

WINNEBAGO

INDEX OF SHEETS

Sheet No. 1	Title
Sheet No. 2 -2.4	Typical Sections and Details
Sheet No. 3 -3.1	Estimate of Quantities
Sheet No. 3A -3B	Miscellaneous Quantities
Sheet No. -	Right of Way Plat
Sheet No. 5 -5.7	Plan and Profile
Sheet No. 6 -6.12	Standard Detail Drawings
Sheet No. -	Sign Plates
Sheet No. -	Structure Plans
Sheet No. -	Computer Earthwork Data
Sheet No. 9 -9.12	Cross Sections

TOTAL SHEETS = 44



STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT  
OREGON STREET, CITY OF OSHKOSH  
35th AVENUE TO WAUKAU STREET  
C.T.H. "I"  
WINNEBAGO COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4994-00-62	STP 6401(4)	1

AS BUILT PLAN NO.

SUPERVISOR A. Route  
RESIDENT Wil Kottler  
CONTRACTOR James Capex Sons  
COMPLETED 11-3-93

STATE PROJECT NUMBER  
4994-00-62

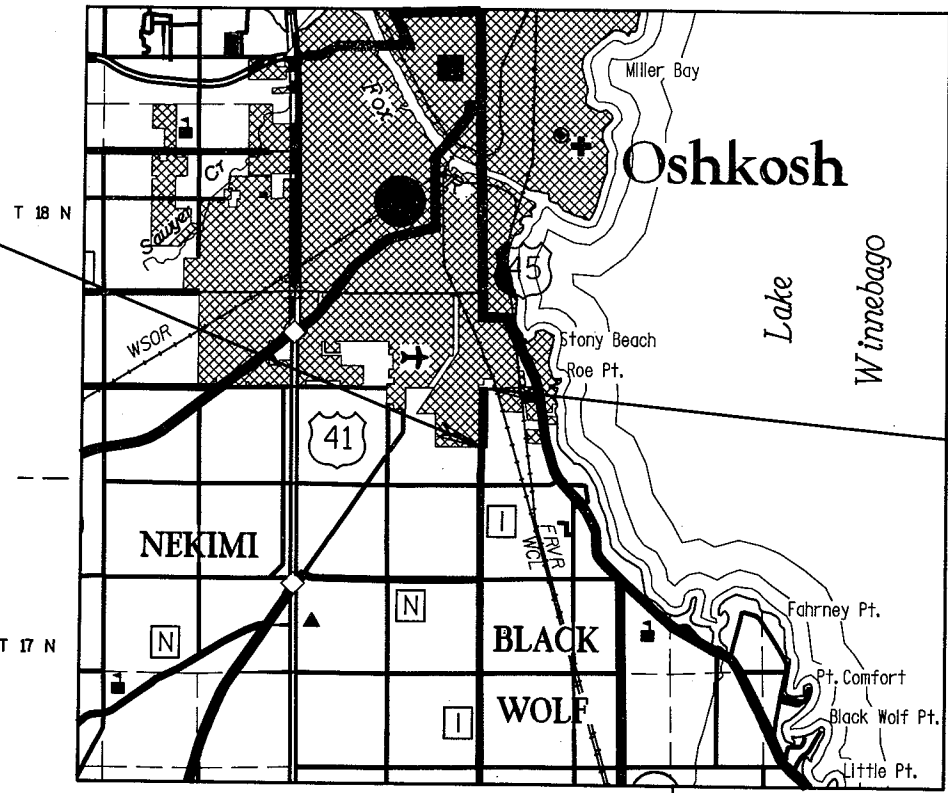
DESIGN DESIGNATION

A.D.T. 1992	=	5418
A.D.T. 2012	=	7300
D.H.V.	=	730
D.	=	55
T.	=	8.0%
V.	=	45 M.P.H.
ESALS	=	N/A

CONVENTIONAL SIGNS

COUNTY LINE		COMBUSTIBLE FLUIDS (UNDER PRESSURE)	
CORPORATE LIMITS		UNDERGROUND UTILITIES GAS	
PROPERTY LINE		ELECTRIC	
LOT LINE		TELEPHONE	
LIMITED HIGHWAY EASEMENT		SERVICE PEDESTAL	
EXISTING RIGHT OF WAY		CABLE MARKER	
NEW RIGHT OF WAY		POWER POLE	
REFERENCE LINE		TELEPHONE POLE	
SLOPE INTERCEPT		RAILROADS	
ORIGINAL GROUND		MARSH	
MARSH OR ROCK PROFILE		WOODED AREA	
CULVERT IN PLACE			
CULVERT REQUIRED			
CULVERT REQUIRED (Profile)			

BEGIN PROJECT  
STA. 78+50.00  
X=2,382,800 (±100)  
Y= 720,000 (±100)



END PROJECT  
STA. 116+49.57

LAYOUT  
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.720 MI. (URBAN)

APPROVED FOR WINNEBAGO COUNTY  
DATE: 4/25/91  
COUNTY HIGHWAY COMMISSIONER



PLAN PREPARED BY  
AYRES ASSOCIATES  
CONSULTING ENGINEERS  
GREEN BAY, WISCONSIN

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PREPARED BY

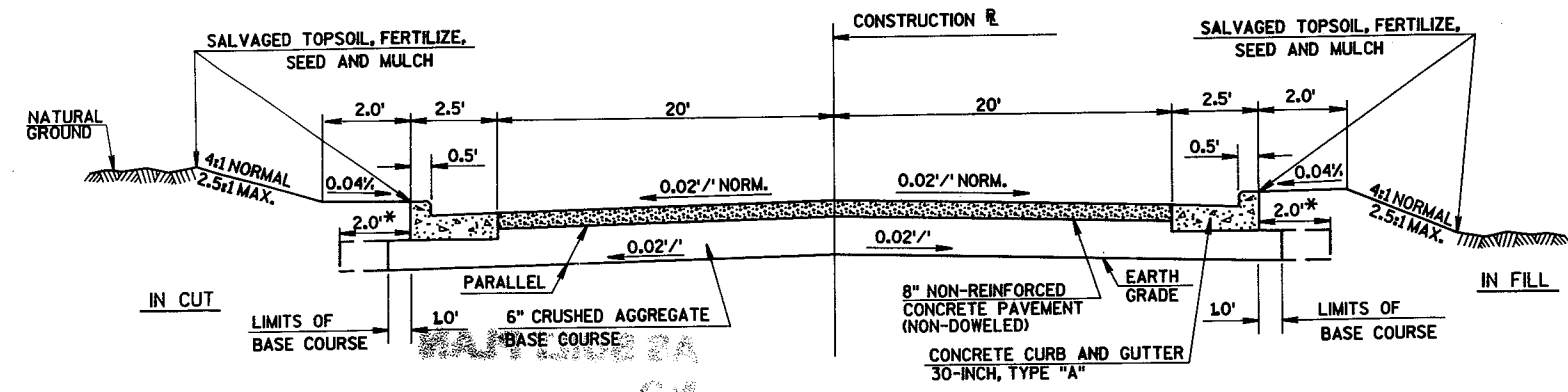
Surveyor	AYRES ASSOC.
Designer	AYRES ASSOC.
District Examiner	D.H. CARLSON
District Supervisor	J.C. LAMERS
C.O. Coordinator	D.L. Lyford
C.O. Examiner	J.E. GOODMAN

APPROVED FOR DISTRICT OFFICE  
DATE: 11-3-92  
(Signature)

AUTHORIZED FOR CENTRAL OFFICE DESIGN  
DATE: 11/24/92  
(Signature)

ALL COORDINATES SHOWN ON THIS PLAN ARE SCALED FROM U.S.G.S. TOPOGRAPHIC MAP, ROSENDALE, WI., 15 MINUTE QUADRANGLE, SOUTH ZONE, FOR IDENTIFICATION ONLY.

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



TYPICAL SECTION FOR C.T.H. "I"

\* IF PAVED WITH INTERGRAL CURB AND GUTTER

GENERAL NOTES

THE LOCATION OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.  
 INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN SHEETS ARE APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL EXISTING CULVERT PIPES WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED EXCEPT AS OTHERWISE NOTED.  
 THE EXACT LOCATION AND LIMITS OF PRIVATE ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE EXACT LIMITS OF CONCRETE OR ASPHALTIC DRIVEWAY REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL DISTANCES SHOWN ON THIS PLAN ARE GROUND DISTANCES.  
 BEARINGS SHOWN ON THIS PLAN ARE MAGNETIC BEARINGS TO THE NEAREST SECOND.  
 CURVE DATA IS BASED ON ARC DEFINITION.

ELEVATIONS SHOWN ON THE ROADWAY CROSS SECTIONS ARE EARTH GRADE ELEVATIONS AT THE CENTERLINE OF THE ROADWAY.

ALL TIES ON THIS PLAN ARE HORIZONTAL UNLESS DESCRIBED OTHERWISE.  
 ALL JOINTS SHALL BE SEALED WITH HOT Poured ELASTIC TYPE JOINT SEALER.  
 EXCAVATED MATERIAL MAY BE USED IN LIEU OF GRANULAR BACKFILL FOR THE STORM SEWER THAT IS LOCATED OUTSIDE OF THE ROADWAY IF THE MATERIAL IS APPROVED BY THE ENGINEER.

CURB HEIGHTS AT THE END OF CURB AND GUTTER SHALL BE TAPERED FROM 0 INCHES TO 6 INCHES IN 6 FEET, UNLESS OTHERWISE NOTED.

