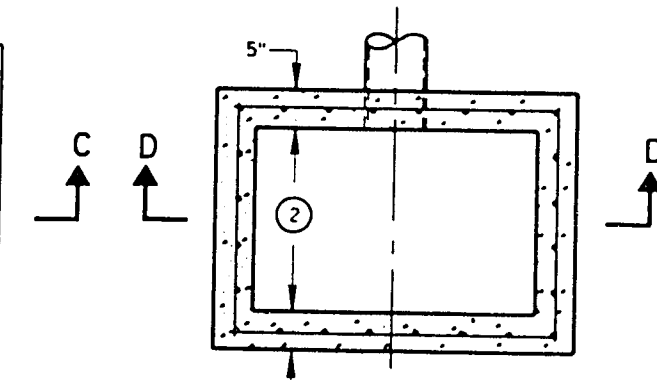
PLAN VIEW



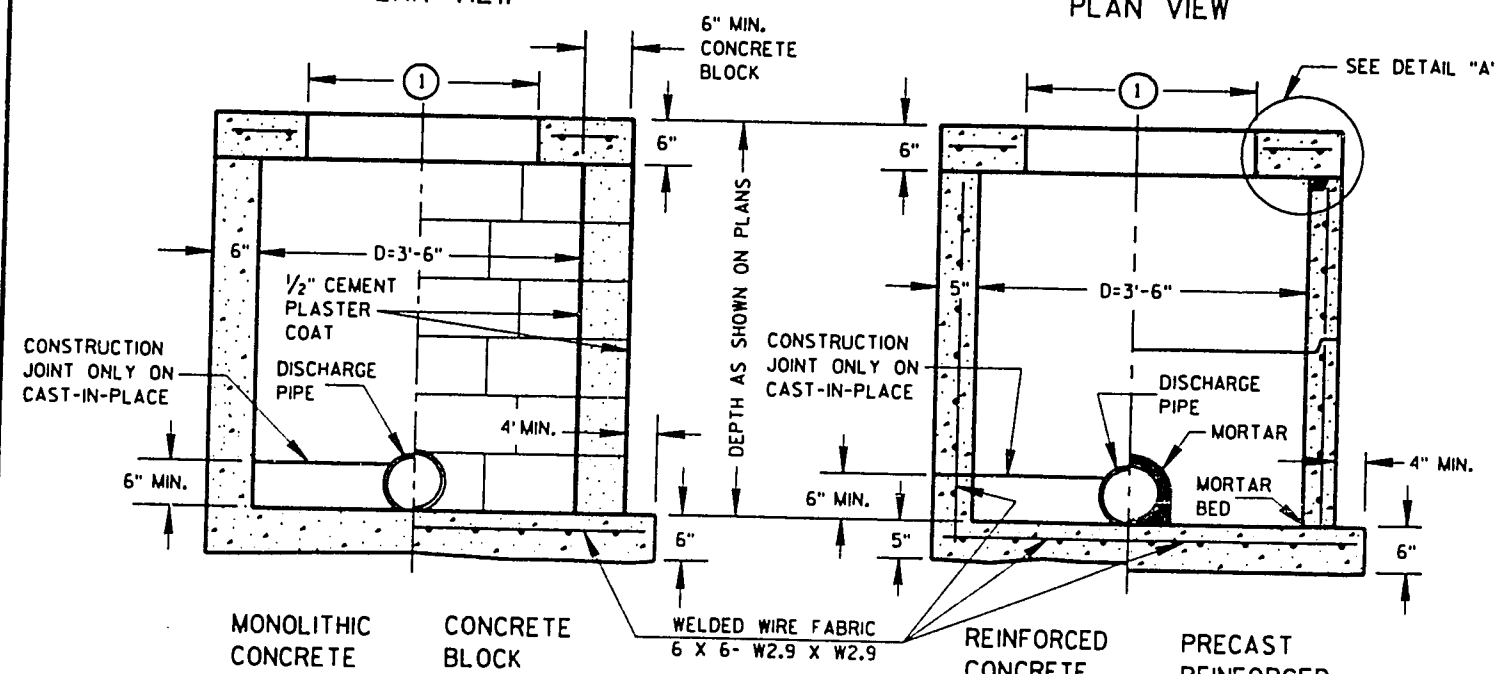
PLAN VIEW



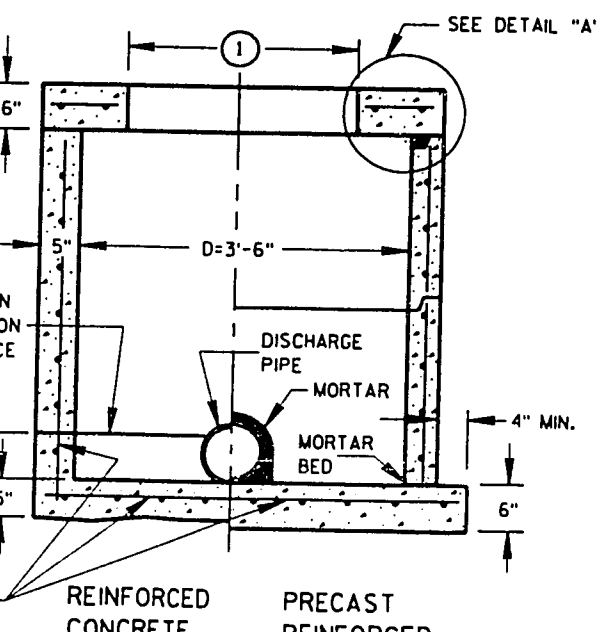
PLAN VIEW



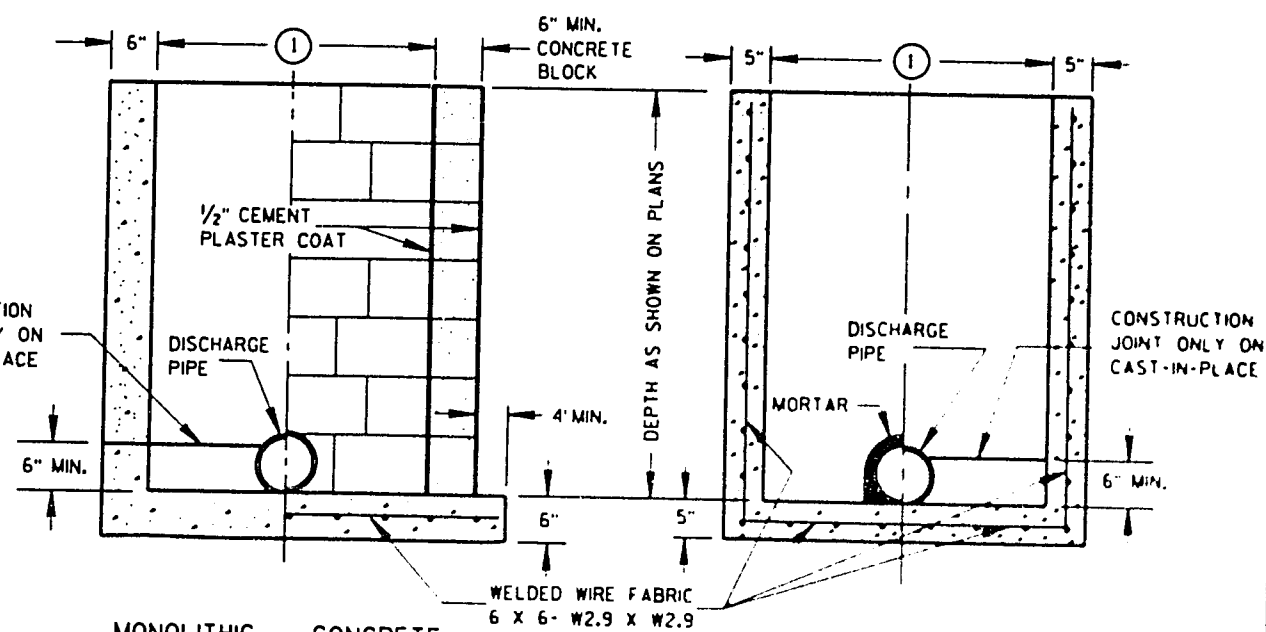
PLAN VIEW



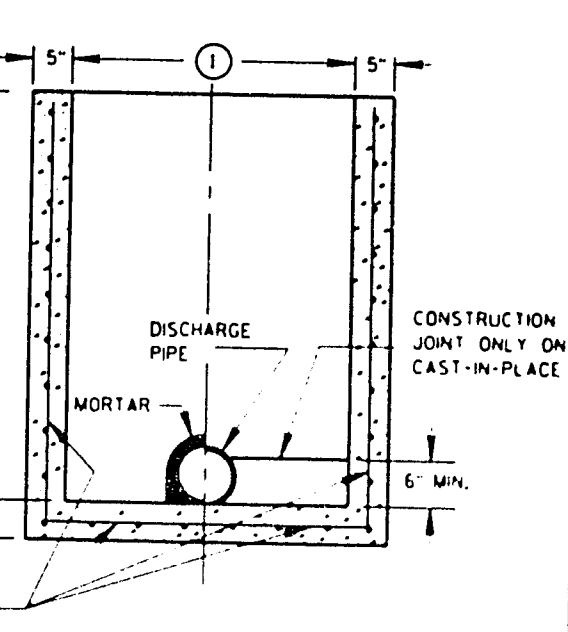
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 1-C", "CATCH BASINS 1-B", "INLETS 3-H", ETC. THE FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

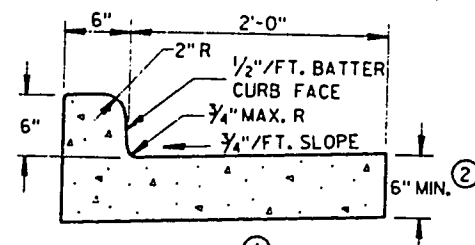
PRECAST REINFORCED CONCRETE RISERS SHALL BE PLACED WITH TONGUE DOWN.

- ① USE 2'-6" OPENING FOR TYPE 2 INLETS, 3'-0" OPENING FOR TYPE 3 INLETS, AND 2'-11" FOR TYPE 4 INLETS.
- ② USE 2'-0" OPENING FOR TYPE 1, 2 & 3 INLETS, 2'-6 1/2" OPENING FOR TYPE 4 INLETS.

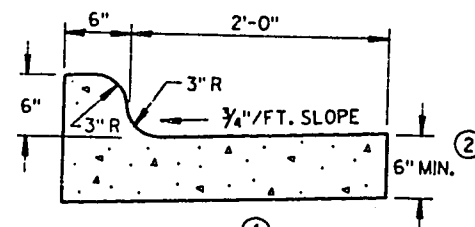
INLETS TYPE 1, 2, 3 & 4

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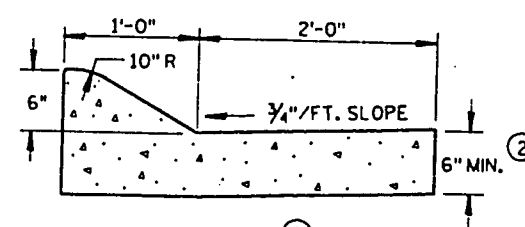
APPROVED
DATE
BY



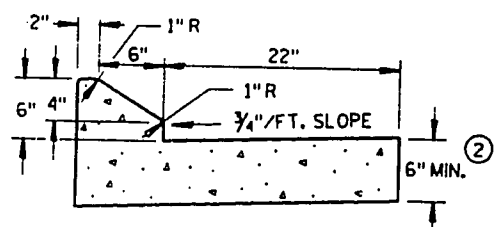
TYPES A & D



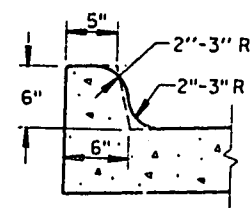
TYPES K & L



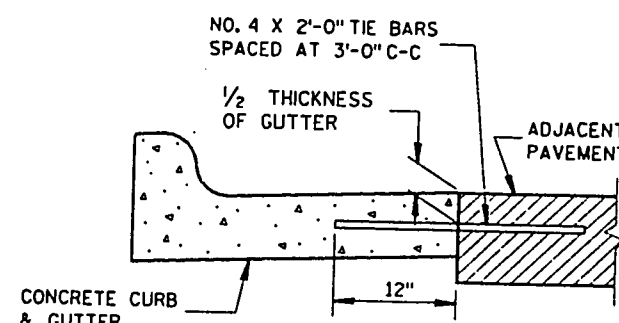
TYPES A & D
CONCRETE CURB & GUTTER 36"



TYPES G & J

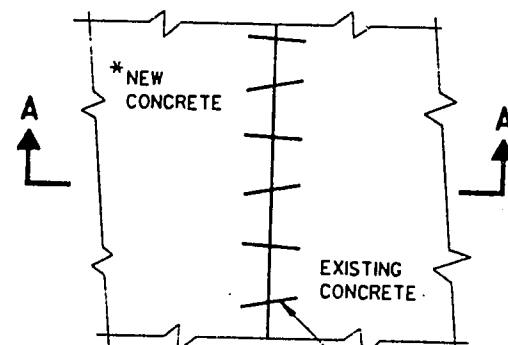


OPTIONAL CURB SHAPE
FOR TYPES K & L

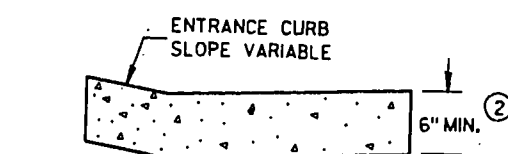


TYPICAL TIE BAR LOCATION

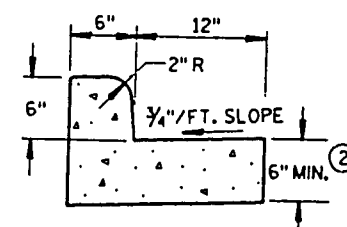
CONCRETE CURB & GUTTER 30"



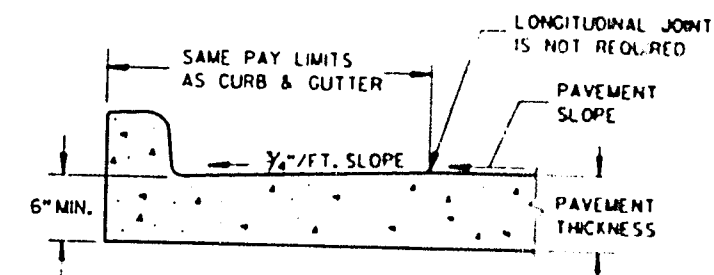
PLAN VIEW



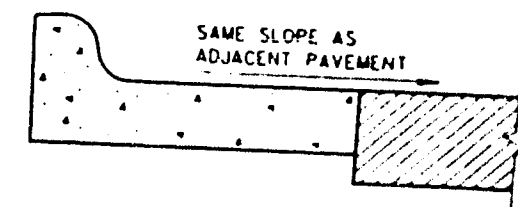
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



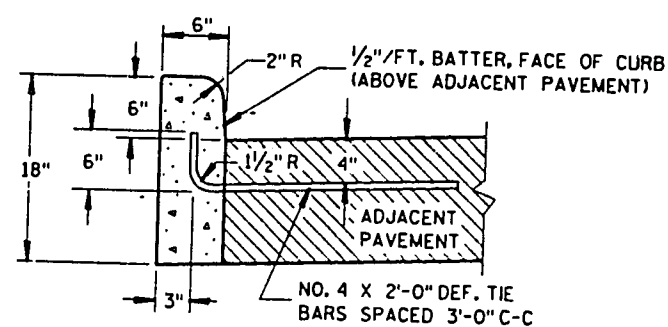
TYPES A & D
CONCRETE CURB & GUTTER 18"



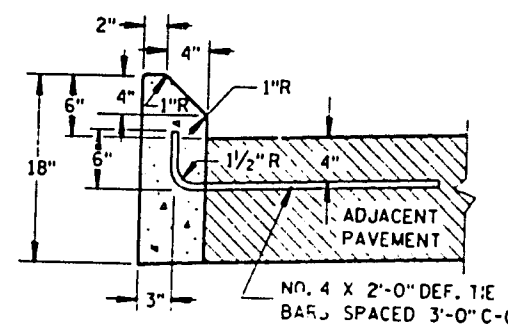
PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



REVERSE SLOPE GUTTER
(TYPICAL FOR ALL CURB & GUTTER TYPES)



TYPES A & D



TYPES G & J

CONCRETE CURB

SECTION A-A
PAVEMENT TIES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEALANT IS NOT REQUIRED IN THE JOINTS OF CONCRETE CURB OR CONCRETE CURB & GUTTER EXCEPT AS REQUIRED FOR INTEGRAL GUTTER.

PAVEMENT TIES ARE REQUIRED, WHEN INCLUDED IN THE CONTRACT, WHERE CONCRETE CURB, CONCRETE CURB AND GUTTER OR CONCRETE PAVEMENT IS PLACED ADJACENT TO EXISTING CONCRETE.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE, TIE BARS AND A LONGITUDINAL CONSTRUCTION JOINT ARE NOT REQUIRED WITH THIS ALTERNATE.

PAVEMENT JOINTS SHALL BE EXTENDED THROUGH INTEGRAL CURB & GUTTER. JOINTS IN INTEGRAL GUTTER SHALL HAVE THE SAME DIMENSIONS AS THE JOINTS IN THE ADJACENT PAVEMENT. JOINTS IN INTEGRAL CURB SHALL BE 1/8" WIDE.

JOINTS IN INTEGRAL CURB & GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME SEALANT SPECIFIED FOR THE PAVEMENT JOINT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB & GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE TWO FEET BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G AND K.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATIONS WILL BE SHOWN ELSEWHERE IN THE PLAN.

CONCRETE CURB, CONCRETE
CURB & GUTTER AND
PAVEMENT TIES

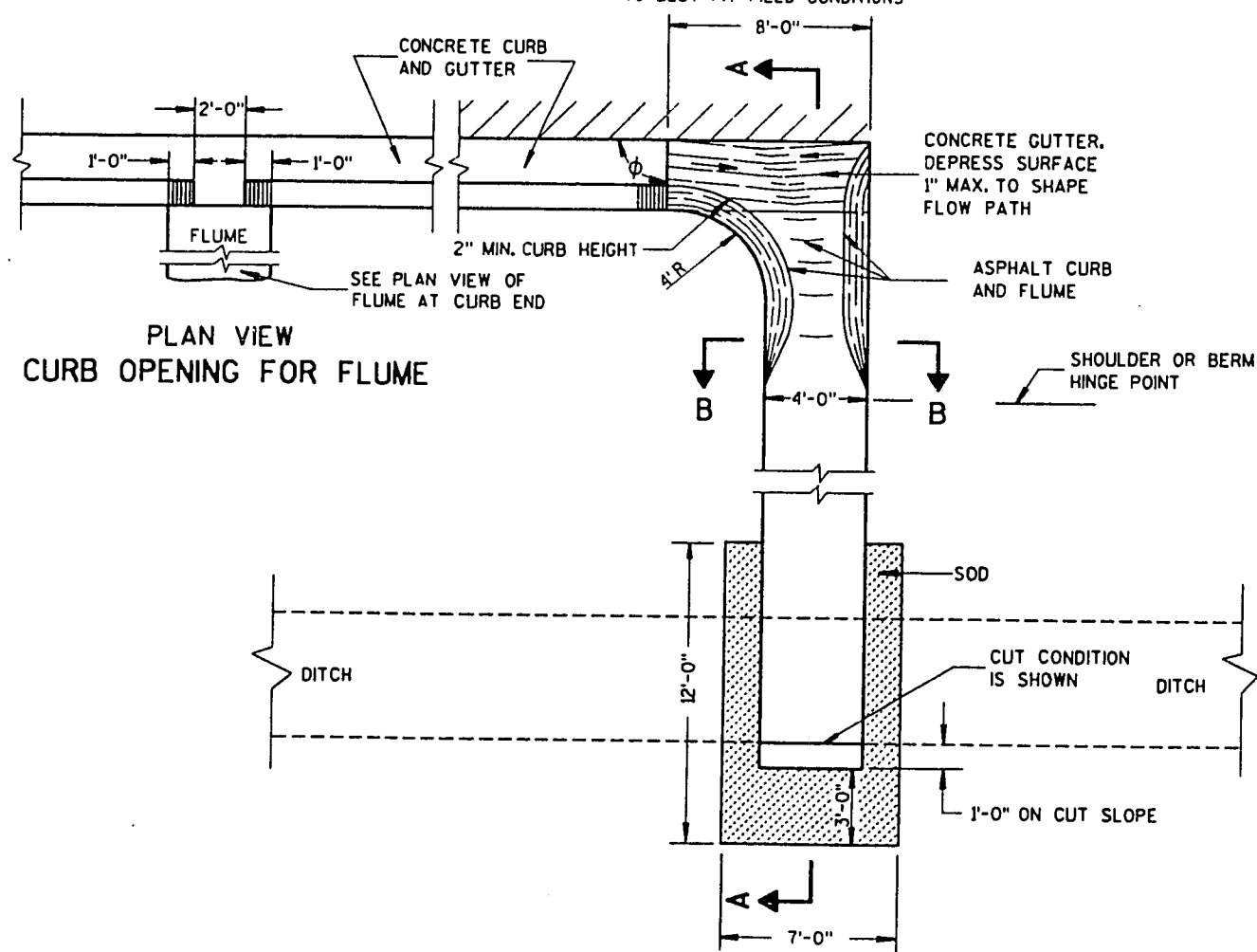
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-23-86
DATE
STATE DESIGN ENGINEER FOR HWY'S

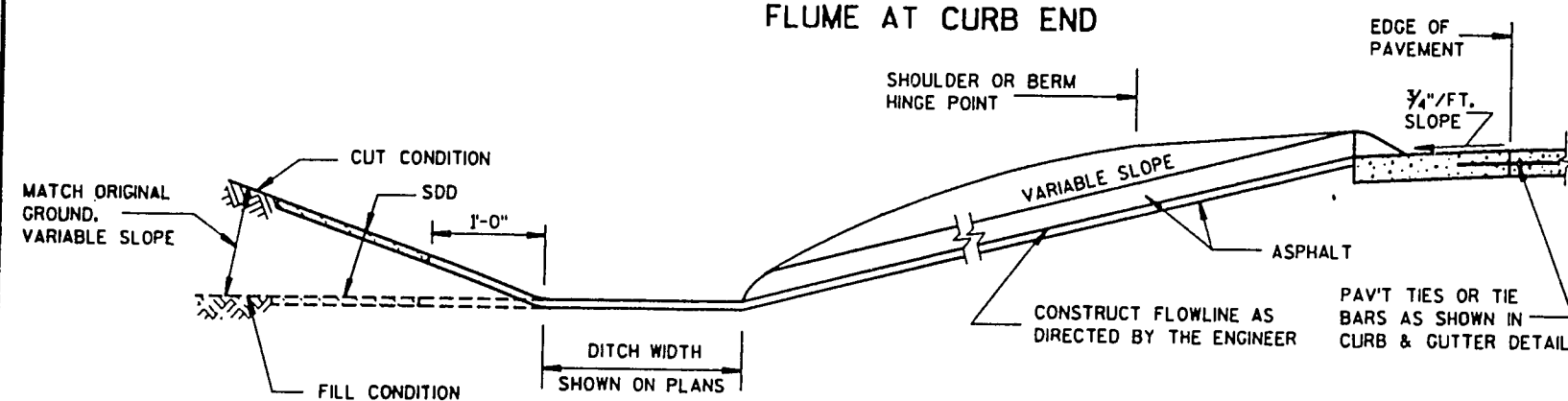
ASPHALTIC FLUME

NOTE: TAPER CURB ENDS
TO GUTTER IN 1'-0"

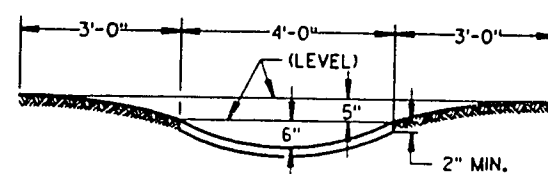
INCREASE ϕ FROM RIGHT ANGLE
TO BEST FIT FIELD CONDITIONS



PLAN VIEW FLUME AT CURB END



SECTION A-A



SECTION B-B

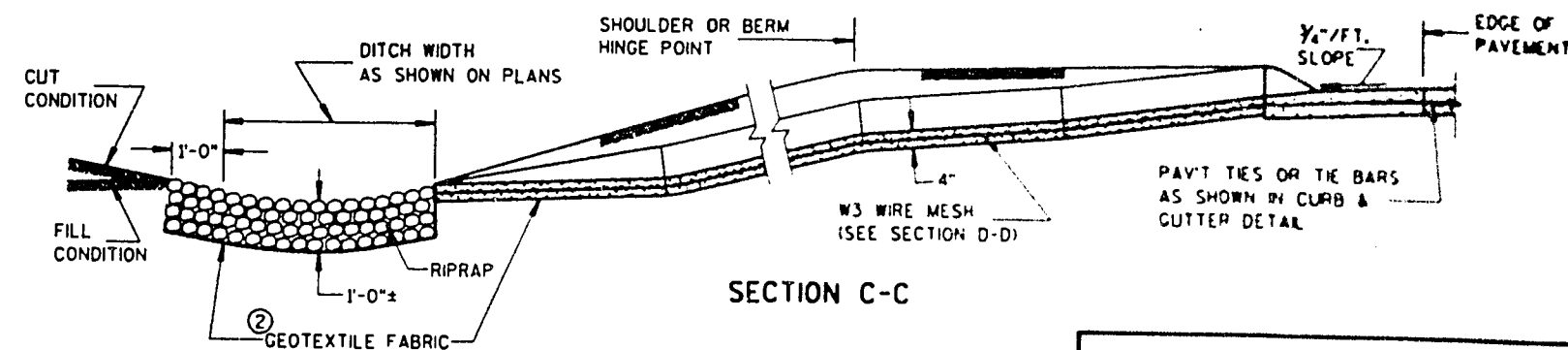
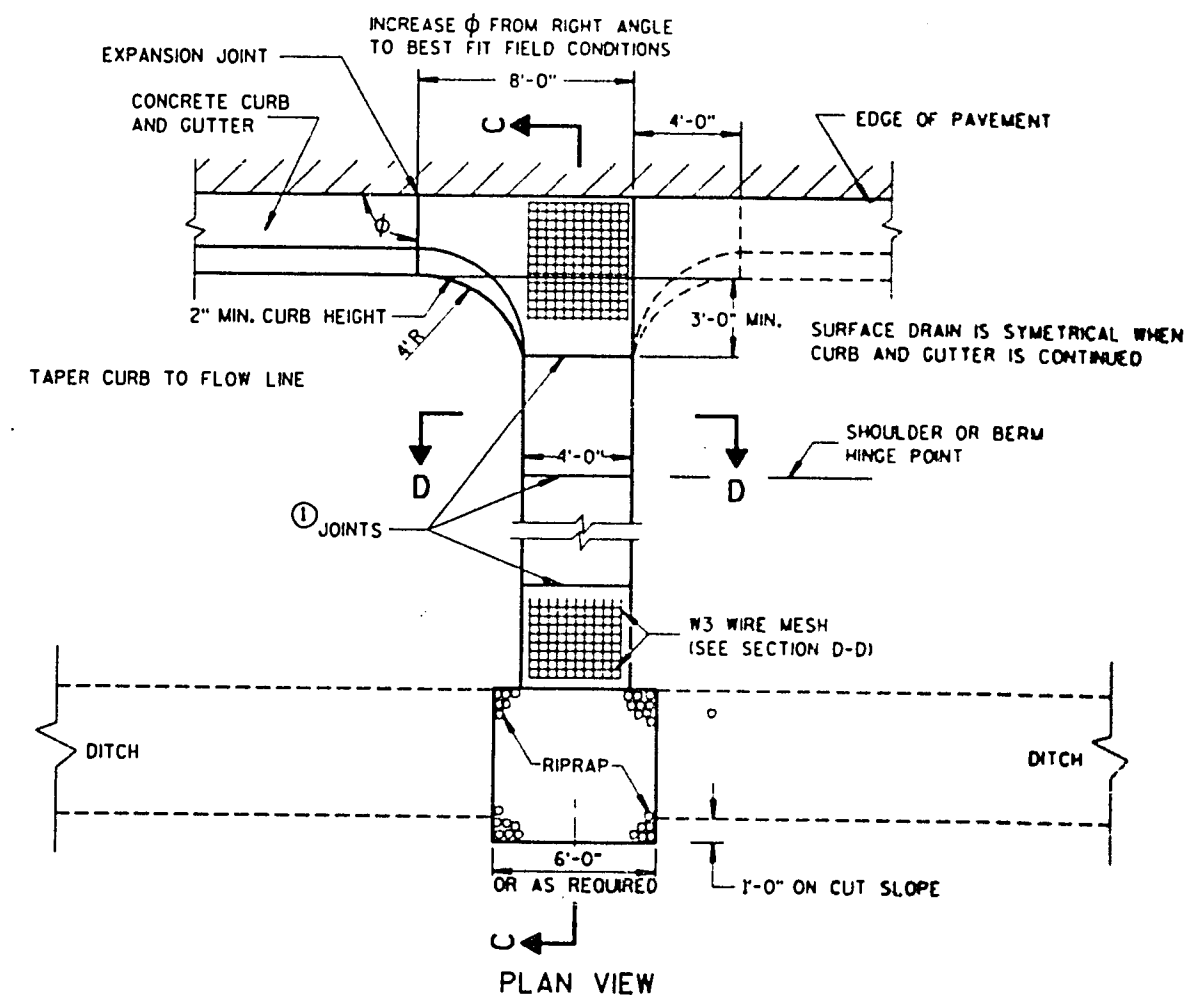
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

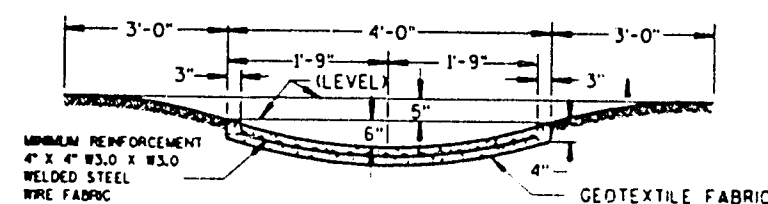
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE 1/8" TO 1/4" INCH WIDE BY 1 1/2" INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

③ CONCRETE SURFACE DRAIN



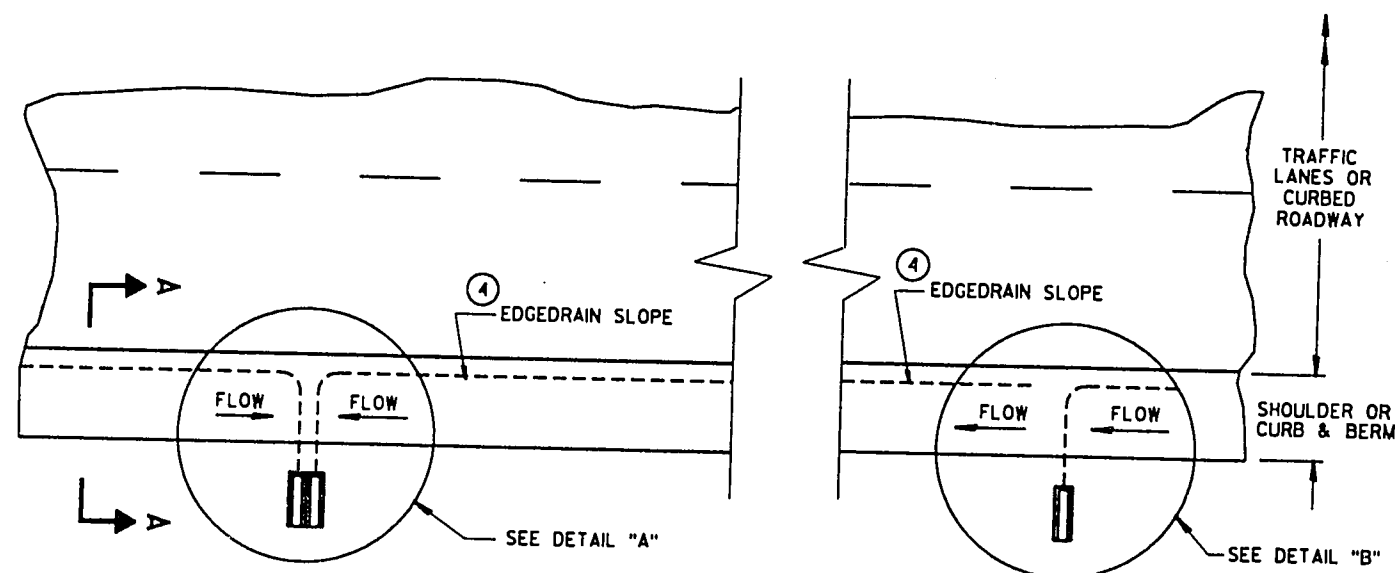
SECTION C-C



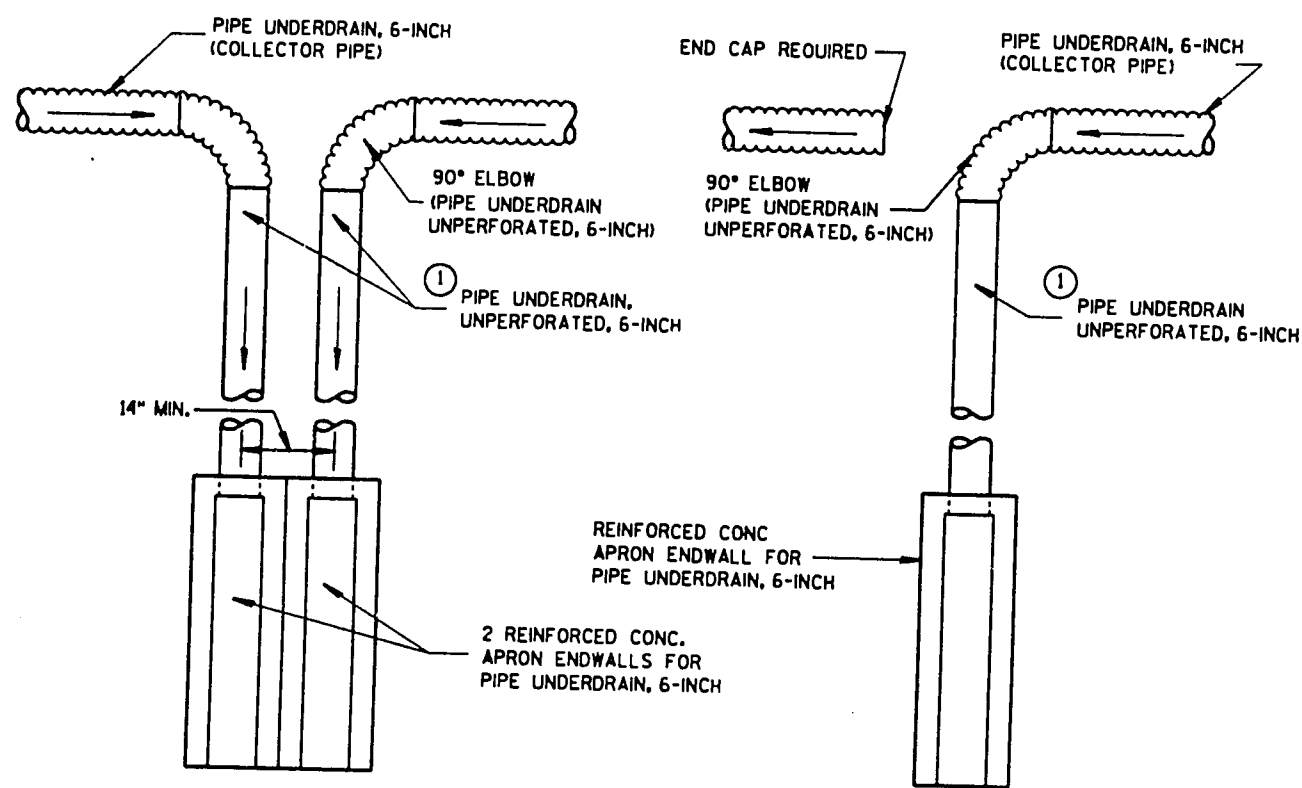
CONCRETE SURFACE DRAIN & ASPHALTIC FLUME

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10/23/04
DATE
STATE DESIGN ENGINEER FOR HWY



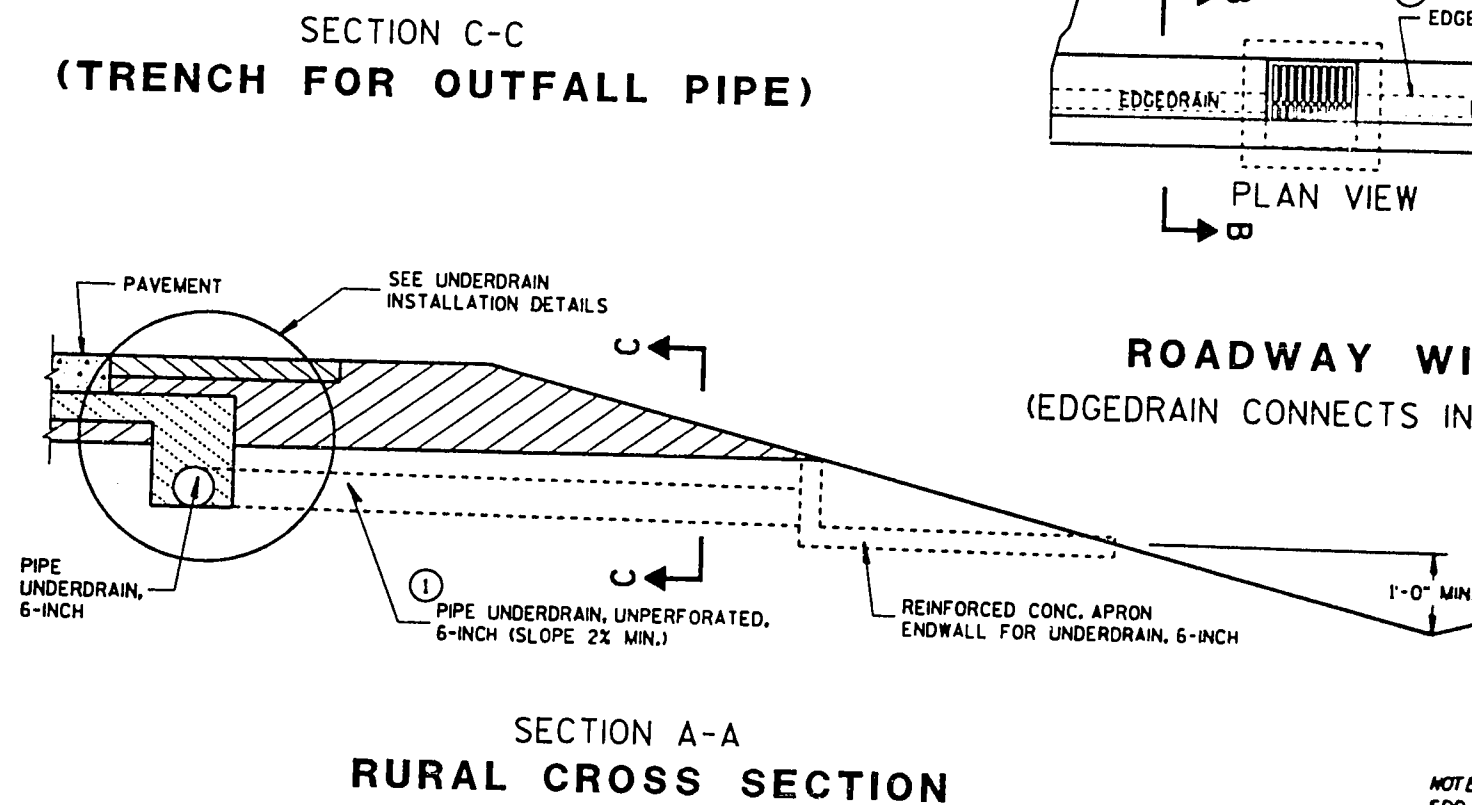
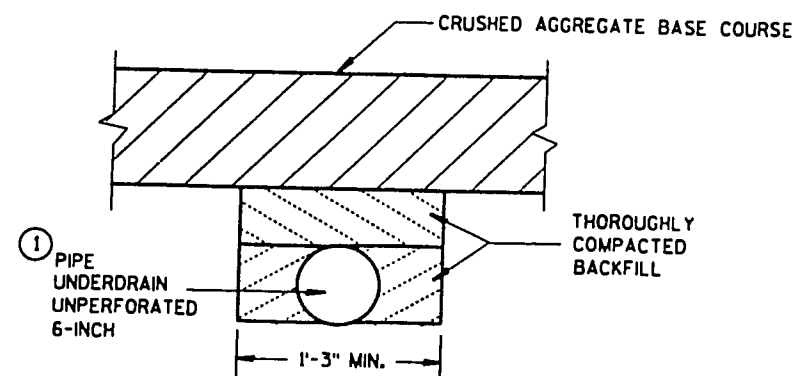
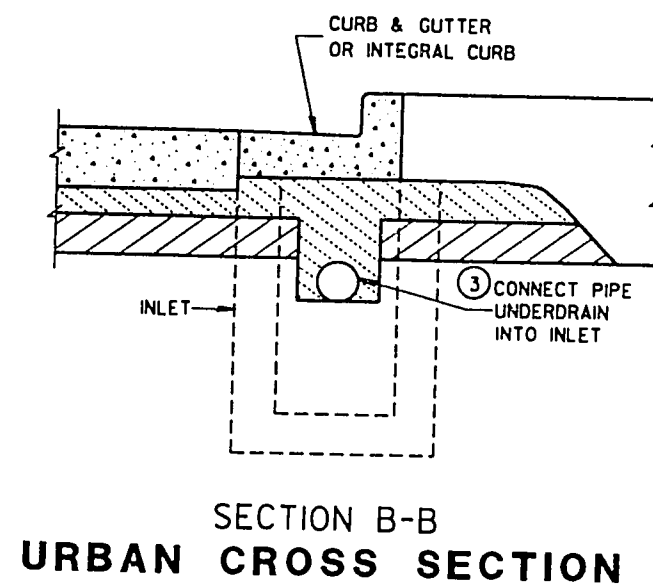
PLAN VIEW
ROADWAY WITH SHOULDERS OR CURBS
 (EDGEDRAIN OUTLETS TO ROADSIDE) ②



DETAIL "A"
 TO BE USED AT LOW POINT LOCATIONS

DETAIL B
 TO BE USED AT INTERMEDIATE LOCATIONS

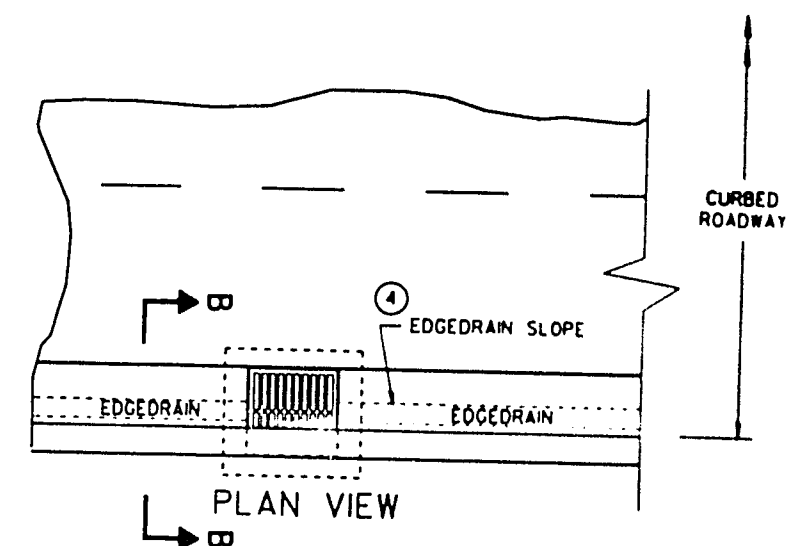
TYPICAL DRAIN OUT DETAILS



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:
 POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.
 TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.
- ② MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.
- ③ EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.
- ④ EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.

