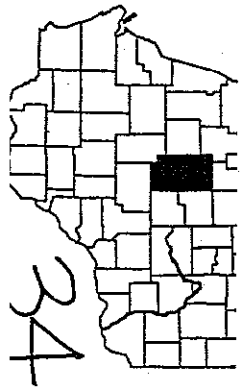


Rev 05
DER OF SHEETS

- ction No. 1 Title
- ction No. 2 Typical Sections and Details
- ction No. 3 Estimate of Quantities
- ction No. 3 Miscellaneous Quantities
- ction No. 4 Right of Way Plat
- ction No. 5 Plan and Profile
- ction No. 6 Standard Detail Drawings
- ction No. 7 Sign Plates
- ction No. 8 Structures
- ction No. 9 Comp
- ction No. 9 Cros

TOTAL SHEETS = 13



- ESIGN DESIGNATION
- .D.T. 2004 =
 - .D.T. 2023 =
 - .H.V. =
 - .D. =
 - .D. =
 - ESIGN SPEED =
 - SALS =

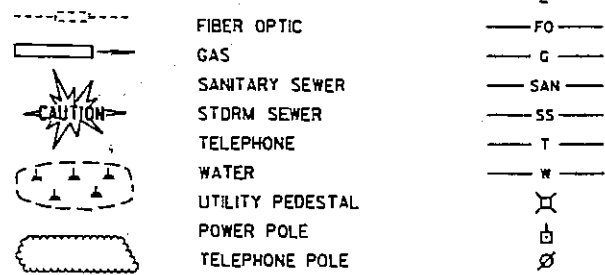
- ONVENTIONAL SYMBOL
- PLAN
 - CORPORATE LIMITS
 - PROPERTY LINE
 - LOT LINE
 - LIMITED HIGHWAY EASEMEN
 - EXISTING RIGHT OF WAY
 - PROPOSED OR NEW R/W L
 - SLOPE INTERCEPT
 - REFERENCE LINE
 - EXISTING CULVERT
 - PROPOSED CULVERT
(Box or Pipe)
 - TABLE FLUIDS
 - AREA

**CONSTRUCTION STAFF
(NAME/RESPONSIBILITIES)**

ERIC JOHNSON, REI / PROJECT LEADER

MATT SPINDLER, REI / INSPECTOR

MICHELLE GUOIN, REI / INSPECTOR



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

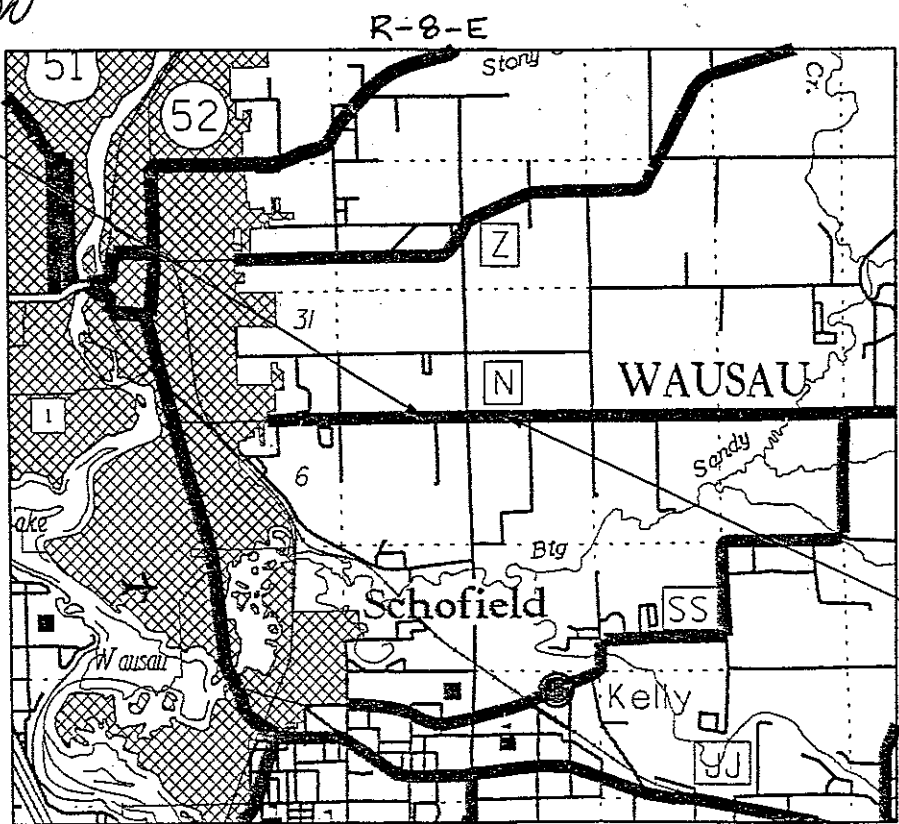
PLAN OF PROPOSED IMPROVEMENT

CAMP PHILLIPS ROAD INTERSECTION

CTH N - CAMP PHILLIPS ROAD
CTH N
MARATHON

AS BUILT
PAGE CHANGES

STATE PROJECT NUMBER
9439-04-75



END PROJECT 9439-04-75
STA. 69+00.00

TOTAL NET LENGTH OF CENTERLINE = 0.66 MI.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Marathon County.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9439-04-75	DEM 2005373	1

ACCEPTED FOR MARATHON COUNTY

1/24/05 Glenn Speich
(DATE) (SIGNATURE)
COMMISSIONER
(TITLE)

(DATE) (SIGNATURE)
(TITLE)

ORIGINAL PLANS PREPARED BY

MSA
PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL • SUBDIVISION
DEVELOPMENT • INFRASTRUCTURE

1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4505 Fax 608-356-2770

WISCONSIN
LOREN T. KUGLER
E-25987
BARABOO,
WISCONSIN
PROFESSIONAL ENGINEER

DATE: 1/25/05 Jean L. Kugler
(Professional Engineer)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor REI

Designer MSA PROFESSIONAL SERVICES

Project Manager JASON SCHAEFFER

District Examiner _____

District Supervisor _____

C.O. Examiner N. R. Ruffelt

APPROVED FOR DISTRICT OFFICE

DATE: 1/28/05 Roland Z. Hanz
(Signature)

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN



Toll Free (800) 242-8511 Milwaukee Area (414) 259-1181 Hearing Impaired TDD (800) 542-2289 www.DiggersHotline.com

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

UTILITIES

TELEPHONE VERIZON NORTH INC. 521 FOURTH STREET WAUSAU, WI 54403-4869 ATTN: MR. KEVIN SCHEDLBAUER (715) 847-1501

WISCONSIN PUBLIC SERVICE CORP. (POWER & GAS DIV.) 700 NORTH ADAMS STREET P.O. BOX 19001 GREEN BAY, WI. 54307-9001 ATTN: LORIBUTRY 920-433-1703

CABLE TV CHARTER COMMUNICATIONS 853 McINTOSH STREET WAUSAU WI. 54402-1818 ATTN: MR. JEFF KULAF 715-302-1483 (MOBILE)

GAS LINES ANR PIPELINE COMPANY W 3925 PIPELINE LANE EDEN, WI 53019 ATTN: LAWRENCE HUBER 920-477-4211 EXT 13

CC: DAN MILLER 18428 SOUTH WEST CREEK DRIVE TINLEY PARK, IL 60477 (708) 342-4724

CC: WILLIAM LAEHN N4956 OAKCREST DRIVE BONDUEL, WI 54107-8708 (715) 758-2131

DNR LIASON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES ATTN: MR. CAMERON BUMP ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST 473 GRIFFITH AVENUE WISCONSIN RAPIDS, WI 54494 PHONE: (715) 421-7867 FAX: (715) 421-7830

PROJECT DESIGNER

MSA PROFESSIONAL SERVICES, INC. ATTN: MR. LOREN T. KUGLER, P.E. 1230 SOUTH BOULEVARD BARABOO, WI 53913 TELEPHONE: (608)-356-2771 1-800-365-4505 FAX: (608) 356-2770

GENERAL NOTES

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.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, ARE TO BE FERTILIZED, SEEDED, OR TEMPORARILY SEEDED AS DIRECTED BY THE ENGINEER.

EXCAVATION BELOW SUBGRADE (EBS) WHICH IS NOT INDICATED ON THE CROSS SECTIONS AND WHICH IS REQUIRED BY THE ENGINEER SHALL BE MEASURED AND PAID FOR AS COMMON EXCAVATION. EBS IS NOT USED TO BALANCE YARDAGE.

FILL EXPANSION IS ESTIMATED AT 1.30.

THE EROSION CONTROL FEATURES SHOWN ON THE EROSION CONTROL PLAN ARE AT SUGGESTED LOCATIONS. EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.

THE EXACT LOCATION OF DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

A SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

THE EXACT NUMBER, LOCATION AND SPACING OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

CURB RADIUS IS TO FLAG UNLESS NOTED OTHERWISE.

EXPANSION JOINTS TO BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER

EARTHWORK WASTE MATERIAL SHOWN ON THE EARTHWORK SUMMARY SHALL BE HAULED FROM THE PROJECT, EXCEPT AS DIRECTED BY THE ENGINEER.

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

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE U.S.G.S DATUM

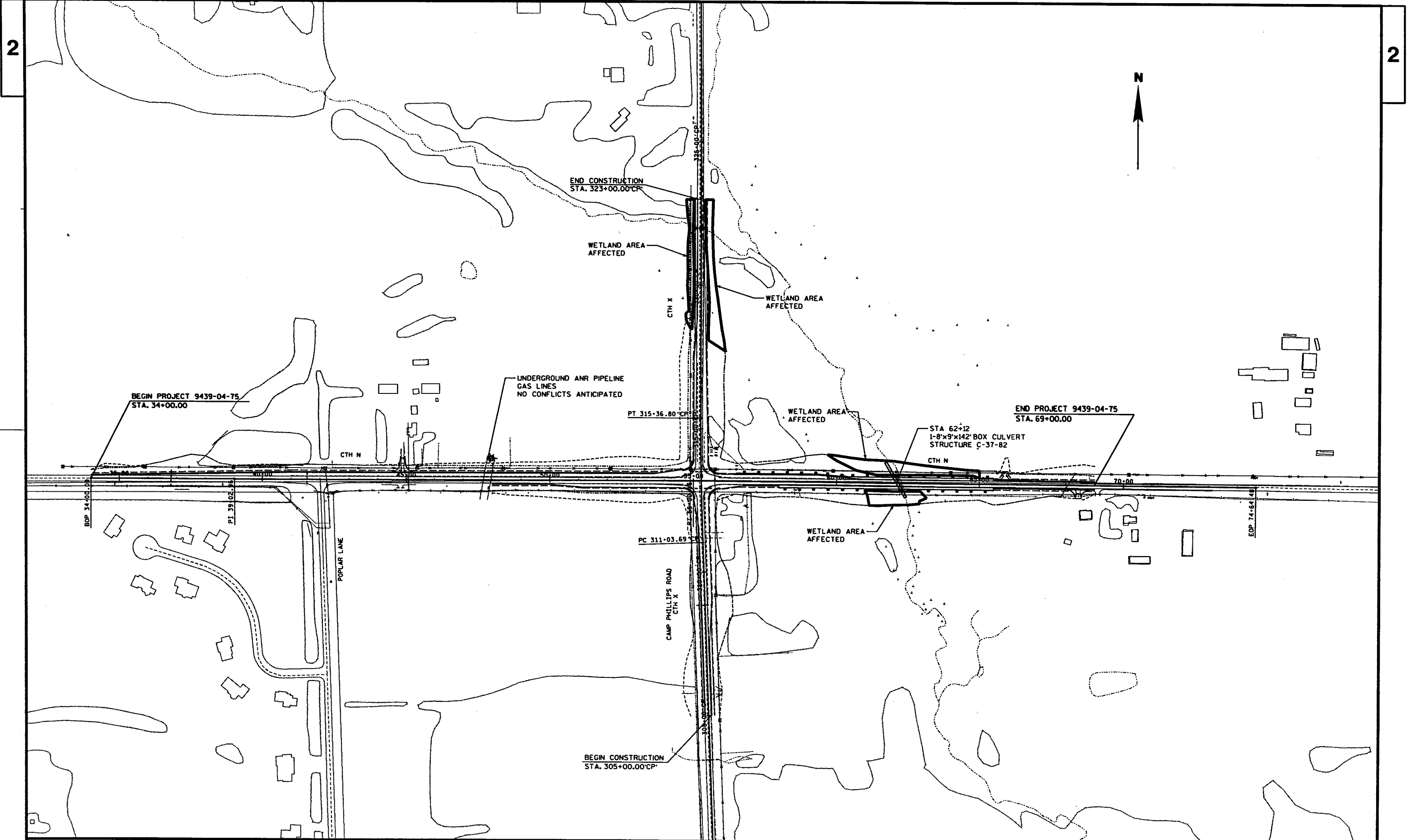
STANDARD DETAIL DRAWINGS

Table listing standard detail drawings with codes (e.g., 8D1-13, 8E8-3) and descriptions (e.g., Concrete Curb, Concrete Curb & Gutter and Pavement Ties).

RUNOFF COEFFICIENT TABLE

Table with columns for Hydrologic Soil Group (A, B, C, D) and Slope Range (Percent), and rows for Land Use (ROW CROPS, MEDIAN STRIP-TURF, SIDE SLOPE-TURF) and Pavement (ASPHALT, CONCRETE, BRICK, DRIVES, WALKS, ROOFS, GRAVEL ROADS, SHOULDERS).

TOTAL PROJECT AREA = 12.37 ACRES TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 12.37 ACRES



2

2



BEGIN PROJECT 9439-04-75
STA. 34+00.00

END CONSTRUCTION
STA. 323+00.00'CP

WETLAND AREA
AFFECTED

WETLAND AREA
AFFECTED

UNDERGROUND ANR PIPELINE
GAS LINES
NO CONFLICTS ANTICIPATED

PT 315+36.80'CP

WETLAND AREA
AFFECTED

END PROJECT 9439-04-75
STA. 69+00.00

STA 62+12
1-8'x9'x142' BOX CULVERT
STRUCTURE C-37-82

PC 311+03.69'CP

WETLAND AREA
AFFECTED

CAMP PHILLIPS ROAD
CTH X

BEGIN CONSTRUCTION
STA. 305+00.00'CP

PROJECT NO: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

PROJECT OVERVIEW

SHEET 3

E

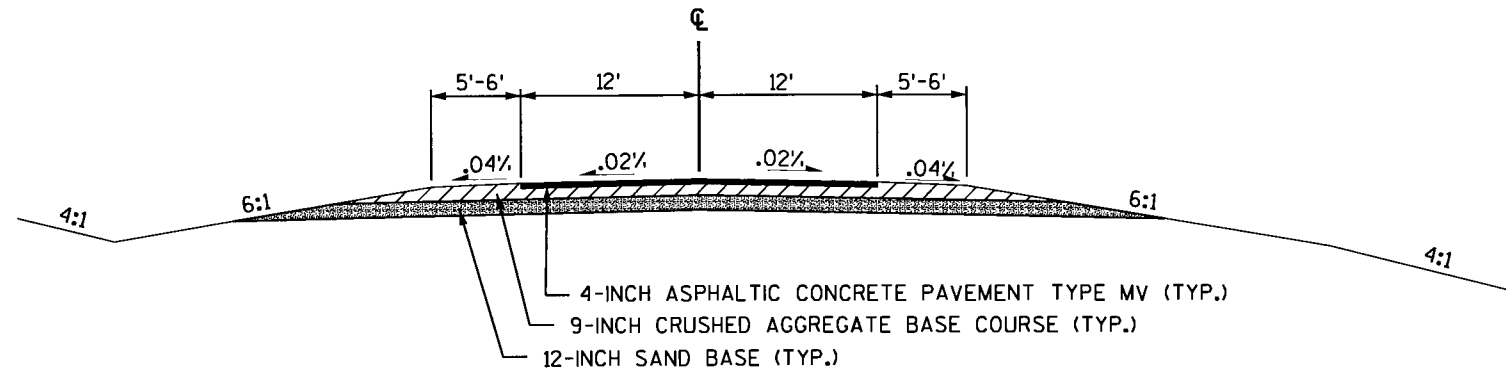
FILE NAME : ...projectoverview.dgn

PLOT DATE : 04/14/2005

PLOT BY : BErickso

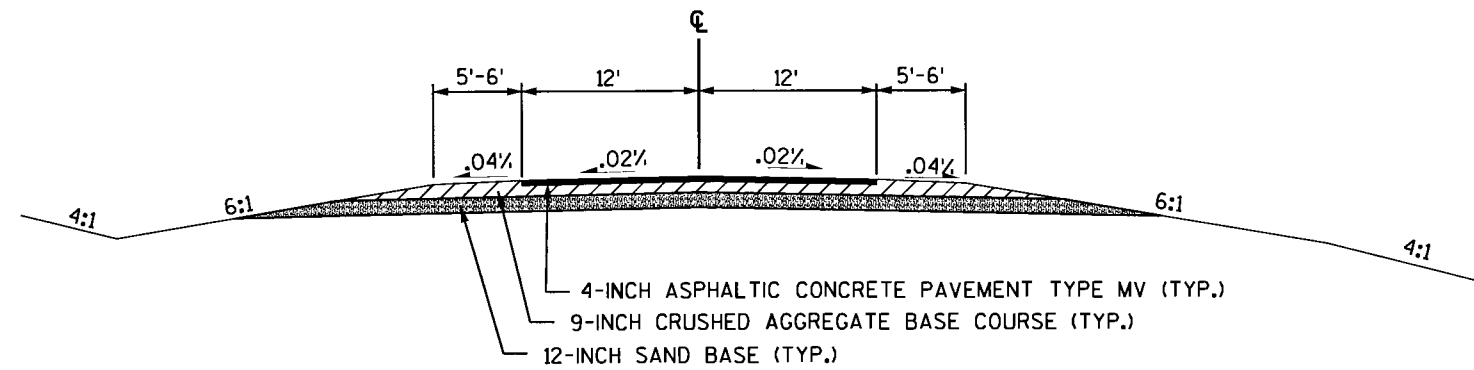
PLOT NAME :

PLOT SCALE : **.....plotscale.....** WISDOT/CADD SHEET 42
MSA PROFESSIONAL SERVICES



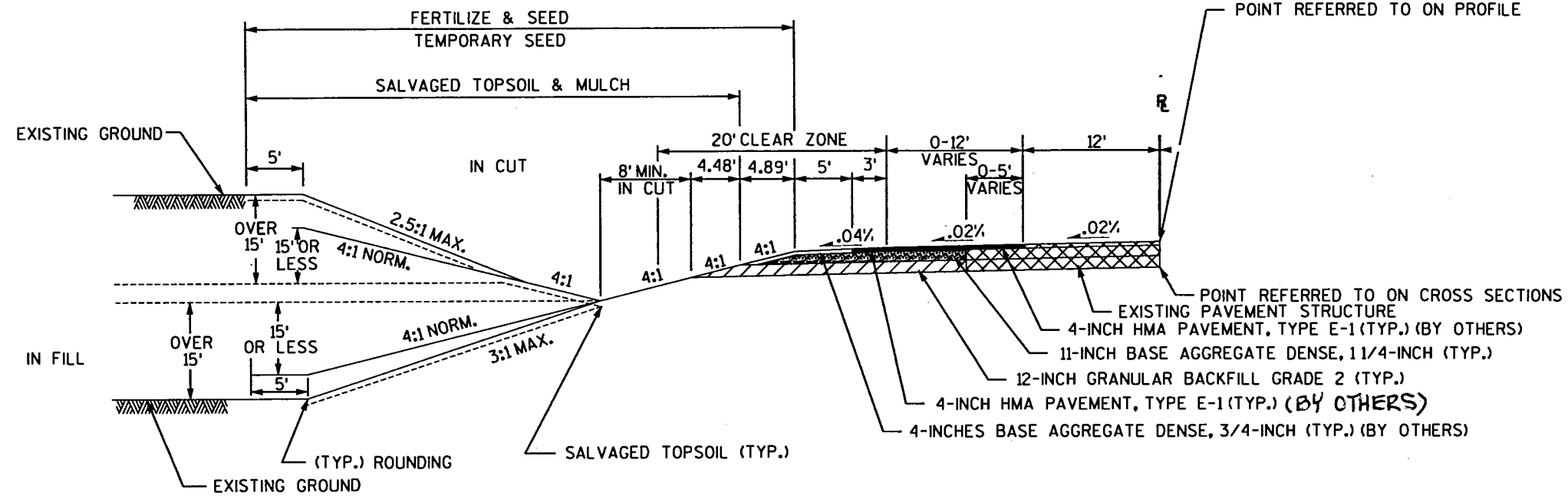
TYPICAL EXISTING SECTION FOR CTH N

CTH N 34+00.00 - 69+00.00

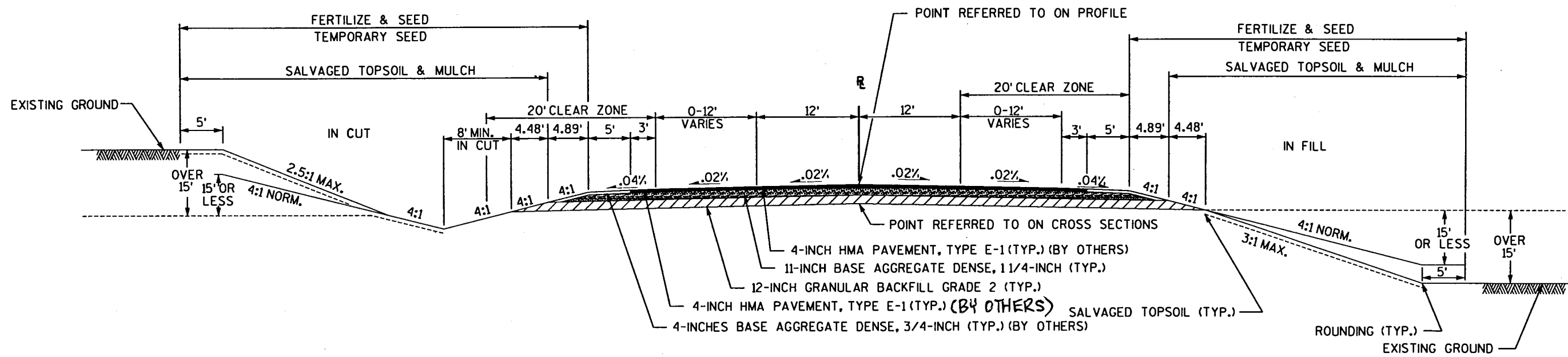


TYPICAL EXISTING SECTION FOR CAMP PHILLIPS

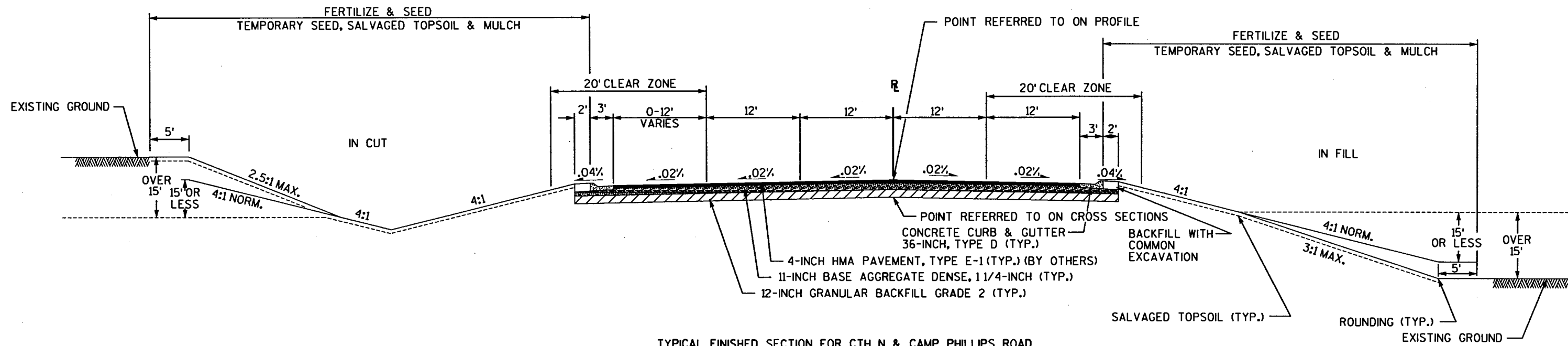
CAMP PHILLIPS 305+00.00 - 323+00.00



TYPICAL FINISHED SECTION FOR CTH N
 CTH N 34+00.00 - 48+00.00

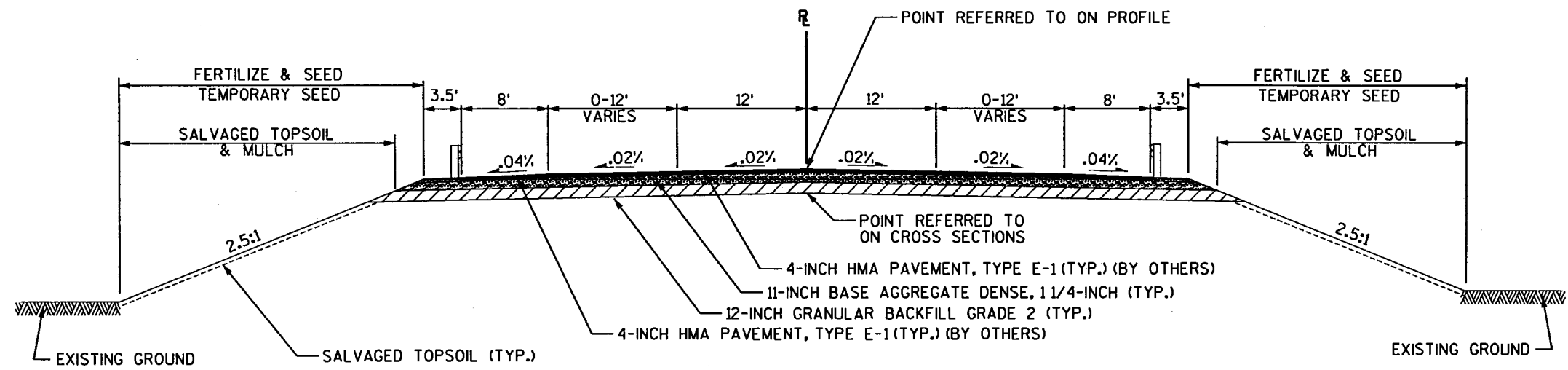


TYPICAL FINISHED SECTION FOR CTH N
 CTH N 48+00.00 - 54+62.00



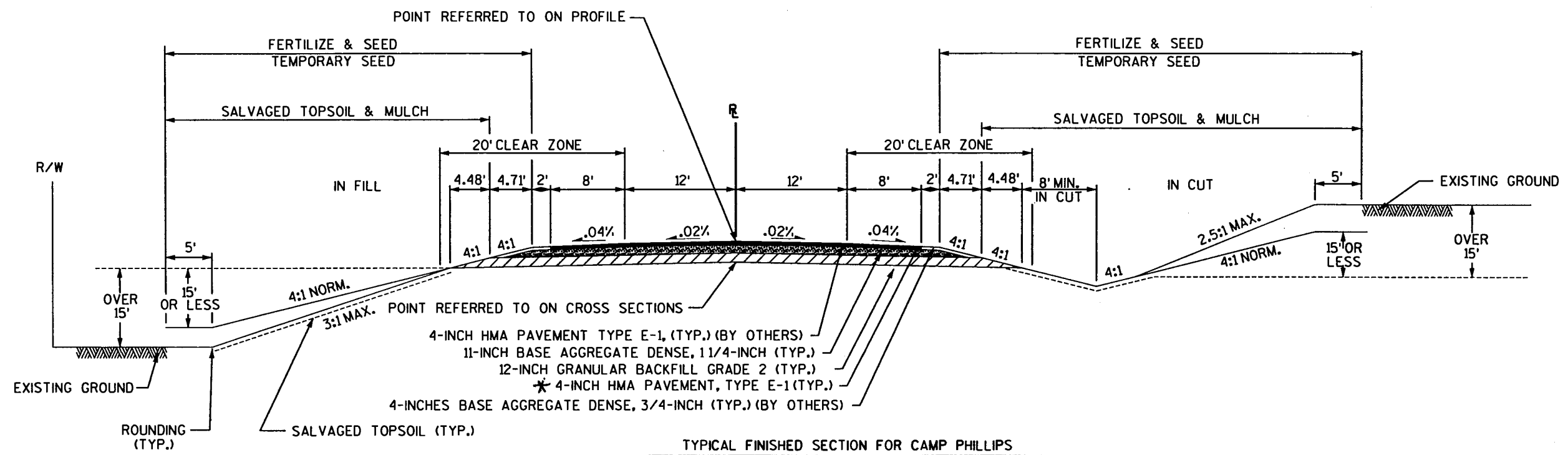
TYPICAL FINISHED SECTION FOR CTH N & CAMP PHILLIPS ROAD

CTH N	54+62.00 - 55+93.00
CAMP PHILLIPS	312+53.19'CP' - 313+91.00'CP'



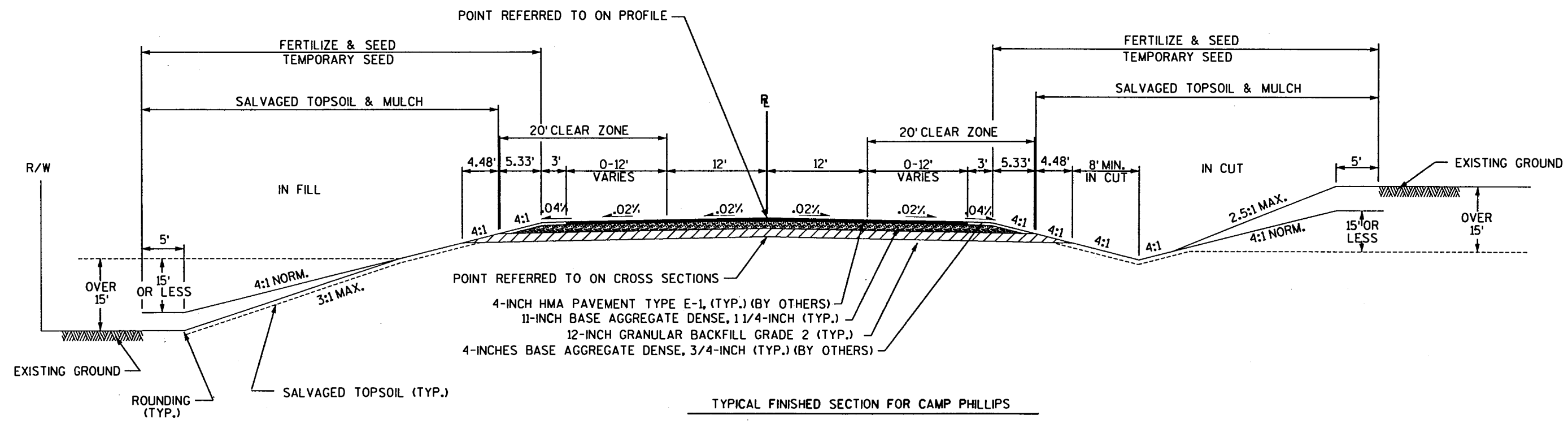
TYPICAL FINISHED SECTION WITH BEAMGUARD FOR CTH N

CTH N	55+93.00 - 69+00.00
-------	---------------------

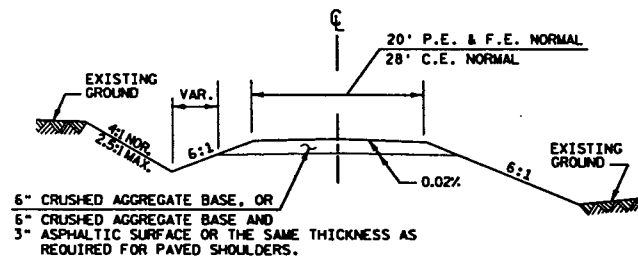


* BY OTHERS

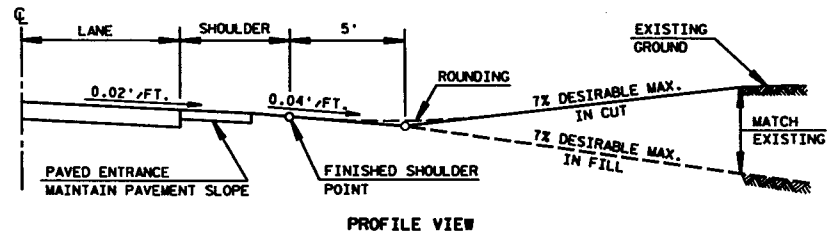
CAMP PHILLIPS 305+00.00'CP' - 307+53.01'CP'
 320+22.17'CP' - 323+00.00'CP'



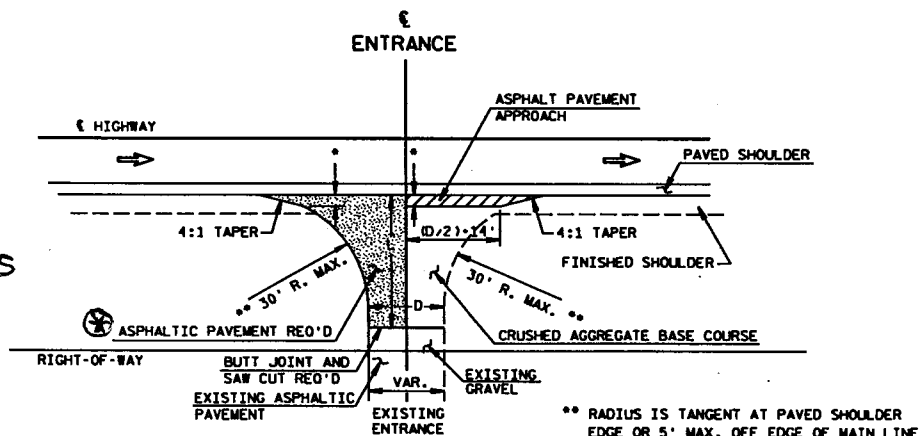
CAMP PHILLIPS 307+53.01'CP' - 312+53.19'CP'
 313+91.00'CP' - 320+22.17'CP'



TYPICAL CROSS SECTION



PROFILE VIEW

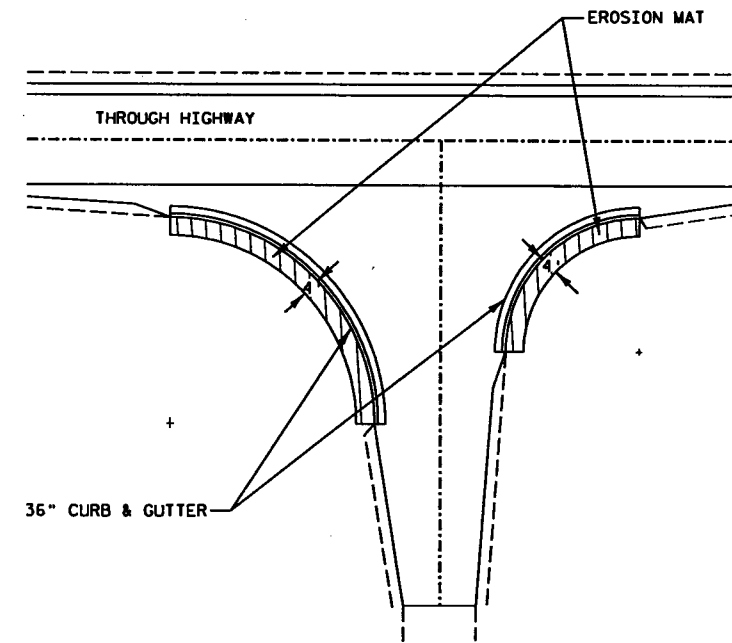


PLAN VIEW

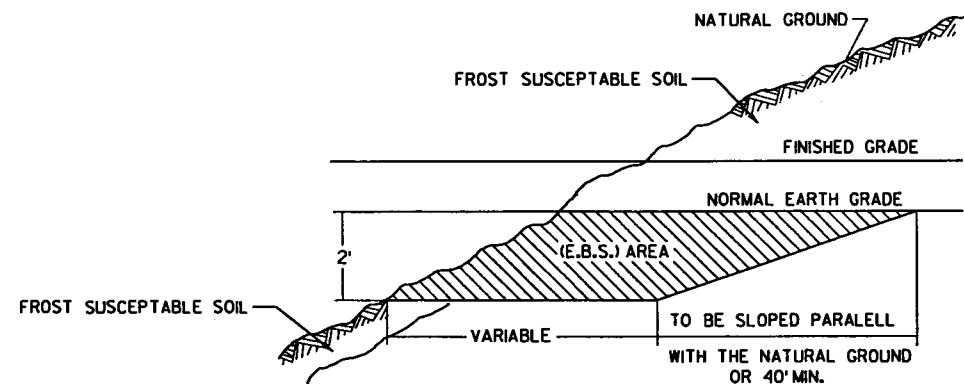
RURAL DRIVEWAY INTERSECTION DETAIL
(PE'S, FE'S & CE'S)
(FOR NEW CONSTRUCTION)

L-VARIABLE, EXACT LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER. BLEND BACK ON THE ENTRANCE FAR ENOUGH TO GET A SMOOTH PROFILE.

D-DRIVEWAY WIDTH
D=20'TYP. (PE'S & FE'S) (16'MIN.-24'MAX.)
D=28'TYP. (CE'S & FARM ENT.) (24'MIN.-35'MAX.)



EROSION MAT DETAIL
AT RURAL INTERSECTIONS



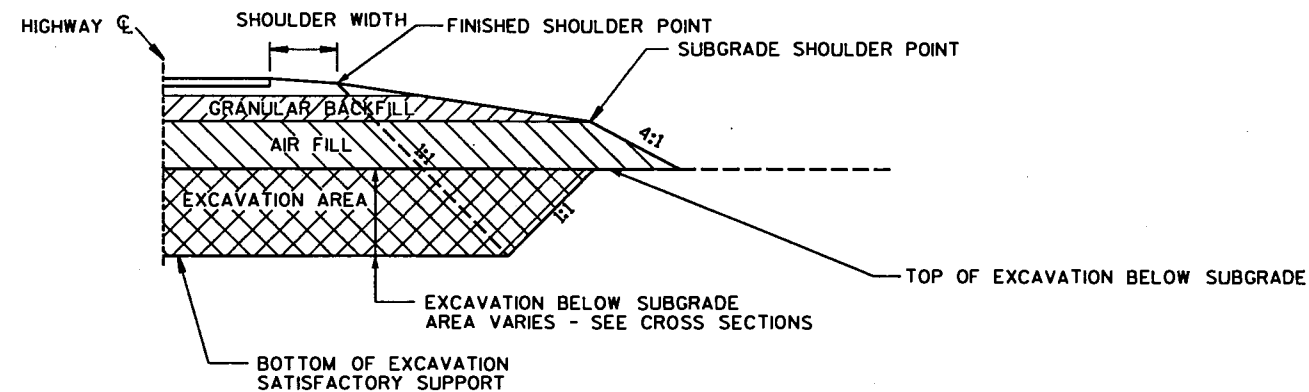
EXACT LOCATIONS OF (E.B.S.) SECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

(E.B.S.) AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER. BACKFILL MUST BE HOMOGENOUS WITH ADJOINING FILL MATERIAL.

THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL (E.B.S.) IS COMPLETED.

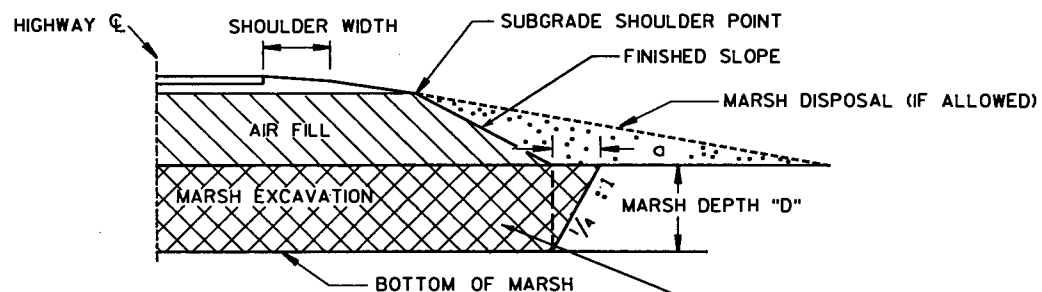
LATERAL LIMITS OF EXCAVATION SHALL BE THE SUBGRADE SHOULDER POINTS.

PROFILE FOR UNDERCUT SECTION



DETAIL FOR EXCAVATION BELOW SUGGRADE

$$a = (50/c * (d-10)/2) \geq 0$$

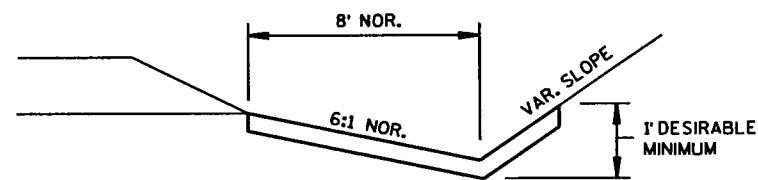


USE c=50, IF COHESION OF MARSH MATERIAL IS UNKNOWN. WHEN c=50:

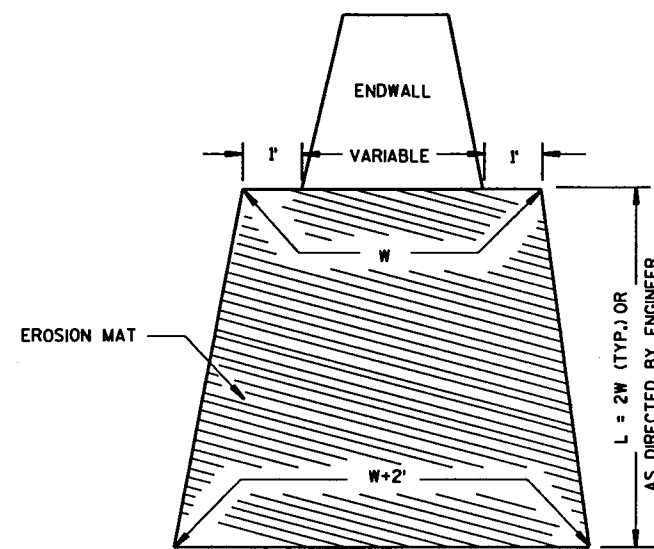
d	a
26'	8'
22'	6'
18'	4'
14'	2'
<10'	0'

BACKFILL TO 1' ABOVE ORIGINAL MARSH ELEVATION WITH MATERIAL MEETING THE REQUIREMENTS OF GRANULAR BACKFILL, GRADE 1.

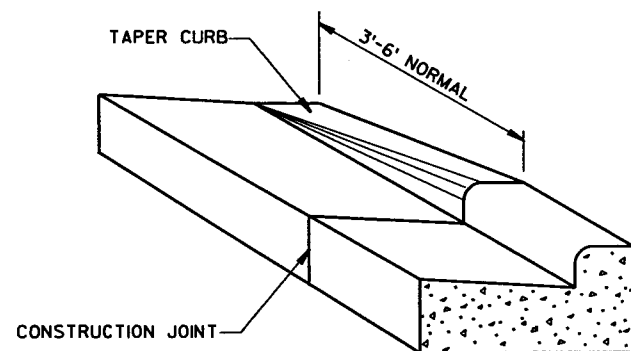
a = OFFSET DISTANCE FROM TOE OF SLOPE
 c = COHESION OF MARSH SOILS
 d = MARSH DEPTH



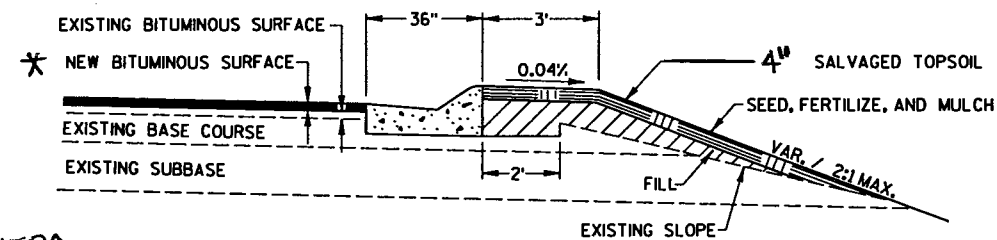
EROSION MAT DETAIL FOR DITCHES



EROSION MAT TREATMENT AT CULVERTS

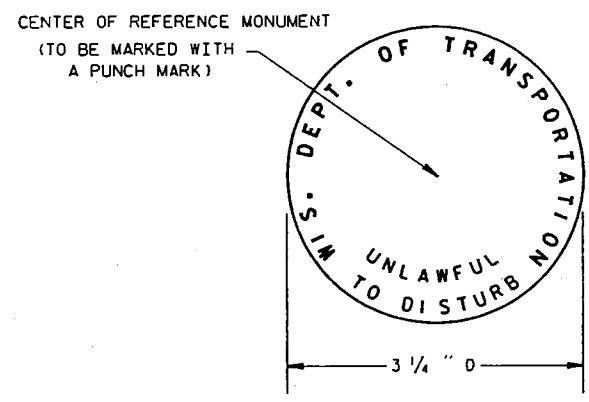


DETAIL OF CURB & GUTTER TERMINI

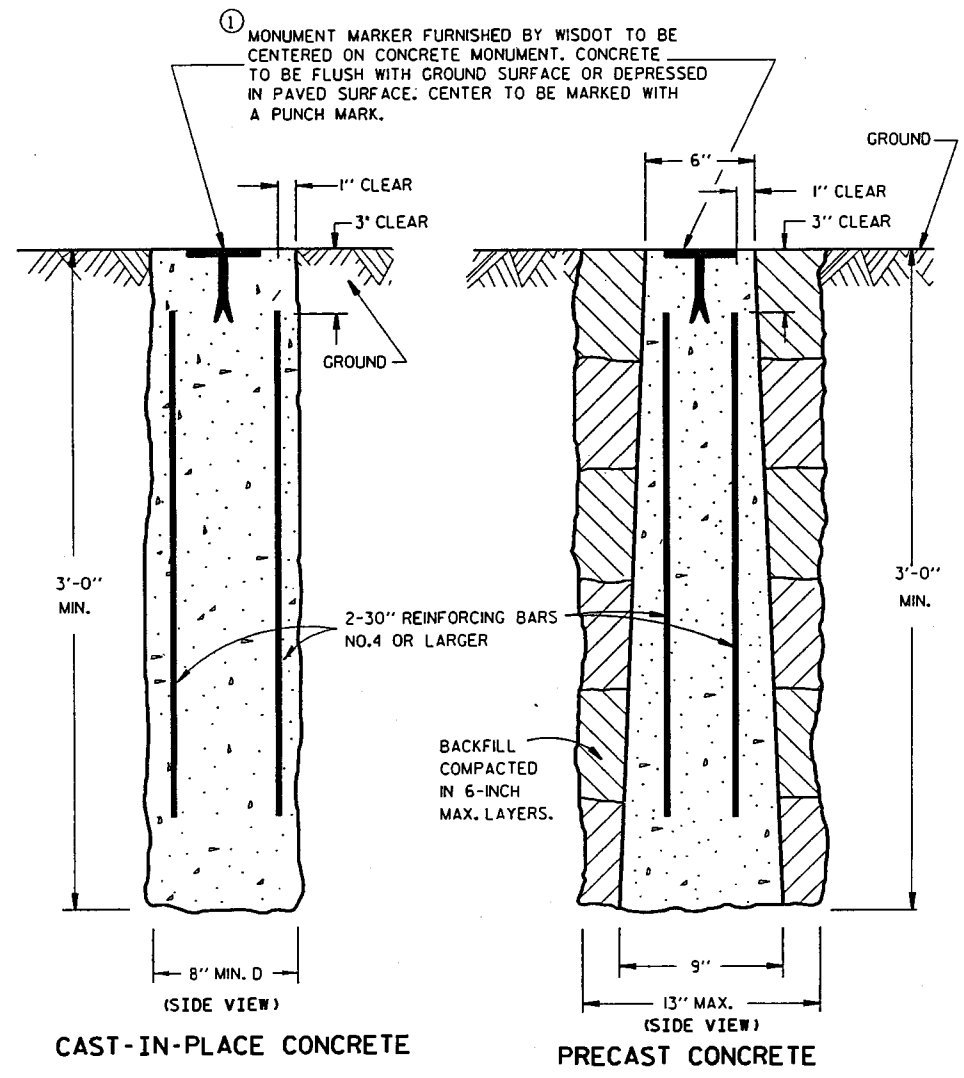


*BY OTHERS

DETAIL OF CURB & GUTTER INSTALLATION AT INTERSECTIONS

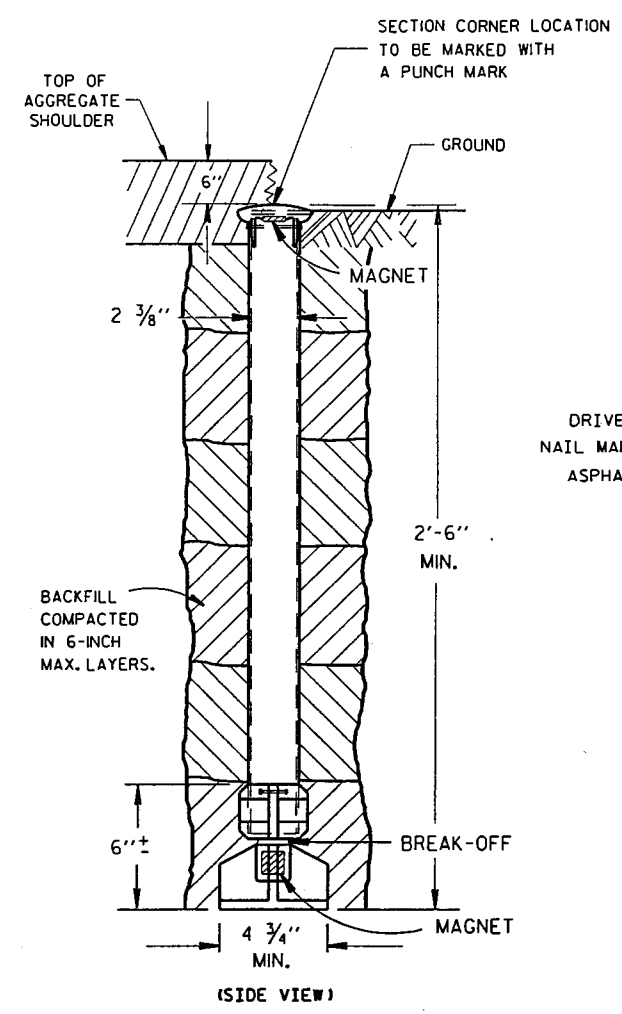


① WIS DOT MONUMENT MARKER LOGO

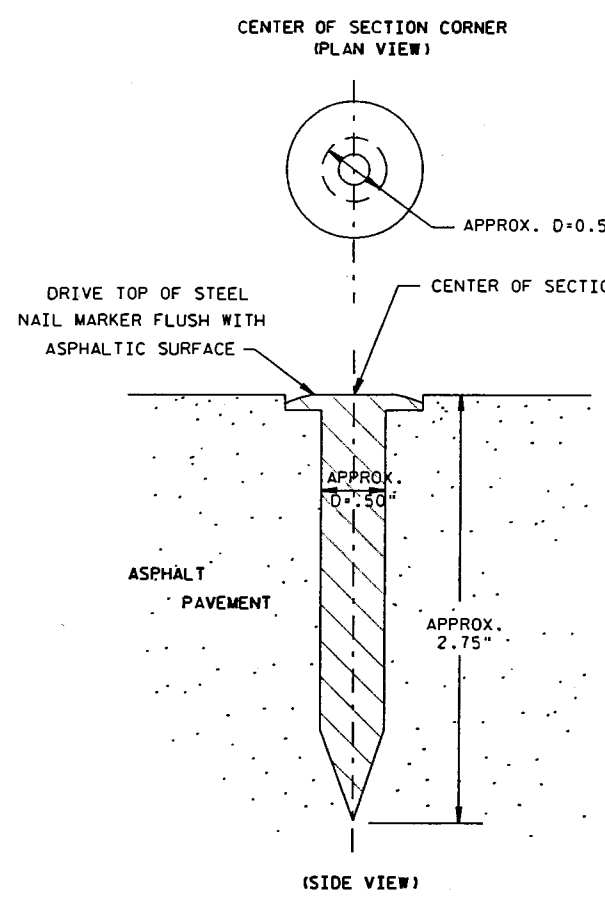


LANDMARK REFERENCE MONUMENTS (TIES ONLY)

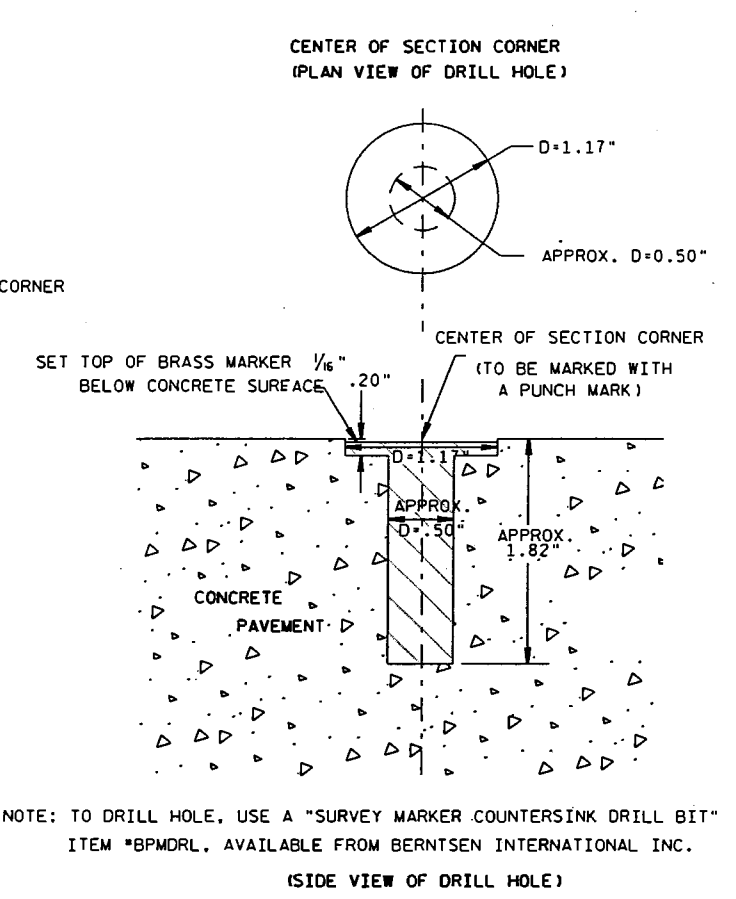
SECTION CORNER MONUMENT AND LANDMARK REFERENCE MONUMENT DETAIL



① BERNSTEN A1BR30 ALUMINUM BREAK-OFF MONUMENT



① BERNSTEN SNM1 STEEL NAIL MARKER



① BERNSTEN BP -1 BRASS MARKER WITH ANCHOR PLUG

SECTION CORNER MONUMENTS

GENERAL NOTES

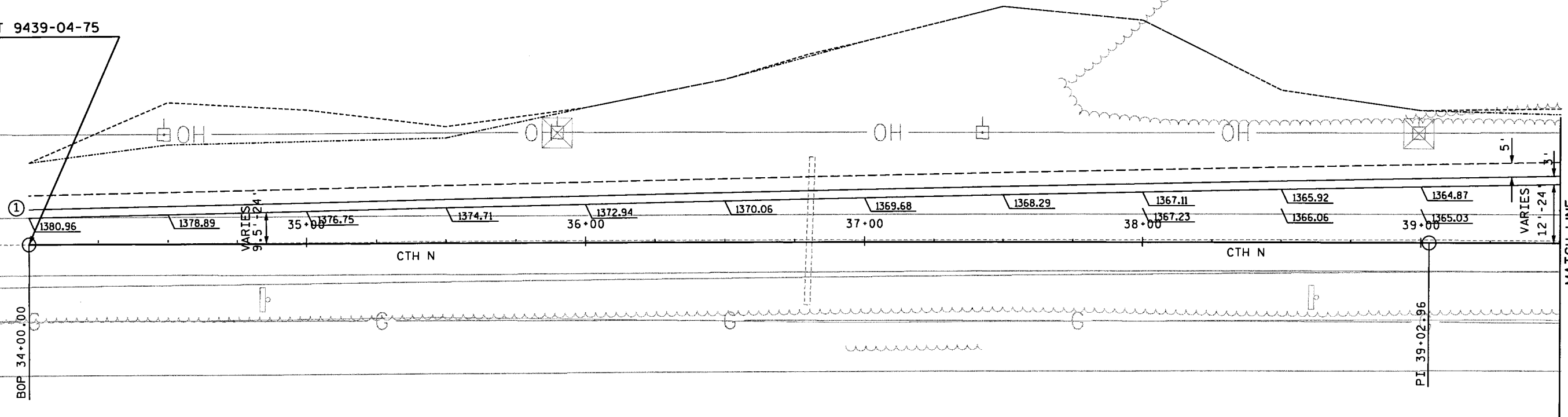
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

LOCATE LANDMARK REFERENCE MONUMENTS OUTSIDE THE CONSTRUCTION LIMITS AND WITHIN WISDOT RIGHT OF WAY. LOCATION TO BE APPROVED BY THE ENGINEER.

① THE DISTRICT SURVEY COORDINATOR WILL SUPPLY.

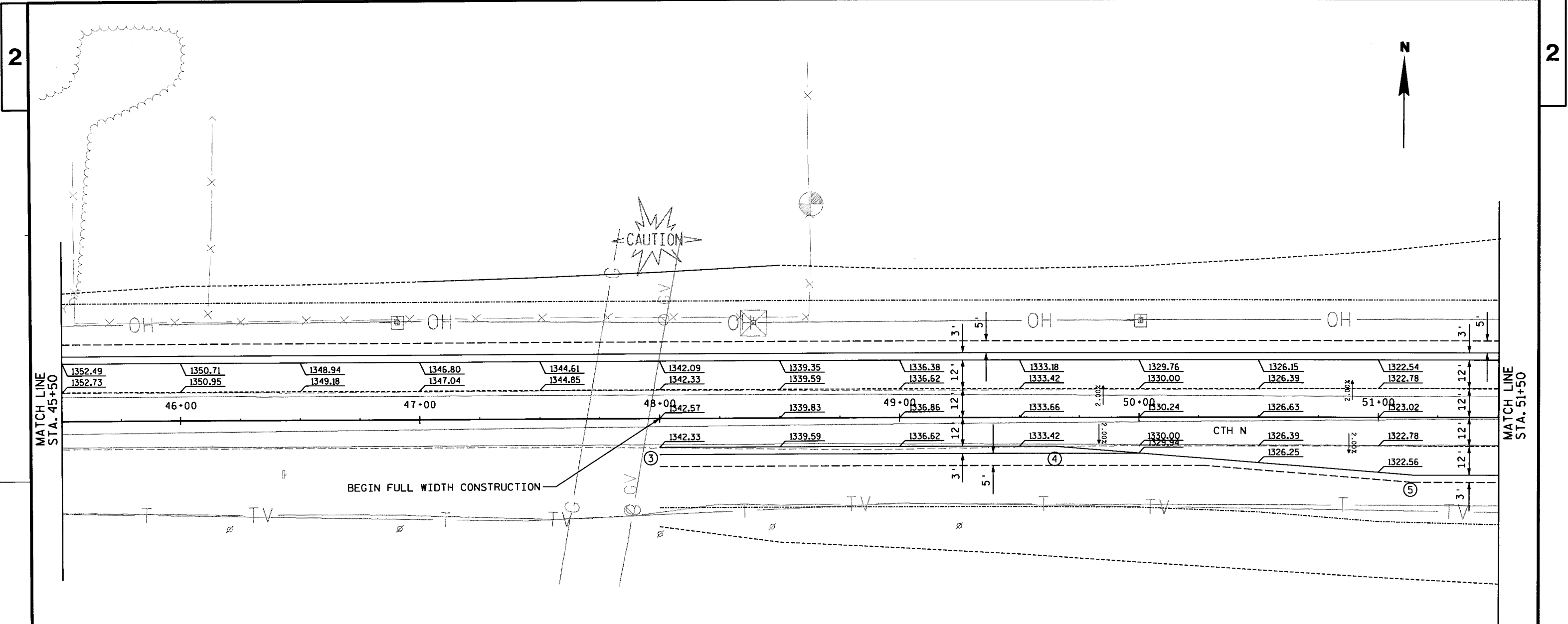


BEGIN PROJECT 9439-04-75
STA. 34+00.00



DATA TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
1	34+00.00	9.57' LT	--



DATA TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
3	48+00.00	12' RT	--
4	49+64.42	12' RT	--
5	51+14.42	24' RT	--

DATA TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
6	54+64.42	24' RT	--
7	54+64.42	64' RT	40'
	312+56.73 'CP'	64' LT	40'
8	312+56.73 'CP'	24' LT	--
9	311+55.99 'CP'	12' LT	--
10	312+53.20 'CP'	24' RT	--
11	55+92.89	64' RT	40'
	312+53.20 'CP'	64' RT	40'
12	55+92.89	24' RT	--
13	56+92.89	12' RT	--

MATCH LINE
STA. 57+50'CP'

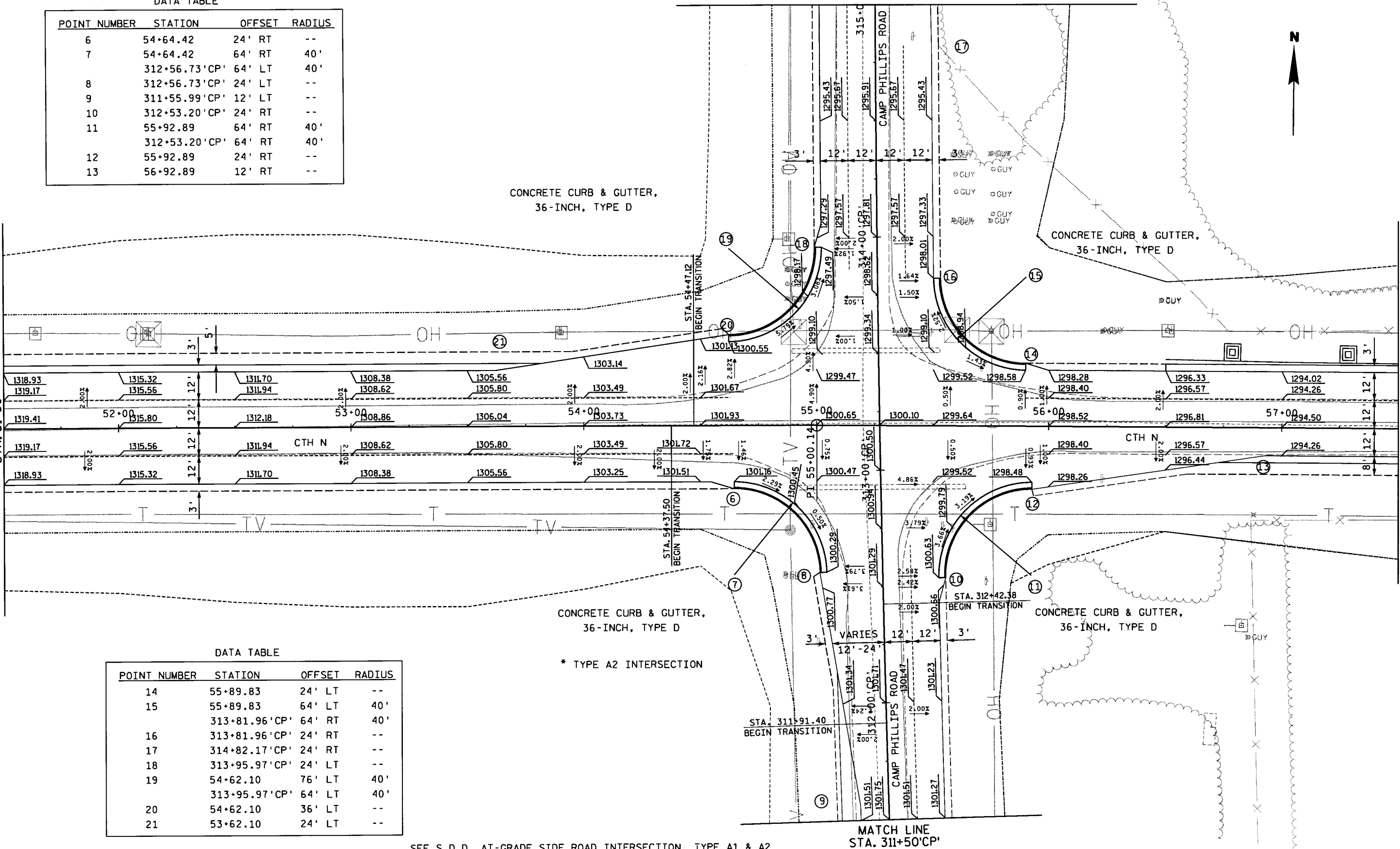


CONCRETE CURB & GUTTER,
36-INCH, TYPE D

CONCRETE CURB & GUTTER,
36-INCH, TYPE D

MATCH LINE
STA. 51+50

MATCH LINE
STA. 57+50



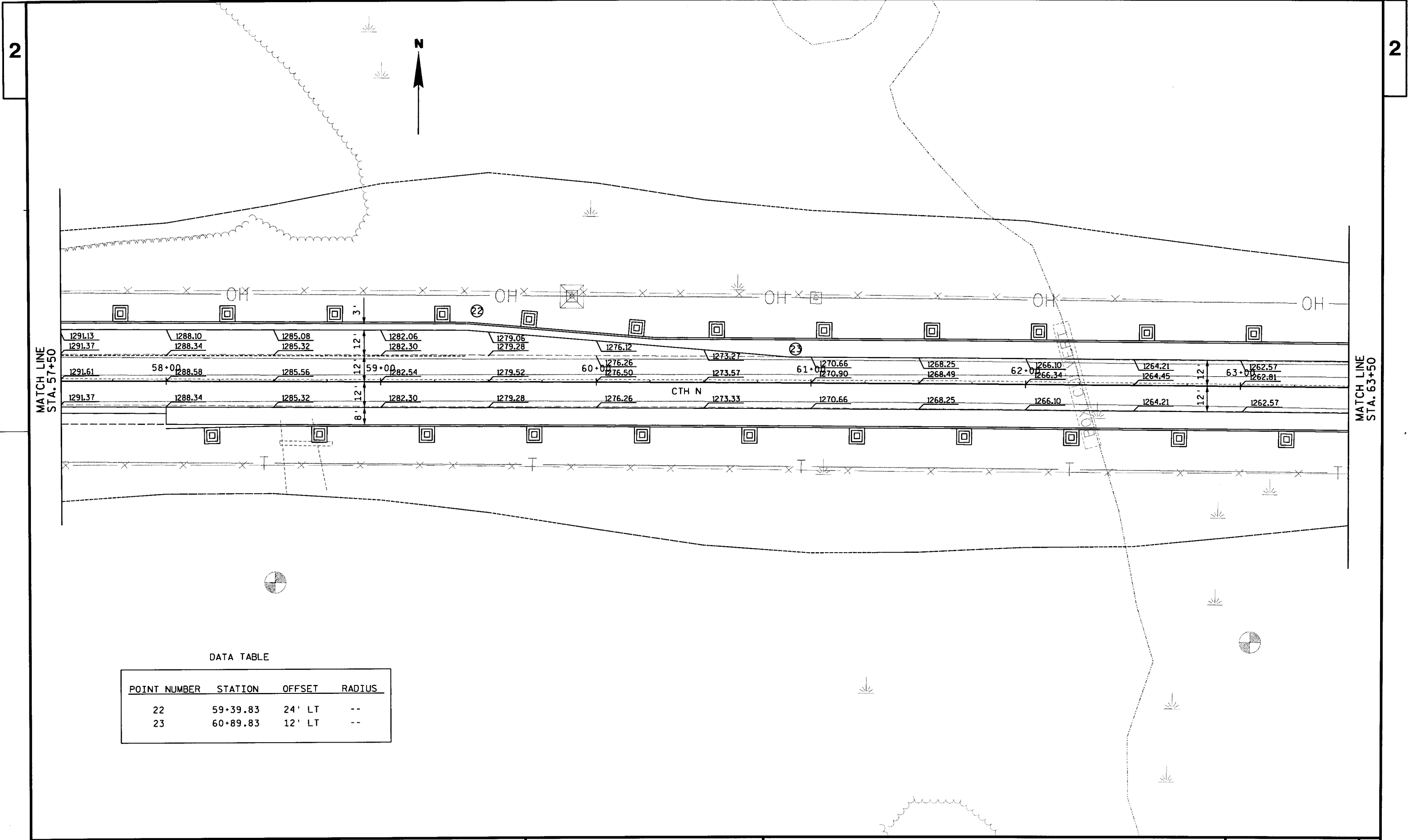
DATA TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
14	55+89.83	24' LT	--
15	55+89.83	64' LT	40'
	313+81.96 'CP'	64' RT	40'
16	313+81.96 'CP'	24' RT	--
17	314+82.17 'CP'	24' RT	--
18	313+95.97 'CP'	24' LT	--
19	54+62.10	76' LT	40'
	313+95.97 'CP'	64' LT	40'
20	54+62.10	36' LT	--
21	53+62.10	24' LT	--

* TYPE A2 INTERSECTION

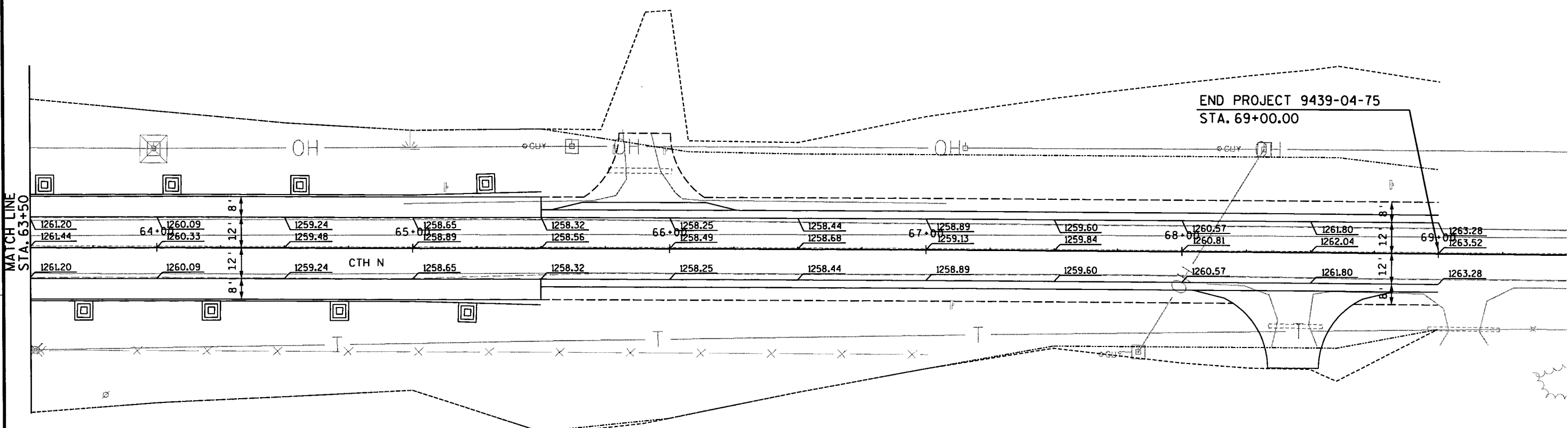
SEE S.D.D. AT-GRADE SIDE ROAD INTERSECTION, TYPE A1 & A2

MATCH LINE
STA. 311+50'CP'



DATA TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
22	59+39.83	24' LT	--
23	60+89.83	12' LT	--



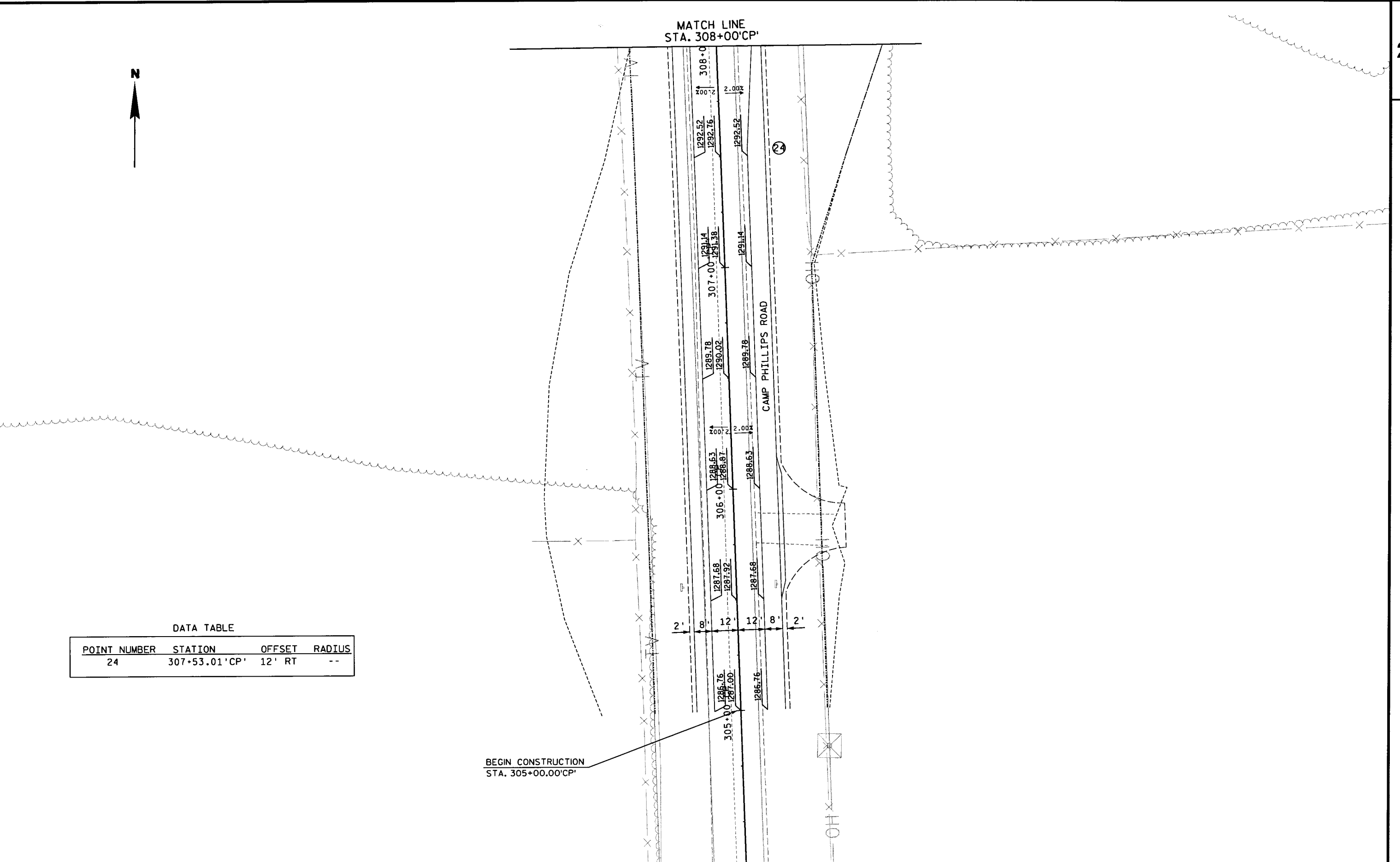
MATCH LINE
STA. 63+50

END PROJECT 9439-04-75
STA. 69+00.00

CTH N



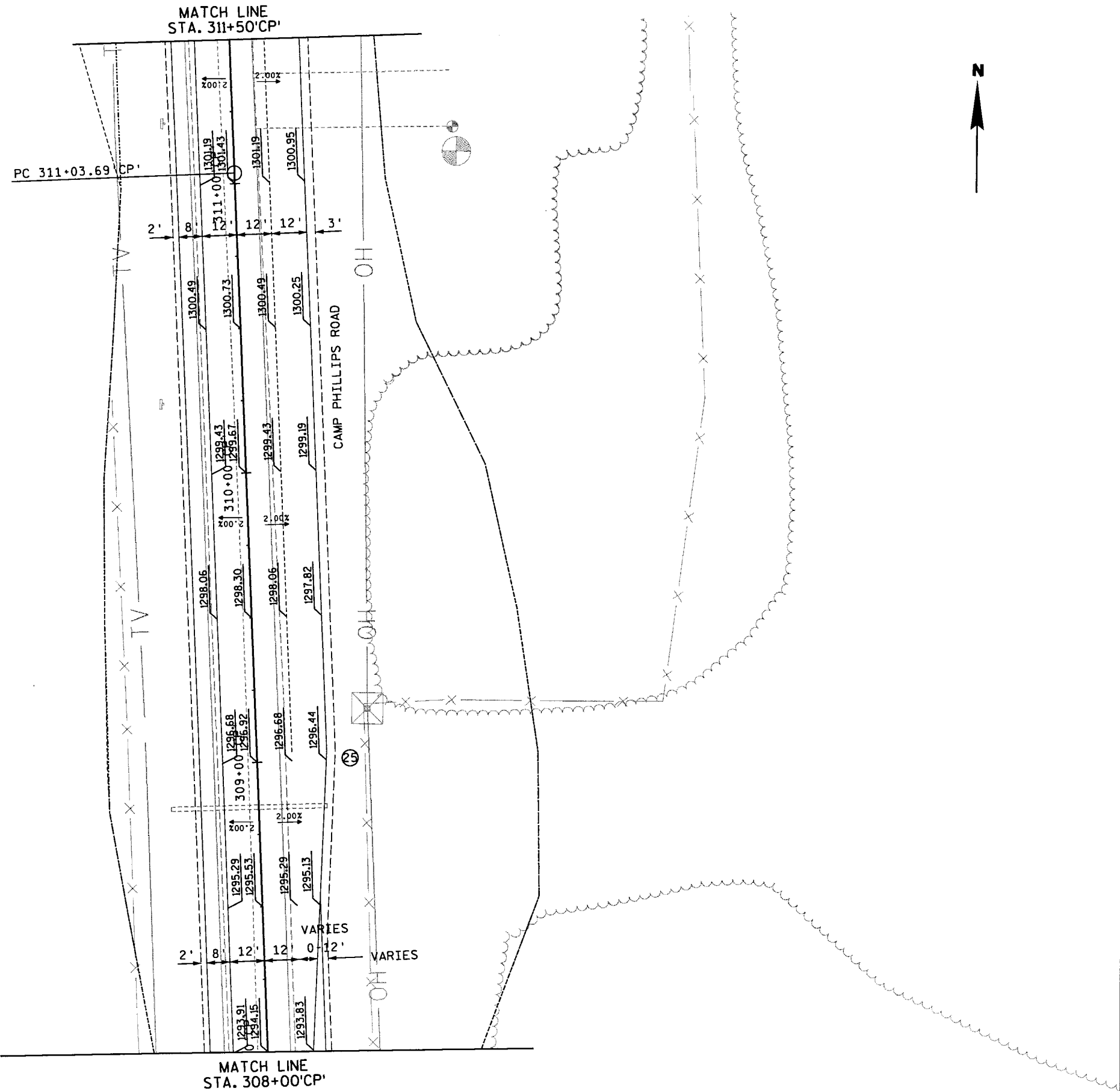
MATCH LINE
STA. 308+00'CP'



DATA TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
24	307+53.01'CP'	12' RT	--

BEGIN CONSTRUCTION
STA. 305+00.00'CP'



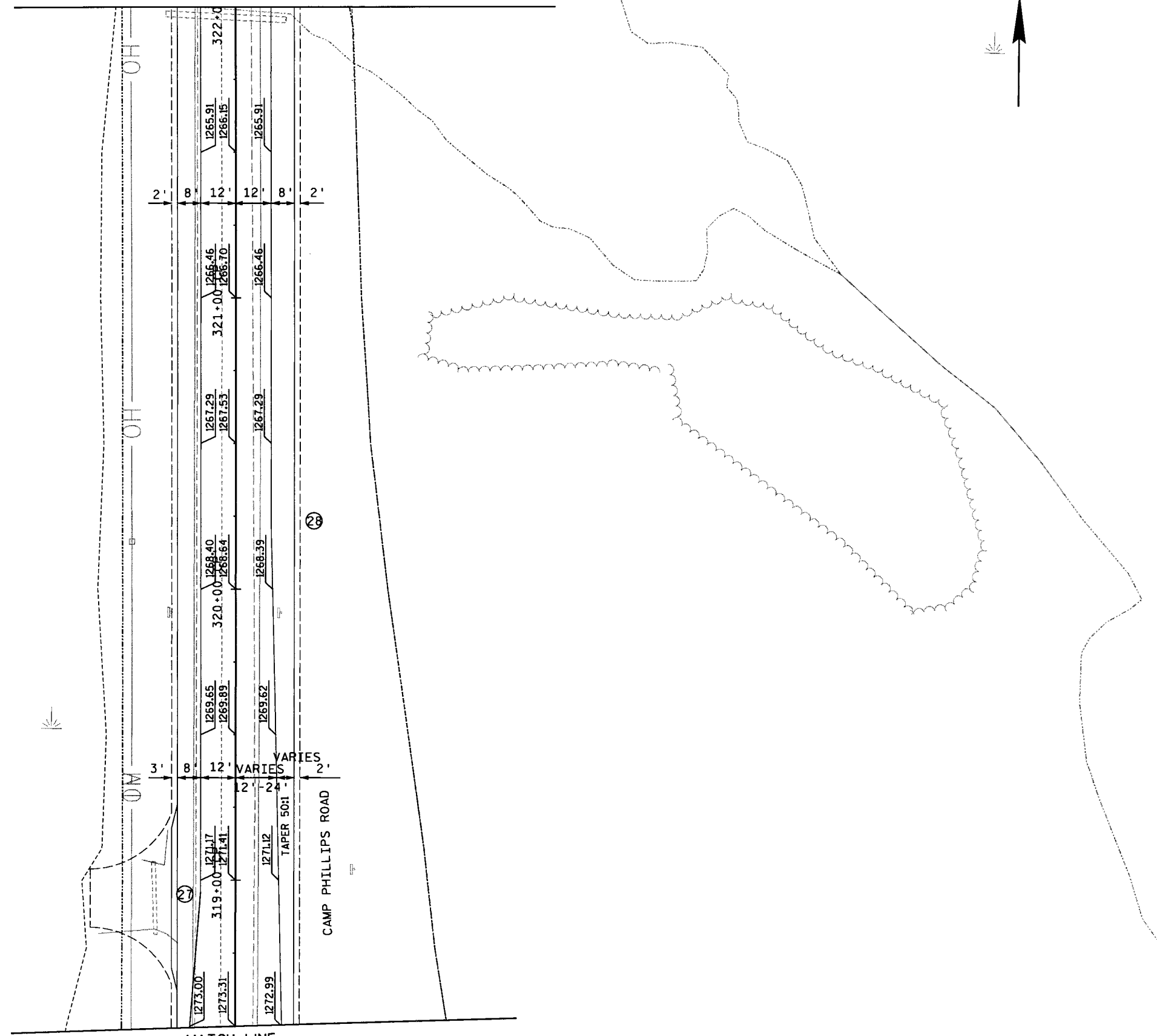
DATA TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
25	309+02.87'CP'	24' RT	--