CROSS SECTIONS AND UNCLASSIFIED EXCAVATION WERE FIGURED WITH ONE FOOT BEHIND BACK OF CURB.

SLOPING PERMITS HAVE BEEN ACQUIRED FOR WORK TO BE PERFORMED OUTSIDE OF THE HIGHWAY RIGHT OF WAY AND THESE RIGHTS HAVE BEEN EXTENDED TO THE CONTRACTOR.

ALL ELEVATIONS ON THIS PROJECT ARE REFERENCED TO THE CITY OF OSHKOSH DATUM.

ALL RADII SHOWN ARE TO THE FACE OF CURB, UNLESS OTHERWISE NOTED.

ALL FRAMES AND GRATES ON EXISTING STRUCTURES WHICH ARE DESIGNATED TO BE REMOVED SHALL BE STORED WITHIN THE RIGHT OF WAY AT A LOCATION DETERMINED BY THE ENGINEER, AND WILL BE PICKED UP BY THE CITY OF OSHKOSH.

CURB CUTS FOR HANDICAPPED RAMPS TYPE 1 SHALL BE PROVIDED IN ALL QUADRANTS OF EACH INTERSECTION FOR FUTURE CONSTRUCTION OF SIDEWALK.

EXCAVATION BELDW SUBGRADE (E.B.S.) IS NOT SHOWN ON THE CROSS SECTIONS OR PLAN AND PROFILE SHEETS, BUT IF REQUIRED, E.B.S. SHALL BE MEASURED AND PAID FOR AS UNCLASSIFIED EXCAVATION. THE LOCATION FOR E.B.S., IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

SILT FENCE REQUIRED FOR THIS PROJECT SHALL MEET THE REQUIREMENTS OF SILT FENCE FOR SILTY SOILS.

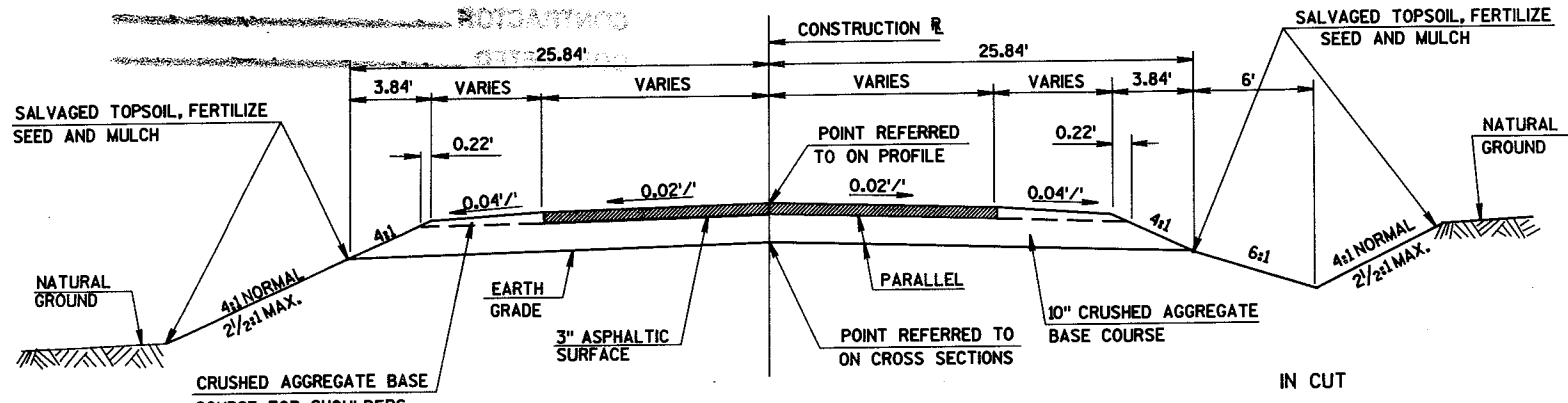
NO TREES ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

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

BERNSTEN MONUMENTS SHALL BE USED AS LANDMARK REFERENCE MONUMENTS AND WILL BE SUPPLIED BY THE CITY OF OSHKOSH.

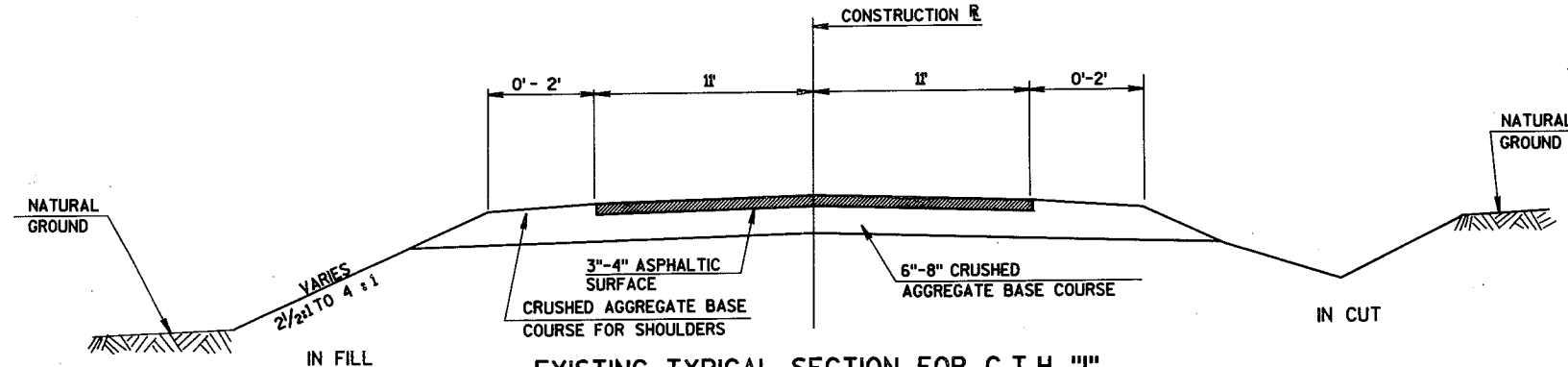
- 8A5-8a
- 8A5-8c
- 8B6-3
- 8B7-3
- 8C1-4
- 8D1-11
- 8D5-8
- 8E9-3
- 8F1-10a6b

- 15C2-2
- 15C8-4a
- 15A1-5



TYPICAL FINISHED SECTION FOR C.T.H. "I"

STA. 78+50 - STA. 79+50



EXISTING TYPICAL SECTION FOR C.T.H. "I"

STANDARD DETAIL DRAWINGS

UTILITIES

- INLET COVERS
- INLET AND MANHOLE COVERS
- MANHOLES, TYPE 1
- MANHOLES, TYPE 2 AND 3
- INLETS, TYPE 1, 2, AND 3
- CONCRETE CURB, CONCRETE CURB AND GUTTER AND PAVEMENT TIES
- CURB RAMPS
- SILT FENCE
- APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

- BARRICADES AND TRAFFIC CONTROL FOR ROAD CLOSURES
- PAVEMENT MARKING
- LANDMARK REFERENCE MONUMENTS AND COVERS

CITY OF OSHKOSH  
 DIRECTOR OF PUBLIC WORKS  
 215 CHURCH AVENUE  
 P.O. BOX 1130  
 OSHKOSH, WISCONSIN 54902-1130  
 ATTENTION: MR. GERALD KONRAD