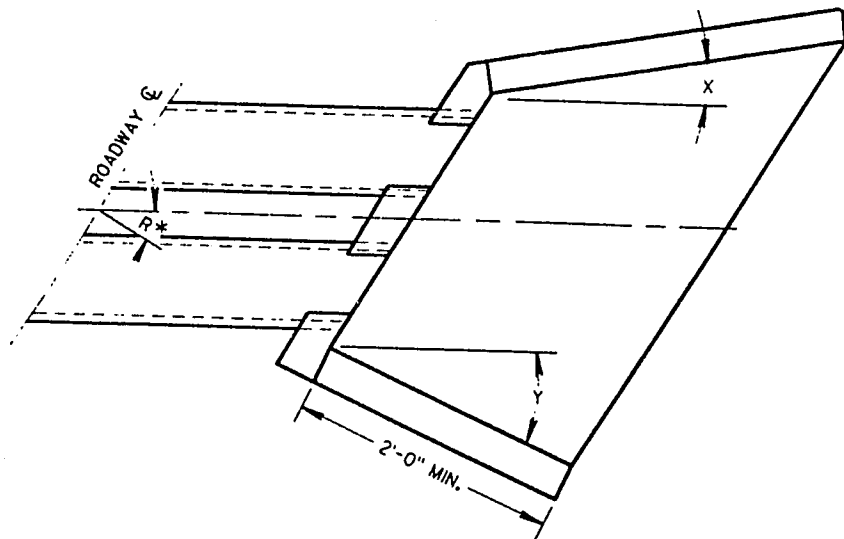


ROADWAY WITH CURBS
 (EDGEDRAIN CONNECTS INTO INLET STRUCTURE)

NOTE:
 SDD 8F6-X AND SDD 8D5-10 or SDD 8D5-11 ARE REQUIRED WITH THIS DRAWING IN CONTRACT PLANS.

EDGEDRAIN OUTLET DETAILS

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 DEPARTMENT OF TRANSPORTATION



WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

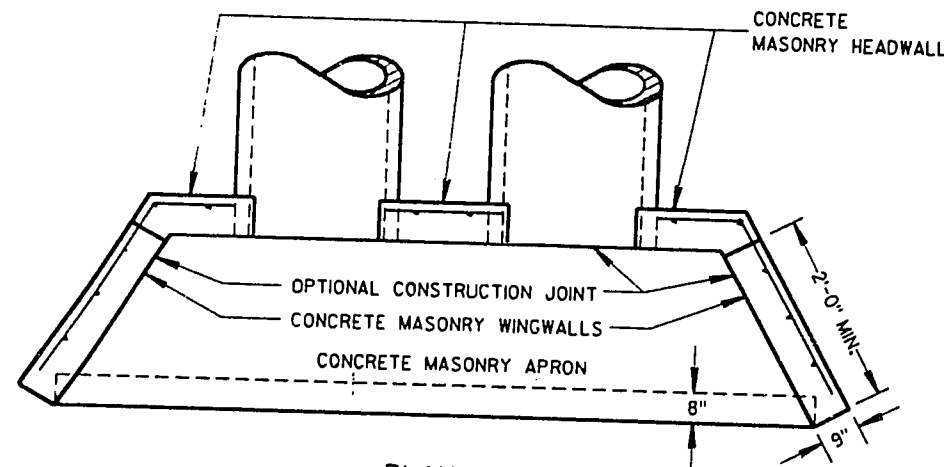
FILL SLOPES FLATTER THAN 2 1/2:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

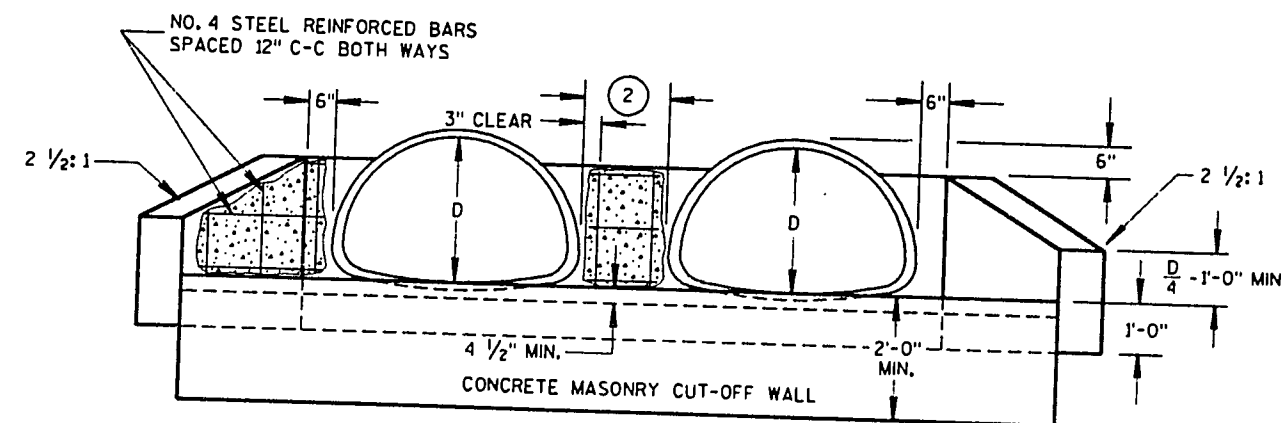
① MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

② THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

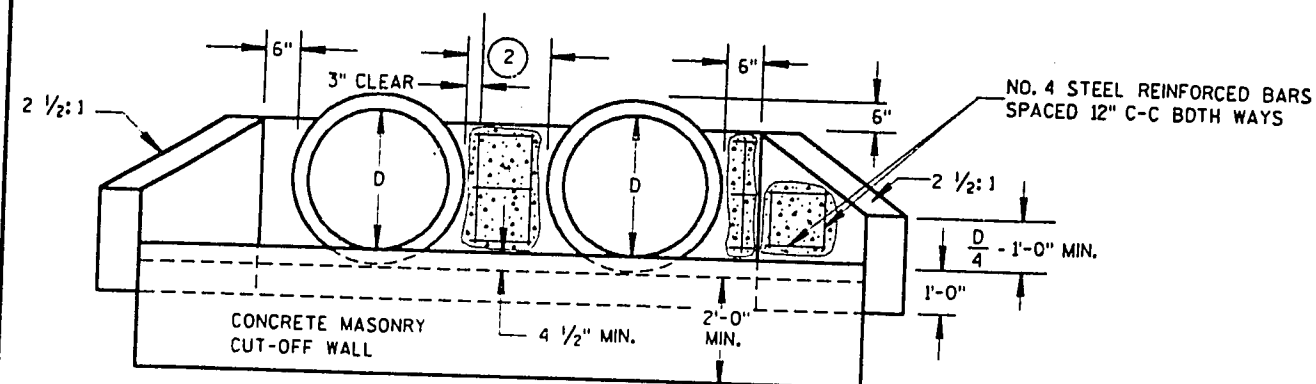
DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	1/2 DIA. OR SPAN
OVER 72"	3'-0"



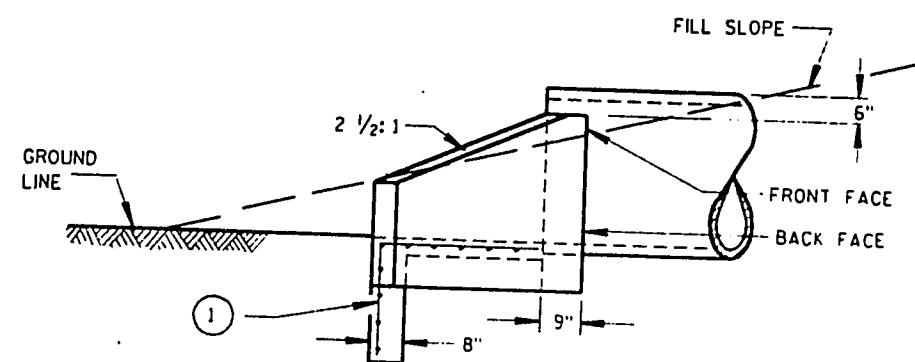
PLAN VIEW
CULVERT PIPE AND PIPE ARCH



END ELEVATION
PIPE ARCH



END ELEVATION
CULVERT PIPE



SIDE ELEVATION
CULVERT PIPE AND PIPE ARCH

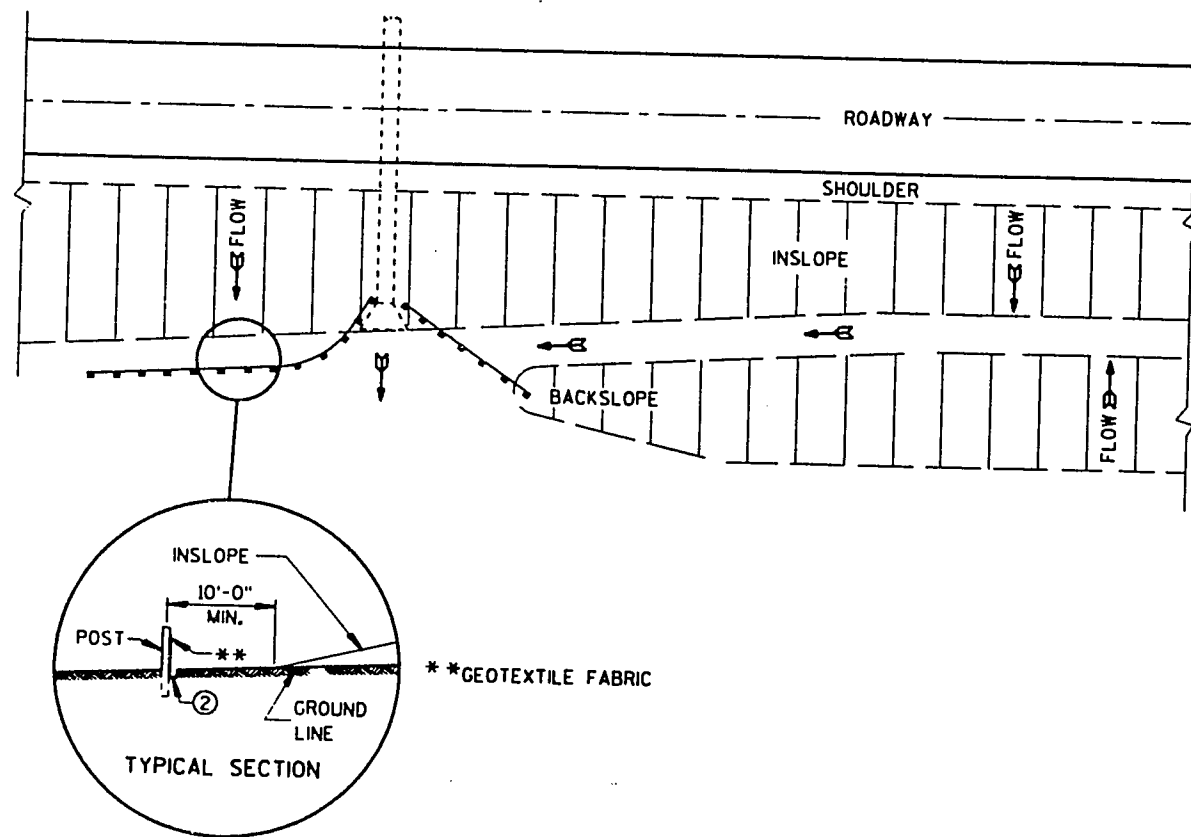
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

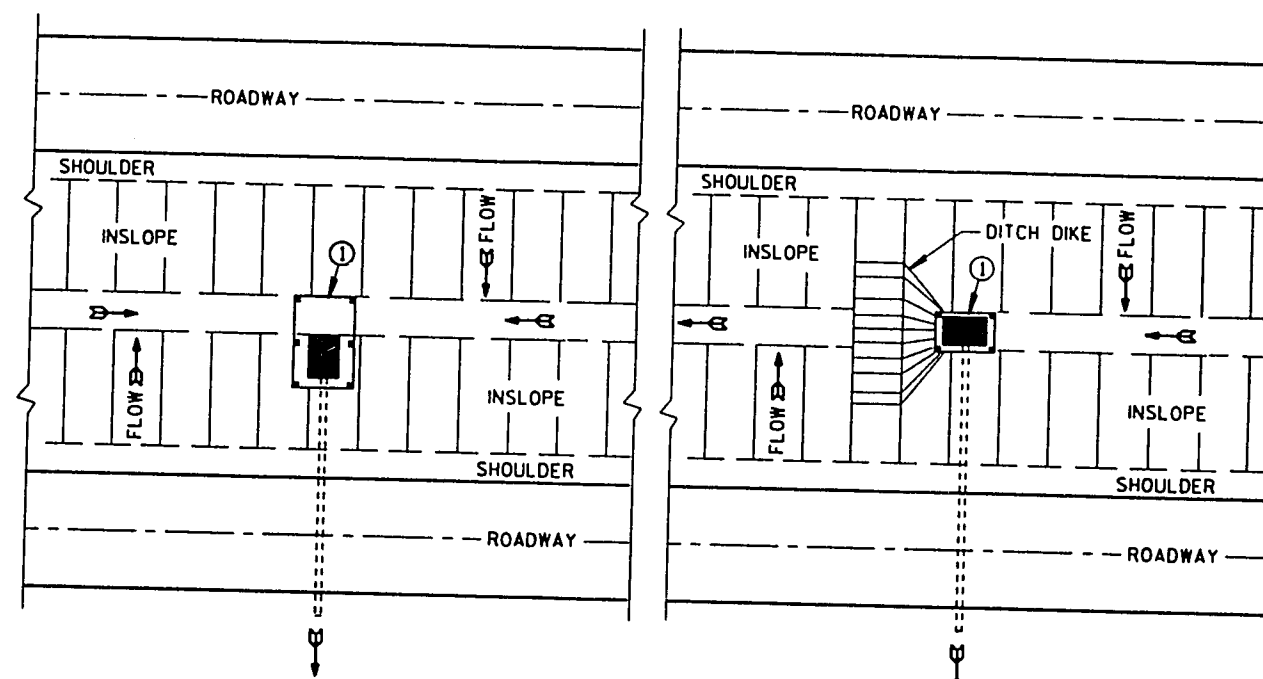
APPROVED
5/23/90
DATE

STATE DESIGN ENGINEER FOR HIGHWAYS

S.D.D. 8 E 6-7



PLAN VIEW
TYPICAL APPLICATIONS OF SILT FENCE

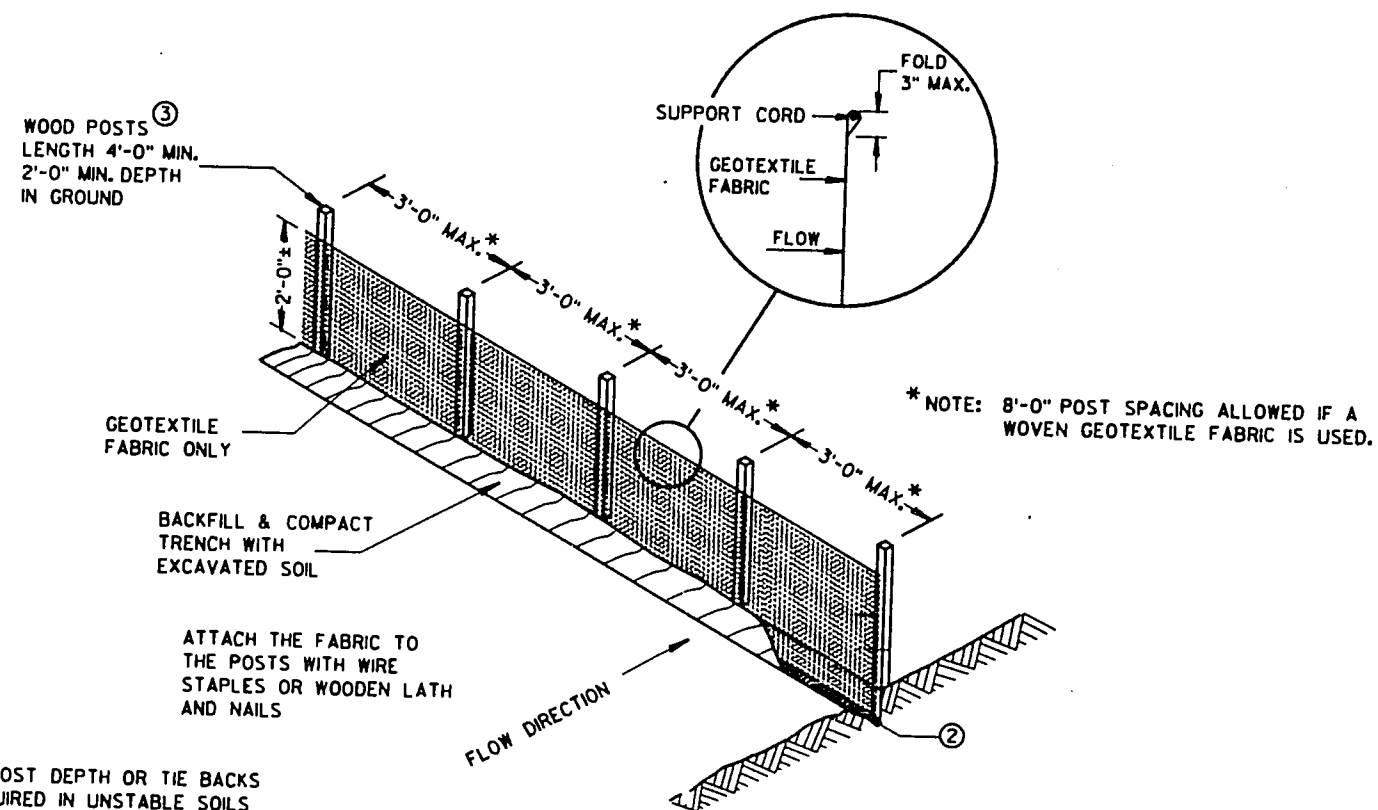


SITUATION 1
SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

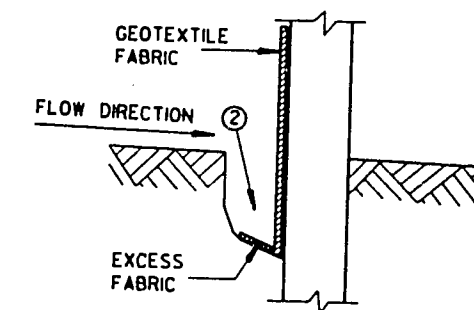
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

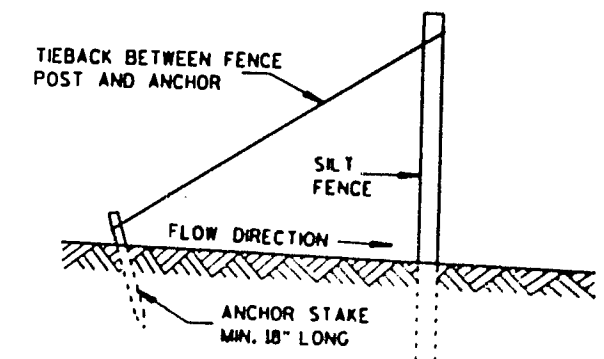
- ① HORIZONTAL BRACE WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS AS DIRECTED BY THE ENGINEER.
- ② TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/2" X 1 1/2" OF OAK OR HICKORY.



SILT FENCE
(NON-REINFORCED)



TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

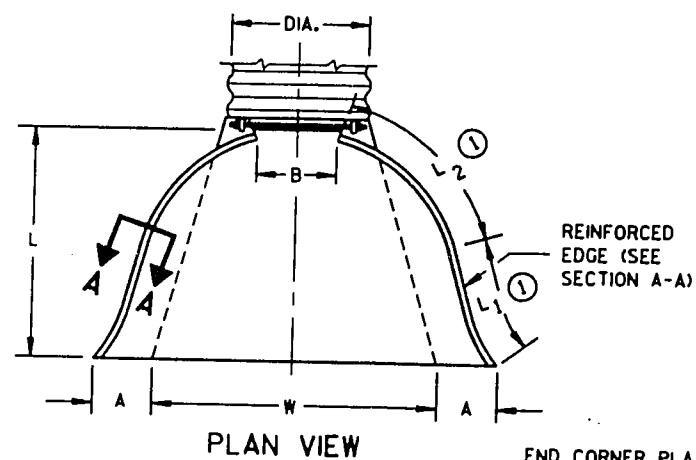
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 1/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 1/2	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 1/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 1/2	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/2 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/2 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

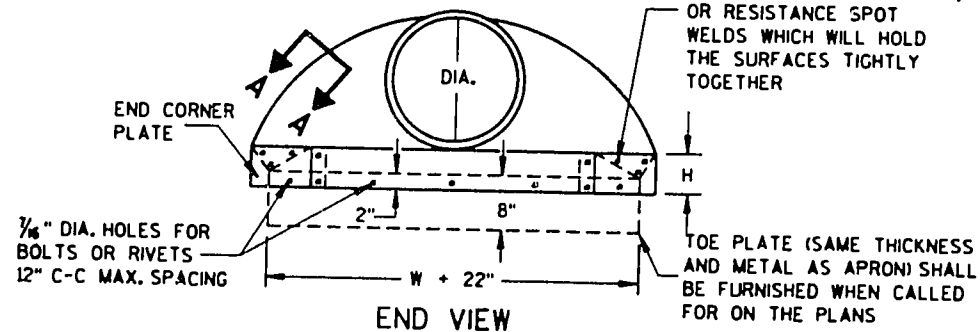
x EXCEPT CENTER PANEL
SEE GENERAL NOTES



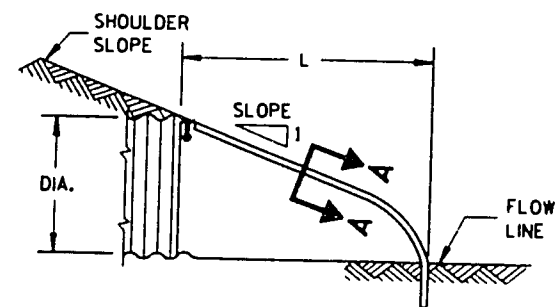
PLAN VIEW

END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



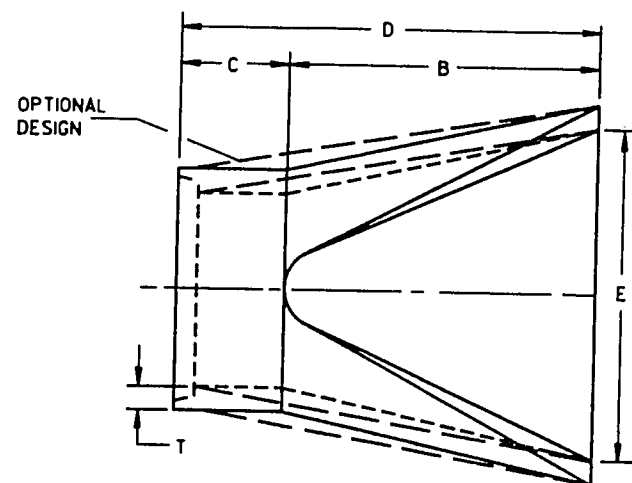
END VIEW



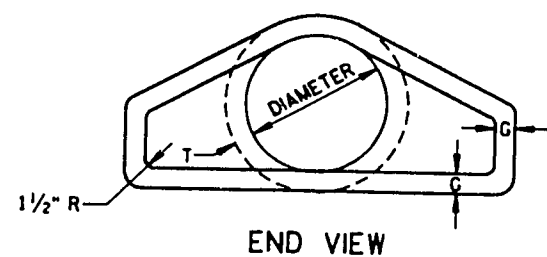
SIDE ELEVATION
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 1/2	72 1/2	24	2	3 to 1	
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1	
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1	
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1	
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1	
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1	
30	3 1/2	12	54	19 1/4	73 1/2	60	3 1/2	3 to 1	
36	4	15	63	34 1/4	97 1/4	72	4	3 to 1	
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1	
48	5	24	72	26	98	84	5	3 to 1	
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 1/2 to 1	
60	6	30-35	60	39	99	96	5	2 to 1	
66	6 1/2	34-39	72-78	21-27	99	102	5 1/2	2 to 1	
72	7	34-36	78	21	99	108	6	2 to 1	
78	7 1/2	34-36	78	21	99	114	6 1/2	2 to 1	
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1	
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1	

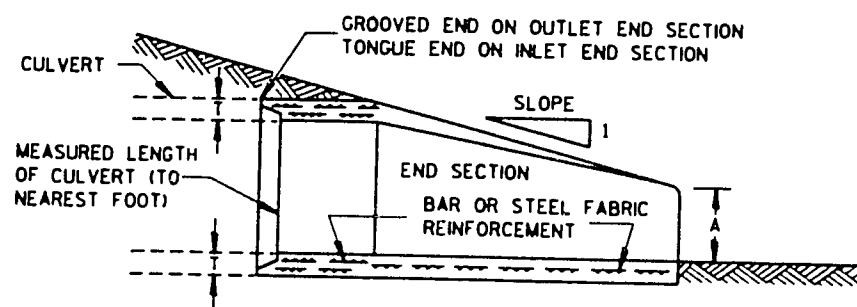
*MINIMUM
**MAXIMUM



PLAN

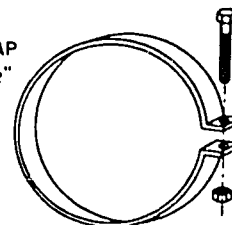


END VIEW



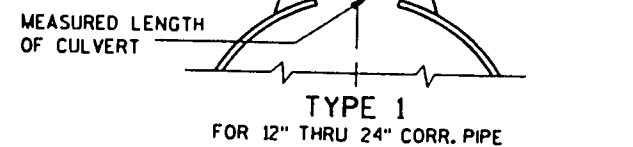
LONGITUDINAL SECTION
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



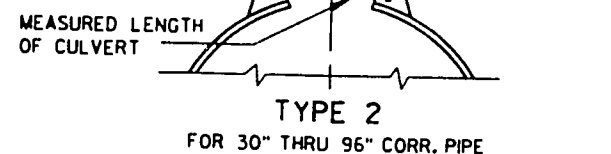
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP

THREADED 1/8" DIA. ROD AROUND CULVERT & THROUGH TANK TYPE CONNECTOR LUG OR ALTERNATE CONNECTOR STRAP (SEE DETAIL)

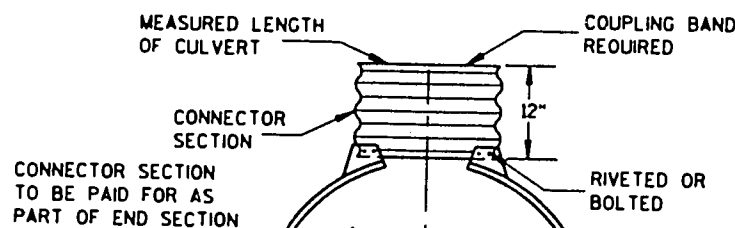


TYPE 1
FOR 12" THRU 24" CORR. PIPE

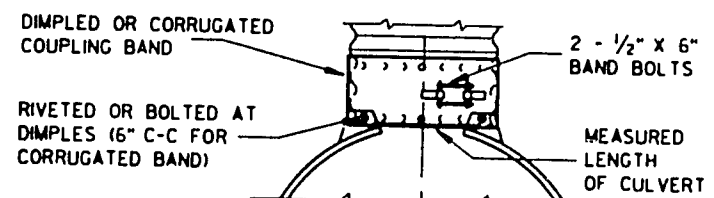
THREADED 1/8" DIA. ROD OVER TOP OF APRON, SIDE LUGS TO BE RIVETED TO APRON



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5

ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

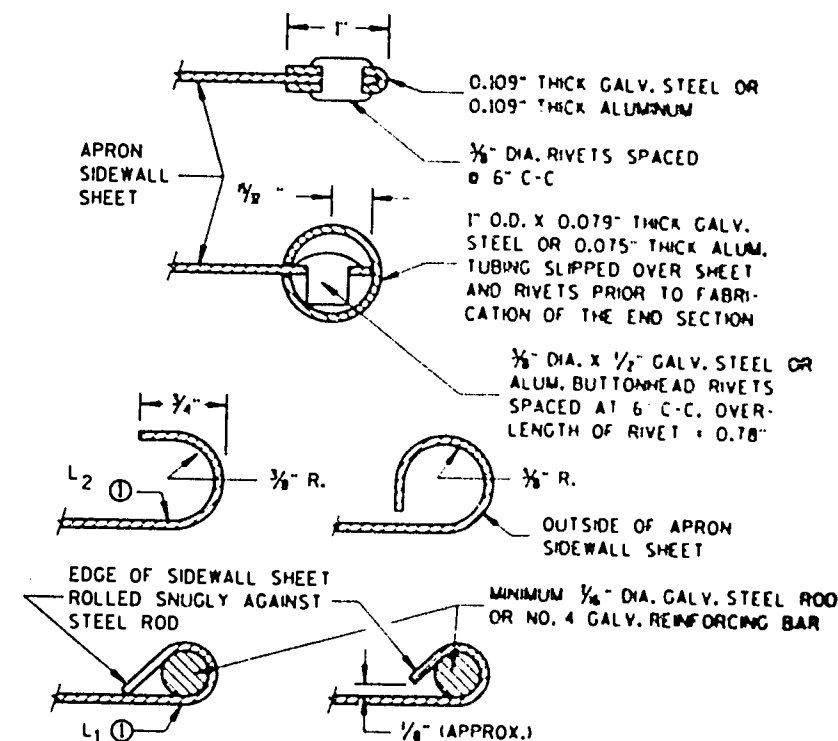
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS L 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS L 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS L 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VICE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

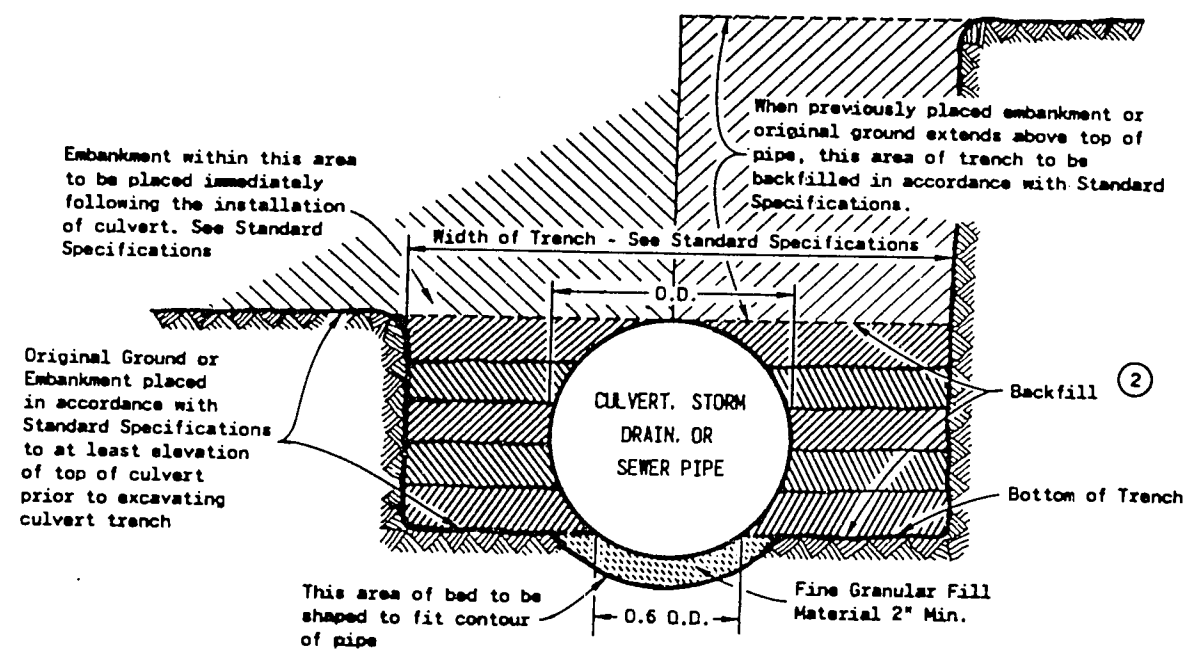
APPROVED
11/30/94
DATE
CHIEF HIGHWAY DEVELOPMENT ENGINEER

GENERAL NOTES

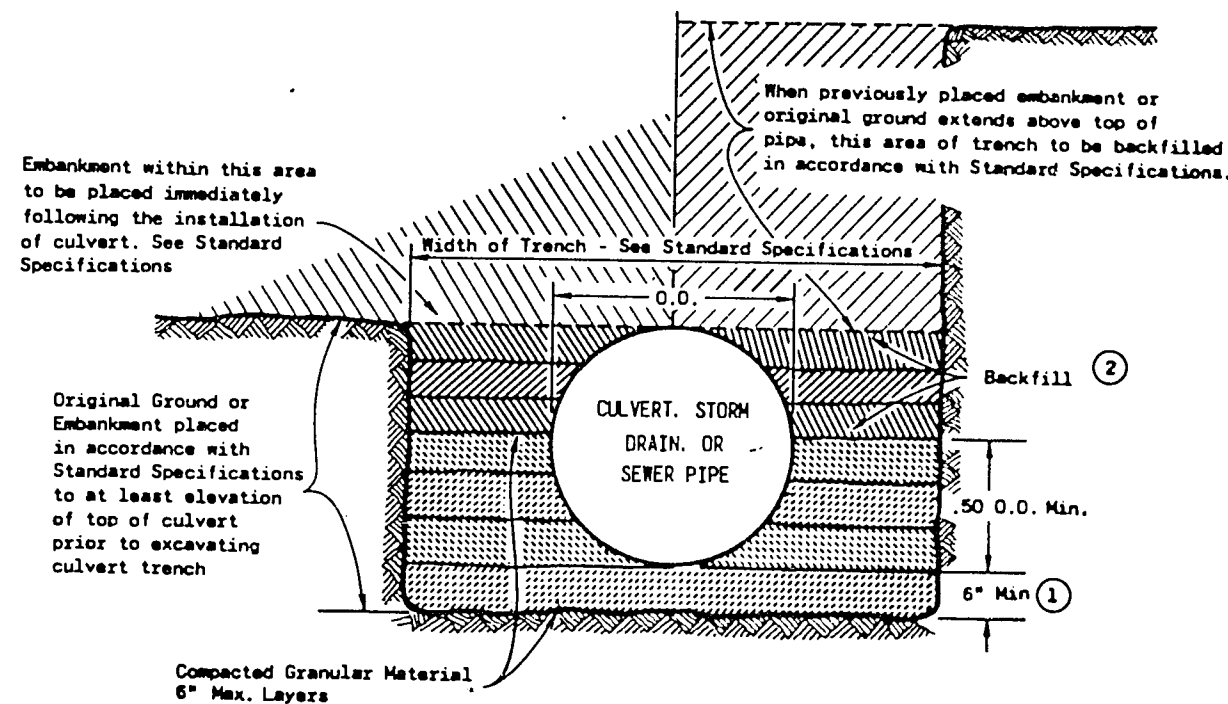
Details of construction, materials and workmanship not shown on this drawing shall conform to the Standard Specifications and the applicable Special Provisions.

The shaped subgrade with granular foundation is an equal alternate to the granular foundation except where rock is encountered.

- ① Where rock, hard pan or fragmented material is encountered, the trench shall be excavated below the bottom of the pipe an amount equal to $\frac{1}{4}$ inch per foot of proposed embankment above the top of the pipe, but not less than 6 inches.
- ② Trench shall be backfilled as required by Standard Specifications: Section 520 for pipe culverts and Section 607 for storm sewers.