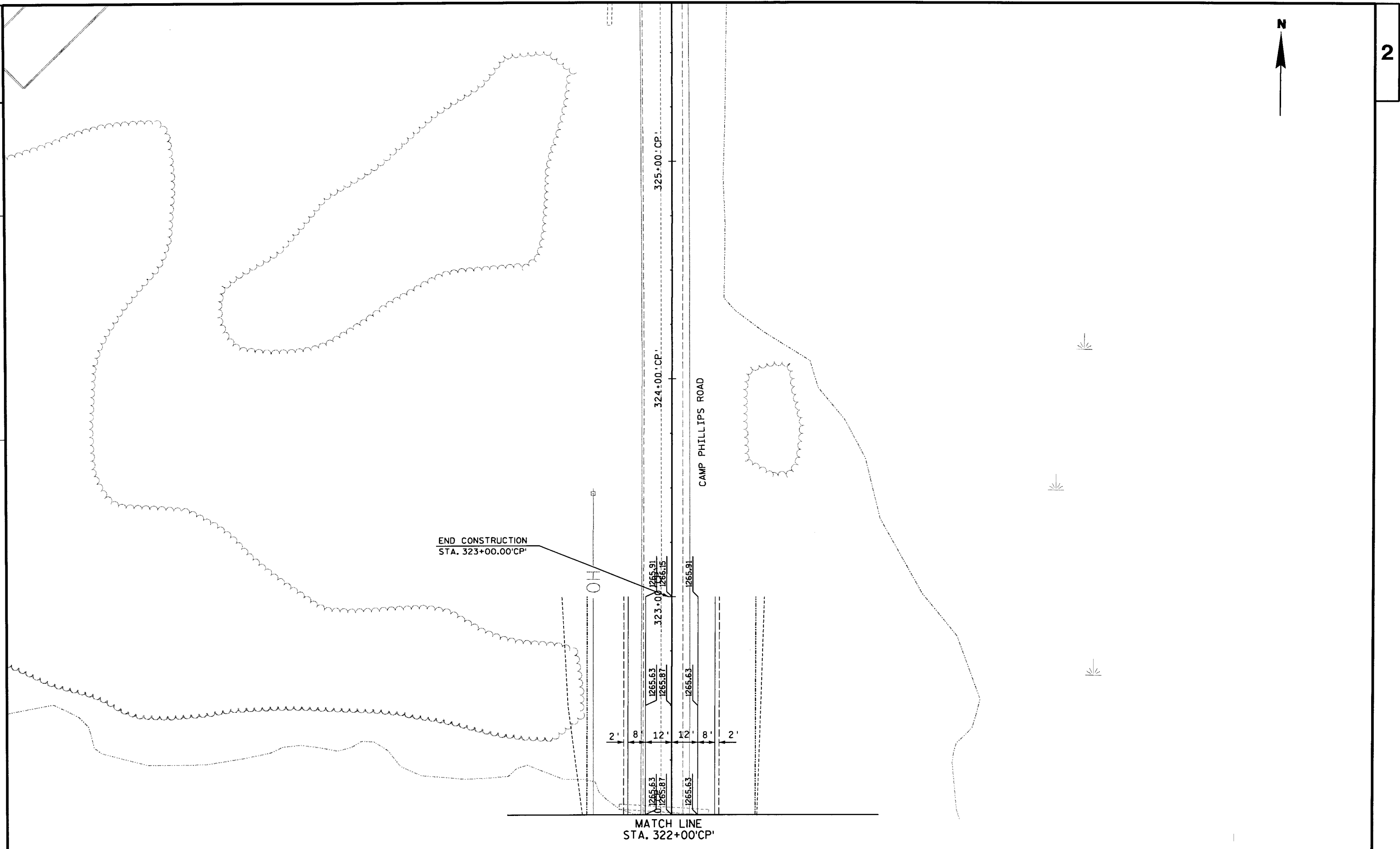
MATCH LINE
STA. 322+00'CP'

MATCH LINE
STA. 318+50'CP'



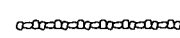


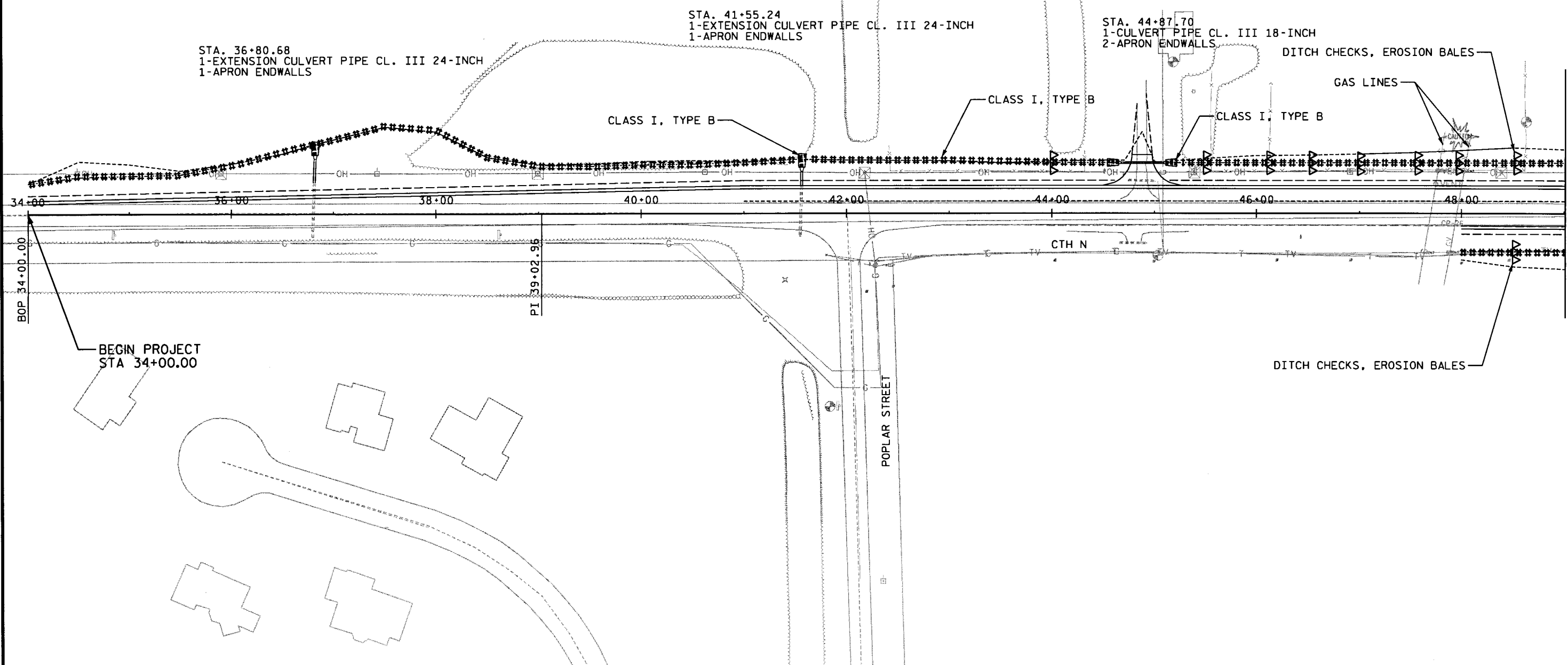
DATA TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
27	318+95.85'CP'	12' LT	--
28	320+22.17'CP'	12' RT	--




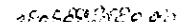


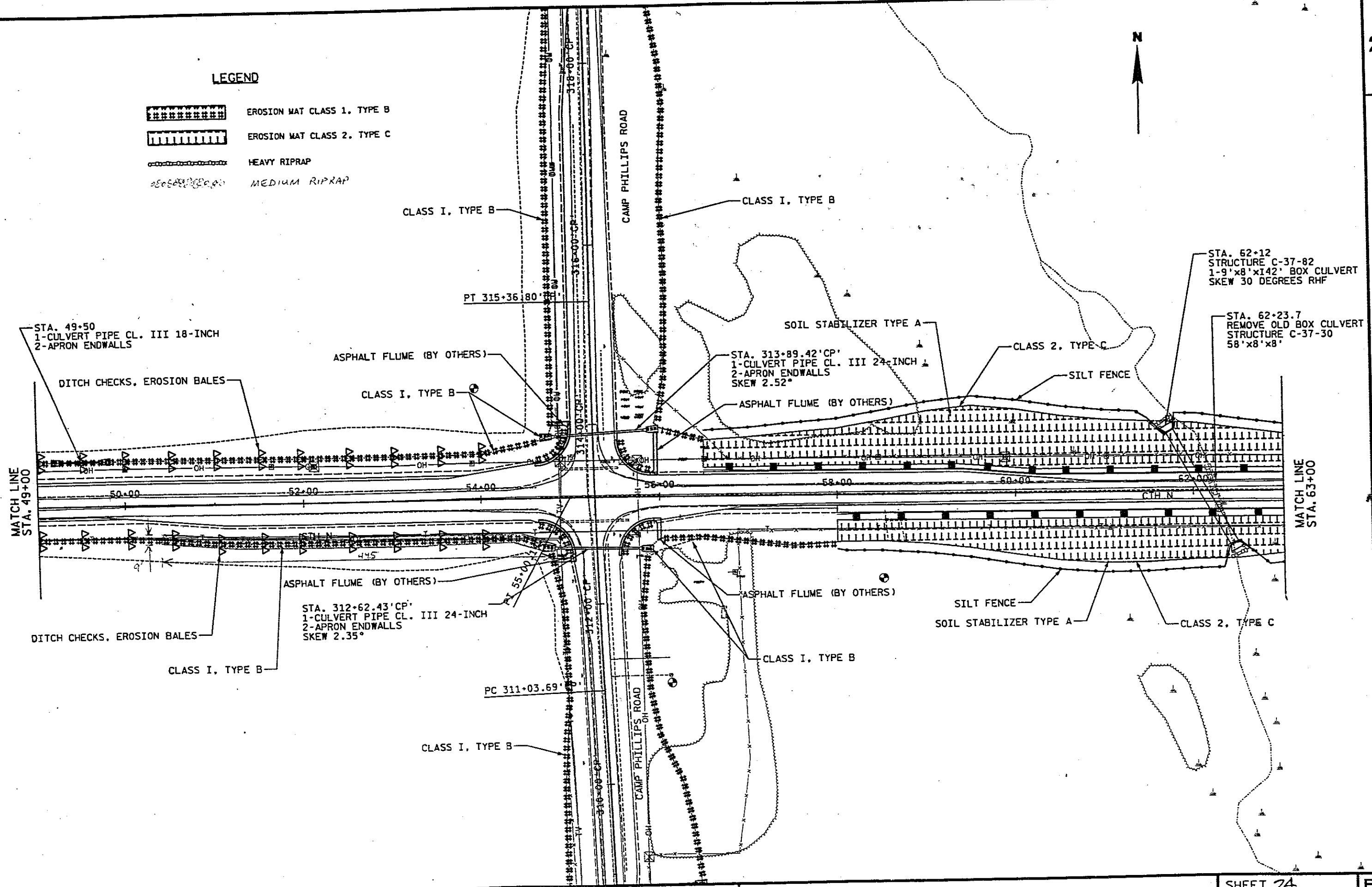
LEGEND

-  EROSION MAT CLASS 1, TYPE B
-  EROSION MAT CLASS 2, TYPE C
-  HEAVY RIPRAP



LEGEND



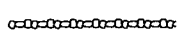
-  EROSION MAT CLASS 1, TYPE B
-  EROSION MAT CLASS 2, TYPE C
-  HEAVY RIPRAP
-  MEDIUM RIPRAP

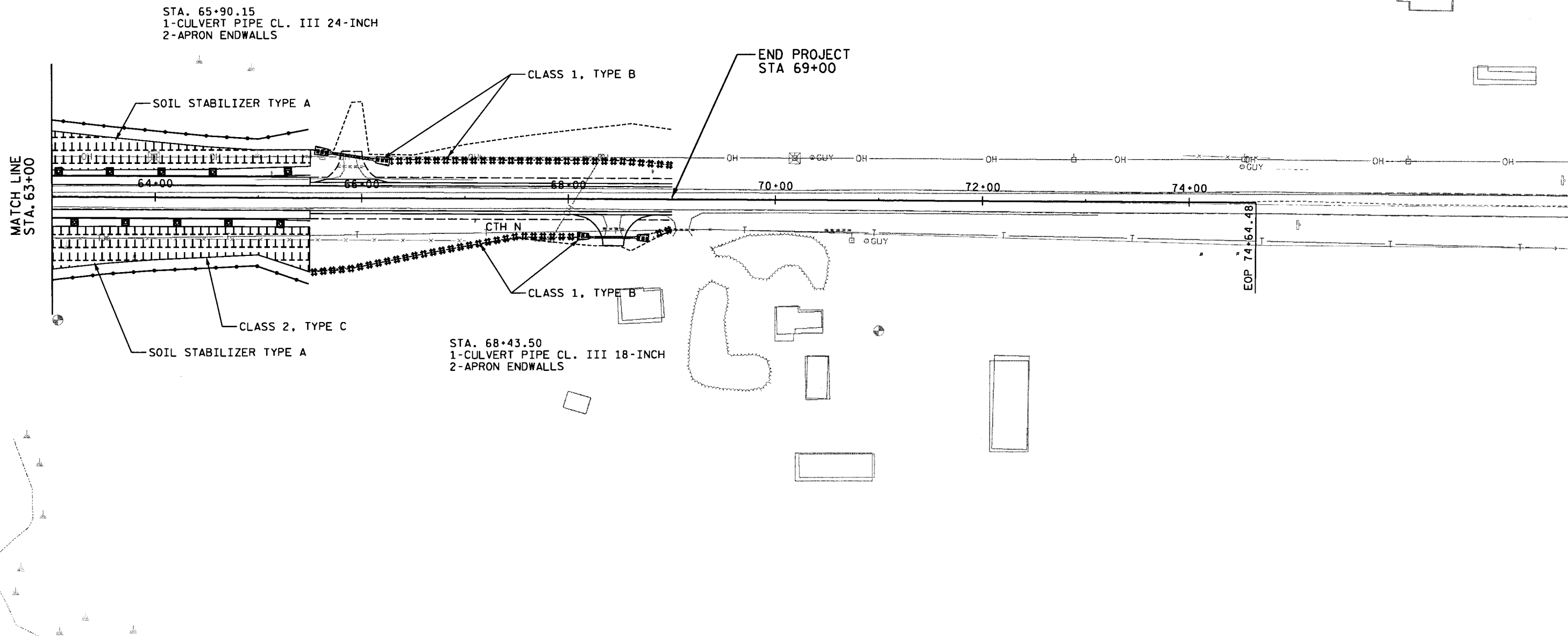


MATCH LINE
STA. 49+00



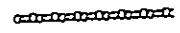
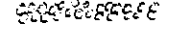
MATCH LINE
STA. 63+00

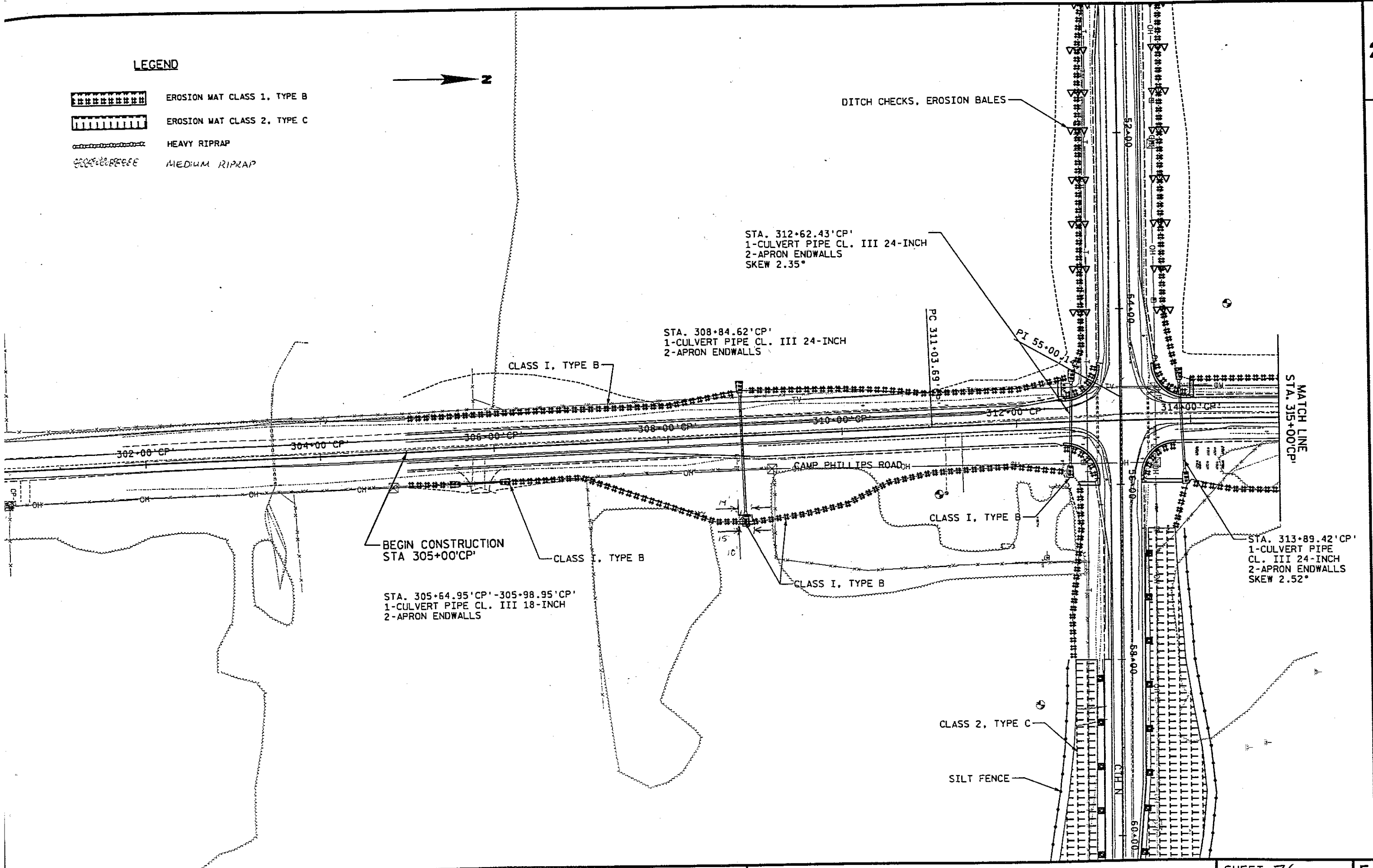
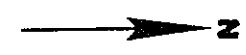
LEGEND

-  EROSION MAT CLASS 1, TYPE B
-  EROSION MAT CLASS 2, TYPE C
-  HEAVY RIPRAP



LEGEND

-  EROSION MAT CLASS 1, TYPE B
-  EROSION MAT CLASS 2, TYPE C
-  HEAVY RIPRAP
-  MEDIUM RIPRAP



STA. 312+62.43'CP'
 1-CULVERT PIPE CL. III 24-INCH
 2-APRON ENDWALLS
 SKEW 2.35°

STA. 308+84.62'CP'
 1-CULVERT PIPE CL. III 24-INCH
 2-APRON ENDWALLS

BEGIN CONSTRUCTION
 STA 305+00'CP'



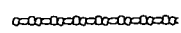
STA. 305+64.95'CP' - 305+98.95'CP'
 1-CULVERT PIPE CL. III 18-INCH
 2-APRON ENDWALLS

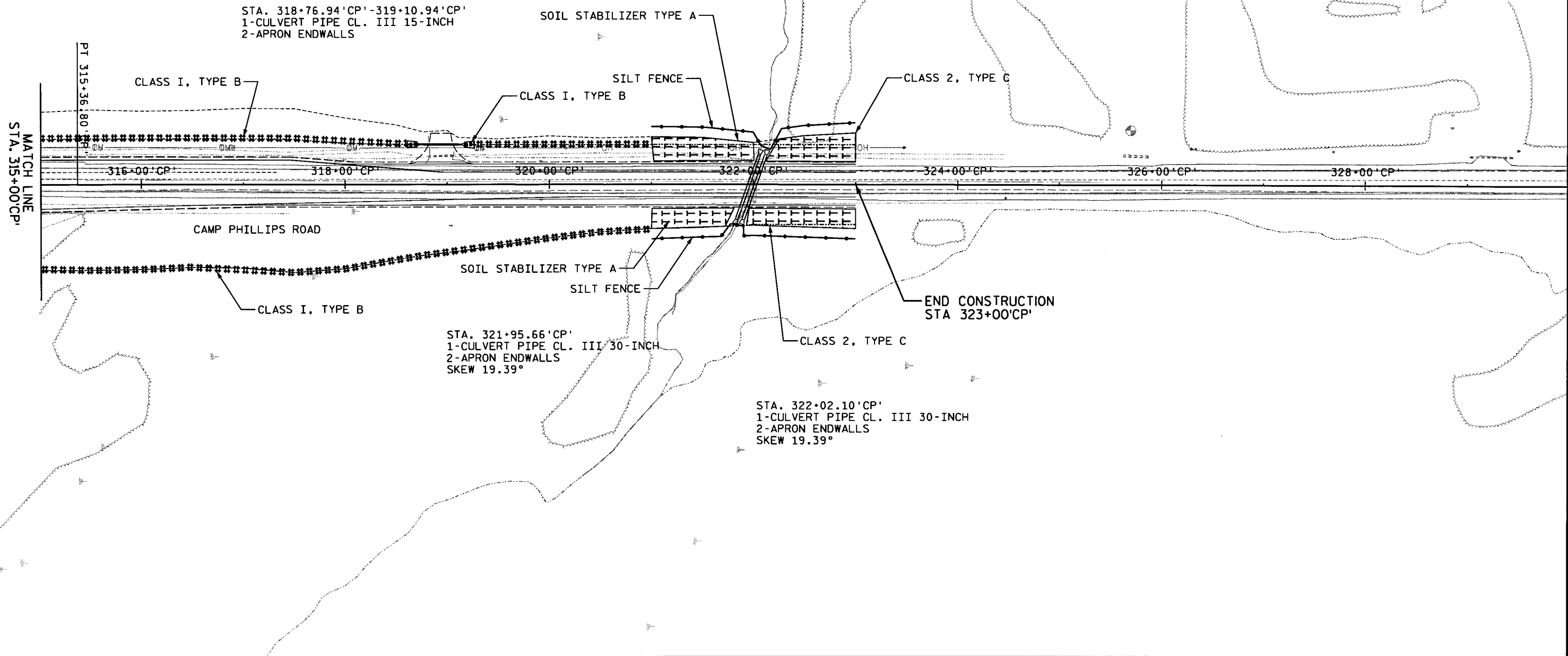
STA. 313+89.42'CP'
 1-CULVERT PIPE
 CL. III 24-INCH
 2-APRON ENDWALLS
 SKEW 2.52°

MATCH LINE
 STA. 315+00'CP'

MATCH LINE
 STA. 315+00'CP'

LEGEND

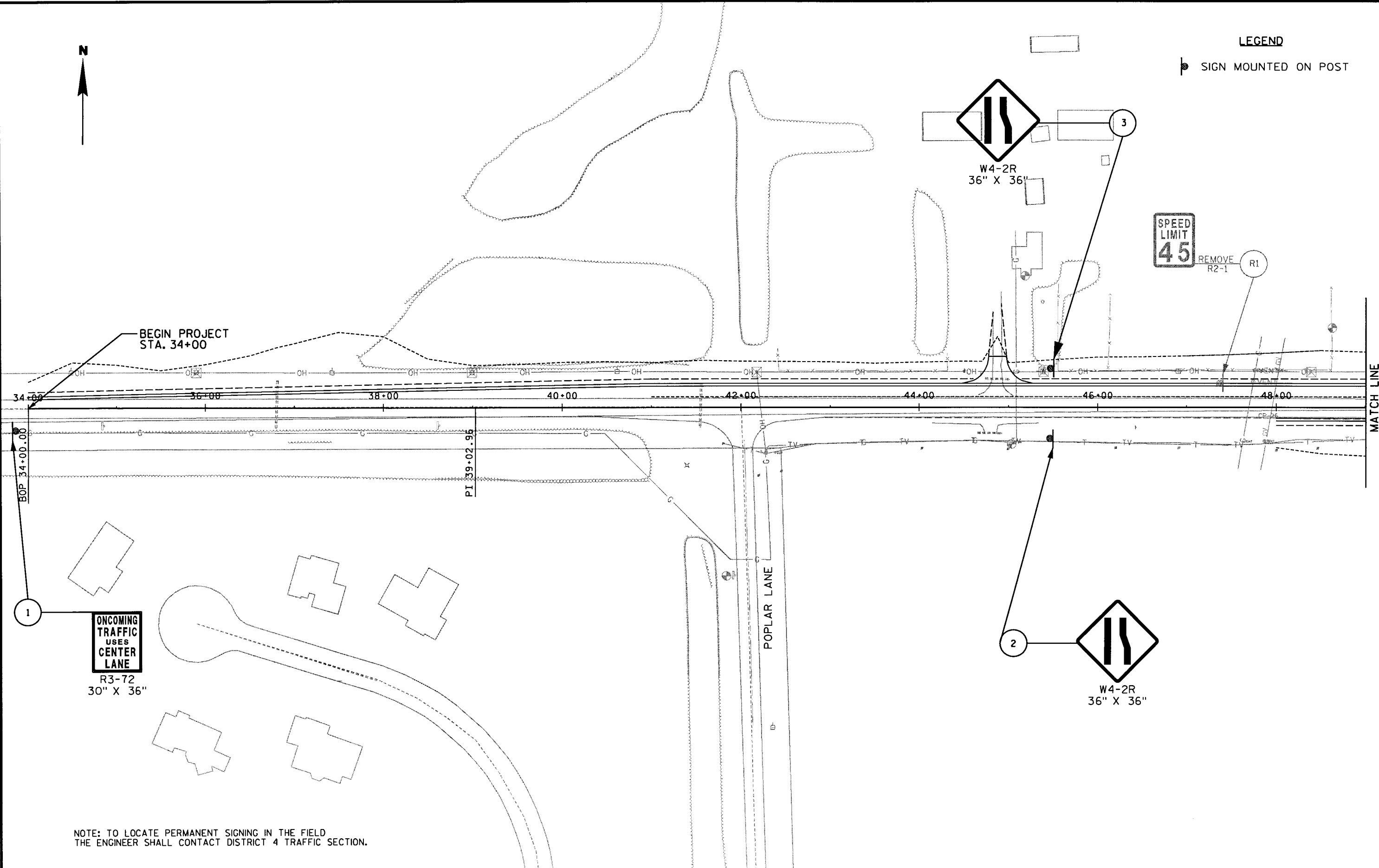
-  EROSION MAT CLASS 1, TYPE B
-  EROSION MAT CLASS 2, TYPE C
-  HEAVY RIPRAP





LEGEND

● SIGN MOUNTED ON POST



BEGIN PROJECT STA. 34+00

34+00 36+00 38+00 40+00 42+00 44+00 46+00 48+00

BDP 34+00.00

PI 39+02.95

MATCH LINE STA. 48+50

POPLAR LANE

ONCOMING TRAFFIC USES CENTER LANE

R3-72 30" X 36"

W4-2R 36" X 36"

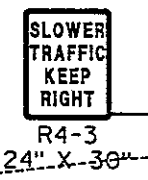
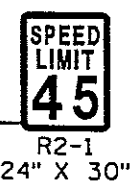
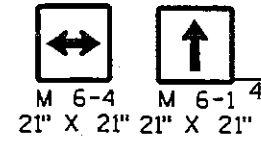
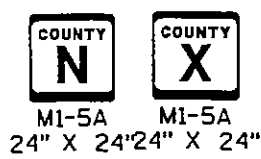
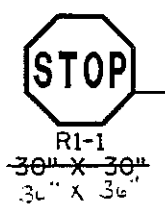
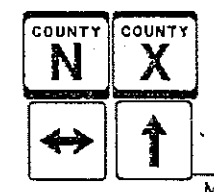
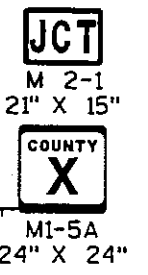
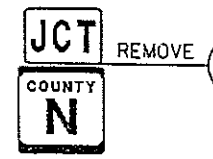
W4-2R 36" X 36"

SPEED LIMIT 45

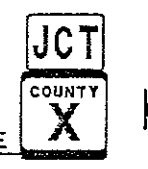
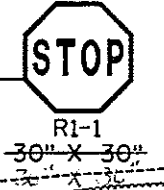
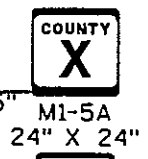
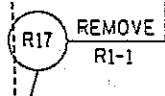
REMOVE R2-1

NOTE: TO LOCATE PERMANENT SIGNING IN THE FIELD THE ENGINEER SHALL CONTACT DISTRICT 4 TRAFFIC SECTION.

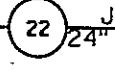
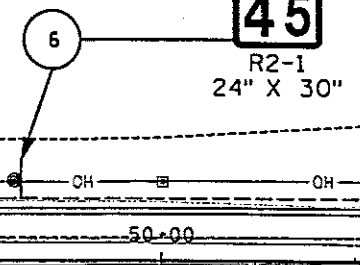
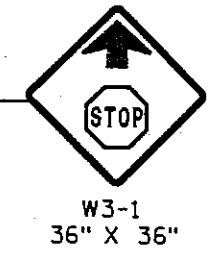
MATCH LINE
STA. 318+00'CP'



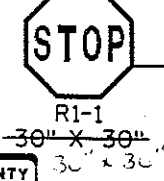
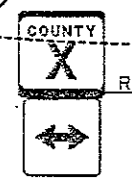
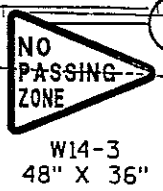
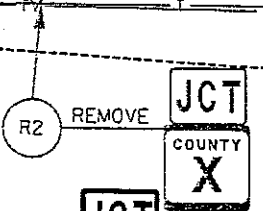
PT 315+36.80'CP'



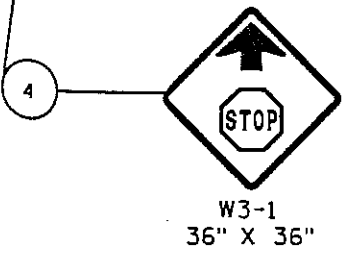
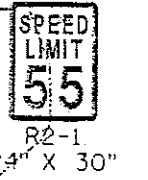
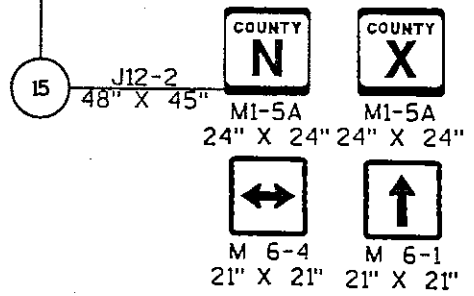
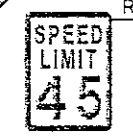
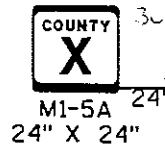
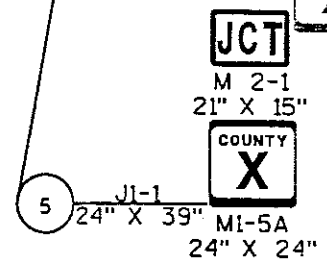
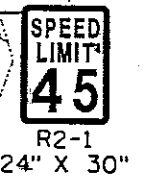
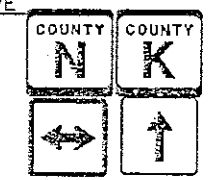
LEGEND
SIGN MOUNTED ON POST



MATCH LINE
STA. 63+50



PC 311+03.69'CP'



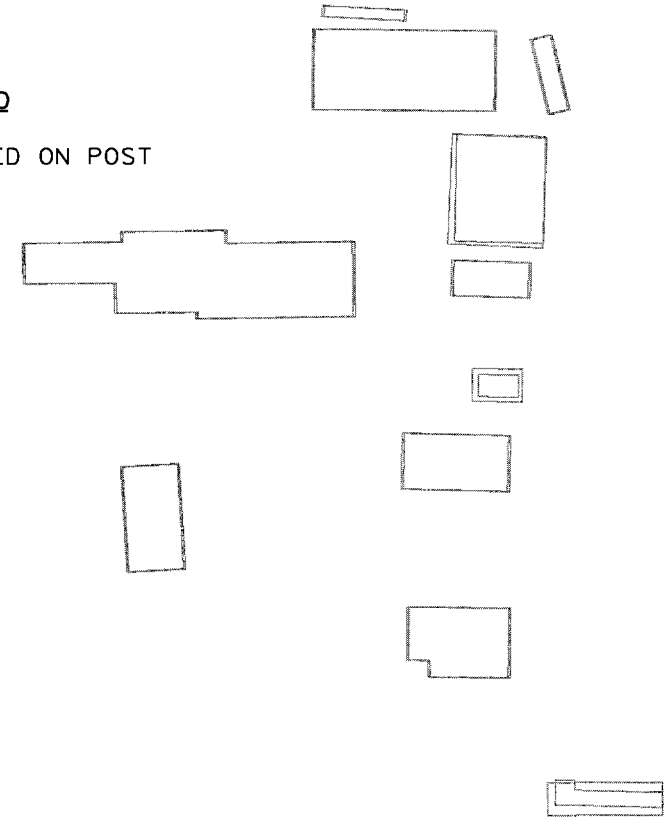
NOTE: TO LOCATE PERMANENT SIGNING IN THE FIELD
THE ENGINEER SHALL CONTACT DISTRICT 4 TRAFFIC SECTION.

MATCH LINE
STA. 309+50'CP'

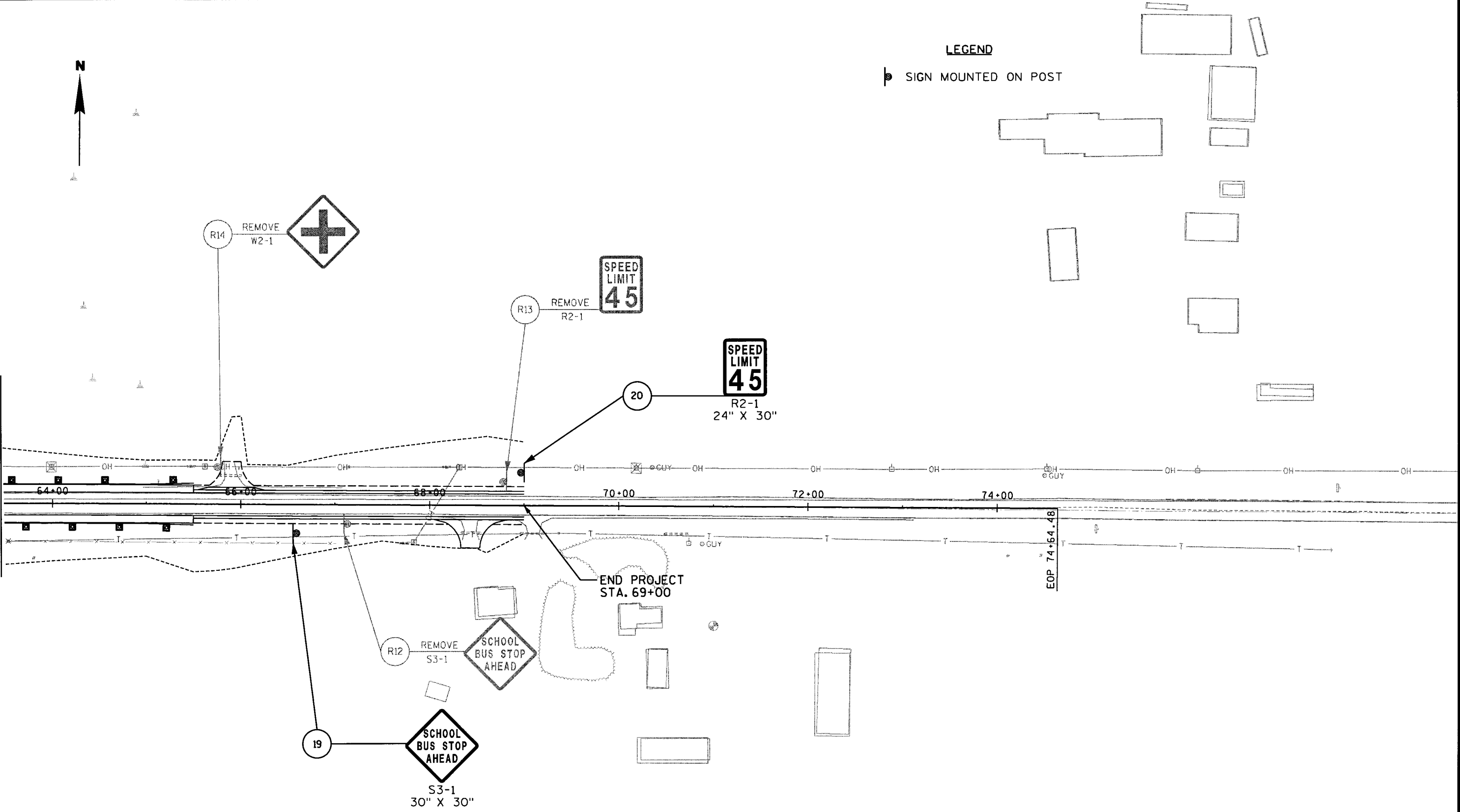


LEGEND

● SIGN MOUNTED ON POST



MATCH LINE
STA. 63+50



NOTE: TO LOCATE PERMANENT SIGNING IN THE FIELD
THE ENGINEER SHALL CONTACT DISTRICT 4 TRAFFIC SECTION.



MATCH LINE
STA. 309+50'CP'

LEGEND

● SIGN MOUNTED ON POST

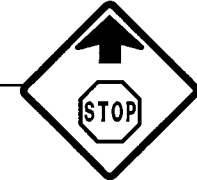
SPEED
LIMIT
45
R2-1
24" X 30"

11

R8 REMOVE

JCT
COUNTY
N

12



W3-1
36" X 36"

13

J1-1
24" X 39"

JCT
M 2-1
21" X 15"
COUNTY
N
M1-5A
24" X 24"



REMOVE
W3-1

R6

R7 REMOVE
W3-1



BEGIN CONSTRUCTION
STA. 305+00'CP'

304+00'CP'

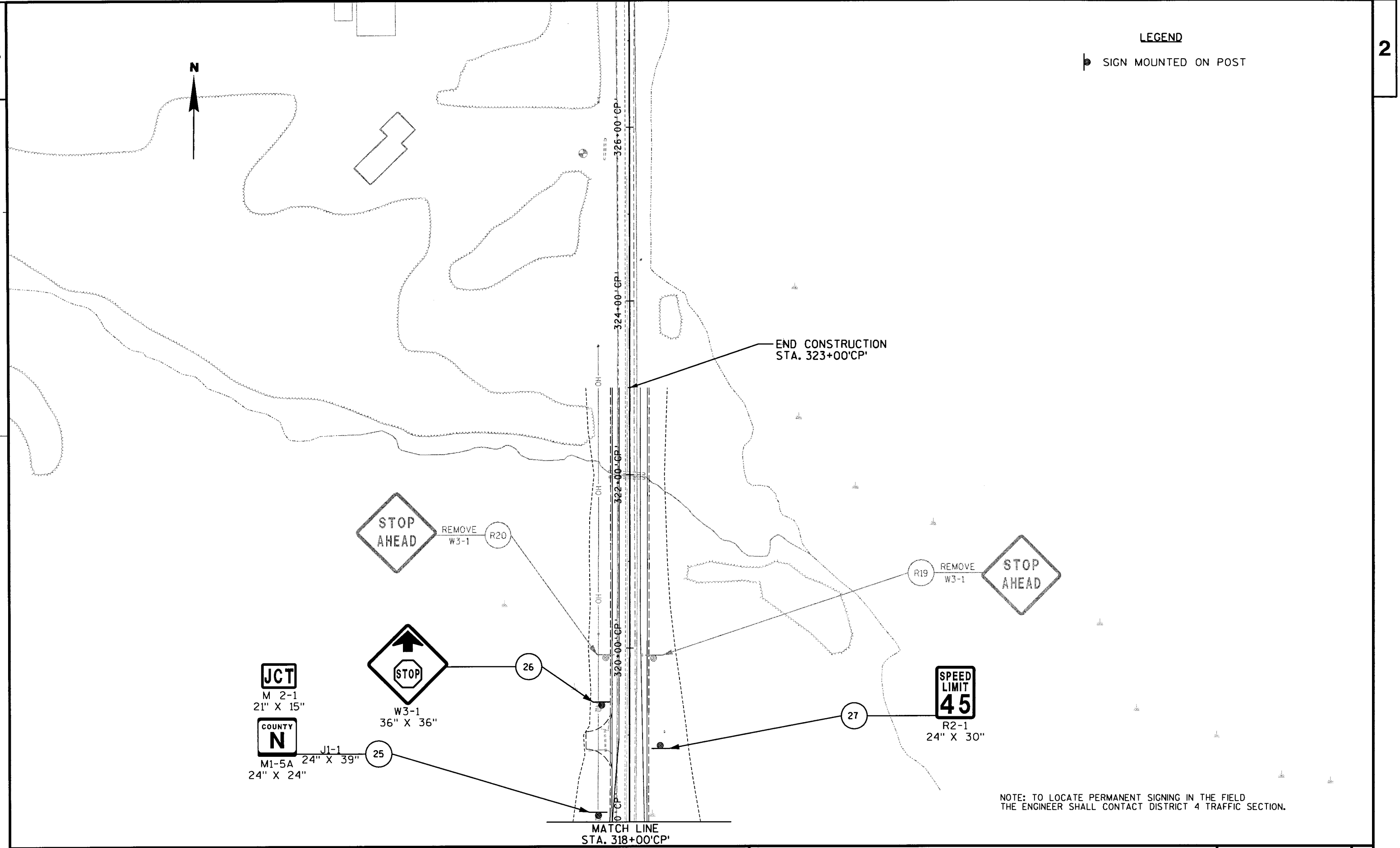
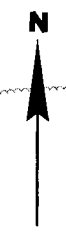
302+00'CP'

BOP 300+00.00'CP'

NOTE: TO LOCATE PERMANENT SIGNING IN THE FIELD
THE ENGINEER SHALL CONTACT DISTRICT 4 TRAFFIC SECTION.

LEGEND

● SIGN MOUNTED ON POST



END CONSTRUCTION
STA. 323+00'CP'



REMOVE
W3-1



REMOVE
W3-1



W3-1
36" X 36"



R2-1
24" X 30"



M 2-1
21" X 15"



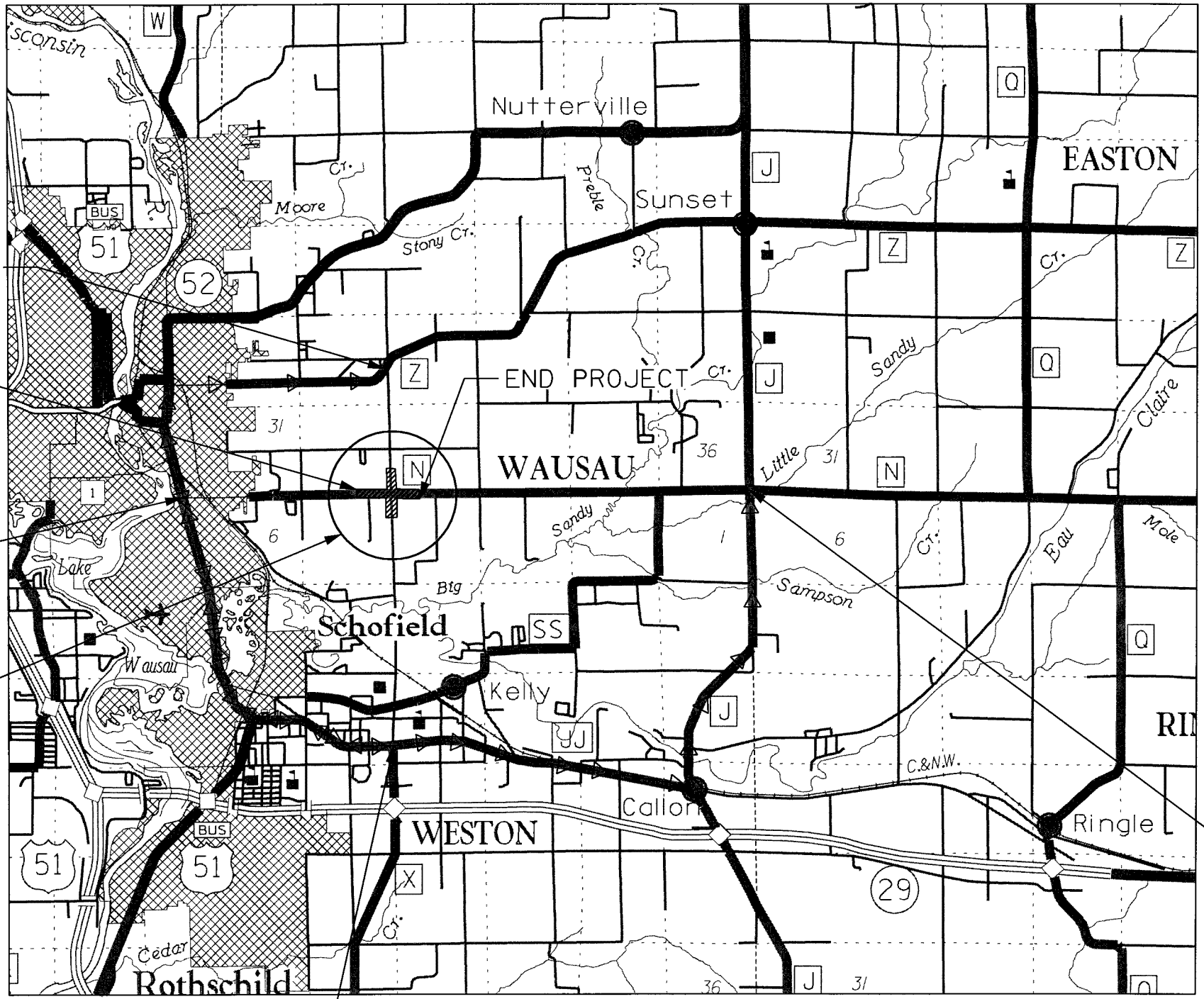
M1-5A
24" X 24"

J1-1
24" X 39"



MATCH LINE
STA. 318+00'CP'

NOTE: TO LOCATE PERMANENT SIGNING IN THE FIELD
THE ENGINEER SHALL CONTACT DISTRICT 4 TRAFFIC SECTION.



END CTH X DETOUR ROUTE

BEGIN PROJECT

START CTH N
DETOUR ROUTE

INTERSECTION
CONSTRUCTION
AREA

START CTH X DETOUR ROUTE



WORK AREA



ASSIGNED DETOUR

DETOUR PLAN GENERAL NOTES

EXACT LOCATION OF THE SIGNS IS THE RESPONSIBILITY OF THE CONTRACTOR, TO BE APPROVED BY THE ENGINEER IN THE FIELD.

SIGN AND BARRICADE LOCATIONS MAY BE ADJUSTED IN THE FIELD AS DIRECTED BY THE ENGINEER.

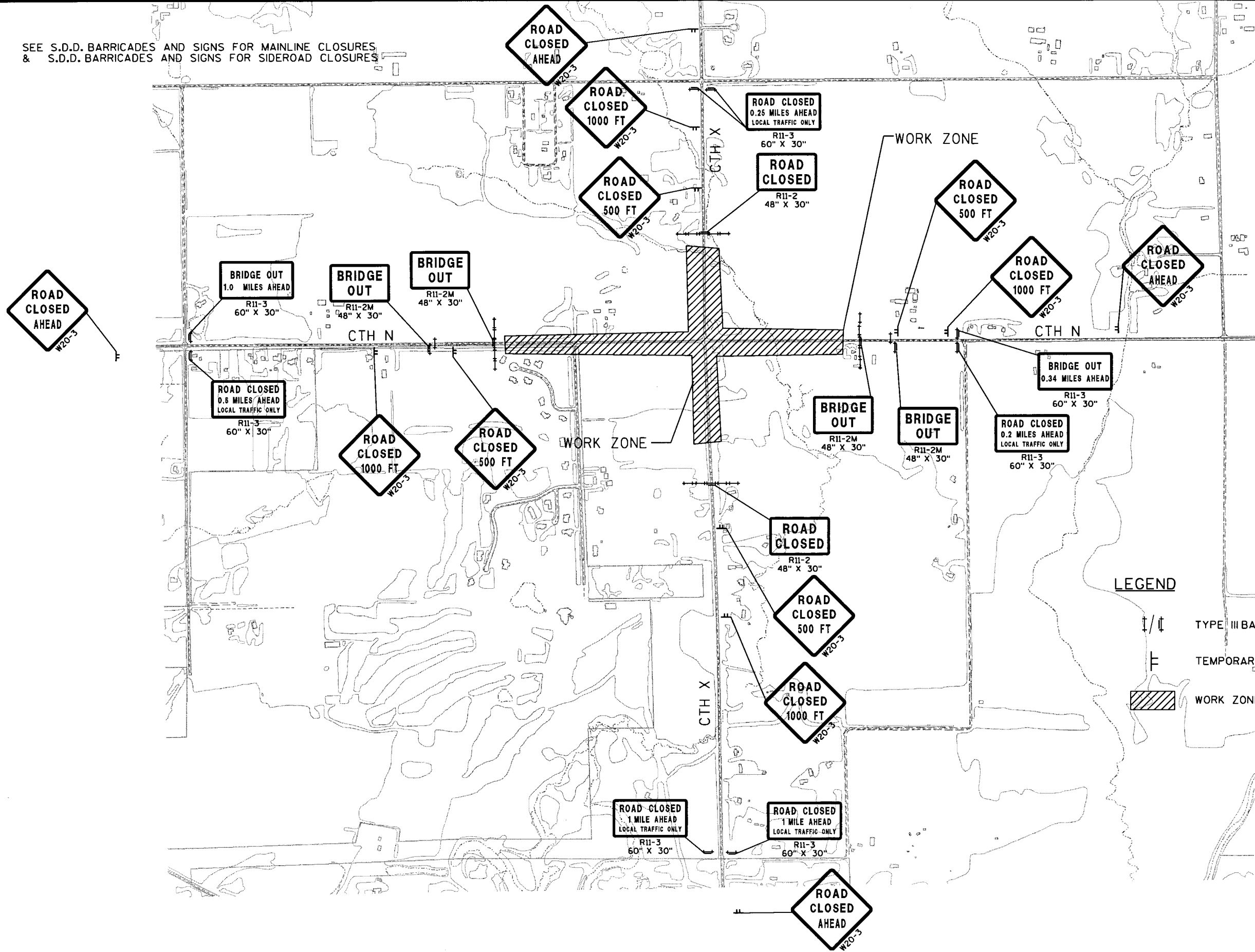
ANY EXISTING SIGNS THAT CONFLICT WITH THIS WORK MAY BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER. ALL STOP, WARNING, AND REGULATORY SIGNS SHALL NOT BE DISTURBED, EXCEPT WHEN NECESSARY TO COMPLETE THE WORK, THE SIGNS MUST THEN BE IMMEDIATELY RE-ESTABLISHED.

ALL "W" AND "WO" SIGNS SHALL BE 48" x 48" UNLESS OTHERWISE NOTED AND SHALL HAVE REFLECTIVE FLUORESCENT DIAMOND GRADE SHEETING.




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

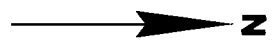
END CTH N DETOUR ROUTE

SEE S.D.D. BARRICADES AND SIGNS FOR MAINLINE CLOSURES
& S.D.D. BARRICADES AND SIGNS FOR SIDEROAD CLOSURES



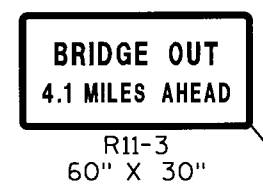
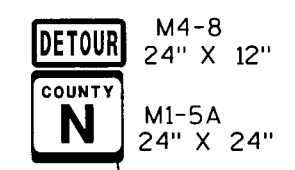
LEGEND

-  TYPE III BARRICADE WITH/WITHOUT SIGN
-  TEMPORARY SIGN MOUNTED ON POST
-  WORK ZONE



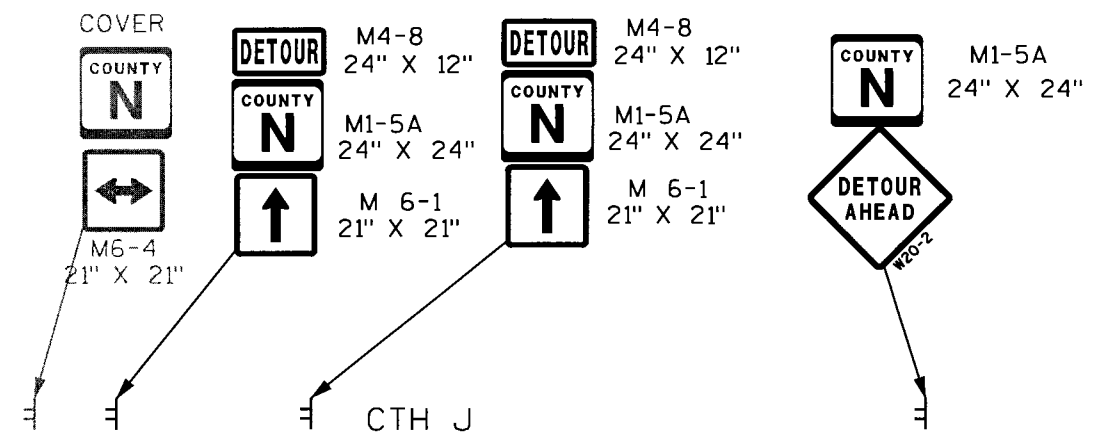
LEGEND

- ||| TYPE III BARRICADE WITH/WITHOUT SIGN
- ⊥ TEMPORARY SIGN MOUNTED ON POST

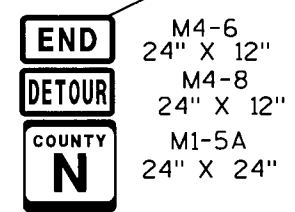
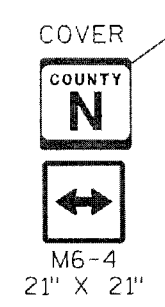


CTH N

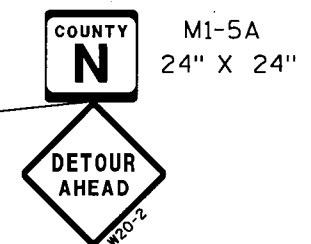
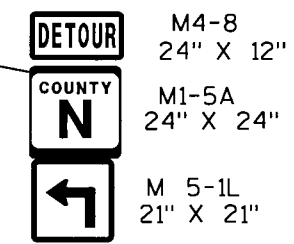
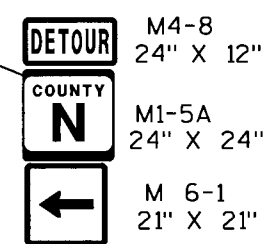
CTH J



CTH J



CTH N



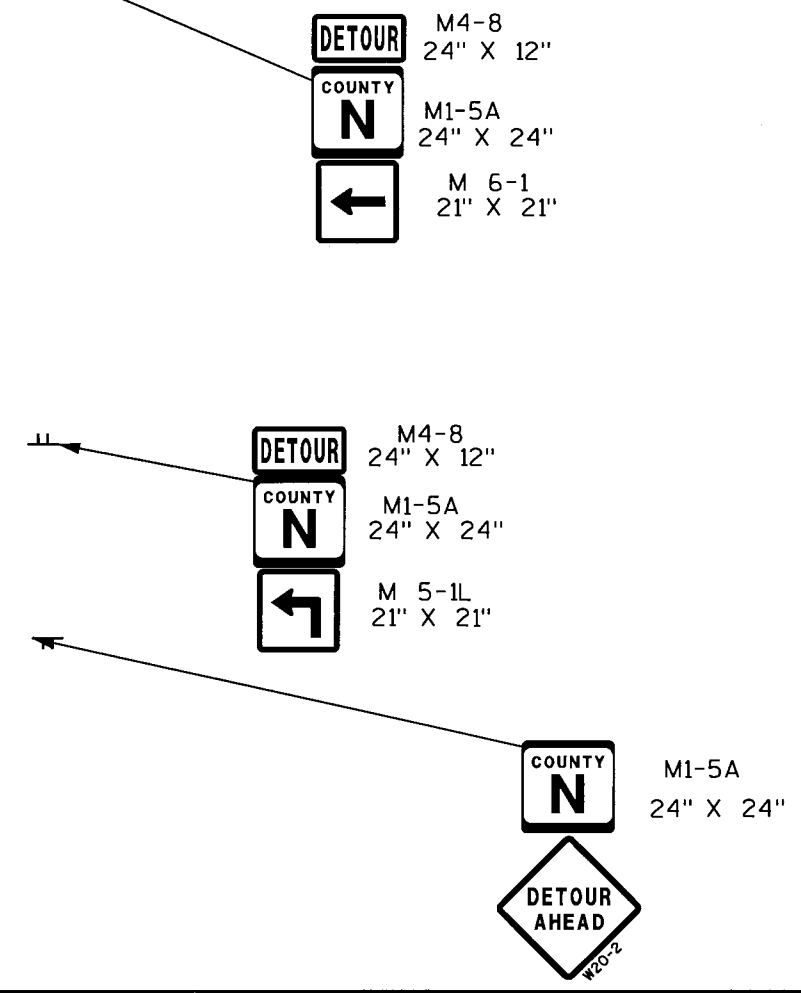
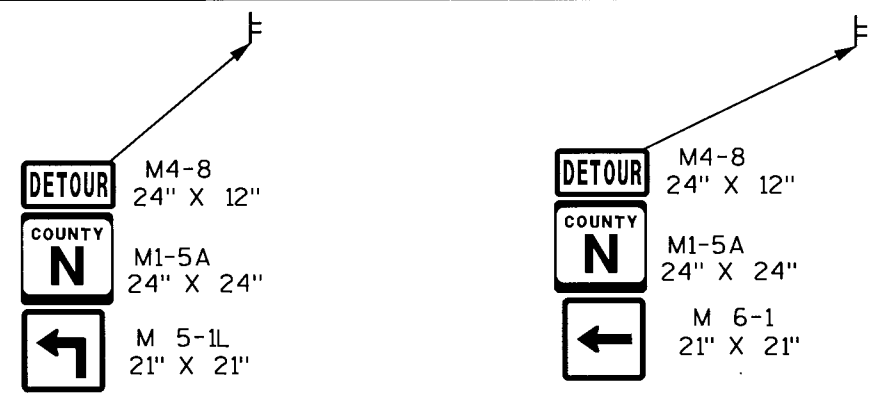
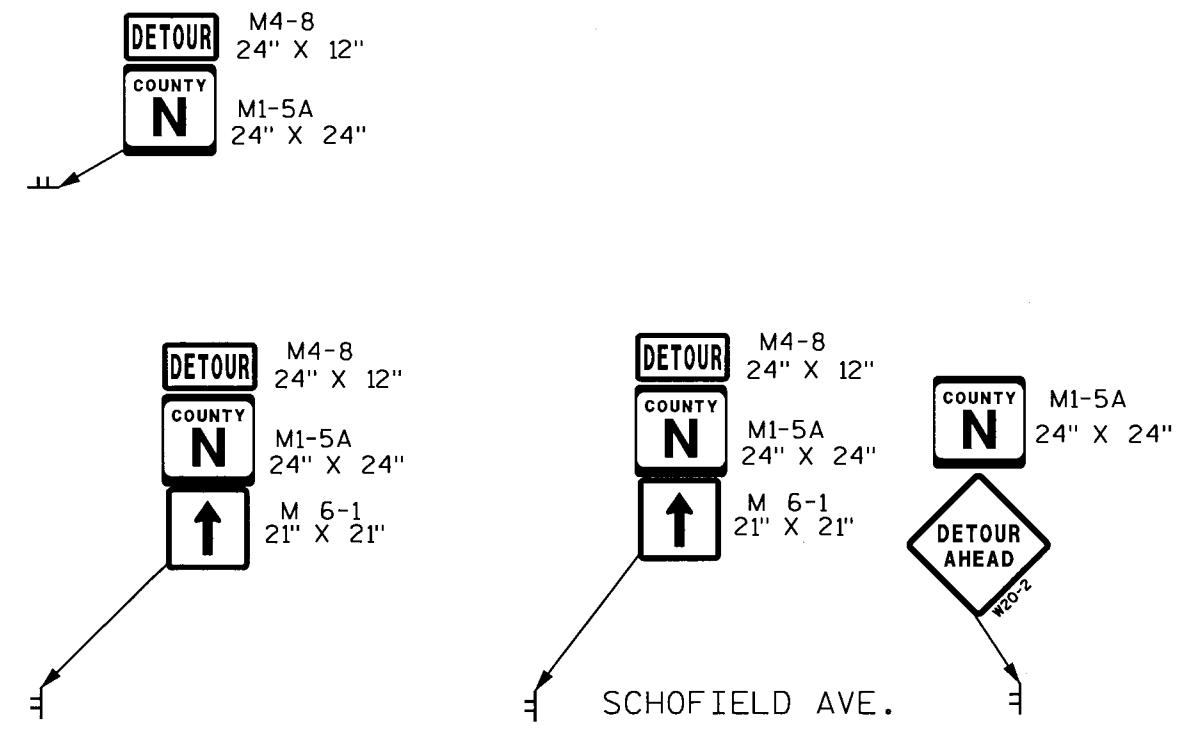
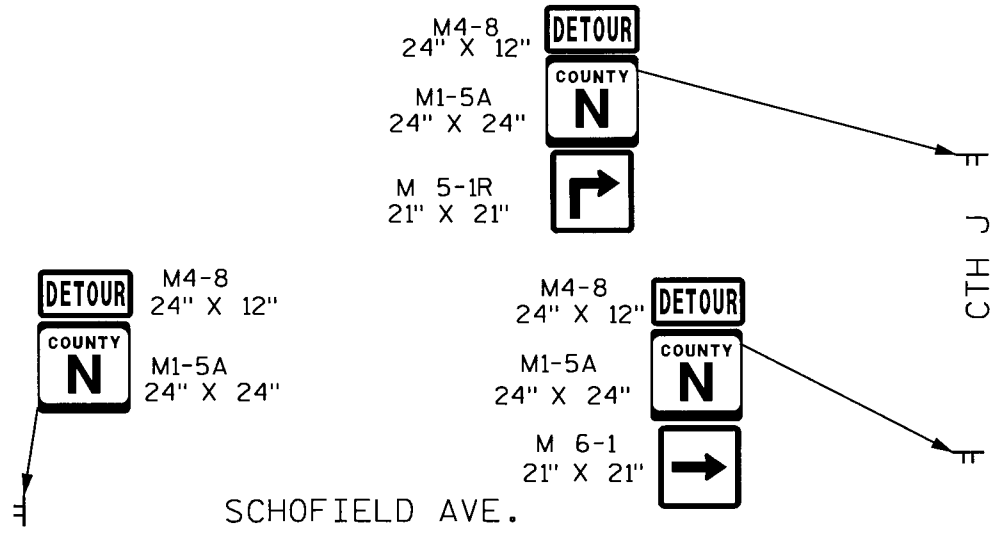
LEGEND

- || TYPE III BARRICADE WITH/WITHOUT SIGN
- ⌋ TEMPORARY SIGN MOUNTED ON POST



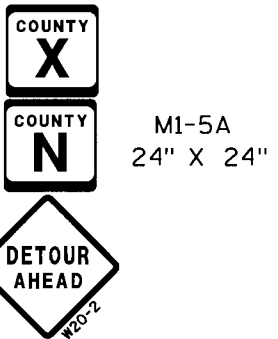
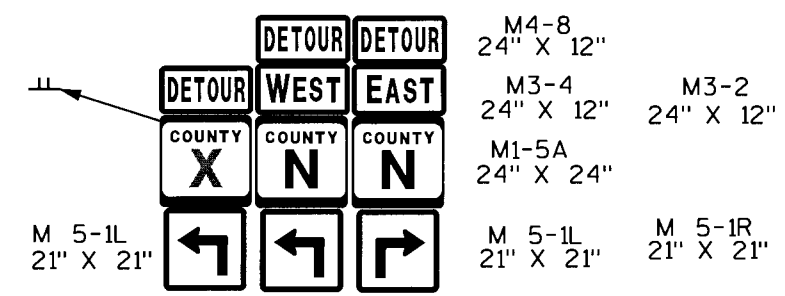
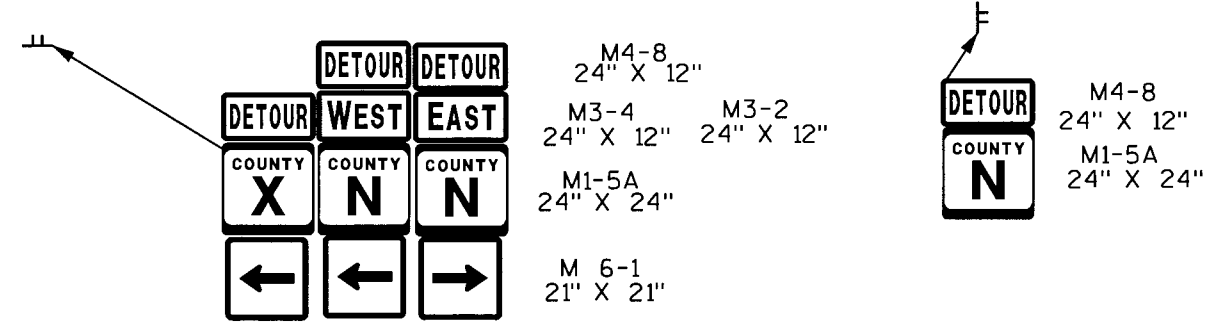
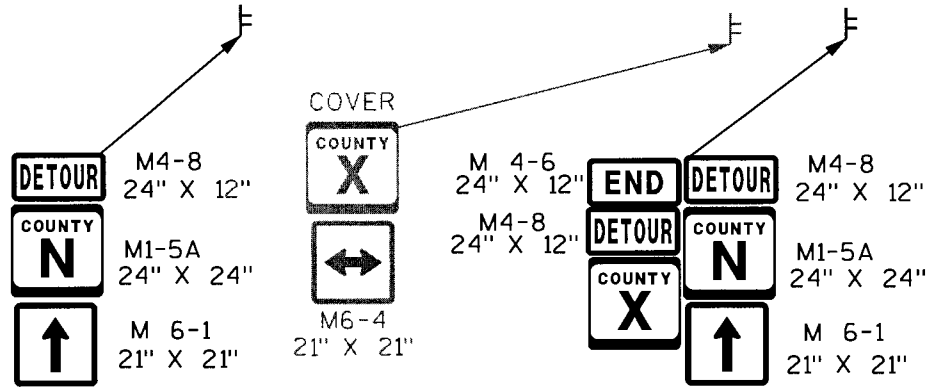
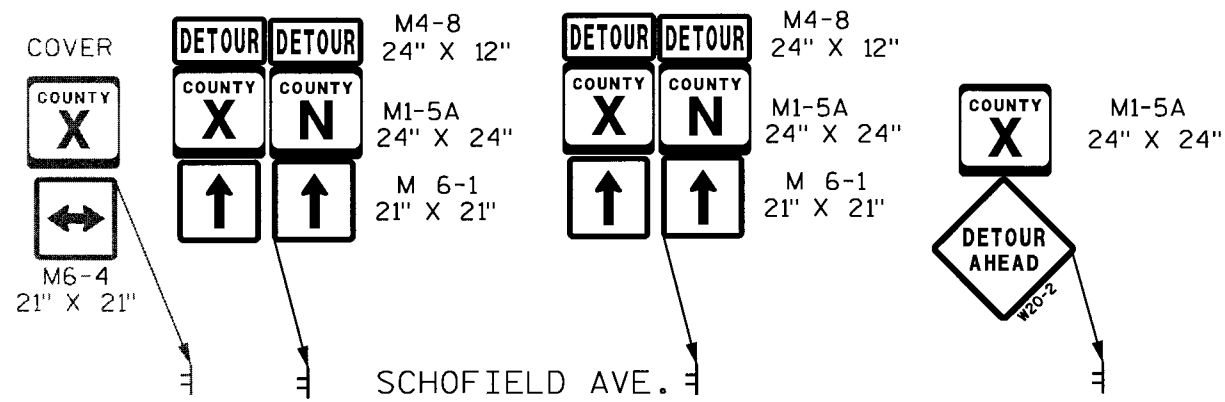
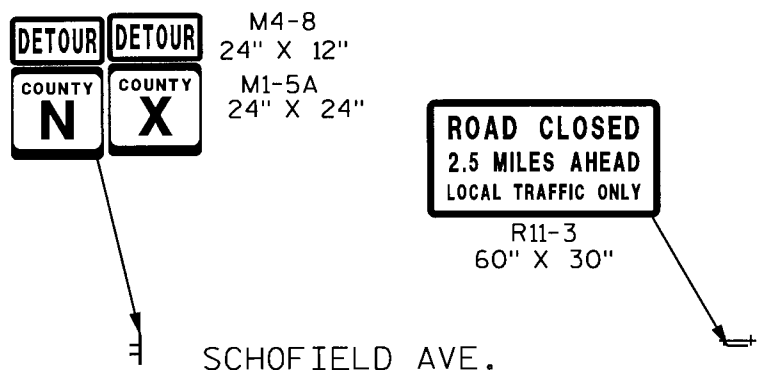
2

2



LEGEND

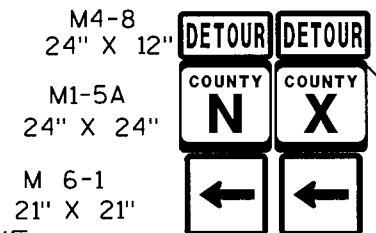
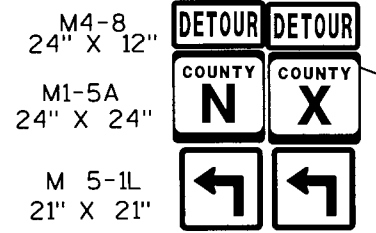
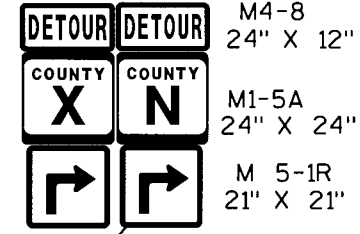
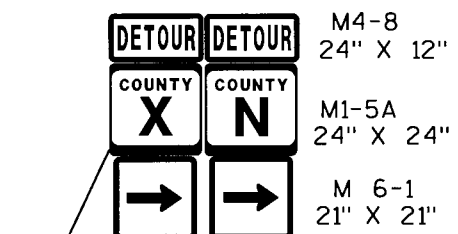
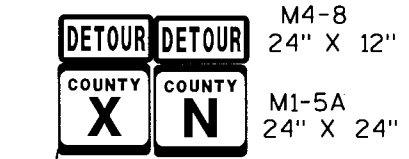
- ⚡ TYPE III BARRICADE WITH/WITHOUT SIGN
- ⚡ TEMPORARY SIGN MOUNTED ON POST





LEGEND

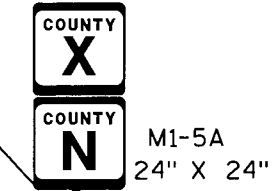
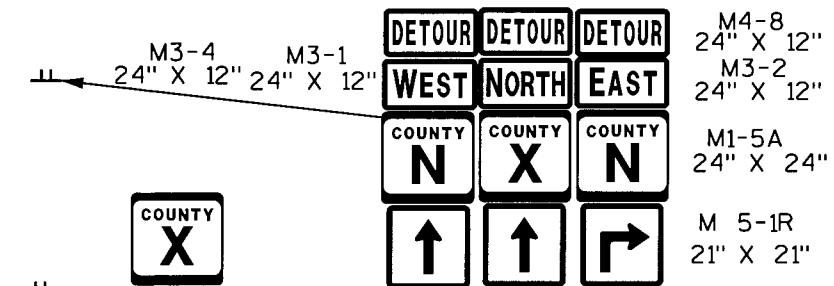
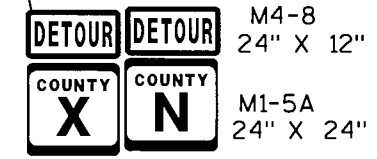
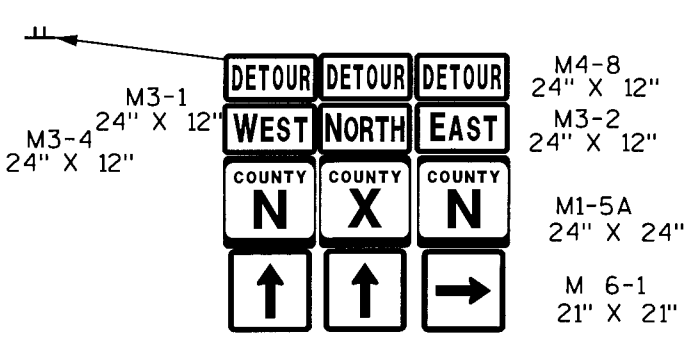
- TYPE III BARRICADE WITH/WITHOUT SIGN
- TEMPORARY SIGN MOUNTED ON POST



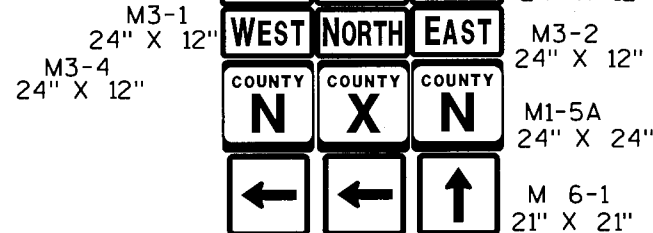
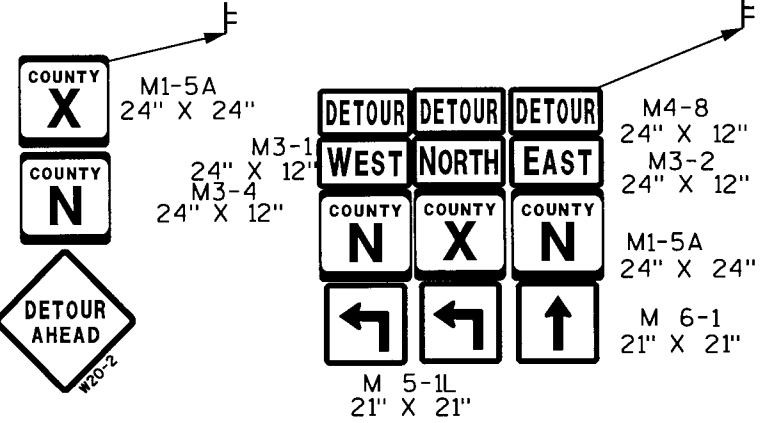
SCHOFIELD AVE.

BUSINESS 51

SCHOFIELD AVE.



