

• AS-BUILT PLAN •

N. 21
DESIGN COPY

Joe Lacenski

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

U.S.H. 51 TO CLOVERLAND LANE

(RIB MOUNTAIN ROAD)

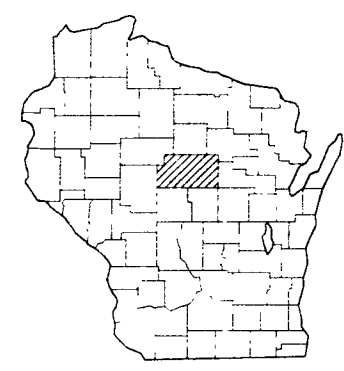
C.T.H. N
MARATHON COUNTY

STATE PROJECT NUMBER
6999-01-60

INDEX OF SHEETS

Sheet No.	Title
2-2.41	Typical Sections and Details
3-3.5	Estimate of Quantities
3A-3J	Miscellaneous Quantities
4-4.7	Right of Way Plat
5-5.6	Plan and Profile
6-6.28	Standard Detail Drawings
7-7.14	Sign Plates
8-8.1	Structure Plans
9-9.27	Computer Earthwork Data
9-9.27	Cross Sections

TOTAL SHEETS - 148



DESIGN DESIGNATION

A.D.T. 1992	• 19,819
A.D.T. 2012	• 25,526
O.H.V. 2012	• 1,740
D.	• 55-45
T.	• 11.01
V.	• 45 M.P.H.
ESAL	• 4,235,460

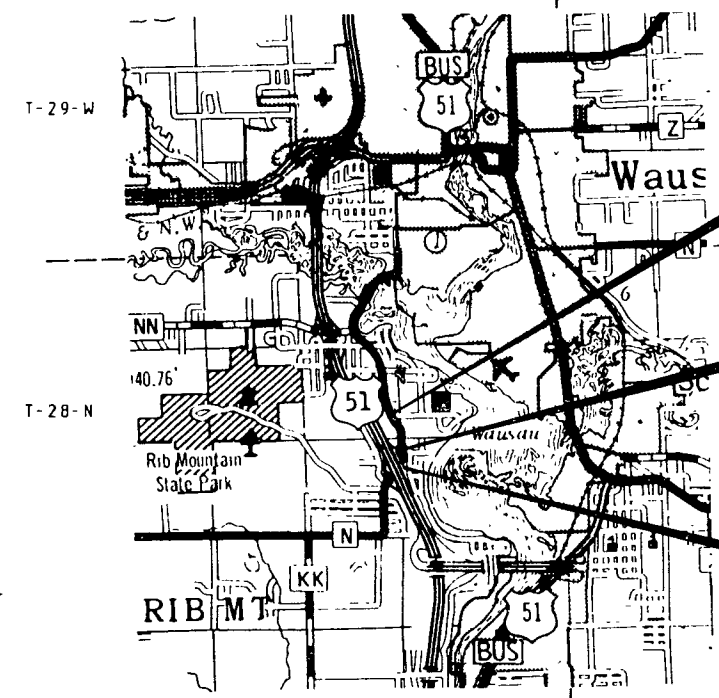
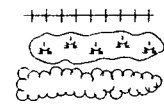
CONVENTIONAL SIGNS

COUNTY LINE	---
CORPORATE LIMITS	----
PROPERTY LINE	-----
LOT LINE	-----
LIMITED HIGHWAY EASEMENT	-----
EXISTING RIGHT OF WAY	-----
NEW RIGHT OF WAY	-----
REFERENCE LINE	-----
SLOPE INTERCEPT	-----
ORIGINAL GROUND	-----
MARSH OR ROCK PROFILE	-----
CULVERT IN PLACE	-----
CULVERT REQUIRED	-----
CULVERT REQUIRED (Profile)	-----

COMBUSTIBLE FLUIDS (UNDER PRESSURE)
UNDERGROUND UTILITIES
GAS
ELECTRIC
TELEPHONE
FIBER OPTICS
SERVICE PEDESTAL
CABLE MARKER
POWER POLE
TELEPHONE POLE
RAILROADS
MARSH
WOODED AREA



---	G
---	E
---	T
---	FD
☒	
P	
☒	



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE - 0.669 MI.

FILE NO.

DATE PREPARED

RESIDENT

CONTRACTOR

DATE COMPLETED

DATE COMPLETED

DATE COMPLETED

DATE COMPLETED

DATE COMPLETED

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PRIME CONTRACTOR:

Musson Bros., Inc.
Rhineland, WI

CONSTRUCTION SUPERVISION:

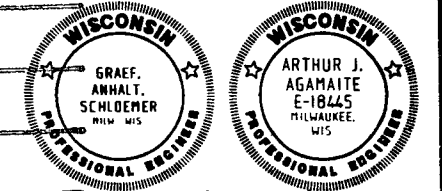
Graef, Anhalt, Schloemer & Assoc. Inc.
Green Bay, Wisconsin

APPROVED FOR

COUNTY of MARATHON

3/11/93
Date
Commissioner

ORIGINAL PLANS PREPARED BY



3/4/93
Date
Signature

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Surveyor B.J.N. District Checker RAB/DJM
Designer GAS C.T. Plan Examiner RAB
District Supervisor DAG C.D. Coordinator

APPROVED:
DATE 3/5/93 Jon W. Nicksell
DISTRICT DIRECTOR

APPROVED:
DATE 4/2/93 Charles J. Spang
STATE TRAFFIC ENGINEER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 5 - WISCONSIN

APPROVED

APPROVED

APPROVED

APPROVED

6999-01-60 MARATHON

5-FW
50-D

GENERAL NOTES

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

ASPHALTIC CONCRETE PAVEMENT, WHERE INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLANS.

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

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

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

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

THE EXACT LOCATION OF PRIVATE ENTRANCES IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM THE ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES OR FROM GRUBBING OF TREES OR STUMPS SHALL BE BACKFILLED WITH GRANULAR BACKFILL.

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

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 THAT ARE NOT SHOWN.

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 MIXTURE NO. 40 IN ALL LAWN AREAS.

ABBREVIATIONS

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

STANDARD DETAIL DRAWINGS

B A 5-9a	INLET COVERS
B A 5-9b	INLET COVERS
B A 5-9d	INLET AND MANHOLE COVERS.
B B 6-3	MANHOLES TYPE 1
B B 7-3	MANHOLES TYPE 2 AND 3
B C 1-4	INLETS TYPE 1, 2, AND 3
B D 1-11	CONCRETE CURB, CONCRETE CURB AND GUTTER, AND PAVEMENT TIES
B D 4-3	CONCRETE SURFACE DRAIN AND ASPHALTIC FLUME
B E 6-7	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
B E 7-1	EROSION MAT
B E 8-1	TYPICAL INSTALLATIONS OF EROSION BAILS
B E 9-3	SILT FENCE
B F 1-10a	APRON ENDWALLS FOR CULVERT PIPE
B F 6-3	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
9 B 2-5	CONDUIT
9 B 3-6	CONCRETE BASES
9 B 6-3	CAST BASES
9 B 9-3	CONCRETE CONTROL CABINET BASES
9 B 10-3	PULL BOX
9 B 11-2a	POLE MOUNTING FOR TRAFFIC SIGNALS, TYPE 2
9 B 11-2c	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE
9 B 11-2e	HARDWARE DETAILS FOR POLE MOUNTING
9 B 14-1	NON-FREEWAY LIGHTING UNIT POLE WIRING
15 C 2-2	BARRICADES AND TRAFFIC CONTROL FOR ROAD CLOSURES
15 C 7-2	PAVEMENT MARKING SYMBOLS
15 C 8-4a	PAVEMENT MARKING (MAINLINE AND INTERSECTIONS)
15 C 8-4b	PAVEMENT MARKING (RAMPS AND GORES)
15 C 12-1	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
16 A 1-5	LANDMARK REFERENCE MONUMENTS AND COVERS



T Y P E S E C T

UTILITIES

Wisconsin Public Service Corporation
1700 W. Sherman Street
Wausau, WI 54401
ATTN: Larry Sanders
(715) 845-7261

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 Kotton
(715) 847-1511

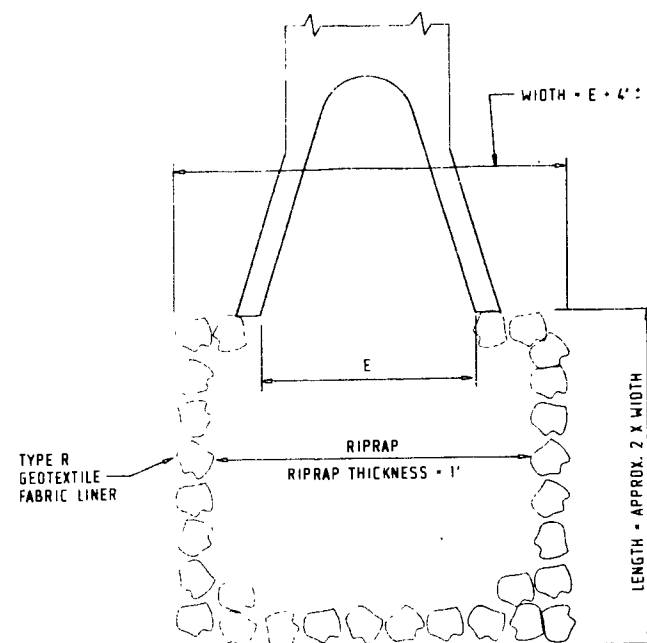
Crown Cable
400 Scott Street
Wausau, WI 54401
ATTN: Tom Bauman
(715) 845-4222

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



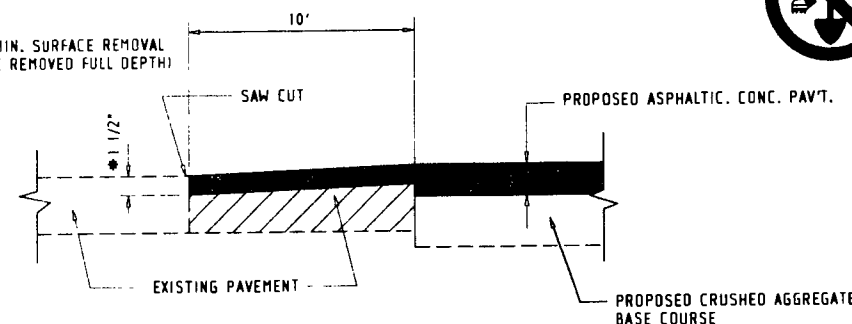
DIGGERS
HOTLINE

WISCONSIN
1-800-242-8511



TYPICAL PLACEMENT OF RIPRAP
AT CULVERT ENDS

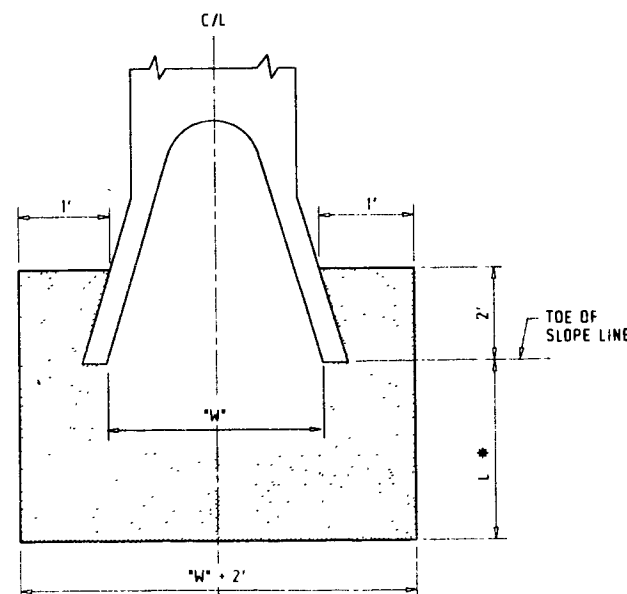
* NOTE
1 1/2" MIN. SURFACE REMOVAL
(MAY BE REMOVED FULL DEPTH)



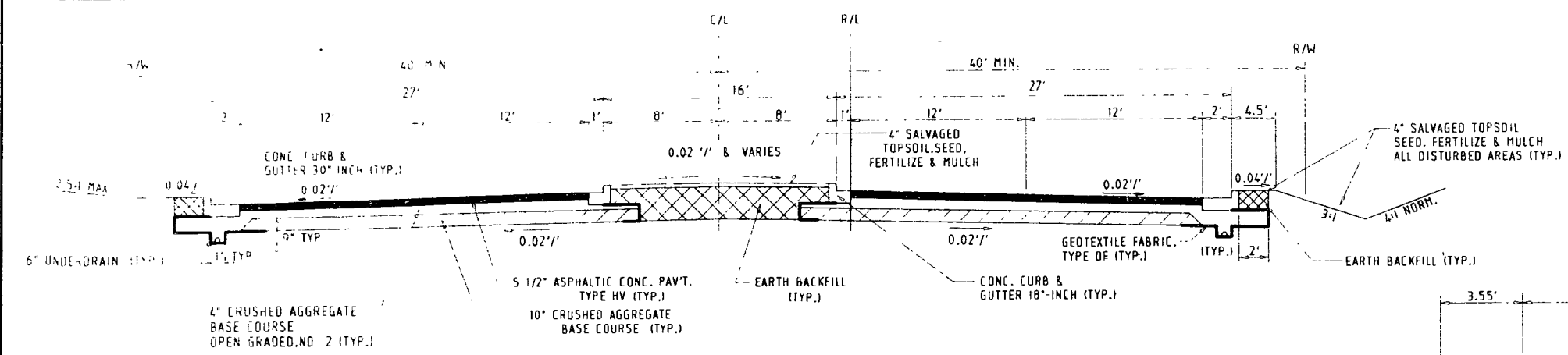
REMOVING ASPHALT SURFACE
BUTT JOINT

CLOVERLAND LANE
TULIP LANE
MORNINGGLORY LANE
TULIP CIRCLE
PHLOX LANE

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

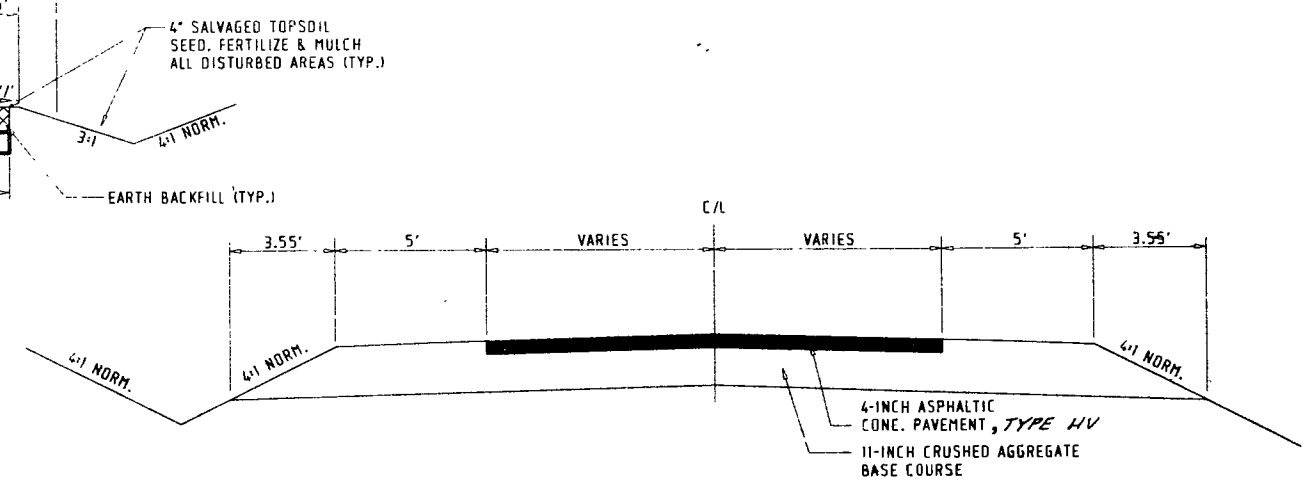


REINF. SOD AT PIPE END
(CONCRETE OR METAL PIPE)



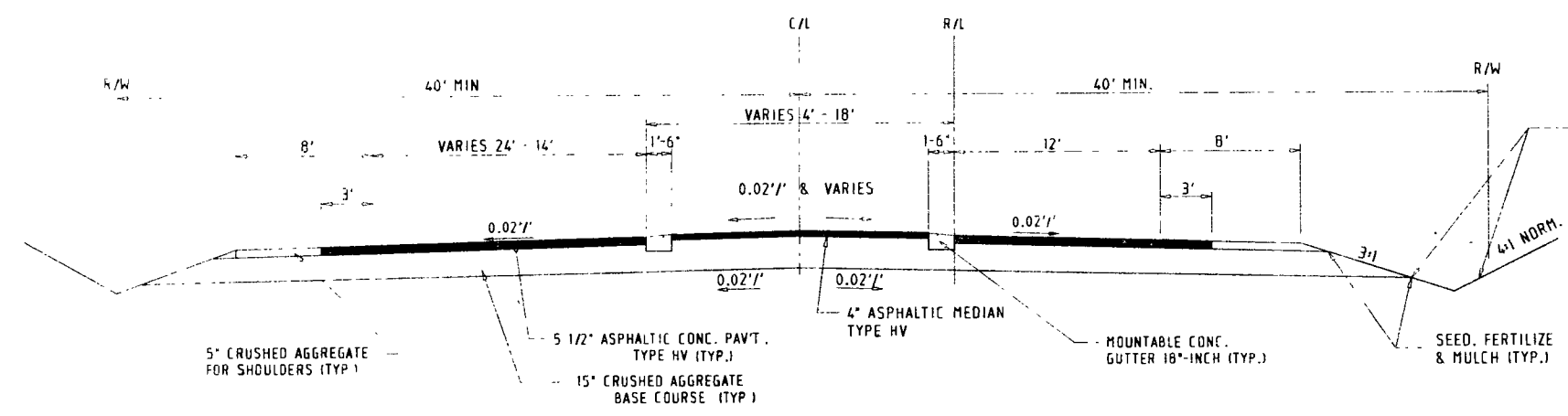
TYPICAL SECTION C.T.H. "N"

US 51 TO CLOVERLAND,
STA. 11+45 - STA. 14+20
STA. 16+90 - STA. 18+90
STA. 28+50 - STA. 130+20
STA. 131+75 - STA. 137+90



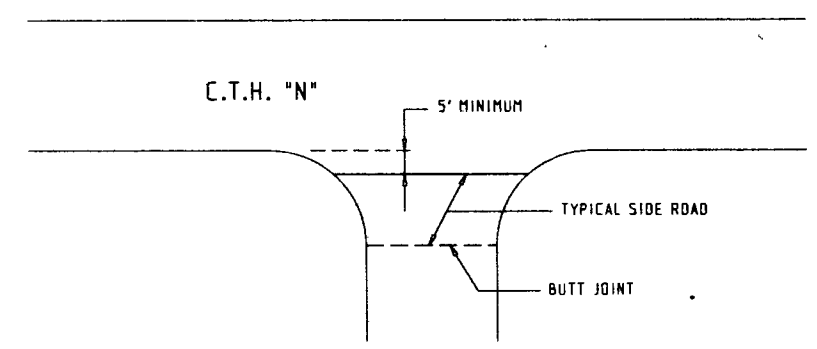
TYPICAL SIDE ROAD

TULIP CIRCLE
TULIP LANE
PHLOX LANE
MORNINGLORY LANE
CLOVERLAND LANE

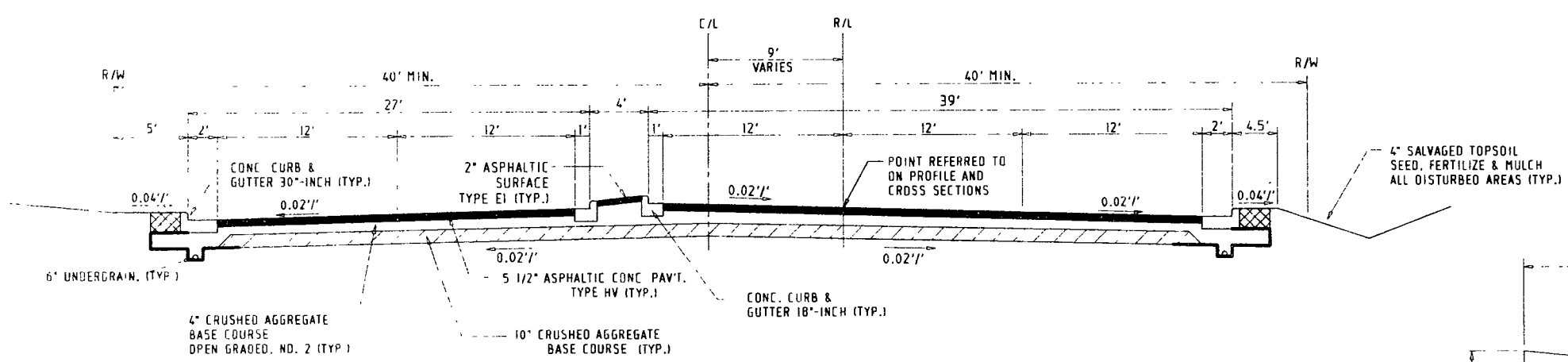


TYPICAL SECTION C.T.H. "N"

CLOVERLAND TO NORTH
STA. 144+00 - STA. 145+60



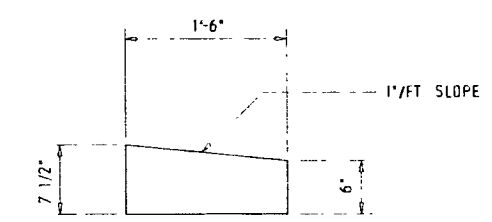
TYPICAL SIDE ROAD DETAIL



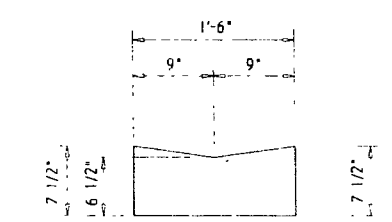
TYPICAL SECTION C.T.H. "N"

(NORTHBOUND LEFT TURN SHOWN,
SOUTHBOUND RIGHT HAND OPPOSITE)

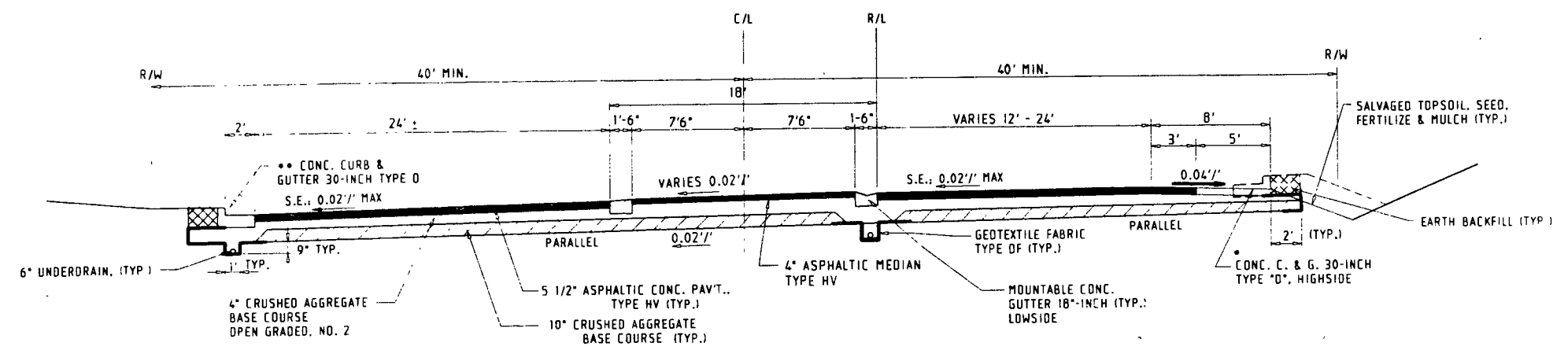
STA. 14+20 - STA. 16+90
STA. 18+90 - STA. 28+50
STA. 130+20 - STA. 131+75
STA. 137+90 - STA. 141+60



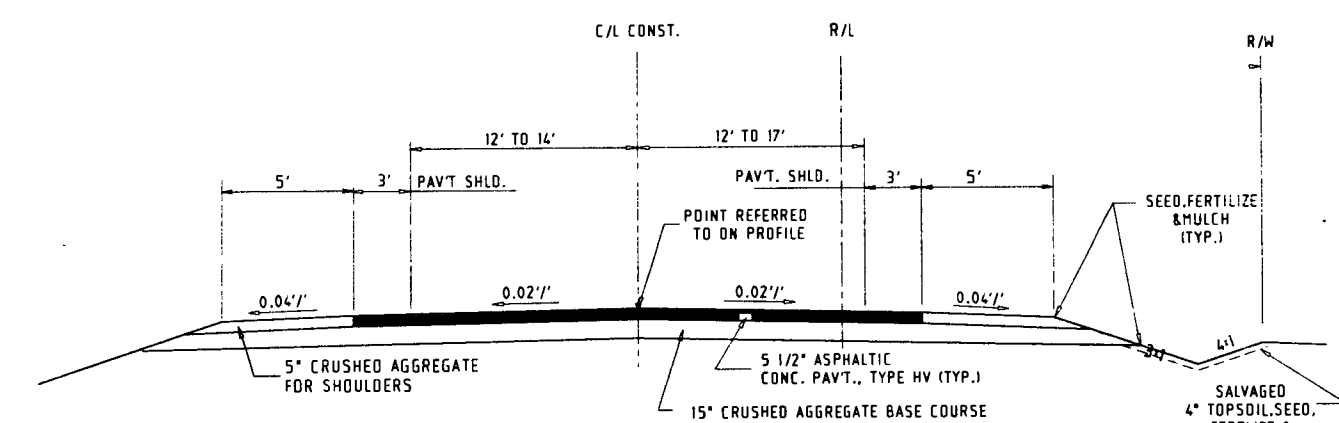
**18" CONC. GUTTER MOUNTABLE
(HIGH SIDE)**



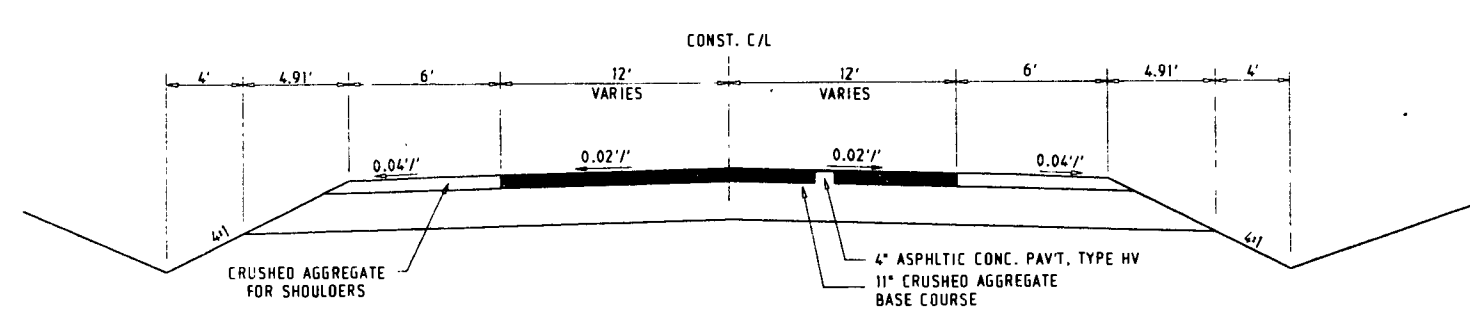
**18" CONC. GUTTER MOUNTABLE
(LOW SIDE)**



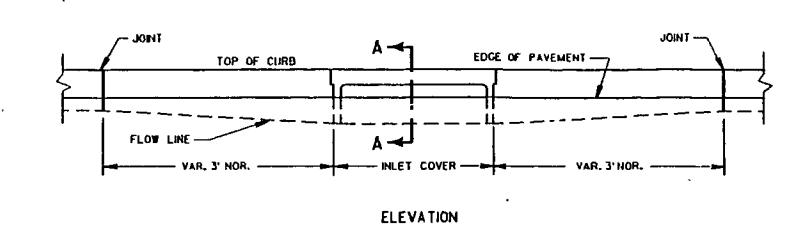
TYPICAL SECTION-SUPERELEVATED
 CLOVERLAND TO NORTH
 (NB SUPERELEVATION SHOWN, SB IS RIGHTHAND OPPOSITE)
 STA. 141+60 - STA. 144+00
 • C & G ENDS STA. 142+00, RT.
 • C & G ENDS STA. 144+00 LT.



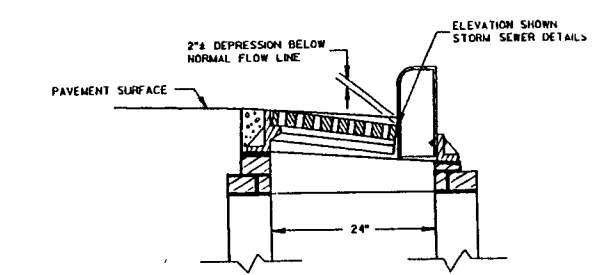
TYPICAL SECTION
 STA. 145+60 - 146+70



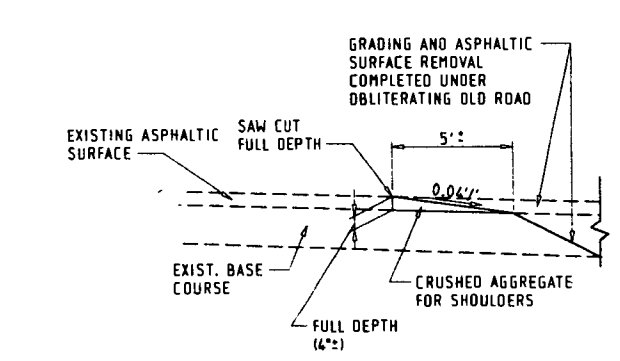
TYPICAL SECTION
 LILAC LANE RE-ALIGNMENT
 STA. 200+18 TO STA. 212+50
 STA. 218+50 TO STA. 226+00
 STA. 227+00 TO STA. 229+00



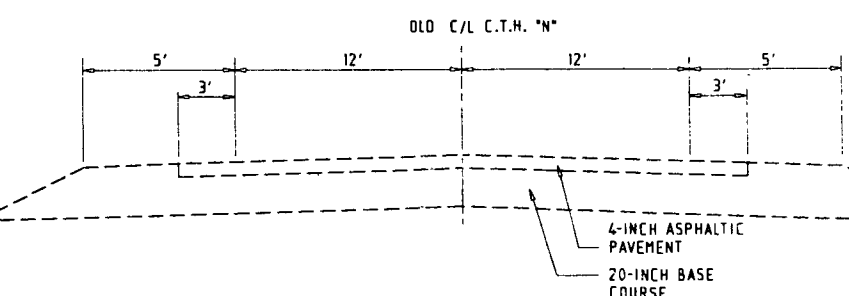
ELEVATION



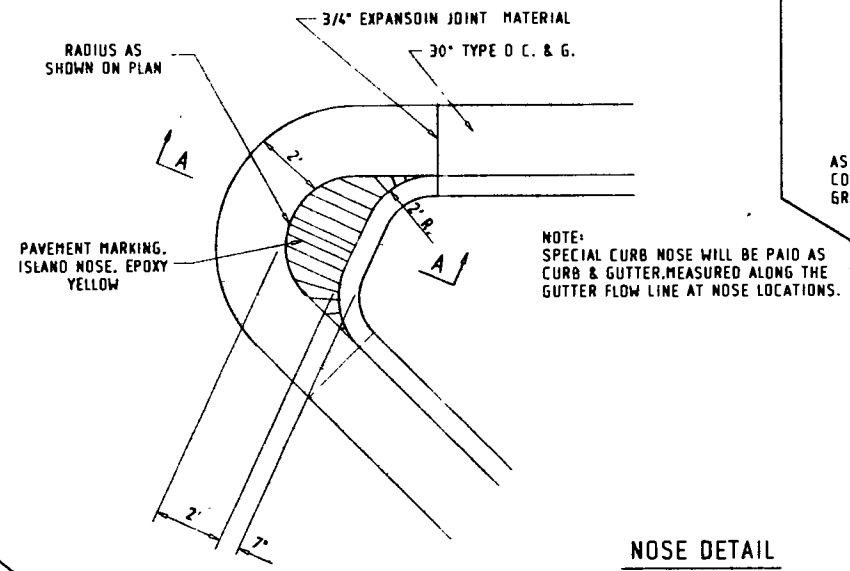
SECTION A-A
 DETAIL OF CURB AND GUTTER AT INLETS



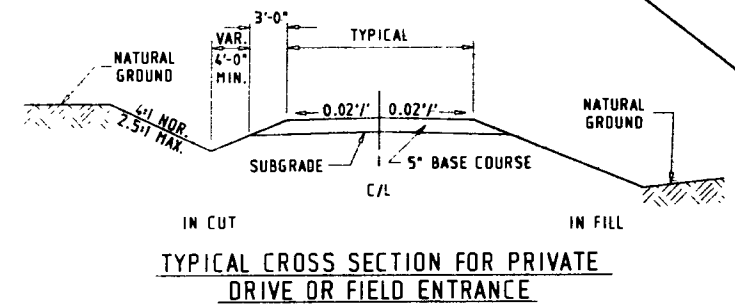
TYPICAL CR. AGGREGATE SHOULDER
 12+80 TO 13+80, 100' RT. (TULIP LANE)
 203+L+50 TO 204+L+50, 150' LT. (LILAC LANE)



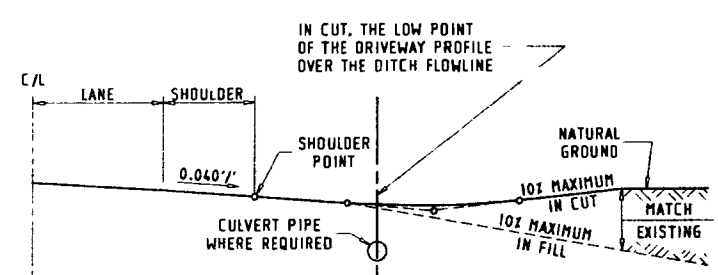
EXISTING TYPICAL C.T.H. "N"
 (STA. 11+40 TO STA. 146+70)



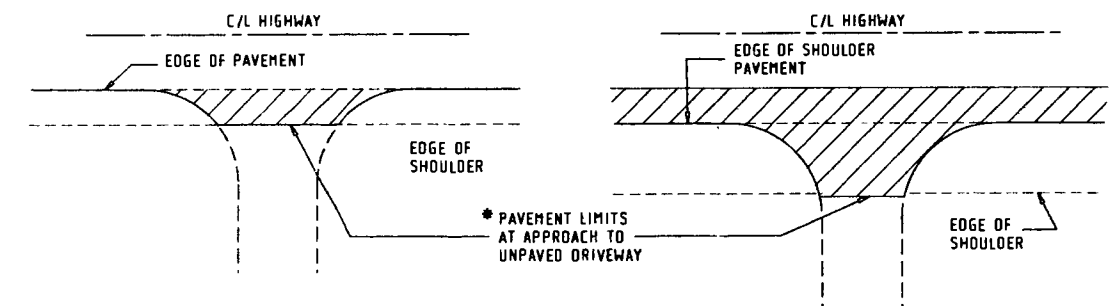
NOSE DETAIL
(TO BE CONSTRUCTED AT ALL ISLAND AND MEDIAN NOSES)



TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE

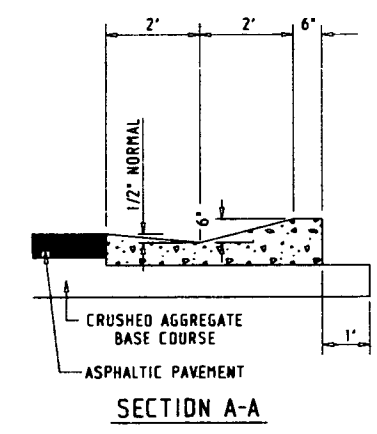


TYPICAL DRIVEWAY PROFILES
TULIP LANE CONNECTION

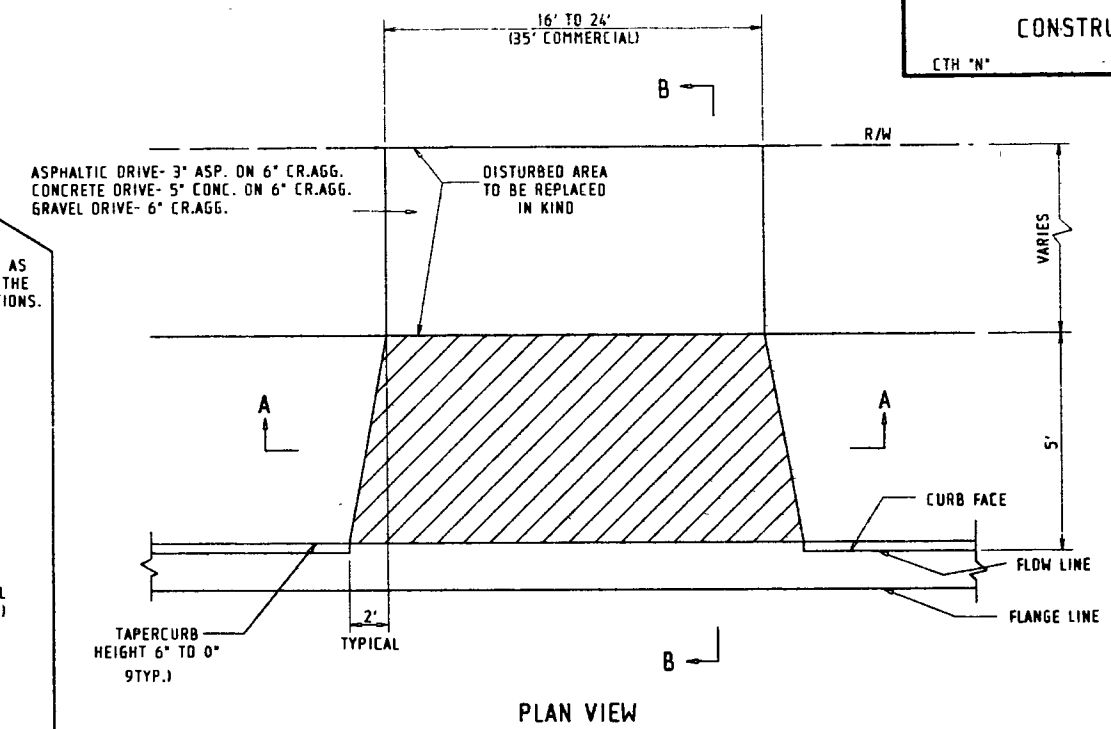


PLAN VIEW

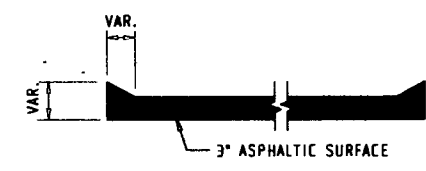
RURAL DRIVEWAY INTERSECTION DETAIL



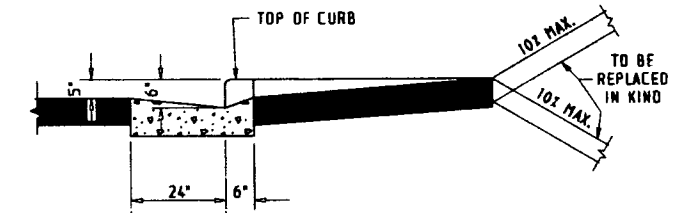
SECTION A-A



PLAN VIEW

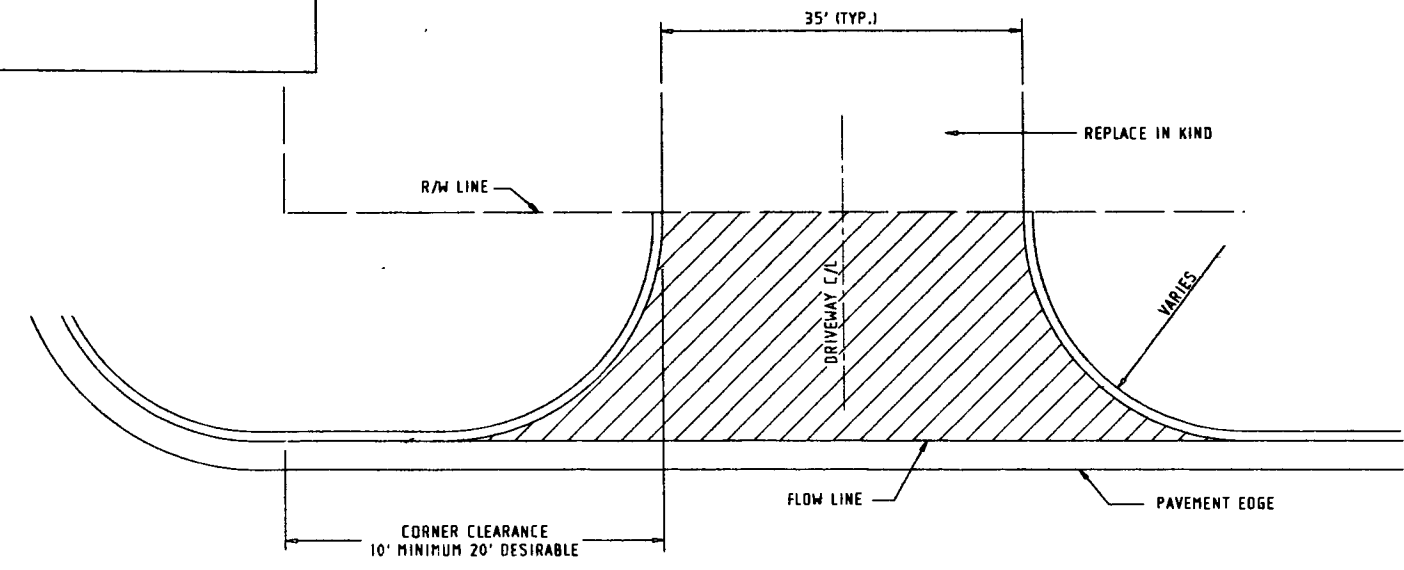


SECTION A-A

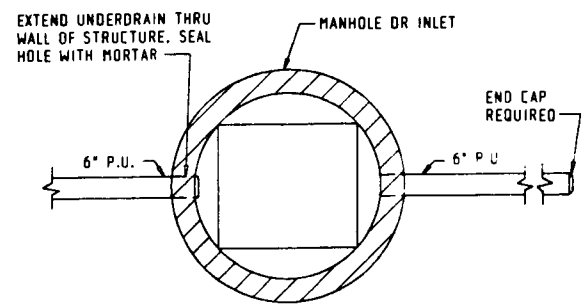


SECTION B-B

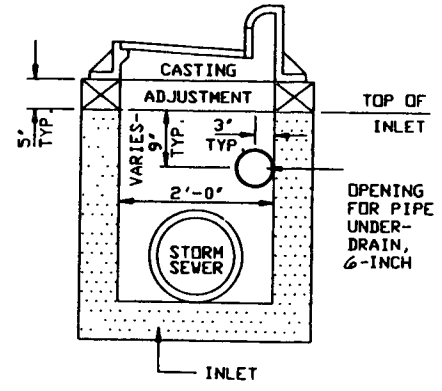
URBAN DRIVEWAY DETAILS



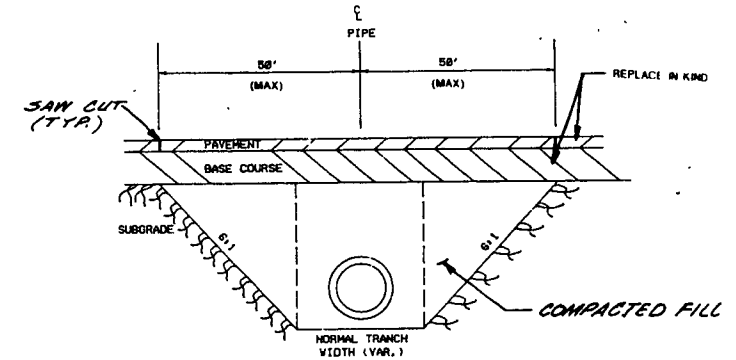
COMMERCIAL DRIVE



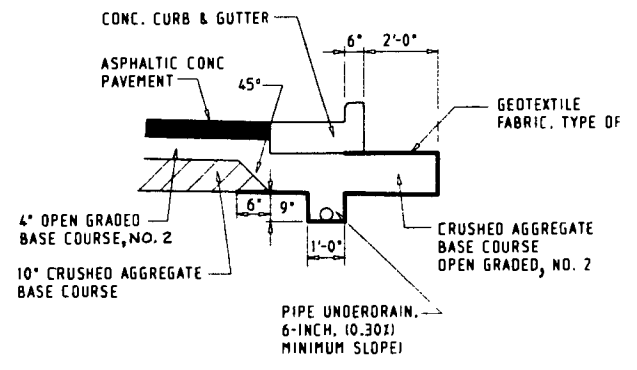
PLAN OF PIPE UNDERDRAIN
 PIPE UNDERDRAIN, 6" CONNECTION TO MANHOLE, OR INLET.
 NOTE: CONTRACT UNIT PRICE FOR 6" PIPE SHALL INCLUDE COST OF CONNECTION TO MANHOLE, INLET OR CATCH BASINS



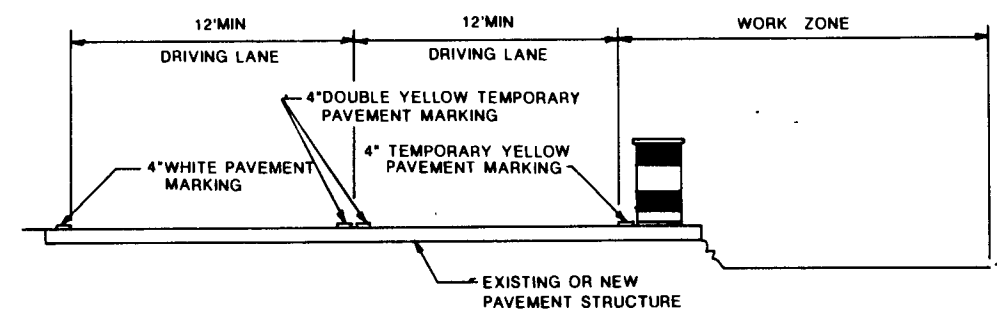
TYPICAL UNDERDRAIN CONNECTION AT INLET



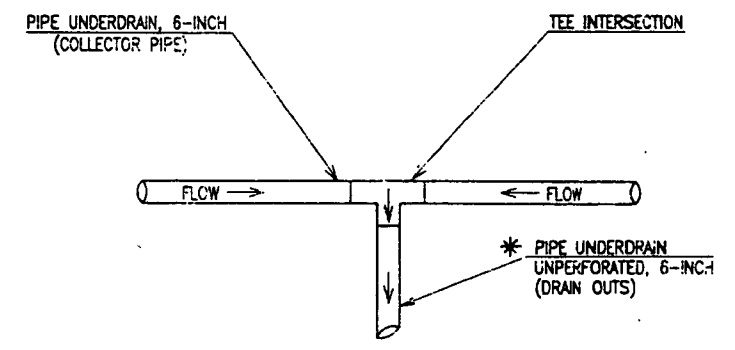
PIPE EXCAVATION AND BACKFILL FOR CULVERT PIPE
 STA 215' ± + 10



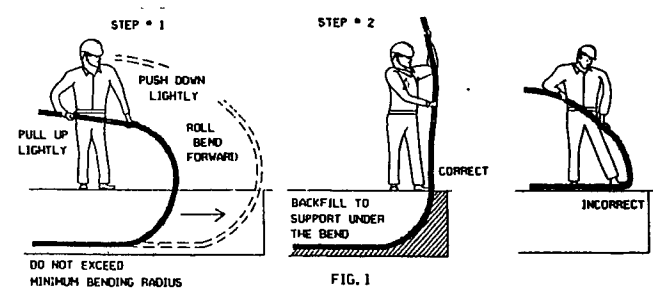
UNDERDRAIN DETAIL
 DETAILS SHOWN HERE MAY BE USED AT "MEDIAN UNDERDRAIN" AND AT "CURB & GUTTER WITHOUT UNDERDRAIN" AS IS APPROPRIATE.



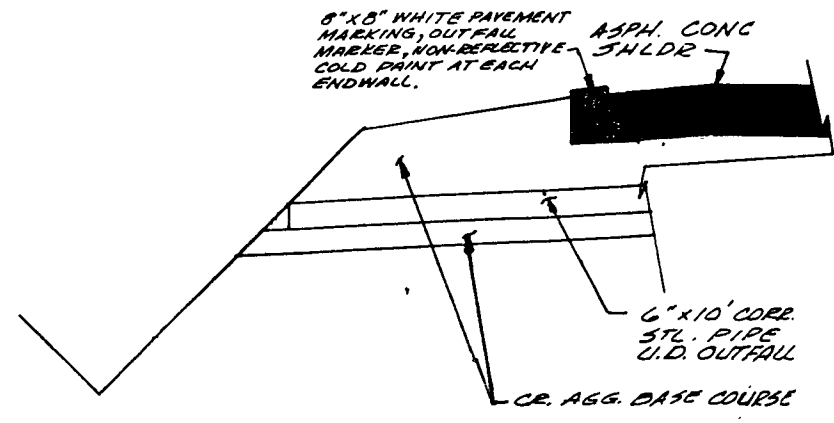
TYPICAL TRAFFIC CONTROL SECTION



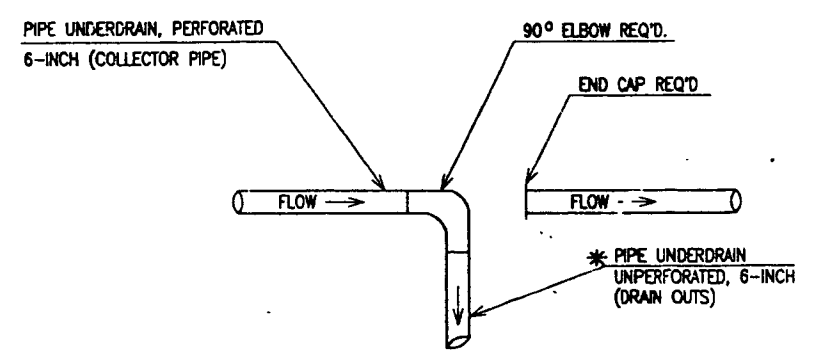
TYPICAL DRAIN OUT ASSEMBLY TO BE USED AT ALL INTERMEDIATE AND END PIPE DRAIN OUTS



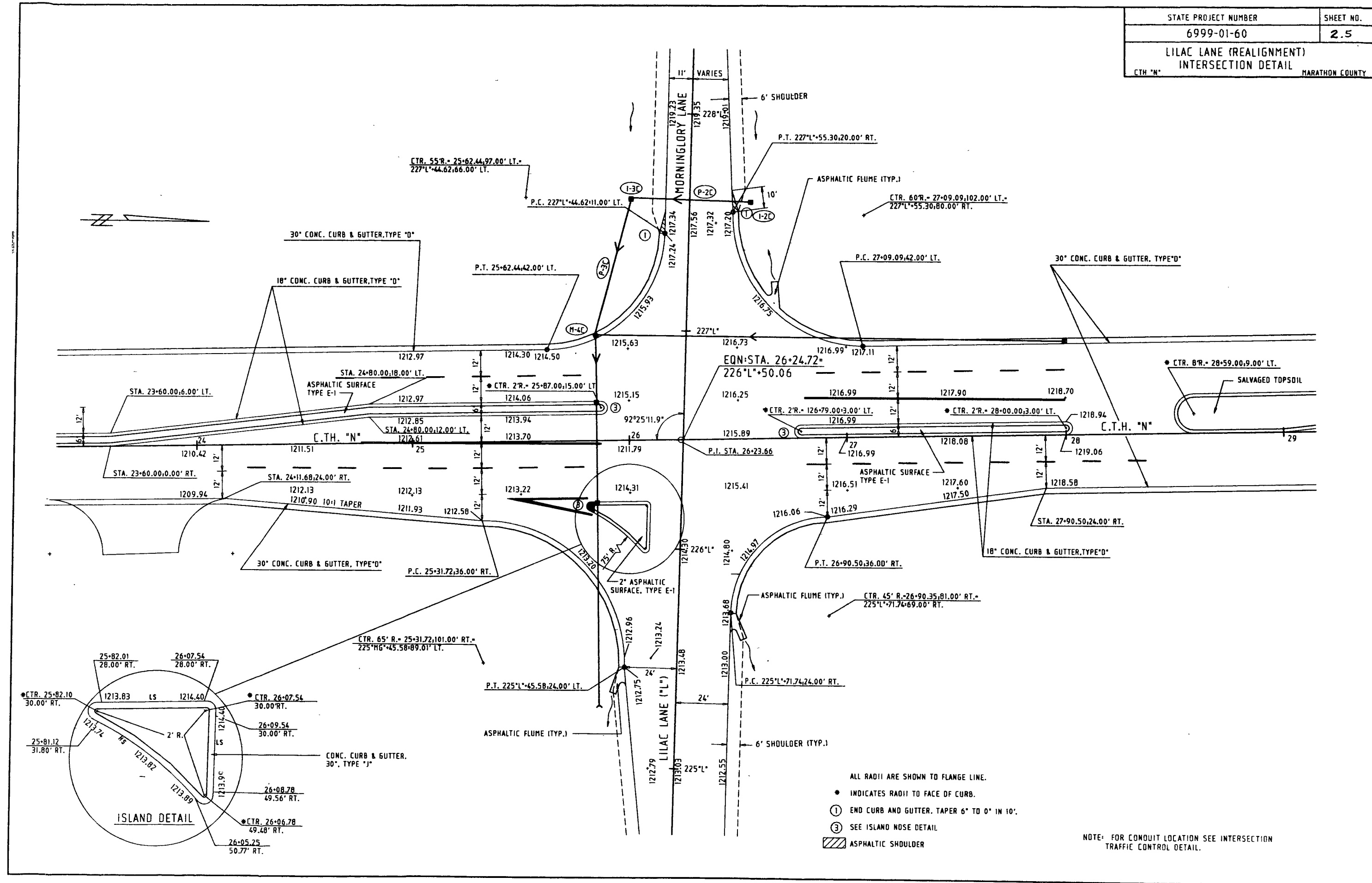
INSTALLING CONDUIT, 2 INCH (WPSC)



UNDERDRAIN OUTFALL MARKER



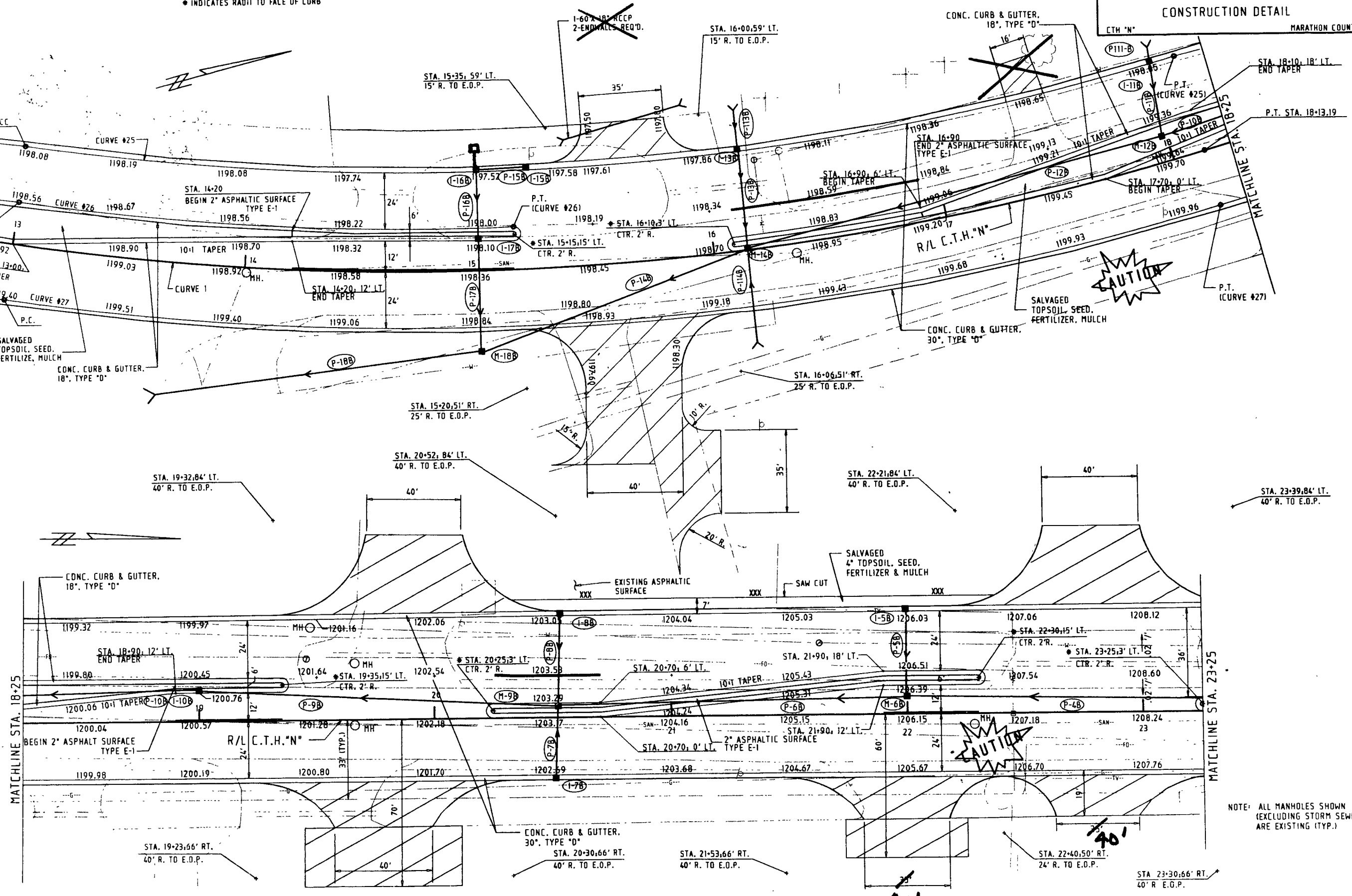
STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.5
LILAC LANE (REALIGNMENT) INTERSECTION DETAIL	
CTH "N"	MARATHON COUNTY

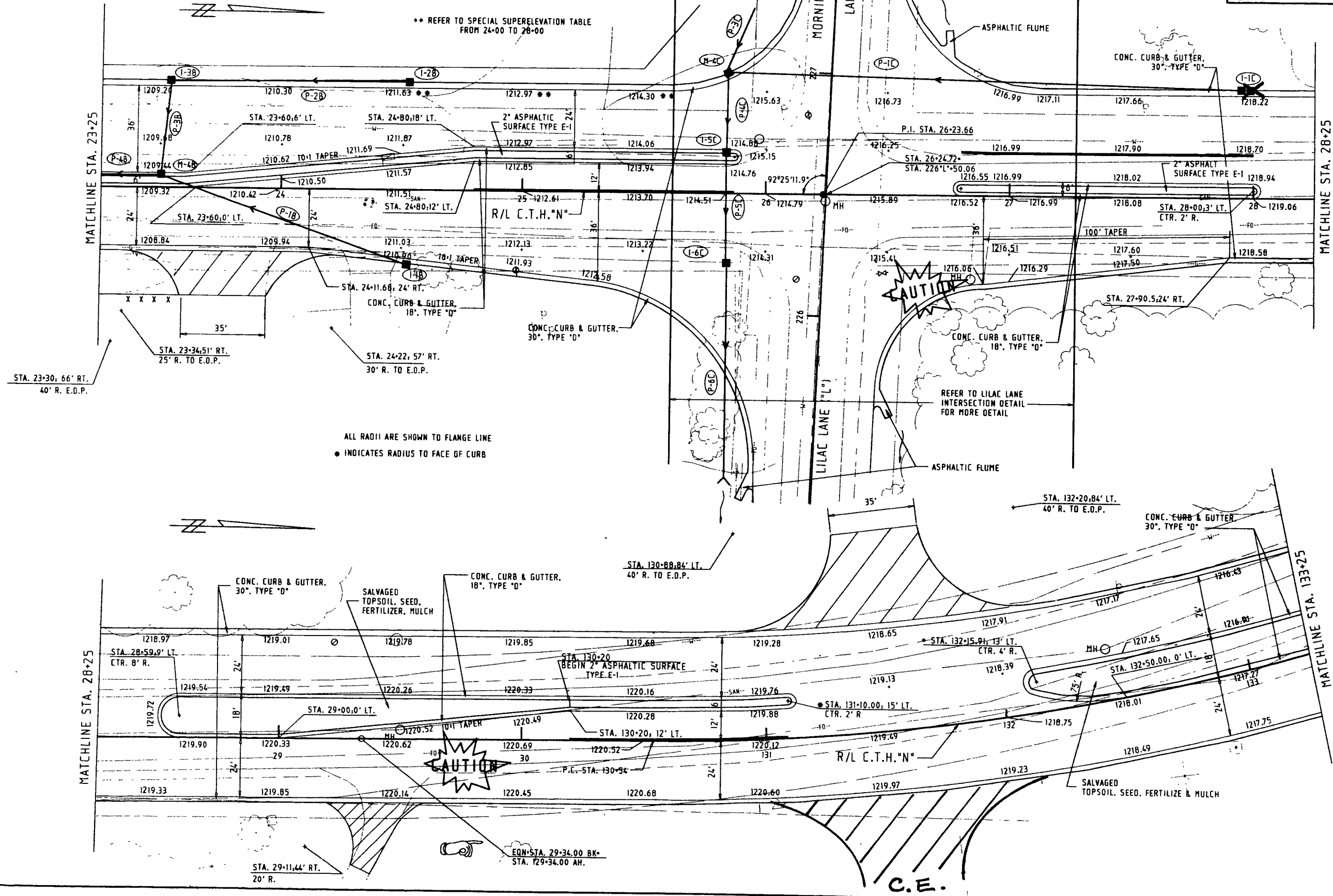


CONSTRUCTION DETAIL

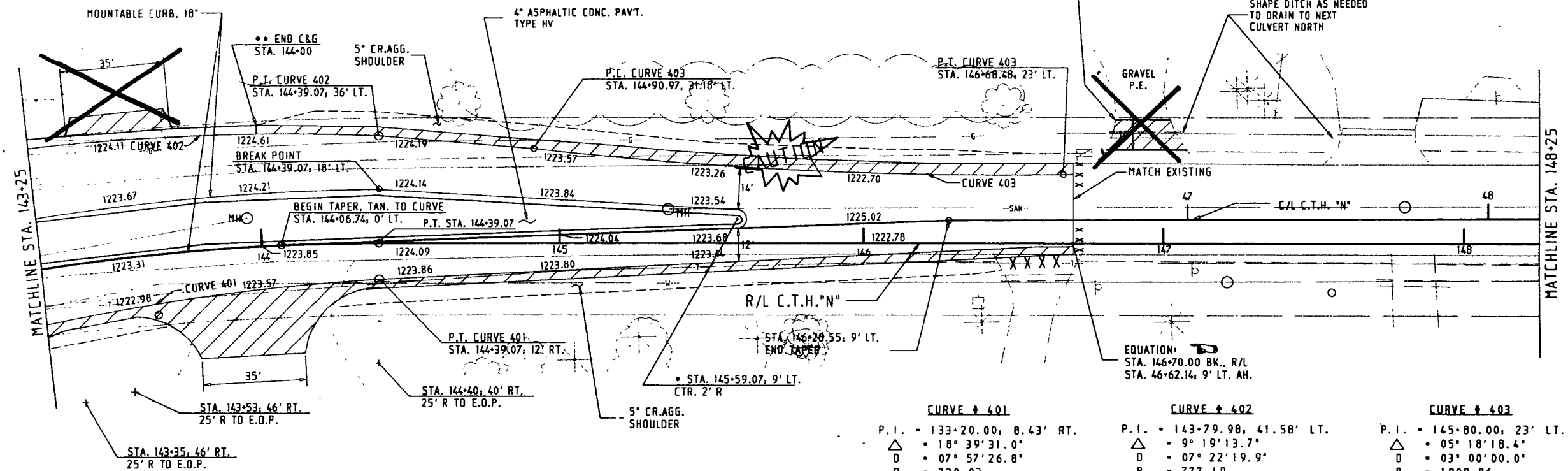
CTH "N"

MARATHON COUNTY

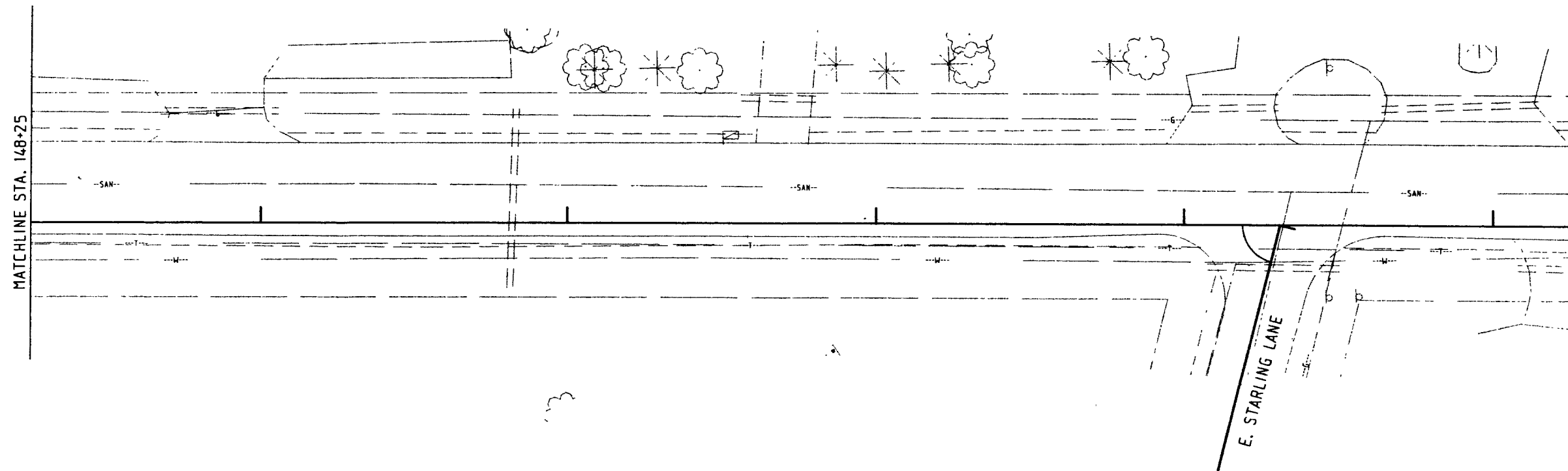
REFER TO USH 51 ON/OFF RAMP
INTERSECTION DETAIL
STA. 12+75ALL RADII ARE SHOWN TO FLANGE LINE
* INDICATES RADII TO FACE OF CURBNOTE: ALL MANHOLES SHOWN
(EXCLUDING STORM SEWER)
ARE EXISTING (TYP.)

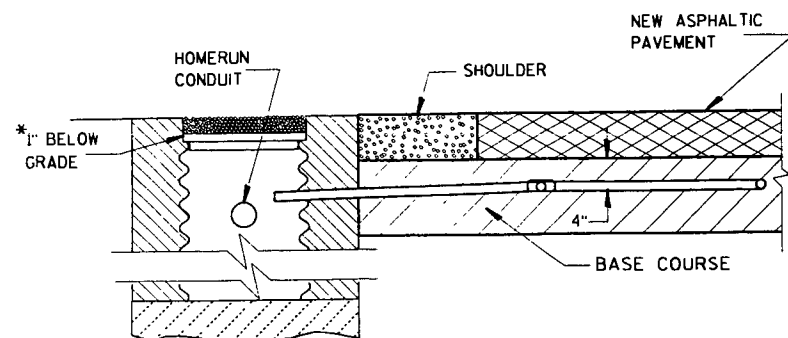


ALL RADII ARE SHOWN TO FLANGE LINE
 • INDICATES RADII TO FACE OF CURB
 •• CONSTRUCT 10' TAPER



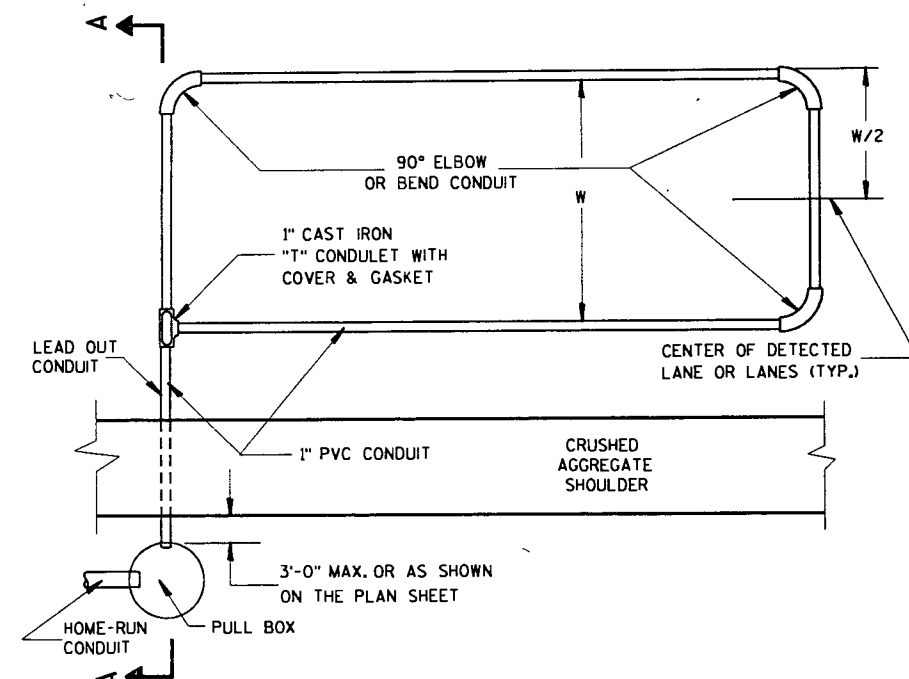
CURVE # 401		CURVE # 402		CURVE # 403	
P.I.	= 133+20.00, 8.43' RT.	P.I.	= 143+79.98, 41.58' LT.	P.I.	= 145+80.00, 23' LT.
Δ	= 18° 39' 31.0"	Δ	= 9° 19' 13.7"	Δ	= 05° 18' 18.4"
D	= 07° 57' 26.8"	D	= 07° 22' 19.9"	D	= 03° 00' 00.0"
R	= 720.03	R	= 777.19	R	= 1909.86
T	= 118.29	T	= 63.35	T	= 88.48
L	= 234.48	L	= 126.43	L	= 176.84
L.C.	= 233.45	L.C.	= 126.29	L.C.	= 176.77





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 DETECTOR LOOP

GENERAL NOTES

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

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.

DETECTOR LOOP 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.

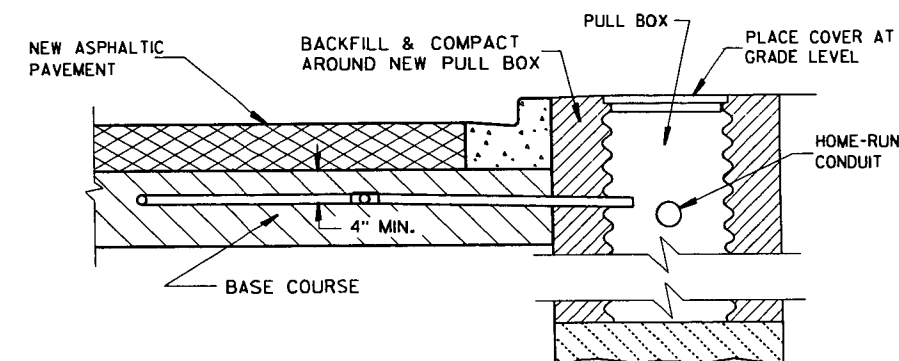
LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

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

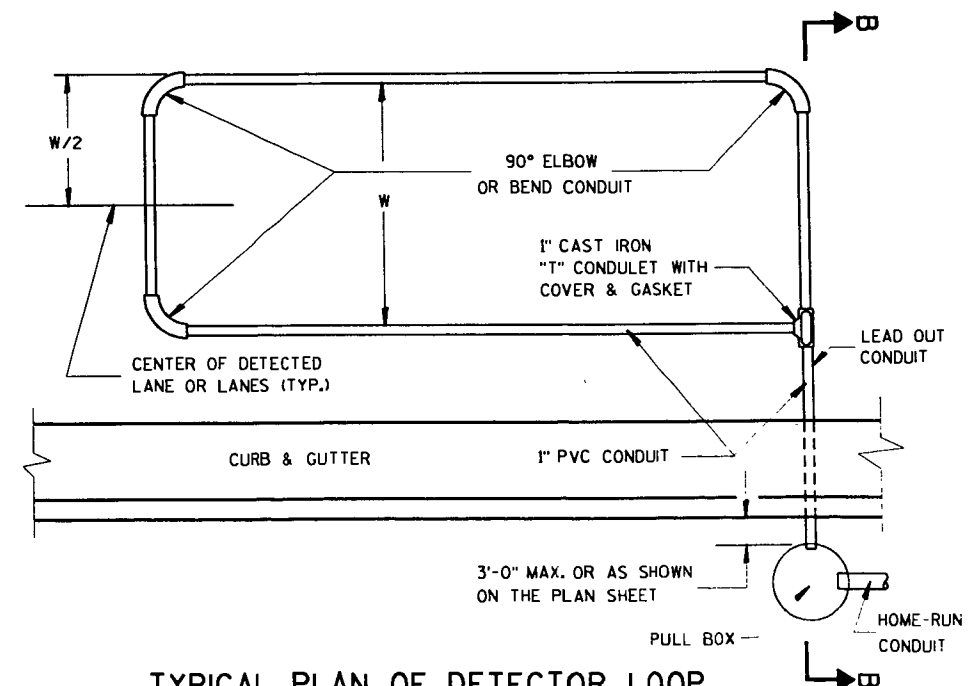
WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN 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 ASPHALTIC PAVEMENT AND DIRECTLY ABOVE THE CONDULET AFTER THE FINAL LAYER OF PAVEMENT IS COMPLETELY INSTALLED IF REQUIRED BY THE DISTRICT TRAFFIC SECTION.



SECTION B-B
CURB & GUTTER
DETECTOR LOOP INSTALLATION DETAIL



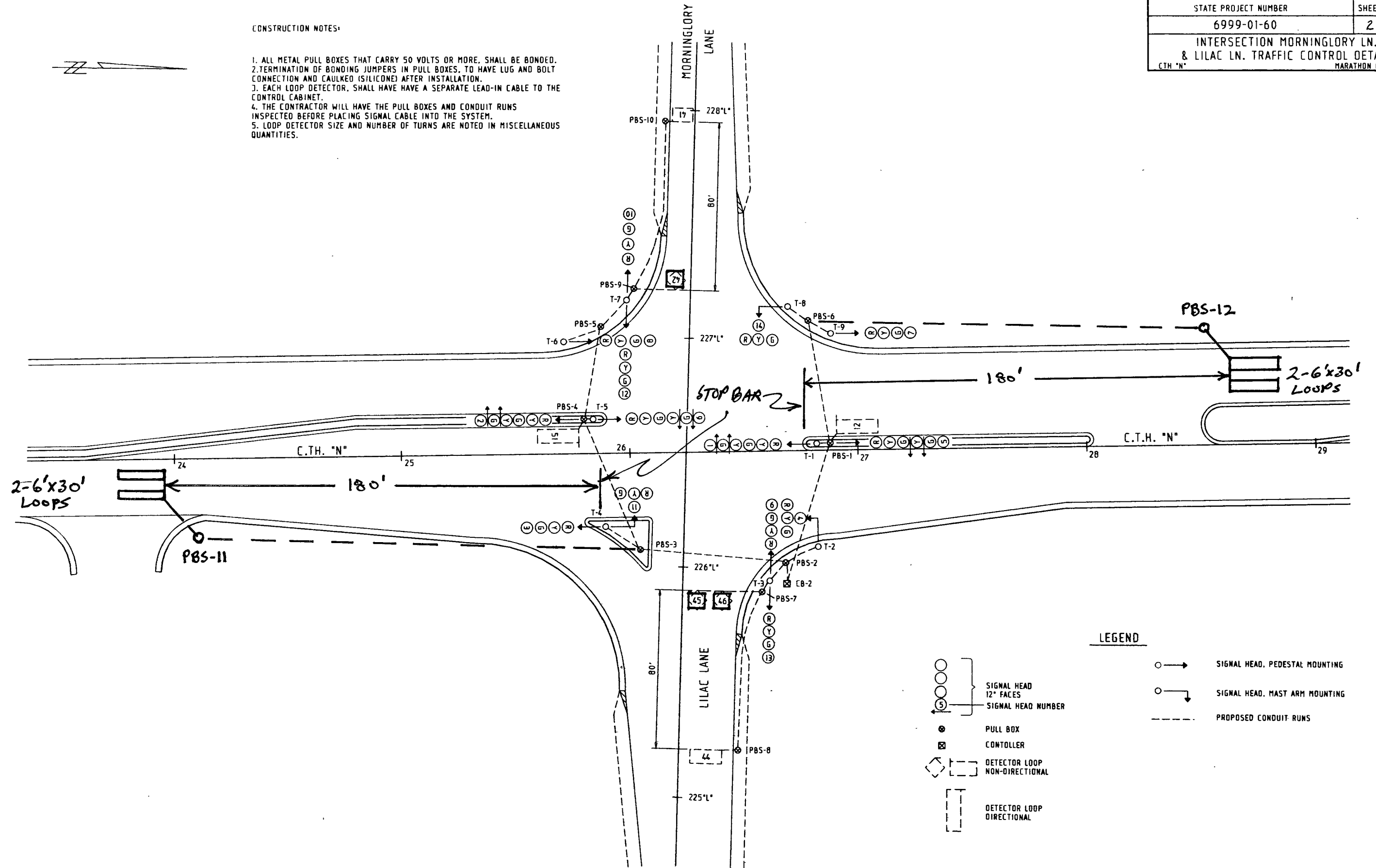
TYPICAL PLAN OF DETECTOR LOOP

LEVELS 0W - 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

CONSTRUCTION NOTES:

1. ALL METAL PULL BOXES THAT CARRY 50 VOLTS OR MORE, SHALL BE BONDED.
2. TERMINATION OF BONDING JUMPERS IN PULL BOXES, TO HAVE LUG AND BOLT CONNECTION AND CAULKED (SILICONE) AFTER INSTALLATION.
3. EACH LOOP DETECTOR, SHALL HAVE HAVE A SEPARATE LEAD-IN CABLE TO THE CONTROL CABINET.
4. THE CONTRACTOR WILL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED BEFORE PLACING SIGNAL CABLE INTO THE SYSTEM.
5. LOOP DETECTOR SIZE AND NUMBER OF TURNS ARE NOTED IN MISCELLANEOUS QUANTITIES.

STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.13
INTERSECTION MORNINGLORY LN. & LILAC LN. TRAFFIC CONTROL DETAIL	
CTH "N"	MARATHON COUNTY



SEQUENCE OF OPERATION											
#1				#2				#3			
CLEAR TO				CLEAR TO				CLEAR TO			
HEAD NUMBERS	R/W	*	*	R/W	*	*		R/W	*	*	
#1 (5,6)	←	*	*	←	*	*		←	*	*	
#2 (1,2,3,4)	R	R	R	G	Y	R		R	R	R	
#3											
#4 (9,10,11,12,13,14)	R	R	R	R	R	R		G	Y	R	
#5 (1,2)	←	*	*	←	*	*		←	*	*	
#6 (5,6,7,8)											
#7											
#8											

SEQUENCE OF OPERATION											
#5				#6				#7			
CLEAR TO				CLEAR TO				CLEAR TO			
HEAD NUMBERS	R/W	*	*	R/W	*	*		R/W	*	*	
#1 (5,6)	←	*	*	←	*	*		←	*	*	
#2 (1,2,3,4)	R	R	R	R	R	R		R	R	R	
#3											
#4 (9,10,11,12,13,14)	R	R	R	R	R	R		G	Y	R	
#5 (1,2)	←	*	*	←	*	*		←	*	*	
#6 (5,6,7,8)	R	R	R	G	Y	R					
#7											
#8											

• • CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE NONCONFLICT MONITORING BELOW)

NONCONFLICT MONITORING

PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
#1	5 OR 6	2, 4
#2	5 OR 6	1, 4
#3	NOT USED	NOT USED
#4	—	1, 2, 5, 6
#5	1 OR 2	4, 6
#6	1 OR 2	4, 5
#7	NOT USED	NOT USED
#8	NOT USED	NOT USED

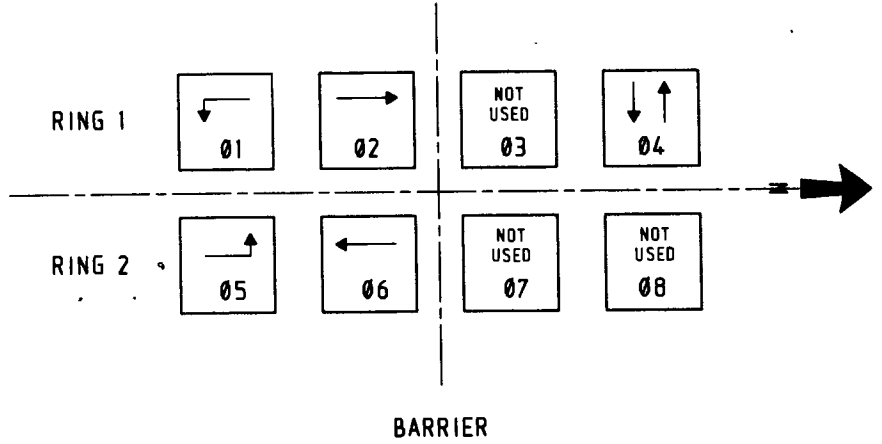
DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT	CALLING DELAY	EXTENSION STRETCH	MOTORCYCLE SENSITIVITY	NUMBER OF TURNS IN LOOP
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
12	2	X			1	1				X	3
41	3			X	—	4				X	5
42	4		X		4	—				X	5
44	6			X	—	4				X	4
45	7		X		4	—				X	3
46	8		X		4	—				X	3
51	9	X			5	5				X	4

3
5
5
4
3
3
4

CONTROLLER LOGIC

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



OVERLAPS

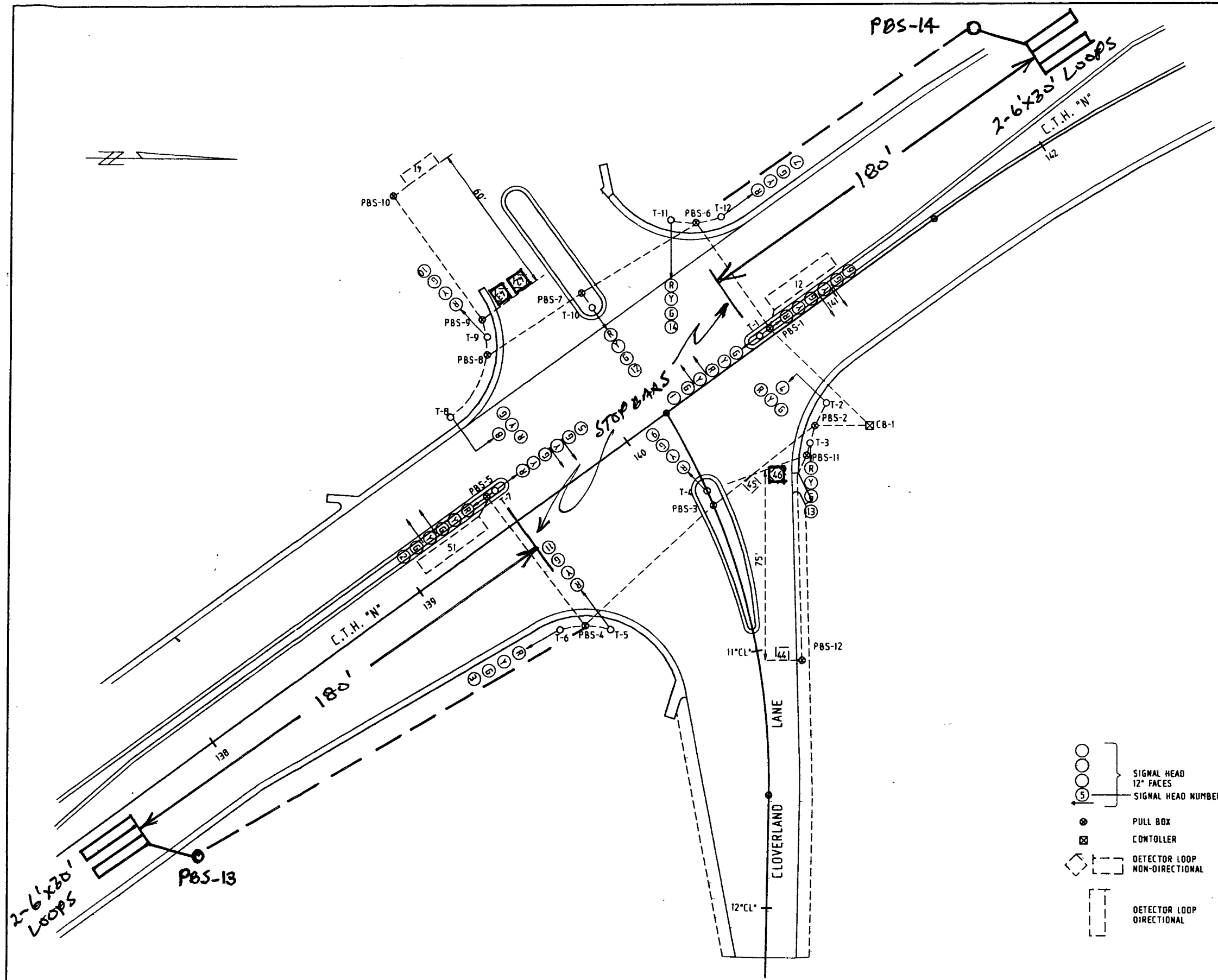
O.L."A"= NOT USED
O.L."B"= NOT USED
O.L."C"= NOT USED
O.L."D"= NOT USED

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. PROVIDE FOR HAND CONTROL OPERATION.

SIGNAL NO:
REVISION:
DATE

STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.15
CLOVERLAND LANE INTERSECTION	
TRAFFIC CONTROL DETAIL	
CTH "N"	MARATHON COUNTY



LEGEND

- SIGNAL HEAD, PEDESTAL MOUNTING
- SIGNAL HEAD, MAST ARM MOUNTING
- PROPOSED CONDUIT RUNS
- SIGNAL HEAD 12" FACES
SIGNAL HEAD NUMBER
- PULL BOX
- CONTROLLER
- DETECTOR LOOP NON-DIRECTIONAL
- DETECTOR LOOP DIRECTIONAL

SEQUENCE OF OPERATION																FLASH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
HEAD NUMBERS		#1				#2				#3				#4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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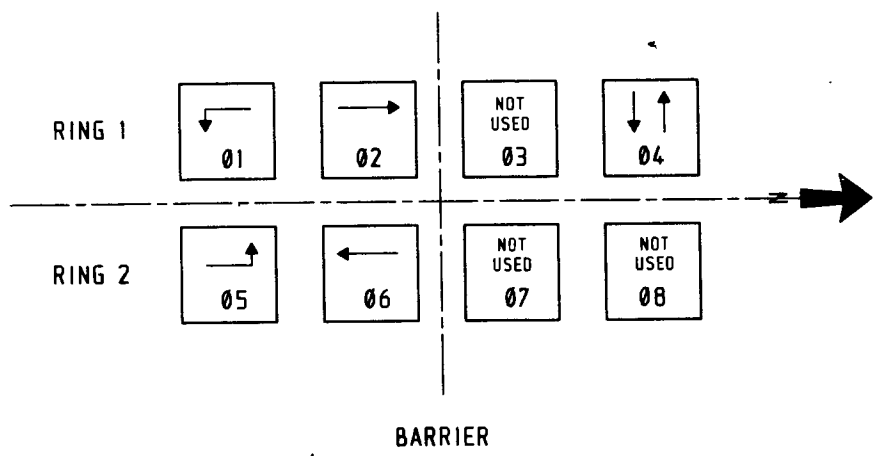
• • CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE NONCONFLICT MONITORING BELOW)

NONCONFLICT MONITORING		
PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
#1	5 OR 6	2, 4
#2	5 OR 6	1, 4
#3	NOT USED	NOT USED
#4	—	1, 2, 5, 6
#5	1 OR 2	4, 6
#6	1 OR 2	4, 5
#7	NOT USED	NOT USED
#8	NOT USED	NOT USED

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT	CALLING DELAY	EXTENSION STRETCH	MOTORCYCLE SENSITIVITY	NUMBER OF TURNS IN LOOP
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
12	2	X			1	1				X	1
41	3			X	—	4				X	1
42	4		X		4	—				X	1
43	4		X		4	—				X	1
44	6			X	—	4				X	1
45	7		X		4	—				X	1
46	8		X		4	—				X	1
51	9	X			5	5				X	1

3355434

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



OVERLAPS

O.L."A"- NOT USED
O.L."B"- NOT USED
O.L."C"- NOT USED
O.L."D"- NOT USED

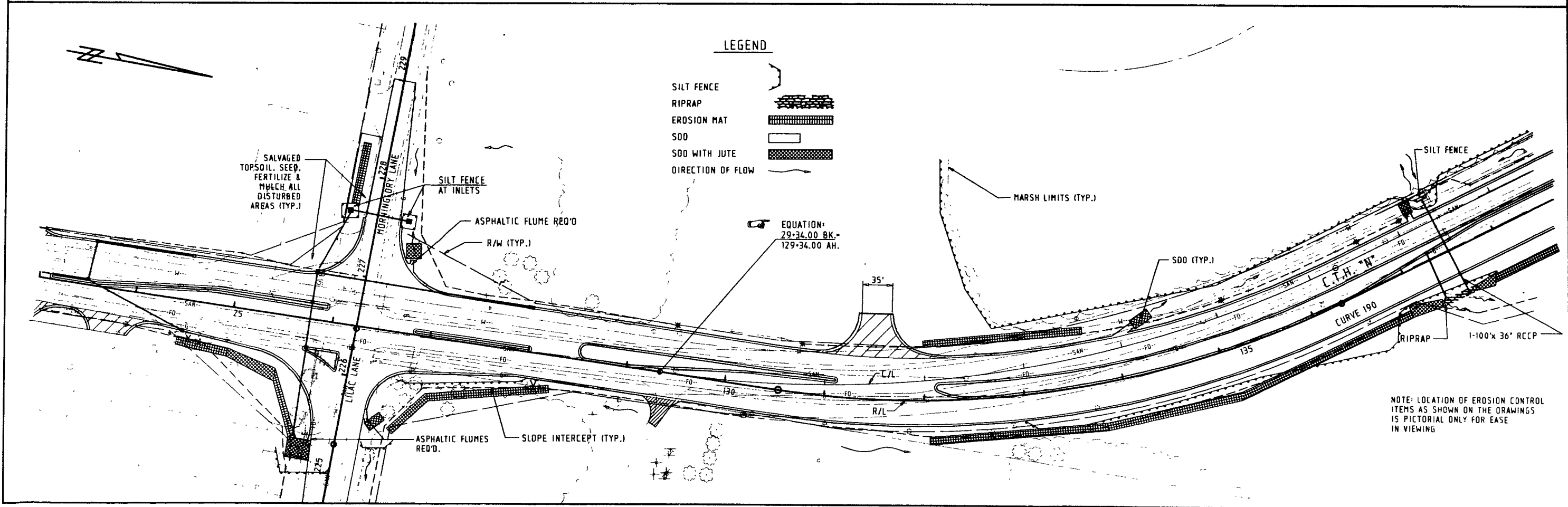
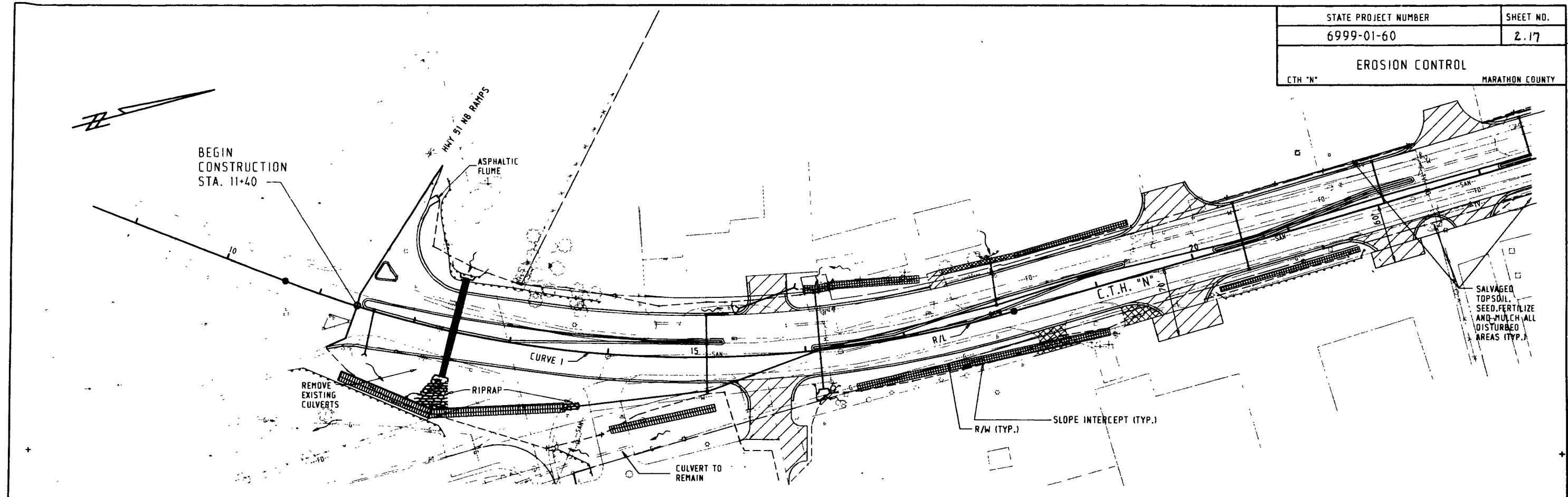
- NOTES:
- ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED
 - WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE NONCONFLICT MONITORING AT LEFT.)
 - PROVIDE FOR HAND CONTROL OPERATION.

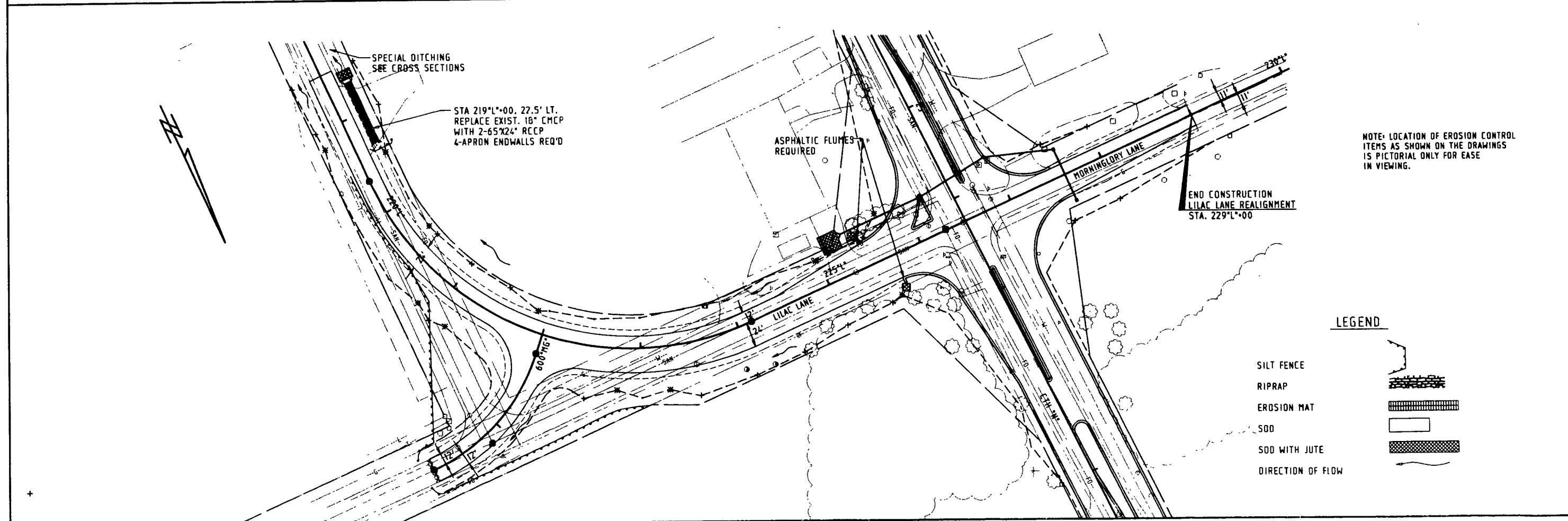
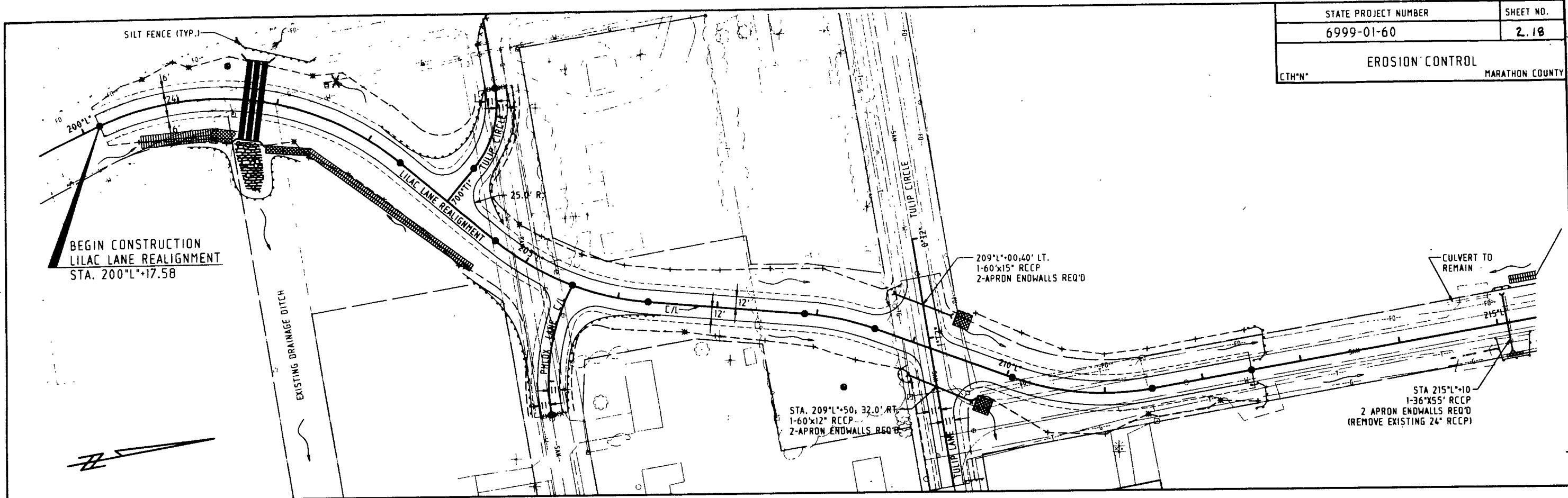
SIGNAL NO:

REVISION:

DATE

STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.17
EROSION CONTROL	
CTH "N"	MARATHON COUNTY

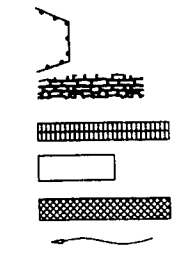




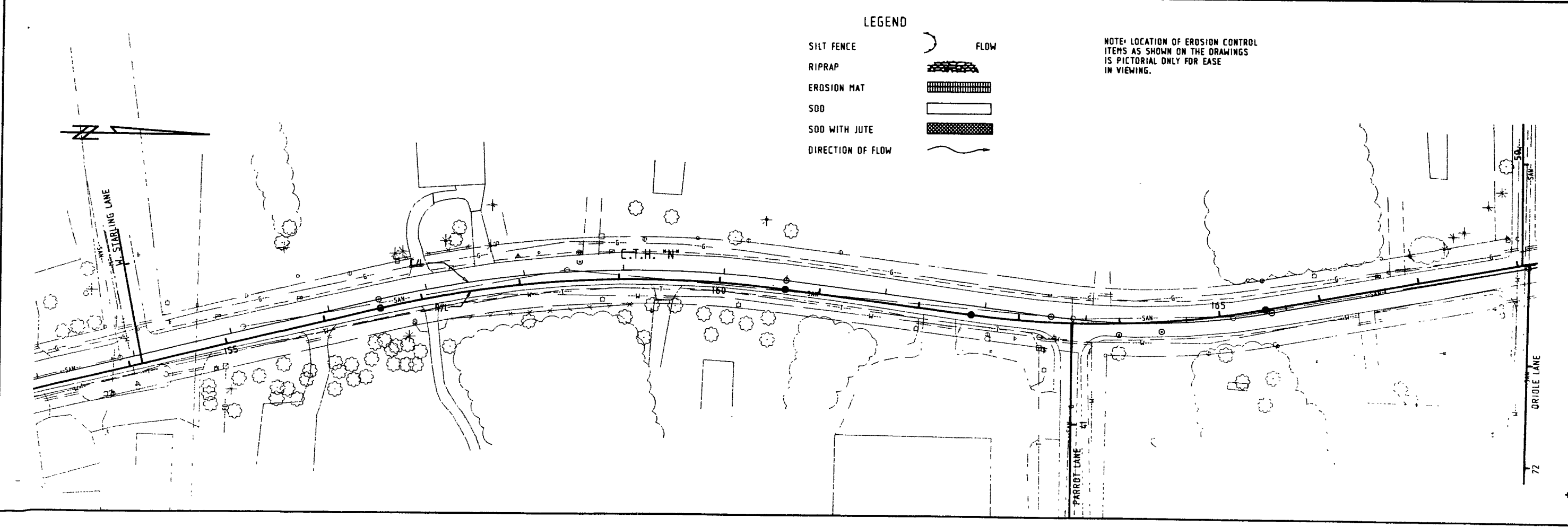
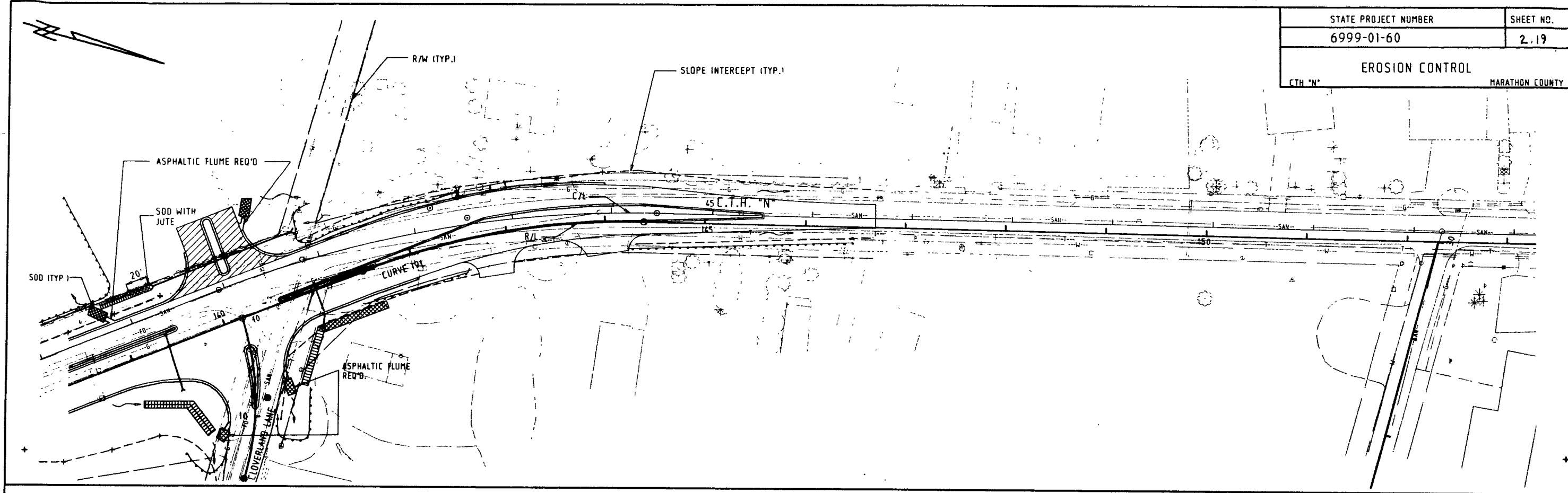
NOTE: LOCATION OF EROSION CONTROL ITEMS AS SHOWN ON THE DRAWINGS IS PICTORIAL ONLY FOR EASE IN VIEWING.

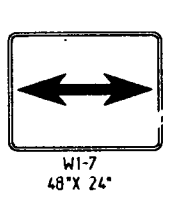
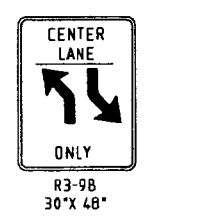
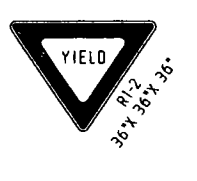
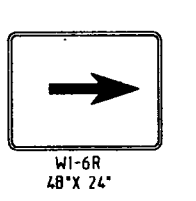
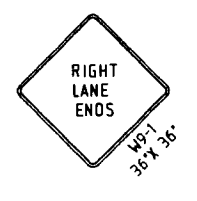
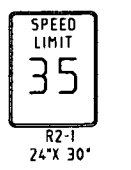
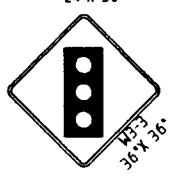
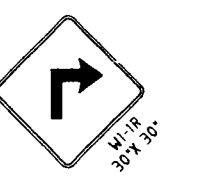
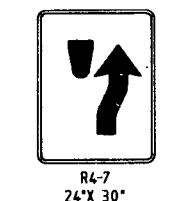
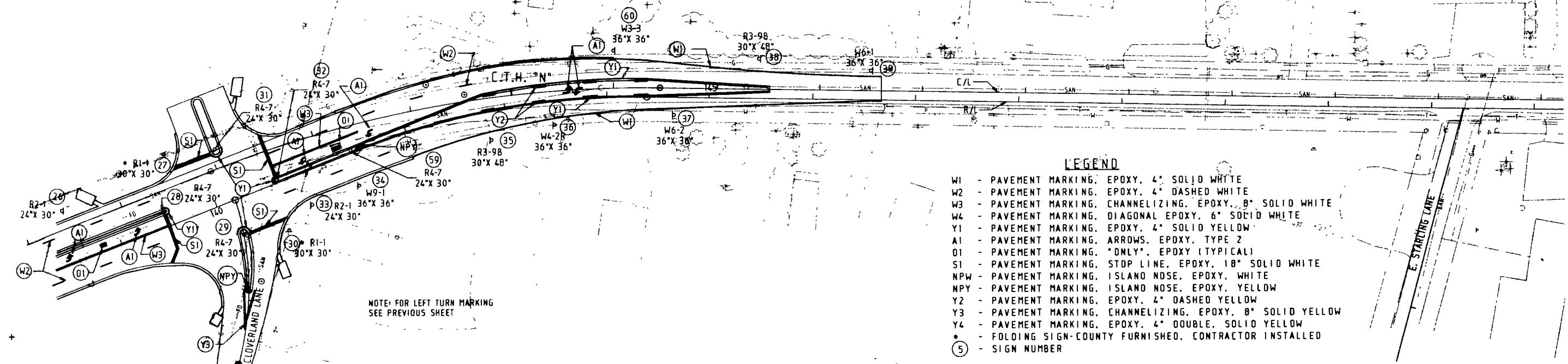
LEGEND

- SILT FENCE
- RIPRAP
- EROSION MAT
- SOD
- SOD WITH JUTE
- DIRECTION OF FLOW



STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.19
EROSION CONTROL	
CTH "N"	MARATHON COUNTY



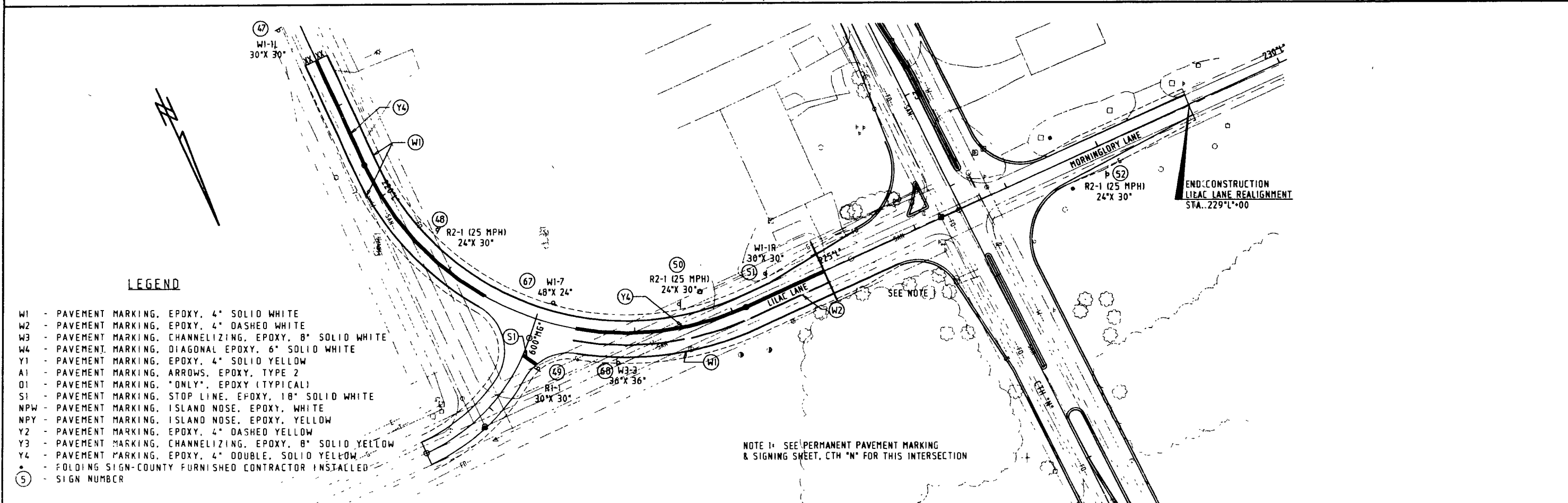


SIGN #	CODE #	SIZE (IN.)	SIGN AREA TYPE II (SF.)	WOOD POST (4"X 6") 14' (EA.)
1	W6-1	36X36	9	1
2	R1-2	36X36X36	3.9	1
3	R4-7	24X36	6	1
4	R4-7	24X30	5	1
5	R2-1	24X30	5	1
6	R3-7	30X30	6.3	1
7	R3-7	30X30	6.3	1
8	R4-7	24X30	5	1
9	R2-1	24X30	5	1
10	R2-1	24X30	5	1
11	R4-7	24X30	5	1
12	R1-1	30X30	5.2	1
13	R4-7	24X30	5	1
14	R4-7	24X30	5	1
15	R4-7	24X30	5	1
16	R2-1	24X30	5	1
* 17	R1-1	30X30	—	O.S.P.
18	R4-7	24X30	5	O.S.P.
19	W12-1	24X24	4	1
* 20	R1-1	30X30	—	O.S.P.
21	R4-7	24X30	5	O.S.P.
22	R2-1	24X30	5	1
23	R1-1	30X30	5.2	1
24	R4-7	24X30	5	1
25	R2-1	24X30	5	1
26	R2-1	24X30	5	1
* 27	R1-1	30X30	—	O.S.P.
28	R4-7	24X30	5	O.S.P.
29	R4-7	24X30	5	O.S.P.
* 30	R1-1	30X30	—	O.S.P.
31	R4-7	24X30	5	O.S.P.
32	R4-7	24X30	5	O.S.P.
33	R2-1	24X30	5	1
34	W9-1	36X36	9	1
35	R3-98	30X48	10	1

* DENOTES FOLDING STOP SIGN, COUNTY FURNISHED, CONTRACTOR INSTALLED
O.S.P.-ON SIGNAL POST

SIGN #	CODE #	SIZE (IN.)	SIGN AREA TYPE II (SF.)	WOOD POST (4"X 6") 14' (EA.)
36	W4-2	36X36	9	1
37	W6-2	36X36	9	1
38	R3-98	30X48	10	1
39	W6-1	36X36	9	1
40	R2-1(25MPH)	24X30	5	1
41	R2-1(25MPH)	24X30	5	1
42	R1-1	30X30	5.2	1
43	R1-1	30X30	5.2	1
44	R1-1	30X30	5.2	1
45	R1-1	30X30	5.2	1
46	R2-1(25MPH)	24X30	5	1
47	W1-1L	30X30	6.3	1
48	R2-1(25MPH)	24X30	5	1
49	R1-1	30X30	5.2	1
50	R2-1(25MPH)	24X30	5	1
51	W1-1R	30X30	6.3	1
52	R2-1(25MPH)	24X30	5	1
53	W1-6L	48X24	8	1
54	W1-6R	48X24	8	1
55	W3-3	36X36	9	1
56	R1-2	30X30	6.3	1
57	W3-3	36X36	9	1
58	W3-3	36X36	9	1
59	R4-7	24X30	5	1
60	W3-3	36X36	9	1
61	W1-3R	36X36	9	1
62	W1-6L	48X24	8	1
63	W1-6R	48X24	8	1
64	W1-7	48X24	8	1
65	W1-7	48X24	8	1
66	W1-3R	36X36	9	1
67	W1-7	48X24	8	1
68	W3-3	36X36	9	1
69	R1-1	30X30	5.2	1

STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.22
PERMANENT PAVEMENT MARKING & SIGNING	
LILAC LANE REALIGNMENT	MARATHON COUNTY



STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.23
TRAFFIC CONTROL - STAGE I	
C.T.H. "N"	MARATHON COUNTY

GENERAL NOTES

8. ALL TYPE III BARRICADES ARE TO BE 8' LONG UNLESS APPROVED BY THE ENGINEER.

1. ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED.

2. USE DRUMS AT 25' SPACING WITH ATTACHED TYPE "C" STEADY BURN LIGHT AT TAPER AND CROSSOVER AREAS.

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.

5. USE TEMPORARY PAVEMENT MARKING REMOVABLE TAPE ON NEW PAVEMENT TO DELINEATE TRAFFIC LANES.

6. ASPHALTIC PAVEMENT WIDENING SHALL BE ASPHALTIC SURFACE, TYPE E1. THE TEMPORARY WIDENINGS SHALL BE A MINIMUM 3" THICKNESS.

7. "W" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ONE DRIVEWAY TO REMAIN OPEN AT ALL TIMES DURING CONSTRUCTION

DRIVEWAYS TO REMAIN OPEN DURING CONSTRUCTION

TEMPORARY PAVEMENT MARKING WHITE EDGE LINE.

INTERSECTION TO REMAIN OPEN DURING STAGE I CONSTRUCTION

DRIVEWAY TO BE REMOVED.

CHANNELIZING ISLAND TO BE CONSTRUCTED DURING STAGE III

CONSTRUCT 2-12' S.B. LANE. BEGIN STA. 11+40 TO STA 28+60

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SOLID DOUBLE YELLOW CENTERLINE MARKING.

TYPE III BARRICADES (TYP.)

END CONSTRUCTION

620-2 60" X 24"

25 MPH

W013-1 24" X 24"

OFF RAMP

U.S.H. 51

REMOVE MINIMUM SECTION OF CHANNELIZING ISLAND PRIOR TO STAGE I CONSTRUCTION TO PROVIDE 12' MINIMUM DRIVING LANE EACH DIRECTION. PLACE TEMP. ASPHALTIC PAVEMENT

DRIVEWAY TO REMAIN OPEN DURING CONSTRUCTION

EXISTING DRIVEWAYS TO BE REMOVED (TYP.)

CONSTRUCT MORNINGLORY LANE INTERSECTION (TO REMAIN OPEN EXCEPT DURING PAVING OPERATIONS)

CONSTRUCT 1-12' S.B. LANE. STA 28+60 TO STA 132+10 PAVE LOWER ASPHALTIC LIFTS 14" WIDE TO MAINTAIN 12' WIDE DRIVING LANE DURING STAGE III CONSTRUCTION

TYPE III BARRICADES (TYP.)

50' TYP.

28+60

130

132+10

132+45

CONSTRUCT 2-12' N.E. LANES STA 132+45 TO 144+10

CONSTRUCT 1-12' N.B. LANE STA 130+70 TO STA 132+45 PAVE LOWER ASPHALTIC LIFTS 14" WIDE TO MAINTAIN 12' WIDE DRIVING LANE DURING STAGE III CONSTRUCTION

CONSTRUCT 0-5' TEMPORARY ASPHALTIC PAVEMENT WIDENING PRIOR TO STAGE I CONSTRUCTION TO MAINTAIN MINIMUM 2 - 12' DRIVING LANES DURING PROJECT

TEMPORARY PAVEMENT MARKING WHITE EDGE LINE.

ROAD CONSTRUCTION AHEAD

W20-1

LILAC LANE

225

MORNINGLORY LANE

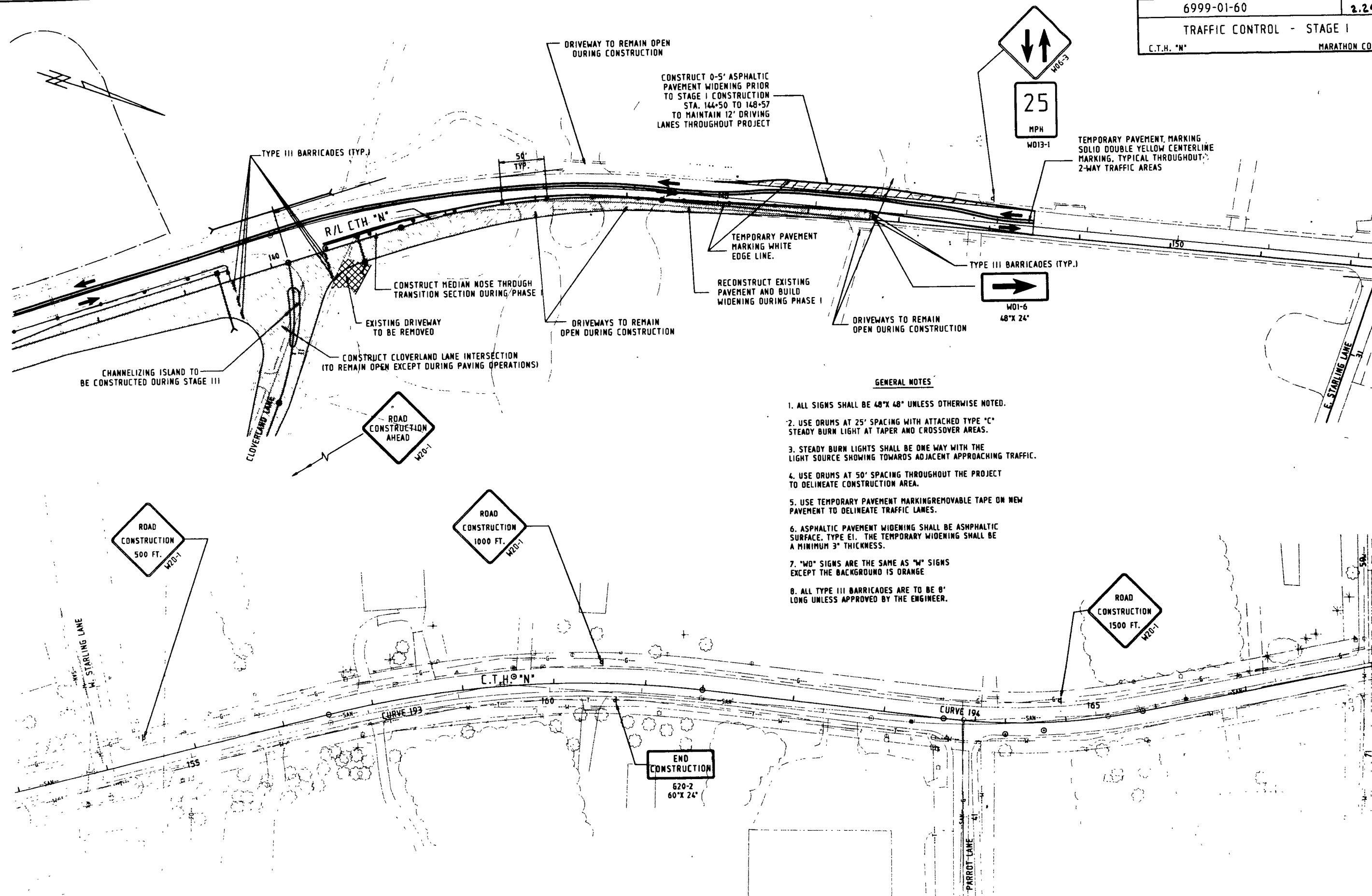
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EXISTING E.P. CTH "N"

CTH "N" R/L 135

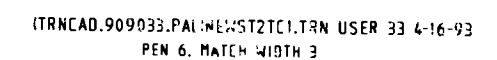
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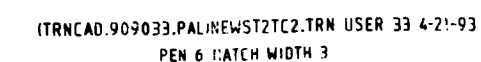
STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.24
TRAFFIC CONTROL - STAGE I	
C.T.H. "N"	MARATHON COUNTY



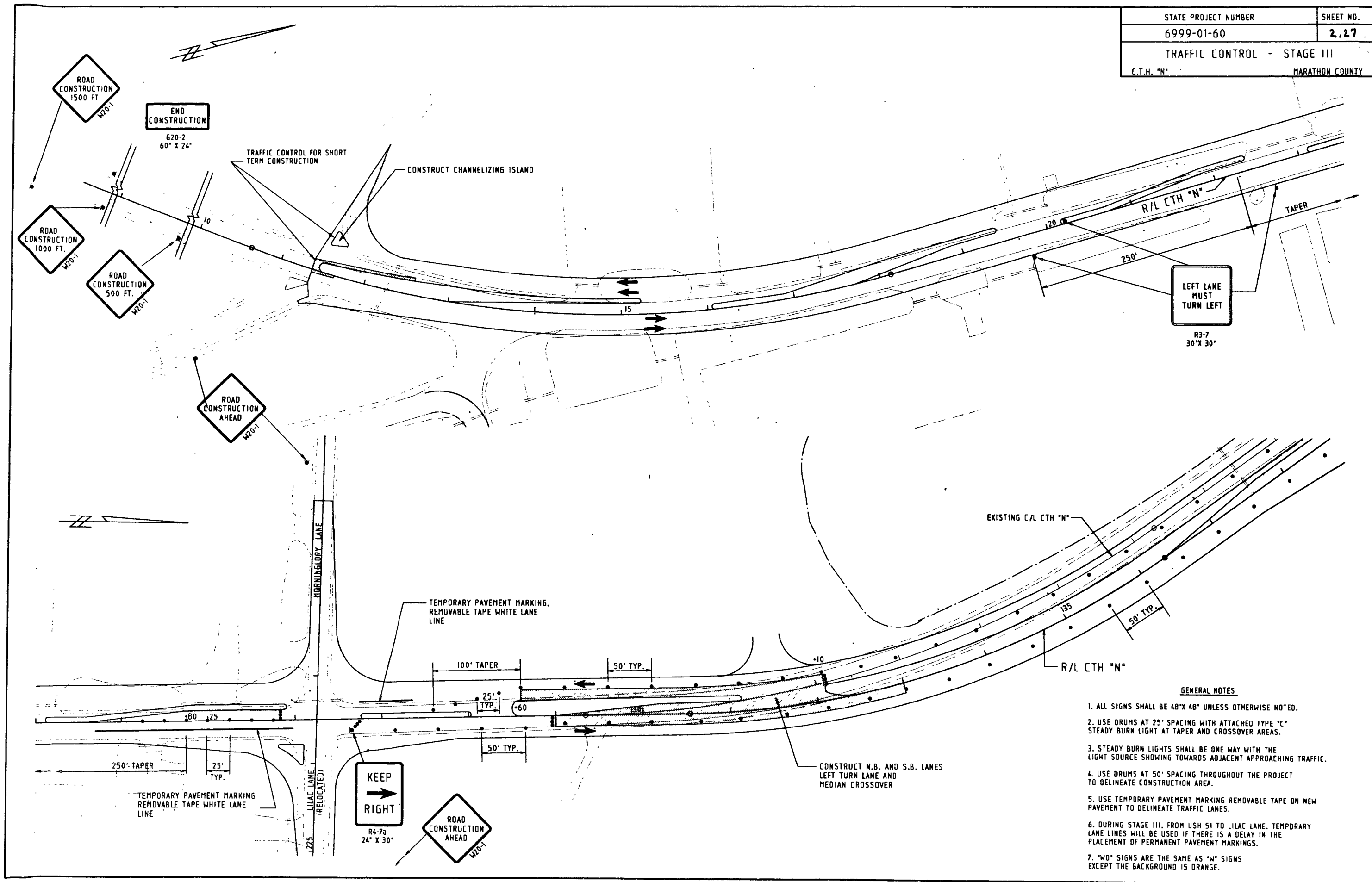
GENERAL NOTES

1. ALL SIGNS SHALL BE 48"X 48" UNLESS OTHERWISE NOTED.
2. USE DRUMS AT 25' SPACING WITH ATTACHED TYPE "C" STEADY BURN LIGHT AT TAPER AND CROSSOVER AREAS.
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.
5. USE TEMPORARY PAVEMENT MARKING REMOVABLE TAPE ON NEW PAVEMENT TO DELINEATE TRAFFIC LANES.
6. ASPHALTIC PAVEMENT WIDENING SHALL BE ASPHALTIC SURFACE, TYPE E1. THE TEMPORARY WIDENING SHALL BE A MINIMUM 3" THICKNESS.
7. "W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
8. ALL TYPE III BARRICADES ARE TO BE 8' LONG UNLESS APPROVED BY THE ENGINEER.



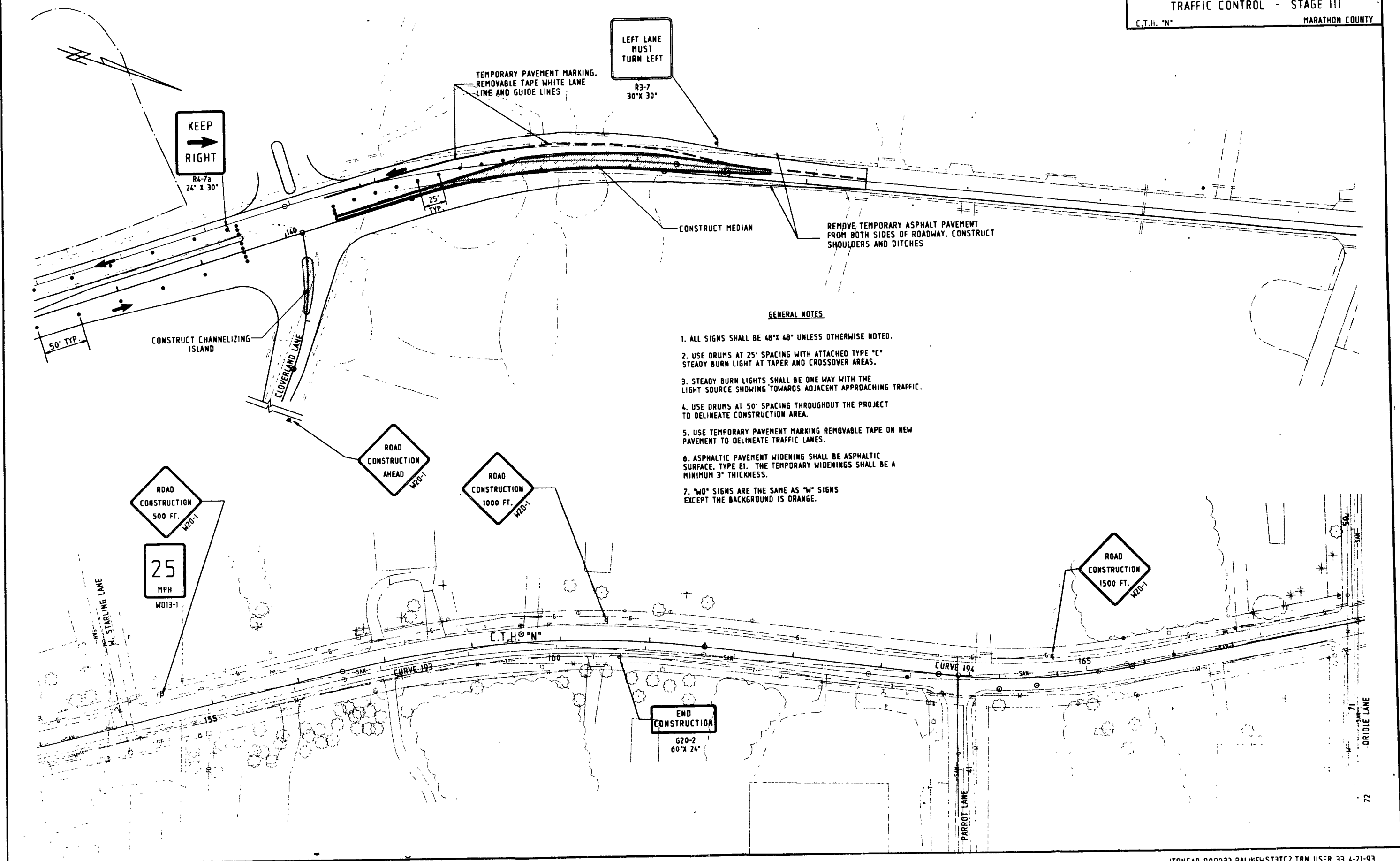


STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.27
TRAFFIC CONTROL - STAGE III	
C.T.H. "N"	MARATHON COUNTY

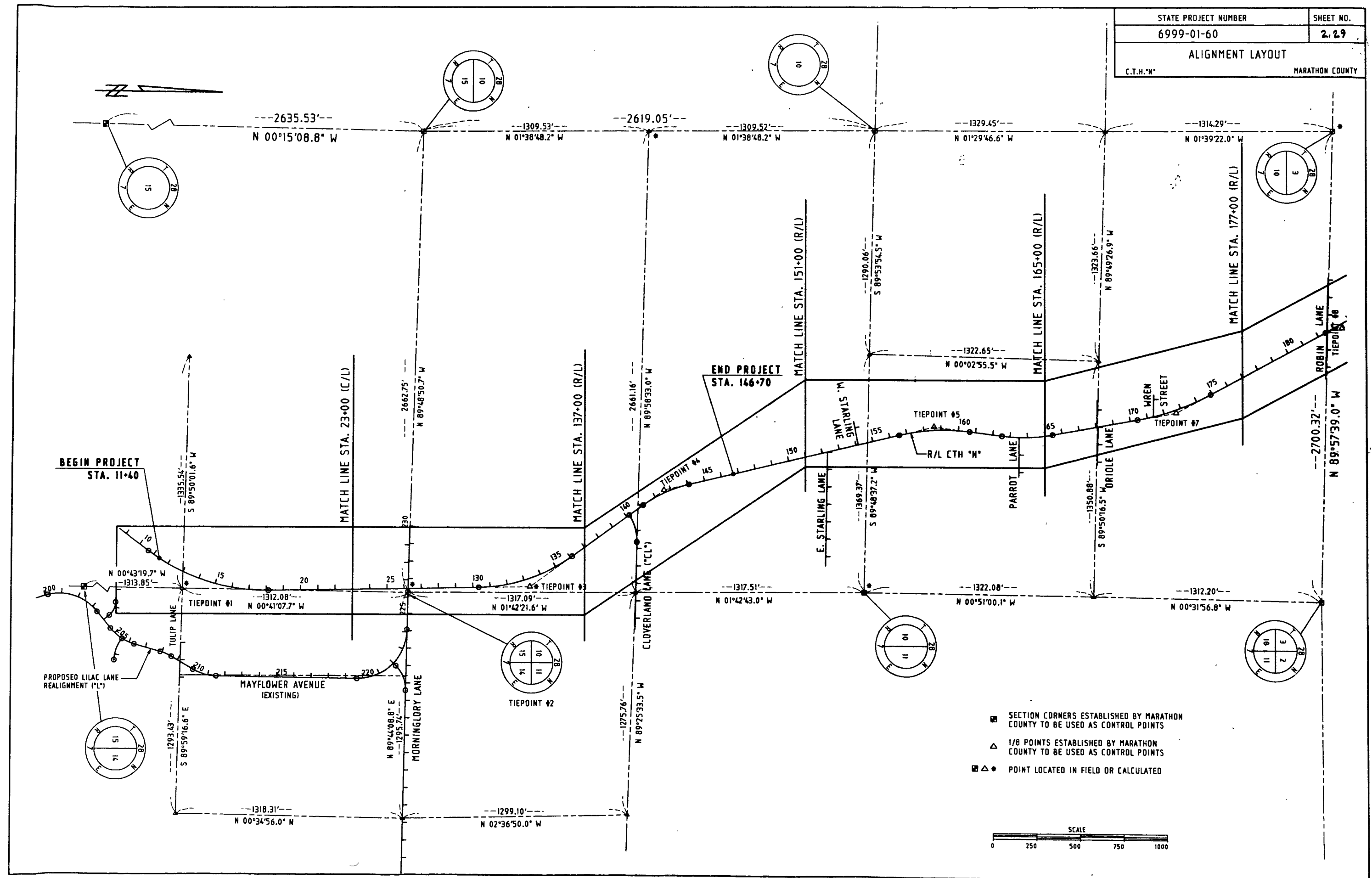


GENERAL NOTES

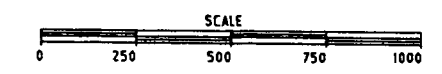
1. ALL SIGNS SHALL BE 48"X 48" UNLESS OTHERWISE NOTED.
2. USE DRUMS AT 25' SPACING WITH ATTACHED TYPE "C" STEADY BURN LIGHT AT TAPER AND CROSSOVER AREAS.
3. STEADY BURN LIGHTS SHALL BE ONE WAY WITH THE LIGHT SOURCE SHOWING TOWARDS ADJACENT APPROACHING TRAFFIC.
4. USE DRUMS AT 50' SPACING THROUGHOUT THE PROJECT TO DELINEATE CONSTRUCTION AREA.
5. USE TEMPORARY PAVEMENT MARKING REMOVABLE TAPE ON NEW PAVEMENT TO DELINEATE TRAFFIC LANES.
6. DURING STAGE III, FROM USH 51 TO LILAC LANE, TEMPORARY LANE LINES WILL BE USED IF THERE IS A DELAY IN THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
7. "W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.



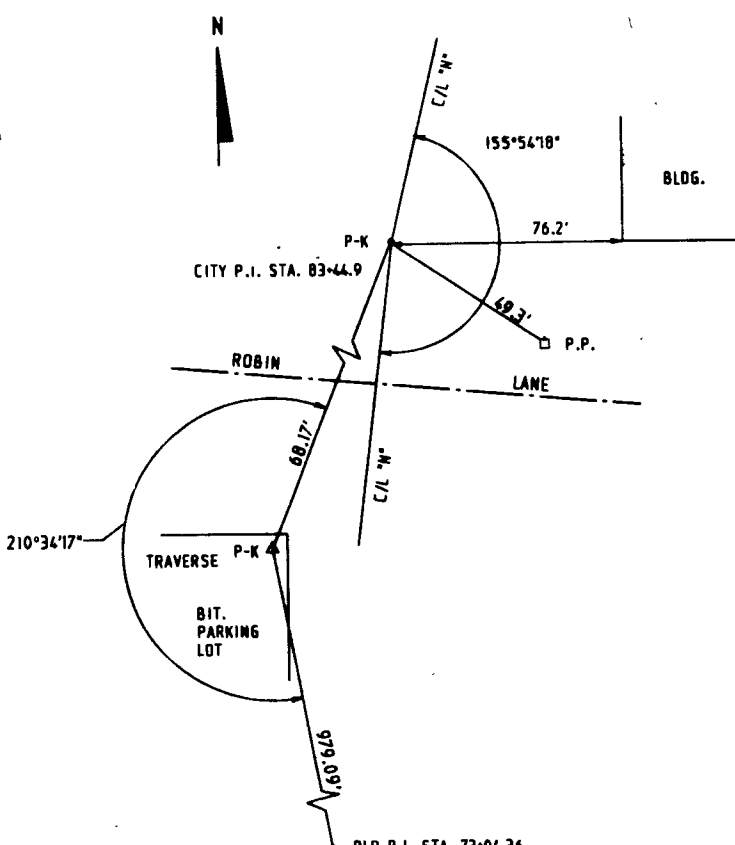
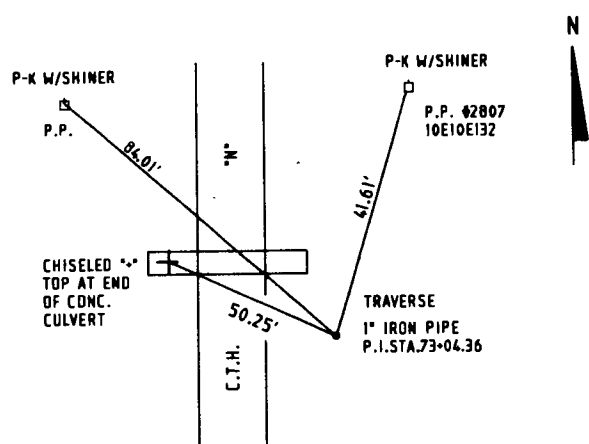
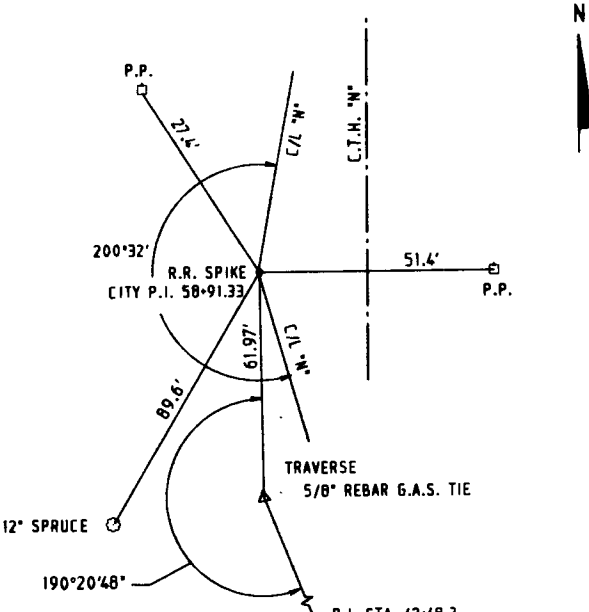
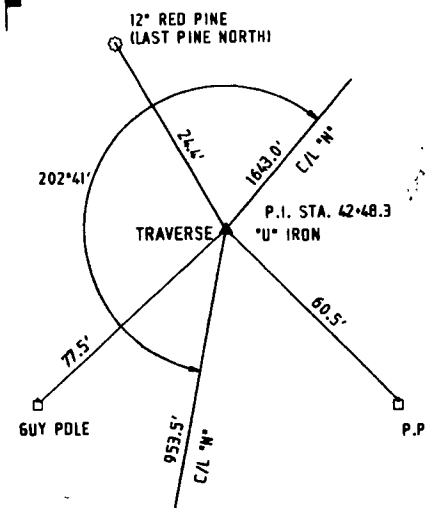
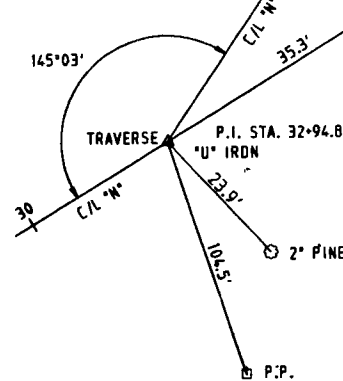
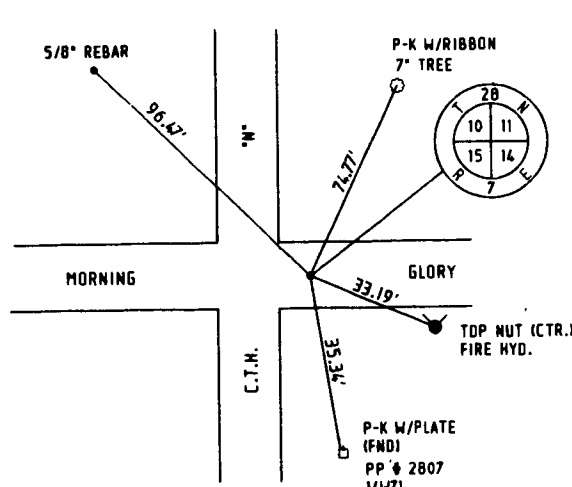
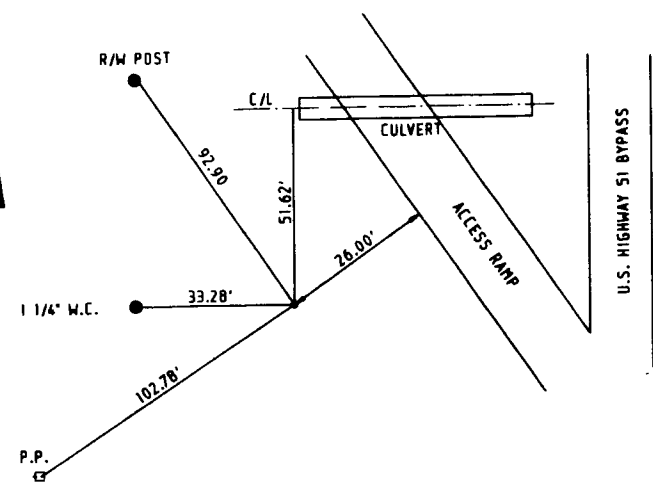
STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.29
ALIGNMENT LAYOUT	
C.T.H. "N"	MARATHON COUNTY



- SECTION CORNERS ESTABLISHED BY MARATHON COUNTY TO BE USED AS CONTROL POINTS
- △ 1/8 POINTS ESTABLISHED BY MARATHON COUNTY TO BE USED AS CONTROL POINTS
- △ * POINT LOCATED IN FIELD OR CALCULATED



STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.30
ALIGNMENT TIES	



ALIGNMENT TABLES

CTH "N"

MARATHON COUNTY

PROPOSED R/L		ALIGNMENT TABLE		(C.T.H. "N")	
POINT	STATION	BEARING	NORTH	EAST	
P.O.T. 7117	108+53.17		393265.76	2059012.27	
EXIT. PC 1	110+63.17	N 35°04'56.5"E	393437.61	2059132.97	
EXIT. PI 1	114+52.17		393755.94	2059356.54	
EXIT. PT 1	118+13.19	N 02°25'06.6"W	394144.58	2059340.13	
ANGLE PT 11	126+23.66		394954.34	2059305.93	
PC190	130+54.00	N 02°36'48.4"W	395384.22	2059286.31	
PI190	133+52.35		395682.26	2059272.70	
PT190	136+32.34	N 37°18'49.9"W	395919.54	2059091.85	
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	

R/L			CURVE TABLE				(C.T.H. "N")
NO.	RADIUS	DELTA	ARC	TANGENT	CHORD	BEARING	DEGREE
1	1145.92	37°30'03"	750.02	389.00	736.70	N 16°19'55"E	5°00'00"
190	954.93	34°42'01"	578.34	298.35	569.54	N 19°57'49"W	6°00'00"
191	739.30	22°29'24"	290.19	146.99	288.33	N 26°04'08"W	7°45'00"
193	1136.92	20°34'58"	408.42	206.43	406.23	N 04°31'57"W	5°02'22"
194	954.93	17°34'45"	292.99	147.65	291.84	N 03°01'51"W	6°00'00"
195	1428.39	17°58'00"	447.91	225.81	446.08	N 20°48'14"W	4°00'40"
196	2864.79	04°20'00"	216.67	108.39	216.62	N 31°57'14"W	2°00'00"

E. CLOVERLAND LANE		ALIGNMENT TABLE		(CL)	
POINT	STATION	BEARING	NORTH	EAST	
PTB	10+00.00	N 57°10'00.6"E	396227.19	2058857.37	
PIB	10+80.30		396270.73	2058924.84	
PCB	11+56.26	N 89°43'25.8"E	396271.12	2059005.15	
P.O.T. 3030	16+56.26		396273.53	2059505.14	

E. CLOVERLAND LANE				CURVE TABLE		(CL)	
NO.	RADIUS	DELTA	ARC	TANGENT	CHORD	BEARING	DEGREE
8	275.00	32°33'25"	156.26	80.30	154.17	S 73°26'43"W	20°49'48"

LILAC LANE REALIGNMENT		ALIGNMENT TABLE			
POINT	STATION	BEARING	NORTH	EAST	
EXIST. PC776	197+12.87	N 28°28'00.8"W	392575.98	2059514.38	
EXIST. PI776	198+65.94		392710.54	2059441.42	
EXIST. PT776	200+17.57	N 14°54'47.0"W	392858.45	2059402.03	
PC491	200+17.57	N 14°54'47.0"W	392858.45	2059402.03	
PI491	201+97.43		393032.25	2059355.74	
PT491	203+39.12	N 49°03'25.8"E	393150.11	2059491.60	
PC492	204+62.56	N 49°03'25.8"E	393231.00	2059584.83	
PI492	205+49.27		393287.82	2059650.33	
PT492	206+30.55	N 14°03'25.8"E	393371.93	2059671.39	
PC493	207+87.63	N 14°03'25.8"E	393524.31	2059709.55	
PI493	208+23.84		393559.43	2059718.34	
PT493	208+59.63	N 29°03'25.8"E	393591.08	2059735.92	
PC494	210+04.32	N 29°03'25.8"E	393717.56	2059806.19	
PI494	210+76.77		393780.89	2059841.38	
PT494	211+45.95	N 00°41'07.6"W	393853.33	2059840.51	
PC780	219+64.31	N 00°41'07.6"W	394671.64	2059830.72	
PI780	222+49.85		394957.15	2059827.31	
PT780	224+14.23	S 89°48'23.5"W	394956.19	2059541.77	
P.O.T. 3006	230+08.08		394954.18	2058947.92	

LILAC LANE REALIGNMENT			CURVE TABLE				
NO.	RADIUS	DELTA	ARC	TANGENT	CHORD	BEARING	DEGREE
776	1288.07	13°33'14"	304.71	153.07	304.00	N 21°41'24"W	4°26'54"
491	288.00	63°58'13"	321.55	179.86	305.11	N 17°04'19"E	19°53'40"
492	275.00	35°00'00"	167.99	86.71	165.39	N 31°33'26"E	20°50'06"
493	275.00	15°00'00"	71.99	36.20	71.79	N 21°33'26"E	20°50'06"
494	272.84	29°48'48"	141.97	72.63	140.37	N 14°09'02"E	21°00'00"
780	288.00	89°26'12"	449.56	285.18	405.29	N 45°28'28"W	19°53'40"

MORNINGLORY LANE		ALIGNMENT TABLE		(MG)	
POINT	STATION	BEARING	NORTH	EAST	
P.O.T. 86	600+00.00		394880.64	2059736.93	
PT674	600+20.00	N 42°27'57.9"E	394895.40	2059750.43	
PI674	601+03.62		394957.08	2059806.89	
PC674	601+77.62	N 89°48'25.8"E	394957.37	2059890.51	

MORNINGLORY LANE			CURVE TABLE		(MG)		
NO.	RADIUS	DELTA	ARC	TANGENT	CHORD	BEARING	DEGREE
674	190.77	47°20'28"	157.62	83.62	153.18	S 66°08'12"W	30°02'03"

TULIP CIRCLE		ALIGNMENT TABLE		(TI)	
POINT	STATION	BEARING	NORTH	EAST	
P.O.T. 3508	697+67.58		393256.22	2059329.84	
PC478	698+71.80	N 89°52'07.1"E	393256.46	2059434.07	
PI478	699+17.58		393256.56	2059479.84	
PT478	699+57.65	S 40°56'34.2"E	393221.99	2059509.83	
P.O.T. 3505	700+00.00		393190.00	2059537.58	

TULIP CIRCLE				CURVE TABLE		(TI)	
NO.	RADIUS	DELTA	ARC	TANGENT	CHORD	BEARING	DEGREE
478	100.00	49°11'19"	85.85	45.77	83.24	S 65°32'14"E	57°17'46"

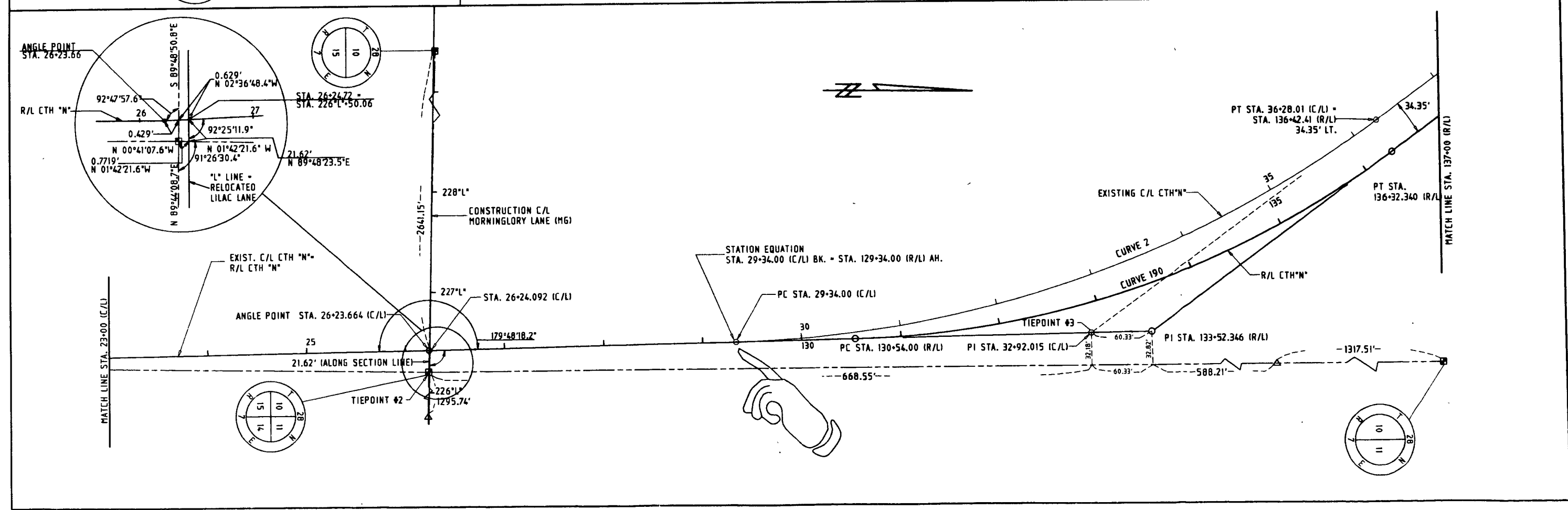
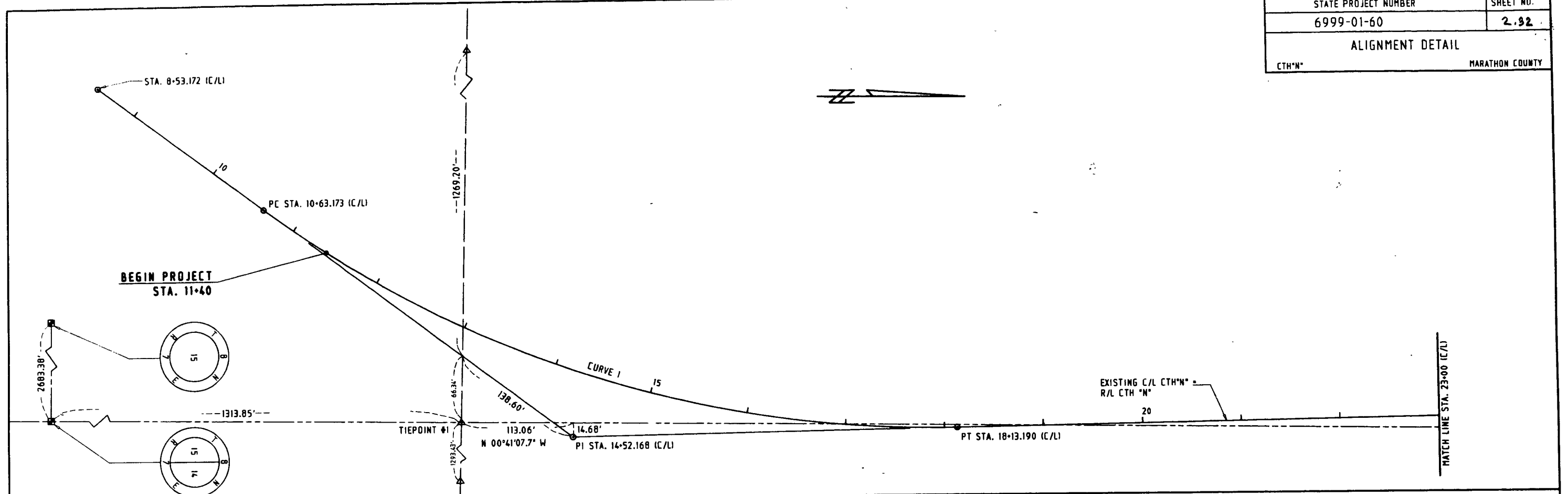
PHLOX LANE		ALIGNMENT TABLE		(PI)	
POINT	STATION	BEARING	NORTH	EAST	
P.O.T. 37	400+00.00		393299.91	2059642.02	
PT 96	400+00.00	S 51°51'51.4"E	393299.91	2059642.02	
PI 96	400+69.39		393257.06	2059696.60	
PC 96	401+33.58	N 89°52'07.1"E	393257.22	2059765.98	

PHLOX LANE				CURVE TABLE		(PI)	
NO.	RADIUS	DELTA	ARC	TANGENT	CHORD	BEARING	DEGREE
96	200.00	38°16'02"	133.58	69.39	131.11	N 70°59'52"W	28°38'53"

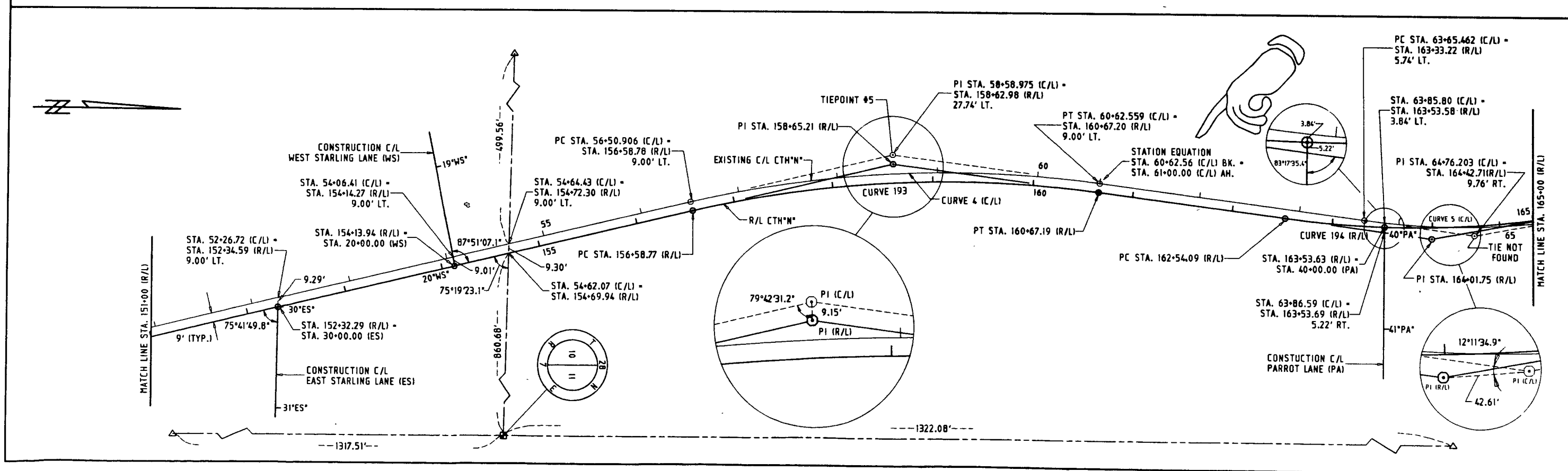
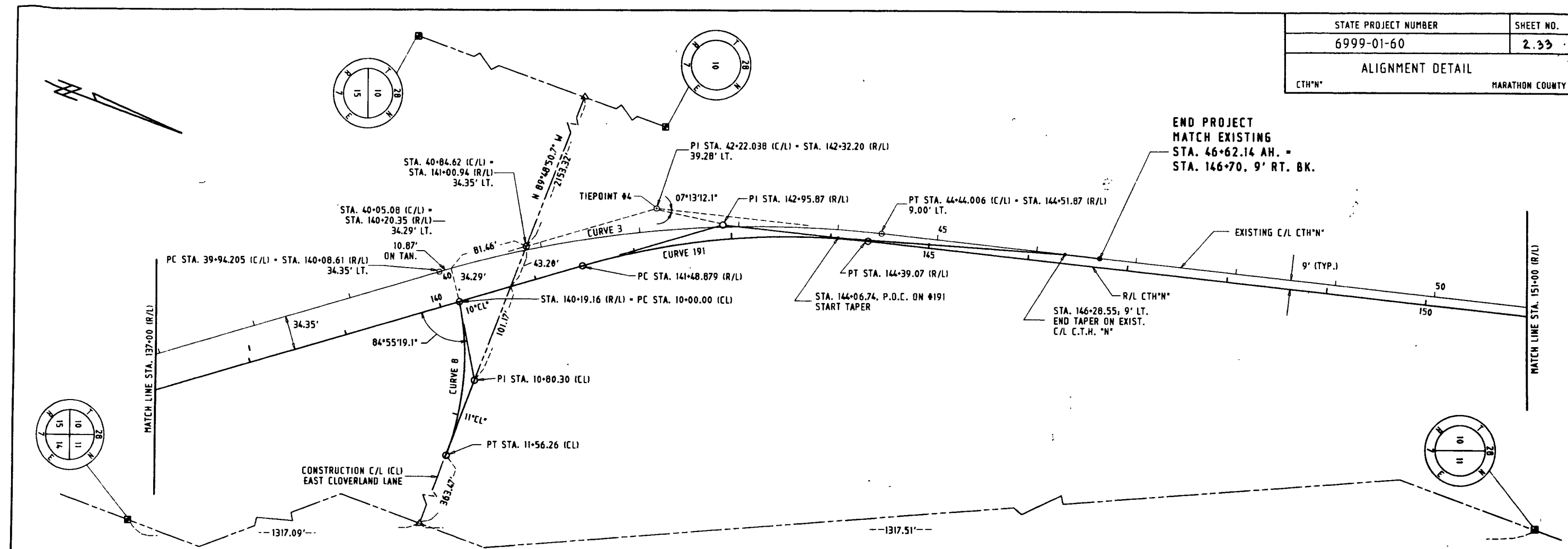
EXISTING C/L		ALIGNMENT TABLE		(C.T.H. "N")	
POINT	STATION	BEARING	NORTH	EAST	
P.O.T. 7117	8+53.17		393265.76	2059012.27	
PC 1	10+63.17	N 35°04'56.5"E	393437.61	2059132.97	
PI 1	14+52.17		393755.94	2059356.54	
PT 1	18+13.19	N 02°25'06.6"W	394144.58	2059340.13	
ANG. PT. 11	26+23.66		394954.34	2059305.93	
PC 2	29+34.00	N 02°36'48.4"W	395264.35	2059291.78	
PI 2	32+92.01		395621.99	2059275.45	
PT 2	36+28.01	N 37°18'49.9"W	395906.73	2059058.43	
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	
P.O.T. 6	60+62.56		398174.32	2058298.91	
STATION EQUATION					
P.O.T. 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	
P.O.T. 10	92+86.31		401046.42	2057119.40	