SHAPED SUBGRADE WITH GRANULAR FOUNDATION



GRANULAR FOUNDATION

CLASS 'B' BEDDING

CLASS 'B' BEDDING FOR CULVERT
PIPE OR STORM SEWER

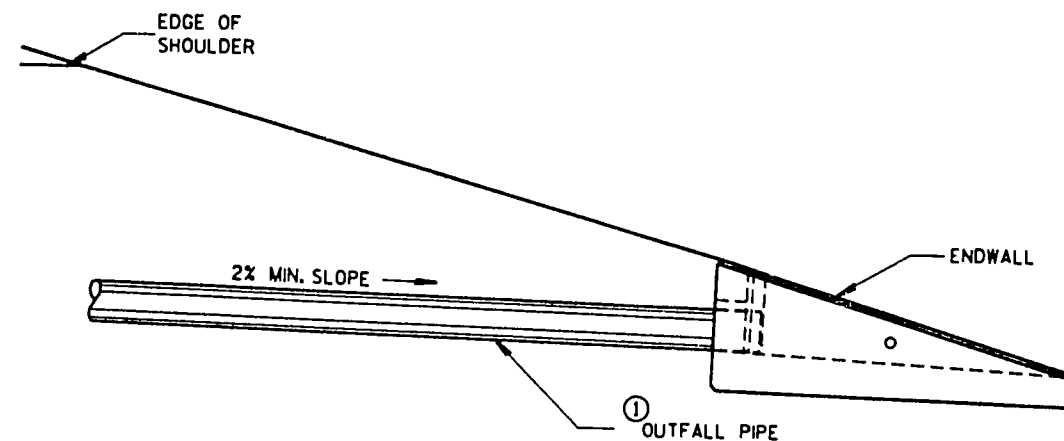
State of Wisconsin
Department of Transportation

APPROVED
4-7-83
DATE

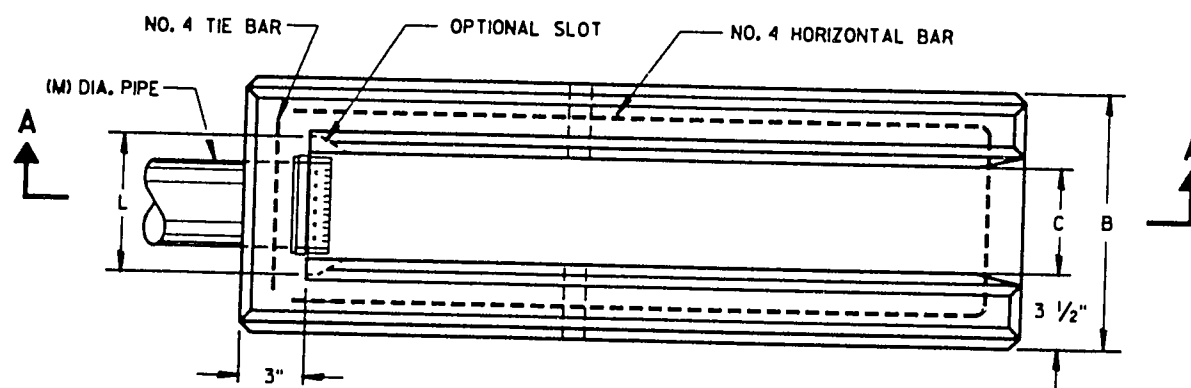
B. D. Brown
12/1/83

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	M
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

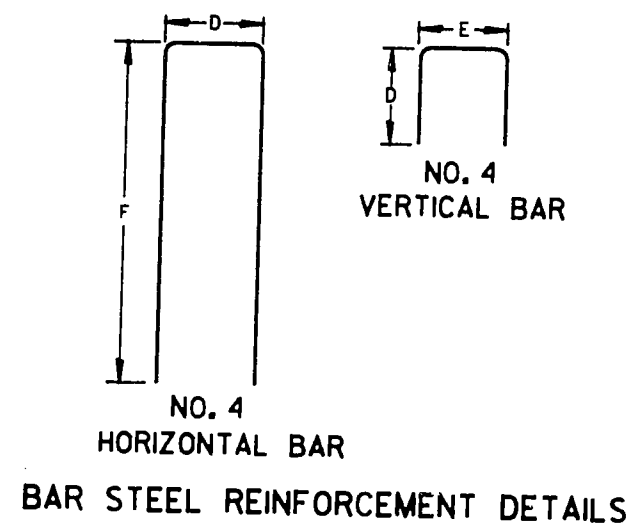
** APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



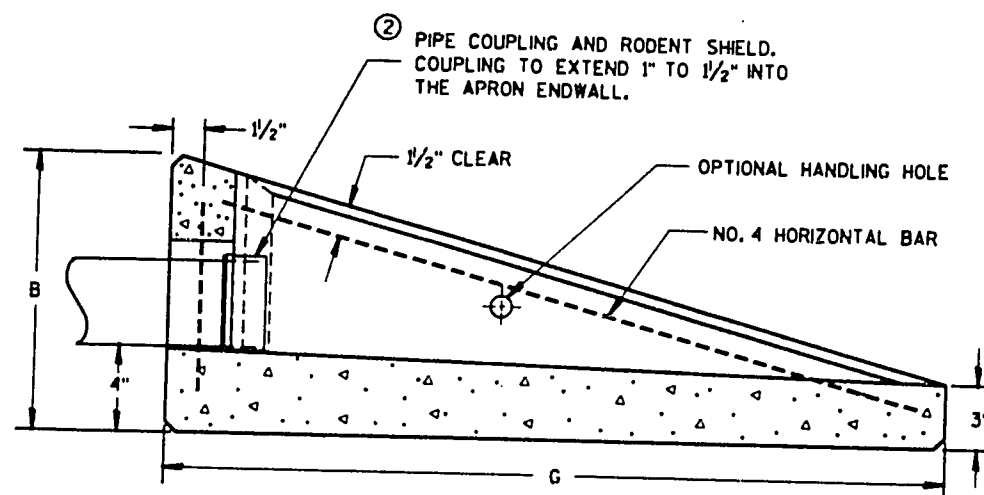
INSTALLATION DETAIL



PLAN VIEW

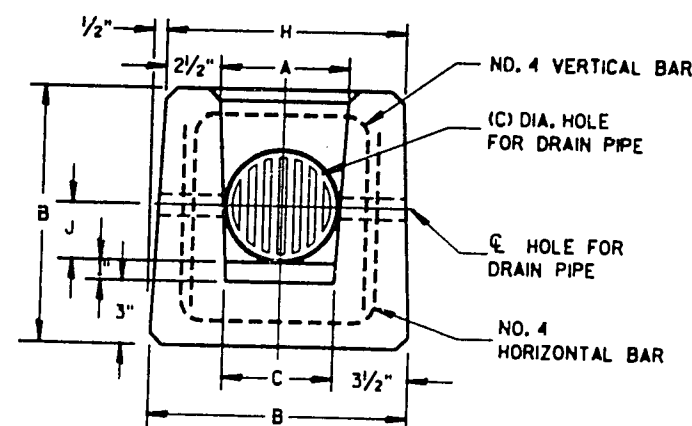


BAR STEEL REINFORCEMENT DETAILS

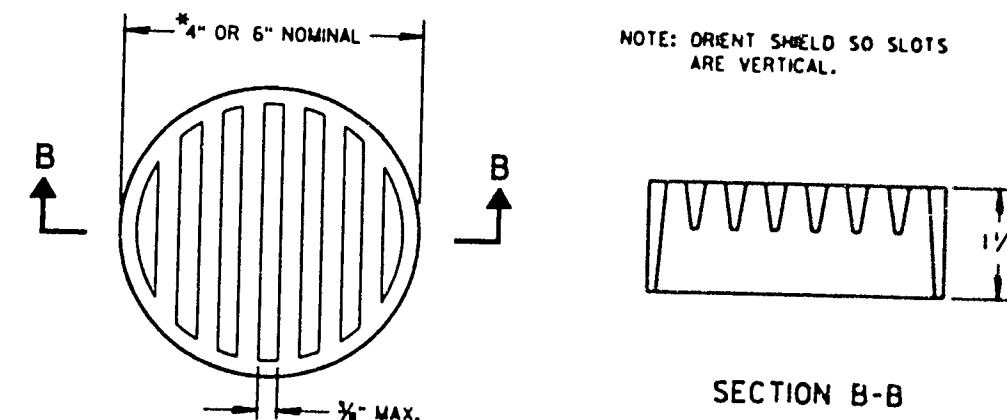


SECTION A-A

CONCRETE APRON ENDWALL FOR UNDERDRAIN



END VIEW



② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHLORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHLORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

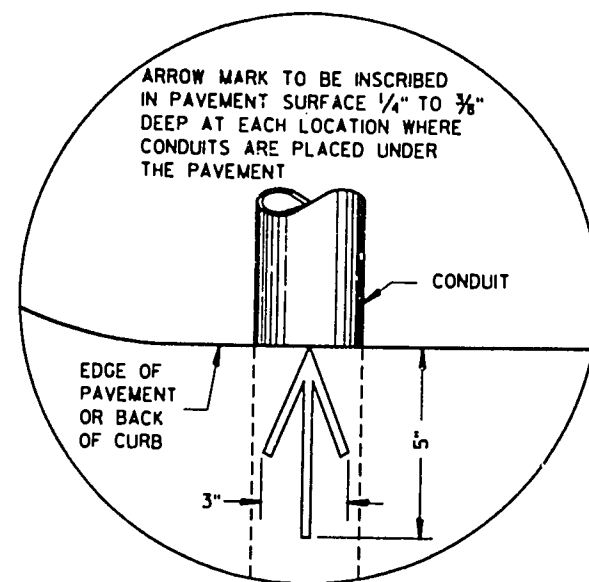
REINFORCED
CONCRETE APRON ENDWALL
FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

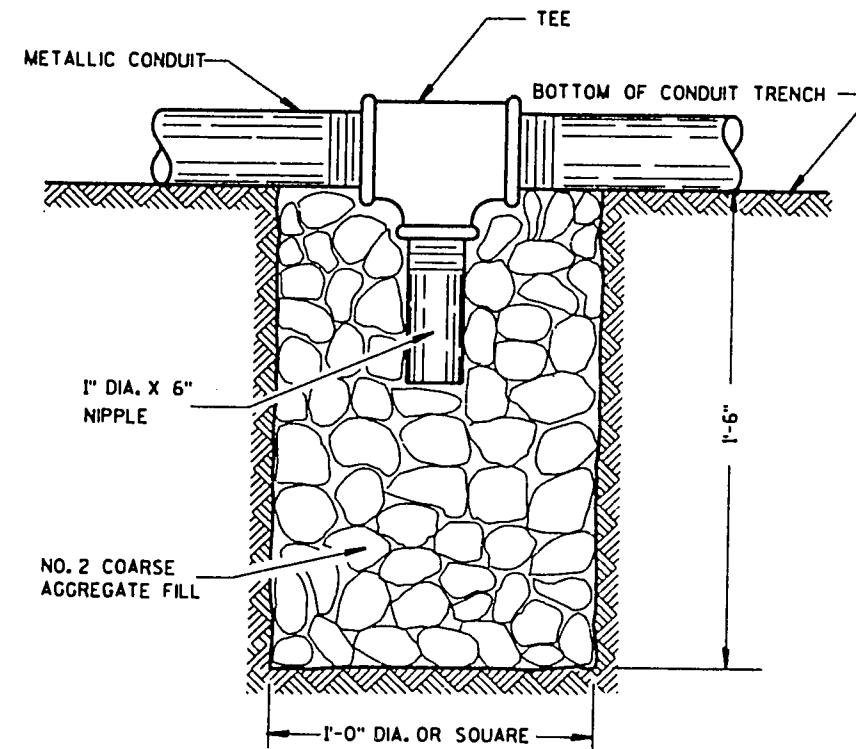
APPROVED
1/19/93
DATE

STATE DESIGN ENGINEER FOR HWY'S

S.D.D. 8 F 6-3

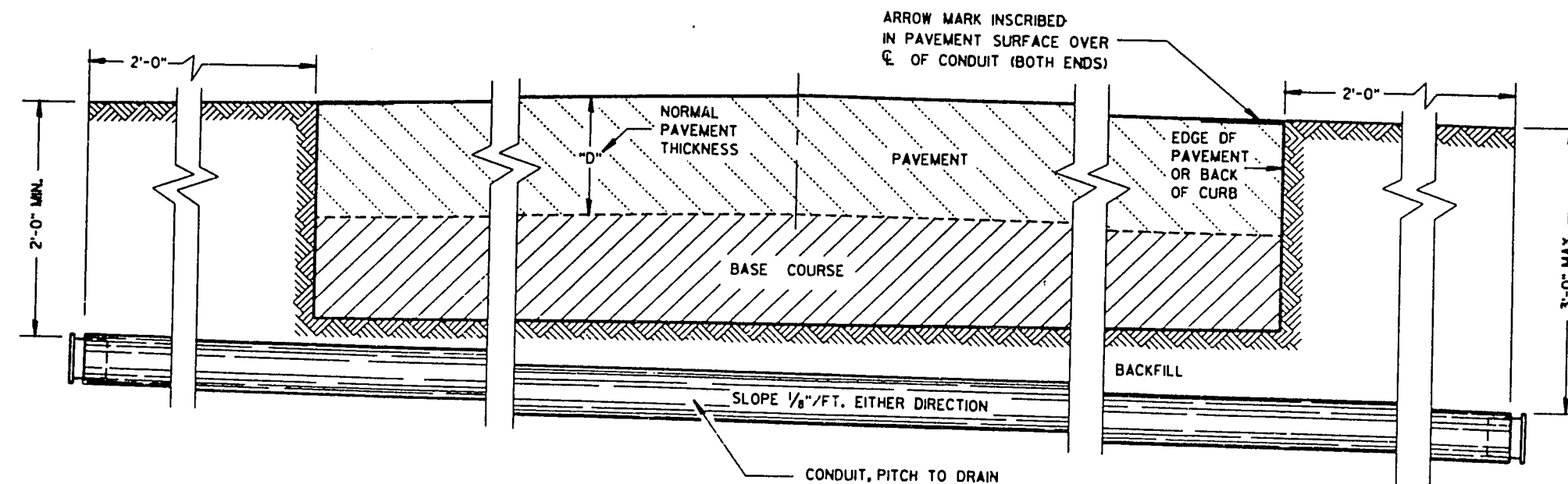


PLAN VIEW
ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR CONDUIT



SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 613.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 613.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX OR JUNCTION BOX TO JUNCTION BOX).

A #12 GAUGE, GALVANIZED PULL WIRE SHALL BE INSTALLED IN EACH RUN OF CONDUIT THAT DOES NOT RECEIVE CABLE OR WIRE UNDER THIS CONTRACT. THE PULL WIRE SHALL BE DOUBLED BACK 2 FEET AT EACH END CAP OF THE CONDUIT RUN.

BENDING OF PVC SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSON TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

DATE

DATE

DATE

STATE ELECTRICAL ENGINEER FOR HWYS

STATE TRAFFIC ENGINEER FOR HWYS

FW-6

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		TYPE OF PIPE						
		CORRUGATED STEEL						POLYETHYLENE SDR 32.5
PIPE DIAMETER (INSIDE)	A	12	12	18	18	24	24	12
PIPE LENGTH **	B	24	36	24	36	24	36	24
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.4
COVER	D	10 1/4	10 1/4	16 1/4	16 1/4	22 1/4	22 1/4	10 1/4
FRAME	E	14 1/2	14 1/2	20 1/2	20 1/2	26 1/2	26 1/2	14 1/2
FRAME	F	8 1/2	8 1/2	14 1/2	14 1/2	20 1/2	20 1/2	8 1/2
FRAME	G	11 1/2	11 1/2	17 1/2	17 1/2	23 1/2	23 1/2	11 1/2
WEIGHT IN POUNDS *								
FRAME AND COVER		60	60	110	110	155	155	60

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

POLYETHYLENE PULL BOXES SHALL NOT BE INSTALLED IN CONCRETE OR ASPHALTIC PAVEMENT. PULL BOXES LOCATED IN THE ROADWAY SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

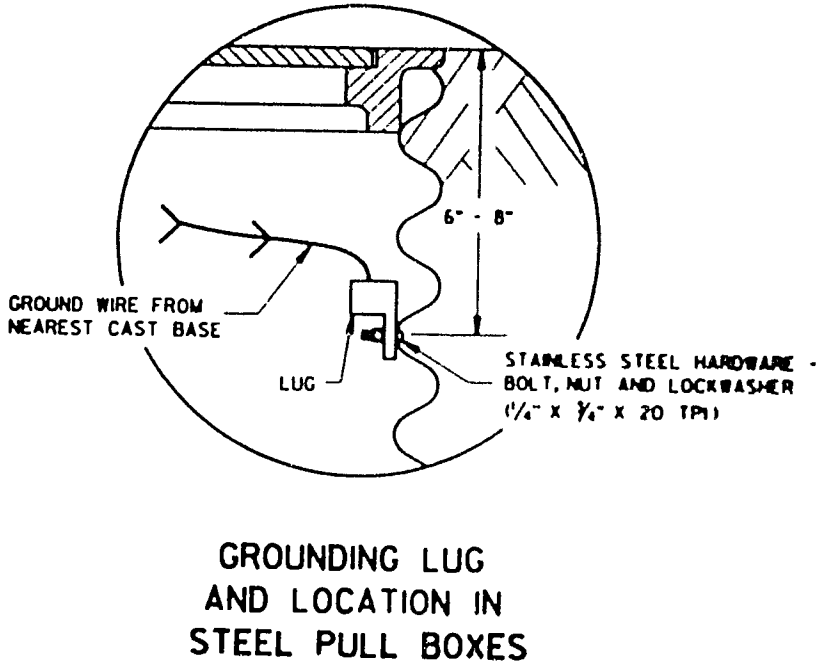
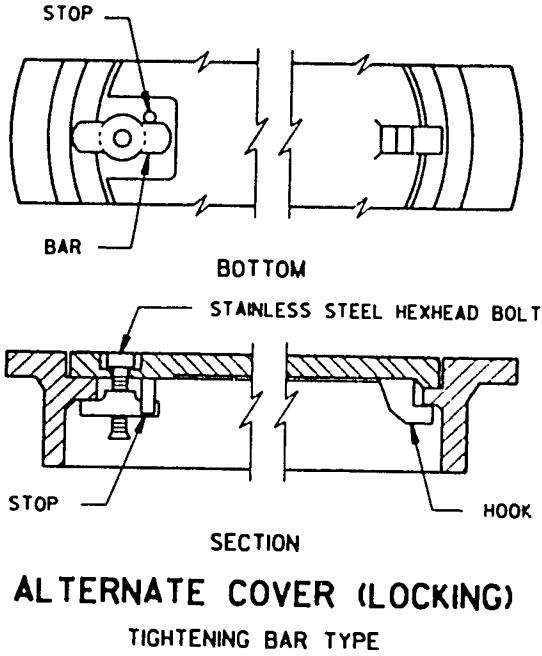
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE. THE MECHANICAL CONNECTION (INSIDE AND OUTSIDE) TO THE PULL BOX, SHALL BE TOTALLY AND PERMANENTLY SEALED WITH A SILICONE OR RUBBERIZED CAULKING COMPOUND AS APPROVED BY THE ENGINEER.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

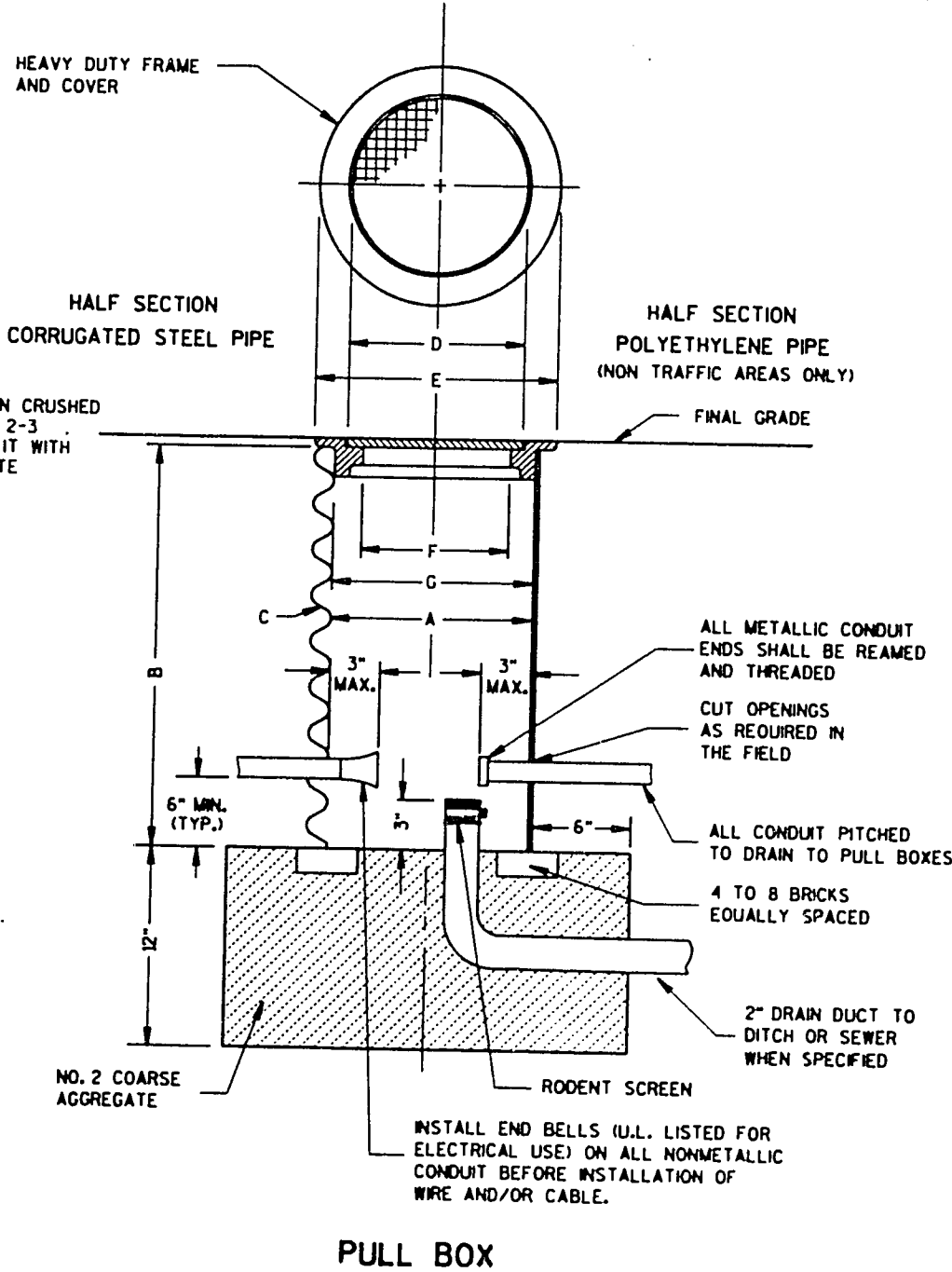
DRAIN DUCT SHALL BE MEASURED AND PAID FOR SEPARATELY.

RODENT SCREEN SHALL BE 1/8" GALVANIZED STEEL MESH AND BE INSTALLED WITH A STAINLESS STEEL HOSE CLAMP OF SUFFICIENT SIZE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

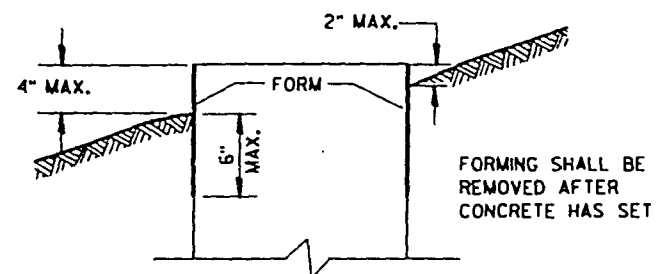


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE



PULL BOX	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 1/21/93 DATE	<i>Bahn</i> STATE ELECTRICAL ENGINEER FOR HIGHWAY
1/21/93 DATE	<i>Steve Kueh</i> STATE TRAFFIC ENGINEER FOR HIGHWAY

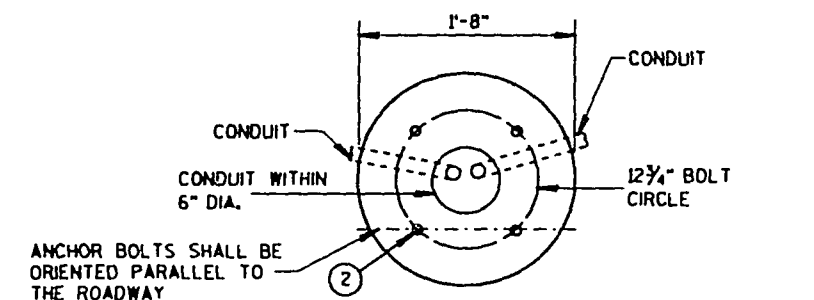
FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	.32	.57	.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

WELDING ANCHOR BOLTS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.



FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

HALF SECTION IN UNPAVED AREA (TYPICAL FOR TYPES 1, 2 & 5)

HALF SECTION IN PAVEMENT (TYPICAL FOR TYPES 1, 2 & 5)

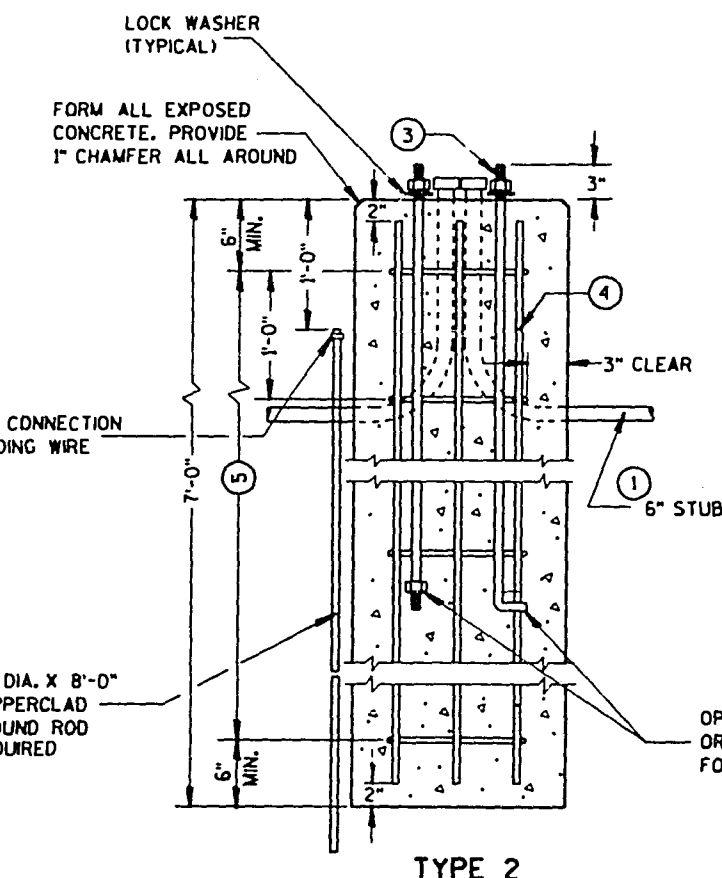
TOPSOIL AND SEED OR CRUSHED AGGREGATE

3/4" PREFORMED FILLER AS APPROVED BY THE ENGINEER

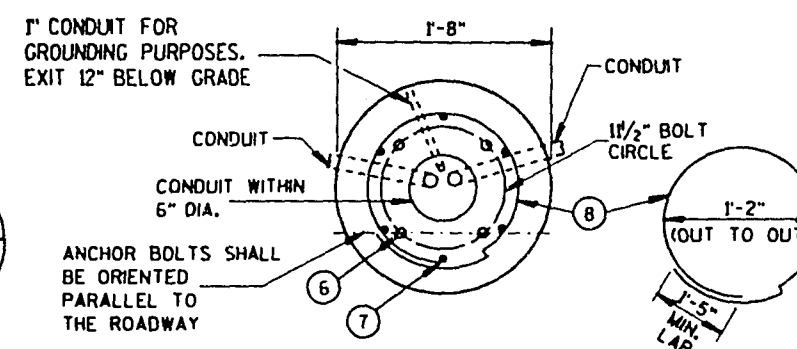
CADWELDED CONNECTION FOR GROUNDING WIRE

5/8" DIA. X 8'-0" COPPERCLAD GROUND ROD REQUIRED

TYPE 1



TYPE 2



TYPE 5

CONCRETE BASES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL BE PLUGGED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 6 AWG. STRANDED COPPER GROUNDING WIRE SHALL BE CADWELDED TO THE GROUND ROD FOR TYPE 2 AND TYPE 5 BASES.

THE GROUNDING WIRE SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE GROUNDING WIRE SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR BOLTS SHALL BE THREADED 8" IN LENGTH ON EACH END OF THE BOLT, AND BE MANUFACTURED IN ACCORDANCE WITH SECTION 640.2.9 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WHEN ANCHOR BOLTS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR BOLT BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

2 (4) 1" DIA. X 3'-6" ANCHOR BOLTS.

3 (4) 1" DIA. X 5'-0" ANCHOR BOLTS.

4 (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

6 (4) 1" DIA. X 3'-6" ANCHOR BOLTS.

7 (6) NO. 4 X 4'-8" BAR STEEL REINFORCEMENT

8 (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

CONCRETE BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/21/93
DATE
4/21/93
DATE

STATE ELECTRICAL ENGINEER FOR HWY'S
STATE TRAFFIC ENGINEER FOR HWY'S

FWBA

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS TO BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM A-449, AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

4" BOLTS SHALL BE IN ACCORDANCE WITH SECTION 640.2.9 OF THE STANDARD SPECIFICATIONS, ASTM A-449 OR ASTM A-687 (GRADE 105).

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

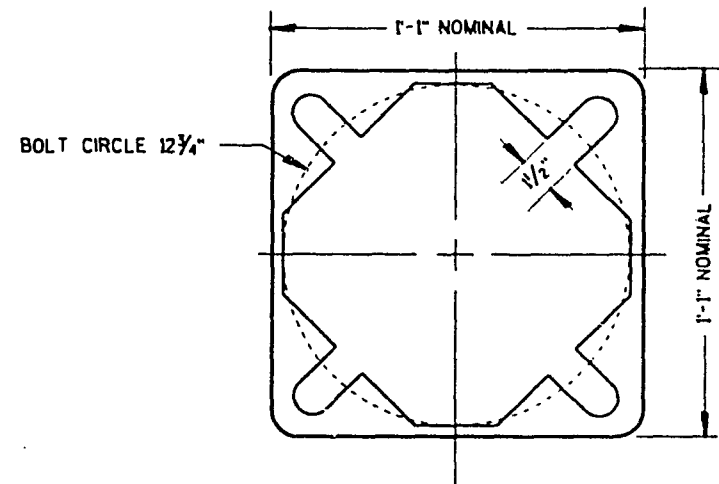
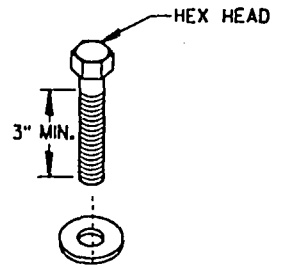
DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

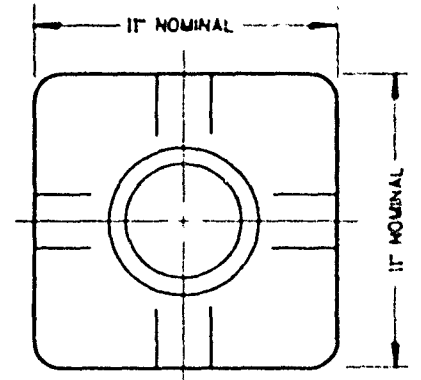
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

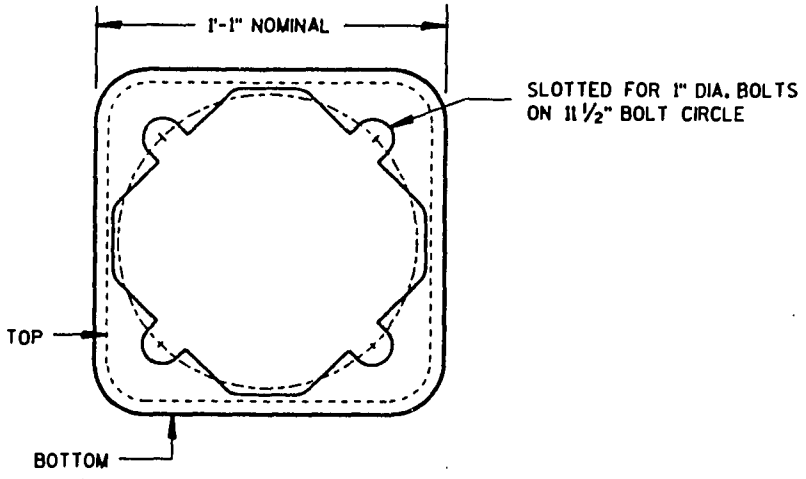
TEST REPORTS FROM AN FHWA APPROVED INDEPENDENT LABORATORY SHALL BE PROVIDED CERTIFYING THAT THE BASE HAS BEEN TESTED AND MEETS OR EXCEEDS ALL OF THE APPLICABLE 1985 AASHTO BREAKAWAY REQUIREMENTS. A STATEMENT OF CERTIFICATION FROM FHWA ATTESTING THAT SUCH TESTS HAVE BEEN ACCEPTED AND APPROVED SHALL BE SUPPLIED ALONG WITH THE BID.



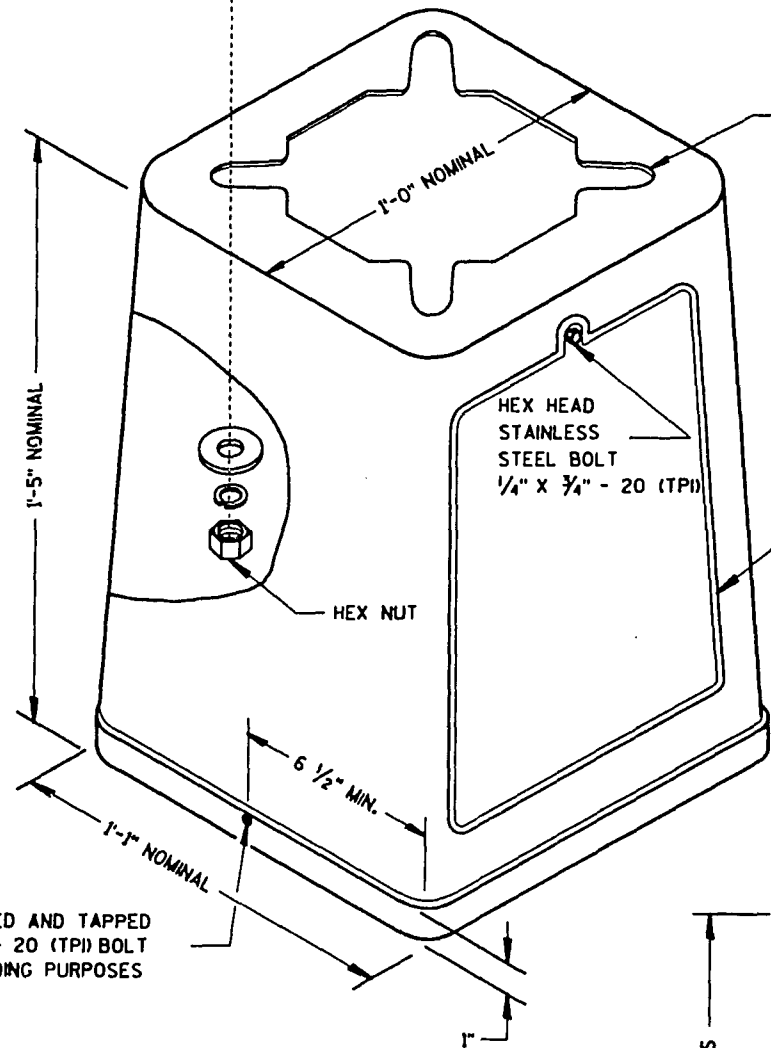
BOTTOM VIEW
(PEDESTAL BASE)



TOP VIEW
(PEDESTAL BASE)



BOTTOM VIEW
(TRANSFORMER BASE)



ISOMETRIC VIEW

TRANSFORMER BASE
INTENDED FOR USE WITH TYPE 2, 3, 4 & 5 POLES

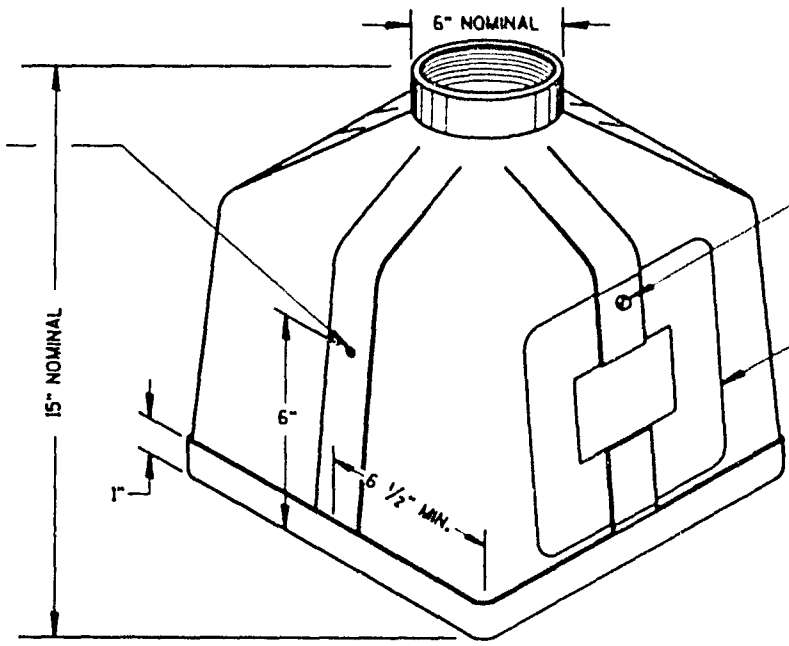
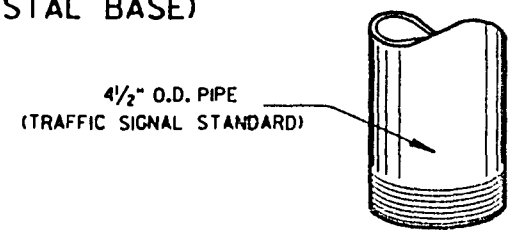
SLOTTED FOR 1" DIA. BOLTS
ON 11" THROUGH 12" BOLT CIRCLE

HOLE DRILLED AND TAPPED
FOR A 1/4" - 20 (TPI) BOLT
FOR GROUNDING PURPOSES

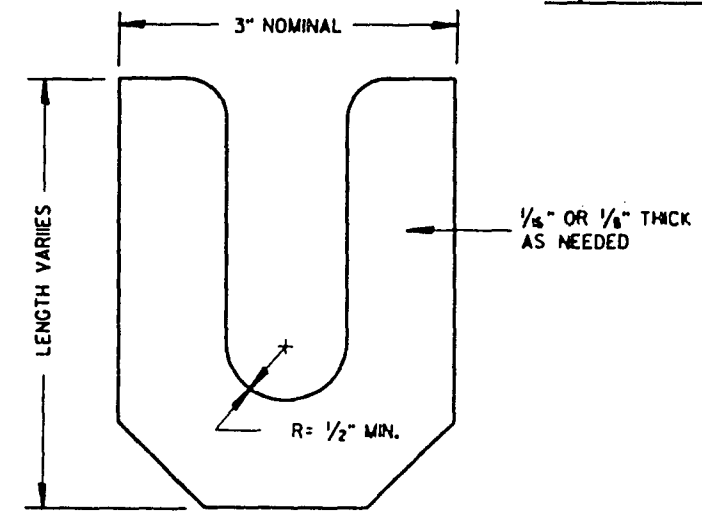
ACCESS OPENING NOMINAL
13 1/2" X 8 3/4" X 9 1/2"

6 1/2" MIN.

HOLE DRILLED AND TAPPED
FOR A 1/4" - 20 (TPI) BOLT
FOR GROUNDING PURPOSES



ISOMETRIC VIEW
PEDESTAL BASE



LEVELING SHIM

CAST BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/21/93
DATE
4/21/93
DATE
STATE TRAFFIC ENGINEER FOR HWY 8
FHWA

GENERAL NOTES

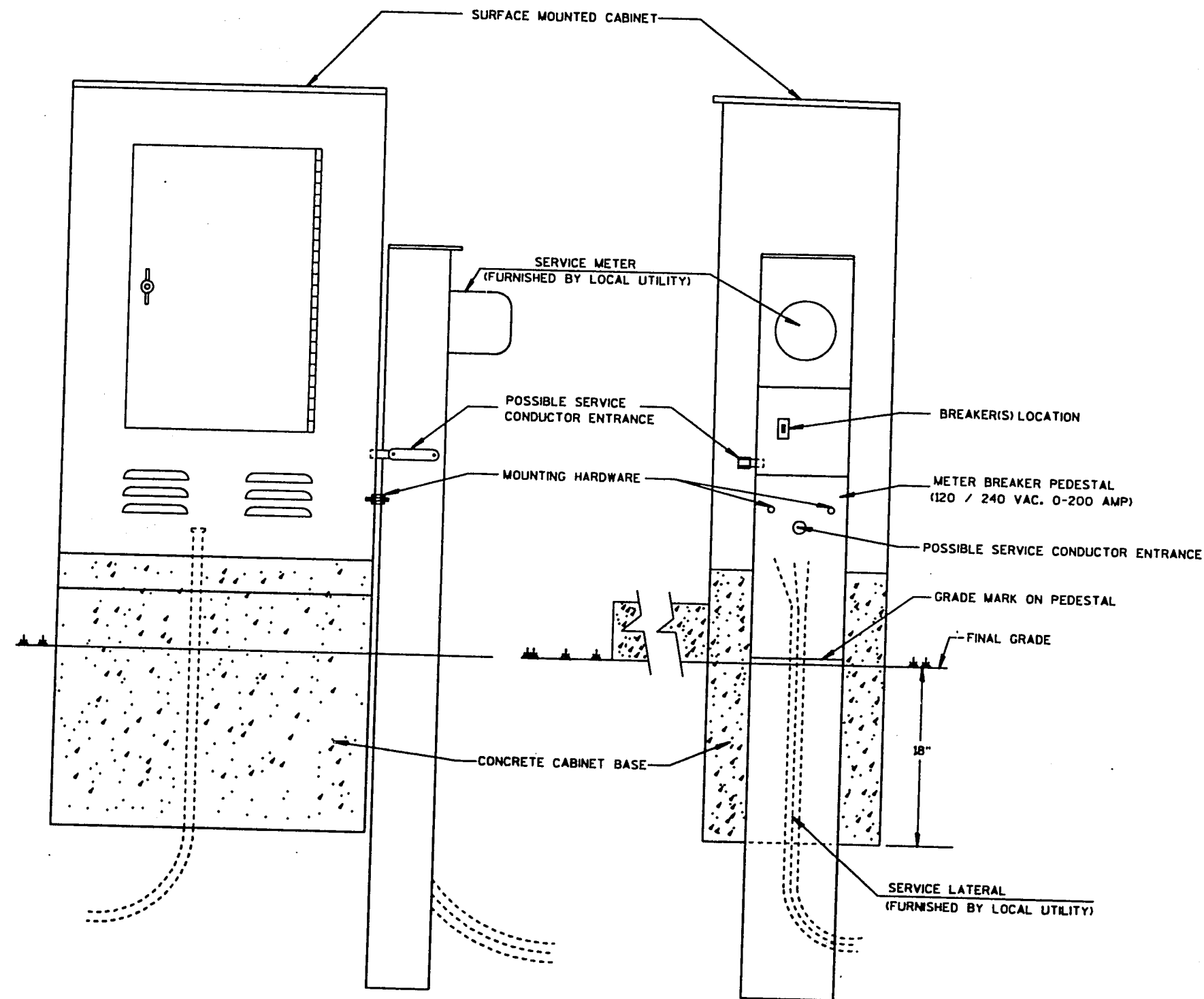
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AS REQUIRED AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.