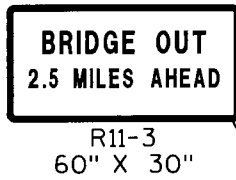
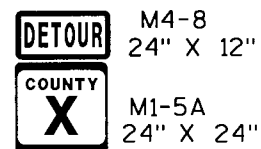
BUSINESS 51





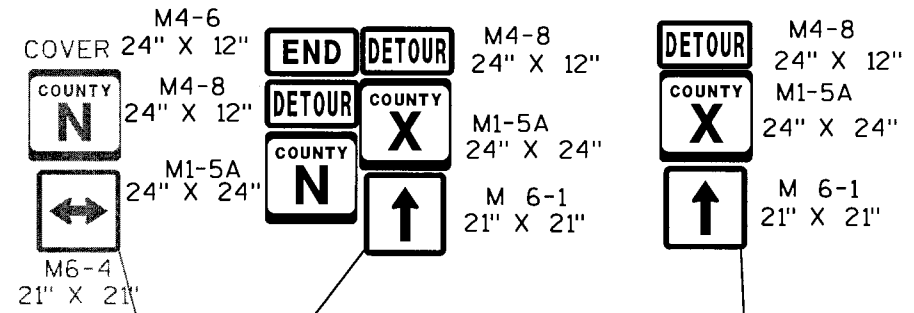
LEGEND

- ||/|| TYPE III BARRICADE WITH/WITHOUT SIGN
- ⌋ TEMPORARY SIGN MOUNTED ON POST

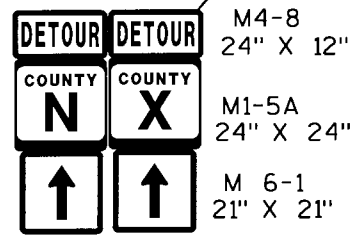
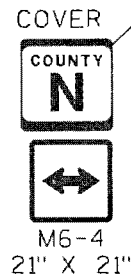
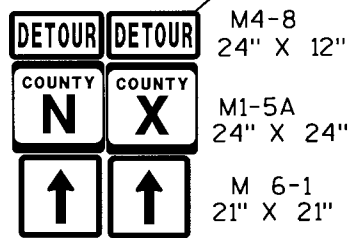
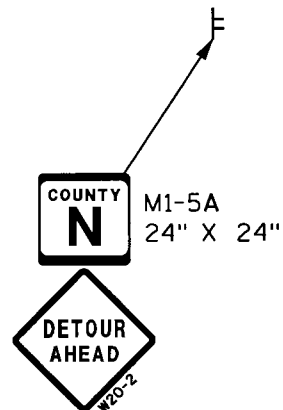


CTH N

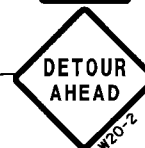
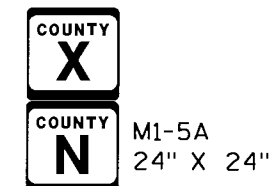
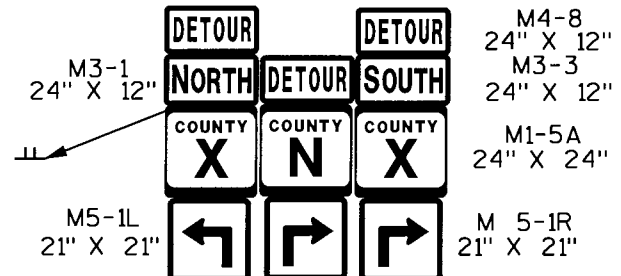
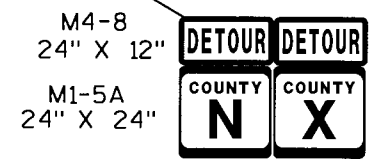
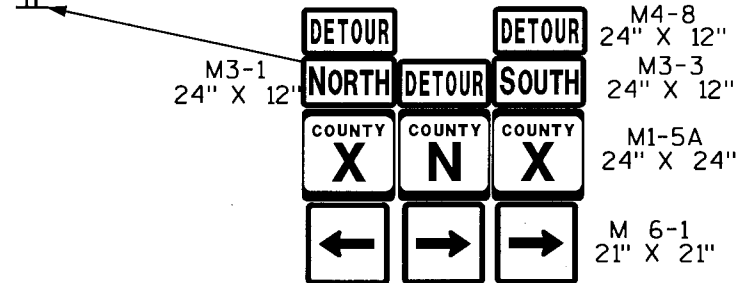
BUSINESS 51



BUSINESS 51





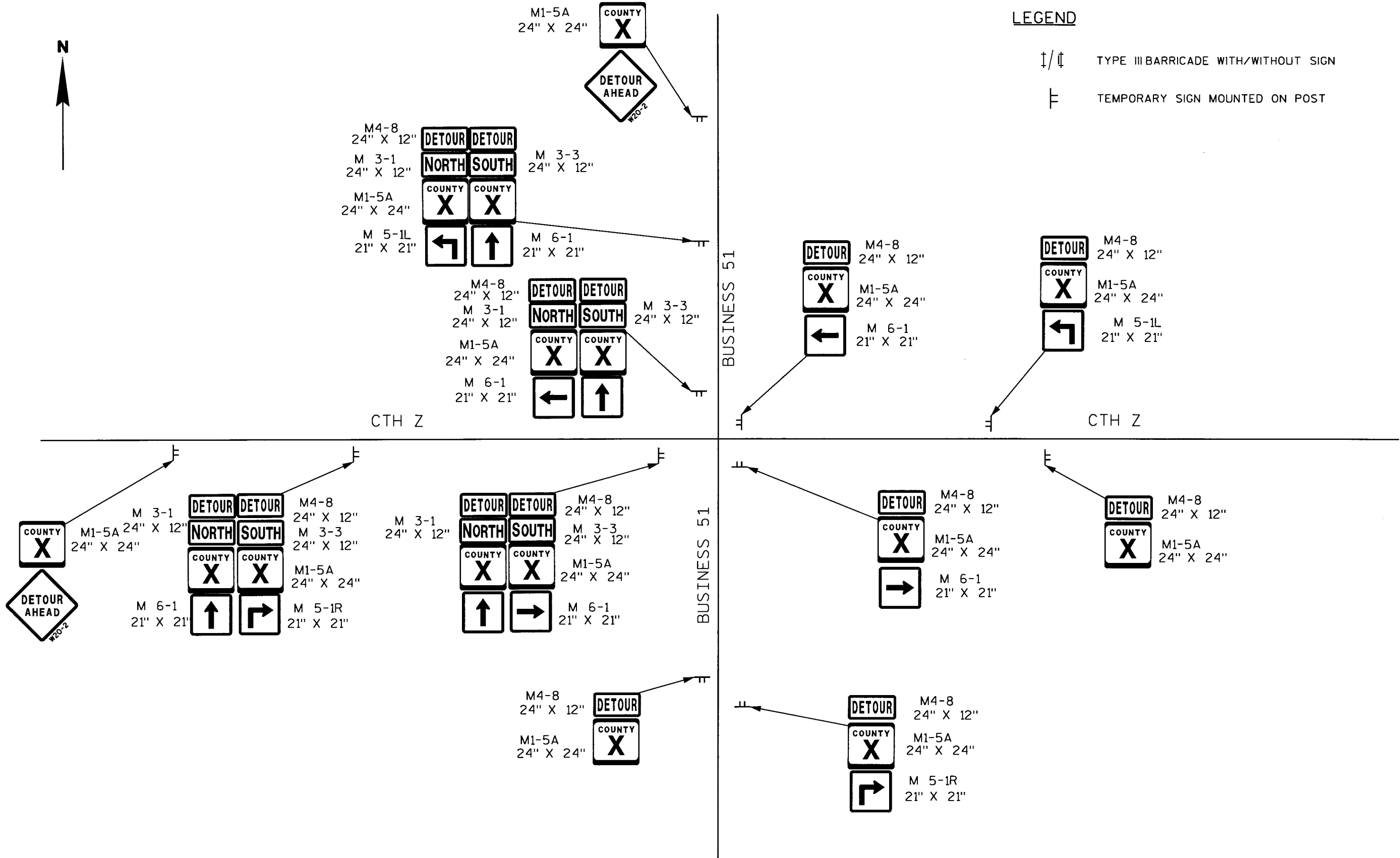
CTH N





LEGEND

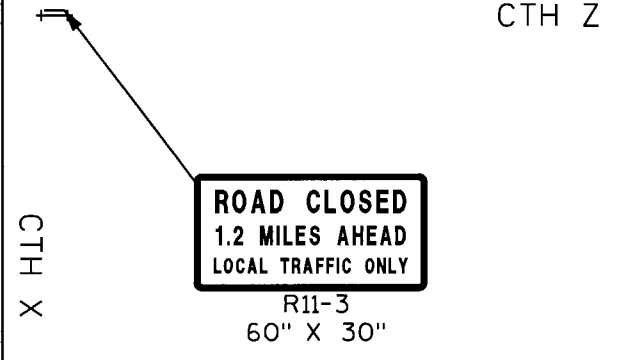
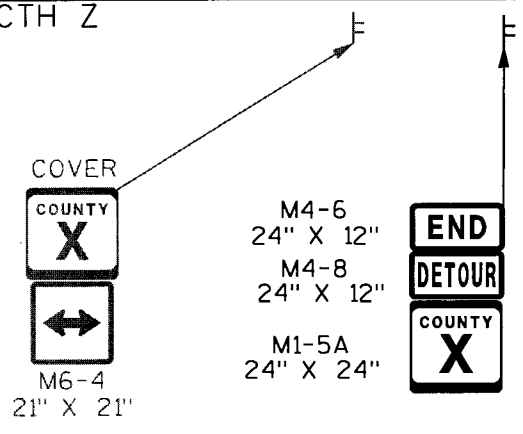
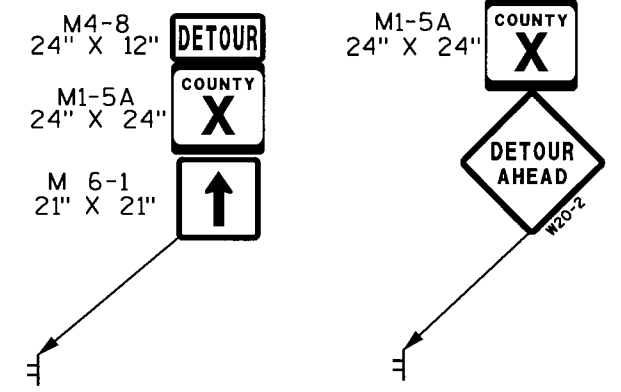
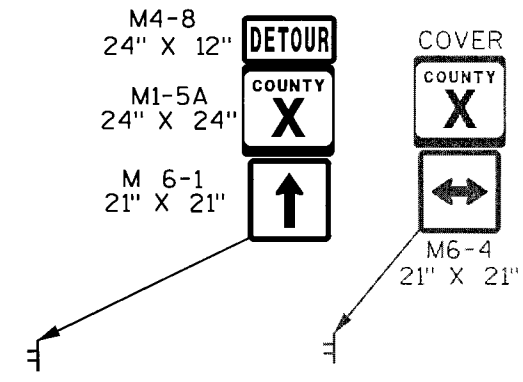
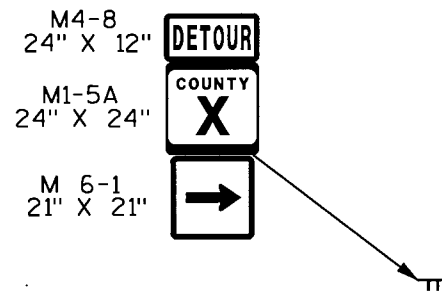
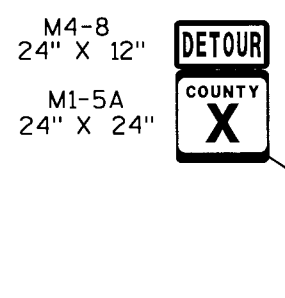
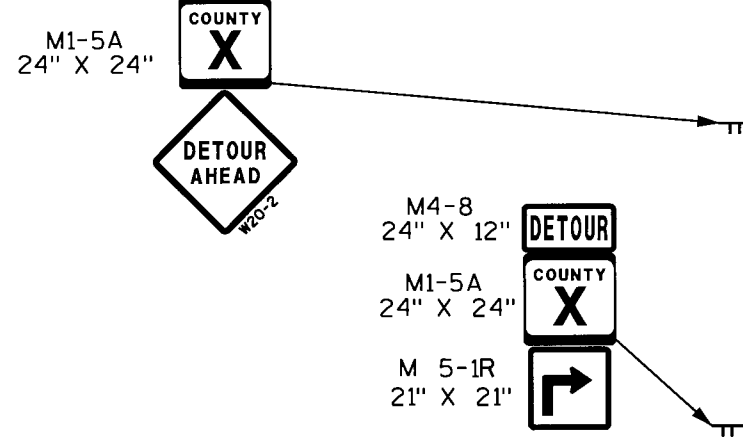
-  TYPE III BARRICADE WITH/WITHOUT SIGN
-  TEMPORARY SIGN MOUNTED ON POST





LEGEND

- || TYPE III BARRICADE WITH/WITHOUT SIGN
- ⌋ TEMPORARY SIGN MOUNTED ON POST



END CONSTRUCTION
STA. 323+00.00'CP'



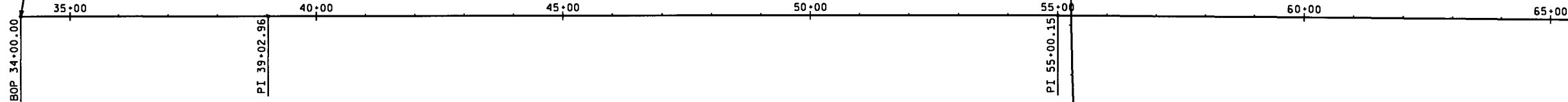
BEGIN PROJECT 9439-04-75
STA. 34+00.00

P.I. = 39+02.96
N 196877.63
E 294388.49

PT 315+36.80'CP'

P.I. = 55+00.15
N 196891.52
E 295985.61

END PROJECT 9439-04-75
STA. 69+00.00



PC 311+03.69'CP'

P.I. = 313+20.27'CP'
N 196892.65
E 296010.55
A = 2.10
D = 0.30
T = 216.58
L = 433.11
R = 11431.90
P.C. = 311+03.69'CP'
P.T. = 315+36.80'CP'

BEGIN CONSTRUCTION
STA. 305+00.00'CP'

DATE 15APR05

ESTIMATE OF QUANTITIES

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	9439-04-75 QUANTITY
0010	201.0105	CLEARING	STA	4.000	4.000
0020	201.0205	GRUBBING	STA	4.000	4.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	10.000	10.000
0040	203.0200	REMOVING OLD STRUCTURE (STATION) 01. STA. 62+23.7	LS	1.000	1.000
0050	204.0110	REMOVING ASPHALTIC SURFACE	SY	75.220	75.220
0060	205.0100	EXCAVATION COMMON	CY	26,912.000	26,912.000
0070	205.0400	EXCAVATION MARSH	CY	5,637.000	5,637.000
0080	206.2000	EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. C-37-82	LS	1.000	1.000
0090	208.0100	BORROW	CY	56,373.000	56,373.000
0100	209.0100	BACKFILL GRANULAR	CY	21,679.000	21,679.000
0110	210.0100	BACKFILL STRUCTURE	CY	1,650.000	1,650.000
0120	213.0100	FINISHING ROADWAY (PROJECT) 01. 9439-04-75	EACH	1.000	1.000
0130	301.0100.S	QMP BASE AGGREGATE	TON	14,083.000	14,083.000
0140	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	14,083.000	14,083.000
0150	504.0100	CONCRETE MASONRY CULVERTS	CY	235.000	235.000
0160	505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB	37,360.000	37,360.000
0170	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	18.000	18.000
0180	520.0115	CULVERT PIPE CLASS III 15-INCH	LF	34.000	34.000
0190	520.0118	CULVERT PIPE CLASS III 18-INCH	LF	102.000	102.000
0200	520.0124	CULVERT PIPE CLASS III 24-INCH	LF	354.000	354.000
0210	520.0130	CULVERT PIPE CLASS III 30-INCH	LF	120.000	120.000
0220	520.1015	APRON ENDWALLS FOR CULVERT PIPE 15-INCH	EACH	2.000	2.000
0230	520.1018	APRON ENDWALLS FOR CULVERT PIPE 18-INCH	EACH	6.000	6.000
0240	520.1024	APRON ENDWALLS FOR CULVERT PIPE 24-INCH	EACH	8.000	8.000
0250	520.1030	APRON ENDWALLS FOR CULVERT PIPE 30-INCH	EACH	4.000	4.000
0260	521.0124	CULVERT PIPE CORRUGATED STEEL 24-INCH	LF	44.000	44.000
0270	521.1024	APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	EACH	2.000	2.000
0280	601.0558	CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D	LF	176.000	176.000
0290	606.0300	RIPRAP HEAVY	CY	62.000	62.000
0300	614.0305	STEEL PLATE BEAM GUARD CLASS A	LF	1,450.000	1,450.000
0310	614.0370	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	EACH	4.000	4.000
0320	614.0605	MARKER POSTS RIGHT-OF-WAY	EACH	40.000	40.000
0330	614.0620.S	MARKER POSTS CULVERT END FLEXIBLE	EACH	22.000	22.000
0340	619.1000	MOBILIZATION	EACH	1.000	1.000
0350	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	1.000	1.000
0360	624.0100	WATER	MGAL	211.000	211.000
0370	625.0500	SALVAGED TOPSOIL	SY	41,517.000	41,517.000
0380	627.0200	MULCHING	SY	41,517.000	41,517.000
0390	628.1505	SILT FENCE DELIVERED	LF	2,689.000	2,689.000
0400	628.1510	SILT FENCE INSTALLED	LF	2,689.000	2,689.000
0410	628.1520	SILT FENCE MAINTENANCE	LF	2,689.000	2,689.000
0420	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	1.000	1.000
0430	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	1.000	1.000
0440	628.2010	EROSION MAT DELIVERED CLASS I TYPE B	SY	7,236.000	7,236.000
0450	628.2035	EROSION MAT DELIVERED CLASS II TYPE C	SY	10,163.000	10,163.000
0460	628.3010	EROSION MAT INSTALLED CLASS I TYPE B	SY	7,236.000	7,236.000
0470	628.3035	EROSION MAT INSTALLED CLASS II TYPE C	SY	10,163.000	10,163.000
0480	628.6505	SOIL STABILIZER TYPE A	ACRE	2.100	2.100
0490	628.7505	TEMPORARY DITCH CHECKS DELIVERED	LF	775.000	775.000

A2

DATE 15APR05

ESTIMATE OF QUANTITIES

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL 775.000	9439-04-75 QUANTITY 775.000
0500	628.7510	TEMPORARY DITCH CHECKS INSTALLED	LF		
0510	629.0210	FERTILIZER TYPE B	CWT	30.000	30.000
0520	630.0130	SEEDING MIXTURE NO. 30	LB	848.000	848.000
0530	630.0200	SEEDING TEMPORARY	LB	1,271.000	1,271.000
0540	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	27.000	27.000
0550	637.0202	SIGNS REFLECTIVE TYPE II	SF	209.750	209.750
0560	638.2602	REMOVING SIGNS TYPE II	EACH	35.000	35.000
0570	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	22.000	22.000
0580	642.5000	FIELD OFFICE TYPE B (PROJECT) 01. 9439-04-75	EACH	1.000	1.000
0590	643.0100	TRAFFIC CONTROL (PROJECT) 01. 9439-04-75	EACH	1.000	1.000
0600	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAYS	1,656.000	1,656.000
0610	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAYS	2,760.000	2,760.000
0620	643.0900	TRAFFIC CONTROL SIGNS	DAYS	1,380.000	1,380.000
0630	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 9439-04-75	EACH	1.000	1.000
0640	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAYS	14,720.000	14,720.000
0650	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	130.000	130.000
0660	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	5,250.000	5,250.000
0670	650.5000	CONSTRUCTION STAKING BASE	LF	5,250.000	5,250.000
0680	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	176.000	176.000
0690	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	12.000	12.000
0700	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. C-37-82	LS	1.000	1.000
0710	690.0100	SAWING EXISTING PAVEMENT	LF	96.000	96.000
0720	SPV.0060	SPECIAL 01. RE-ESTABLISH SECTION CORNER MONUMENTS	EACH	1.000	1.000
0730	SPV.0105	SPECIAL 01. RESEARCH AND LOCATE EXISTING PROPERTY MONUMENTS	LS	1.000	1.000
0740	SPV.0105	SPECIAL 02. VERIFY & REPLACE EXISTING PROPERTY MONUMENTS	LS	1.000	1.000
0750	SPV.0120	SPECIAL 01. WATER FOR SEEDED AREAS	MGAL	1,057.000	1,057.000
0755	SPV.0000	SPECIAL 02. ROCK FILLED FILTER BAGS, DELIVERED	EACH	150.000	150.000
0760	SPV.0000	SPECIAL 03. ROCK FILLED FILTER BAGS, INSTALLED	EACH	150.000	150.000
0765	SPV.0000	SPECIAL 04. ROCK FILLED FILTER BAGS, MAINTENANCE	EACH	150.000	150.000
0770	043.0500	TRAFFIC CONTROL DRUMS	DAYS	500.000	500.000
0775	090.0100	SAWING EXISTING PAVEMENT	LF	1,405.000	1,405.000
0780	204.0170	REMOVING FENCE	LF	1,450.000	1,450.000
0785	300.0110	SALVAGED ASPHALTIC PAVEMENT BASE	TON	330.000	330.000
0790	300.0145	RESTORATION POST ACCEPTANCE SALVAGED TOP	DCL	3,252.000	3,252.000
0795	SPV.0180	PREPARATION FOR LAWN TYPE TURF	SY	450.000	450.000
0800	045.0100	TOPSOIL	SY	450.000	450.000
0805	006.0200	RIPRAP MEDIUM	CY	255.000	255.000
0810	045.0130	GEOTEXTILE FABRIC TYPE R	SY	510.000	510.000

201.0105 CLEARING
201.0205 GRUBBING

STATION - STATION	LOCATION	CLEARING STA.	GRUBBING STA.
37+70 - 41+50	LT	4.00	4.00
TOTAL		4.00	4.00

TOTAL 14 14

203.0100 REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	SIZE	LENGTH	TYPE	EACH
44+85	LT	18"	27'	CMPI	1
58+64	RT	24"	25'	CMPI	1
65+89	LT	24"	25'	RCCP	1
68+44	RT	18"	22'	RCCP	1
308+85'CP'	CROSS DRAIN	24"	54'	CMPI	1
312+93'CP'	CROSS DRAIN	24"	75'	CMPI	1
313+51'CP'	CROSS DRAIN	24"	64'	CMPI	1
318+96'CP'	LT	15"	25'	RCCP	1
321+97'CP'	CROSS DRAIN	24"	42'	RCCP	1
322+02'CP'	CROSS DRAIN	30"	42'	RCCP	1
TOTAL					10

41+80 LT 12" 16' RCCP 1
TOTAL 11

204.0110 REMOVING ASPHALTIC SURFACE

STATION - STATION	LOCATION	SY
68+43	RT	75.22
TOTAL		75.22

205.0100 EXCAVATION COMMON
205.0400 EXCAVATION MARSH
208.0100 BORROW
209.0100 BACKFILL GRANULAR

STATION - STATION	COMMON EXCAVATION C.Y.	MARSH EXCAVATION C.Y.	FILL C.Y.	EXPANDED FILL* C.Y.	EBS C.Y.	209.0100 (1) EBS GRANULAR BACKFILL GRADE 2 C.Y.	209.0100 (1) MARSH** GRANULAR BACKFILL GRADE 1 C.Y.	205.0100 TOTAL**** COMMON EXCAVATION C.Y.	WASTE*** C.Y.	208.0100 BORROW C.Y.
305+00'CP' - 323+00'CP'	6,090	903	17,606	22,888	1552	2,018	1219.6	7,642	2,455	16,798
34+00 - 69+00	17,563	4,733	43,952	57,138	1707	2,219	6390	19,270	6,440	39,575
TOTALS	23,653	5,637			3,259	4,237	7,610	26,912	8,896	56,373

*FILL IS EXPANDED 30%
**GRANULAR BACKFILL GRADE 1 FOR MARSH EXCAVATION IS EXPANDED 35%
***WASTE = MARSH EXCAVATION + EBS
****TOTAL COMMON EXCAVATION + COMMON + EBS
(1) ADDITIONAL QUANTITIES SHOWN ELSEWHERE

209.0100 BACKFILL GRANULAR

STATION - STATION	GRADE 2 (1) CY
34+00 - 69+00	5,779.93
305+00'CP' - 323+00'CP'	4,052.41
TOTAL	9,832

(1) ADDITIONAL QUANTITIES SHOWN ELSEWHERE

301.0100.S OMP BASE AGGREGATE
305.0120 BASE AGGREGATE DENSE 1 1/4-INCH
624.0100 WATER

STATION - STATION	1 1/4-INCH		
	BASE TON	WATER TON	OMP TON
34+00 - 69+00	7964.6	119.47	7964.6
305+00'CP' - 323+00'CP'	6118.6	91.78	6118.6
TOTAL	14,083	211	14,083

- 520.0115 CULVERT PIPE CLASS III 15-INCH
- 520.0118 CULVERT PIPE CLASS III 18-INCH
- 520.0124 CULVERT PIPE CLASS III 24-INCH
- 520.0130 CULVERT PIPE CLASS III 30-INCH
- 520.1015 APRON ENDWALLS FOR CULVERT PIPE 15-INCH
- 520.1018 APRON ENDWALLS FOR CULVERT PIPE 18-INCH
- 520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH
- 520.1030 APRON ENDWALLS FOR CULVERT PIPE 30-INCH
- 650.6000 CONSTRUCTION STAKING PIPE CULVERTS

STATION - STATION	LOCATION	MINIMUM THICKNESS STEEL INCH	ALUMINUM INCH	CLASS III 15-INCH LF	CLASS III 18-INCH LF	CLASS III 24-INCH LF	CLASS III 30-INCH LF	APRON ENDWALLS 15-INCH EACH	APRON ENDWALLS 18-INCH EACH	APRON ENDWALLS 24-INCH EACH	APRON ENDWALLS 30-INCH EACH	STAKING EACH
36+80.28	EXTENSION	0.064	---	---	---	26*	---	---	---	1***	---	1
41+55.24	EXTENSION	0.064	---	---	---	18*	---	---	---	1***	---	1
44+70.70 - 45+04.70	LT	0.064	0.060	---	34	---	---	---	2	---	---	1
65+73.15 - 66+07.15	LT	0.064	0.075	---	---	---	---	---	---	---	---	1
68+26.50 - 68+60.50	RT	0.064	0.060	---	34	---	---	---	2	---	---	1
305+64.95'CP' - 305+98.95'CP'	RT	0.064	0.060	---	---	---	---	---	---	2	---	1
308+84.62'CP'	CROSS DRAIN	0.064	0.075	---	---	131	---	---	---	2	---	1
312+62.43'CP'	CROSS DRAIN	0.064	0.075	---	---	90	---	---	---	2	---	1
313+89.42'CP'	CROSS DRAIN	0.064	0.075	---	---	99	---	---	---	---	---	1
318+76.94'CP' - 319+10.94'CP'	LT	0.064	0.080	34	---	---	---	2	---	---	2	1
321+95.66'CP'	CROSS DRAIN	0.079	0.075	---	---	---	60	---	---	---	2	1
322+02.10'CP'	CROSS DRAIN	0.079	0.075	---	---	---	60	---	---	---	2	1
WTCC	RT	0.064	0.075	---	---	---	---	---	2	---	---	1
TOTAL				34	102	398**	120	2	8	10****	4	12

*** PAID FOR AS APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH (521.1024)
 ***** EACH = APRON ENDWALLS FOR CULV. PIPE 24-INCH
 Z EACH = APRON ENDWALLS FOR CULV. PIPE STEEL 24-INCH
 * PAID FOR UNDER ITEM "CULVERT PIPE CORRUGATED STEEL 24-INCH" (521.0124)
 ** 354 LF = CULVERT PIPE CLASS III 24-INCH TOTAL
 44 LF = CULV. PIPE CORRUGATED STEEL 24-INCH TOTAL

614.0600 MARKER POSTS RIGHT-OF-WAY

STATION	LOCATION	POINT	EACH
34+00	41.94 RT	106	1
34+00	40.56 LT	100	1
34+50	70.00 LT	101	1
36+00	70.00 LT	102	1
37+50	95.00 LT	103	1
38+00	95.00 LT	104	1
38+75	54.92 LT	105	1
42+02.72	55.00 LT	117	1
40+43.04	40.98 RT	107	1
8'P'+30.83	30.06 LT	108	1
8'P'+30.86	41.19 RT	109	1
42+45.05	40.95 RT	110	1
45+25	55.00 LT	114	1
47+00.90	40.87 RT	111	1
49+00.90	85.00 RT	112	1
50+71.04	99.04 LT	113	1
53+71.04	100.03 LT	125	1
53+50.90	95.00 RT	118	1
311'CP'+03.69	131.25 LT	119	1
311'CP'+03.68	160.59 RT	120	1
56+89.71	90.01 RT	121	1
56+20.33	110.63 LT	124	1
62+20.42	110.51 LT	123	1
62+50.92	90.03 RT	122	1
63+38.23	70.00 LT	126	1
64+56.24	90.04 RT	135	1
66+66.29	70.00 LT	127	1
65+50	78.93 RT	134	1
67+19.15	45.00 RT	143	1
68+36.14	45.00 RT	133	1
68+55	98.24 LT	129	1
69+00	40.98 RT	132	1
69+66.74	41.00 RT	131	1
69+66.74	41.50 LT	130	1
318'CP'+40.89	95.76 RT	136	1
321'CP'+32.30	60.00 RT	137	1
322'CP'+50	60.00 RT	138	1
323'CP'+00	50.00 RT	139	1
323'CP'+12.25	37.92 RT	140	1
323'CP'+12.25	154.24 LT	141	1
TOTAL			40

614.0620.S MARKER POSTS CULVERT END FLEXIBLE

STATION - STATION	LOCATION	EACH
36+80.68	LT	1
41+55.24	LT	1
44+70.70 - 45+04.70	LT	2
65+73.15 - 66+07.15	LT	2
68+26.50 - 68+60.50	RT	2
305+64.95'CP' - 305+98.95'CP'	RT	2
308+84.62'CP'	LT & RT	2
312+62.43'CP'	LT & RT	2
313+89.42'CP'	LT & RT	2
318+76.94'CP' - 319+10.94'CP'	LT	2
321+95.66'CP'	LT & RT	2
322+02.10'CP'	LT & RT	2
TOTAL		22

621.0100 LANDMARK REFERENCE MONUMENTS

STATION	LOCATION	EACH
55+20	0.6' LT	1
TOTAL		1

- 601.0558 CONCRETE CURB & GUTTER 6-INCH MOUNTABLE 36-INCH TYPE D
- 650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

STATION - STATION	LOCATION	TYPE D LF	STAKING LF
54+64.42 - 55+04.82	RT	58.06	58.06
54+62.23 - 55+01.81	LT	59.30	59.30
55+52.91 - 55+92.89	RT	60.01	60.01
55+49.84 - 55+89.83	LT	58.22	58.22
TOTAL		176	176

- 614.0305 STEEL PLATE BEAM GUARD CLASS A
- 614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

STATION - STATION	LOCATION	CLASS A LF	EAT EACH
58+00 - 58+50	RT	---	1
58+50 - 65+00	RT	650	---
65+00 - 65+50	LT & RT	---	2
56+50 - 57+00	LT	---	1
57+00 - 65+00	LT	800	---
TOTAL		1,450	4

- 625.0500 SALVAGED TOPSOIL
- 627.0200 MULCHING
- 629.0210 FERTILIZER TYPE B
- 630.0130 SEEDING MIXTURE NO. 30
- 630.0200 SEEDING TEMPORARY
- SPV.0120.01 WATER FOR SEEDED AREAS

STATION	LOCATION	SALVAGED TOPSOIL SY	MULCH SY	FERT TYPE B CWT	SEED NO. 30 LB	TEMP SEED MGAL	WATER MGAL
CTH N	LT	12,313.92	12,313.92	8.78	250.97	376.45	312.88
CTH N	RT	7,949.31	7,949.31	5.59	159.72	239.58	199.12
CAMP PHILLIPS	LT	6,012.78	6,012.78	4.39	125.35	188.03	156.27
CAMP PHILLIPS	RT	6,937.94	6,937.94	4.97	142.08	213.12	177.12
UNDISTRIBUTED		8,303.49	8,303.49	5.93	169.53	254.30	211.35
TOTAL		41,517	41,517	30	848	1,271	1,057

628.1505 SILT FENCE DELIVERED
 628.1510 SILT FENCE INSTALLED
 628.1520 SILT FENCE MAINTENANCE

STATION - STATION	LOCATION	DELIVERED LF	INSTALLED LF	MAINTENANCE LF
56+50 - 65+50	LT	932	932	932
58+00 - 65+50	RT	783	783	783
321+00'CP' - 323+00'CP'	LT	221	221	221
321+00'CP' - 323+00'CP'	RT	215	215	215
UNDISTRIBUTED		538	538	538
TOTAL		2,689	2,689	2,689

628.7505 TEMPORARY DITCH CHECKS DELIVERED
 628.7510 TEMPORARY DITCH CHECKS INSTALLED

STATION - STATION	LOCATION	DELIVERED LF	INSTALLED LF
44+00 - 54+00	RT	620	620
UNDISTRIBUTED		155	155
TOTAL		775	775

628.2010 EROSION MAT DELIVERED CLASS I TYPE B
 628.2035 EROSION MAT DELIVERED CLASS II TYPE C
 628.3010 EROSION MAT INSTALLED CLASS I TYPE B
 628.3035 EROSION MAT INSTALLED CLASS II TYPE C

STATION - STATION	LOCATION	CLASS I TYPE B SY	CLASS I TYPE B SY	CLASS II TYPE C SY	CLASS II TYPE C SY
36+80.68	LT	10.83	10.83	---	---
41+55.24	LT	10.83	10.83	---	---
44+62.79	LT	7.72	7.72	---	---
45+04.70	LT	7.72	7.72	---	---
54+70	LT & RT	21.67	21.67	---	---
56+00	LT & RT	21.67	21.67	---	---
65+60	LT	10.83	10.83	---	---
66+20	LT	10.83	10.83	---	---
68+14	RT	7.72	7.72	---	---
68+72	RT	7.72	7.72	---	---
305+53	RT	7.72	7.72	---	---
306+10	RT	7.72	7.72	---	---
308+84.62'CP'	LT & RT	21.67	21.67	---	---
318+65'CP'	LT	6.36	6.36	---	---
319+22'CP'	LT	6.36	6.36	---	---
34+00 - 54+50	LT	1,767.7	1,767.7	---	---
48+00 - 54+50	RT	595.3	595.3	---	---
56+00 - 56+50	LT	41.8	41.8	---	---
56+00 - 58+00	RT	177.8	177.8	---	---
65+50 - 69+00	LT	242.8	242.8	---	---
65+50 - 69+00	RT	248.0	248.0	---	---
305+00'CP' - 312+62.43'CP'	LT	662.2	662.2	---	---
305+00'CP' - 312+62.43'CP'	RT	609.8	609.8	---	---
313+89.42'CP' - 321+00'CP'	LT	561.3	561.3	---	---
313+89.42'CP' - 321+00'CP'	RT	622.7	622.7	---	---
EHIND CURB AT INTERSECTIO	LT & RT	92.1	92.1	---	---
56+50 - 65+50	LT	---	---	4,236.79	4,236.79
58+00 - 65+50	RT	---	---	3,061.16	3,061.16
321+00'CP' - 323+00'CP'	LT	---	---	464.28	464.28
321+00'CP' - 323+00'CP'	RT	---	---	368.46	368.46
UNDISTRIBUTED		1,447.2	1,447.2	2,032.67	2,032.67
TOTAL		7,236	7,236	10,163	10,163

628.6505 SOIL STABILIZER TYPE A

STATION - STATION	LOCATION	ACRE
56+50 - 65+50	LT	0.88
58+00 - 65+50	RT	0.63
321+00'CP' - 323+00'CP'	LT	0.10
321+00'CP' - 323+00'CP'	RT	0.08
UNDISTRIBUTED		0.42
TOTAL		2.10

634.0614 POSTS WOOD 4x6-INCH x 14-FT
 637.0202 SIGNS REFLECTIVE TYPE II

NO.	STATION	LOCATION	POSTS EACH	SIZE	SIGNS SF	NO.	REMARKS
1	33+83	RT	1	30" x 36"	7.5	R3-72	ONCOMING TRAFFIC
2	45+50	RT	1	36" x 36"	9	W4-2R	MERGE
3	45+50	LT	1	36" x 36"	9	W4-2R	MERGE
4	49+26	RT	1	36" x 36"	9	W3-1	STOP AHEAD
5	49+67	RT	1	24" x 39"	6.5	J1-1	
			---	21" x 15"	---	M 2-1	JCT
			---	24" x 24"	---	M 1-5A	CTH X
6	49+26	LT	1	36" x 36"	9	W3-1	STOP AHEAD
7	53+63	LT	1	24" x 30"	5	R4-3	SLOWER TRAFFIC
8	53+70	RT	1	48" x 36"	12	W14-3	NO PASSING ZONE
9	54+50	RT	1	30" x 30"	6.25	R1-1	STOP
10	54+48	RT	1	24" x 45"	7.5	J12-1	
			---	24" x 24"	---	M1-5A	CTH X
			---	21" x 21"	---	M6-4	ARROWS
11	307+41'CP'	LT	1	24" x 30"	5	R2-1	SPEED LIMIT 45
12	307+41'CP'	RT	1	36" x 36"	9	W3-1	STOP AHEAD
13	309+00'CP'	RT	1	24" x 39"	6.5	J1-1	
			---	21" x 15"	---	M2-1	JCT
			---	24" x 24"	---	M1-5A	CTH N
14	312+52'CP'	RT	1	30" x 30"	6.25	R1-1	STOP
15	312+52'CP'	RT	1	48" x 45"	15	J12-2	
			---	24" x 24"	---	M1-5A	CTH N
			---	24" x 24"	---	M1-5A	CTH X
			---	21" x 21"	---	M6-1	ARROW AHEAD
			---	21" x 21"	---	M6-4	ARROWS
16	60+28	LT	1	24" x 39"	6.5	J1-1	
			---	21" x 15"	---	M2-1	JCT
			---	24" x 24"	---	M1-5A	CTH X
17	60+97	LT	1	36" x 36"	9	W3-1	STOP AHEAD
18	61+00	RT	1	24" x 30"	5	R2-1	SPEED LIMIT 45
19	66+55	RT	1	30" x 30"	6.25	S3-1	SCHOOL BUS STOP AHEAD
20	69+00	LT	1	24" x 30"	5	R2-1	SPEED LIMIT 45
21	55+92	LT	1	30" x 30"	6.25	R1-1	STOP
22	55+72	LT	1	24" x 45"	7.5	J12-1	
			---	24" x 24"	---	M1-5A	CTH X
			---	21" x 21"	---	M6-4	ARROWS
23	313+82'CP'	LT	1	48" x 45"	15	J12-2	
			---	24" x 24"	---	M1-5A	CTH N
			---	24" x 24"	---	M1-5A	CTH X
			---	21" x 21"	---	M6-1	ARROW AHEAD
			---	21" x 21"	---	M6-4	ARROWS
24	313+95'CP'	LT	1	30" x 30"	6.25	R1-1	STOP
25	318+11'CP'	LT	1	24" x 39"	6.5	J1-1	
			---	21" x 15"	---	M2-1	JCT
			---	24" x 24"	---	M1-5A	CTH N
26	318+85'CP'	LT	1	36" x 36"	9	W3-1	STOP AHEAD
27	318+85'CP'	RT	1	24" x 30"	5	R2-1	SPEED LIMIT 45
			27		209.75		

638.2602 REMOVING SIGNS TYPE II
 638.3000 REMOVING SMALL SIGN SUPPORTS

NO.	STATION	LOCATION	REMOVE SIGNS EACH	REMOVE SUPPORTS EACH	REMARKS
R1	44+69	LT	1	1	SPEED LIMIT 45
R2	50+14	RT	2	1	JCT CTH X
R3	54+62	RT	2	1	CTH X
R4	312+76'CP'	LT	1	1	STOP
R5	310+21'CP'	LT	1	1	SPEED LIMIT 45
R6	305+49'CP'	LT	1	1	STOP AHEAD
R7	305+58'CP'	RT	1	1	STOP AHEAD
R8	309+17'CP'	RT	2	1	JCT CTH N
R9	312+77'CP'	RT	1	1	STOP
R10	312+79'CP'	RT	4	1	CTH N, CTH X
R11	60+08	RT	1	1	SPEED LIMIT 55
R12	67+09	RT	1	1	SCHOOL BUS STOP
R13	68+81	LT	1	1	SPEED LIMIT 45
R14	65+79	LT	1	1	INTERSECTION
R15	60+49	LT	2	1	JCT CTH X
R16	55+70	LT	2	1	CTH X
R17	313+63'CP'	RT	1	1	STOP
R18	314+85'CP'	RT	1	1	SPEED LIMIT 45
R19	319+92'CP'	RT	1	1	STOP AHEAD
R20	319+92'CP'	LT	1	1	STOP AHEAD
R21	318+00'CP'	LT	2	1	JCT CTH N
R22	313+63'CP'	LT	4	---	CTH N, CTH X
R23	313+65'CP'	LT	1	1	STOP
TOTAL			35	22	
TOTAL			57	34	

650.4500 CONSTRUCTION STAKING SUBGRADE
 650.5000 CONSTRUCTION STAKING BASE

STATION - STATION	SUBGRADE LF	BASE LF
34+00 - 55+00	2100	2100
55+50 - 69+00	1350	1350
305+00'CP' - 323+00'CP'	1800	1800
TOTAL	5,250	5,250

690.0100 SAWING EXISTING PAVEMENT

STATION	LOCATION	LF
48+00	CTH N	24
69+00	CTH N	24
305+00'CP'	CAMP PHILLIPS	24
323+00'CP'	CAMP PHILLIPS	24
TOTAL		96

DRIVEWAY @ 68+50
 DRIVEWAY @ 48+00
 STAKE TO 47+44 (44) 1344

TOTAL = 1465

643.0100 TRAFFIC CONTROL 9439-04-75
 643.2000 TRAFFIC CONTROL DETOUR 9439-04-75

STATION	TRAFFIC CONTROL EACH	DETOUR EACH
PROJECT 9439-04-75	1	1
TOTAL	1	1

SPV.0060.01 REESTABLISH SECTION CORNER MONUMENTS

STATION	LOCATION	TYPE	EACH
55+26	CENTER OF INTERSECTION	BERNTSEN SURVEY MARKER PIN	1
TOTAL			1

643.0420 TRAFFIC CONTROL BARRICADES TYPE III
 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A
 643.0900 TRAFFIC CONTROL SIGNS
 643.3000 TRAFFIC CONTROL DETOUR SIGNS

STATION	DAYS	BARRICADES TYPE III EACH	BARRICADE TYPE III DAYS	LIGHTS TYPE A EACH	LIGHTS TYPE A DAYS	SIGNS EACH	SIGNS DAYS	DETOUR SIGNS EACH	DETOUR SIGNS DAYS
INTERSECTION OF CTH N & CTH X	46	32	1472	44	2024	26	1196	0	0
INTERSECTION OF CTH J & CTH N	46	1	46	4	184	1	46	21	966
INTERSECTION OF CTH J & SCHOFIELD AVE.	46	0	0	0	0	0	0	32	1472
INTERSECTION OF CTH X & SCHOFIELD AVE.	46	1	46	4	184	1	46	54	2484
INTERSECTION BUSINESS 51 & SCHOFIELD AVE.	46	0	0	0	0	0	0	86	3956
INTERSECTION OF CTH N & BUSINESS 51	46	1	46	4	184	1	46	54	2484
INTERSECTION OF CTH Z & BUSINESS 51	46	0	0	0	0	0	0	52	2392
INTERSECTION OF CTH Z & CTH X	46	1	46	4	184	1	46	21	966
TOTALS			1,656		2,760		1,380		14,720

CONVENTIONAL SIGNS AND ABBREVIATIONS

R/W PROJECT NUMBER 9439-04-75	SHEET NUMBER 4.1	TOTAL SHEETS 8
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT-OF-WAY REQUIRED FOR CAMP PHILLIPS ROAD INTERSECTION C.T.H. 'N' - CAMP PHILLIPS ROAD		
CTH N		MARATHON COUNTY
CONSTRUCTION PROJECT NUMBER 9439-04-75		
REVISION DATE 05 JAN 05 12 JAN 05 13 JAN 05 18 JAN 05 24 JAN 05		

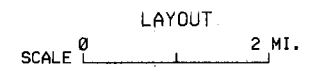
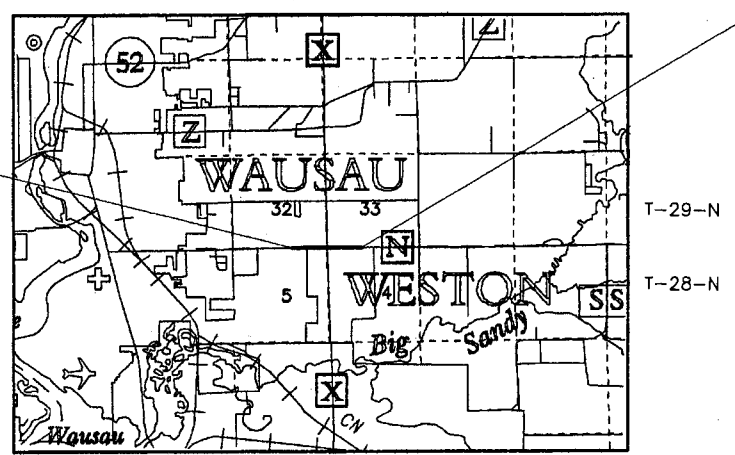
COUNTY LINE	-----	GAS	— G —
TOWNSHIP AND RANGE LINES	-----	ELECTRIC	— E —
SECTION LINE	-----	TELEPHONE	— T —
QUARTER LINE	-----	CABLE MARKER	□
SIXTEENTH LINE	-----	RAILROADS	+++++
EXISTING R/W LINE	-----	R/W POINT SET (1"x24" I.P. /PLUG)	●
NEW R/W LINE	-----	R/W MONUMENT	○
EASEMENT LINE	-----	R/W STANDARD	△
PROPERTY LINE	-----	BUILDING	■
SLOPE INTERCEPTS	-----	NO ACCESS (BY ACQUISITION)	
LOT, TIE AND OTHER MINOR DASHED LINES	-----	R/W COORDINATE POINT NUMBER	XXX
NO ACCESS (BY PREVIOUS ACQUISITION)	◆◆◆◆◆	LIMITED EASEMENT (TEMPORARY OR PERMANENT)	
CORPERATE LIMITS	//////		
SECTION CORNER	⊕	NON-COMPENSABLE	⊕
HAZARDOUS UTILITY SITE	☠	COMPENSABLE	⊕
PARALLEL TO LINE	↔	SERVICE PEDESTAL	⊕
PARCEL NUMBER	⑤	POWER POLE	⊕
		TELEPHONE POLE	⊕
		SIGN	⊕

ACCESS POINT	▲	A.P.	▲
ACCESS RIGHTS	▲	A.R.	▲
ACRES	AC	AC.	AC.
AND OTHERS	ET. AL.	ET. AL.	ET. AL.
CENTERLINE	C.L.	C.L.	C.L.
CENTRAL ANGLE OR DELTA	Δ	Δ	Δ
CERTIFIED SURVEY MAP	C.S.M.	C.S.M.	C.S.M.
CHORD	C	C	C
COUNTY TRUNK HIGHWAY	C.T.H.	C.T.H.	C.T.H.
DEED	(D)	(D)	(D)
DOCUMENT	DOC.	DOC.	DOC.
ESTATE	EST.	EST.	EST.
GARAGE	G.	G.	G.
HIGHWAY EASEMENT	H.E.	H.E.	H.E.
HOUSE	H. I	H. I	H. I
IRON PIPE	I.P.	I.P.	I.P.
LAND CONTRACT	L.C.	L.C.	L.C.
LENGTH OF CURVE	L	L	L
LONG CHORD	L. CH.	L. CH.	L. CH.
MONUMENT	MON.	MON.	MON.
OUTLOT	O.L.	O.L.	O.L.
PERMINANT LIMITED EASEMENT	P.L.E.	P.L.E.	P.L.E.
PROPERTY LINE	P.L.	P.L.	P.L.
QUIT CLAIM DEED	Q.C.D.	Q.C.D.	Q.C.D.
RADIUS	R	R	R
REFERENCE LINE	R.L.	R.L.	R.L.
REMAINING	REM.	REM.	REM.
RIGHT OF WAY	R/W	R/W	R/W
SECTION	SEC.	SEC.	SEC.
SEVERED	SEV.	SEV.	SEV.
SHED	S.	S.	S.
SQUARE FEET	S.F.	S.F.	S.F.
STATION	STA.	STA.	STA.
TANGENT	TAN.	TAN.	TAN.
TEMPORARY LIMITED EASEMENT OR CONSTRUCTION PERMIT	T.I.	T.I.	T.I.
TRANSIT LINE	T.L.	T.L.	T.L.



END RELOCATION ORDER
STA. 34+00
 14.16' NORTH OF AND
 515.44' EAST OF NORTH
 1/4 CORNER SEC 5,
 T28N, R8E

END RELOCATION ORDER
STA. 69+00
 2.60' NORTH OF AND
 1248.56' EAST OF NORTH
 1/4 CORNER SEC 4,
 T28N, R8E



TOTAL NET LENGTH OF CENTERLINE = 0.663 MI.

NOTES

COORDINATES AND BEARINGS ON THIS PLAT ARE ORIENTED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MARATHON COUNTY ZONE, ENGLISH, NAD 83 (1991) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER SURVEYS OF PUBLIC RECORD.

BASIS FOR RIGHT-OF-WAY DETERMINATION
 C.T.H. 'X' NORTH OF C.T.H. 'N', MARATHON COUNTY RIGHT-OF-WAY PROJECT, NO STATE OR FEDERAL NUMBER, DATED 04-01-02

C.T.H. 'X' SOUTH OF C.T.H. 'N', C.T.H. 'N' AND C.T.H. 'N', SOUTH RIGHT-OF-WAY AT C.T.H. 'X' INTERSECTION FROM MARATHON COUNTY RIGHT-OF-WAY PROJECT, NO STATE OR FEDERAL NUMBER, DATED 4-27-97

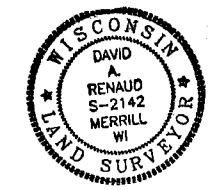
REMAINING C.T.H. 'X' AND POPLAR LANE AS PER DEEDS.

ACCEPTED FOR
 COUNTY OF MARATHON

DATE: 11/29/04 *Clayton Smith*
 (COMMISSIONER)

ORIGINAL PLAT PREPARED BY

REI
**CIVIL & ENVIRONMENTAL
 ENGINEERING, SURVEYING**
 4080 N. 20th AVENUE
 WAUSAU, WISCONSIN 54401
 PHONE: (715) 675-9784 FAX: (715) 675-4060
 EMAIL: mail@REIengineering.com



48 DATE: 11-23-04 *David Renaud*
 (REGISTERED LAND SURVEYOR)

SCHEDULE OF LANDS & INTERESTS REQUIRED

AREAS SHOWN IN THE 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.


PARCEL NUMBER	SHEET #	OWNER(S)	INTEREST REQUIRED	TOTAL ACRES	R/W ACRES			TOTAL ACRES REMAINING	T.L.E. ACRES (TEMP)	P.L.E. ACRES
					NEW	EXISTING	TOTAL			
1	4.5-4.6	LORRY LAPORTE	FEE	28	0.103	0	0.103	27.897	0	0
2	4.5	SCOTT W. & SUE R. ZILISCH	FEE & T.L.E.	9.29	0.308	0	0.308	8.982	0.023	0
3	4.4	CHARLES W. & BETTY JANE BAUMANN	FEE	38.55	0.481	0	0.481	37.466	0	0
6	4.6-4.7	ZASTROW REVOCABLE TRUST, LEON A. & RUTH N. ZASTROW, CO-TRUSTEES	FEE	33.39	0.323	0	0.323	33.067	0	0
7	4.7	LEE F. & KAREN K. HAMERLY	FEE & TLE	0.73	0.001	0	0.001	0.729	0.005	0
8	4.7	ZASTROW REVOCABLE TRUST, LEON A. & RUTH N. ZASTROW, CO-TRUSTEES, VENDOR MARK L. LEAH J. ZASTROW, PURCHASER	FEE	38.64	0.099	0	0.099	38.541	0	0
9	4.6-4.8	RANDALL J. & JUDITH A. GORSKI	FEE & T.L.E.	37.46	0.483	0	0.483	36.977	0.028	0
11	4.4-4.8	WISCONSIN PUBLIC SERVICE CORPORATION	RELEASE OF RIGHTS							
12	4.4-4.8	VERIZON NORTH, INC.	RELEASE OF RIGHTS							
13	4.4-4.8	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS							
14	4.4-4.8	ANR PIPELINE COMPANY	RELEASE OF RIGHTS							

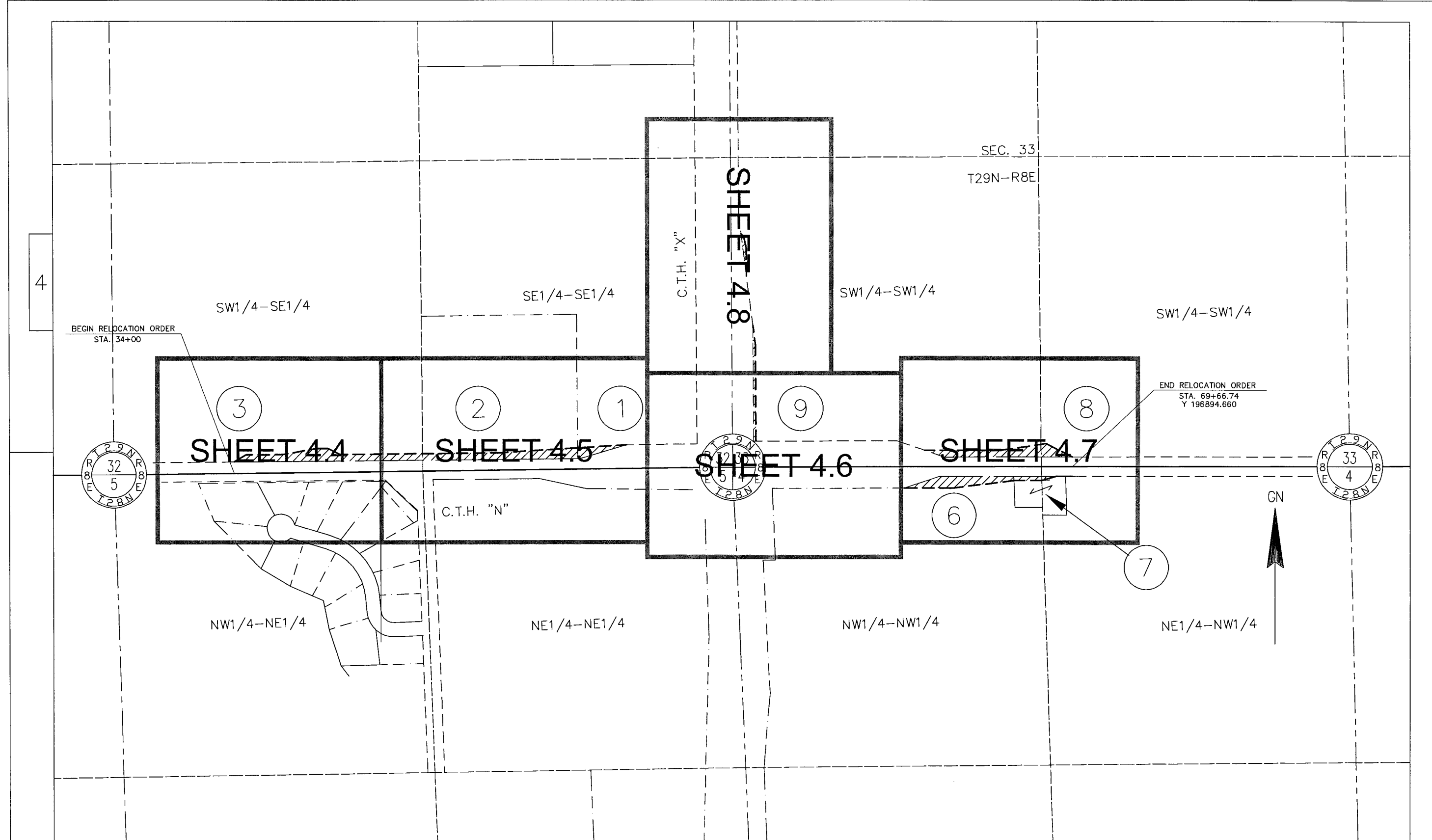
BASIS FOR RIGHT-OF-WAY DETERMINATION

C.T.H. "X" NORTH OF C.T.H. "N": MARATHON COUNTY RIGHT-OF-WAY PROJECT, NO STATE OR FEDERAL NUMBER, DATED 04-01-02

C.T.H. "X" SOUTH OF C.T.H. "N", C.T.H. "N" AND C.T.H. "N", SOUTH RIGHT-OF-WAY AT C.T.H. "X" INTERSECTION FROM MARATHON COUNTY RIGHT-OF-WAY PROJECT, NO STATE OR FEDERAL NUMBER, DATED 4-27-97

REMAINING C.T.H. "X" AND POPLAR LANE AS PER DEEDS.

REVISION DATE	DATE 11/23/04	SCALE, FEET	HWY: CTH N	STATE R/W PROJECT NUMBER 9439-04-75	PLAT SHEET NO: 4.2
	REVISED 01/05/05, 1/12/05, 01/13/05		COUNTY: MARATHON	CONSTRUCTION PROJECT NUMBER 9439-04-75	PS&E SHEET A9
FILE NAME : \$\$...designfile...\$\$		PLOT DATE : \$\$...plottingdate...\$\$		PLOT BY : \$\$...plotuser...\$\$	
		PLOT NAME :		PLOT SCALE : \$\$...plotscale...\$\$	
WISDOT/CADDS SHEET 60					

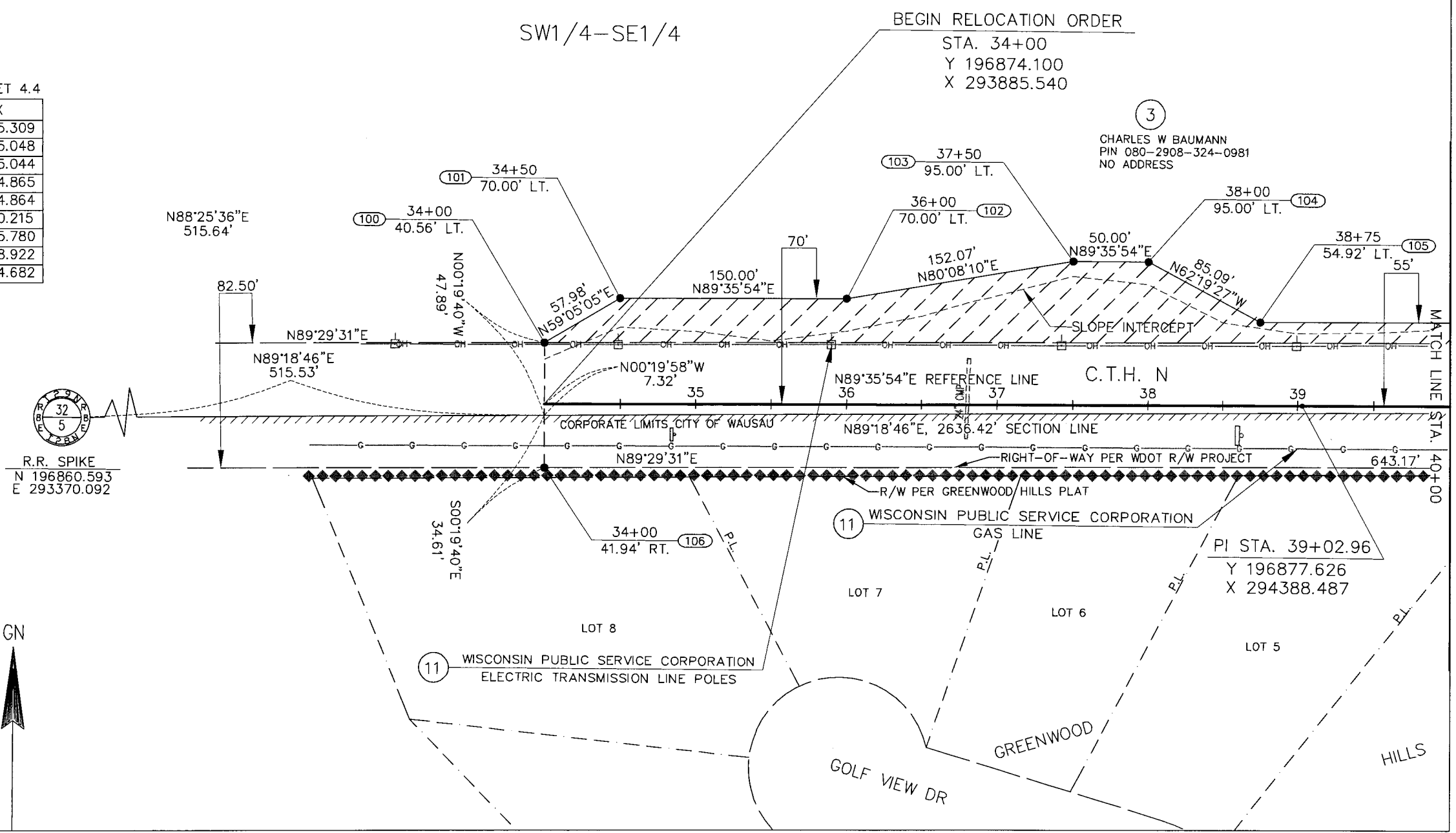


REVISION DATE	DATE 11/23/04	SCALE, FEET 0 400	HWY: CTH N	STATE R/W PROJECT NUMBER 9439-04-75	PLAT SHEET NO: 4.3
			COUNTY: MARATHON	CONSTRUCTION PROJECT NUMBER 9439-04-75	PS&E SHEET 50 E

TOWN OF WAUSAU
SW1/4-SE1/4

COORDINATE TABLE - SHEET 4.4

POINT	Y	X
100	196914.662	293885.309
101	196944.449	293935.048
102	196945.500	294085.044
103	196971.551	294234.865
104	196971.902	294284.864
105	196932.382	294360.215
106	196832.163	293885.780
107	196837.865	294528.922
108	196710.027	294664.682



③
CHARLES W BAUMANN
PIN 080-2908-324-0981
NO ADDRESS

③
R.R. SPIKE
N 196860.593
E 293370.092

PI STA. 39+02.96
Y 196877.626
X 294388.487

REVISION DATE	DATE 11/23/04	SCALE, FEET	HWY: CTH N	STATE R/W PROJECT NUMBER 9439-04-75	PLAT SHEET NO: 4.4
	REVISED 1/12/05		COUNTY: MARATHON	CONSTRUCTION PROJECT NUMBER 9439-04-75	PS&E SHEET 51
FILE NAME : \$\$...designfile...\$\$	PLOT DATE : \$\$...plottingdate...\$\$	PLOT BY : \$\$...plotuser...\$\$	PLOT NAME :	PLOT SCALE : \$\$...plotscale...\$\$	WISDOT/CADD SHEET 60

COORDINATE TABLE - SHEET 4.5

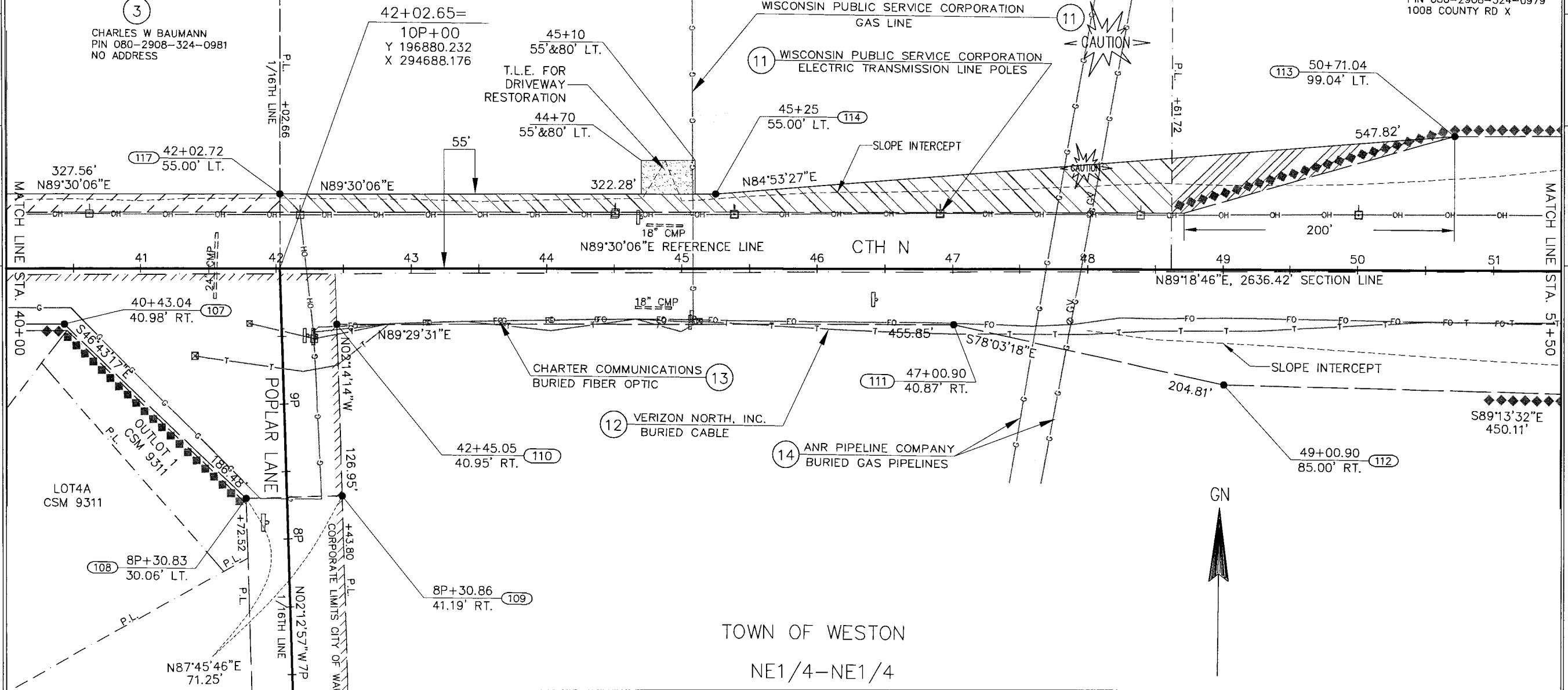
POINT	Y	X
109	196712.808	294735.878
110	196839.656	294730.923
111	196843.697	295186.755
112	196801.308	295387.126
113	196986.820	295555.666
114	196938.034	295010.027
117	196935.231	294687.758

TOWN OF WAUSAU
SE1/4-SE1/4

SCOTT W ZILISCH
SUE R ZILISCH
PIN 080-2908-324-0980
3708 TOWNLINE RD
PARCEL 1
CSM 6424

LORRY LAPORTE
PIN 080-2908-324-0979
1008 COUNTY RD X

CHARLES W BAUMANN
PIN 080-2908-324-0981
NO ADDRESS



REVISION DATE	DATE 11/23/04	SCALE, FEET	HWY: CTH N	STATE R/W PROJECT NUMBER 9439-04-75	PLAT SHEET NO: 4.5
	REVISED 01/05/05, 1/12/05		COUNTY: MARATHON	CONSTRUCTION PROJECT NUMBER 9439-04-75	PS&E SHEET 52 E

TOWN OF WAUSAU
SE1/4-SE1/4

(1) LORRY LAPORTE
PIN 080-2908-324-0979
1008 COUNTY RD X

(125) 53+71.04
100.03' LT.

100' SEC. LN.

300.00'
N89°18'46"E

N87°15'14"E

PI 55+00.14
N 196891.516
E 295985.613

CTH N

MATCH LINE STA. 51+50

MATCH LINE STA. 62+00

BERNTSEN SURVEY MARKER PIN
Y 196892.214
X 296006.319

(118) 53+50.90
95.00' RT.

(13) CHARTER COMMUNICATIONS
CATV POLE

TOWN OF WESTON
NE1/4-NE1/4

(13) CHARTER COMMUNICATIONS
BURIED CABLE & FIBER OPTIC

(119) 311CP+03.69
131.25' LT.

(54) PK NAIL
Y 194306.505
X 296121.886

MATCH LINE STA. 316CP+00

PC 315CP+36.79
315CP

(124) 56+20.33
110.63' LT.

CURVE DATA
PI 313X+20.24
Y.196892.647
X.296010.549
 $\Delta = 02°10'15"$
D. = $00°30'04"$
R. = 11431.91'
T. = 216.58'
L. = 433.11'
CH. = 433.08'
BRG. = $S01°28'41"E$

TOWN OF WAUSAU
SW1/4-SW1/4

(9) RANDALL J GORSKI
JUDITH A GORSKI
PIN 080-2908-333-D997
4406 TOWNLINE RD

COORDINATE TABLE - SHEET 4.6

POINT	Y	X
118	196795.223	295837.199
119	196670.419	295889.115
120	196683.460	296180.665
121	196801.909	296175.367
122	196803.091	296736.575
123	197003.519	296705.647
124	197002.403	296105.565
125	196990.416	295855.641

110' SEC. LN.

SLOPE INTERCEPT

WISCONSIN PUBLIC SERVICE CORPORATION
ELECTRIC TRANSMISSION LINE POLES (11)

SEC. LN. N89°53'35"E, 2627.71'

REFERENCE LINE N89°52'38"E

24" CMP

SLOPE INTERCEPT

(12) VERIZON NORTH, INC.
BURIED CABLE

N89°52'46"E

350'

561.21'

(118) 53+50.90
95.00' RT.

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CATV POLE

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NE1/4-NE1/4

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TOWN OF WAUSAU
SW1/4-SW1/4

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TOWN OF WAUSAU
SW1/4-SW1/4

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4406 TOWNLINE RD

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TOWN OF WESTON
NE1/4-NE1/4

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TOWN OF WAUSAU
SW1/4-SW1/4

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JUDITH A GORSKI
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4406 TOWNLINE RD

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CATV POLE

TOWN OF WESTON
NE1/4-NE1/4

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TOWN OF WAUSAU
SW1/4-SW1/4

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JUDITH A GORSKI
PIN 080-2908-333-D997
4406 TOWNLINE RD

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ELECTRIC TRANSMISSION LINE POLES (11)

SEC. LN. N89°53'35"E, 2627.71'

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24" CMP

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BURIED CABLE

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350'

561.21'

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95.00' RT.

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CATV POLE

TOWN OF WESTON
NE1/4-NE1/4

(13) CHARTER COMMUNICATIONS
BURIED CABLE & FIBER OPTIC

(119) 311CP+03.69
131.25' LT.

(54) PK NAIL
Y 194306.505
X 296121.886

MATCH LINE STA. 316CP+00

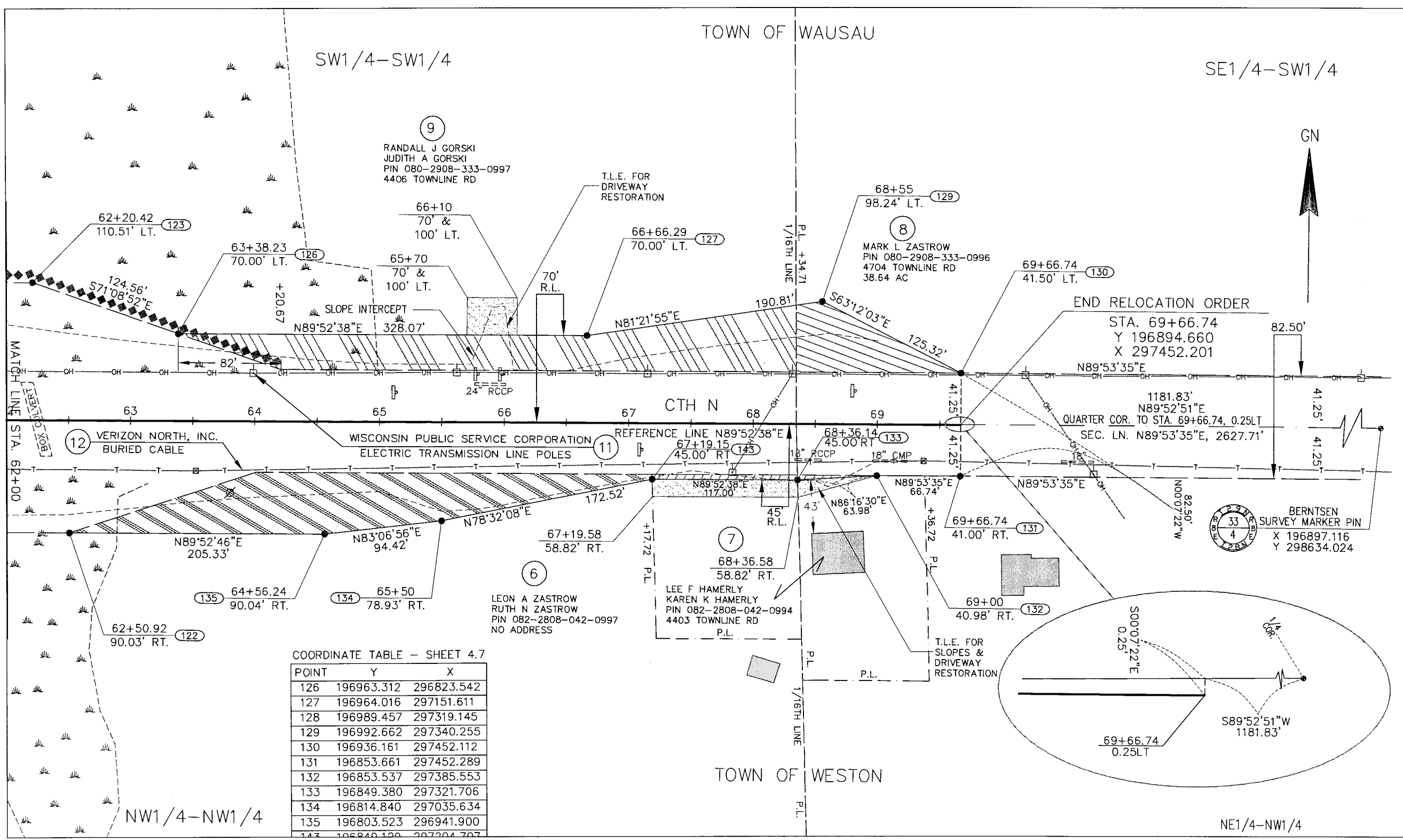
PC 315CP+36.79
315CP

TOWN OF WAUSAU

SW1/4-SW1/4

SE1/4-SW1/4

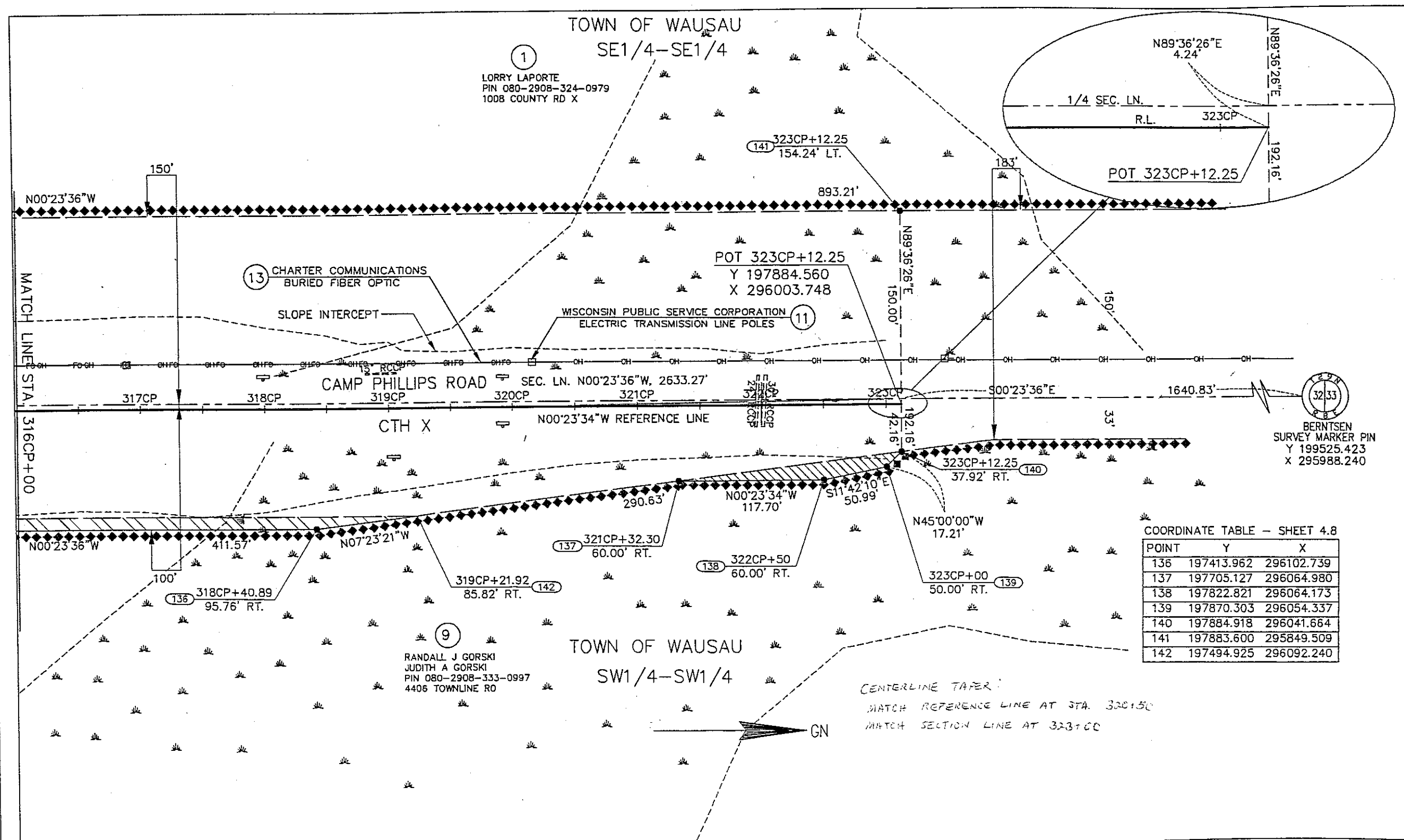
GN



COORDINATE TABLE - SHEET 4.7

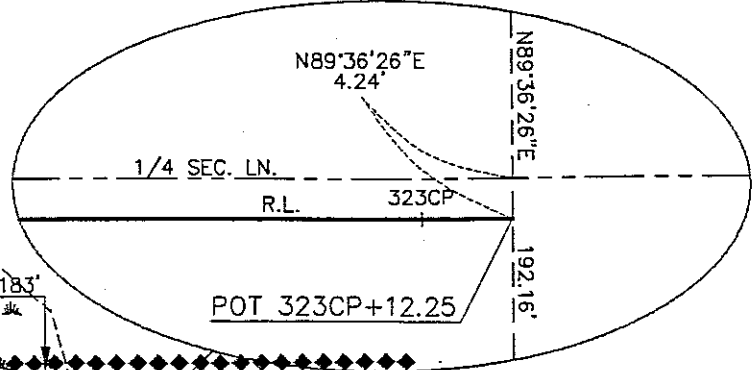
POINT	Y	X
126	196963.312	296823.542
127	196964.016	297151.611
128	196989.457	297319.145
129	196992.662	297340.255
130	196936.161	297452.112
131	196853.661	297452.289
132	196853.537	297385.553
133	196849.380	297321.706
134	196814.840	297035.634
135	196803.523	296941.900
143	196840.190	297204.707

REVISION DATE	DATE 11/23/04	SCALE, FEET	HWY: CTH N	STATE R/W PROJECT NUMBER 9439-04-75	PLAT SHEET NO: 4.7
	REVISED 1/12/05		COUNTY: MARATHON	CONSTRUCTION PROJECT NUMBER 9439-04-75	PS&E SHEET 54



①
LORRY LAPORTE
PIN 080-2908-324-0979
1008 COUNTY RD X

⑨
RANDALL J GORSKI
JUDITH A GORSKI
PIN 080-2908-333-0997
4405 TOWNLINE RD

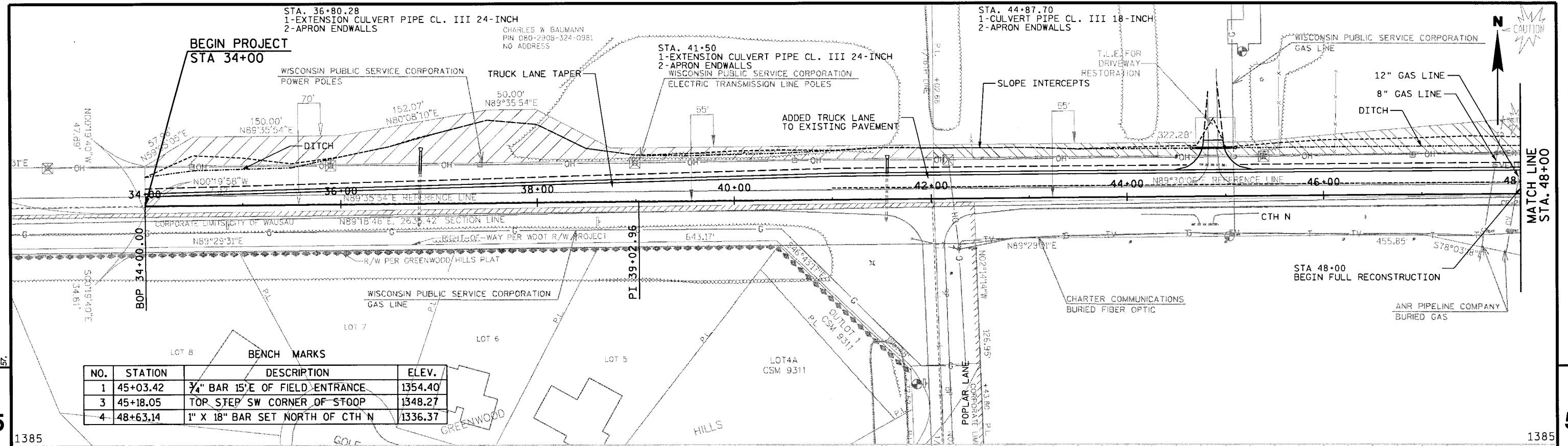


COORDINATE TABLE - SHEET 4.8

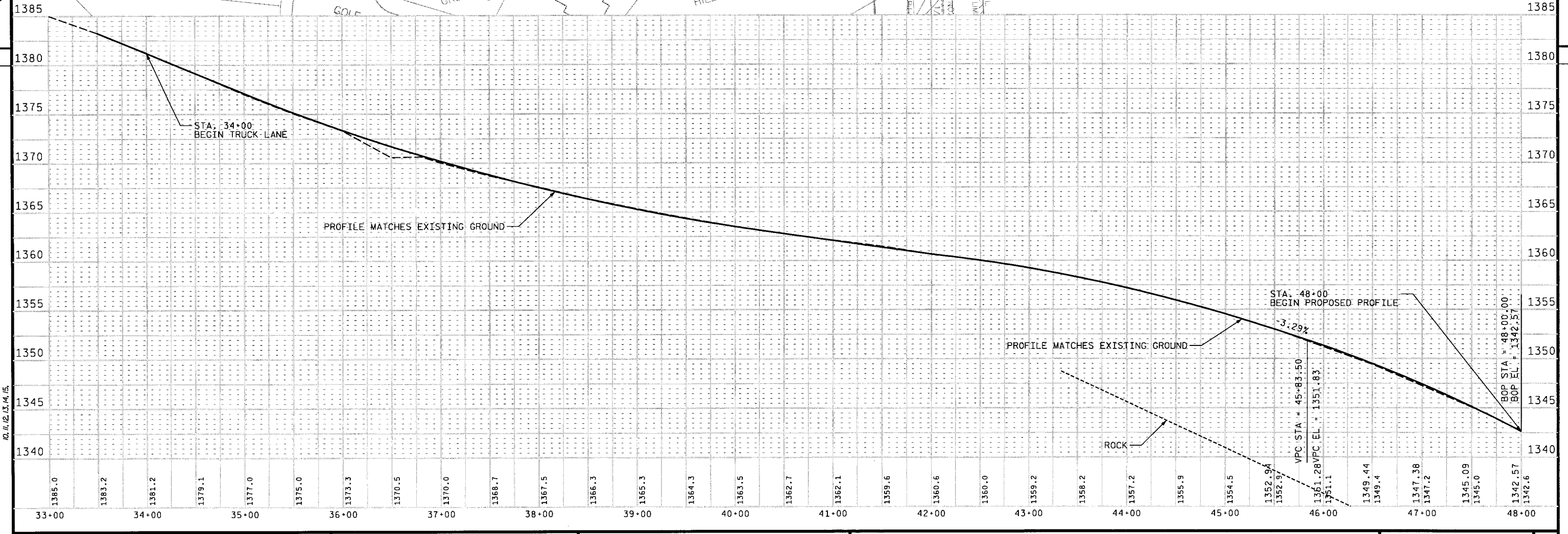
POINT	Y	X
136	197413.962	296102.739
137	197705.127	296064.980
138	197822.821	296064.173
139	197870.303	296054.337
140	197884.918	296041.664
141	197883.600	295849.509
142	197494.925	296092.240

CENTERLINE TAPER:
MATCH REFERENCE LINE AT STA. 320+50
MATCH SECTION LINE AT 323+00

REVISION DATE	DATE 11/23/04	SCALE, FEET	HWY: CTH N	STATE R/W PROJECT NUMBER 9439-04-75	PLAT SHEET NO: 4.8
	REVISED 01/05/05, 01/13/05		COUNTY: MARATHON	CONSTRUCTION PROJECT NUMBER 9439-04-75	PS&E SHEET 55 E
FILE NAME : \$\$\$...designfile...\$\$\$ PLOT DATE : \$\$\$...plottingdate...\$\$\$ PLOT BY : \$\$\$...plotuser...\$\$\$ PLOT NAME : PLOT SCALE : \$\$\$...plotscale...\$\$\$ WISDOT/CADD SHEET 60					



NO.	STATION	DESCRIPTION	ELEV.
1	45+03.42	3/4" BAR 15' E OF FIELD ENTRANCE	1354.40
3	45+18.05	TOP STEP SW CORNER OF STOOP	1348.27
4	48+63.14	1" X 18" BAR SET NORTH OF CTH N	1336.37