EXISTING C/L			CURVE TABLE		(C.T.H. "N")		
NO.	RADIUS	DELTA	ARC	TANGENT	CHORD	BEARING	DEGREE
1	1145.92	37°30'03"	750.02	389.00	736.70	N 16°19'55"E	5°00'00"
2	1145.92	34°42'02"	694.01	358.01	683.45	N 19°57'49"W	5°00'00"
3	1145.92	22°29'24"	449.80	227.83	446.92	N 26°04'08"W	5°00'00"
4	1145.92	20°34'58"	411.65	208.07	409.44	N 04°31'57"W	5°00'00"
5	716.20	17°34'45"	219.74	110.74	218.88	N 03°01'51"W	8°00'00"
6	1432.39	17°58'00"	449.17	226.44	447.33	N 20°48'14"W	4°00'00"
7	2864.79	04°20'00"	216.67	108.39	216.62	N 31°57'14"W	2°00'00"

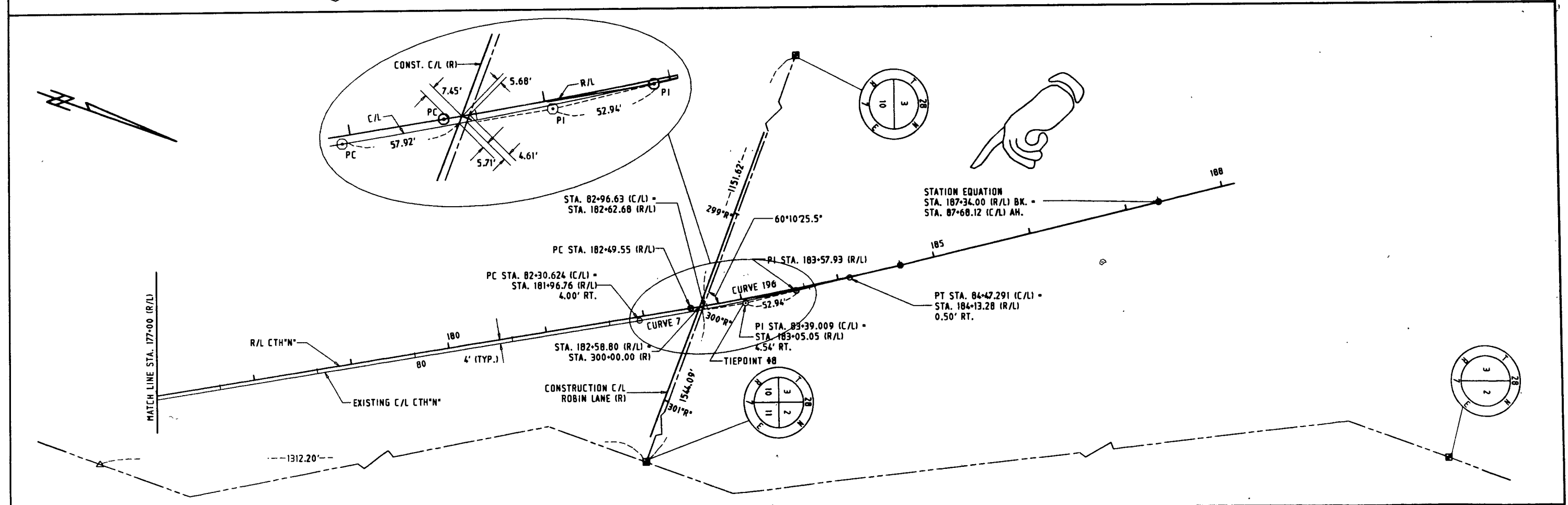
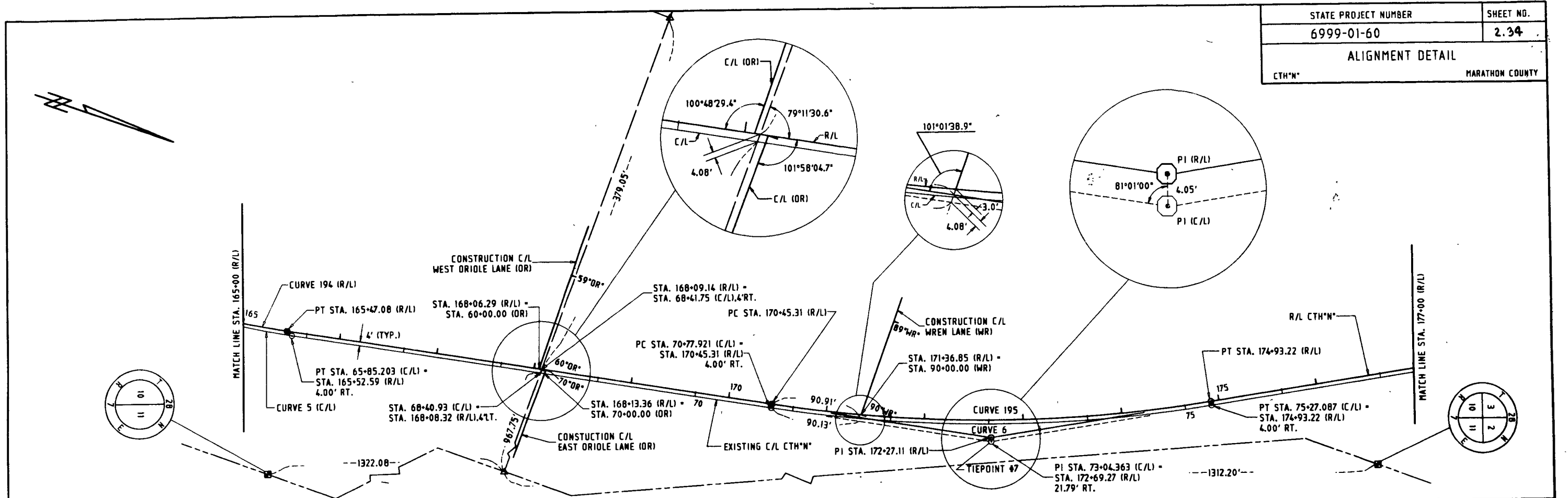
STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.92
ALIGNMENT DETAIL	
CTH "N"	MARATHON COUNTY



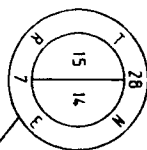
STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.33
ALIGNMENT DETAIL	
CTH "N"	MARATHON COUNTY



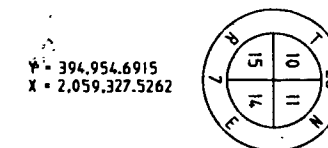
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6999-01-60	2.34
ALIGNMENT DETAIL	
CTH "N"	MARATHON COUNTY



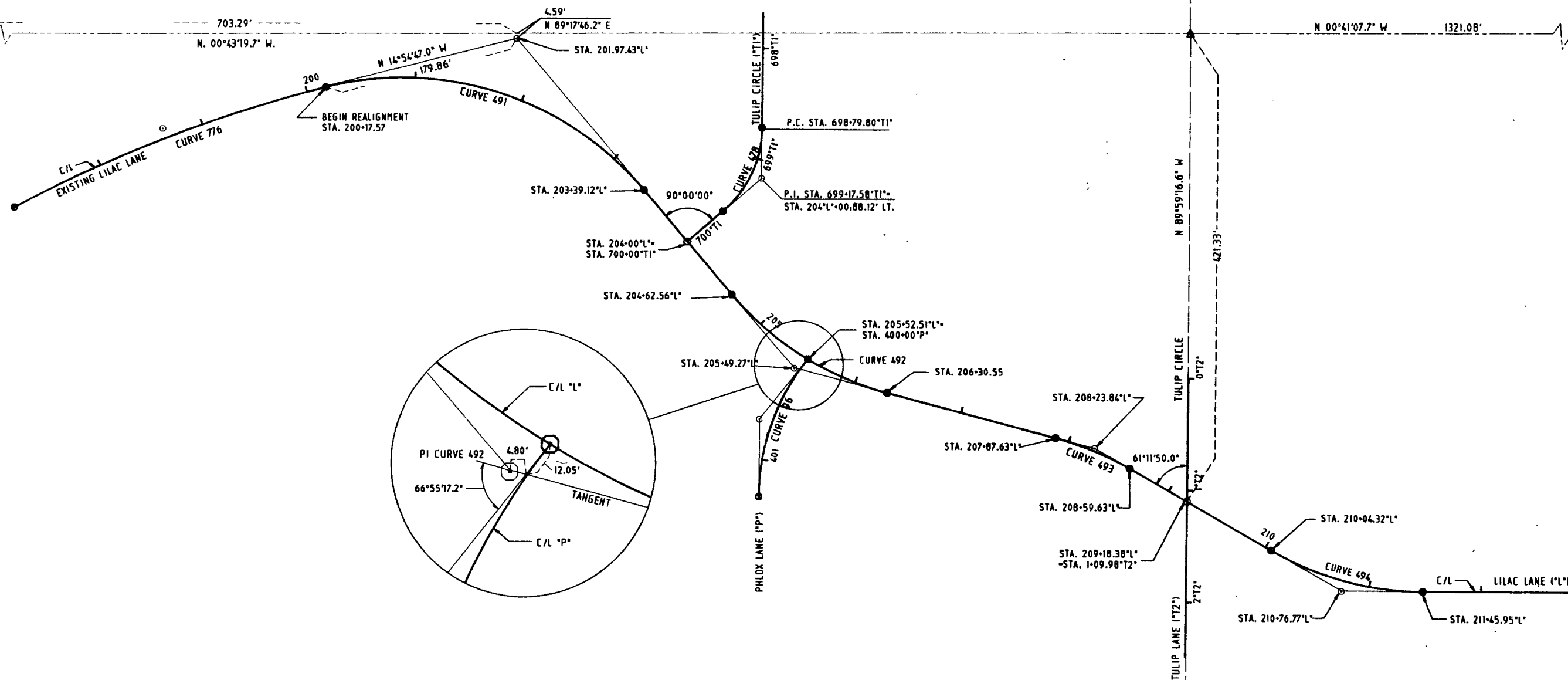
STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.35
ALIGNMENT DETAIL	
CTH "N"	MARATHON COUNTY



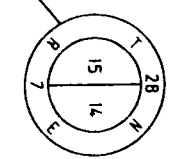
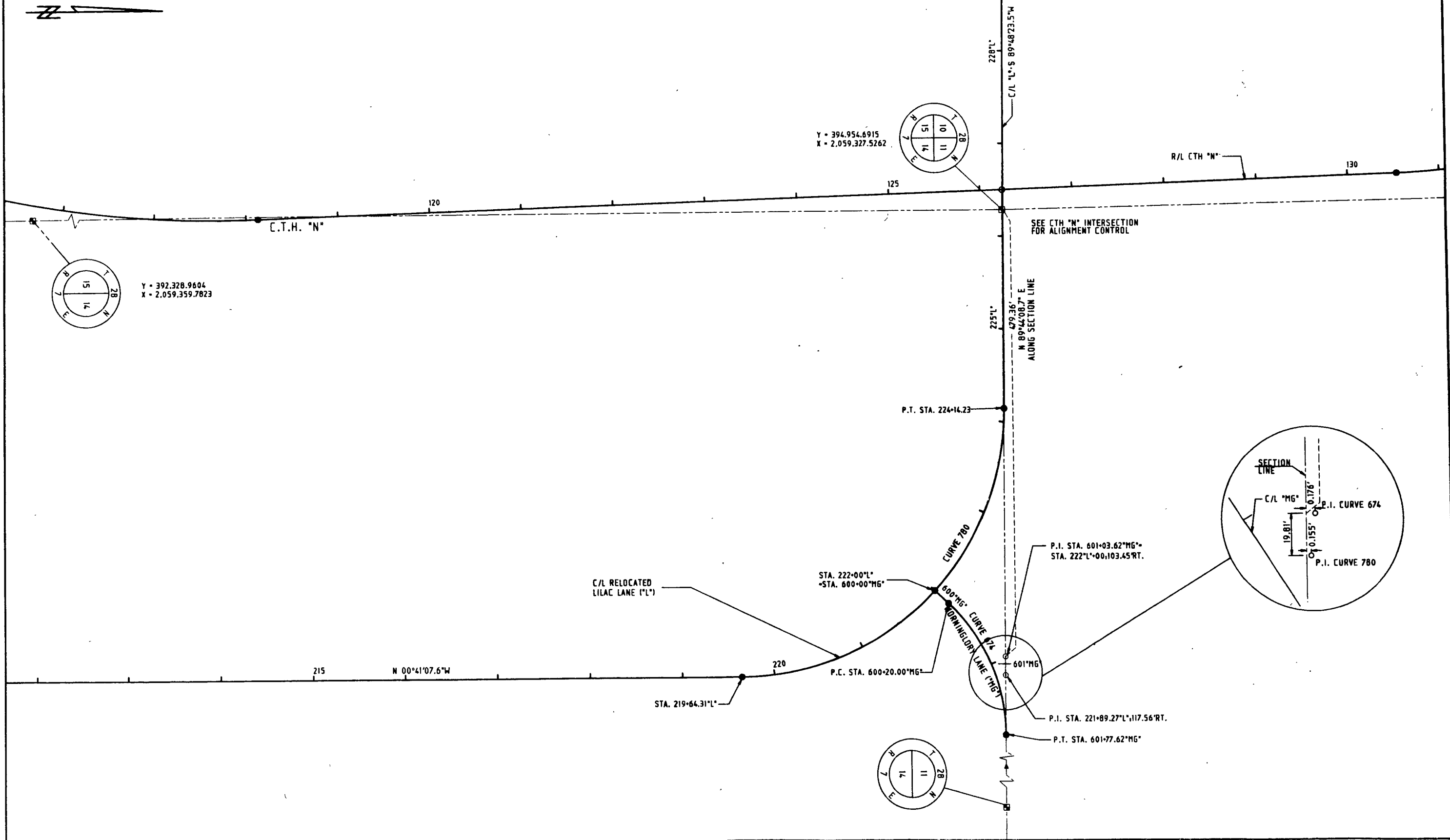
Y = 392,328.9604
X = 2,059,359.7823



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

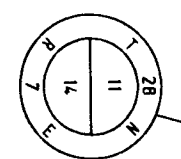
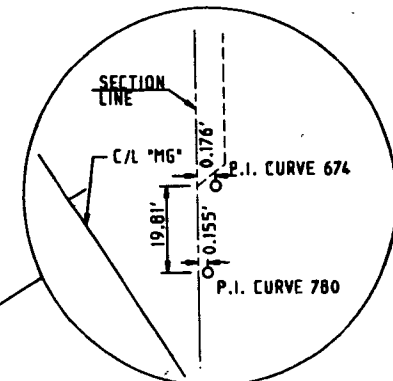
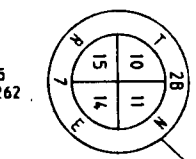


STATE PROJECT NUMBER	SHEET NO.
6999-01-60	2.36
ALIGNMENT DETAILS	
CTH "N"	MARATHON COUNTY

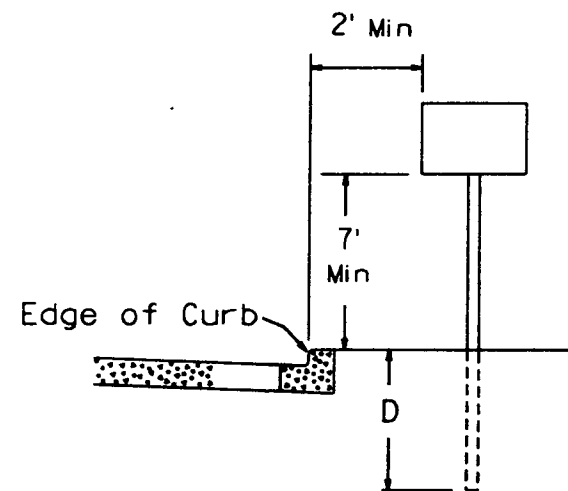


Y = 392.328.9604
X = 2.059.359.7823

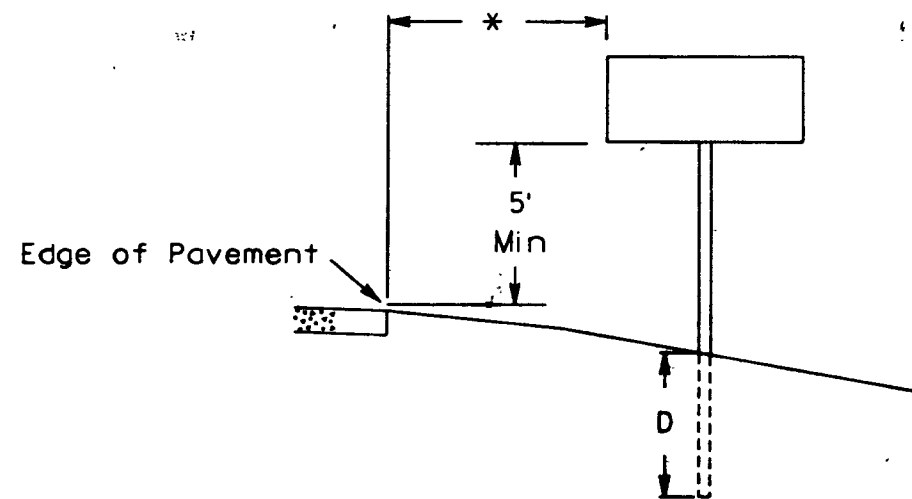
Y = 394.954.6915
X = 2.059.327.5262



URBAN AREA



RURAL AREA

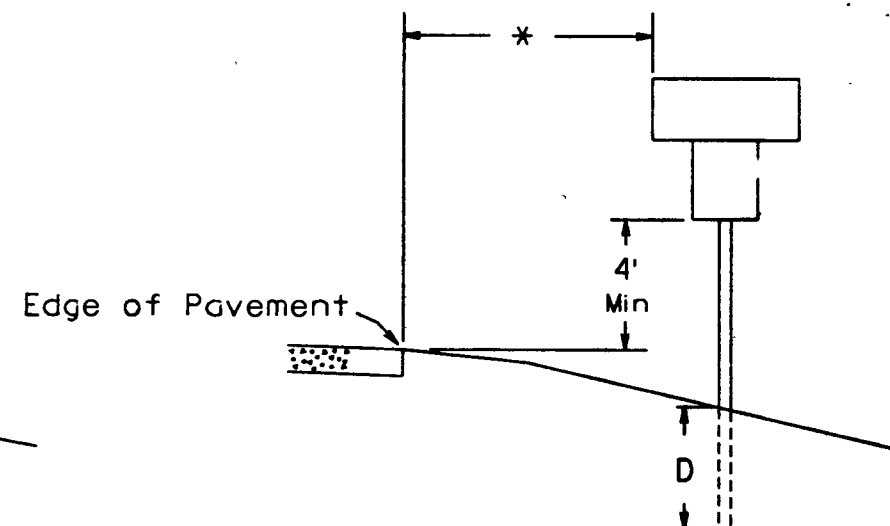
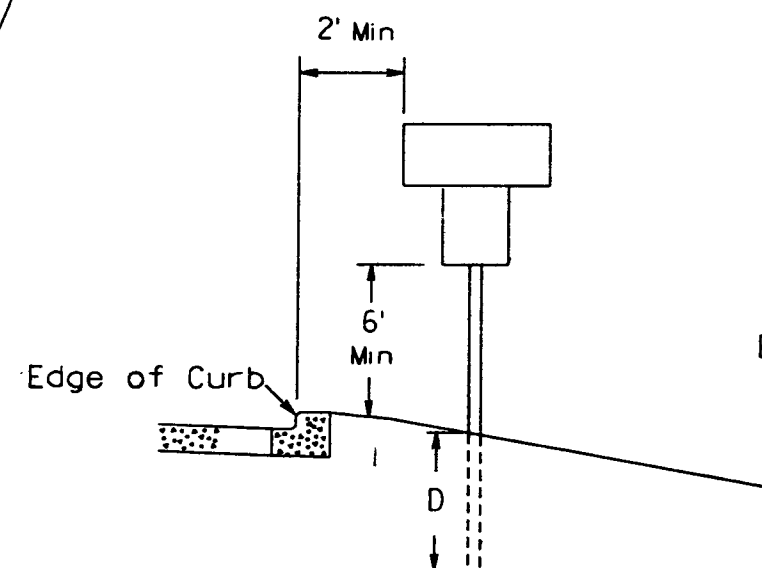


GENERAL NOTES

- 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

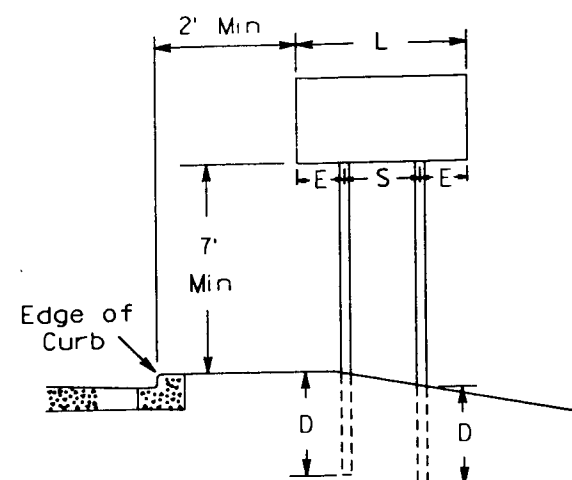
TYPICAL INSTALLATION OF
TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

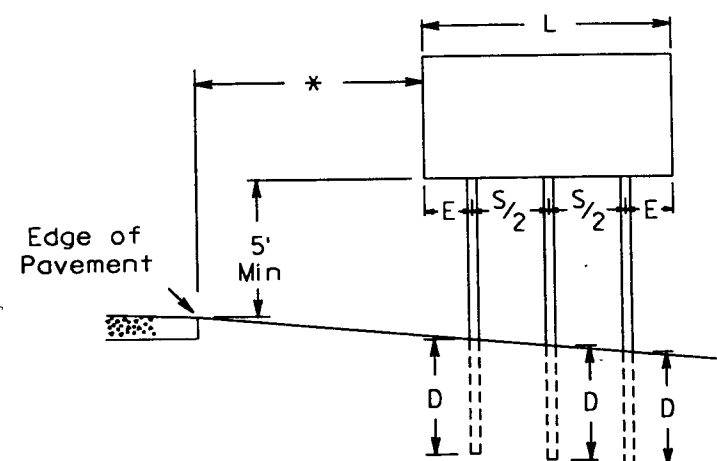
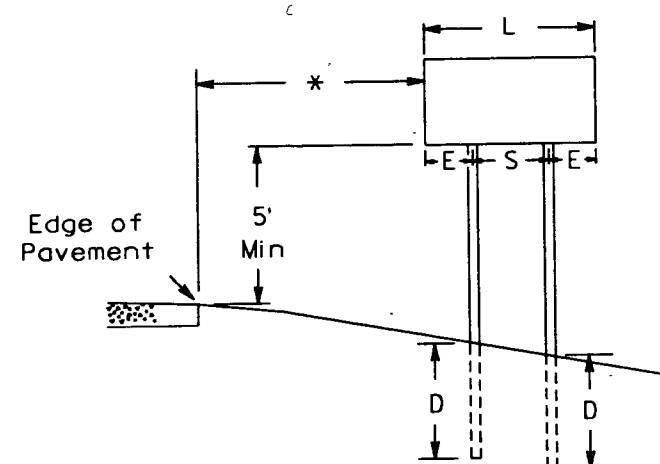
APPROVED *Peter F. Ruach*
State Traffic Engineer

DATE 1/21/92 PLATE NO. A4-3.8

URBAN AREA

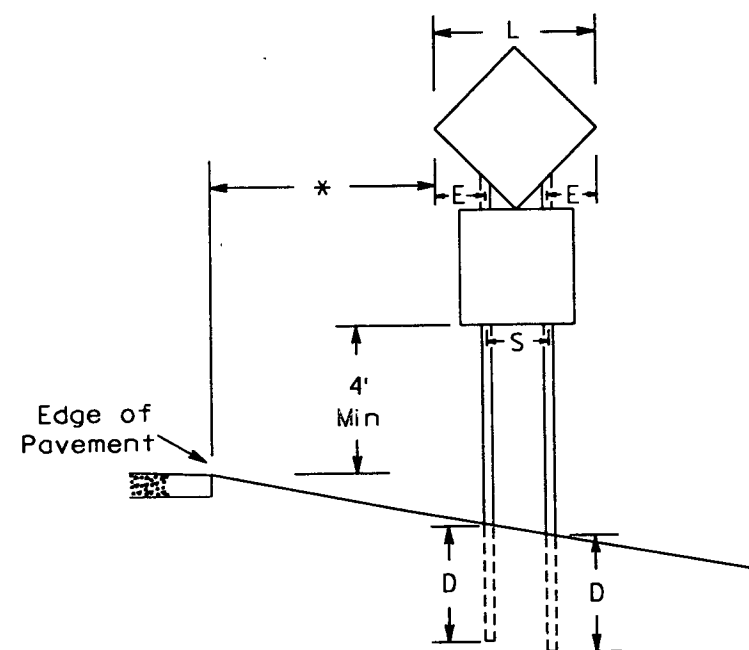
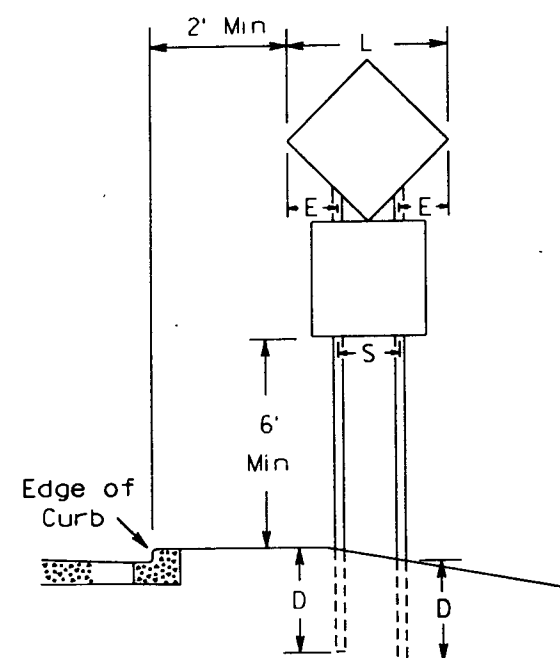


RURAL AREA



GENERAL NOTES

1. For 3 post installations, post spacing is $S/2$ and S must be greater than 7'-0"
2. 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 6-3-87 DATE REDRAWN 10-1-91
DATE REVISED 11-6-92TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

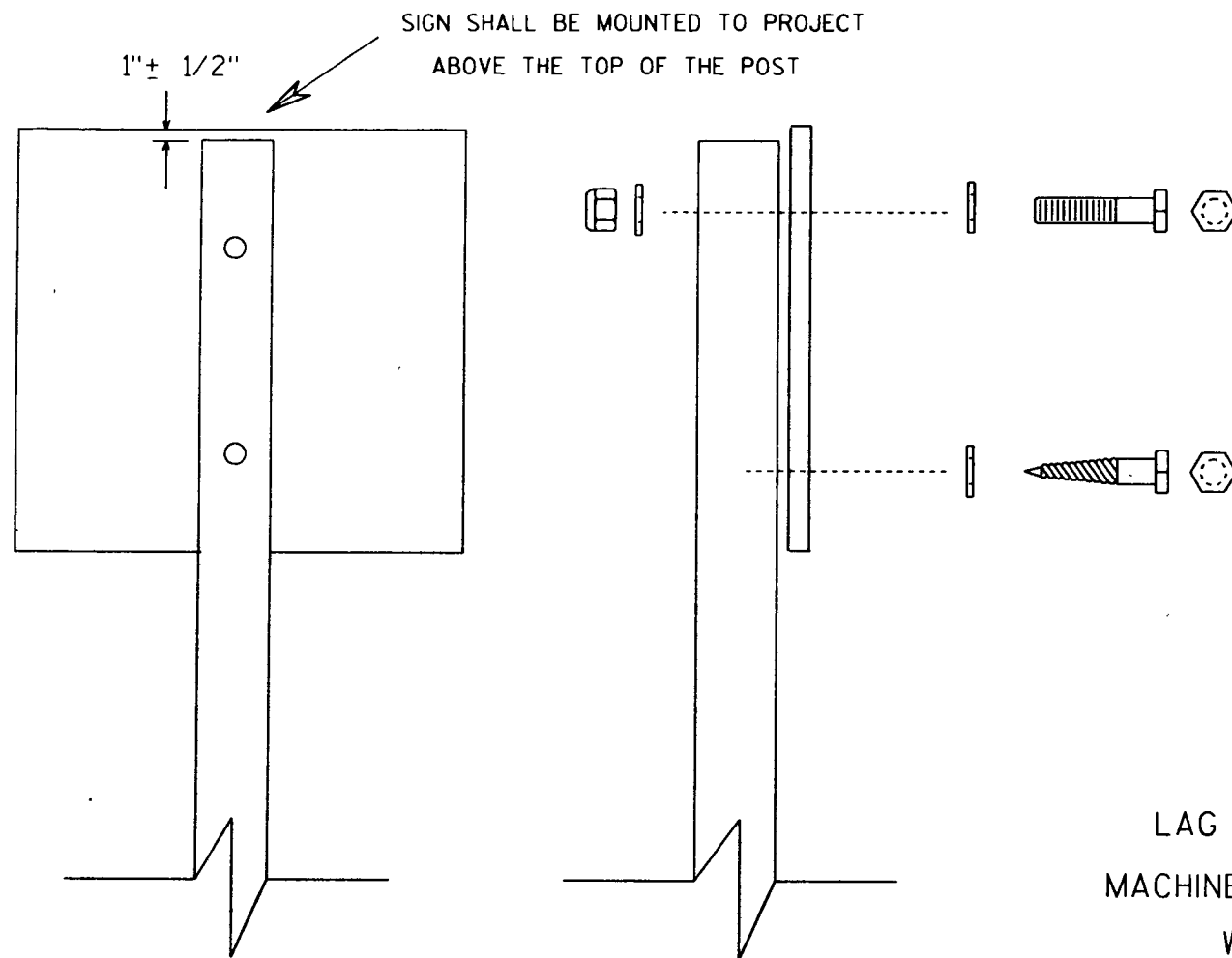
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

State Traffic Engineer

DATE 11/20/92

SHEET NO. A4-4.3

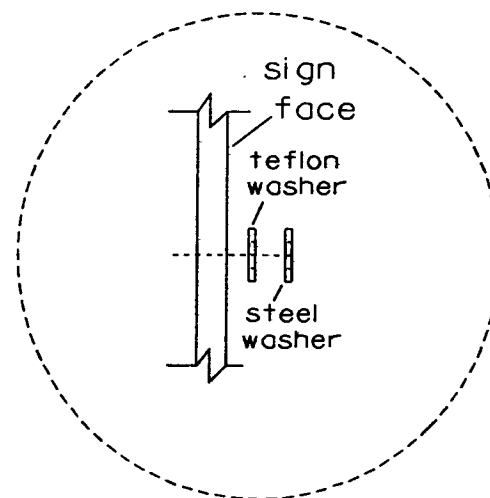


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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 $\frac{7}{16}$ " 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.

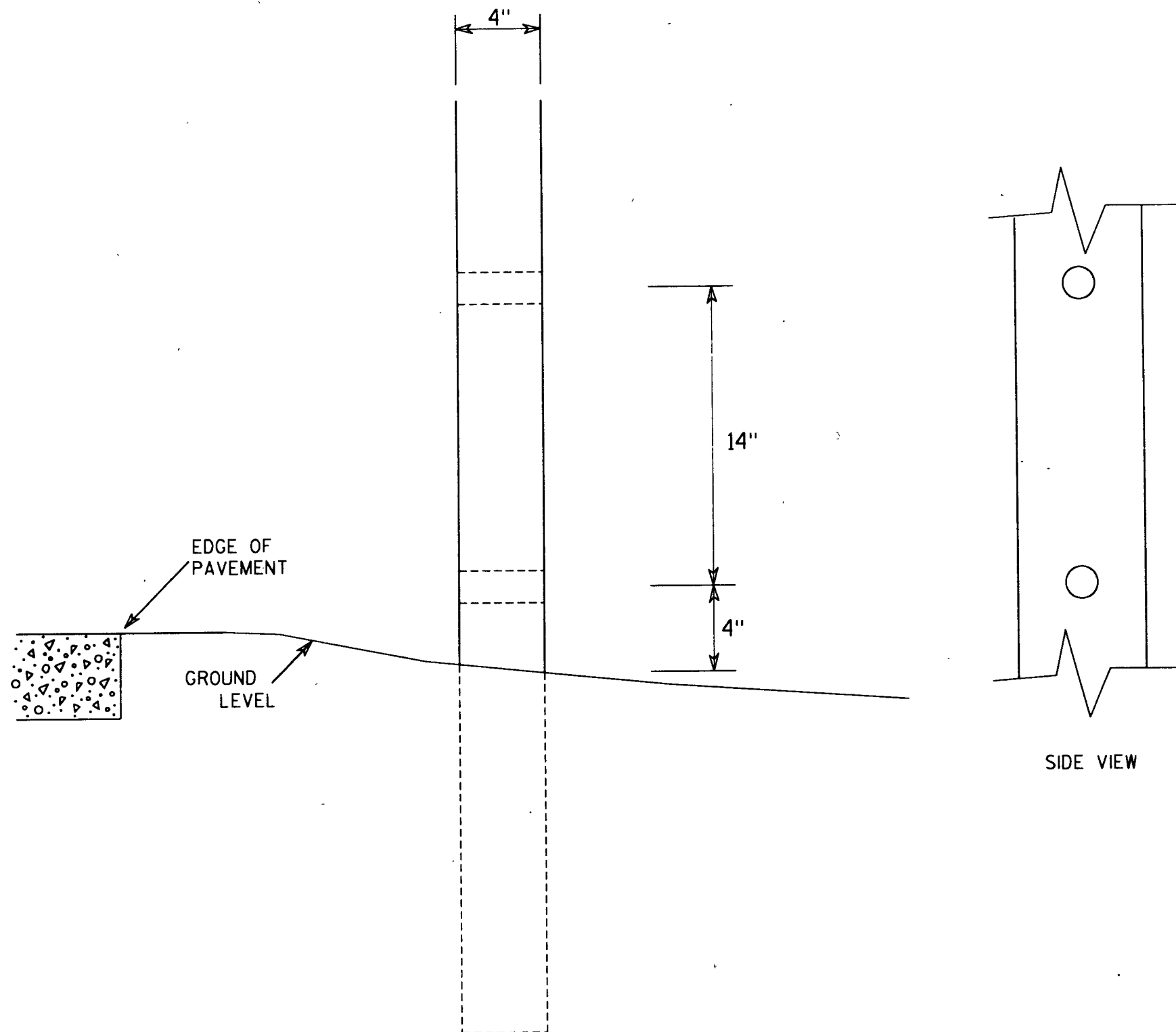


Washer Placement when Sign Has Type H Face

DATE DRAWN 1-29-92	DATE REDRAWN
DATE REVISED	
ATTACHMENT OF SIGNS TO WOOD POSTS	
DRAWN BY	
A4-8.2	
2-1-92	A4-8.2

GENERAL NOTES

1. All 4x6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

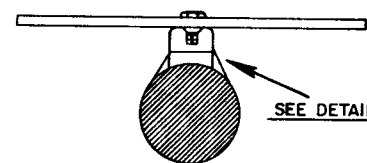
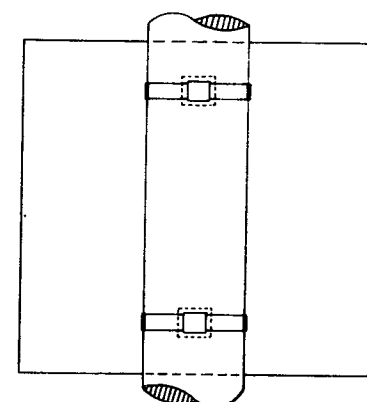


SIDE VIEW

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

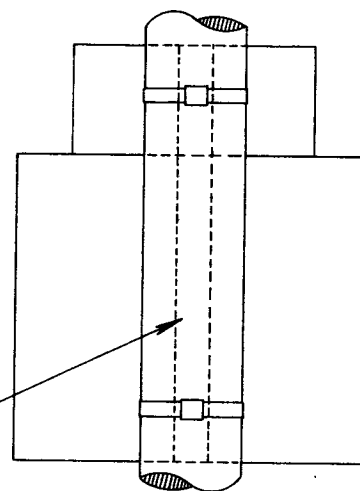
PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
6999-01-60	2.41	
PROJECT DESIGNATION		

SINGLE SIGN

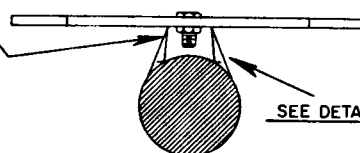


SEE DETAIL A

"J" ASSEMBLY



CHANNEL
SEE TYPICAL
PANEL INSTALLATION
SHEET

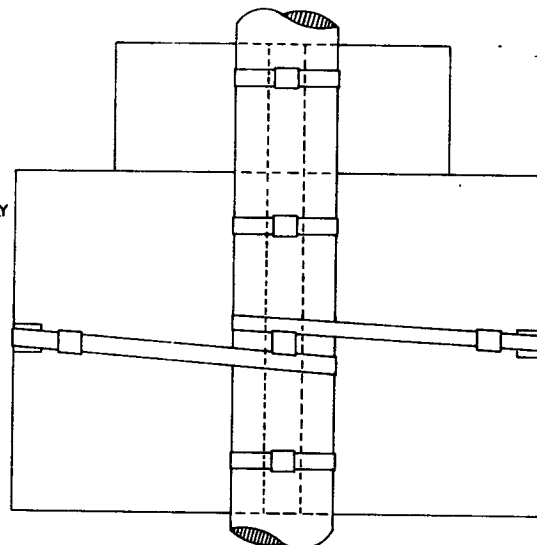
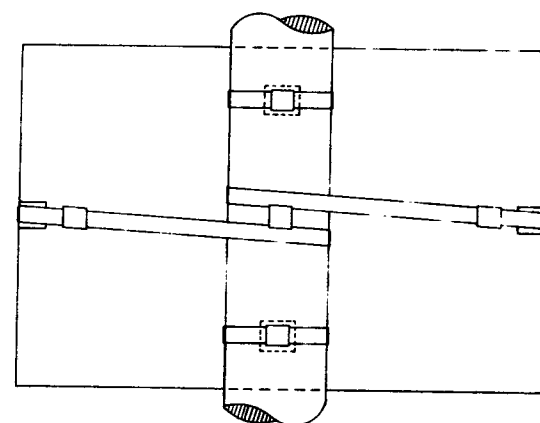


SEE DETAIL B

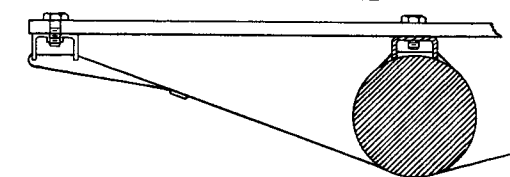
BRACKET BANDING

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

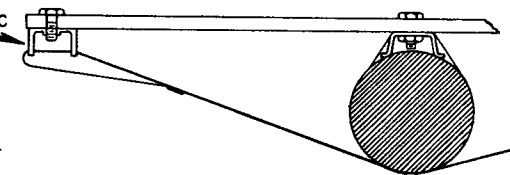
BRACE BANDING SHALL BE TIGHTENED
FIRMLY BUT NOT SO TIGHT AS TO APPRECIABLY
CURVE FACE OF SIGN.



BRACKET BANDING



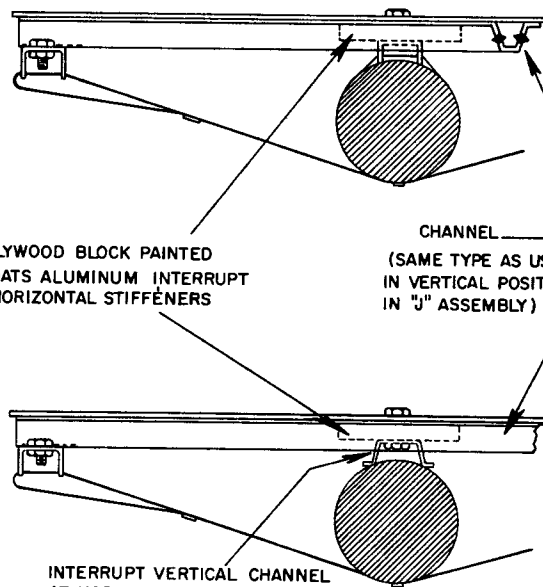
SEE DETAIL C



3/4" PLYWOOD BLOCK PAINTED
2 COATS ALUMINUM INTERRUPT
AT HORIZONTAL STIFFENERS

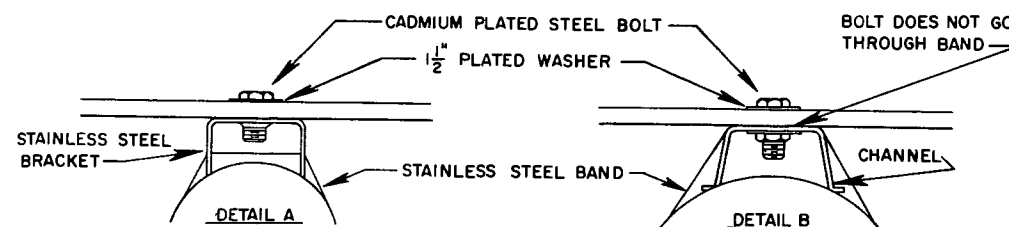
CHANNEL
(SAME TYPE AS USED
IN "J" ASSEMBLY)

METAL SIGN

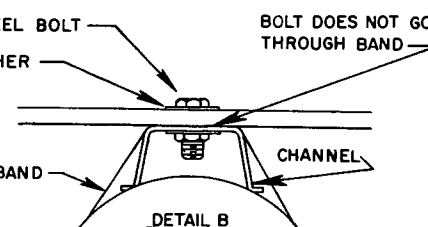


INTERRUPT VERTICAL CHANNEL
AT HORIZONTAL STIFFENERS

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

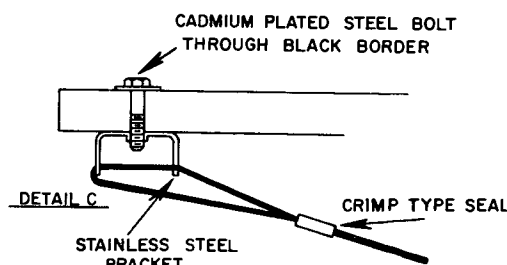


DETAIL A



DETAIL B

BRACE BANDING



DETAIL C

CRIMP TYPE SEAL

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. A5-9.1

DATE 05/03/93

ESTIMATE OF QUANTITIES

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-60 QUANTITY
20101	CLEARING	STA.	10.00	10.00
20102	CLEARING	I.D.	58.00	58.00
20104	GRUBBING	STA.	10.00	10.00
20105	GRUBBING	I.D.	74.00	74.00
20330	REMOVING OLD CULVERTS	EACH	3.00	3.00
20401	REMOVING PAVEMENT	S.Y.	192.00	192.00
20405	REMOVING CURB AND GUTTER	L.F.	25.00	25.00
20412	REMOVING FENCE	L.F.	80.00	80.00
20419	REMOVING ASPHALTIC SURFACE, BUTT JOINTS	S.Y.	250.00	250.00
20503	UNCLASSIFIED EXCAVATION	C.Y.	20,050.00	20,050.00
20511	OVERHAUL	STYD	18,700.00	18,700.00
20801	BORROW EXCAVATION	C.Y.	3,100.00	3,100.00
20901	GRANULAR BACKFILL	C.Y.	448.00	448.00
21301	FINISHING ROADWAY	L.S.	1.00	1.00
21401	OBLITERATING OLD ROAD	STA.	6.00	6.00
30404	CRUSHED AGGREGATE BASE COURSE	TON	25,622.00	25,622.00
30409	SHAPING SHOULDERS	STA.	2.00	2.00
40204	ASPHALTIC MATERIAL FOR TACK COAT	GAL.	2,100.00	2,100.00
40501	ASPHALTIC MATERIAL FOR PLANT MIXES	TON	579.00	579.00
40712	ASPHALTIC CONCRETE PAVEMENT, TYPE HV	TON	9,655.00	9,655.00
50409	CONCRETE MASONRY, ENDWALLS	C.Y.	13.00	13.00
52140	CORRUGATED STEEL PIPE ARCH, 42X29-1/2 INCH	L.F.	424.00	424.00
52141	CORRUGATED STEEL PIPE ARCH, 49X33-1/2 INCH	L.F.	240.00	240.00
52225	REINFORCED CONCRETE CULVERT PIPE, CLASS IV, 12-1/2 INCH	L.F.	60.00	60.00
52226	REINFORCED CONCRETE CULVERT PIPE, CLASS IV, 15-1/2 INCH	L.F.	60.00	60.00
52227	REINFORCED CONCRETE CULVERT PIPE, CLASS IV, 18-1/2 INCH	L.F.	220.00	220.00
52229	REINFORCED CONCRETE CULVERT PIPE, CLASS IV, 24-1/2 INCH	L.F.	130.00	130.00



Sheet 3

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-60 QUANTITY
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52233	REINFORCED CONCRETE CULVERT PIPE, CLASS IV, 36-INCH	L.F.	155.00	155.00
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52260	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 12-INCH	EACH	7.00	7.00
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52261	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 15-INCH	EACH	4.00	4.00
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52262	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 18-INCH	EACH	4.00	4.00
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52264	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 24-INCH	EACH	4.00	4.00
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52266	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 30-INCH	EACH	2.00	2.00
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52267	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 36-INCH	EACH	4.00	4.00
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52405	SALVAGED CULVERT PIPE, 18-INCH	L.F.	30.00	30.00
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60120	CONCRETE CURB AND GUTTER, 18-INCH, TYPE D	L.F.	4,920.00	4,920.00
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60133	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	L.F.	6,860.00	6,860.00
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60135	CONCRETE CURB AND GUTTER, 30-INCH, TYPE G	L.F.	150.00	150.00
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60601	RIPRAP	C.Y.	90.00	90.00
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60720	ROCK EXCAVATION FOR STORM SEWER	C.Y.	130.00	130.00
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60825	REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 12-INCH	L.F.	383.00	383.00
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60850	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 12-INCH	L.F.	472.00	472.00
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60851	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 15-INCH	L.F.	368.00	368.00
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60852	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 18-INCH	L.F.	374.00	374.00
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60853	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 21-INCH	L.F.	100.00	100.00
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60854	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 24-INCH	L.F.	250.00	250.00
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Sheet 3.1

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-60 QUANTITY
60855	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 27-INCH	L.F.	120.00	120.00
60856	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 30-INCH	L.F.	218.00	218.00
61110	MANHOLES, TYPE 1	EACH	3.00	3.00
61112	MANHOLES, TYPE 3	EACH	4.00	4.00
61121	INLETS, TYPE 1	EACH	5.00	5.00
61122	INLETS, TYPE 3	EACH	2.00	2.00
61147	INLETS, TYPE 2	EACH	15.00	15.00
61152	MANHOLE COVERS, TYPE K	EACH	3.00	3.00
61167	INLET COVERS, TYPE H	EACH	1.00	1.00
61168	INLET COVERS, TYPE Z	EACH	10.00	10.00
61171	INLET COVERS, TYPE WM	EACH	15.00	15.00
61201	PIPE UNDERDRAIN, 6-INCH	L.F.	5,690.00	5,690.00
61211	PIPE UNDERDRAIN, UNPERFORATED, 6-INCH	L.F.	150.00	150.00
61315	METALLIC CONDUIT, 3-INCH	L.F.	685.00	685.00
61336	NONMETALLIC CONDUIT, 3-INCH	L.F.	515.00	515.00
61910	MOBILIZATION	L.S.	1.00	1.00
62101	LANDMARK REFERENCE MONUMENTS	EACH	4.00	4.00
62111	LANDMARK REFERENCE MONUMENTS AND CAST IRON COVERS	EACH	1.00	1.00
62203	ASPHALTIC FLUMES	S.Y.	70.00	70.00
62301	CALCIUM CHLORIDE SURFACE TREATMENT	TON	27.00	27.00
62401	WATER	MGAL	255.00	255.00
62501	TOPSOIL	S.Y.	500.00	500.00
62505	SALVAGED TOPSOIL	S.Y.	21,035.00	21,035.00
62702	MULCHING	S.Y.	21,035.00	21,035.00
62803	EROSION MAT, DELIVERED	S.Y.	1,945.00	1,945.00
62804	EROSION MAT, INSTALLED	S.Y.	1,945.00	1,945.00
62811	EROSION BALES, DELIVERED	EACH	30.00	30.00
62812	EROSION BALES, INSTALLED	EACH	30.00	30.00

Sheet 32

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-60 QUANTITY
62815	SILT FENCE, DELIVERED	L.F.	5,050.00	5,050.00
62816	SILT FENCE, INSTALLED	L.F.	5,050.00	5,050.00
62817	SILT FENCE MAINTENANCE	L.F.	5,050.00	5,050.00
62819	MOBILIZATIONS, EROSION CONTROL	EACH	2.00	2.00
62905	FERTILIZER, TYPE B	CWT.	13.00	13.00

63002	SEEDING	LB.	564.00	564.00
63102	REINFORCED SODDING	S.Y.	550.00	550.00
63411	WOOD POSTS, 4X6-INCH X 14-FT.	EACH	59.00	59.00
63702	SIGNS, TYPE II, REFLECTIVE	S.F.	411.00	411.00
63837	ERECTING STATE-OWNED SIGNS, TYPE II	EACH	5.00	5.00

64002	POLES, TYPE 2	EACH	5.00	5.00
64004	POLES, TYPE 4	EACH	4.00	4.00
64012	CONCRETE BASES, TYPE 1	EACH	12.00	12.00
64013	CONCRETE BASES, TYPE 2	EACH	9.00	9.00
64202	FIELD OFFICE, TYPE B	L.S.	1.00	1.00

64210	FIELD LABORATORY	L.S.	1.00	1.00
64301	TRAFFIC CONTROL	L.S.	1.00	1.00
64313	TRAFFIC CONTROL, DRUMS	DAYS	10,635.00	10,635.00
64318	TRAFFIC CONTROL, BARRICADES, TYPE III	DAYS	1,976.00	1,976.00
64321	TRAFFIC CONTROL, WARNING LIGHTS, TYPE A	DAYS	3,952.00	3,952.00

64323	TRAFFIC CONTROL, WARNING LIGHTS, TYPE C	DAYS	1,768.00	1,768.00
64326	TRAFFIC CONTROL, SIGNS	DAYS	3,032.00	3,032.00
64406	PAVEMENT MARKING, EPOXY, 4-INCH	L.F.	10,790.00	10,790.00
64414	PAVEMENT MARKING, CHANNELIZING, EPOXY, 8-INCH	L.F.	1,555.00	1,555.00
64437	PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH	L.F.	305.00	305.00

64472	PAVEMENT MARKING, ARROWS, EPOXY, TYPE 2	EACH	12.00	12.00
64479	PAVEMENT MARKING, WORDS, EPOXY	EACH	5.00	5.00

Sheet 3.3

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-60 QUANTITY
64481	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE	L.F.	16,245.00	16,245.00
64484	TEMPORARY PAVEMENT MARKING	L.F.	11,165.00	11,165.00
64487	REMOVING PAVEMENT MARKINGS	L.F.	8,150.00	8,150.00
64488	PAVEMENT MARKING, DIAGONAL, EPOXY, 6-INCH	L.F.	270.00	270.00
64496	PAVEMENT MARKING, ISLAND NOSE, EPOXY	S.F.	19.00	19.00
64503	GEOTEXTILE FABRIC, TYPE DF	S.Y.	6,650.00	6,650.00
64505	GEOTEXTILE FABRIC, TYPE R	S.Y.	275.00	275.00
64601	SAVING EXISTING PAVEMENT	L.F.	1,128.00	1,128.00
64602	SAVING CONCRETE PAVEMENT, FULL DEPTH	L.F.	100.00	100.00
90002	CONCRETE GUTTER, MOUNTABLE, 18-INCH	L.F.	810.00	810.00
90003	PAVEMENT MARKING, OUTFALL MARKER, NON-REFLECTORIZED COLD PAINT, 8X8-INCH	EACH	7.00	7.00
90004	INSTALLING CONDUIT, 2-INCH	L.F.	3,280.00	3,280.00
90005	QUALITY MANAGEMENT PROGRAM ASPHALTIC MIXTURE	TON	9,655.00	9,655.00
90006	TRAFFIC SIGNAL CABLE, 3 CONDUCTOR, NO. 14	L.F.	2,460.00	2,460.00
90347	PREPARATION OF FOUNDATION FOR CRUSHED AGGREGATE BASE COURSE, OPEN GRADED	STA.	65.00	65.00
90361	CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, NO. 2	TON	7,450.00	7,450.00
90406	ASPHALTIC SURFACE, TYPE E1	TON	470.00	470.00
90555	REINFORCED CONCRETE APRON ENDWALLS FOR UNDERDRAIN, 6-INCH	EACH	7.00	7.00
90660	ELECTRICAL WIRE, TRAFFIC SIGNALS, NO. 10	L.F.	1,320.00	1,320.00
90782	CONCRETE CONTROL CABINET BASES, TYPE 6	EACH	2.00	2.00
90793	PULL BOXES, 12X36-INCH	EACH	4.00	4.00
90797	PULL BOXES, 24X36-INCH	EACH	18.00	18.00

Sheet 3.4

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6999-01-60 QUANTITY
90800	PEDESTAL BASES	EACH	12.00	12.00
90801	TRANSFORMER BASES	EACH	9.00	9.00
90810	TRAFFIC SIGNAL STANDARDS, STEEL, 13-FT.	EACH	6.00	6.00
90811	TRAFFIC SIGNAL STANDARDS, STEEL, 15-FT	EACH	6.00	6.00
90813	MAST ARMS, TRAFFIC SIGNAL TROMBONE, 15-FT.	EACH	5.00	5.00

90817	TRAFFIC SIGNAL FACES, 3-12 VERTICAL	EACH	15.00	15.00
90819	TRAFFIC SIGNAL FACES, 5-12 VERTICAL	EACH	8.00	8.00
90823	TRAFFIC SIGNAL FACES, 3-12 HORIZONTAL	EACH	5.00	5.00
90834	TRAFFIC SIGNAL MOUNTING HARDWARE, CTH N AND MORNINGLORY	L.S.	1.00	1.00
90835	TRAFFIC SIGNAL MOUNTING HARDWARE, CTH N AND CLOVERLAND	L.S.	1.00	1.00

90838	BACKPLATES	EACH	15.00	15.00
90841	TRAFFIC SIGNAL CABLE, 5 CONDUCTOR, NO. 14	L.F.	1,425.00	1,425.00
90861	TRAFFIC SIGNAL CONTROLLER, PRETIMED, SOLID STATE	EACH	2.00	2.00
90865	ELECTRICAL SERVICE, TRAFFIC SIGNALS, CTH N AT MORNINGLORY	L.S.	1.00	1.00
90866	ELECTRICAL SERVICE, TRAFFIC SIGNALS CTH N AT CLOVERLANDY	L.S.	1.00	1.00

90871	LOOP DETECTOR CONDUIT, 1-INCH	L.F.	720.00	720.00
90872	LOOP DETECTOR WIRE	L.F.	2,230.00	2,230.00
90873	LOOP DETECTOR LEAD IN CABLE	L.F.	1,800.00	1,800.00
90999	ON-THE-JOB TRAINING	HRS.	250.00	250.00

Sheet 3.5

CLEARING AND GRUBBING

LOCATION	CLEARING L.D.	GRUBBING L.D.	CLEARING STA.	GRUBBING STA.
13+00 - 14+00, LT.	---	---	1	1
24+55, RT.	14	14	---	---
25+00 - 27+00, RT.	---	---	2	2
28+00, RT.	5	5	---	---
132+70, RT.	5	5	---	---
142+50, LT.	7	7	---	---
144+00 - 146+00, LT.	---	---	2	2
201+L'+10, RT.	7	7	---	---
201+L'+30, RT.	9	9	---	---
201+L'+80, LT.	4	4	---	---
202+L'+70, LT.	7	7	---	---
205+L'+00-206+L'+00, LT.	---	---	1	1
207+L'+00-209+L'+00, RT.	---	---	2	2
224+L'+00-226+L'+00, RT.	---	---	2	2
223+L'+90, RT.	---	8	---	---
224+L'+20, RT.	---	8	---	---
	58	74	10	10

REMOVING ASPHALTIC SURFACE, BUTT JOINTS

LOCATION	S.Y.
200+L'+17	25
698+T1'+70	25
401+P'+34	25
0+T2'+30	25
2+T2'+50	25
212+L'+50	25
218+L'+50	25
601+MG'+78	25
229+L'+00	25
12+CL'+20	25
	250



SALVAGED TOPSOIL, SEEDING, FERTILIZER AND MULCH

LOCATION	SALVAGED TOPSOIL (S.Y.)	SEED (L.B.)	TYPE B FERTILIZER (C.W.T.)	MULCH (S.Y.)
11+40 - 26+00	5710	154	3.6	5710
26+00 - 140+00	5430	146	3.4	5430
140+00 - 146+70	1255	34	0.8	1255
200+L'+18 - 229+L'+00	8640	230	5.4	8640
	21,035	564	13.2	21,035

MEDIANS (NON-DRIVEABLE)

LOCATION	TONS
14+20 - 15+15	22
16+10 - 16+92	19
18+90 - 19+36	11
20+25 - 22+31	46
23+25 - 25+87	64
26+79 - 28+01	27
130+20 - 131+10	30
137+70 - 139+50	41
140+63 - 141+60	22
ISLANDS (RT. TURN)	
11+50 LT.	2
26+00 RT.	3

TEMPORARY WIDENING

STAGE I	TONS
11+10 - 11+40, RT.	10
130+75 - 132+75, RT.	19
142+60 - 145+25, LT.	22
145+00 - 148+57, LT.	23
STAGE II	TONS
28+60 - 130+85, LT.	45
30+25 - 132+50, RT.	35
144+80 - 148+57, RT.	29
	470

REMOVING CURB AND GUTTER

LOCATION	L.F.
11+20 - 11+40 (ISLAND)	25

REMOVING PAVEMENT

LOCATION	S.Y.
STA. 11+40 - 12+00, LT.	130
STA. 11+40 - 11+80, RT.	62
	192

REMOVING FENCE

LOCATION	TYPE	L.F.
12+25 - 12+95, RT.	WOVEN WIRE	80

OBLITERATING OLD ROAD

LOCATION	STA.
13+00 - 14+00, RT.	1
201+L'+70 - 203+L'+70, LT.	2
209+L'+70 - 210+L'+70, RT.	1
221+L'+00 - 223+L'+00, RT.	2
	6

REMOVING OLD CULVERTS

LOCATION	SIZE	EA.
12+25	2 EA. 30-INCH CP X 80'	2
137+60	42-INCH CP X 65'	1
		3

CRUSHED AGGREGATE BASE COURSE

LOCATION	TONS
CTH 'N'	
11+40 - 23+00	4,540
23+00 - 140+00	6,665
140+00 - 146+70	3,510
DRIVEWAYS (LISTED ELSEWHERE)	907
LILAC LANE REALIGNMENT	
200+L'+18 - 229+L'+00	9,050
CR. AGG. SHOULDERS	
12+80 - 13+80, 100' RT.	10
203+L'+50 - 204+L'+50, 150' LT.	10
	25,607

ASPHALTIC FLUMES

LOCATION	S.Y.
11+81, 102' LT.	7
25+94, 104' RT.	7
26+45, 80' RT.	7
26+62, 66' LT.	7
134+07, 44' LT.	7
137+41, 44' LT.	7
138+95, 44' LT.	7
139+49, 87' RT.	7
140+51, 82' LT.	7
140+45, 48' RT.	7
	70

EARTHWORK SUMMARY TABLE

LOCATION	UNCLASSIFIED EXCAVATION (C.Y.)	* FILL (C.Y.)	CUMULATIVE BALANCE (C.Y.)	** ROCK EXCAVATION (C.Y.)	EXCAVATION BELOW SUBGRADE (C.Y.)	*** BORROW EXCAVATION (C.Y.)
CTH 'N'						
STA. 146+90.37' LT.	20	0	0	0	---	---
STA. 11+40 - STA. 140+20	10,630	5,650	4,980	130	1700	3100
STA. 10+CL'+50 - STA. 12+CL'+19.40	90	520	4,950	0	---	---
STA. 140+20 - STA. 146+70	2,945	175	7,320	0	---	---
LILAC REALIGNMENT						
STA. 215+L'+10	430	0	0	0	---	---
STA. 200+L'+17.57 - STA. 229+L'+00	3,635	6,330	4,625	0	---	---
STA. 698+T1'+71.80 - STA. 699+T1'+50	100	75	4,650	0	---	---
STA. 400+P'+50 - STA. 401+P'+33.60	170	60	4,760	0	---	---
STA. 0+T2'+39 - STA. 2+T2'+49.30	200	5	4,955	0	---	---
STA. 600+MG'+50 - STA. 601+MG'+77.60	130	135	4,950	0	---	---
	18,350	12,950	4,950	130	1700	3100

- * FILL FACTOR OF 1.20 INCLUDED
- ** ALL ROCK EXCAVATION FOR STORM SEWER

*** BORROW EXCAVATION REQUIRED IN STAGE I CONSTRUCTION
NOTE: FILL REQUIRED FOR LILAC LANE REALIGNMENT CAN BE OBTAINED
FROM STAGE II CONSTRUCTION OF CTH 'N'

STATE PROJECT NUMBER	SHEET NO.
6999-01-60	38
MISCELLANEOUS QUANTITIES	
CTH 'N'	MARATHON COUNTY

CONCRETE CURB AND GUTTER, 18-INCH, TYPE 'D'

LOCATION	L.F.	REMARKS
11+50 - 15+17, 0 - 12' LT.	380	LOW SIDE
11+50 - 15+17, 11'-18' LT.	380	HIGH SIDE
16+08 - 19+37, 0 - 12' LT.	340	LOW SIDE
16+08 - 19+37, 6 - 18' LT.	340	HIGH SIDE
20+23 - 22+32, 0 - 12' LT.	450	HIGH SIDE
23+23 - 25+89, 0 - 12' LT.	270	HIGH SIDE
23+23 - 25+00, 6 - 18' LT.	180	HIGH SIDE
25+00 - 25+90, 18' LT.	90	LOW SIDE
26+77 - 28+02, 0 - 6' LT.	260	HIGH SIDE
28+51 - 131+12, 0 - 12' LT.	270	LOW SIDE
28+51 - 131+12, 18' LT.	270	HIGH SIDE
132+12 - 139+52, 18' LT.	740	HIGH SIDE
132+12 - 139+52, 0 - 12' LT.	750	LOW SIDE
140+61 - 141+60, 0' LT.	100	HIGH SIDE
140+61 - 141+60, 6' LT.	100	LOW SIDE
	<u>4,920</u>	

REMOVING PAVEMENT MARKING

LOCATION	L.F.
STAGE I	
*10+00 - 12+00, OLD C/L	400
*20+00 - 26+00, OLD C/L	1,200
*130+00 - 148+50, OLD C/L	3,700
*145+60 - 148+50, LT. EDGE LINE	300
STAGE II	
11+50 - 14+00, LT. EDGE	250
28+60 - 29+50, LT. EDGE	90
129+50 - 131+50, LT. EDGE	200
29+00 - 131+00, RT. EDGE	200
130+50 - 132+00, C/L	300
142+00 - 148+50, RT. EDGE	650
143+00 - 145+50, C/L	500
146+70 - 148+50, C/L	360
	<u>8,150</u>

SAWING EXISTING PAVEMENT

LOCATION	L.F.
PIPE REPLACEMENT STA. 215'+10	48
12+80 - 13+60, 100' RT.	100
14+40, 62' LT - 15+17, 80' LT.	80
15+45 - 15+85, 85' RT.	85
17+35 - 17+50, 60' LT.	15
19+65 - 20+05, 75' LT.	40
19+20, 45' RT. - 20+13, 70' RT.	160
20+30 - 22+35, 50' LT.	205
22+60 - 23+00, 80' LT.	40
21+75 - 23+95, 45' LT.	250
25+05 - 25+35, 75' LT.	30
203'+L+50 - 204'+L+50, 150' LT.	75
	<u>1,128</u>

* THE ENGINEER IN THE FIELD WILL DETERMINE IF THIS REMOVAL IS NECESSARY

CONCRETE CURB AND GUTTER, 30-INCH, TYPE 'D'

LOCATION	L.F.	REMARKS
11+88 - 26+46, LT.	1,550	LOW SIDE
11+16 - 19+35, RT.	840	HIGH SIDE
19+35 - 26+00, RT.	705	LOW SIDE
26+50 - 27+00, LT.	80	HIGH SIDE
27+00 - 140+00, LT.	1,430	LOW SIDE
26+50 - 29+30, RT.	310	LOW SIDE
29+30 - 137+15, RT.	785	HIGH SIDE
137+15 - 140+00, RT.	305	LOW SIDE
140+20, LT. (CLOVERLAND MEDIAN)	140	
140+20, RT. (CLOVERLAND MEDIAN)	140	
140+50 - 144+00, LT.	365	HIGH SIDE
140+50 - 142+00, RT.	210	LOW SIDE
	<u>6,860</u>	

OPEN GRADED BASE COURSE, NO. 2

LOCATION	TONS
11+40 - 23+00	2,620
23+00 - 140+00	3,830
140+00 - 144+00	1,000
	<u>7,450</u>

ASPHALTIC CONCRETE PAVEMENT TYPE HV

LOCATION	TONS
214'+L+60 - 218'+L+80	60
11+40 - 25+00	2,900
25+00 - 139+00	2,700
139+00 - 146+70	1,820
DRIVEWAYS (LISTED ELSEWHERE)	475
200'+L+18 - 212'+L+50	1,010
218'+L+50 - 226'+L+00	570
227'+L+00 - 229'+L+00	120
	<u>9,655</u>

ASPHALTIC MATERIAL FOR PLANT MIXES

TONS
4
175
160
110
28
60
35
7
<u>579</u>

ASPHALTIC MATERIAL FOR TACK COAT

LOCATION	GAL
11+00 - 146+70	1470
200'+L+18 - 212'+L+50	275
218'+L+50 - 229'+L+00	190
DRIVEWAYS	165
	<u>2100</u>

CONCRETE CURB AND GUTTER, 30-INCH, TYPE 'J'

LOCATION	L.F.
STA. 11+50, LT. (RT. TURN ISLAND)	60
STA. 26+00, RT. (RT. TURN ISLAND)	90
	<u>150</u>

PREPARATION OF FOUNDATION FOR CRUSHED AGGREGATE BASE COURSE, OPEN GRADED

LOCATION	STATION
11+40 - 29+34 LT. & RT.	35.8
129+34 - 144+00 LT. & RT.	29.2
	<u>65.0</u>

SAWING CONCRETE PAVEMENT, FULL DEPTH

LOCATION	L.F.
11+40, LT.	75
11+40, RT.	25
	<u>100</u>

LANDMARK REFERENCE MONUMENTS & LANDMARK REFERENCE MONUMENTS AND CAST IRON COVERS

LOCATION	MONUMENTS (EA.)	MONUMENT WITH CAST IRON COVER (EA.)
26+24, 21.6' RT.	4	1

CONCRETE GUTTER, MOUNTABLE, 18-INCH

LOCATION	L.F.	REMARKS
141+60 - 144+50, 6-18' LT.	290	LOW SIDE
144+50 - 145+61, 16-11' LT.	115	HIGH SIDE
141+60 - 145+61, 0' LT.	405	HIGH SIDE
	<u>810</u>	

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

LOCATION	TYPE III BARRICADES * EACH	DAYS	LIGHTS TYPE A * EACH	DAYS
STAGE I				
US 51 RAMPS	2	104	4	208
LILAC LANE	5	260	10	520
28+60, LT.	1	52	2	104
130+70, RT.	1	52	2	104
132+10, LT.	1	52	2	104
132+45, RT.	1	52	2	104
CLOVERLAND LANE	6	312	12	624
146+80, RT.	1	52	2	104
STAGE II				
US 51 RAMPS	2	104	4	208
LILAC LANE	8	416	16	832
29+00, RT.	1	52	2	104
130+70, RT.	1	52	2	104
131+50, LT.	2	104	4	208
132+10, LT.	2	104	4	208
140+00, LT.	2	104	4	208
146+60, LT.	2	104	4	208
		<u>1,976</u>		<u>3,952</u>

* FOR INFORMATION ONLY

TRAFFIC CONTROL, DRUMS & WARNING LIGHTS, TYPE C

LOCATION	* EACH	DRUMS DAYS	LIGHT DAYS
STAGE I			
11+40 - 132+10, LT.	42	2184	
130+70 - 146+75, RT.	32	1664	
STAGE II			
11+40 - 28+60, LT.	35	1820	
28+60 - 132+00, RT. (TAPER)	14**	728	728
29+40 - 132+20, LT. (TAPER)	12**	624	624
132+20 - 146+60, LT.	29	508	
146+60 - 148+60, LT. (TAPER)	8**	416	416
STAGE III			
23+75 - 25+75, RT. (LT. TURN)	8	152	
LILAC LANE-CLOSE LT. TURN LANES	6	114	
27+60 - 28+60, LT. (TAPER)	4	76	
27+10 - 139+50, RT.	25	475	
29+00, RT.-CLOSE WORK AREA	3	57	
132+50, LT.-CLOSE WORK AREA	3	57	
28+60 - 139+50, LT.	22	418	
140+50 - 142+75, LT. (TAPER)	9	171	
CLOVERLAND-TO CLOSE LT. TURNS & MED. LANE	9	<u>171</u>	<u>171</u>
		10,635	1,768

* FOR INFORMATION ONLY
** DRUMS WITH TYPE "C" LIGHTS

DRIVEWAYS

STATION	3-INCH ** ASPHALTIC APRON (TON)	3-INCH ** ASPHALTIC DRIVE (TON)	CRUSHED AGGREGATE BASE COURSE (TON)
15+50, RT.	34	34	135
15+50, LT.	10	15	52
17+45, LT.	3	3	11
19+93, LT.	10	26	65
19+79, RT.	10	16	50
22+00, RT.	10	26	65
22+79, LT.	10	30	78
22+79, RT.	7	12	37
23+80, RT.	10	15	44
129+45, RT.	3	7	18
131+50, LT.	20	20	74
140+20, LT.	21	46	130
143+00, LT.	2	---	5
143+00, RT.	6	10	33
143+50, LT.	4	---	7
144+00, RT.	6	15	37
146+50, RT.	2	---	3
146+90, LT.	---	---	4
201+L+40, RT.	8	---	15
219+L+00, LT.	24	---	48
	<u>200</u>	<u>275</u>	<u>911</u>

** ASPHALTIC CONCRETE PAVEMENT TYPE HV
ON 6-INCH CRUSHED AGGREGATE BASE
NOTE: THESE QUANTITIES ARE BREAK DOWNS AND HAVE BEEN
SUMMARIZED ELSEWHERE

TRAFFIC CONTROL SIGNS

LOCATION	SIGN	* NO. (EACH)	DAYS
STAGE I			
CTH 'N' SOUTH OF US 51	G20-2	1	52
CTH 'N' SOUTH OF US 51	W20-1	3	156
CTH 'N' SOUTH OF US 51	W013-1	1	52
8+00, RT.	W01-4R	1	52
US 51 OFF RAMP	W20-1	1	52
TULIP CIRCLE	W20-1	2	104
12+05, RT.	W06-3	1	52
14+00, LT.	W01-4R	1	52
14+00, LT.	W013-1	1	52
15+65, RT.	W06-3	1	52
225+L+00	W20-1	1	52
230+L+00	W20-1	1	52
CLOVERLAND LANE	W20-1	1	52
140+00, LT.	W06-3	1	52
140+00, LT.	W013-1	1	52
146+65, RT.	W01-6	1	52
CTH 'N' NORTH	W20-1	3	156
CTH 'N' NORTH	G20-2	1	52

STAGE II

CTH 'N' SOUTH OF US 51	G20-2	1	52
CTH 'N' SOUTH OF US 51	W20-1	3	156
CTH 'N' SOUTH OF US 51	W013-1	1	52
US 51 OFF RAMP	W20-1	1	52
CTH 'N' SOUTH OF US 51	W01-4L	1	52
13+00, LT.	W06-3	1	52
13+80, LT.	W013-1	1	52
13+80, LT.	W01-4L	1	52
23+50, LT.	W06-3	1	52
LILAC LANE	W20-1	2	104
27+00, LT.	W0-4R	1	52
134+00, RT.	W06-3	1	52
134+10, RT.	W01-4R	1	52
137+90, LT.	W06-3	1	52
CLOVERLAND LANE	W20-1	1	52
143+80, RT.	W01-4L	1	52
144+20, LT.	W01-4L	1	52
146+80, LT.	W01-6L	1	52
148+00, LT.	W013-1	1	52
148+08, LT.	W06-3	1	52
CTH 'N' NORTH	W01-4L	1	52
CTH 'N' NORTH	W20-1	3	156
CTH 'N' NORTH	G20-2	1	52

TRAFFIC CONTROL SIGNS (CONT.)