TYPICAL CABINET SERVICE INSTALLATION

CABINET SERVICE INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/2/93

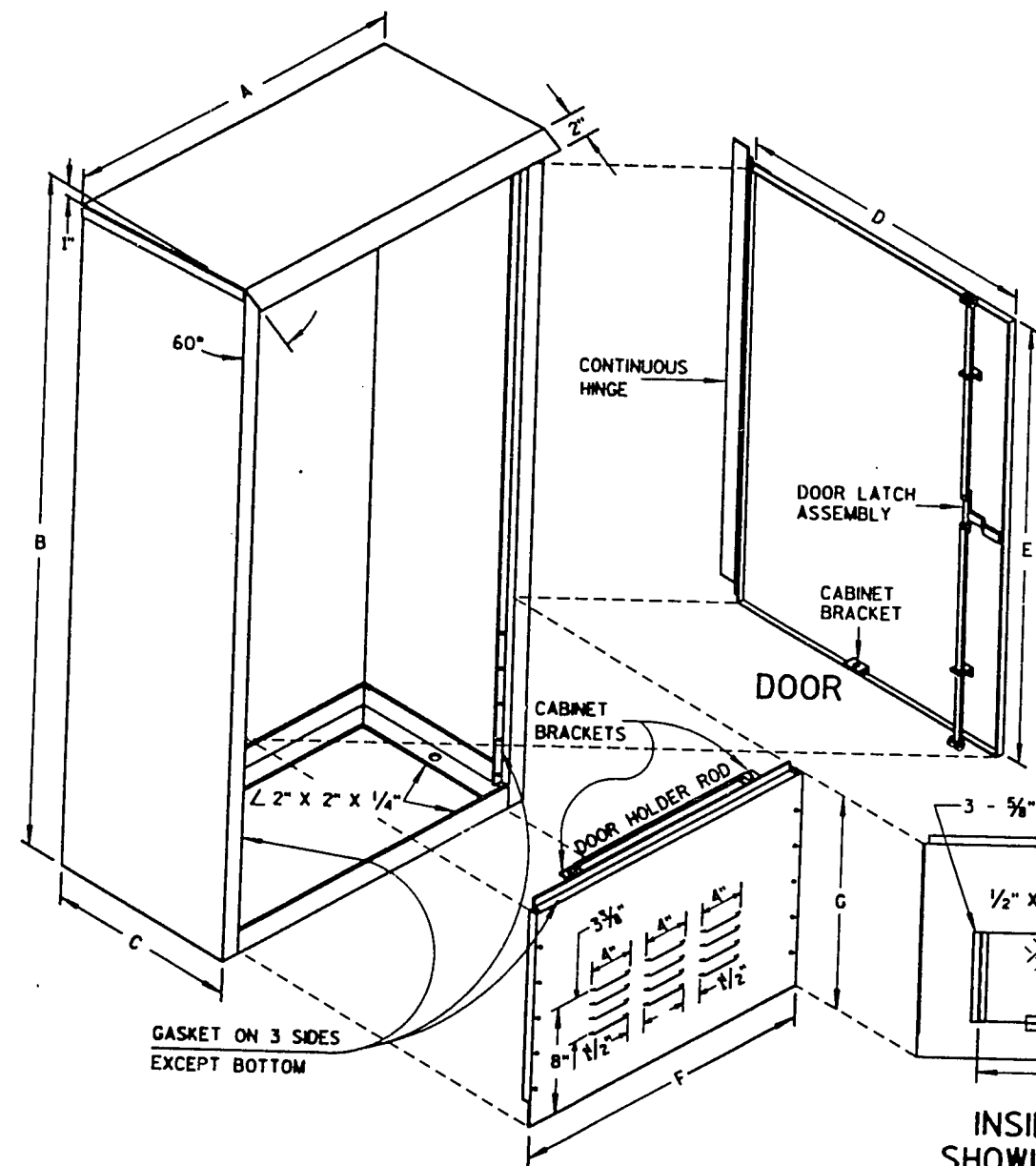
DATE

4/21/93

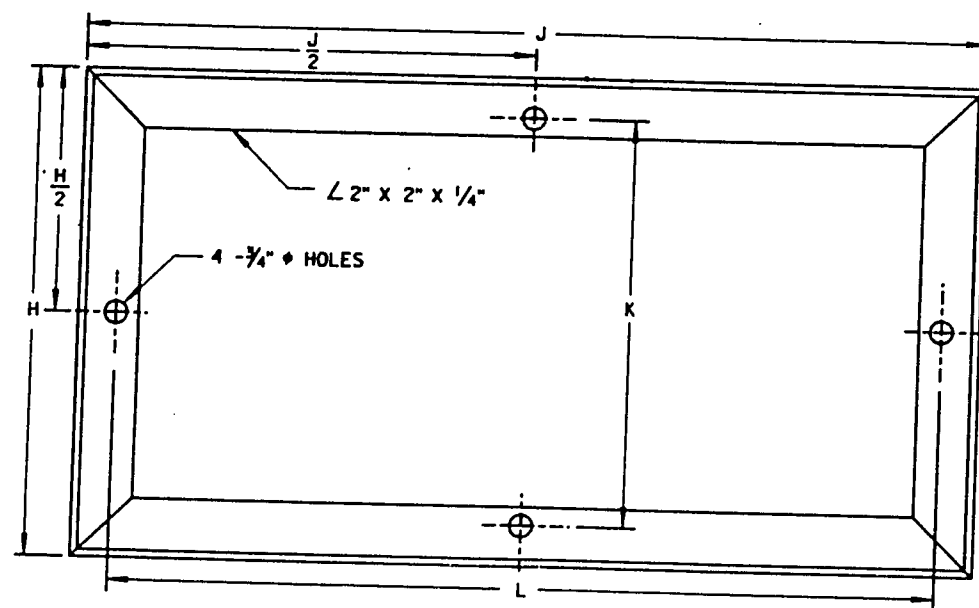
DATE

FHWA

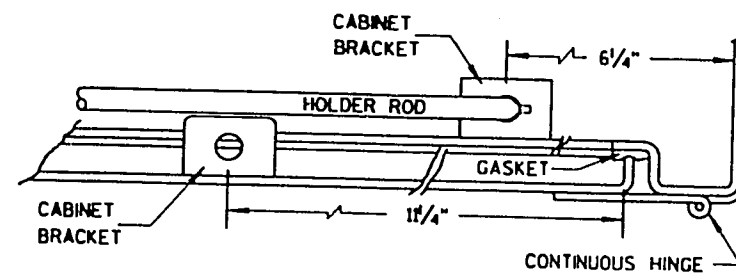
STATE ELECTRICAL ENGINEER FOR HWYS
STATE TRAFFIC ENGINEER FOR HWYS



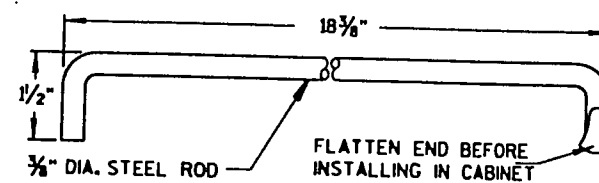
REMOVABLE COVER



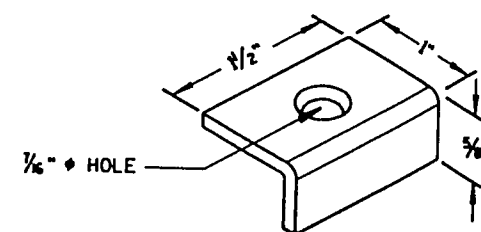
MOUNTING BASE



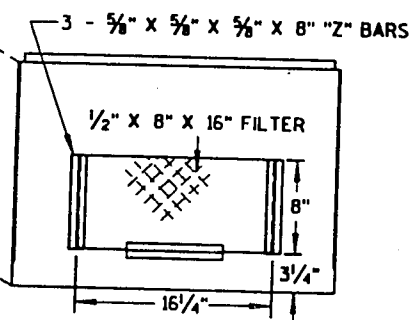
HINGE & DOOR HOLDER



HOLDER ROD



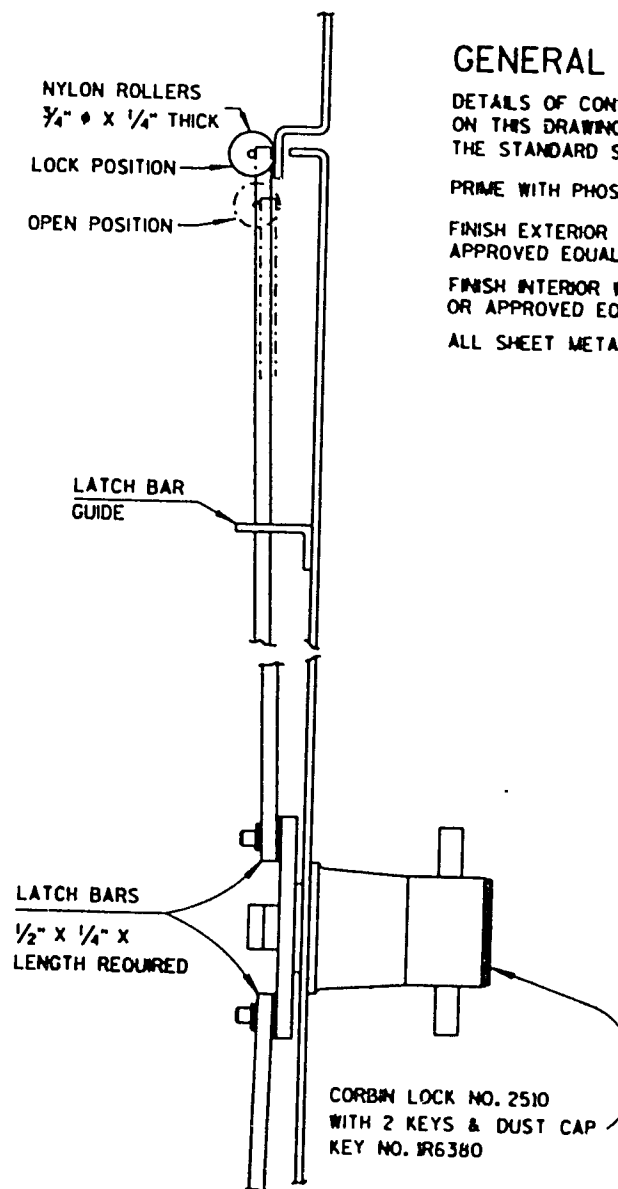
CABINET BRACKET



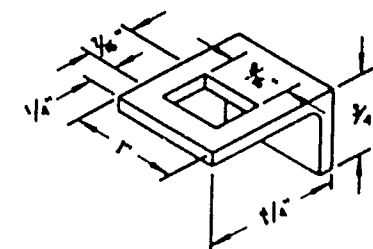
INSIDE VIEW
SHOWING FILTER

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2



LATCH ASSEMBLY



LATCH BAR GUIDE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE 12 GA. HRP&O.

SIGNAL OR LIGHTING
CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/21/93

DATE

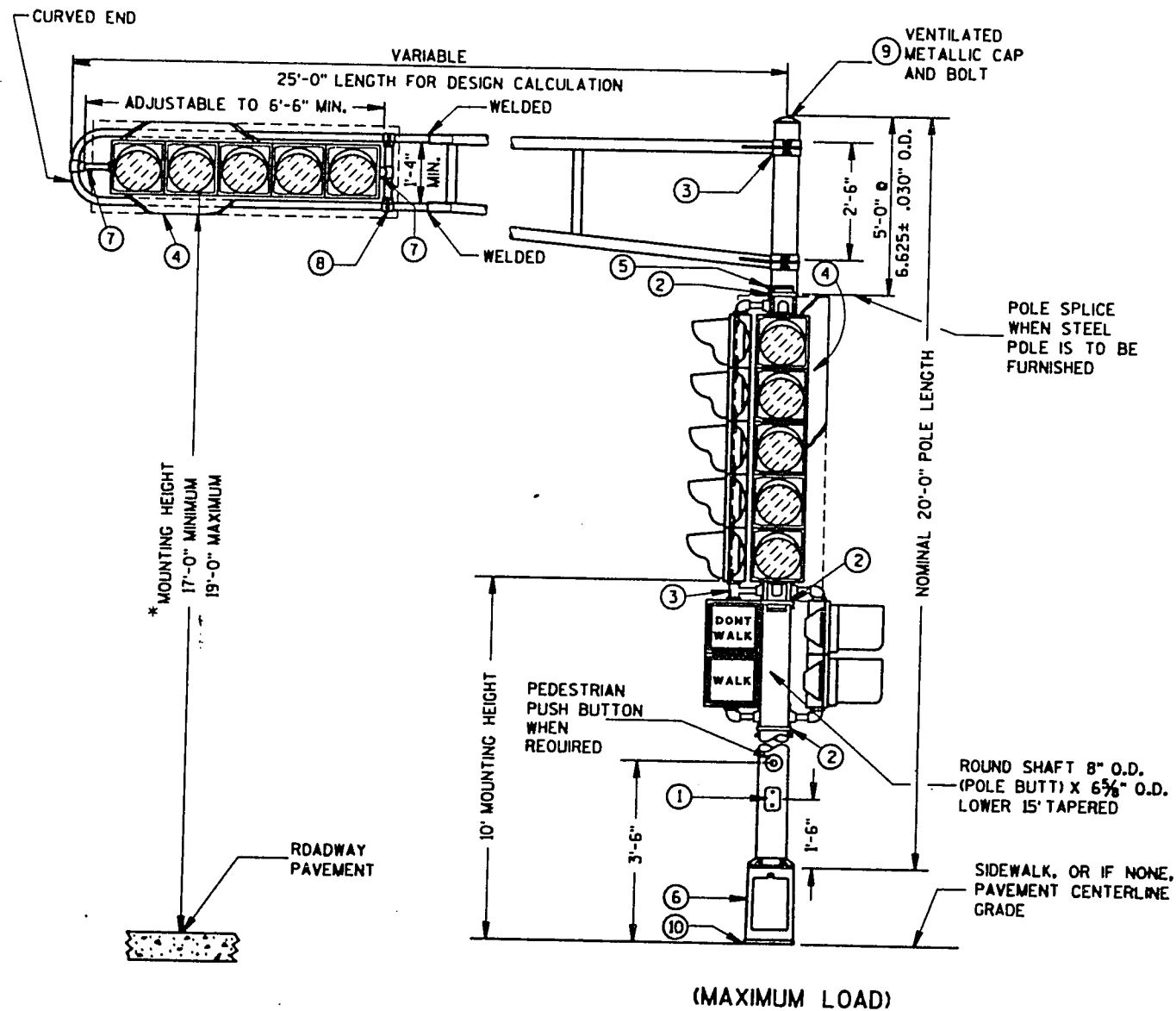
4/22/93

DATE

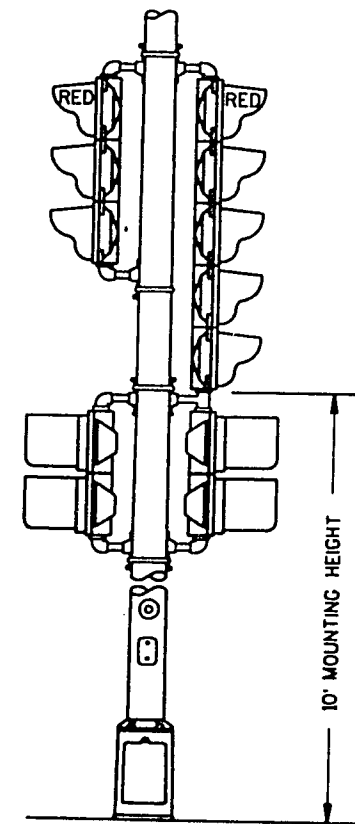
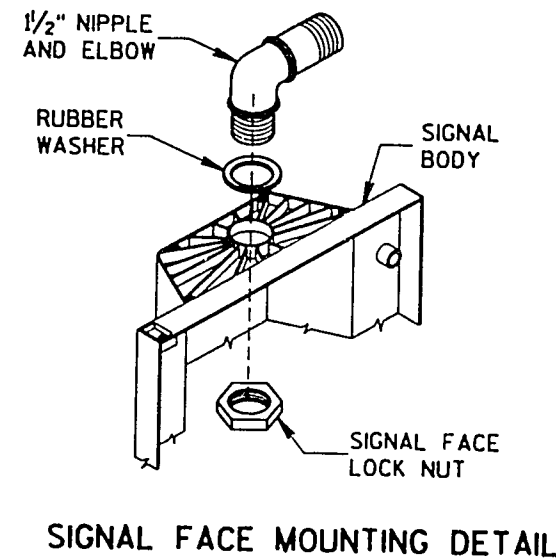
STATE ELECTRICAL ENGR. FOR HWTS

STATE TRAFFIC ENGINEER FOR HWTS

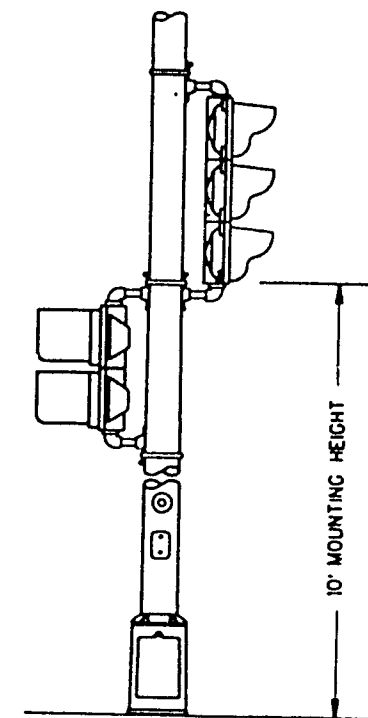
FMSA



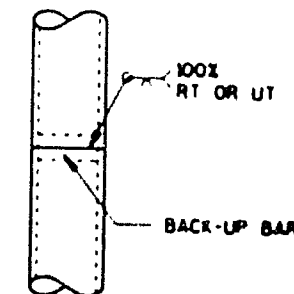
TYPICAL MOUNTING OF BACK TO BACK
3 AND 5 SECTION SIGNAL FACES
TYPE 2 POLE MOUNTING CONFIGURATION



TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE



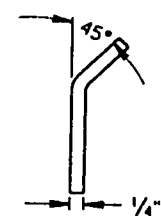
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 15-88. RECORDS OF CERTIFICATION OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO SHIPMENT OF THE POLES. VERIFICATION AND APPROVAL OF THE TESTING CERTIFICATION FROM THE MANUFACTURER SHALL BE COMPLETED BY THE CENTRAL OFFICE BRIDGE SECTION.



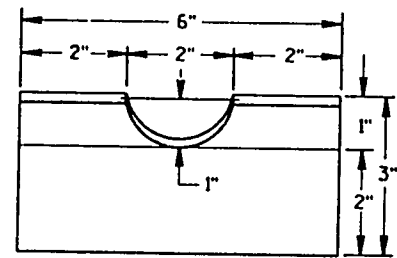
NOTE:
SHEET SDD 9 E 1-10 IS REQUIRED WHEN THIS DRAWING IS CALLED FOR IN THE PLANS.

DESIGN NOTE: (WILL NOT APPEAR ON CONTRACT PLANS)
THIS DETAIL IS APPLICABLE WHEN SIGNALS ARE MOUNTED ON A TROMBONE ARM. DO NOT USE FOR LIGHTING.

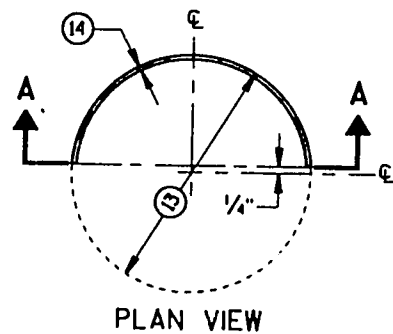
POLE MOUNTINGS FOR
TRAFFIC SIGNALS
TYPE 2
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



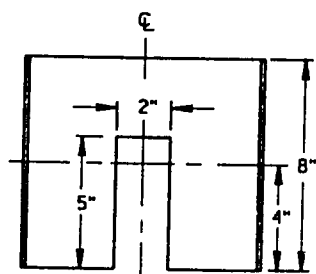
END VIEW



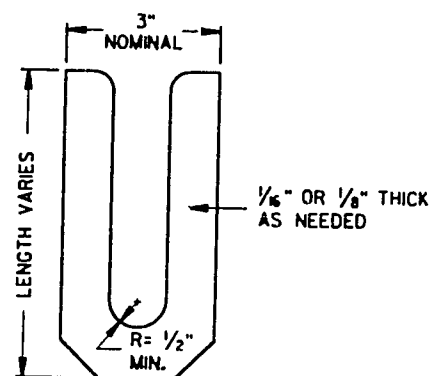
FRONT VIEW
RECTANGULAR CLAMP SHIM
(4 TO A SET)



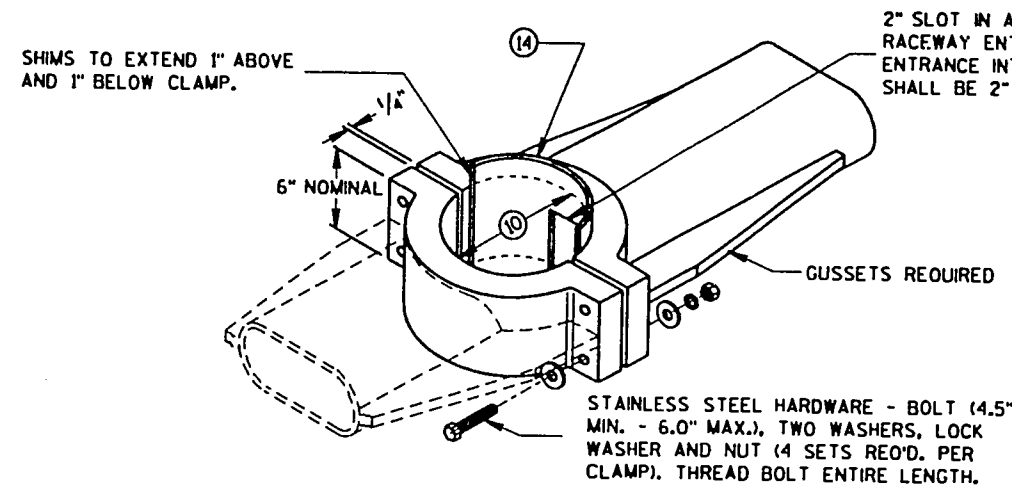
PLAN VIEW



SECTION A-A
CIRCULAR CLAMP SHIM
(2 TO A SET)



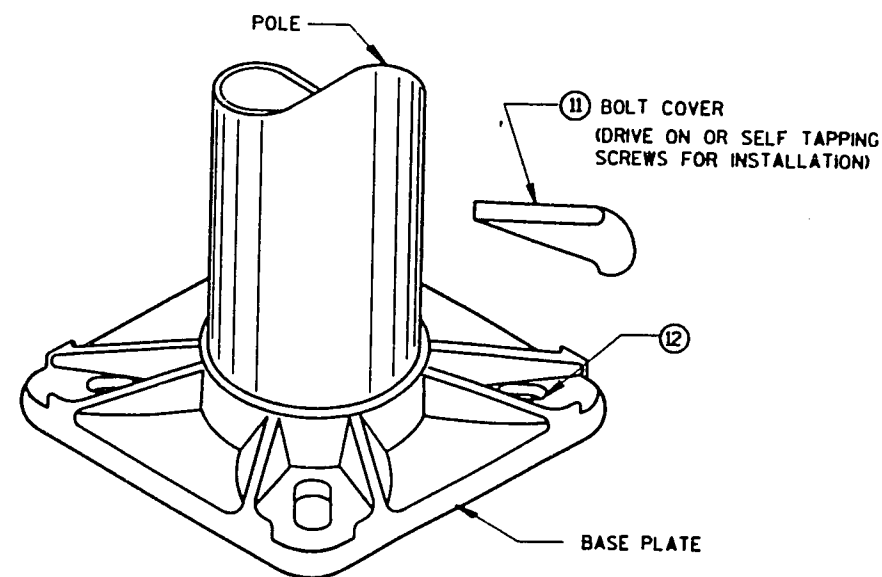
LEVELING SHIM (15)



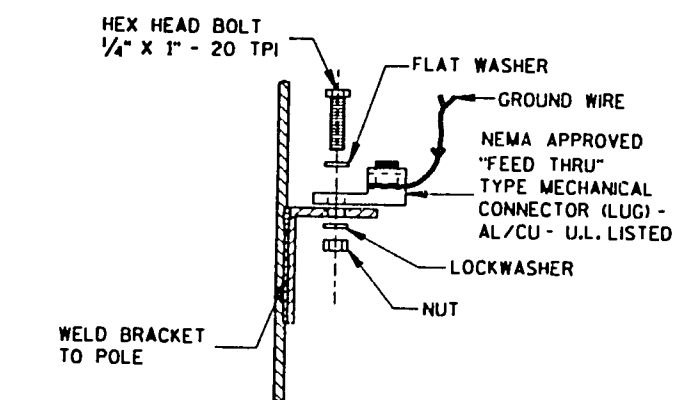
TYPICAL TROMBONE MAST ARM AND
LUMINAIRE MAST ARM MOUNTING CLAMP

GENERAL NOTES

- (10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- (11) INDIVIDUAL BASE PLATE ANCHOR BOLT COVERS, (4 REQUIRED)
- (12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR BOLTS.
- (13) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)
- (14) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")
SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.35", 0.53" OR 0.70".
SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.
SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.
- (15) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.
SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

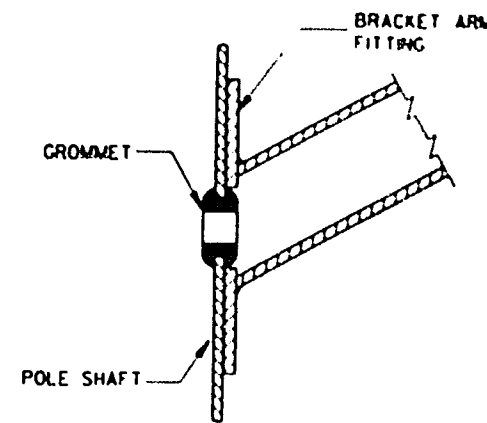


BASE PLATE

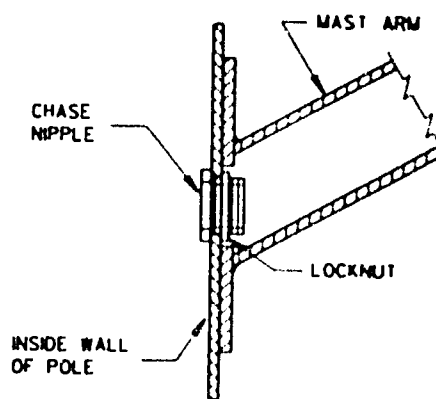


TYPICAL GROUNDING CONNECTIONS

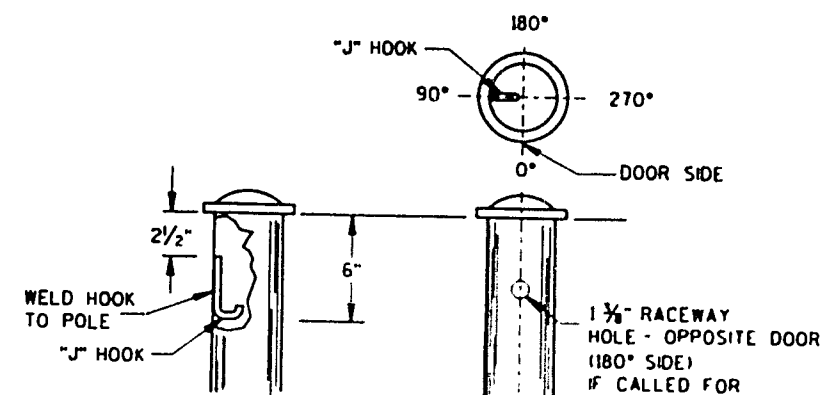
NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



TYPICAL APPLICATION OF
GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF
CHASE NIPPLE IN POLE SHAFT



TYPICAL "J" HOOK LOCATION

NOTE:
THIS DRAWING IS REQUIRED WHEN DRAWINGS
SDD 9 E 1-10, OR 11 IS CALLED FOR IN
THE PLANS.

HARDWARE DETAILS FOR
POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/21/93 DATE
4/21/93 DATE
STATE ELECTRICAL ENGINEER FOR HWY'S
STATE TRAFFIC ENGINEER FOR HWY'S

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD-OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

THE GROUND RESISTANCE READING OF THE LOOP SHALL READ "INFINITY" TO GROUND ON AN OHMMETER USING A MULTIPLIER SCALE OF 1 MEGOHM AND AN INPUT RESISTANCE OF 11 MEGOHMS MINIMUM BEFORE SPLICING THE LOOP TO THE LEAD-IN CABLE.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TURNS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

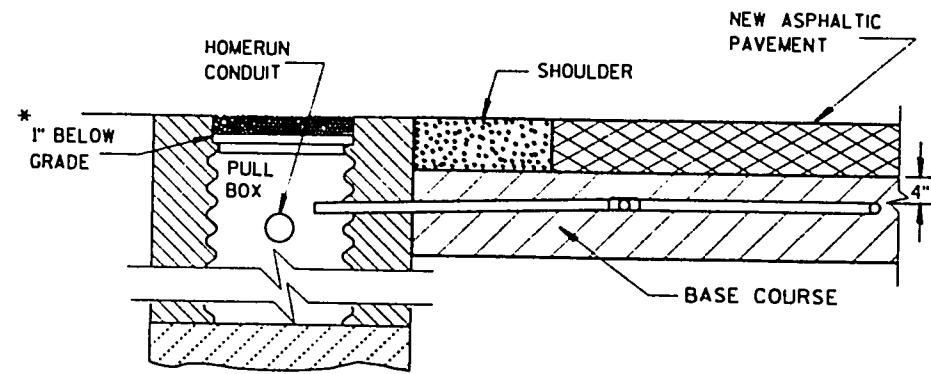
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT AND CONDULET SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE ASPHALTIC PAVEMENT IS PLACED.

WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

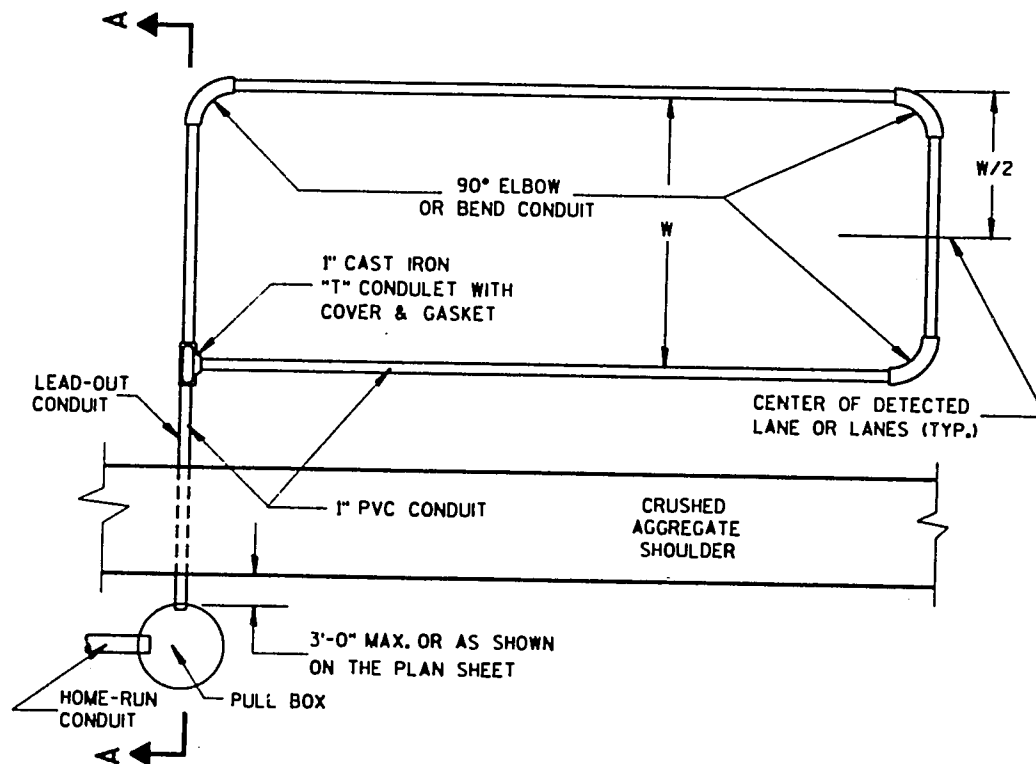
SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT SHALL BE SEALED AS STATED IN THE SPECIAL PROVISIONS.

DRIVE A 1 1/2" MAX. PK NAIL INTO THE NEW ASPHALTIC PAVEMENT AND DIRECTLY ABOVE THE CONDULET AFTER THE FINAL LAYER OF NEW ASPHALTIC PAVEMENT IS COMPLETELY INSTALLED, IF REQUIRED BY THE DISTRICT TRAFFIC SECTION.

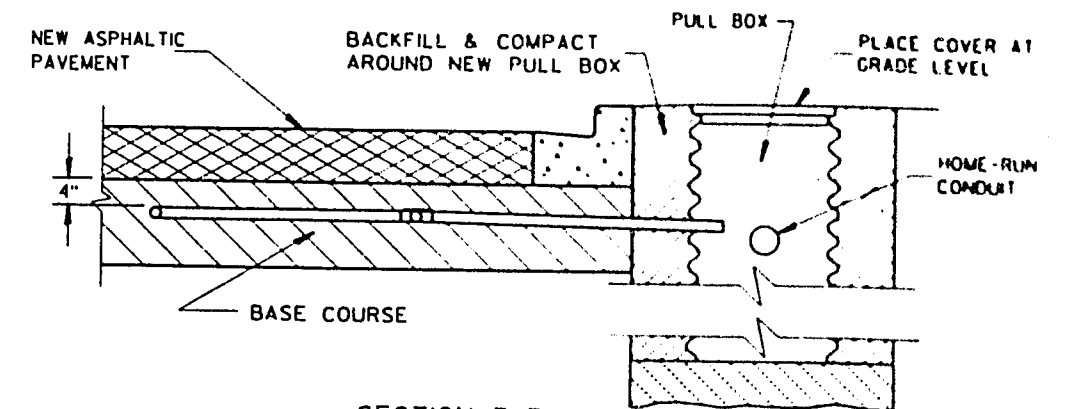


SECTION A-A
NO CURB & GUTTER
DETECTOR LOOP INSTALLATION DETAIL

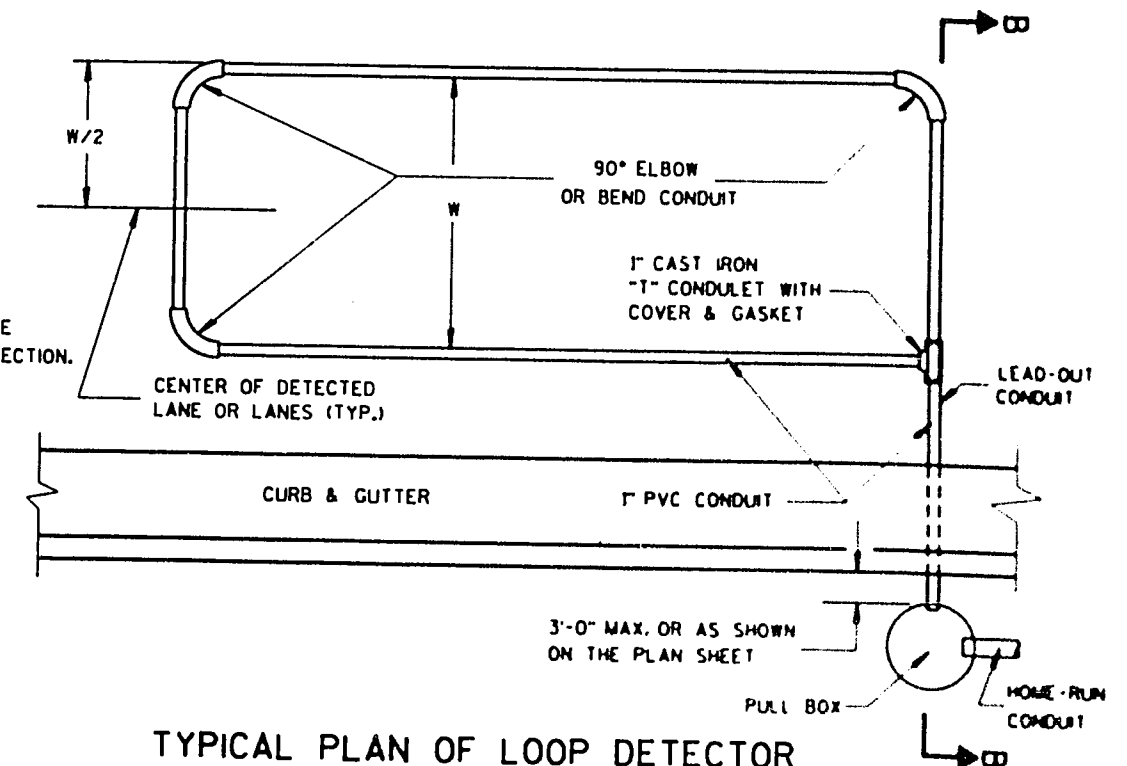
*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR



SECTION B-B
CURB & GUTTER
LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED
IN CRUSHED AGGREGATE BASE
(NEW ASPHALTIC PAVEMENT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

DATE

DATE

DATE

STATE ELECTRICAL ENGINEER FOR WISCONSIN
STATE TRAFFIC ENGINEER FOR WISCONSIN

TWO-LANE ROADWAY

SYMBOLS



WORK AREA



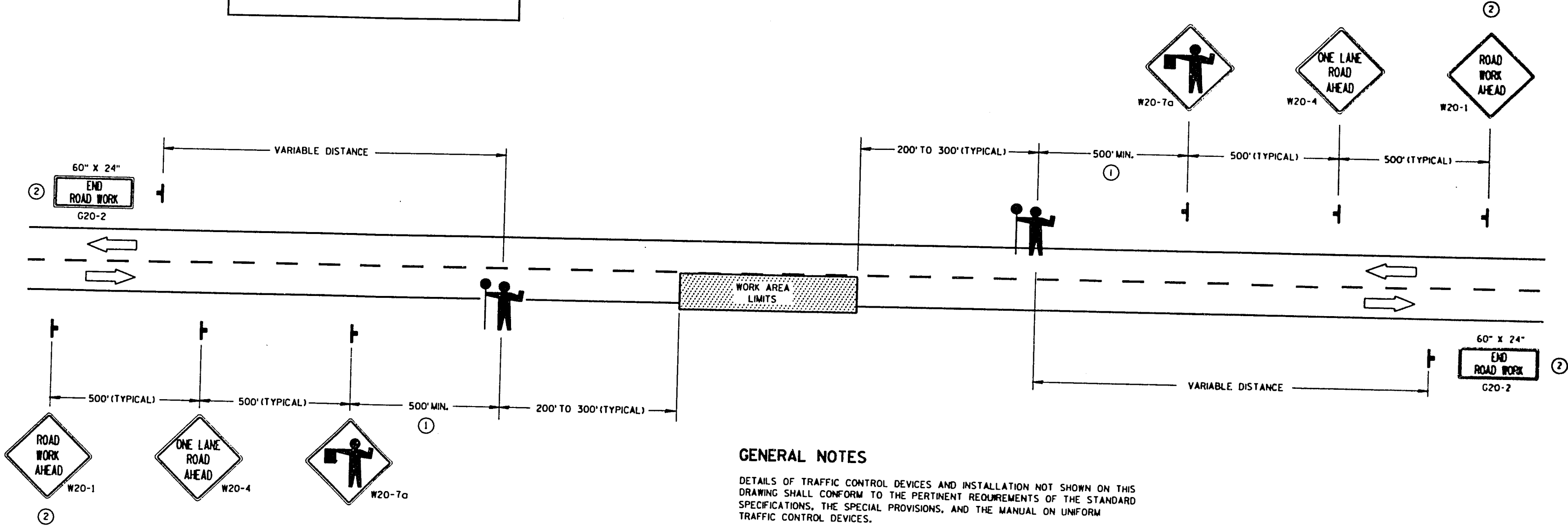
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



SIGN ON PORTABLE OR PERMANENT SUPPORT



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS DIRECTED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

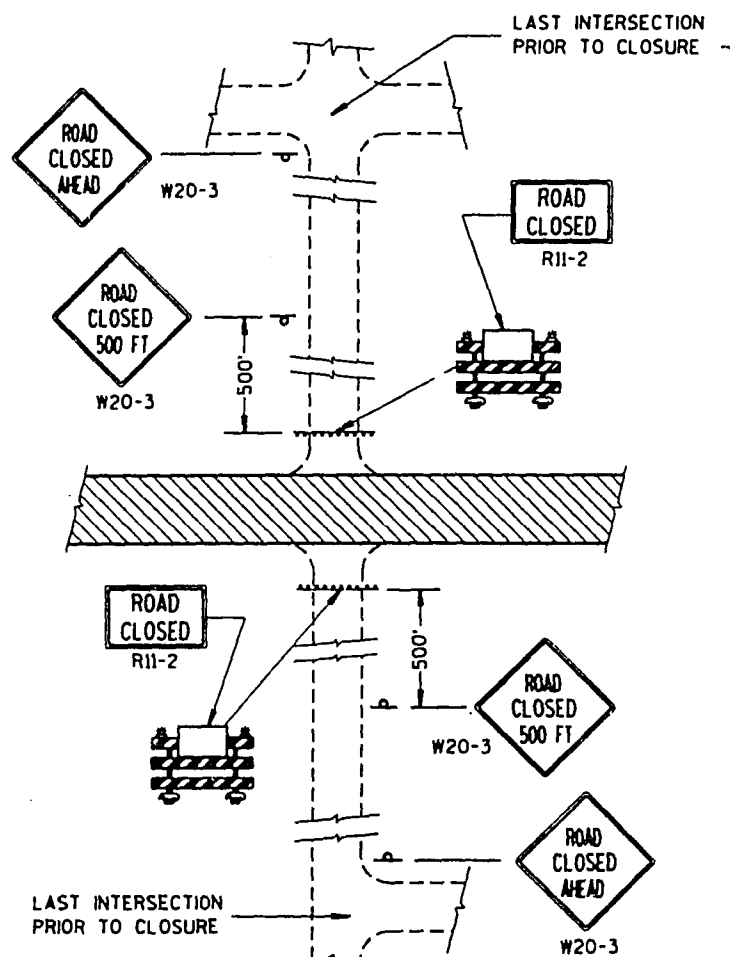
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

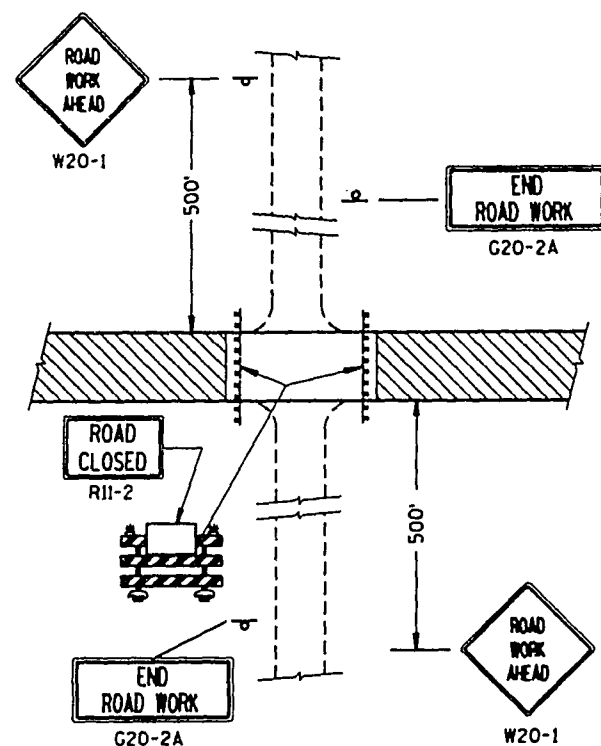
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

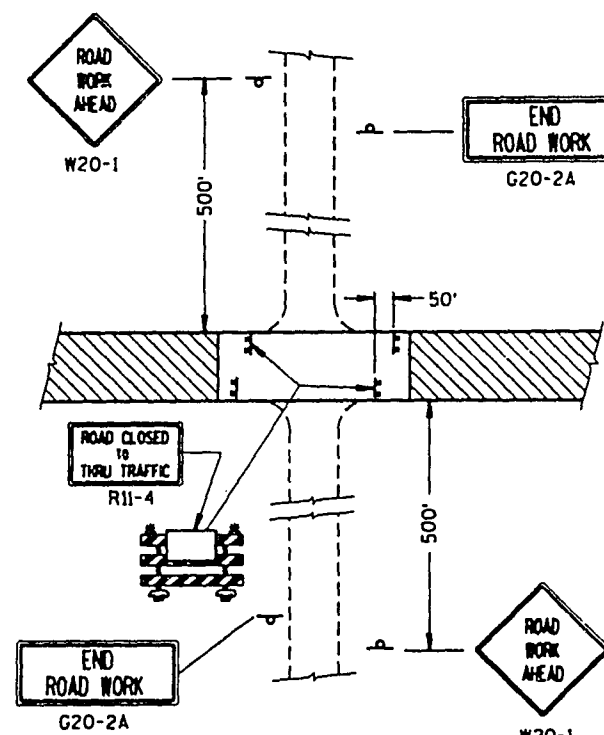
APPROVED
2/17/94
DATE
STATE TRAFFIC ENGINEER FOR HWYS



DETAIL 1
(NO ACCESS TO PROJECT)

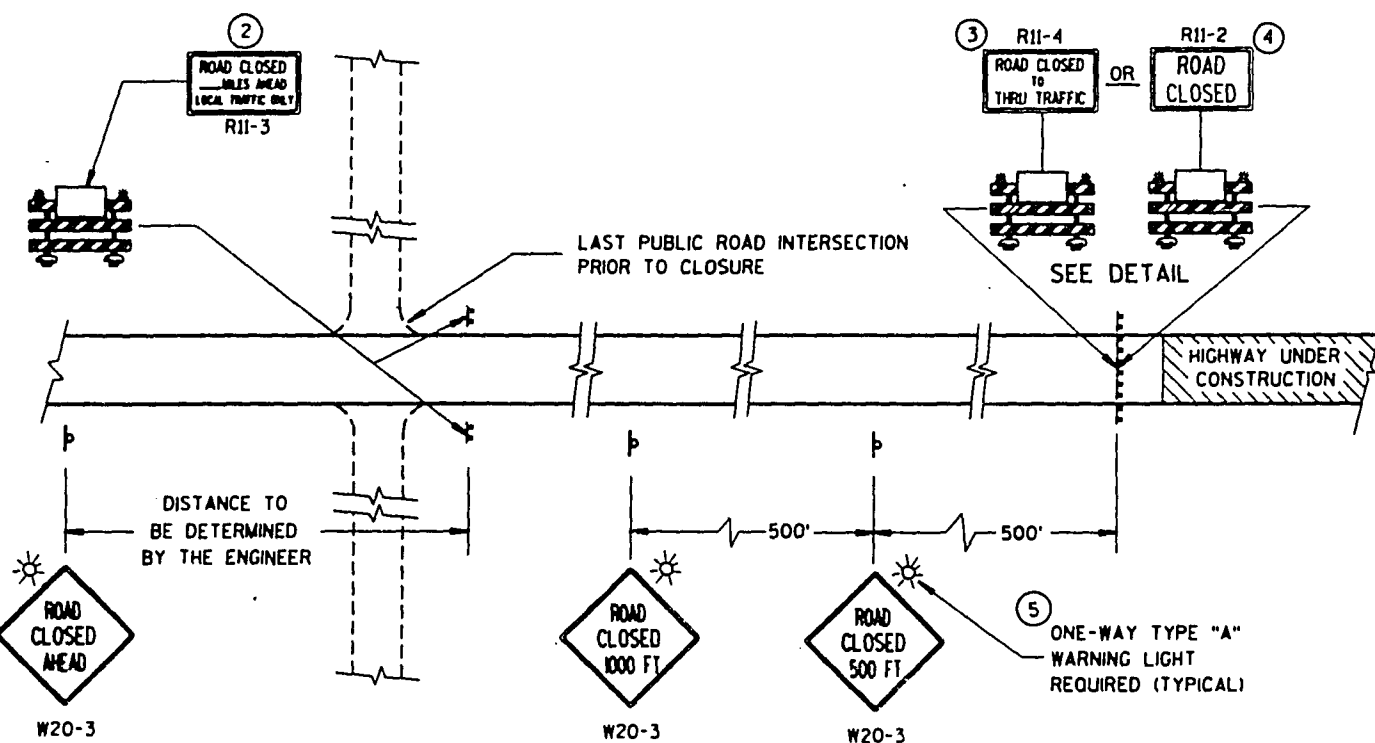


DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).