PROJECT NO: 9439-04-75

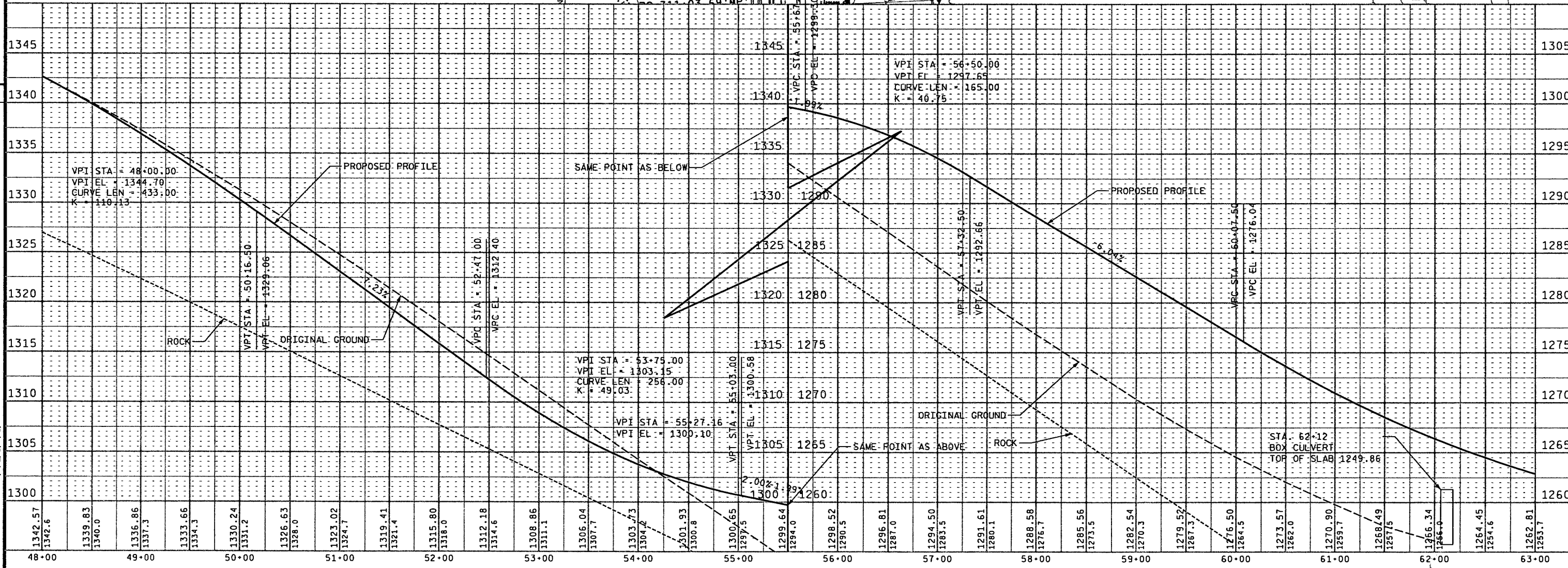
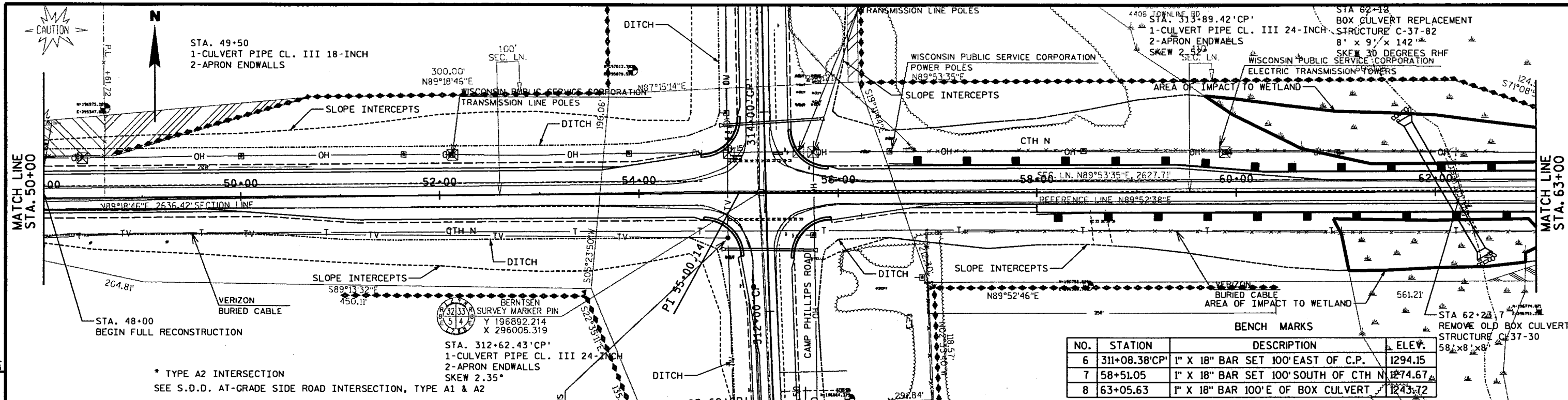
HWY: CTH N

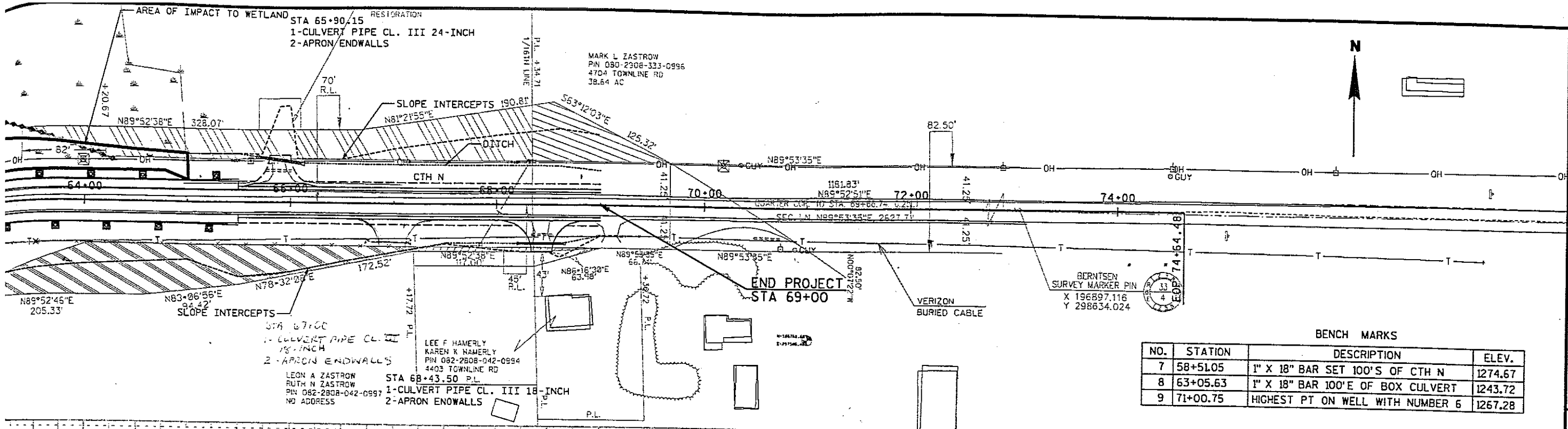
COUNTY: MARATHON

PLAN & PROFILE - CTH N

SHEET 56

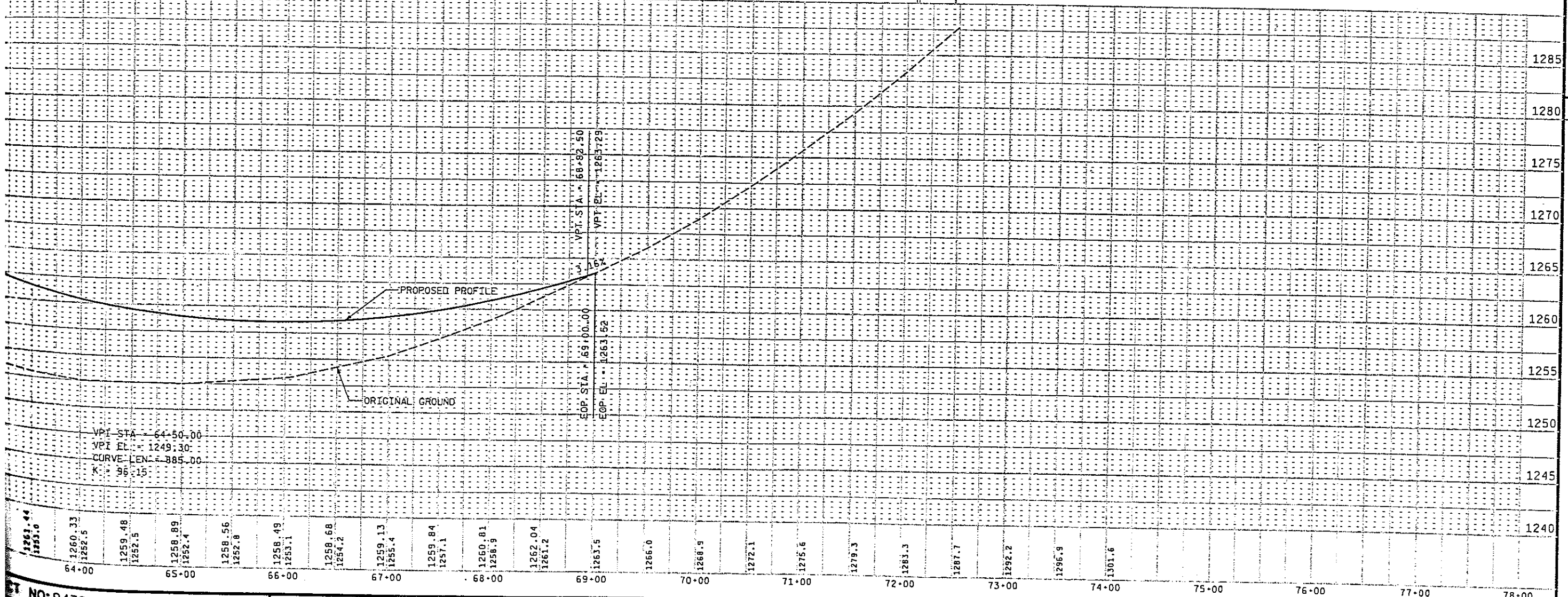
E

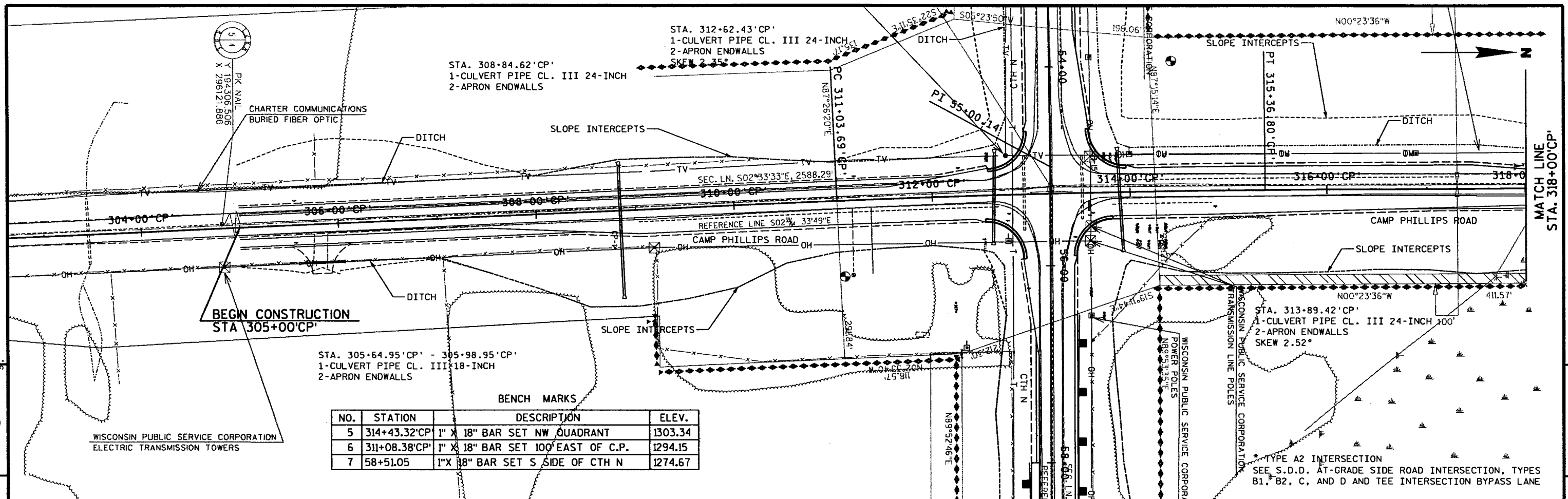




BENCH MARKS

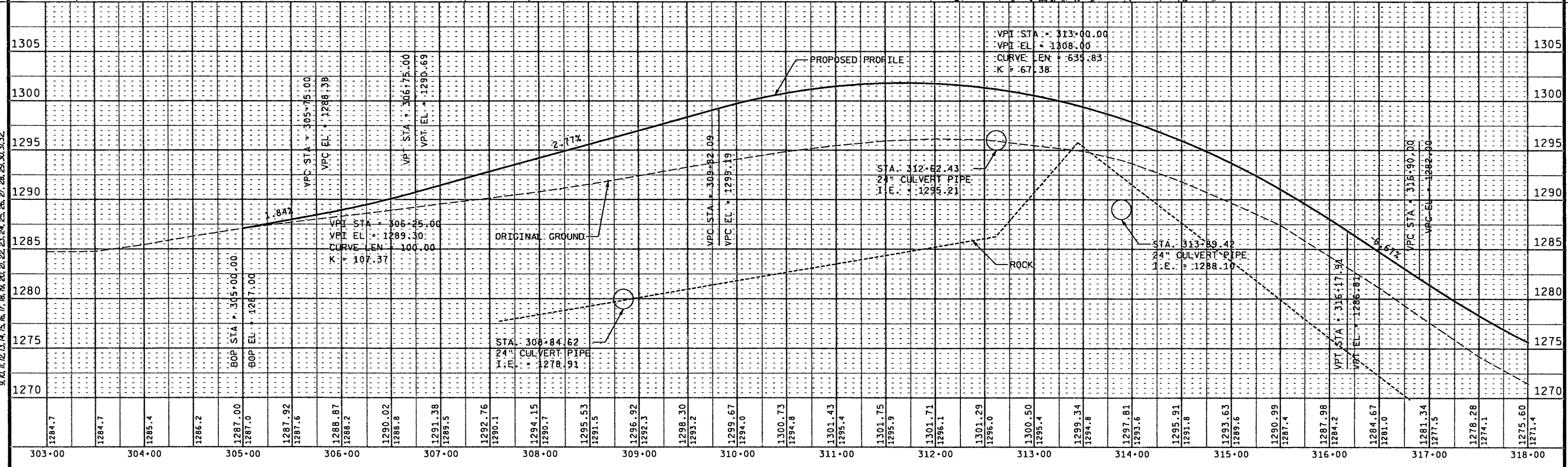
NO.	STATION	DESCRIPTION	ELEV.
7	58+51.05	1" X 18" BAR SET 100'S OF CTH N	1274.67
8	63+05.63	1" X 18" BAR 100'E OF BOX CULVERT	1243.72
9	71+00.75	HIGHEST PT ON WELL WITH NUMBER 6	1267.28

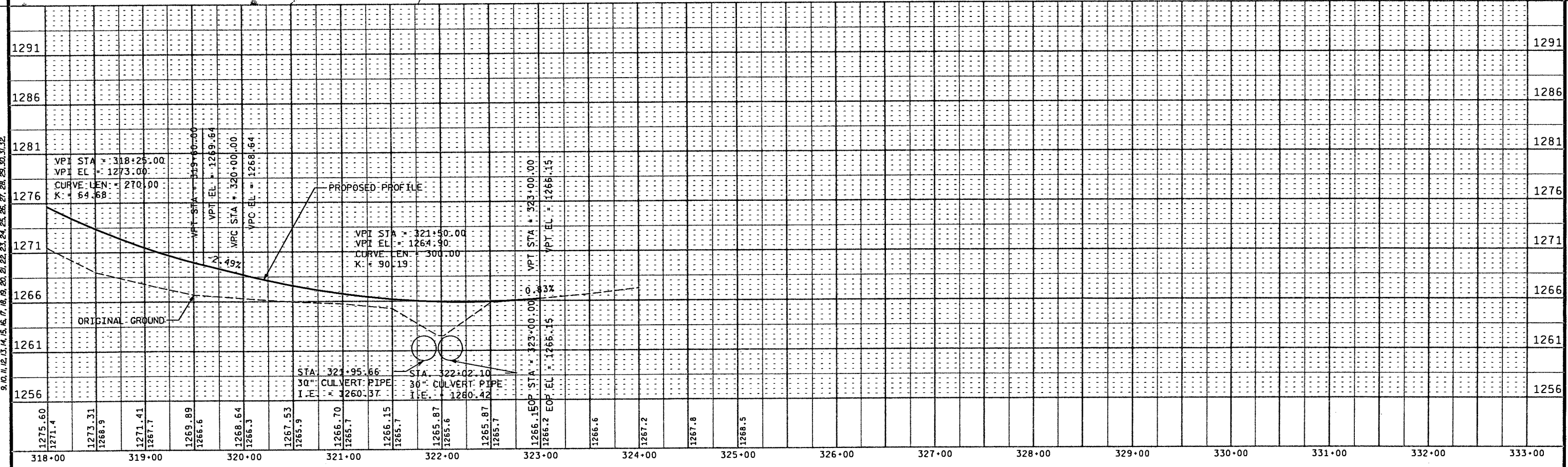
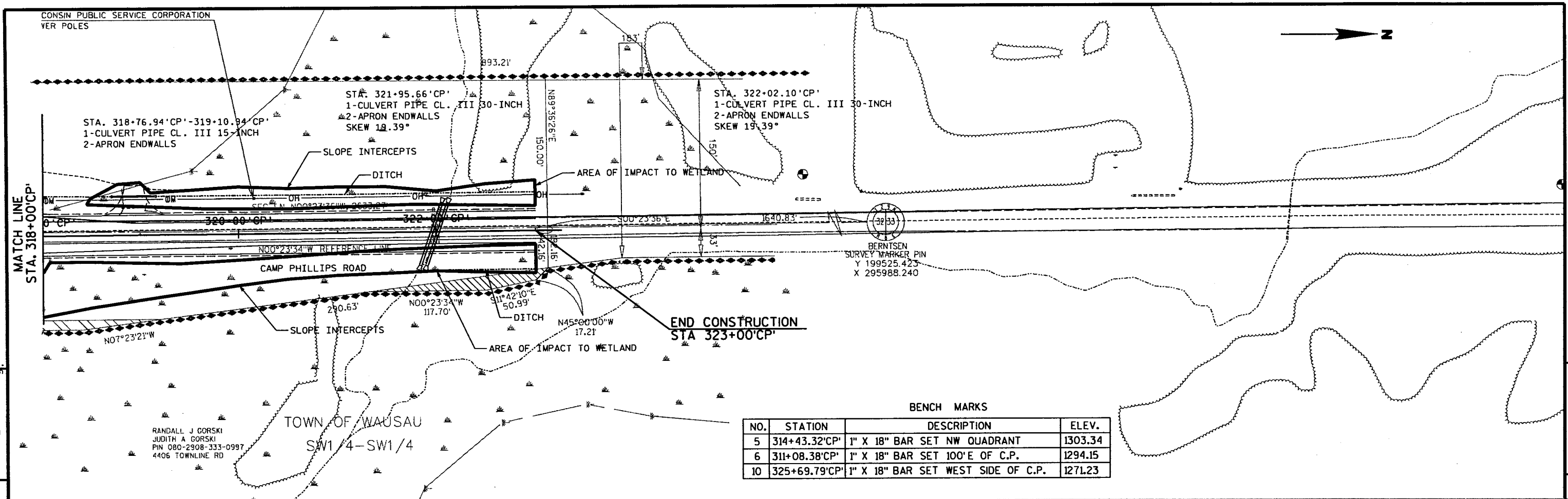




BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
5	314+43.32'CP	1" X 18" BAR SET NW QUADRANT	1303.34
6	311+08.38'CP	1" X 18" BAR SET 100' EAST OF C.P.	1294.15
7	58+51.05	1" X 18" BAR SET S SIDE OF CTH N	1274.67





GENERAL NOTES

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

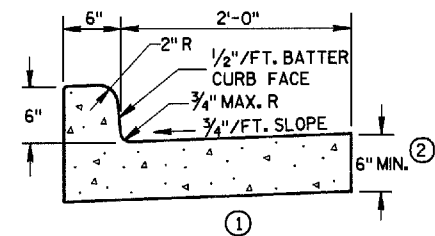
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

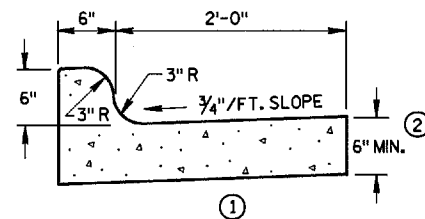
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

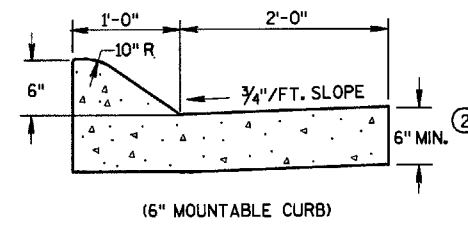
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G AND K.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL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



TYPES A & D



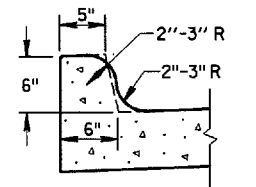
TYPES K & L



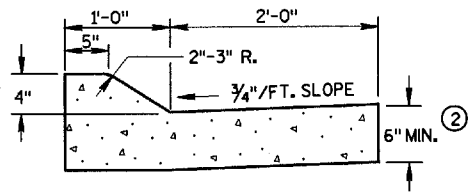
(6" MOUNTABLE CURB)



TYPES G & J



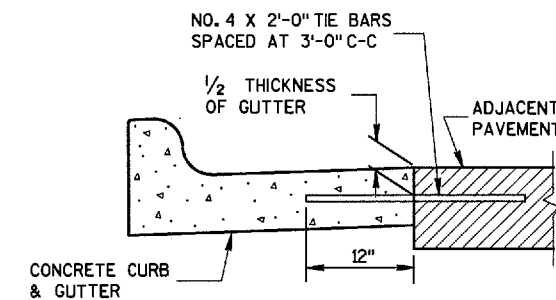
OPTIONAL CURB SHAPE FOR TYPES K & L



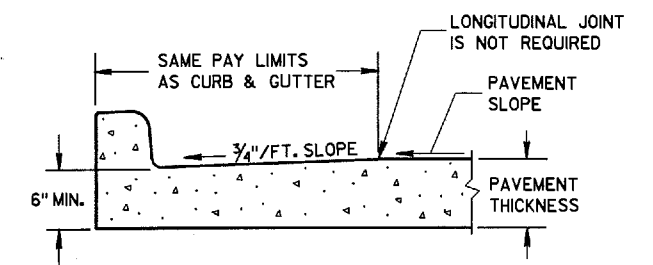
(4" MOUNTABLE CURB)

TYPES A & D
CONCRETE CURB & GUTTER 36"

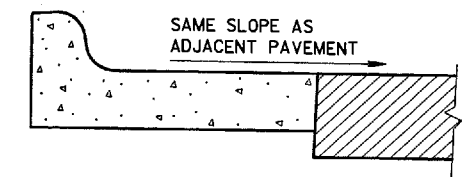
CONCRETE CURB & GUTTER 30"



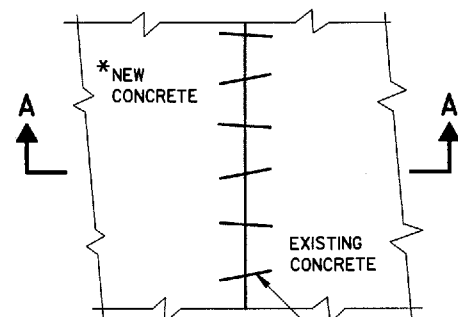
TYPICAL TIE BAR LOCATION



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



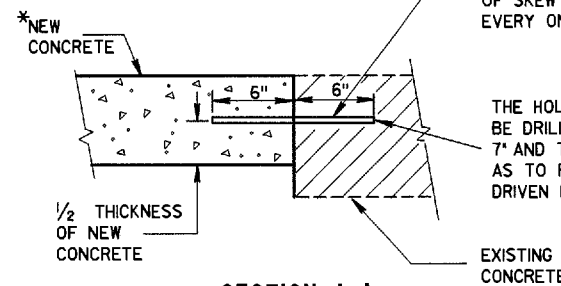
REVERSE SLOPE GUTTER (TYPICAL FOR ALL CURB & GUTTER TYPES)



PLAN VIEW

* NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

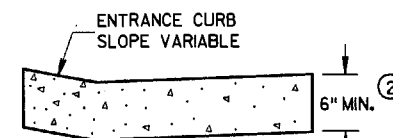
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



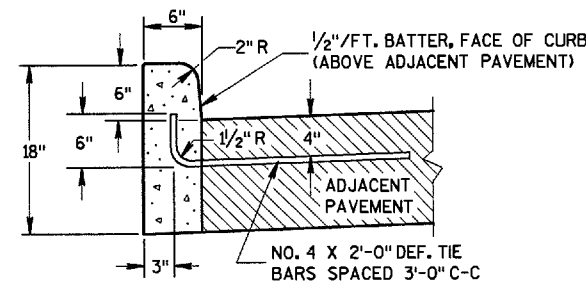
SECTION A-A PAVEMENT TIES

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

EXISTING CONCRETE

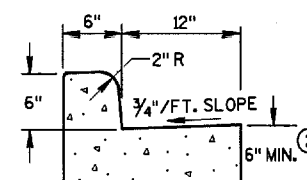


DRIVEWAY ENTRANCE CURB (WHEN DIRECTED BY THE ENGINEER)

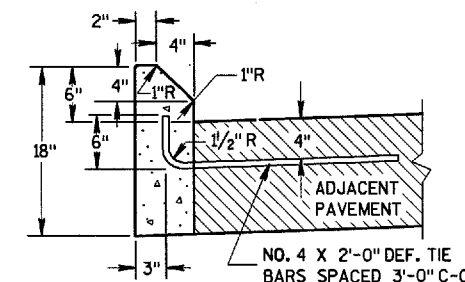


TYPES A & D

CONCRETE CURB



TYPES A & D
CONCRETE CURB & GUTTER 18"



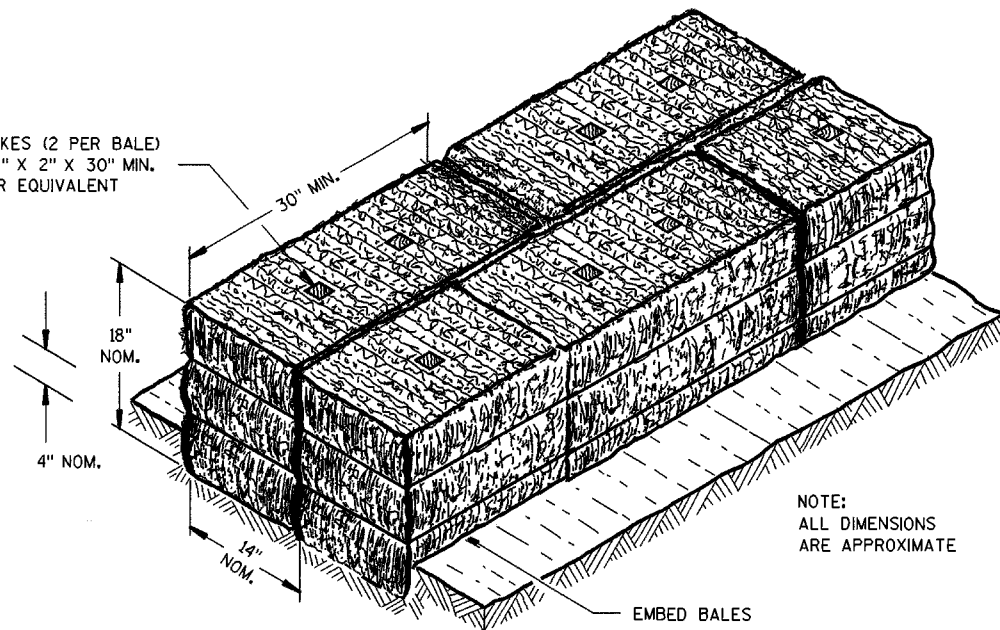
TYPES G & J

CONCRETE CURB, CONCRETE CURB & GUTTER AND PAVEMENT TIES

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

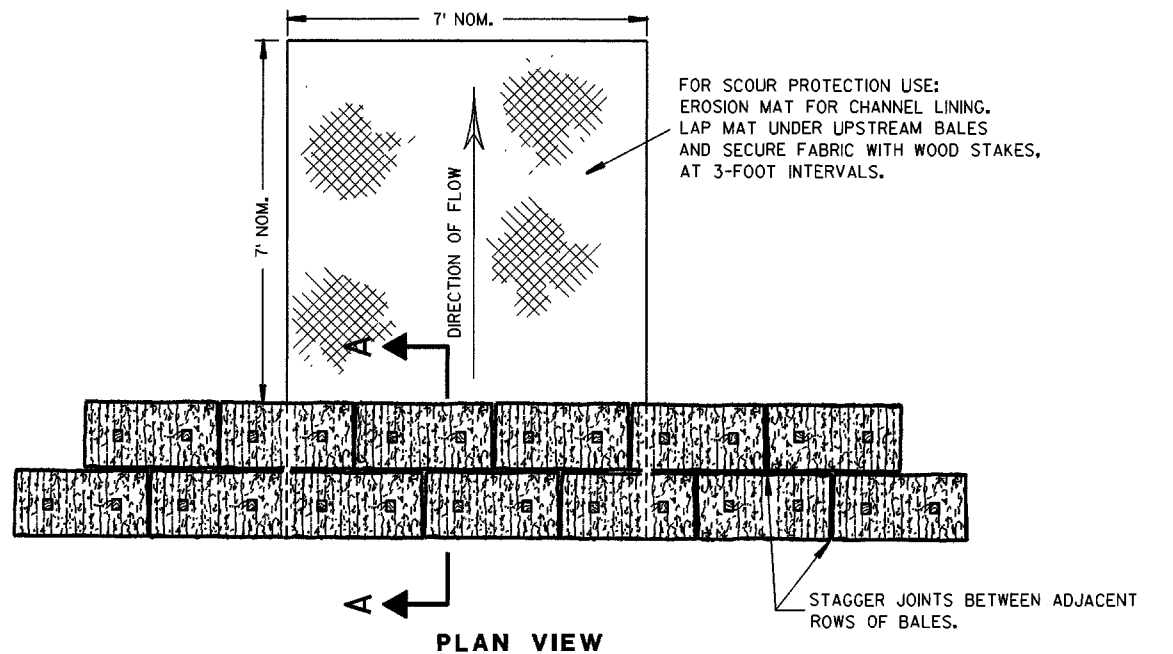
APPROVED 04/16/99 DATE
 [Signature] CHIEF ROADWAY DEVELOPMENT ENGINEER
 FHWA

WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



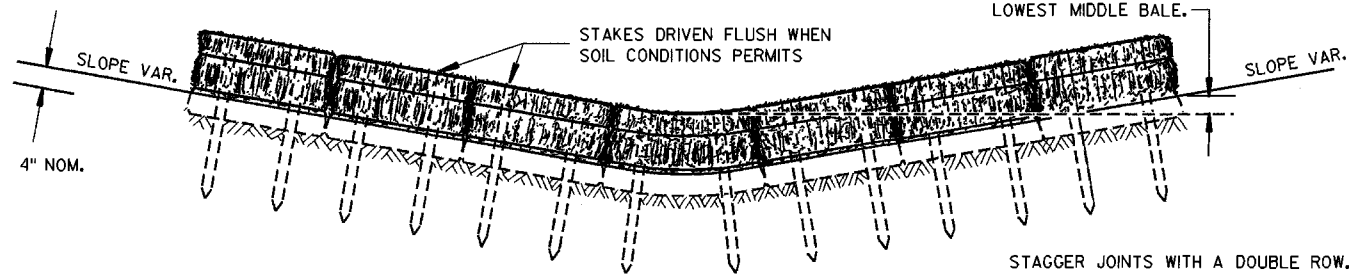
NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

SECTION A-A



PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.



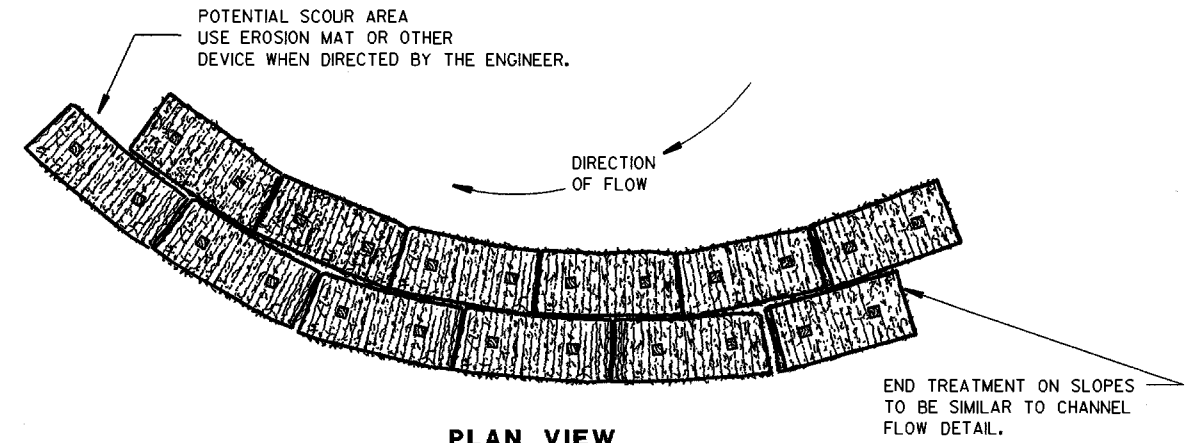
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

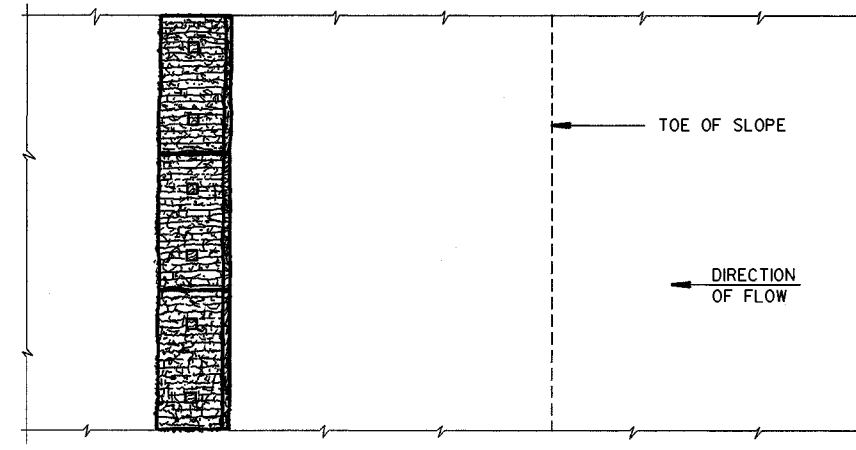
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

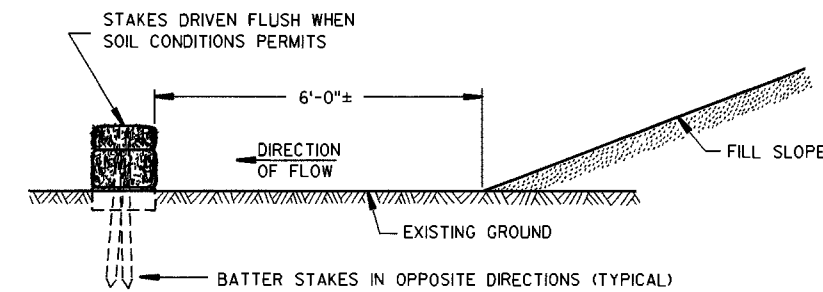


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

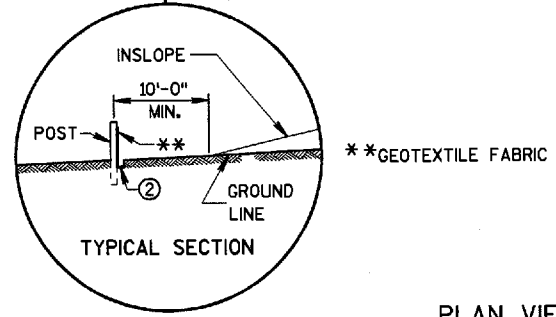
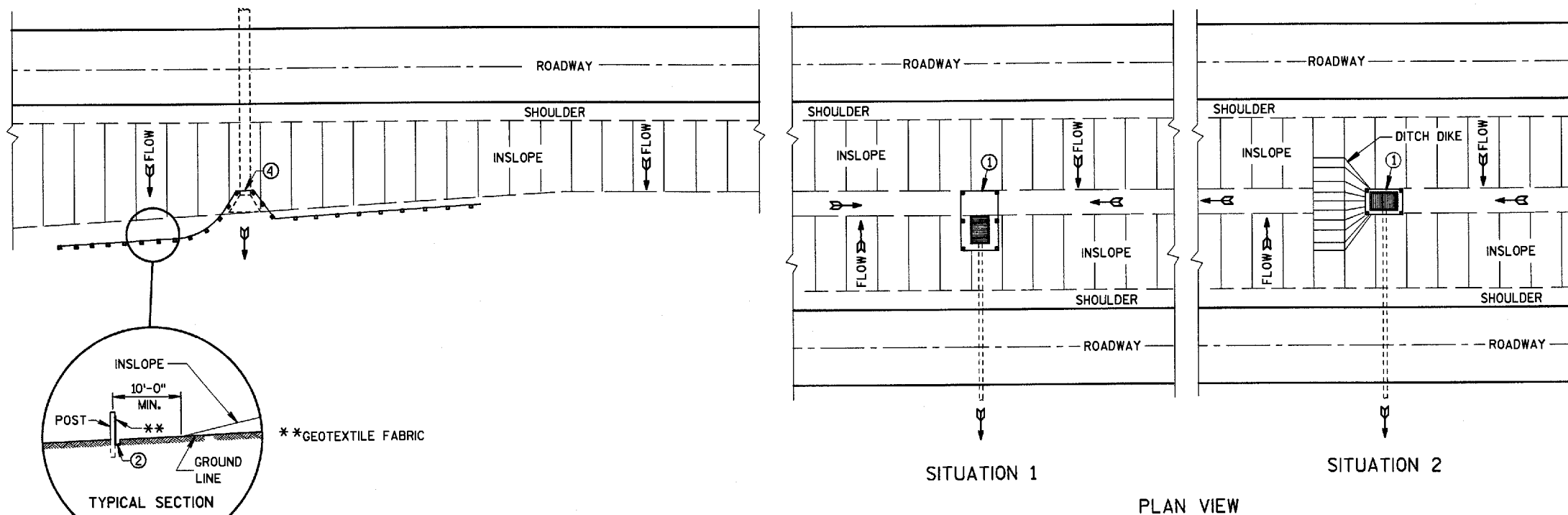
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

**TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

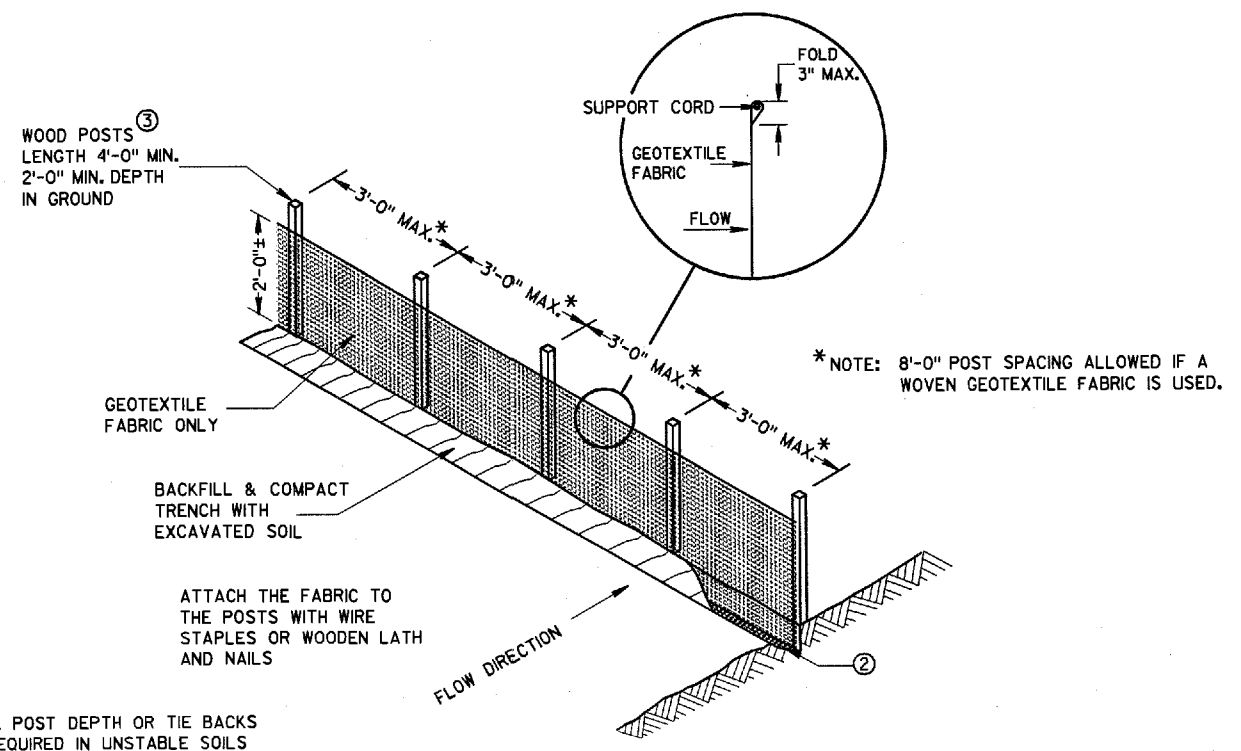
APPROVED
6/4/02
DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



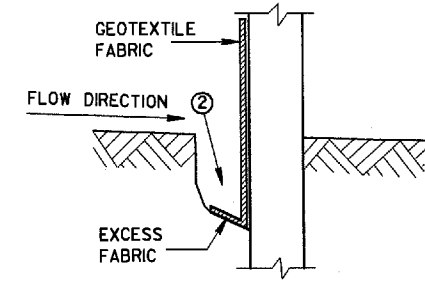
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

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

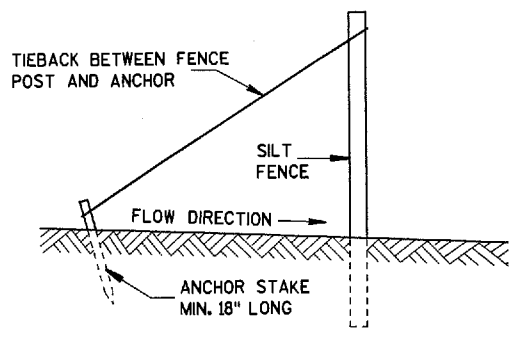
- GENERAL NOTES**
- DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
 - ② TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
 - ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
 - ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.



SILT FENCE



TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

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

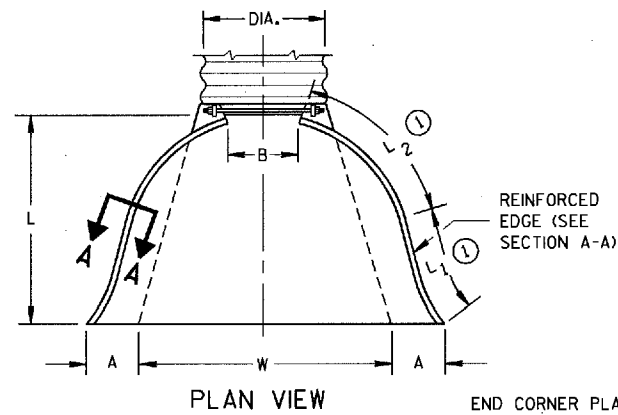
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 03/06/00 DATE	<i>Tom R. Hines</i> CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)						APPROX. SLOPE	BODY	
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1/2")	L1 (⓪)	L2 (⓪)			W (±2")
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 3/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 3/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/2 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/2 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

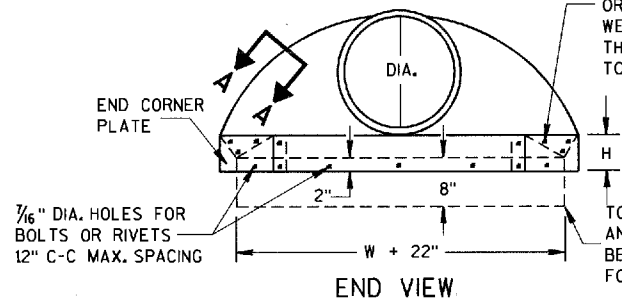
REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1	
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1	
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1	
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1	
24	3	9 1/2	43 1/2	30	73 1/2	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 2/5 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

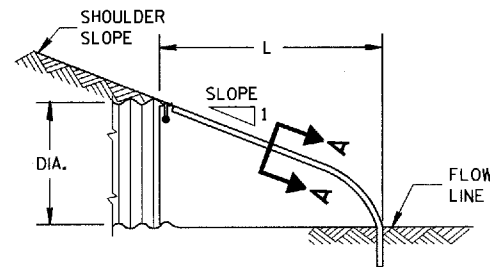


PLAN VIEW

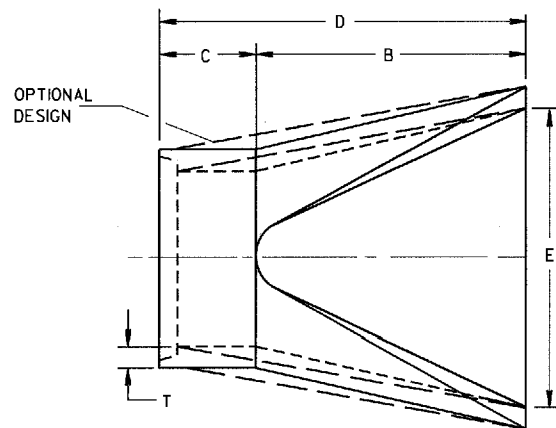
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



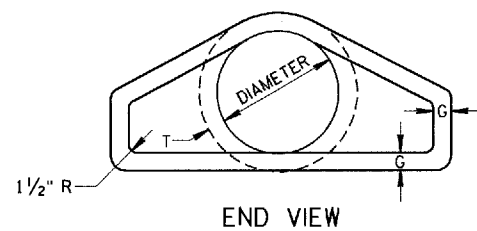
END VIEW



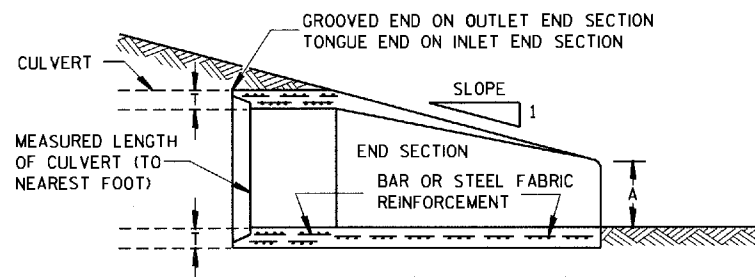
SIDE ELEVATION
METAL ENDWALLS



PLAN

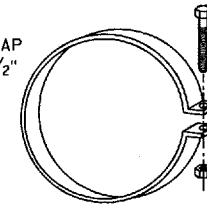


END VIEW



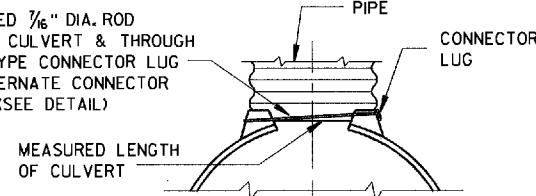
LONGITUDINAL SECTION
CONCRETE ENDWALLS

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



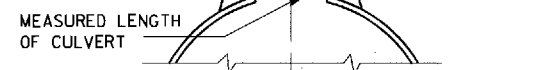
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP

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



TYPE 1
FOR 12" THRU 24" CORR. PIPE

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



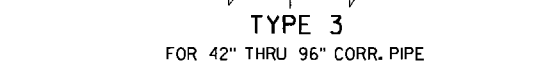
TYPE 2
FOR 30" THRU 96" CORR. PIPE

MEASURED LENGTH OF CULVERT

CONNECTOR SECTION TO BE PAID FOR AS PART OF END SECTION

COUPLING BAND REQUIRED

RIVETED OR BOLTED



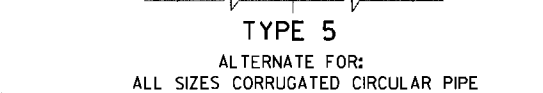
TYPE 3
FOR 42" THRU 96" CORR. PIPE

DIMPLED OR CORRUGATED COUPLING BAND

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

2 - 1/2" X 6" BAND BOLTS

MEASURED LENGTH OF CULVERT



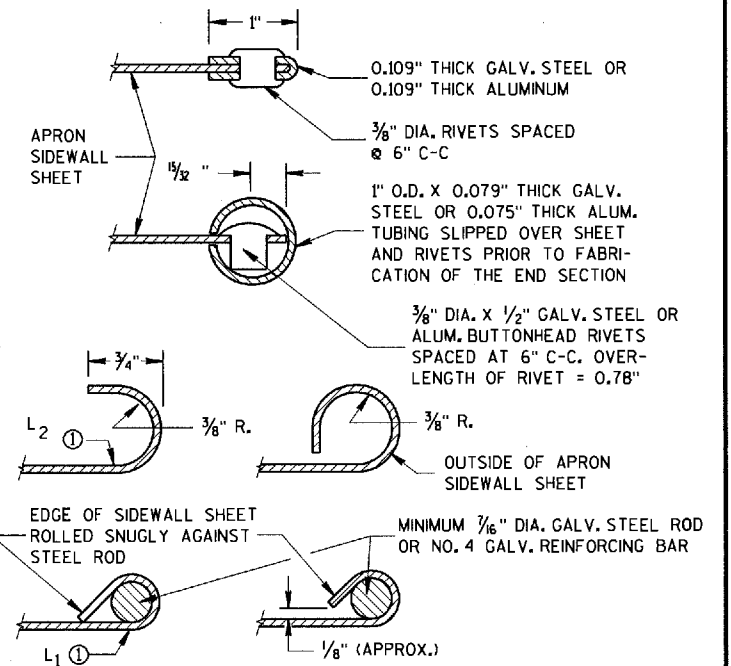
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

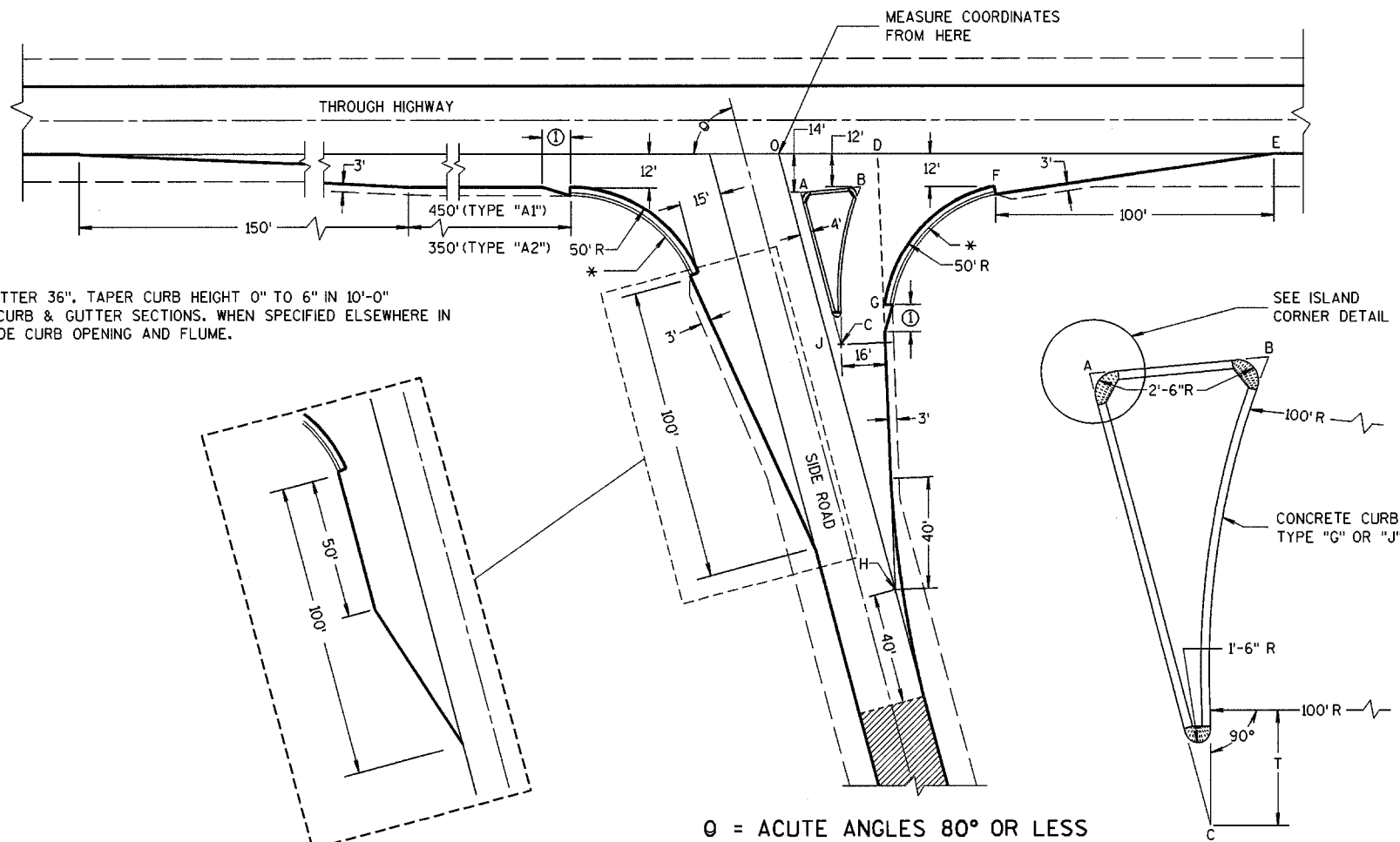
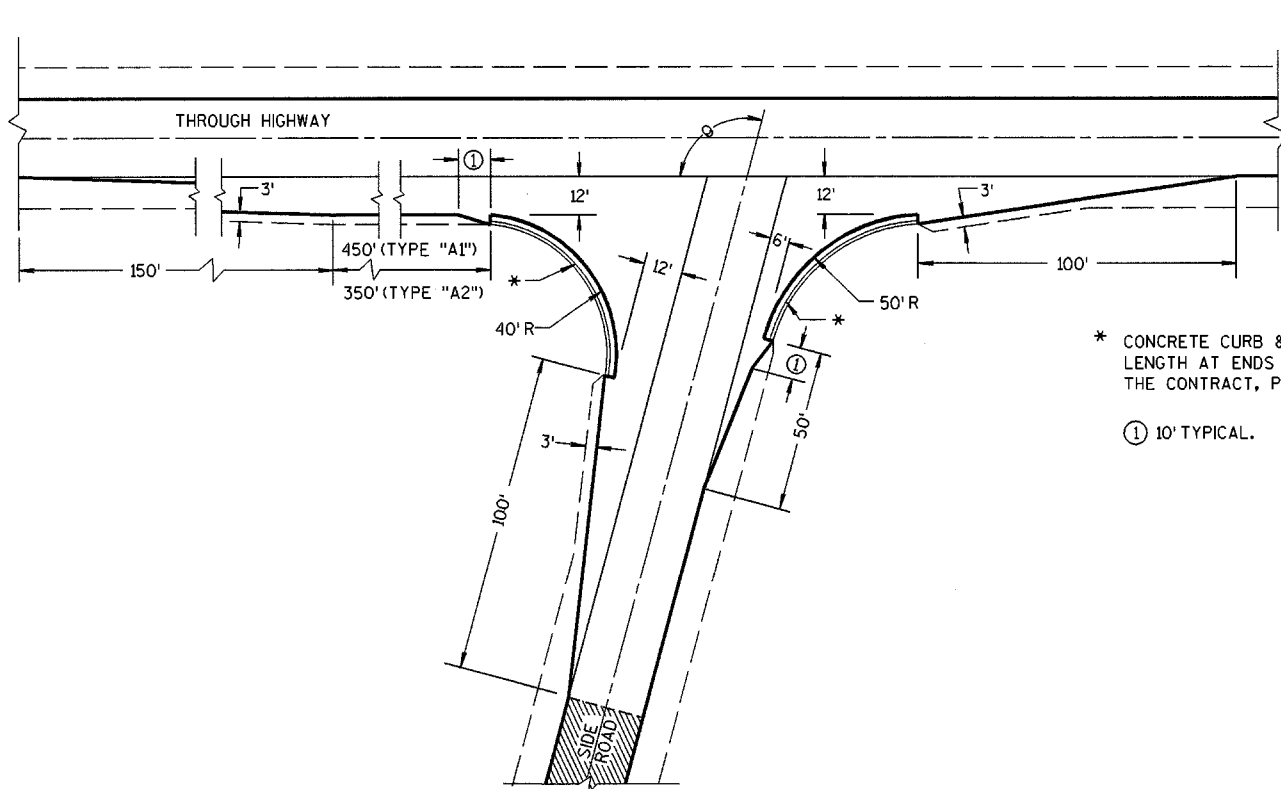
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

⓪ FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

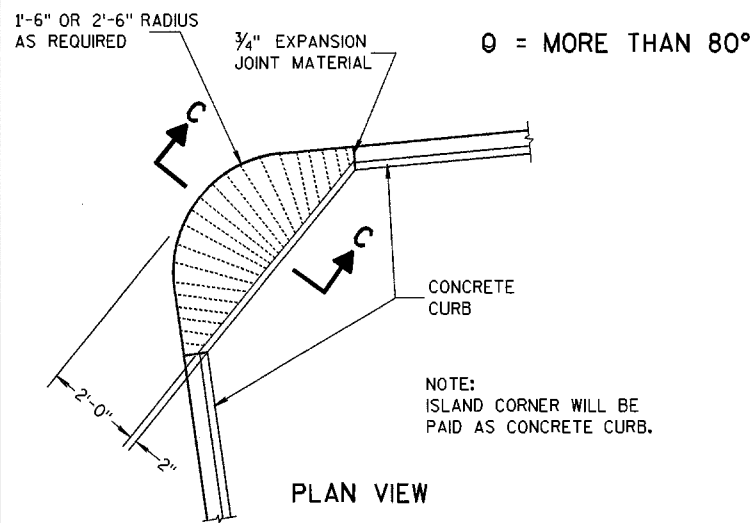
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
FHWA



* CONCRETE CURB & GUTTER 36", TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10' TYPICAL.



$\theta = \text{MORE THAN } 80^\circ$

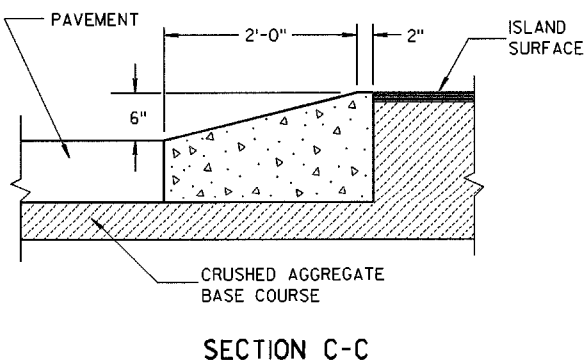
EXISTING SURFACE

SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
 $\theta = \text{ACUTE ANGLES } 70^\circ \text{ OR LESS}$

TABLE OF DIMENSIONS FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
 (INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O")								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7	44.9	46.4	41.9	205.0	104.6	64.0	85.0	32.3	67.4	4.9	85.9	169.9
65	10.9	39.0	37.8	39.4	196.1	95.7	54.1	70.5	28.2	63.6	8.5	80.9	166.9
70	9.4	33.9	29.8	37.4	188.3	87.8	45.6	56.1	24.6	59.7	11.5	76.1	164.1
75	7.9	29.3	22.3	35.7	181.2	80.7	38.2	41.8	21.5	55.8	13.8	71.4	161.4
80	6.5	25.4	15.6	34.4	174.8	74.4	31.8	27.6	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

AT-GRADE SIDE ROAD INTERSECTION, TYPE 'A1' & 'A2'

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED DATE 12/17/02 CHIEF ROADWAY DEVELOPMENT ENGINEER

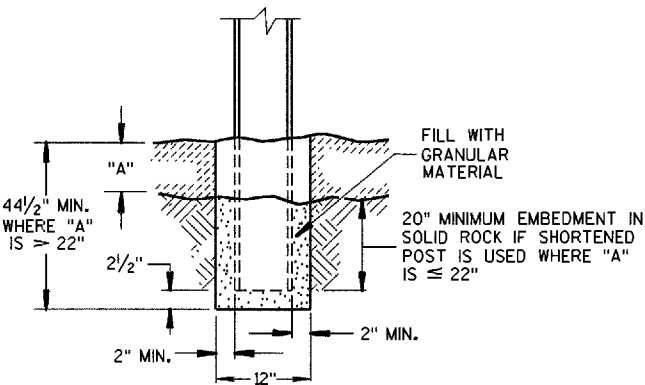
GENERAL NOTES

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

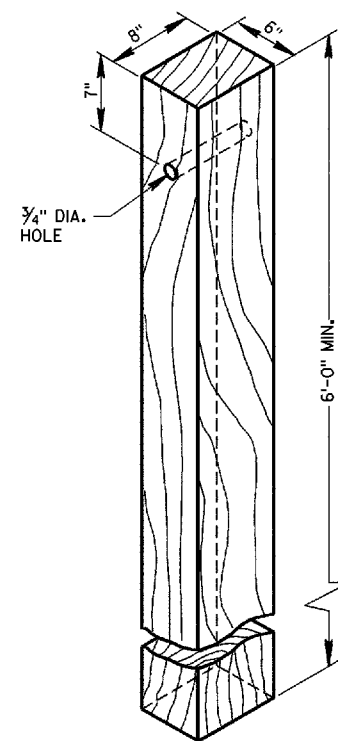
- ① W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.
DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.
- ② USE STRUCTURAL STEEL POSTS CONFORMING TO AASHTO M183, GALVANIZE ACCORDING TO AASHTO M 111 EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPALTER COATING ON GALVANIZED POSTS.
- ③ INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ④ USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- ⑤ WHEN SPECIFIED IN THE PLANS, THE 2-FOOT MINIMUM TO HINGE POINT MAY BE REDUCED OR ELIMINATED IF EXISTING CONDITIONS DO NOT PERMIT THE DESIRABLE EARTHWORK.
INCREASE POST LENGTH TO PROVIDE A MINIMUM EMBEDMENT OF 3'-6" IF THE SHOULDER HINGE POINT IS LOCATED IN FRONT OF THE POST.
- ⑥ IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

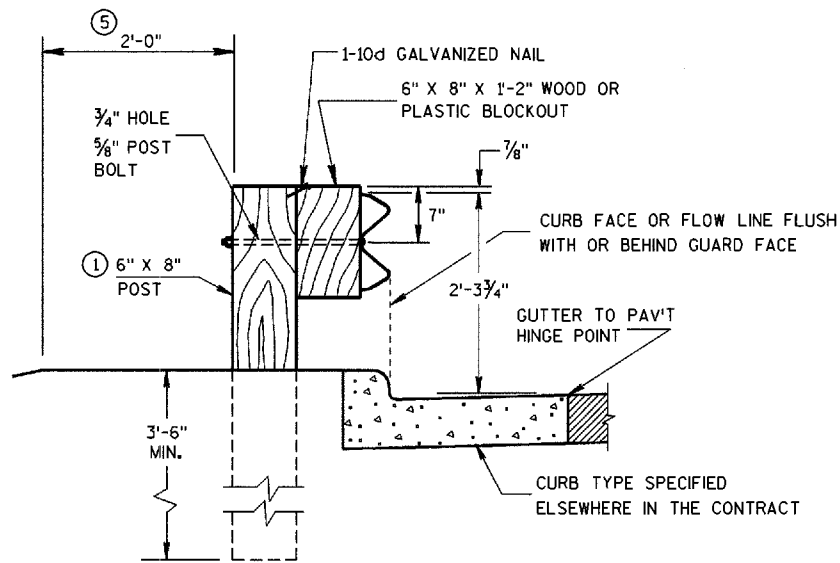
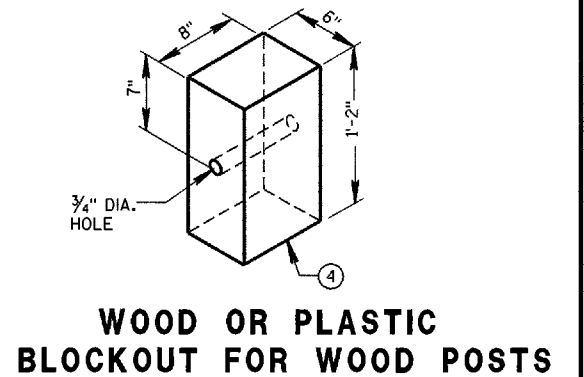
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



END VIEW SETTING STEEL OR WOOD POST IN ROCK ⑥

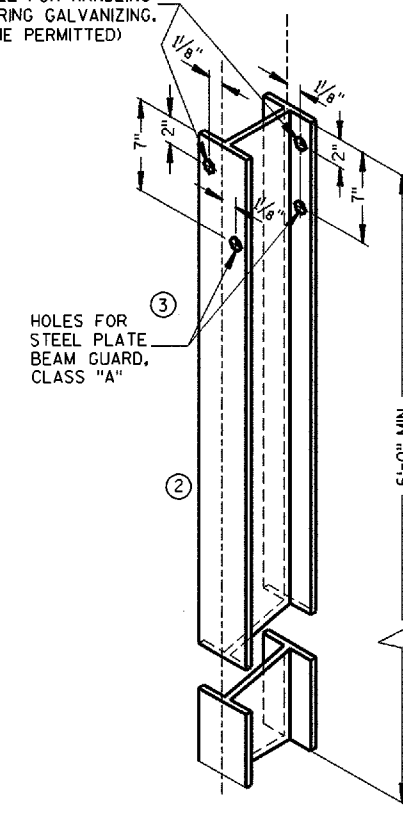


WOOD POST (6" X 8") NOMINAL



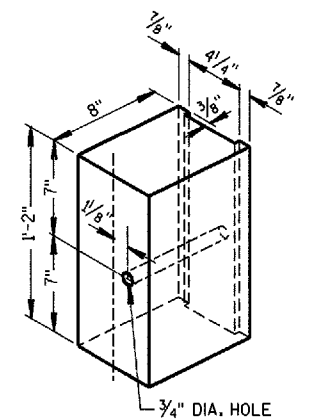
END VIEW LOCATED ALONG A CURBED ROADWAY

OPTIONAL 1 3/16" DIA. HOLE FOR HANDLING DURING GALVANIZING. (ONE PERMITTED)

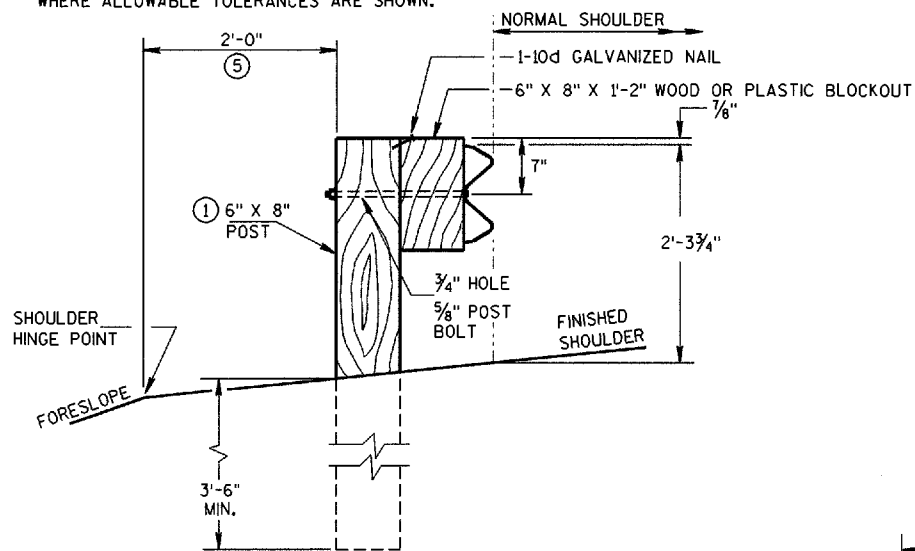


STEEL POST & HOLE PUNCHING DETAIL (W6 X 9) ①

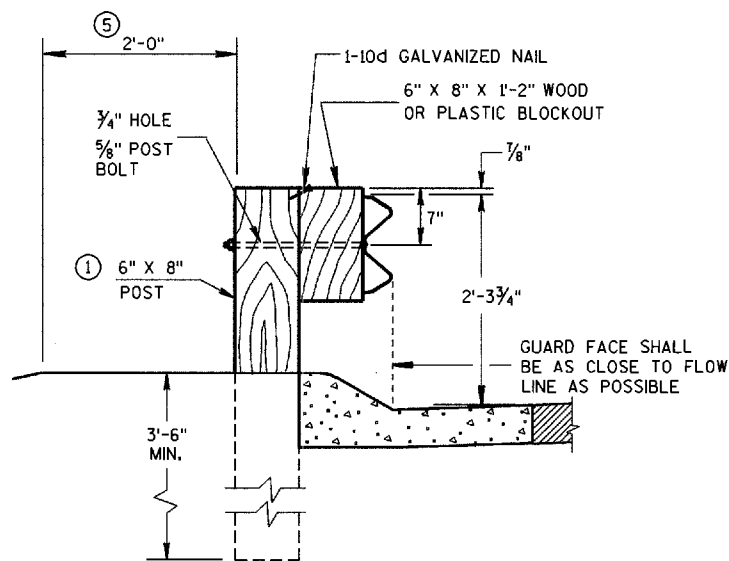
ALL HOLES 1 3/16" DIAMETER EXCEPT AS NOTED



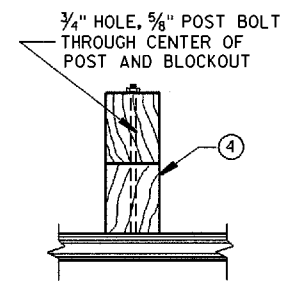
NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS



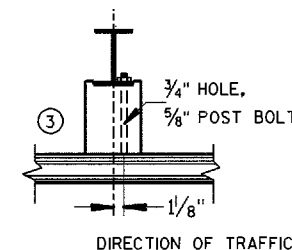
END VIEW LOCATED ALONG A ROADWAY SHOULDER



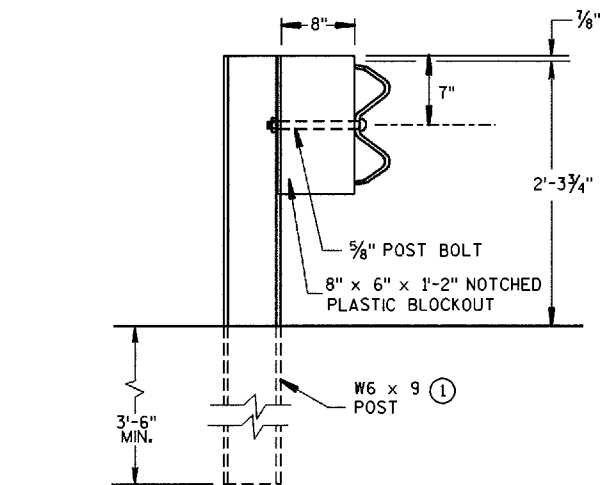
END VIEW LOCATED ALONG A MOUNTABLE CURBED ROADWAY



PLAN VIEW WOOD POST, BLOCKOUT & BEAM



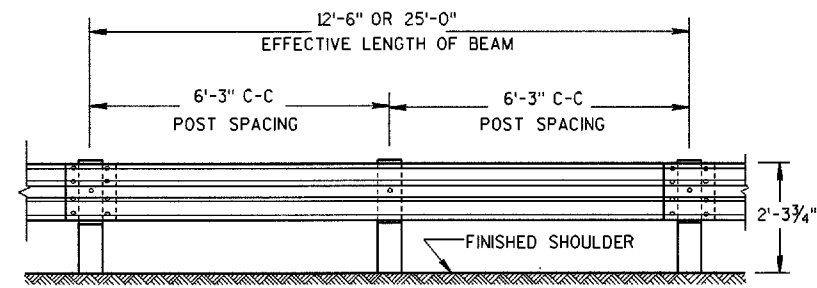
PLAN VIEW STEEL POST, NOTCHED PLASTIC BLOCKOUT & BEAM



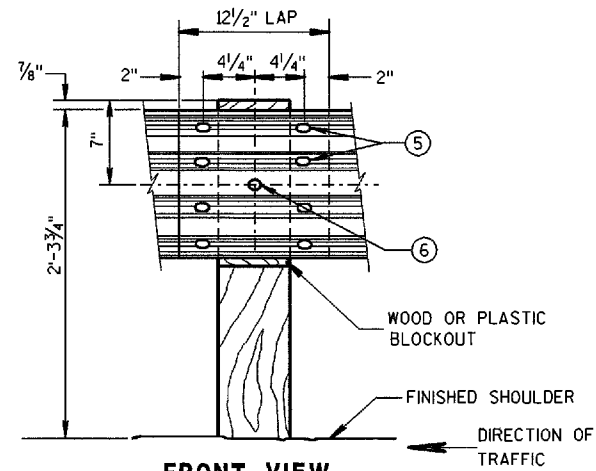
END VIEW STEEL POST & NOTCHED PLASTIC BLOCKOUT ALTERNATIVE

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

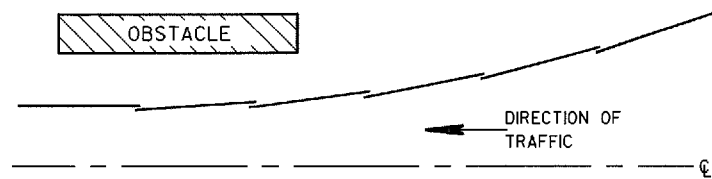
STEEL PLATE BEAM GUARD, CLASS 'A' INSTALLATION & ELEMENTS
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



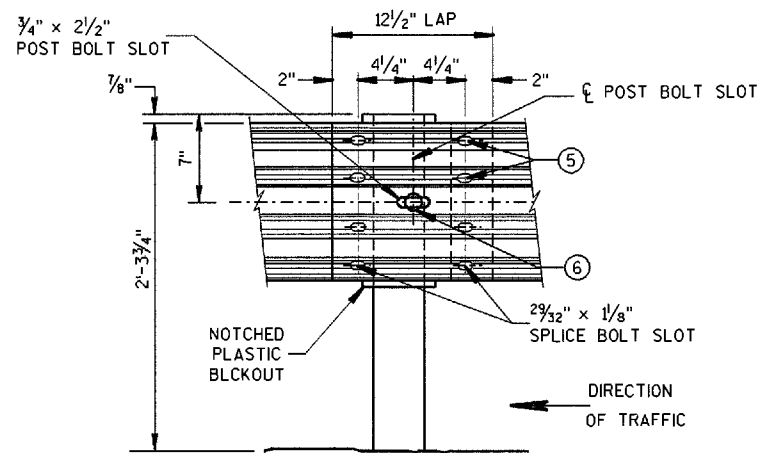
FRONT VIEW



FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL



PLAN VIEW
BEAM LAPPING DETAIL

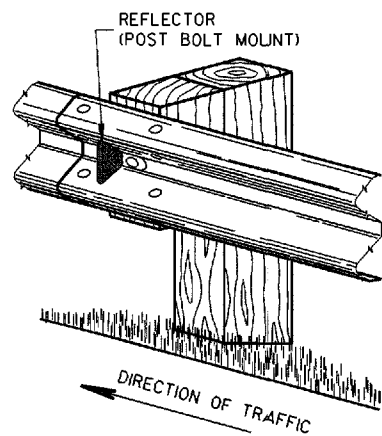


FRONT VIEW
BEAM SPLICE AT STEEL POST

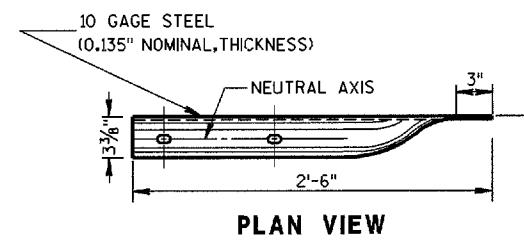
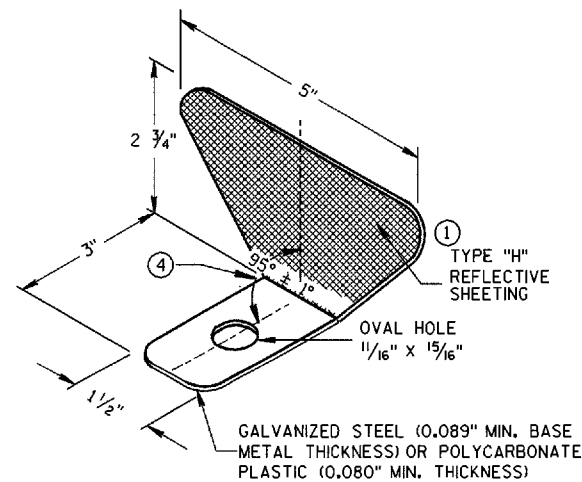
TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

REFLECTOR SPACING ②

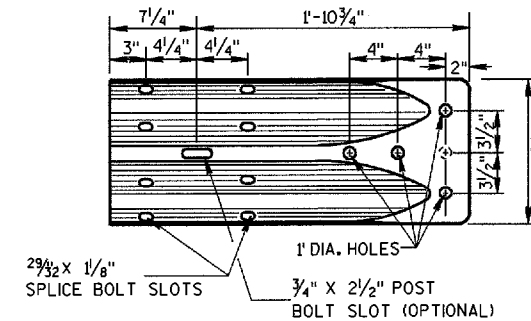
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	3
TWO WAY TRAFFIC	< 200'	25' C-C	1 ③	6
	> 200'	50' C-C	1	6
TWO WAY TRAFFIC	< 200'	50' C-C	2 ④	3
	> 200'	100' C-C	2	3



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

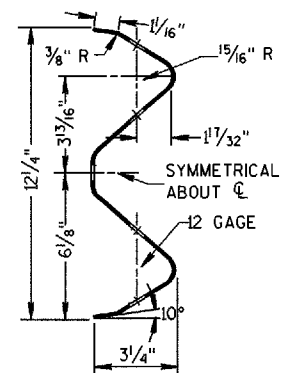


PLAN VIEW



FRONT VIEW

W BEAM TERMINAL CONNECTOR
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



SECTION THRU W BEAM

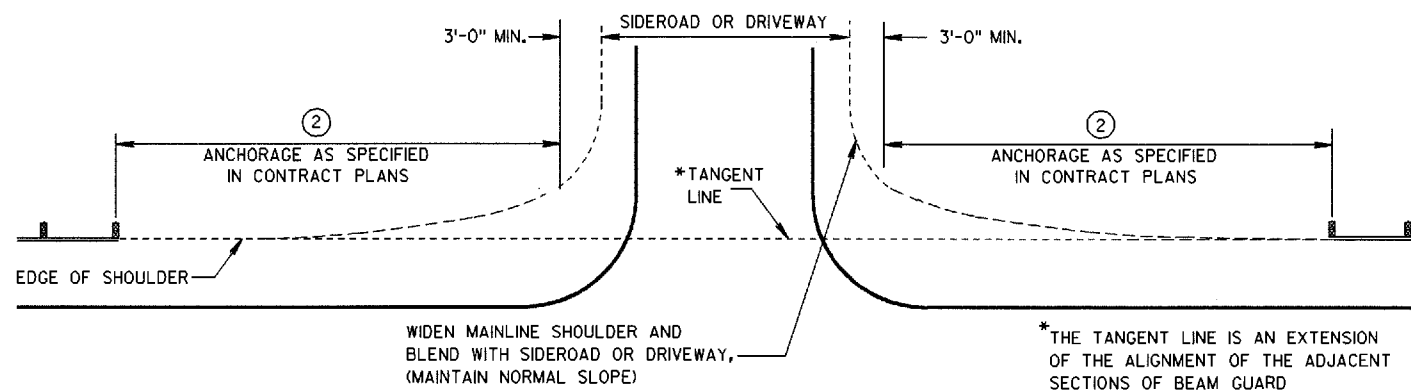
GENERAL NOTES

- ① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
- ② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- ③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ④ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
- ⑤ 8 - 5/8" φ x 1 1/4" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑥ 5/8" φ x 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.