TELEPHONE 1-414-236-5056

WISCONSIN PUBLIC SERVICE CO.  
 P.O. BOX 19002  
 GREEN BAY, WISCONSIN 54307-9002  
 ATTENTION: MR. JEROME TEWS

TELEPHONE 1-414-433-1389

WARNER CABLE COMMUNICATIONS INC.  
 304 HIGH AVENUE  
 OSHKOSH, WISCONSIN 54902  
 ATTENTION: MR. JAMES SCHROEDER

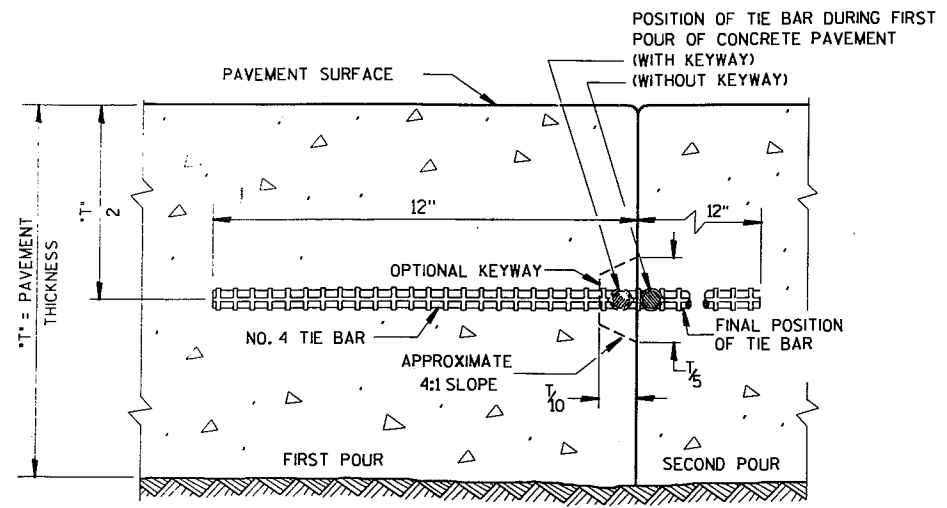
TELEPHONE 1-414-233-2700

TELEPHONE 1-414-929-1008

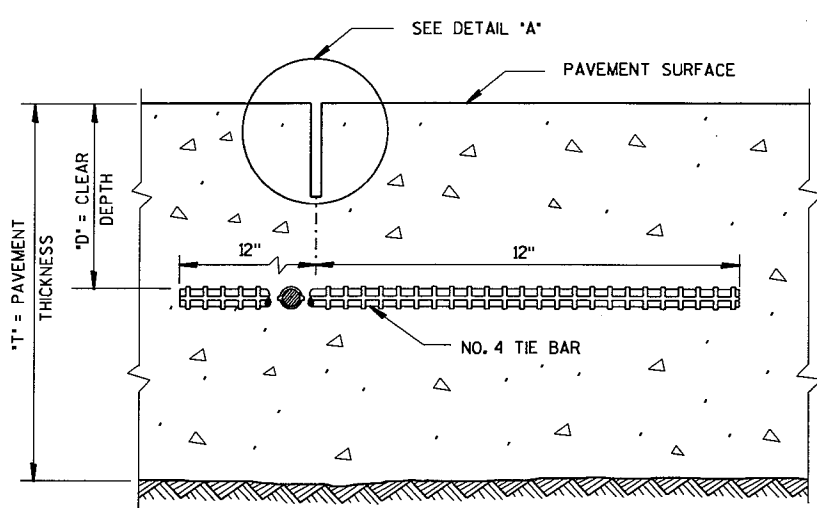
DIGGERS HOTLINE

TELEPHONE 1-800-242-8511  
 TOLL FREE

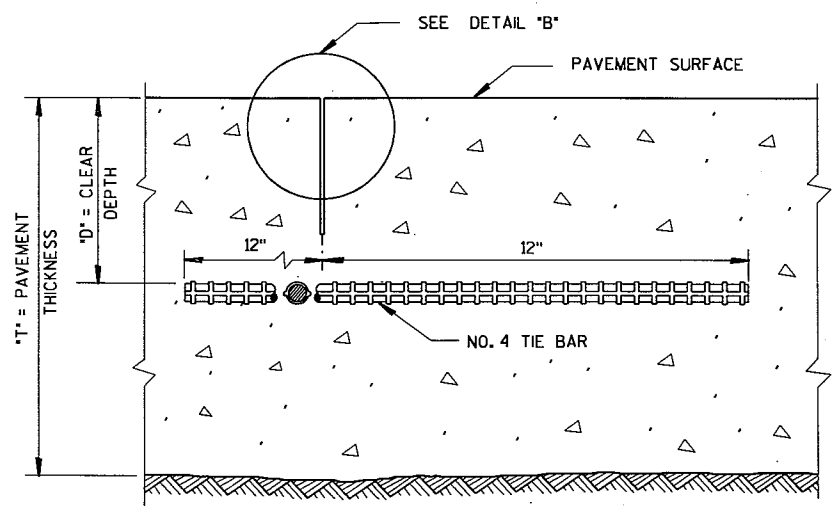
LEVELS ON - 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



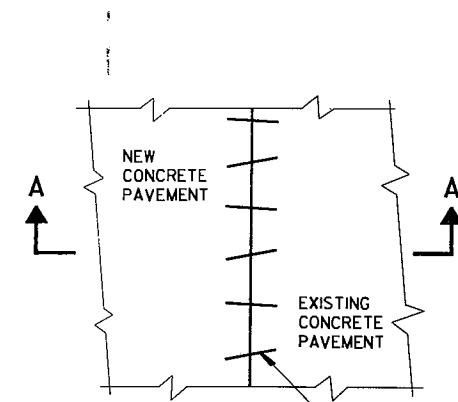
CONSTRUCTION JOINT



SAWED JOINT

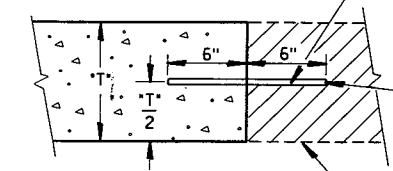


RIBBON JOINT



PLAN VIEW

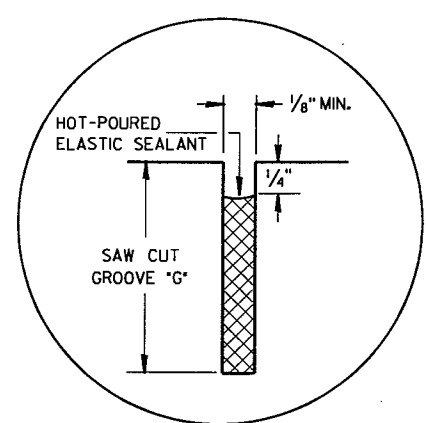
NO. 6 TIE BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



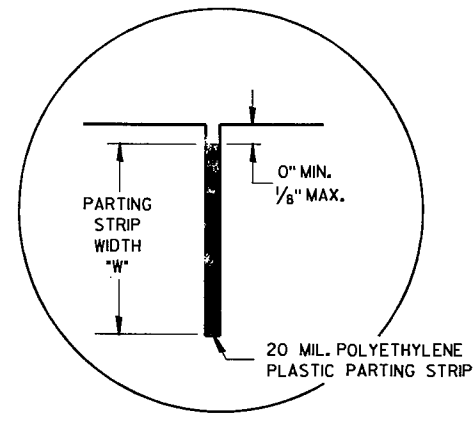
SECTION A-A  
PAVEMENT TIES

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.

EXIST. CONC. PAVEMENT



DETAIL 'A'



DETAIL 'B'

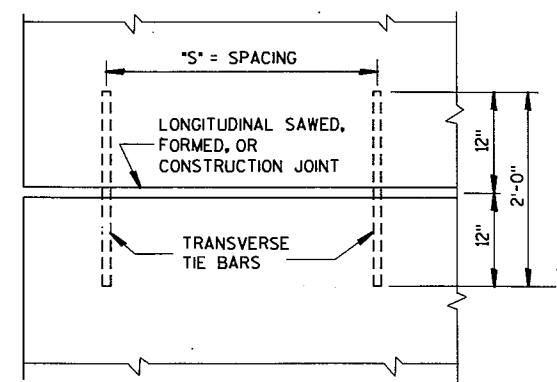
PAVEMENT THICKNESS 'T'	CLEAR DEPTH 'D'	SAW CUT GROOVE 'G'	MAXIMUM TIE BAR SPACING 'S'	PARTING STRIP WIDTH 'W'
6"	3" ± 1/2"	1 1/2"	30"	2"
7"	3 1/4" ± 1"	1 3/4"	30"	2 1/4"
8"	3 3/4" ± 1"	2"	30"	2 1/2"
9"	4 1/4" ± 1"	2 1/4"	30"	3"
10"	4 3/4" ± 1"	2 1/2"	30"	3 1/4"
11"	5 1/4" ± 1"	2 3/4"	24"	3 3/4"
12"	5 3/4" ± 1"	3"	24"	4"

GENERAL NOTES

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

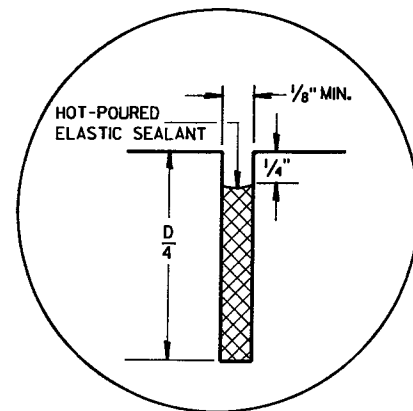
DETAILS "A" AND "B" ARE EQUAL ALTERNATES UNLESS OTHERWISE SPECIFIED ELSEWHERE IN THE CONTRACT.

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

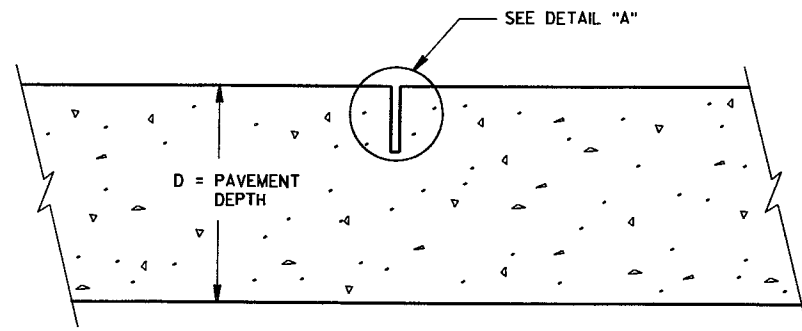


PLAN VIEW  
SHOWING LOCATION OF TIE BARS

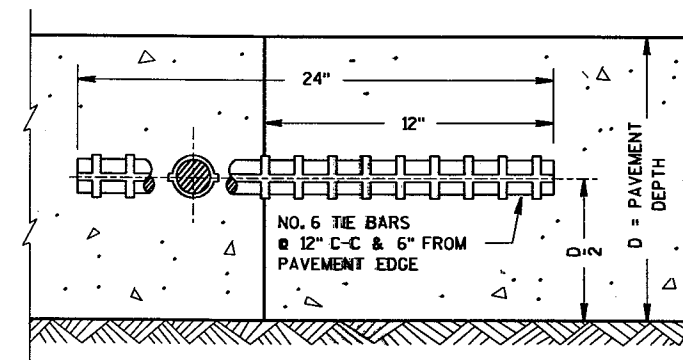
LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