LOCATION	SIGN	*NO. EACH	DAYS
STAGE III			
CTH 'N' SOUTH OF US 51	W20-1	3	57
CTH 'N' SOUTH OF US 51	G20-2	1	19
US 51 OFF RAMP	W20-1	1	19
20+20, LT., 19+75, RT.	R3-7	2	38
22+60, RT.,	R3-7	1	19
26+70, RT.	R4-7a	1	19
LILAC LANE	W20-1	2	38
CLOVERLAND LANE	W20-1	1	19
139+50, LT.	R4-7a	1	19
145+00, LT.	R3-7	1	19
CTH 'N' NORTH	W013-1	1	19
CTH 'N' NORTH	W20-1	3	57
CTH 'N' NORTH	G20-2	1	38
		70	3032

* FOR INFORMATION ONLY

STATE PROJECT NUMBER
6999-01-60SHEET NO.
3 D

MISCELLANEOUS QUANTITIES

CTH 'N' MARATHON COUNTY

PAVEMENT MARKING, EPOXY, 4-INCH				
STATION TO STATION	LOCATION	WHITE SOLID (L.F.)	YELLOW SOLID (L.F.)	WHITE DASHED (L.F.)
LILAC LANE				
200' L' - 17.58 - 203' L' + 70	LT	353		
200' L' - 17.58 - 203' L' + 70	CENTER		706	
200' L' - 17.58 - 205' L' + 20	RT	503		
204' L' - 40 - 205' L' + 20	CENTER		160	
204' L' - 40 - 208' L' + 50	LT	410		
205' L' - 90 - 208' L' + 85	CENTER		590	
205' L' - 90 - 209' L' + 00	RT	310		
209' L' - 40 - 212' L' + 50	LT	310		
209' L' - 55 - 212' L' + 50	CENTER		590	
209' L' - 90 - 212' L' + 50	RT	260		
218' L' - 50 - 221' L' + 50	RT	300		
218' L' - 50 - 221' L' + 50	CENTER		600	
218' L' - 50 - 225' L' + 45	LT	695		
222' L' - 40 - 225' L' + 70	RT	330		
222' L' - 40 - 226' L' + 15	CENTER		750	
222' L' - 40 - 226' L' + 15	RT			94
227' L' - 10 - 229' L' + 00	CENTER		380	
CTH 'N'				
11+50 - 25+90	RT			360
15+00 - 25+90	LT			273
26+90 - 139+50	LT			315
26+90 - 139+50	RT			315
140+60 - 142+00	RT			35
140+60 - 142+80	LT			55
141+60 - 145+60	MED		800	
141+60 - 145+60	MED			200
142+00 - 146+68	RT	468		
144+00 - 146+68	LT	268		
VARIOUS MEDIAN LOCATIONS (YELLOW LINES AROUND MEDIAN NOSES)	---		360	
		4207	4936	1447
				200

SALVAGED CULVERT PIPE, 18-INCH

LOCATION: STA 146+90, 37' LT

ESTIMATE OF VARIOUS ITEMS

UNCLASSIFIED EXCAVATION (	20 C.Y.
*REMOVE AND LOWER PIPE	30 L.F.
GRANULAR BACKFILL	3 C.Y.
*COMPACTED BACKFILL	16 C.Y.
6" CRUSHED AGGREGATE BASE FOR DRIVEWAY SURFACE	4 C.Y.
*DITCHING TO NEXT CULVERT NORTH (11.2' TO 0')	50 L.F.
*LISTED ELSEWHERE *INCLUDED	

TEMPORARY PAVEMENT MARKING

LOCATION	SINGLE YELLOW SOLID (L.F.)	SINGLE WHITE SOLID (L.F.)
STAGE I		
11+50 - 26+00, 10' - 12' LT	---	1,450
11+50 - 130+54, CONST. C/L	3,825	---
26+70 - 132+10, 12' - 30' LT.	---	540
130+70 - 132+90, 3' RT. - 2' LT.	---	220
130+54 - 148+57, CONST. C/L	3,610	---
140+50 - 148+60, 2' - 0' LT.	---	810
145+10 - 148+60, 20 - 24' LT.	---	350
STAGE II		
145+00 - 148+50, 0' - 20' RT.	---	360
	7,435	3,730

TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE

	SINGLE YELLOW SOLID (L.F.)	SINGLE WHITE SOLID (L.F.)	DASHED WHITE (L.F.)
STAGE I			
10+00 - 11+50, CONST. C/L	300	---	---
STAGE II			
10+00 - 130+54, CONST. C/L	4,125	---	---
130+54 - 148+57, CONST. C/L	3,610	---	---
USH 51 RAMP - 25+60, 30' LT.	---	1,480	---
11+40 - 25+90, 0' - 12' LT.	---	1,500	---
27+00 - 148+60, 0' - 12' LT.	---	2,240	---
26+60 - 139+50, 12' LT. - 20' RT.	---	1,300	---
141+00 - 145+00, 0' - 12' RT.	---	410	---
STAGE III			
11+40 - 26+00, 30' LT.	---	---	365
11+40 - 23+50, 12' RT.	---	---	305
23+70 - 23+90, 10' RT.	---	220	---
26+70 - 27+40, 20' LT.	---	70	---
140+60 - 143+00, 30' LT.	---	240	---
143+00 - 145+00, 30' LT.	---	---	55
145+00 - 146+70, 1' - 4' LT.	---	---	25
	8,035	7,460	750

PAVEMENT MARKING, CHANNELIZING, EPOXY, 8-INCH		
STATION TO STATION	LOCATION	WHITE L.F.
11+45 - 14+85	LT	450
14+20 - 15+20	RT	100
16+10 - 16+90	LT	80
18+90 - 19+35	RT	45
20+25 - 20+70	LT	45
21+90 - 22+30	RT	40
22+55 - 23+10	LT	45
24+80 - 25+90	RT	110
25+45 - 25+85	24' RT	80
26+80 - 28+00	LT	120
130+20 - 131+10	RT	90
137+70 - 139+50	RT	180
140+60 - 141+60	LT	100
10' CL' + 90 - 11' CL' + 25	R/L, LT. & RT.	70
		1,555
PAVEMENT MARKING, DIAGONAL, EPOXY, 6-INCH		
STATION TO STATION	LOCATION	(L.F.)
CTH 'N'		
11+45 - 12+10	LT	270

PAVEMENT MARKING, ISLAND NOSE, EPOXY

STATION	LOCATION	WHITE (S.F.)	YELLOW (S.F.)
CLOVERLAND			
10' CL' + 90	CENTERLINE		5
CTH 'N'			
11+70	35' LT.		7
25+80	30' RT.	7	
		7	12

PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH

STATION TO STATION	LOCATION	WHITE (L.F.)
CTH 'N'		
25+90	-----	40
26+05 - 26+25 (MORNINGLORY LN.)	60' LT.	21
26+25 - 26+60 (LILAC LANE)	35' RT.	42
26+80	-----	40
139+50	-----	44
139+80 - 140+14 (CLOVERLAND LN.)	55' LT.	33
140+20 - 140+52 (CLOVERLAND LN.)	35' RT.	35
140+65	-----	50
		305

PAVEMENT MARKING, WORDS, EPOXY

STATION	LOCATION	EACH
CTH 'N'		
13+07	36' LT.	1
25+21	6' LT.	1
27+49	12' LT.	1
138+81	6' LT.	1
141+34	12' LT.	1
		5

PAVEMENT MARKING, ARROWS, EPOXY, TYPE 2

STATION	LOCATION	EACH
CTH 'N'		
12+67	36' LT.	1
13+47	36' LT.	1
24+81	6' LT.	1
25+61	6' LT.	1
27+09	12' LT.	1
27+89	12' LT.	1
138+41	6' LT.	1
139+21	6' LT.	1
140+94	12' LT.	1
141+74	12' LT.	1
144+00	9' LT.	2
		12

LOCATION	EROSION CONTROL			
	EROSION MAT (DELIVERED, INSTALLED) (S.Y.)	*REINFORCED SODDING (S.Y.)	* RIPRAP (C.Y.)	*GEOTEXTILE FABRIC, TYPE R (S.Y.)
11+40 - 12+40, RT.	70	---	---	---
13+70, 55' RT.	---	---	4	15
12+55 - 13+65, RT.	100	---	---	---
14+00 - 15+00, RT.	70	---	---	---
16+00 - 17+30, LT.	95	---	---	---
16+40 - 19+00, RT.	190	---	---	---
17+50 - 18+50, LT.	---	110	---	---
18+50 - 19+50, LT.	70	---	---	---
20+20 - 21+60, RT.	100	---	---	---
24+50 - 25+00, RT.	35	---	---	---
25+00 - 25+50, RT.	---	55	---	---
25+50 - 25+80, RT.	35	---	---	---
25+75, RT.	---	5	---	---
26+60, 80' RT.	---	5	---	---
26+60, 80' LT.	---	5	---	---
26+60 - 28+20, RT.	130	---	---	---
132+00 - 133+50, LT.	110	---	---	---
132+00 - 136+80, RT.	350	---	---	---
134+15, 45' LT.	---	5	---	---
136+80 - 137+20, RT.	---	45	---	---
137+20, 55' LT.	---	5	---	---
137+20 - 137+60, RT.	---	---	15	45
137+60 - 138+00, RT.	---	45	---	---
138+00 - 139+60, RT.	145	---	---	---
138+90 - 139+40, LT.	35	---	---	---
139+00, 55' LT.	---	5	---	---
139+60, 100' RT.	---	5	---	---
140+35, 80' RT.	---	5	---	---
140+50, 90' LT.	---	5	---	---
140+50 - 140+90, RT.	45	---	---	---
141+00 - 141+75, RT.	---	85	---	---
200'L'+50 - 201'L'+50, RT.	75	---	---	---
201'L'+50 - 201'L'+75, RT.	---	55	---	---
202'L'+00 - 202'L'+50, RT.	145	---	---	---
202'L'+50 - 204'L'+50, RT.	---	35	---	---
215'L'+10 - 216'L'+50	100	---	---	---
225'L'+00, 30' LT.	---	15	---	---
228'L'+00, 25' LT.	45	---	---	---
	1,945	490	19	60

* ADDITIONAL QUANTITIES SHOWN IN CULVERT PIPE TABLE

* SILT FENCE

LOCATION	L.E.
11+00 - 12+50, RT.	170
12+25 - 12+60, LT.	40
12+00 - 13+80, LT.	245
13+50 - 14+00, RT.	45
15+20, LT.	15
16+00 - 16+15, RT.	40
16+15, LT.	40
18+00, LT.	30
20+00 - 21+75, RT.	175
25+50 - 26+35, RT.	70
26+00, LT.	60
26+50, LT.	60
26+40 - 26+70, RT.	40
26+60 - 28+00, RT.	140
132+00 - 139+00, LT.	900
133+00 - 138+00, RT.	560
137+50, LT.	40
139+30 - 139+60, RT.	60
140+10 - 140+50, RT.	70
141+00, LT.	40
141+00 - 142+50, LT.	150
141+50 - 142+50, RT.	100
144+30 - 146+50, RT.	220
201'L'+00 - 202'L'+50, RT.	250
201'L'+50 - 202'L'+20, LT.	70
203'L'+00 - 203'L'+80, LT.	160
204'L'+00 - 204'L'+50, LT.	130
204'L'+50 - 205'L'+40, RT.	160
205'L'+75 - 206'L'+50, RT.	170
208'L'+70, LT.	30
209'L'+00, RT.	30
209'L'+50 - 210'L'+00	20
212'L'+50 - 212'L'+70, LT.	40
212'L'+50 - 212'L'+70, RT.	40
215'L'+00 - 215'L'+20, RT.	60
215'L'+10, LT.	30
219'L'+40, LT.	30
219'L'+50 - 221'L'+80, RT.	300
222'L'+20 - 223'L'+00, RT.	220
	5,050

* DELIVERED, INSTALLED, AND MAINTAINED (SANDY TYPE)

STATE PROJECT NUMBER	SHEET NO.
6999-01-60	3 F
MISCELLANEOUS QUANTITIES	
CTH 'N'	MARATHON COUNTY

EROSION BALES

LOCATION	EA.
UNDISTRIBUTED	30

WOOD POSTS, 4X6-INCH X 14 FT.

CTH 'N'	38 EACH
LILAC LANE REALIGNMENT	21 EACH
	59

* THIS IS SUMMARY, BREAK DOWN ON PERMANENT PAVEMENT MARKING & SIGNING SHEET

SIGNS, TYPE II, REFLECTIVE

CTH 'N'	275.4 S.F.
LILAC LANE REALIGNMENT	135.6 S.F.
	411.0 S.F.

* THIS IS SUMMARY, BREAK DOWN ON PERMANENT PAVEMENT MARKING & SIGNING SHEET

STATION	PIPE UNDERDRAIN, 6-INCH		REINFORCED CONCRETE		GEOTEXTILE FABRIC TYPE DF (S.Y.)	REMARKS
	PIPE UNDERDRAIN 6-INCH	PIPE UNDERDRAIN UNPERFORATED 6-INCH	APRON ENDWALLS FOR UNDERDRAIN 6-INCH			
12+50, 42' LT. - 12+50, 62' LT.		20'	1		160	OUTLET TO DITCH
13+00 - 11+60, RT.	140'				120	CONNECT TO MANHOLE 1A
13+50, 42' LT. - 12+50, 42' LT.	100'					CONNECT PERFORATED TO UNPERFORATED AT 12+50
13+50, 42' LT. - 15+00, 42' LT.	150'				180	CONNECT INLET 16B
13+50, 12' LT. - 15+00, 12' LT.	150'				180	CONNECT INLET 17B
16+15, 42' LT. - 15+00, 42' LT.	115'				130	CONNECT INLET 15B
16+20, RT. - 18+00, 3' LT.	180'				210	CONNECT PERFORATED TO UNPERFORATED AT 18+00, 4' LT.
18+00, 42' LT. - 16+15, 42' LT.	185'				220	CONNECT INLET 13B
18+00, 3' LT. - 18+00, 10' LT.		7'				CONNECT TO MANHOLE 12B
18+35, 24' RT. - 18+35, 34' RT.		10'	1			OUTLET TO DITCH
20+50, 42' LT. - 18+00, 42' LT.	250'				290	CONNECT INLET 11B
20+50, 24' RT. - 18+35, 24' RT.	215'				250	CONNECT PERFORATED TO UNPERFORATED AT 18+35, 24' RT.
22+00, 42' LT. - 20+50, 42' LT.	150'				180	CONNECT INLET 8B
23+50, 42' LT. - 22+00, 42' LT.	150'				180	CONNECT INLET 5B
24+50, 42' LT. - 23+50, 42' LT.	100'				120	CONNECT INLET 3B
25+80, 70' RT. - 20+50, 24' RT.	540'				630	BEGIN MIDDLE RADIUS, CONNECT INLET 7B
25+85, 42' LT. - 24+50, 42' LT.	135'				160	CONNECT INLET 2B
26+15, 90' LT. - 25+85, 42' LT.	70'				80	BEGIN WEST END OF RADIUS, CONNECT MANHOLE 4C
26+50, 42' LT. - 26+50, 100' LT.		58'	1			OUTLET TO DITCH
26+60, 55' RT. - 26+60, 80' RT.		25'	1			OUTLET TO DITCH
28+00, 42' LT. - 26+50, 42' LT.	160'				180	END WEST END OF RADIUS, OUTLET TO DITCH
29+80, 42' LT. - 28+00, 42' LT.	180'				210	CONNECT INLET 1C
130+35, 24' RT. - 26+60, 55' RT.	375'				440	CONNECT PERFORATED TO UNPERFORATED AT 26+60, 55' RT.
131+30, 42' LT. - 137+30, 42' LT.	600'				700	CONNECT PERFORATED TO UNPERFORATED AT 137+30
132+50, RT. - 137+30, 7' LT.	480'				560	CONNECT INLET 1D
137+30, 42' LT. - 137+30, 52' LT.		10'	1			OUTLET TO DITCH
137+35, 42' LT. - 137+35, 52' LT.		10'	1			OUTLET TO DITCH
139+30, 12' LT. - 137+30, 12' LT.	200'				230	CONNECT INLET 1D
141+00, 24' RT. - 141+00, 34' RT.		10'	1			OUTLET TO DITCH
141+30, 42' LT. - 137+35, 42' LT.	395'				460	CONNECT PERFORATED TO UNPERFORATED AT 137+35
144+00, 18' LT. - 140+98, 6' LT.	320'				370	CONNECT INLET 3D
144+00, 14' RT. - 141+00, 24' RT.	350'				410	CONNECT INLET 4D
	5690'	150'	7		6,650	

INSTALLING CONDUIT, 2-INCH (NON-PARTICIPATING)	
STATION	L.E.
11+55, 5' LT. - 13+30, 10' LT.	183
13+30, 10' LT. - 15+05, 15' LT.	183
15+05, 15' LT. - 16+80, 3' LT.	183
16+80, 3' LT. TO 57' RT.	68
16+80, 3' LT. - 18+55, 13' LT.	183
18+55, 13' LT. - 20+30, 3' LT.	183
20+30, 3' LT. - 22+05, 15' LT.	183
22+05, 15' LT. - 23+80, 5' LT.	183
23+80, 5' LT. - 25+55, 15' LT.	183
25+55, 15' LT. - 27+30, 3' LT.	183
27+30, 3' LT. - 29+05, 9' LT.	183
29+05, 9' LT. TO 51' RT. - 28+65, 51' RT.	109
29+05, 9' LT. - 130+80, 15' LT.	183
130+80, 15' LT. - 132+60, 10' LT.	189
132+60, 10' LT. - 134+35, 9' LT.	183
134+35, 9' LT. - 136+15, 9' LT.	189
136+15, 9' LT. - 137+90, 15' LT.	183
137+90, 15' LT. - 139+55, 15' LT.	173
139+55, 15' LT. - 141+20, 3' LT.	173
	3,280

STORM SEWER PIPES

CODE	FROM LOCATION	TO	SIZE (IN. DIA.)	LENGTH (L.F.)	GRADE PERCENT	INVERT ELEVATION	DISCHARGE	TYPE OF PIPE	REMARKS
P-1A	I-1A	OUTFALL	12	58	.59	1193.84	1193.50	RCP SS	CL. III, 1-ENDWALL
P-1B	I-1B	M-4B	12	110	1.59	1206.0	1204.25	RCP SS	CL. III
P-2B	I-2B	I-3B	12	100	1.0	1205.75	1204.75	RCP SS	CL. IV
P-3B	I-3B	M-4B	12	36	1.39	1204.75	1204.25	RCP SS	CL. IV
P-4B	M-4B	M-6B	15	150	1.67	1204.0	1201.50	RCP SS	CL. IV
P-5B	I-5B	M-6B	12	36	1.00	1202.11	1201.75	RCP SS	CL. IV
P-6B	M-6B	M-9B	18	150	2.67	1201.25	1197.25	RCP SS	CL. IV
P-8B	I-8B	M-9B	12	36	2.78	1198.0	1197.0	RCP SS	CL. IV
P-7B	I-7B	M-9B	12	30	3.33	1198.0	1197.75	RCP SS	CL. IV
P-9B	① M-9B	I-10B	18	150	0.70	1197.25	1196.20	RCP SS	CL. IV
P-10B	I-10B	M-12B	21	100	0.50	1195.95	1195.45	RCP SS	CL. IV
P-11B	I-11B	M-12B	18	30	0.50	1195.85	1195.70	RCP SS	CL. IV
P-111B	② ③ INFALL	I-11B	15	16	3.00	1195.48	1195.0	RCP SS	CL. IV, 1-ENDWALL
P-12B	② M-12B	M-14B	24	186	0.48	1195.20	1194.20	RCP SS	CL. IV
P-13B	I-13B	M-14B	15	40	0.38	1195.10	1194.95	RCP SS	CL. IV
P-113B	INFALL	I-13B	15	12	1.00	1195.22	1195.10	RCP SS	CL. IV, 1-ENDWALL
P-14B	④ M-14B	M-18B	27	120	0.33	1193.95	1193.55	RCP SS	CL. IV
P-114B	INFALL	M-14B	12	40	0.35	1195.34	1195.20	RCP SS	CL. IV, 1-ENDWALL
P-15B	I-15B	I-16B	12	20	0.50	1194.95	1194.85	RCP SS	CL. IV
P-16B	I-16B	I-17B	15	30	0.33	1194.70	1194.60	RCP SS	CL. IV
P-17B	I-17B	M-18B	18	44	0.34	1194.45	1194.30	RCP SS	CL. IV
P-18B	M-18B	OUTFALL	30	134	0.37	1193.3	1192.8	RCP SS	CL. IV, 1-ENDWALL
P-1C	I-1C	M-4C	12	215	1.23	1213.0	1210.35	RCP SS	CL. III
P-4C	M-4C	I-5C	24	24	0.63	1209.35	1209.20	RCP SS	CL. IV
P-5C	I-5C	I-6C	24	40	0.50	1209.20	1209.00	RCP SS	CL. IV
P-6C	I-6C	OUTFALL	-30 → 27	84	0.60	1208.5	1208.0	RCP SS	CL. IV, 1-ENDWALL
P-2C	I-2C	I-3C	15	55	3.45	1212.9	1211.0	RCP SS	CL. IV
P-3C	I-3C	M-4C	15	65	1.38	1211.0	1210.10	RCP SS	CL. IV
P-1D	I-1D	OUTFALL	-12 → 15	62	0.81	1208.5	1208.0	RCP SS	CL. IV, 1-ENDWALL
P-2D	I-2D	OUTFALL	12	72	0.69	1208.0	1207.5	RCP SS	CL. IV, 1-ENDWALL
P-3D	I-3D	I-4D	12	28	0.89	1214.0	1213.75	RCP SS	CL. IV
P-4D	I-4D	OUTFALL	12	12	1.25	1213.75	1213.6	RCP SS	CL. IV, 1-ENDWALL

1. MOVED M.H. I-10B LOCATION.
2. CHANGED INLET LOCATION, STA. 18+00, MEDIAN.
3. POST-DESIGN M.H. INSTALLED PRIVATELY AT McDONALD'S.
4. ADD INLET COLLECTOR - 9.2' OF 12" IV @ TYPE I INLET.
5. MOVED INLET LOCATIONS ON MORNING LORY.
6. ADDED INLET COLLECTOR, 137+40 MEDIAN, -7' OF 12" IV @ TYPE I INLET.

MANHOLES AND INLETS

CODE	LOCATION	STRUCTURE TYPE (EA.)	COVER (EA.)	GRATE ELEVATION	DEPTH (FEET)	REMARKS
I-1A	11+60	1	Z	1198.5	4.66	
I-1B	24+50, 24' RT.	2	WM	1210.9	4.90	
I-2B	24+50, 42' LT.	2	WM	1211.6	5.85	
I-3B	23+50, 42' LT.	2	WM	1209.2	4.45	
M-4B	23+50	3-MH	Z	1209.4	5.40	
I-5B	22+00, 42' LT.	2	WM	1206.0	3.89	
M-6B	22+00, 6' LT.	1-MH	K	1206.3	5.05	
I-8B	20+50, 42' LT.	2	WM	1203.0	5.00	
I-7B	20+50, 24' RT.	2	WM	1202.7	4.70	
M-9B	20+50, 6' LT.	3-MH	Z	1203.3	6.05	
I-10B	19+00, 12' LT.	2	Z	1200.4	4.45	
I-11B	18+00, 42' LT.	2	WM	1198.8	2.95	
M-12B	18+00, 10' LT.	1-MH	K	1200.3	5.10	
I-13B	16+15, 42' LT.	2	WM	1197.9	2.80	
M-14B	16+15	3-MH	Z	1198.7	4.75	
I-15B	15+20, 42' LT.	2	WM	1197.5	2.55	
I-16B	① 15+00, 42' LT.	2	WM	1197.5	2.80	
I-17B	15+00, 12' LT.	1	Z	1198.10	3.80	
M-18B	15+00, 35' RT.	1-MH	K	1199.0	5.70	
I-1C	28+00, 42' LT.	2	WM	1218.2	5.20	
M-4C	25+85, 42' LT.	3-MH	WM	1215.15	5.80	
I-5C	25+85, 18' LT.	3	Z	1214.75	5.55	
I-6C	25+85, 28' RT.	3	H-LT	1213.95	5.45	
I-2C	227 'L'+60, 28' RT.	2	WM	1216.9	4.0	
I-3C	227 'L'+60, 27' LT.	2	WM	1215.18	4.18	
I-1D	② 137+30, 7' LT.	1	Z	1213.2	4.70	
I-2D	139+40, 12' LT.	1	Z	1214.3	6.30	
I-3D	141+00, 6' LT.	1	Z	1218.0	4.00	
I-4D	141+00, 24' RT.	2	WM	1217.4	3.68	

1. STA. 15+00 LT. - ADD TYPE I INLET.
2. 137+40 MED. - ADD TYPE I INLET.

PIPE CULVERTS

STATION	DIAMETER (INCHES)	LENGTH (LF)	INVERT ELEVATION	DISCHARGE	TYPE	CLASS	CONCRETE APRON ENDWALLS	REINFORCED MASONRY ENDWALLS (C.Y.)	REINFORCED SODDING (S.Y.)	RIPRAP (C.Y.)	GEOTEXTILE FABRIC TYPE R (S.Y.)	GRANULAR BACKFILL (C.Y.)
ELIMINATED 12+50	42 X 29	106	1193.00(W)	1192.50(E)	4-CSPA	IV	---	2-4.0	---	31	95	190
15+35 - 15+95, 50' LT.	18	60	1194.50(S)	1194.25(N)	RCCP	IV	---	---	---	---	---	15
137+50	36	104	1207.50(W)	1207.00(E)	RCCP	IV	2	---	---	---	---	10
139+50 - 141+00, 62' LT.	18	168	1215.00(N)	1213.00(S)	RCCP	IV	2	---	---	---	---	25
201' L'+75	49 X 33	80	1191.45(W)	1191.00(E)	3-CSPA	IV	---	2-2.5	---	40	120	125
208' L'+65 - 209+25, 40' LT.	15	60	1191.20(S)	1190.90(N)	RCCP	IV	2	---	15	---	---	15
209' L'+10 - 209+70, 32' RT.	12	48	1192.10(S)	1191.80(W)	RCCP	IV	2	---	15	---	---	10
215' L'+10	36	48	1184.20(W)	1183.93(E)	RCCP	IV	---	---	15	---	---	25
218' L'+60 - 219' L'+25, LT.	24	44	1193.02(N)	1192.69(S)	2-RCCP	IV	2	---	15	---	---	30
								13.0	60	71	215	445

1. CHANGED BY C.E.O. TO RCCP, HE III 24" X 45"

* ADDITIONAL QUANTITIES SHOWN IN EROSION CONTROL TABLE

3-INCH CONDUIT			
CTH "N" AND MORNINGLORY LANE			
FROM	TO	METALLIC L.F.	NON-METALLIC L.F.
PBS-1	T-1	---	5
PBS-1	CB-2	65	---
CB-2	PBS-2	10	---
PBS-2	T-3	---	9
PBS-2	PBS-3	58	---
PBS-3	T-4	---	19
PBS-3	PBS-4	64	---
PBS-4	T-5	---	4
PBS-4	PBS-5	42	---
PBS-5	T-6	---	15
PBS-5	T-7	---	16
PBS-1	PBS-6	56	---
PBS-6	T-8	---	10
PBS-6	T-9	---	17
T-3	PBS-7	---	4
PBS-7	PBS-8	---	72
T-7	PBS-9	---	4
PBS-9	PBS-10	---	75
		295	250

SIGNAL WIRE RUNS					
CTH "N" AND MORNINGLORY LANE					
POLE NO.	HEAD	PBS TO PBS	TRAFFIC SIGNALS, CABLE		ELECTRIC WIRE TRAFFIC SIGNALS #10 L.F.
			3-CONDUCTOR #14 L.F.	5-CONDUCTOR #14 L.F.	
T-1	1	1-CB2	--	89	183
T-2	5	2-CB2	--	89	22
T-3	4	2-CB2	--	52	112
T-3	13	2-CB2	36	--	24
T-4	9	3-2-CB2	36	--	24
T-4	3	3-2-CB2	112	--	22
T-4	11	3-2-CB2	112	--	22
T-5	2	4-3-2-CB2	--	165	26
T-5	6	4-3-2-CB2	--	165	26
T-6	8	5-4-3-2-CB2	232	--	24
T-7	10	5-4-3-2-CB2	238	--	22
T-7	12	5-4-3-2-CB2	238	--	22
T-8	14	6-1-CB2	154	--	24
T-9	7	6-1-CB2	162	--	22
			1,320	560	575

SIGNAL HEAD CHART					
CTH "N" AND MORNINGLORY LANE					
SIGNAL BASE NO.	HEAD NO.	3-12 VERTICAL EACH	3-12 HORIZONTAL EACH	5-12 VERTICAL EACH	BACKPLATES EACH
T-1	1	---	---	1	1
T-1	5	---	---	1	---
T-2	4	---	1	---	1
T-3	9	1	---	---	1
T-3	13	1	---	---	---
T-4	11	---	1	---	1
T-4	3	1	---	---	---
T-5	2	---	---	1	---
T-5	6	---	---	1	---
T-6	8	1	---	---	1
T-7	10	1	---	---	---
T-7	12	1	---	---	1
T-8	14	---	1	---	1
T-9	7	1	---	---	---
		7	3	4	7
NOTE: VERTICAL SIGNAL FACES ARE POST MOUNTED HORIZONTAL SIGNAL FACES ARE MAST ARM MOUNTED					

PULL BOXES			
CTH "N" AND MORNINGLORY LANE			
NAME	12 X 36-INCH EACH	24 X 36-INCH EACH	LOCATION
PBS 1	--	1	26+88.3' LT.
PBS 2	--	1	226'L'+03.45' RT.
PBS 3	--	1	226'L'+07.19' LT.
PBS 4	--	1	25+80.15' LT.
PBS-5	--	1	227'L'+04.39' LT.
PBS 6	--	1	227'L'+09.52' RT.
PBS 7	--	1	225'L'+90.35' RT.
PBS 8	1	--	225'L'+21.26' RT.
PBS 9	--	1	227'L'+21.25' LT.
PBS 10	1	--	227'L'+95.13' LT.
		2	8

CONTROLLER AND POLE CHART								
CTH "N" AND MORNINGLORY LANE								
REFERENCE NUMBER	CONC. BASE TYPE	BASE LOCATION	POLE TYPE EACH	TRAFFIC SIGNAL STANDARDS (STEEL) 13' EACH	15' EACH	PEDESTAL BASE EACH	MAST ARM TRAFFIC SIGNAL TROMBONE 15' EACH	CONC. CONTROL CABINET BASE EACH
CB-2	6	26+68.58' RT.	--	--	--	--	--	1
T-1	2	26+82.3' LT.	4	--	--	--	--	--
T-2	2	26+82.42' RT.	2	--	--	--	1	--
T-3	1	225'L'+95.38' RT.	---	1	--	1	--	--
T-4	2	25+89.32' RT.	2	--	--	--	1	--
T-5	2	25+84.15' LT.	4	--	--	--	--	1
T-6	1	226'L'+97.55' LT.	--	--	1	1	--	--
T-7	1	227'L'+17.28' LT.	--	--	1	1	--	--
T-8	2	227'L'+15.43' RT.	2	--	--	--	1	1
T-9	1	26+89.51' LT.	--	1	--	1	--	--
				2	2	4	3	1
								5

LOOP DETECTOR SCHEDULE						
CTH "N" AND MORNINGLORY LANE						
LOOP	SIZE (FEET)	CHANNEL CONNECTION	LOOP DETECTOR CONDUIT, 1-INCH (L.F.)	LOOP DETECTOR WIRE (L.F.)	NO. OF TURNS	LOOP DETECTOR LEAD IN CABLE (L.F.)
12	6 X 30	PARALLEL	77	226	3	70
51	6 X 30	PARALLEL	79	303	4	146
41	6 X 9	PARALLEL	34	128	4	304
42	6 X 6	PARALLEL	36	120	4	225
44	14 X 6	PARALLEL	46	132	3	107
45	6 X 6	SERIES	49	98	2	28
46	6 X 6	SERIES	24	48	2	---
			345	1,055		880

STATE PROJECT NUMBER	SHEET NO.
6999-01-60	3 J
MISCELLANEOUS QUANTITIES	
TRAFFIC SIGNALS	
CTH "N"	MARATHON COUNTY

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

NOTE: VERTICAL SIGNAL FACES ARE POST MOUNTED
HORIZONTAL SIGNAL FACES ARE MAST ARM MOUNTED

SIGNAL WIRE RUNS CTH "N" AND CLOVERLAND LANE

POLE NO.	HEAD	PBS TO PBS	TRAFFIC SIGNALS, CABLE		ELECTRIC WIRE, TRAFFIC SIGNALS #10 L.F.
			3-CONDUCTOR #14 L.F.	5-CONDUCTOR #14 L.F.	
T-1	1 6	1-CB1	--	60	60
T-2	4	2-CB1	28	--	30
T-3	13	2-CB1	26	--	24
T-4	9	3-2-CB1	--	84	80
T-5	11	4-3-2-CB1	170	--	105
T-6	3	4-3-2-CB1	170	--	30
T-7	2 5	5-4-3-2-CB1	--	238	96
T-8	8	8-7-6-1-CB1	264	--	96
T-9	10	8-7-6-1-CB1	238	--	48
T-10	12	7-6-1-CB1	--	185	80
T-11	14	6-1-CB1	122	--	72
T-12	7	6-1-CB1	122	--	24
			1,140	865	745

LOOP DETECTOR SCHEDULE CTH "N" AND CLOVERLAND LANE

LOOP	SIZE (FEET)	CHANNEL CONNECTION	LOOP DETECTOR CONDUIT, 1-INCH (L.F.)	LOOP DETECTOR WIRE (L.F.)	NO. OF TURNS	LOOP DETECTOR LEAD IN CABLE (L.F.)
12	6 X 30	PARALLEL	78	227	3	52
51	6 X 30	PARALLEL	79	306	4	206
41	6 X 14	PARALLEL	49	178	4	298
42	6 X 6	SERIES	46	140	4	224
43	6 X 6	SERIES	24	96	4	---
44	6 X 6	PARALLEL	29	88	3	110
45	6 X 6	SERIES	46	92	2	30
46	6 X 6	SERIES	24	48	2	---
			375	1,175		920

3-INCH CONDUIT CTH "N" AND CLOVERLAND LANE

FROM	TO	METALLIC L.F.	NON-METALLIC L.F.
PBS-1	T-1	---	5
PBS-1	CB-1	46	---
CB-1	PBS-2	12	---
PBS-2	T-3	---	7
PBS-2	T-2	---	10
PBS-2	PBS-3	51	---
PBS-3	T-4	---	5
PBS-3	PBS-4	70	---
PBS-4	T-5	---	11
PBS-4	T-6	---	11
PBS-4	PBS-5	65	---
PBS-5	T-7	---	5
PBS-1	PBS-6	50	---
PBS-6	T-11	---	8
PBS-6	T-12	---	6
PBS-6	PBS-7	53	---
PBS-7	T-10	---	5
PBS-7	PBS-8	43	---
PBS-8	T-8	---	30
PBS-8	T-9	---	9
T-9	PBS-9	---	7
PBS-9	PBS-10	---	69
T-3	PBS-11	---	5
PBS-11	PBS-12	---	72
		390	265

PULL BOXES CTH "N" AND CLOVERLAND LANE

NAME	12 X 36-INCH EACH	24 X 36-INCH EACH	LOCATION
PBS 1	--	1	140+78, 3' LT.
PBS 2	--	1	140+64, 38' RT.
PBS 3	--	1	10+41"CL", C/L
PBS 4	--	1	139+44, 48' RT.
PBS 5	--	1	139+53, 15' LT.
PBS 6	--	1	140+74, 52' LT.
PBS 7	--	1	9+41"CL", C/L
PBS 8	--	1	139+78, 60' LT.
PBS 9	--	1	9+26"CL", 35' RT
PBS 10	1	--	8+58"CL", 35' RT.
PBS 11	--	1	140+52, 47' RT.
PBS 12	1	--	11+01"CL", 17' LT.
	2	10	

CONTROLLER AND POLE CHART CTH "N" AND CLOVERLAND LANE

REFERENCE NUMBER	CONC. BASE TYPE	BASE LOCATION	POLE TYPE EACH	TRAFFIC SIGNAL STANDARD(S) STEEL 13' 15' EACH EACH	PEDESTAL BASE EACH	MAST ARM TRAFFIC SIGNAL TROMBONE 15' EACH	CONC. CONTROL CABINET BASE EACH	TRANS. BASE EACH
CB-1	6	140+76, 44' RT.	--	--	--	--	1	--
T-1	2	140+73, 3' LT.	4	--	--	--	--	1
T-2	2	140+73, 33' RT.	2	--	--	1	--	1
T-3	1	140+57, 43' RT.	--	1	1	--	--	--
T-4	1	10+35, "CL", C/L	--	--	1	--	--	--
T-5	1	139+52, 57' RT.	--	--	1	--	--	--
T-6	1	139+34, 44' RT.	--	1	1	--	--	--
T-7	2	139+57, 15' LT.	4	--	--	--	--	1
T-8	2	139+51, 48' LT.	2	--	--	1	--	1
T-9	1	9+33"CL", 38' RT.	--	1	1	--	--	--
T-10	1	9+47"CL", C/L	--	--	1	--	--	--
T-11	1	140+67, 57' LT.	--	--	1	--	--	--
T-12	1	140+81, 50' LT.	--	1	1	--	--	--
				4	4	8	1	4

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
CORPORATE LIMITS
LOT, TIE AND OTHER MINOR LINES
SLOPE INTERCEPT
UNDERGROUND FACILITY (GAS, TELEPHONE, ELECTRIC, ETC.)
FENCE
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
BEAM GUARD
TRANSMISSION TOWER AND LINE
NON-MONUMENTED R/W POINT

SECTION CORNER

HAZARDOUS UTILITY SITE

BRIDGE

STREAM OR RIVER

LAKE

CULVERT (BOX, PIPE OR CATTLE PASS)

RAIL LINE

POWER POLE

TELEPHONE POLE

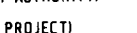
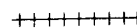
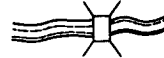
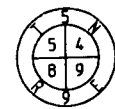
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NO ACCESS (BY ACQUISITION)

NO ACCESS (BY STATUTORY AUTHORITY)

NO ACCESS (BY PREVIOUS PROJECT)

CONVENTIONAL SIGNS AND ABBREVIATIONS



FOUNDATION OR RUIN

BUILDING

CEMETERY

GAS MARKER OR TELEPHONE PEDESTAL

IRON PIPE

R/W MONUMENT

WINDMILL

VALVE

SILD, MANHOLE, SEPTIC VENT, WELL, ETC.

GAS PUMPS

BUSHES

TREES (DECIDUOUS)

(CONIFEROUS)

WOODS

FND.

(TYPE)

(TYPE)

T.P. (TYPE)

I.P.

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M.H. (TYPE)

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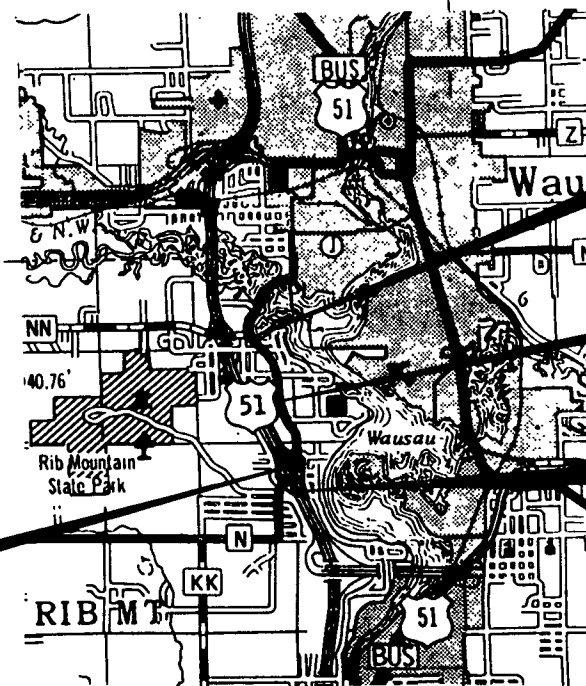
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T-29-N

T-28-N

R-7-E

R-8-E



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.669 MI.



R W P L A T

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.

END PROJECT
STA. 146+70.00

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.

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.

A.C. ACCESS CONTROL
AC. ACRE
AH. AHEAD
ALUM. MON. ALUMINUM MONUMENT
ANT. ANTENNA
A.P. ACCESS POINT
B. BUILDING
BK. BACK
B.M. BENCH MARK
C. CHURCH
C/L CENTERLINE
CONC. MON. CONCRETE MONUMENT
CONST. CONSTRUCTION
C.P. CULVERT PIPE
C.S.M. CERTIFIED SURVEY MAP
D. DEGREE OF CURVE
ETAL. AND OTHERS
FRL. FRACTIONAL
FT. FEET
G. GARAGE
H. HOUSE
L. LENGTH OF CURVE
L.C. LONG CHORD OF CURVE
L.C.B. LONG CHORD BEARING
LT. LEFT

MI. MILE
P. PAGE
P.C. POINT OF CURVATURE
P.E. PRIVATE ENTRANCE
PERM. PERMANENT
P.T. POINT OF TANGENCY
P.I. POINT OF INTERSECTION
P.L.E. PERMANENT LIMITED EASEMENT
R. RADIUS
R.D.E. RESTRICTED DEVELOPMENT EASEMENT
REM. REMAINING
REST. RESTAURANT
RT. RIGHT
R/W. RIGHT OF WAY
S. SHED
S.D. STORM DRAINAGE
S.F. SQUARE FEET
STA. STATION
T. TANK
TAV. TAVERN
TEMP. TEMPORARY
T.L.E. TEMPORARY LIMITED EASEMENT
VOL. VOLUME
W. WALL

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.

R/W 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	
6999-01-60	4.0	

GN

PLATS OF RIGHT OF WAY WITHIN	
COUNTY	MARATHON
APPROVED:	
9/16/92	
ORIGINAL PLANS PREPARED BY	
WISCONSIN GRAEF, ANHALT, SCHLOEDER PROFESSIONAL ENGINEER	WISCONSIN BURT J. NAUMANN S-1950 HARTFORD, WISCONSIN LAND SURVEYOR
4/6/92	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED:	
DATE	
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
2/4/93

ROUTE

COUNTY

DATE

R/W PROJECT NUMBER

SHEET
NUMBER

C.T.H. "N"

MARATHON

3-15-92

FEDERAL PROJECT NUMBER

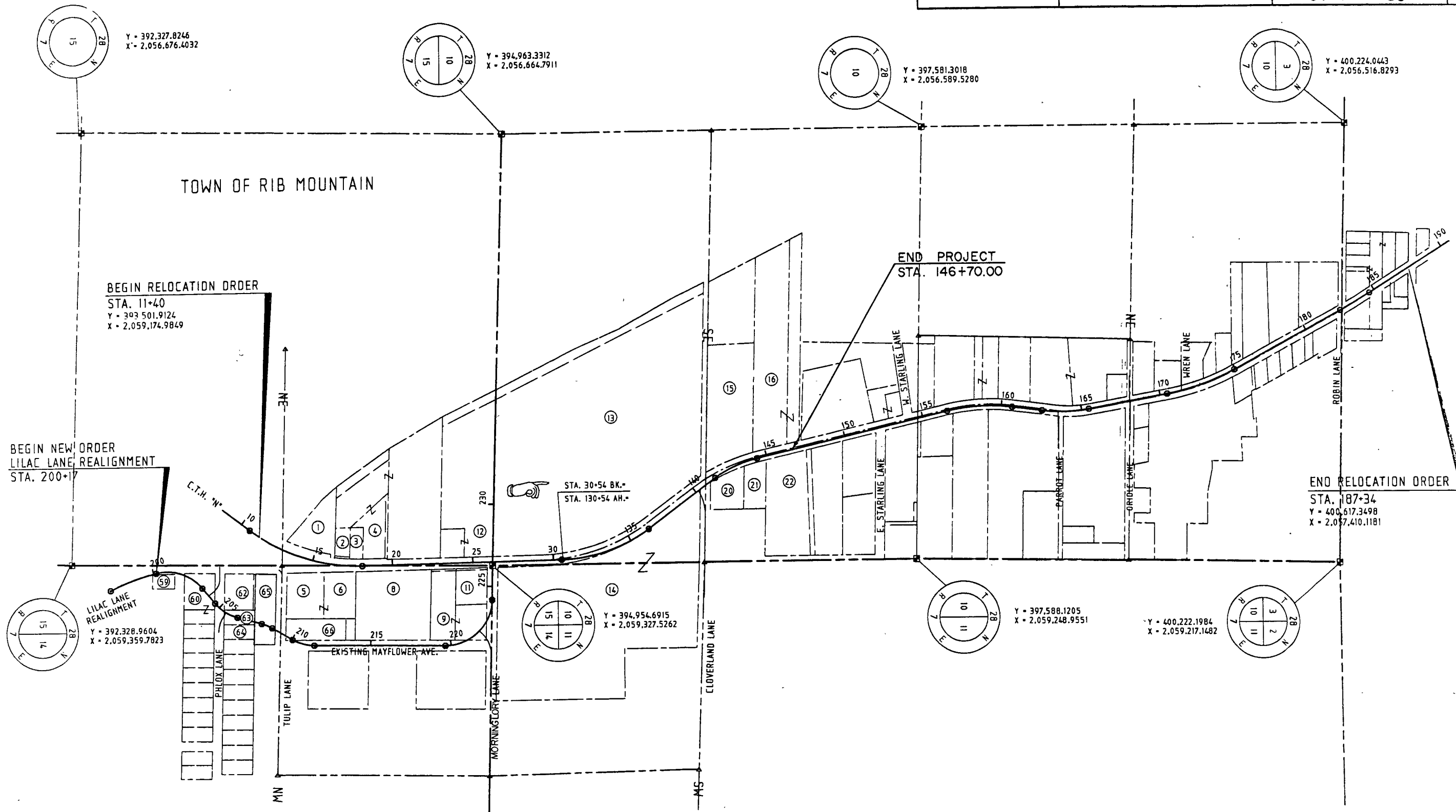
6999-01-60

4.1
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	-----	-----											
2	4.3	MARION NIELSON	FEE & TLE & AC	0.399	0.019	-----	0.019	0.382	0.025	-----											
3	4.3	RONALD C. WIMMER	FEE & PLE & AC	0.368	0.017	-----	0.017	0.351	-----	0.031											
4	4.3	RIB MOUNTAIN TRAVEL INN	FEE & PLE & AC	7.114	0.153	-----	0.153	6.961	0.149	0.065											
5	4.3	GALEN G. OLSON & RONALD D. OLSON	TLE & AC	1.525	-----	-----	-----	1.525	0.064	-----											
6	4.3	WAUSAU TRUCK CENTER (VENDEE) GALEN G. OLSON & RONALD D. OLSON	TLE & AC	1.335	-----	-----	-----	1.335	0.102	-----											
8	4.3	WAUSAU TRUCK CENTER	TLE & AC	4.693	-----	-----	-----	4.673	0.338	-----											
9	4.4. 4.10	JOHN A. DAMITZ & DIANNA C. DAMITZ	FEE & TLE & AC	2.576	0.312	-----	0.312	2.264	0.077	-----											
11	4.4. 4.10	DOUGLAS SEEGER & SUE SEEGER	FEE & TLE & AC	1.007	0.167	-----	0.167	0.840	0.031	-----											
12	4.4	RONALD C. WIMMER	FEE & TLE & AC	7.140	0.375	-----	0.375	6.765	0.091	-----											
13	4.4. 4.5	NORTH CO. INVESTMENT CORP	FEE & AC	35.703	0.479	-----	0.479	35.224	-----	-----											
14	4.4. 4.5	RONALD C. WIMMER	FEE & TLE & AC	24.044	1.278	-----	1.278	22.766	0.249	-----											
15	4.5	NORTH CO. INVESTMENT CORP.	FEE & TLE & AC	4.819	0.022	-----	0.022	4.797	0.063	-----											
16	4.5	BILLY Y.F. MOY & MARIA Y.H. MOY	FEE & TLE & AC	6.014	0.048	-----	0.048	5.966	0.096	-----											
20	4.5	THOMAS A. RIISER	FEE & TLE & AC	1.039	0.120	-----	0.120	0.919	0.105	-----											
21	4.5	DELMAR KLUEVER	FEE & TLE & AC	0.890	0.023	-----	0.023	0.867	0.119	-----											
22	4.5	ROLAND M. SCHROEDER	FEE & TLE & AC	4.220	0.047	-----	0.047	4.173	0.067	-----											

59	4.9	CARL A. GOTHMAN	FEE & TLE	0.408	0.021	-----	0.021	0.387	0.040	-----											
60	4.9	TIMBERLAKE LAND CO.	FEE	1.388	0.999	-----	0.999	0.389	-----	-----											
62	4.9	RAYMOND W. BLAUBACH & PATRICIA D. BLAUBACH	FEE	0.993	0.019	-----	0.019	0.974	0.005	-----											
63	4.9	NORTH COUNTY INVESTMENT CORP.	FEE	0.404	0.404	-----	0.404	0.000	-----	-----											
64	4.9	ROBERT L. REISSMANN & FRANCES REISSMANN	FEE	0.404	0.020	-----	0.020	0.384	-----	-----											
65	4.9	HINE W. DAHLBACKA	FEE	1.333	0.528	-----	0.528	0.805	-----	-----											
66	4.9	THOMAS A. RIISER	FEE & TLE	1.342	0.097	-----	0.097	1.245	0.200	-----											
67	4.3, 4.4, 4.9	G.T.E. NORTH TELEPHONE	RELEASE OF RIGHTS	-----	-----	-----	-----	-----	-----	-----											

REVISION DATE 214 193	ROUTE CTH N	COUNTY MARATHON	DATE 3-15-92	R/W PROJECT NUMBER	SHEET NUMBER
	SCALE		GRID FACTOR 0.999981	FEDERAL PROJECT NUMBER 6999-01-60	4.2



REVISION DATE 11/1993 Corr. State Record 2/1/1993 NC	ROUTE CTH N	COUNTY MARATHON	DATE 3-15-92	R/W PROJECT NUMBER 6999-01-60	SHEET NUMBER 4.3
	SCALE 0 50 100		GRID FACTOR 0.999981	FEDERAL PROJECT NUMBER	

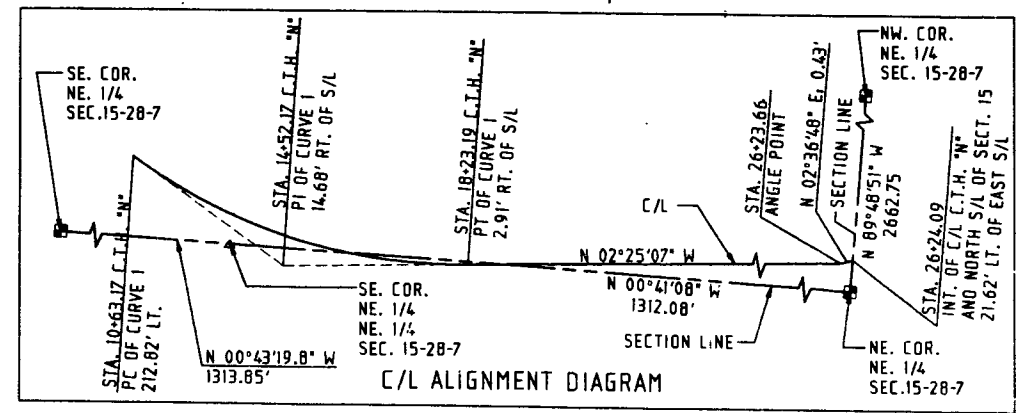
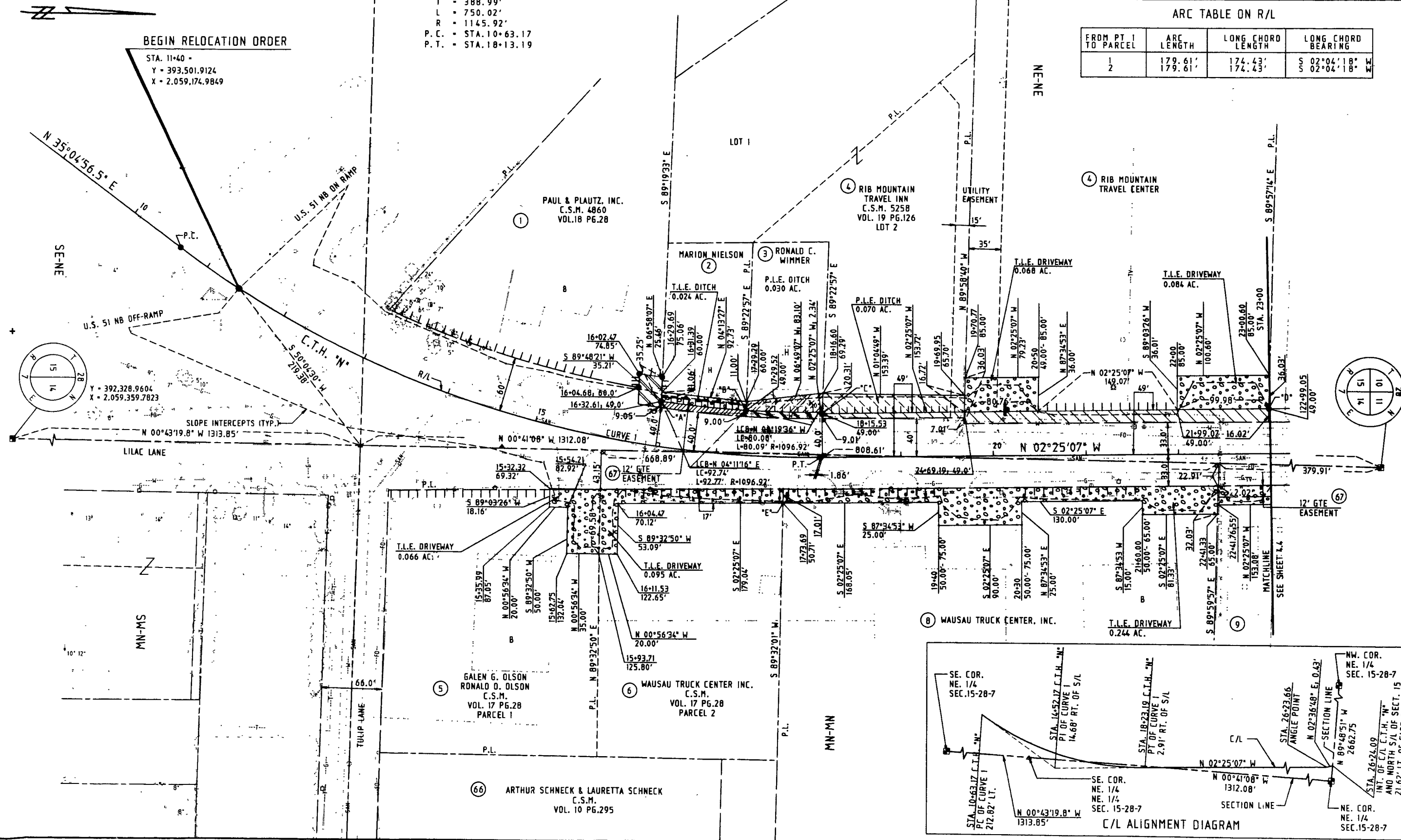
ARC TABLE ON R/L

FROM PT. 1 TO PARCEL	ARC LENGTH	LONG CHORD LENGTH	LONG CHORD BEARING
1 2	179.61' 179.61'	174.43' 174.43'	S 02°04'18" W S 02°04'18" W

CURVE 1
P.I. = STA. 14+52.17
Δ = 37°30'03.0"
D = 05°00'00.0"
T = 388.99'
L = 750.02'
R = 1145.92'
P.C. = STA. 10+63.17
P.T. = STA. 18+13.19

BEGIN RELOCATION ORDER

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



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" W
16	273.20'	271.65'	N 26°43'39" W
21	196.64'	196.06'	N 29°41'39" W

REVISION DATE 2/4/93 2/15/93	ROUTE CTH N	COUNTY MARATHON	DATE 3-15-92	R/W PROJECT NUMBER	SHEET NUMBER
PARCEL 15 OWNERSHIP	SCALE 0 50 100	GRID FACTOR 0.9999981	FEDERAL PROJECT NUMBER 6999-01-60	4.5	4.5

TOWN OF RIB MOUNTAIN

(15) NORTH CO. INVESTMENT CORP.

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

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

(13)

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.

LCB = N 20°42'45" W
LC = 132.10'
L = 132.26'
R = 788.30'

LCB = N 14°49'26" W
LC = 282.09'
L = 282.09'
R = 788.30'

T.L.E. 0.067 AC.

END OF PROJECT
STA. 146+70.00

(22) ROLAND M. SCHROEDER

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 = 288.34'

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 = 397,588.1205
X = 2,059,248.9551

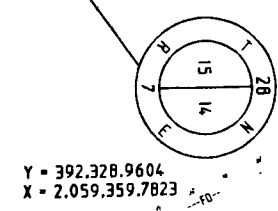
REVISION DATE 2/14/93 NC	ROUTE CTH N	COUNTY MARATHON	DATE 3-15-92	R/W PROJECT NUMBER	SHEET NUMBER
	SCALE 0 50 100		GRID FACTOR 0.999981	FEDERAL PROJECT NUMBER 6999-01-60	4.9 4.6

CURVE 201

P.I. = STA. 201+97.43
 Δ = 63°58'12.8"
D = 19°53'39.7"
T = 179.86'
L = 305.11'
R = 288.00'
P.C. = STA. 200+17.58
P.T. = STA. 203+39.12

**BEGIN NEW ORDER
LILAC LANE REALIGNMENT**

STA. 200+17.58
Y = 392.858.4489
X = 2.059.402.0250



CURVE 200

P.I. = STA. 198+65.94
 Δ = 13°33'13.8"
D = 04°26'53.4"
T = 153.07'
L = 304.00'
R = 1288.07'
P.C. = STA. 197+12.87
P.T. = STA. 200+17.58

CURVE 202

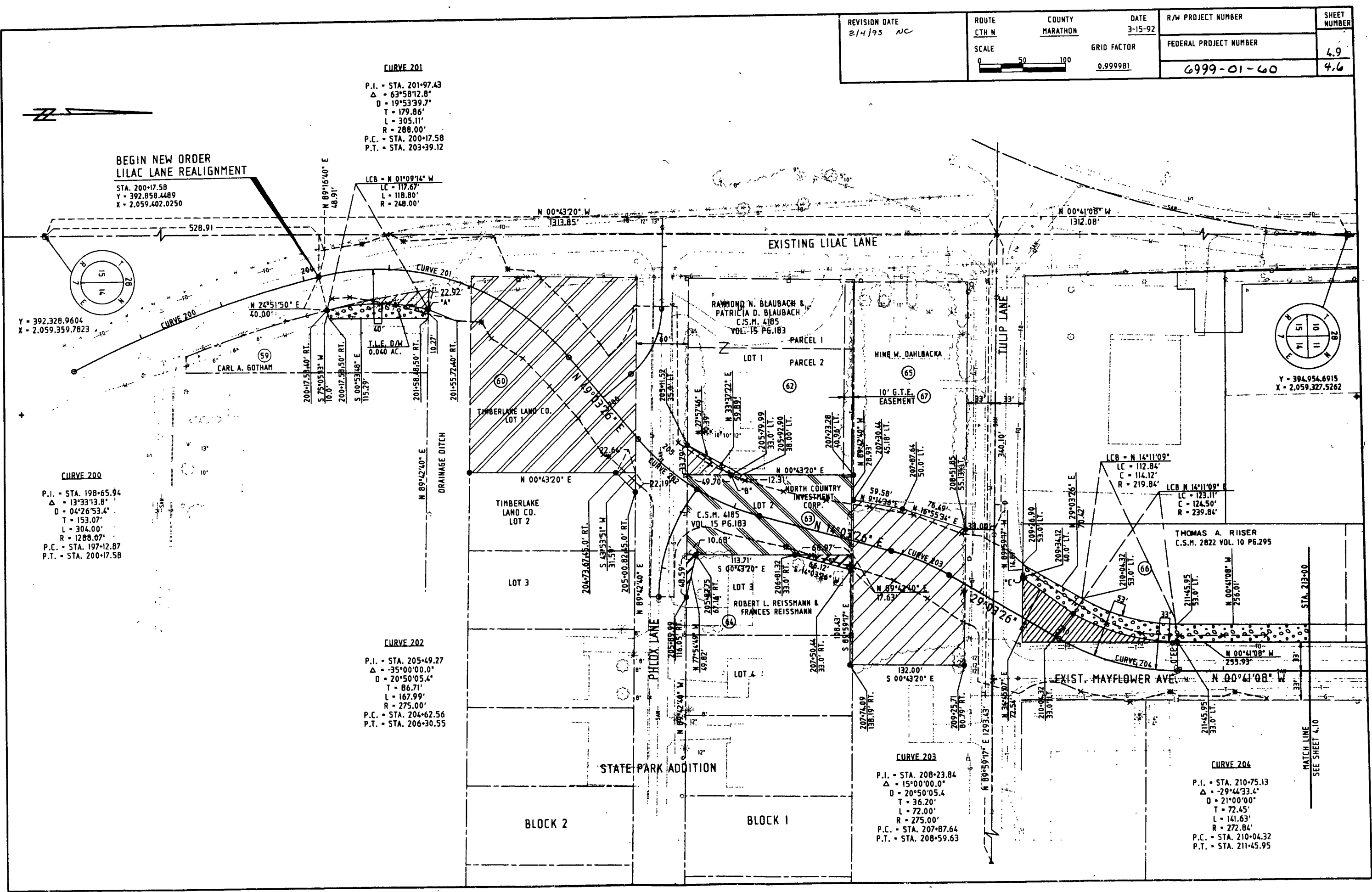
P.I. = STA. 205+49.27
 Δ = 35°00'00.0"
D = 20°50'05.4"
T = 86.71'
L = 167.99'
R = 275.00'
P.C. = STA. 204+62.56
P.T. = STA. 206+30.55

CURVE 203

P.I. = STA. 208+23.84
 Δ = 15°00'00.0"
D = 20°50'05.4"
T = 36.20'
L = 72.00'
R = 275.00'
P.C. = STA. 207+87.64
P.T. = STA. 208+59.63

CURVE 204

P.I. = STA. 210+75.13
 Δ = 29°44'33.4"
D = 21°00'00.0"
T = 72.45'
L = 141.63'
R = 272.84'
P.C. = STA. 210+04.32
P.T. = STA. 211+45.95

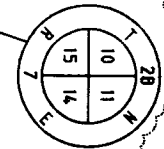


REVISION DATE 2/4/93 NC	ROUTE CTH N	COUNTY MARATHON	DATE 3-15-92	R/W PROJECT NUMBER	SHEET NUMBER
	SCALE 0 50 100		GRID FACTOR 0.999981	FEDERAL PROJECT NUMBER 6999-01-60	4.10
					4.7

PK NAIL AT THE SOUTHWEST CORNER
OF THE NORTHWEST 1/4 OF THE
NORTHWEST 1/4 OF SECTION 14,
TOWNSHIP 28 NORTH, RANGE 7 EAST.

S 00°41'08" E 1312.08'

C.T.H. 'N'



Y = 394,954.6915
X = 2,058,327.5262

MATCH LINE
SEE SHEET 4.1

STA. 2251+00

N 87°44'09" E 225.00'

RONALD C. WIMMER
C.S.M. 4064
VOL. 15 P. 644

DOUGLAS SEEBER &
SUE SEEBER
C.S.M. 2883
VOL. 11 P. 653

223+86.20
32.27' LT.
N 02°39'56.3" W
0.74'

JOHN A. DAMITZ &
DIANNA C. DAMITZ
LOT 1

223+86.08
33.0' RT.

JOHN A. DAMITZ &
DIANNA C. DAMITZ
LOT 2

223+86.08
33.0' RT.

223+46.57
62.21' RT.

N 65°15'51" W
47.32'

223+07.61
55.94' RT.

CURVE 205

P.I. = 221+89.27
Δ = -89°30'28.8"
D = 19°53'39.7"
T = 285.54'
L = 449.92'
R = 288.00'
P.C. = STA. 219+64.31
P.T. = STA. 224+14.23

PK NAIL AT THE NORTHEAST CORNER
OF THE NORTHWEST 1/4 OF THE
NORTHWEST 1/4 OF SECTION 14,
TOWNSHIP 28 NORTH, RANGE 7 EAST.

ARTHUR SCHNECK & LAURETTA SCHNECK

66

T.I.E. 0.20 AC.

STA. 213+00

N 00°41'08" W

256.01'

N 89°32'00" E

20.00'

214+01.96

55.0' LT.

214+01.91

40.00' LT.

7.00'

EXISTING ACCESS
EASEMENT

WAUSAU TRUCK CENTER

6

T.I.E. 0.075 AC.

N 00°41'08" W

466.32'

7.00'

214+01.96

55.0' LT.

214+01.91

40.00' LT.

7.00'

214+01.96

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214+01.91

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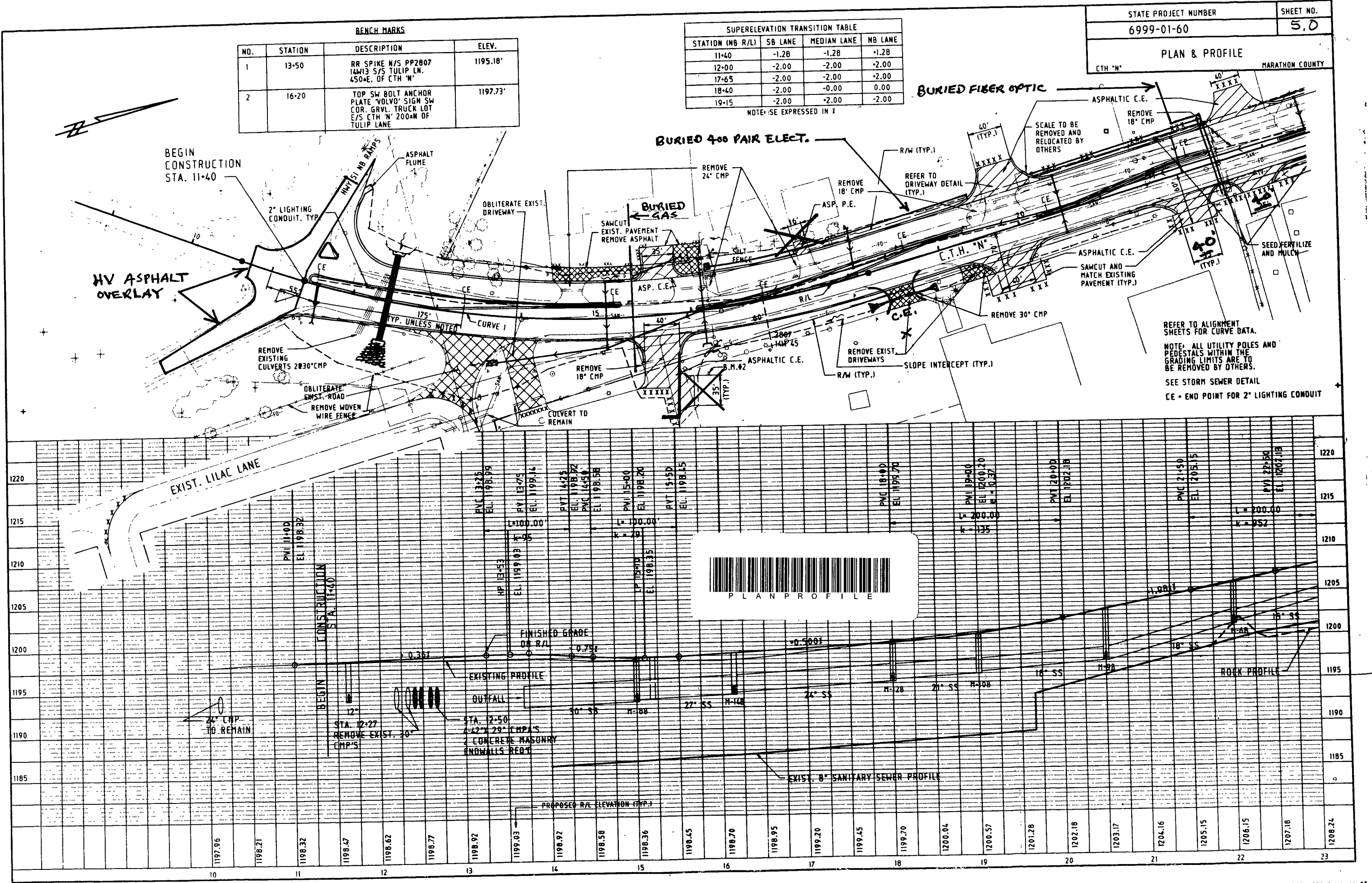
214+01.96

55.0' LT.

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
1	13+50	RR SPIKE W/S PP2807 14W13 S/S TULIP LN. 450+E. OF CTH "N"	1195.18'
2	16+20	TOP SW BOLT ANCHOR PLATE 'VOLVO' SIGN SW COR. GRVL. TRUCK LOT E/S CTH "N" 200+M OF TULIP LANE	1197.73'

SUPERELEVATION TRANSITION TABLE			
STATION (NB R/L)	SB LANE	MEDIAN LANE	NB LANE
11+40	-1.28	-1.28	+1.28
12+00	-2.00	-2.00	+2.00
17+65	-2.00	-2.00	+2.00
18+40	-2.00	-0.00	0.00
19+15	-2.00	+2.00	-2.00

NOTE: SE EXPRESSED IN 1



REFER TO ALIGNMENT SHEETS FOR CURVE DATA.

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

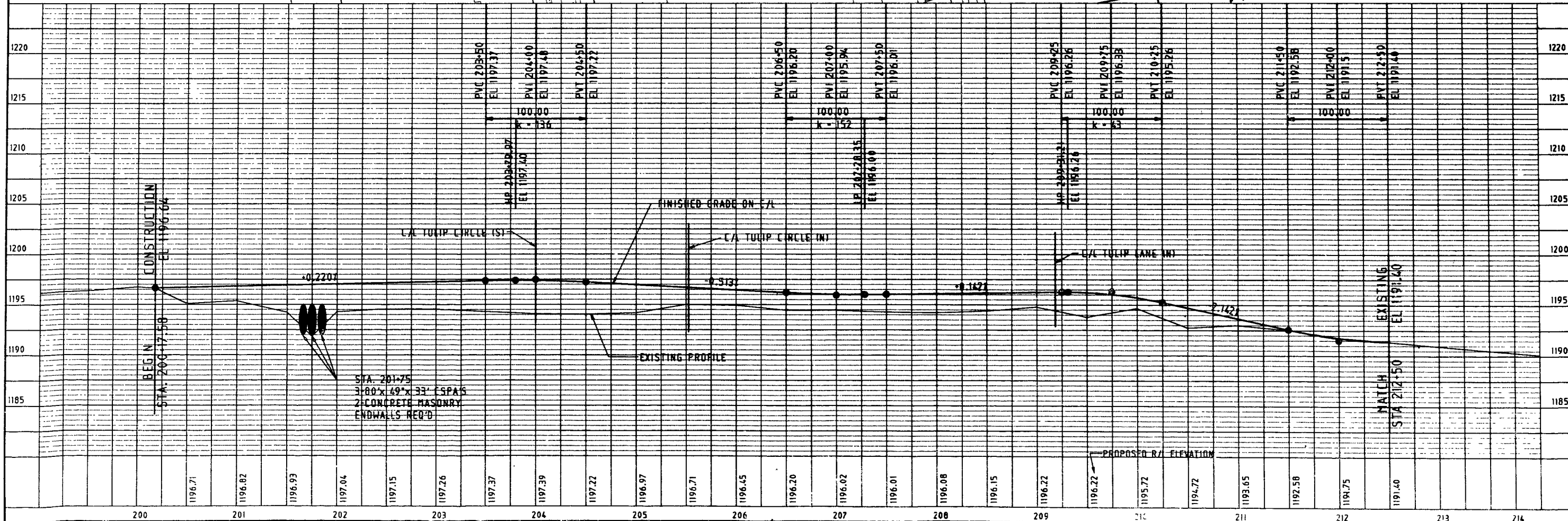
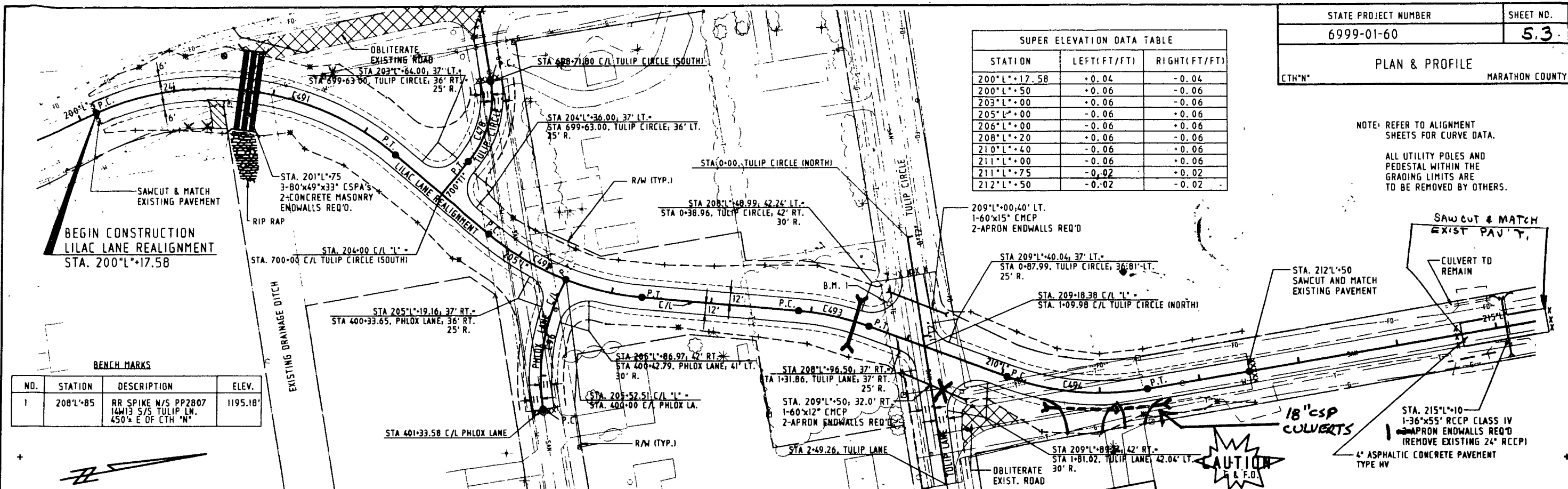
SEE STORM SEWER DETAIL

CE = END POINT FOR 2" LIGHTING CONDUIT

SUPER ELEVATION DATA TABLE		
STATION	LEFT (FT/FT)	RIGHT (FT/FT)
200+17.58	+0.04	-0.04
200+50	+0.06	-0.06
203+00	+0.06	-0.06
205+00	-0.06	+0.06
206+00	-0.06	+0.06
208+20	+0.06	-0.06
210+40	-0.06	+0.06
211+00	-0.06	+0.06
211+75	-0.02	+0.02
212+50	-0.02	-0.02

NOTE: REFER TO ALIGNMENT SHEETS FOR CURVE DATA.