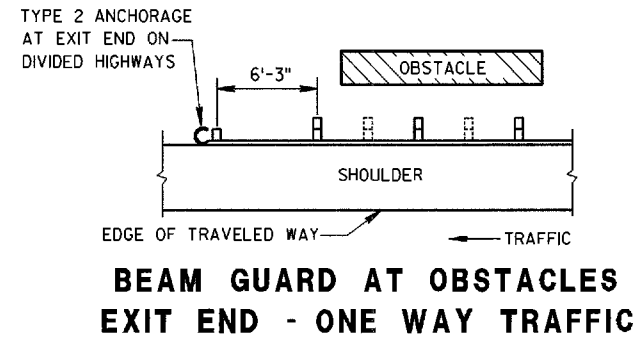
STEEL PLATE BEAM GUARD,
CLASS 'A',
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/08/00 DATE *John Havelberg*
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



BEAM GUARD AT SIDEROADS OR DRIVEWAYS

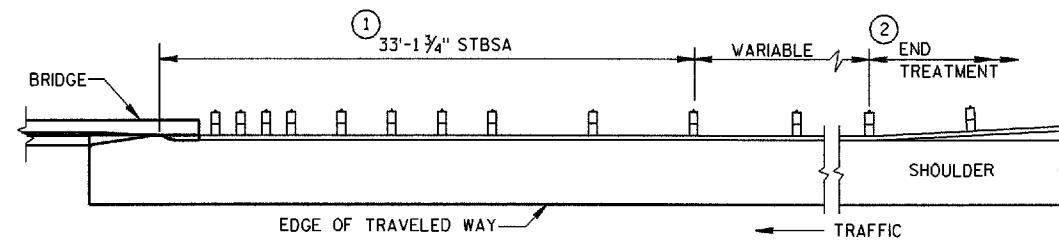


GENERAL NOTES

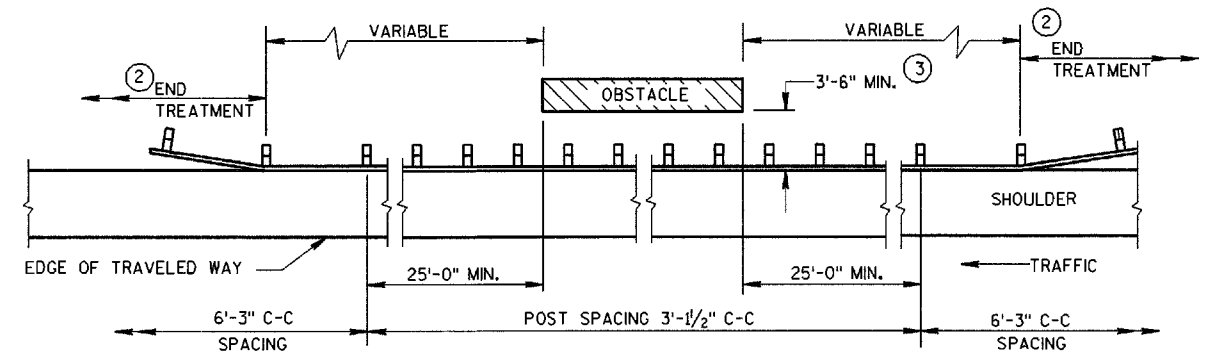
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.
- THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.
- ① USE STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA).
 - ② USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

③ DESIGN DEFLECTION OF W-BEAM BARRIER SYSTEM

LATERAL DISTANCE TO FIXED OBJECT	POST SPACING
3'-6" TO 4'-6"	3' - 1/2"
4'-6" AND OVER	6' - 3"

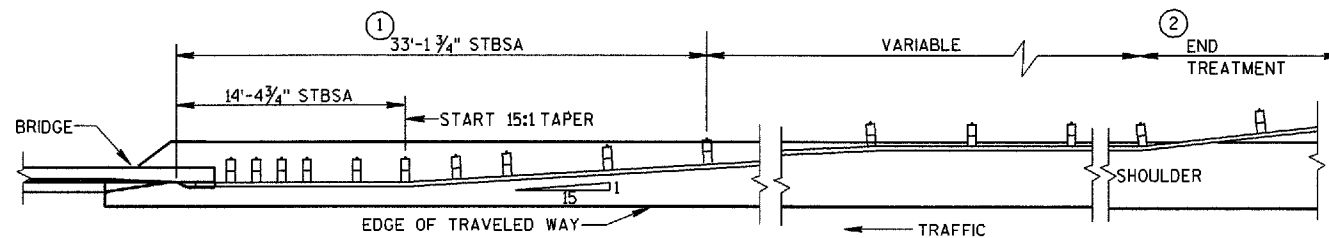


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OSBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



**BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)**

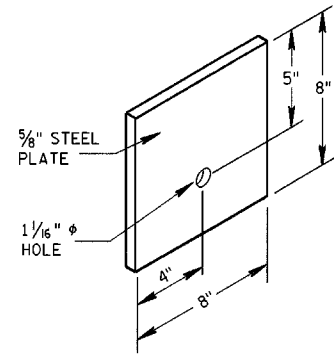
STEEL PLATE BEAM GUARD,
CLASS 'A'
(AT BRIDGES, OBSTACLES
AND SIDEROADS/DRIVEWAYS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

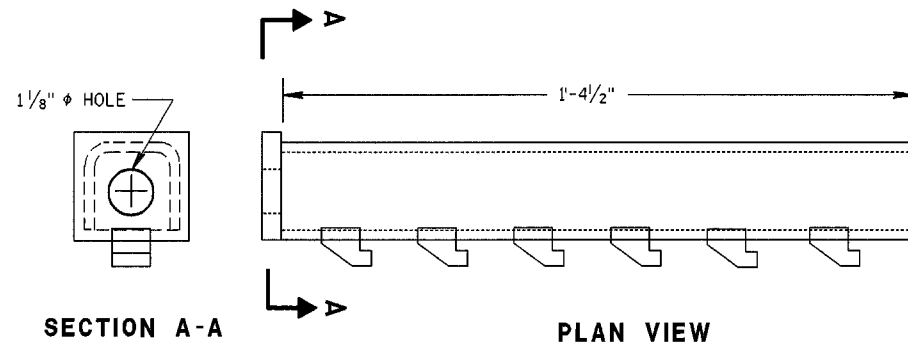
APPROVED
12/08/00
DATE

John Haverberg
CHIEF ROADWAY DEVELOPMENT ENGINEER

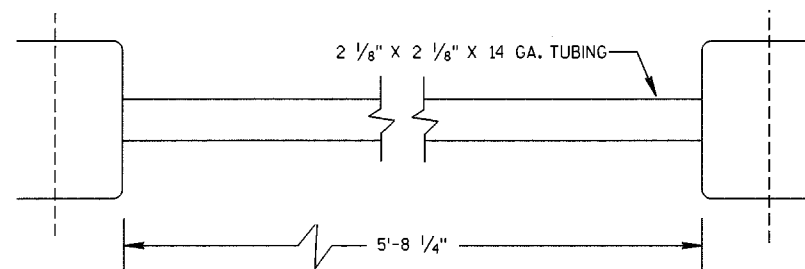
FHWA



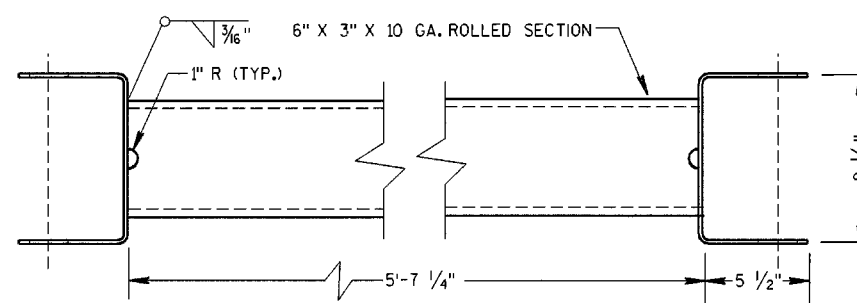
STEEL BEARING PLATE (SKT-350)



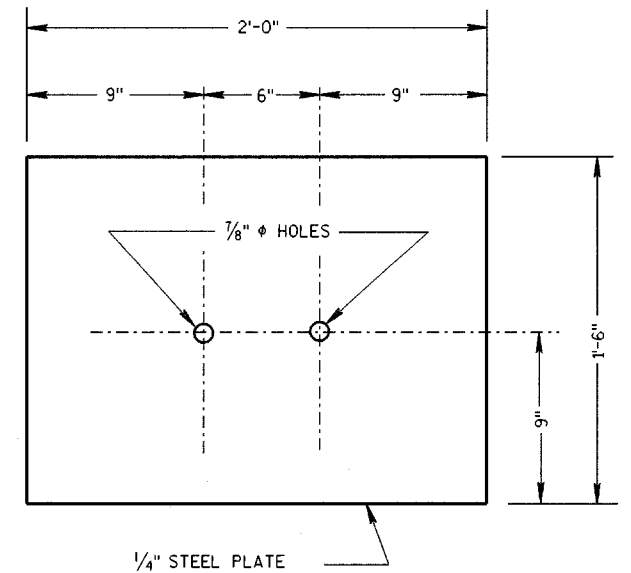
CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



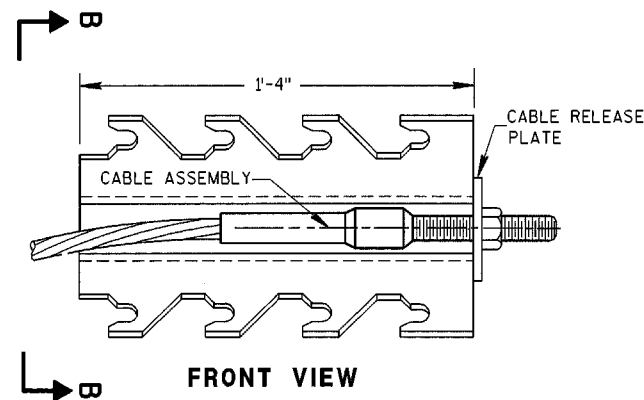
STRUT DETAIL (SKT-350)



STRUT DETAIL (ET-2000/ET-2000 PLUS)

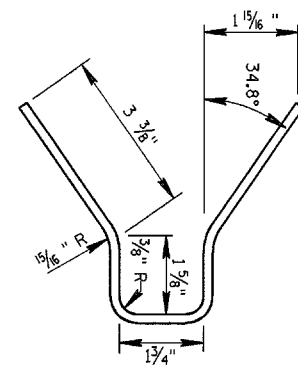


SOIL PLATE (SKT-350, ET-2000/ET-2000 PLUS)

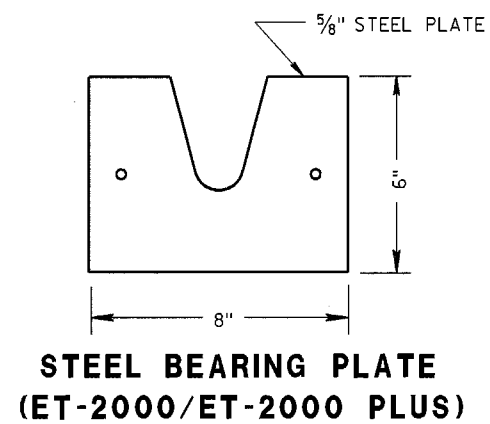


CABLE ANCHOR BOX (SKT-350)

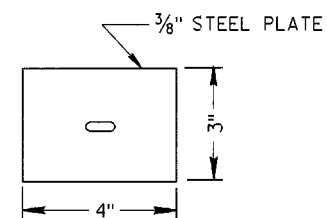
(SKT-350)



SECTION B-B



STEEL BEARING PLATE (ET-2000/ET-2000 PLUS)

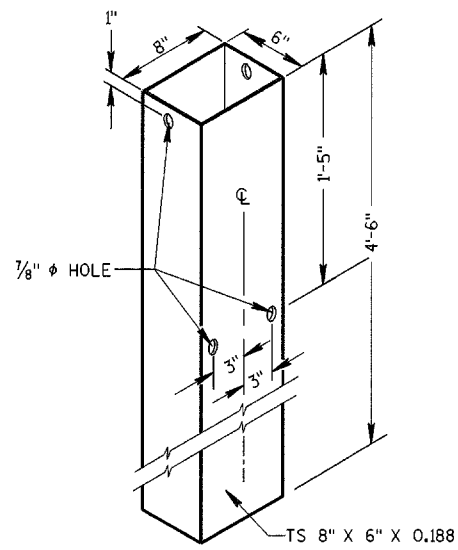


BEARING PLATE WASHER (ET-2000/ET-2000 PLUS)

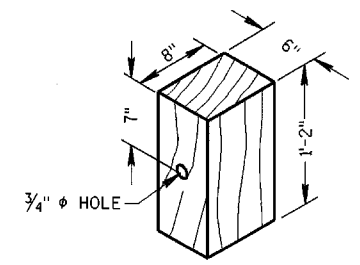
(ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

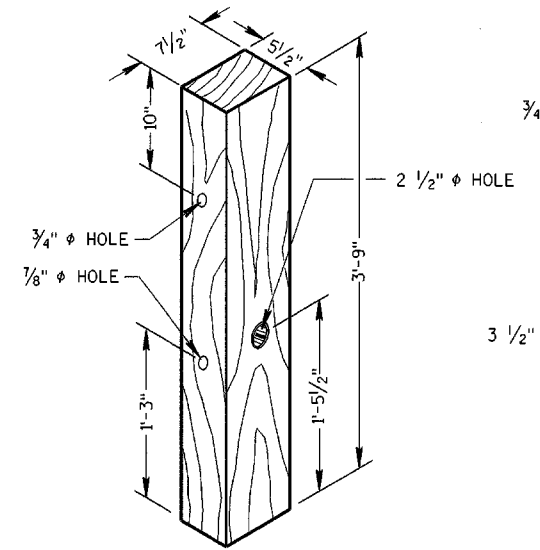
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



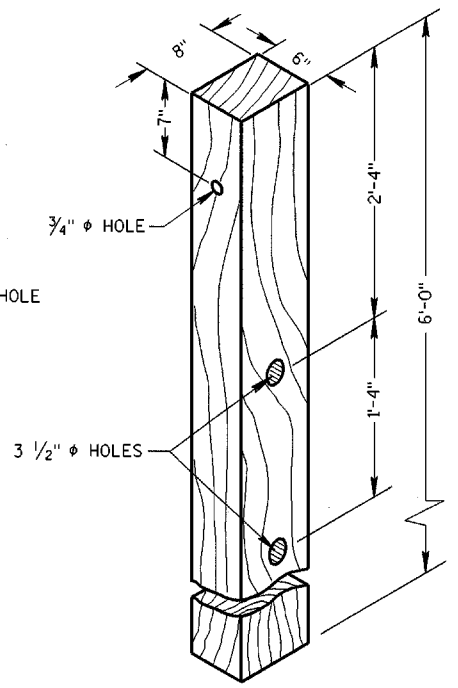
STEEL TUBE
(POSTS NO. 1-4)
THE STEEL TUBE SHALL CONFORM TO REQUIREMENTS OF ASTM A500



WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



TERMINAL POST
(POSTS NO. 1-4)



CRT POST
(POSTS NO'S 5-8)

WOOD BREAKAWAY POSTS

GENERAL NOTES

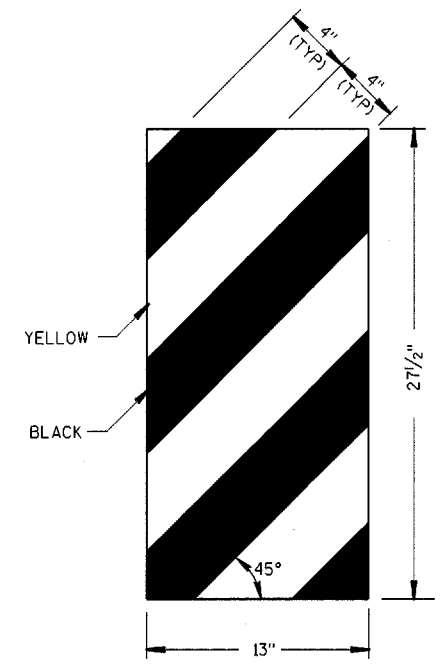
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS AND MANUFACTURERS INSTRUCTIONS.

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL SHALL BE EITHER THE EXTRUDER TERMINAL (ET-2000), OR THE SEQUENTIAL KINKING TERMINAL (SKT-350). THE CONTRACTOR SHALL NOT INTERMIX PROPRIETARY PRODUCT MATERIALS.

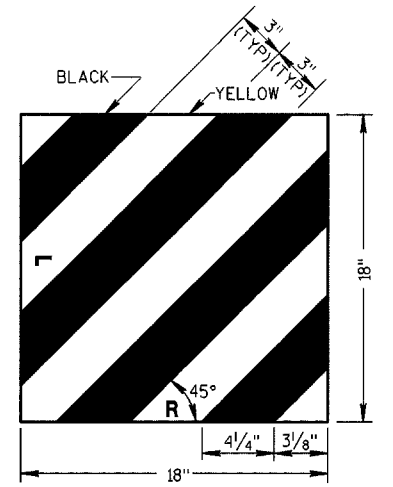
STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, WHICH SHALL INCLUDE HARDWARE, STEEL PLATE BEAM GUARD, POSTS, REFLECTIVE SHEETING AND INSTALLATION AS SHOWN.

REFLECTIVE SHEETING - SHALL CONFORM TO ASTM SPECIFICATION D4956-94, REFLECTIVE SHEETING TYPE III, BACKING CLASS 4, PERFORMANCE REQUIREMENT TYPE III. THE MESSAGE AND LINES SHALL BE APPLIED TO THE SIGNS BY THE SILK SCREEN STENCIL PROCESS USING A BLACK OR DARK STENCIL PASTE AS A TYPE APPROVED BY THE MANUFACTURER OF THE FACE MATERIAL TO WHICH IT IS TO BE APPLIED. MESSAGE UNITS CUT FROM NONREFLECTIVE SHEETING AND APPLIED TO THE SIGN FACE ARE NOT ACCEPTABLE. AFTER THE APPROACH END OF THE STEEL PLATE BEAM GUARD INSTALLATION IS COMPLETE, CLEAN THE AREA WHERE THE REFLECTIVE SHEETING WILL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION. ONCE CLEAN, APPLY REFLECTIVE SHEETING DIRECTLY TO THE STEEL PLATE BEAM GUARD AS SHOWN. THE CONTRACTOR SHALL TURN OVER THE MANUFACTURERS WARRANTY FOR THE REFLECTIVE SHEETING TO THE DEPARTMENT FOR POTENTIAL DEALING WITH THE MANUFACTURER. PAYMENT OF REFLECTIVE SHEETING IS INCIDENTAL TO STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL.

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



ET-2000 PLUS ONLY
REFLECTIVE SHEETING DETAILS



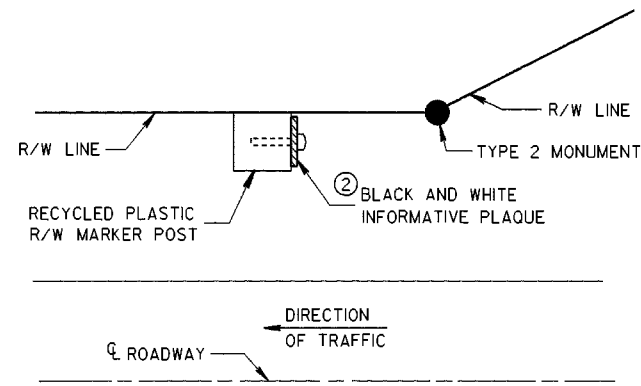
ET-2000 AND SKT-350

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/25/03 DATE	 CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

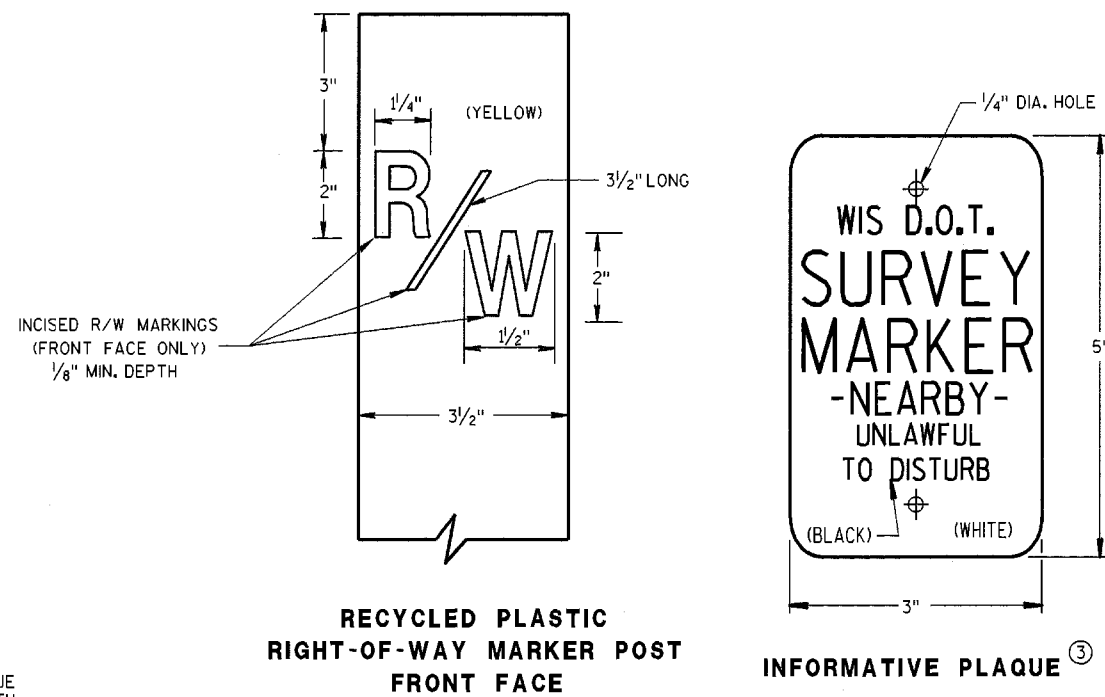
GENERAL NOTES

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

- ① POSTS SHALL BE ANCHORED AND SET INTO EXCAVATED HOLES AS ILLUSTRATED OR MAY BE DRIVEN AND ANCHORED INTO THE GROUND BY ALTERNATE DEVICES APPROVED BY THE ENGINEER.
- ② A MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED ADJACENT TO EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- ③ INFORMATIVE PLAQUES WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION AND BE PLACED ON THE SIDE OF THE POST FACING THE TYPE 2 MONUMENT.
- ④ IN AREAS OF SOLID ROCK, DRILL A 1/2" MIN. BORE HOLE INTO THE ROCK TO A DEPTH OF 12". CUT THE POST SO THAT A LENGTH OF 3'-6" PROTRUDES ABOVE THE GROUND. DRILL A 5/8" PILOT HOLE 1 FOOT INTO THE BOTTOM OF THE POST. DRIVE A 2 FOOT PIECE OF NO. 6 REINFORCING BAR INTO THE POST. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR, FILL THE BORE HOLE WITH EPOXY, CONCRETE CEMENT OR EQUIVALENT. PLACE THE POST WITH THE EXTENDED REINFORCING BAR INTO THE BORE HOLE WITH ADHESIVE. DEPENDING ON THE STABILITY OF THE ROCK, DEPTH OF THE BORE HOLE AND REINFORCING BAR MAY BE INCREASED AT THE DIRECTION OF THE ENGINEER.

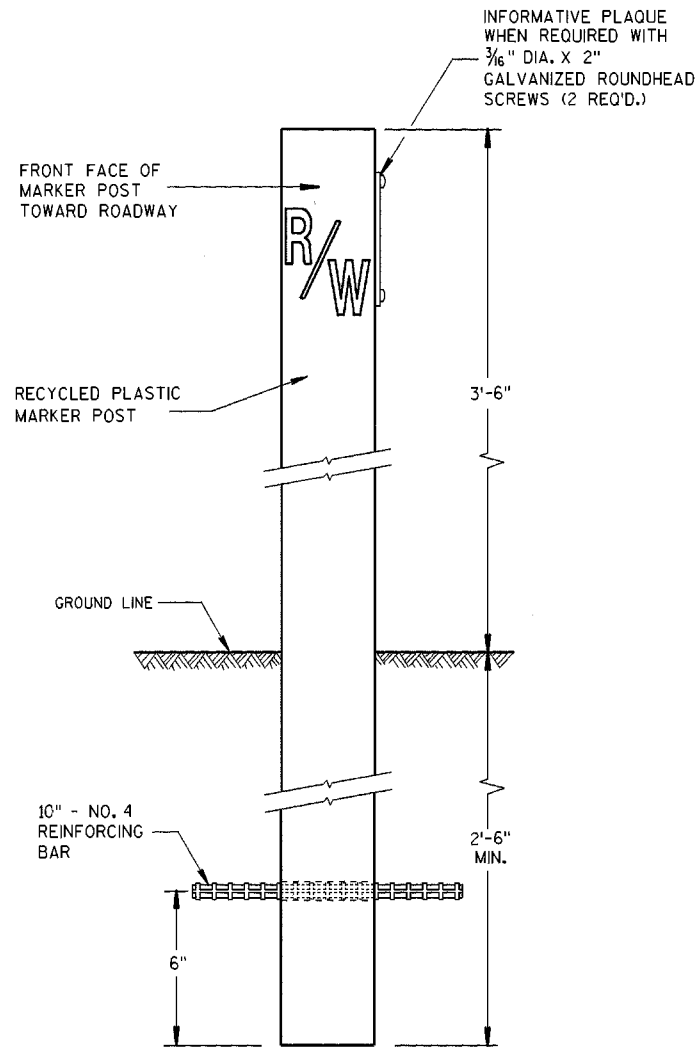


**PLAN VIEW
TYPICAL LOCATION** ②

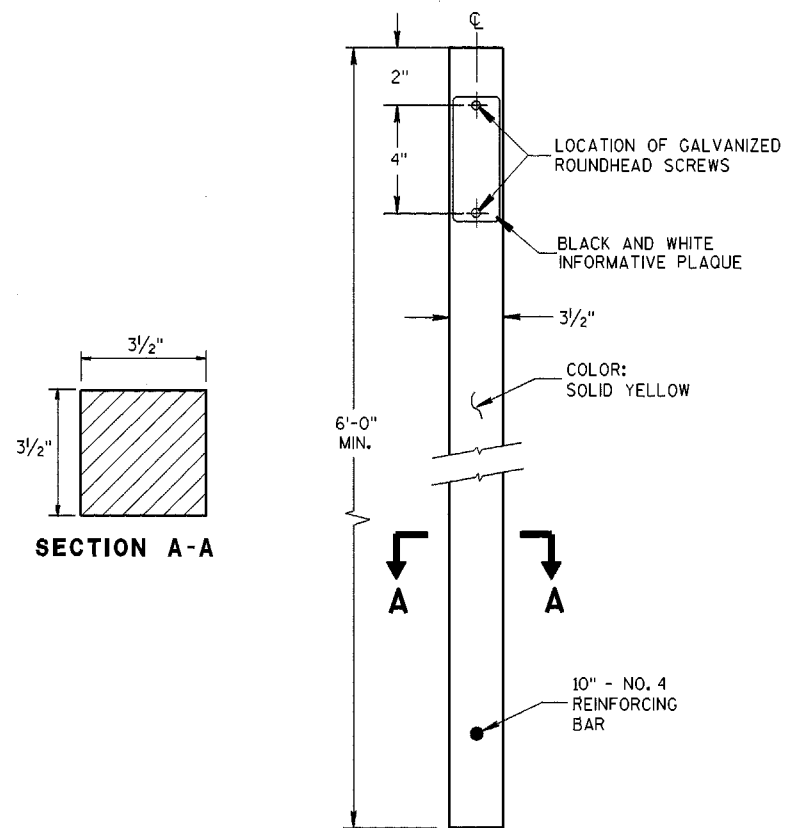


**RECYCLED PLASTIC
RIGHT-OF-WAY MARKER POST
FRONT FACE** **INFORMATIVE PLAQUE** ③

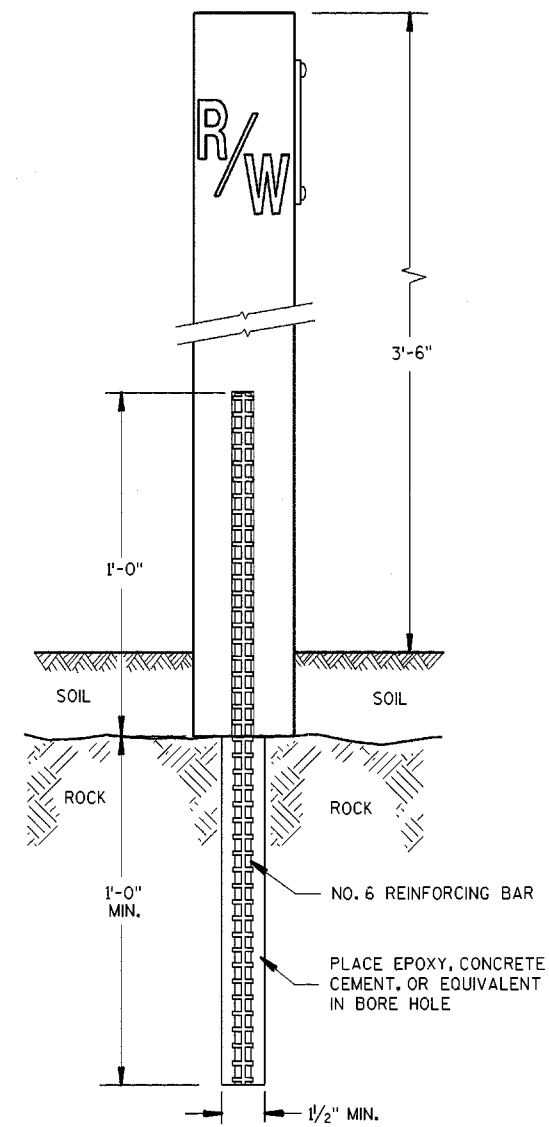
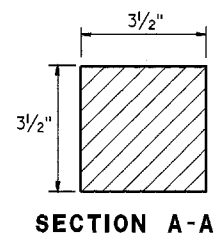
MARKING & SIGNING DETAILS



**FRONT VIEW
TYPICAL INSTALLATION** ①

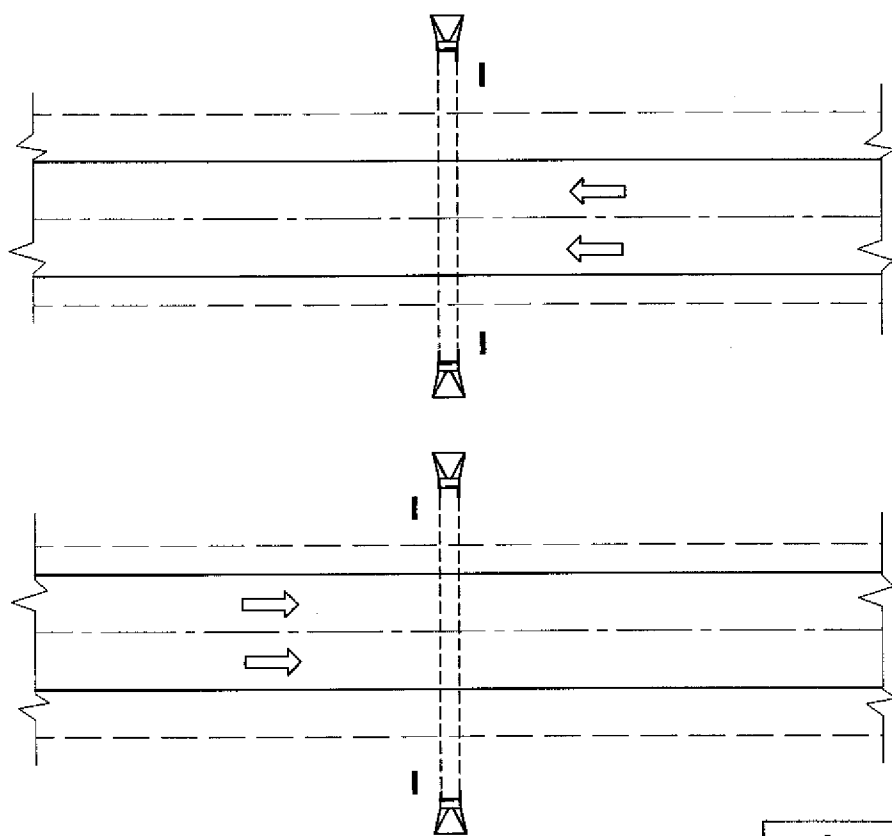


**SIDE VIEW
STANDARD RECYCLED
PLASTIC MARKER POST**

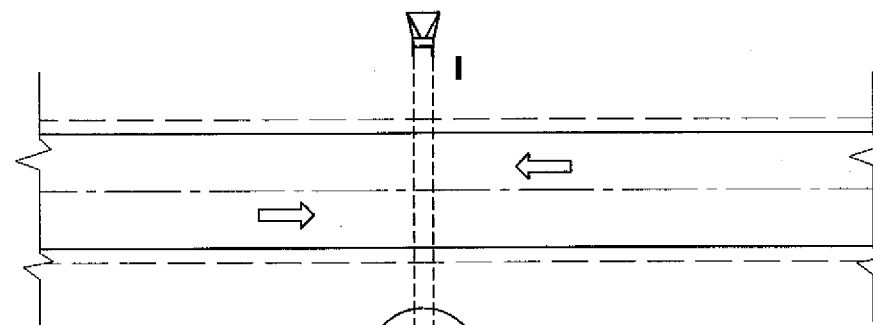


**FRONT VIEW
ROCK INSTALLATION** ④

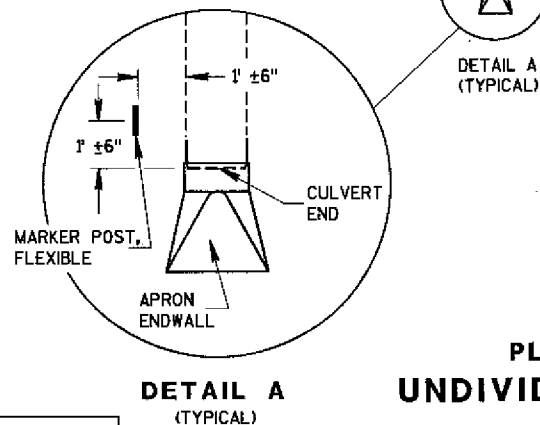
MARKER POST FOR RIGHT-OF-WAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/3/03 DATE	<i>Kevin J. Brodeur</i> P.E. CHIEF SURVEYING AND MAPPING ENGINEER
FHWA	



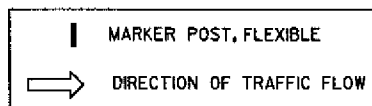
PLAN VIEW
DIVIDED HIGHWAY



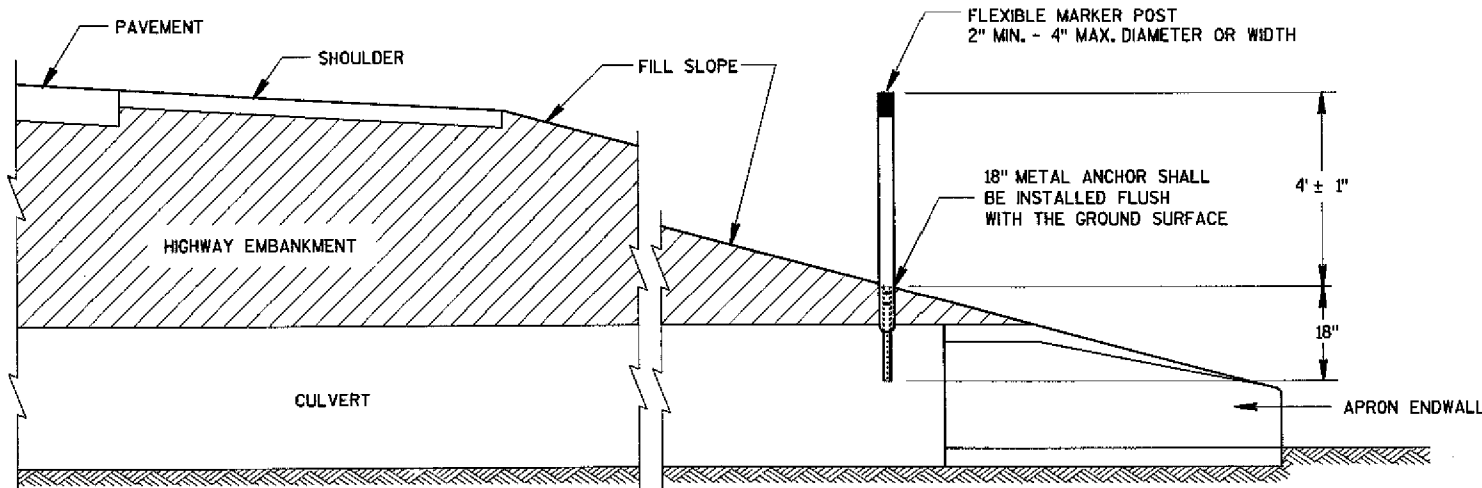
PLAN VIEW
UNDIVIDED HIGHWAY



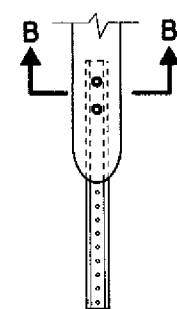
DETAIL A
(TYPICAL)



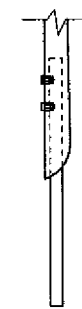
FLEXIBLE MARKER POST LOCATION



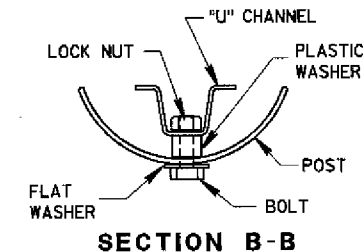
CROSS SECTION
FLEXIBLE MARKER POST



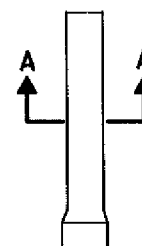
FRONT VIEW
CURVED MARKER



SIDE VIEW
CURVED MARKER



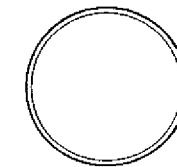
SECTION B-B



FRONT VIEW
ROUND MARKER



SIDE VIEW
ROUND MARKER

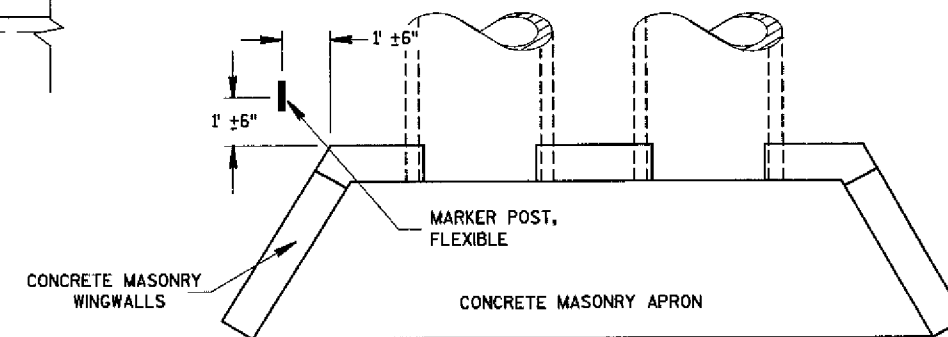


SECTION A-A

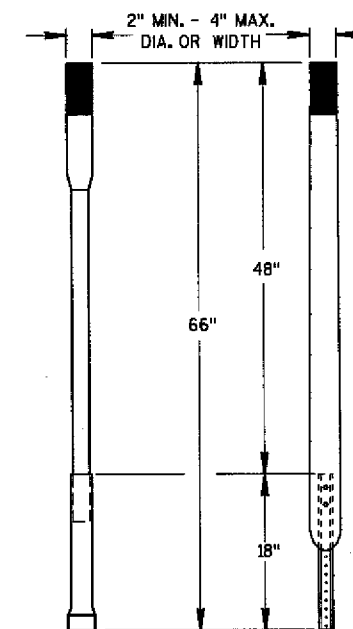
FLEXIBLE MARKER POST ANCHORS

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.



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



ALTERNATE 1 ALTERNATE 2
FLEXIBLE MARKER POST

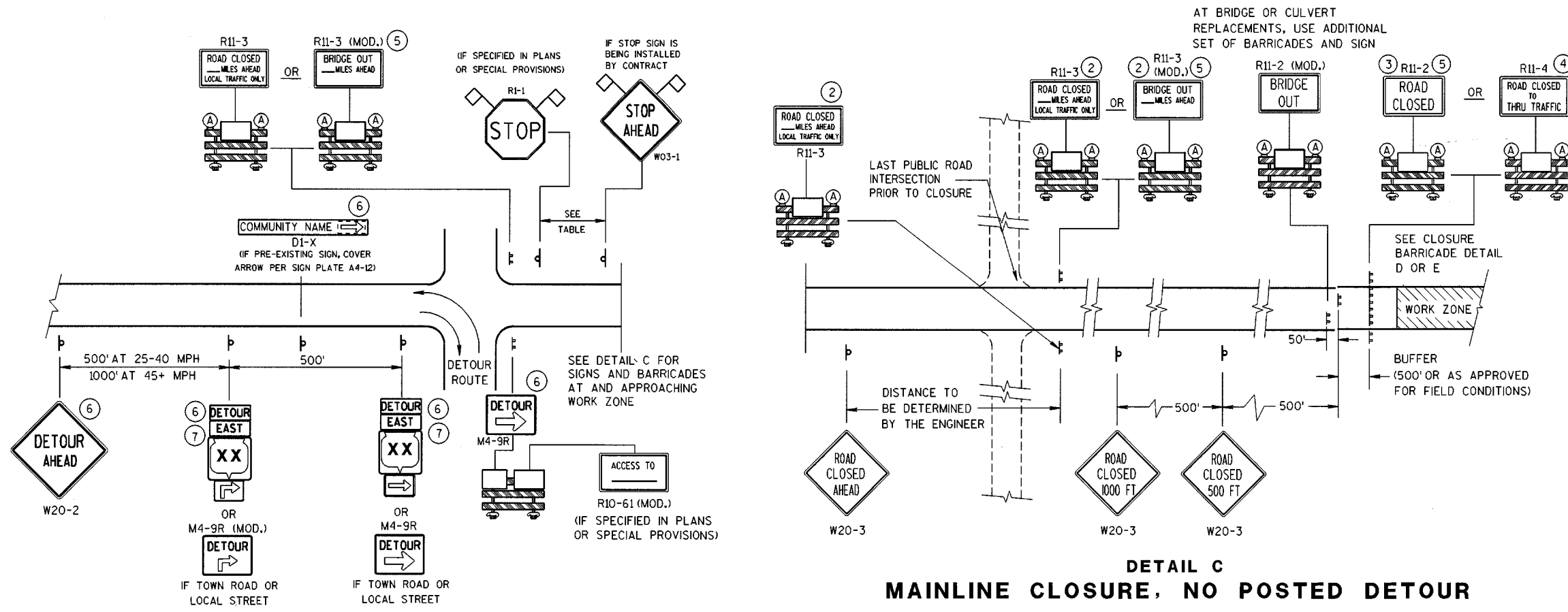
MARKER POST, FLEXIBLE,
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/01/98 DATE
[Signature] CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

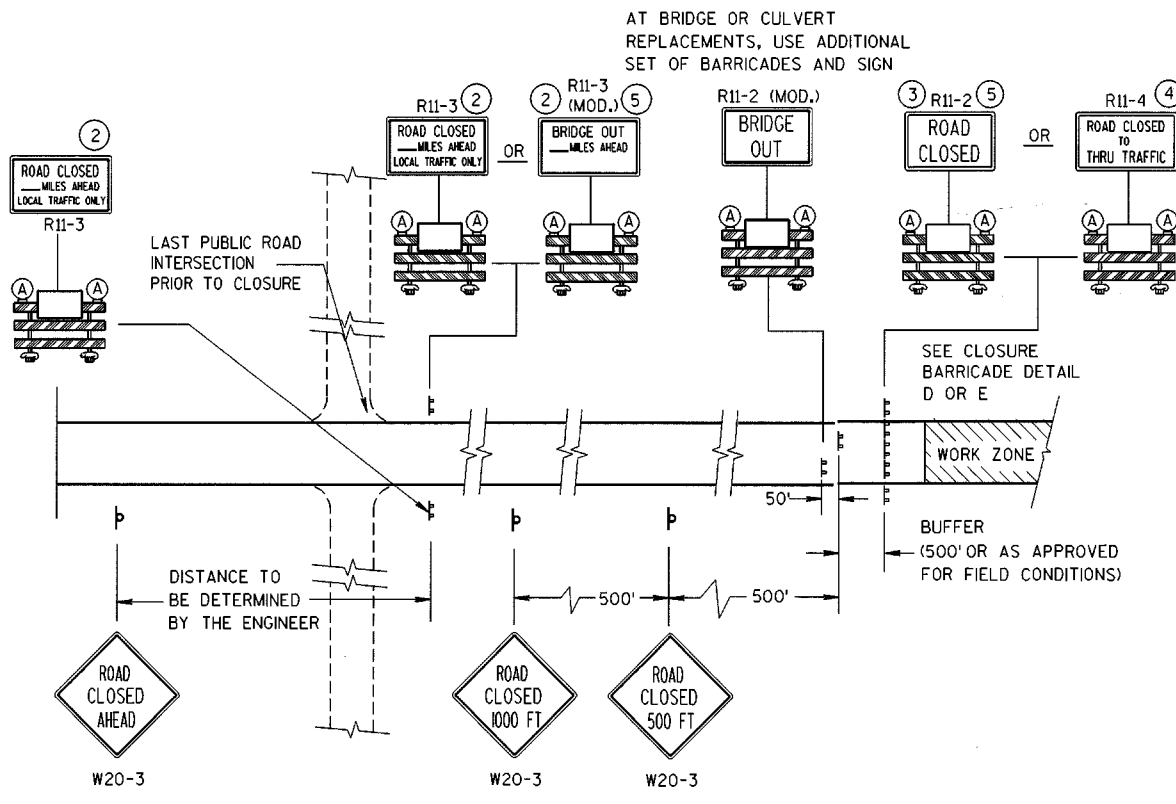
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-4b FOR GENERAL NOTES AND FOOTNOTES ① THROUGH ⑦

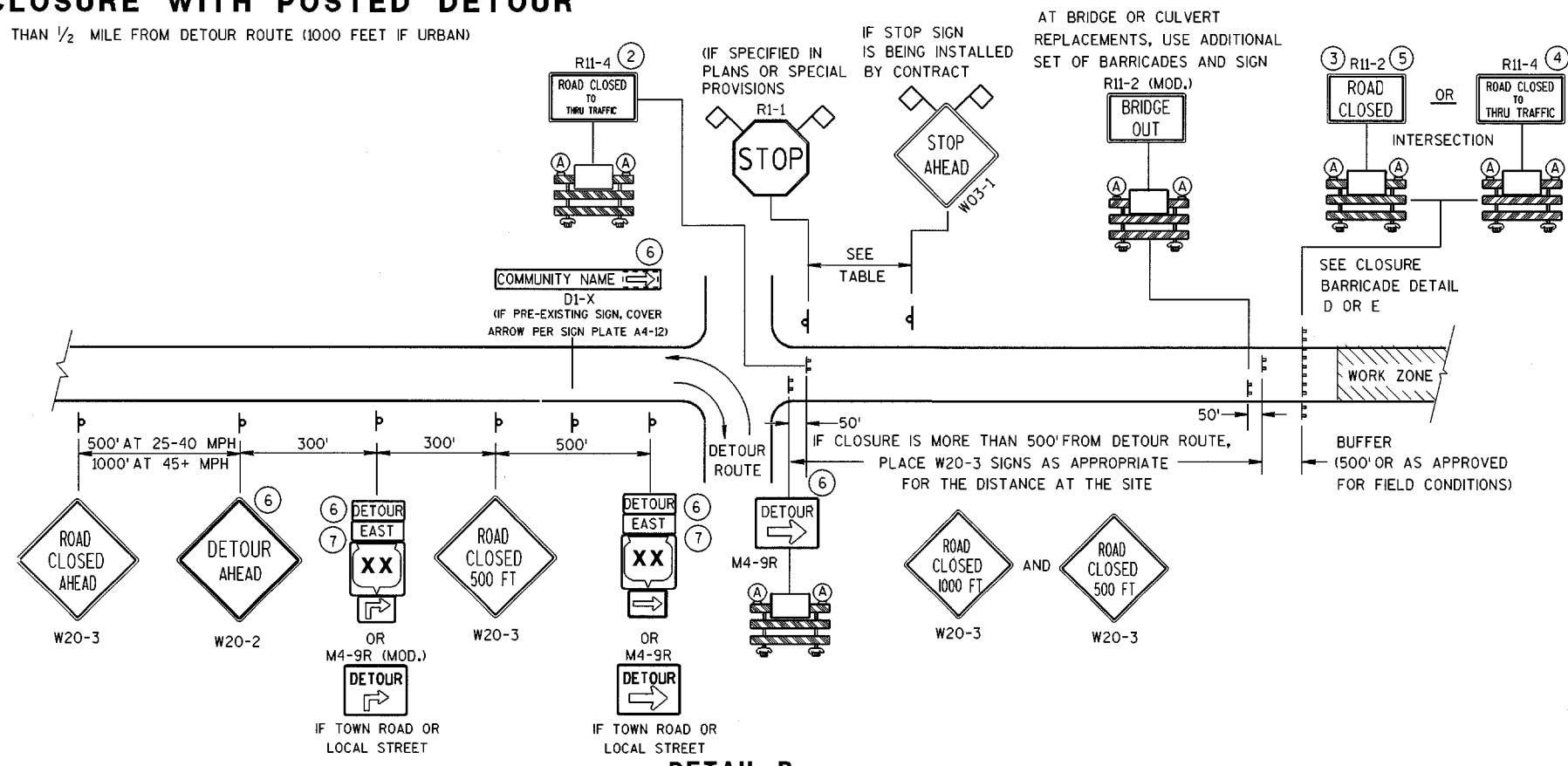


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

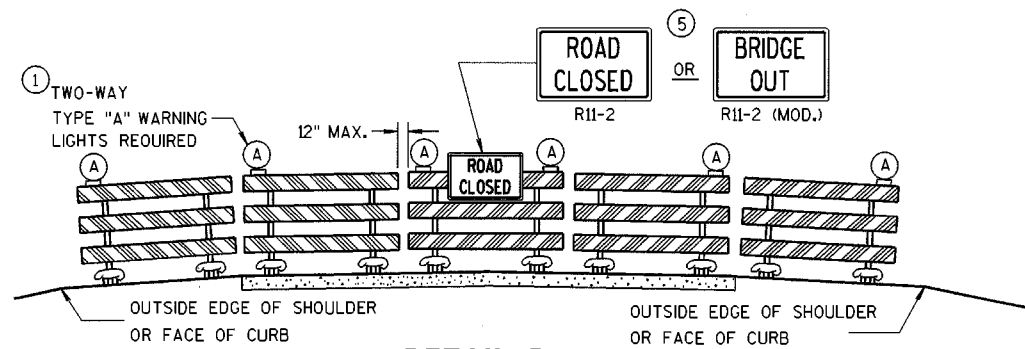
WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

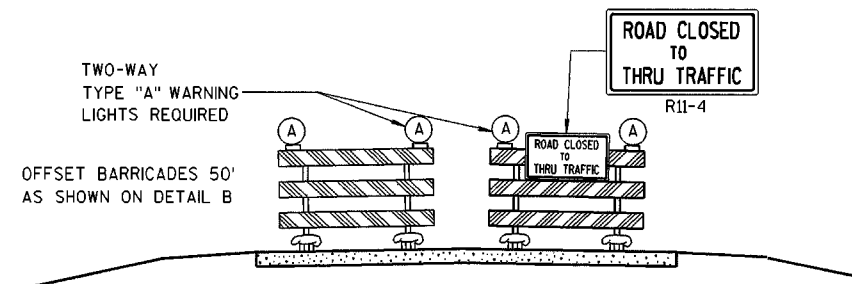
- ⌋ POST MOUNTED SIGN
- ⌋ TYPE III BARRICADES
- Ⓐ TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- ▨ WORK ZONE
- DETOUR EAST: M4-8, M3-X
- MI-4 OR COUNTY XX OR MI-5A OR MI-6
- M05-1 OR M06-1
- ◇ FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
 APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
 APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

R1-1 SHALL BE 36" X 36".

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF 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 (APPROX. 8-FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS
 FOR
 MAINLINE CLOSURES**

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED

9/16/03
 DATE

Thomas N. Notbohm for
 CHIEF SIGNS AND MARKING ENGINEER

FHWA

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

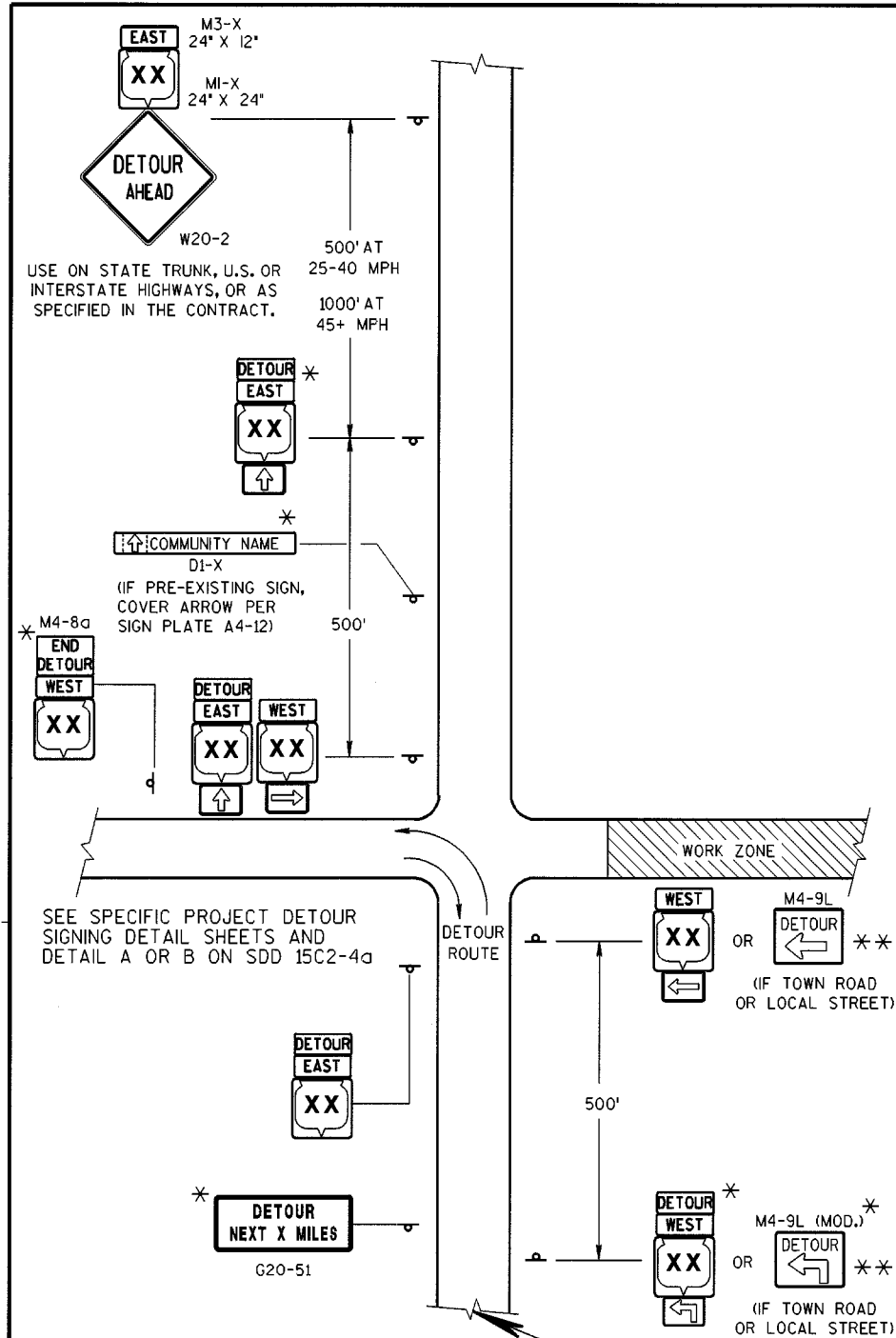
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



MATCH POINT

**DETAIL F
DETOUR SIGNING**

USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT.

(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT.

(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA.)

LEGEND

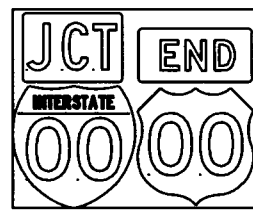
- POST MOUNTED SIGN
- WORK ZONE
- DETOUR EAST M4-8 M3-X
- DETOUR WEST M4-8 M3-X
- MI-4 MI-5A MI-6
- M05-1 M06-1 M06-1

DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/14/03 DATE	Thomas N. Nottbohm for CHIEF SIGNS AND MARKING ENGINEER
FHWA	

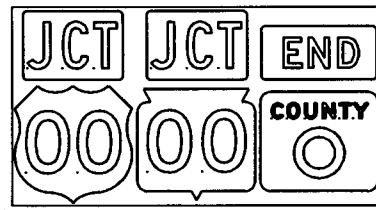
TYPICAL ASSEMBLIES



J1-1



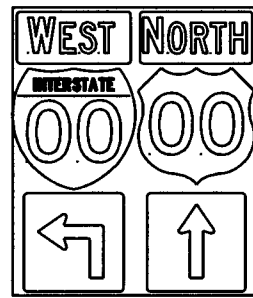
J1-2



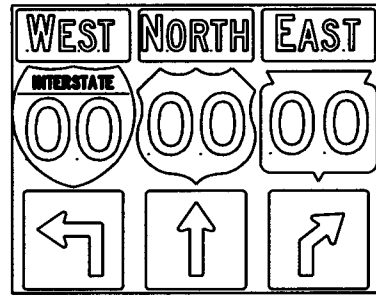
J1-3



J2-1



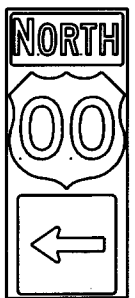
J2-2



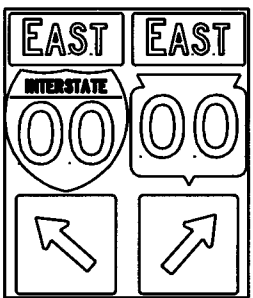
J2-3



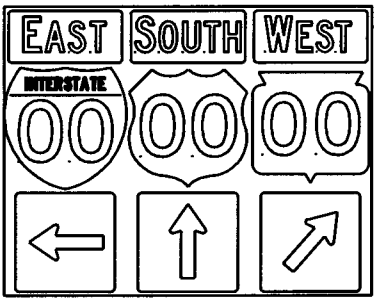
JV



J3-1



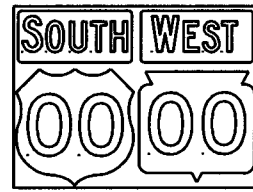
J3-2



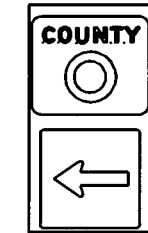
J3-3



J4-1



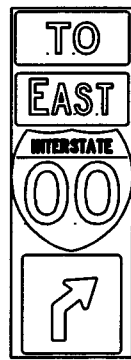
J4-2



J13-1



J12-1



J32-1



J33-1



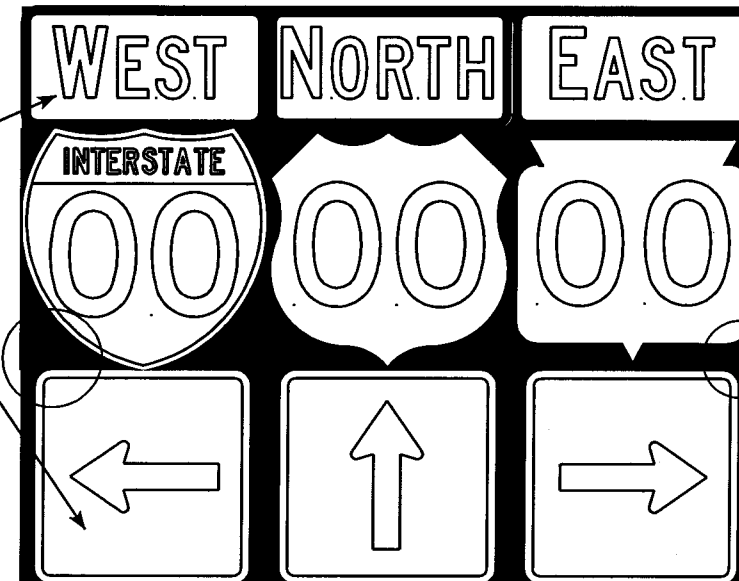
J23-1



J22-1

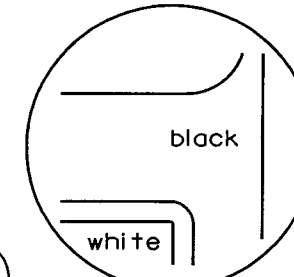
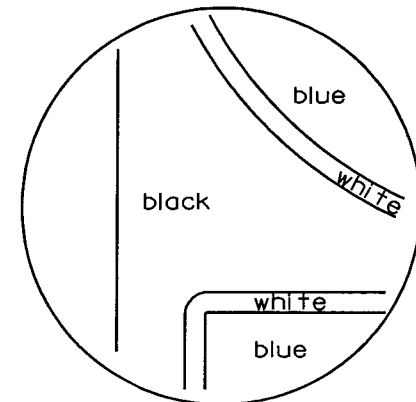
NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Black Non-reflective
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square since base material is plywood.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.



[blue background with interstate]

[black background]



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 10/17/02	PLATE NO. A2-15.3

57.56.59.00.61.62.63

LEVELS ON - 2.3. 5.6

STATE PROJECT NUMBER:

FILE NAME : C:\Users\Projects\tr_std\plate\A215.DGN

PLOT DATE : 13-APR-2005 11:31

PLOT BY : DOTDZK

PLOT NAME :

ORG DATE : 10/17/02

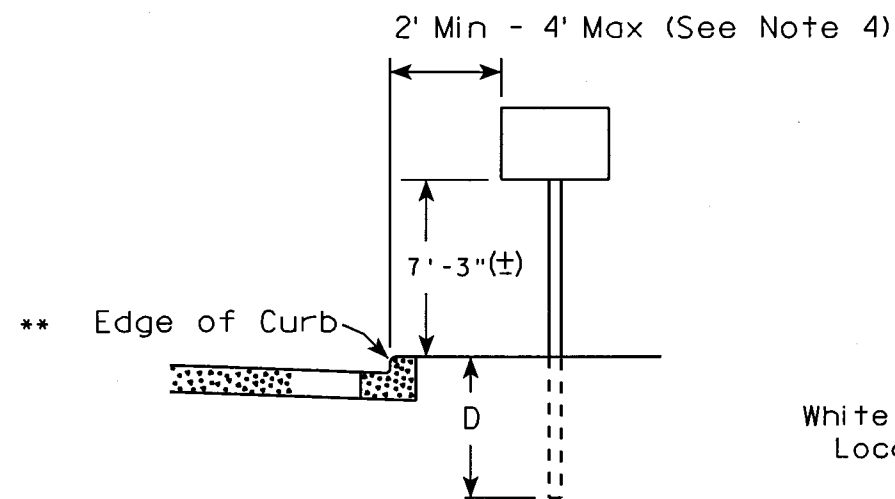
Originator : DON KLUEVER

SHEET NO: 78

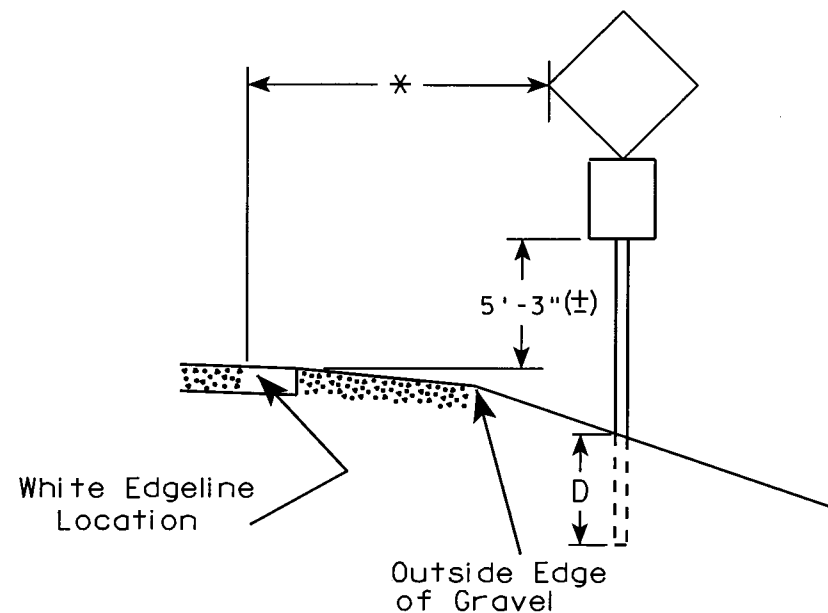
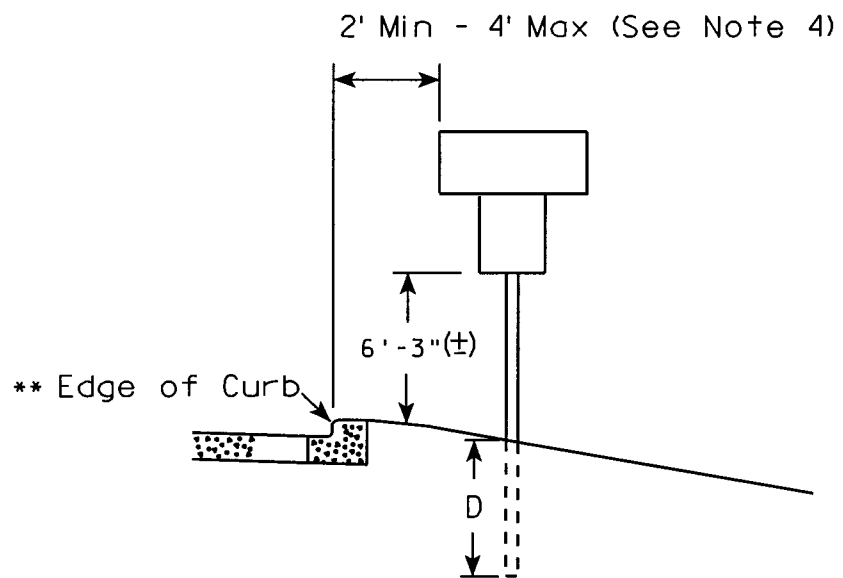
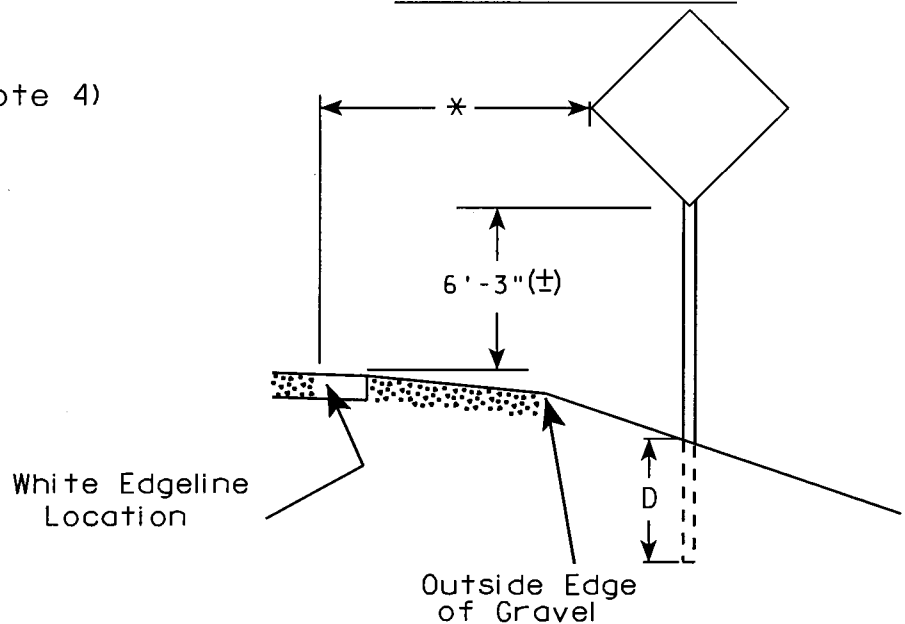
7

WISDOT/CADD SHEET 42

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
3. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.

POST EMBEDMENT DEPTH

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

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically where there is sidewalk adjacent to the roadway or parking is permitted. This same criteria applies to mountable curb as well and measurement shall be taken from flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/20/03 PLATE NO. A4-3.12

57, 58, 59, 60, 61, 62, 63
50
2, 3, 4, 5, 6
LEVELS ON - 2

7

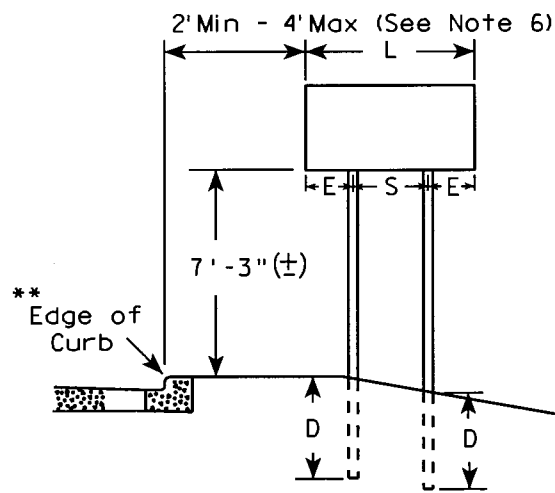
GENERAL NOTES

1. For 3 post installations, spacing is S/2 and S must be greater than 7'-0".
2. For 4 post installations, spacing is S/3 and S must be greater than 10'-6".
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.

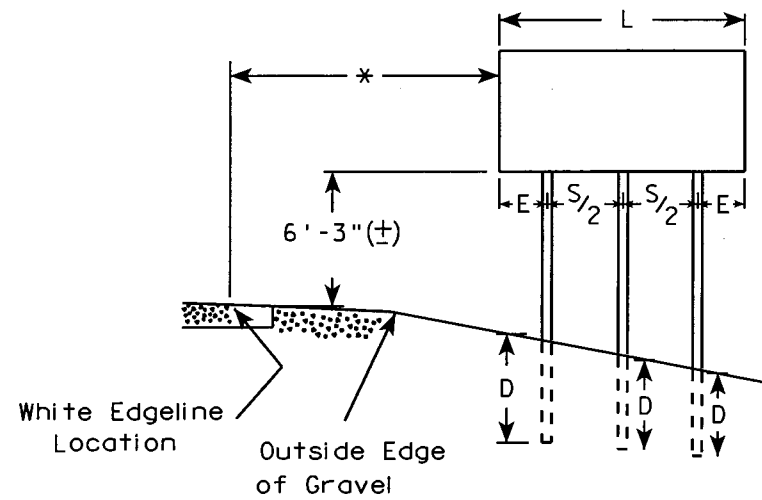
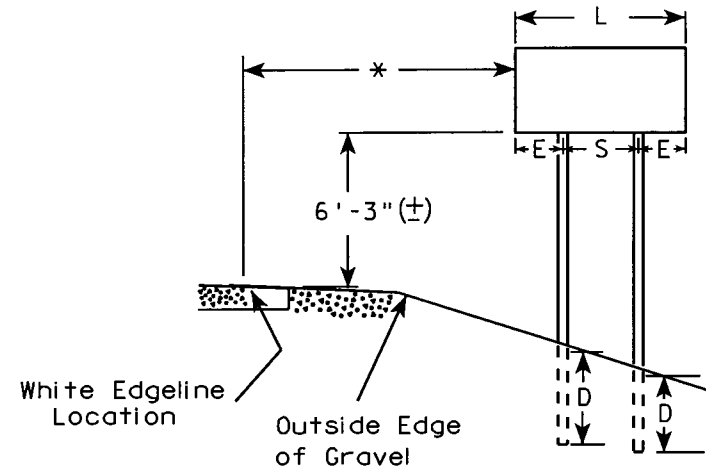
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically where there is sidewalk adjacent to the roadway or parking is permitted. This same criteria applies to mountable curb as well and measurement shall be from the flow line.

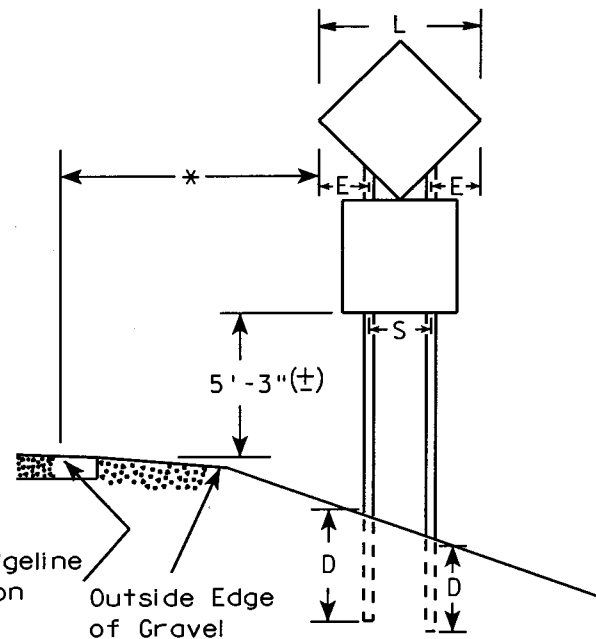
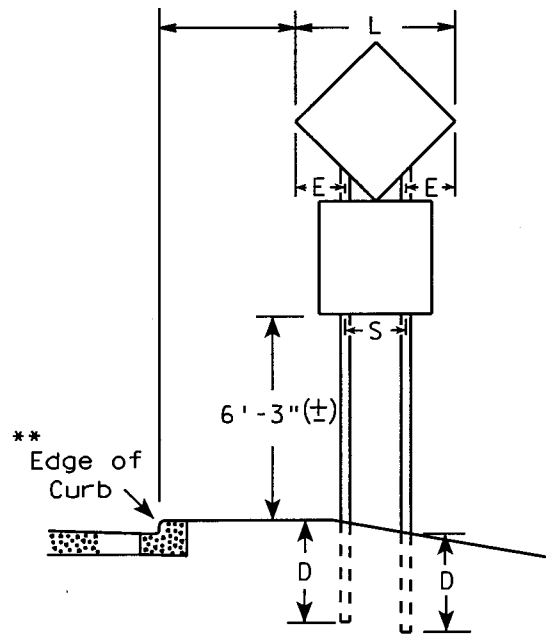
URBAN AREA



RURAL AREA (See Note 3)



URBAN AREA



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'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 2/20/03 PLATE NO. A4-4.7

57.58.59.60

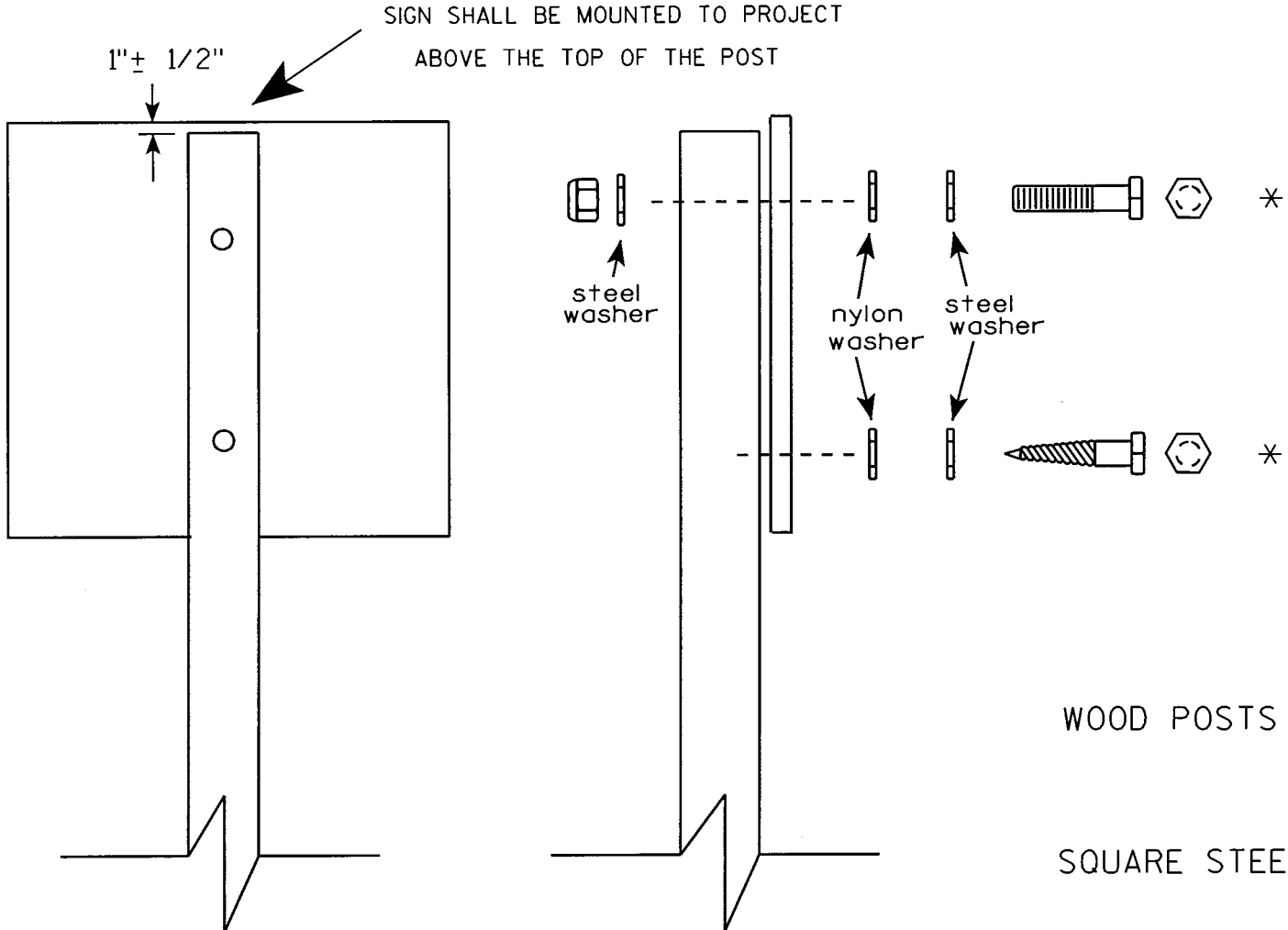
LEVELS ON 1, 2, 3, 5, 6

57.58.59.60.61.62.63

43

R

LEVELS ON - 2,3,4,5,6

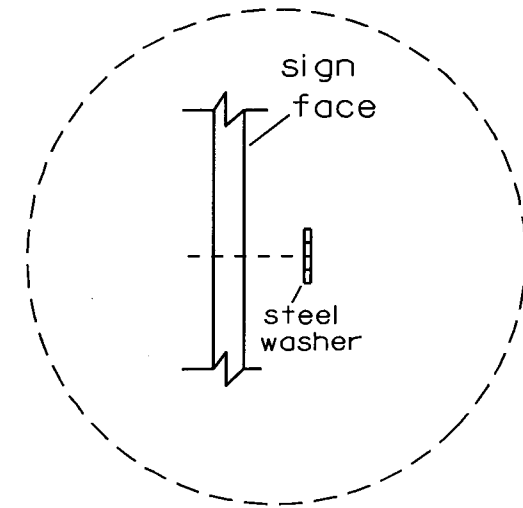


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
- b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
- c. 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.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3"
- MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
- 1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs 9 sq. ft. or larger require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Chester J. Spang</i> for State Traffic Engineer
DATE 4/03/02	PLATE NO. A4-8.5

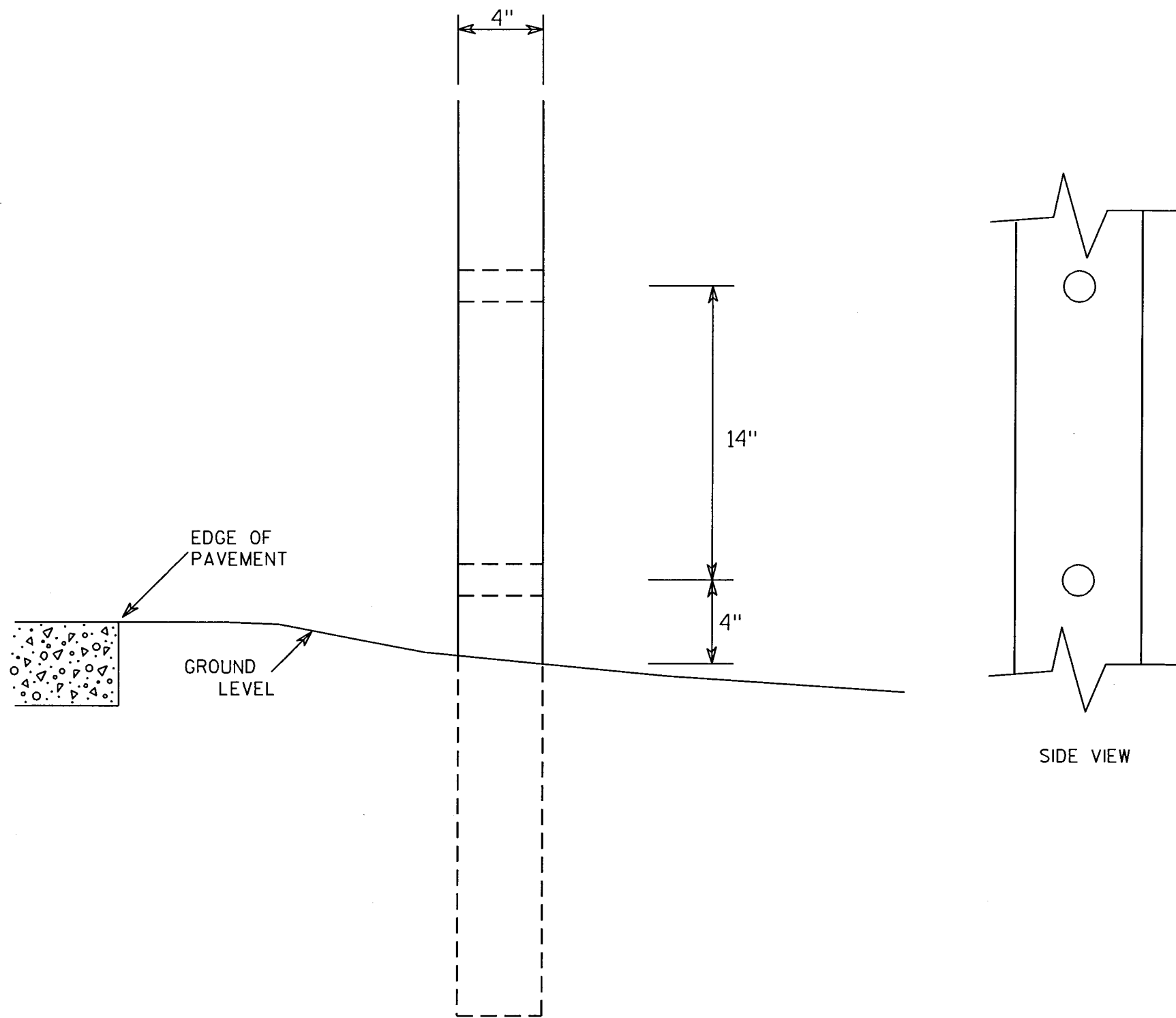
7

57.58.59.60.61.62.63

18.