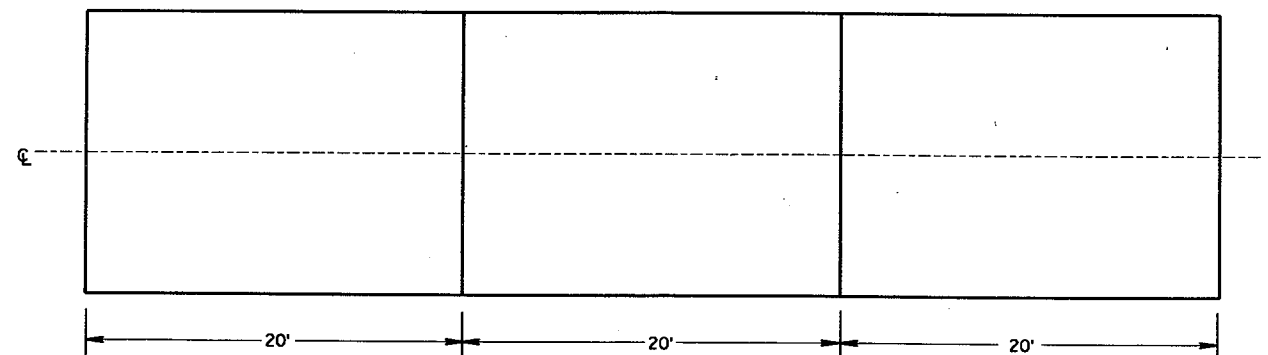
DETAIL "A"



CONTRACTION JOINT



CONSTRUCTION JOINT



CONTRACTION JOINT LOCATIONS

**GENERAL NOTES**

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

**CONTRACTION JOINTS**

CONTRACTION JOINTS SHALL BE LOCATED AT A UNIFORM SPACING OF 20' (±1'). EXCEPTIONS SHALL BE AS DIRECTED BY THE ENGINEER.

THE SAWCUT SHALL BE TO THE DEPTH OF  $D/4$  AND THE WIDTH OF  $1/8$  INCH.

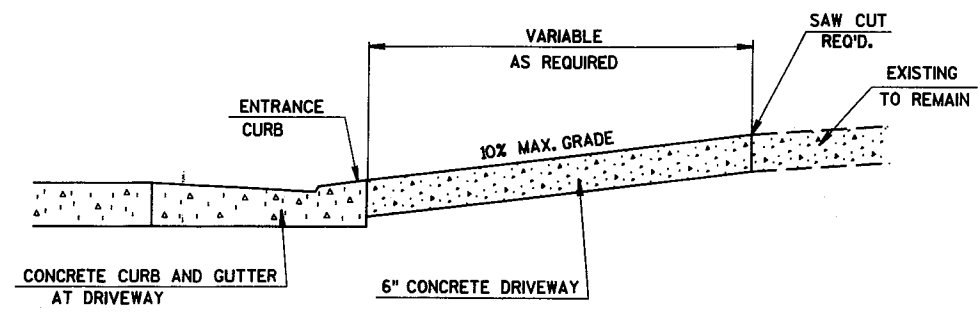
**CONSTRUCTION JOINTS**

CONSTRUCTION JOINTS MAY BE LOCATED IN ANY PANEL AND BE A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT. CONSTRUCTION JOINTS MAY BE CONSTRUCTED EITHER PARALLEL TO CONTRACTION JOINTS OR AT 90° TO THE CENTERLINE.

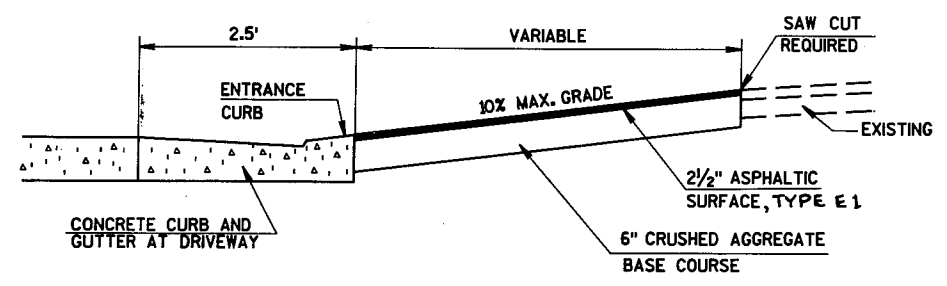
TIE BARS MAY BE INSERTED THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN Poured.

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

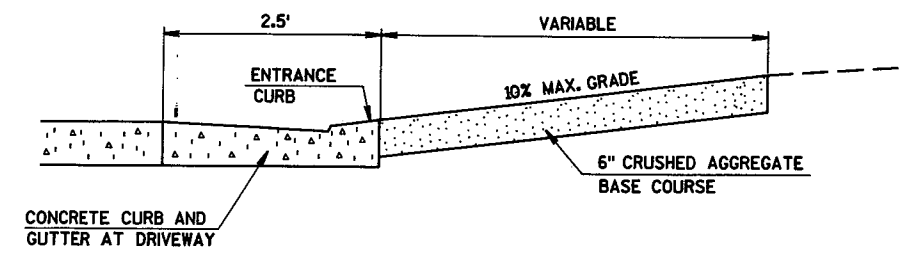
LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