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



PLAN & PROFILE

MARATHON COUNTY

CTH 'N'

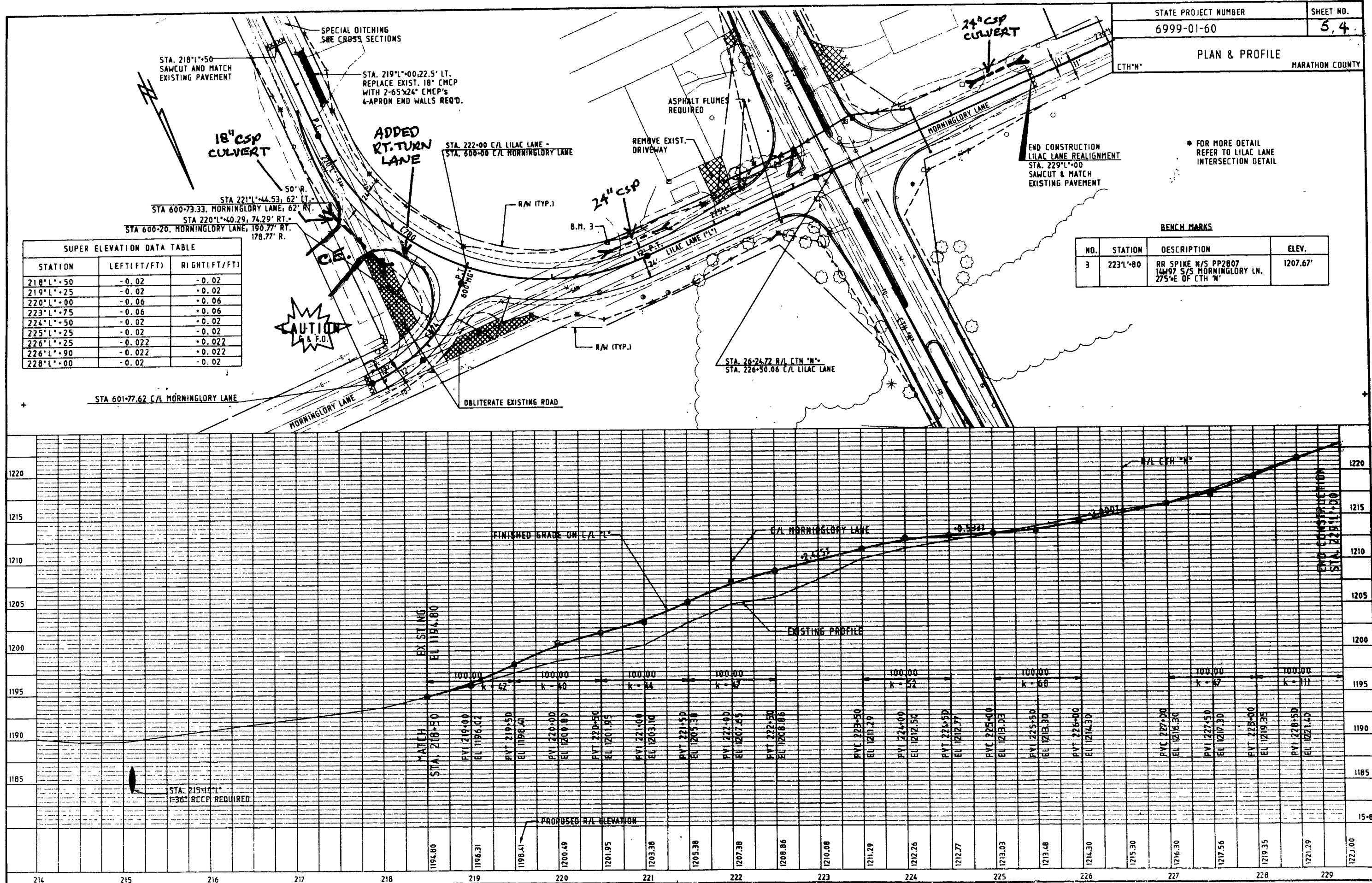
* FOR MORE DETAIL
REFER TO LILAC LANE
INTERSECTION DETAIL

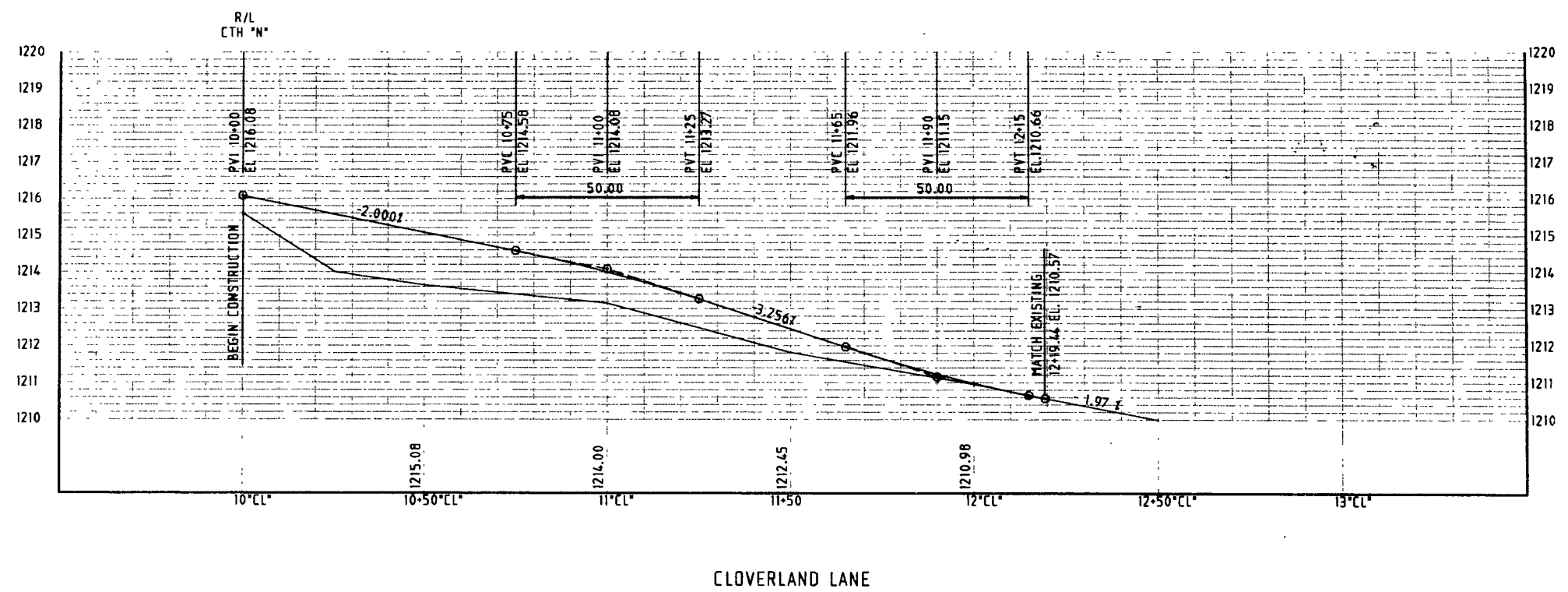
BENCH MARKS

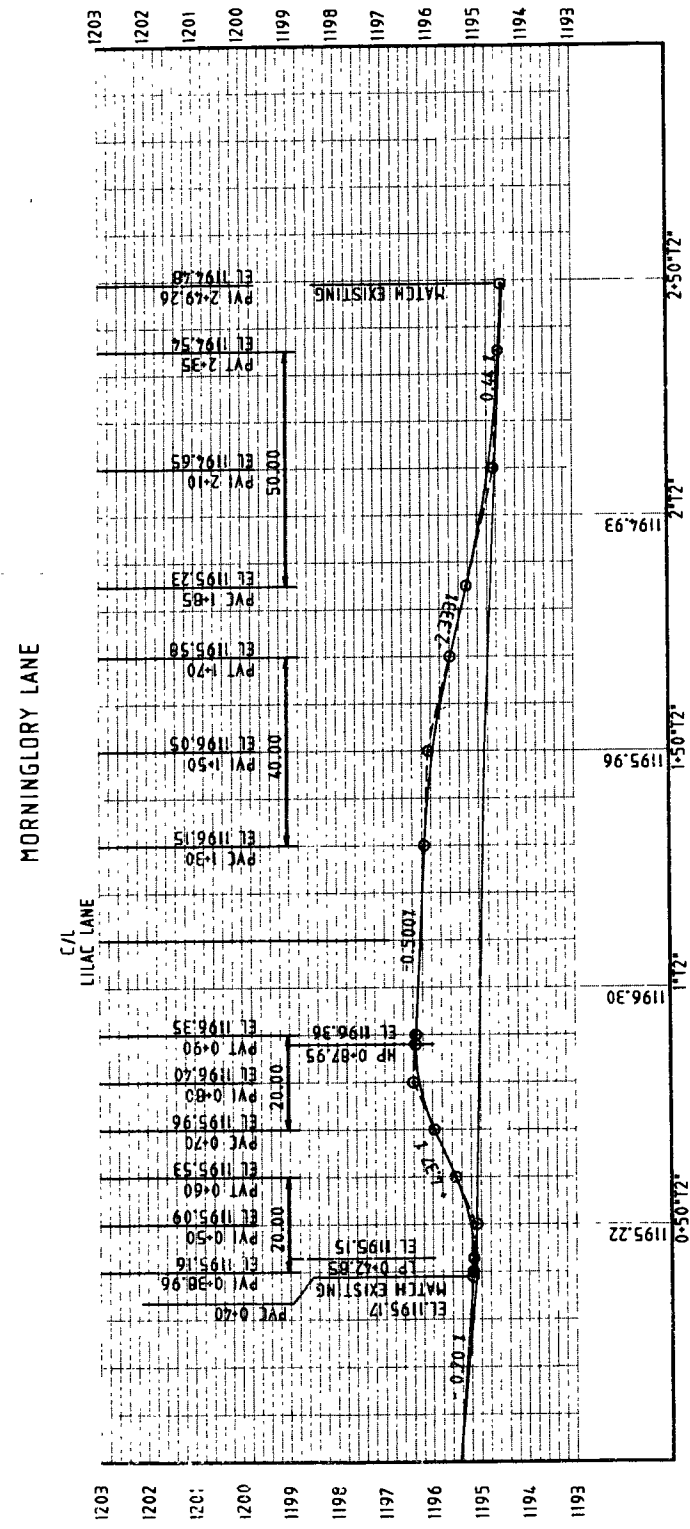
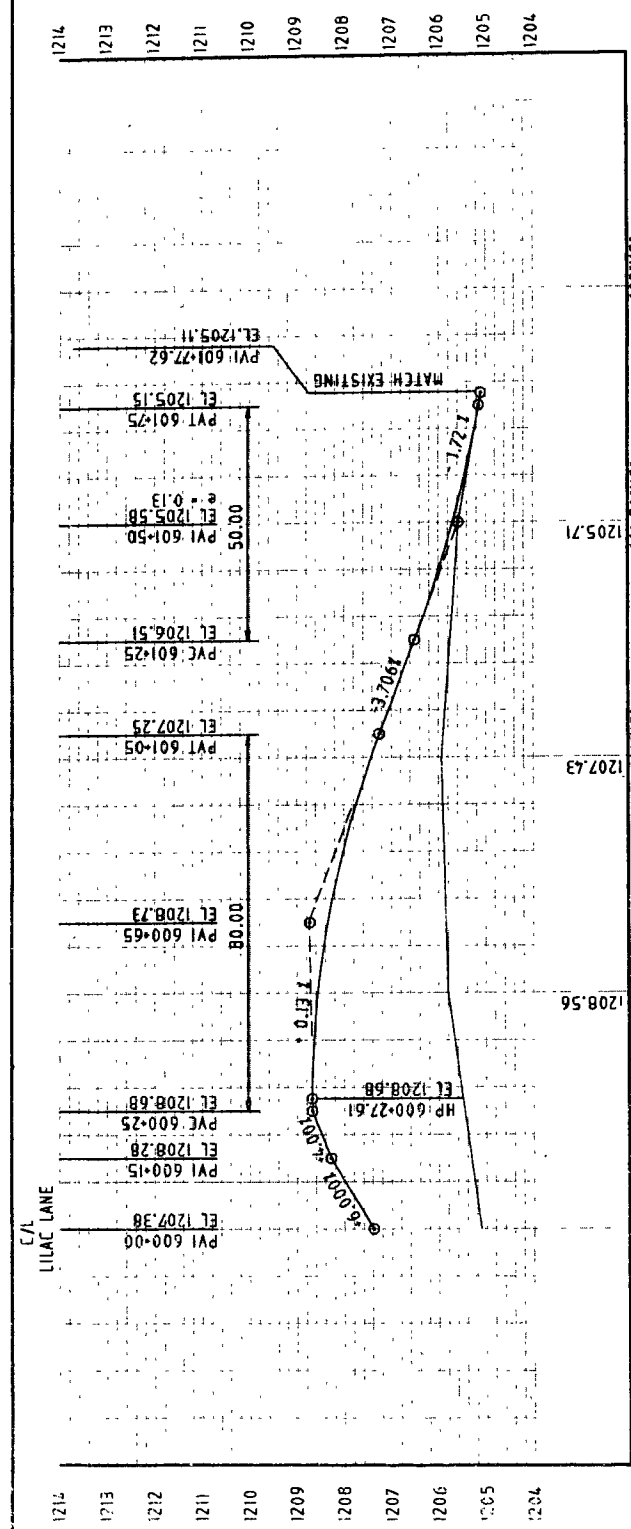
NO.	STATION	DESCRIPTION	ELEV.
3	2231+80	RR SPIKE N/S PP2807 14497 S/S MORNINGLORY LN. 275'±E OF CTH 'N'	1207.67'

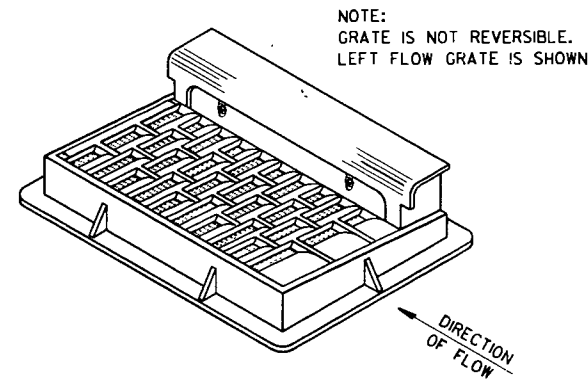
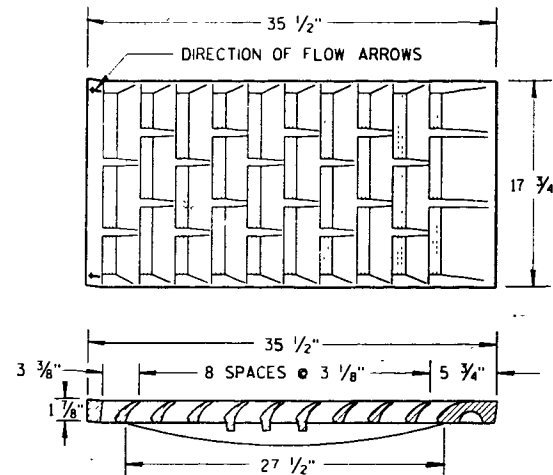
SUPER ELEVATION DATA TABLE

STATION	LEFT (FT/FT)	RIGHT (FT/FT)
218+50	-0.02	-0.02
219+25	-0.02	+0.02
220+00	-0.06	+0.06
223+75	-0.06	+0.06
224+50	-0.02	+0.02
225+25	-0.02	-0.02
226+25	-0.022	+0.022
226+90	-0.022	+0.022
228+00	-0.02	-0.02

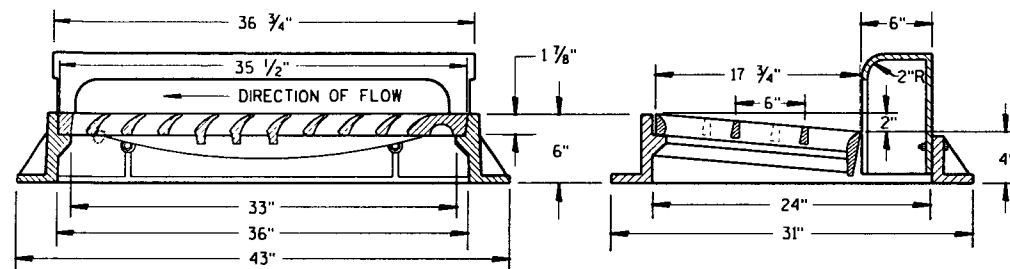




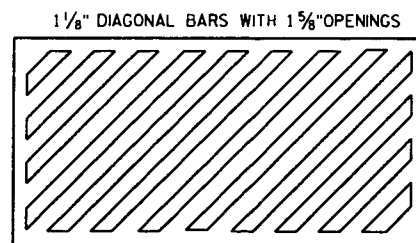




NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



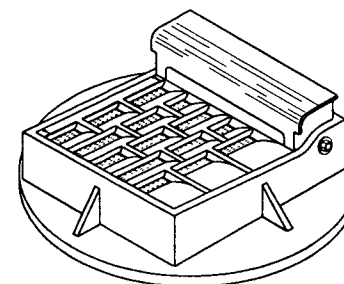
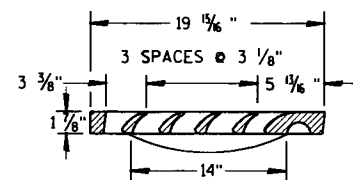
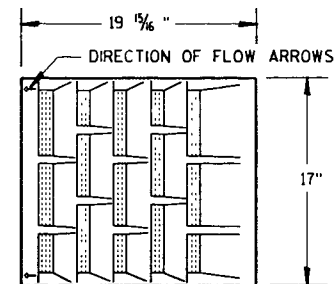
TYPE "H"
(APPROXIMATE WEIGHT 145 LBS.)
FRAME..... 195 LBS.
GRATE..... 135 LBS.
CURB BOX..... 115 LBS.



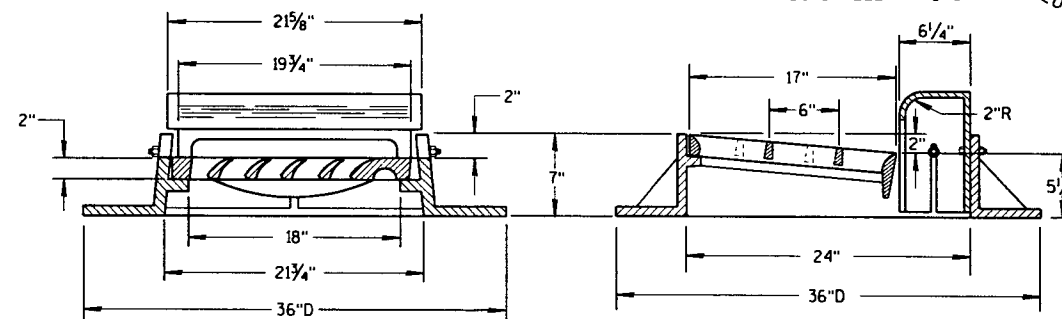
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/2" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 170 LBS.)
GRATE..... 170 LBS.

(NOTE AS TYPE H-S ON DRAINAGE TABLE)

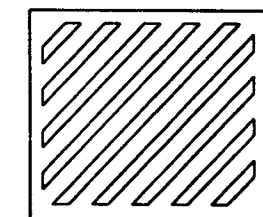


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



TYPE "A"
(APPROXIMATE WEIGHT 405 LBS.)
FRAME..... 235 LBS.
GRATE..... 85 LBS.
CURB BOX..... 85 LBS.

1" DIAGONAL BARS
WITH 1 1/2" OPENINGS



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 5/8" X 17" X 1 1/4")
GRATE..... 85 LBS.

(NOTE 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

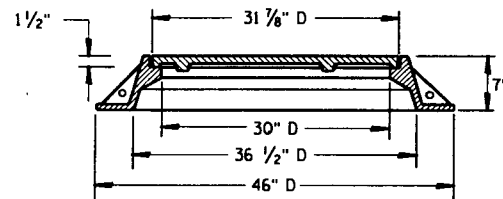
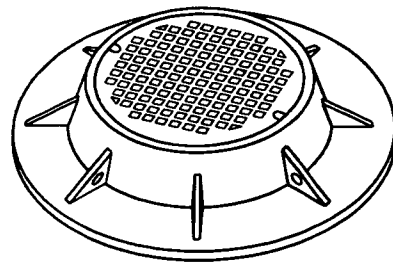
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
1/25/93
DATE

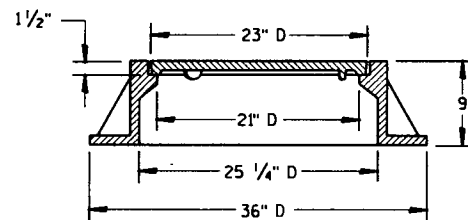
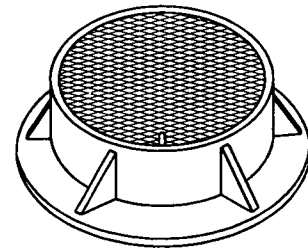
J. M. Hansen
STATE DESIGN ENGINEER FOR HWYS

FHWA

S.D.D. 8 A 5-90



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



TYPE "J"
(APPROXIMATE WEIGHT 350 LBS.)
FRAME.....235 LBS.
LID.....115 LBS.

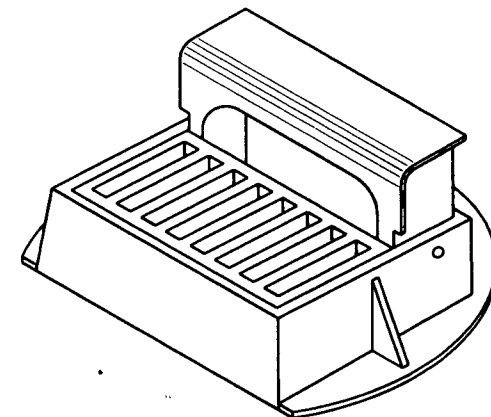
GENERAL NOTES

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.

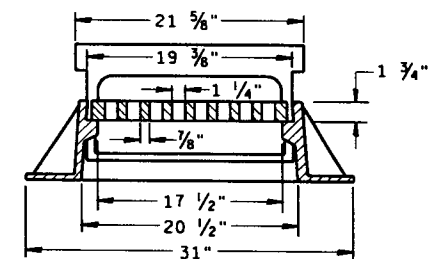
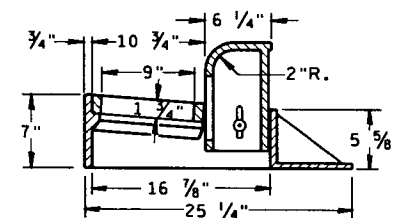
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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.

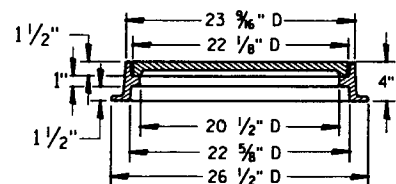
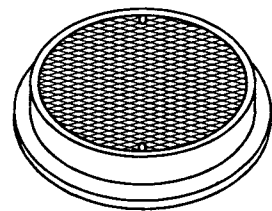


CURB BOX ADJUSTABLE 4" TO 10"

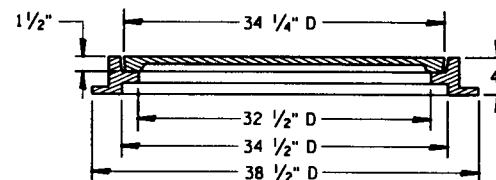
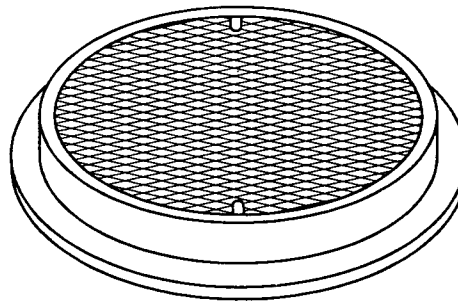


INLET COVER TYPE "Z"

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



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



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

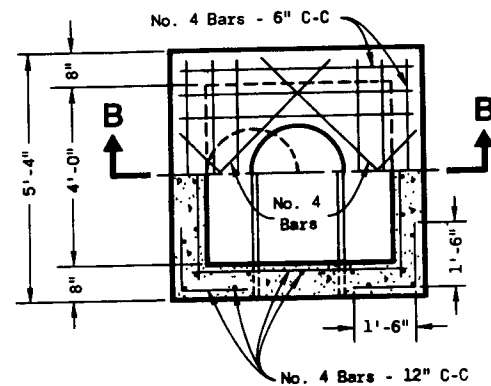
INLET AND MANHOLE COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

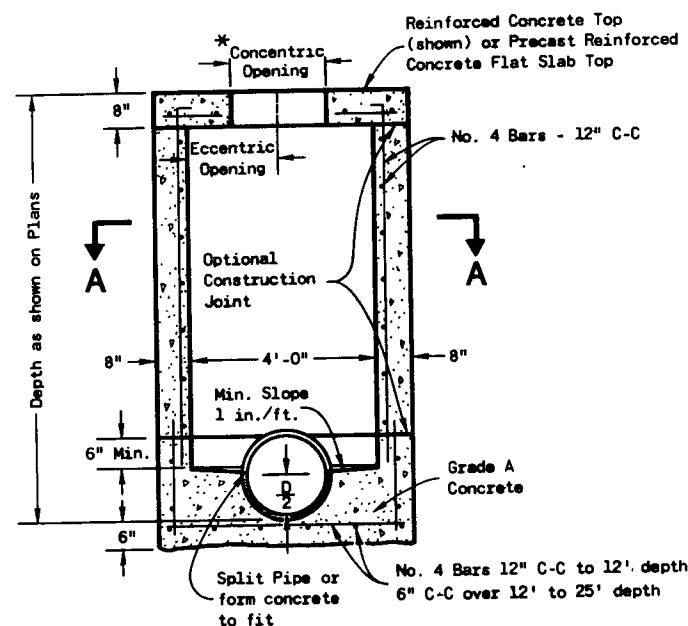
APPROVED
1/25/93
DATE

STATE DESIGN ENGINEER FOR HWYS

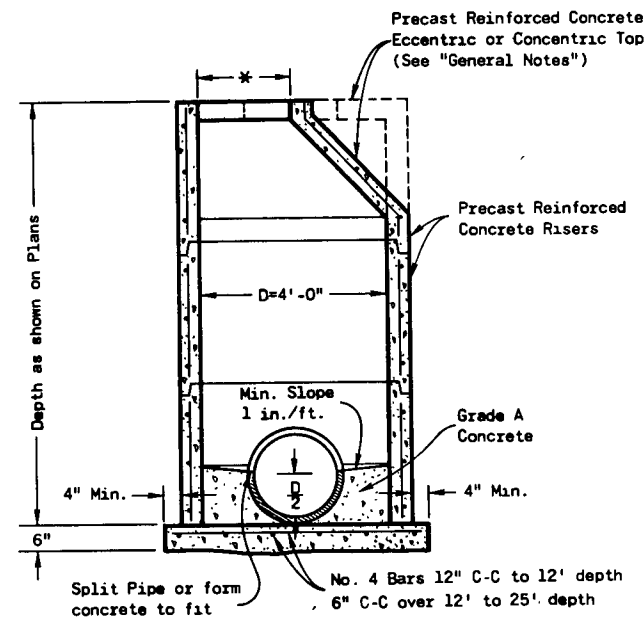
CHWA



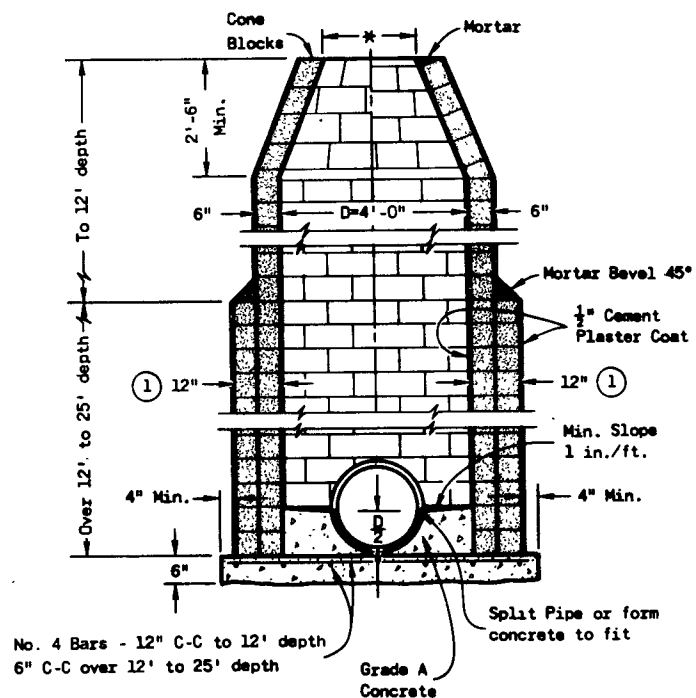
HALF SECTION A-A



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

MANHOLES TYPE 1

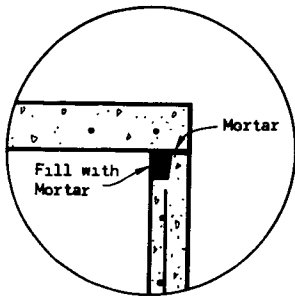
State of Wisconsin
Department of Transportation

APPROVED
4-13-82
DATE

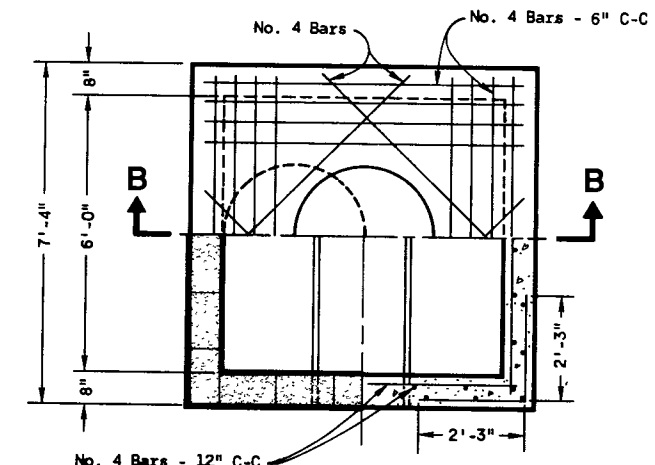
[Signature]
CHIEF DESIGN ENGINEER

FWHA

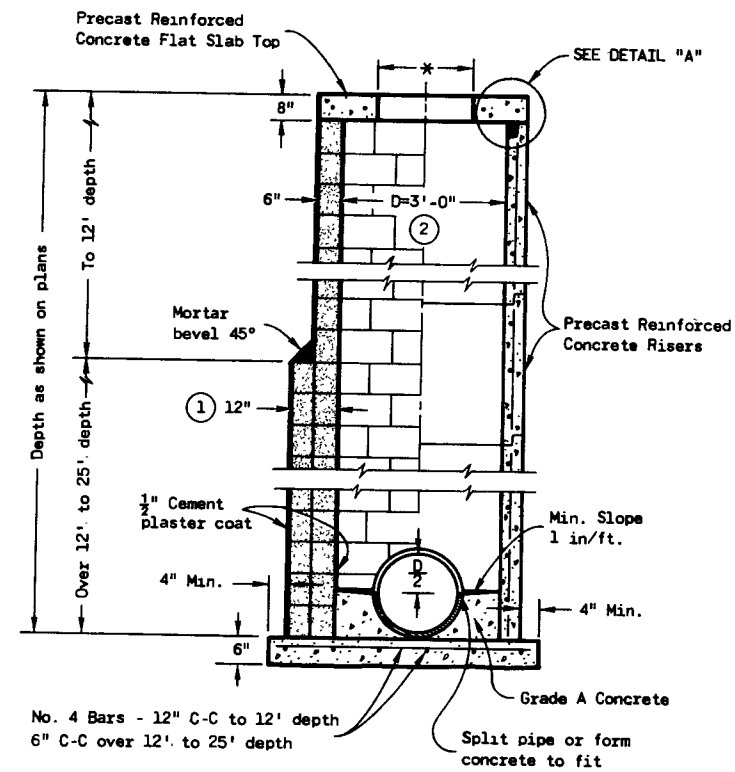
S.D.D. 8 B 6-3



DETAIL "A"

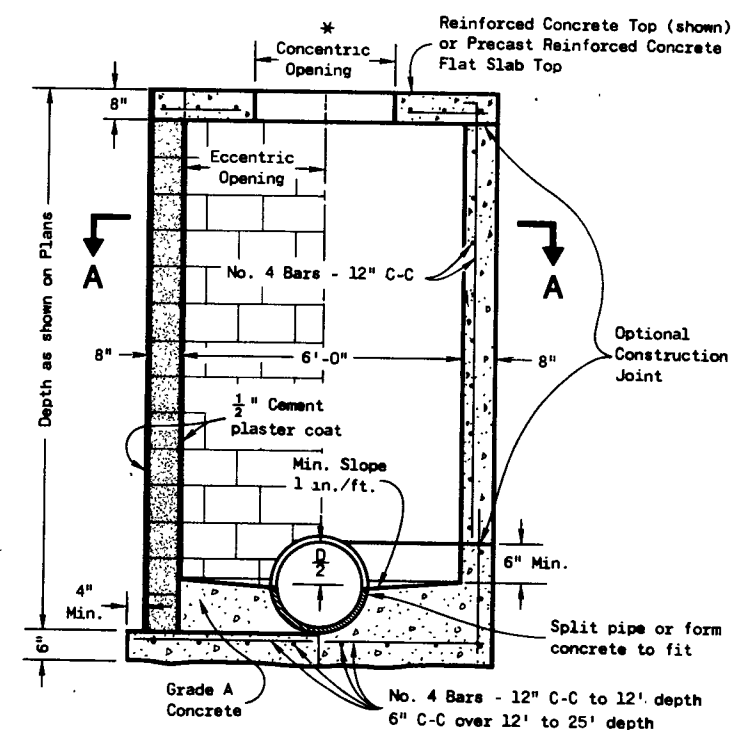


HALF SECTION A-A

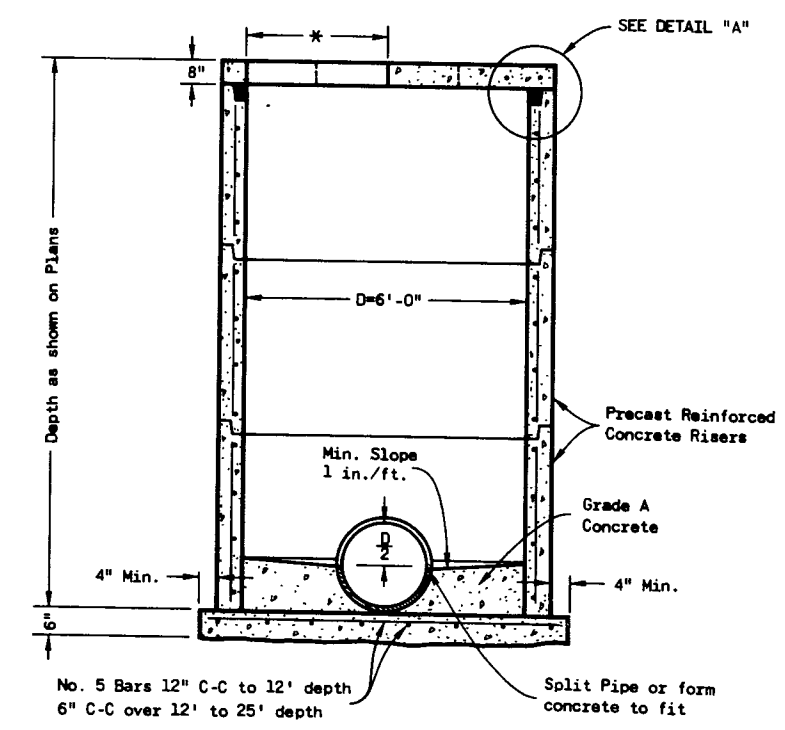


CONCRETE BLOCK
PRECAST REINFORCED CONCRETE

MANHOLES TYPE 2



SECTION B-B
CONCRETE BLOCK REINFORCED CONCRETE



PRECAST REINFORCED CONCRETE

MANHOLES TYPE 3

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.

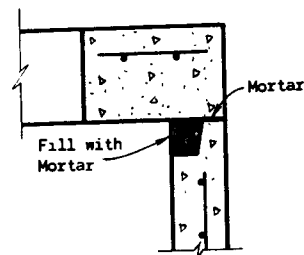
MANHOLES TYPE 2 & 3

State of Wisconsin
Department of Transportation

APPROVED
4-13-82
DATE

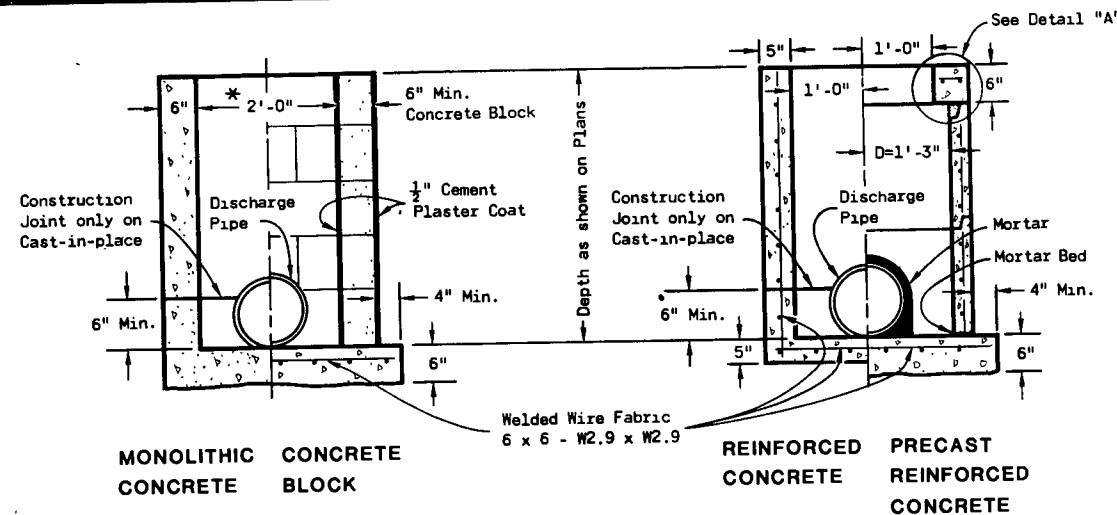
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CHIEF DESIGN ENGINEER

FWHA

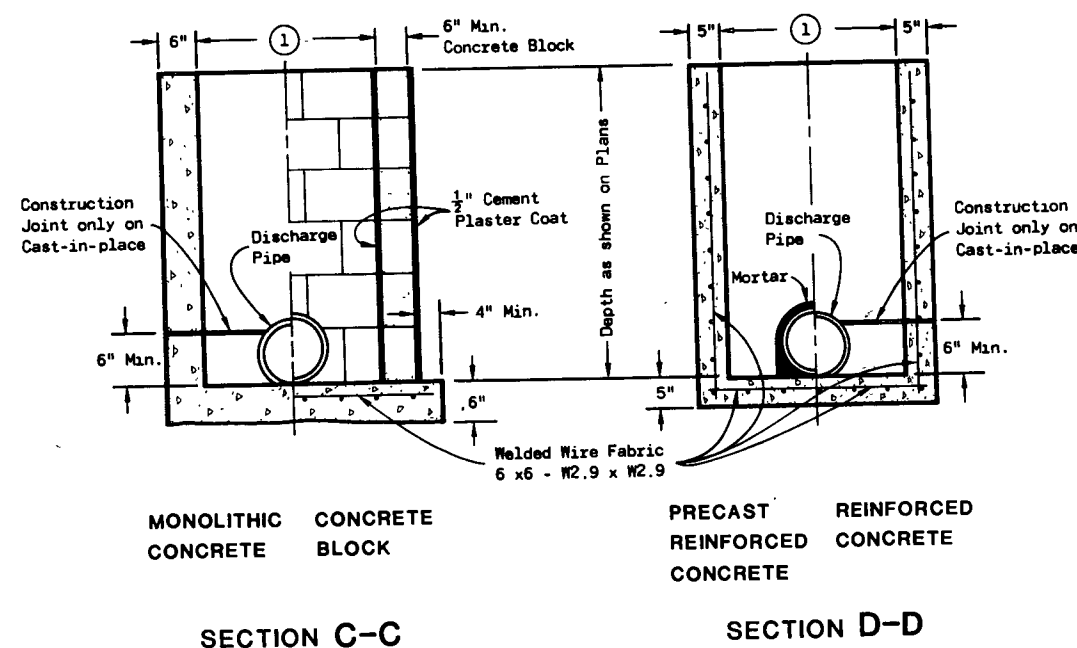
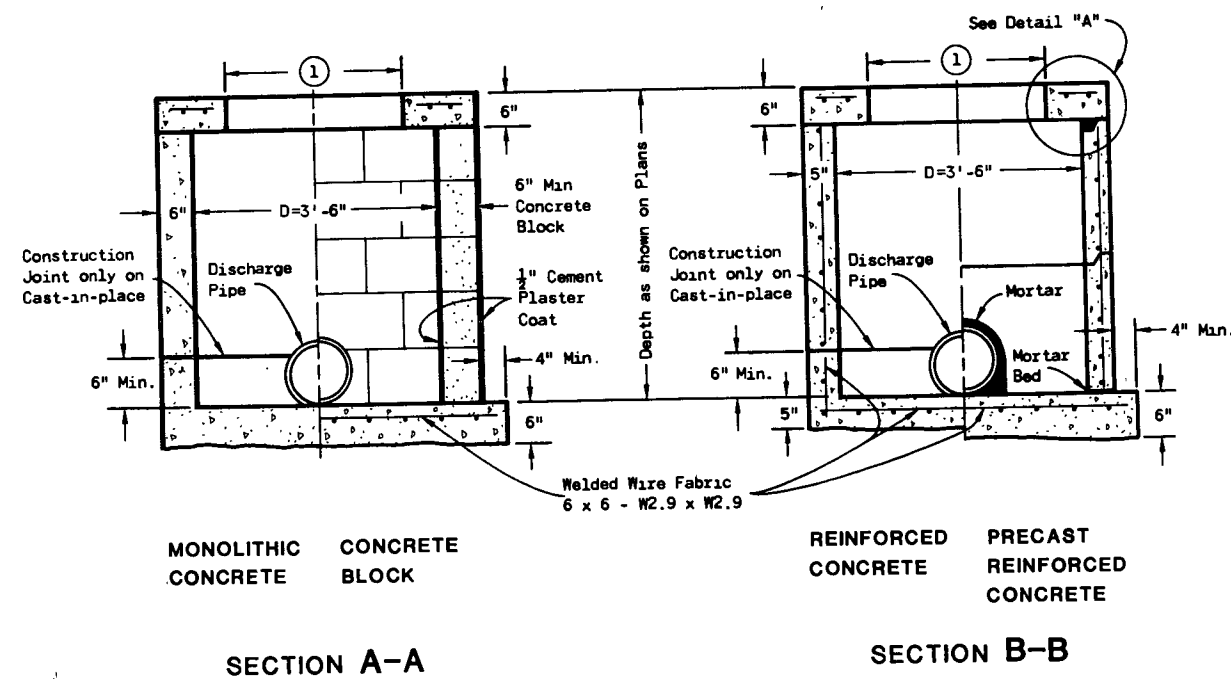
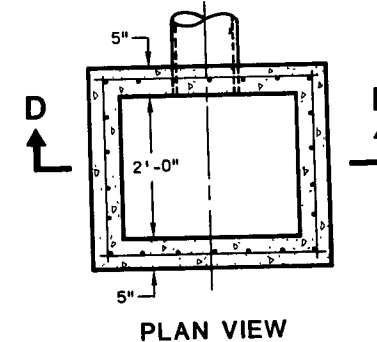
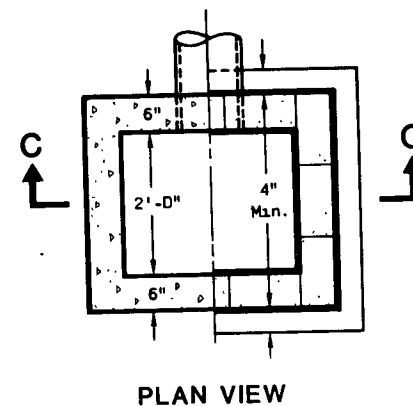
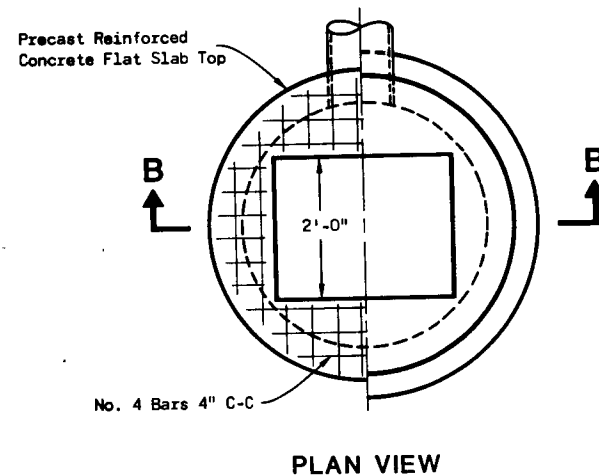
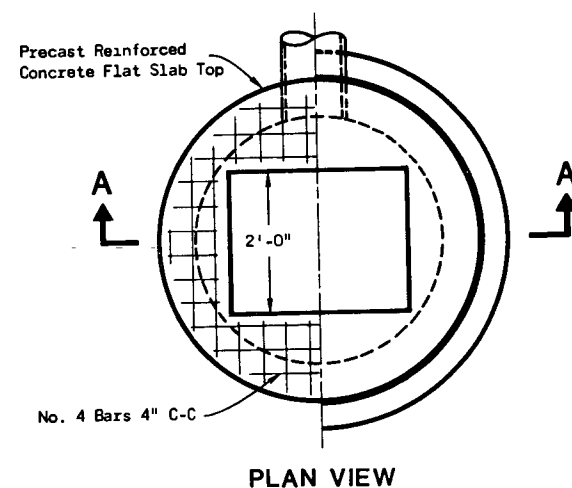


DETAIL "A"

*Selection of square or circular design will be based on the pipe sizes and the Inlet Cover being utilized.



INLETS TYPE 1



INLETS TYPE 2 & 3

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 for 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 and 3'-0" opening for Type 3 Inlets.

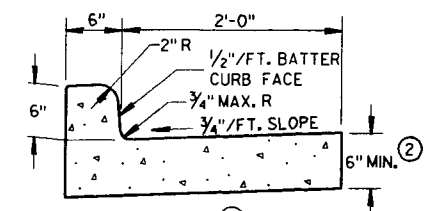
INLETS TYPE 1, 2 & 3

State of Wisconsin
Department of Transportation

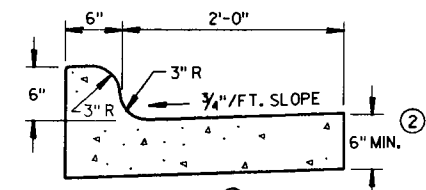
APPROVED
4-13-82
DATE

CHIEF DESIGN ENGINEER

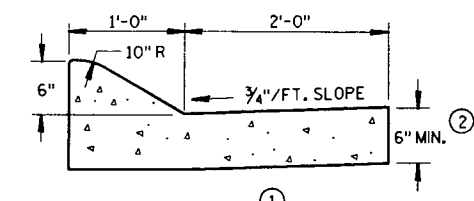
S.D.D. 8 C 1-4



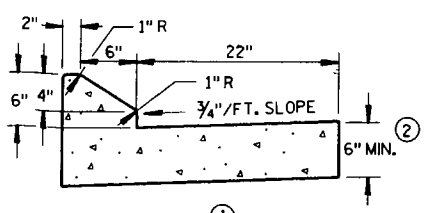
TYPES A & D



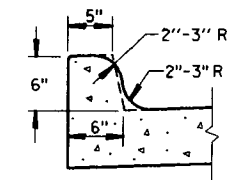
TYPES K & L



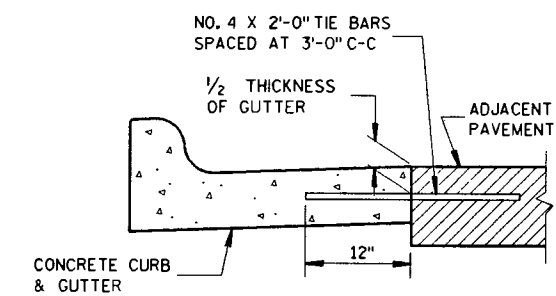
TYPES A & D
CONCRETE CURB & GUTTER 36"



TYPES G & J

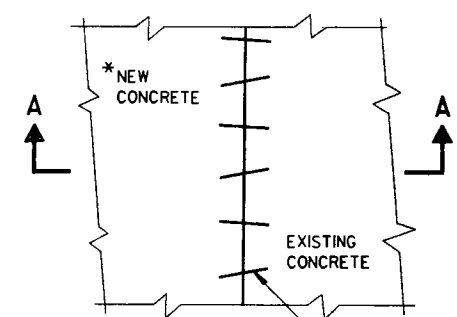


OPTIONAL CURB SHAPE
FOR TYPES K & L

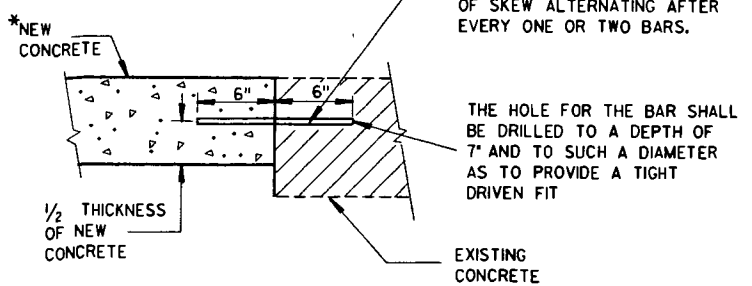


TYPICAL TIE BAR LOCATION

CONCRETE CURB & GUTTER 30"



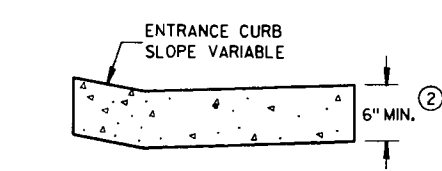
PLAN VIEW



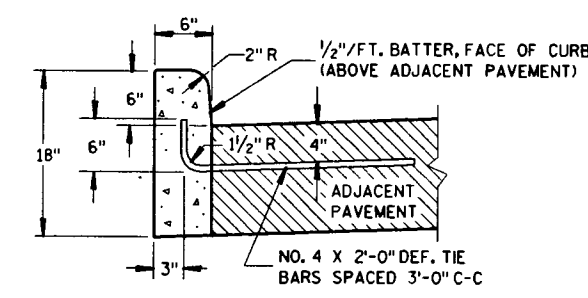
SECTION A-A
PAVEMENT TIES

NO. 6 X 12" DEF. BARS
SPACED 3'-0" C-C,
INSTALLED ON 6:1 SKEW
HORIZONTALLY. DIRECTION
OF SKEW ALTERNATING AFTER
EVERY ONE OR TWO BARS.

THE HOLE FOR THE BAR SHALL
BE DRILLED TO A DEPTH OF
7" AND TO SUCH A DIAMETER
AS TO PROVIDE A TIGHT
DRIVEN FIT

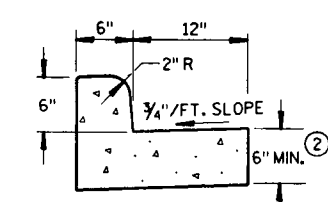


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

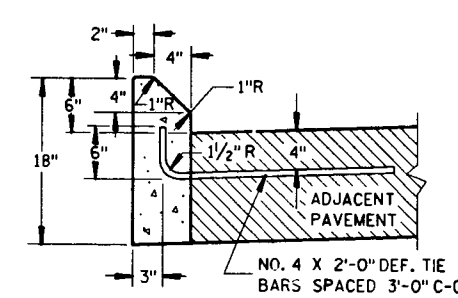


TYPES A & D

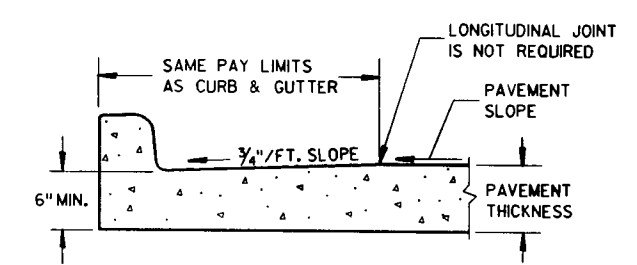
CONCRETE CURB



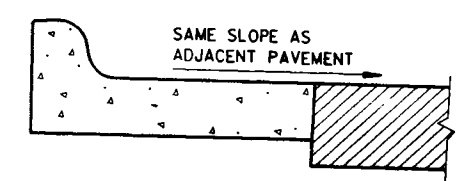
TYPES A & D
CONCRETE CURB & GUTTER 18"



TYPES G & J



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



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

GENERAL NOTES

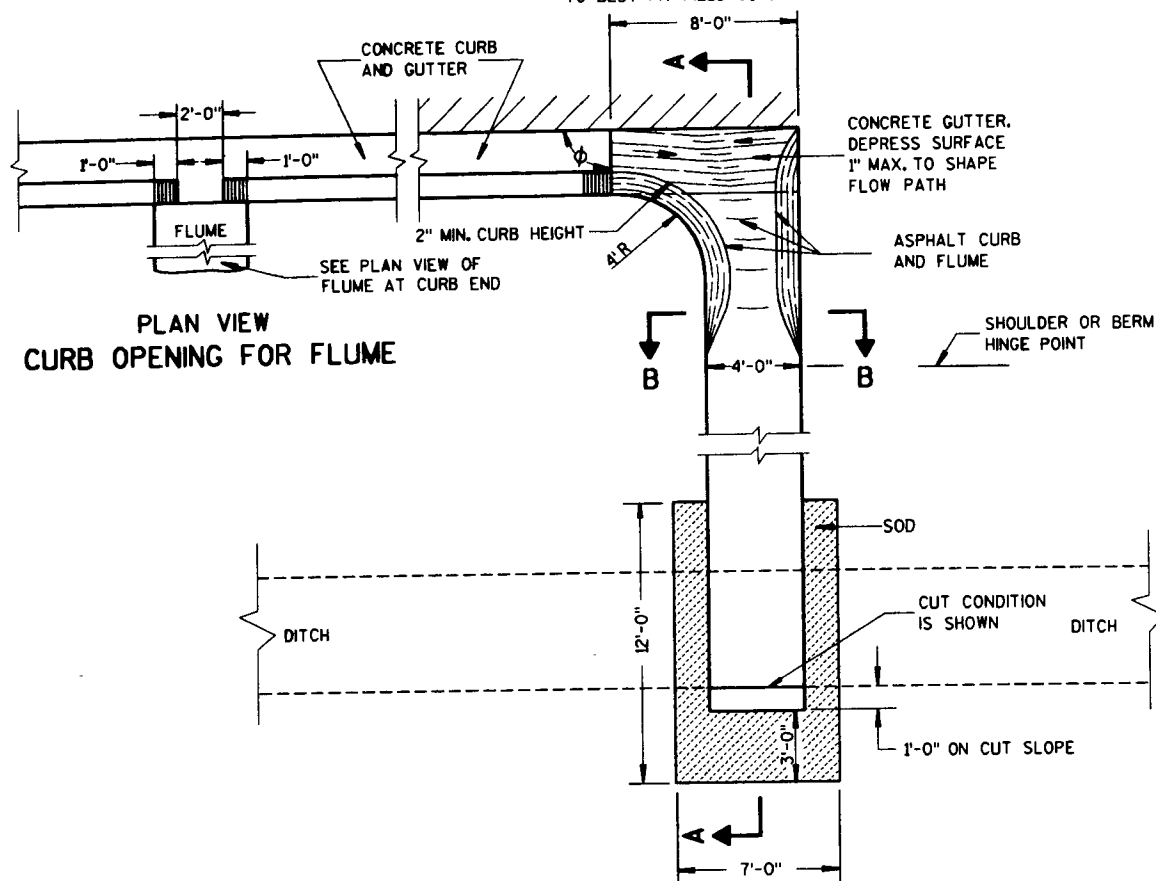
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- SEALANT IS NOT REQUIRED IN THE JOINTS OF CONCRETE CURB OR CONCRETE CURB & GUTTER EXCEPT AS REQUIRED FOR INTEGRAL GUTTER.
- PAVEMENT TIES ARE REQUIRED, WHEN INCLUDED 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.
- TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G AND K.
- 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.
- 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 HWYS
FHWA	

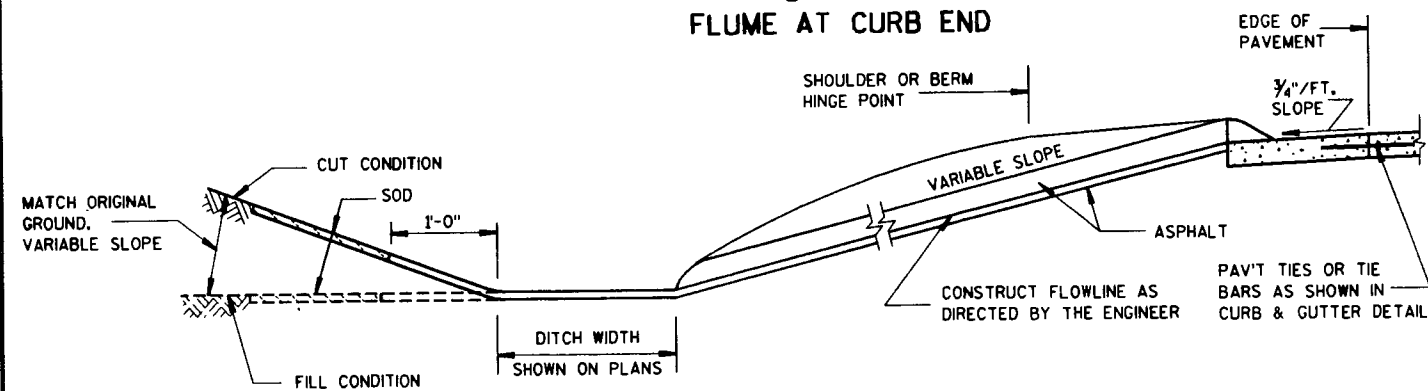
ASPHALTIC FLUME

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

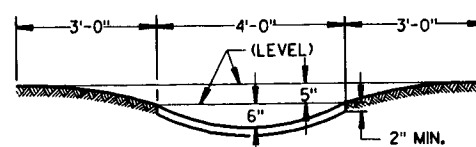
INCREASE ϕ FROM RIGHT ANGLE
TO BEST FIT FIELD CONDITIONS



PLAN VIEW FLUME AT CURB END



SECTION B-B



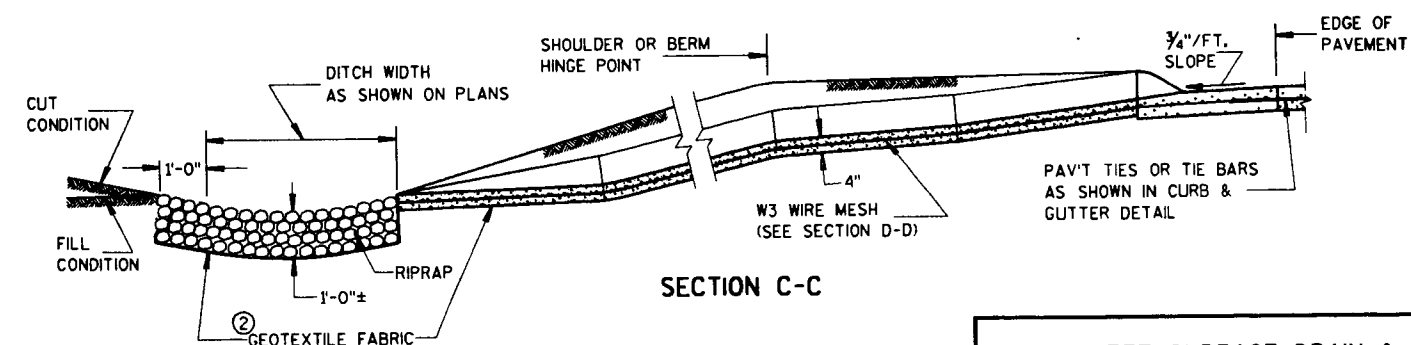
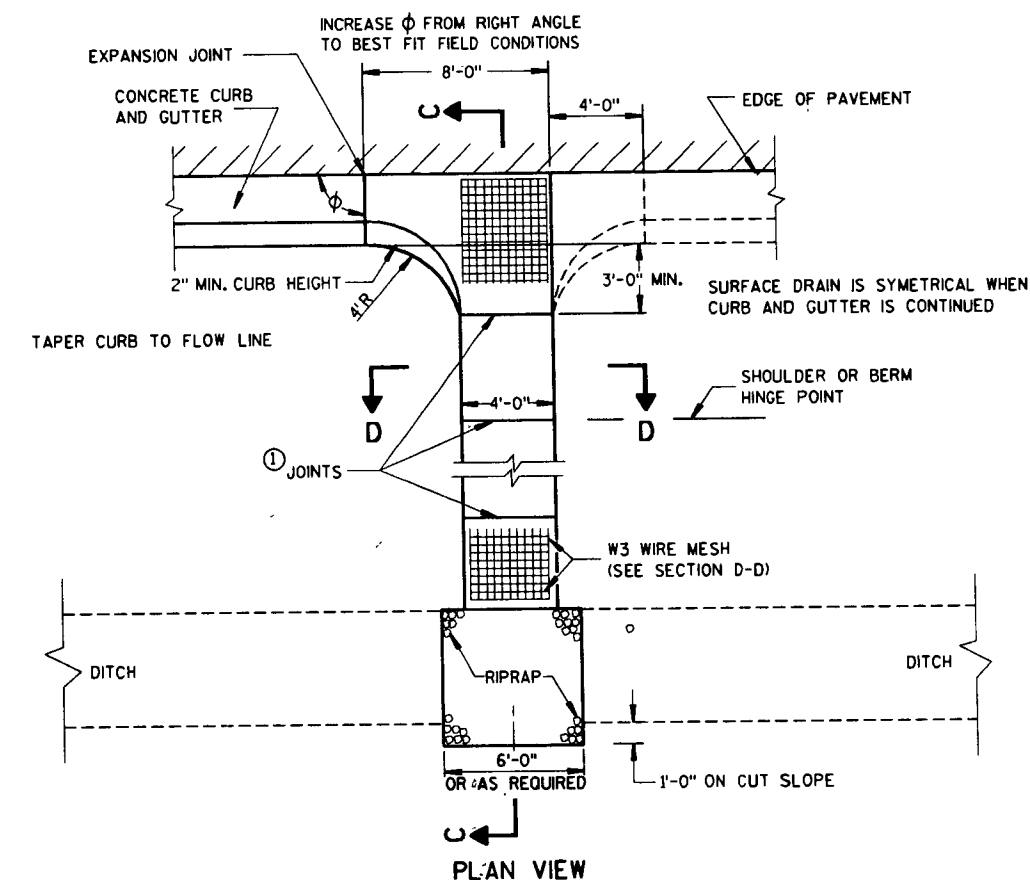
GENERAL NOTES

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

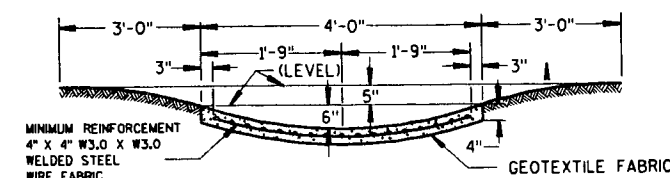
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- 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.
- GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

CONCRETE SURFACE DRAIN



SECTION D-D



CONCRETE SURFACE DRAIN & ASPHALTIC FLUME

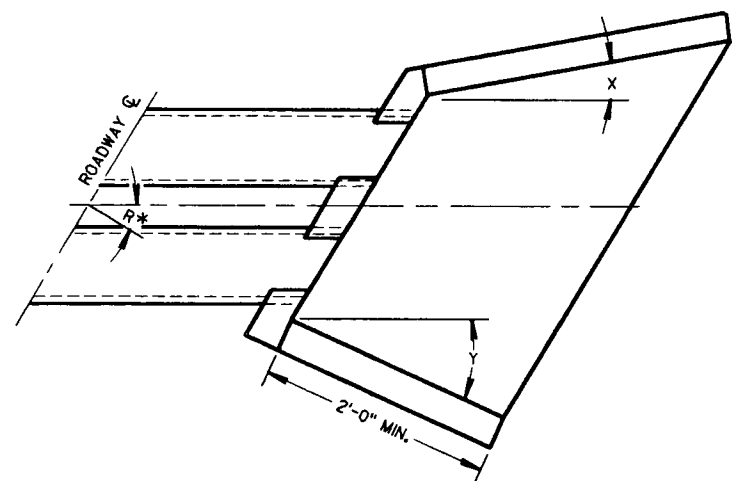
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/23/09
DATE

STATE DESIGN ENGINEER FOR HWYS

FHWA

S.D.D. 8 D 4-3



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.

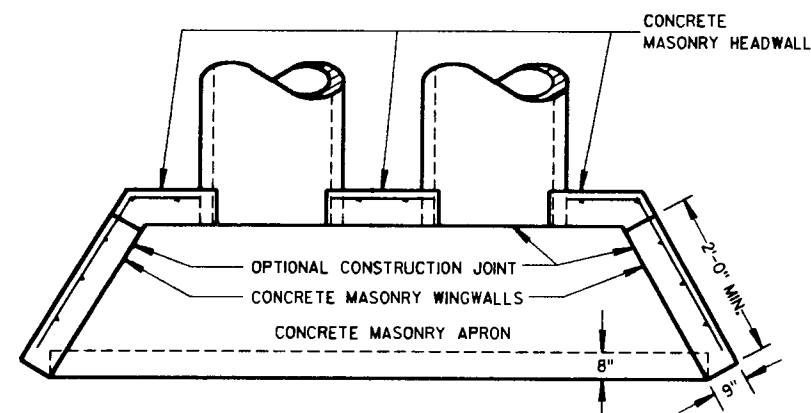
FILL SLOPES FLATTER THAN 2 1/2:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

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

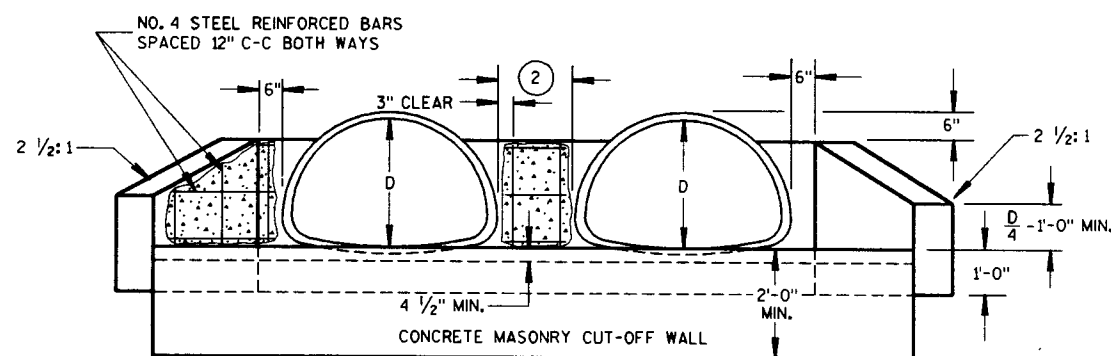
① MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

② THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

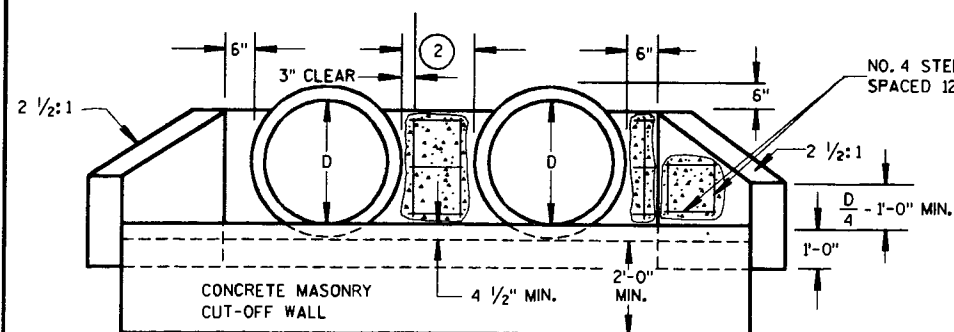
DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	1/2 DIA. OR SPAN
OVER 72"	3'-0"



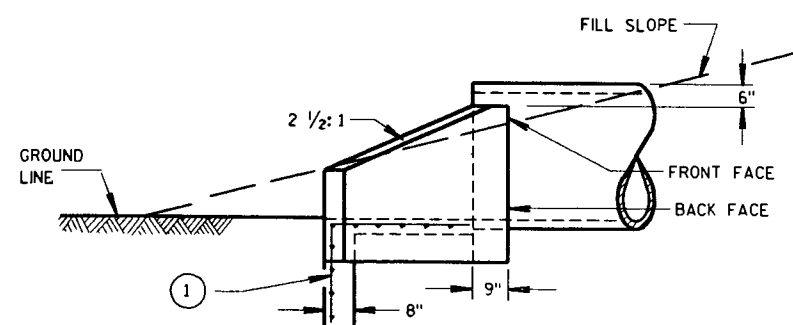
PLAN VIEW
CULVERT PIPE AND PIPE ARCH



END ELEVATION
PIPE ARCH



END ELEVATION
CULVERT PIPE



SIDE ELEVATION
CULVERT PIPE AND PIPE ARCH

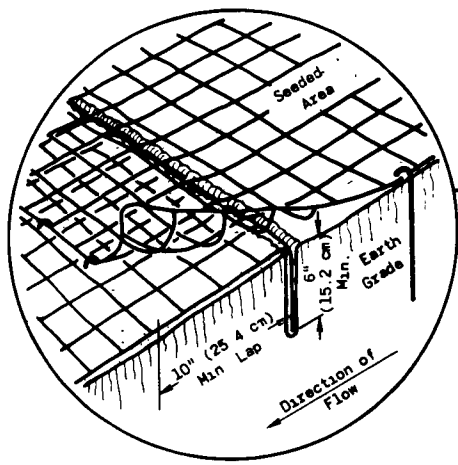
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

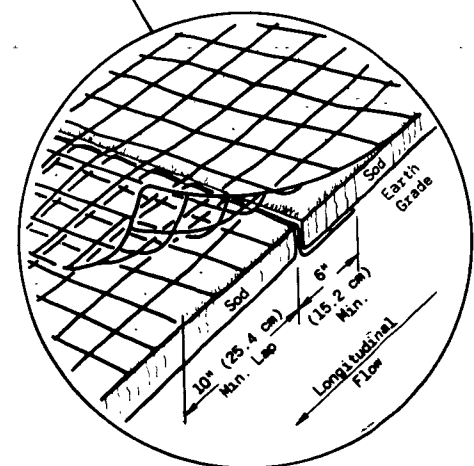
APPROVED
5/23/90
DATE

STATE DESIGN ENGINEER FOR HWYS

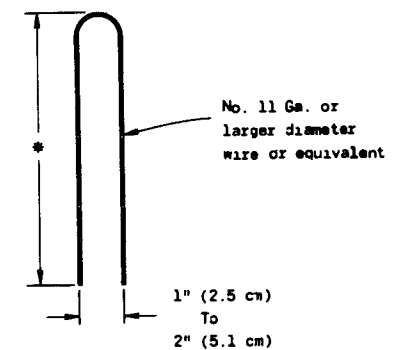
FHWA



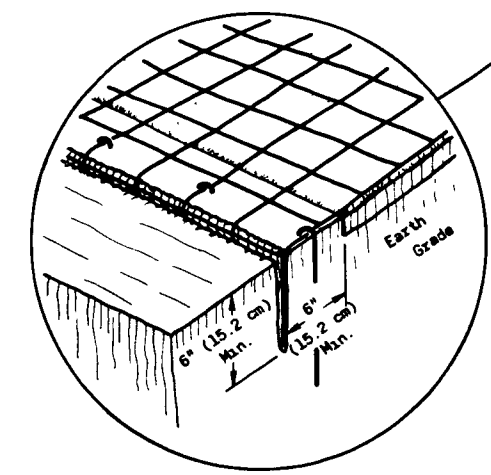
**JUNCTION SLOT
(SEED ONLY)**



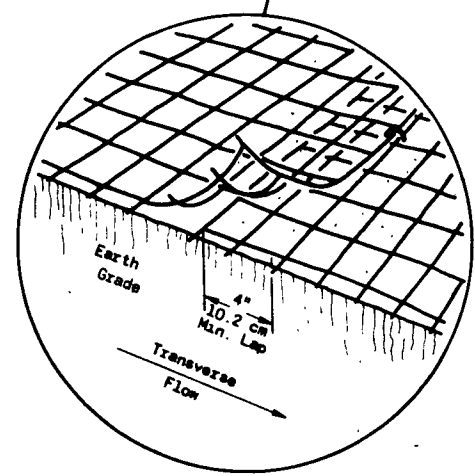
**JUNCTION SLOT
(SOD ONLY)**



**DETAIL OF
TYPICAL STAPLE**



**ANCHOR SLOT
AT BEGINNING AND END OF EROSION MAT
(SEED AND SOD)**



**LAP JOINT
(SEED AND SOD)**

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

Variations in the dimensions or materials shown hereon shall be permitted if they provide equivalent protection and material strength and if prior approval of the Engineer is obtained.

Lap Joints shall not be placed in the bottom of V-shaped ditches.

Junction Slots on adjacent strips of Matting shall be staggered a minimum of 4 feet (1.219 m) apart.

Edges of the Erosion Mat shall be impressed in the soil.

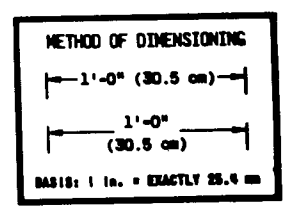
Erosion Mat shall be measured and paid for in accordance with the Standard Specifications.

EROSION MAT OVER SOD

- a. Only Jute Fabric will be permitted over sod.
- b. Wood Stakes for Sod may be omitted by the Engineer if the existing slope and soil conditions so warrant.
- c. The width of Erosion Mat shall always equal the Sod width.
- d. Sod strips may be placed either longitudinally or transversely to the flow line of the Ditch.

EROSION MAT OVER SEEDING

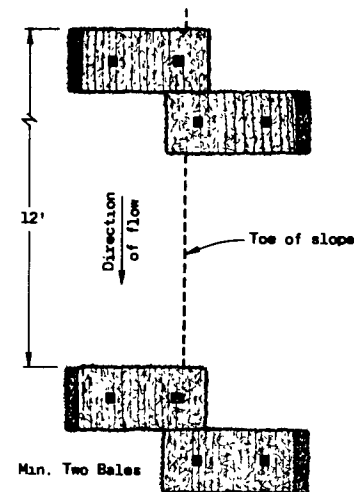
Junction or Anchor Slots shall be at minimum intervals of 100 feet (30.48 m) on grades up to and including 3 percent, and 50 feet (15.24 m) on grades exceeding 3 percent.



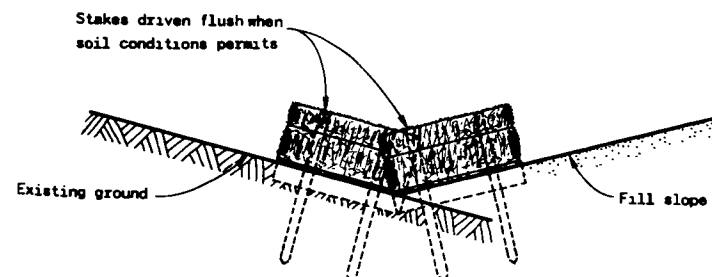
EROSION MAT

State of Wisconsin
Department of Transportation
Division of Highways

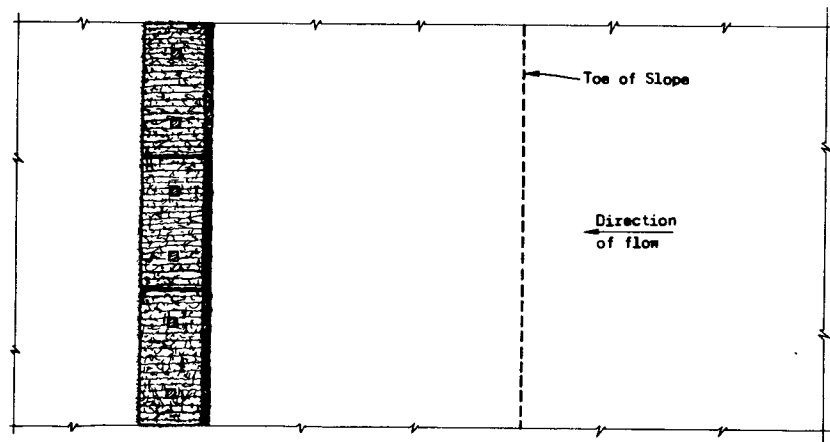
RECOMMENDED FOR APPROVAL DATE 12-3-73	<i>J. C. Harnish</i> CHIEF OF FACILITIES DEVELOPMENT
APPROVED DATE 1-15-74	<i>W. J. Sisk</i> STATE HIGHWAY ENGINEER



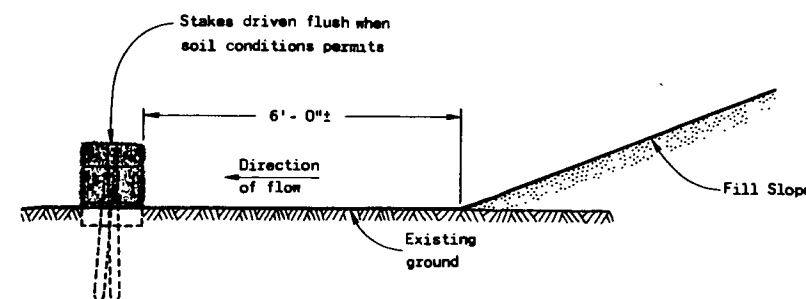
PLAN VIEW



FRONT ELEVATION
WHEN EXISTING GROUND
SLOPES TOWARD FILL SLOPE

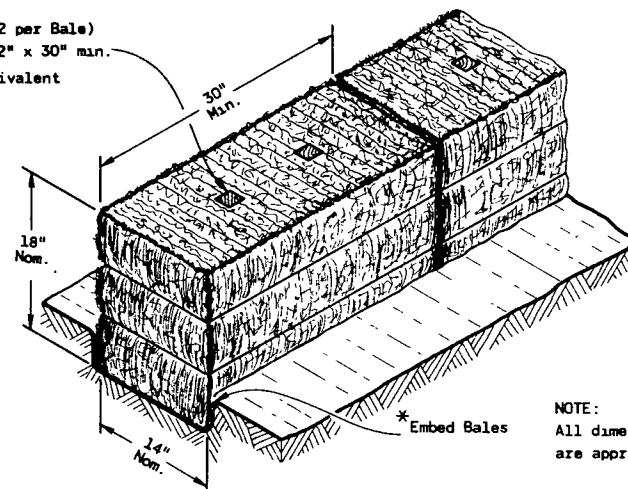


PLAN VIEW



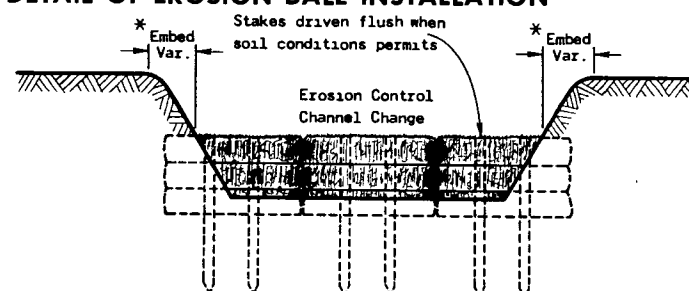
FRONT ELEVATION
EROSION BALES AT TOE OF SLOPE
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

Wood Stakes (2 per Bale)
Nominal 2" x 2" x 30" min.
length or equivalent

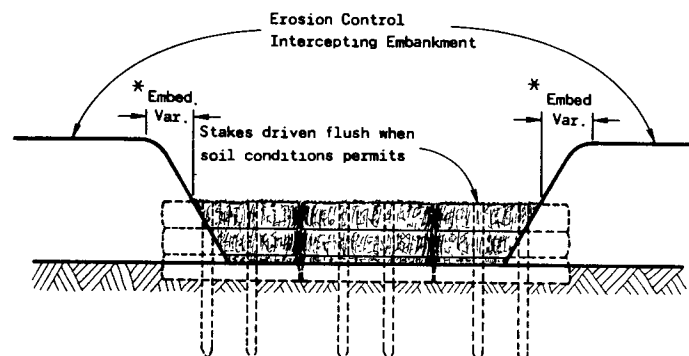


NOTE:
All dimensions
are approximate

DETAIL OF EROSION BALE INSTALLATION



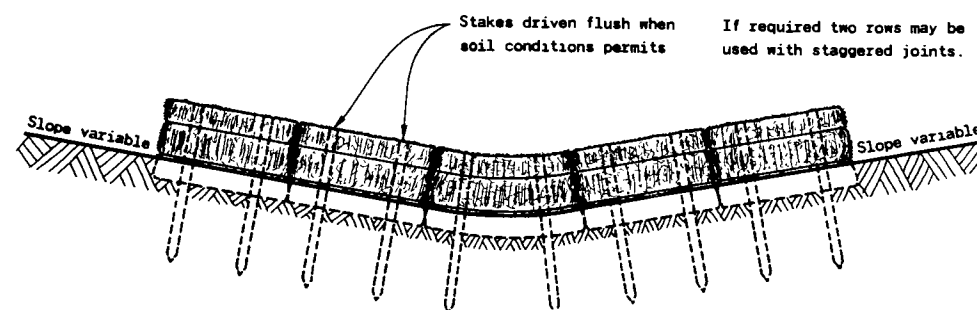
EROSION CONTROL CHANNEL CHANGE



EROSION CONTROL INTERCEPTING EMBANKMENT



PLAN VIEW



FRONT ELEVATION
EROSION BALES ACROSS DITCH BOTTOM

GENERAL NOTES

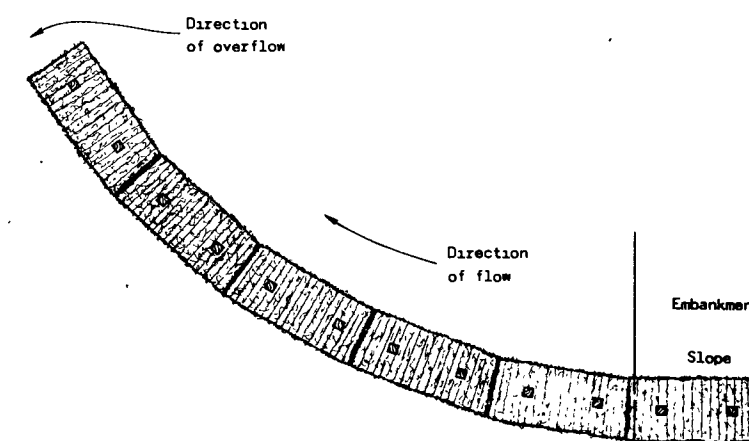
Details of construction, materials and workmanship not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions

Bales shall be placed end to end or overlapping at right angles to the direction of flow and far enough up the sides of the ditch to prevent eroding around ends.

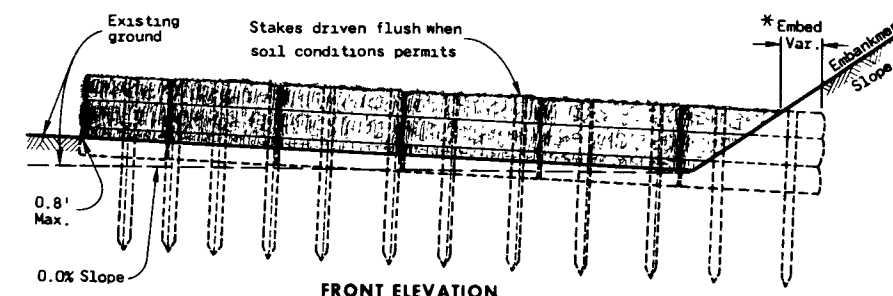
Bales shall be placed with twine or tie wires parallel to the ground.

Stakes to be battered in opposite directions.

* As determined by the Engineer.