10.

LEVELS ON - 2.3.4.5.6.



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

7

4 X 6 WOOD POST
MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

STATE PROJECT NUMBER:

FILE NAME : C:\Users\Projects\tr_stdplate\A411.DGN

PLOT DATE : 13-APR-2005 11:33

PLOT BY : DOTDZK

ORG DATE : 3/27/97

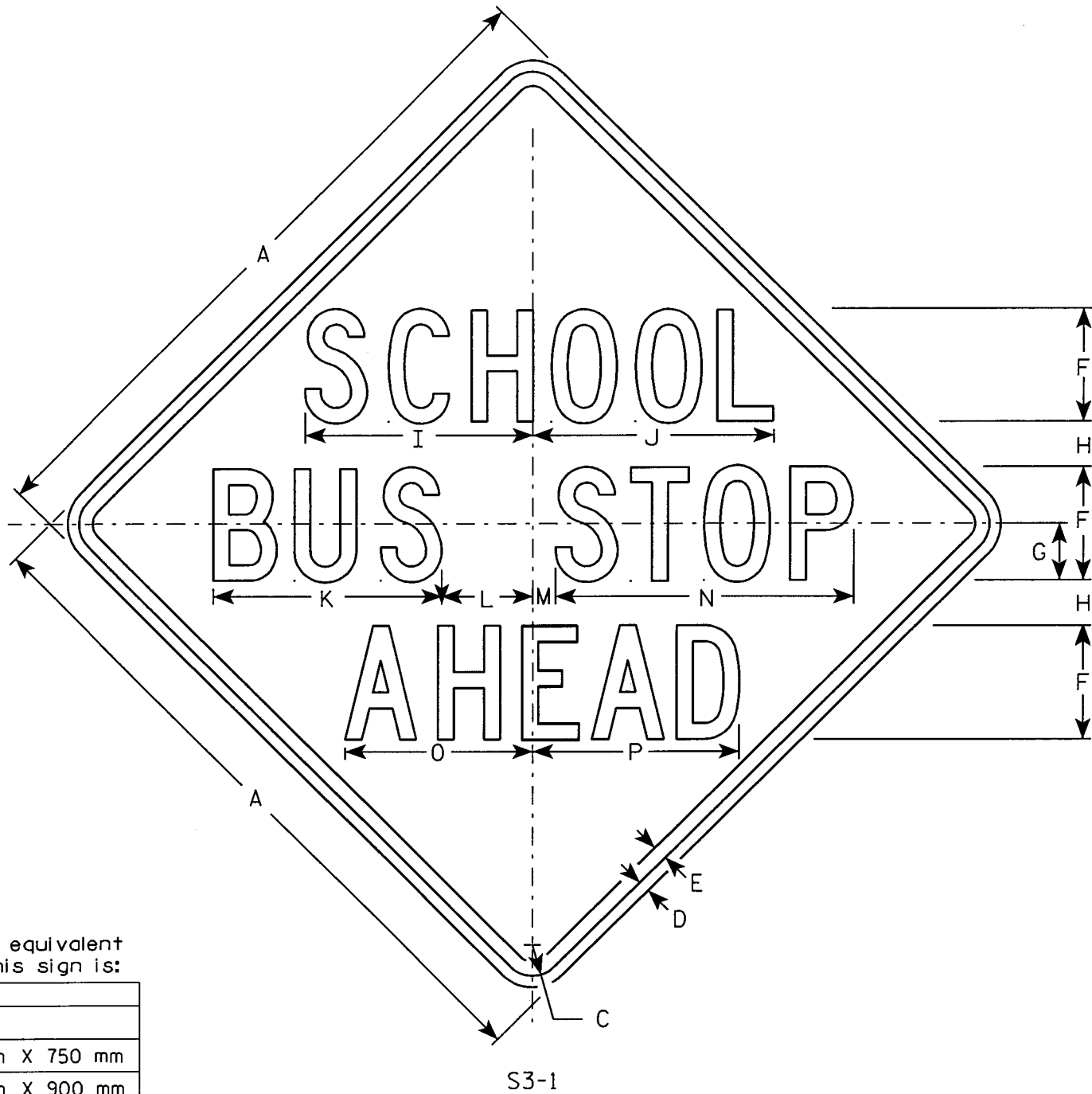
Originator : DON KLUEVER

SHEET NO: 82

E

WISDOT/CADDs SHEET 42

58.59.61.62.63



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
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.

Metric equivalent for this sign is:

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

S3-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	30		1 3/8	1/2	5/8	5	2 1/2	2	10	10 1/2	10	4	1	13	8 1/4	9											6.25	0.56
3	36		1 5/8	5/8	3/4	6	3	3	11 3/4	12 3/4	12 1/2	4 1/2	1 1/2	15 1/2	10	11											9.0	0.81
4	48		2 1/4	3/4	1	8	3 1/4	3 1/4	16	17	16	6 3/8	1 5/8	20 7/8	13 1/4	14 1/4											16.0	1.44
5																												

STANDARD SIGN
S3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Christa J. Spang*
for State Traffic Engineer

DATE 2/14/02 PLATE NO. S3-1.5

STATE PROJECT NUMBER:

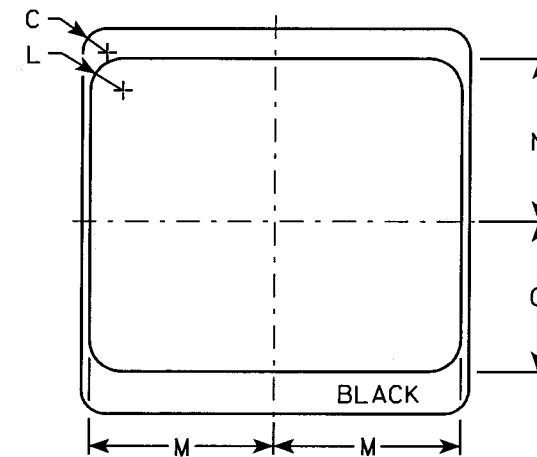
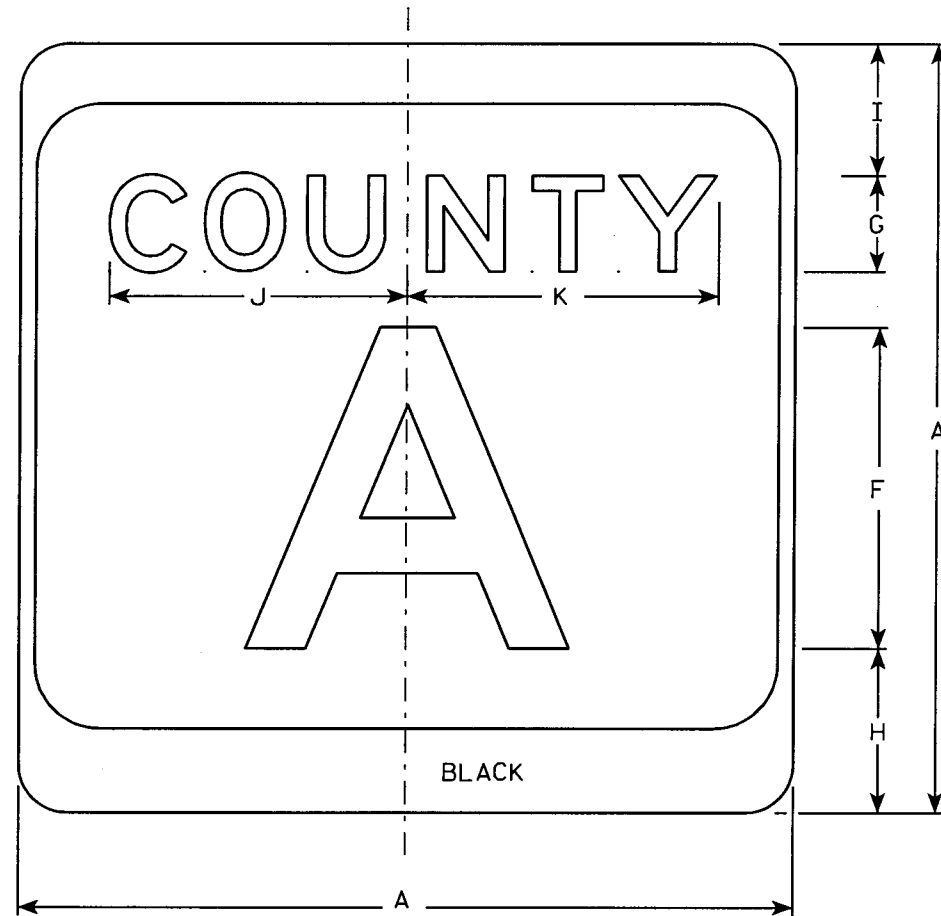
SHEET NO: 83 E

LEVELS DW - 2.1, 5.6

58-59-00-01-02-63

NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
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. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically adjust spacing to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8												4.0	.36
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14												9.0	.81
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14												9.0	.81
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14												9.0	.81

STATE PROJECT NUMBER:

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

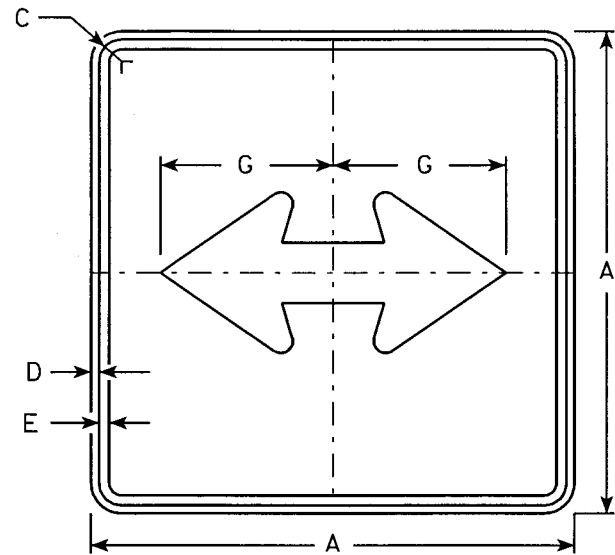
APPROVED *Chester J Spang*
for State Traffic Engineer

DATE 3/20/02 PLATE NO. MI-5A.7

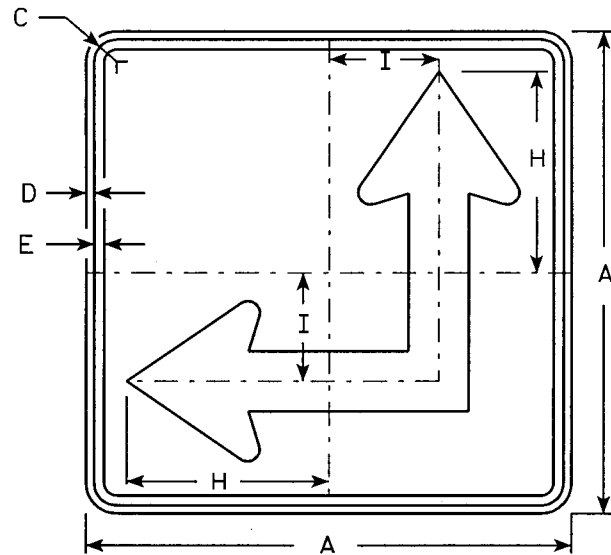
SHEET NO: 84 E

LEVELS DW - 2, 3, 5, 6

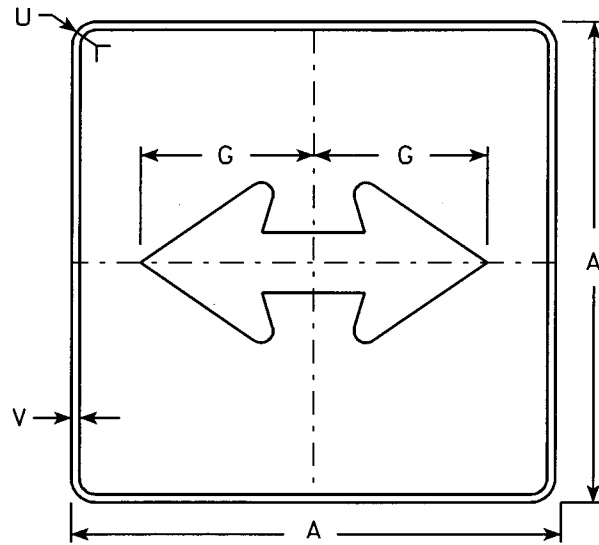
58-59-01.02.63



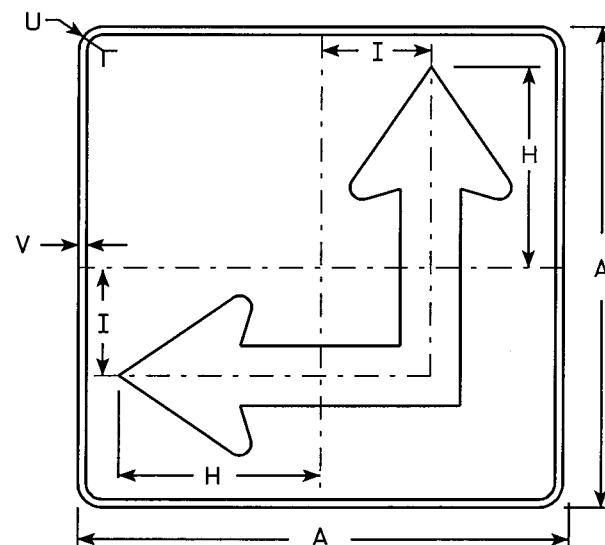
M6-4
MK6-4
MM6-4 (See Note 5)
M06-4
MR6-4



M6-6
MK6-6
MM6-6 (See Note 5)
M06-6
MR6-6



MB6-4
MG6-4
MN6-4



MB6-6
MG6-6
MN6-6

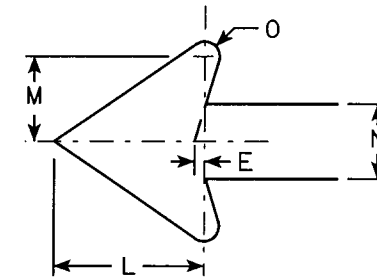
Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See Note 4
Message - See Note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-4 and M6-6 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
MG6-4 and MG6-6 Background - Green
Message - White - Type H Reflective
MK6-4 and MK6-6 Background - Green
Message - White - Type H Reflective
MM6-4 and MM6-6 Background - White - Type H Reflective
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White - Type H Reflective
M06-4 and M06-6 Background - Orange - Reflective
Message - Black
MR6-4 and MR6-6 Background - Brown
Message - Yellow - Type H Reflective
- M6-6R same as M6-6L except arrow points ahead and right.
- Border shall be omitted on MM series.



STATE PROJECT NUMBER:

STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

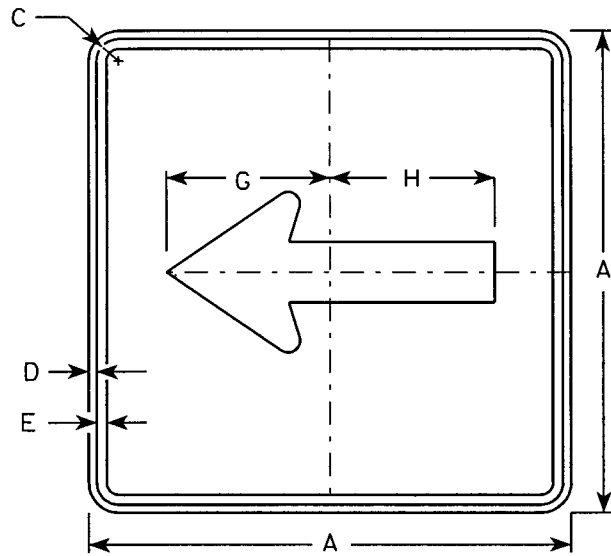
DATE 3/20/02

PLATE NO. M6-4.6

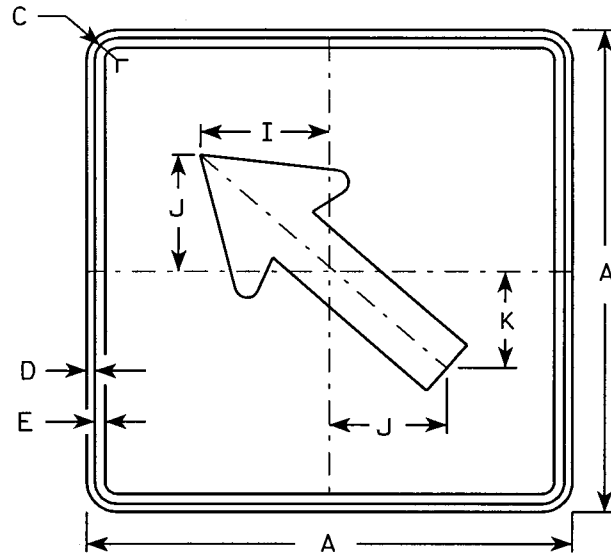
SHEET NO: 85

E

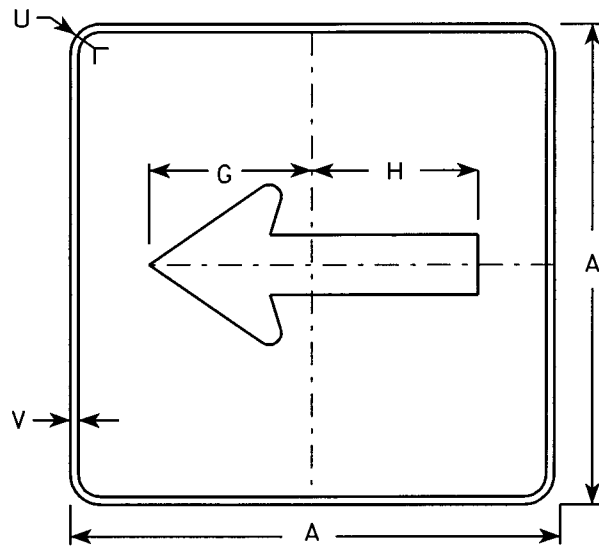
58-59 (61,62,63)



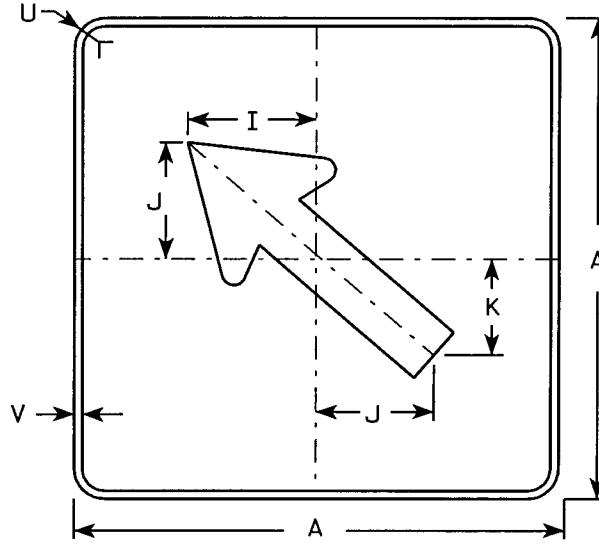
M6-1
MK6-1
MM6-1 (See Note 5)
M06-1
MR6-1



M6-2
MK6-2
MM6-2 (See Note 5)
M06-2
MR6-2



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

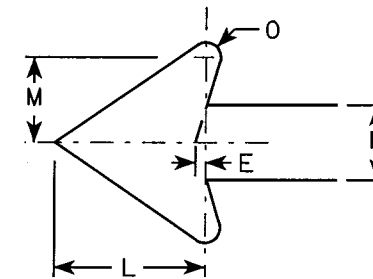
NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
MB6-1 and MB6-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
MG6-1 and MG6-2 Background - Green Message - White - Type H Reflective
MK6-1 and MK6-2 Background - Green Message - White - Type H Reflective
MM6-1 and MM6-2 Background - White - Type H Reflective Message - Green
MN6-1 and MN6-2 Background - Brown Message - White - Type H Reflective
M06-1 and M06-2 Background - Orange - Reflective Message - Black
MR6-1 and MR6-2 Background - Brown Message - Yellow - Type H Reflective
- Border shall be omitted on MM series.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56



LEVELS ON - 2.1, 5.6

STATE PROJECT NUMBER:

FILE NAME : C:\Users\Projects\tr_stdplate\M61.DGN

PLOT DATE : 13-APR-2005 13:01

ORG DATE : 1980

Originator : Sandy Anderson

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J Spang
for State Traffic Engineer

DATE 3/20/02

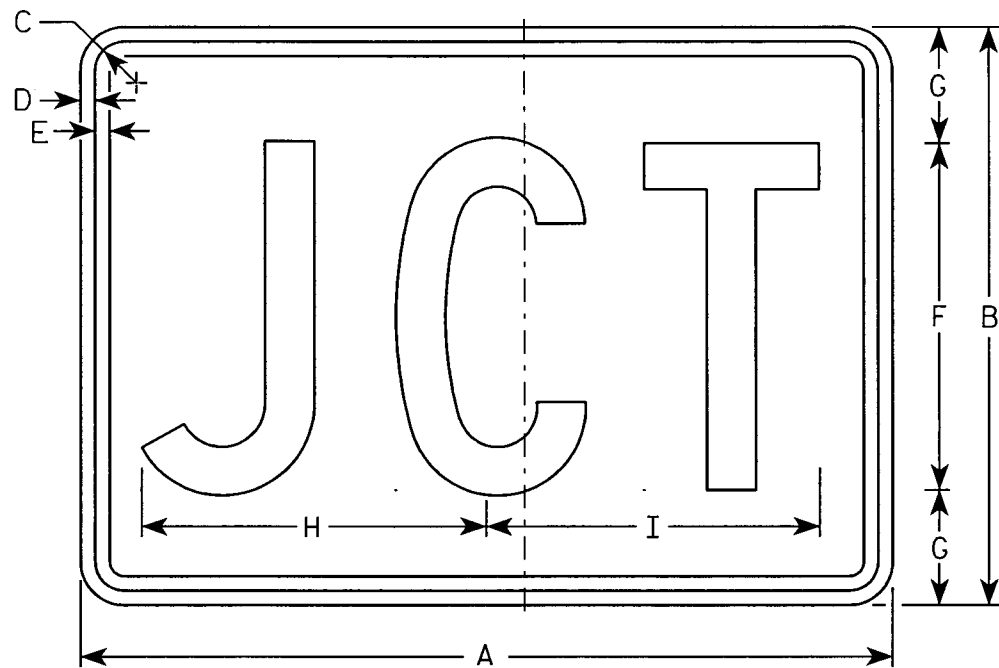
PLATE NO. M6-1.11

SHEET NO: 86

E

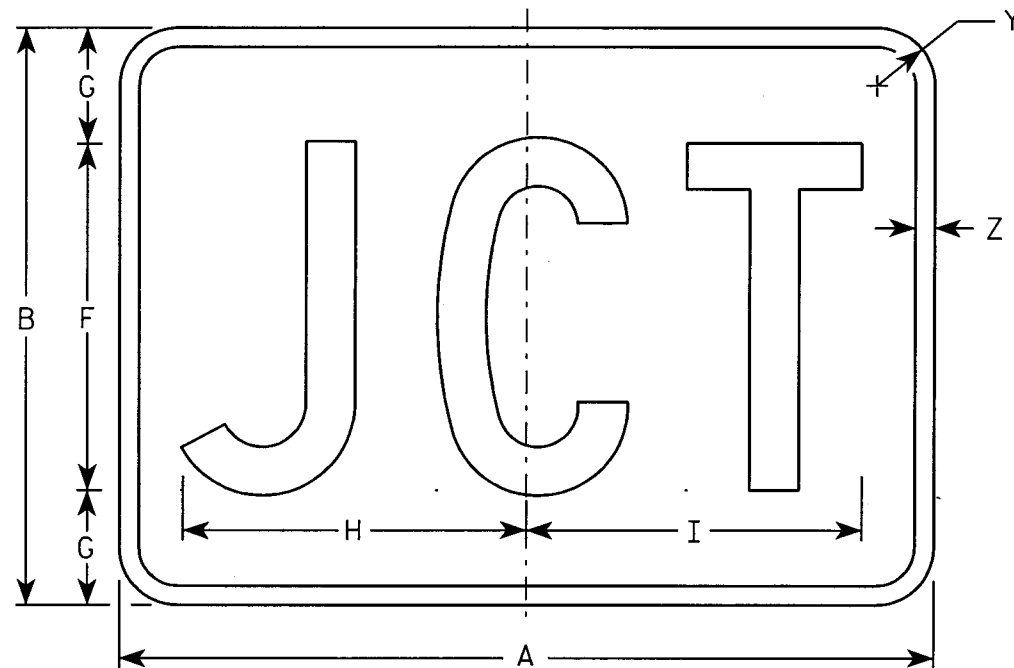
WISDOT/CADDs SHEET 42

58.59 06/62.63



M2-1
MK2-1
MM2-1*
MR2-1

*See Note 6



MB2-1
MG2-1
MN2-1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 5
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. M2-1 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB2-1 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG2-1 Background - Green
Message - White - Type H Reflective
MK2-1 Background - Green
Message - White - Type H Reflective
MM2-1 Background - White - Type H Reflective
Message - Green
MN2-1 Background - Brown
Message - White - Type H Reflective
MR2-1 Background - Brown
Message - Yellow - Type H Reflective
6. Border shall be omitted on MM2-1.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J Spang
for State Traffic Engineer

DATE 3/20/02

PLATE NO. M2-1.9

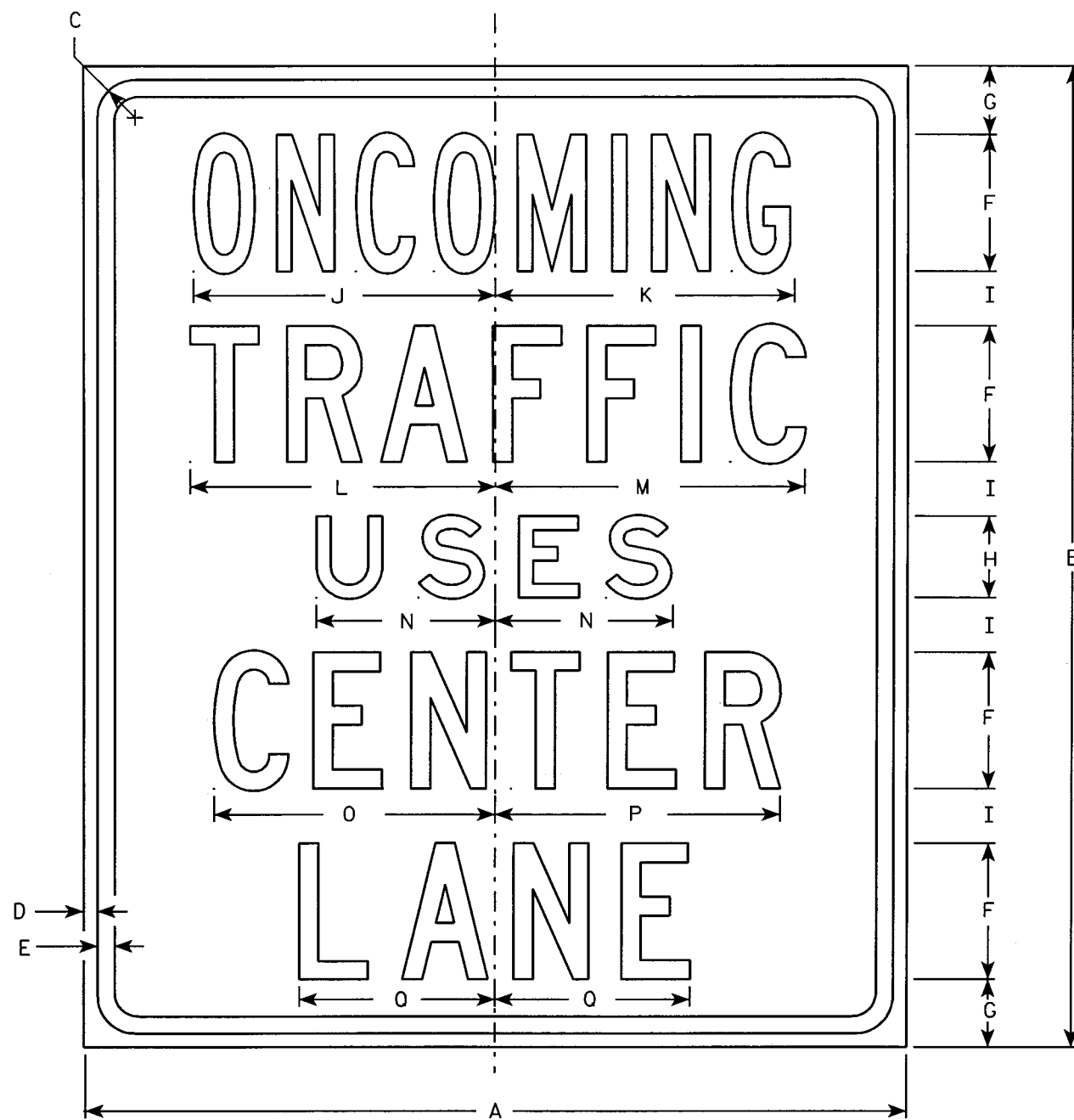
STATE PROJECT NUMBER:

SHEET NO: 87

E

LEVELS ON - 2.3, 5.6

58.59 06.61.62.63



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - Line 1 is Series B, Lines 2, 4 and 5 are Series C, and Line 3 is Series E.
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.

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	30	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50	0.68
2	30	36	1 3/8	1/2	5/8	5	2 1/2	3	2	11	10 7/8	11 1/8	11 1/4	6 1/2	10 1/4	10 3/8	7 1/8										7.50	0.68
3																												
4																												
5																												

STANDARD SIGN
R3-72

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Christa J. Spang
for State Traffic Engineer

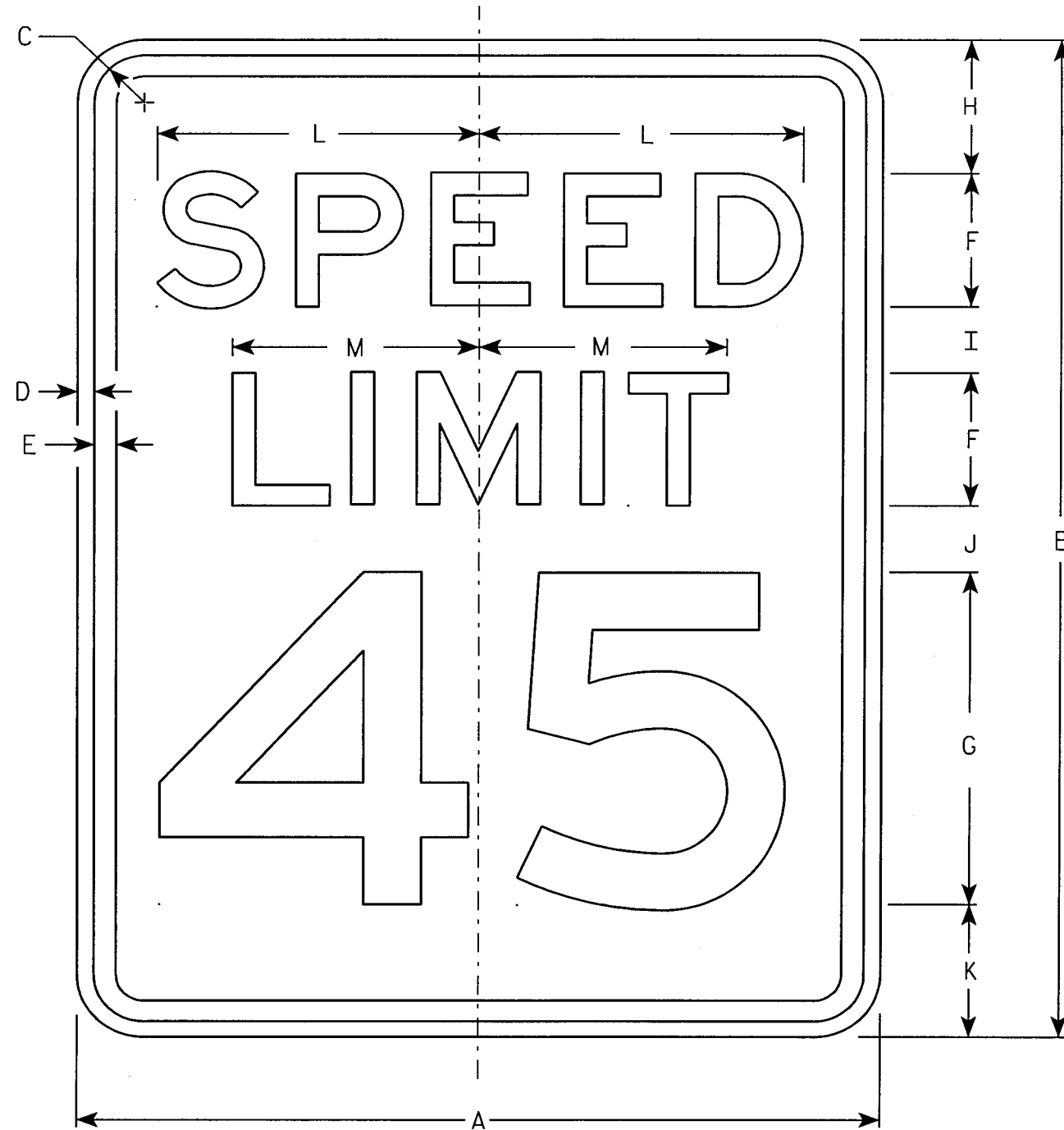
DATE 2/6/02 PLATE NO. R3-72.4

STATE PROJECT NUMBER:

SHEET NO: 88

E

58.59 01.61.62.63



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
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. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

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

R2-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0	.28
2	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0	.46
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0	1.11
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0	1.11
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0	1.86

STANDARD SIGN
R2-1

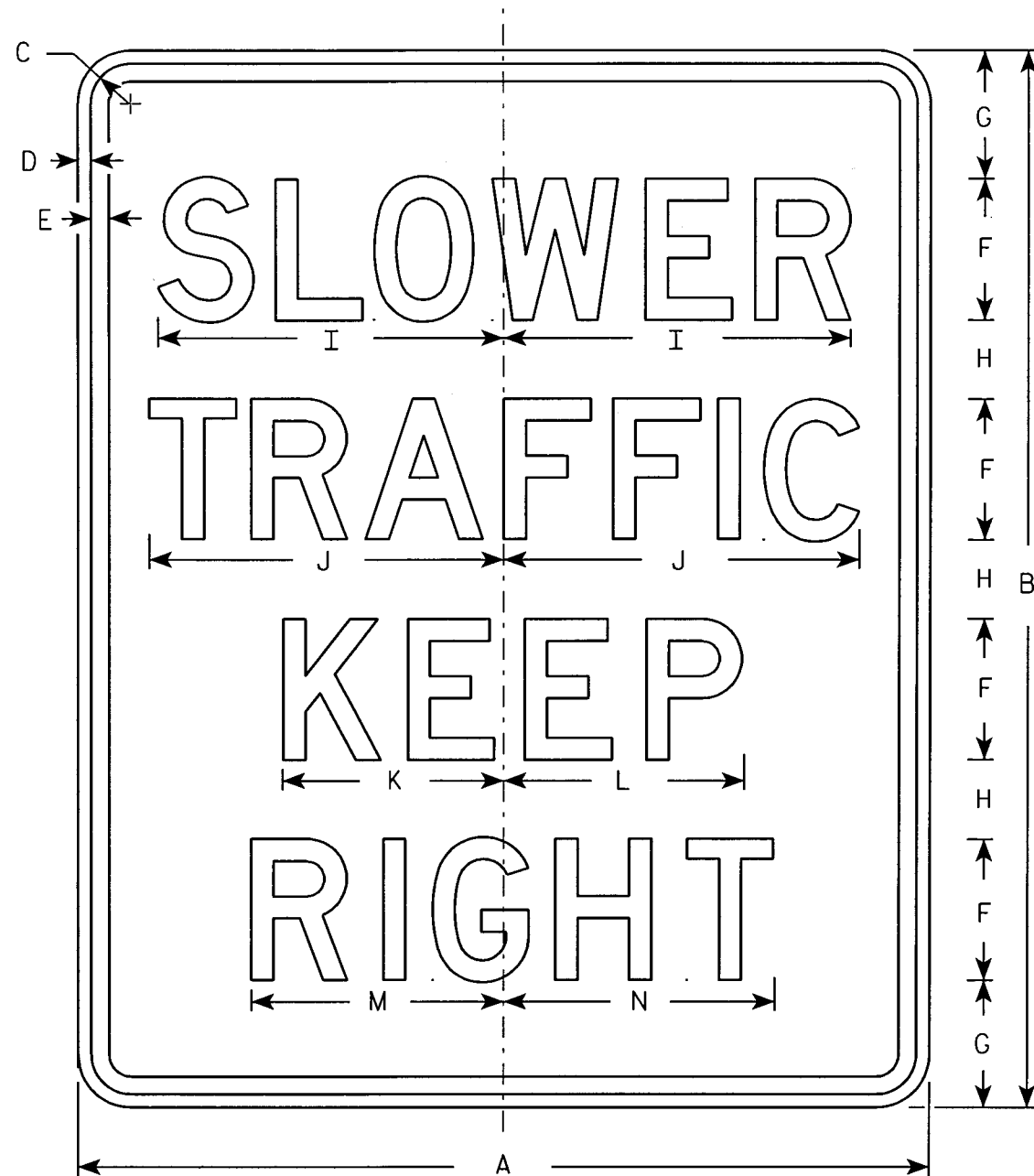
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Christa J. Spang*
for State Traffic Engineer

DATE 2/01/02 PLATE NO. R2-1.11

STATE PROJECT NUMBER:

SHEET NO: 89 **E**



NOTES

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

Metric equivalent for this sign is:

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

R4-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0	0.45
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0	1.08
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0	1.08
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0	1.80

STANDARD SIGN
R4-3

WISCONSIN DEPT OF TRANSPORTATION

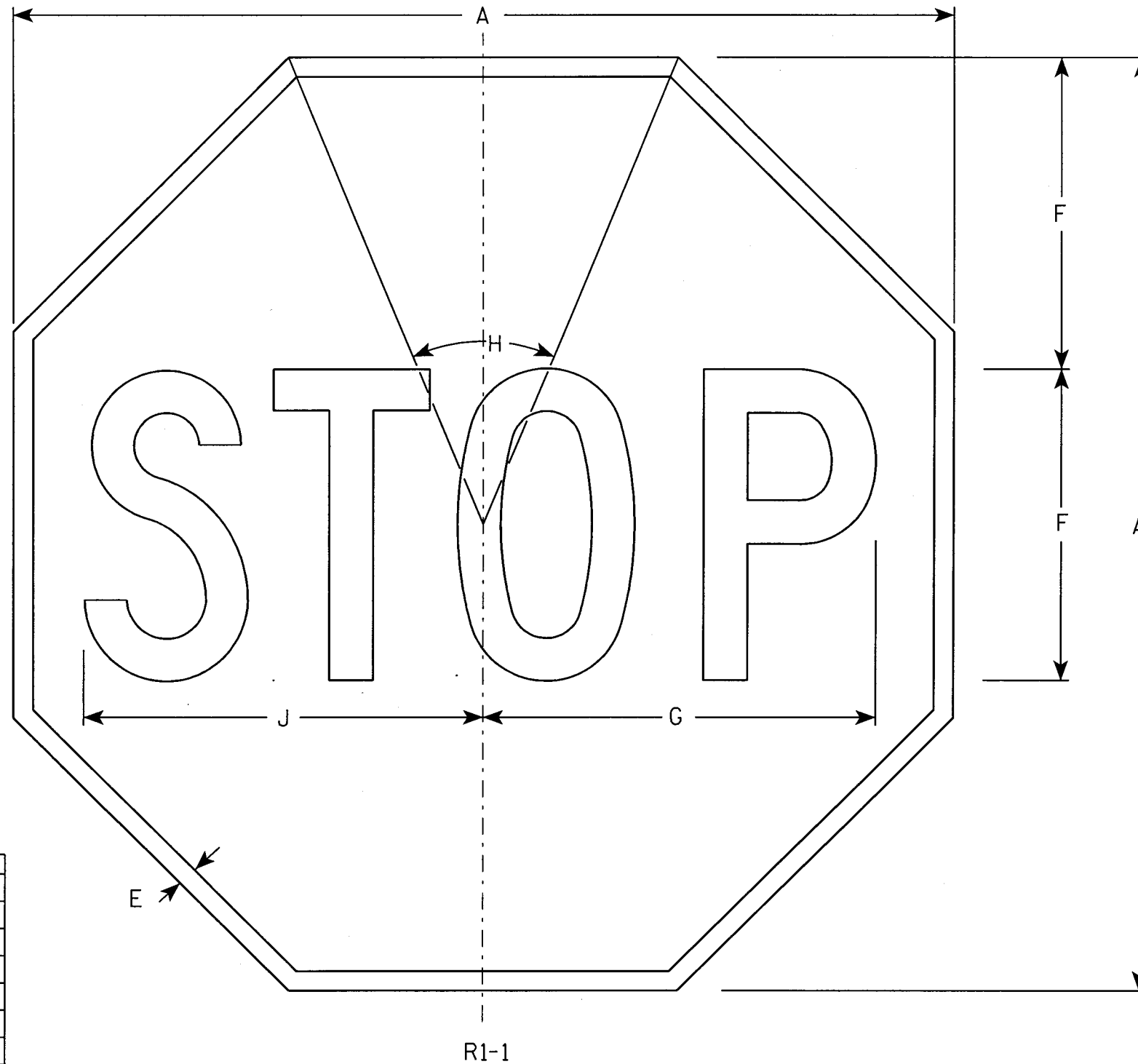
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/01/04 PLATE NO. R4-3.7

PROJECT NO:

SHEET NO: 90

E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Red
Message - White
3. Message Series - C

Metric equivalent for this sign is:

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

R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	24				3/8	8	10	45°		10 1/4																	3.31	0.31
2	30				5/8	10	12 1/2	45°		12 3/4																	5.18	0.48
3	36				3/4	12	15	45°		15 3/8																	7.46	0.69
4	48				1	16	20	45°		20 1/2																	13.25	1.23
5	48				1	16	20	45°		20 1/2																	13.25	1.23
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86	0.17
7	12				1/4	4	5	45°		5 1/8																	0.78	0.07

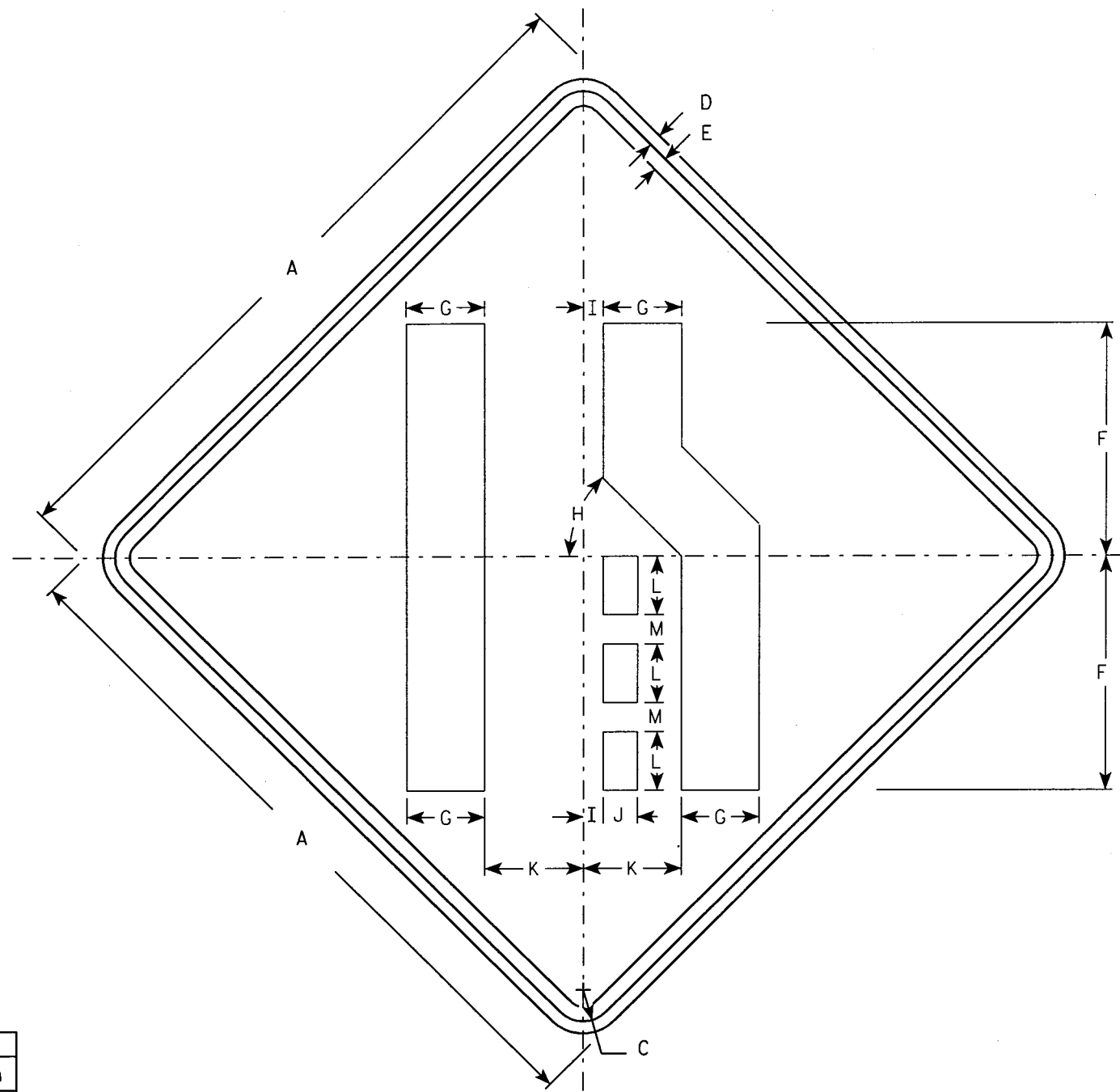
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Christa J Spang*
for State Traffic Engineer

DATE 10/15/98 PLATE NO. R1-1.11

STATE PROJECT NUMBER: _____ HWY: _____ COUNTY: _____ PLOT NAME: _____ Originator: Sandy Anderson SHEET NO: 91 **E**



W4-2R

NOTES

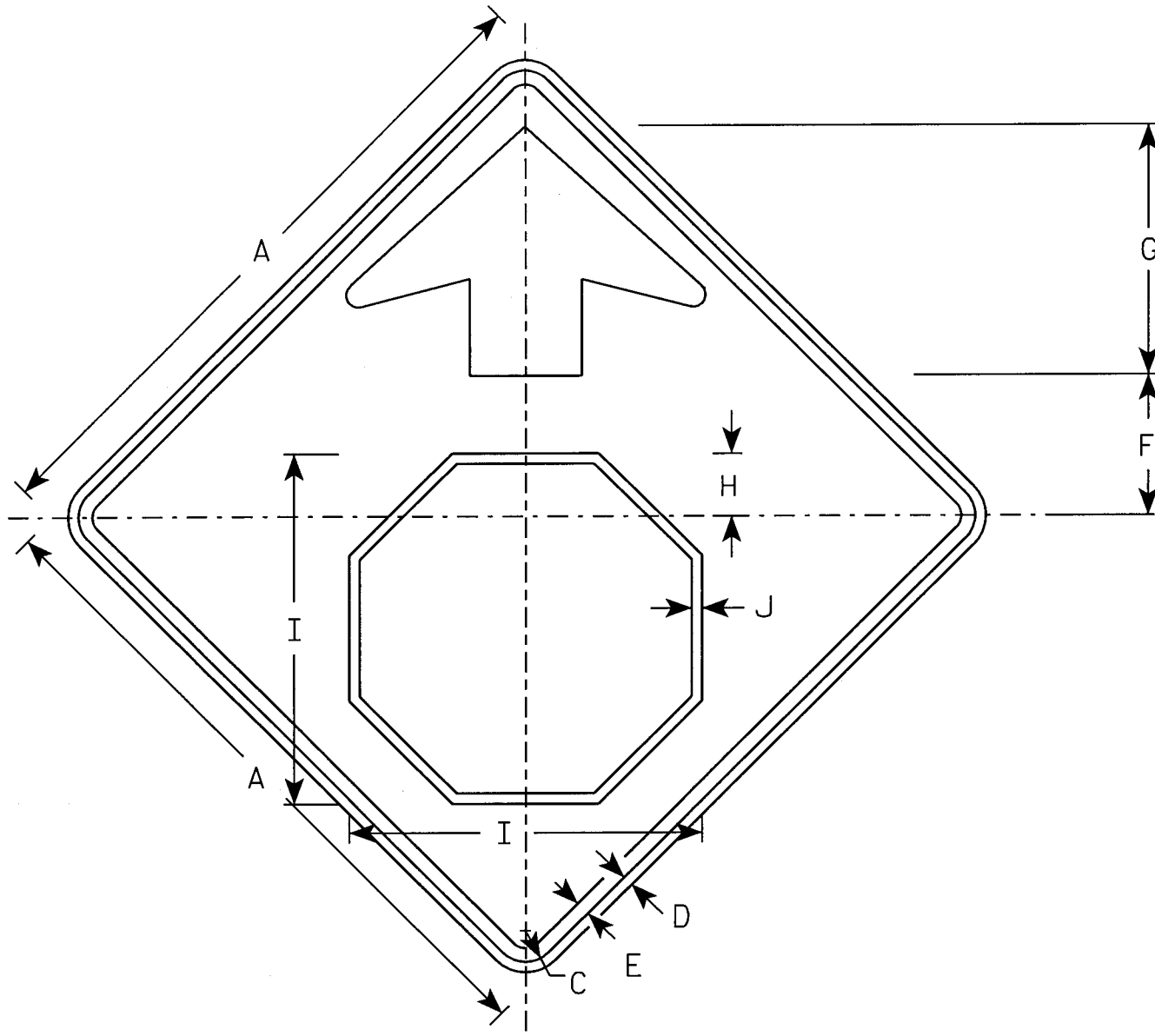
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material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

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25	0.56
2	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0	0.81
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0	1.44
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0	1.44
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0	1.44

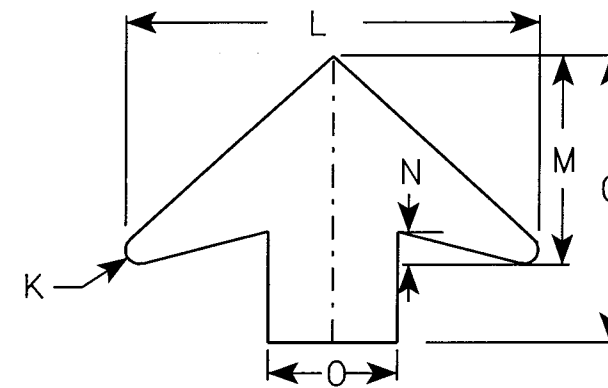
STANDARD SIGN	
W4-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 2/08/05	PLATE NO. W4-2.11



W3-1

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 Background - YELLOW
 Arrow & Border - BLACK
 Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25	0.56
2	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0	0.81
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0	0.81
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0	1.44
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0	1.44

STANDARD SIGN	
W3-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 1/27/05	PLATE NO. W3/L11

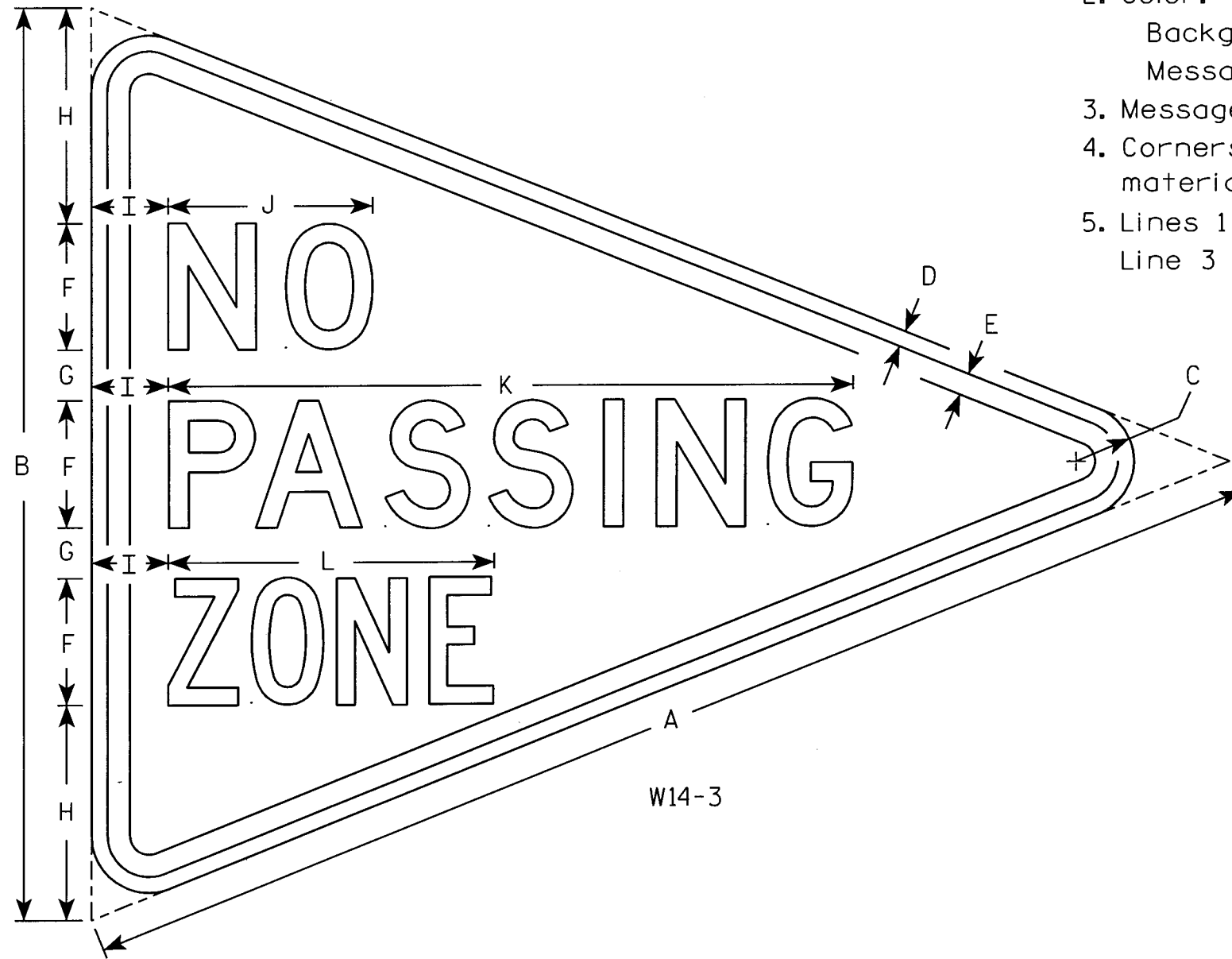
PROJECT NO:

SHEET NO: 93

E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
Line 3 is series C.



Metric equivalent for this sign is:

SIZE	
1	
2	1200 mm X 900 mm
3	1600 mm X 1200 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1																												
2	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0	.54
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7	.96
4																												
5																												

STANDARD SIGN
W14-3

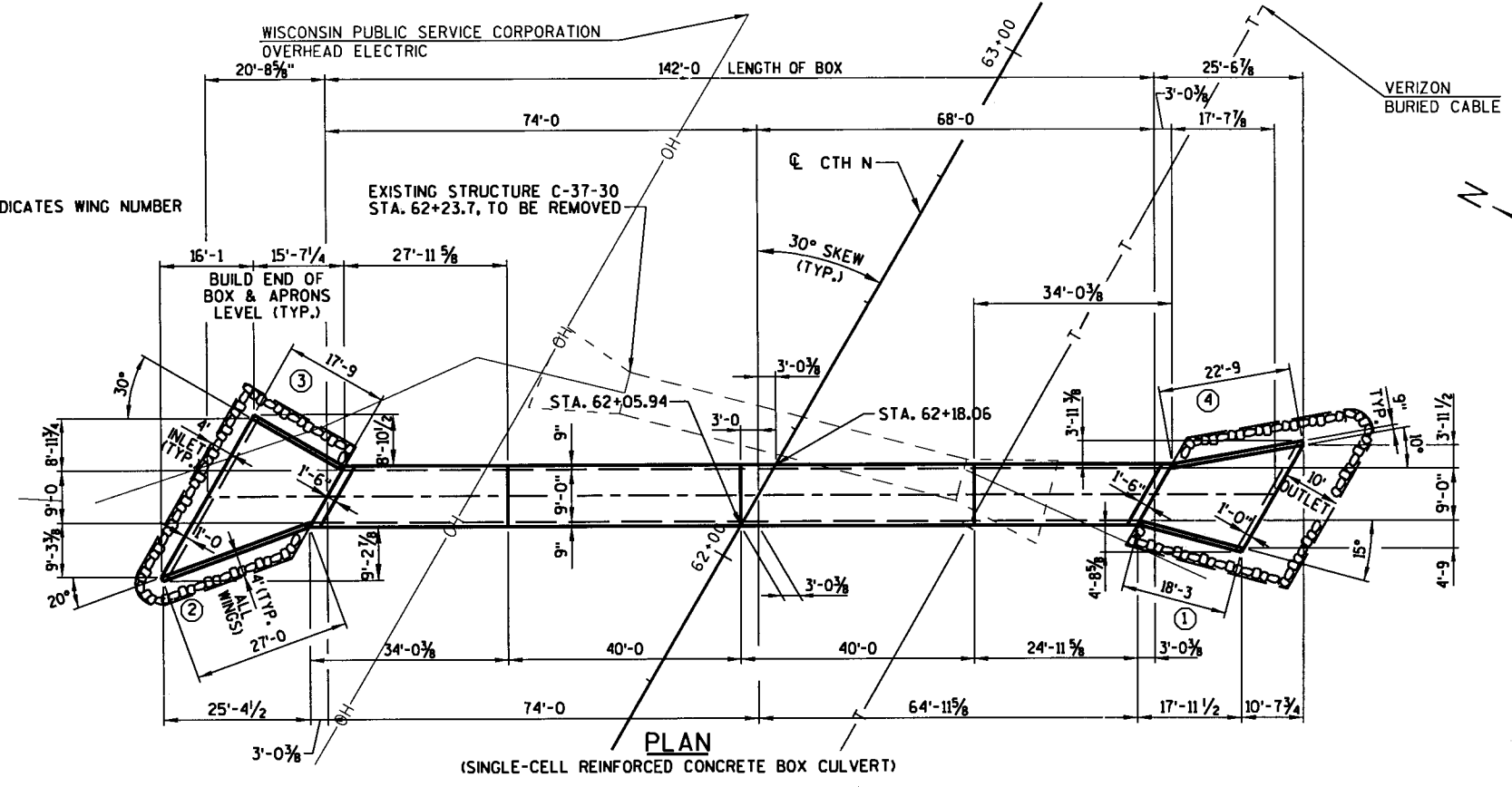
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Christa J. Spang*
for State Traffic Engineer

DATE 1/21/98 PLATE NO. W14-3.8

SHEET NO: 94 E

STATE PROJECT NUMBER		SHEET NO.	
9439-04-75			
BENCHMARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	63+05.6, 119.2' RT.	1" x 18" BAR SET ± 5' WEST OF DEAD TREE	1243.72



DESIGN DATA

LIVELOAD
 DESIGN RATING : HS-20
 EARTH LOAD : DESIGNED FOR 16.3 FEET OF FILL

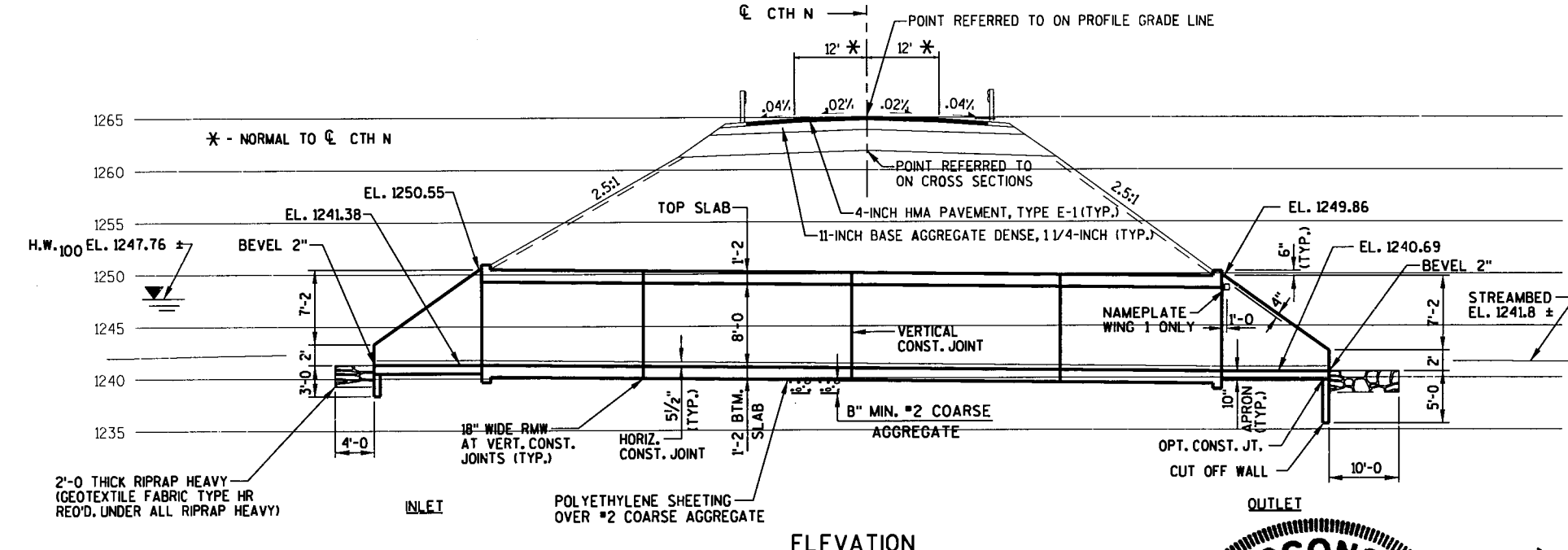
TRAFFIC DATA:
 A.D.T. (2004) = 2800
 A.D.T. (2024) = 4150

ALLOWABLE DESIGN STRESSES:
 CONCRETE MASONRY $f_c' = 3,500$ P.S.I.
 HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 $f_y = 60,000$ P.S.I.

HYDRAULIC DATA:
100 YEAR FREQUENCY
 DRAINAGE AREA _____ 122 SO. MILES
 Q_{100} _____ 400 CFS
 VELOCITY _____ 10.4 FPS
 WATERWAY AREA _____ 38 SO. FT.
 HIGHWATER 100 ELEVATION _____ 1247.76 ±
 ROADWAY OVERFLOW DESIGN FREQUENCY _____ N/A
 Q_2 (120 CFS) ELEVATION _____ 1245.20 ±

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
 THE FIRST DIGIT OF A THREE DIGIT BAR MARK SIGNIFIES THE BAR SIZE.
 THE CONCRETE IN THE OUTLET CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CAN NOT BE DEWATERED.
 THE ALTERNATE CUT-OFF WALL MAY BE USED IN LIEU OF THE CAST IN PLACE CUT-OFF WALL. PAYMENT SHALL BE BASED ON THE CONCRETE CUT-OFF WALL.
 ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE OR COARSE AGGREGATE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TO THE ELEVATION OF THE TOP OF THE BOX WITHIN THE LENGTH OF THE STRUCTURE. THE COARSE AGGREGATE LIMITS EXTEND 1'-0" BEYOND THE CULVERT PLAN DIMENSIONS. BACKFILL STRUCTURE ESTIMATED QUANTITIES ASSUMED A 1/2:1 EXCAVATION SLOPE, 3'-0" OUT FROM THE SIDE OF THE BOX AND WINGS.
 PAYMENT FOR COARSE AGGREGATE AND POLYETHYLENE SHEETING UNDER THE SLAB WILL BE INCLUDED IN THE BID ITEM OF EXCAVATION FOR STRUCTURES, CULVERTS C-37-82.
 THIS STRUCTURE WILL REPLACE THE EXISTING STRUCTURE, C-37-30, A 58 FT. LONG, 8' x 8' SINGLE CELL BOX CULVERT.
 THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" SHALL BE THE EXISTING GROUND LINE.
 RUBBERIZED MEMBRANE WATERPROOFING SHALL BE PLACED OVER VERTICAL CONSTRUCTION JOINTS ACROSS THE TOP OF THE BOX AND ON THE WALLS FROM THE HORIZONTAL CONSTRUCTION JOINT TO THE TOP OF THE BOX.
 THE CONTRACTOR MAY FURNISH A PRECAST BOX SECTION WITH THE SAME INSIDE WIDTH (SPAN) AND HEIGHT (RISE) AS THE CAST-IN-PLACE BOX CULVERT. PRECAST BOX SECTIONS OF DIFFERENT INSIDE WIDTH AND HEIGHT MAY BE FURNISHED IF APPROVED BY THE STRUCTURES DESIGN SECTION, PRELIMINARY STRUCTURES AND HYDRAULIC UNIT. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE PRICES BID FOR THE ITEMS LISTED IN THE "ESTIMATED QUANTITIES".
 MATERIALS, FABRICATION AND DESIGN OF PRECAST BOXES SHALL BE IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR TRANSPORTATION MATERIALS, CURRENT EDITION, M259 OR M273, EXCEPT THE CONCRETE MIXTURE SHALL CONTAIN NOT LESS THAN 565 POUNDS OF CEMENTITIOUS MATERIALS PER CUBIC YARD, AND SHALL BE IN ACCORDANCE WITH AASHTO, DIVISION 2, SECTION 27, AND THE WISCONSIN BRIDGE MANUAL, CHAPTER 36 FOR MATERIALS NOT SHOWN ON THE PLANS.



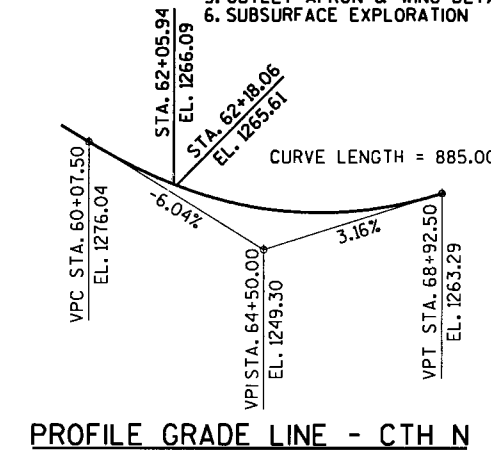
LIST OF DRAWINGS

1. GENERAL PLAN
2. BOX CULVERT
3. BOX CULVERT DETAILS
4. INLET APRON & WING DETAILS
5. OUTLET APRON & WING DETAILS
6. SUBSURFACE EXPLORATION

ESTIMATED QUANTITIES

BID ITEMS	UNITS	AMOUNT
REMOVING OLD STRUCTURE STATION 62+23.7	LS	1
EXCAVATION FOR STRUCTURES CULVERTS C-37-82	LS	1
BACKFILL STRUCTURE	CY	1650
CONCRETE MASONRY, CULVERTS	CY	235
BAR STEEL REINFORCEMENT HS CULVERTS	LB	37,360
RUBBERIZED MEMBRANE WATERPROOFING	SY	18
RIPRAP HEAVY	CY	62
GEOTEXTILE FABRIC TYPE HR	SY	130
NON-BID ITEMS		
FILLER	SIZE	3/4 INCH

BRIDGE OFFICE CONTACT:
 FINN HUBBARD
 (608) 266-8489

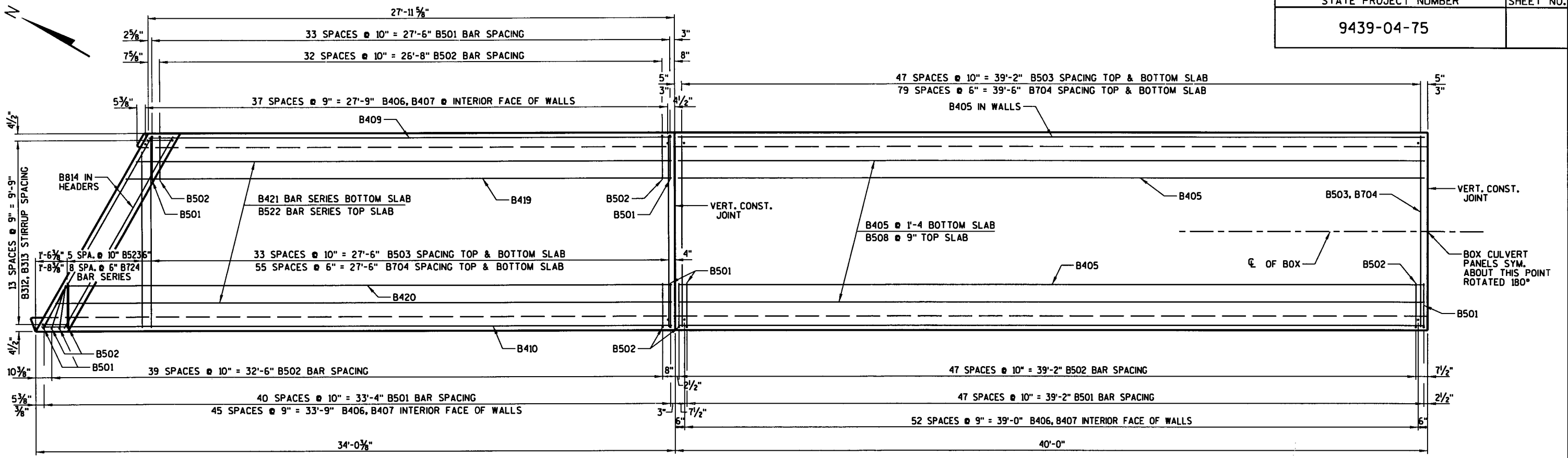


No.	Date	Revision	By
PLANS PREPARED BY			
MSA			
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL			
1230 Smith Boulevard Baraboo, WI 53813 608-366-2771 1-800-382-4505 Fax: 608-366-2770			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-37-82			
CTH N OVER TRIBUTARY OF THE EAU CLAIRE RIVER			
County	MARATHON	Town/City/Village	WAUSAU/WESTON
Design Spec.	AASHTO 2003	Load	HS-20
Designed By	MLH	Drawn By	RLR
Checked	BPT	Checked	BPT
Approved	Finn Hubbard		3-17-05
			Date
GENERAL PLAN			SHEET 1 OF 6
			95

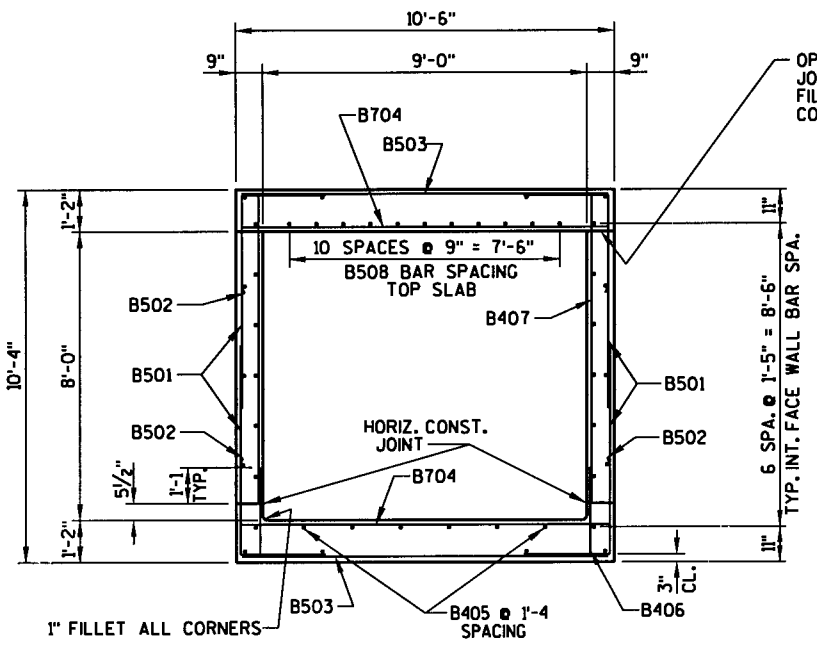
ORIGINATOR: RLR

8

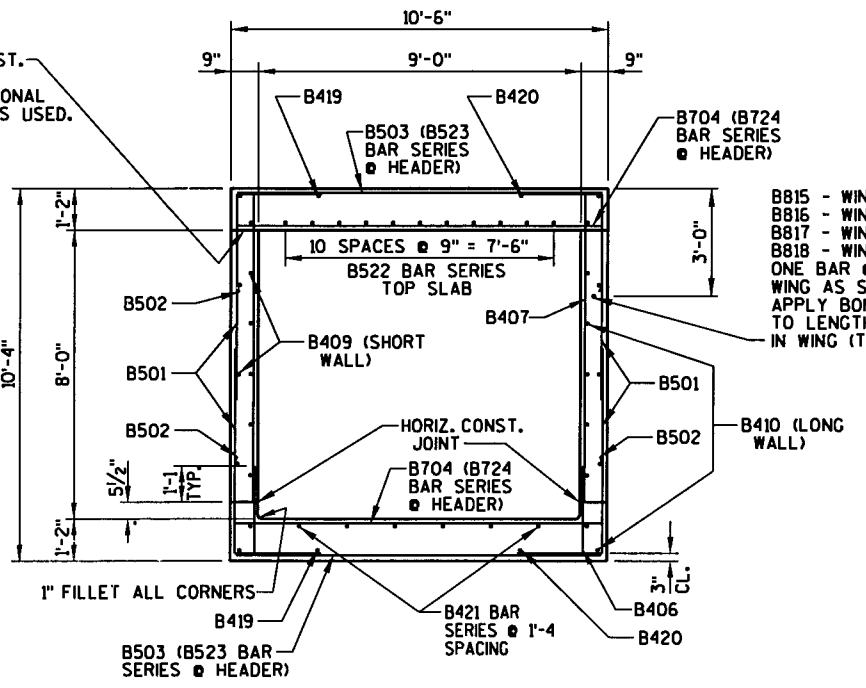
8



HALF PLAN OF PANELS
 DETAILS SHOWN ARE SIMILAR FOR BOTH INLET AND OUTLET PANELS



TYPICAL SECTION THRU BOX INTERIOR PANELS
 LONGITUDINAL BARS NOT LABELED ARE B405 BARS PLACED AS SHOWN



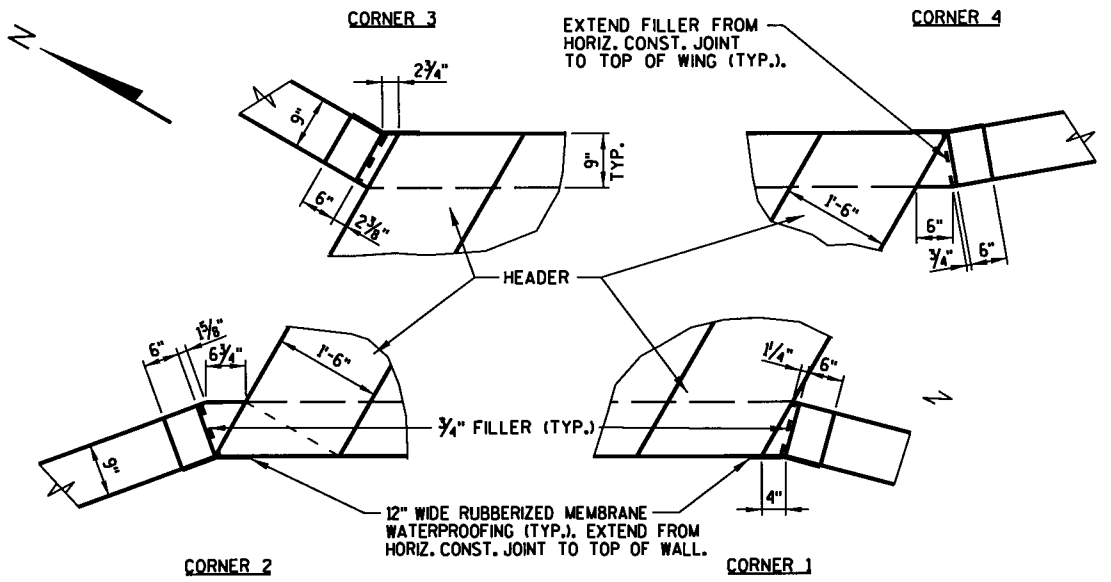
TYPICAL SECTION THRU BOX END PANELS
 SEE PLAN VIEW FOR SPACING AND LAYOUT OF TRANSVERSE BARS B523 & B724

- B815 - WING 1
- B816 - WING 2
- B817 - WING 3
- B818 - WING 4
- ONE BAR @ EACH WING AS SHOWN. APPLY BOND BREAKER TO LENGTH EMBEDDED IN WING (TYP.)