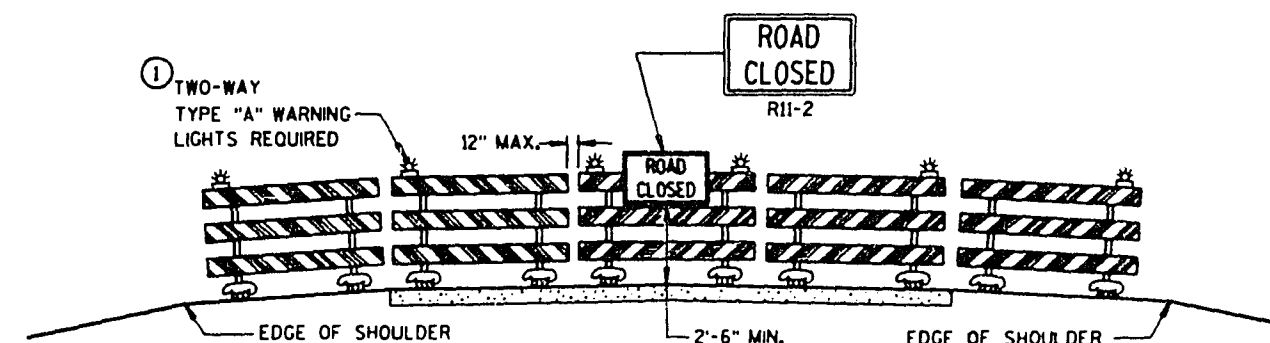


DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).

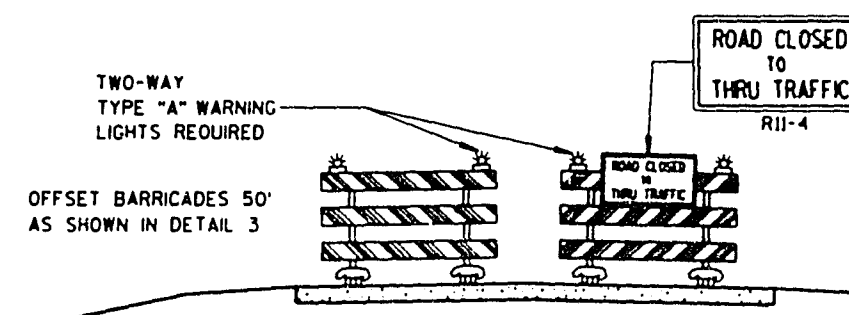
SIDEROAD CLOSURES



MAINLINE CLOSURE



ROAD CLOSURE BARRICADE DETAIL



LANE CLOSURE BARRICADE DETAIL

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND THEIR LOCATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISCONSIN MANUAL OF TRAFFIC CONTROL DEVICES, THE PLANS, SPECIFICATIONS AND CONTRACT.

SIGN AND BARRICADE LOCATIONS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER. ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER. ALL "STOP" OR OTHER REGULATORY SIGNS ON THE SIDE ROADS SHALL NOT BE DISTURBED, EXCEPT WHEN NECESSARY TO COMPLETE THE WORK. THE SIGNS MUST THEN BE IMMEDIATELY REESTABLISHED.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL FOR FULL ROAD CLOSURES. TYPE "A" LOW INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE ROAD CLOSED SIGN (R11-2), ROAD CLOSED — MILES AHEAD SIGN (R11-3) AND THE ROAD CLOSED TO THRU TRAFFIC SIGN (R11-4) SHALL BE ATTACHED ONLY TO THE TOP RAIL OF THE TYPE III BARRICADE. THE SIGNS SHALL NOT COVER MIDDLE RAIL.

TYPE "H" REFLECTIVE SHEETING SHALL BE USED ON ALL BARRICADES, TYPE I, II AND III, AND ON ALL R11-2, R11-3 AND R11-4 SIGNS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11-2, "ROAD CLOSED" SIGNS SHALL BE 48" X 30".
R11-3, AND R11-4 SIGNS SHALL BE 60" X 30".
G20-2A SIGNS SHALL BE 48" X 24".

- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND AT LEAST ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN.
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- 3 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT. SEE LANE CLOSURE BARRICADE DETAIL.
- 4 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT. SEE ROAD CLOSURE BARRICADE DETAIL.
- 5 ONE-WAY LIGHTS SHALL BE PROVIDED ON ALL ADVANCE WARNING SIGNS. THE LIGHT SHALL BE POSITIONED SUCH THAT THE LIGHT SOURCE IS OUTSIDE THE SIGN FACE AND AT THE TOP OF THE SIGN.

LEGEND

- P POST MOUNTED WARNING SIGN
- W TYPE III BARRICADES WITH TYPE "H" REFLECTIVE SHEETING
- A TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- W WORK AREA

BARRICADES AND SIGNS FOR ROAD CLOSURES

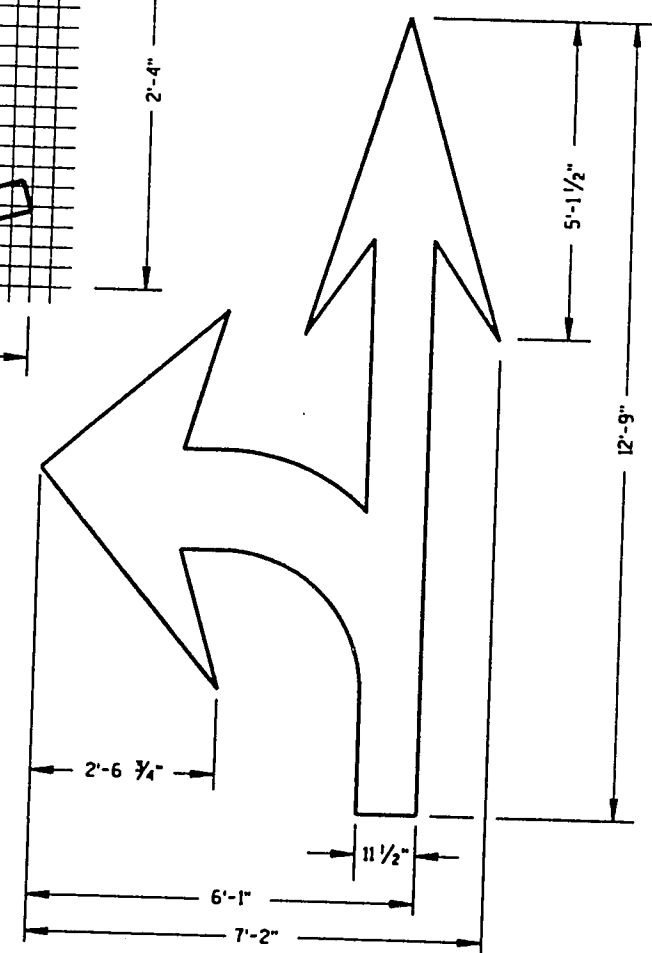
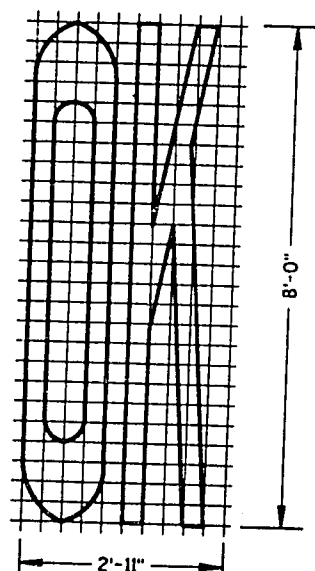
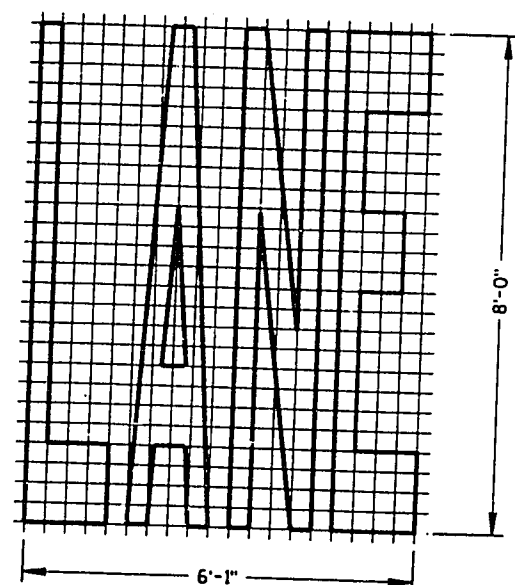
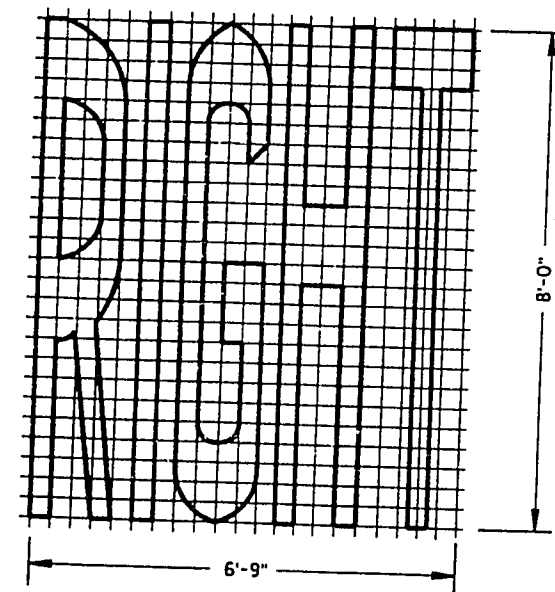
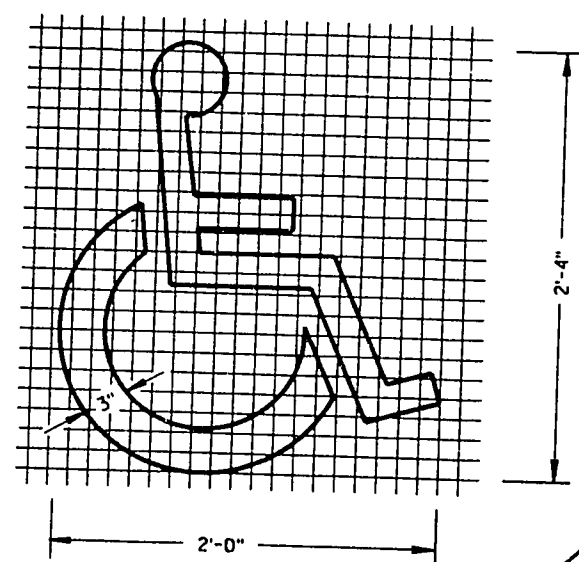
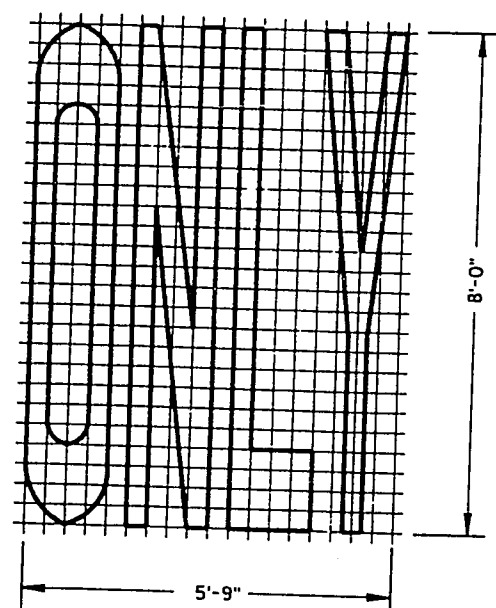
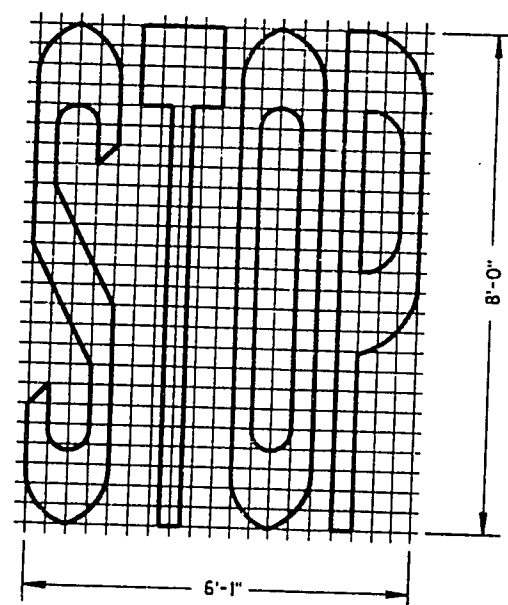
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

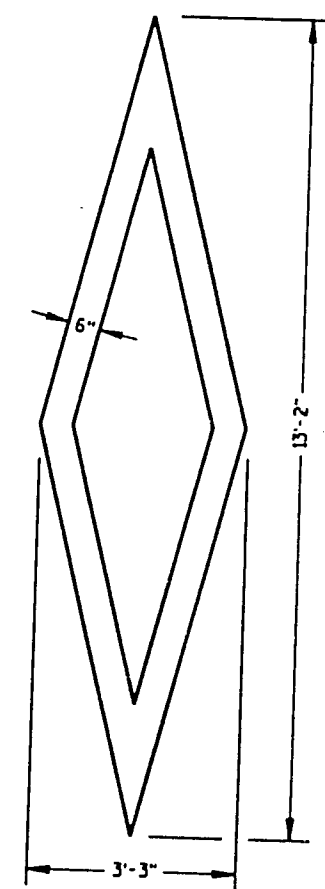
R-10-93
DATE

Charles J. Smith
DIRECTOR, OFFICE OF TRAFFIC

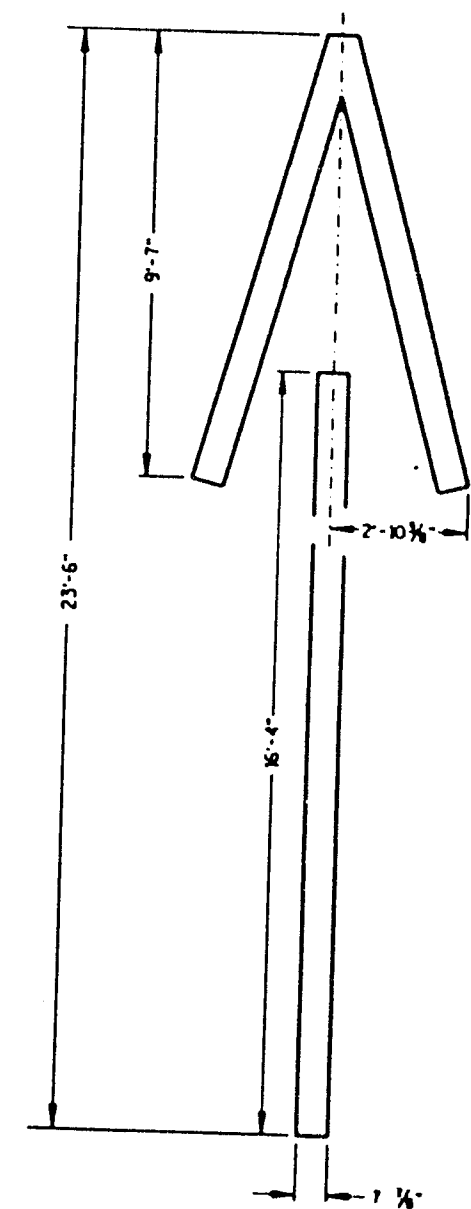
FWBA



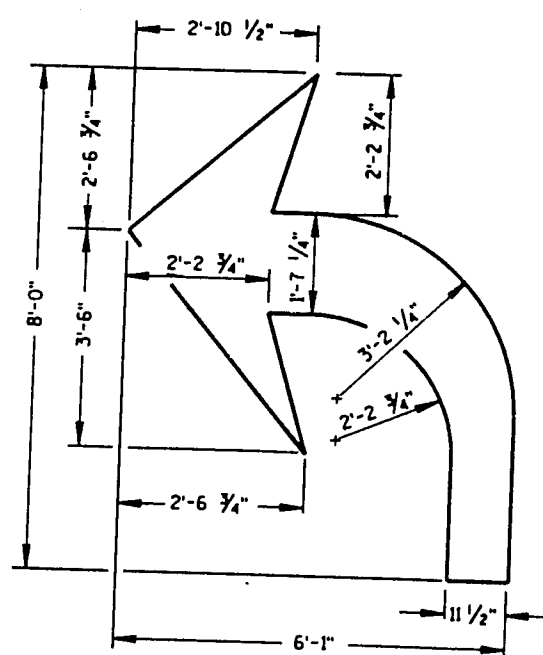
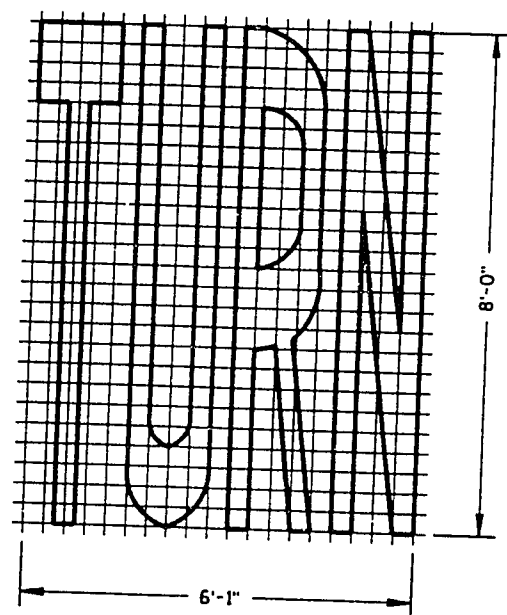
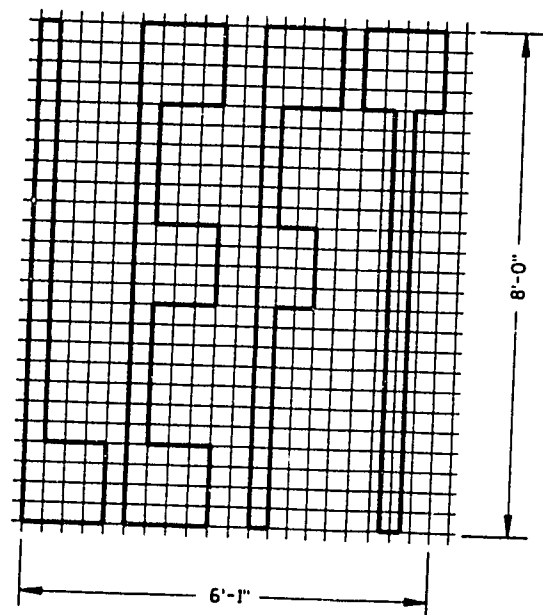
TYPE 3



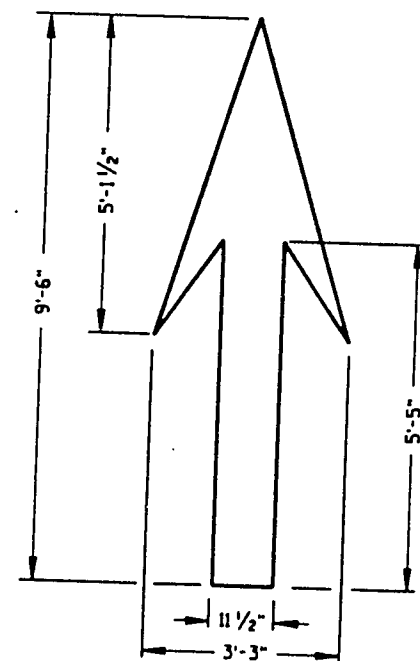
PREFERENTIAL
LANE SYMBOL



TYPE 4



TYPE 2



TYPE 1

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ALL LETTERS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

PAVEMENT MARKING SYMBOLS

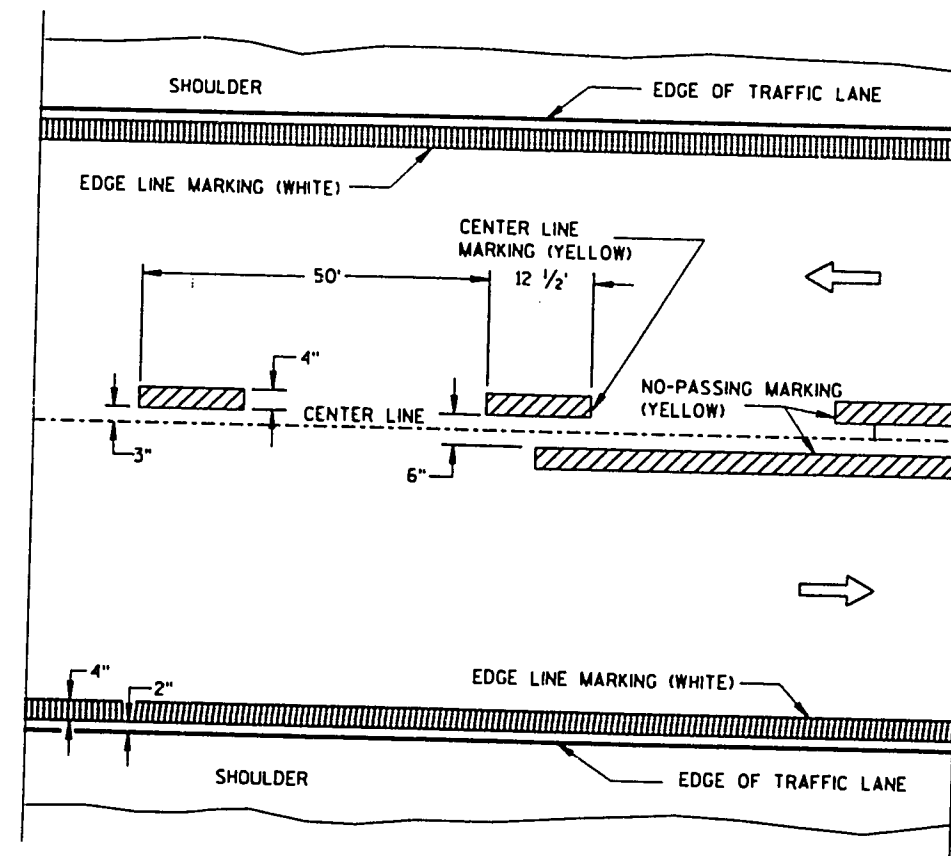
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

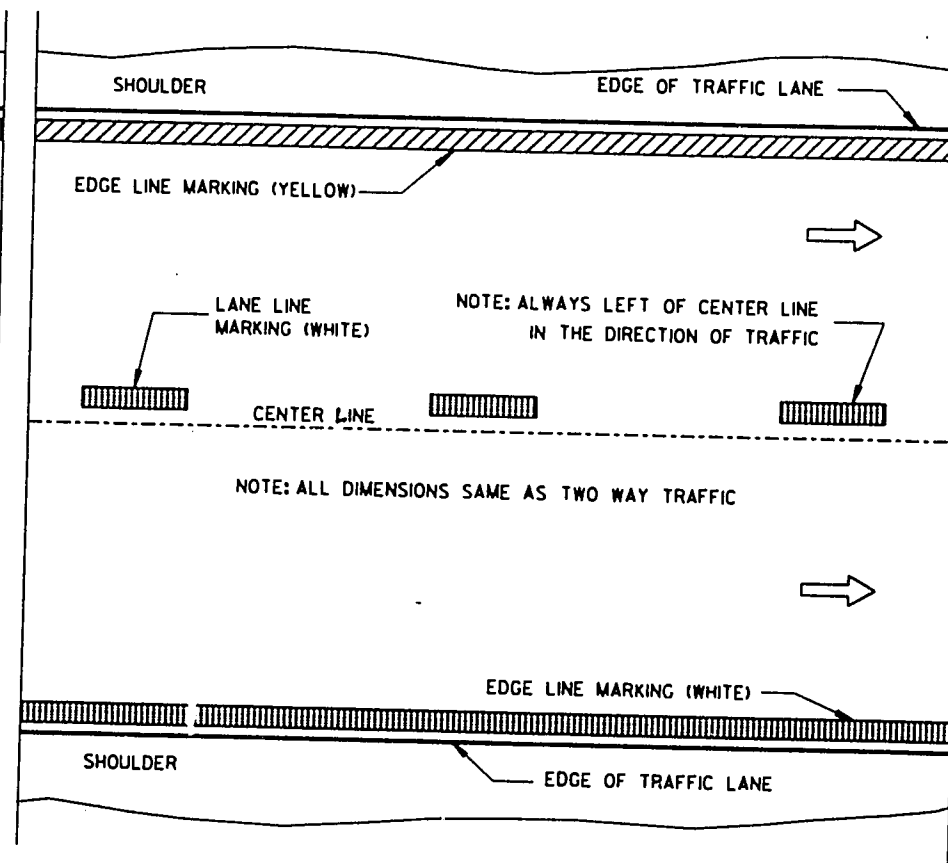
7-28-93
DATE

Charles J. Spang
DIRECTOR, OFFICE OF TRAFFIC

FHWA

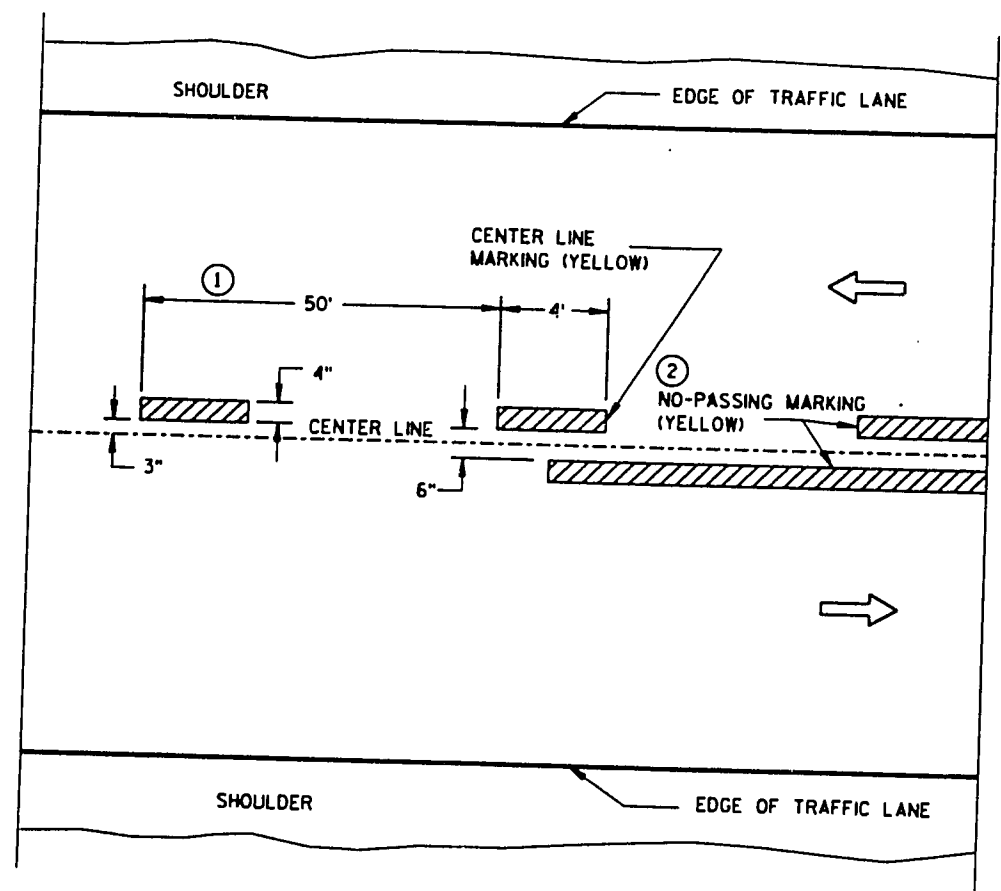


TWO WAY TRAFFIC

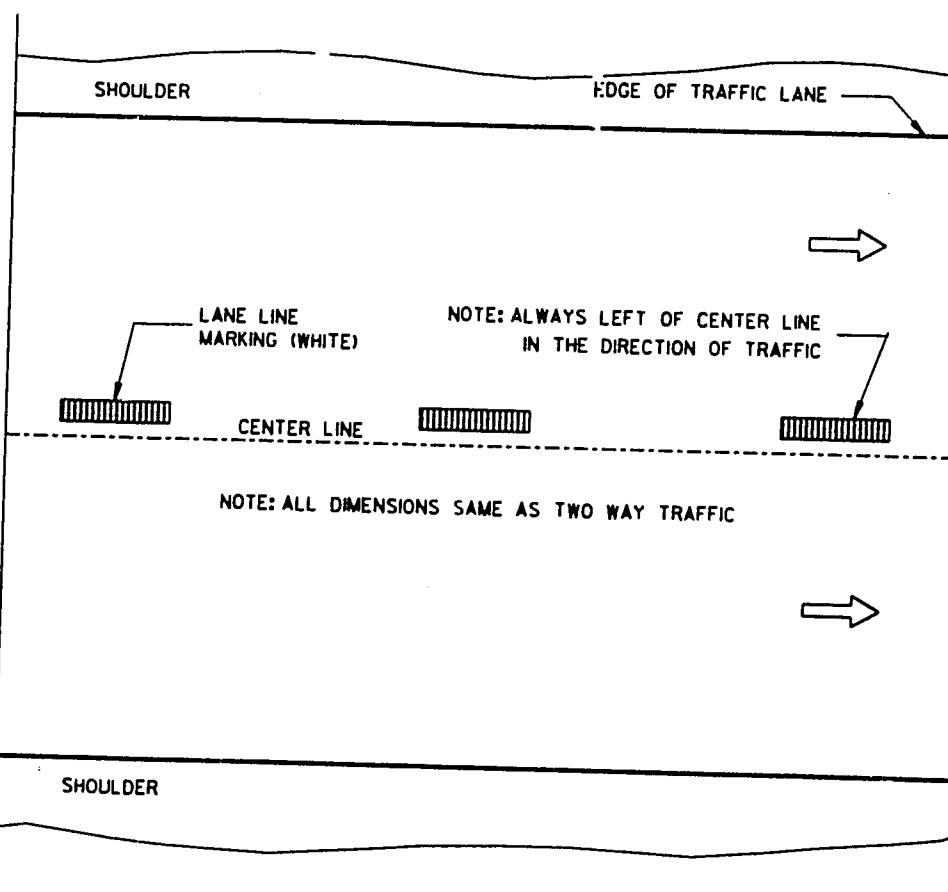


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING (SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

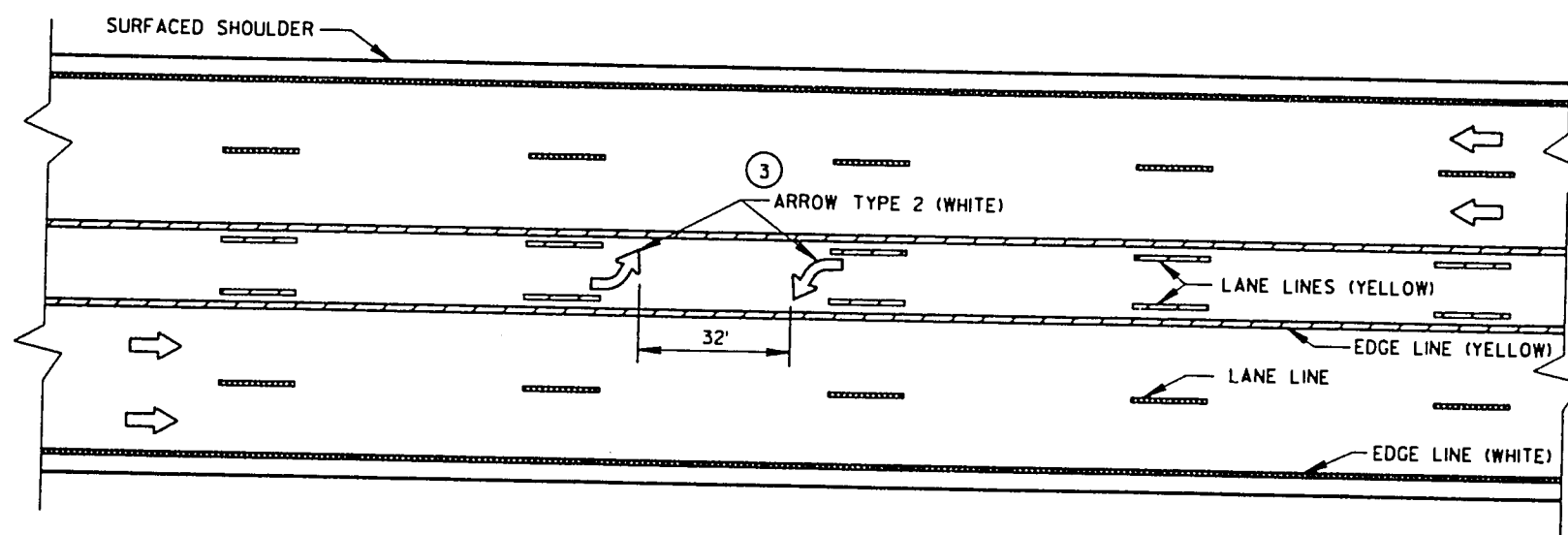
APPROVED

8-7-95
DATE

Charles J. Sauer
DIRECTOR, OFFICE OF TRAFFIC

FWB

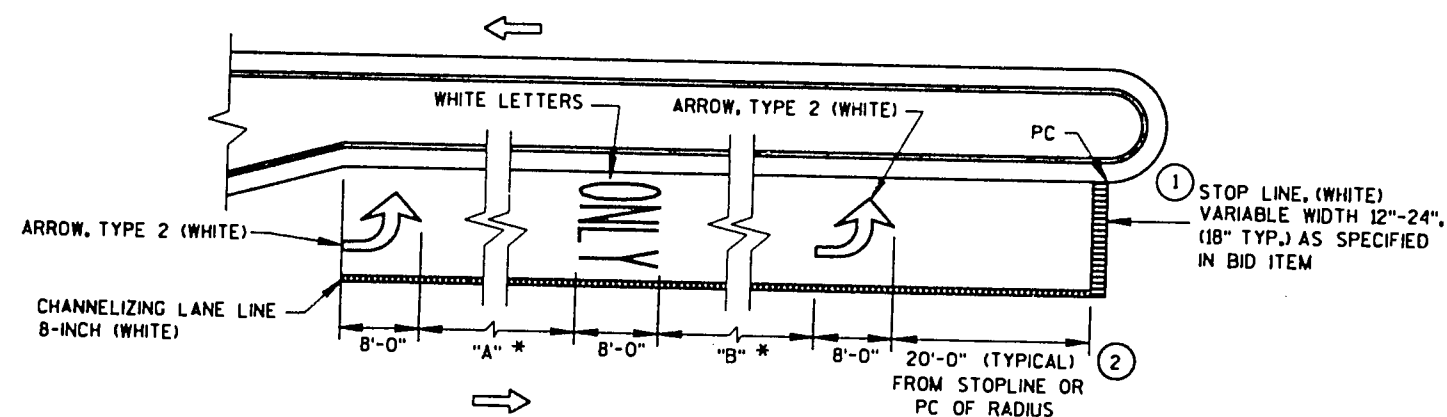
NOTE:
ARROW SYMBOL (→)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

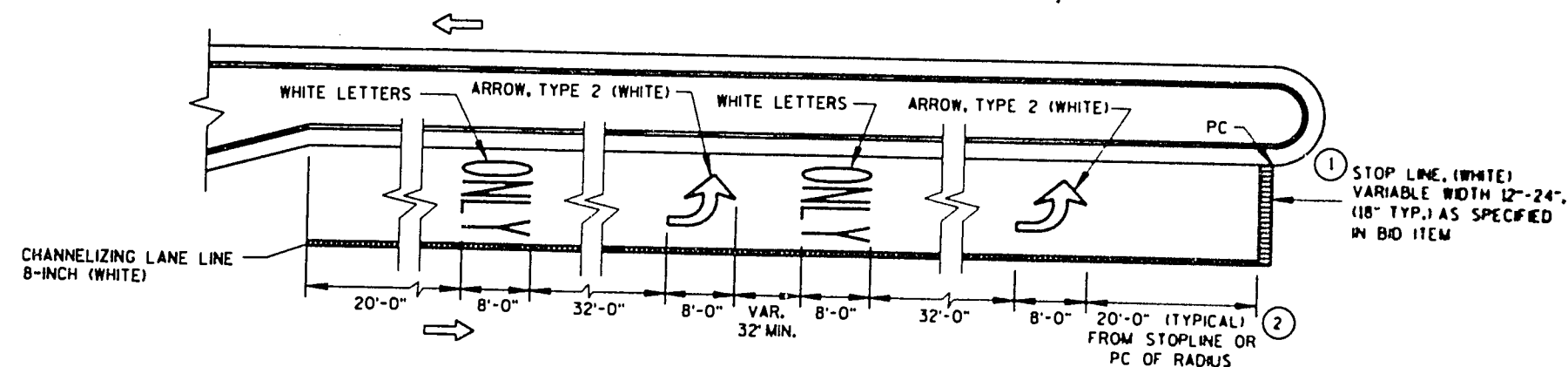
NOTES:

- ① STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DISTANCE MAY BE ADJUSTED TO ACCOMMODATE SHORT LEFT TURN LANES, AS APPROVED BY THE ENGINEER.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400' OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

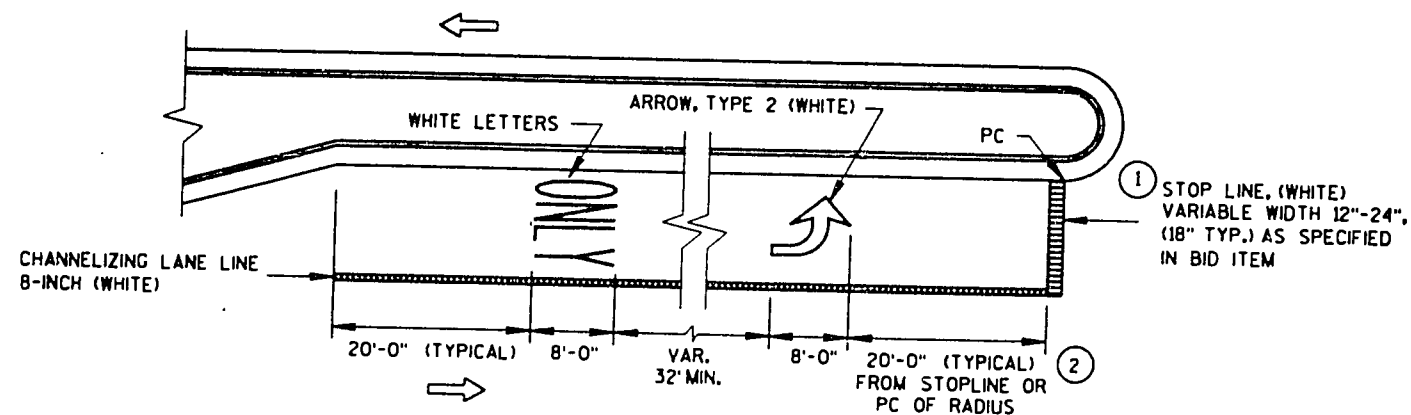


* VARIABLE, 32' MIN.
"A" = "B" (TYPICAL)

LEFT TURN LANE
(LENGTH 108' TO 167')



LEFT TURN LANE
(LENGTH OVER 167')



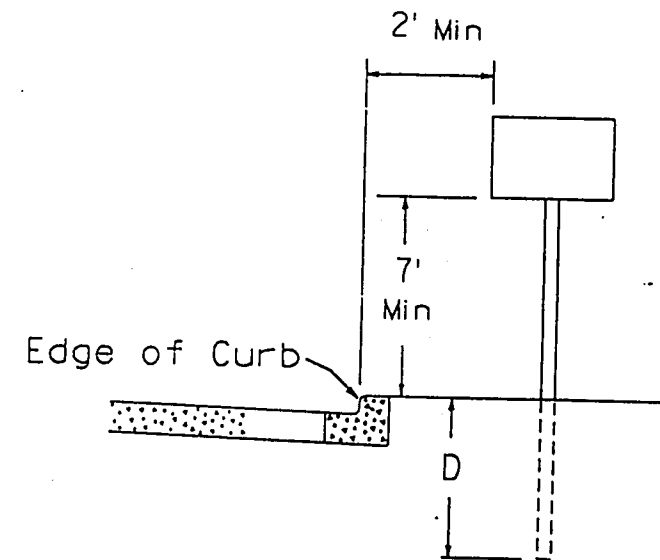
LEFT TURN LANE
(LENGTH UNDER 108')

NOTE:
SDD 15 C 8-7a AND SDD 15 C 7 IS REQUIRED
WHEN THIS DRAWING IS CALLED FOR IN THE PLANS.