PLAN VIEW



FRONT ELEVATION

EROSION BALES AT TOE OF SLOPE

TYPICAL INSTALLATIONS OF EROSION BALES

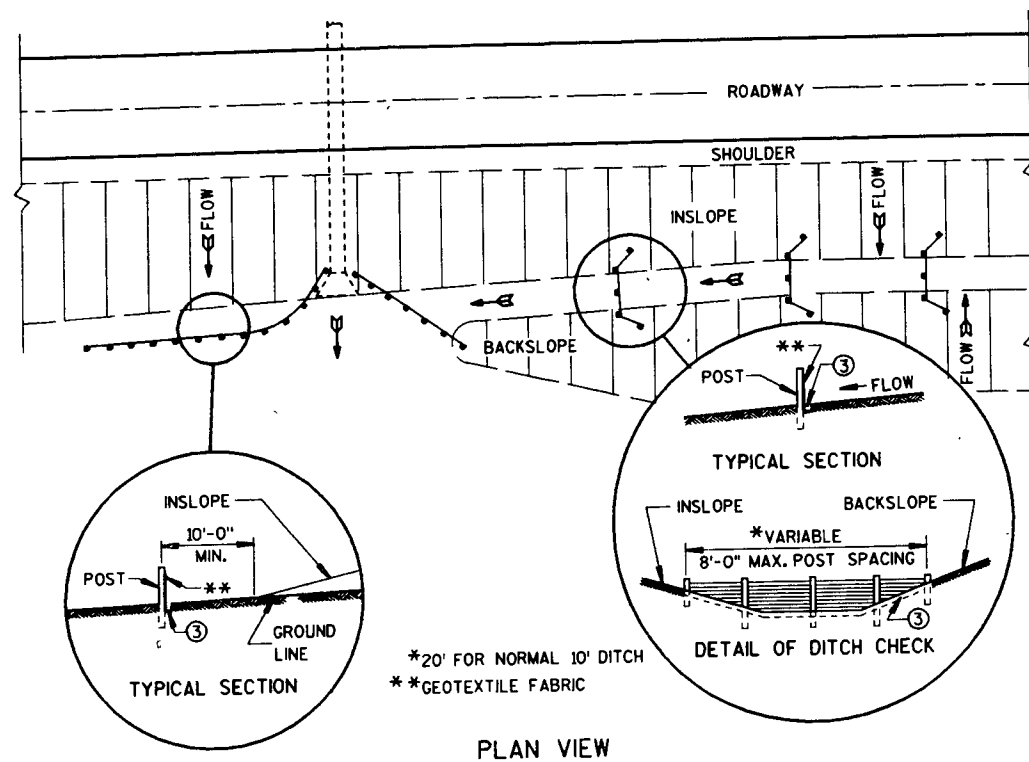
State of Wisconsin
Department of Transportation
Division of Highways

RECOMMENDED FOR APPROVAL
DATE 10/14/75

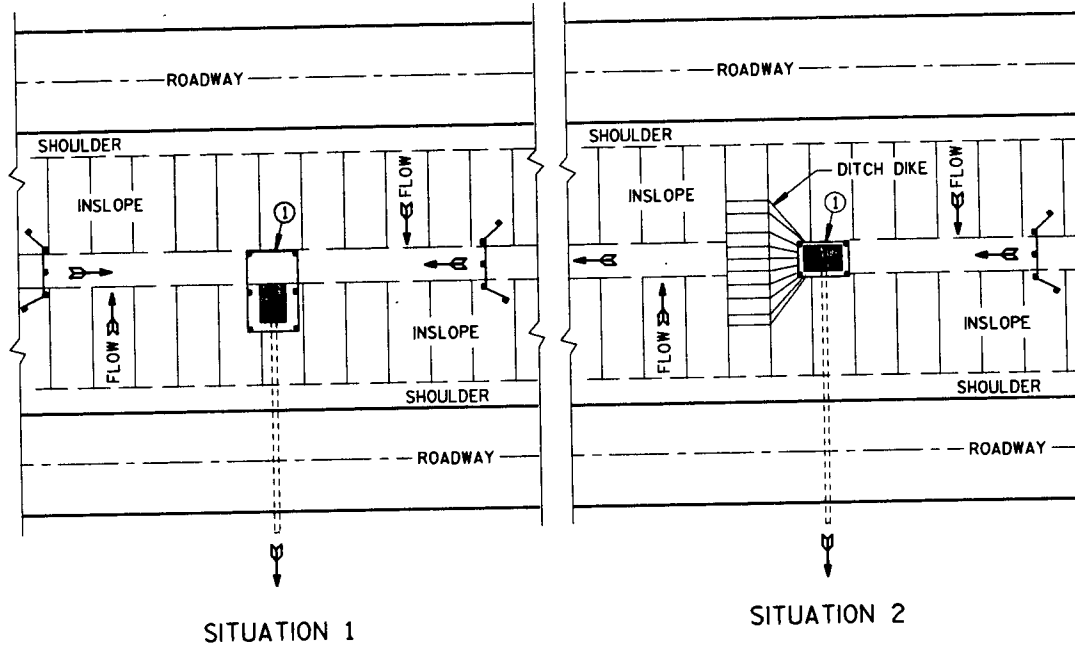
J. E. Schmitt
CHIEF OF FACILITIES DEVELOPMENT

APPROVED
DATE 10/16/75

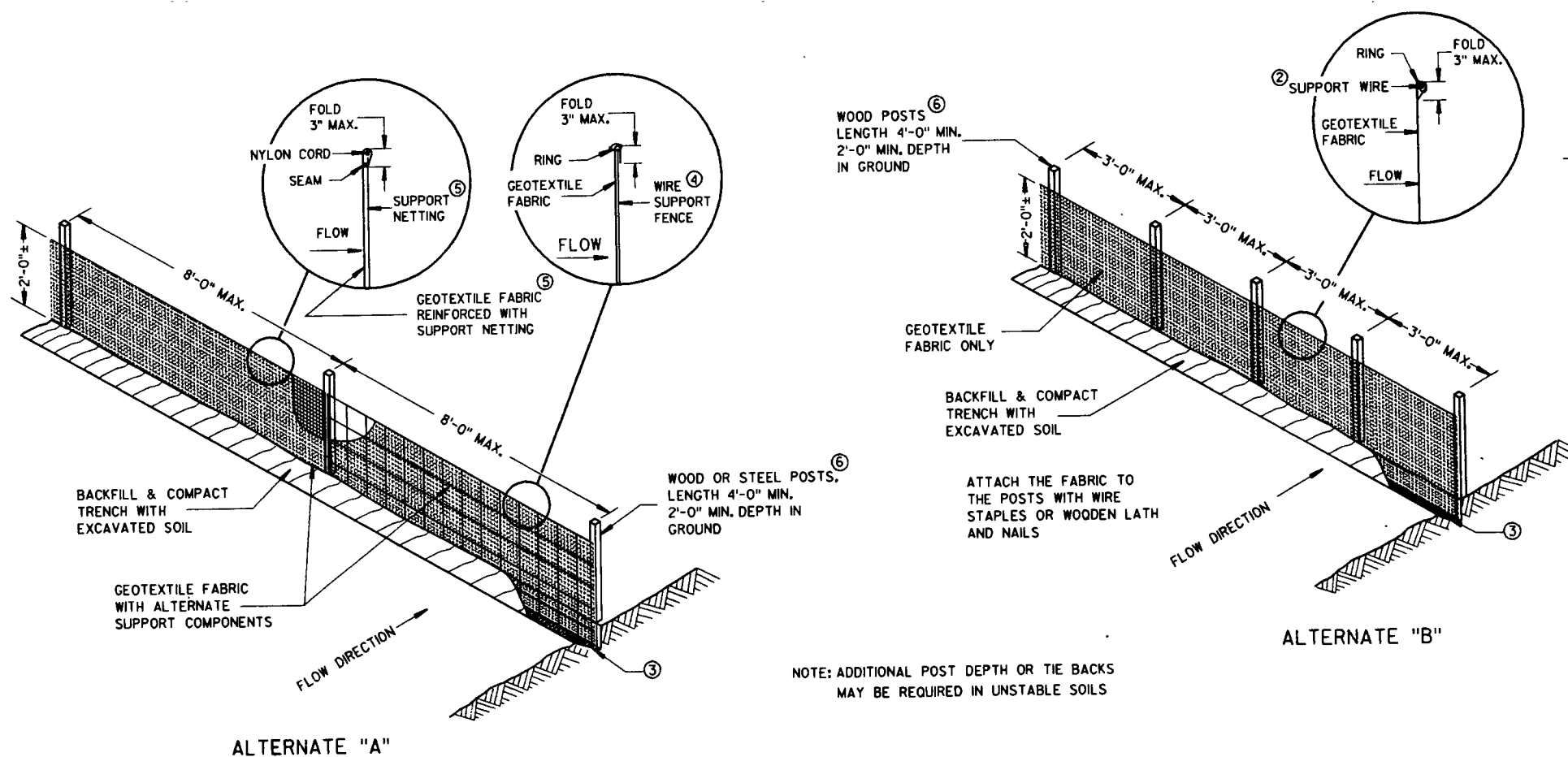
W. J. Suder
STATE HIGHWAY ENGINEER



TYPICAL APPLICATIONS OF SILT FENCE



SILT FENCE AT MEDIAN SURFACE DRAINS



SILT FENCE

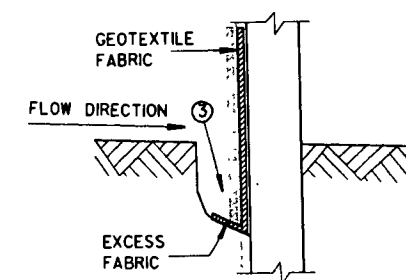
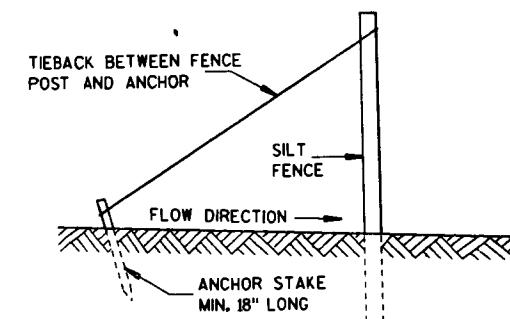
GENERAL NOTES

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

WHEN POSSIBLE THE SILT FENCE SHOULD BE CONSTRUCTED IN AN ARC OR HORSESHOE SHAPE, WITH THE ENDS POINTING UPSLOPE TO MAXIMIZE BOTH STRENGTH AND EFFECTIVENESS.

- CROSS BRACE WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS AS DIRECTED BY THE ENGINEER.
- MINIMUM 14 GAGE WIRE REQUIRED, FOLD FABRIC 3" OVER THE WIRE AND STAPLE OR PLACE WIRE RINGS ON 12" C-C.
- EXCAVATE A TRENCH 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.
- WIRE SUPPORT FENCE SHALL BE 14 GAGE MINIMUM WOVEN WIRE WITH A MAXIMUM MESH SPACING OF 6". SECURE TOP OF GEOTEXTILE FABRIC TO TOP OF FENCE WITH STAPLES OR WIRE RINGS AT 12" C-C.
- GEOTEXTILE FABRIC SHALL BE REINFORCED WITH AN INDUSTRIAL POLYPROPYLENE NETTING WITH A MAXIMUM MESH SPACING OF 3/4" OR EQUAL. A HEAVY DUTY NYLON TOP SUPPORT CORD OR EQUIVALENT IS REQUIRED.
- STEEL POSTS SHALL BE STUDDED "TEE" OR "U" TYPE WITH A MINIMUM WEIGHT OF 128 LBS/LINEAL FOOT (WITHOUT ANCHOR). FIN ANCHORS SUFFICIENT TO RESIST POST MOVEMENT ARE REQUIRED. WOOD POSTS SHALL BE A MINIMUM SIZE OF 4" DIA. OR 1 1/2" X 3 1/2" EXCEPT WOOD POSTS FOR GEOTEXTILE FABRIC REINFORCED WITH NETTING SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OAK OR HICKORY.

ALTERNATES A & B ARE EQUAL AND EITHER MAY BE USED.



SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-88
DATE

STATE DESIGN ENGINEER FOR HWYS

FHWA

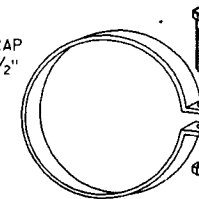
METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1½")	L ₁ ①	L ₂ ①	W (±2")		
12	.064	.060	6	6	6	21	12	17½	24	2½ to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21¾	30	2½ to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28¼	36	2½ to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29⅝	42	2½ to 1	1 Pc.
24	.079	.075	10	13	6	41	18	37¼	48	2½ to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52¼	60	2½ to 1	1 Pc.
36	.109	.105	14	19	9	60	24	59¾	72	2½ to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75⅝	84	2½ to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2½ to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85½	102	2½ 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	1½ to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1½ to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1½ to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1½ to 1	3 Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

REINFORCED CONCRETE APRON ENDWALLS										
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE		
	T	A	B	C	D	E	G			
12	2	4	24	48 1/8	72 1/8	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 3/4	73 1/2	60	3 1/2	3 to 1		
36	4	15	63	34 3/4	97 3/4	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 5/8 to 1		
60	6	30-35	60	39	99	96	5	2 to 1		
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1		
72	7	24-36	78	21	99	108	6	2 to 1		
78	7 1/2	24-36	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		

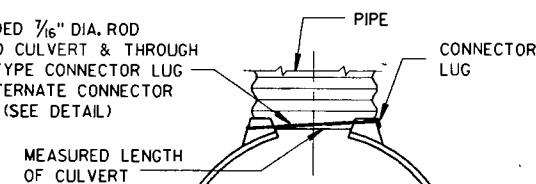
* MINIMUM
** MAXIMUM

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



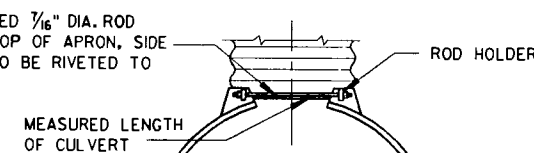
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP

THREADED 7/16" DIA. ROD AROUND CULVERT & THROUGH TANK TYPE CONNECTOR LUG OR ALTERNATE CONNECTOR STRAP (SEE DETAIL)



TYPE 1
FOR 12" THRU 24" CORR. PIPE

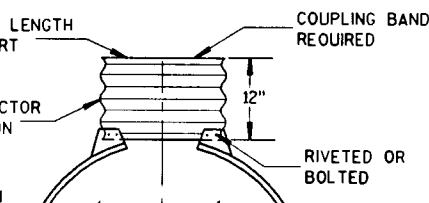
THREADED 7/16" DIA. ROD OVER TOP OF APRON, SIDE LUGS TO BE RIVETED TO APRON



TYPE 2
FOR 30" THRU 96" CORR. PIPE

MEASURED LENGTH OF CULVERT

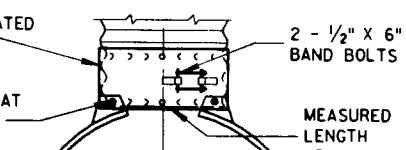
CONNECTOR SECTION TO BE PAID FOR AS PART OF END SECTION



TYPE 3
FOR 42" THRU 96" CORR. PIPE

DIMPLED OR CORRUGATED COUPLING BAND

RIVETED OR BOLTED AT DIMPLES (6" C-C FOR CORRUGATED BAND)



TYPE 5

ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

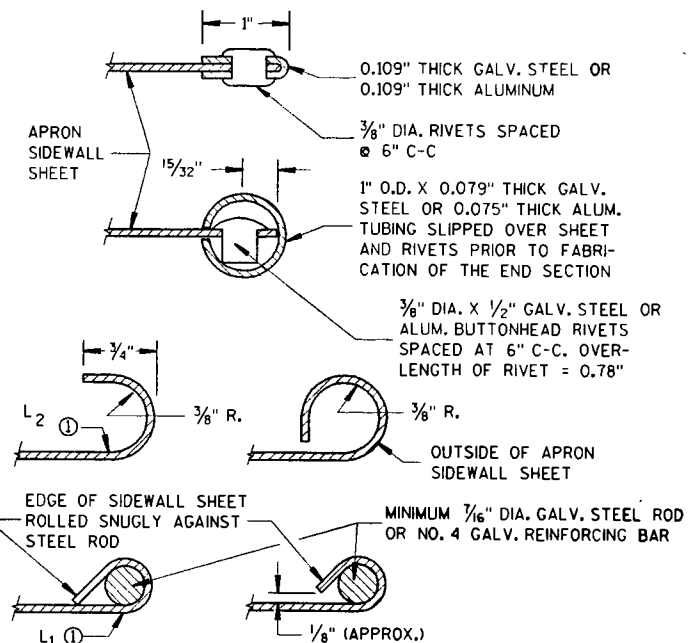
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 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
12/17/87
DATE

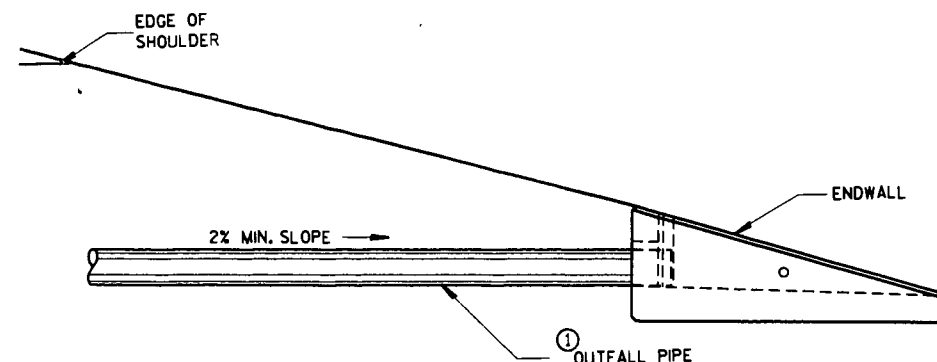
STATE DESIGN ENGINEER FOR HWYS

FHWA

S.D.D. 8 F 1-10a

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

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.

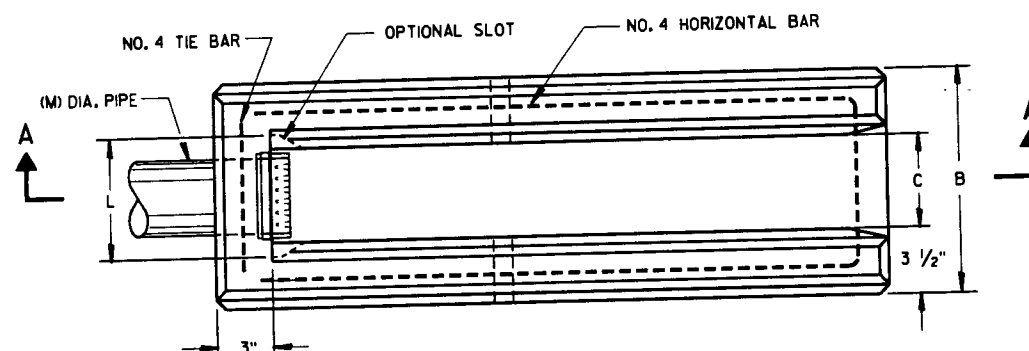
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

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.

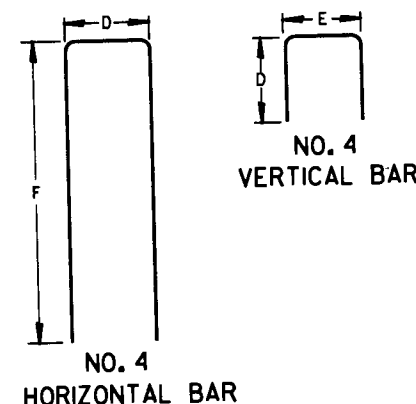
- THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHLORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHLORIDE) (PVC) SEWER PIPE 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.

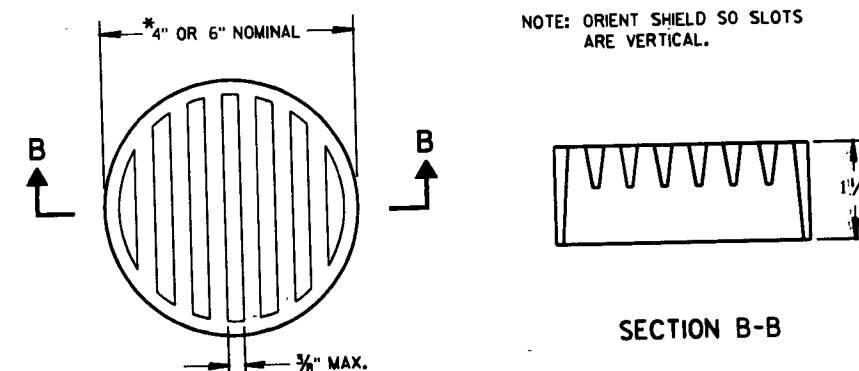
- THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL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



PLAN VIEW

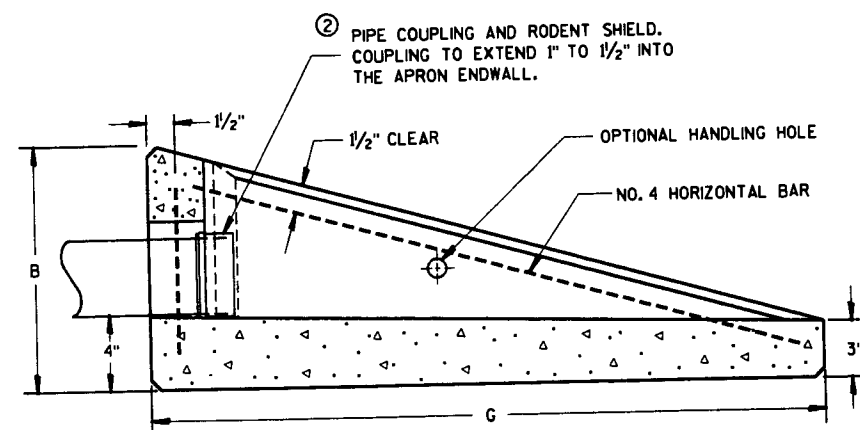


BAR STEEL REINFORCEMENT DETAILS

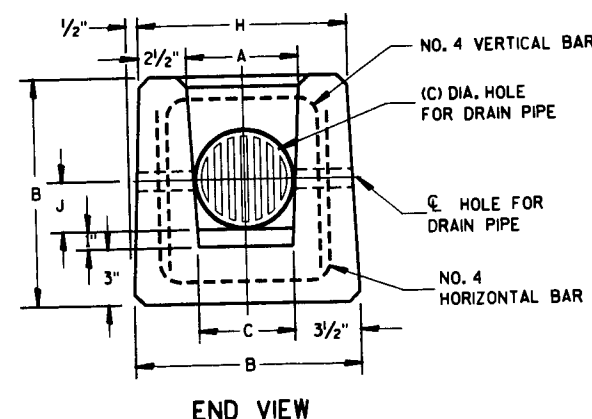


② RODENT SHIELD

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



SECTION A-A
CONCRETE APRON ENDWALL FOR UNDERDRAIN



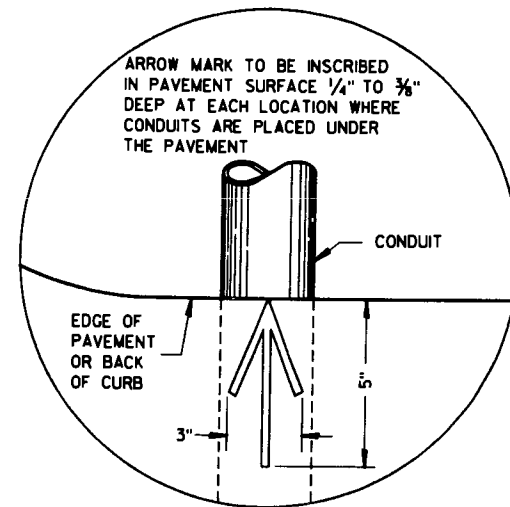
END VIEW

REINFORCED
CONCRETE APRON ENDWALL
FOR PIPE UNDERDRAIN

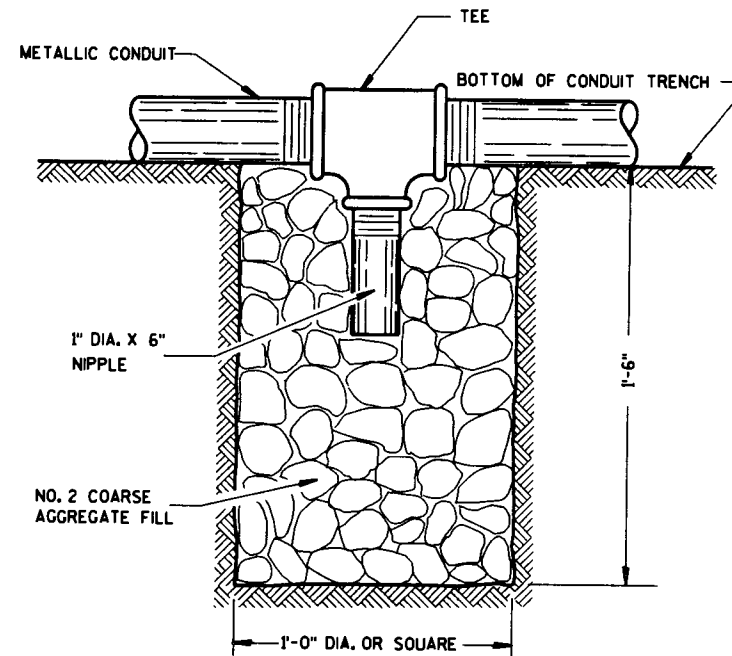
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 1/19/93
STATE DESIGN ENGINEER FOR HWYS

S.D.D. 8 F 6-3

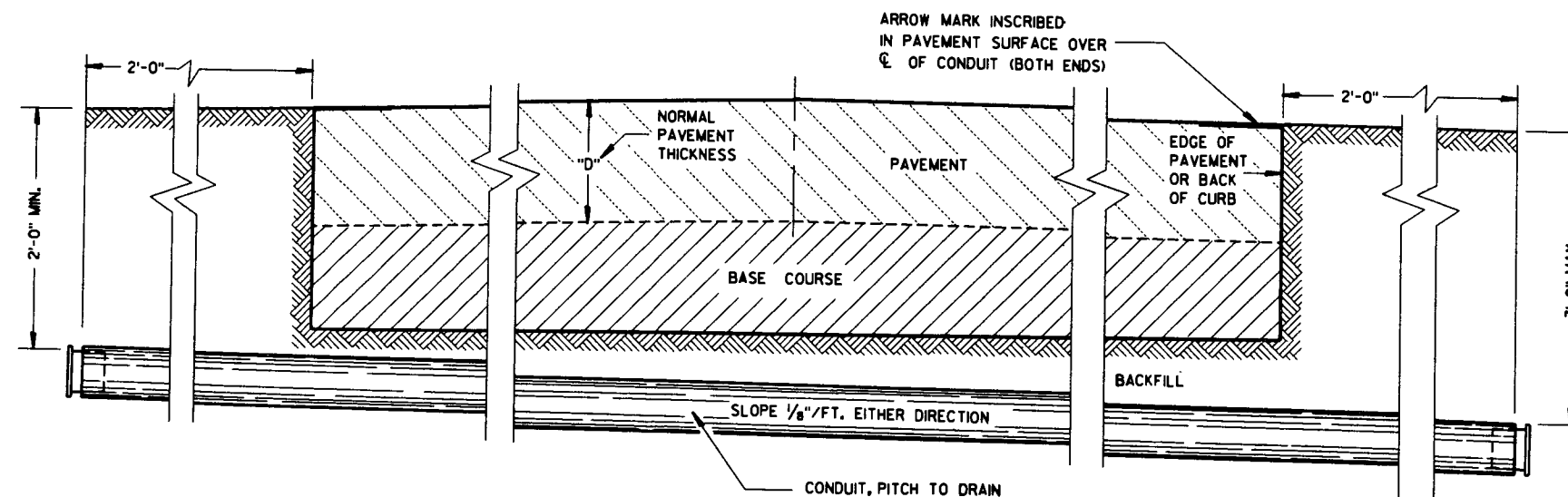


PLAN VIEW
ARROW MARK



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 EMERSION 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

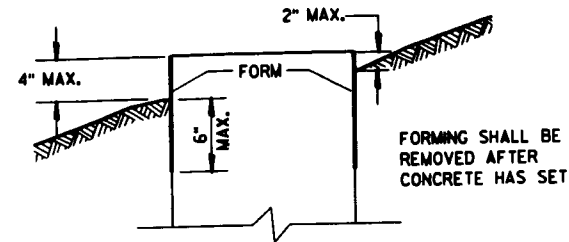
9/15/92

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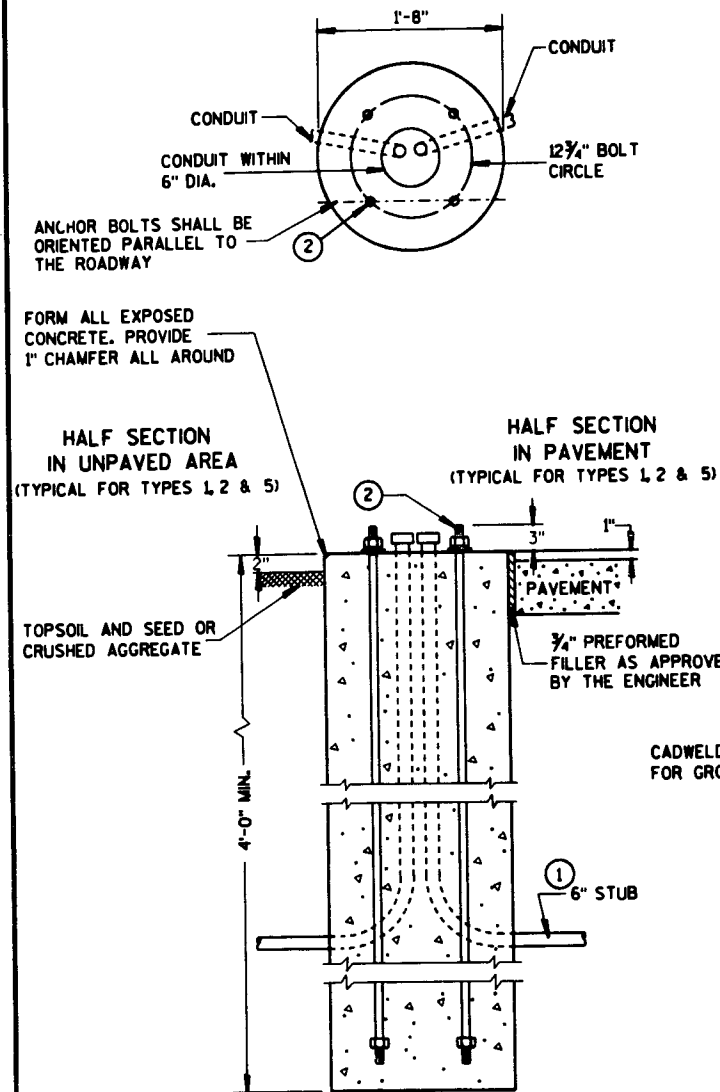
STATE ELECTRICAL ENGR FOR HWYS
STATE TRAFFIC ENGINEER FOR HWYS

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

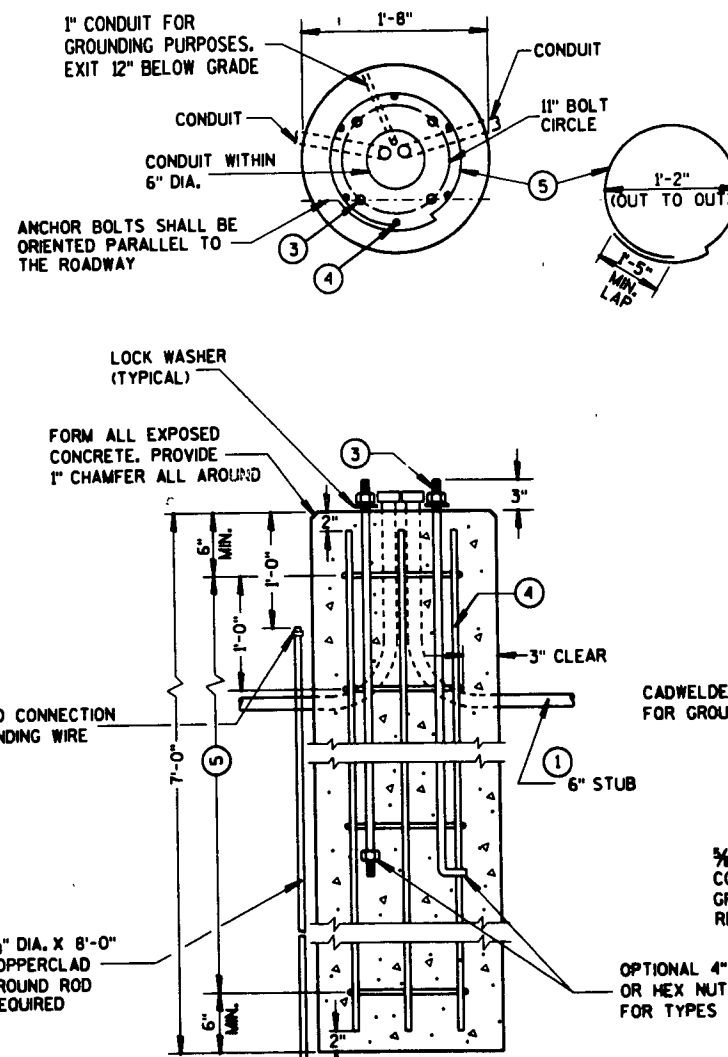


FORMING DETAIL

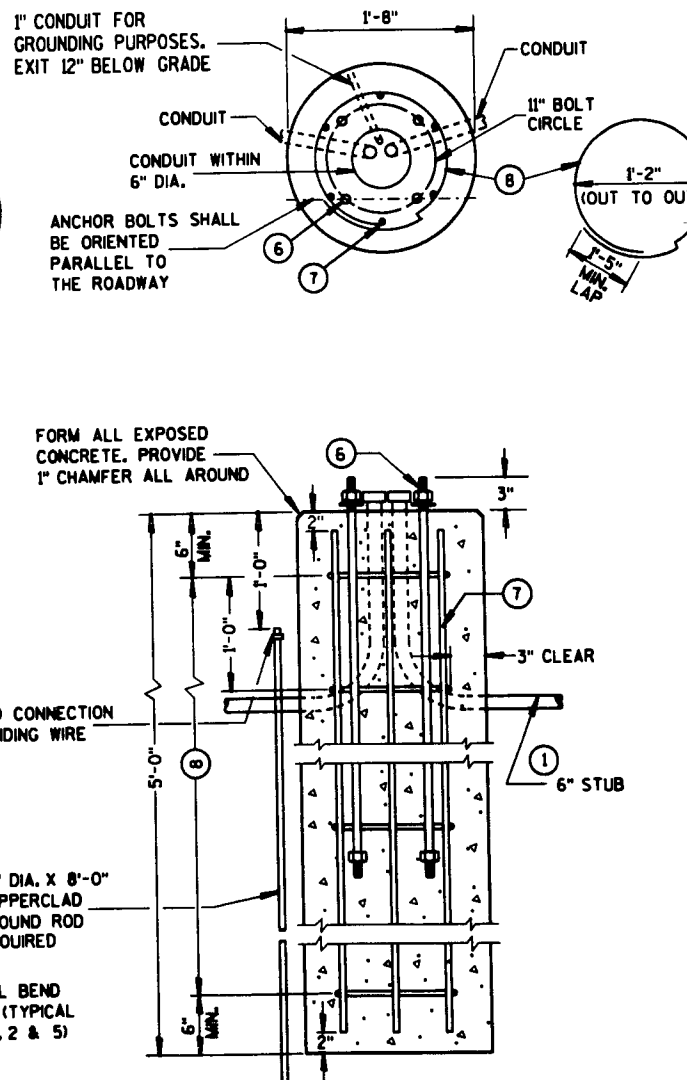
QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	.32	.57	.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18



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, AND ASTM A-449.

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

9/10/92

DATE

9/13/92

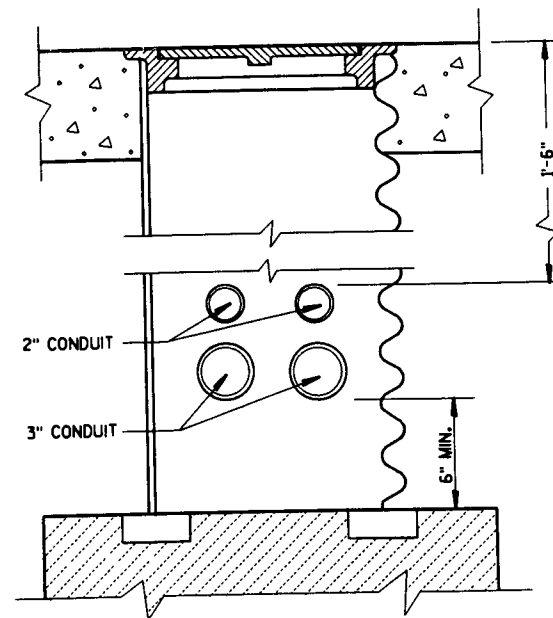
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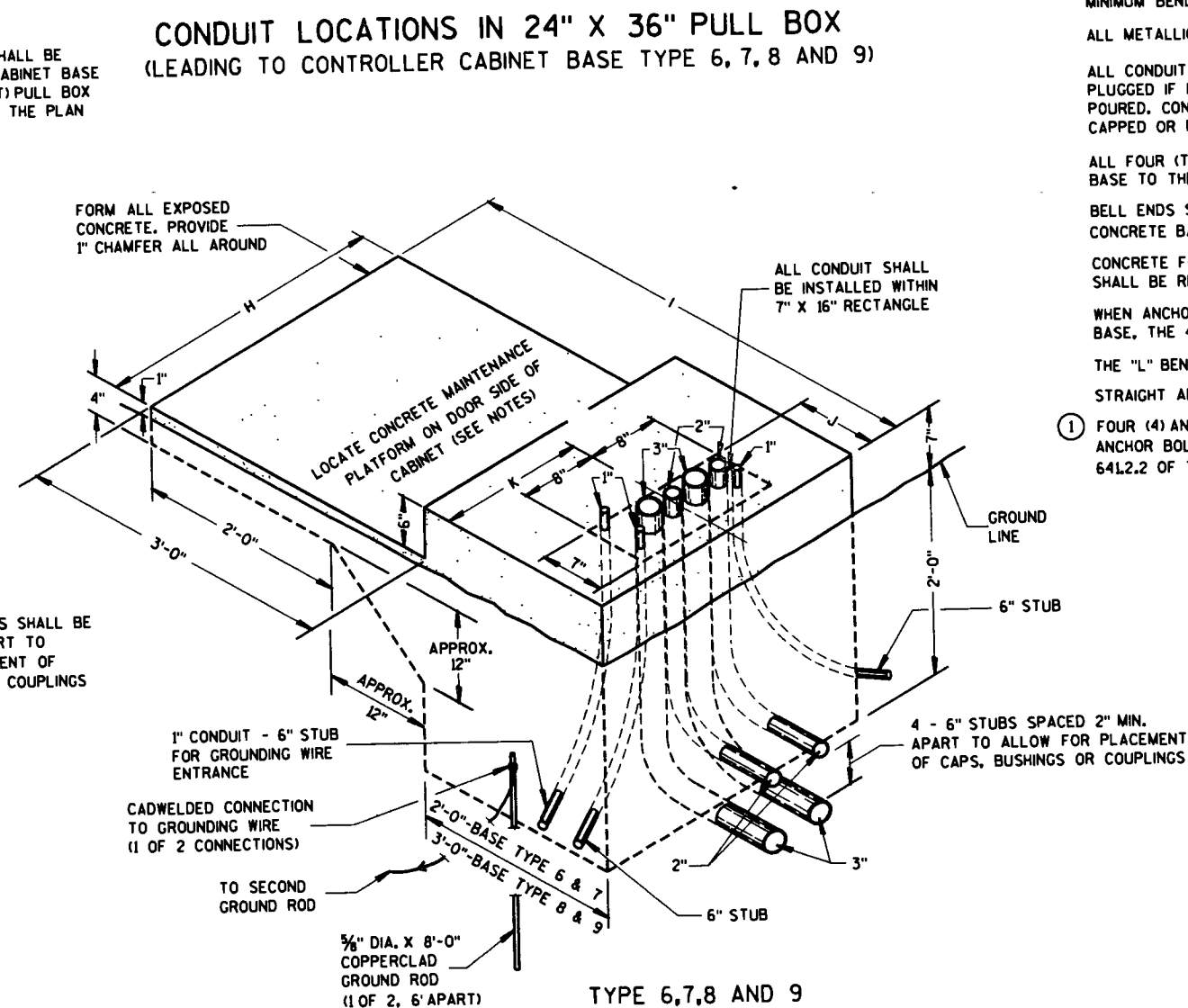
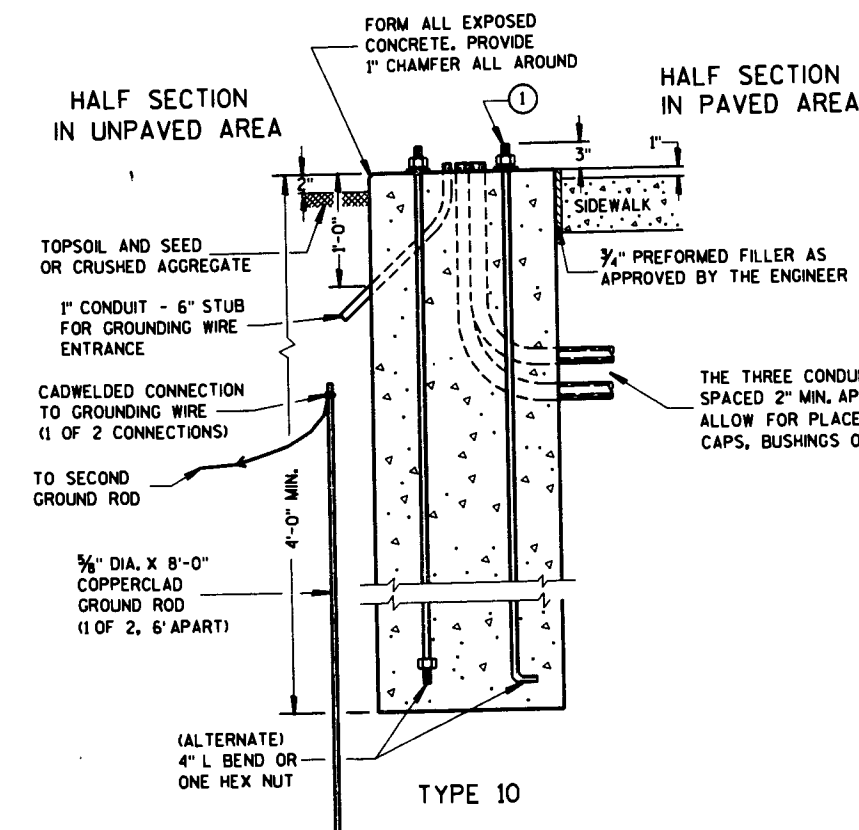
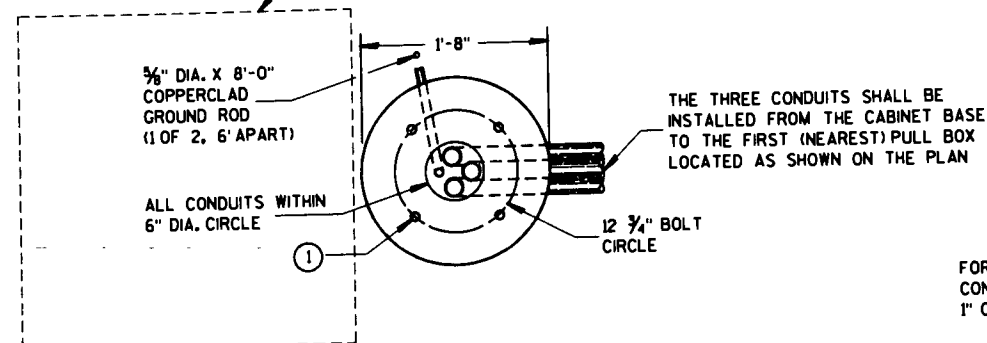
John J. Smith
STATE ELECTRICAL ENGR FOR HWYS

Robert J. Russell
STATE TRAFFIC ENGINEER FOR HWYS

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.32



TYPICAL 3'-0" X 3'-0"
MAINTENANCE PLATFORM.
LOCATION TO BE DETERMINED
IN THE FIELD.



GENERAL NOTES

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

INSTALL FOUR 1/2 INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR BOLTS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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 BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST) PULL BOX LOCATED AS SHOWN ON THE PLANS.

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

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR BOLTS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR BOLT BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR BOLTS SHALL BE THREADED 8" IN LENGTH ON EACH END OF THE BOLT.

- ① FOUR (4) ANCHOR BOLTS, 1" DIA. X 3'-6"
ANCHOR BOLTS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 640.2.9 AND
641.2.2 OF THE STANDARD SPECIFICATIONS AND IN ACCORDANCE WITH ASTM A-449.

CONCRETE CONTROL CABINET BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

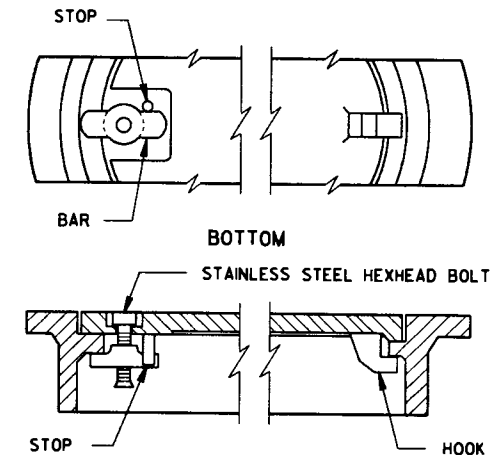
APPROVED
4/11/92 Dale Amato
DATE STATE ELECTRICAL ENGR FOR HWYS
9/15/92 Robert J. Russell
DATE STATE TRAFFIC ENGINEER FOR HWYS

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

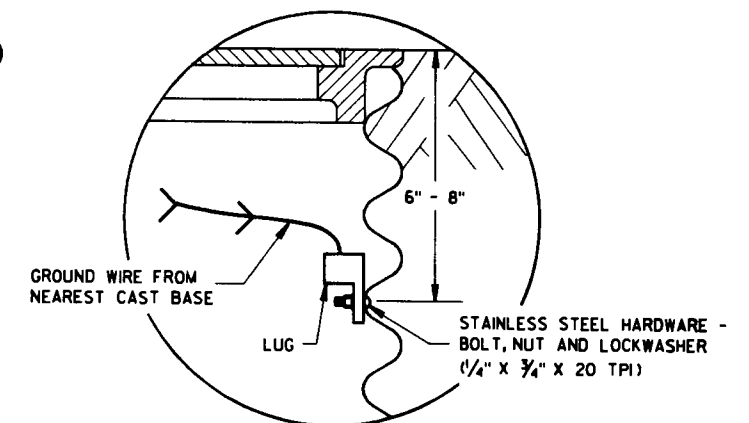
DIMENSION IN INCHES		TYPE OF PIPE						
		CORRUGATED STEEL						POLYETHYLENE SDR 32.5
PIPE DIAMETER (INSIDE)	A	12	12	18	18	24	24	12
PIPE LENGTH **	B	24	36	24	36	24	36	24
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.4
COVER	D	10 1/4	10 1/4	16 1/4	16 1/4	22 1/4	22 1/4	10 1/4
FRAME	E	14 1/2	14 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)



SECTION
ALTERNATE COVER (LOCKING)
TIGHTENING BAR TYPE



GROUNDING LUG
AND LOCATION IN
STEEL PULL BOXES

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.

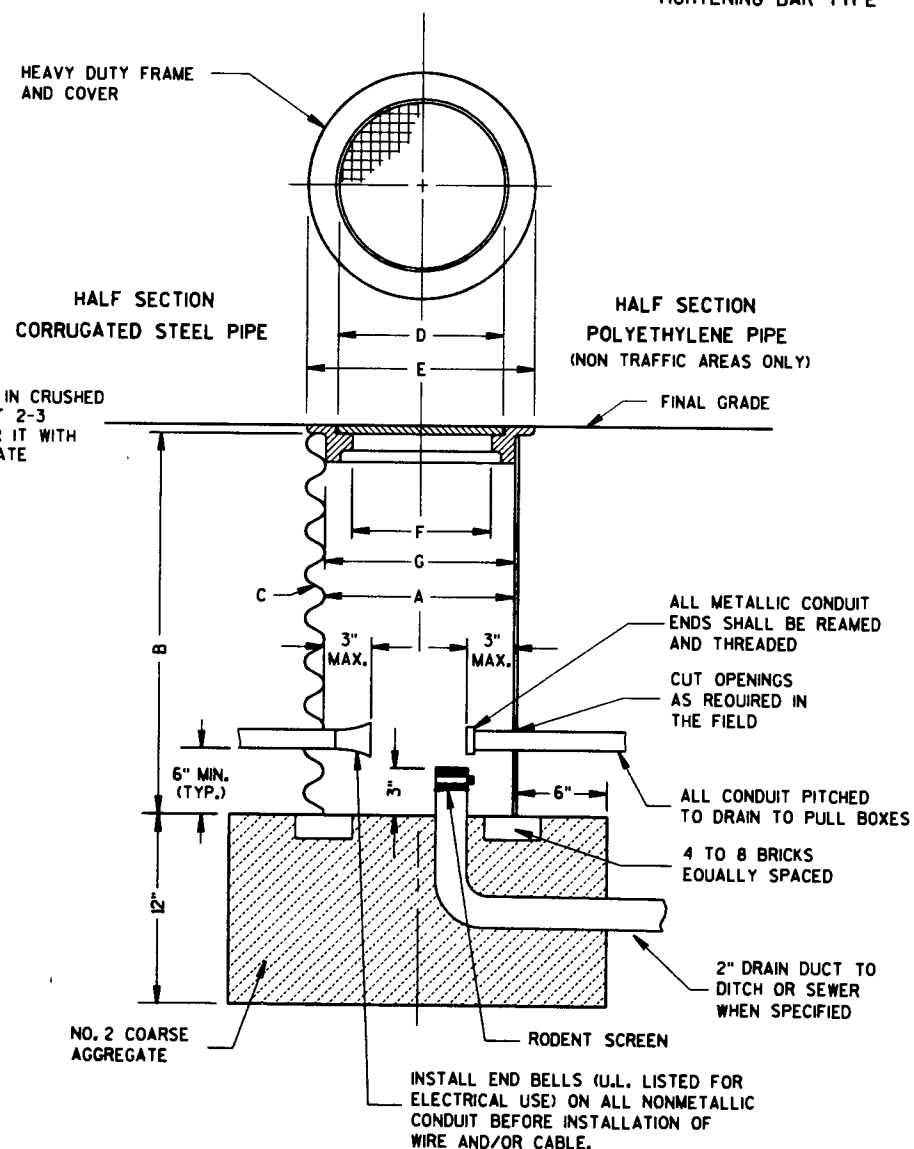
GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

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



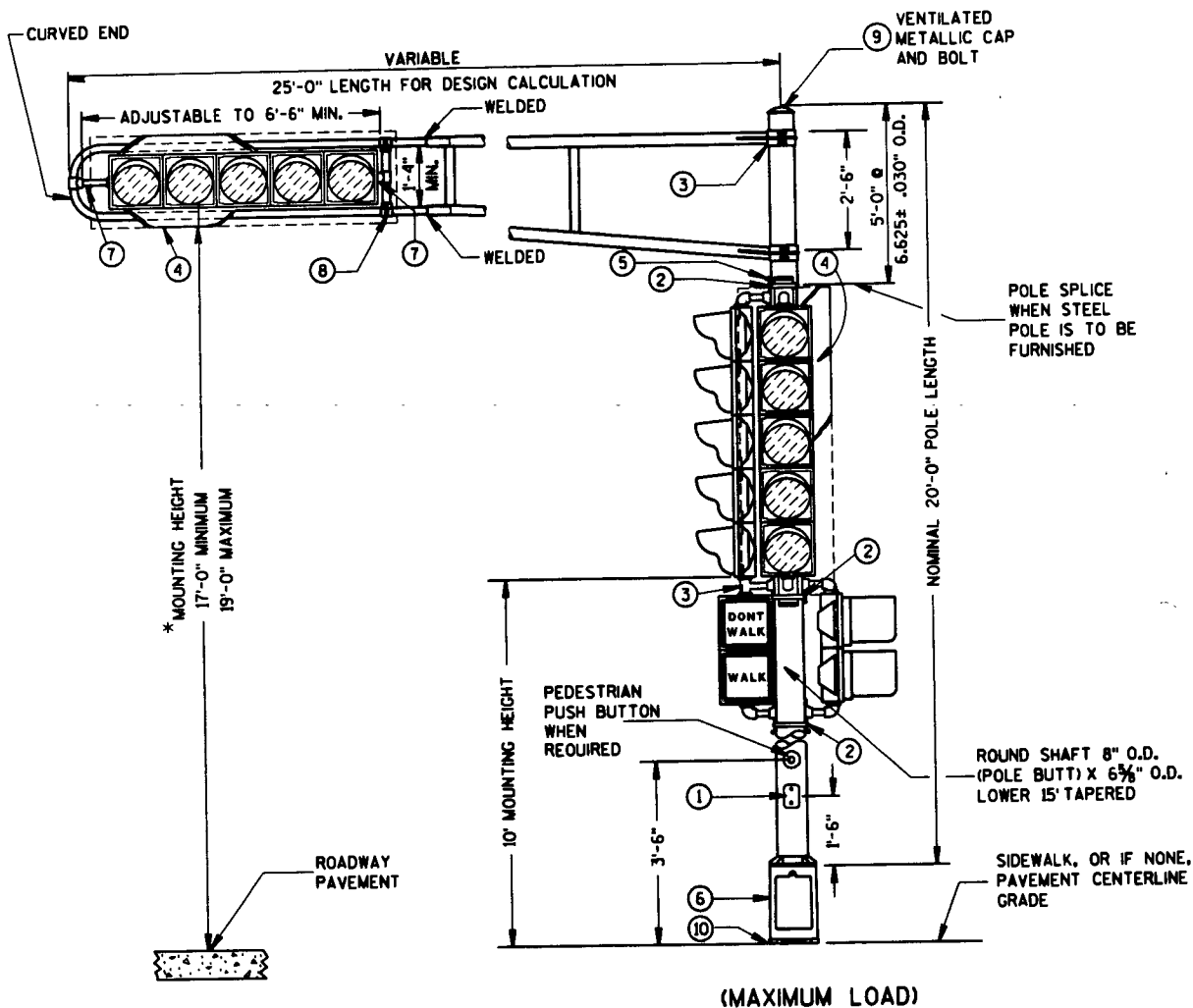
PULL BOX

PULL BOX

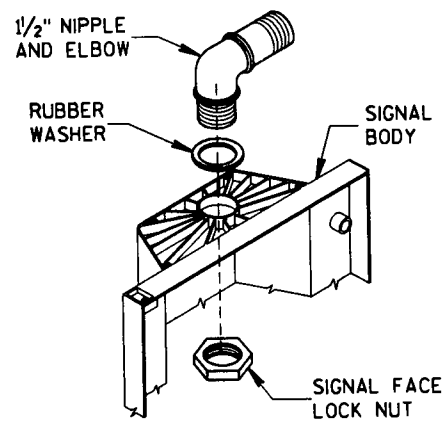
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/1/92
DATE
STATE TRAFFIC ENGINEER FOR HWYS

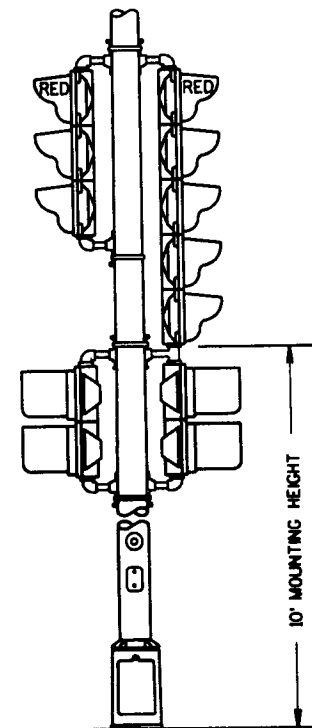
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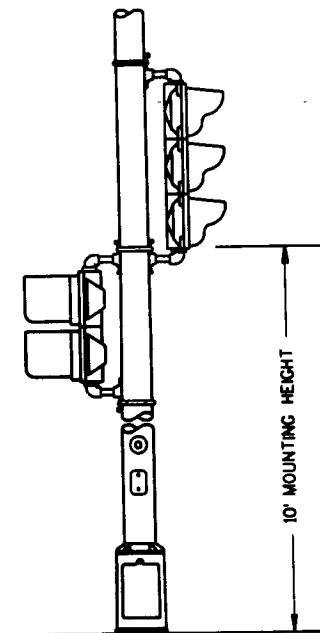
(MAXIMUM LOAD)



SIGNAL FACE MOUNTING DETAIL

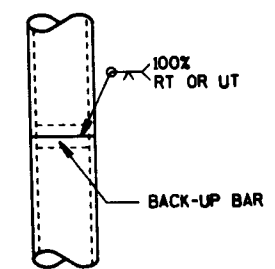


TYPICAL MOUNTING OF BACK TO BACK
3 AND 5 SECTION SIGNAL FACES



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.



POLE SPLICE DETAIL

GENERAL NOTES

1. 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) 1/4" X 3/4" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
2. SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE SPECIAL PROVISIONS).
3. GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 1/8" HOLE IN POLE SHAFT FOR WIRING.
4. BACKBOARDS ARE REQUIRED AT ALL TIMES ON TROMBONE MAST ARM MOUNTED SIGNAL FACES. VERTICAL MOUNTED SIGNAL FACES WITH BACKBOARDS REQUIRED ARE LOCATED AS SHOWN ON THE PLANS. BACKBOARDS ARE REQUIRED TO SURROUND SIGNAL FACES. BACKBOARDS SHALL EXTEND 5" BEYOND EXTREMITIES OF THE SIGNAL FACE.
5. POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACES.
6. CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
7. 1 1/2" PIPE THREAD ON THE MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE, NIPPLE SHALL BE 1 1/2" X 2".
8. VERTICAL STRUT (ADJUSTABLE), ONE (1) SET SCREW (1/4" X 3/4" LONG-20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.
9. FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
10. SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

*MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE/NON-USE OF A TRANSFORMER BASE.

NOTE:
SHEET SDD 9 B 11-20 IS REQUIRED WHEN THIS DRAWING IS CALLED FOR IN THE PLANS.

DESIGN NOTE: (WILL NOT APPEAR ON CONTRACT PLANS)

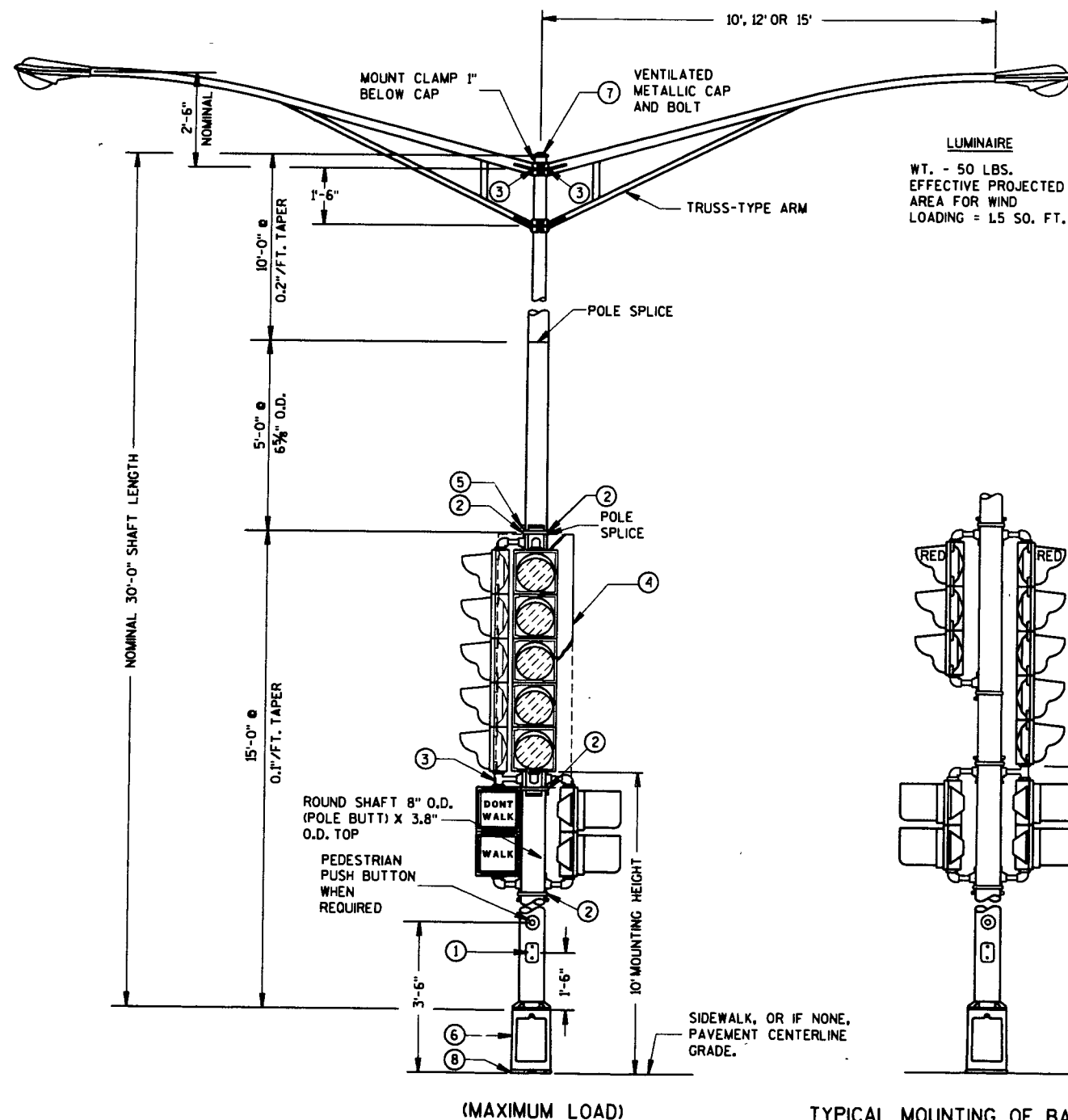
THIS DETAIL IS APPLICABLE WHEN SIGNALS ARE MOUNTED ON A TROMBONE ARM. DO NOT USE FOR LIGHTING.

POLE MOUNTINGS FOR
TRAFFIC SIGNALS
TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 9 B 11-20

DESIGN NOTE: (WILL NOT APPEAR ON CONTRACT PLANS)
USE THIS DETAIL FOR LIGHTING AND SIGNAL FACES.
DO NOT USE WITH TROMBONE ARM.

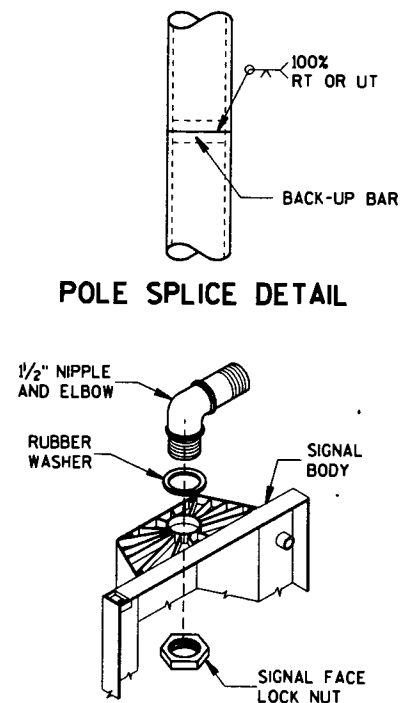


TYPICAL MOUNTING OF BACK TO BACK
3 AND 5 SECTION SIGNAL FACES

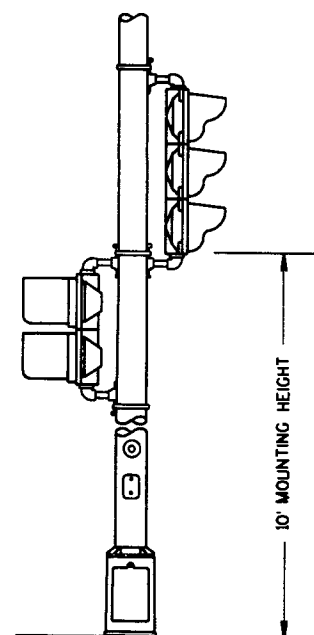
TYPE 4 POLE MOUNTING CONFIGURATION

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 THE SHIPMENT OF THE POLES. VERIFICATION AND APPROVAL OF THE TESTING CERTIFICATION FROM THE MANUFACTURER SHALL BE COMPLETED BY THE CENTRAL OFFICE BRIDGE SECTION.

POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL



TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE

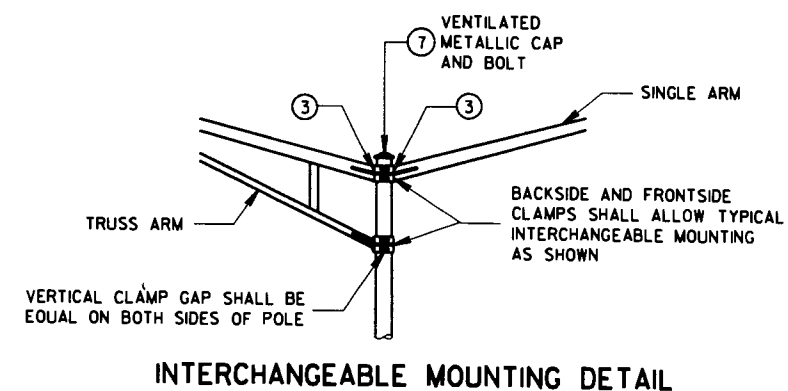
GENERAL NOTES

THE POLE USED IN THE TYPE 4 MOUNTING CONFIGURATION SHALL BE INTERCHANGEABLE WITH, AND MEET THE LOADING REQUIREMENTS OF A TYPE 3 POLE.

ALL LUMINAIRE POLE MOUNTINGS SHALL BE DESIGNED FOR TWIN 15' ARMS WITH LUMINAIRES.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

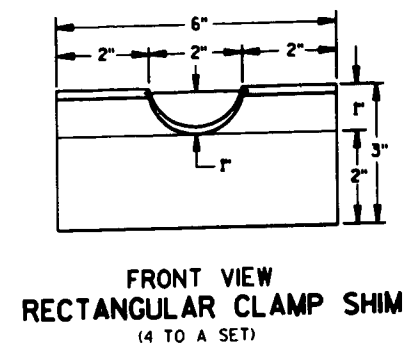
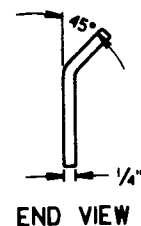
- ① 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) 1/4" X 3/4" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
- ② SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE SPECIAL PROVISIONS).
- ③ GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 1/2" HOLE IN POLE SHAFT FOR WIRING.
- ④ VERTICAL MOUNTED SIGNAL FACES WITH BACKBOARDS REQUIRED ARE LOCATED AS SHOWN ON THE PLANS. BACKBOARDS ARE REQUIRED TO SURROUND SIGNAL FACES. BACKBOARDS SHALL EXTEND 5" BEYOND EXTREMITIES OF SIGNAL FACE.
- ⑤ POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.
- ⑥ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ⑦ FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑧ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.



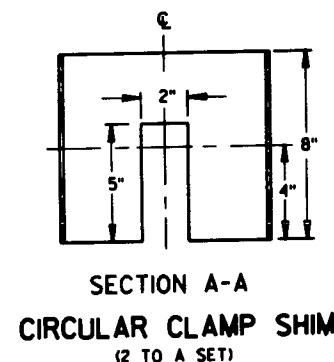
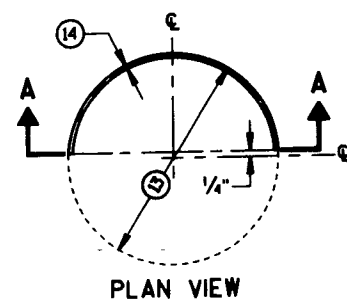
NOTE:
SHEET SDD 9 B 11-2c IS REQUIRED WHEN THIS
DRAWING IS CALLED FOR IN THE PLANS.

POLE MOUNTINGS FOR
TRAFFIC SIGNALS AND
LIGHTING UNITS, TYPE 4

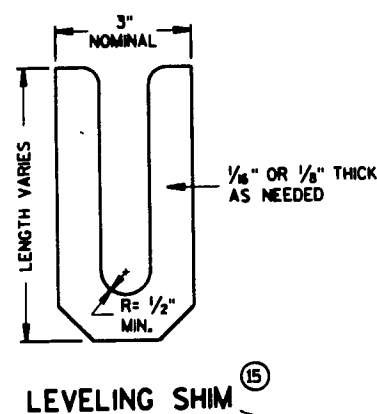
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



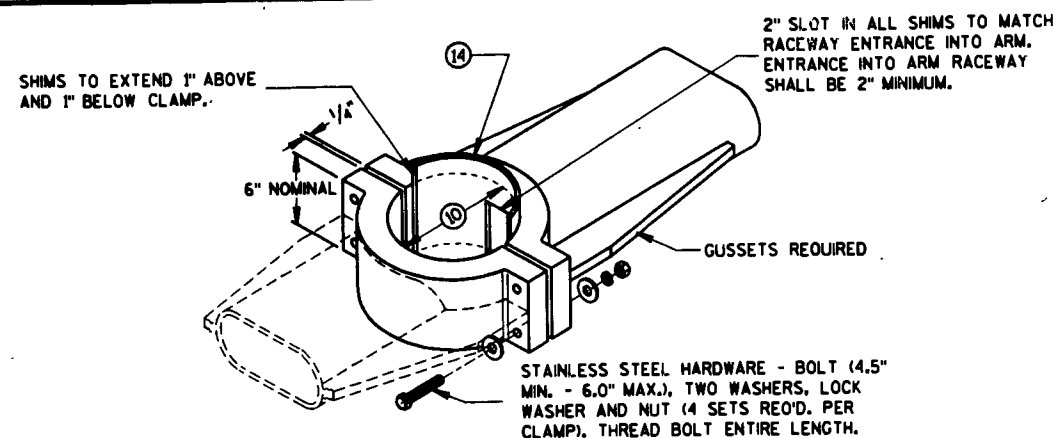
FRONT VIEW
RECTANGULAR CLAMP SHIM
(4 TO A SET)



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



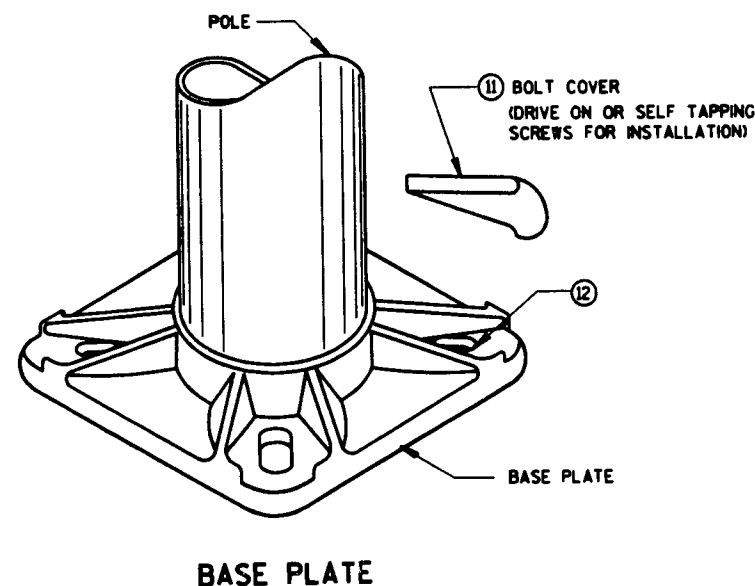
LEVELING SHIM (15)



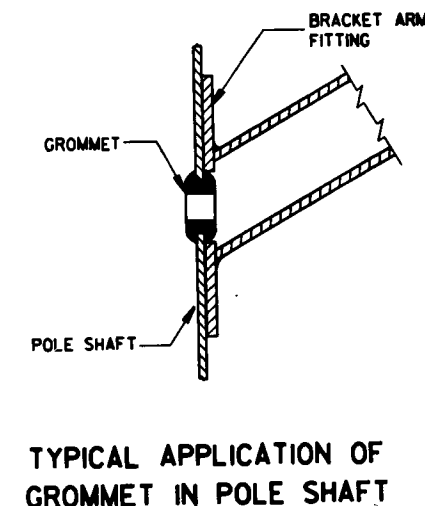
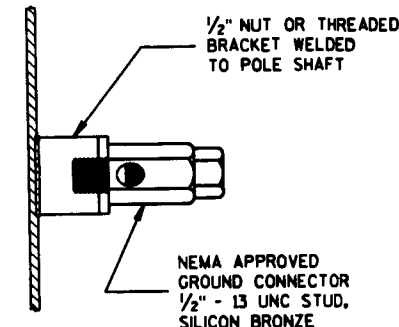
TYPICAL TROMBONE MAST ARM AND
LUMINAIRE MAST ARM MOUNTING CLAMP

GENERAL NOTES

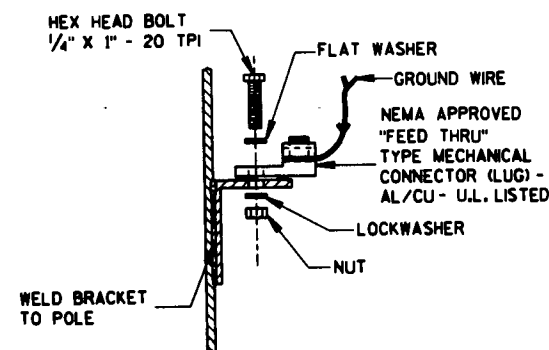
- (10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- (11) INDIVIDUAL BASE PLATE ANCHOR BOLT COVERS. (4 REQUIRED)
- (12) BASE PLATE SLOTTED TO ACCEPT 1" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR BOLTS.
- (13) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE 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

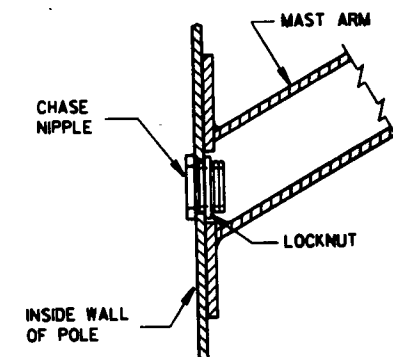


TYPICAL APPLICATION OF
GROMMET IN POLE SHAFT

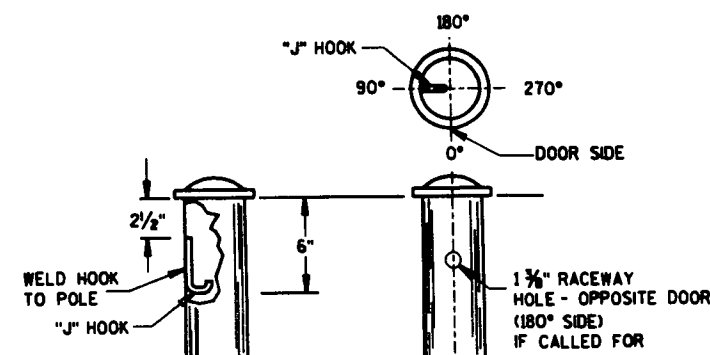


TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



TYPICAL APPLICATION OF
CHASE NIPPLE IN POLE SHAFT



TYPICAL "J" HOOK LOCATION

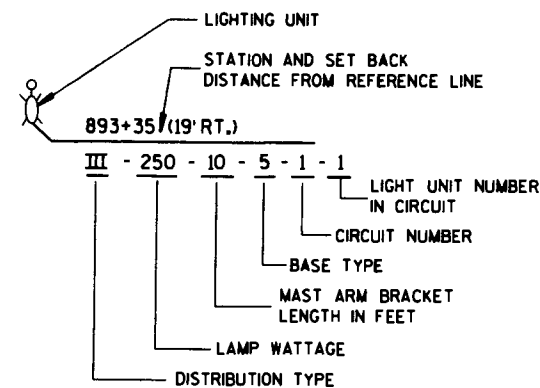
NOTE:
THIS DRAWING IS REQUIRED WHEN DRAWINGS
SDD 9 B 11-10, 11-11, OR 11-12 IS CALLED FOR IN
THE PLANS.

HARDWARE DETAILS FOR POLE MOUNTINGS

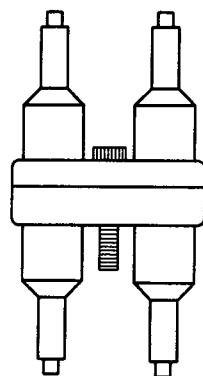
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/10/92 *John A. Smith*
DATE STATE ELECTRICAL ENGINEER FOR HWYS
9/15/92 *John A. Smith*
DATE STATE TRAFFIC ENGINEER FOR HWYS

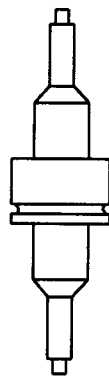
FHWA



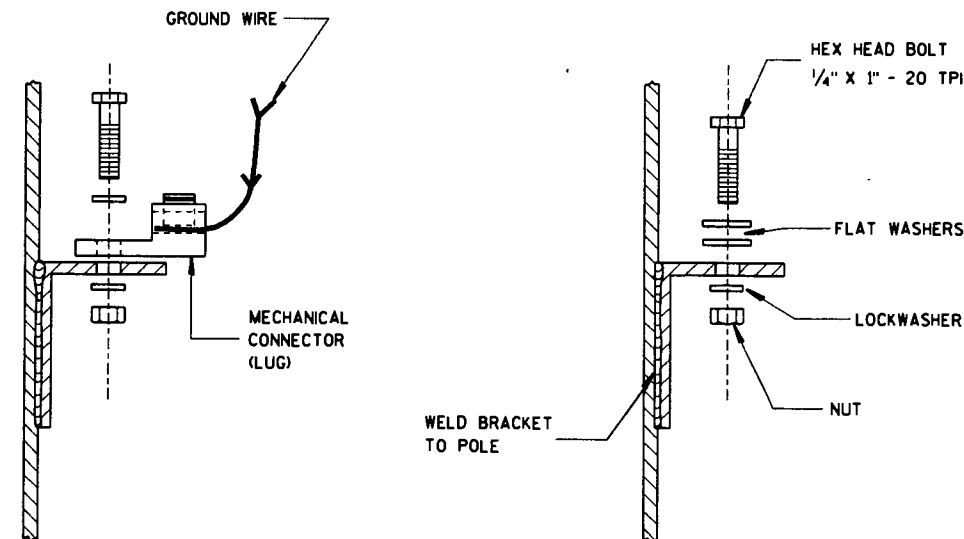
LIGHTING UNIT CODE



DETAIL "A"
DOUBLE POLE



DETAIL "B"
SINGLE POLE

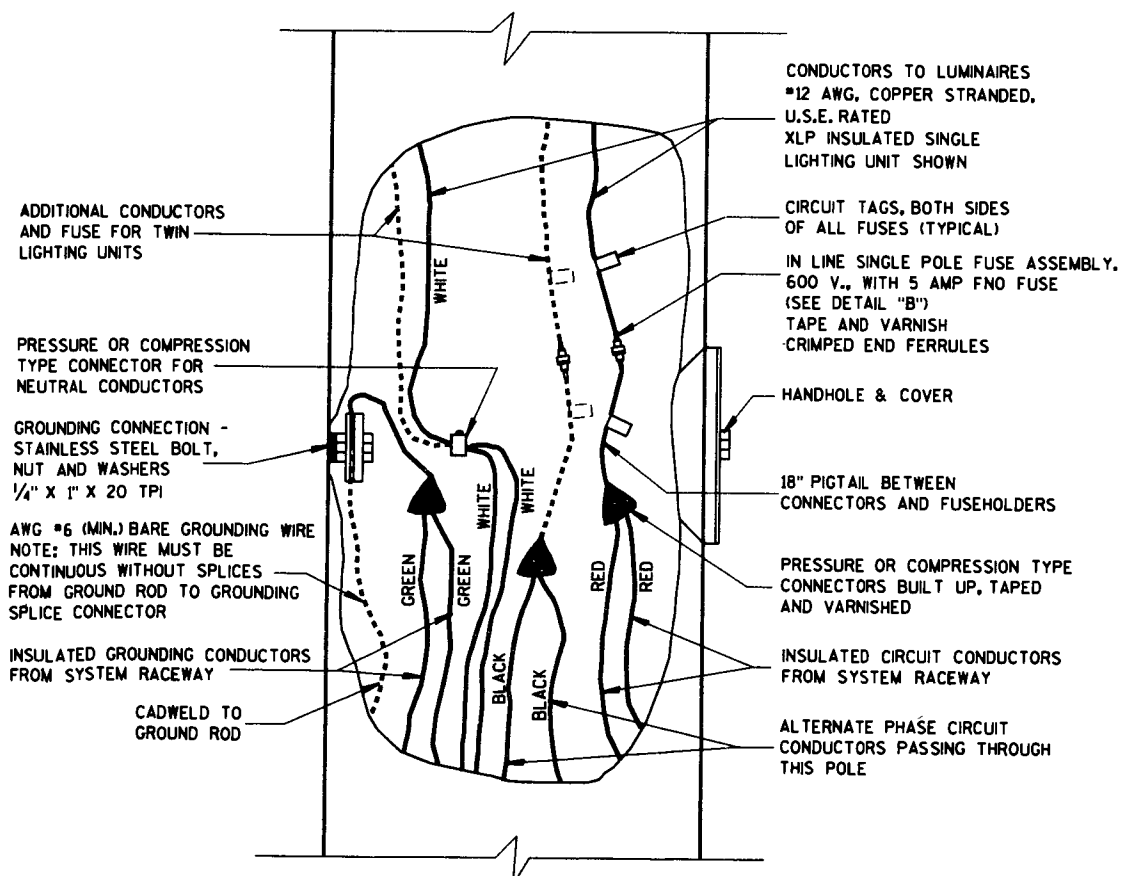


TYPICAL GROUNDING CONNECTIONS

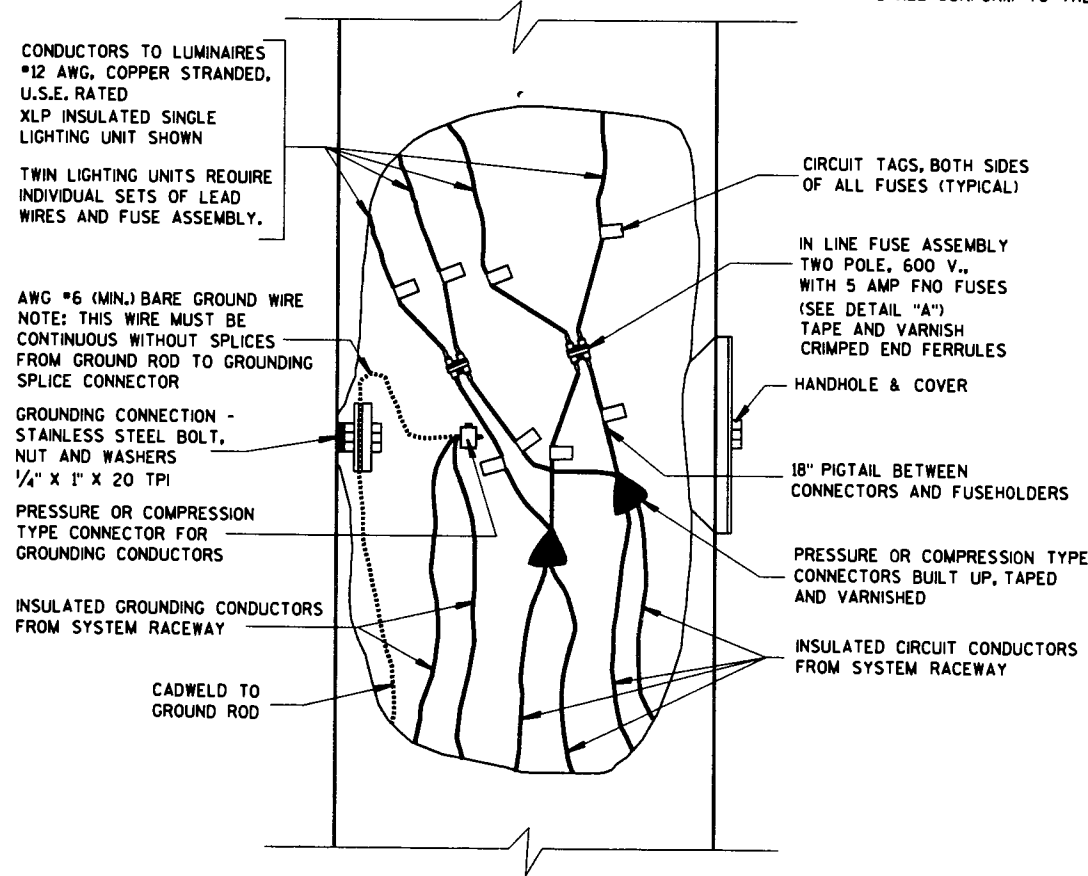
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

GENERAL NOTES

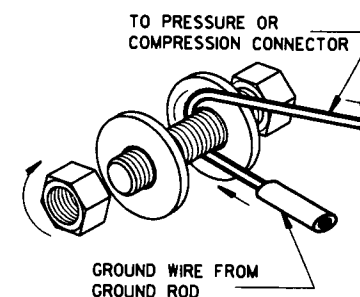
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.