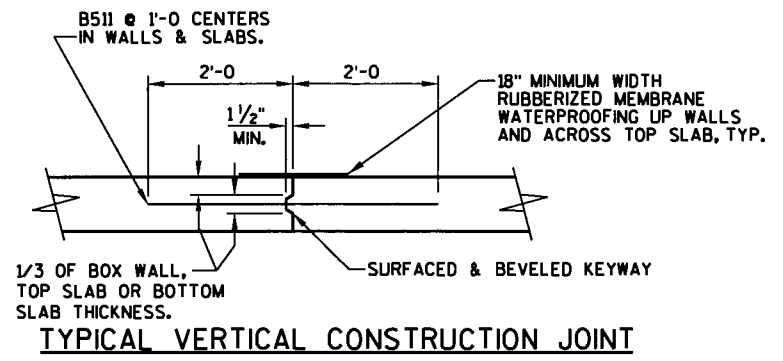
No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-37-82			
Const. Spec. WI "03"	Drawn By RLR	Plans Checked BPT	
BOX CULVERT			SHEET 2 OF 6
			96

8

8



CORNER DETAILS
SEE SHEETS 4 & 5 FOR WING DETAILS

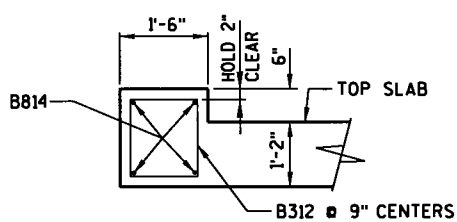


TYPICAL VERTICAL CONSTRUCTION JOINT

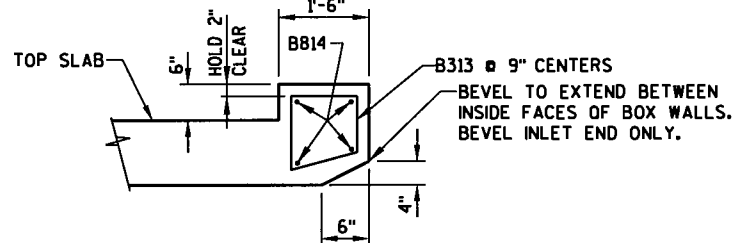
BILL OF BARS UNCOATED 33,300 LBS.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501	684	8-0	X		CORNERS - TOP & BOTTOM - VERT.
B502	676	5-0	X		" " " " " " - "
B503	328	10-2			SLAB - TOP & BOTTOM - TRANS.
B704	544	10-2			" " " " " " - "
B405	68	39-8			" & WALLS - INTERIOR PANELS - LONGIT.
B406	380	2-6			WALL - DOWEL - ALL PANELS - VERT.
B407	380	8-6			" " " " " " - "
B508	22	39-8			SLAB - TOP - INTERIOR PANELS - LONGIT.
B409	24	27-8			WALL - SHORT - END PANELS - "
B410	24	33-6			" LONG " " " " - "
B511	114	4-0			CONSTRUCTION JOINT DOWEL - "
B312	42	5-10	X		HEADER STIRRUP - TOP & BOTTOM - VERT.
B313	14	5-6	X		HEADER STIRRUP - TOP @ INLET - "
B814	16	11-8			ALL HEADERS - TRANS.
B815	1	2-6	X		WALL JOINT @ WING 1 - HORIZ.
B816	1	2-6	X		" " " " 2 - "
B817	1	2-6	X		" " " " 3 - "
B818	1	2-6	X		" " " " 4 - "
B419	4	29-0			SLAB - TOP & BOTTOM - END PANELS - LONGIT.
B420	4	32-2			" " " " " " " " - "
B421	12	30-7		Ⓢ	" - BOTTOM - END PANELS - "
B522	22	30-6		Ⓢ	" - TOP " " " " - "
B523	24	5-10		Ⓢ	" - TOP & BOTTOM - END PANELS - TRANS.
B724	36	5-9		Ⓢ	" " " " " " " " - "

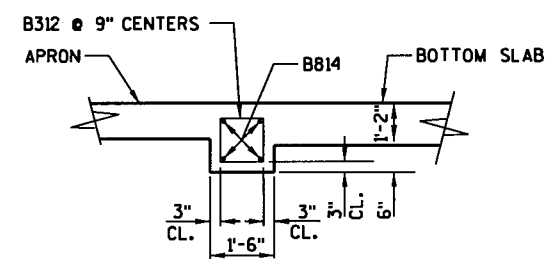
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
 ⊗ - PLACE ONE SMOOTH ROUND BAR BETWEEN BARREL AND WINGS AS SHOWN. EMBED 1'-3" INTO BARREL WALL. USE BOND BREAKER ON EXTENSION INTO WING WALL. BEND AS REQUIRED. (BOND BREAKER IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY, CULVERTS).
 ASTM A36 BAR MATERIAL MAY BE SUBSTITUTED FOR AASHTO M31.
 Ⓢ - LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



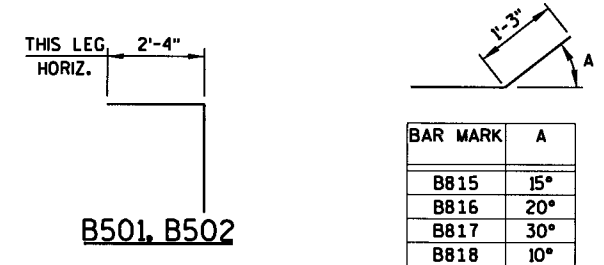
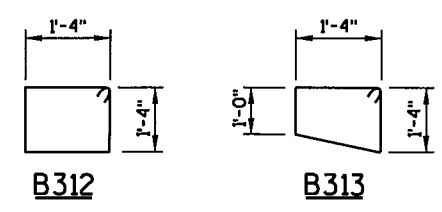
SECTION THRU OUTLET TOP HEADER



SECTION THRU INLET TOP HEADER



SECTION THRU BOTTOM HEADER



BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
B421	2 SERIES OF 6	28'-8 TO 32'-6
B522	2 SERIES OF 11	28'-4 TO 32'-8
B523	4 SERIES OF 6	2'-4 TO 9'-4
B724	4 SERIES OF 9	2'-2 TO 9'-4

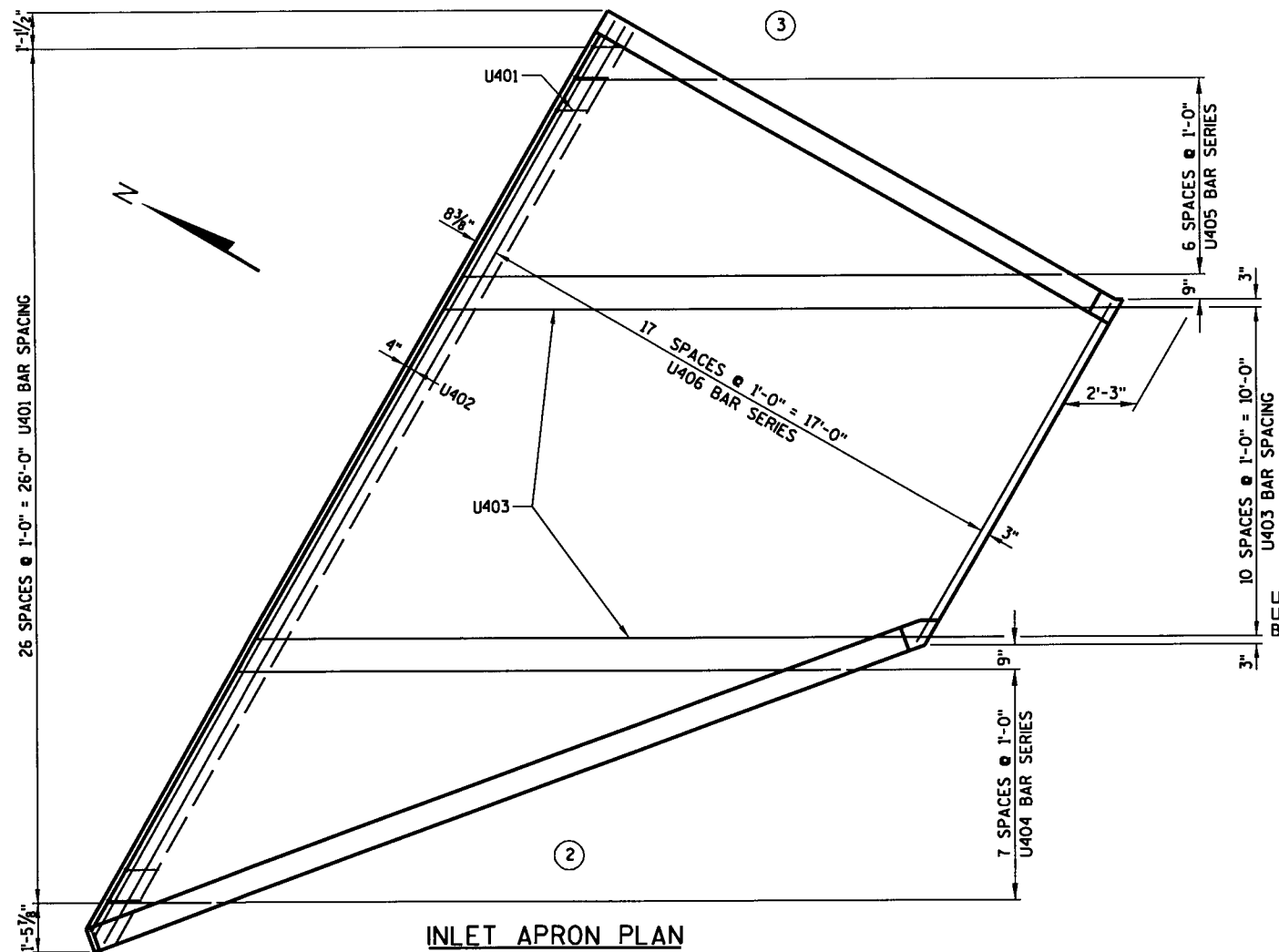
BUNDLE AND TAG EACH SERIES SEPARATELY

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-37-82			
Const. Spec. WI "03"	Drawn By RLR	Plans Checked BPT	
BOX CULVERT DETAILS		SHEET 3 OF 6	
		97	

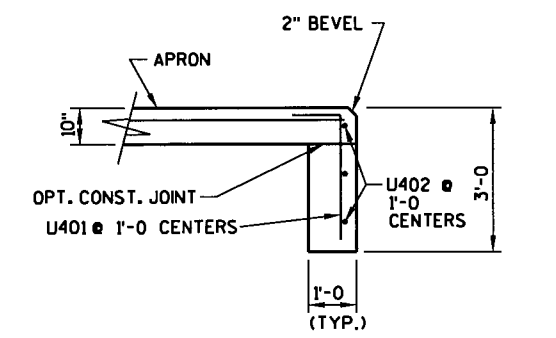
BILL OF BARS 2140 LBS.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U401	27	3-6	X		INLET APRON CUT-OFF WALL - VERT.
U402	3	32-0			" " " " " - TRANS.
U403	11	22-10			" " " " " - LONGIT.
U404	8	10-9		*	" " " " WING 2 - "
U405	7	11-3		*	" " " " " 3 - "
U406	18	21-11		*	" " " " " - TRANS.
U407	9	5-8	X	*	WING 2 - B.F. DOWELS - VERT.
U408	30	6-6	X		WINGS 2 & 3 - B.F. DOWELS - "
U509	13	7-6	X		" " " " " " - "
U610	19	9-4	X		" " " " " " - "
U411	6	3-6		*	WING 2 - F.F. " " - "
U412	22	2-6			WINGS 2 & 3 - F.F. " " - "
U413	13	6-1		*	WING 2 - F.F. " " - "
U414	18	4-10		*	WING 2 - B.F. " " - "
U515	8	6-7		*	" " " " " " - "
U616	11	7-10		*	" " " " " " - "
U417	4	26-8			" " & APRON - LONGIT. - "
U418	8	16-0		*	" " - F.F. & B.F. - "
U519	2	27-6			" " " " " " - TOP - "
U420	6	5-8	X	*	WING 3 - B.F. DOWELS - VERT.
U421	4	3-5		*	" " - F.F. " " - "
U422	9	6-2		*	" " " " " " - "
U423	12	4-10		*	" " - B.F. " " - "
U524	5	6-7		*	" " " " " " - "
U625	8	7-10		*	" " " " " " - "
U426	4	17-4			" " & APRON - LONGIT. - "
U427	8	10-6		*	" " - F.F. & B.F. - "
U528	2	18-10			" " " " " " - TOP - "

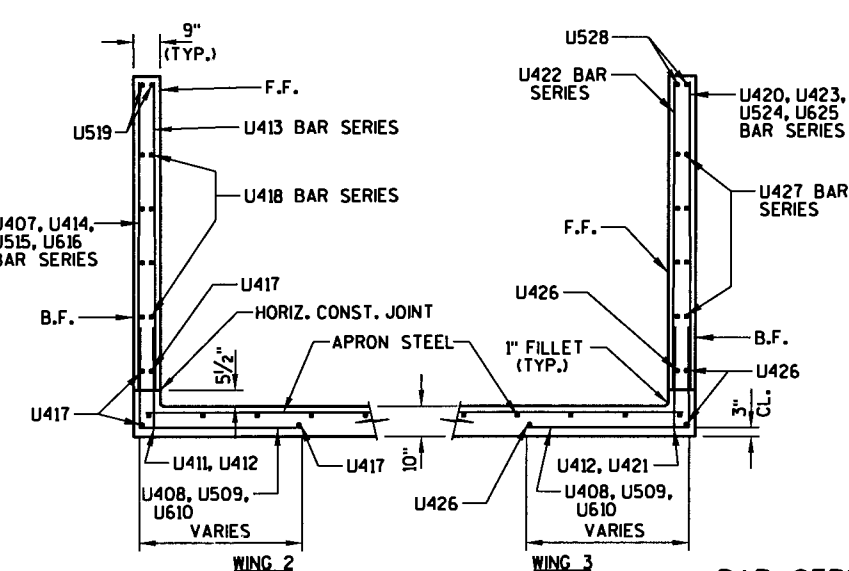
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
 * - LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS. BENT BARS IF USED IN BAR SERIES TABLE SHALL BE BENT AFTER CUTTING.



INLET APRON PLAN



SECTION THRU INLET CUT-OFF WALL



SECTION THRU WINGS (NORMAL TO WING WALLS)

BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
U404	1 SERIES OF 8	3'-2 TO 18'-4
U405	1 SERIES OF 7	4'-4 TO 18'-2
U406	1 SERIES OF 18	11'-10 TO 32'-0
U407	1 SERIES OF 9	4'-8 TO 6'-8
U411	1 SERIES OF 6	2'-6 TO 4'-6
U413	1 SERIES OF 13	3'-8 TO 8'-6
U414	1 SERIES OF 18	3'-8 TO 6'-0
U515	1 SERIES OF 8	6'-2 TO 7'-0
U616	1 SERIES OF 11	7'-2 TO 8'-6
U418	2 SERIES OF 4	7'-8 TO 24'-4
U420	1 SERIES OF 6	4'-8 TO 6'-8
U421	1 SERIES OF 4	2'-6 TO 4'-4
U422	1 SERIES OF 9	3'-10 TO 8'-6
U423	1 SERIES OF 12	3'-8 TO 6'-0
U524	1 SERIES OF 5	6'-2 TO 7'-0
U625	1 SERIES OF 8	7'-2 TO 8'-6
U427	2 SERIES OF 4	5'-0 TO 16'-0

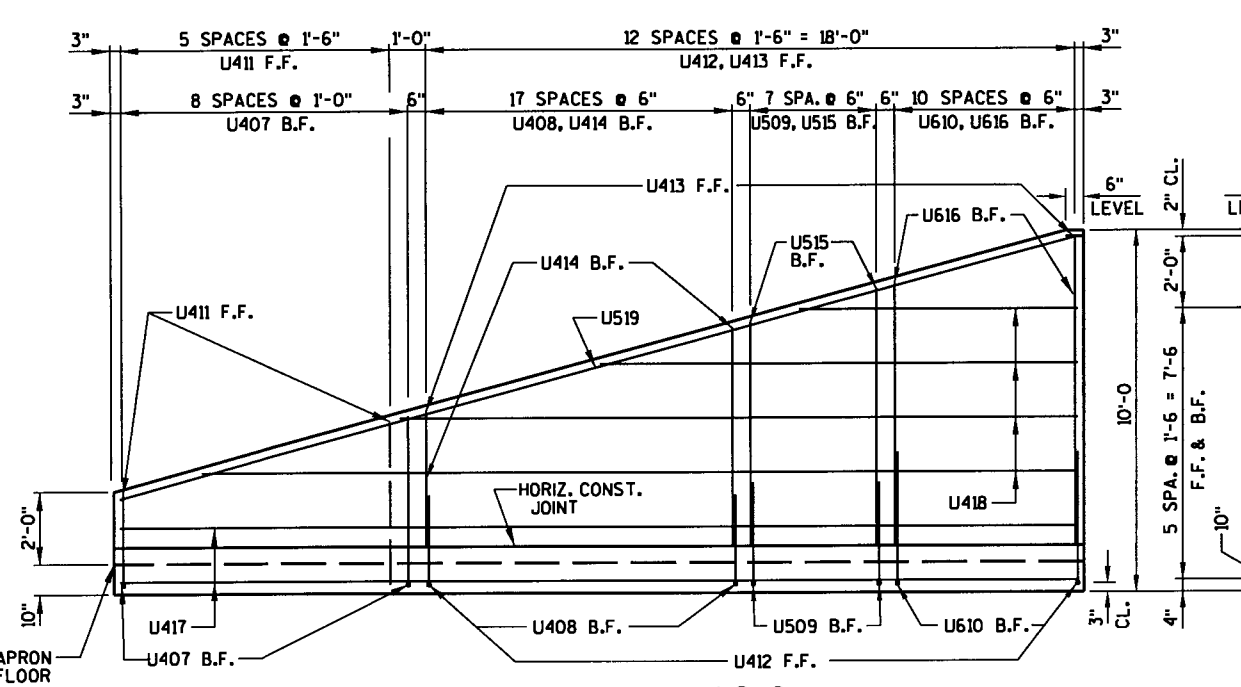
BUNDLE AND TAG EACH SERIES SEPARATELY

LEGEND

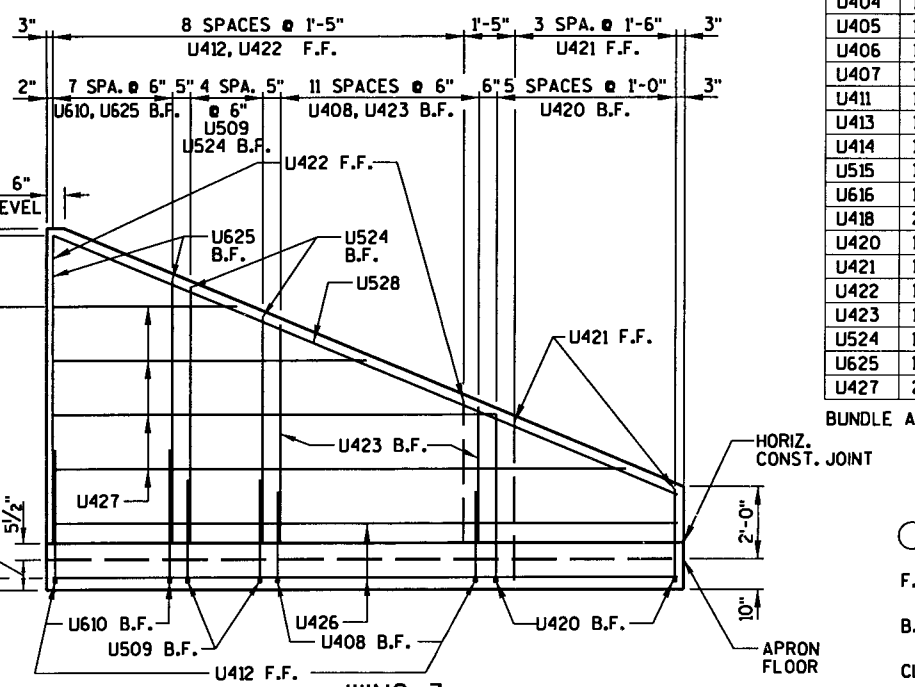
- — INDICATES WING NUMBER
- F.F. — FRONT FACE
- B.F. — BACK FACE
- CL. — CLEAR

MARK	A
U401	1'-0"
U407	2'-3"
U420	4'-0"
U509	4'-9"
U610	5'-9"

THIS LEG. HORIZ. A

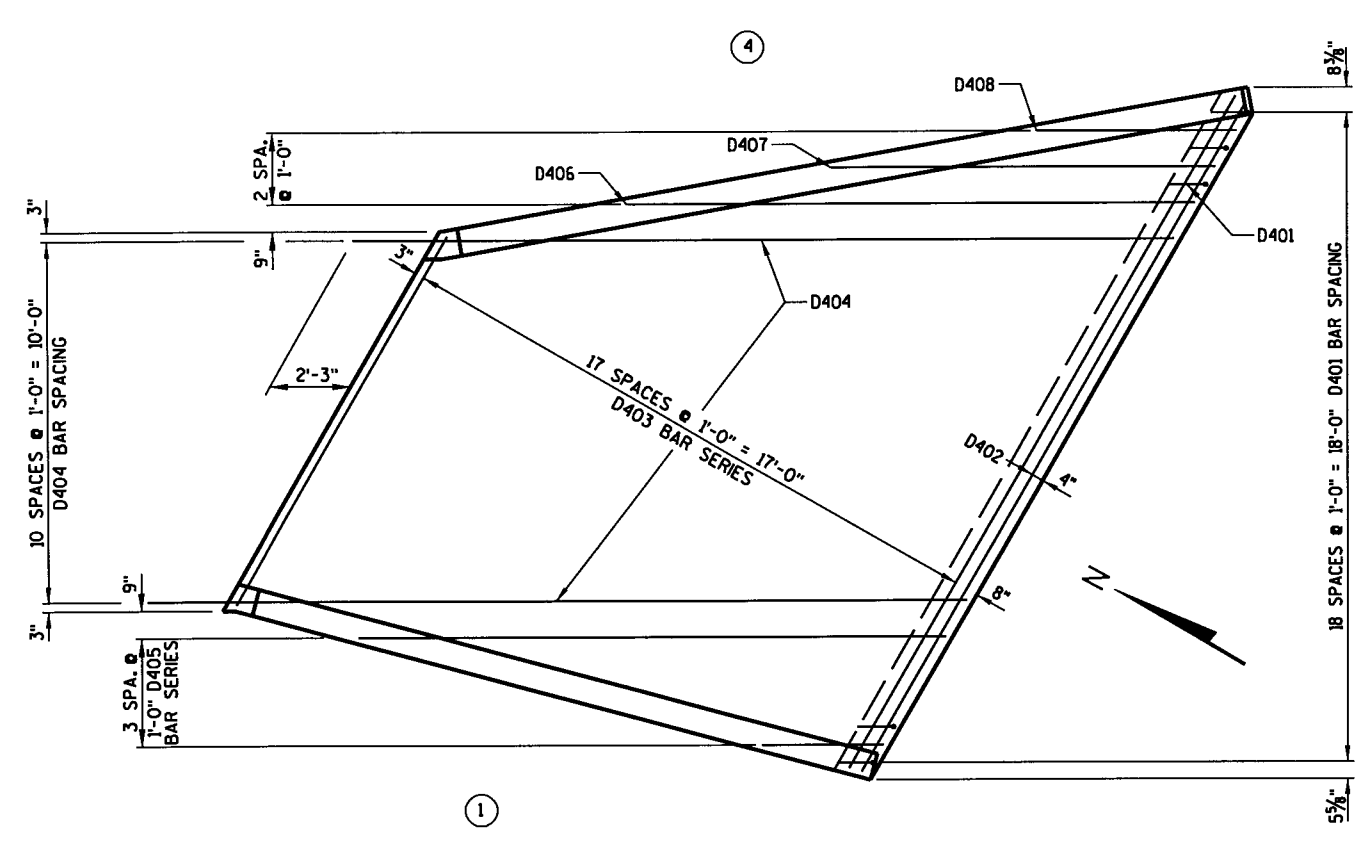


WING 2 INLET WING ELEVATIONS

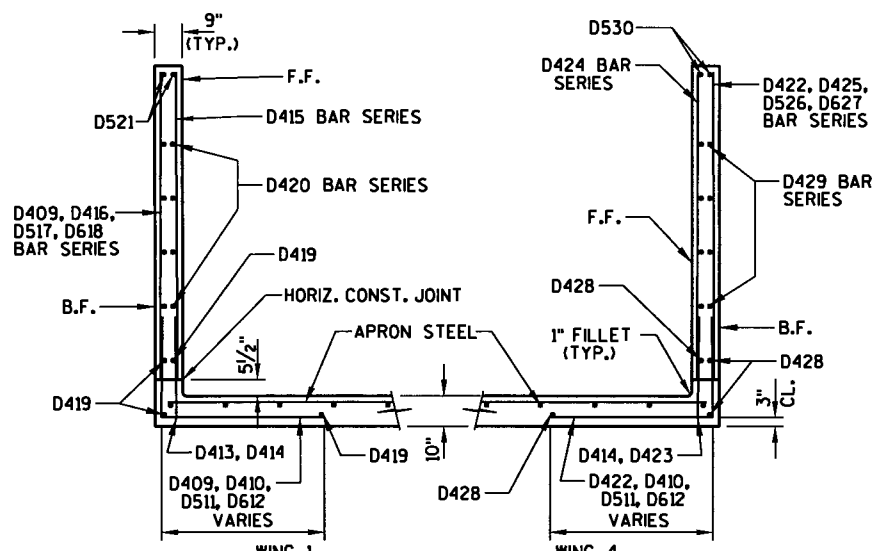


WING 3 INLET WING ELEVATIONS

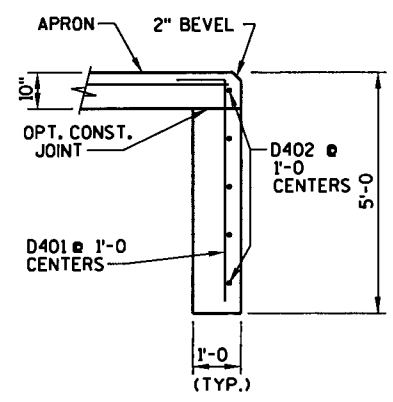
No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-37-82			
Const. Spec. WI "03"	Drawn By RLR	Plans Checked BPT	
INLET APRON & WING DETAILS			SHEET 4 OF 6
			98



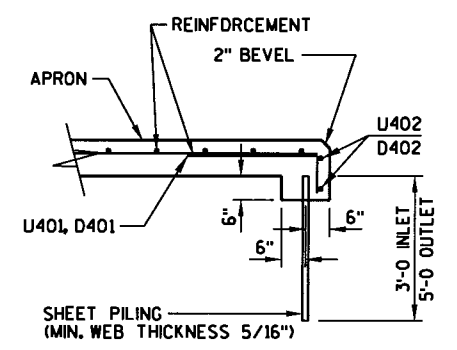
OUTLET APRON PLAN



SECTION THRU WINGS
(NORMAL TO WING WALLS)



SECTION THRU
OUTLET CUT-OFF WALL



ALTERNATE CUT-OFF WALL

BILL OF BARS 1920 LBS.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
D401	19	5-6	X		OUTLET APRON CUT-OFF WALL - VERT.
D402	5	21-2			" " " " " " - TRANS.
D403	18	16-7		*	" " " " " " - " "
D404	11	22-10			" " " " " " - LONGIT.
D405	4	9-9		*	" " " " WING 1 - " "
D406	1	15-8			" " " " " " 4 - " "
D407	1	10-6			" " " " " " - " "
D408	1	5-6			" " " " " " - " "
D409	6	5-8	X	*	WING 1 - B.F. DOWELS - VERT.
D410	28	6-6	X		WINGS 1 & 4 - B.F. DOWELS - " "
D511	11	7-6	X		" " " " " " - " "
D612	19	9-4	X		" " " " " " - " "
D413	4	3-4		*	WING 1 - F.F. - " "
D414	20	2-6			WINGS 1 & 4 - F.F. - " "
D415	9	6-1		*	WING 1 - F.F. - " "
D416	12	4-9		*	WING 1 - B.F. - " "
D517	5	6-5		*	" " " " - " "
D618	9	7-9		*	" " " " - " "
D419	4	17-10			" " & APRON - LONGIT.
D420	8	10-9		*	" " - F.F. & B.F. - " "
D521	2	19-2			" " " " " " - TOP - " "
D422	7	5-7	X	*	WING 4 - B.F. DOWELS - VERT.
D423	5	3-5		*	" " - F.F. - " "
D424	11	6-1		*	" " " " - " "
D425	16	4-9		*	" " - B.F. - " "
D526	6	6-7		*	" " " " - " "
D627	10	7-10		*	" " " " - " "
D428	4	22-4			" " & APRON - LONGIT.
D429	8	13-6		*	" " - F.F. & B.F. - " "
D530	2	23-4			" " " " " " - TOP - " "

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
* - LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS. BENT BARS IF USED IN BAR SERIES TABLE SHALL BE BENT AFTER CUTTING.

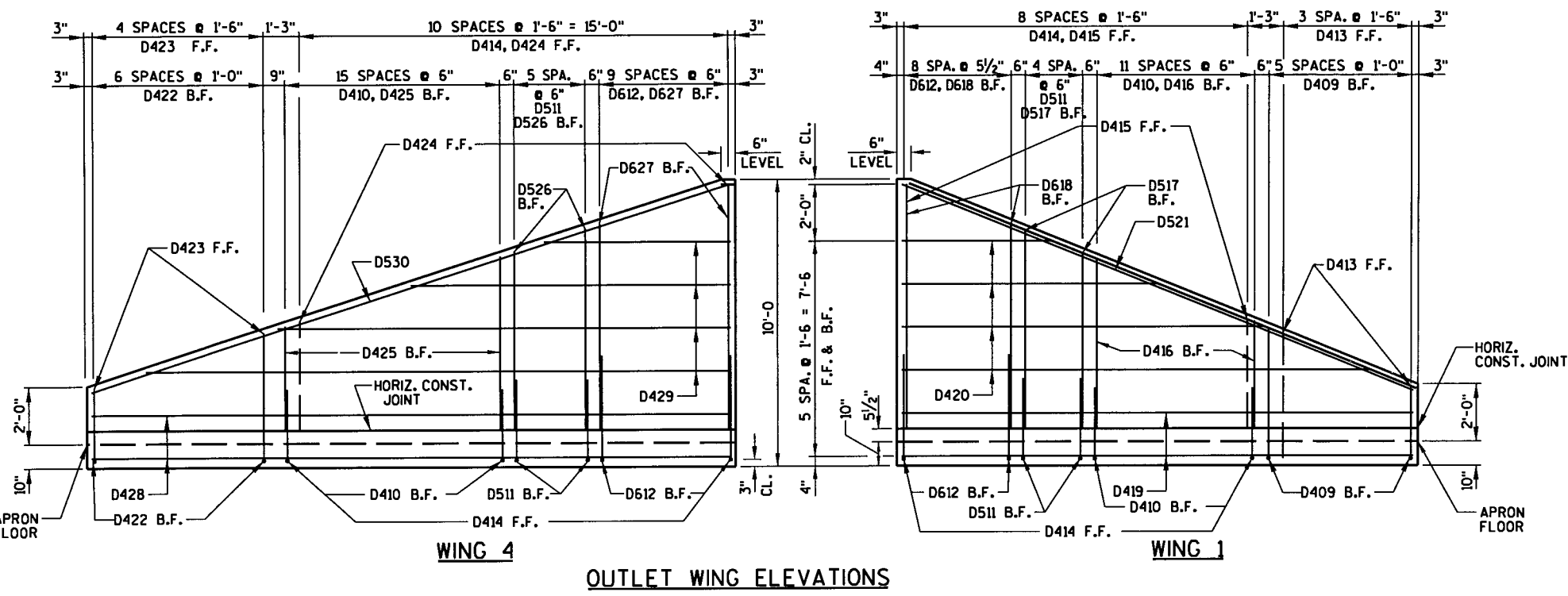
BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
D403	1 SERIES OF 18	11'-8 TO 21'-6
D405	1 SERIES OF 4	3'-4 TO 16'-2
D409	1 SERIES OF 6	4'-8 TO 6'-8
D413	1 SERIES OF 4	2'-6 TO 4'-2
D415	1 SERIES OF 9	3'-8 TO 8'-6
D416	1 SERIES OF 12	3'-8 TO 5'-10
D517	1 SERIES OF 5	6'-0 TO 6'-10
D618	1 SERIES OF 9	7'-0 TO 8'-6
D420	2 SERIES OF 4	5'-2 TO 16'-4
D422	1 SERIES OF 7	4'-8 TO 6'-6
D423	1 SERIES OF 5	2'-6 TO 4'-4
D424	1 SERIES OF 11	3'-8 TO 8'-6
D425	1 SERIES OF 16	3'-6 TO 6'-0
D526	1 SERIES OF 6	6'-2 TO 7'-0
D627	1 SERIES OF 10	7'-2 TO 8'-6
D429	2 SERIES OF 4	6'-6 TO 20'-6

BUNDLE AND TAG EACH SERIES SEPARATELY

MARK	A
D401	1'-0"
D409	2'-3"
D422	4'-0"
D511	4'-9"
D612	5'-9"

THIS LEG HORIZ.



OUTLET WING ELEVATIONS

LEGEND

- - INDICATES WING NUMBER
- F.F. - FRONT FACE
- B.F. - BACK FACE
- CL. - CLEAR

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-37-82			
Const. Spec. WI "03"	Drawn By RLR	Plans Checked BPT	
OUTLET APRON & WING DETAILS			SHEET 5 OF 6
			99

ABBREVIATIONS
 VF - Very Fine F - Fine M - Medium C - Coarse
 Ws - Weathered So - Sound

MATERIAL SYMBOLS		
	Topsoil	
	Sand	
	Gravel	
	Peat	
	Clay	

LEGEND OF PROBING
 Probing No.
 Sta.
 Elevation
 95/6=95 Blows for 6" Penetration
 Probing taken with a 350* wt. Falling 18" on a 2" O.D. Point.
 7 Average Blows Per Foot
 Refusal 95/6

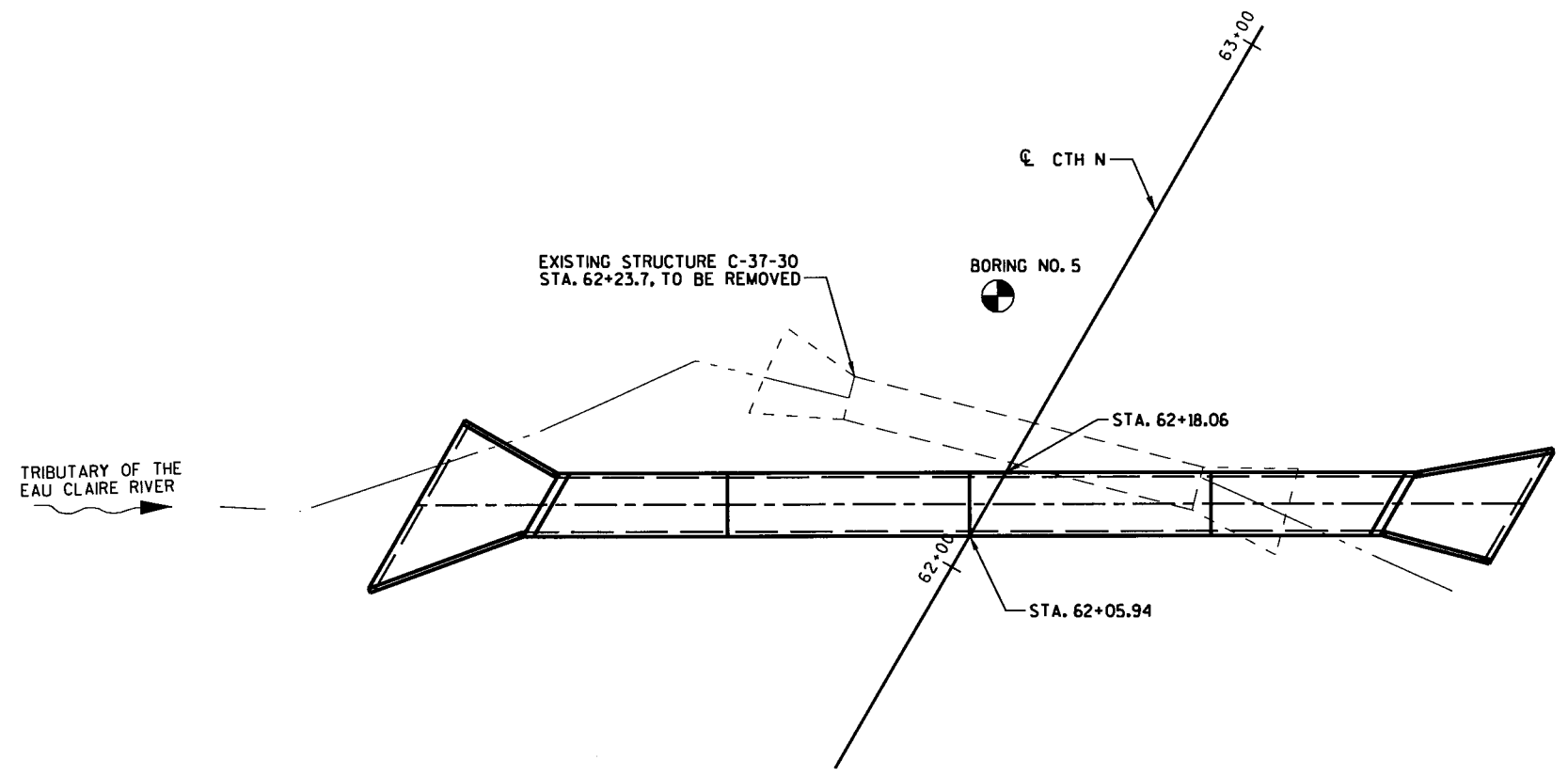
LEGEND OF BORING
 Elev.
 Boring No.
 Sta.
 Unconfined Strength → 7.7 *
 Blows Per Ft. Using 140* Wt. Falling 30"
 Wash Sample
 Shelby Tube — S.T.
 Ground Water Elevation
 No Ground Water Observed Above This Elevation
 Sandy Gravel
 F.
 Boulders or Cobbles
 Sand
 Silty Clay
 So. Limestone

Unless otherwise specified, the blows per foot at the locations indicated are based on driving a 2" O.D. x 14" I.D. split spoon sampler with a 140* hammer having a free fall of 30". The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

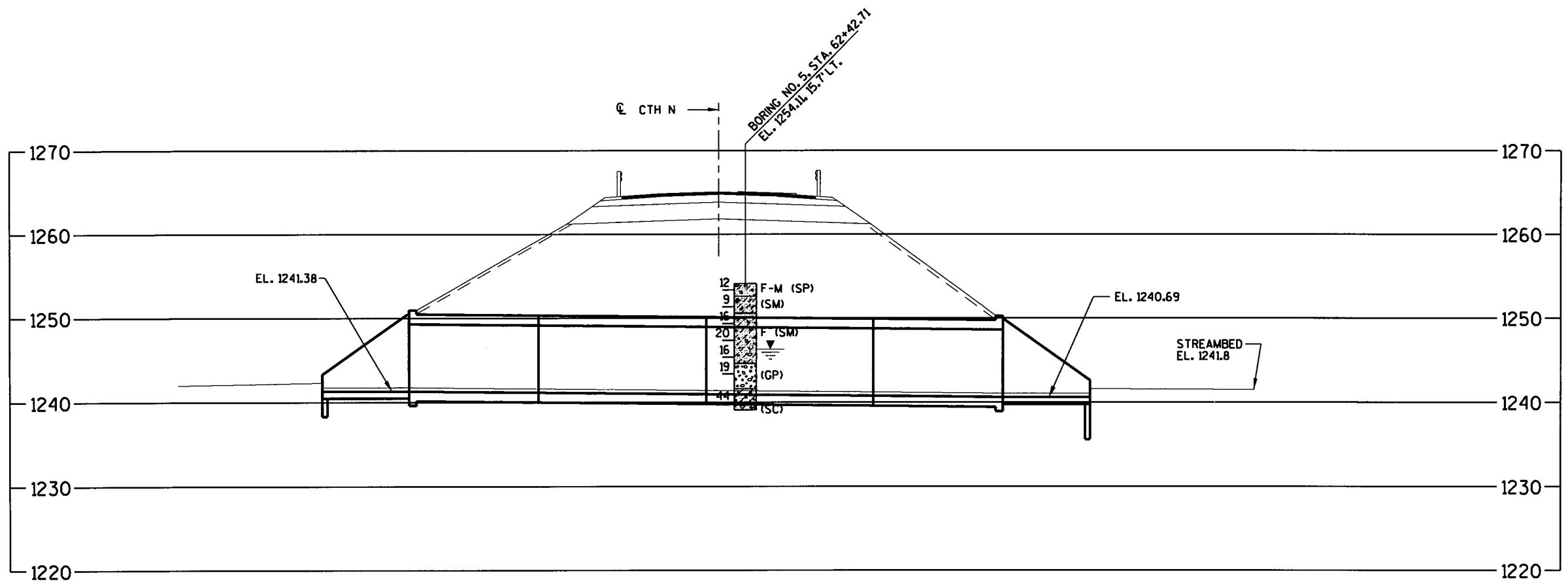
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

To obtain relative data concerning the character of material and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings and/or soundings is very small in relation to the entire area, the Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		C-37-82	
Const. Spec. WI "03"	Drawn By RLR	Plans Checked BPT	
SUBSURFACE EXPLORATION		SHEET 6 OF 6	
100			



BORINGS PERFORMED BY AND SUBSURFACE REPORT PREPARED BY:
 STS CONSULTANTS, LTD.
 SCHOFIELD, WISCONSIN
 BORING 5 COMPLETED ON 06-10-04
 PLANS PREPARED BY:
 MSA PROFESSIONAL SERVICES, INC.
 BARABOO, WISCONSIN

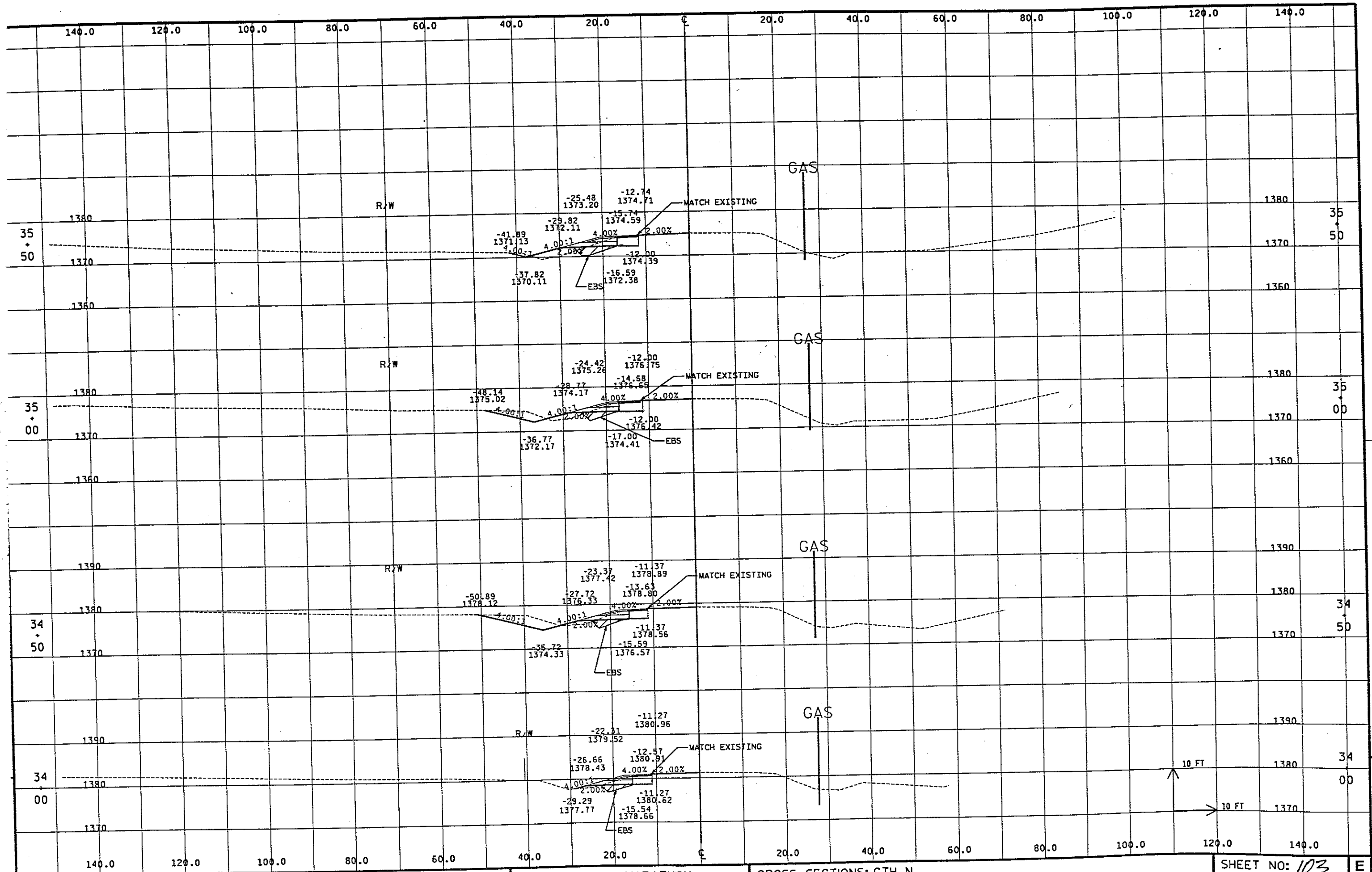


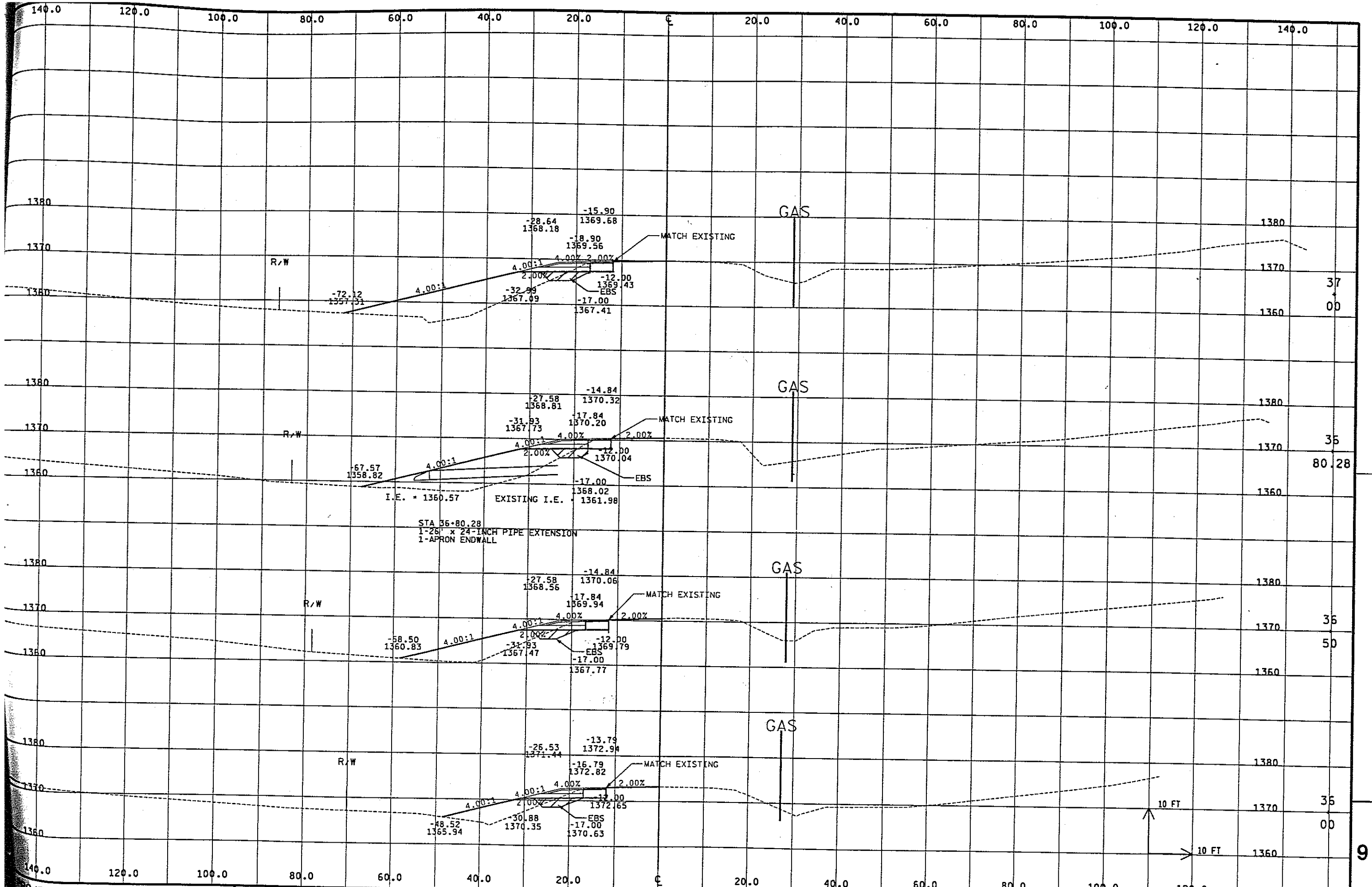
ORIGINATOR: RLR

CAMP PHILLIPS EARTHWORK SUMMARY

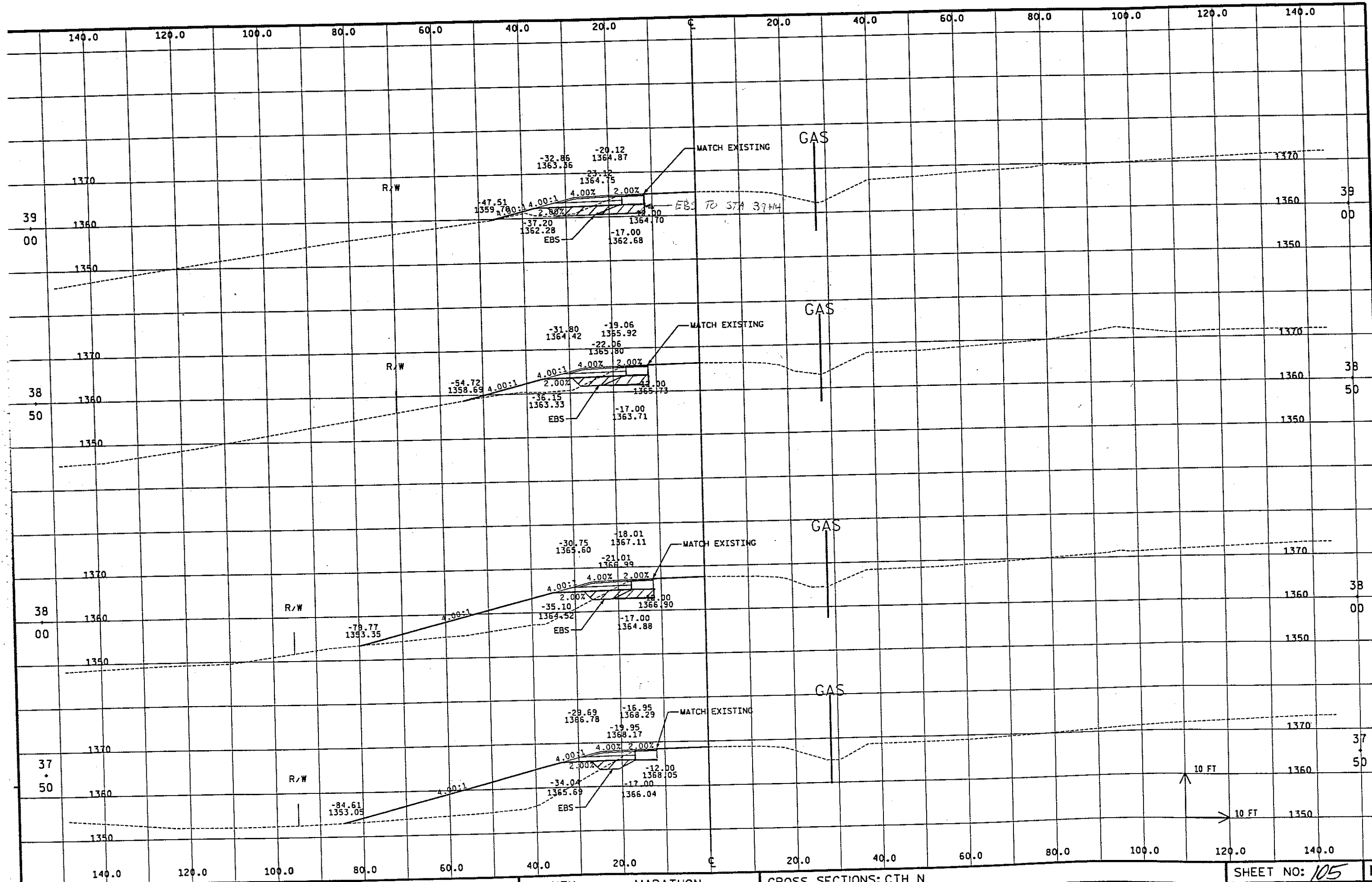
STATION	DISTANCE FT	CUT END AREA SF	COMMON EXCAVATION CY	EBS SF	EBS CY	EBS GRADE 2 CY	FILL END AREA SF	FILL CY	EXPANDED FILL CY	MARSH END AREA SF	MARSH EXCAVATION CY	MARSH BACKFILL CY	GRANULAR BACKFILL FOR GRADE 1 CY	MASS BALANCE CY
304+50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
305+00.00	50.00	162.31	150.3	11.62	10.8	14.0	10.78	10.0	13.0	0.00	0.00	0.00	0.00	137.3
305+44.27	44.27	278.21	361.1	21.31	27.0	35.1	4.27	12.3	16.0	0.00	0.00	0.00	0.00	345.1
305+50.00	5.73	293.20	60.6	21.44	4.5	5.9	3.86	0.9	1.1	0.00	0.00	0.00	0.00	59.5
305+64.95	14.95	363.16	181.7	0.00	5.9	7.7	0.00	1.1	1.4	0.00	0.00	0.00	0.00	180.3
305+81.95	17.00	340.96	221.7	25.81	8.1	10.6	1.70	0.5	0.7	0.00	0.00	0.00	0.00	221.0
305+98.95	17.00	364.08	222.0	22.98	15.4	20.0	0.00	0.5	0.7	0.00	0.00	0.00	0.00	221.5
306+00.00	1.05	343.52	13.8	28.95	1.0	1.3	0.93	0.0	0.0	0.00	0.00	0.00	0.00	13.7
306+50.00	50.00	238.38	538.8	59.79	82.2	106.8	12.17	15.8	15.8	0.00	0.00	0.00	0.00	523.0
307+00.00	50.00	122.52	334.2	76.29	126.0	163.8	37.63	46.1	59.9	0.00	0.00	0.00	0.00	274.2
307+50.00	50.00	13.89	126.3	68.59	134.1	174.4	143.90	168.1	218.5	0.00	0.00	0.00	0.00	-92.2
308+00.00	50.00	0.00	12.9	35.35	96.2	125.1	327.21	436.2	567.1	0.00	0.00	0.00	0.00	-554.2
308+50.00	50.00	0.00	0.0	12.23	44.1	57.3	565.27	826.4	1,074.3	0.00	0.00	0.00	0.00	-1,074.3
308+84.62	34.62	341.07	218.7	2.85	9.7	12.6	734.98	833.6	1,083.7	0.00	0.00	0.00	0.00	-865.0
309+00.00	15.38	0.00	97.1	0.32	0.9	1.2	694.82	407.2	529.4	0.00	0.00	0.00	0.00	-432.3
309+50.00	50.00	0.00	0.0	0.00	0.3	0.4	669.46	1,263.2	1,642.2	0.00	0.00	0.00	0.00	-1,642.2
310+00.00	50.00	0.00	0.0	0.00	0.0	0.0	578.54	1,155.6	1,502.2	0.00	0.00	0.00	0.00	-1,502.2
311+00.00	50.00	0.00	0.0	0.00	0.0	0.0	379.80	887.4	1,153.6	0.00	0.00	0.00	0.00	-1,153.6
311+50.00	50.00	11.15	10.3	0.00	0.0	0.0	312.47	641.0	833.3	0.00	0.00	0.00	0.00	-833.3
312+00.00	50.00	11.05	20.6	0.00	0.0	0.0	271.08	540.3	702.4	0.00	0.00	0.00	0.00	-692.1
313+00.00	50.00	53.58	59.8	5.30	4.9	6.4	259.09	490.9	638.2	0.00	0.00	0.00	0.00	-617.6
313+50.00	50.00	0.00	49.6	0.61	5.5	7.1	245.96	467.6	607.9	0.00	0.00	0.00	0.00	-548.1
314+00.00	50.00	0.00	0.0	15.40	14.8	19.3	127.25	345.6	449.2	0.00	0.00	0.00	0.00	-399.6
314+50.00	50.00	89.76	83.1	19.75	32.5	42.3	282.14	221.1	287.4	0.00	0.00	0.00	0.00	-287.4
315+00.00	50.00	97.41	173.3	14.61	31.8	41.4	394.27	626.3	814.2	0.00	0.00	0.00	0.00	-390.8
315+50.00	50.00	97.64	177.8	17.71	29.9	38.9	368.84	706.6	918.6	0.00	0.00	0.00	0.00	-740.9
316+00.00	50.00	88.36	172.2	36.47	50.2	65.2	318.87	636.8	827.8	0.00	0.00	0.00	0.00	-650.0
316+50.00	50.00	92.46	167.4	31.42	62.9	81.7	335.90	606.3	788.1	0.00	0.00	0.00	0.00	-615.9
317+00.00	50.00	106.91	184.6	37.70	64.0	83.2	326.12	613.0	796.9	0.00	0.00	0.00	0.00	-629.5
317+50.00	50.00	113.00	203.6	28.82	61.6	80.1	351.70	627.6	815.9	0.00	0.00	0.00	0.00	-631.3
318+00.00	50.00	122.55	218.1	10.22	19.2	25.0	432.64	726.2	944.1	0.00	0.00	0.00	0.00	-740.5
318+50.00	50.00	83.74	191.0	5.07	14.2	18.4	559.11	918.3	1,193.8	56.00	51.9	70.0	0.00	-975.7
319+00.00	25.94	80.11	81.7	20.69	12.9	16.7	398.52	886.7	1,152.7	51.46	99.5	134.3	0.00	-961.7
319+50.00	23.06	68.22	63.3	26.98	20.4	26.5	331.80	354.3	473.7	66.64	58.9	79.5	0.00	-381.9
320+00.00	10.94	62.93	26.6	24.79	20.4	28.5	306.39	212.5	354.3	55.86	52.3	70.6	0.00	-290.9
320+50.00	39.06	63.88	91.7	40.70	10.5	13.6	314.81	125.9	163.6	59.29	23.3	31.5	0.00	-137.0
321+00.00	50.00	73.44	123.2	69.19	47.4	61.6	221.63	368.0	504.4	52.99	81.2	109.6	0.00	-412.7
321+50.00	50.00	99.38	132.0	59.48	119.1	154.9	126.38	322.2	448.9	44.54	90.3	121.9	0.00	-295.7
322+00.00	50.00	105.45	189.7	39.66	91.8	119.3	75.62	187.0	243.1	38.65	77.0	104.0	0.00	-111.1
322+50.00	50.00	93.69	184.4	31.56	65.9	85.7	50.68	103.8	133.6	36.66	69.7	94.1	0.00	-3.6
323+00.00	50.00	132.01	209.0	17.55	29.2	38.0	61.08	103.5	134.5	33.89	55.3	88.2	0.00	56.0
323+50.00	50.00	149.96	261.1	14.53	16.3	21.1	26.33	80.9	105.2	43.01	71.2	96.1	0.00	49.9
323+50.00	50.00	0.00	138.9	0.00	29.7	38.6	15.45	38.7	50.3	31.56	69.0	83.0	0.00	103.8
TOTAL			6,089.8		1,552.4	2,018.2		17,606.1	22,887.9		903.4	1,219.6		-16,798.

MASS BALANCE = CUT - (FILL x 1.3)
COMMON EXCAVATION = COMMON + EBS





STA 36+80.28
 1-26" x 24-INCH PIPE EXTENSION
 1-APRON ENDWALL

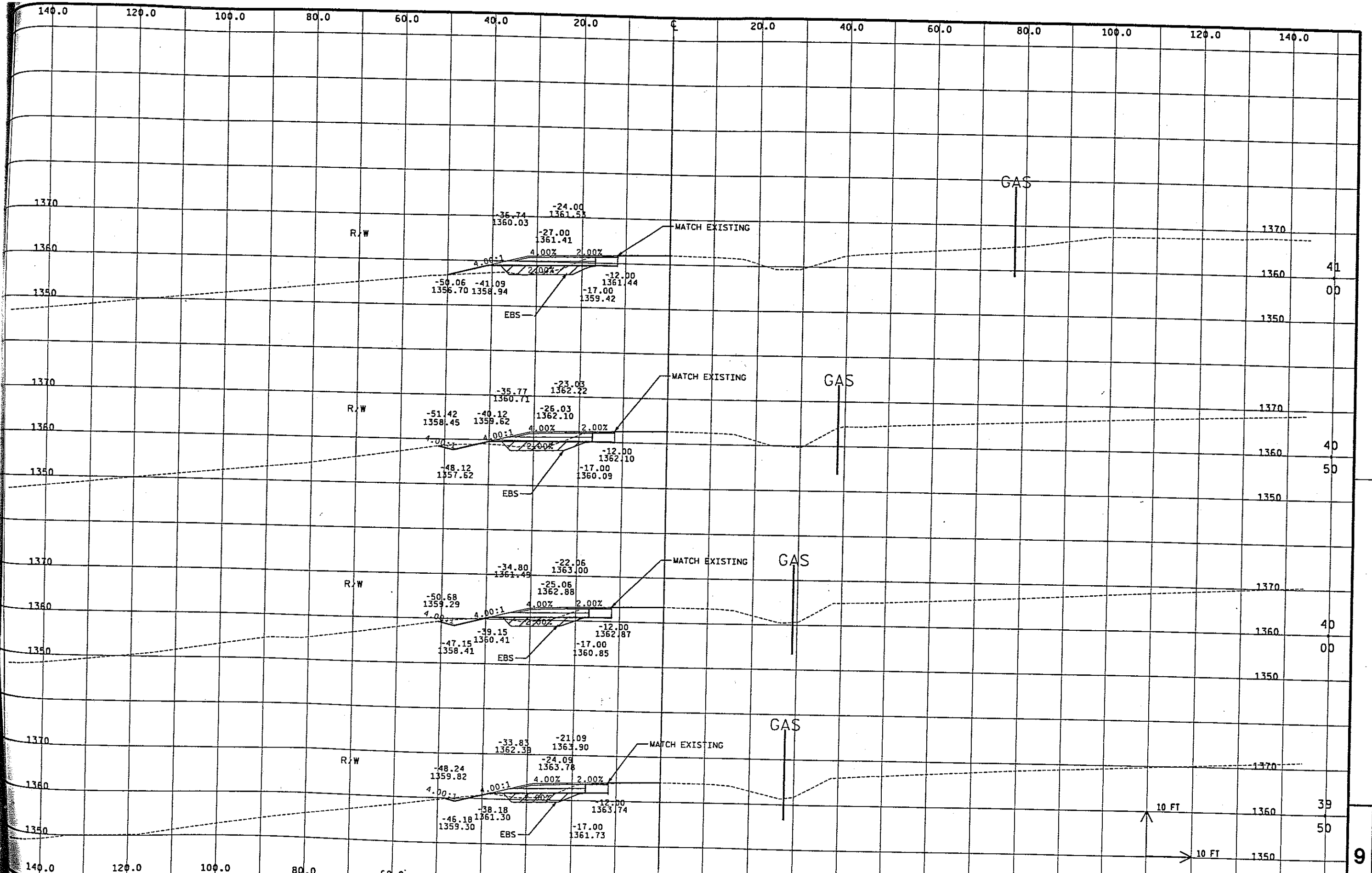


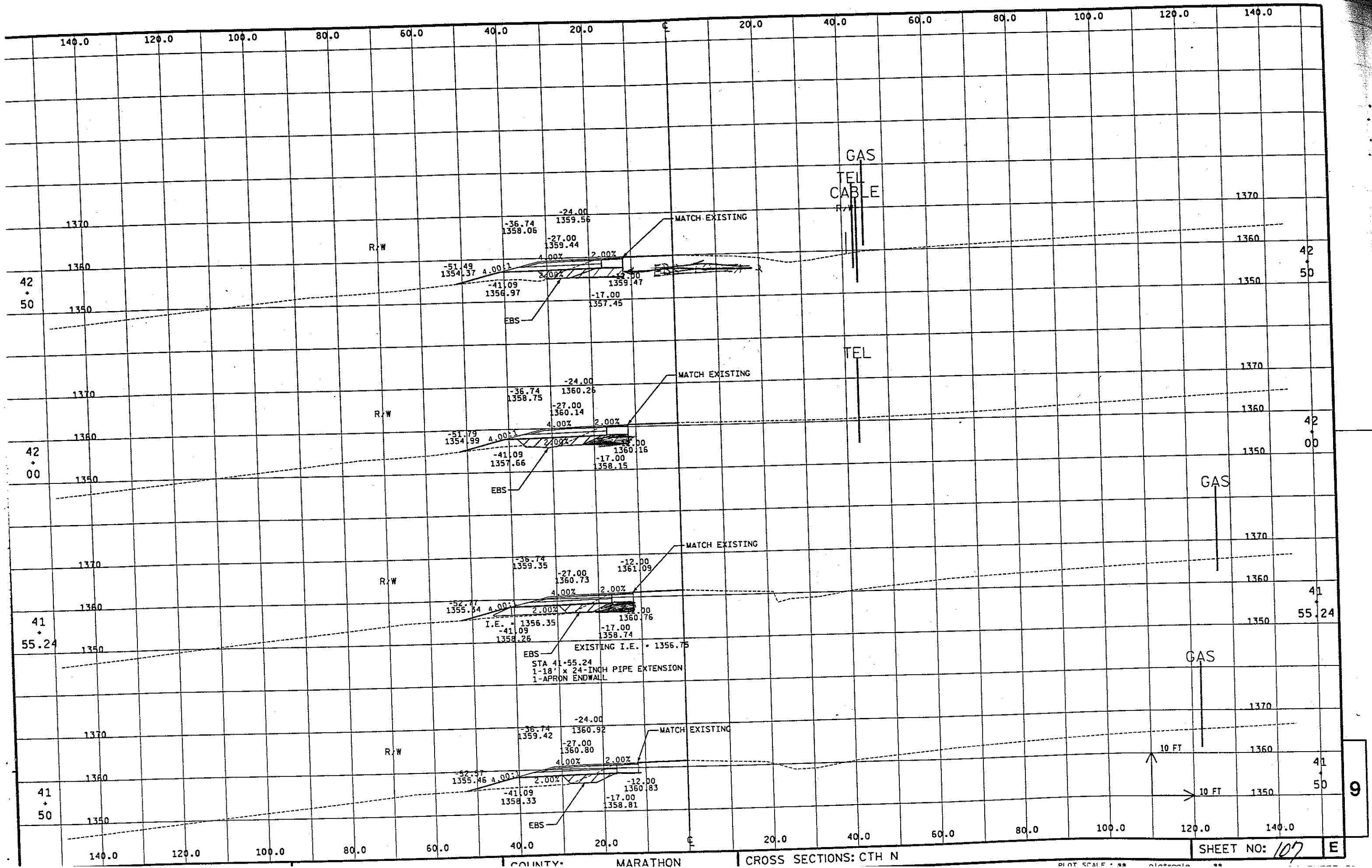
COUNTY: MARATHON

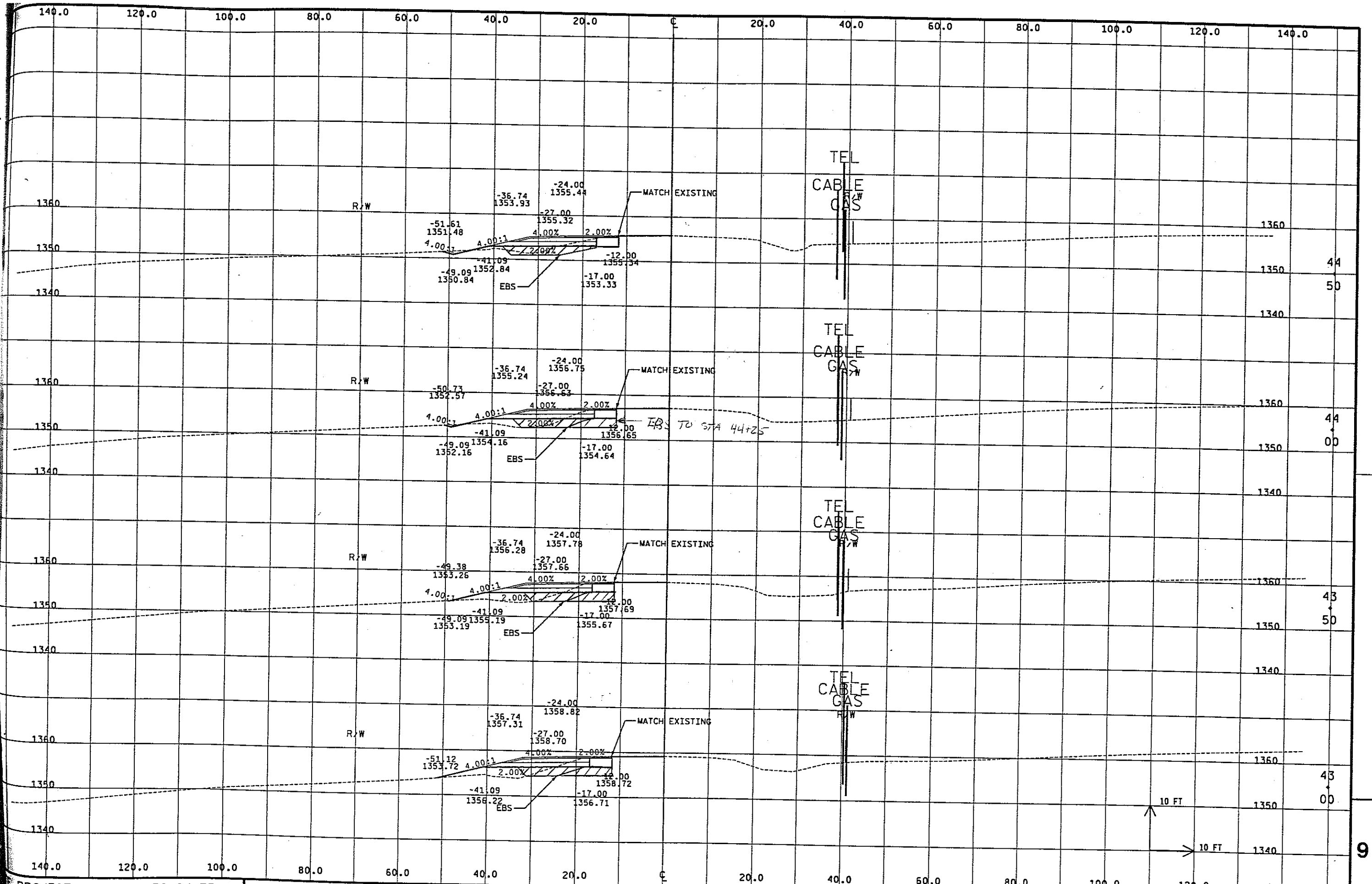
CROSS SECTIONS: CTH N

SHEET NO: 105 E

10 FT 10 FT







PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CTH N

PLOT DATE : 12/13/2004

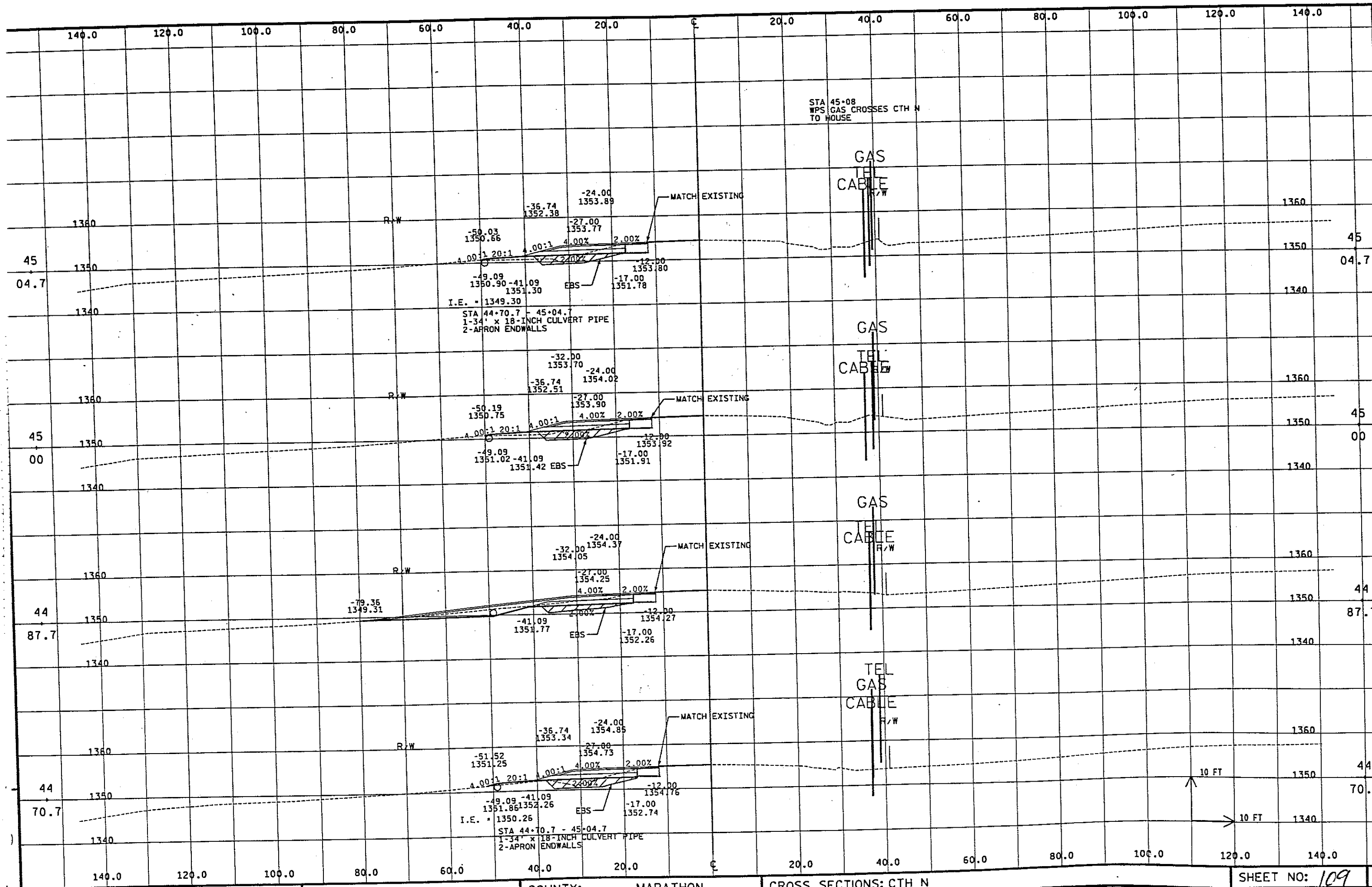
ORG DATE :

PLOT NAME :

SHEET NO: 108

9

E

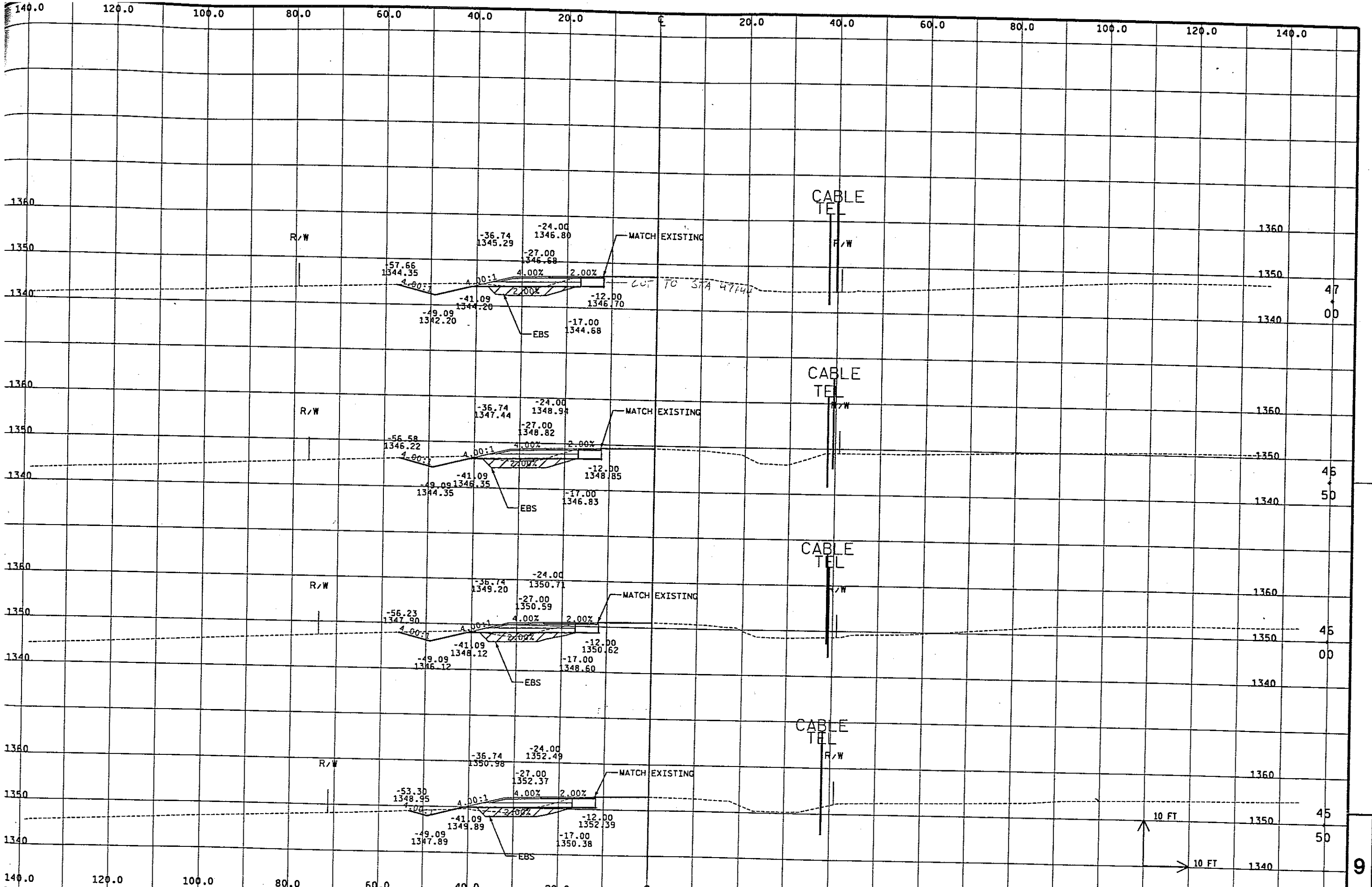


COUNTY: MARATHON

CROSS SECTIONS: CTH N

SHEET NO: 109 E

PLOT SCALE: 3/8" = 1'-0"



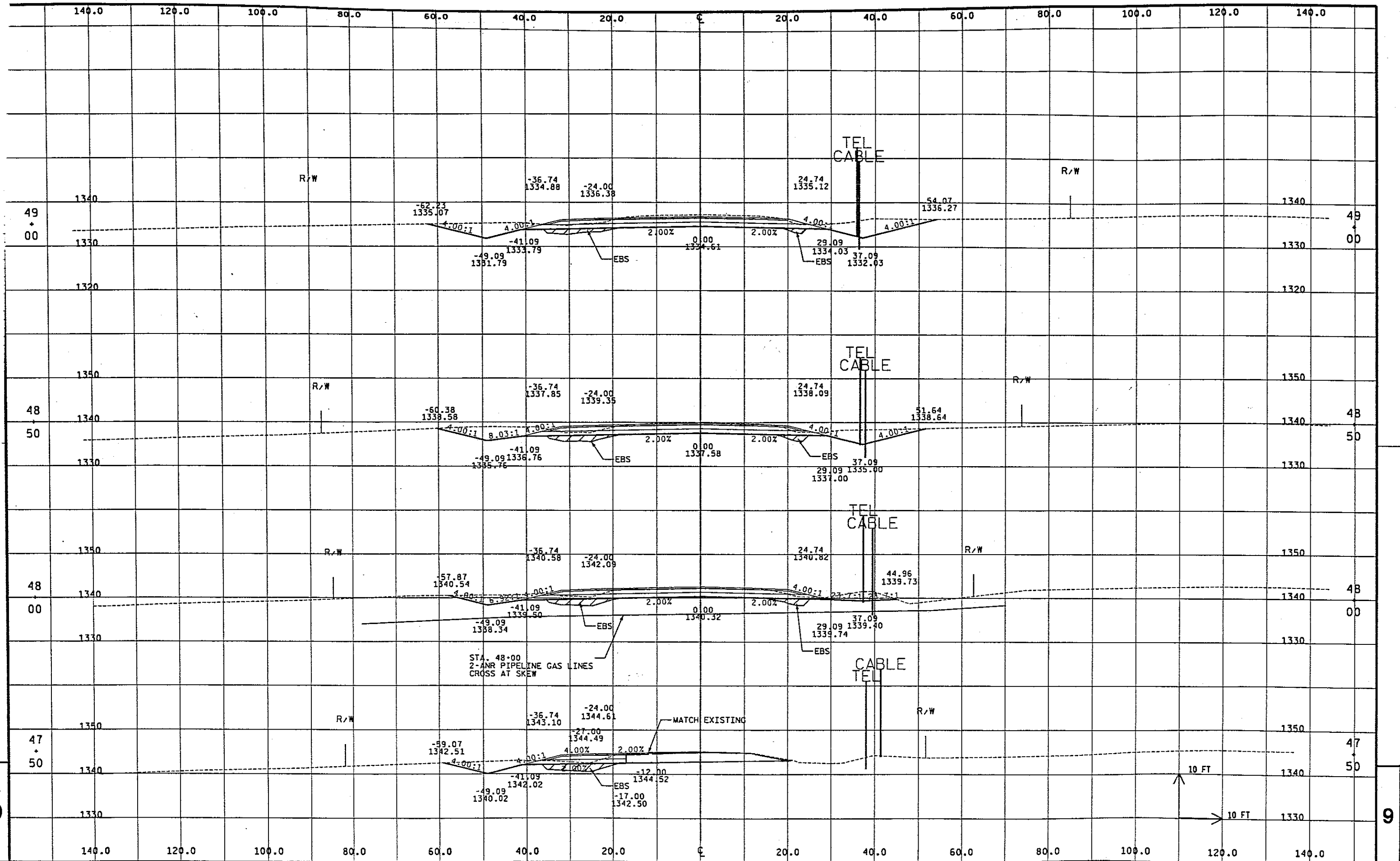
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PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

DATE PLOT :