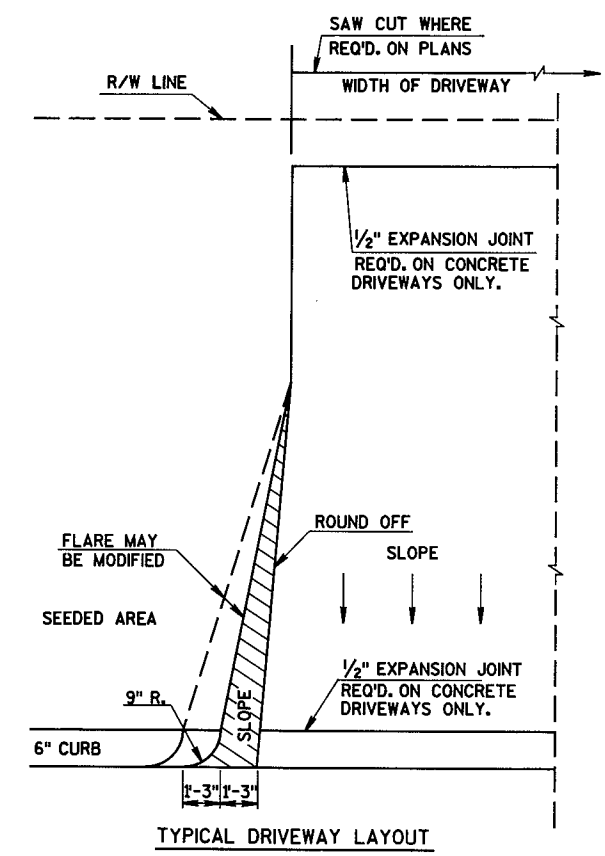
**TYPICAL LONGITUDINAL SECTION AT  
CONCRETE SURFACE PRIVATE ENTRANCES**



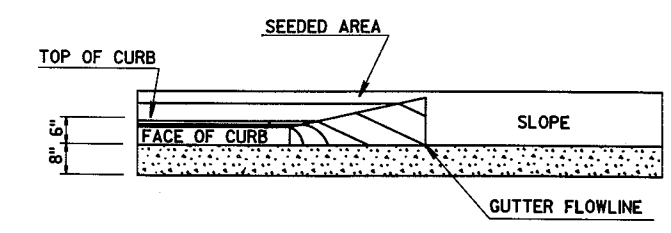
**TYPICAL LONGITUDINAL SECTION AT  
ASPHALTIC SURFACE PRIVATE ENTRANCES**



**TYPICAL LONGITUDINAL SECTION AT  
CRUSHED AGGREGATE SURFACE PRIVATE ENTRANCES**



**TYPICAL DRIVEWAY LAYOUT**

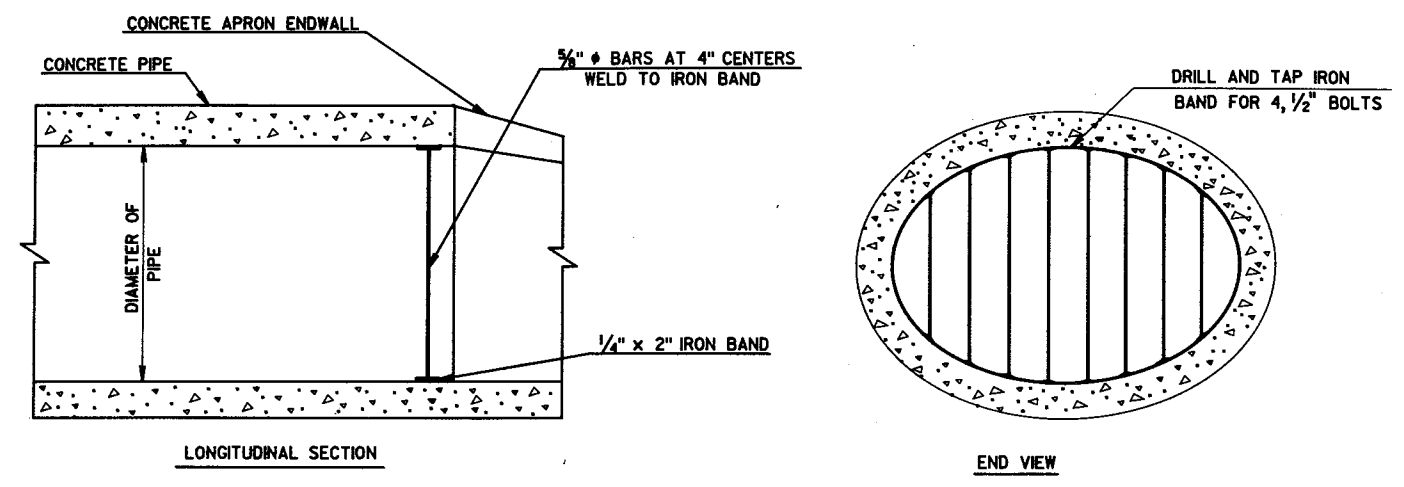


**PROFILE (PARALLEL TO R OF ROADWAY)**

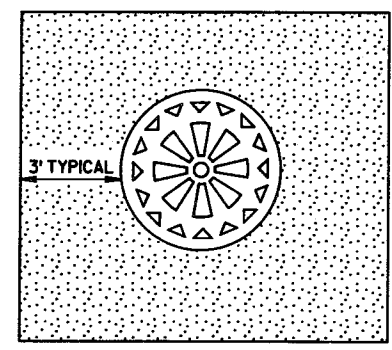
NOTE: RESIDENTIAL DRIVEWAY WIDTHS SHALL BE A MAX. OF 24'.  
COMMERCIAL DRIVEWAY WIDTHS SHALL BE A MAX. OF 35'.

**DRIVEWAY DETAILS**

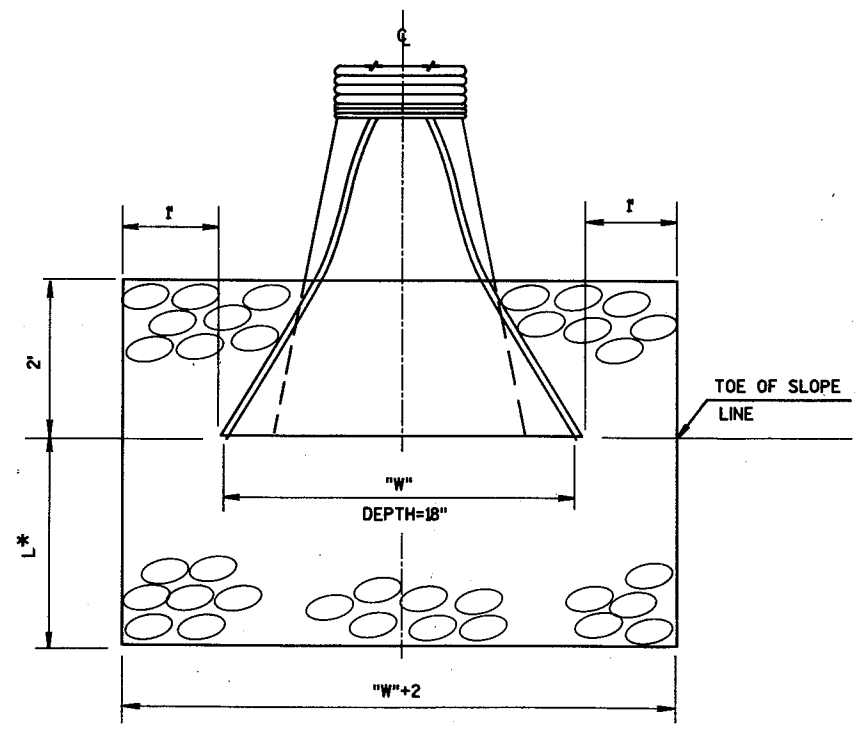
LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



END OF PIPE GRATE  
ENDWALL NUMBER 45



SOD AT INLETS - PLAN VIEW  
INLET NUMBER 1,2,3,7 AND 39



\*- TO BE DETERMINED BY THE ENGINEER IN THE FIELD  
SOD AND MEDIUM RANDOM RIPRAP AT PIPE ENDS

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

DATE 12/04/92

## ESTIMATE OF QUANTITIES

ITEM	ITEM DESCRIPTION	UNIT	TOTAL	4994-00-62 QUANTITY
20101	CLEARING	STA.	3.00	3.00
20102	CLEARING	I.D.	276.00	276.00
20104	GRUBBING	STA.	3.00	3.00
20105	GRUBBING	I.D.	276.00	276.00
20401	REMOVING PAVEMENT	S.Y.	80.00	80.00
20405	REMOVING CURB AND GUTTER	L.F.	10.00	10.00
20414	REMOVING MANHOLES	EACH	1.00	1.00
20416	REMOVING INLETS	EACH	2.00	2.00
20503	UNCLASSIFIED EXCAVATION	C.Y.	15,600.00	15,600.00
21301	FINISHING ROADWAY	L.S.	1.00	1.00
30404	CRUSHED AGGREGATE BASE COURSE	TON	7,420.00	7,420.00
41508	CONCRETE PAVEMENT, 8-INCH	S.Y.	16,680.00	16,680.00
41531	CONCRETE DRIVEWAY	S.Y.	56.00	56.00
41571	PAVEMENT TIES	EACH	31.00	31.00
41572	DOWEL BARS	EACH	24.00	24.00
52140	CORRUGATED STEEL PIPE ARCH, 42X29-INCH	L.F.	58.00	58.00
52260	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 12-INCH	EACH	2.00	2.00
52261	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 15-INCH	EACH	1.00	1.00
52365	REINFORCED CONCRETE APRON ENDWALLS FOR HORIZONTAL ELLIP. CULVERT PIPE, 29X45-INCH	EACH	1.00	1.00
60123	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	L.F.	7,402.00	7,402.00
60604	MEDIUM RANDOM RIPRAP	C.Y.	15.00	15.00
60734	COMPOSITE PIPE STORM SEWER, 10-INCH	L.F.	34.00	34.00
60825	REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 12-INCH	L.F.	504.00	504.00
60826	REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 15-INCH	L.F.	558.00	558.00
60827	REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 18-INCH	L.F.	179.00	179.00

Sheet 3

ITEM    ITEM DESCRIPTION    UNIT    TOTAL    4974-00-62 QUANTITY

60829 REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 24-INCH    L.F.    490.00    490.00

60831 REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 30-INCH    L.F.    733.00    733.00

60833 REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 36-INCH    L.F.    1,268.00    1,268.00

61006 REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE, CLASS HE- III, STORM SEWER, 29X45-INCH    L.F.    446.00    446.00

61110 MANHOLES, TYPE 1    EACH    11.00    11.00

61112 MANHOLES, TYPE 3    EACH    4.00    4.00

61121 INLETS, TYPE 1    EACH    5.00    5.00

61122 INLETS, TYPE 3    EACH    18.00    18.00

61151 MANHOLE COVERS, TYPE J    EACH    13.00    13.00

61161 INLET COVERS, TYPE A    EACH    2.00    2.00

61163 INLET COVERS, TYPE C    EACH    5.00    5.00

61167 INLET COVERS, TYPE H    EACH    18.00    18.00

61182 ADJUSTING MANHOLE COVERS    EACH    13.00    13.00

61910 MOBILIZATION    L.S.    1.00    1.00

62101 LANDMARK REFERENCE MONUMENTS    EACH    4.00    4.00

62401 WATER    MGAL    74.20    74.20

62505 SALVAGED TOPSOIL    S.Y.    19,200.00    19,200.00

62702 MULCHING    S.Y.    19,200.00    19,200.00

62815 SILT FENCE, DELIVERED    L.F.    220.00    220.00

62816 SILT FENCE, INSTALLED    L.F.    220.00    220.00

62817 SILT FENCE MAINTENANCE    L.F.    220.00    220.00

62905 FERTILIZER, TYPE B    CWT.    12.00    12.00

63002 SEEDING    LB.    345.00    345.00

63101 SODDING    S.Y.    45.00    45.00

64202 FIELD OFFICE, TYPE B    L.S.    1.00    1.00

64210 FIELD LABORATORY    L.S.    1.00    1.00

64301 TRAFFIC CONTROL    L.S.    1.00    1.00

64406 PAVEMENT MARKING, EPOXY, 4-INCH    L.F.    2,280.00    2,280.00

ITEM    ITEM DESCRIPTION    UNIT    TOTAL    4974-00-62 QUANTITY

64437 PAVEMENT MARKING, STOP LINE, EPOXY, 18-INCH    L.F.    20.00    20.00

64601 SAWING EXISTING PAVEMENT    L.F.    472.00    472.00

90406 ASPHALTIC SURFACE, TYPE E1    TON    136.00    136.00

90590 PIPE GRATES    EACH    1.00    1.00

Sheet 3.1



**CLEARING AND GRUBBING**

LOCATION	CLEARING		GRUBBING	
	IN.DIA.	STATION	IN.DIA.	STATION
87+50 - 107+00	14	---	14	---
107+00 - 110+00	---	3	---	3
110+00 - 116+50	262	---	262	---

**PAVEMENT MARKING, EPOXY, 4-INCH**

STATION - STATION	DIRECTION	LOCATION	4-INCH SOLID YELLOW CENTERLINE L.F.	4-INCH DASHED YELLOW CENTERLINE L.F.	18-INCH STOPLINE L.F.
78+50 - 89+50	S.B.	CENTERLINE C.T.H. "I"	100		
114+50 - 116+80	S.B.	CENTERLINE C.T.H. "I"		50	
78+50 - 89+50	N.B.	CENTERLINE C.T.H. "I"		275	
89+50 - 114+50	---	CENTERLINE C.T.H. "I"		625	
114+50 - 116+80	N.B.	CENTERLINE C.T.H. "I"	230		
88+94	---	35TH AVENUE			20
TOTALS			1330	950	20