3 WIRE - 120, 240 OR 480 VOLTS TO GROUND
2 WIRE - 120 VOLTS TO GROUND



2 WIRE - 240 OR 480 VOLTS (UNGROUND)



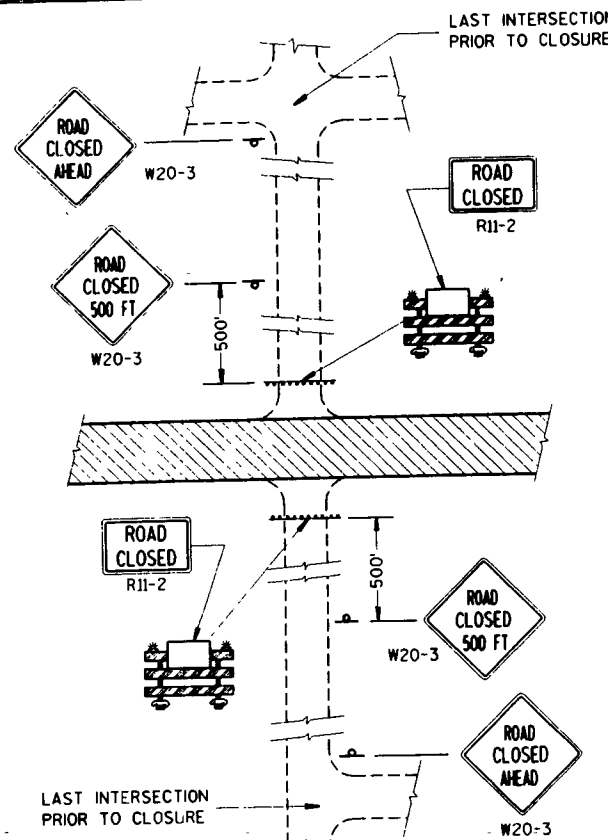
GROUND WIRE INSTALLATION
BETWEEN TWO WASHERS

NON-FREWAY LIGHTING UNIT
POLE WIRING

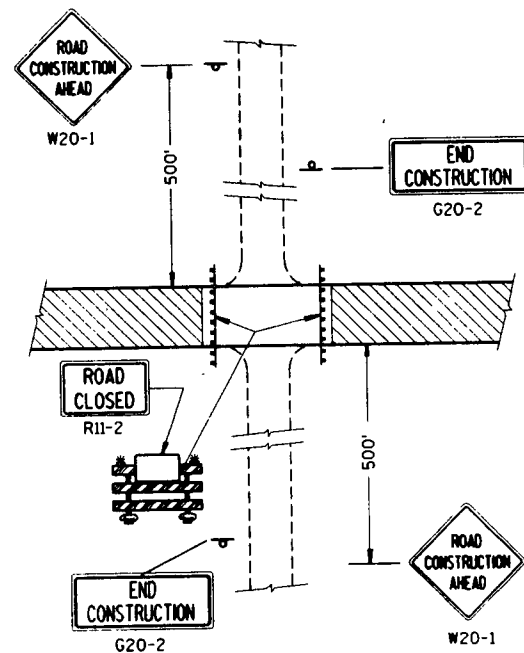
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/1/92
DATE
STATE TRAFFIC ENGINEER FOR HWYS

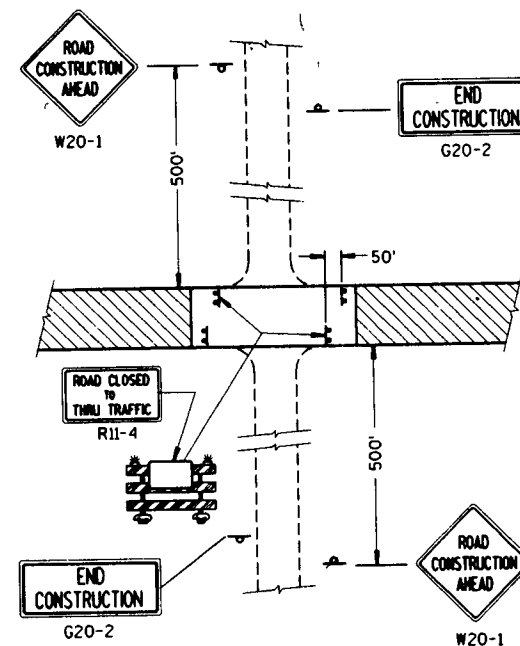
FHWA



DETAIL 1
(NO ACCESS TO PROJECT)

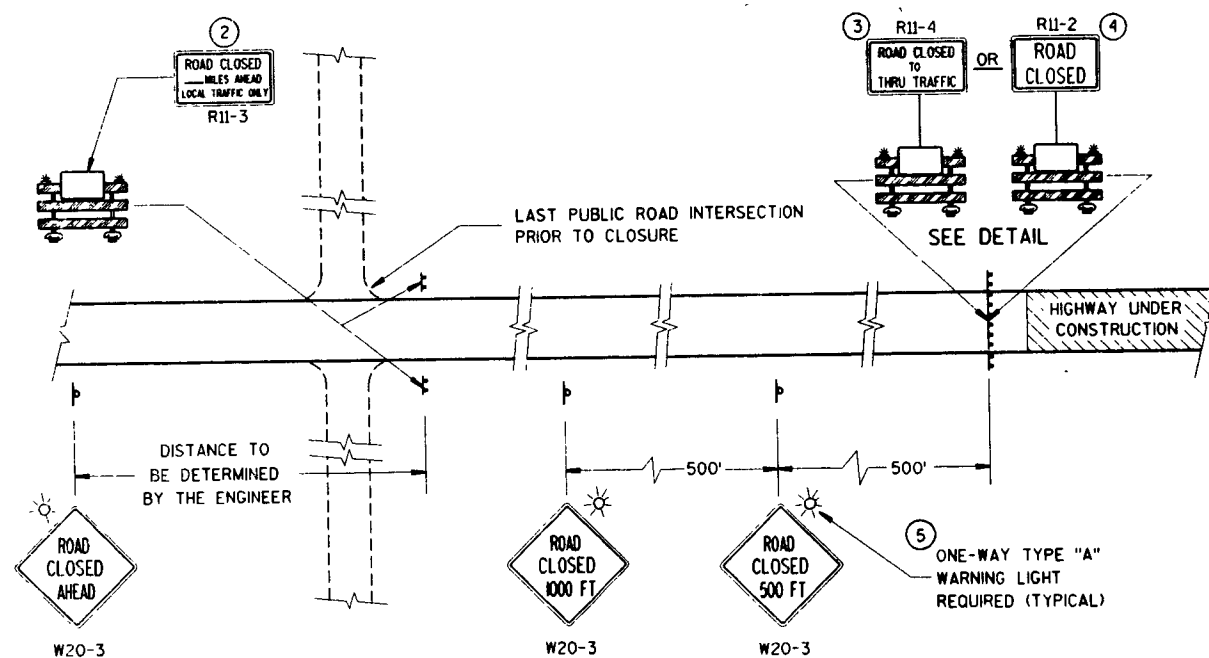


DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).

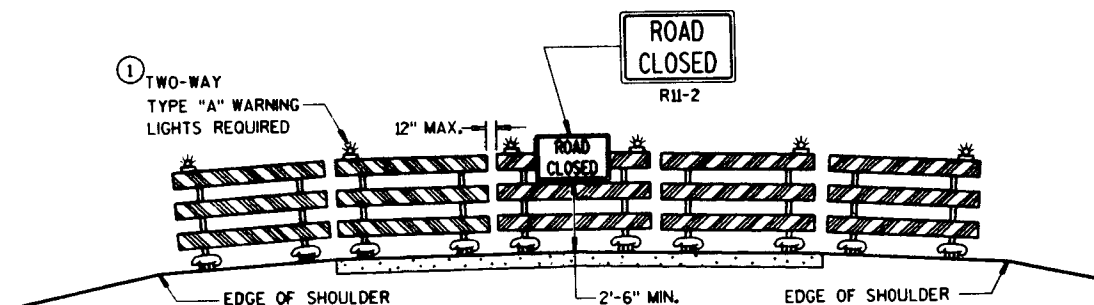


DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).

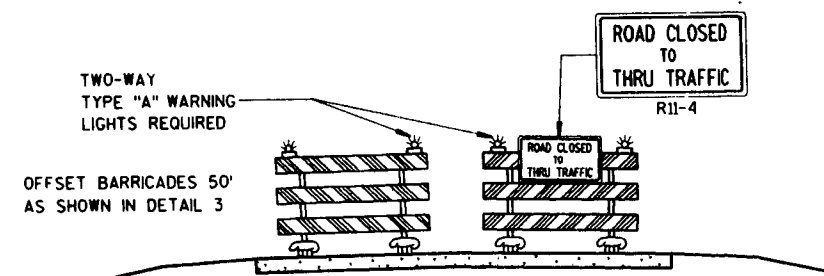
SIDEROAD CLOSURES



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".

G20-2 SIGNS SHALL BE 60" 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 UNIT SHALL BE POSITIONED SUCH THAT THE LIGHT SOURCE IS OUTSIDE THE SIGN FACE AND AT THE TOP OF THE SIGN.

LEGEND

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

BARRICADES AND TRAFFIC CONTROL FOR ROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-31-89
DATE

STATE TRAFFIC ENGINEER FOR HWYS

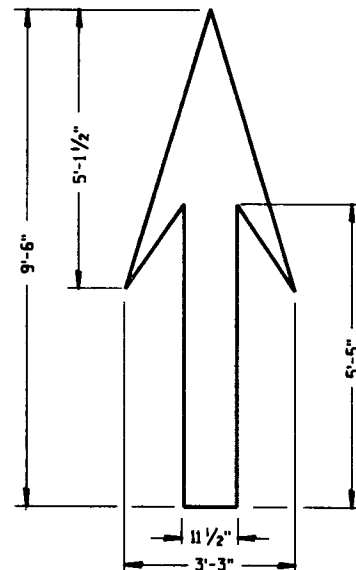
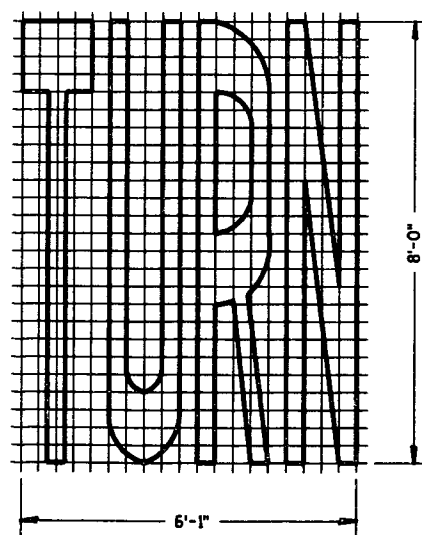
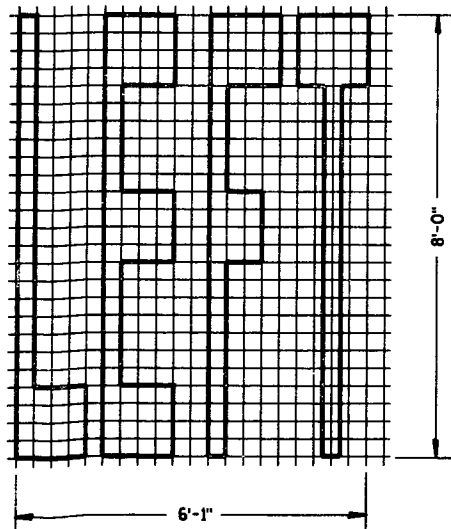
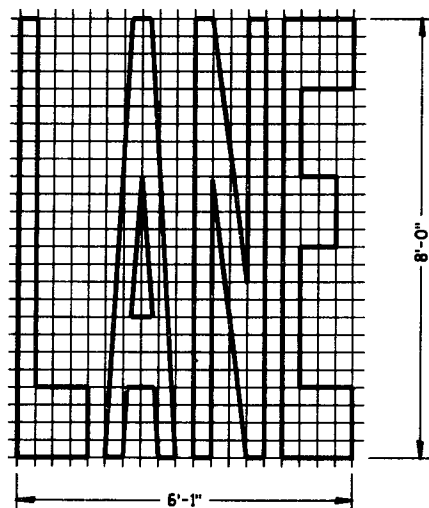
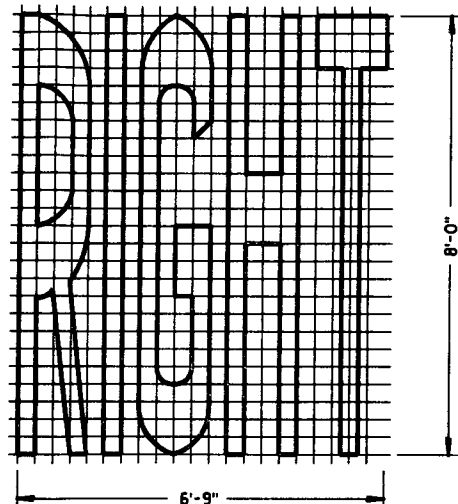
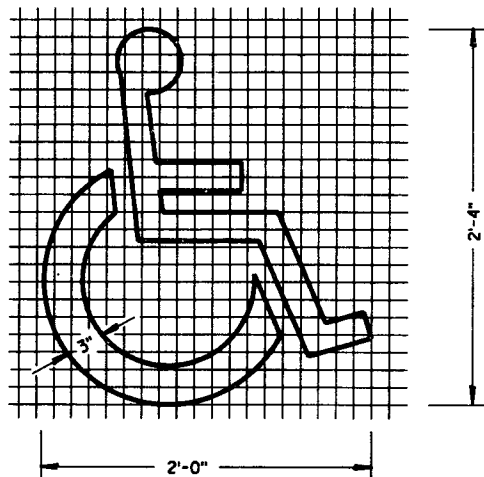
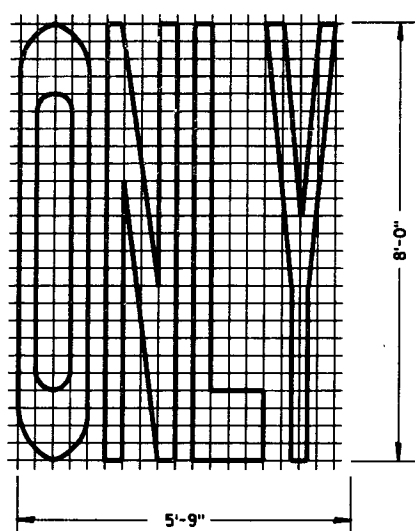
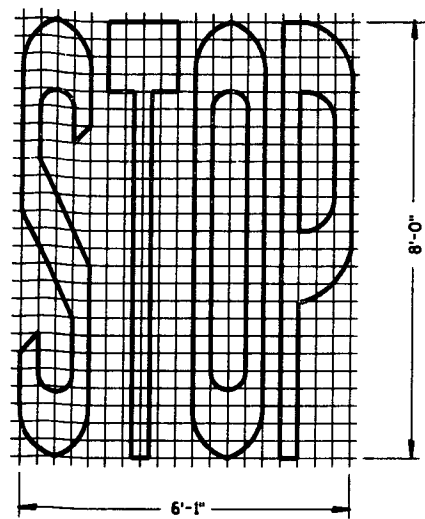
FHWA

GENERAL NOTES

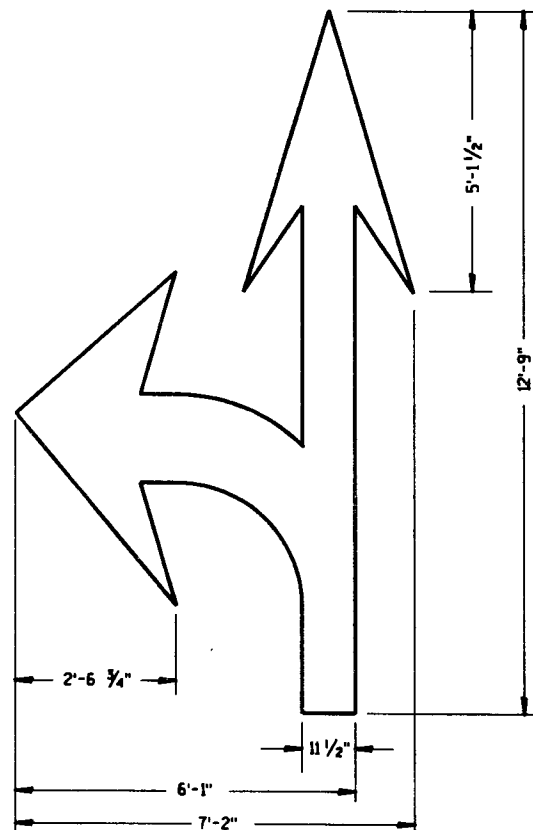
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

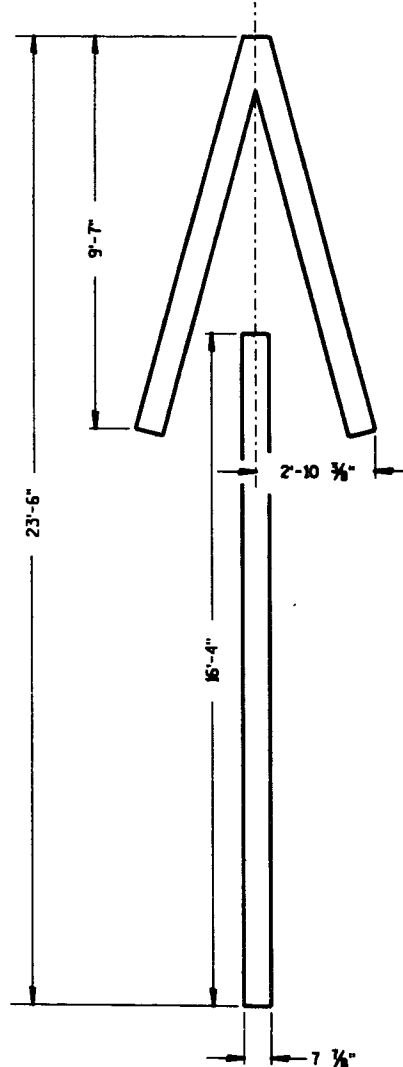
A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.



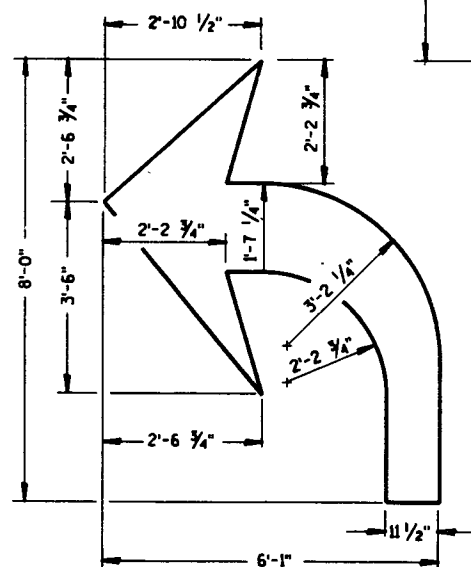
TYPE 1



TYPE 3



TYPE 4

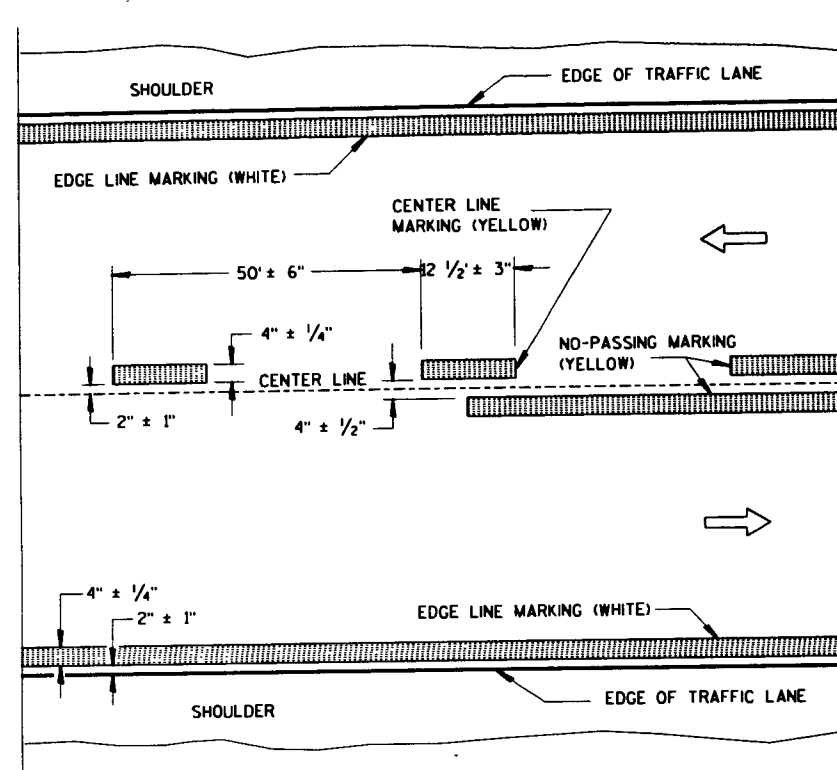


TYPE 2

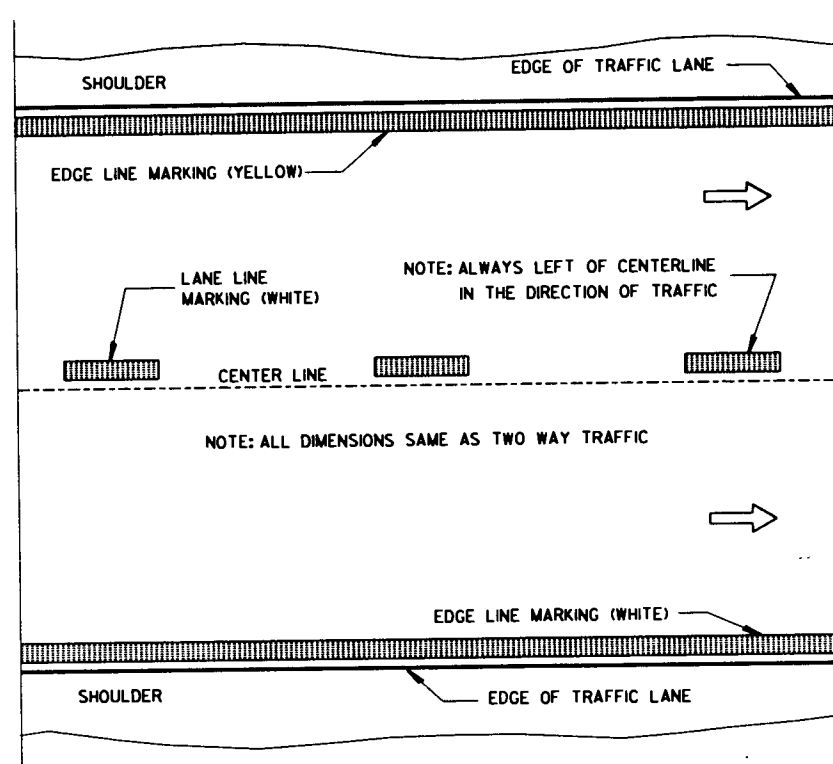
PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/23/92
DATE
STATE TRAFFIC ENGINEER FOR HWYS
FHWA

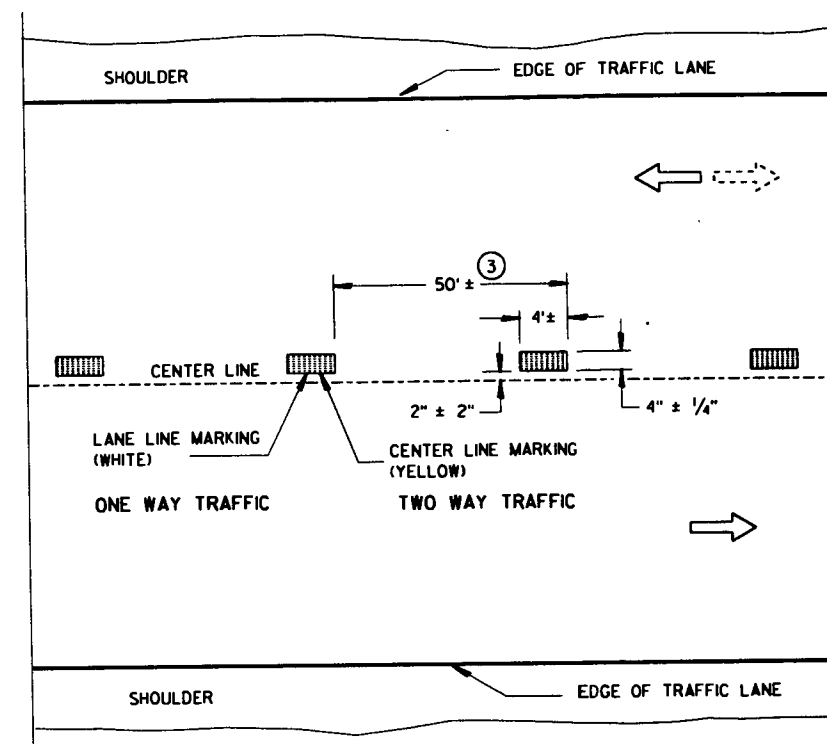


TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



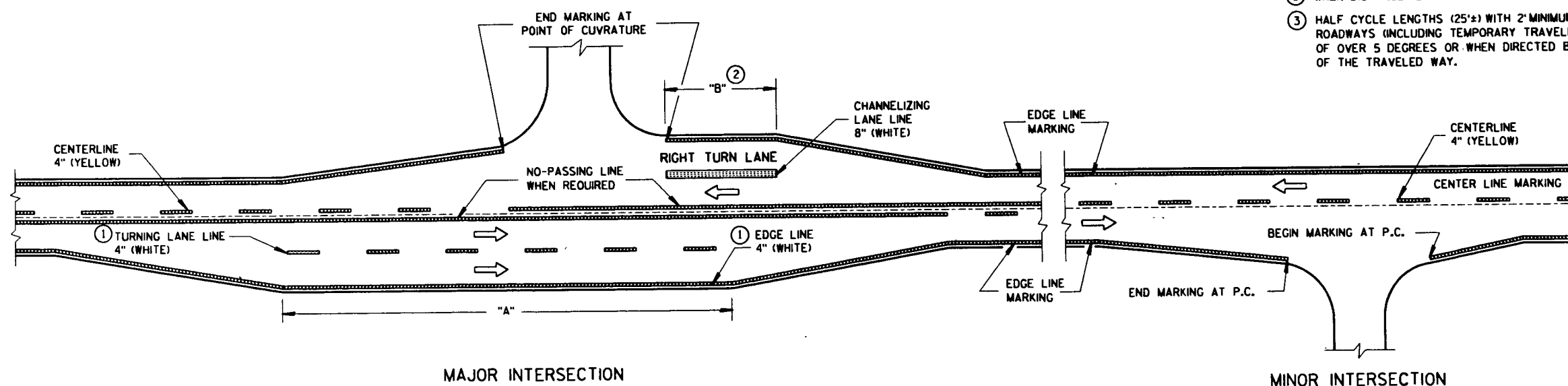
TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT TURNING LANE MARKING.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ 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.



TYPICAL PAVEMENT MARKING FOR RURAL INTERSECTIONS

NOTE: WHEN APPLICABLE, INCLUDE SDD 15C8-4b WITH THIS DRAWING IN PLANS.

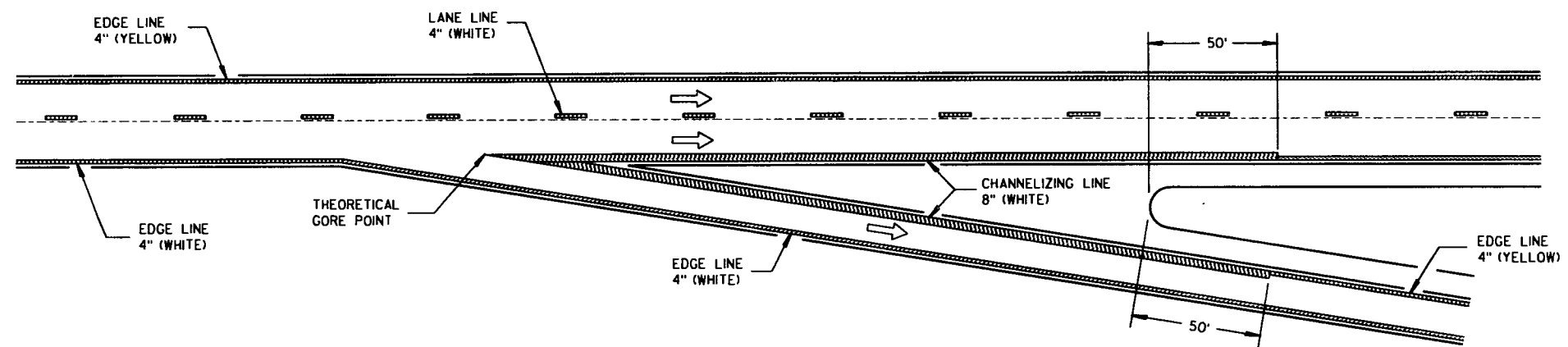
PAVEMENT MARKING
(MAINLINE & INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

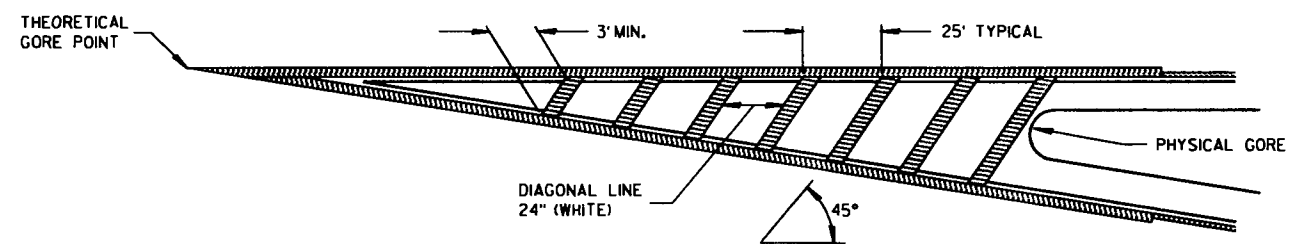
APPROVED
3/17/92
DATE

John F. Rusch
STATE TRAFFIC ENGINEER FOR HWYS

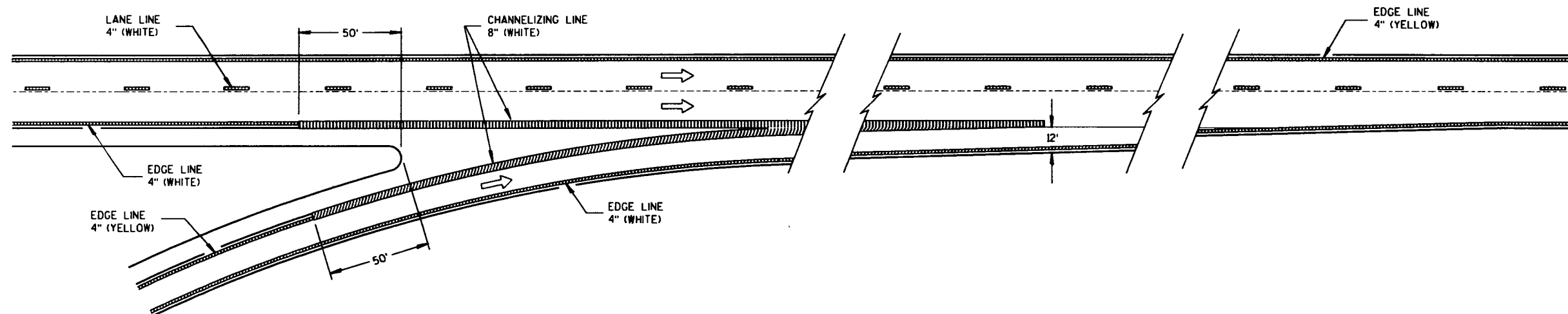
FHWA



TYPICAL EXIT RAMP MARKING



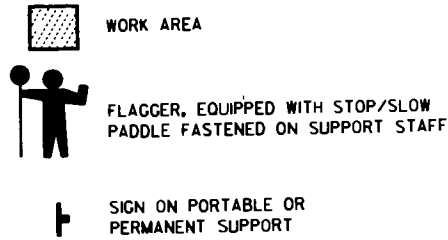
CROSS-HATCH LINES AT
EXIT RAMP GORES WHEN REQUIRED



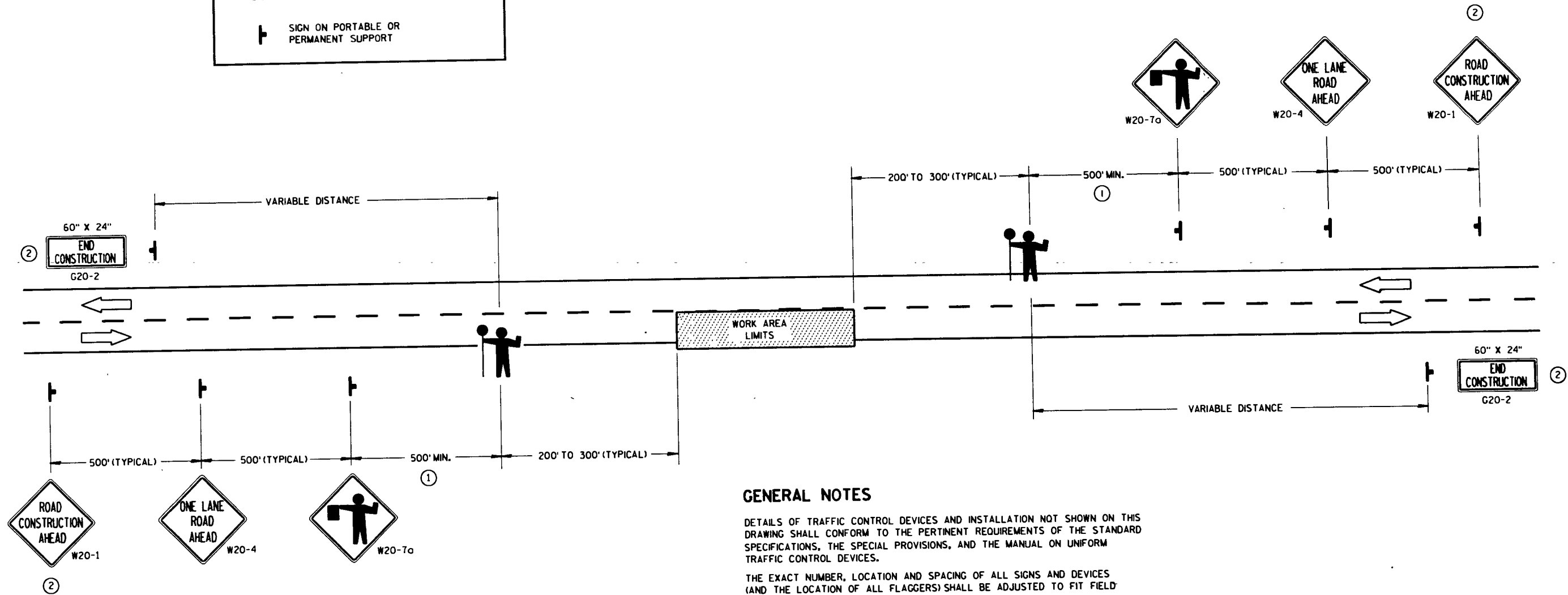
TYPICAL ENTRANCE RAMP MARKINGS

TWO-LANE ROADWAY

SYMBOLS



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.



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 CONSTRUCTION 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.

- 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 CONSTRUCTION WORK ZONE AREA.

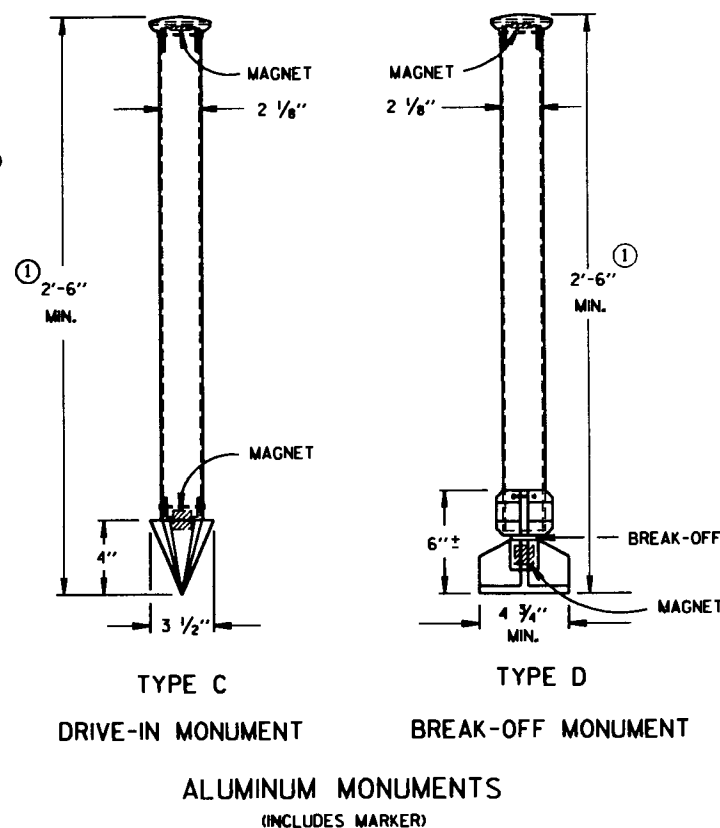
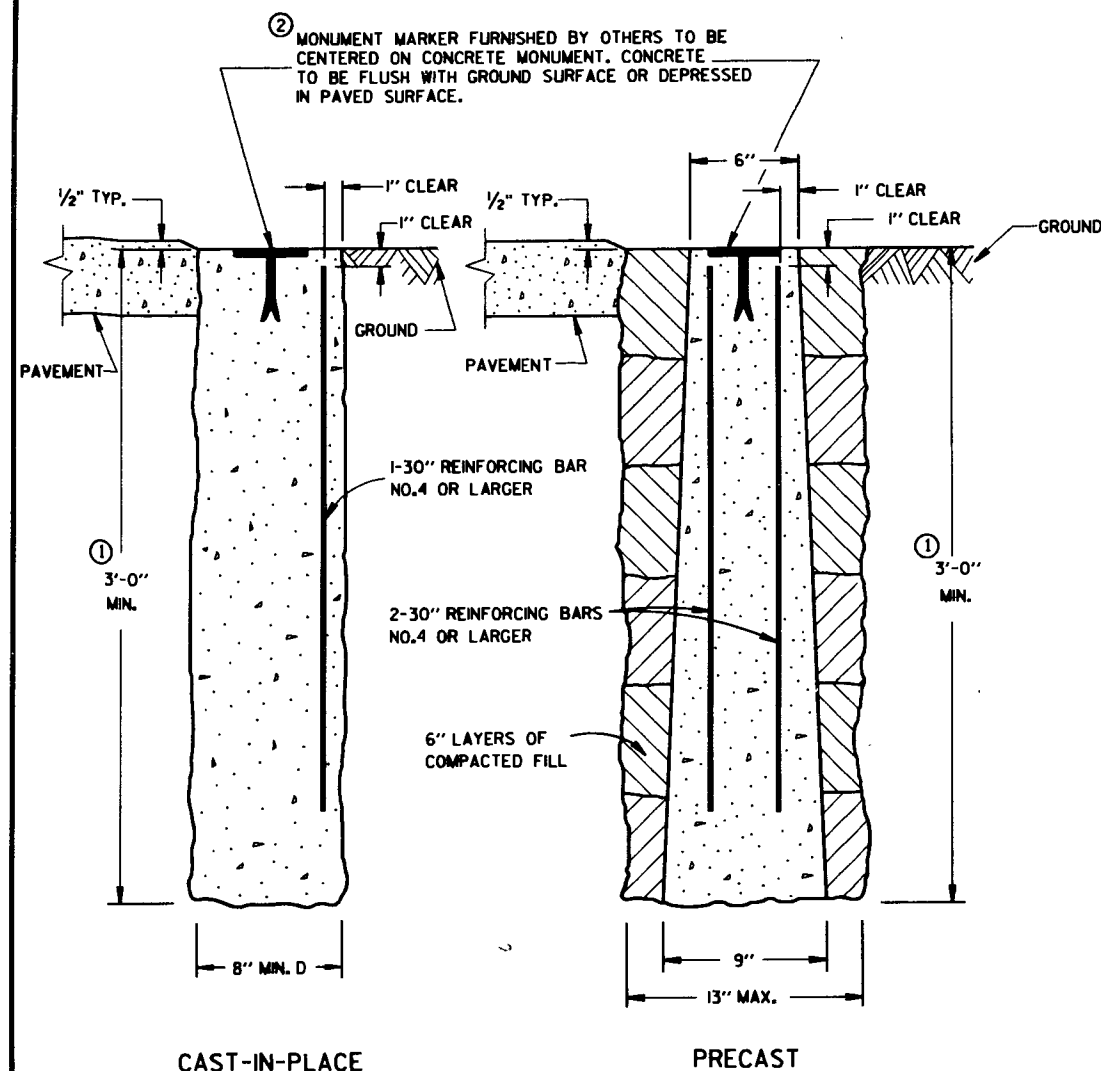
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2-12-91
DATE

STATE TRAFFIC ENGINEER FOR HWYS

FHWA



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 OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

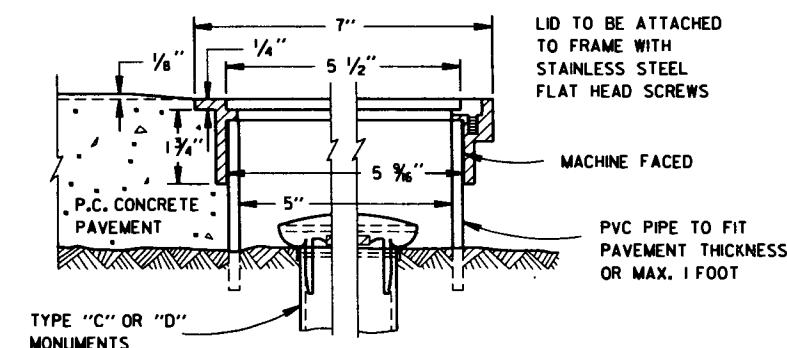
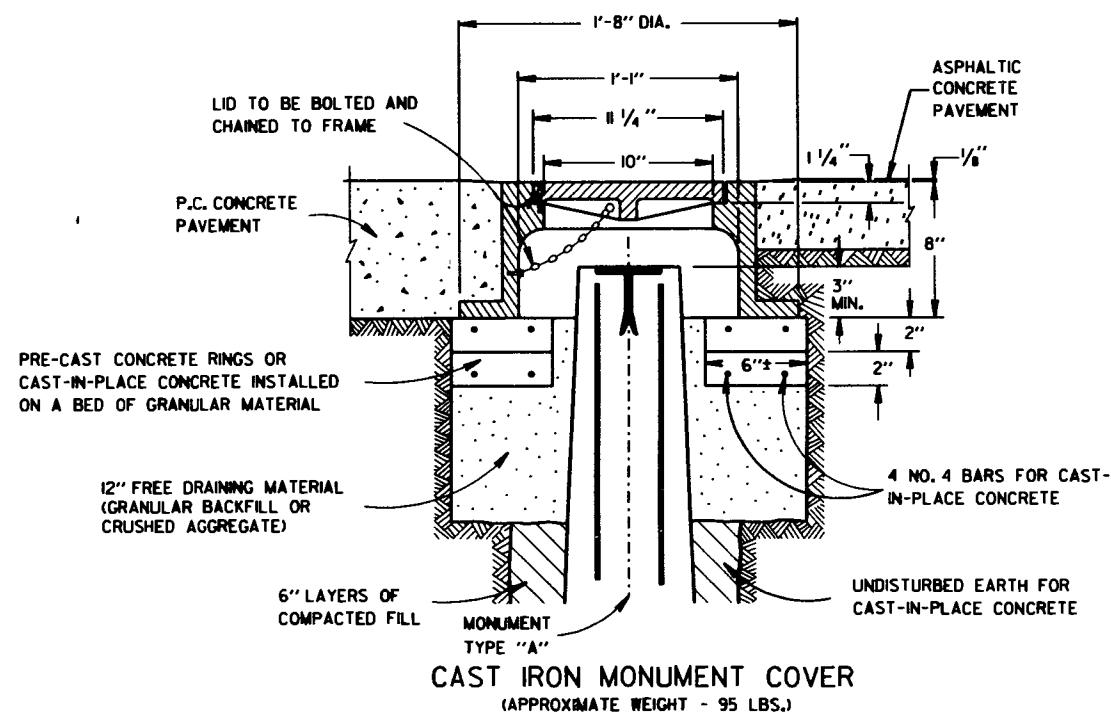
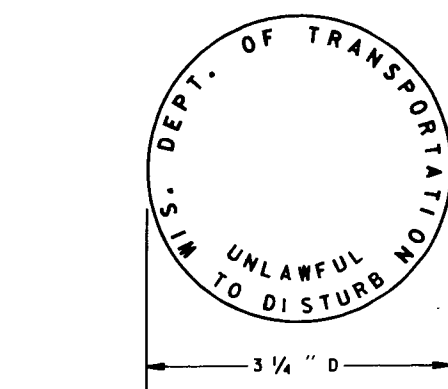
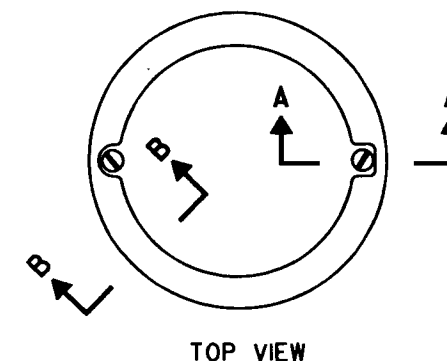
MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

- ① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
- ② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



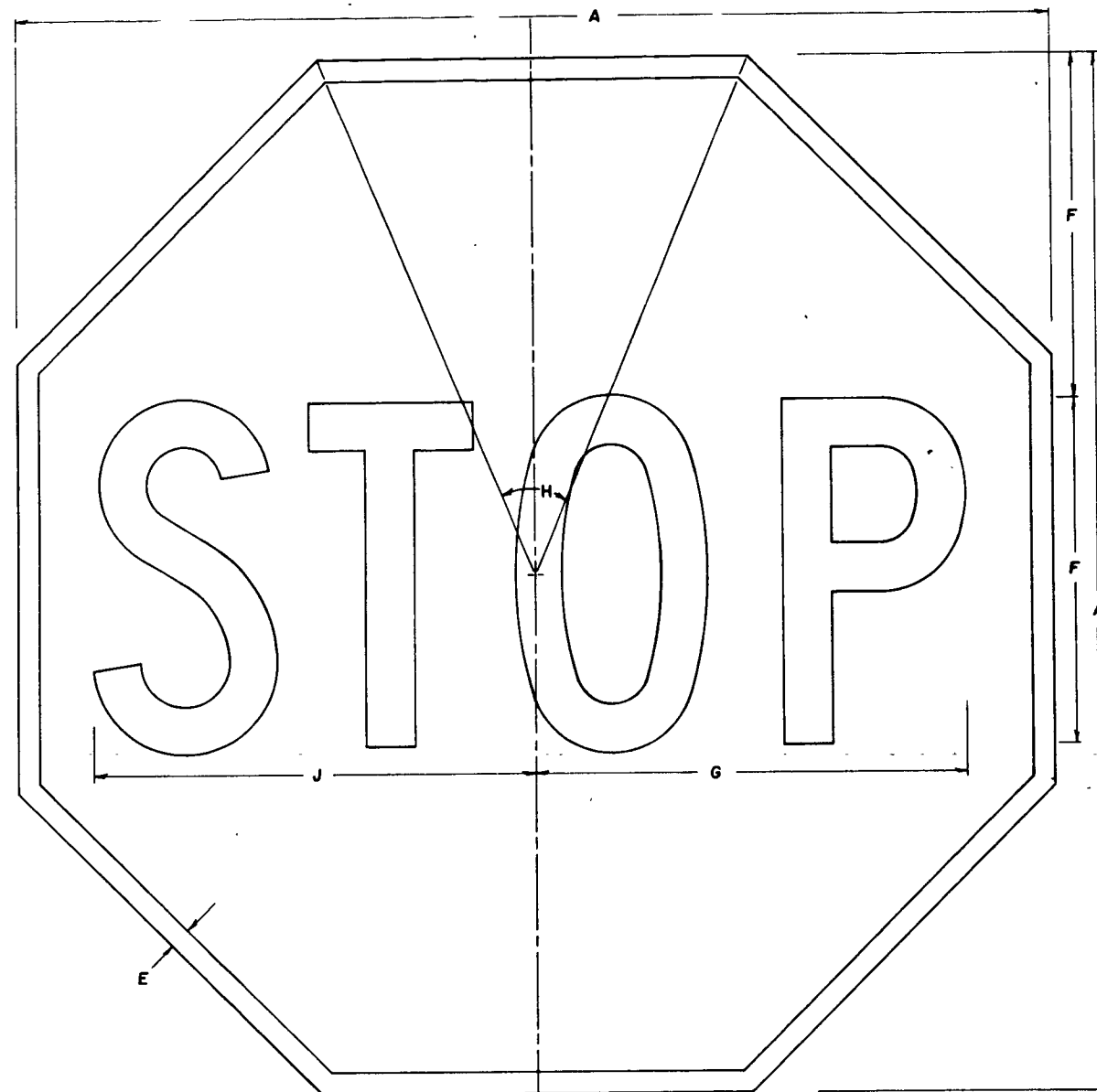
LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

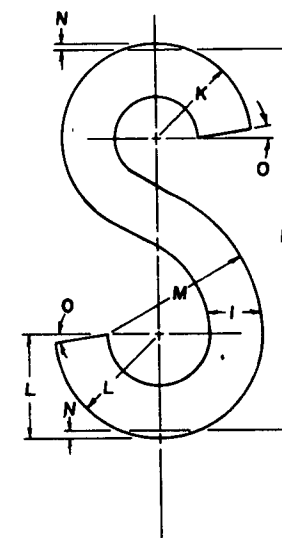
APPROVED
3/31/92
DATE

J. McCreese
STATE DESIGN ENGINEER FOR HWY.

FHW



RI-1

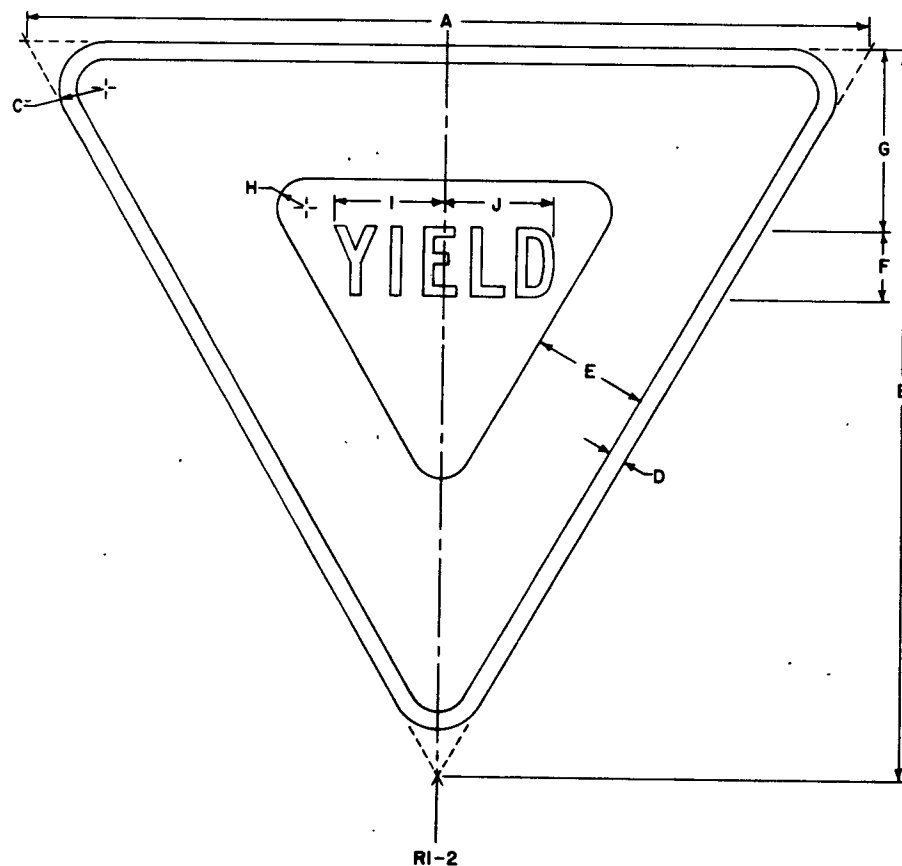


NOTES

1. Sign is Type II.
2. Color:
Background - Reflective Red
Message - Reflective White
3. Face Material - Type H, Reflective Sheeting
4. Letters- Series C, with "S" modified
5. This drawing may be scaled for Freeway size only.

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	Bid Area Sq Ft
Minimum	1	24				$\frac{3}{8}$	8	10	45°	$\frac{1}{8}$	$10\frac{1}{4}$	2	$2\frac{3}{16}$	$3\frac{1}{4}$	$\frac{1}{8}$	10°												3.31
Standard	2	30				$\frac{5}{8}$	10	$12\frac{1}{2}$	45°	$\frac{1}{32}$	$12\frac{13}{16}$	$2\frac{1}{2}$	$2\frac{3}{32}$	$4\frac{1}{16}$	$\frac{5}{32}$	10°												5.18
Oversize	3	36				$\frac{3}{4}$	12	15	45°	$\frac{1}{16}$	$15\frac{3}{8}$	3	$3\frac{9}{32}$	$4\frac{7}{8}$	$\frac{3}{16}$	10°												7.46
Exp way	4	48				1	16	20	45°	$2\frac{1}{4}$	$20\frac{1}{2}$	4	$4\frac{3}{8}$	$6\frac{1}{2}$	$\frac{1}{4}$	10°												13.25
Freeway	5	48				1	16	20	45°	$2\frac{1}{4}$	$20\frac{1}{2}$	4	$4\frac{3}{8}$	$6\frac{1}{2}$	$\frac{1}{4}$	10°												13.25
Bicycle	6																											
Snowmobile	7																											
		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																											
Bicycle	6																											
Snowmobile	7																											

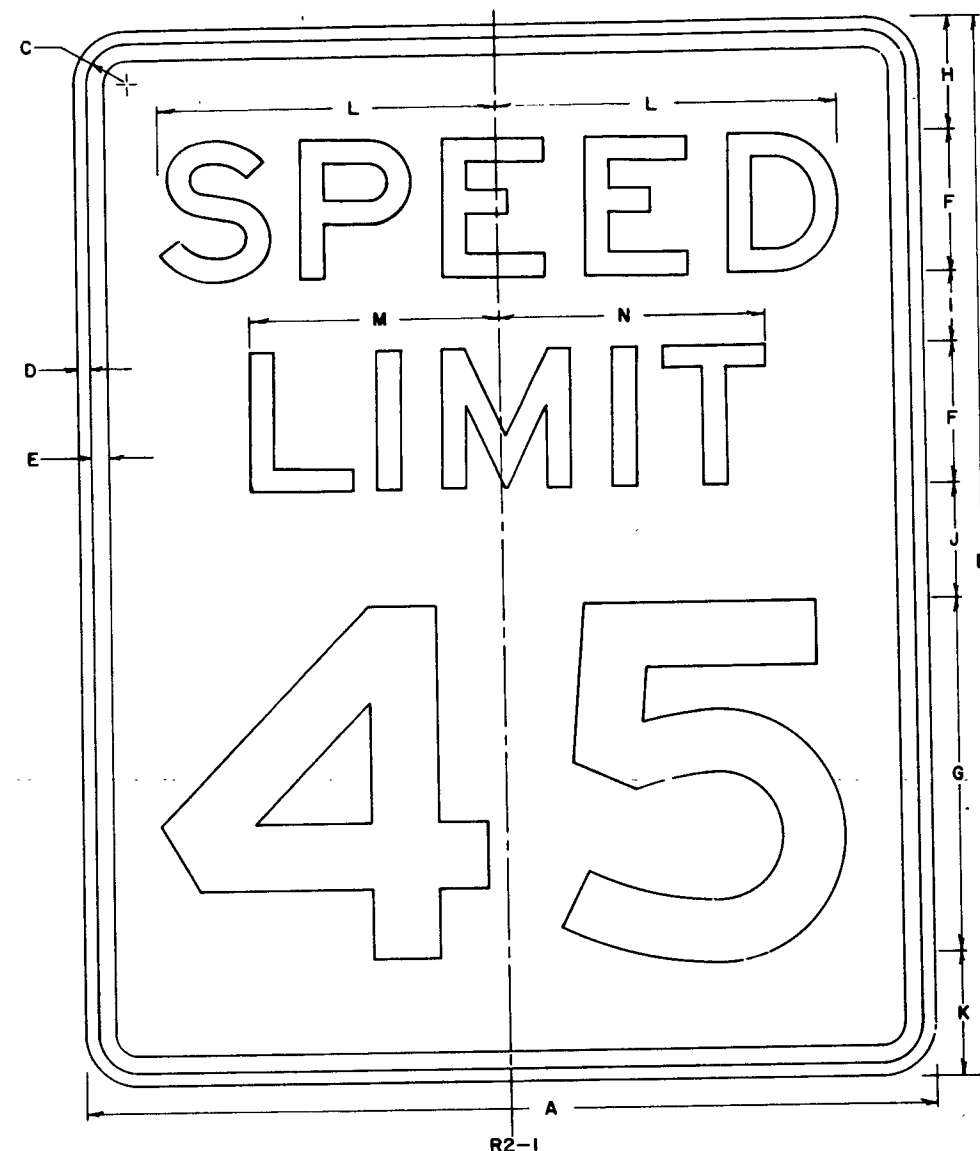
Date Drawn -	Date Redrawn - 10-3-79
Date Revised - 10-3-79	
STANDARD SIGN RI-1	
WISCONSIN DEPT. OF TRANSPORTATION	
APPROVED	Chief Traffic Engineer
DATE 5-1-81	PLATE NO RI-1.7



- NOTES:**
1. Sign is Type II
 2. Color Material
Background - White - Type H reflective sheeting
Message - - See note 5
 3. Message Series - "C"
 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. The border strip and word message are reflectorized red.
 6. This drawing may be scaled for Standard size only.

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	Bid Area Sq. Ft.
Minimum	1	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
Standard	2	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
Oversize	3																											
Exp. way	4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
Freeway	5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
Bicycle	6																											
Snowmobile	7																											
		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																											
Bicycle	6																											
Snowmobile	7																											

Date Drawn -	Date Redrawn - 10-30-80
Date Revised - 7-7-75	
9-4-75	
10-30-80	
STANDARD SIGN	
RI-2	
WISCONSIN DEPT. OF TRANSPORTATION	
APPROVED	<i>[Signature]</i>
DATE 8-14-81	Chief Traffic Engineer
	PLATE NO RI-2.8



NOTES

1. Sign is Type II - Reflective - reference WIS D.O.T. Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - See Note 5
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. Letters & numerals for sizes "1 & 4" shall be series D, for sizes "2 & 5" they shall be series E.
6. Substitute appropriate numerals and adjust spacing as required.
7. This drawing may be scaled for standard size only.

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	Brd Area Sq Ft
Minimum	1	18	24	1 1/8	3/8	1/2	4	8	2 1/2	1 1/2	1 3/4	2 1/4	7 3/8	5 5/16	5 5/8													3.0
Standard	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
Oversize	3	36	48	1 3/8	1/2	5/8	8	16	5	3	3 1/2	4 1/2	14 3/4	10 5/8	11 1/4													12.0
Exp way	4	36	48	1 3/8	1/2	5/8	8	16	5	3	3 1/2	4 1/2	14 3/4	10 5/8	11 1/4													12.0
Freeway	5	48	60	2 1/4	3/4	1	8	20	6 1/2	4	6 1/2	7	19 1/4	14 1/4	15													20.0
Bicycle	6																											
Snowmobile	7																											
		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																											
Bicycle	6																											
Snowmobile	7																											

Date Drawn -	Date Redrawn - 9-28-81
Date Revised - 8-13-84	
STANDARD SIGN R2-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>[Signature]</i> Chief Traffic Engineer
DATE 9-11-84	PLATE NO R2-1.6

NOTES:

1. Sign is Type II

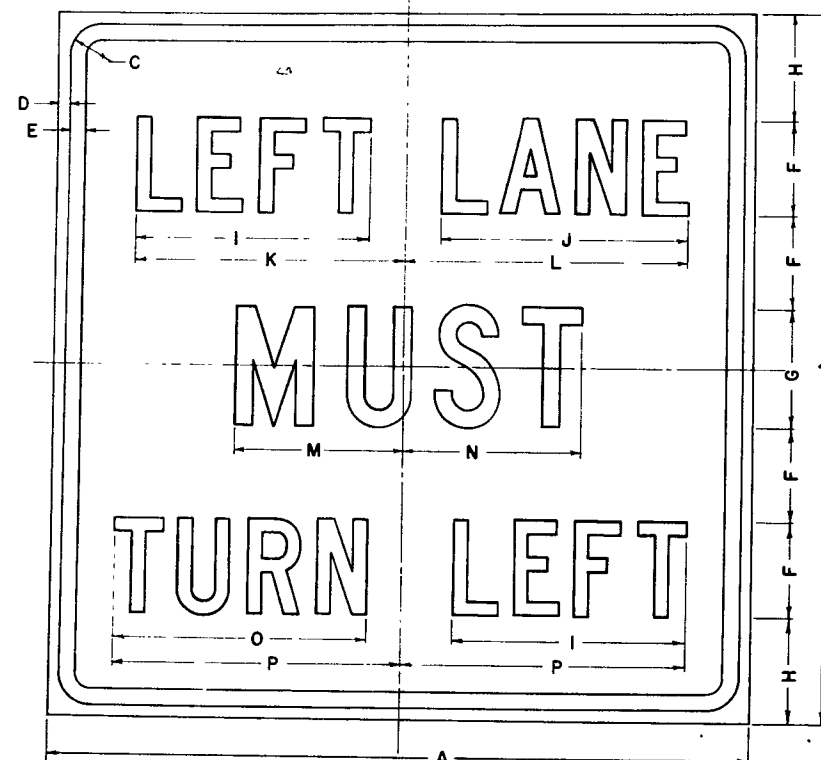
2. Color:

Background — Reflectorized White

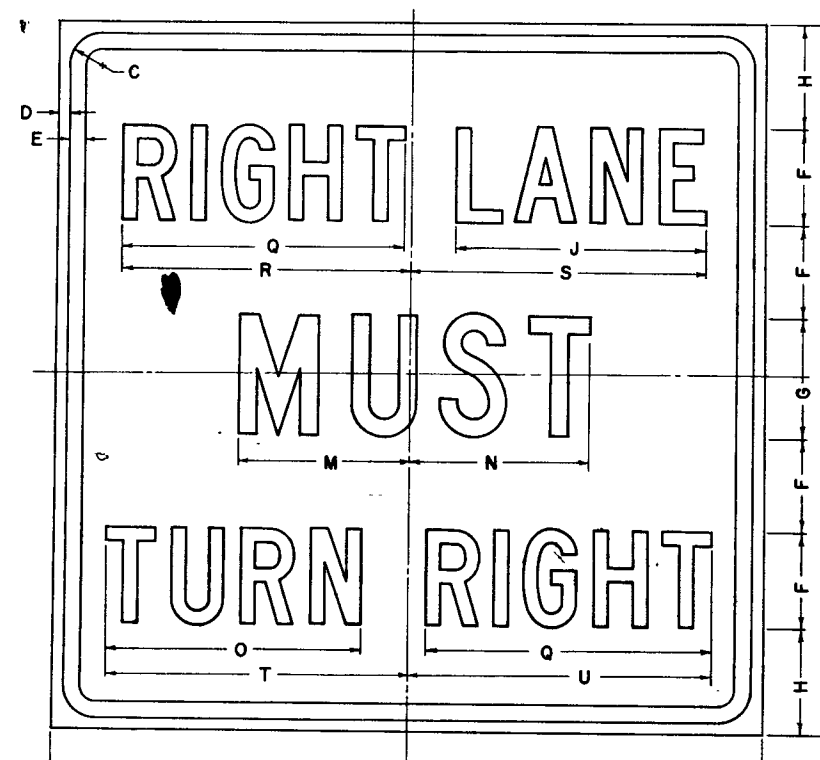
Message — Black

3. Face Material — Reflective Sheeting

4. Lettering — Series "C"



R3-7L



R3-7R

This plate replaces OLD CODES R56, R62, R96, 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 1/8	1 1/2	3/4	4	5	4 1/2	10	10 5/8	11 9/16	12 1/8	7 1/4	7 11/16	10 3/4	12 1/4	12 1/16	12 5/16	12 1/2	12 3/4	12 3/16					
Standard	2	30		1 1/8	1 1/2	3/4	4	5	4 1/2	10	10 5/8	11 9/16	12 1/8	7 1/4	7 11/16	10 3/4	12 1/4	12 1/16	12 5/16	12 1/2	12 3/4	12 3/16					
Oversize	3																										
Exp-way	4																										
Interstate	5																										

STANDARD SIGNS
R 3-7

STATE HIGHWAY COMMISSION OF WISCONSIN

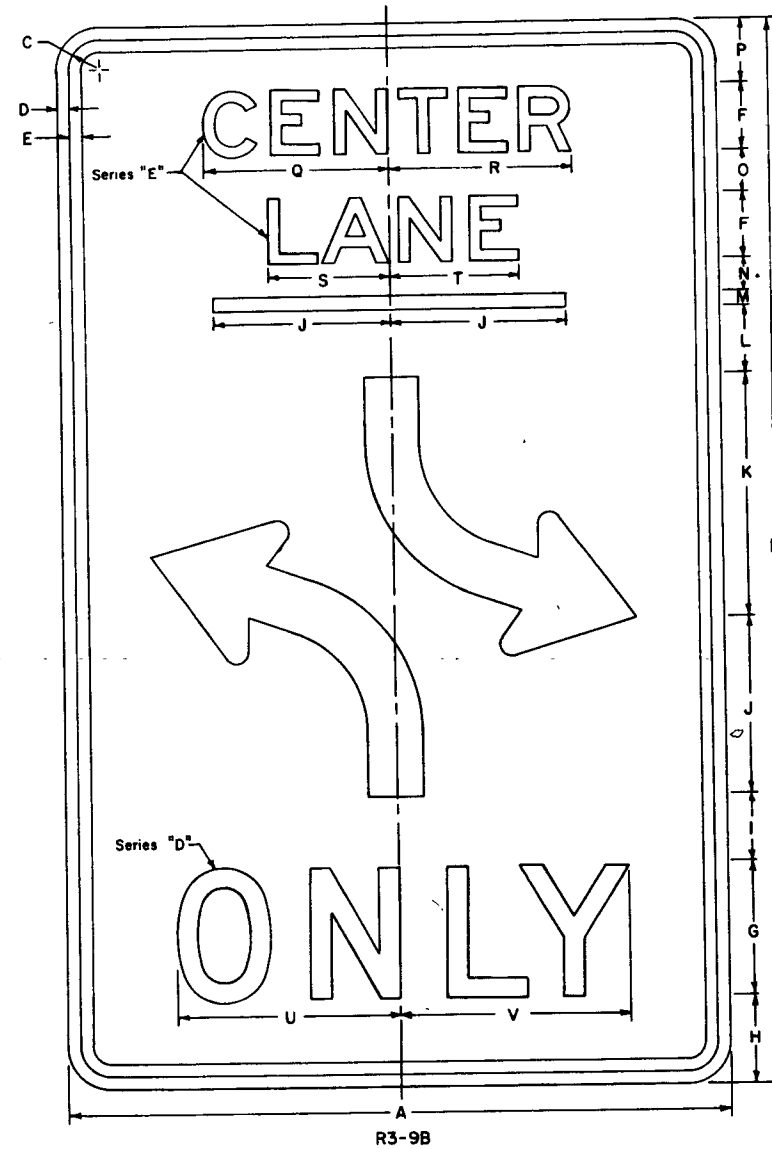
APPROVED *E. L. Roettiger*

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

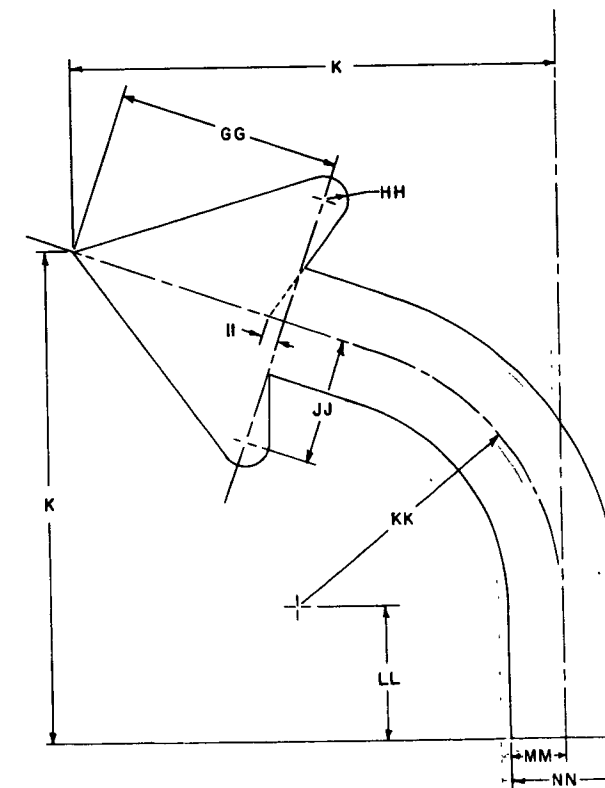
PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
PROJECT DESIGNATION		

NOTES:

- Sign is Type II
- Color:
 - Background — Reflectorized White
 - Message — Black
- Face Material — Reflective Sheeting
- 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.



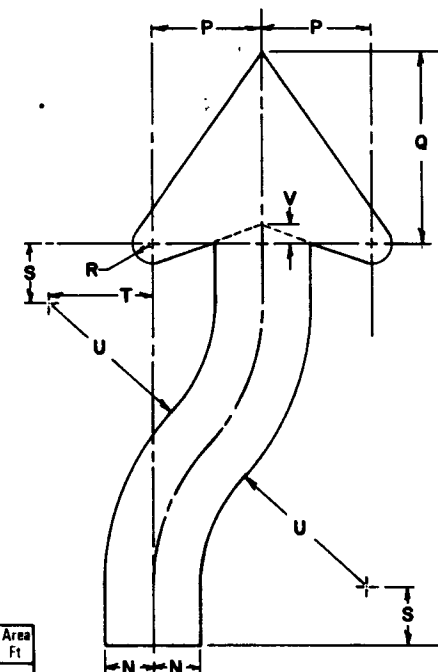
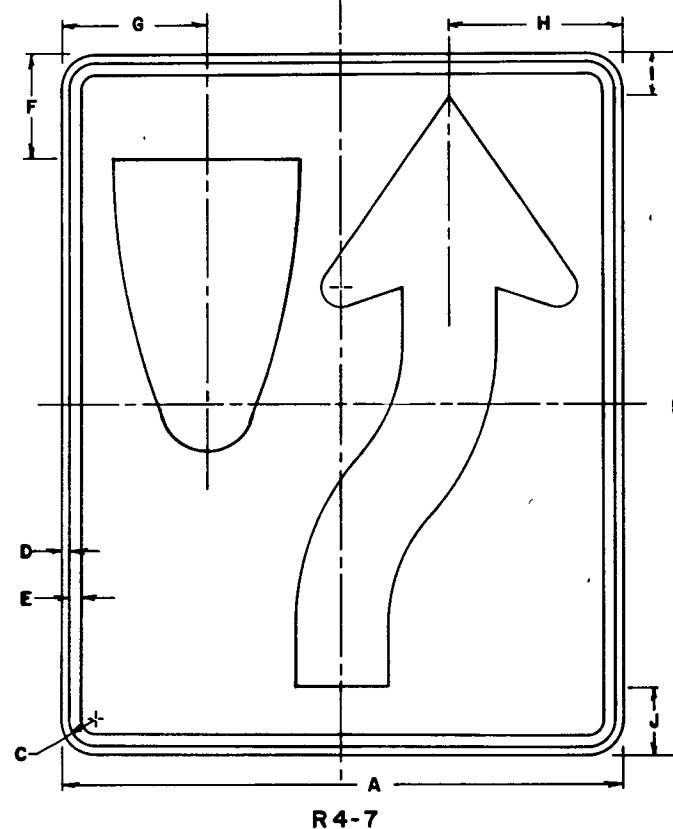
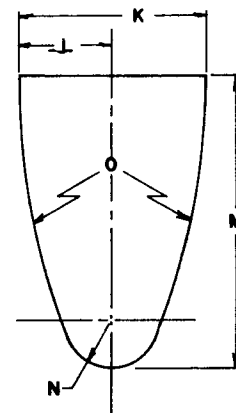
R3-9B



ARROW DETAIL

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	Bid Area Sq Ft
Minimum	1																											
Standard	2	30	48	1 ³ / ₈	1 ¹ / ₂	5 ⁵ / ₈	3	6	4	3	8	11	3 ¹ / ₈	5 ⁵ / ₈	1 ¹ / ₂	1 ⁷ / ₈	2 ⁷ / ₈	8 ³ / ₈	8 ¹ / ₂	5 ⁵ / ₈	5 ⁷ / ₈	10 ¹ / ₁₆	10 ⁹ / ₁₆				10	
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							5 ¹ / ₁₆	1 ¹ / ₂	3 ³ / ₈	2 ⁷ / ₈	6	3	1 ¹ / ₄	2 ¹ / ₂													
Oversize	3																											
Exp-way	4																											
Freeway	5																											

Date Drawn — 7-28-78	Date Redrawn —
Date Revised —	
STANDARD SIGN R3-9B	
WISCONSIN DIVISION OF HIGHWAYS	
APPROVED	CHIEF TRAFFIC ENGINEER
DATE 1-11-79	PLATE NO R3-9B 1

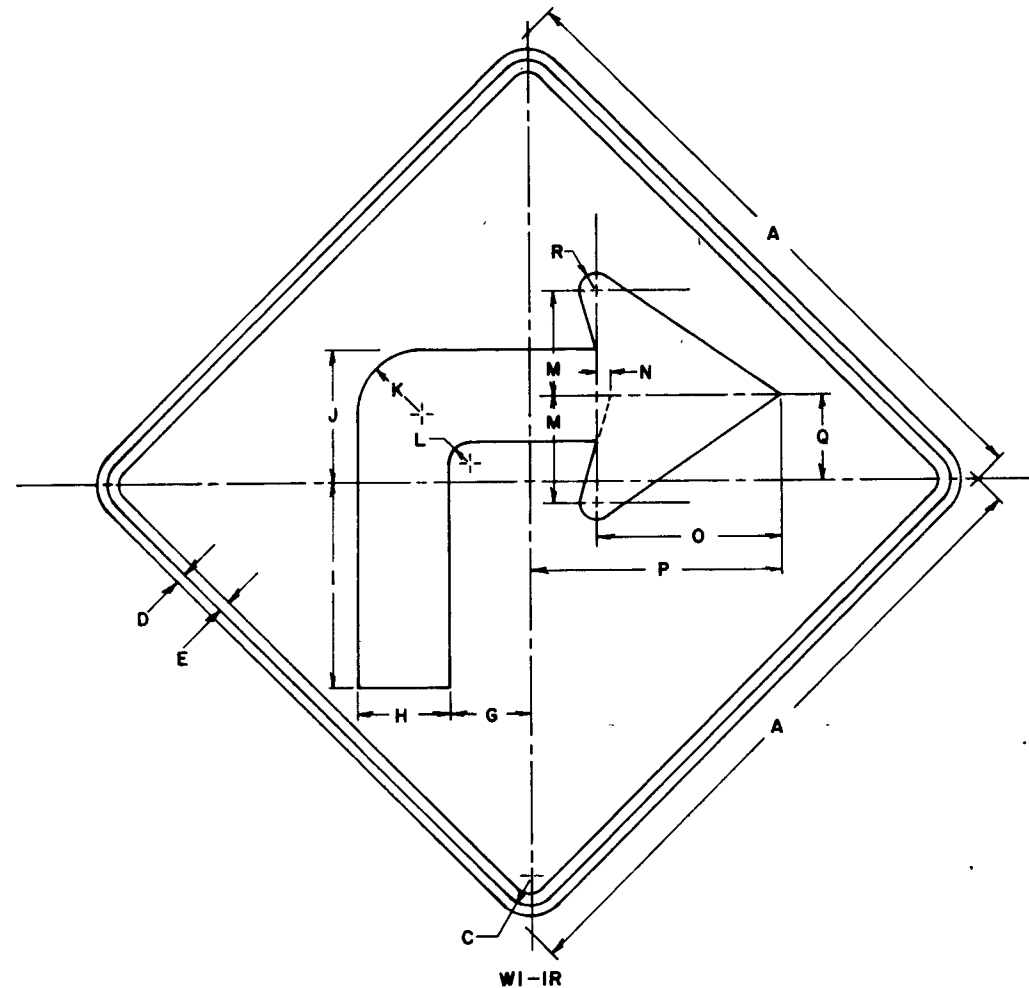


NOTES

- Sign is Type II-Reflective-reference
WIS DOT Standard Specification for ROAD
and BRIDGE CONSTRUCTION latest edition.
- Color:
Background - White
Message - Black
- Message Series -
- 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.
- R4-8 is the same as R4-7 except Legend is reversed.