STATE PROJECT NUMBER: 9439-04-75

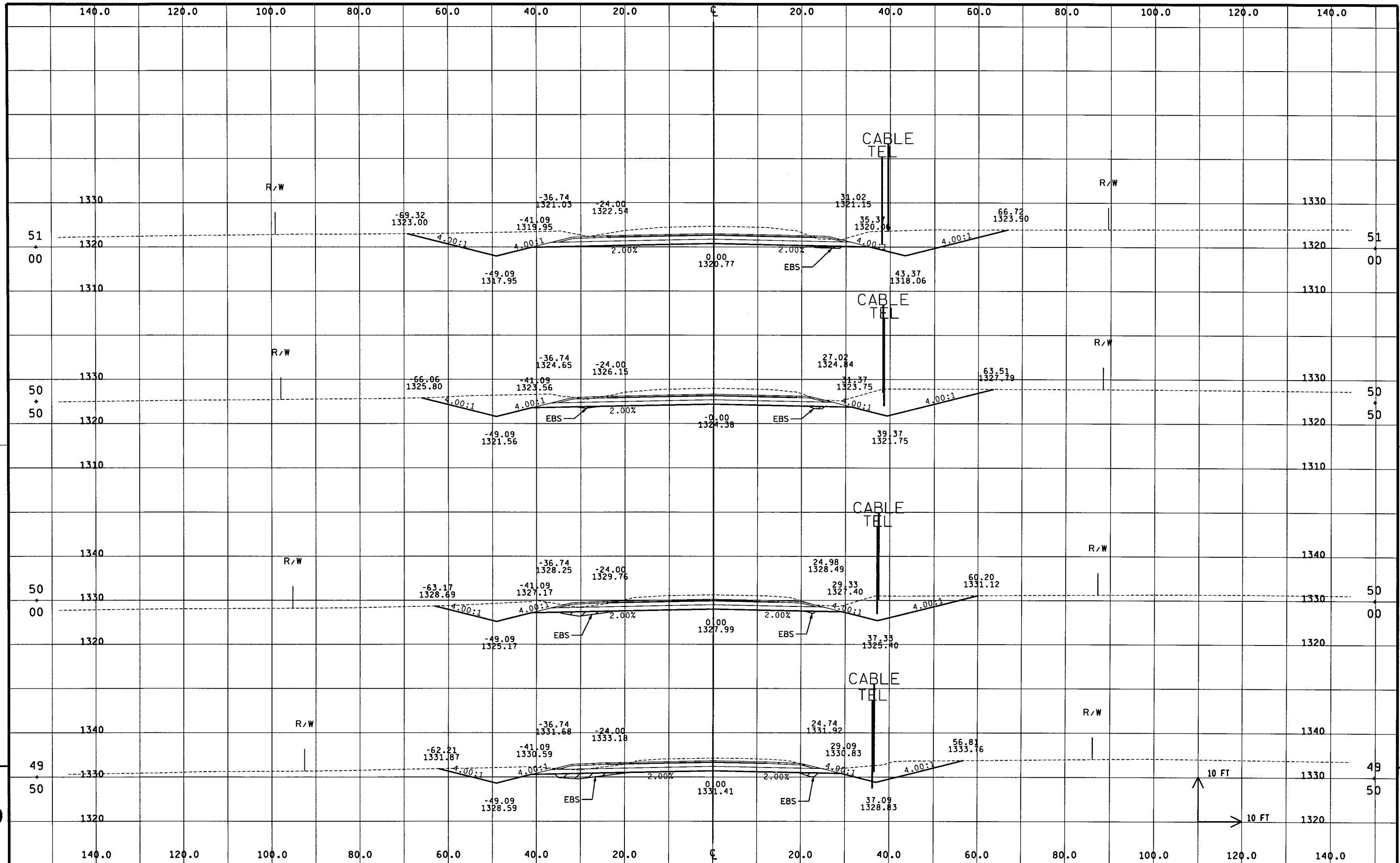
HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CTH N

SHEET NO: ///

9 E



STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CTH N

SHEET NO: 112

E

FILE NAME : ... \cth n \xsec10.dgn

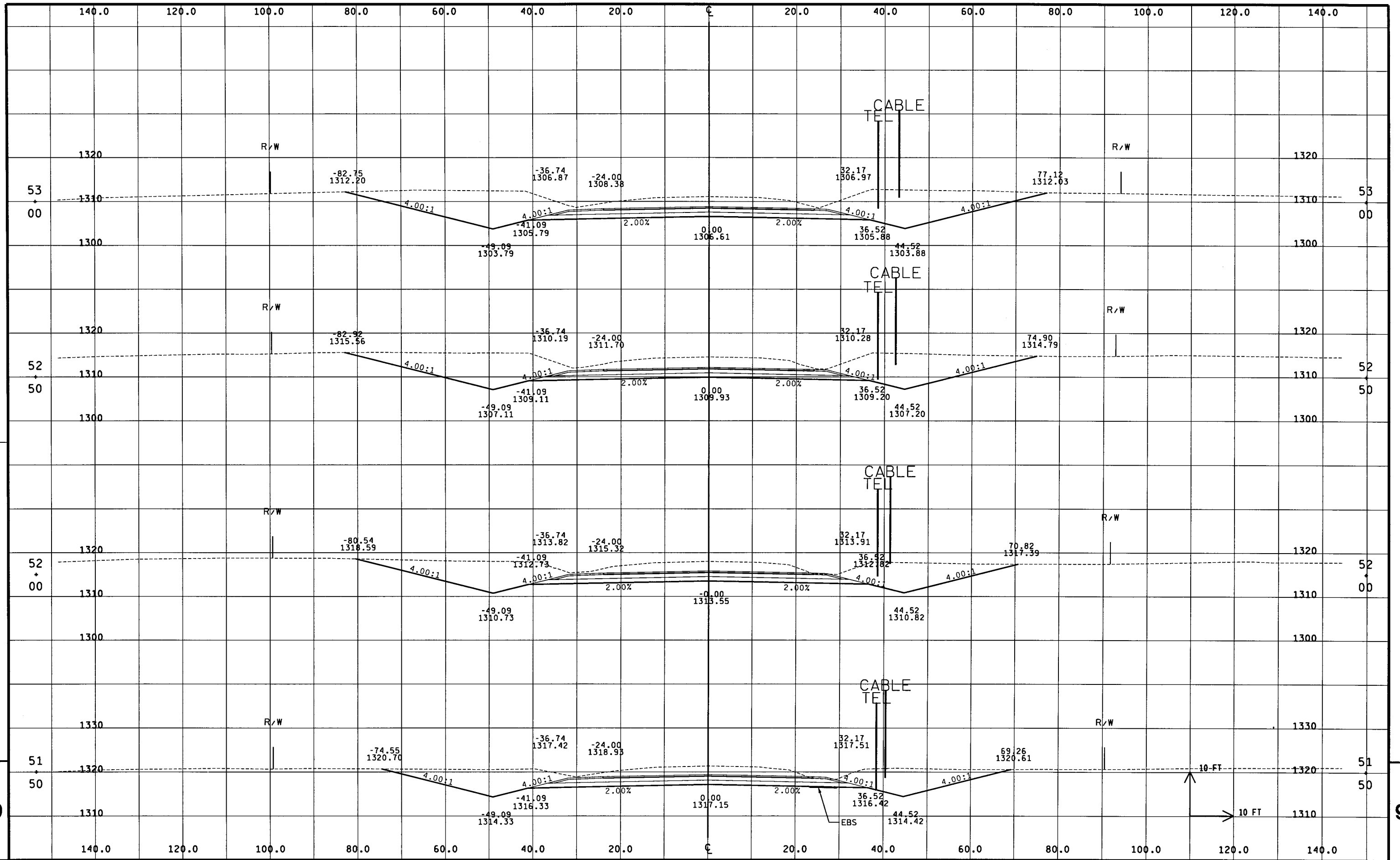
PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

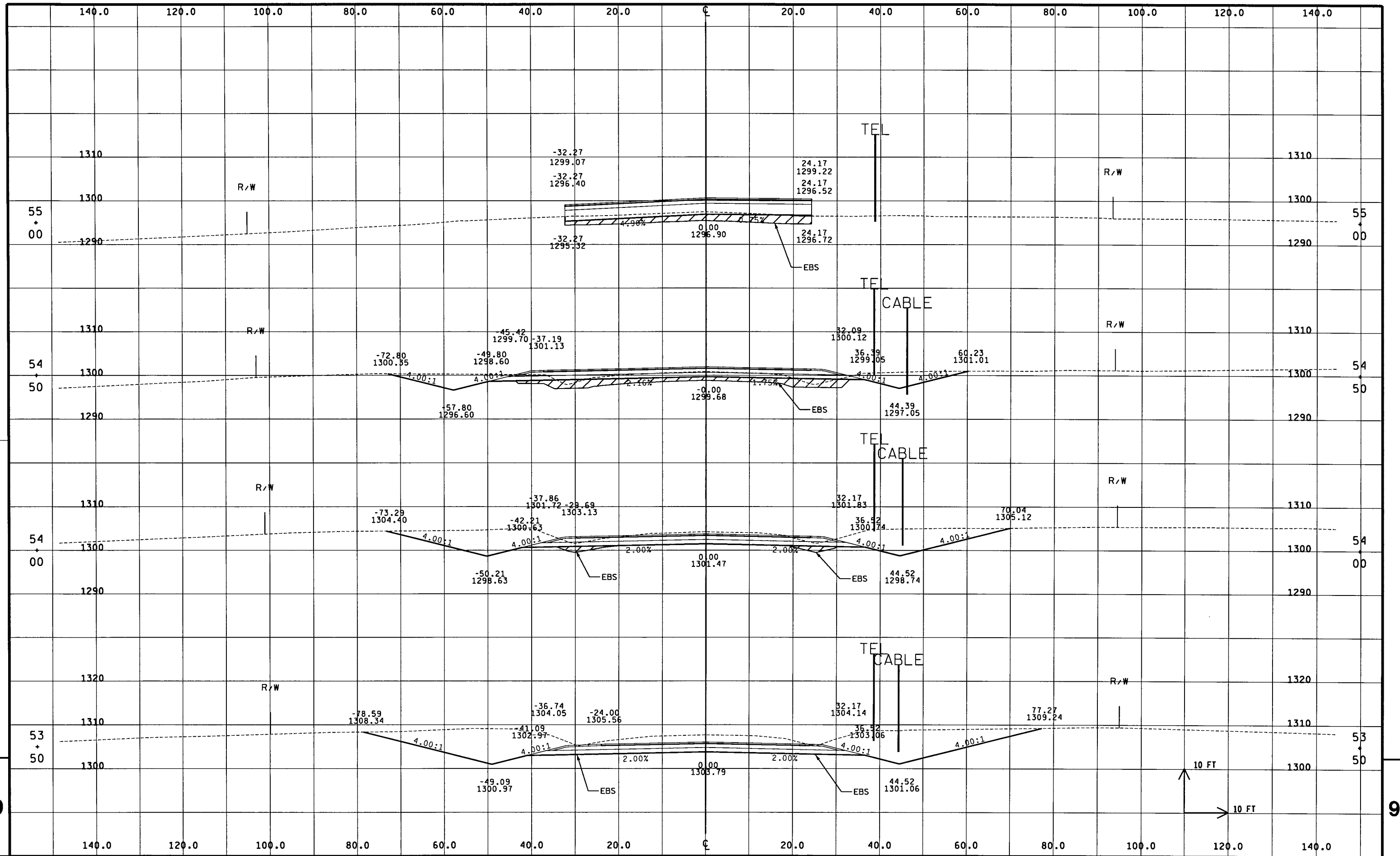
Originator : Dist

PLOT SCALE : *\$.....plotscale.....*\$
MSA PROFESSIONAL SERVICES WISDOT/CADDS SHEET 21



STATE PROJECT NUMBER: 9439-04-75 HWY: CTH N COUNTY: MARATHON CROSS SECTIONS: CTH N SHEET NO: 113 E

FILE NAME : ... \ctn \xsec11.dgn PLOT DATE : 12/13/2004 ORG DATE : PLOT NAME : Originator : Dist PLOT SCALE : **.....plotscale.....** MSA PROFESSIONAL SERVICES WISDOT/CADD SHEET 21



STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CTH N

SHEET NO: 11A

E

FILE NAME : ... \cth n \xsec12.dgn

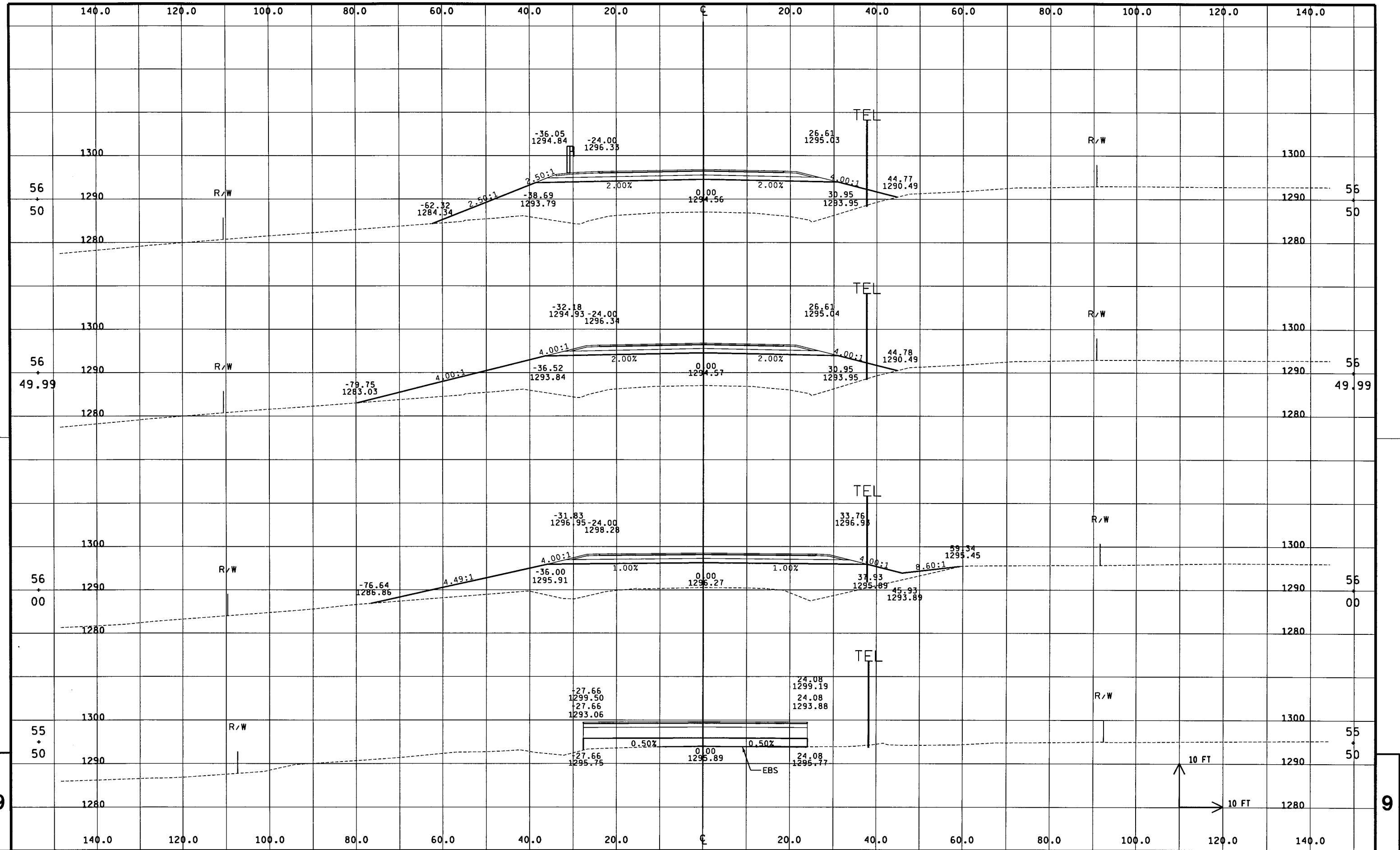
PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : **...plotscale...**
MSA PROFESSIONAL SERVICES WISDOT/CADD SHEET 21



STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CTH N

SHEET NO: 115

E

FILE NAME : ... \cth n \xsec13.dgn

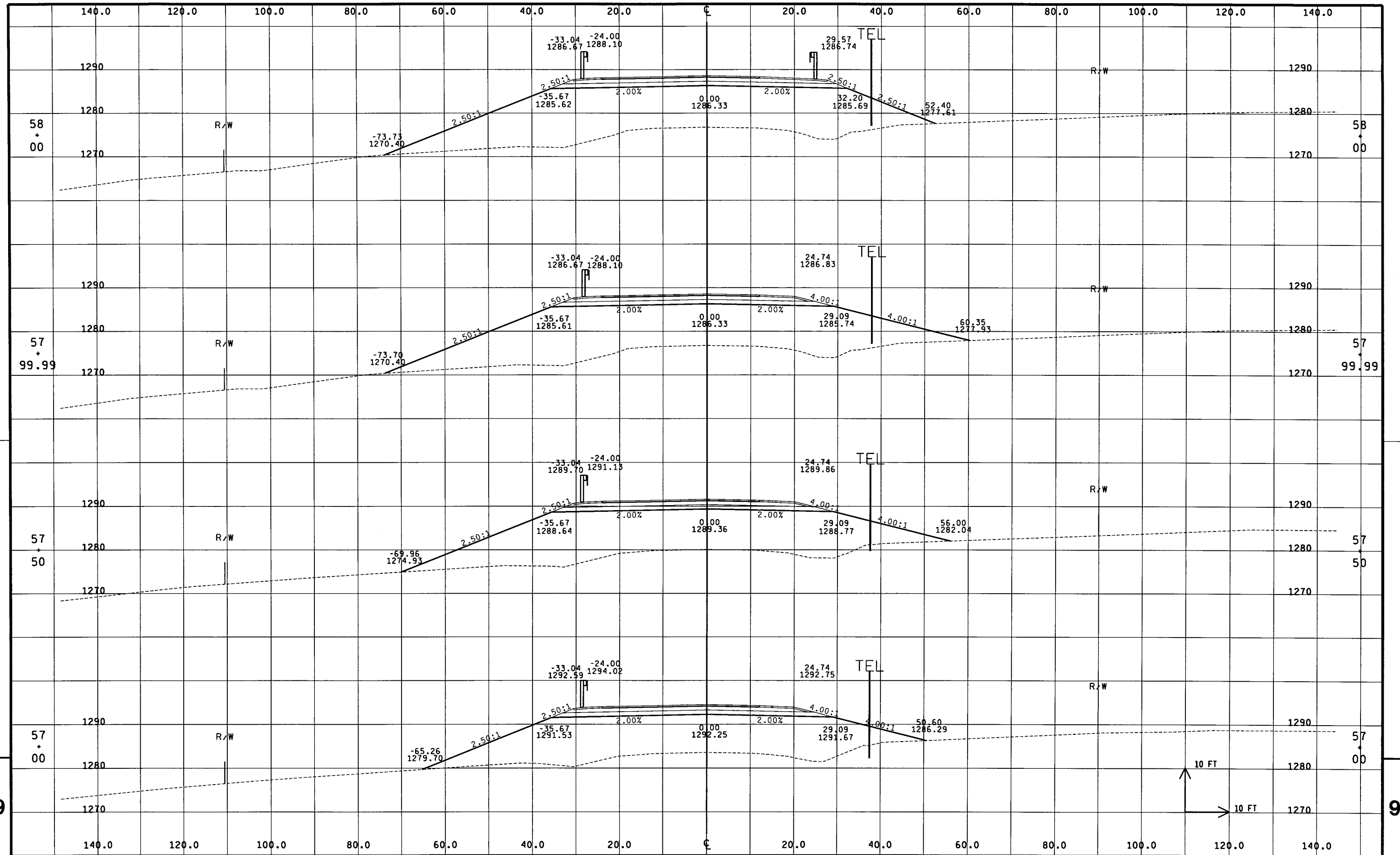
PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : **.....plotscale.....**
MSA PROFESSIONAL SERVICES WISDOT/CADD SHEET 21



STATE PROJECT NUMBER:9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CTH N

SHEET NO: 110

E

FILE NAME : ... \cth n \xsec14.dgn

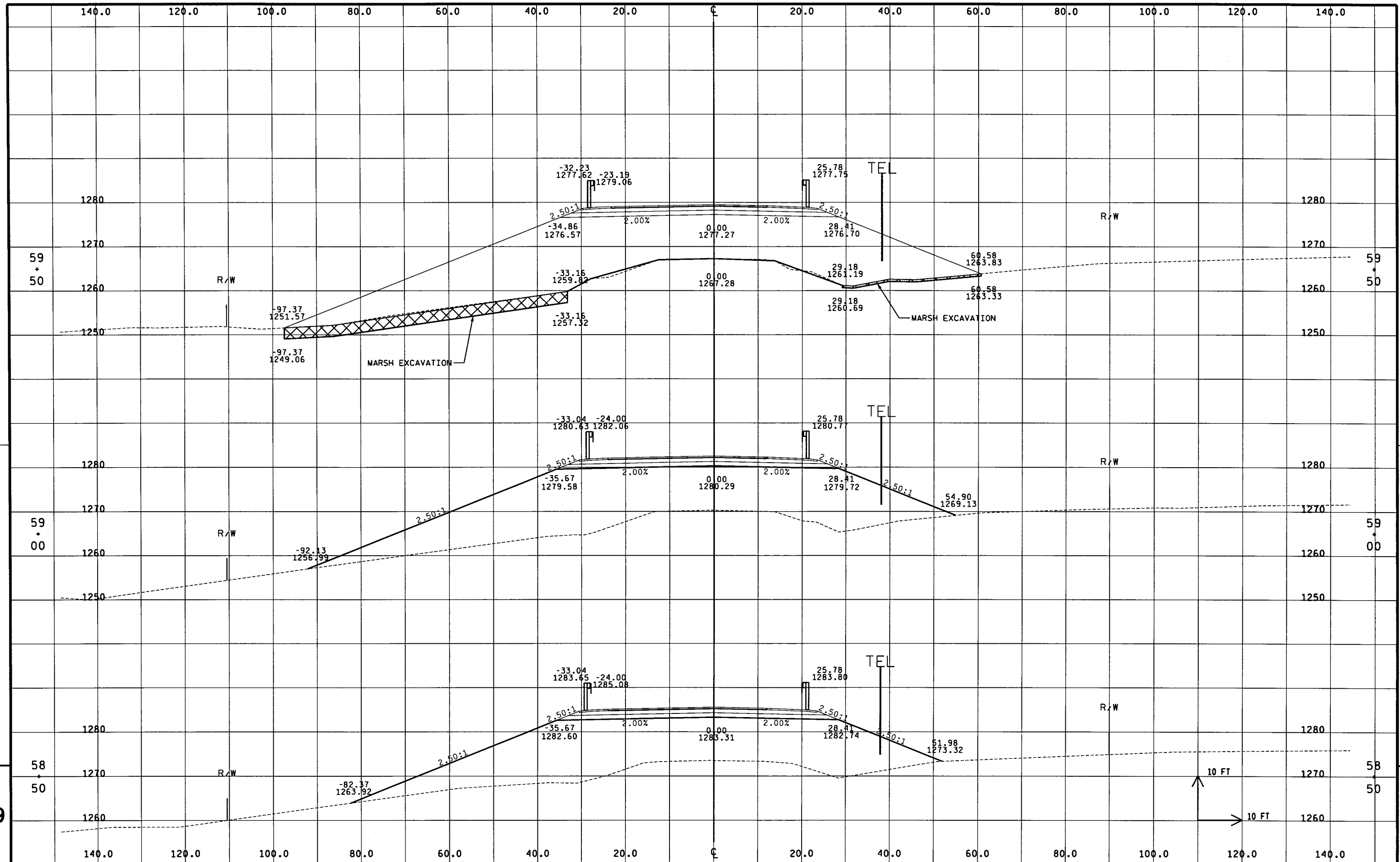
PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : **.....plotscale.....**
MSA PROFESSIONAL SERVICES WISDOT/CADDS SHEET 21



STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CTH N

SHEET NO: 117

E

FILE NAME : ... \cth n \xsec15.dgn

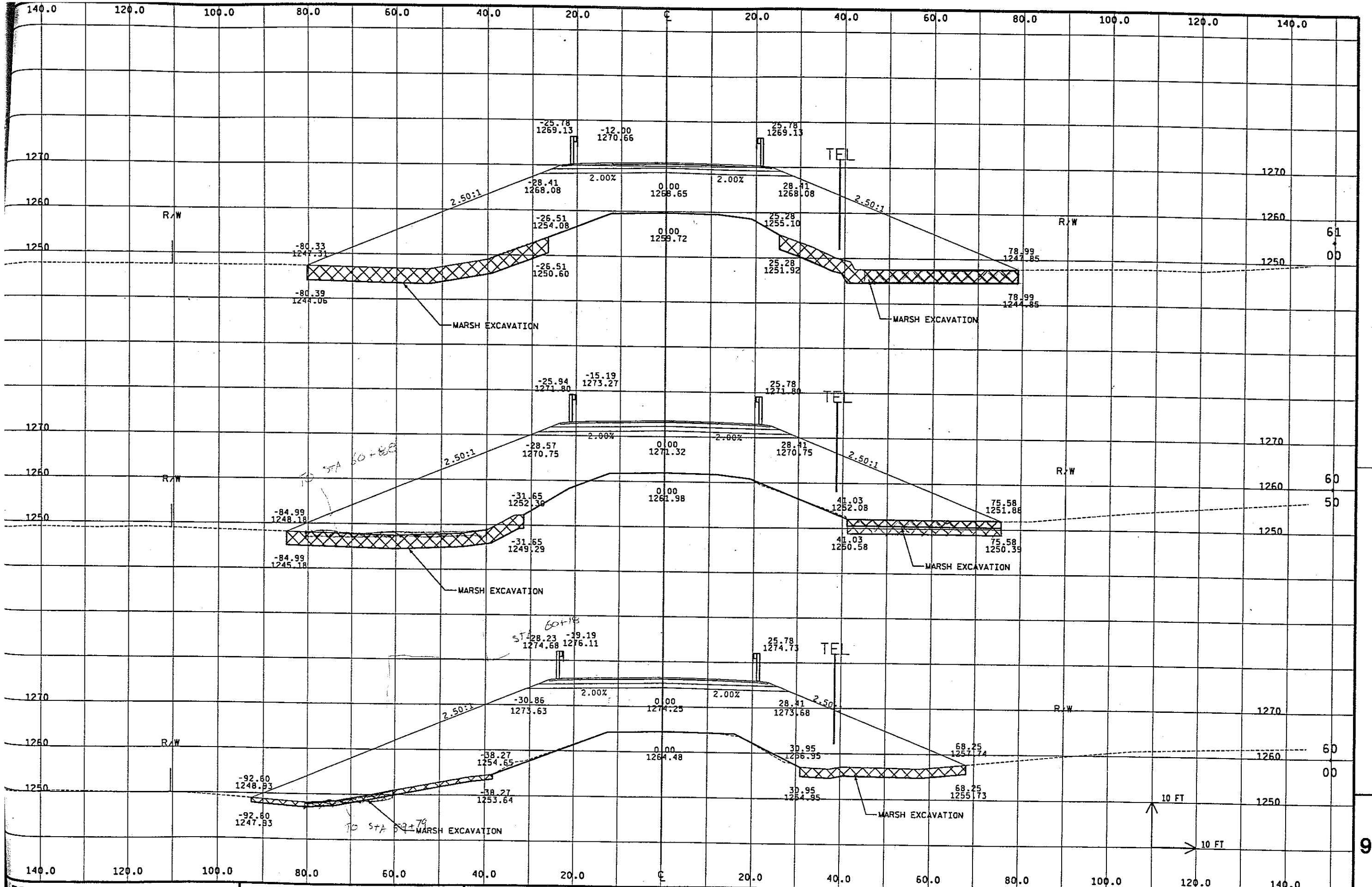
PLOT DATE : 12/13/2004

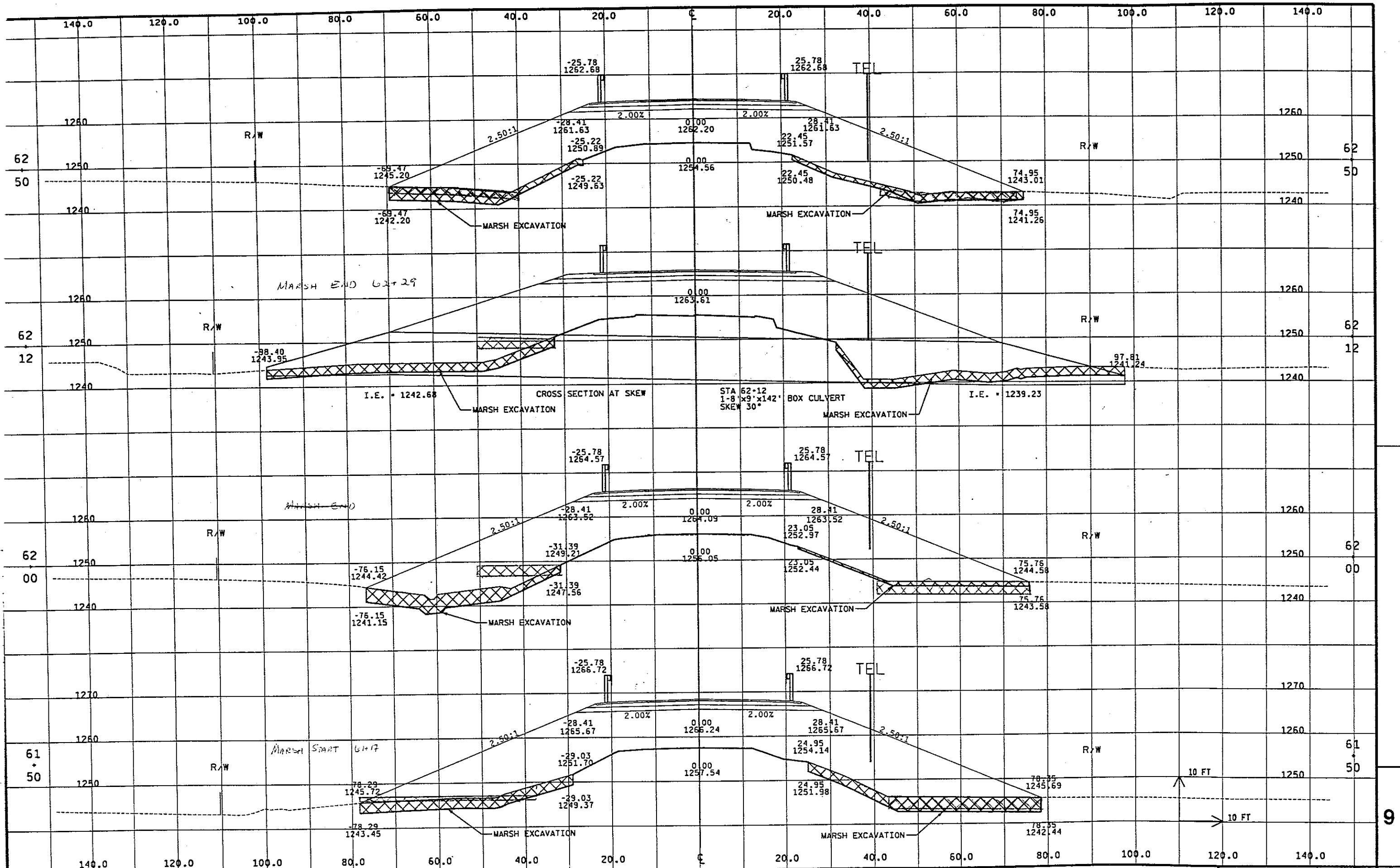
ORG DATE :

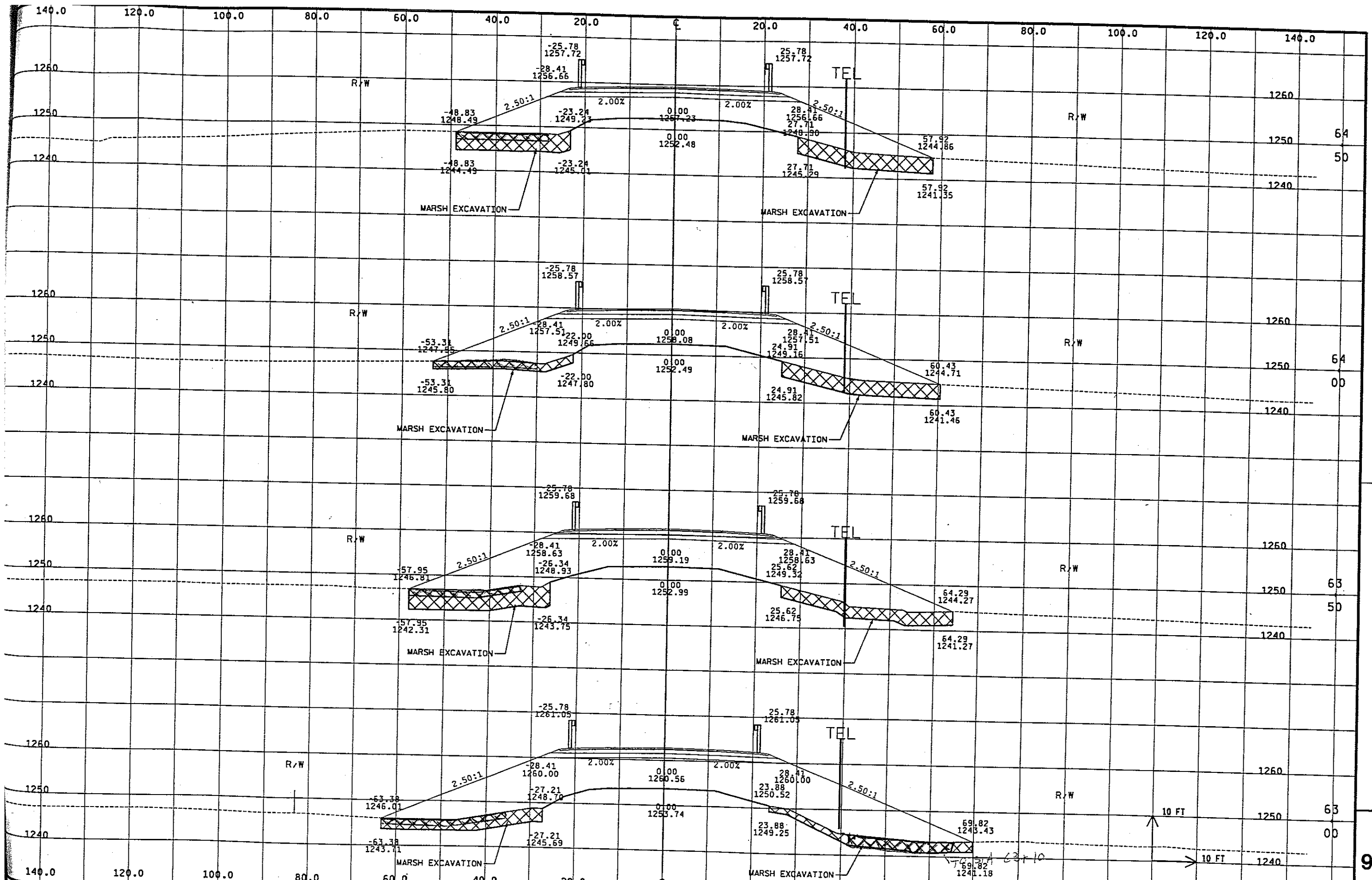
PLOT NAME :

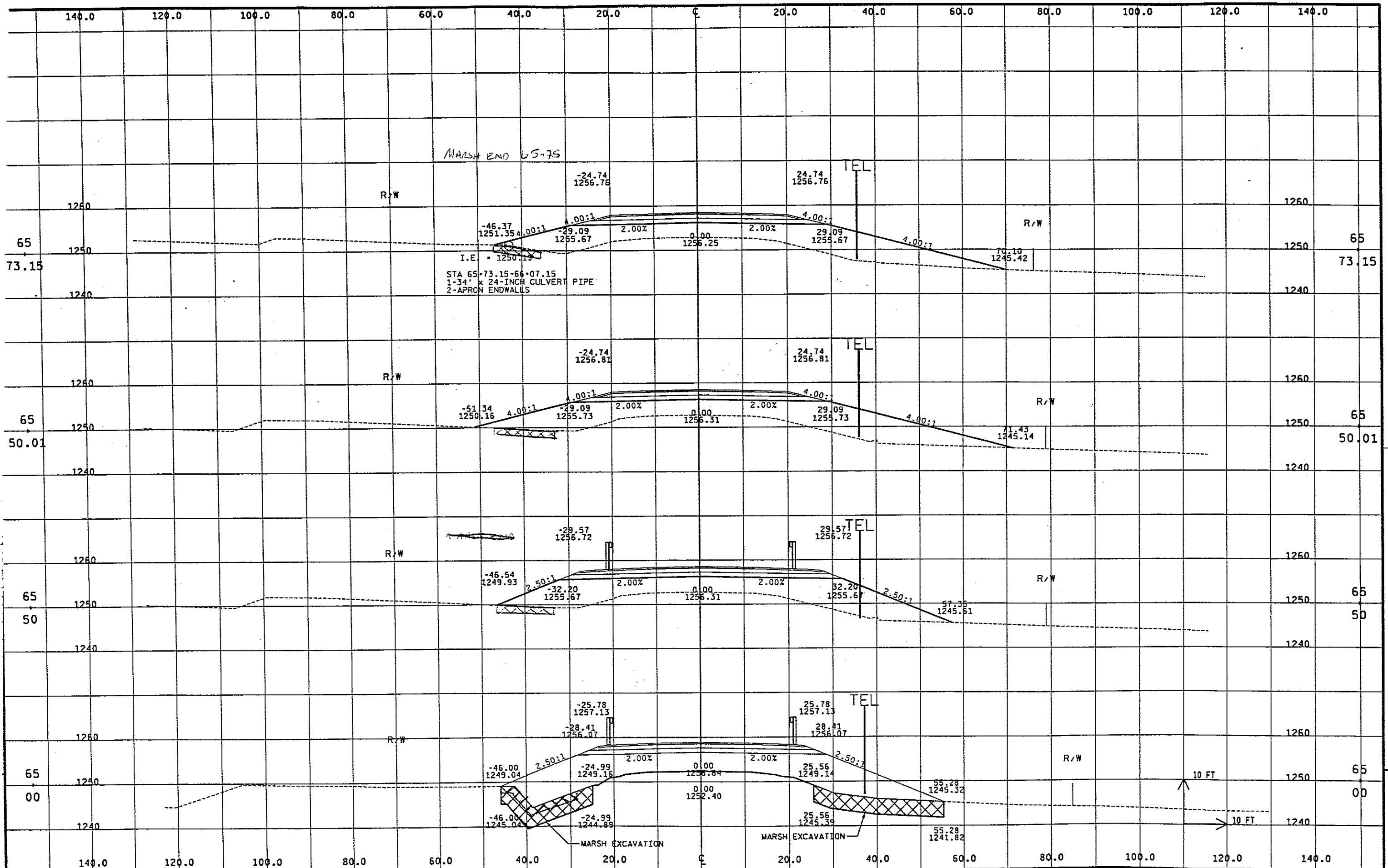
Originator : Dist

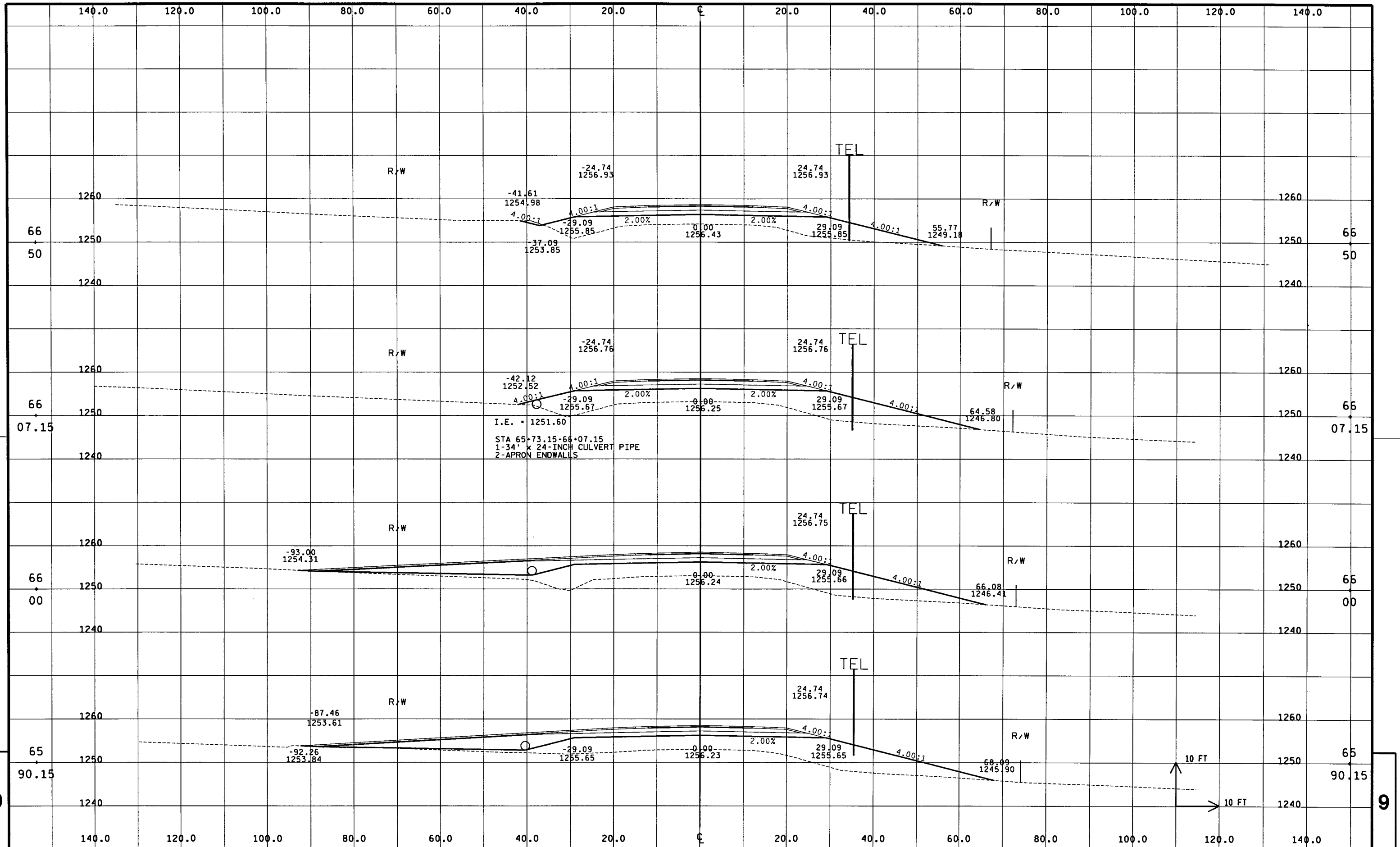
PLOT SCALE : **.....plotscale.....**
MSA PROFESSIONAL SERVICES WISDOT/CADD SHEET 21











STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CTH N

SHEET NO: 122

E

FILE NAME : ... \cth n \xsec20.dgn

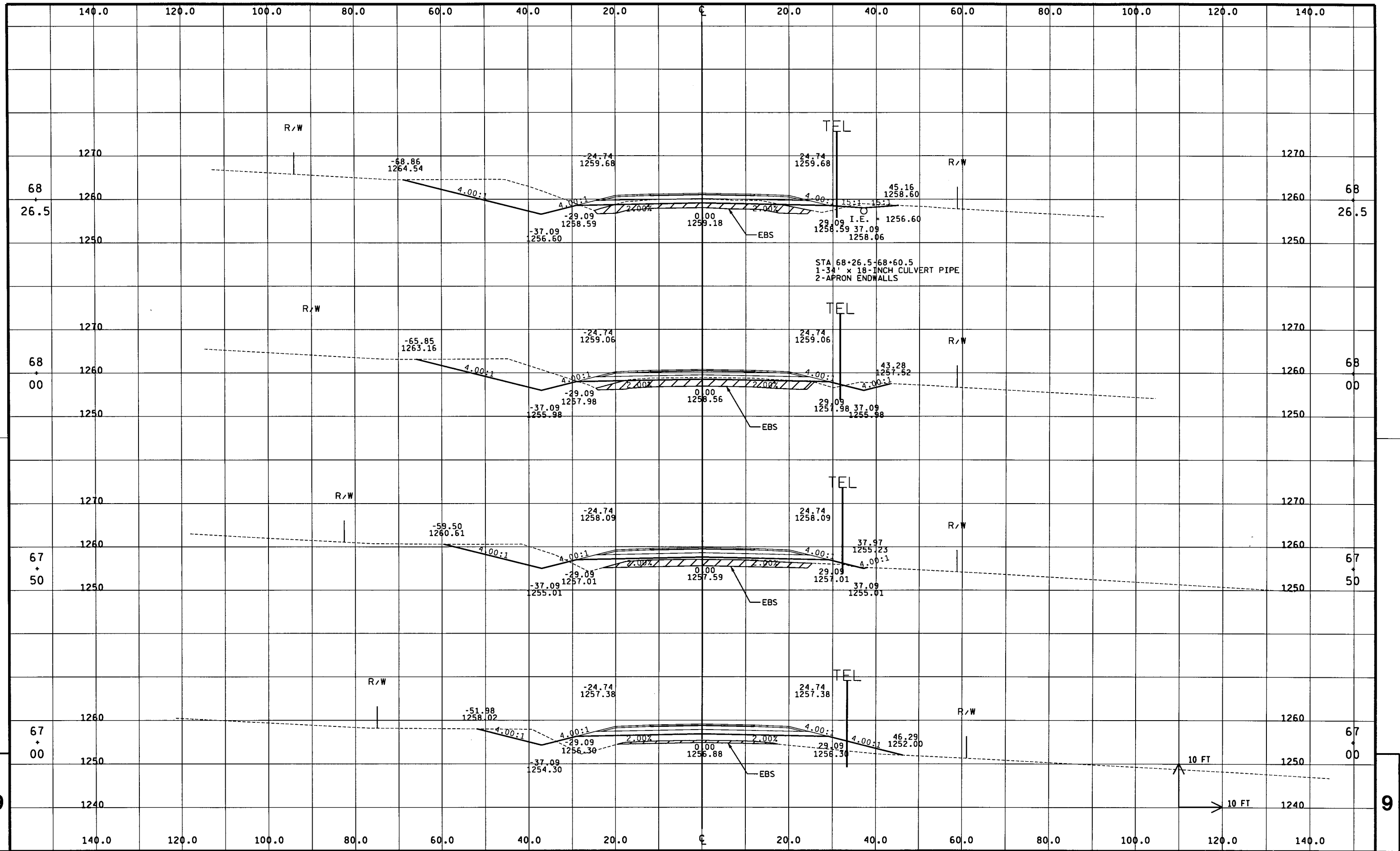
PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : **.....plotscale.....**
MSA PROFESSIONAL SERVICES WISDOT/CADD SHEET 21



STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CTH N

SHEET NO: 123

E

FILE NAME : ... \cth n \xsec21.dgn

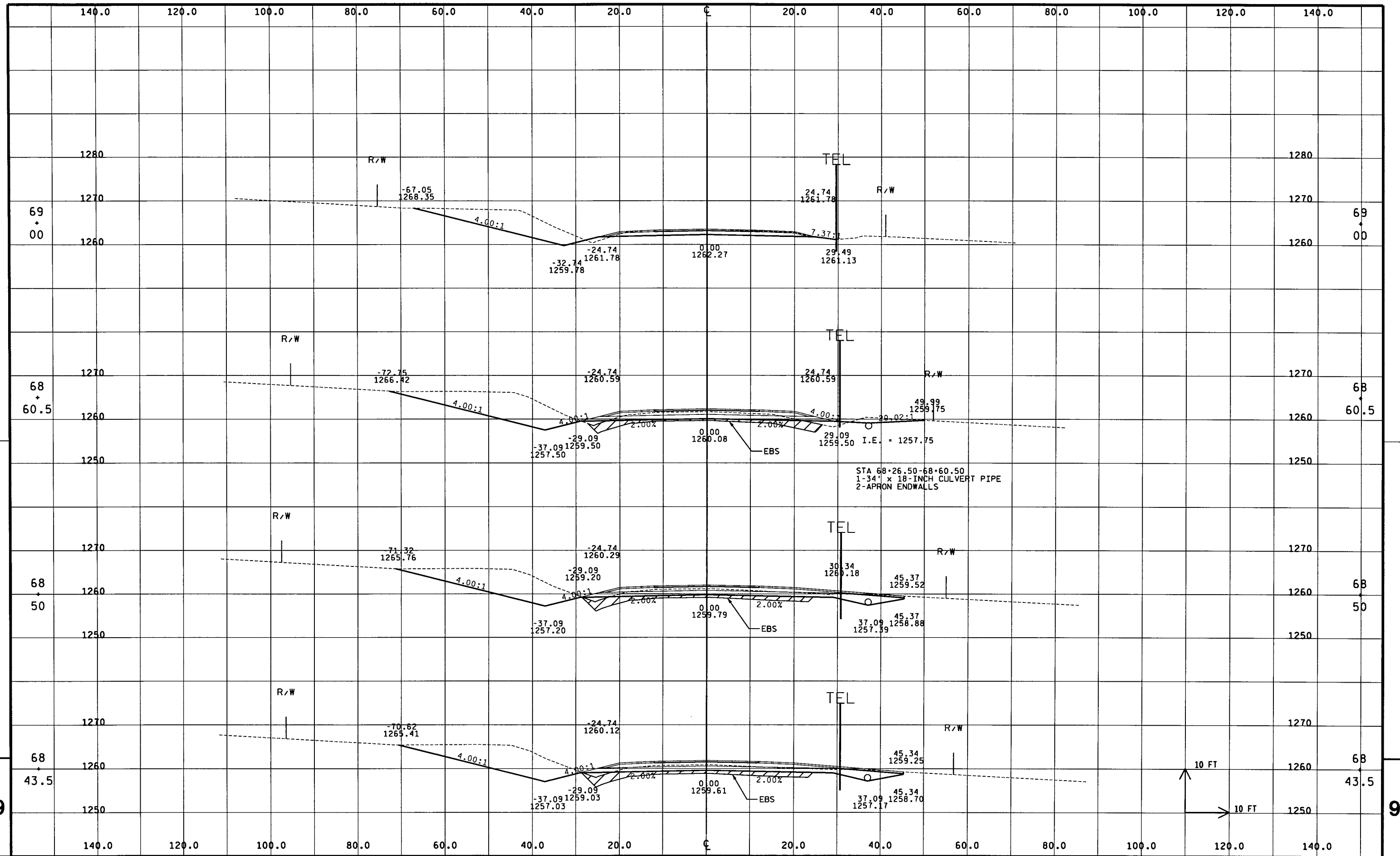
PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : **.....plotscale.....**
MSA PROFESSIONAL SERVICES WISDOT/CADD SHEET 21



STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CTH N

SHEET NO: 124

E

FILE NAME : ... \cth n \xsec22.dgn

PLOT DATE : 12/13/2004

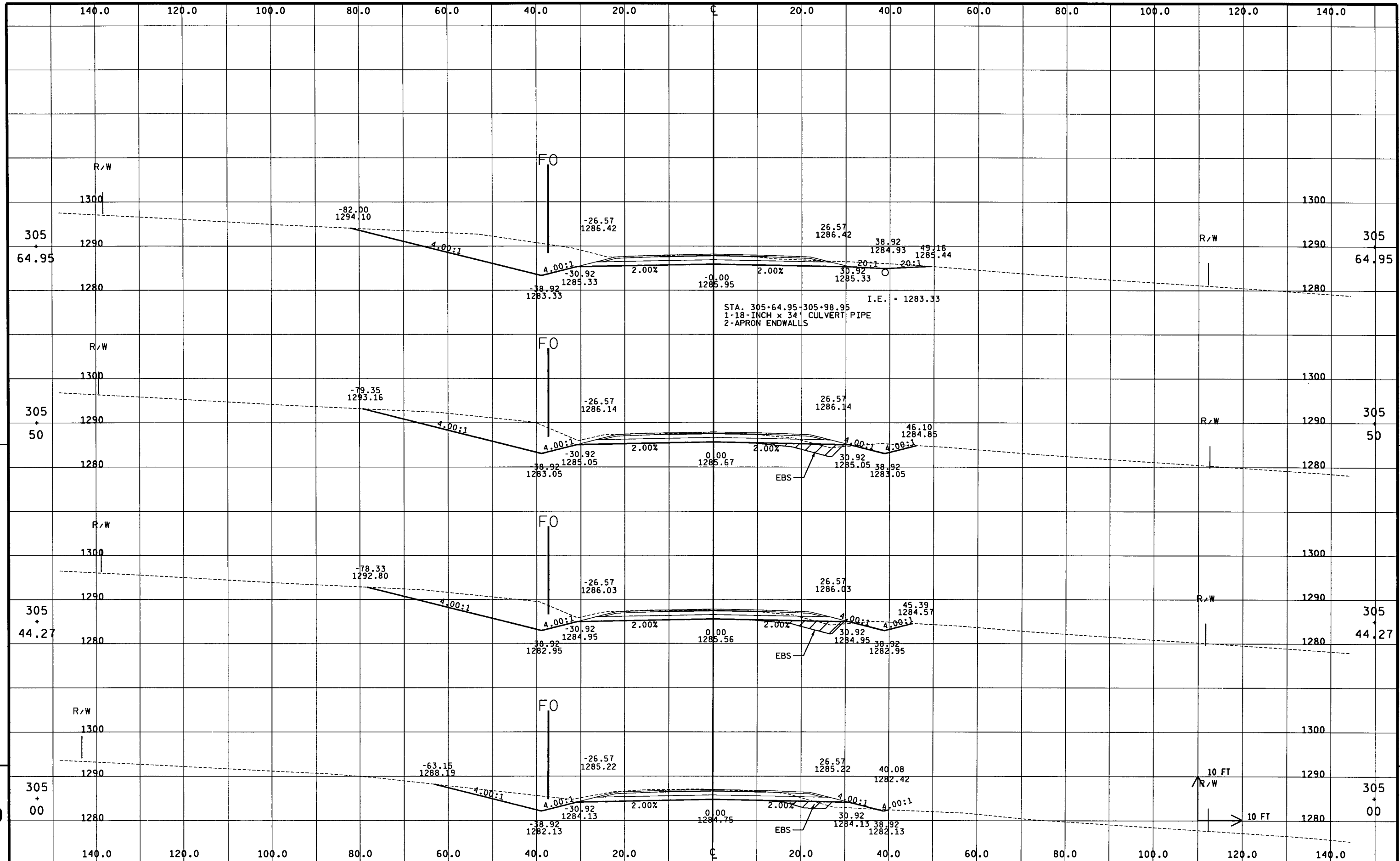
ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : **.....plotscale.....**

MSA PROFESSIONAL SERVICES WISDOT/CADD SHEET 21



STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CAMP PHILLIPS ROAD

SHEET NO: 125

E

FILE NAME : ...xsec01.dgn

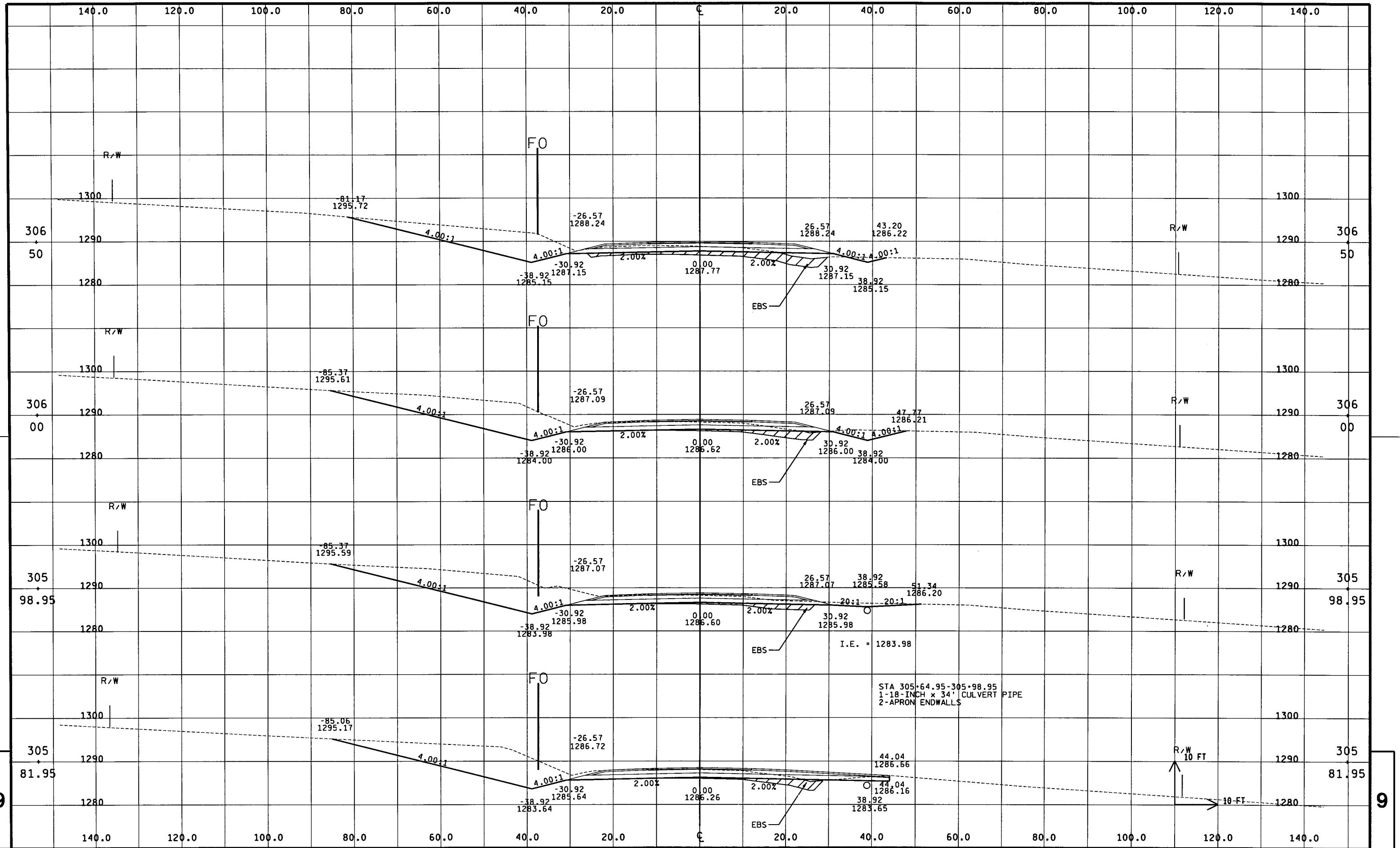
PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : **.....plotscale.....**
MSA PROFESSIONAL SERVICES WISDOT/CADDS SHEET 21



STATE PROJECT NUMBER: 9439-04-75

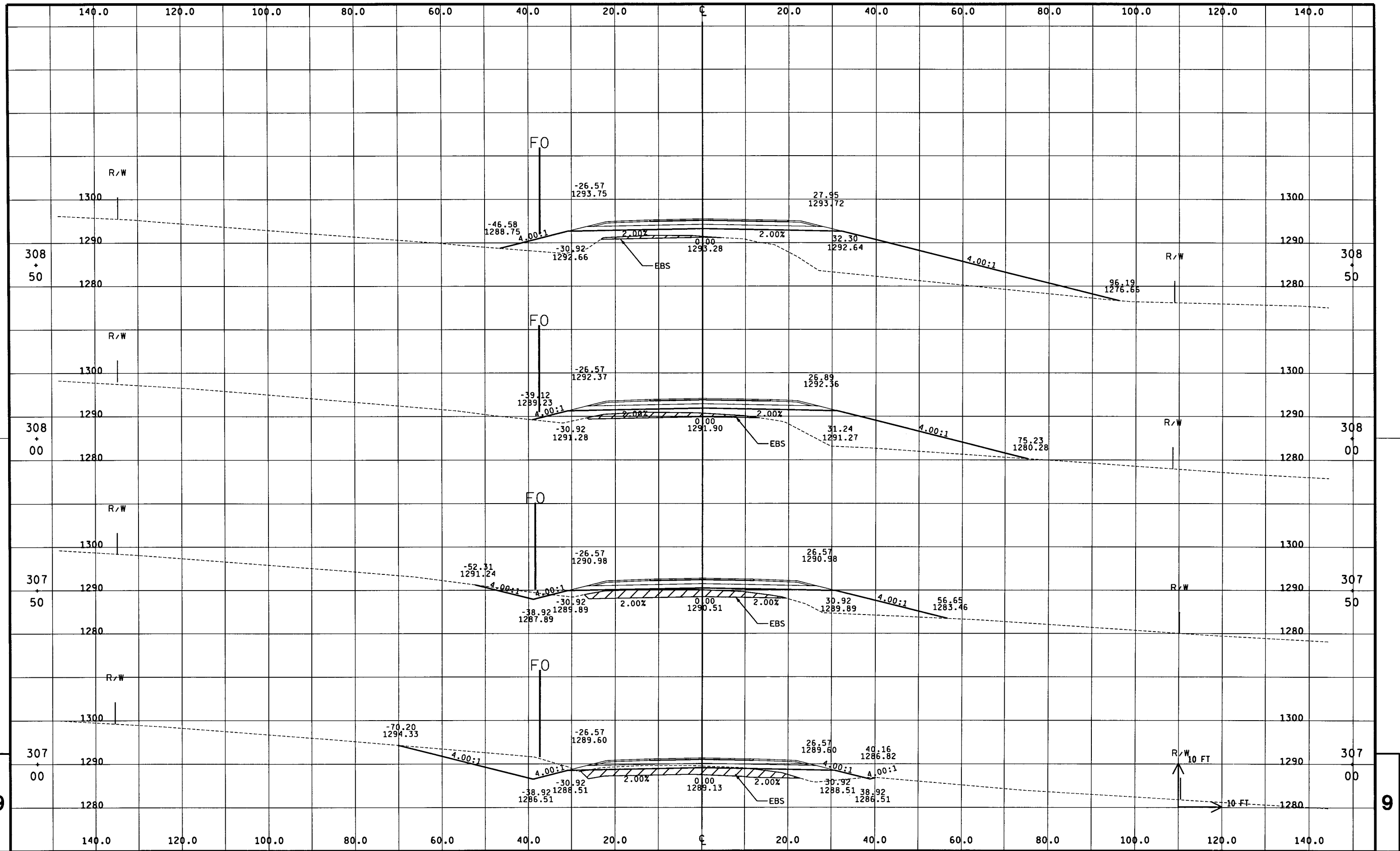
HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CAMP PHILLIPS ROAD

SHEET NO: 126

E



STATE PROJECT NUMBER: 9439-04-75

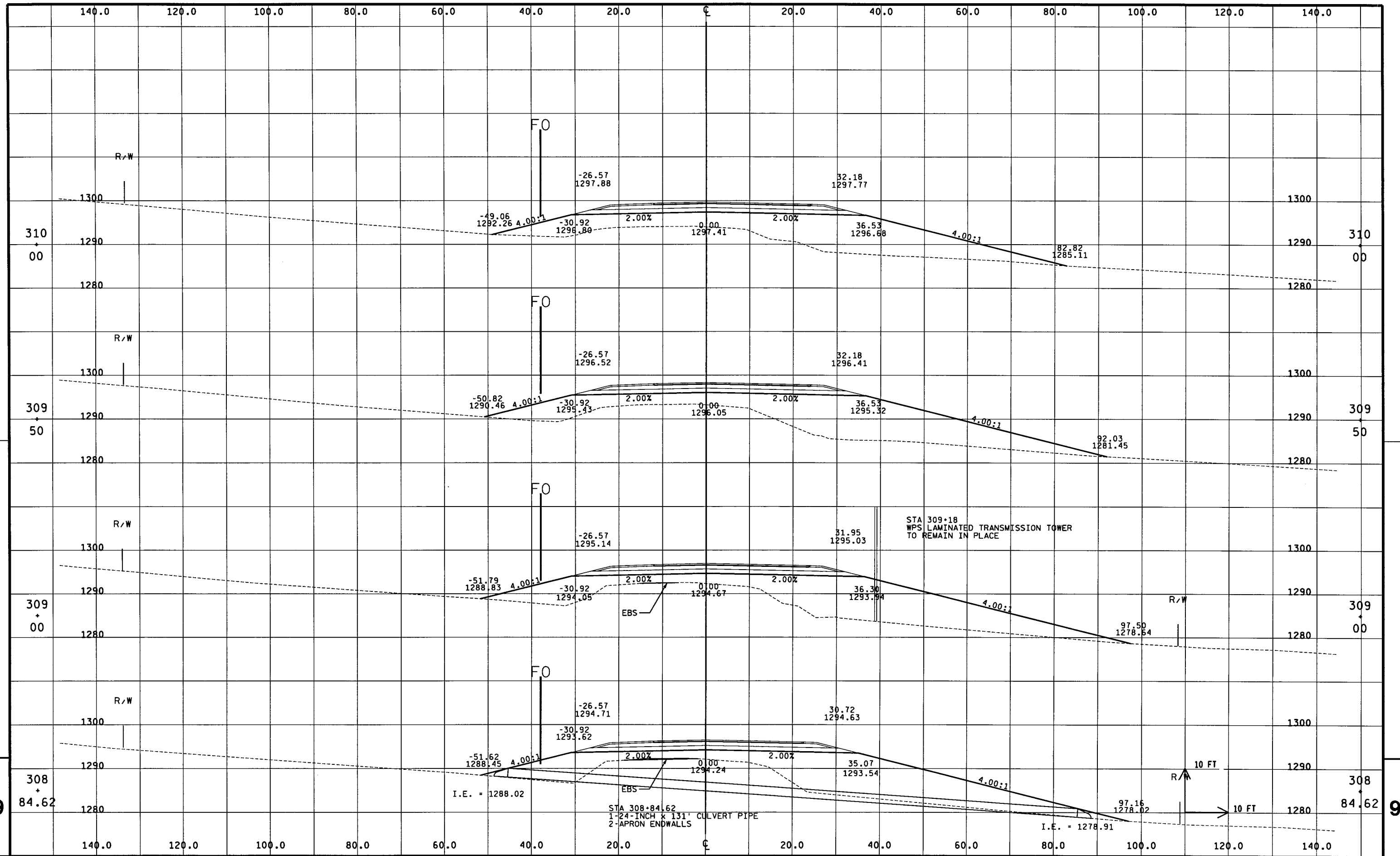
HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CAMP PHILLIPS ROAD

SHEET NO: 127

E



STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CAMP PHILLIPS ROAD

SHEET NO: 128

FILE NAME : ...xsec04.dgn

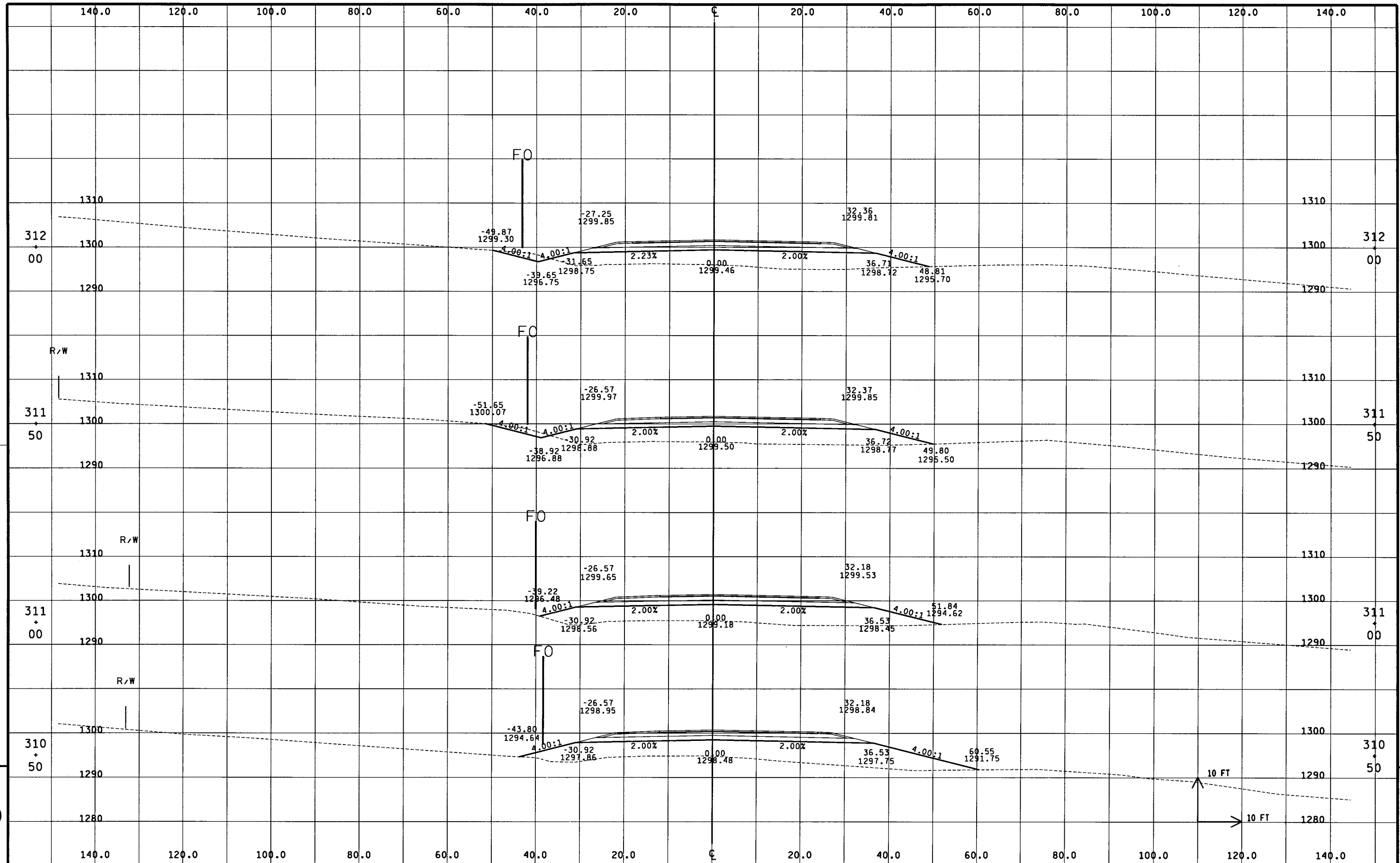
PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : *\$.....plotscale.....*\$
MSA PROFESSIONAL SERVICES WISDOT/CADDS SHEET 21



STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CAMP PHILLIPS ROAD

SHEET NO: 129

E

FILE NAME : ...xsec05.dgn

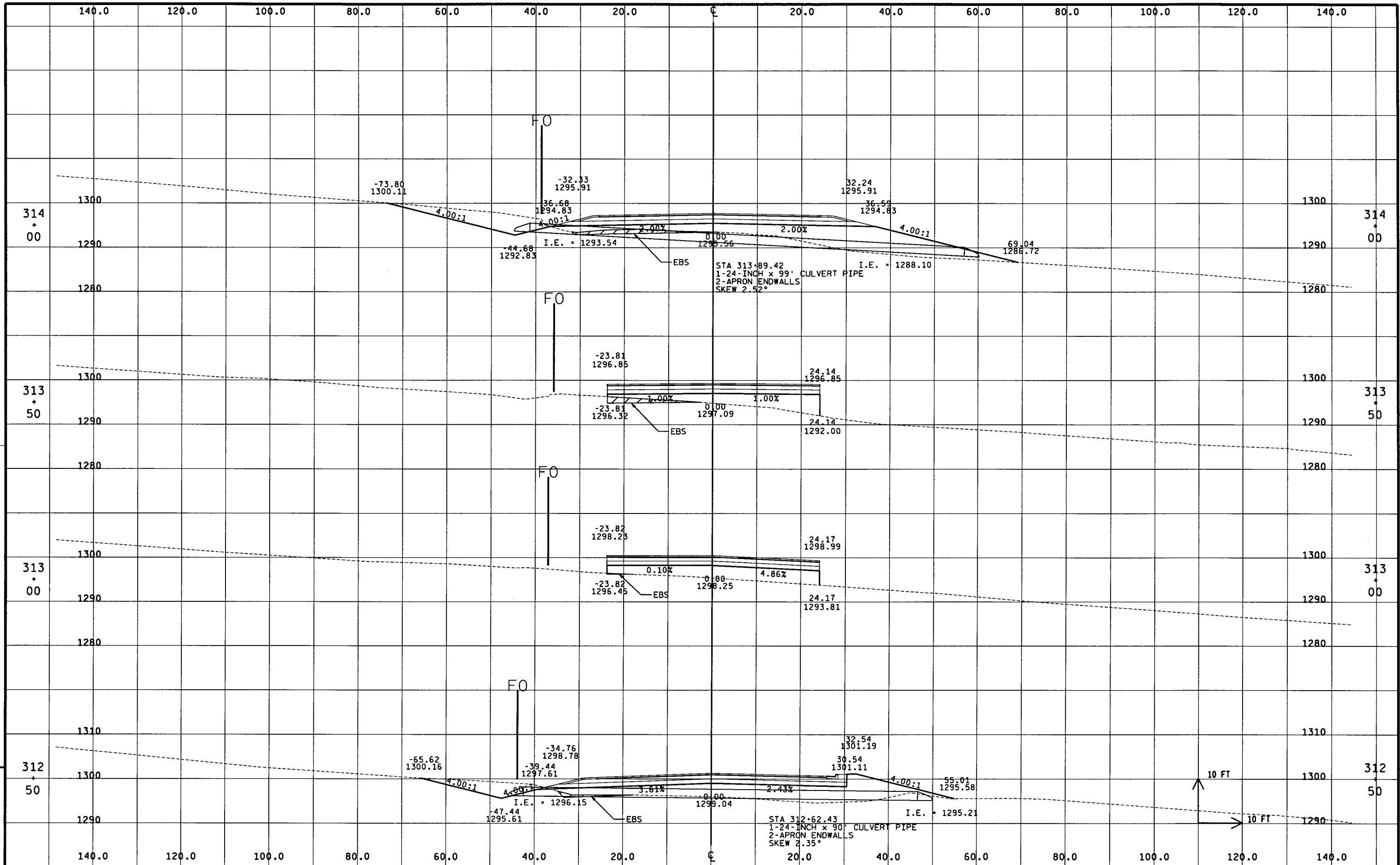
PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : **.....plotscale.....**
MSA PROFESSIONAL SERVICES WISDOT/CADDS SHEET 21



STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CAMP PHILLIPS ROAD

SHEET NO: 130

E

FILE NAME : ...xsec06.dgn

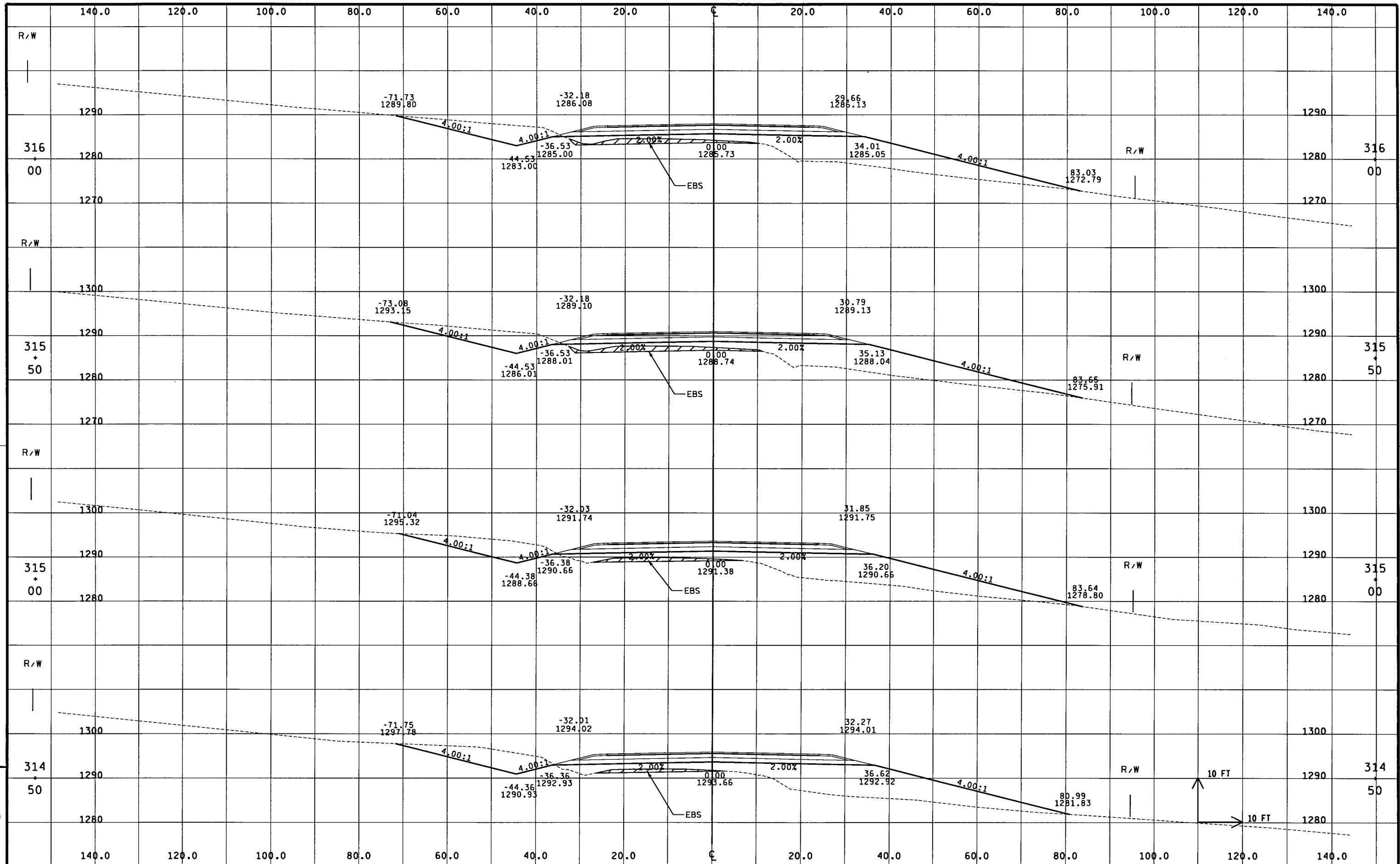
PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : \$\$.....plotscale.....\$\$
MSA PROFESSIONAL SERVICES WISDOT/CADDS SHEET 21



STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CAMP PHILLIPS ROAD

SHEET NO: 131

E

FILE NAME : ...xsec07.dgn

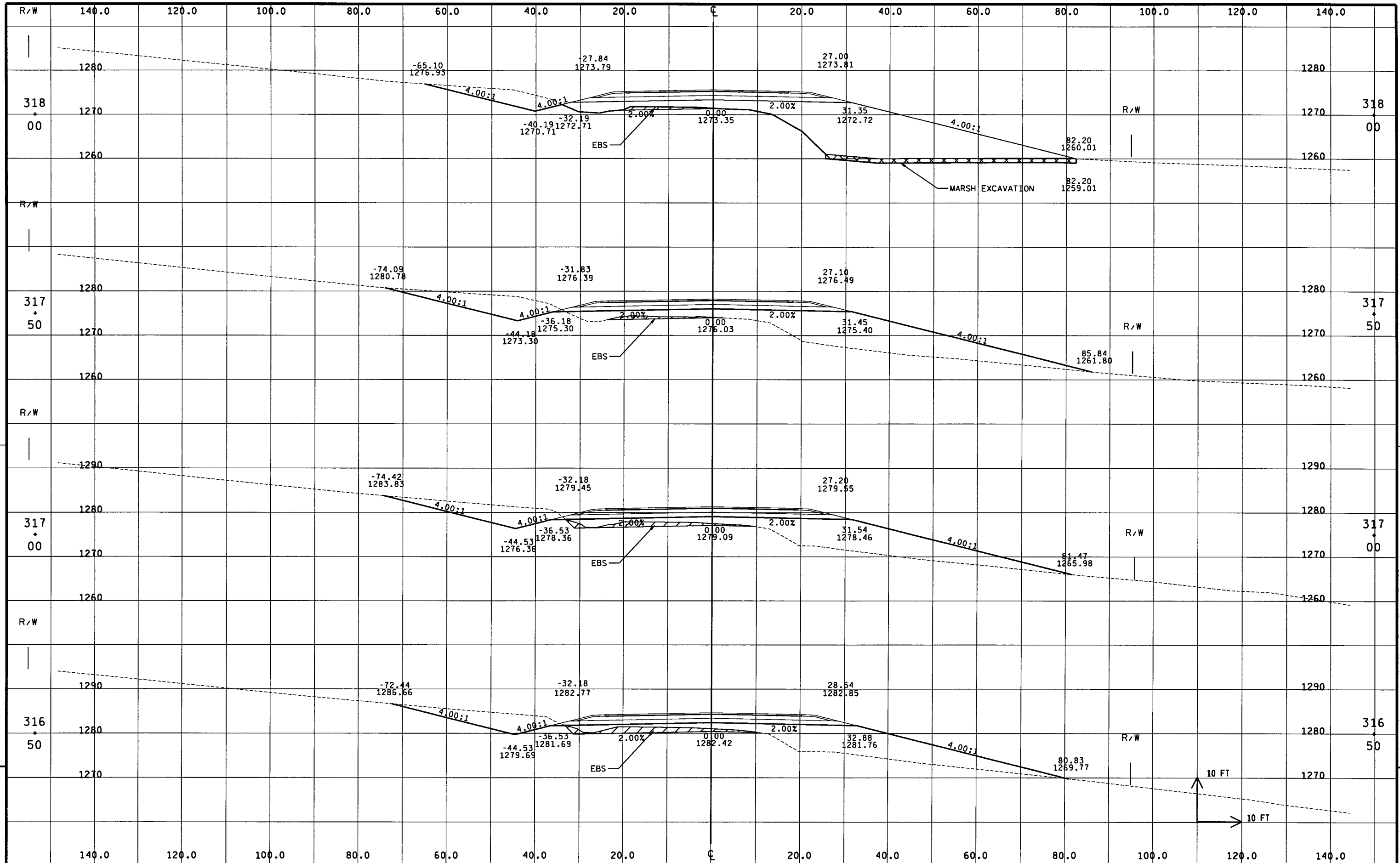
PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : **.....plotscale.....**
MSA PROFESSIONAL SERVICES WISDOT/CADD SHEET 21



9

9

STATE PROJECT NUMBER: 9439-04-75

HWY: CTH N

COUNTY: MARATHON

CROSS SECTIONS: CAMP PHILLIPS ROAD

SHEET NO: 132

E

FILE NAME : ...xsec08.dgn

PLOT DATE : 12/13/2004

ORG DATE :

PLOT NAME :

Originator : Dist

PLOT SCALE : *\$.....plotscale.....*\$
MSA PROFESSIONAL SERVICES WISDOT/CADD SHEET 21