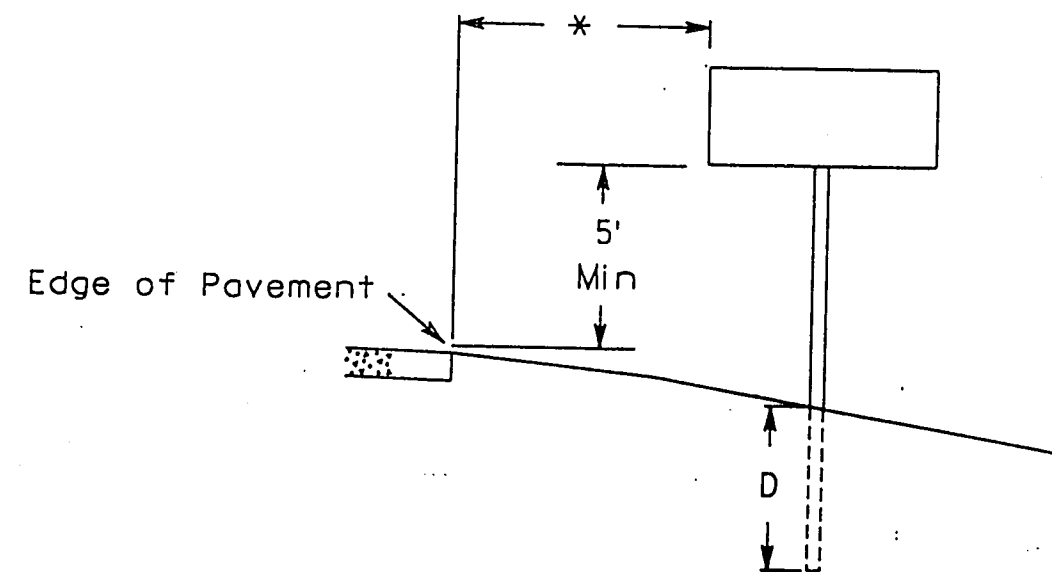
PAVEMENT MARKING
(LEFT TURN LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

URBAN AREA



RURAL AREA

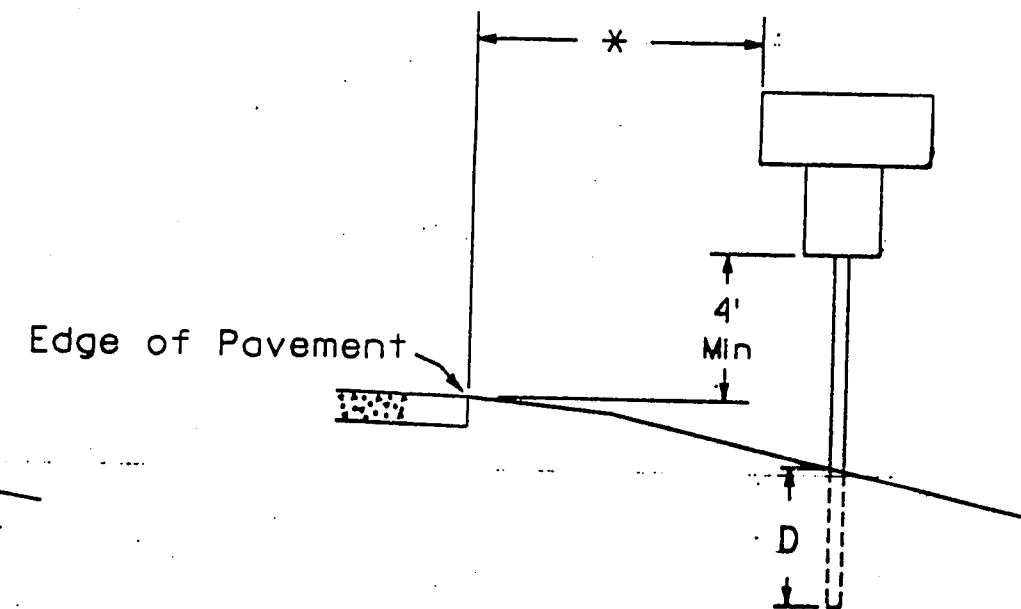
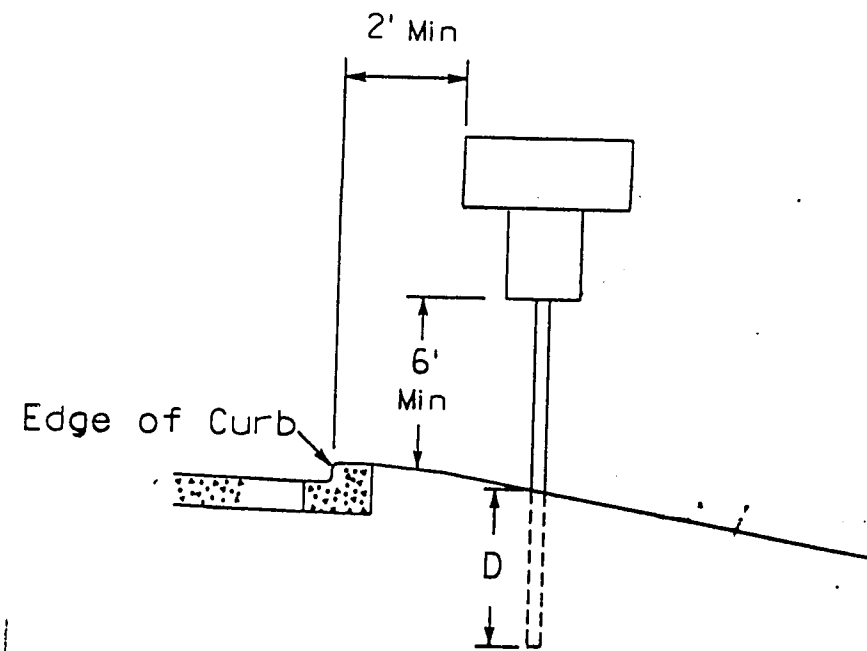


GENERAL NOTES

1. Sign assemblies wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. See plate A4-4 for typical installations.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'



- * 12 feet minimum from edge of pavement.
Where there is a paved shoulder, 6' minimum from edge of paved shoulder, but at least 12 feet from edge of pavement.

DATE DRAWN 9-12-91	DATE REDRAWN
DATE REVISED 1-14-92	
TYPICAL INSTALLATION OF TYPE II SIGNS ON SINGLE POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Robert F. Pineda</i> State Traffic Engineer
DATE 1/21/92	PLATE NO. A4-3.8

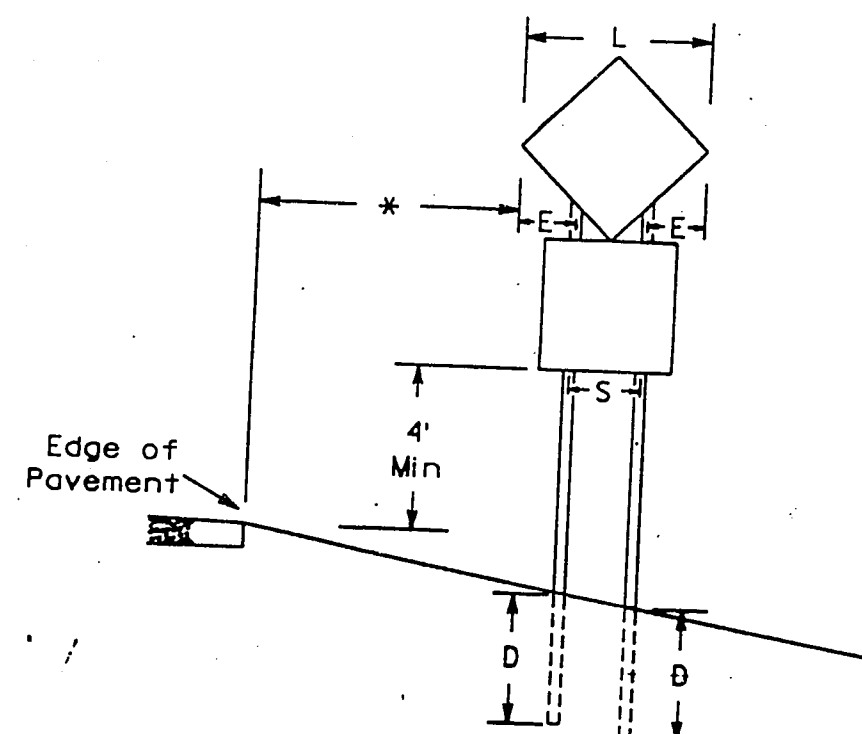
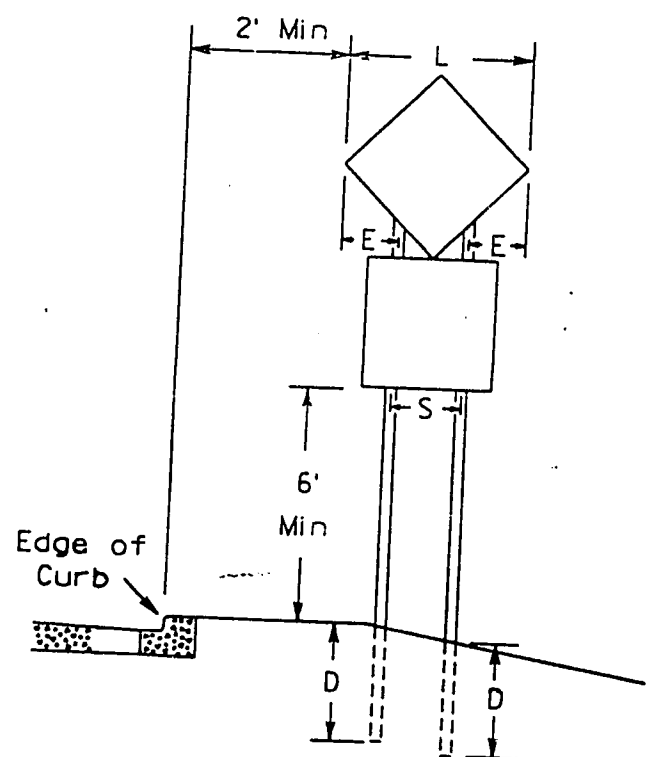
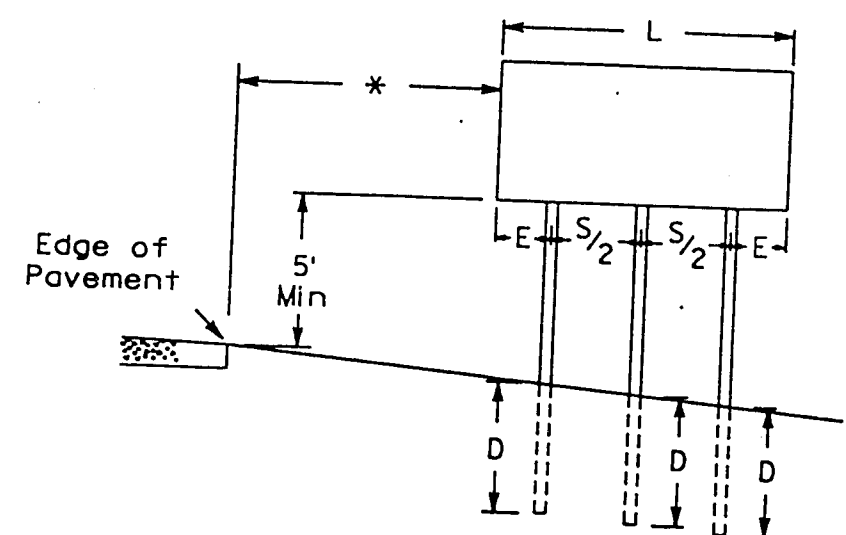
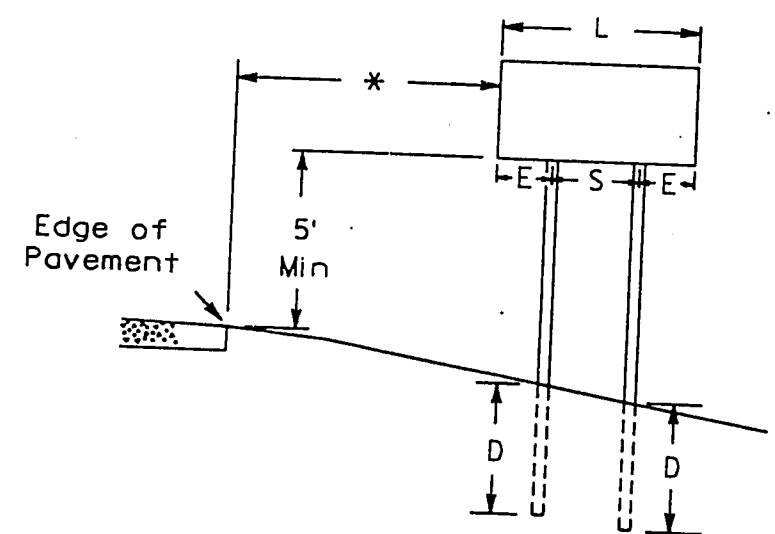
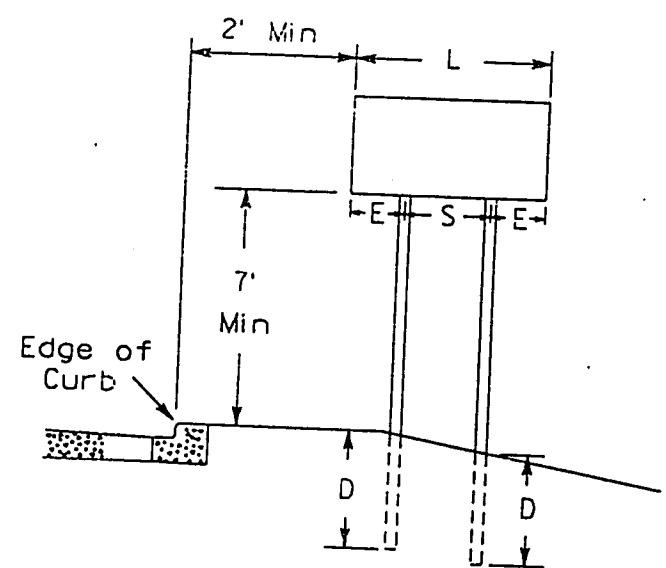
URBAN AREA

RURAL AREA

GENERAL NOTES

- For 3 post installations, post spacing is $S/2$ and S must be greater than 7'-0"
- For 4 post installations, post spacing is $S/3$ and S must be greater than 10'-6"

* 12 feet minimum from edge of pavement. Where there is a paved shoulder, 6' minimum from edge of paved shoulder, but at least 12 feet from edge of pavement.



DIAMOND SHAPED SIGNS		
L	S	E
Less than 60"	20"	$L/2 - 10$
60"--72"	32"	$L/2 - 16$
Greater than 72"	$3 L/5$	$L/5$

SIGN SHAPE OTHER THAN DIAMOND (Two Post Installations)		
L	S	E
Less than 60"	L-24"	12"
60" or more	$3 L/5$	$L/5$

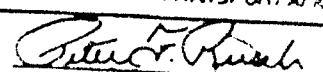
POST EMBEDMENT DEPTH	
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

DATE DRAWN 5-3-87 DATE REDRAWN 10-1-91

DATE REVISED 11-6-92

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

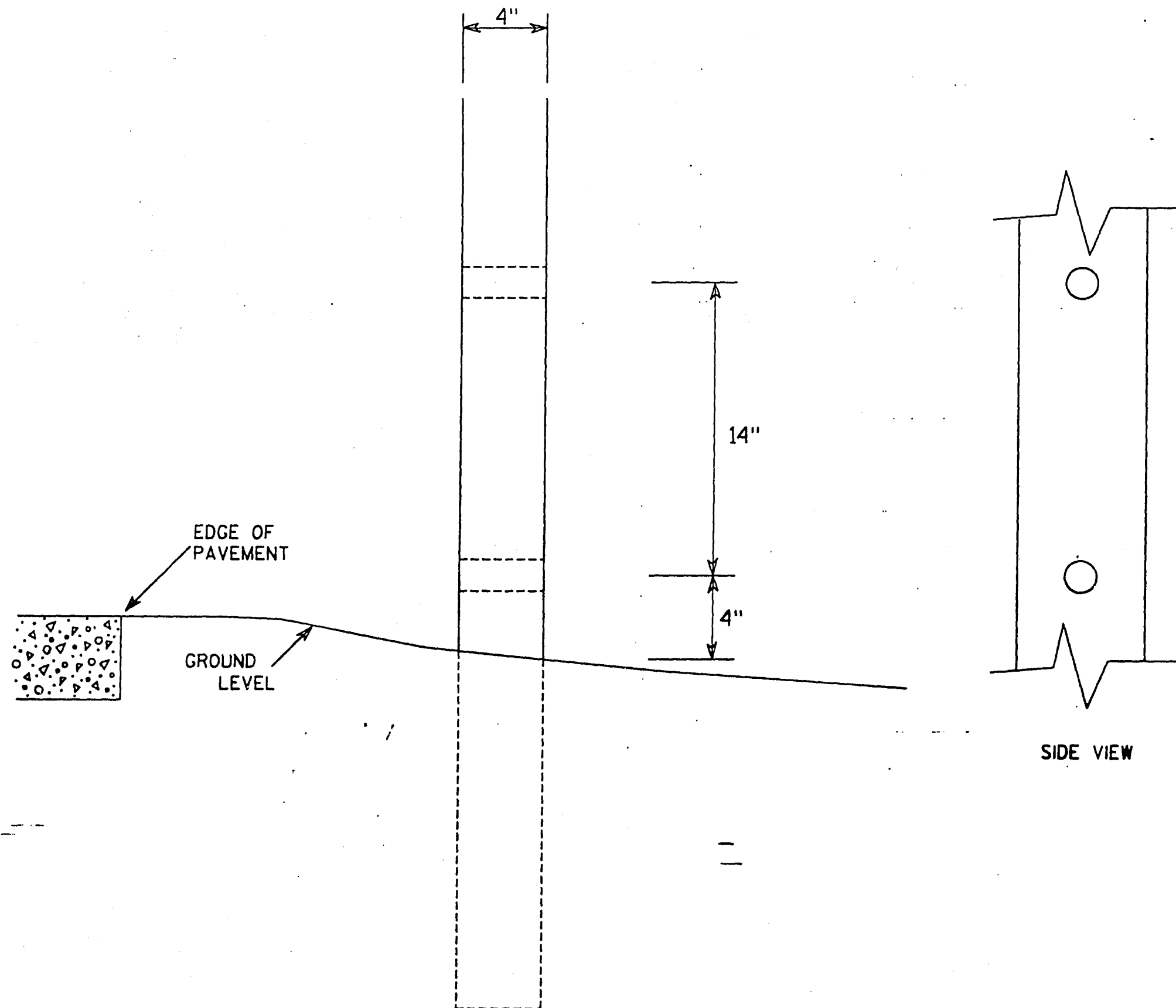
APPROVED 

DATE 11/20/92

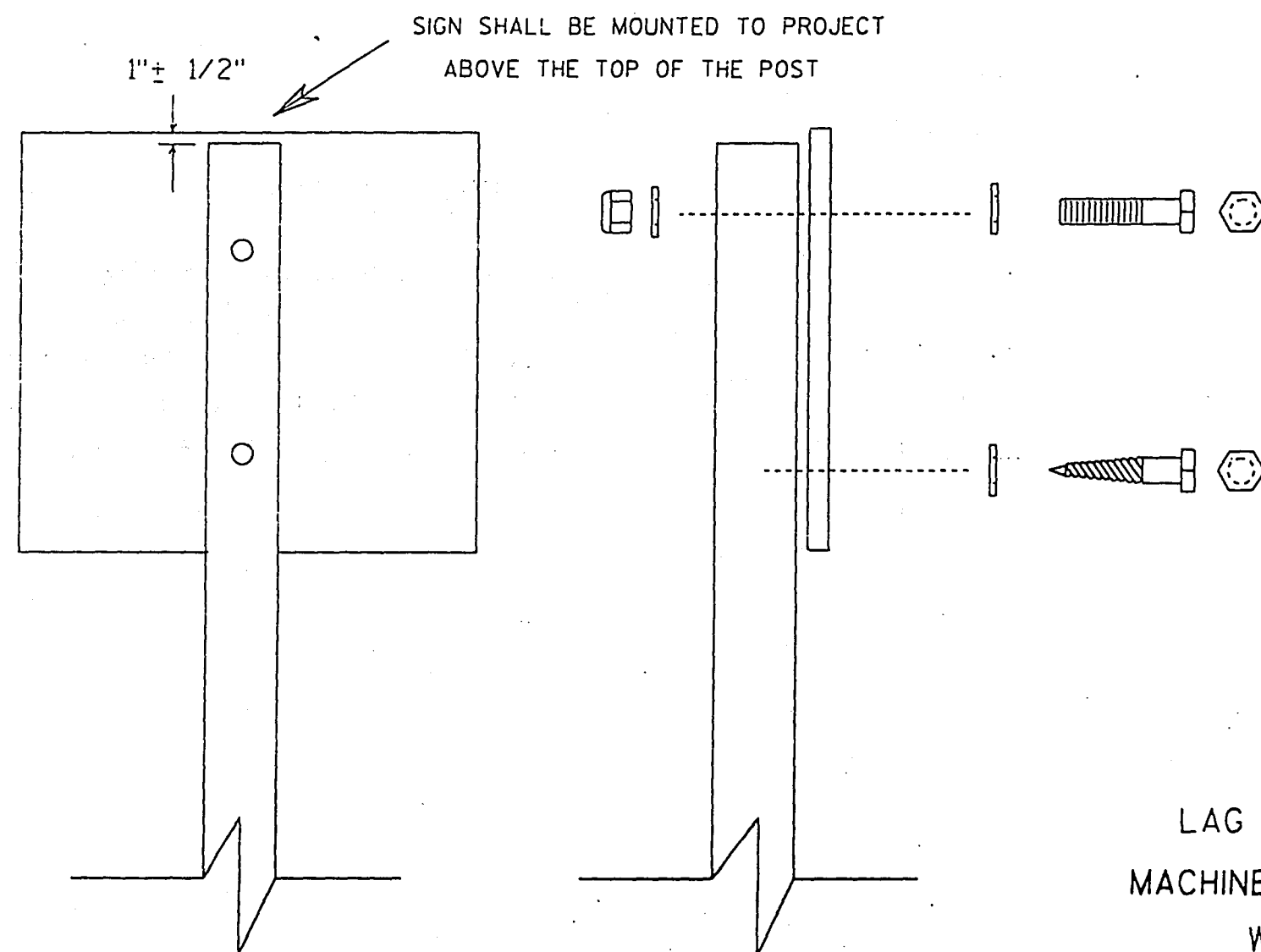
PLATE NO. 34-4.3

GENERAL NOTES

1. All 4x6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.



DATE DRAWN 11-1-91	DATE REDRAWN
DATE REVISED	
4 X 6 WOOD POST MODIFICATIONS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>[Signature]</i> State Traffic Engineer
DATE 11/5/91	PLATE NO. A4-11.1



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
- Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
- Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

LAG SCREWS - $\frac{3}{8}$ " X 3"

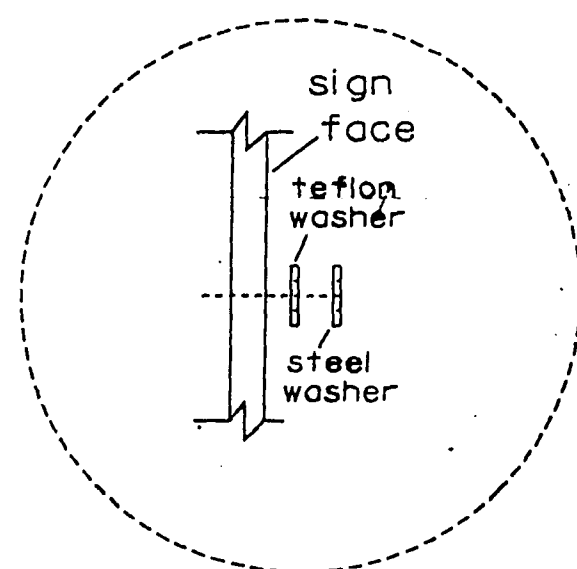
MACHINE BOLTS - $\frac{5}{16}$ " X 6-1/2" or 7" Length w/ nuts

WASHERS - 1" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL for signs 24x24 and smaller.

1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL for signs 24x30 to 36x48.

1-1/2" O.D. X $\frac{1}{16}$ " I.D. X $\frac{1}{16}$ " STEEL for signs 48x48 and larger.

1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 TEFLON for all Type H signs.

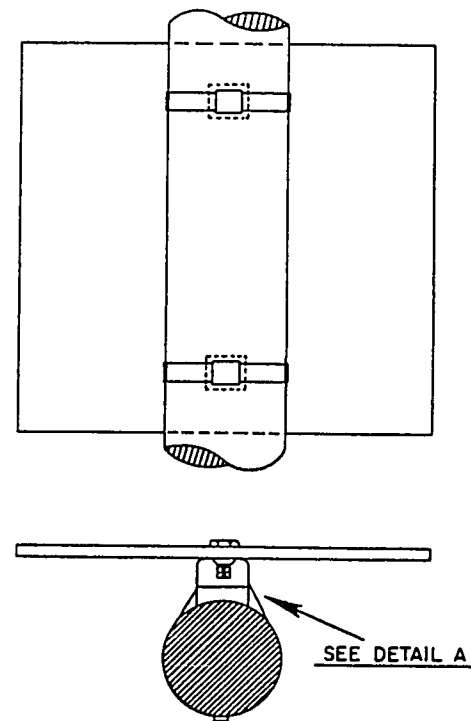


Washer Placement when
Sign Has Type H Face

DATE DRAWN 1-29-92	DATE REDRAWN
DATE REVISED	
ATTACHMENT OF SIGNS TO WOOD POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>[Signature]</i> State Traffic Engineer
DATE 2-1-92	PLATE NO. A4-B.2

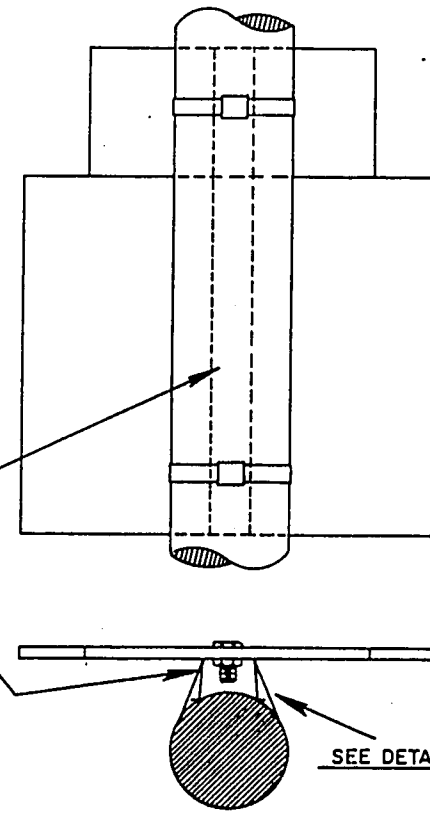
PROJECT L.D.	SHEET NUMBER	TOTAL SHEETS
PROJECT DESIGNATION		

SINGLE SIGN

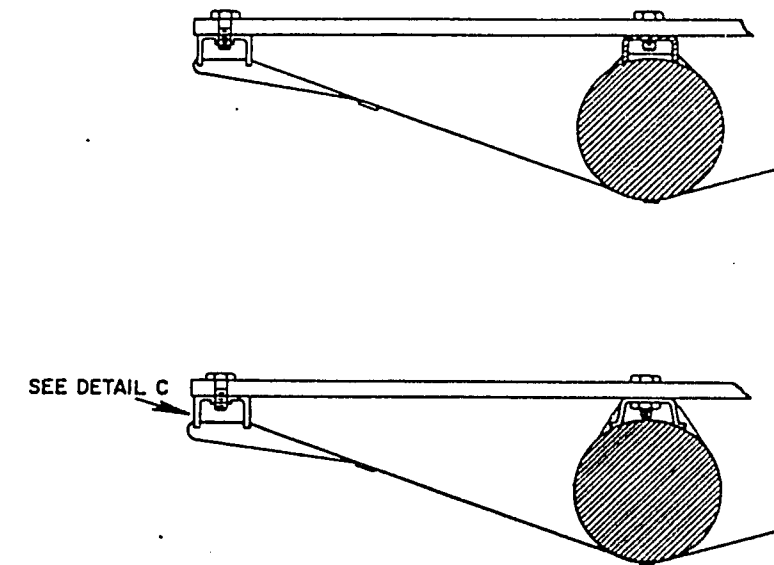


"J" ASSEMBLY

CHANNEL
SEE TYPICAL
PANEL INSTALLATION
SHEET



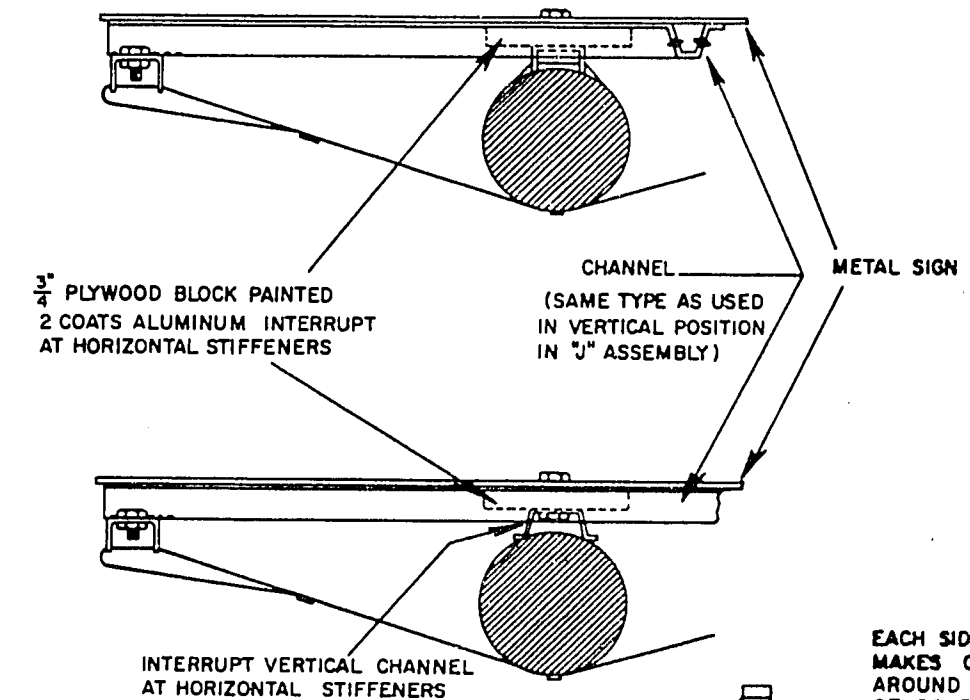
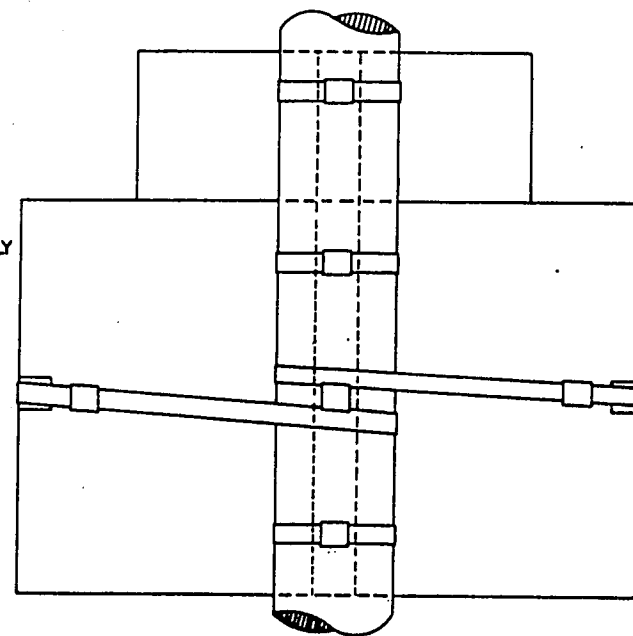
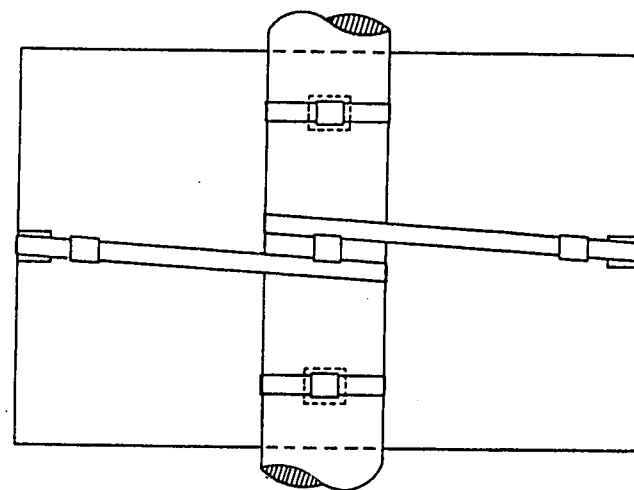
BRACKET BANDING



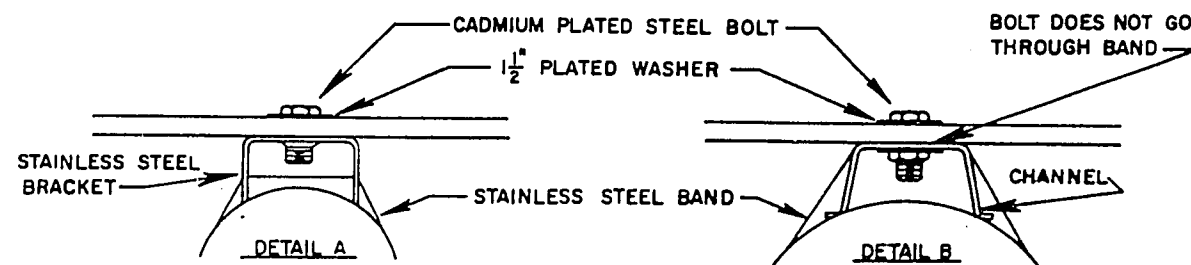
BRACKET BANDING

USE ONE BRACE BAND ON EACH
SIGN 4 FEET OR MORE IN WIDTH.

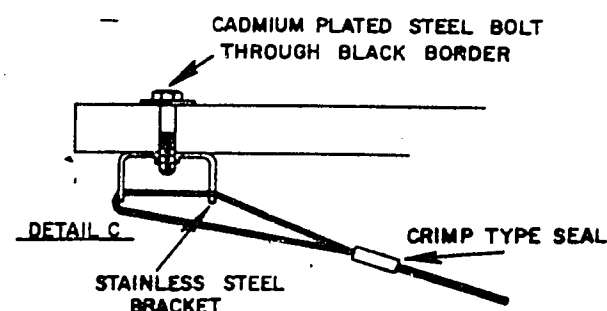
BRACE BANDING SHALL BE TIGHTENED
FIRMLY BUT NOT SO TIGHT AS TO APPRECIABLY
CURVE FACE OF SIGN.



EACH SIDE OF BRACE BANDING
MAKES ONE COMPLETE LOOP
AROUND POLE-SEAL ON BACK
OF POLE



BRACE BANDING



NUMBER OF BRACKET BANDS

WHEN THE AREA OF THE SIGN OR SIGN
ASSEMBLY IS LESS THAN 10 SQUARE FEET
TWO BRACKET BANDS SHALL BE USED.
WHEN THE AREA IS 10 SQUARE FEET OR
MORE, THREE BRACKET BANDS SHALL BE
USED.

MATERIAL

BANDING AND ASSEMBLY BRACKET SHALL
STAINLESS STEEL ALL BANDING SHALL BE
3/4-INCH IN WIDTH

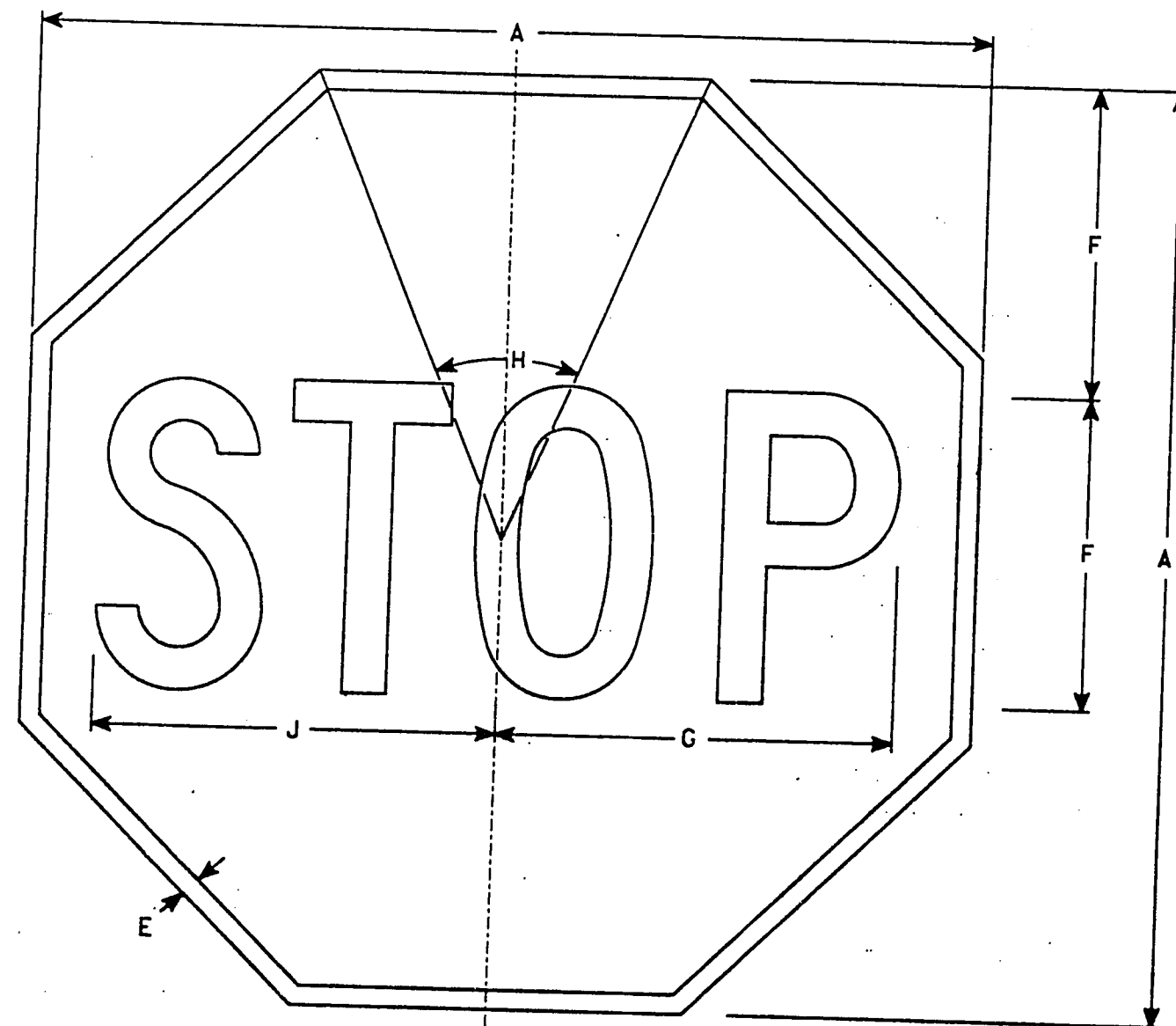
Date Redrawn - 2/18/71	
Date Revised -	
SIGN BANDING DETAILS	
WISCONSIN DIVISION OF HIGHWAYS	
APPROVED _____	CHIEF TRAFFIC ENGINEER
DATE _____	PLATE NO. A3-2.1

NOTES

- Sign is Type II -Type H Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
- Color:

Background - Red

Message - White
- Letter - Series C.



R1-1

Metric equivalent
for this sign is:

SIZE	
1	600 mm X 600 mm
2	750 mm X 750 mm
3	900 mm X 900 mm
4	1200 mm X 1200 mm
5	1200 mm X 1200 mm
6	450 mm X 450 mm
7	300 mm X 300 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	24				$\frac{3}{8}$	8	10	45°		10 $\frac{1}{4}$																	3.31	.36
2	30				$\frac{5}{8}$	10	12 $\frac{1}{2}$	45°		12 $\frac{3}{4}$																	5.18	.56
3	36				$\frac{3}{4}$	12	15	45°		15 $\frac{3}{8}$																	7.46	.81
4	48				1	16	20	45°		20 $\frac{1}{2}$																	13.25	1.44
5	48				1	16	20	45°		20 $\frac{1}{2}$																	13.25	1.44
6	18				$\frac{3}{8}$	6	7 $\frac{3}{4}$	45°		7 $\frac{3}{4}$																	1.86	.20
7	12				$\frac{1}{4}$	4	5	45°		5 $\frac{1}{8}$																	0.78	.09

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

DATE 7-16-95

PLATE NO. R1-L10

NOTES

- Sign is Type II - Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
- Color:
Background - White
Message - Black
- Message Series - See Note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Letters and numerals for sizes "1 & 4" shall be series D, for sizes "2 & 5" they shall be series E.
- Substitute appropriate numerals and adjust spacing as required.