**DOWEL BARS AND PAVEMENT TIES**

LOCATION	DOWEL BARS EACH	PAVEMENT TIES EACH
STA. 9+49 35TH AVENUE	---	10
STA. 116+49.56 OREGON ST.	24	---
STA. 116+49.56 - 116+80 OREGON ST.	---	21
TOTAL	24	31

**REMOVING PAVEMENT**

LOCATION	QUANTITY S.Y.
112+65 RT. C.T.H. "I"	5
113+75 RT. C.T.H. "I"	30
116+50 - 116+80 C.T.H. "I"	45
TOTAL	80

**REMOVING INLETS**

LOCATION	QUANTITY
115+46 19' LT.	1
115+46 29' RT.	1
TOTAL	2

**REMOVING CURB AND GUTTER**

LOCATION	QUANTITY L.F.
116+40 - 116+50 RT. C.T.H. "I"	10

**REMOVING MANHOLES**

LOCATION	QUANTITY
115+46 5' RT.	1

**SILT FENCE DELIVERED, INSTALLED, AND MAINTENANCE**

LOCATION	QUANTITY L.F.
83+90 RT. C.T.H. "I"	30
88+40 RT. C.T.H. "I"	70
89+68 LT. C.T.H. "I"	30
90+40 LT. C.T.H. "I"	30
91+50 LT. C.T.H. "I"	30
94+48 LT. C.T.H. "I"	30
TOTAL	220

NOTE: SILTY SOILS

**ADJUSTING MANHOLE COVERS**

LOCATION	TYPE	QUANTITY
80+79 34' RT.	SAN. M.H.*	1
83+85 34' RT.	SAN. M.H.*	1
87+82 35' RT.	SAN. M.H.*	1
88+53 24' RT.	SAN. M.H.*	1
88+70 5' LT.	STORM M.H.	1
91+96 24' RT.	SAN. M.H.*	1
95+20 24' RT.	SAN. M.H.*	1
98+45 24' RT.	SAN. M.H.*	1
101+71 25' RT.	SAN. M.H.*	1
102+68 24' LT.	WATER M.H.*	1
105+20 25' RT.	SAN. M.H.*	1
108+99 27' RT.	SAN. M.H.*	1
112+85 27' RT.	SAN. M.H.*	1
TOTAL		13

\* NON-PARTICIPATING

**CRUSHED AGGREGATE BASE COURSE AND WATER**

LOCATION	C.A.B.C. TONS	WATER M/GAL
C.T.H. "I"	7030	70.3
P.E.'s & F.E.'s	390	3.9
TOTAL	7420	74.2

**SALVAGED TOPSOIL, FERTILIZER, SEED, AND MULCH**

LOCATION	SALVAGED TOPSOIL S.Y.	FERTILIZER TYPE "B" C.W.T.	SEED NO.40 LBS.	MULCH S.Y.
C.T.H. "I"	19200	12.0	345	19200

**CONCRETE CURB AND GUTTER, 30-INCH, TYPE "A"**

LOCATION	QUANTITY L.F.
STA. 79+50 - 88+48 LT.	898
STA. 79+50 - 116+50 RT.	3700
STA. 89+40 - 116+50 LT.	2710
S.W. RADIUS 35 TH AVE.	47
N.W. RADIUS 35 TH AVE.	47
TOTAL	7402

**ASPHALTIC SURFACE, TYPE E1**

LOCATION	QUANTITY TON
STA. 78+50 - 79+50 C.T.H. "I"	66
P.E.'s	70
TOTAL	136

**EXCAVATION**

LOCATION	UNCLASSIFIED EXC. C.Y.	FILL C.Y.	WASTE C.Y.
C.T.H. "I"	15545	1928	12981
35TH AVENUE	55	0	55
TOTALS	15600	1928	13036

FILL EXPANSION = 33%

**CONCRETE DRIVEWAY**

LOCATION	QUANTITY S.Y.
112+65 RT. C.T.H. "I"	21
113+75 RT. C.T.H. "I"	35
TOTAL	56

**SODDING**

LOCATION	QUANTITY S.Y.
INLET #1	7
INLET #2	7
INLET #3	7
INLET #7	7
AEW #30	5
AEW #31	5
INLET #39	7
TOTAL	45

**MEDIUM RANDOM RIPRAP**

STATION	LOCATION	QUANTITY C.Y.
88+30 RT.	C.T.H. "I"	15

**LANDMARK REFERENCE MONUMENTS**

STATION	LOCATION	DESCRIPTION	QUANTITY EACH
89+24.62	0.17' LT.	E 1/4, SECTION 2, T 17 N, R 16 E	4

**CONCRETE PAVEMENT, 8-INCH**

LOCATION	QUANTITY S.Y.
C.T.H. "I"	16510
35TH AVENUE	170
TOTAL	16680

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

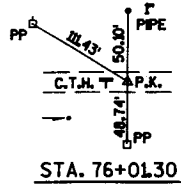
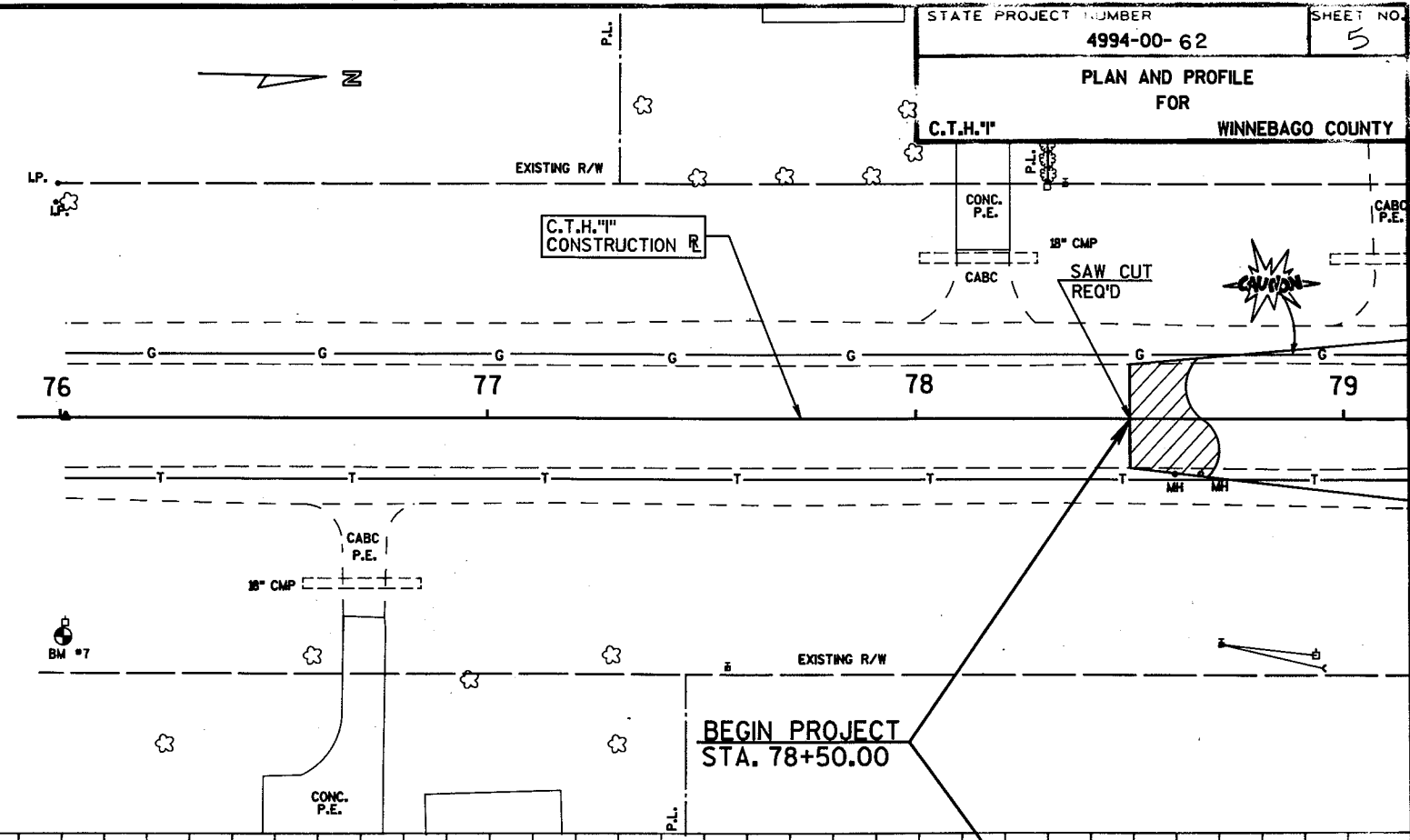
INLETS, MANHOLES AND COVERS