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	Bid Area Sq Ft
Minimum	1	18	24	1 1/8	3/8	1/2	3 3/8	4 1/16	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	9 1/16	1 7/8	3 1/4	5 1/4	7 1/16	20 3/8				3.0
Standard	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	13 1/16	2 1/2	4 3/8	7	5 3/8	25 1/8				5.0
Oversize	3																											
Exp way	4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 13/16	4 1/2	12	6	18 3/4	3	45	6 7/8	12 3/16	1 3/16	3 3/4	6 9/16	10 1/2	15 1/16	40 11/16				12.0
Freeway	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	14	1 1/4	50 1/4				20.0
Bicycle	6																											
Snowmobile	7																											
		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																											
Bicycle	6																											
Snowmobile	7																											

Date Drawn - 3-5-84	Date Redrawn -
Date Revised -	
STANDARD SIGN R4-7 & R4-8	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>[Signature]</i> Chief Traffic Engineer
DATE 5-4-84	PLATE NO R4-7.4

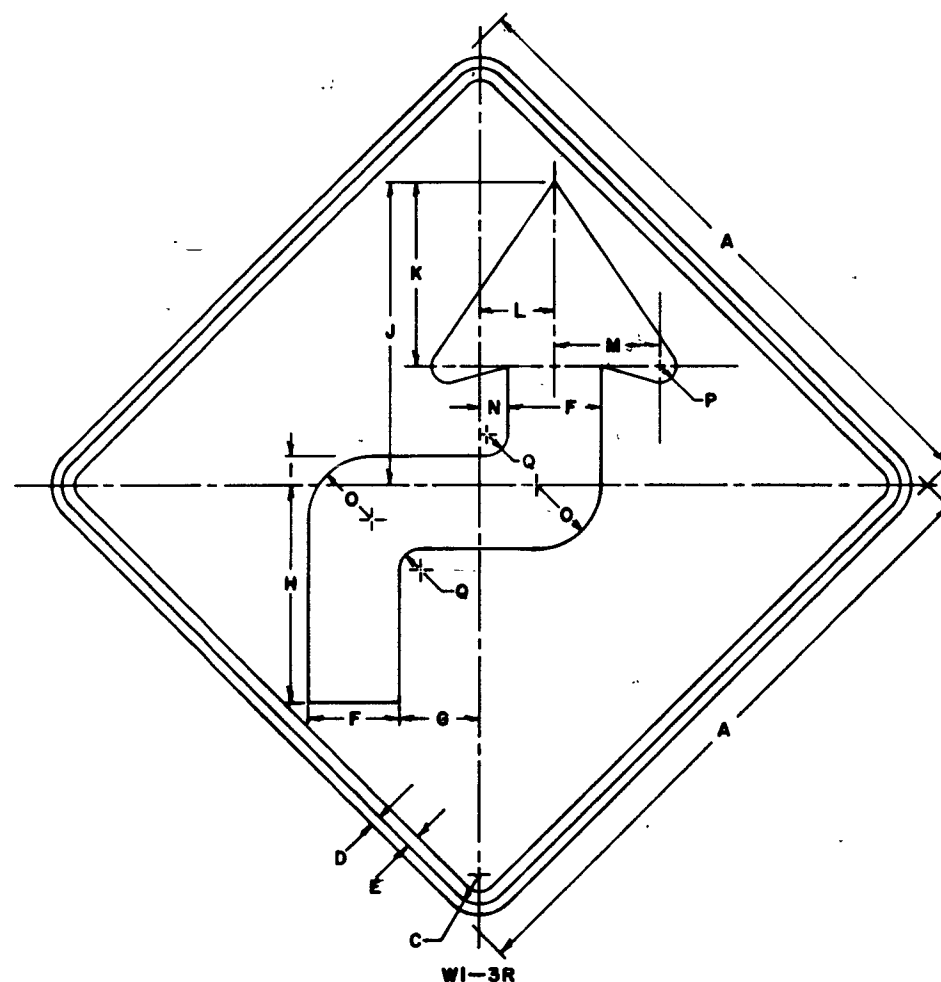


NOTES

1. Sign is Type II - Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series -
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. W1-IL is the same as W1-IR except the arrow is reversed along the vertical centerline.
6. Drawing may be scaled for standard size only.

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	Brd Area Sq. Ft.
Minimum	1	24		1 1/8	3 5/8	1 1/2		3	3 1/2	7 3/4	5	2 7/16	13 1/16	4	1 1/2	7	9 1/2	3 1/4	5 5/8									4.0
Standard	2	36		1 5/8	5 1/8	3 3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 3/16	6	3 3/4	10 1/2	14 1/4	4 7/8	15 1/16									9.0
Oversize	3	36		1 5/8	5 1/8	3 3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 3/16	6	3 3/4	10 1/2	14 1/4	4 7/8	15 1/16									9.0
Exp way	4	48		2 1/4	7 1/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19	6 1/2	1 1/4									16.0
Freeway	5	48		2 1/4	7 1/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19	6 1/2	1 1/4									16.0
Bicycle	6																											
Snowmobile	7																											
		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																											
Bicycle	6																											
Snowmobile	7																											

Date Drawn -	Date Redrawn - 1-20-83
Date Revised -	
STANDARD SIGN W1-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>[Signature]</i> Chief Traffic Engineer
DATE 5-5-83	PLATE NO W1-1.5



WI-3R

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. Message Series -
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. WI-3L same as WI-3R except arrow is reversed along the vertical centerline.
6. Drawing may be scaled for standard size only.

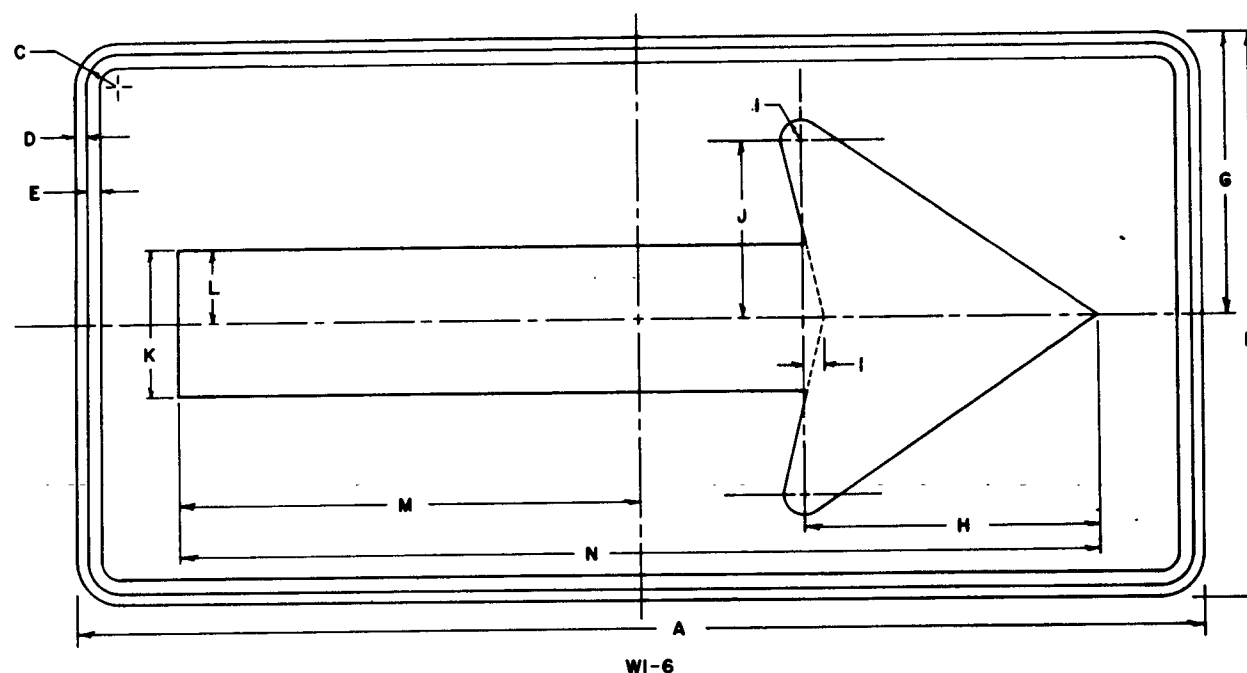
SIZE	CODE SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Std Area Sq Ft
Minimum	1	24		1 1/8	3/8	1/2	3 1/2	3	8 5/16	1 1/8	11 5/8	7	2 13/16	4	1 1/16	2 7/16	5/8	13/16										4.0
Standard	2	36		1 3/8	5/8	3/4	5 1/4	4 1/2	12 7/16	1 3/8	17 3/8	10 1/2	4 3/16	6	1 9/16	3 5/8	15/16	1 3/16										9.0
Oversize	3	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 7/16	1 5/8	17 3/8	10 1/2	4 3/16	6	1 9/16	3 5/8	15/16	1 3/16										9.0
Exp way	4	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 7/16	1 5/8	17 3/8	10 1/2	4 3/16	6	1 9/16	3 5/8	15/16	1 3/16										9.0
Freeway	5	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
Bicycle	6																											
Snowmobile	7																											
		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																											
Bicycle	6																											
Snowmobile	7																											

CK	RA	RA

Date Drawn -	Date Redrawn - 1-27-83
Date Revised -	
STANDARD SIGN WI-3	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>[Signature]</i> Chief Traffic Engineer
DATE 8-26-83	PLATE NO WI-3.3

NOTES

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



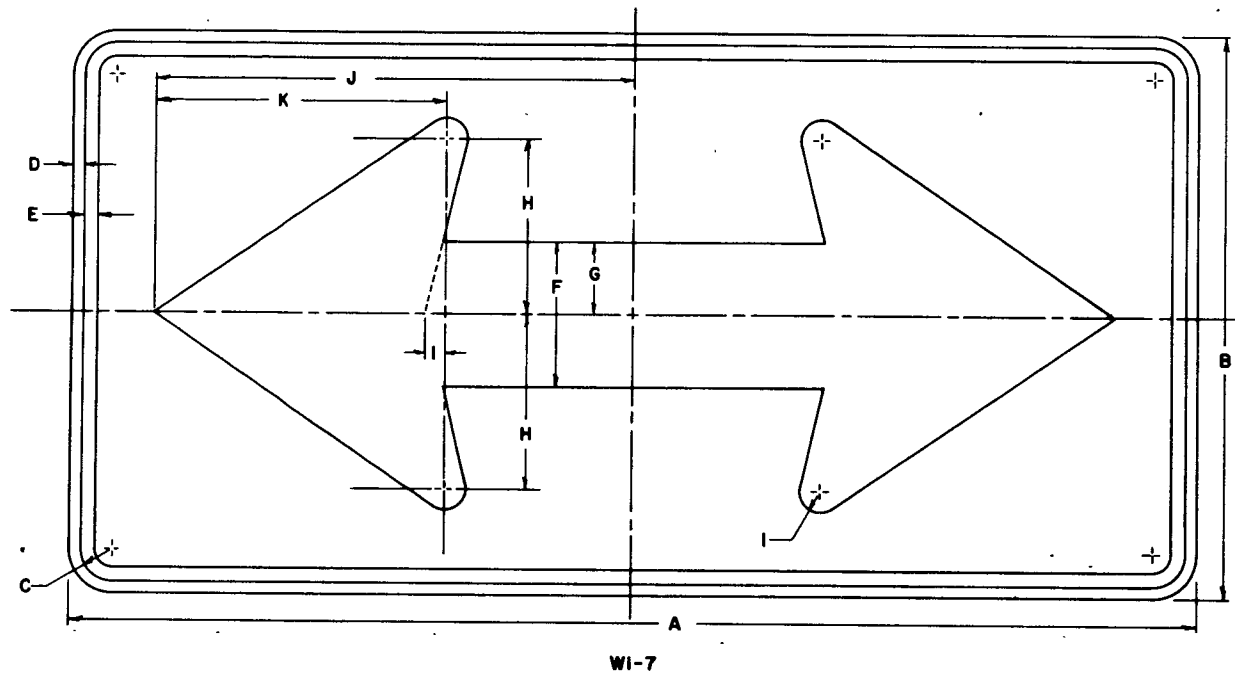
WI-6

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	Bid Area Sq Ft
Minimum	1																											8.0
Standard	2	48	24	1 3/8	1/2	5/8		12	12 1/2	7/8	7 1/2	6 1/4	3 1/8	19 1/2	39													12.5
Oversize	3	60	30	1 3/8	1/2	5/8		15	15 5/8	1 1/8	9 3/8	7 7/8	3 15/16	24 3/8	48 3/4													12.5
Exp way	4	60	30	1 3/8	1/2	5/8		15	15 5/8	1 1/8	9 3/8	7 7/8	3 15/16	24 3/8	48 3/4													32.0
Freeway	5	96	48	2 1/4	3/4	1		24	25	1 3/4	15	12 1/2	6 1/4	39	78													
Bicycle	6																											
Snowmobile	7																											
		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																											
Bicycle	6																											
Snowmobile	7																											

Date Drawn - 5-20-85	Date Redrawn -
Date Revised -	
STANDARD SIGN	
WI-6	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>[Signature]</i> Chief Traffic Engineer
DATE 5-31-85	PLATE NO WI-6.5

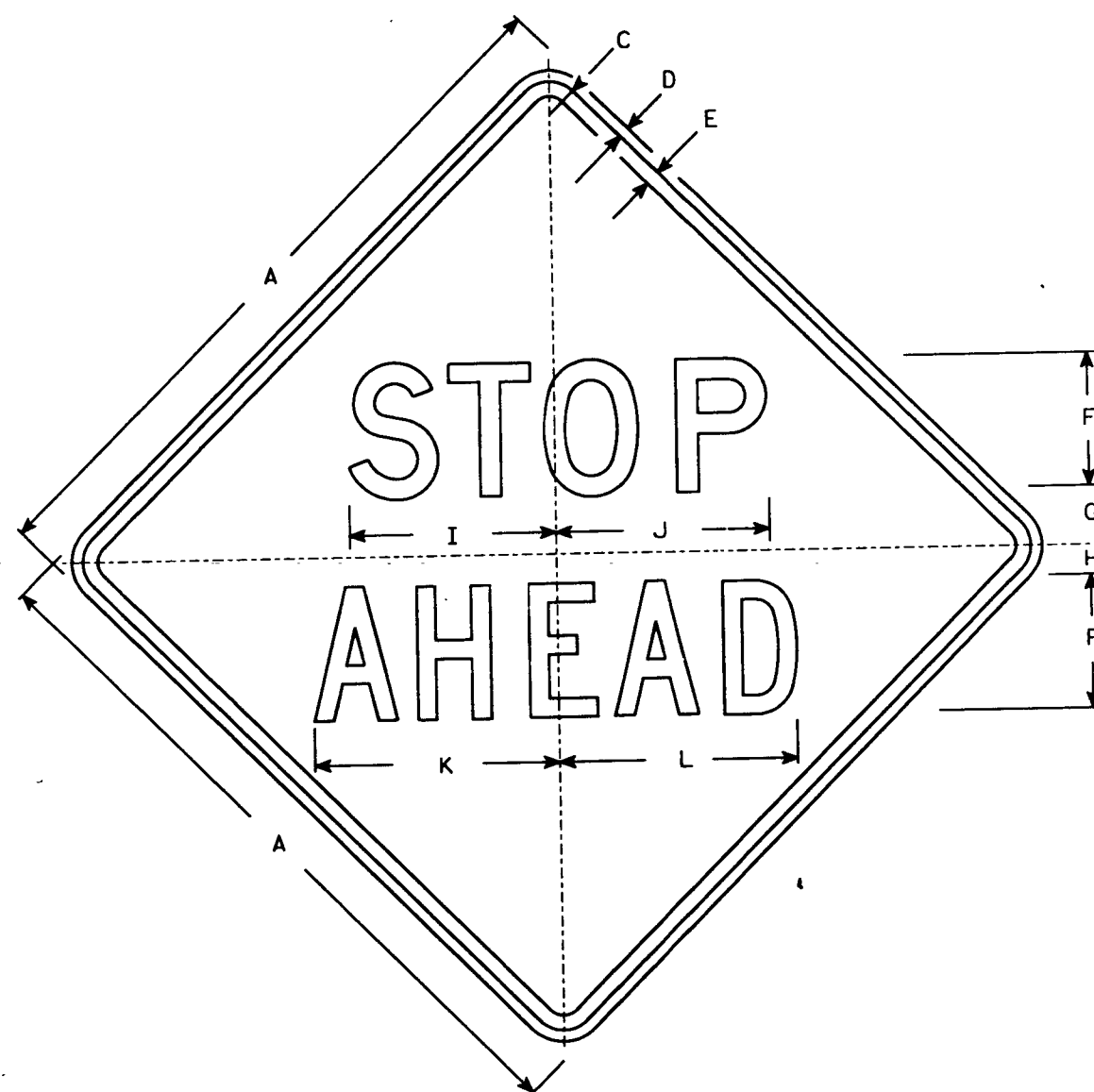
NOTES :

1. Sign is Type II - Type H reflective - reference
WIS D.O.T. 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.



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	Bid Area Sq. Ft.
Minimum	1	36	18	1 $\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	4 $\frac{11}{16}$	2 $\frac{11}{32}$	5 $\frac{5}{8}$	2 $\frac{1}{32}$	15 $\frac{5}{8}$	9 $\frac{3}{8}$																4.5
Standard	2	48	24	1 $\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	6 $\frac{1}{4}$	3 $\frac{1}{8}$	7 $\frac{1}{2}$	$\frac{7}{8}$	20 $\frac{1}{2}$	12 $\frac{1}{2}$																8.0
Oversize	3	60	30	1 $\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	7 $\frac{13}{16}$	3 $\frac{29}{32}$	9 $\frac{3}{8}$	1 $\frac{3}{32}$	25 $\frac{3}{8}$	15 $\frac{5}{8}$																12.5
Exp-way	4	60	30	1 $\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	7 $\frac{13}{16}$	3 $\frac{29}{32}$	9 $\frac{3}{8}$	1 $\frac{3}{32}$	25 $\frac{3}{8}$	15 $\frac{5}{8}$																12.5
Freeway	5	96	48	2 $\frac{1}{4}$	$\frac{3}{4}$	1	12 $\frac{1}{2}$	6 $\frac{1}{4}$	15	1 $\frac{3}{4}$	41	25																32.0
Bicycle	6																											
Snowmobile	7																											
		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																											
Bicycle	6																											
Snowmobile	7																											

Date Drawn -	Date Redrawn - 10-16-80
Date Revised - 7-12-62	5-6-85
STANDARD SIGN WI-7	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>[Signature]</i> Chief Traffic Engineer
DATE 5-91-85	PLATE NO WI-7.4



NOTES

1. Sign is Type II - Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 5
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. STOP is Series D and AHEAD is Series C.

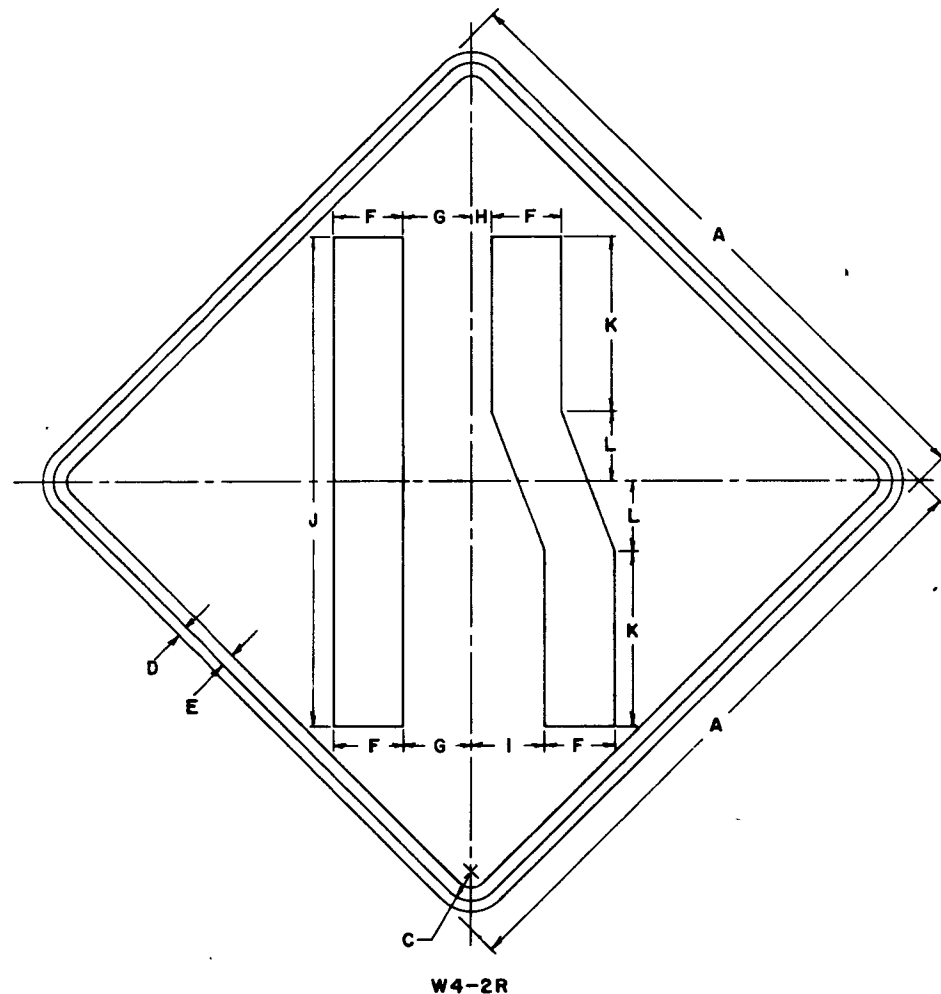
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
BIKE	18		$1\frac{1}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	3	$1\frac{3}{4}$	$\frac{3}{4}$	$4\frac{3}{4}$	$5\frac{1}{4}$	$5\frac{3}{8}$	$5\frac{3}{8}$															2.25
1	30		$1\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	6	$2\frac{1}{2}$	$1\frac{1}{4}$	$9\frac{3}{8}$	$9\frac{1}{2}$	$10\frac{5}{8}$	$10\frac{1}{4}$															6.25
2	36		$1\frac{5}{8}$	$\frac{5}{8}$	$\frac{3}{4}$	7	$3\frac{1}{2}$	1	$11\frac{1}{8}$	$11\frac{1}{4}$	$13\frac{3}{8}$	$13\frac{1}{4}$															9.0
3	36		$1\frac{5}{8}$	$\frac{5}{8}$	$\frac{3}{4}$	7	$3\frac{1}{2}$	1	$11\frac{1}{8}$	$11\frac{1}{4}$	$13\frac{3}{8}$	$13\frac{1}{4}$															9.0
4	48		$2\frac{1}{4}$	$\frac{3}{4}$	1	9	4	2	$13\frac{7}{8}$	$14\frac{3}{8}$	$16\frac{1}{2}$	16															16.0
5	48		$2\frac{1}{4}$	$\frac{3}{4}$	1	9	4	2	$13\frac{7}{8}$	$14\frac{3}{8}$	$16\frac{1}{2}$	16															16.0

DATE DRAWN 8-13-92 DATE REDRAWN _____
DATE REVISED _____

STANDARD SIGN
W3 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *John F. Rusek*
State Traffic Engineer
DATE 8/21/92 PLATE NO. W3-1.7



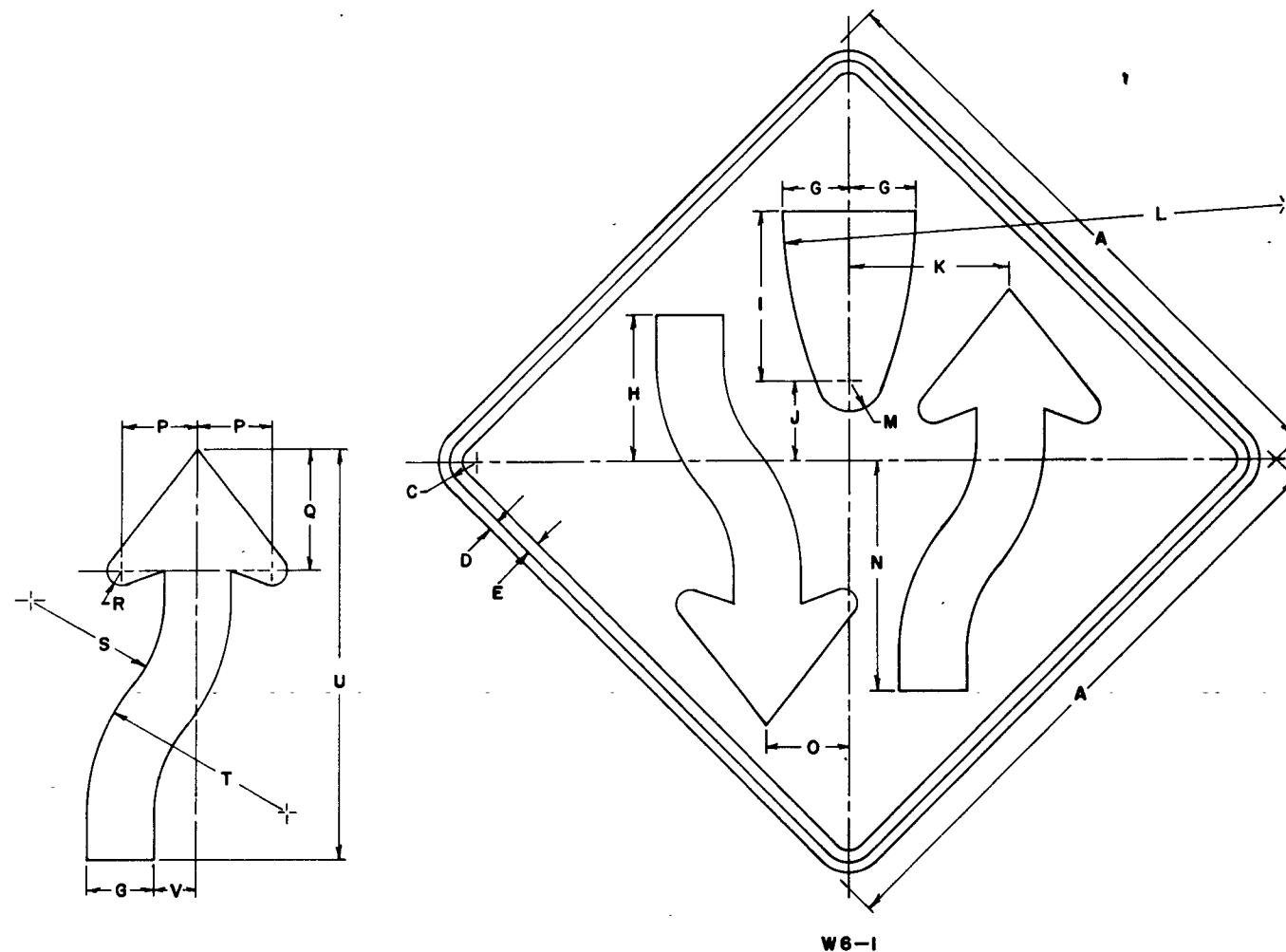
W4-2R

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.
5. This drawing may be scaled for Standard size only.

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	Bld Area Sq Ft
Minimum	1	30		1 ³ / ₈	¹ / ₂	⁵ / ₈	3	3 ¹ / ₄	¹⁵ / ₁₆	3 ⁷ / ₁₆	23	8 ³ / ₁₆	3 ⁵ / ₁₆														6.25	
Standard	2	36		1 ⁵ / ₈	⁵ / ₈	³ / ₄	4	3 ⁷ / ₈	1 ¹ / ₈	4 ¹ / ₈	28	10	4														9.0	
Oversize	3																											
Exp way	4	36		1 ⁵ / ₈	⁵ / ₈	³ / ₄	4	3 ⁷ / ₈	1 ¹ / ₈	4 ¹ / ₈	28	10	4														9.0	
Freeway	5	48		2 ¹ / ₄	³ / ₄	1	5	5 ³ / ₁₆	1 ¹ / ₂	5 ¹ / ₂	37	13 ¹ / ₄	5 ¹ / ₄														16.0	
Bicycle	6																											
Snowmobile	7																											
		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																											
Bicycle	6																											
Snowmobile	7																											

Date Drawn -	Date Redrawn - 3-11-83
Date Revised - 5-6-85	
STANDARD SIGN W4-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>[Signature]</i> Chief Traffic Engineer
DATE 5-31-85	PLATE NO W4-2.6



W6-1

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. Message Series -
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. W6-2 same as W6-1 but is rotated 180° when
mounted.
6. This sign may be scaled for standard size only.

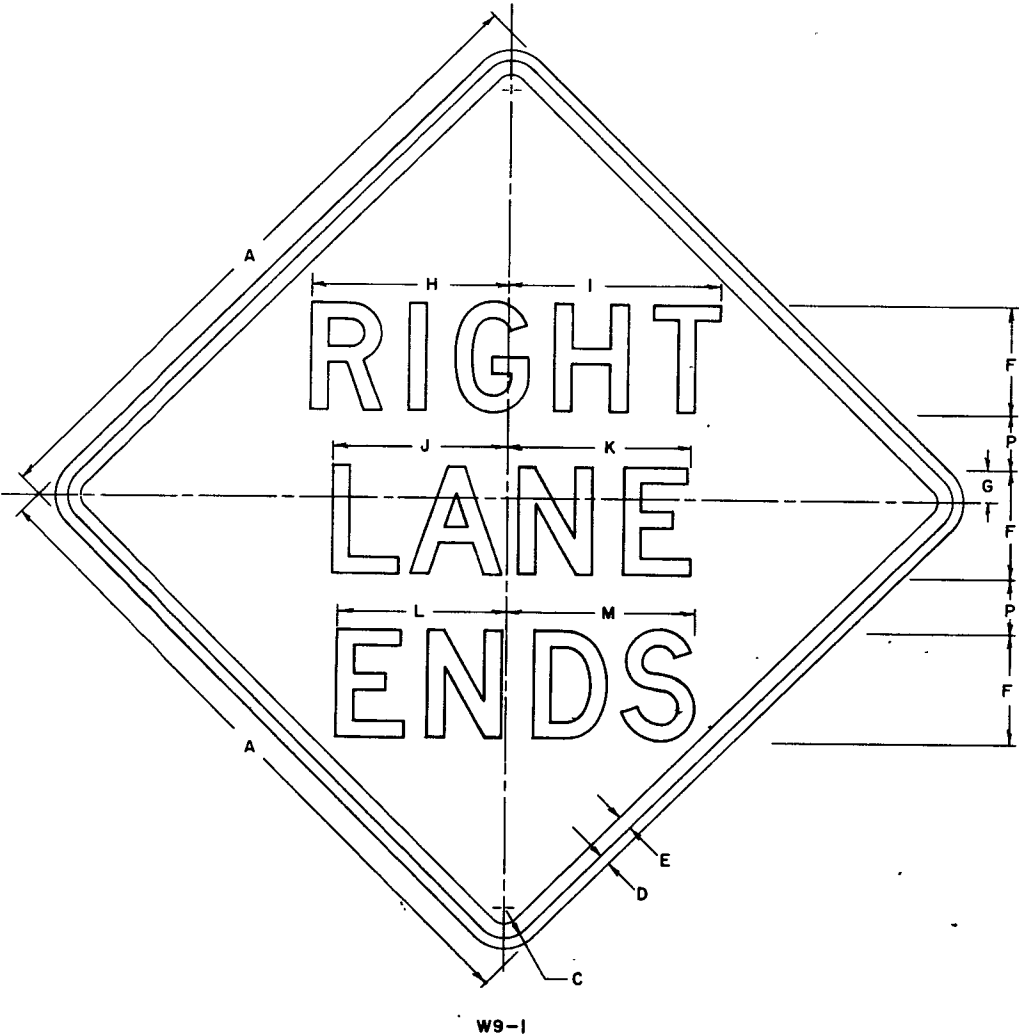
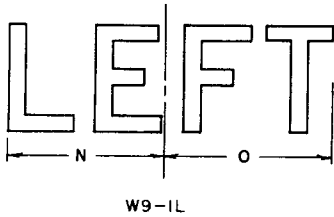
SIZE	CODE SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Bid Area Sq Ft
Minimum	1																											
Standard	2	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
Oversize	3																											
Exp-way	4	36		1 5/8	5/8	3/4		4	8 3/4	10	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
Freeway	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 3/16	9 13/16	1 3/16	10 5/8	16	32 5/8	3 3/8					16.0
Bicycle	6																											
Snowmobile	7																											
		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																											
Bicycle	6																											
Snowmobile	7																											

Date Drawn - 5-13-83	Date Redrawn -
Date Revised -	
STANDARD SIGN W6-1 & W6-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>[Signature]</i> Chief Traffic Engineer
DATE 8-26-83	PLATE NO W6-1.7

PROJECT I.D.	SHEET NUMBER	TOTAL SHEETS
PROJECT DESIGNATION		

NOTES:

- Sign is Type II
- Color:
 - Background — Reflective Yellow
 - Message — Black
- Face Material — Reflective Sheeting
- 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.
- W9-1L same as W9-1 except the word Left replaces Right.
- All letters series D
- This drawing may be scaled for standard size only

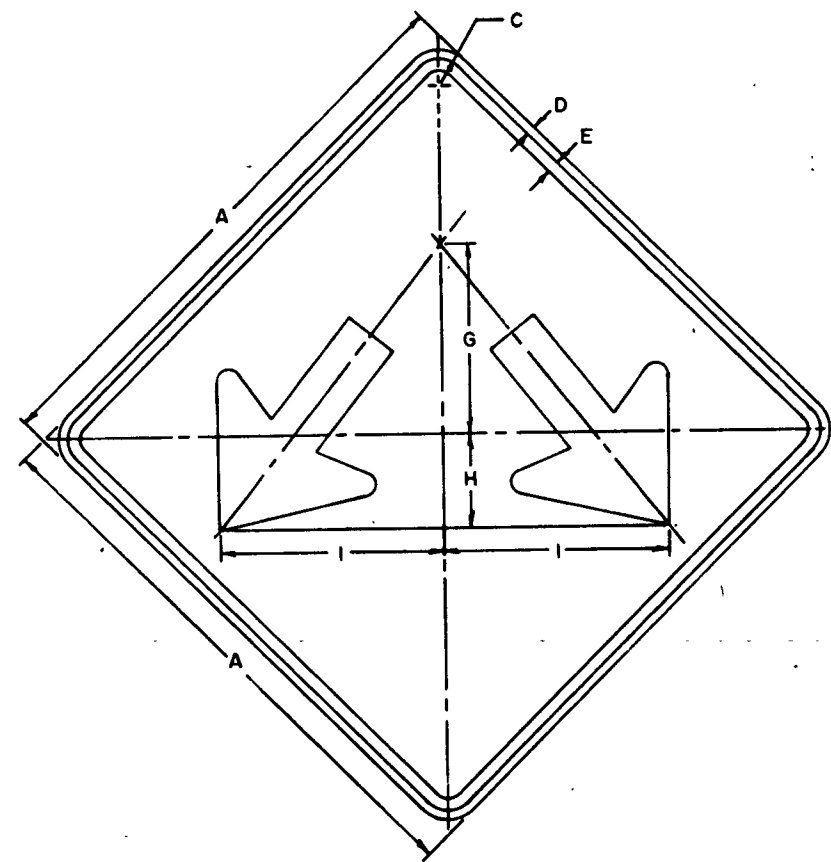


SIZE	CODE SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Bld Area Sq Ft
Minimum	1																											
Standard	2	30		1 3/8	1 1/2	5/8	5	1 1/2	8 7/8	9 5/8	7 7/8	8 1/4	7 5/8	8 1/2	7 1/8	7 9/16	2 1/2											6.25
Oversize	3																											
Exp-way	4	36		1 5/8	5/8	3/4	6	1 13/16	10 5/8	11 9/16	9 7/16	9 7/8	9 3/16	10 3/16	8 9/16	9 1/16	3											9.0
Freeway	5	48		2 1/4	3/4	1	8	2 7/16	14 3/16	15 7/16	12 5/8	13 3/16	12 3/16	13 5/8	11 7/16	12 1/8	4											16.0
		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 — 5-14-73	Date Redrawn —
Date Revised — 2-7-75 JAF	
STANDARD SIGN W9-1 & W9-1L Old Code W4-51	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED _____	
CHIEF TRAFFIC ENGINEER	
DATE _____	PLATE NO. W9-1

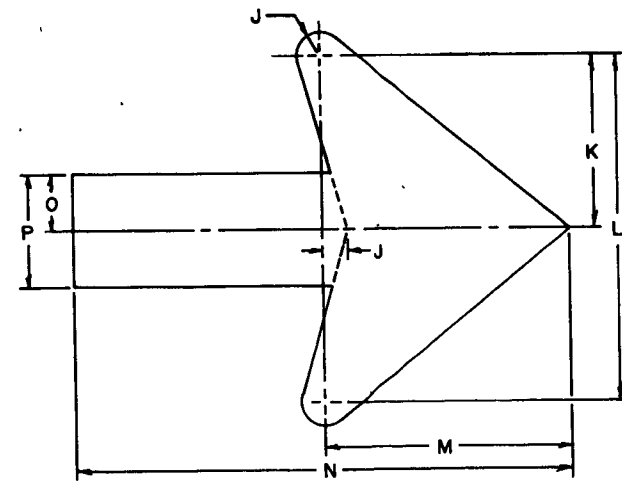
NOTES:

- 1. Sign is Type II
- 2. Color Material
Background - Yellow Reflective Sheeting
Message - Black Non-Reflective
- 3. Message Series —
- 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. This drawing may be scaled for standard size only.



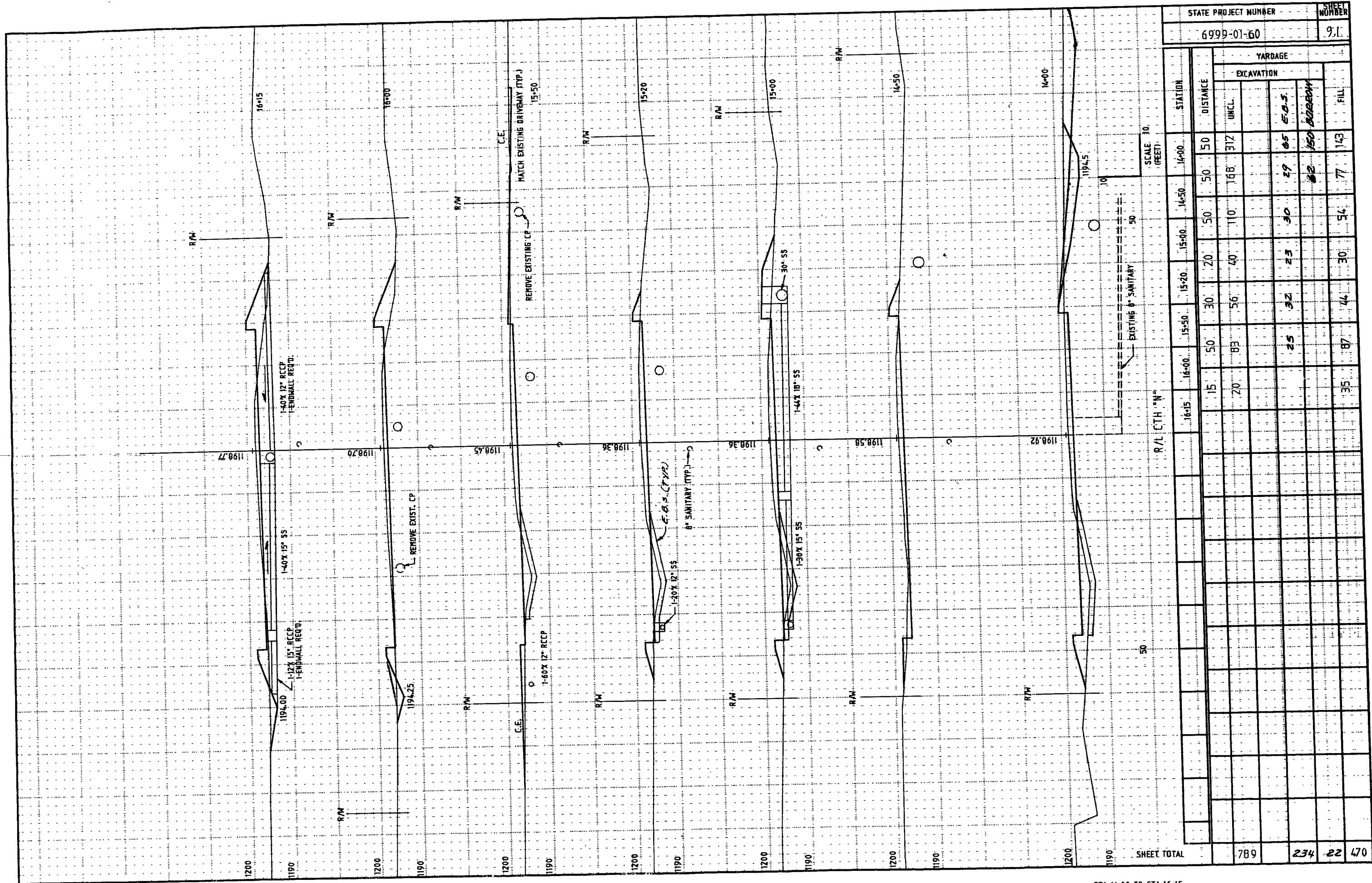
W12-1D

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	Bid Area Sq Ft
Minimum	1																											
Standard	2	24		1 1/8	3/8	1/2		8	4	9 1/2	1/2	3 5/8	7 1/4	5 1/4	10 1/2	1 3/16	2 3/8											4.0
Oversize	3	36		1 3/8	1/2	5/8		12	6	14 1/4	3/4	5 7/16	10 7/8	7 7/8	15 3/4	1 3/4	3 1/2											9.0
Exp way	4	48		2 1/4	3/4	1		16	8	19	1	7 1/4	14 1/2	10 1/2	21	2 3/8	4 3/4											16.0
Freeway	5	96		4 1/2	1 1/2	2		32	16	38	2	14 1/2	29	21	42	4 3/4	9 1/2											64.0
Bicycle	6																											
Snowmobile	7																											
		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																											
Bicycle	6																											
Snowmobile	7																											

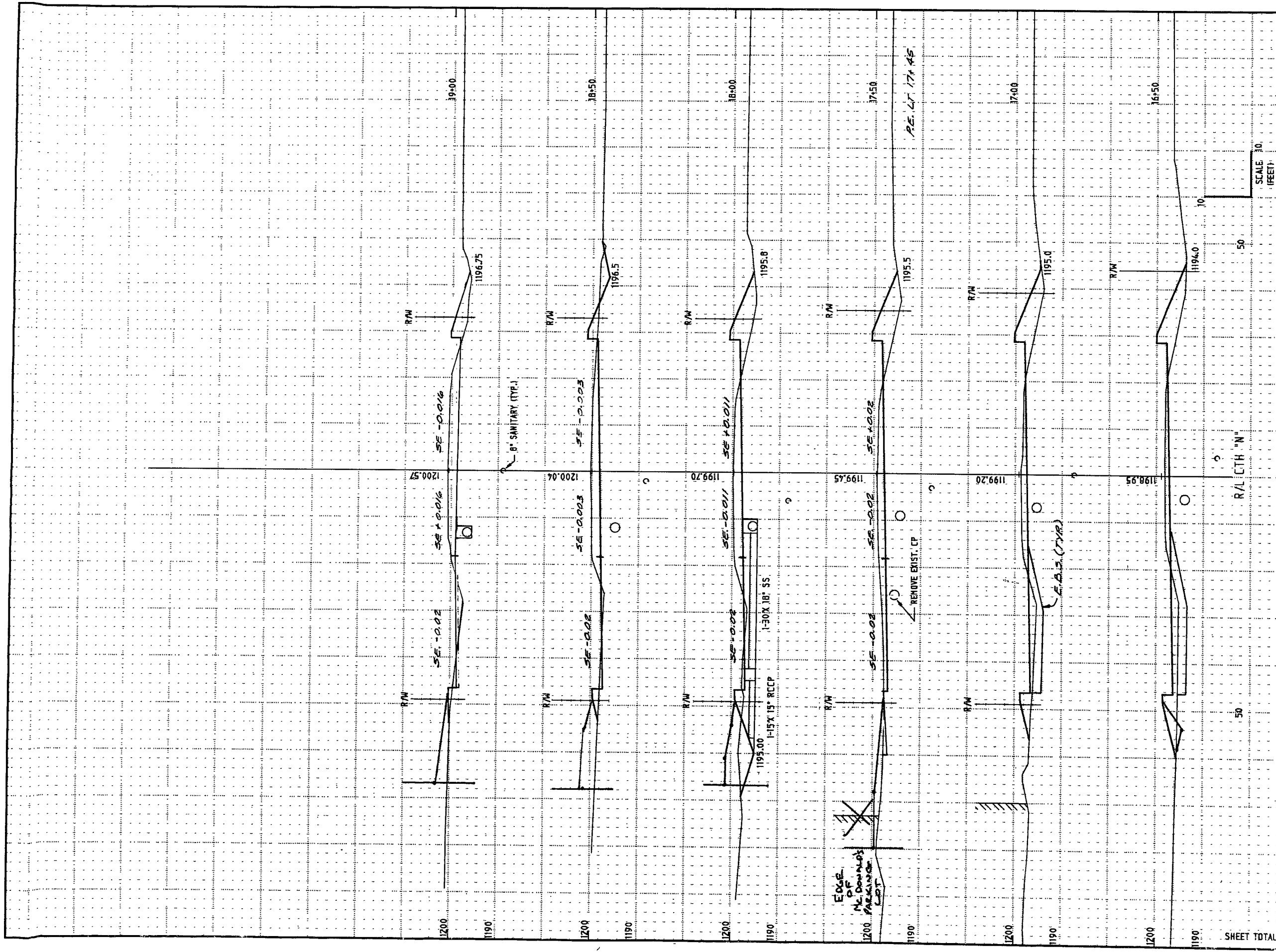


ARROW DETAIL

Date Drawn - 6-1-64	Date Redrawn - 11-7-80
Date Revised - 2-7-75	1-13-78
	11-7-80
STANDARD SIGN W12-1D	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	Chief Traffic Engineer
DATE 7-15-81	PLATE NO W12-1D.8



STATE PROJECT NUMBER												SHEET NUMBER
6999-01-60												9.1
YARDAGE												
EXCAVATION												
DISTANCE												
UNCL.												
FILL												
STATION												
16:00												
16:50												
15:00												
15:20												
15:50												
16:00												
16:15												
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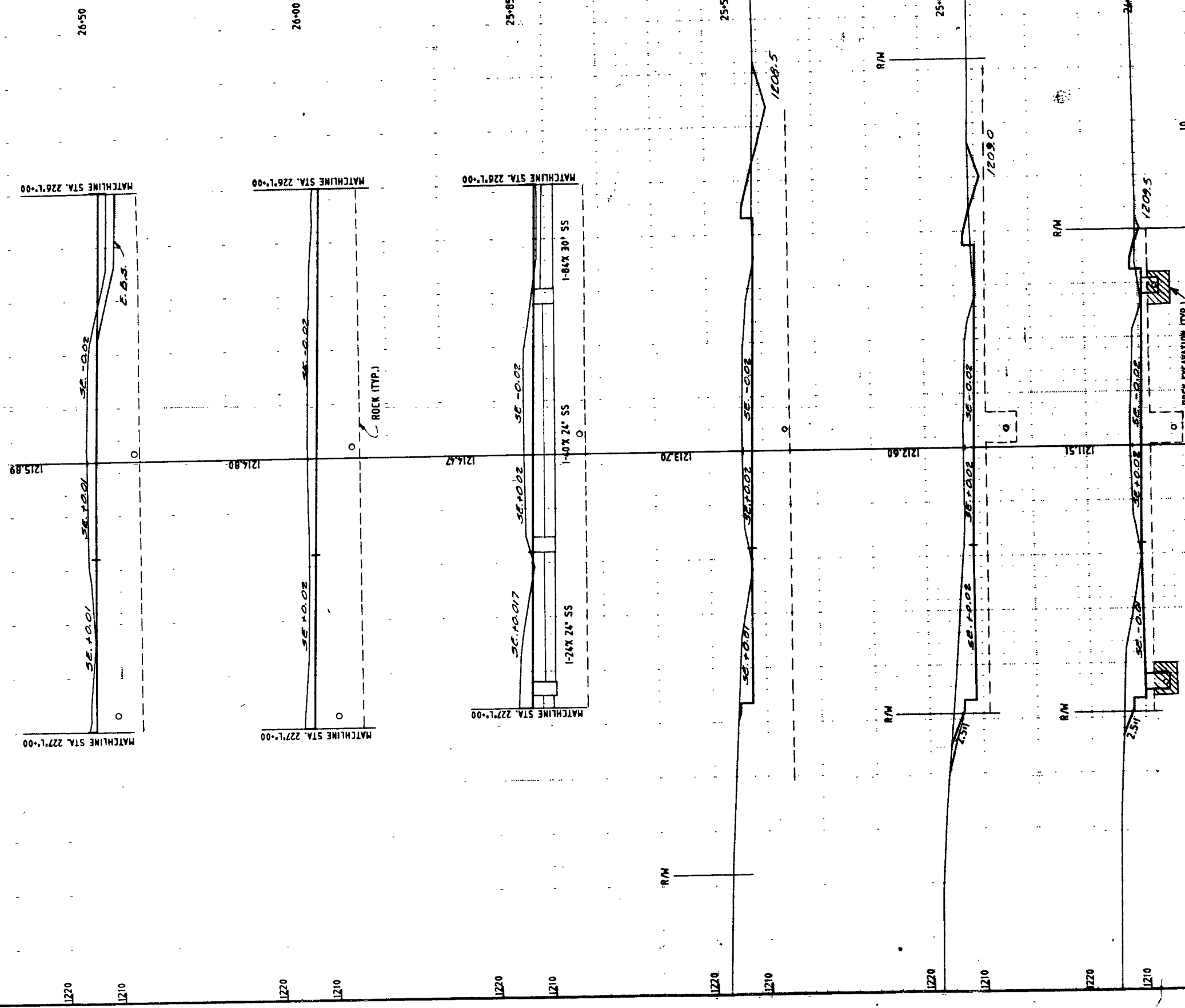


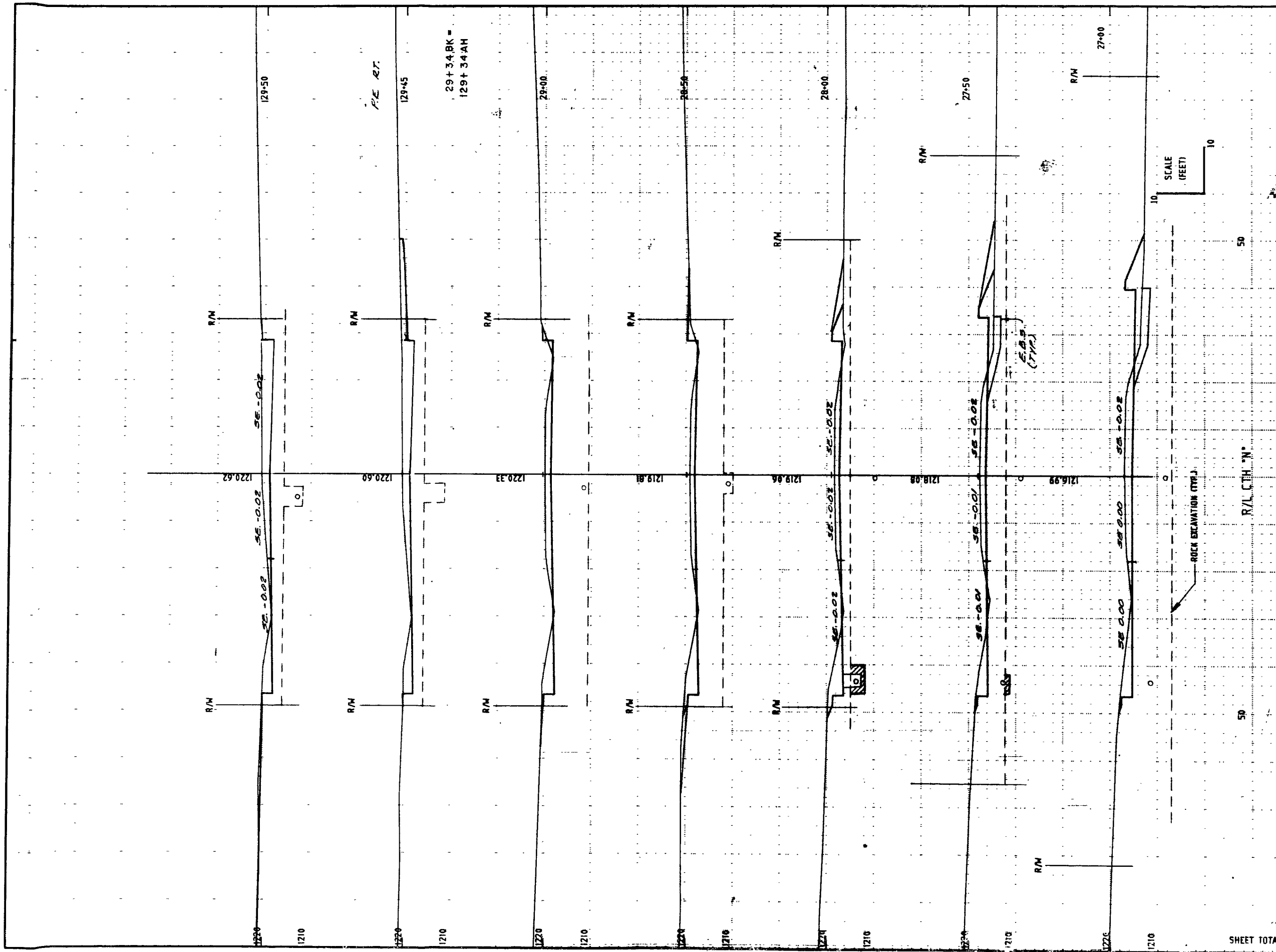
STATE PROJECT NUMBER -										SHEET NUMBER
6999-01-60										92
YARDAGE										STATION
EXCAVATION										
DISTANCE										FILL
UNCL.										
E.B.S.										BORROW
FILL										
16+50	17+00	17+50	18+00	18+50	19+00					
35	50	50	50	50	50					
39	62	104	136	139	146					
			</							

STATION	YARDAGE									
	DISTANCE									
	EXCAVATION									
	24+50	25+00	25+50	25+85	26+00	26+50	26+85	27+00	27+50	28+00
UNCL	50	50	50	35	15	50	75	234	234	234
ROCK	50	50	50	15	15	50	75	234	234	234
FILL	50	50	50	15	15	50	75	234	234	234
SHEET TOTAL										
	1300	12	71	24	24	24	24	24	24	24

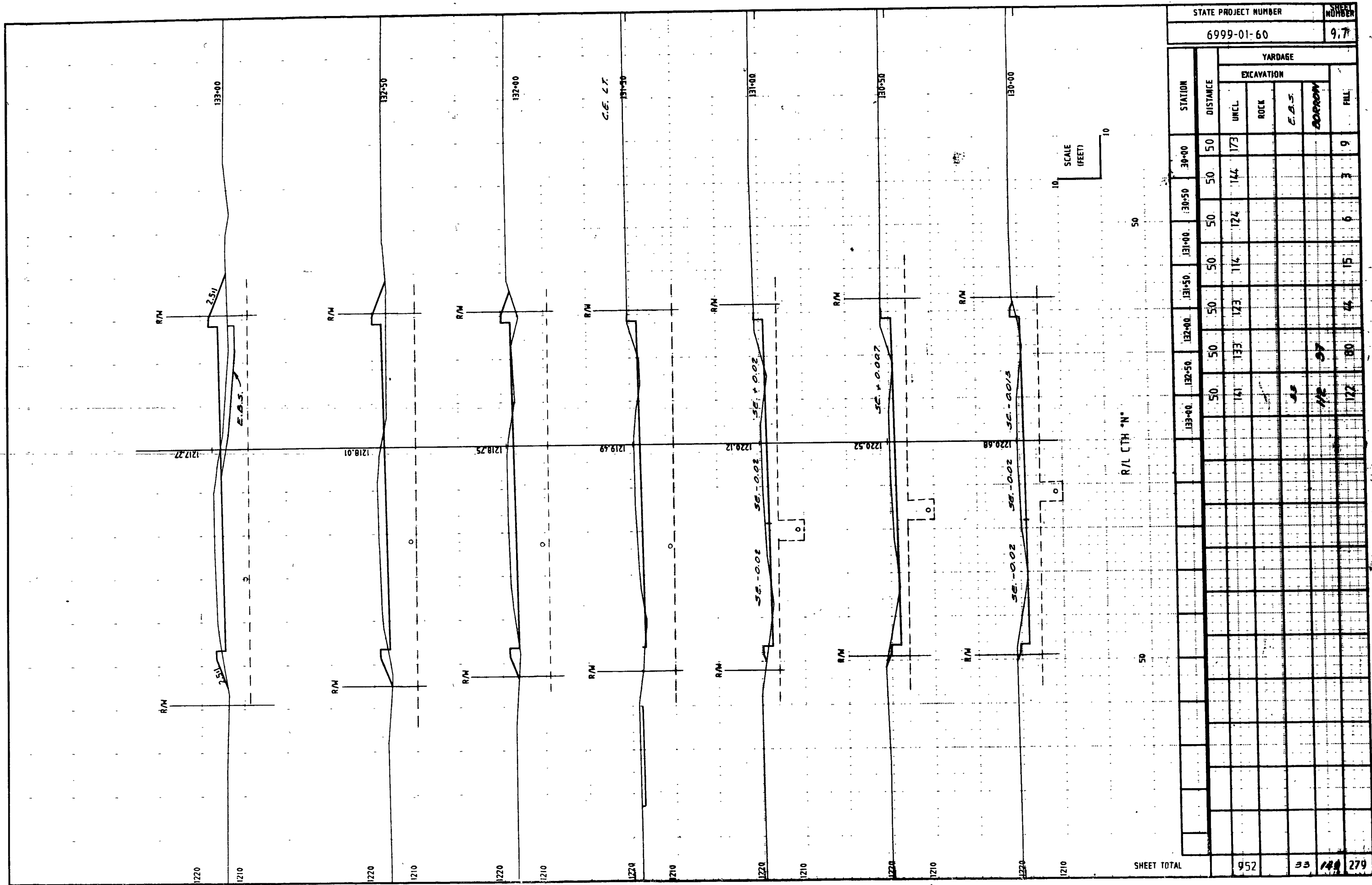


R/L CTH "N"





STATE PROJECT NUMBER										SHEET NUMBER
6999-01-60										9.6
STATION	YARDAGE									
	EXCAVATION									
	DISTANCE									
	27+00	27+50	28+00	28+50	29+00	29+50	30+00	30+50	31+00	31+50
UNCL	175	150	130	147	143	149	161	175	180	185
ROCK	0	4	24	2	0	0	0	0	0	0
FILL	0	33	14	18	18	18	18	18	18	18
TOTAL	175	187	158	167	161	167	179	180	198	203



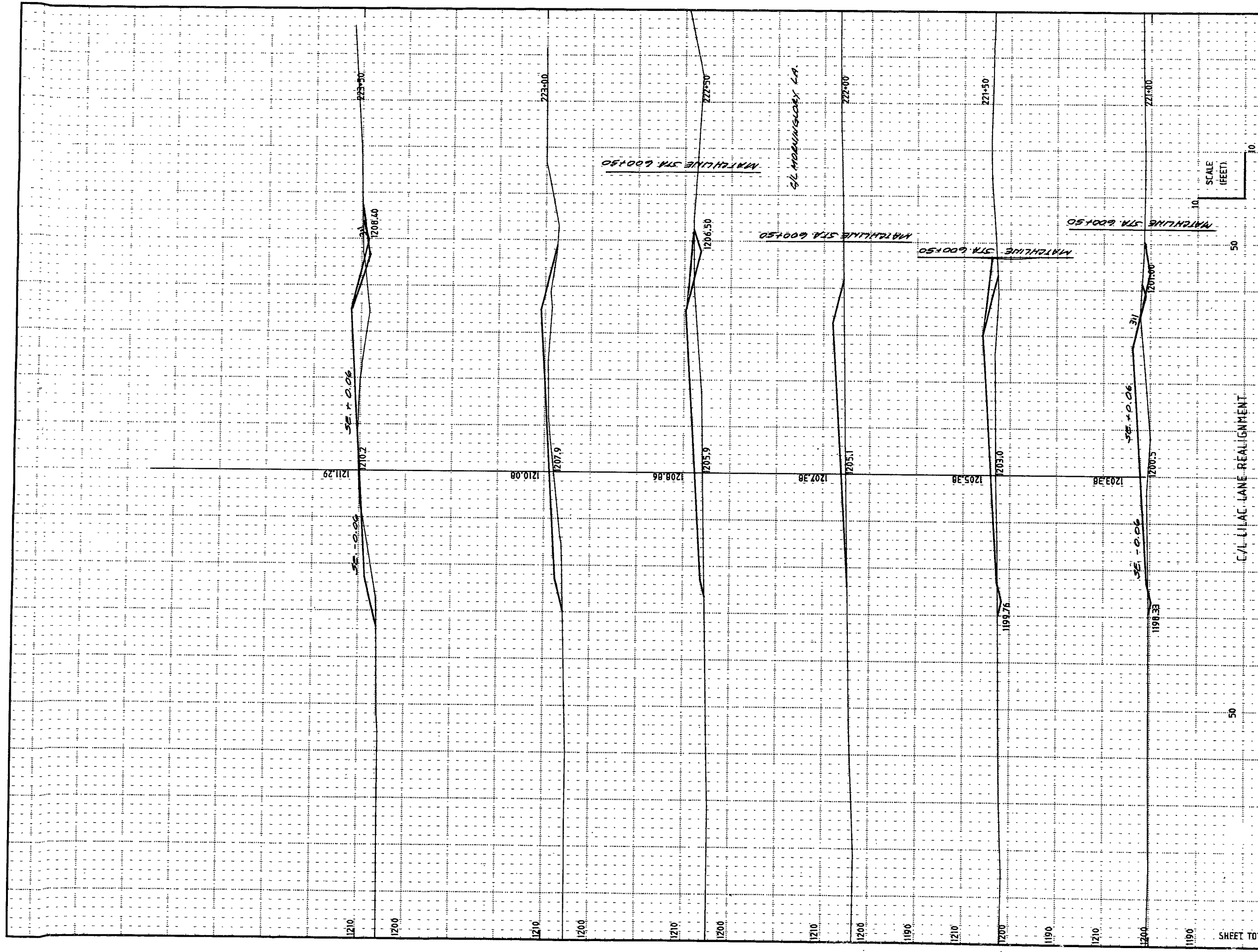
SHEET TOTAL

STATE PROJECT NUMBER										SHEET NUMBER
6999-01-60										9.7
STATION	YARDAGE									
	DISTANCE									
	UNCL	ROCK	E.A.S.	BOTTOM	FILL					
130+00	50				15	4	4	30	12	279
130+50	50				15	4	4	30	12	279
131+00	50				15	4	4	30	12	279
131+50	50				15	4	4	30	12	279
132+00	50				15	4	4	30	12	279
132+50	50				15	4	4	30	12	279
133+00	50				15	4	4	30	12	279
TOTAL										952

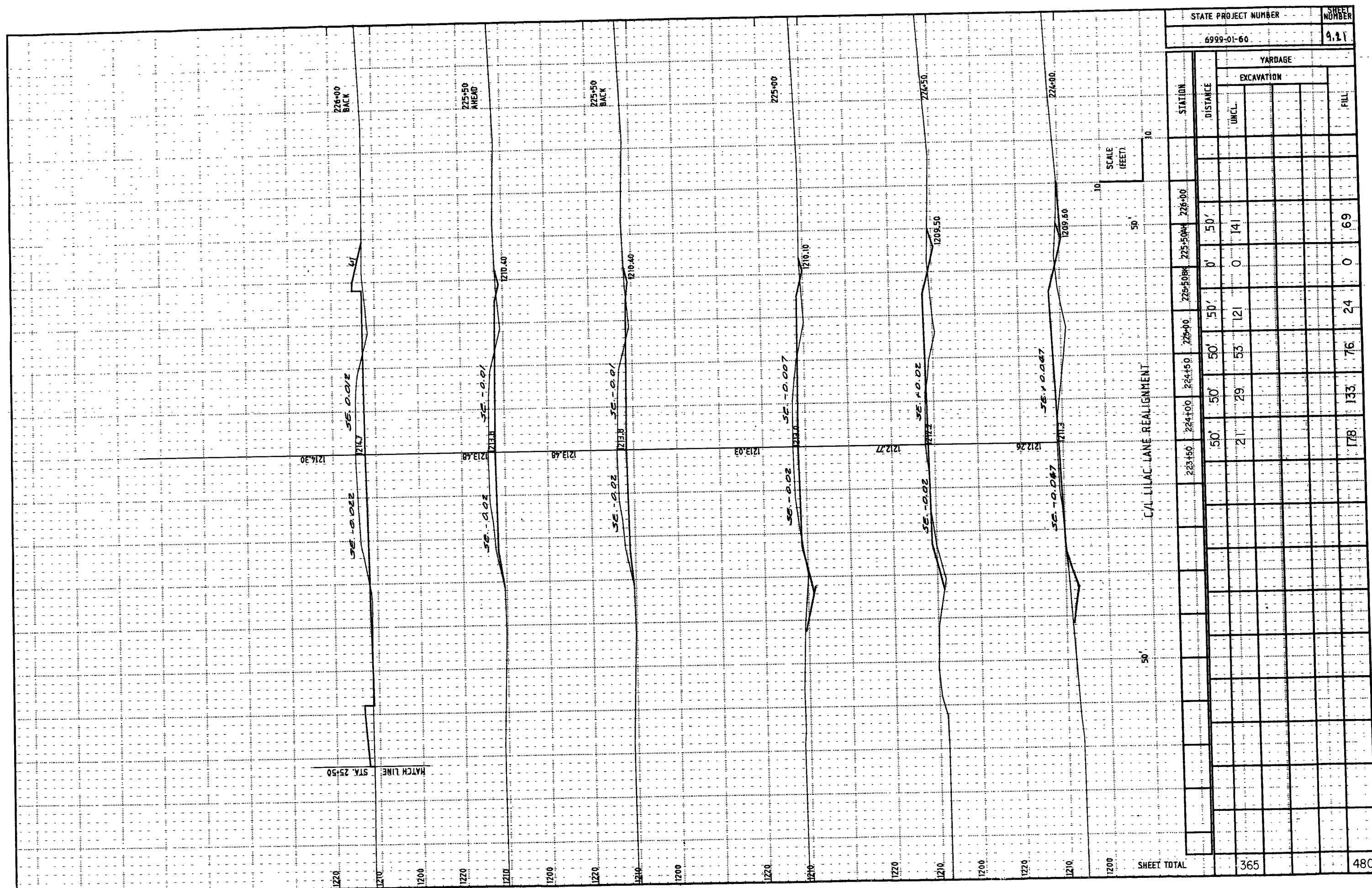


STATE PROJECT NUMBER												SHEET NUMBER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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STA 203+00 TO STA 206+50

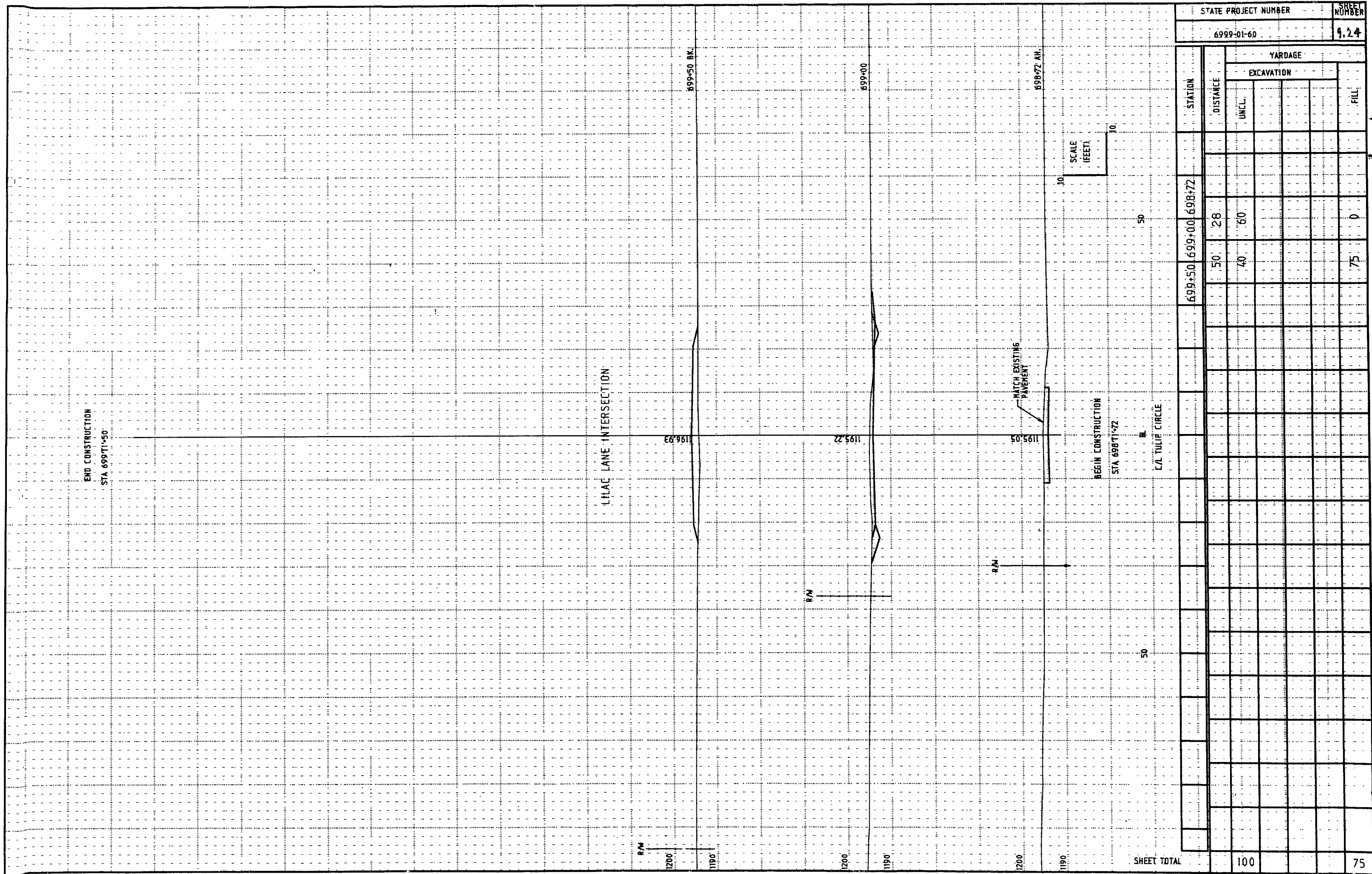


STATE PROJECT NUMBER										SHEET NUMBER
6999-01-60										9.20
STATION	YARDAGE									
	EXCAVATION									
	DISTANCE	UNCL.								FILL
220+00	50'	50'	50'	50'	50'	50'	50'	50'	50'	199
220+50	50'	50'	50'	50'	50'	50'	50'	50'	50'	225
221+00	50'	50'	50'	50'	50'	50'	50'	50'	50'	228
221+50	50'	50'	50'	50'	50'	50'	50'	50'	50'	205
222+00	50'	50'	50'	50'	50'	50'	50'	50'	50'	192
222+50	50'	50'	50'	50'	50'	50'	50'	50'	50'	205
223+00	50'	50'	50'	50'	50'	50'	50'	50'	50'	225
223+50	50'	50'	50'	50'	50'	50'	50'	50'	50'	199
SHEET TOTAL										
38										1235



STA 2241+00 TO STA 2261+00

STATION	YARDAGE			
	DISTANCE	EXCAVATION		FILL
		UNCL.		
05+00	0.5	0.9		0.5
06+00	1.0	0.1		0
07+00	1.5			
08+00	2.0			
09+00	2.5			
10+00	3.0			
11+00	3.5			
12+00	4.0			
13+00	4.5			
14+00	5.0			
15+00	5.5			
16+00	6.0			
17+00	6.5			
18+00	7.0			
19+00	7.5			
20+00	8.0			
21+00	8.5			
22+00	9.0			
23+00	9.5			
24+00	10.0			
25+00	10.5			
26+00	11.0			
27+00	11.5			
28+00	12.0			
29+00	12.5			
30+00	13.0			
31+00	13.5			
32+00	14.0			
33+00	14.5			
34+00	15.0			
35+00	15.5			
36+00	16.0			
37+00	16.5			
38+00	17.0			
39+00	17.5			
40+00	18.0			
41+00	18.5			
42+00	19.0			
43+00	19.5			
44+00	20.0			
45+00	20.5			
46+00	21.0			
47+00	21.5			
48+00	22.0			
49+00	22.5			
50+00	23.0			
51+00	23.5			
52+00	24.0			
53+00	24.5			
54+00	25.0			
55+00	25.5			
56+00	26.0			
57+00	26.5			
58+00	27.0			
59+00	27.5			
60+00	28.0			
61+00	28.5			
62+00	29.0			
63+00	29.5			
64+00	30.0			
65+00	30.5			
66+00	31.0			
67+00	31.5			
68+00	32.0			
69+00	32.5			
70+00	33.0			
71+00	33.5			
72+00	34.0			
73+00	34.5			
74+00	35.0			
75+00	35.5			
76+00	36.0			
77+00	36.5			
78+00	37.0			
79+00	37.5			
80+00	38.0			
81+00	38.5			
82+00	39.0			
83+00	39.5			
84+00	40.0			
85+00	40.5			
86+00	41.0			
87+00	41.5			
88+00	42.0			
89+00	42.5			
90+00	43.0			
91+00	43.5			
92+00	44.0			
93+00	44.5			
94+00	45.0			
95+00	45.5			
96+00	46.0			
97+00	46.5			
98+00	47.0			
99+00	47.5			
100+00	48.0			
101+00	48.5			
102+00	49.0			
103+00	49.5			
104+00	50.0			
105+00	50.5			
106+00	51.0			
107+00	51.5			
108+00	52.0			
109+00	52.5			
110+00	53.0			
111+00	53.5			
112+00	54.0			
113+00	54.5			
114+00	55.0			
115+00	55.5			
116+00	56.0			
117+00	56.5			
118+00	57.0			
119+00	57.5			
120+00	58.0			
121+00	58.5			
122+00	59.0			
123+00	59.5			
124+00	60.0			
125+00	60.5			
126+00	61.0			
127+00	61.5			
128+00	62.0			
129+00	62.5			
130+00	63.0			
131+00	63.5			
132+00	64.0			
133+00	64.5			
134+00	65.0			
135+00	65.5			
136+00	66.0			
137+00	66.5			
138+00	67.0			
139+00	67.5			
140+00	68.0			
141+00	68.5			
142+00	69.0			
143+00	69.5			
144+00	70.0			
145+00	70.5			
146+00	71.0			
147+00	71.5			
148+00	72.0			
149+00	72.5			
150+00	73.0			
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153+00	74.5			
154+00	75.0			
155+00	75.5			
156+00	76.0			
157+00	76.5			
158+00	77.0			
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165+00	80.5			
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170+00	83.0			
171+00	83.5			
172+00	84.0			
173+00	84.5			
174+00	85.0			
175+00	85.5			
176+00	86.0			
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190+00	93.0			
191+00	93.5			
192+00	94.0			
193+00	94.5			
194+00	95.0			
195+00	95.5			
196+00	96.0			
197+00	96.5			
198+00	97.0			
199+00	97.5			
200+00	98.0			
201+00	98.5			
202+00	99.0			
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205+00	100.5			
206+00	101.0			
207+00	101.5			
208+00	102.0			
209+00	102.5			
210+00	103.0			
211+00	103.5			
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214+00	105.0			
215+00	105.5			
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217+00	106.5			
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253+00	124.5			
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256+00	126.0			
257+00	126.5			
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259+00	127.5			
260+00	128.0			
261+00	128.5			
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267+00	131.5			
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275+00	135.5			
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281+00	138.5			
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283+00	139.5			
284+00	140.0			
285+00	140.5			
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289+00	142.5			
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292+00	144.0			
293+00	144.5			
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301+00	148.5			
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303+00	149.5			
304+00	150.0			
305+00	150.5			
306+00	151.0			
307+00	151.5			
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309+00	152.5			
310+00	153.0			
311+00	153.5			
312+00	154.0			
313+00	154.5			
314+00	155.0			
315+00	155.5			
316+00	156.0			
317+00	156.5			
318+00	157.0			
319+00	157.5			
320+00	158.0			
321+00	158.5			
322+00	159.0			







STATE PROJECT NUMBER
6999-01-60

SHEET NUMBER
916

STATION	YARDAGE									
	DISTANCE	EXCAVATION								FILL
		UNCL.								
601+78	27.6	50	50	50	50	50	50	50	50	170
601+50	60	60	60	60	60	60	60	60	60	0
601+00										
600+50										
SHEET TOTAL		130								135