Metric Equivalent
for this sign is:

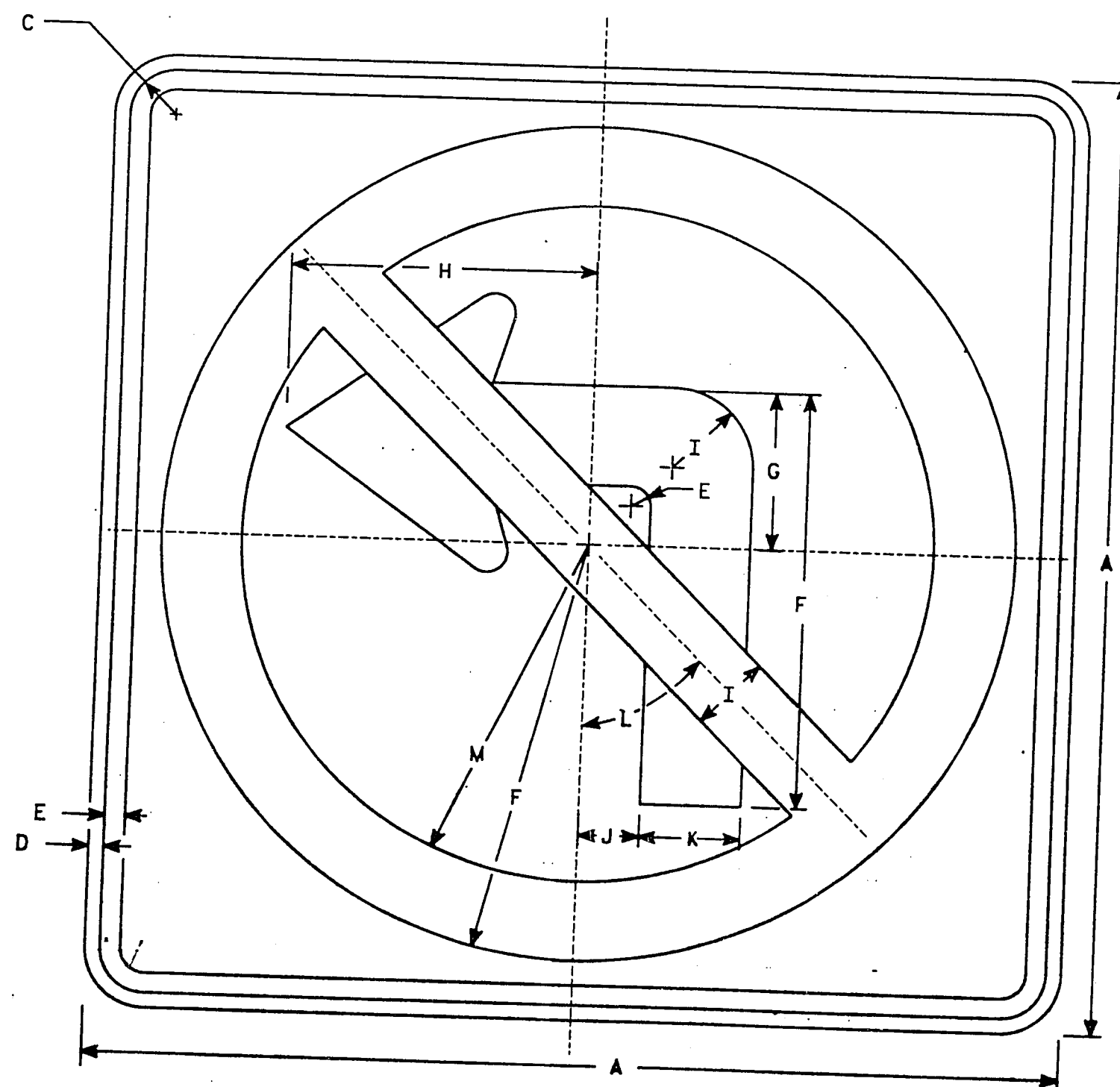
SIZE	
1	450 mm x 610 mm
2	610 mm x 760 mm
3	910 mm x 1210 mm
4	910 mm x 1210 mm
5	1210 mm x 1510 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	IN.
1	18	24	1 1/8	3/8	1/2	3	8	2 1/2	1 1/2	1 3/4	2 1/4	7 3/8	5 3/8	5 5/8													3.0
2	24	30	1 1/8	3/8	1/2	4	10	3 1/4	2	3 1/4	3 1/2	9 5/8	7 1/8	7 1/2													5.0
3	36	48	1 3/8	1/2	5/8	6	14	5	3	3 1/2	4 1/2	14 3/4	10 5/8	11 1/4													12.0
4	36	48	1 3/8	1/2	5/8	6	14	5	3	3 1/2	4 1/2	14 3/4	10 5/8	11 1/4													12.0
5	48	60	2 1/4	3/4	1	8	16	6 1/2	4	6 1/2	7	19 1/4	14 1/4	15													20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
DATE 12/16/93
PLATE NO. R2-1.7



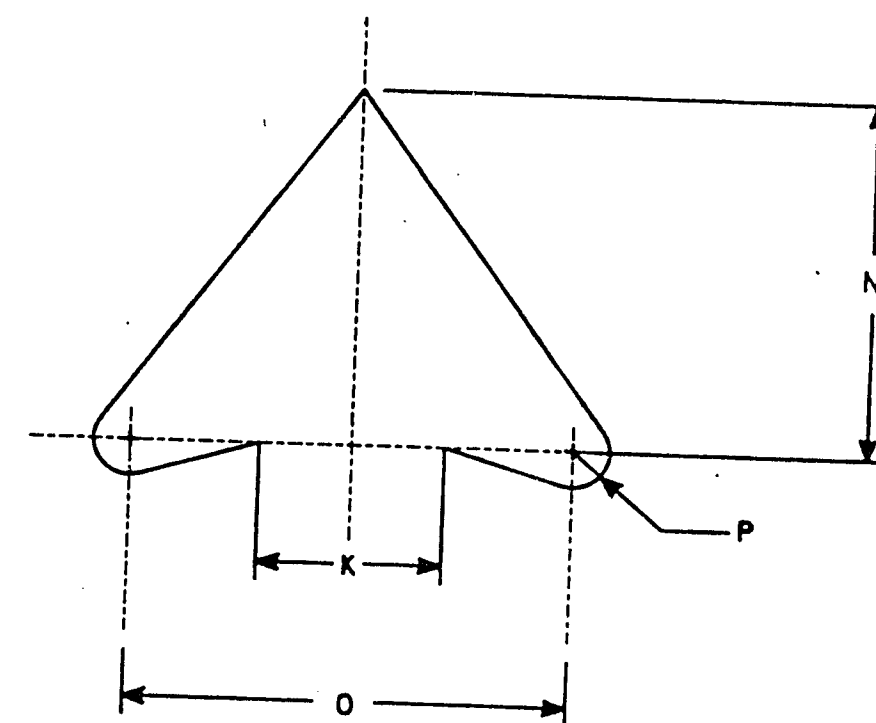
Metric equivalent
for this sign is:

SIZE	
1	600mm X 600mm
2	600mm X 600mm
3	750mm X 750mm
4	900mm X 900mm
5	1200mm X 1200mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Req. mm. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
3	30		1 3/8	1/2	5/8	13 1/8	5	9 1/2	2 1/2	1 7/8	3 1/8	45°	10 5/8	6 1/4	7 1/2	5/8											6.25
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

NOTES

- Sign is Type II- Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
- Color:
Background - White
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

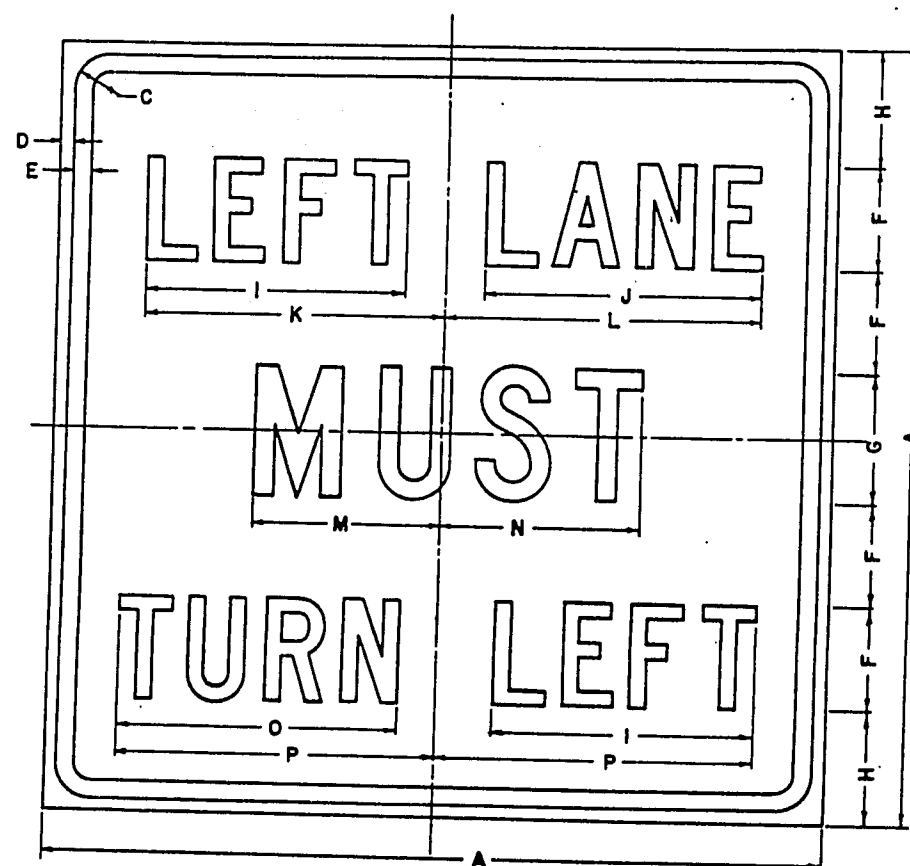
John F. Busch
Director, Office of Traffic

DATE 2/24/94

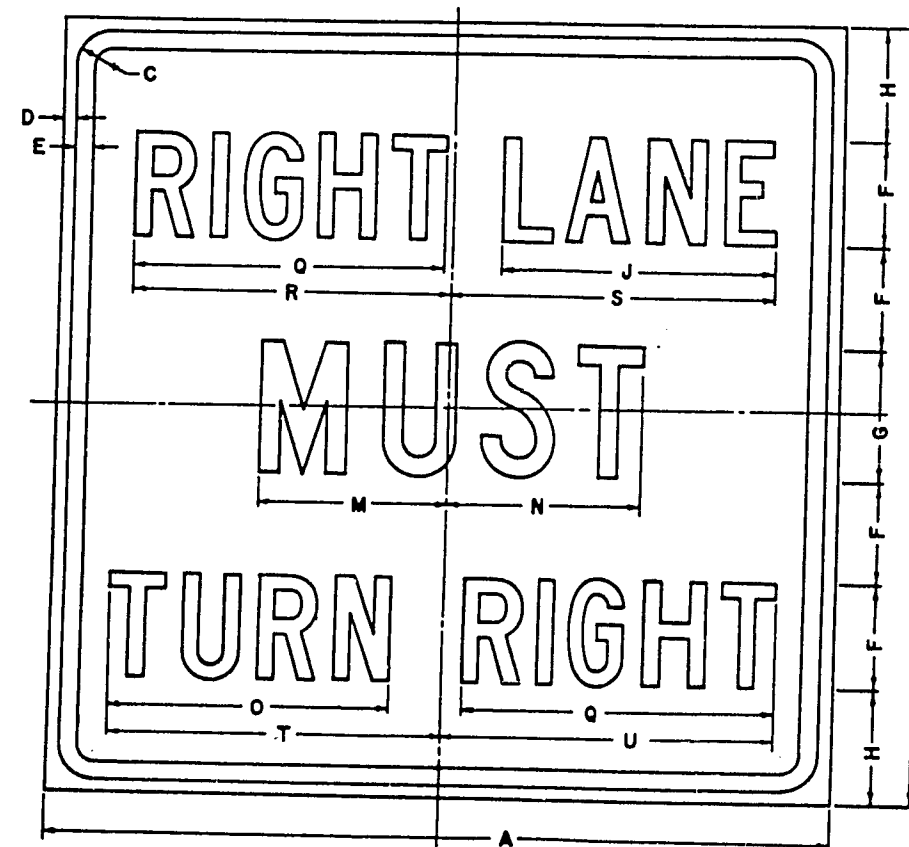
PLATE NO. R3-2.7

NOTES:

1. Sign is Type II
2. Color:
Background — ReflectORIZED White
Message — Black
3. Face Material — Reflective Sheeting
4. Lettering — Series "C"



R3-7L



R3-7R

This plate replaces OLD CODES R60, R62, R64, R107.

SIZE	CODE SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Minimum	1	30		1 1/2	2	3 1/2	4	5	4 1/2	10	10 1/2	11 1/2	12 1/2	7 1/2	7 1/2	10 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2					
Standard	2	30		1 1/2	2	3 1/2	4	5	4 1/2	10	10 1/2	11 1/2	12 1/2	7 1/2	7 1/2	10 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2					
Oversize	3																										
Exp-way	4																										
Interstate	5																										

STANDARD SIGNS
R3-7

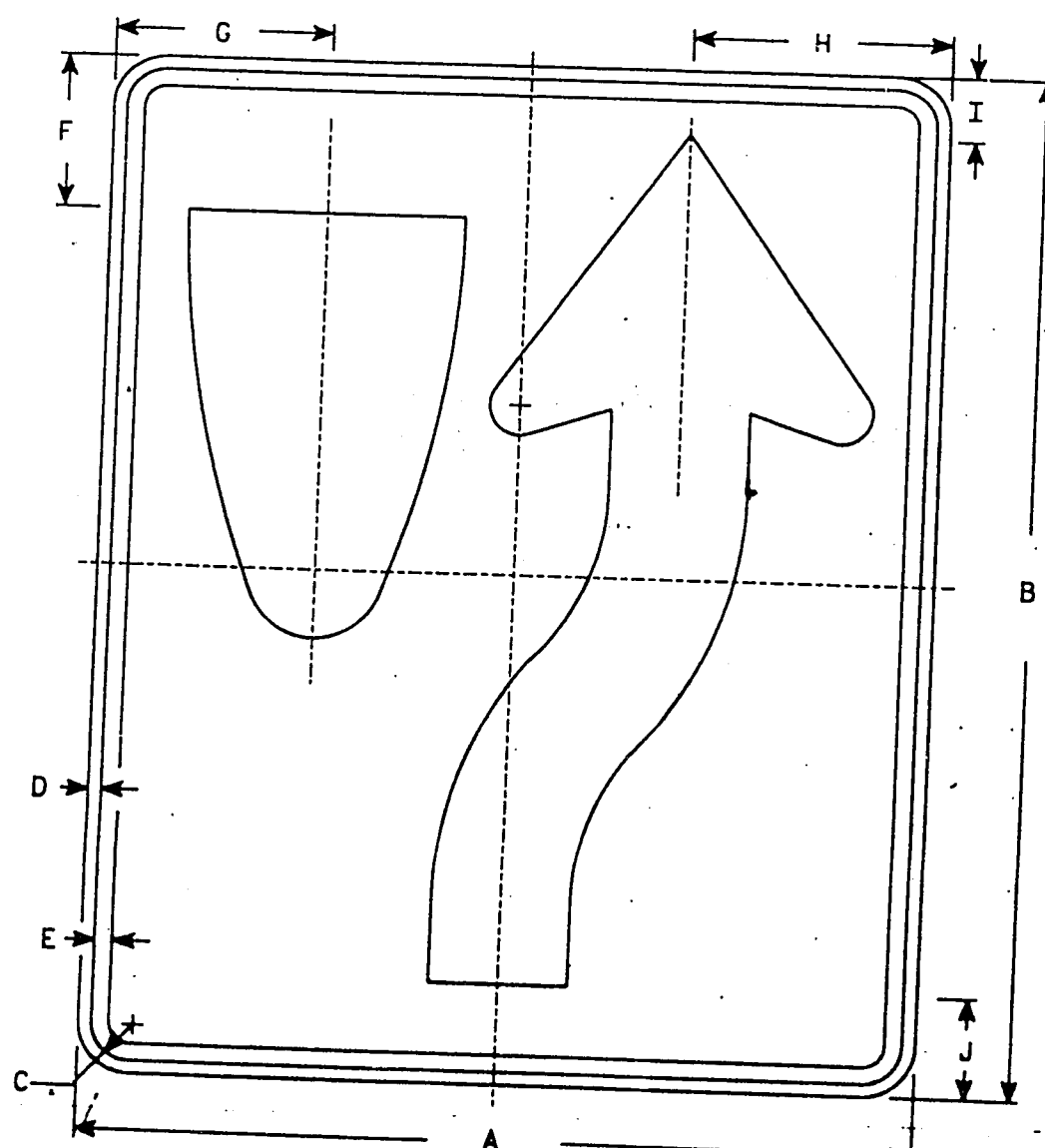
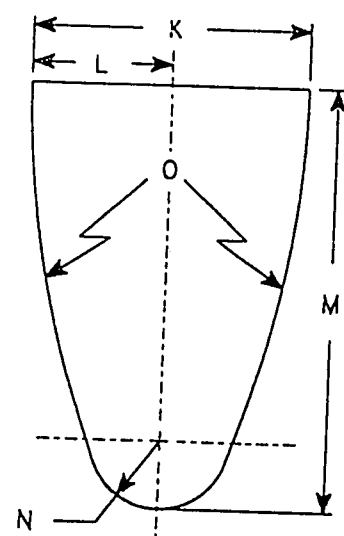
STATE HIGHWAY COMMISSION OF WISCONSIN

APPROVED *E. J. Rottger*

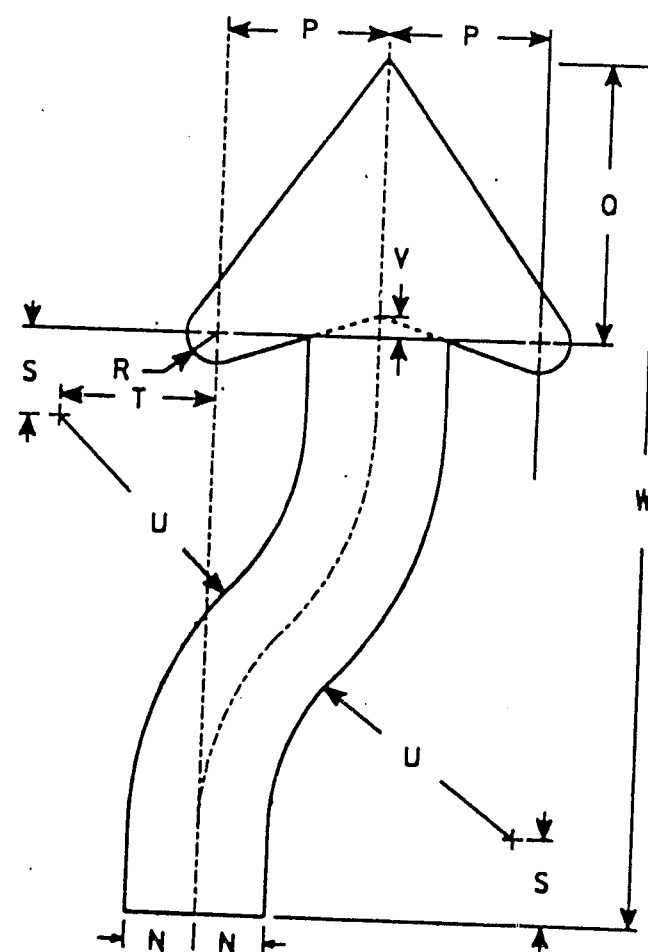
DATE 5-16-62 PLATE NO. R3-7.1

NOTES

1. Sign is Type II - Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



R4-7



ARROW DETAIL

Metric equivalent
for this sign is:

SIZE	
1	450mm X 600mm
2	600mm X 750mm
3	900mm X 1200mm
4	900mm X 1200mm
5	1200mm X 1500mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	INCHES
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	3/8	1 1/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

STANDARD SIGNS
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Peter F. Bensch
 Director, Office of Traffic
 DATE 3/1/94 PLATE NO. R4-7.5

- NOTES
1. Sign is Type II - Non-Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
 2. Color:
Background - White
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R10-4

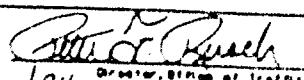
Metric equivalent
for this sign is:

SIZE	
1	
2	225 mm X 300 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	9	12	1 1/8	3/8	3/8	1	1 1/2	1	1 7/8	2 7/8	1 1/4	1 3/8	2	2 5/8													0.75
3																											
4																											
5																											

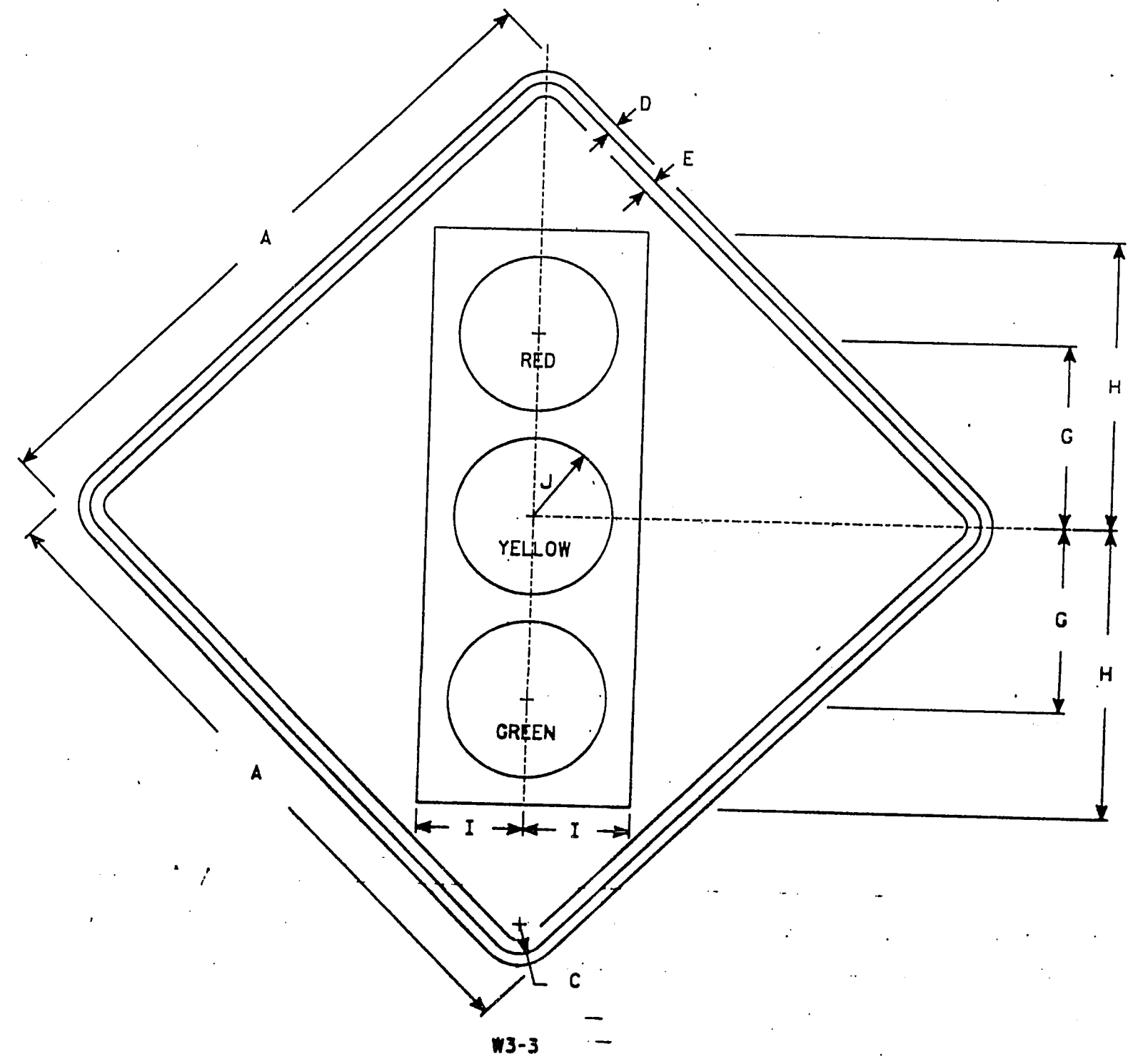
STANDARD SIGN
R10-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED 

DATE 5/12/94

PLATE NO. R10-4.4



NOTES

1. Sign is Type II - Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - See Note No. 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
Top circle - Reflectorized Red
Center circle - Same as background
Bottom circle - Reflectorized Green

Metric equivalent for this sign is:

SIZE	
1	750mm X 750mm
2	900mm X 900mm
3	
4	900mm X 900mm
5	1200mm X 1200mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Eq.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3																											
4	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

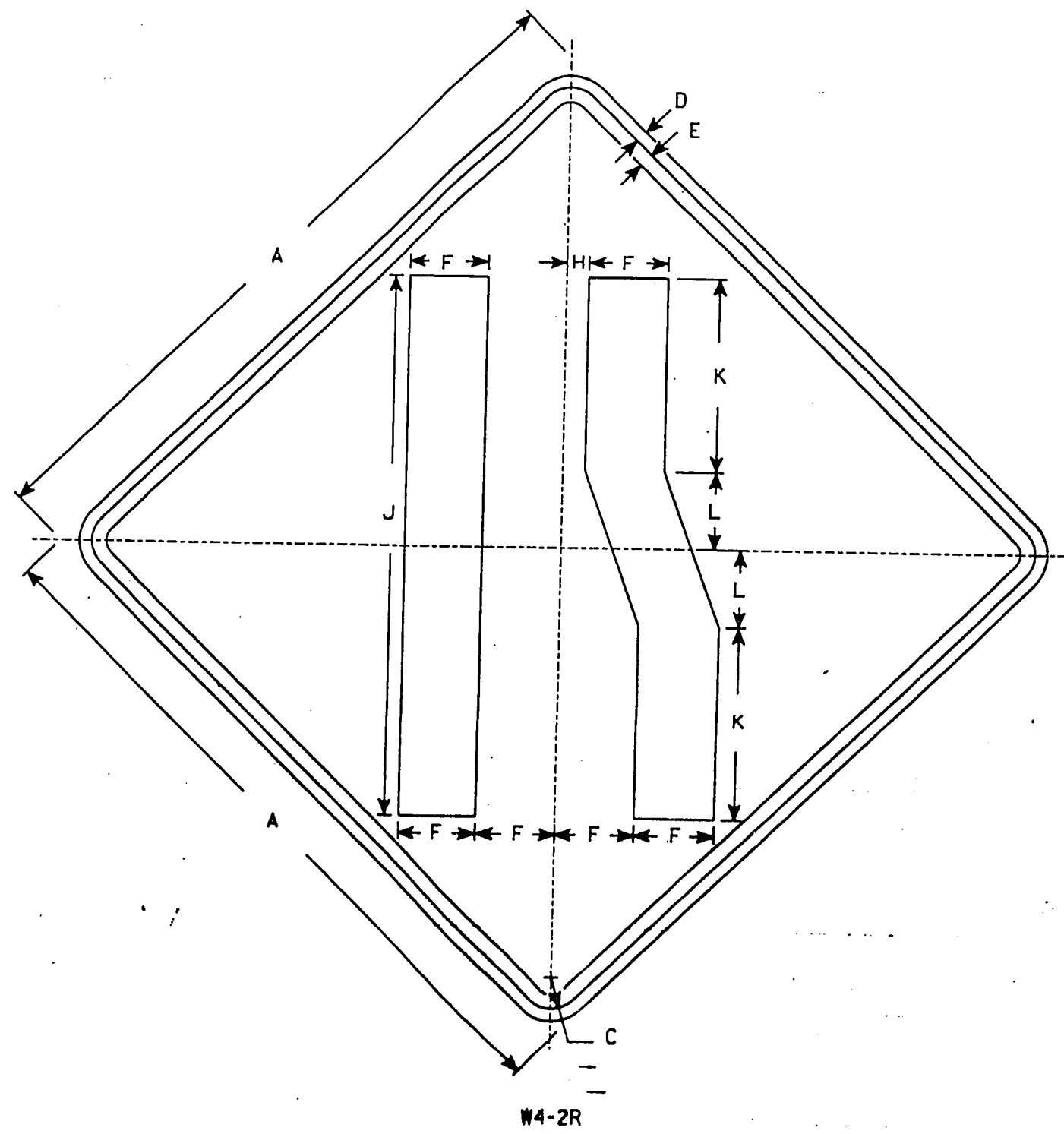
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Peter F. Rusek*
Director, Office of Traffic

DATE 3/25/94 PLATE NO. W3-3.5

PLOT NAME: PLOT SCALE: 1" = 2.7' ORIGINATOR: FOTM AND VAN DYKE



- NOTES**
- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
 - 2. Color:
Background - Yellow
Message - Black
 - 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 - 4. W4-2L same as W4-2R except message is reversed along the vertical centerline.

Metric equivalent for this sign is:

SIZE	
1	750 mm X 750 mm
2	900 mm X 900 mm
3	
4	900 mm X 900 mm
5	1200 mm X 1200 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Req. in.
1	30		1 3/8	1/2	5/8	3		7/8		23	8 1/4	3 1/4															6.25
2	36		1 5/8	5/8	3/4	4		1 1/8		28	10	4															9.0
3																											9.0
4	36		1 5/8	5/8	3/4	4		1 1/8		28	10	4															9.0
5	48		2 1/4	3/4	1	5		1 1/2		37	13 1/4	5 1/4															16.0

STANDARD SIGN
W4-2

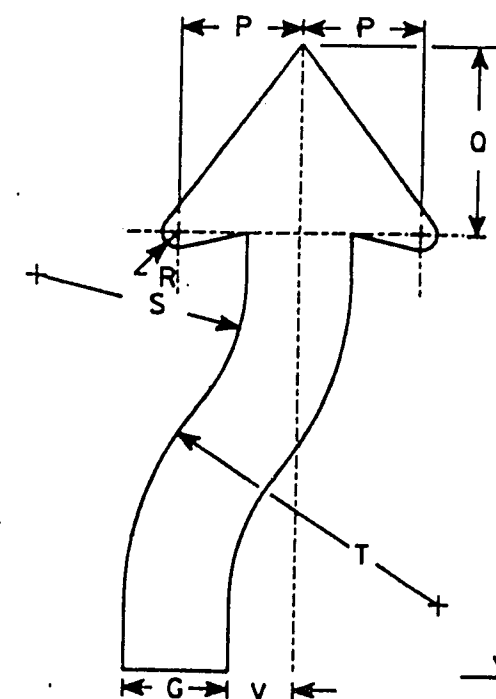
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *[Signature]*
DATE 6/8/94

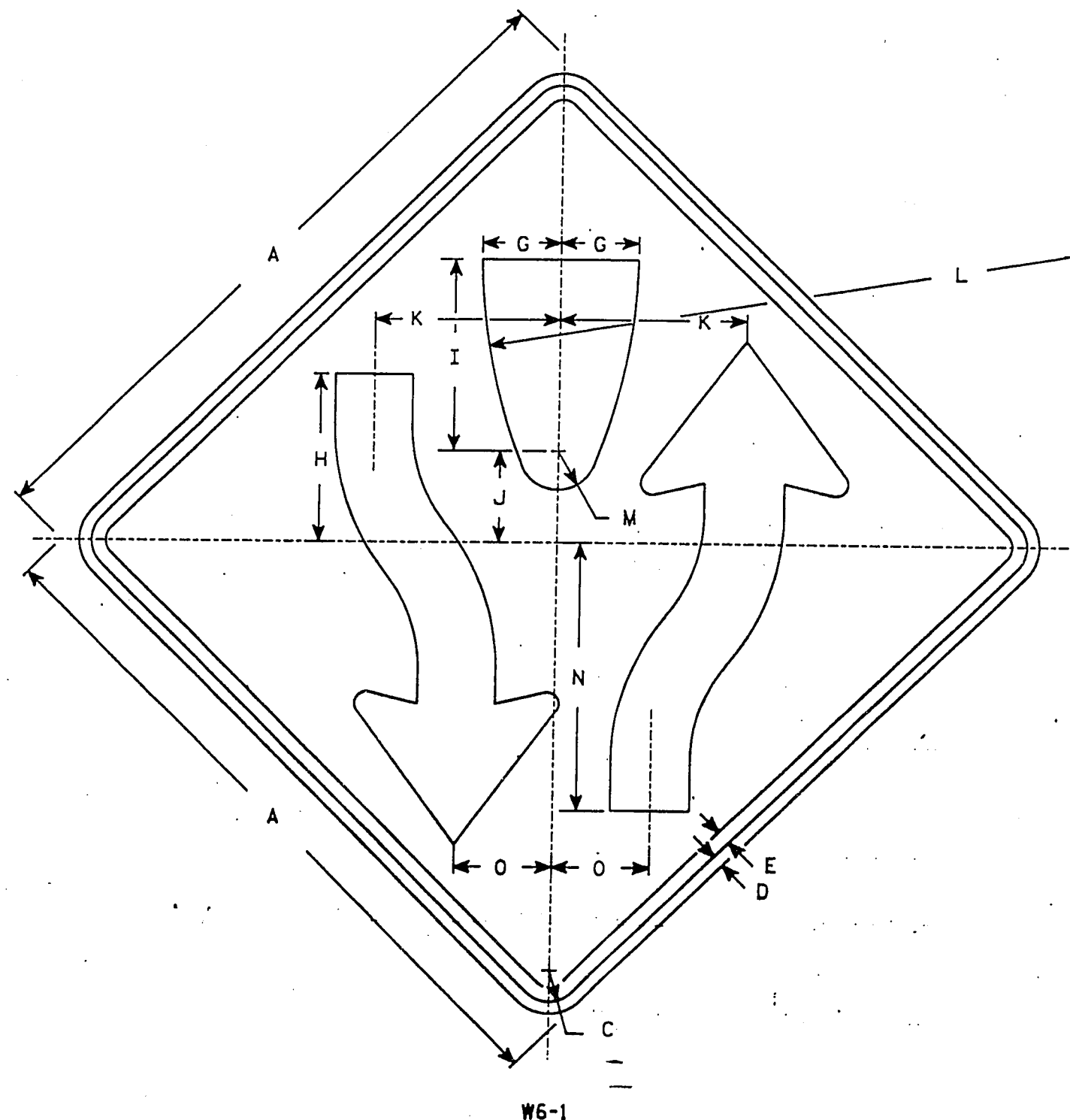
PLATE NO. R4-2.8

NOTES

- Sign is Type II - Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
- Color:
Background - Yellow
Message - Black
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- W6-2 same as W6-1 but is rotated 180° when mounted.



ARROW DETAIL



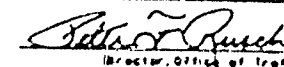
Metric equivalent for this sign is:

SIZE	
1	750mm X 750mm
2	900mm X 900mm
3	
4	900mm X 900mm
5	1200mm X 1200mm

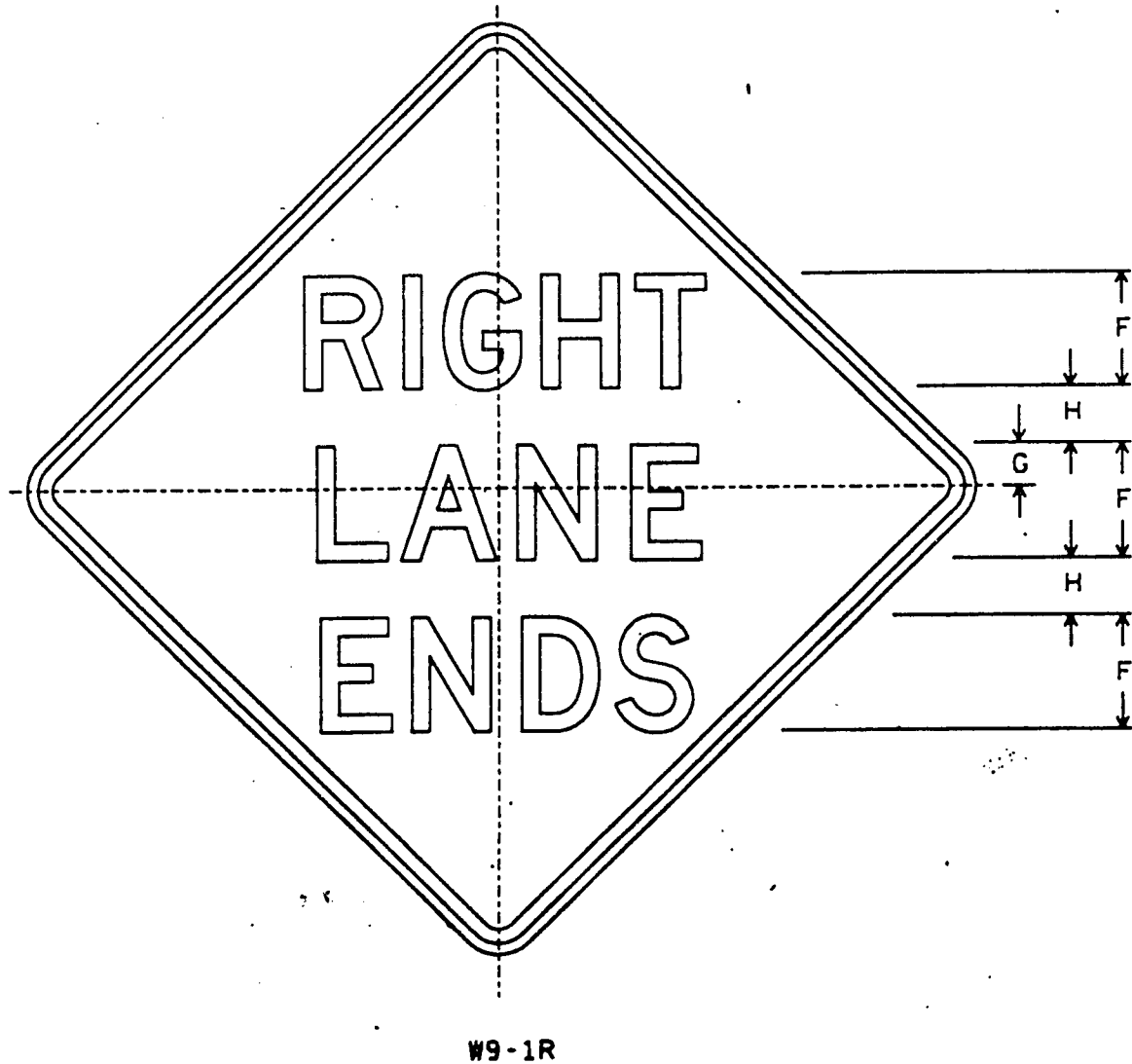
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area, sq. ft.
1	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 3/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

 Director, Office of Traffic
 DATE 4/13/94 PLATE NO. W6-1.0

LEFT
RIGHT
LANE
ENDS



NOTES

1. Sign is Type II - Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
2. Color:
Background - Reflective Yellow
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. W9-1L same as W9-1R except the word Left replaces Right

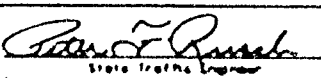
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	W9-1L
2	30		1 3/8	1/2	5/8	5	1 1/2	2 1/2	7 1/4	7 3/4	8 1/8	8 5/8	7 7/8	8 3/4	7 3/4	8 3/8											6.25
3	36		1 5/8	5/8	3/4	6	2	3	8 7/8	9 3/8	9 3/4	10 3/8	9 1/2	10 1/2	9 3/8	10											9.0
4	36		1 5/8	5/8	3/4	6	2	3	8 7/8	9 3/8	9 3/4	10 3/8	9 1/2	10 1/2	9 3/8	10											9.0
5	48		2 1/4	3/4	1	8	3	4	11 5/8	12 3/8	13	13 3/8	12 3/8	14	12 3/8	13 3/8											16.0

DATE DRAWN 11-23-97 DATE REDRAWN

DATE REVISED

STANDARD SIGN
W9-1R & W9-1L

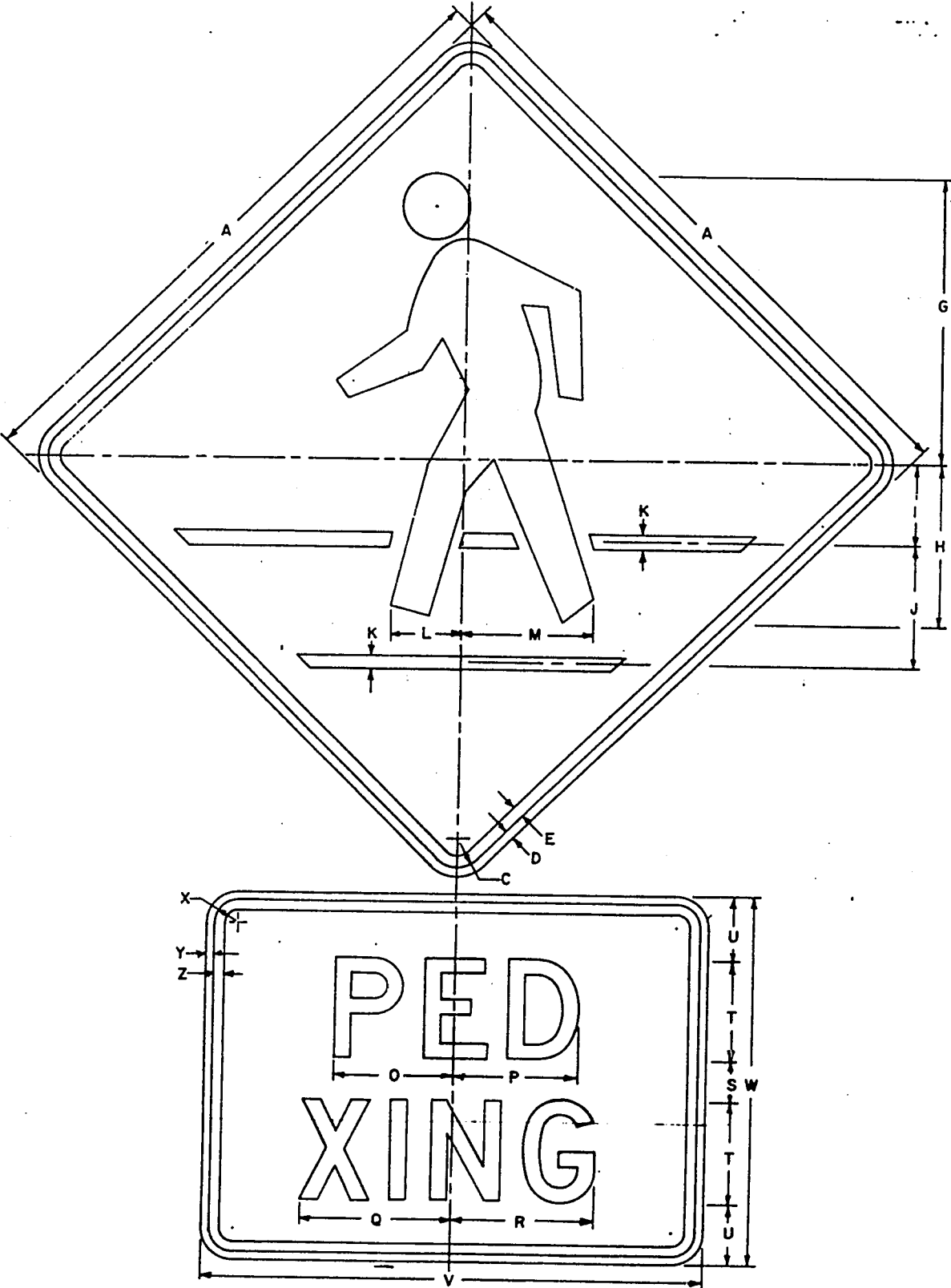
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

State Traffic Engineer

DATE 12/7/97 PLATE NO. W9-1.3

NOTES.