STRUCTURE NUMBER	STATION	LOCATION	STRUCTURE	DISTANCE LT./RT.	TYPE	COVER	GRATE LT./RT.	ELEVATIONS		DEPTH FEET
								PAV'T	FLOW LINE	
1	89+65	C.T.H. "M"	INLET	3' LT.	1	C	--	775.00	771.75	2.5'
1A	90+50	C.T.H. "M"	MANHOLE	5' RT.	1	J	--	775.30	770.25	3.8'
2	90+40	C.T.H. "M"	INLET	3' LT.	1	C	--	774.20	770.95	2.5'
3	91+45	C.T.H. "M"	INLET	3' LT.	1	C	--	773.30	770.05	2.5'
4	92+00	C.T.H. "M"	INLET	21.5' LT	3	H	RT.	773.86	769.90	3.0'
5	92+00	C.T.H. "M"	INLET	21.5' RT	3	H	LT.	773.86	770.36	2.5'
6	92+00	C.T.H. "M"	MANHOLE	5' RT.	1	J	--	774.16	769.50 47	3.4'
7	94+47	C.T.H. "M"	INLET	29' LT.	1	C	--	772.60	769.35	2.5'
8	94+50	C.T.H. "M"	INLET	21.5' LT	3	H	RT.	772.81	769.10	2.7'
9	94+50	C.T.H. "M"	INLET	21.5' RT	3	H	LT.	772.81	769.31	2.5'
10	94+50	C.T.H. "M"	MANHOLE	5' LT.	1	J	--	773.11	768.50 47	3.4'
11	97+00	C.T.H. "M"	INLET	21.5' LT	3	H	RT.	772.05	768.45	2.6'
12	97+04	C.T.H. "M"	INLET	21.5' LT	3	H	LT.	772.05	768.55	2.5'
13	97+00	C.T.H. "M"	INLET	21.5' RT	3	H	LT.	772.05	768.45	2.6'
14	97+04	C.T.H. "M"	INLET	21.5' RT	3	H	RT.	772.05	768.55	2.5'
15	97+00	C.T.H. "M"	MANHOLE	5' RT.	1	J	--	772.44	767.30 21	3.9'
16	101+00	C.T.H. "M"	MANHOLE	5' RT.	1	J	--	773.39	766.38	5.8'
17	104+45	C.T.H. "M"	MANHOLE	5' RT.	3	J	--	772.39	765.46 49	5.7'
18	104+45	C.T.H. "M"	INLET	21.5' LT	3	H	RT.	771.99	768.39	2.6'
19	104+49	C.T.H. "M"	INLET	21.5' LT	3	H	LT.	771.99	768.49	2.5'
20	104+45	C.T.H. "M"	INLET	21.5' RT	3	H	LT.	771.99	768.39	2.6'
21	104+49	C.T.H. "M"	INLET	21.5' RT	3	H	RT.	771.99	768.49	2.5'
22	107+00	C.T.H. "M"	MANHOLE	5' RT.	1	J	--	773.45	764.89 97	7.3'
23	110+00	C.T.H. "M"	MANHOLE	5' RT.	1	J	--	774.40	764.20 19	8.9'
24	113+00	C.T.H. "M"	MANHOLE	5' RT.	3	J	--	770.29	762.88 90	6.1'
25	113+00	C.T.H. "M"	INLET	21.5' LT	3	H	RT.	769.99	766.45	2.5'
26	113+00	C.T.H. "M"	INLET	21.5' RT.	3	H	LT.	769.99	766.45	2.5'
32	79+55	C.T.H. "M"	MANHOLE	6' RT.	1	J	--	789.51	785.50 80	2.75'
33	82+00	C.T.H. "M"	INLET	21.5' LT.	3	H	RT.	783.90	780.37	2.5'
34	82+00	C.T.H. "M"	INLET	21.5' RT.	3	H	LT.	783.90	780.37	2.5'
35	82+00	C.T.H. "M"	MANHOLE	6' RT.	1	J	--	784.18	779.38 39	3.55'
37	84+00	C.T.H. "M"	MANHOLE	21.5' LT.	1	A	RT.	779.31	773.60 4.37	4.7'
38	84+00	C.T.H. "M"	MANHOLE	21.5' RT.	1	A	LT.	779.31	773.50 4.20	4.8'
39	83+90	C.T.H. "M"	INLET	50' RT.	1	C	--	778.30	774.55	3.0'
40	84+00	C.T.H. "M"	MANHOLE	45' RT.	3	J	--	780.00	773.45 3.66	5.3'
42	87+00	C.T.H. "M"	INLET	21.5' LT.	3	H	RT.	775.43	772.95 3.38	1.45'
43	87+00	C.T.H. "M"	INLET	21.5' RT.	3	H	LT.	775.43	772.90 3.20	1.5'
44	87+00	C.T.H. "M"	MANHOLE	45' RT.	3	J	--	777.25	772.85 2.87	3.15'

STORM SEWER

LOCATION FROM	LOCATION TO	DIAMETER INCH	LENGTH FEET	TYPE	ELEVATIONS		REMARKS
					INLET	DISCHARGE	
1	2	12	70	R.C.P., CLASS III, S.S.	771.75	770.95	
2	1A	18	34	R.C.P., CLASS III, S.S.	770.95	770.25	
1A	6	18	145	R.C.P., CLASS III, S.S.	770.25	769.50	
3	4	12	50	R.C.P., CLASS III, S.S.	770.05	769.90	
4	6	12	23	R.C.P., CLASS III, S.S.	769.90	769.60	
5	6	12	13	R.C.P., CLASS III, S.S.	770.36	770.00	
6	10	24	245	R.C.P., CLASS III, S.S.	769.50	768.50	
7	8	12	6	R.C.P., CLASS III, S.S.	769.35	769.10	
8	10	12	24	R.C.P., CLASS III, S.S.	769.10	768.75	
9	10	12	14	R.C.P., CLASS III, S.S.	769.31	769.00	
10	15	24	245	R.C.P., CLASS III, S.S.	768.50	767.55	
12	11	12	2	R.C.P., CLASS III, S.S.	768.55	768.45	
11	15	12	23	R.C.P., CLASS III, S.S.	768.45	768.00	
14	13	12	2	R.C.P., CLASS III, S.S.	768.55	768.45	
13	15	12	13	R.C.P., CLASS III, S.S.	768.45	768.00	
15	16	30	394	R.C.P., CLASS III, S.S.	767.30	766.38	
16	17	30	339	R.C.P., CLASS III, S.S.	766.38	765.60	
19	18	12	2	R.C.P., CLASS III, S.S.	768.49	768.39	
18	17	12	23	R.C.P., CLASS III, S.S.	768.39	767.00	
21	20	12	2	R.C.P., CLASS III, S.S.	768.49	768.39	
20	17	12	13	R.C.P., CLASS III, S.S.	768.39	767.00	
17	22	36	249	R.C.P., CLASS III, S.S.	765.46	764.89	
22	23	36	294	R.C.P., CLASS III, S.S.	764.89	764.20	
23	24	36	294	R.C.P., CLASS III, S.S.	764.20	762.88	
25	24	12	23	R.C.P., CLASS III, S.S.	766.45	766.00	
26	24	12	13	R.C.P., CLASS III, S.S.	766.45	766.00	
24	28	36	371	R.C.P., CLASS III, S.S.	762.88	761.24	TAP INTO EXISTING MANHOLE
30	32	12	42	R.C.P., CLASS III, S.S.	787.40	785.50	R.C. APRON ENDWALL REQ'D.
31	32	12	42	R.C.P., CLASS III, S.S.	787.40	785.50	R.C. APRON ENDWALL REQ'D.
32	35	15	246	R.C.P., CLASS III, S.S.	785.50	779.38	
33	35	12	24	R.C.P., CLASS III, S.S.	780.37	779.38	
34	35	12	12	R.C.P., CLASS III, S.S.	780.37	779.38	
35	40	15	220	R.C.P., CLASS III, S.S.	779.38	773.88	
36	37	29X42	58	C.S.P.A.	776.77	773.60	MIN. THICKNESS STEEL = 0.079"
37	38	36	40	R.C.P., CLASS III, S.S.	773.60	773.50	
38	40	36	20	R.C.P., CLASS III, S.S.	773.50	773.45	
39	40	12	8	R.C.P., CLASS III, S.S.	774.55	774.30	
40	44	29X45	296	RCHEP, CLASS III, S.S.	773.45	772.85	
41	42	10	34	P.V.C., CLASS III, S.S.	775.72	772.95	
42	43	12	40	R.C.P., CLASS III, S.S.	772.95	772.90	
43	44	12	20	R.C.P., CLASS III, S.S.	772.90	772.85	
44	45	29X45	150	RCHEP, CLASS III, S.S.	772.85	772.70	R.C. APRON ENDWALL AND PIPE GRATE REQ'D.
46	47	15	92	R.C.P., CLASS III, S.S.	773.32	772.70	R.C. APRON ENDWALL REQ'D.