- Sign is Type II
- Color:
 - Background — ReflectORIZED Yellow
 - Message — Black
- Face Material — Reflective Sheeting
- CornerRadius may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded
- This Drawing may be scaled for Standard Size only
- All letters are Series "U"

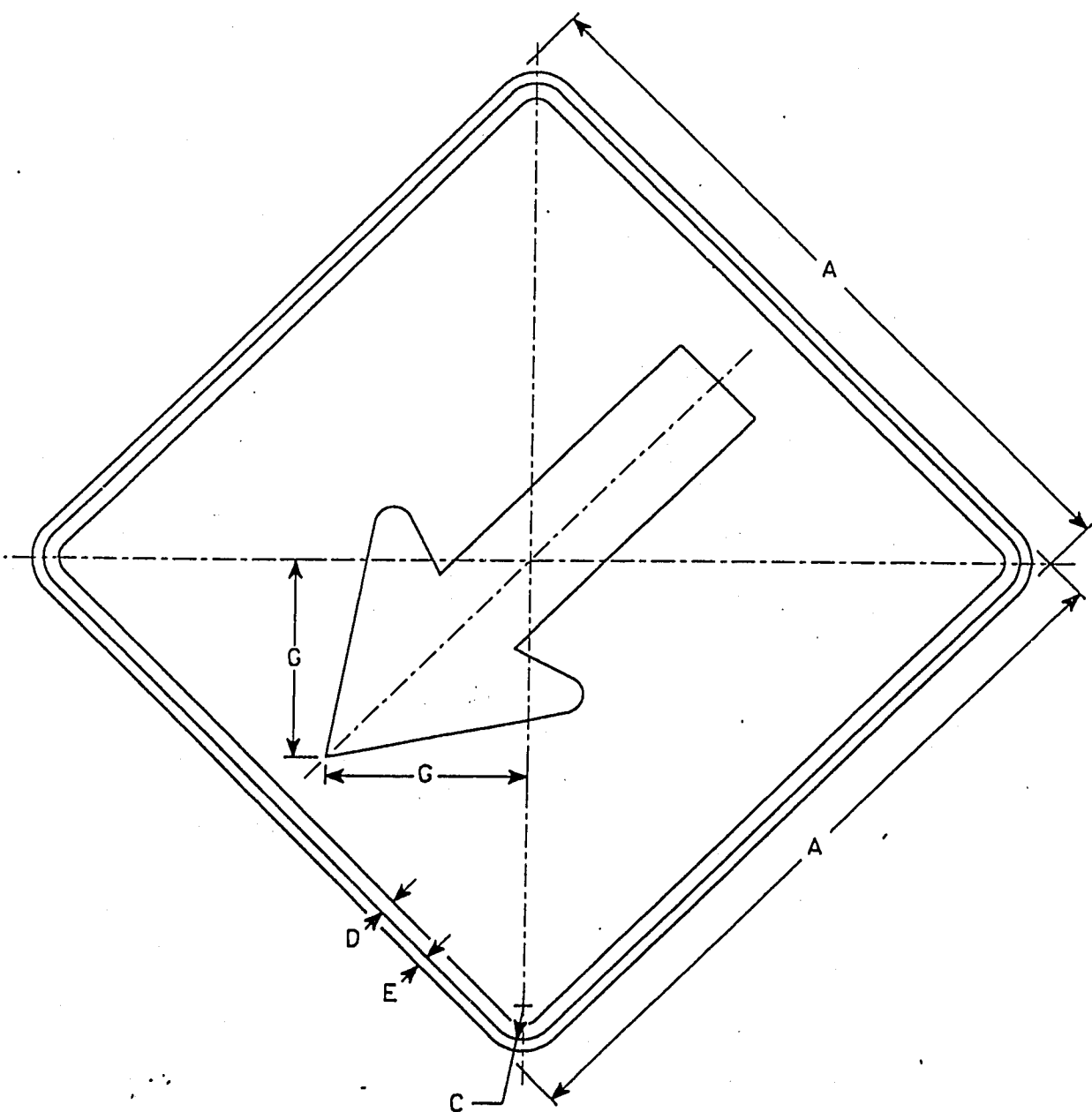


SIZE		CODE SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Minimum	1	24			$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$		11	$6\frac{3}{8}$	$3\frac{1}{8}$	$4\frac{3}{4}$	$\frac{5}{8}$	$2\frac{13}{16}$	$5\frac{1}{8}$		$5\frac{7}{8}$	6	$7\frac{1}{4}$	7	2	5	3	24	18	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$
Standard	2	30			$\frac{13}{8}$	$\frac{1}{2}$	$\frac{5}{8}$		14	8	4	6	$\frac{3}{4}$	$3\frac{1}{2}$	$6\frac{3}{8}$		$5\frac{7}{8}$	6	$7\frac{1}{4}$	7	2	5	3	24	18	$\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$
Oversize	3																											
Exp-way	4																											
Freeway	5																											
		AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ	
Minimum	1																											
Standard	2																											
Oversize	3																											
Exp-way	4																											
Freeway	5																											

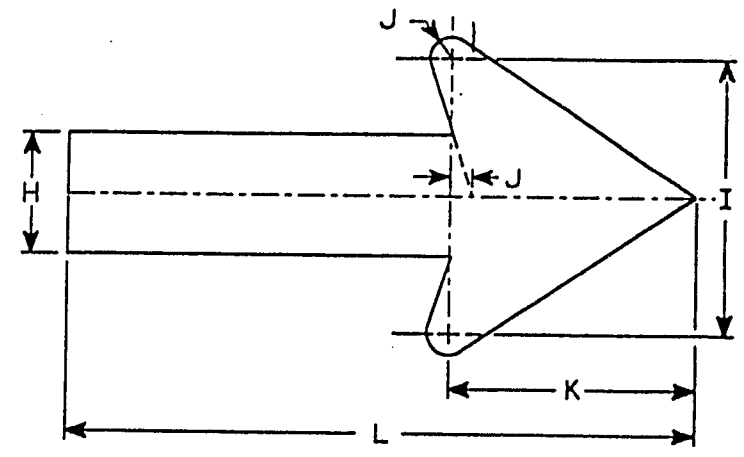
Date Drawn — 4-20-72	Date Redrawn —
Date Revised —	
STANDARD SIGN W11-2 — W11-2P	
OLD CODE W11-51	
WISCONSIN DIVISION OF HIGHWAYS	
APPROVED	<i>[Signature]</i>
STATE HIGHWAY ENGINEER	
DATE 5-20-72	PLATE NO. W11-2P

NOTES

1. Sign is Type II - Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W12-1R same as W12-1L except arrow points down right.



W12-1L



ARROW DETAIL

Metric equivalent for this sign is:

SIZE	
1	
2	600mm X 600mm
3	
4	
5	

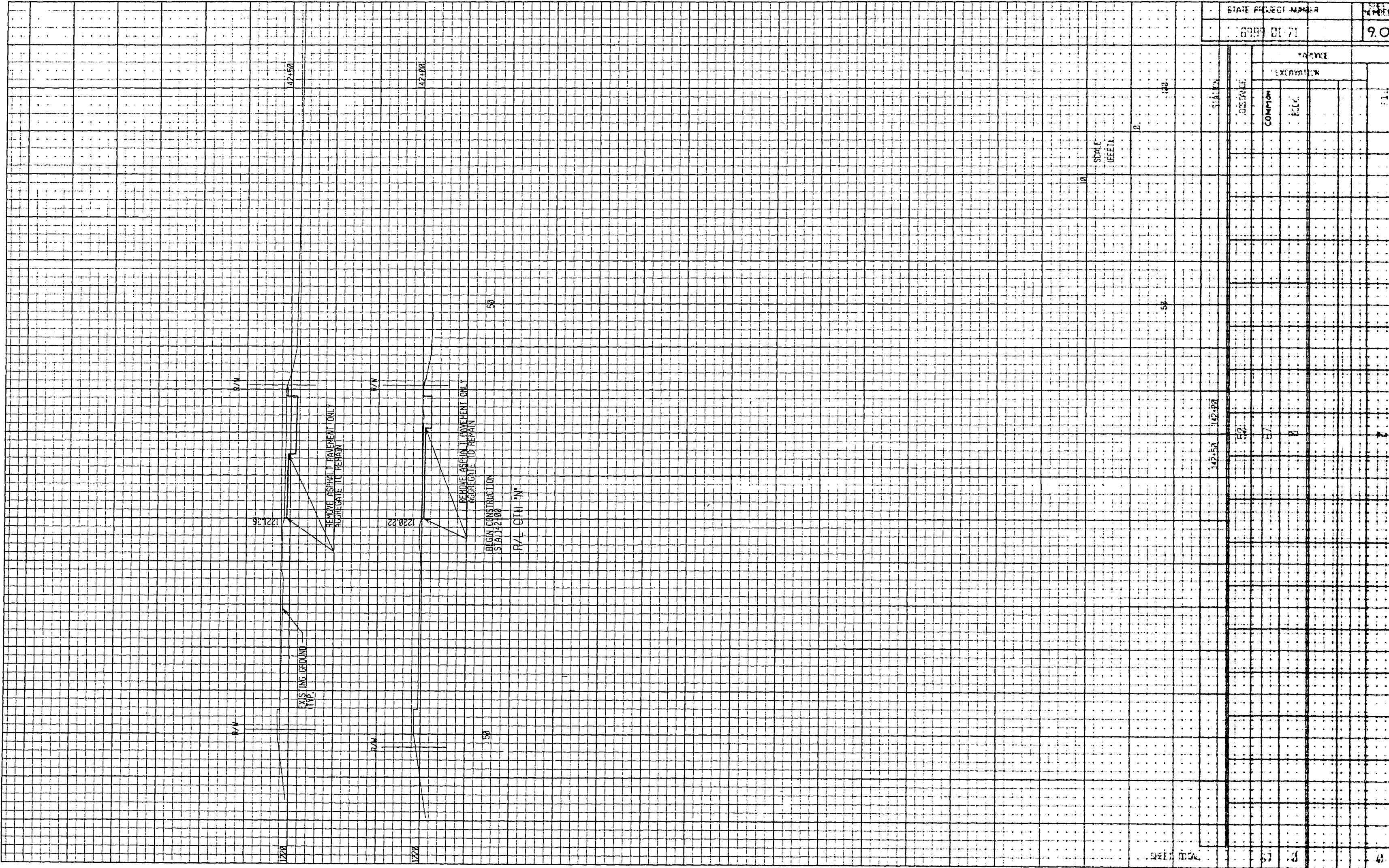
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Notes
1																											
2	24		1 1/8	3/8	1/2		6 5/8	3 1/2	8	5/8	7	17 1/8															4.0
3																											
4																											
5																											

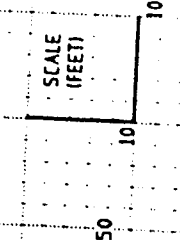
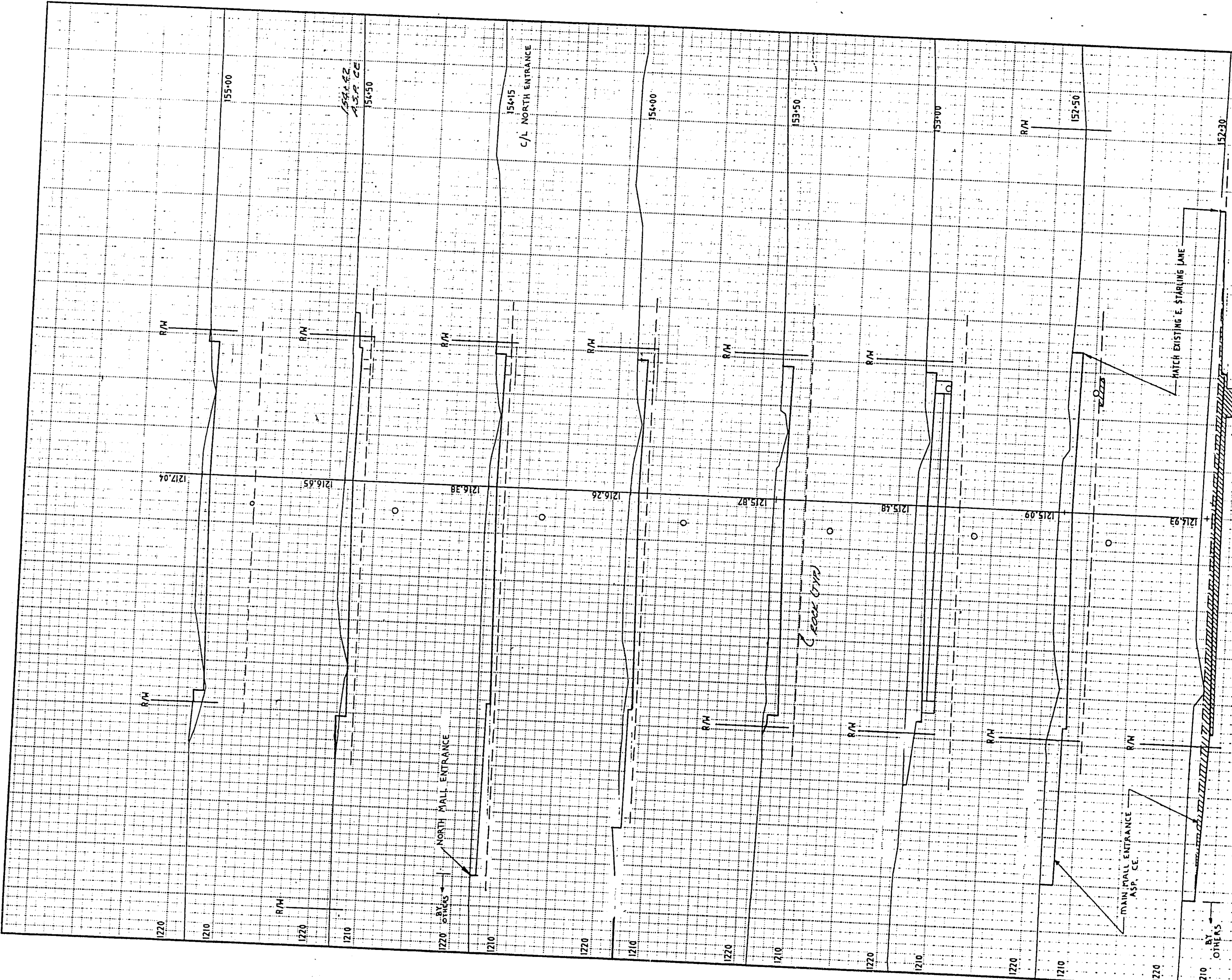
STANDARD SIGN
W12-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED 

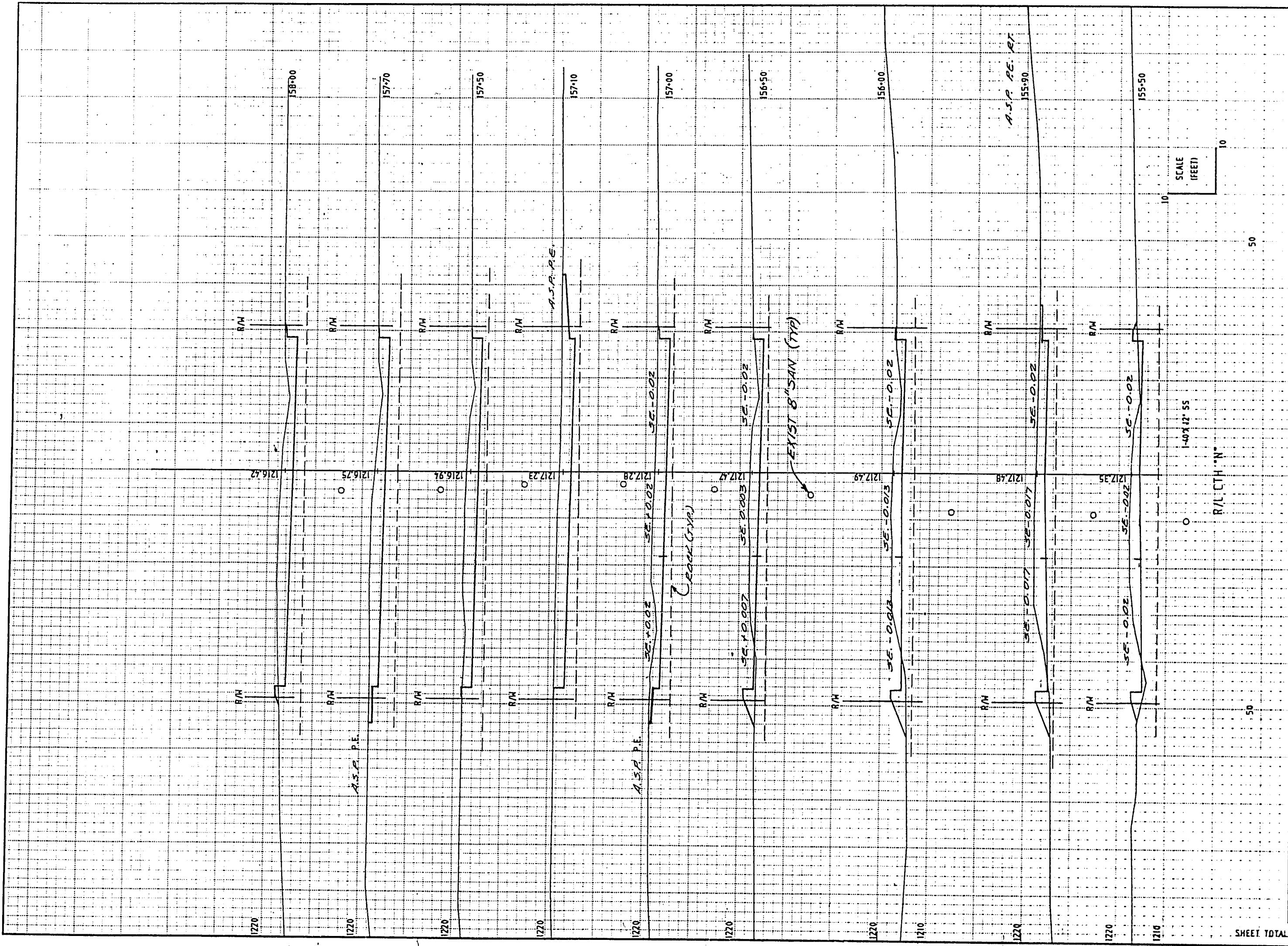
DATE 7/29/94 PLATE NO. W12-16



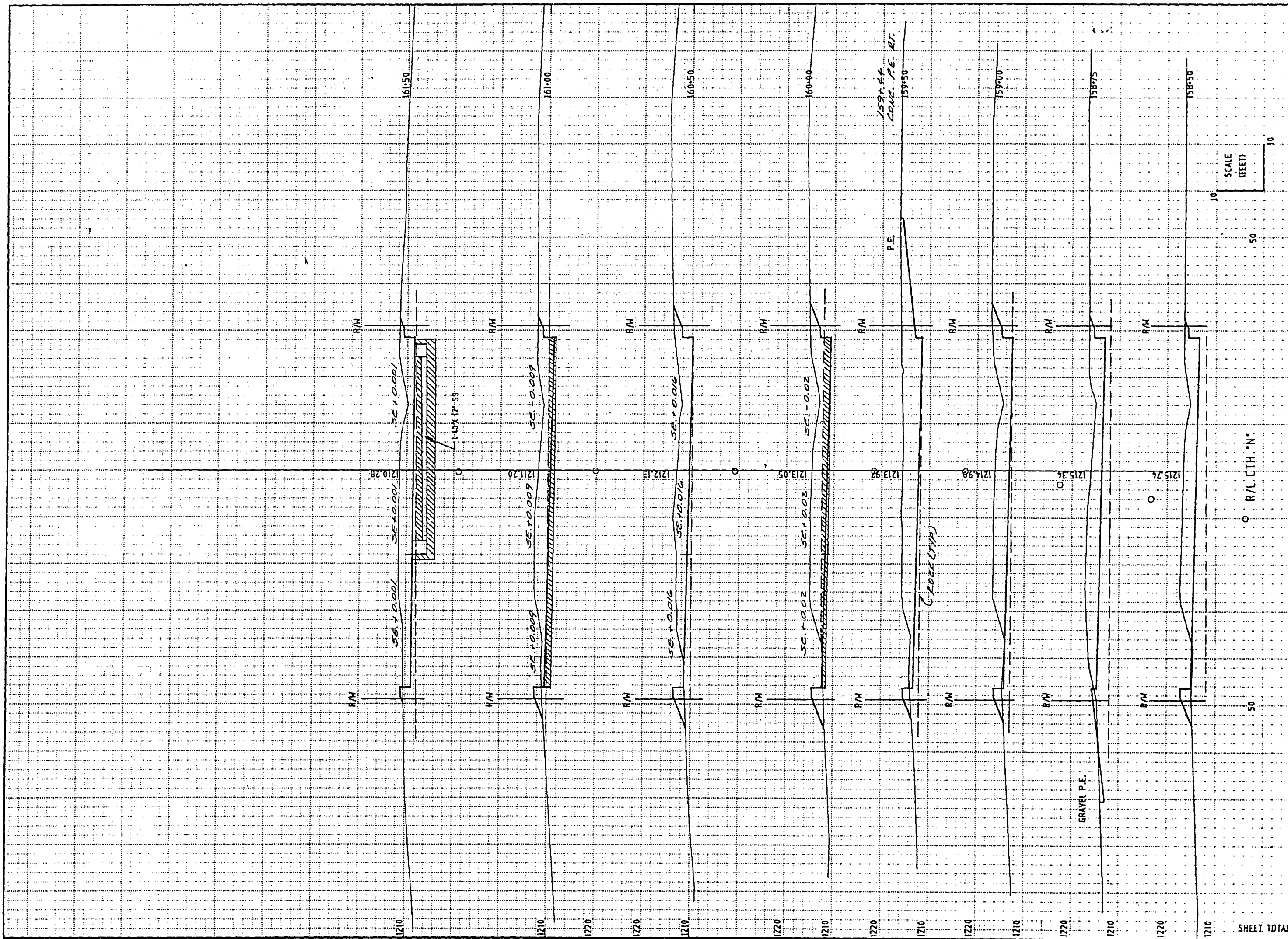


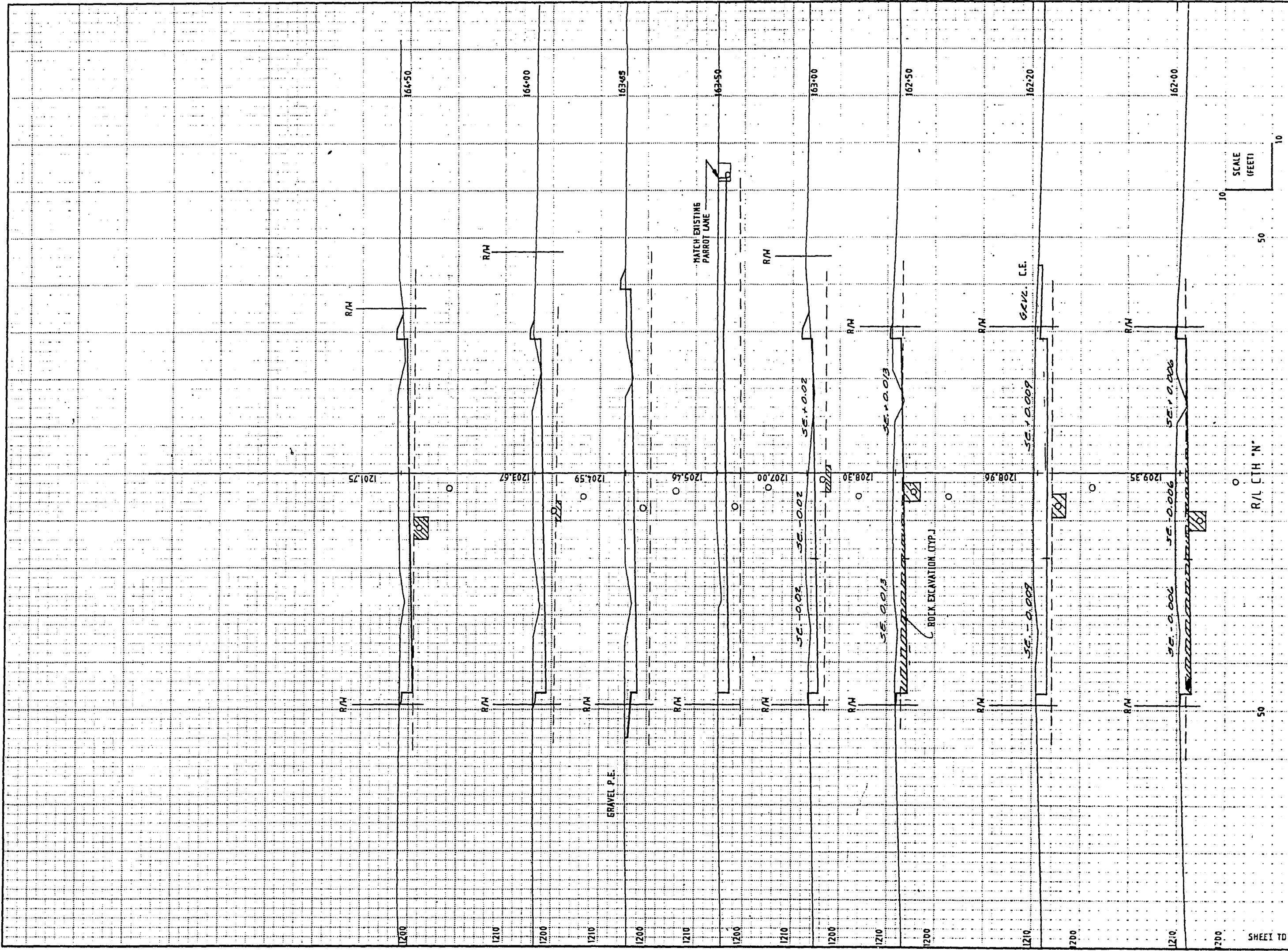
STATE PROJECT NUMBER										SHEET NUMBER
6999-01-71										9.4
STATION	YARDAGE									
	DISTANCE									
	EXCAVATION									
	50	35	15	50	50	50	50	20	30	FILL
	235	263	129	335	335	469	260	363	363	
	0	0	0	0	0	0	92	230	230	
	0	0	0	0	0	6	13	51	51	
	11	2	0	0	0	0	0	0	0	
SHEET TOTAL	2389	322	70							13

STA 152+30 TO STA 155+00

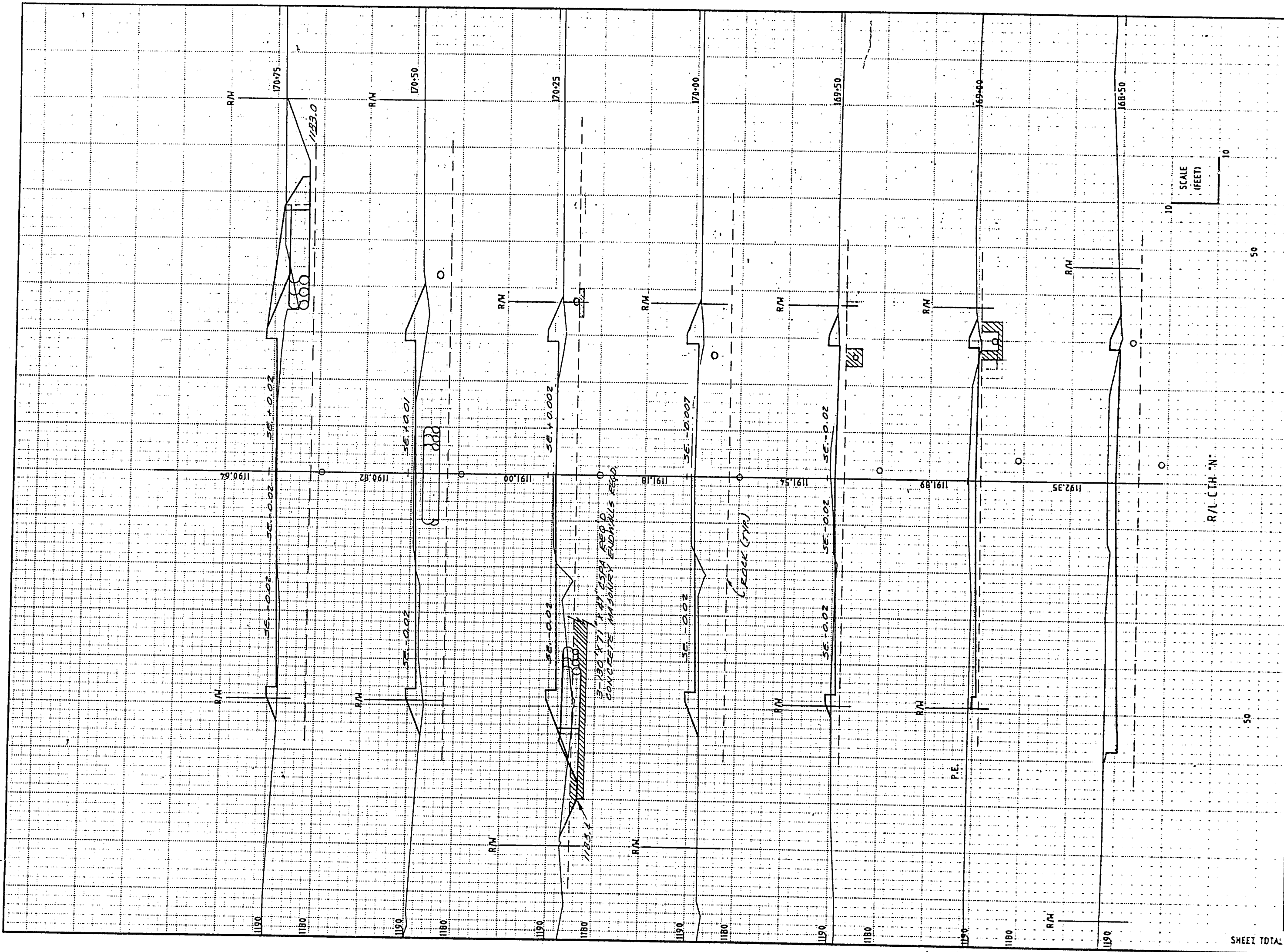


STATE PROJECT NUMBER										SHEET NUMBER
6999-01-71										95
STATION	YARDAGE									
	EXCAVATION									
	DISTANCE									
	158+00	157+70	157+50	157+30	157+10	156+50	156+00	155+90	155+50	155+00
Common	185	124	264	66	251	184	40	158	194	30
Rock										
Fill	1	0	0	0	15	52	15	45	30	
SHEET TOTAL										
	1466	0								157

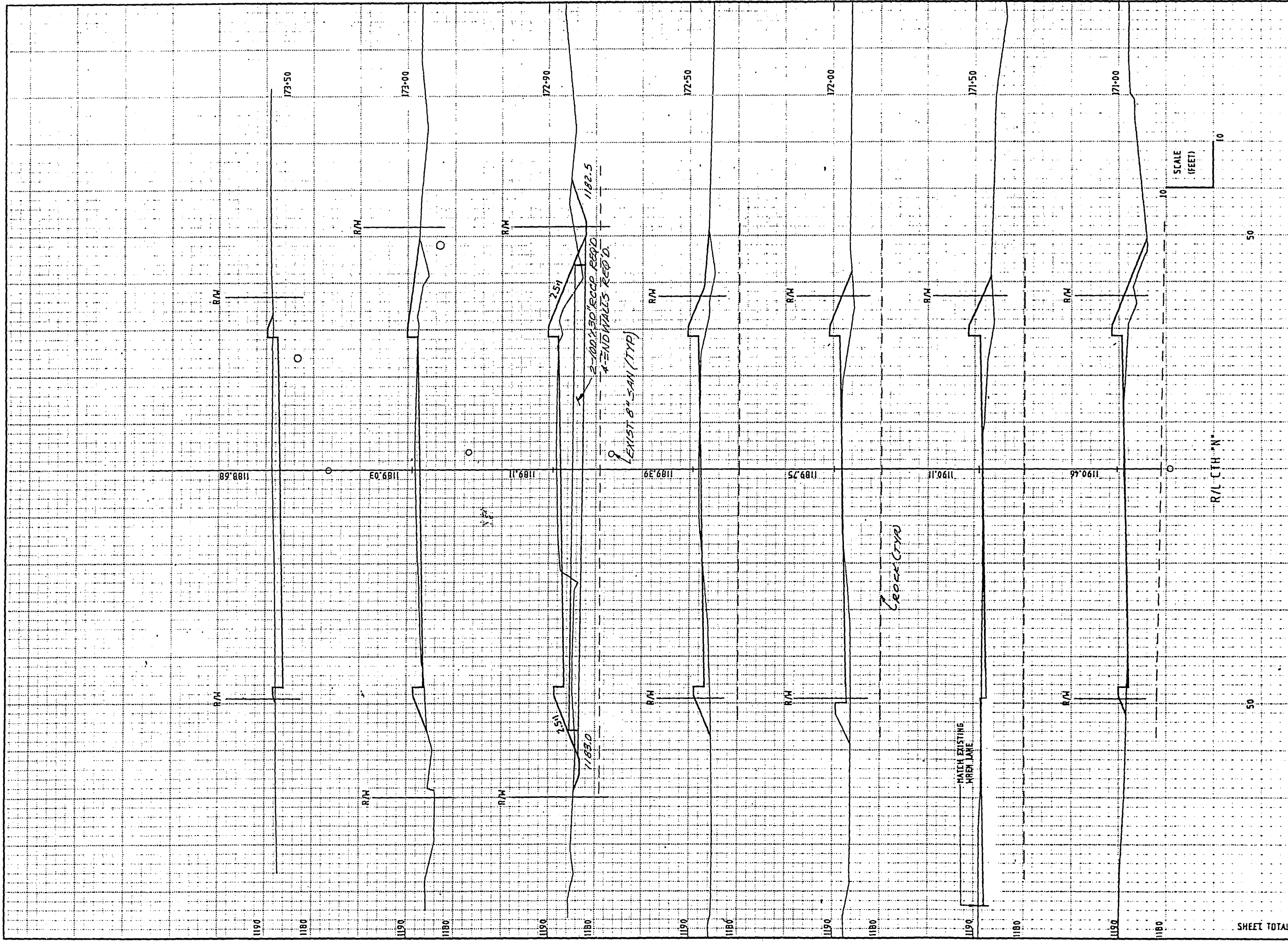
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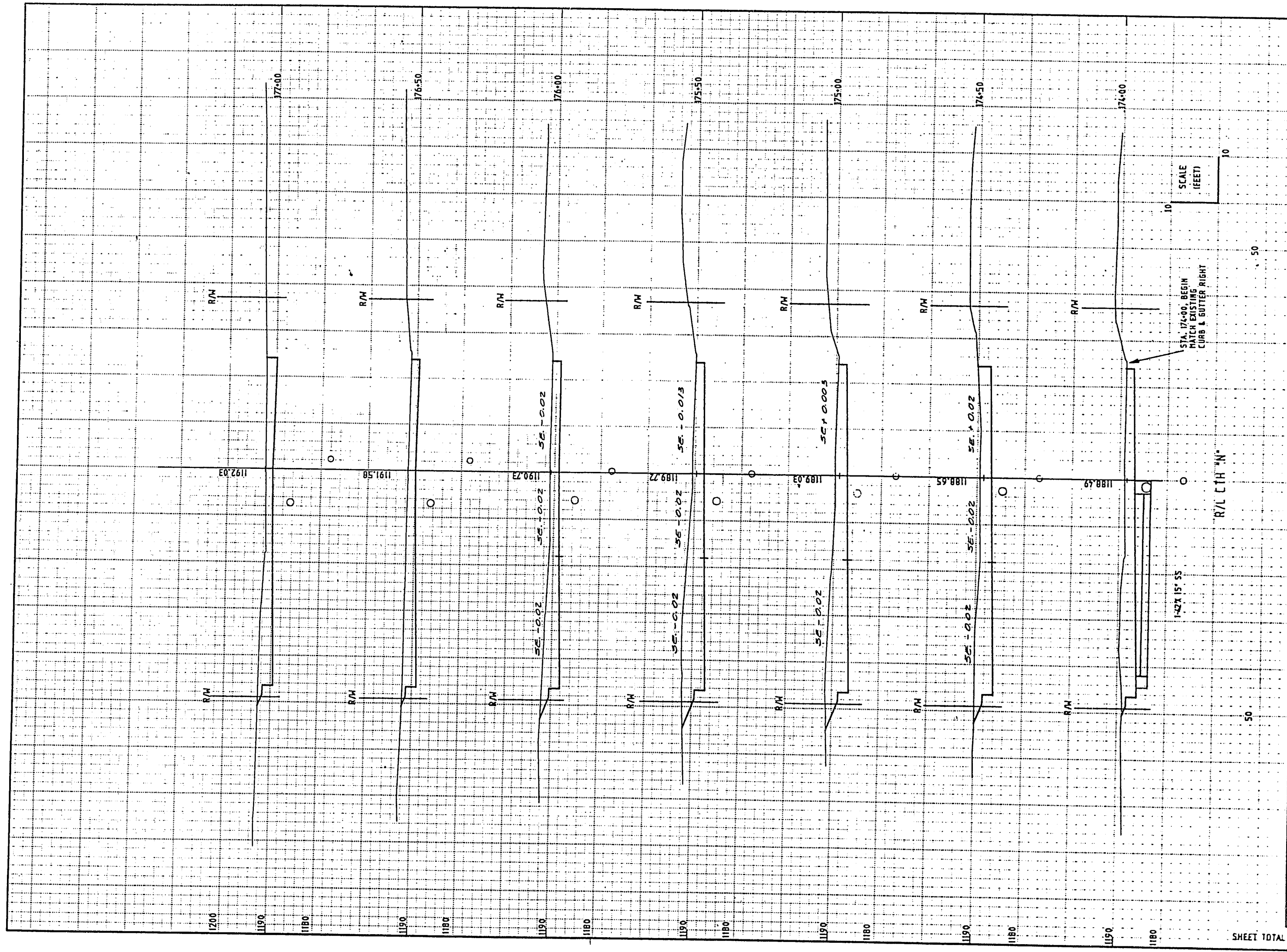
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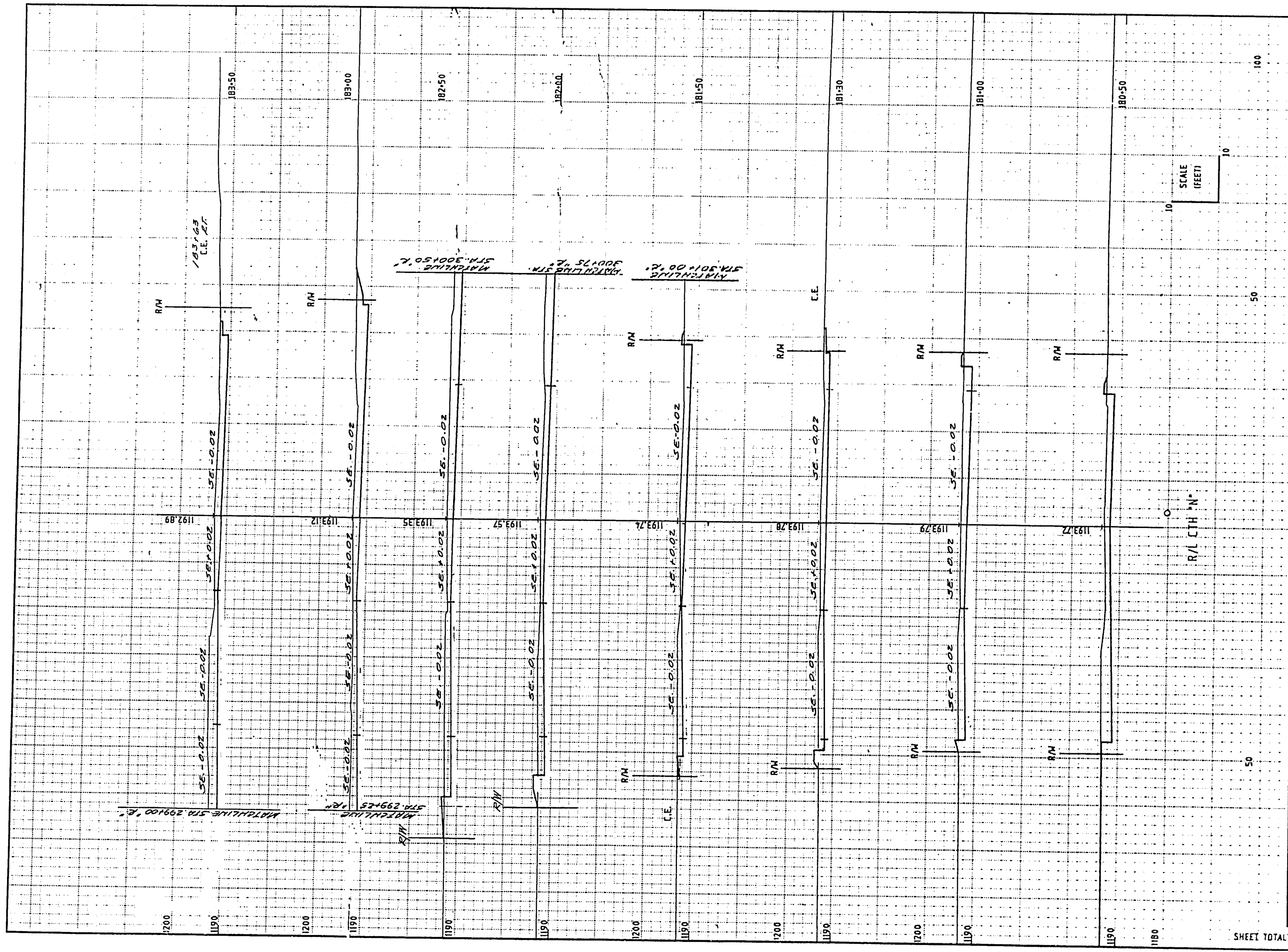


STATE PROJECT NUMBER										SHEET NUMBER
6999-01-71										99
STATION	YARDAGE									
	EXCAVATION									
	DISTANCE									1:1
		COMMON	ROCK	ROCK FOR STONE FILL						
170+75	25	7	0	0	2	302	15			77
170+50	25	12	0	0						
170+25	25	17	0	0						
170+00	25	17	0	0						
169+50	50	117	0	0						
169+25	50	69	0	0						
169+00	50	236	0	0						
168+50	50	406	0	0						
SHEET TOTAL										
	84	0	393							465



STATE PROJECT NUMBER												SHEET NUMBER
6999-01-71												9.10
STATION	YARDAGE											
	EXCAVATION											
	DISTANCE											
	173+50	173+00	172+50	172+00	171+50	171+00	170+50	170+00	169+50	169+00	168+50	168+00
COMMON	149	15	32	13	82	83	4					
ROCK												
FILL	30	27	146	169	147	109	61					
SHEET TOTAL												
	378											692

[illegible]



STATE PROJECT NUMBER										SHEET NUMBER
6999-01-71										9.13
STATION	YARDAGE									
	EXCAVATION									
	DISTANCE									
	180+50	181+00	181+30	181+50	182+00	182+50	183+00	183+50	184+00	184+50
Common	235	171	96	37	697	197	429			
Fill	1	4	2	2	7	7	0			
SHEET TOTAL										
	2272									27