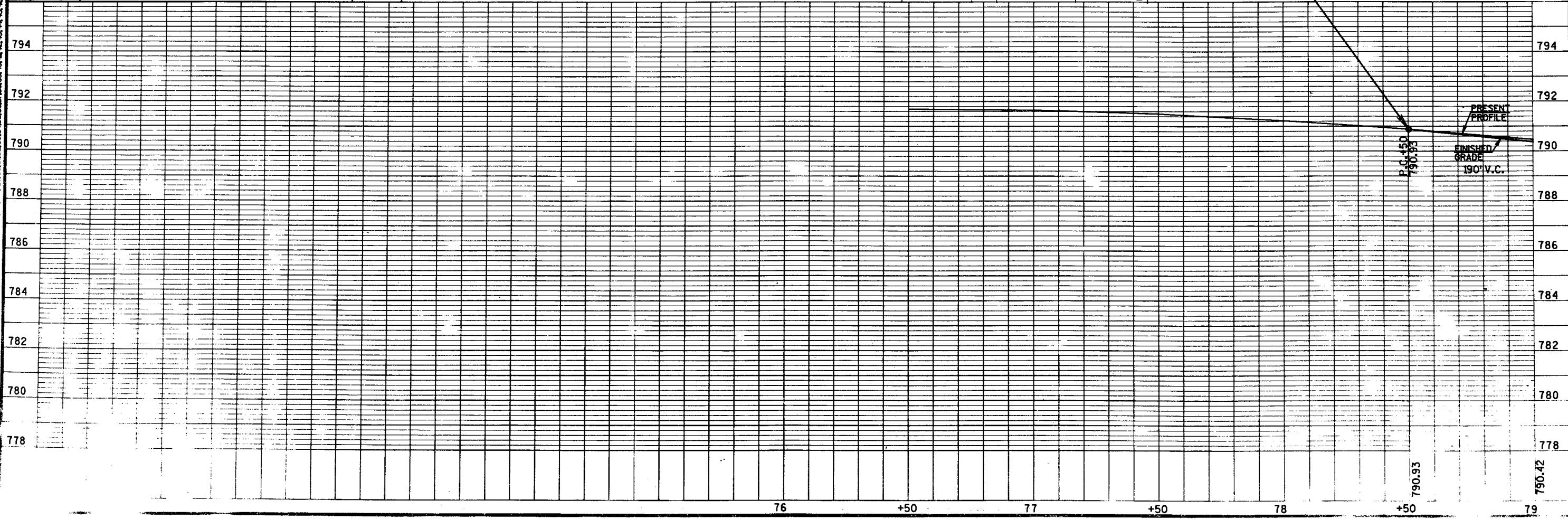
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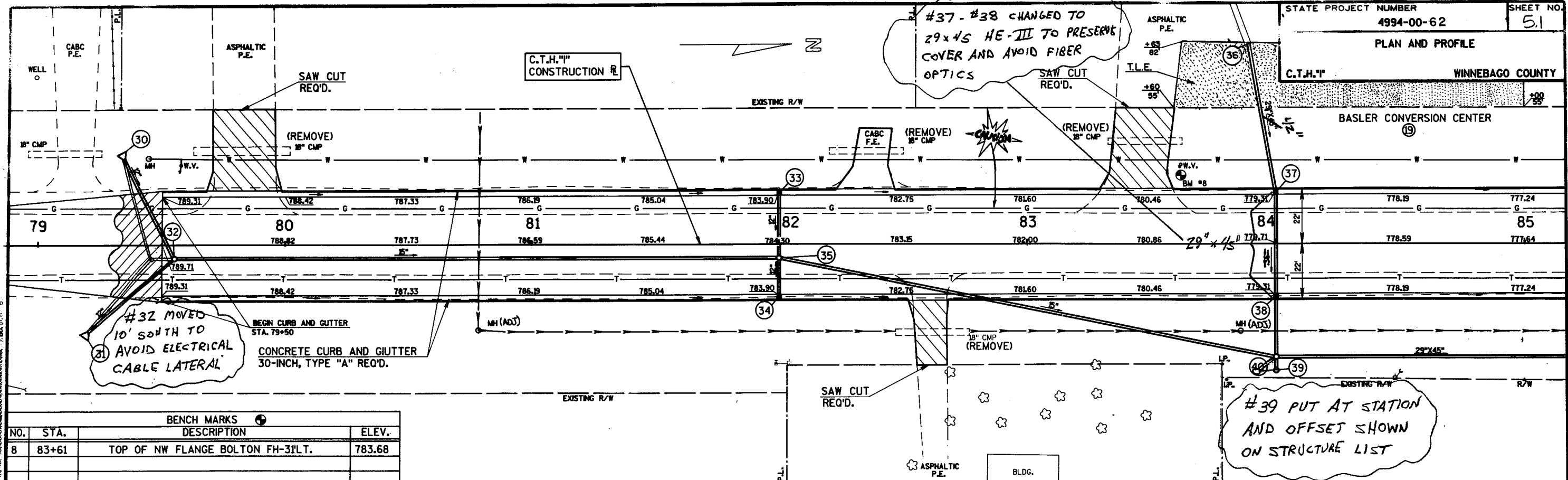
STA. 76+01.30

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
7	76+01	2" P.K. IN POWER POLE-48' RT.	792.23

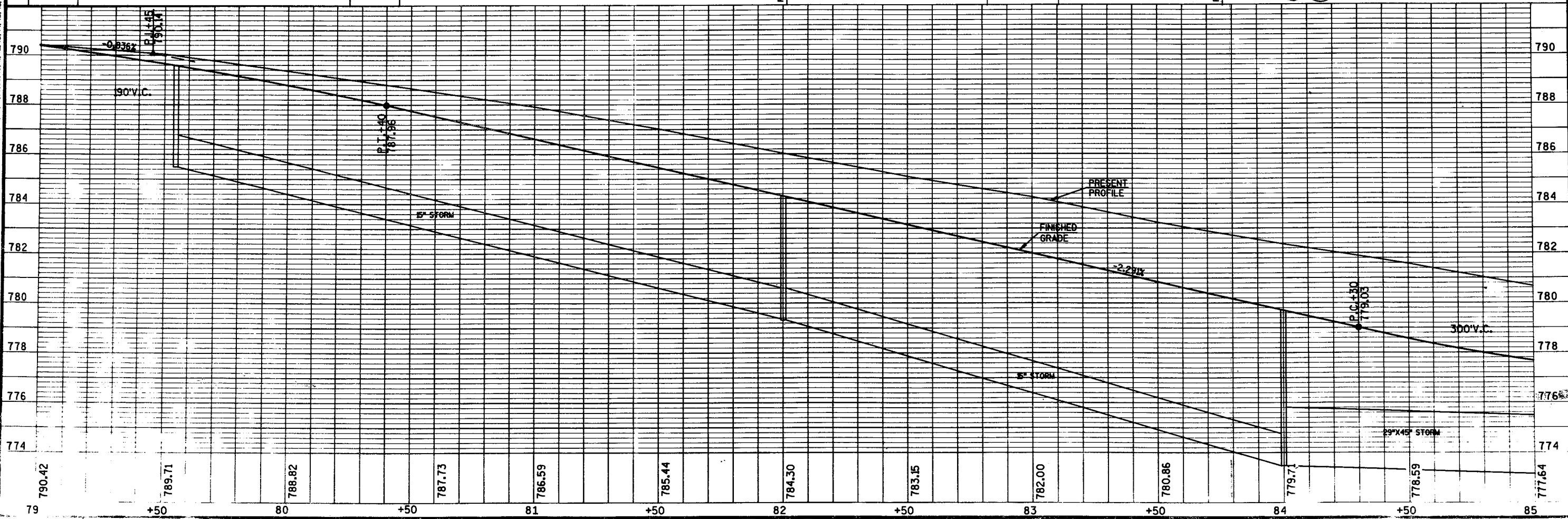
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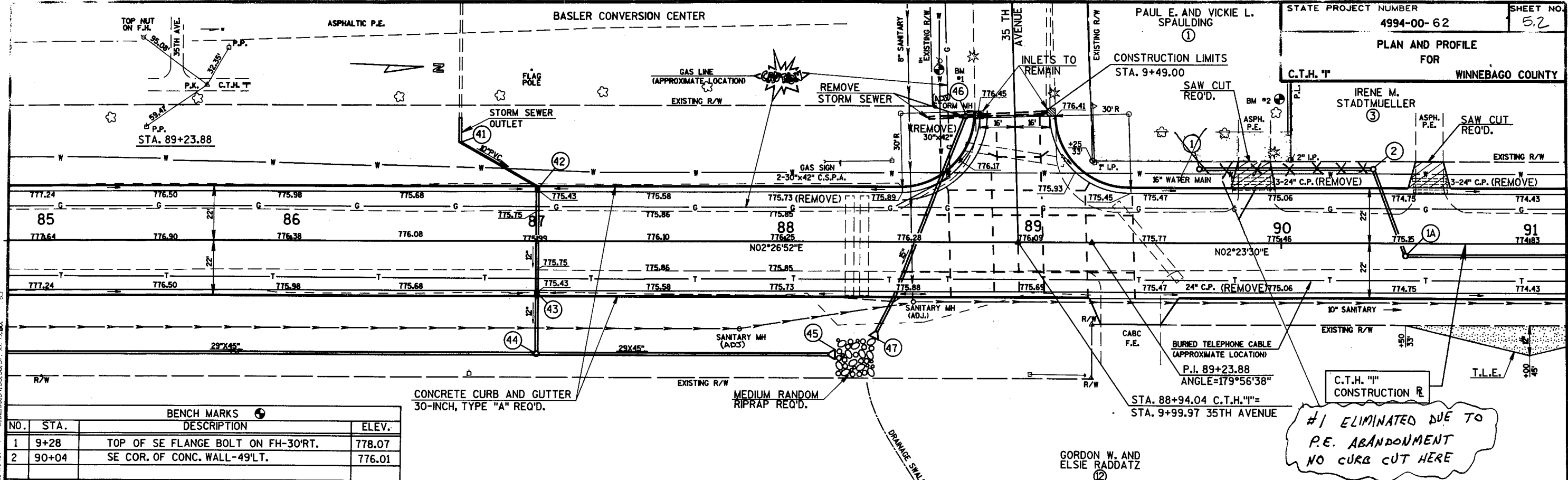
76      +50      77      +50      78      +50      79



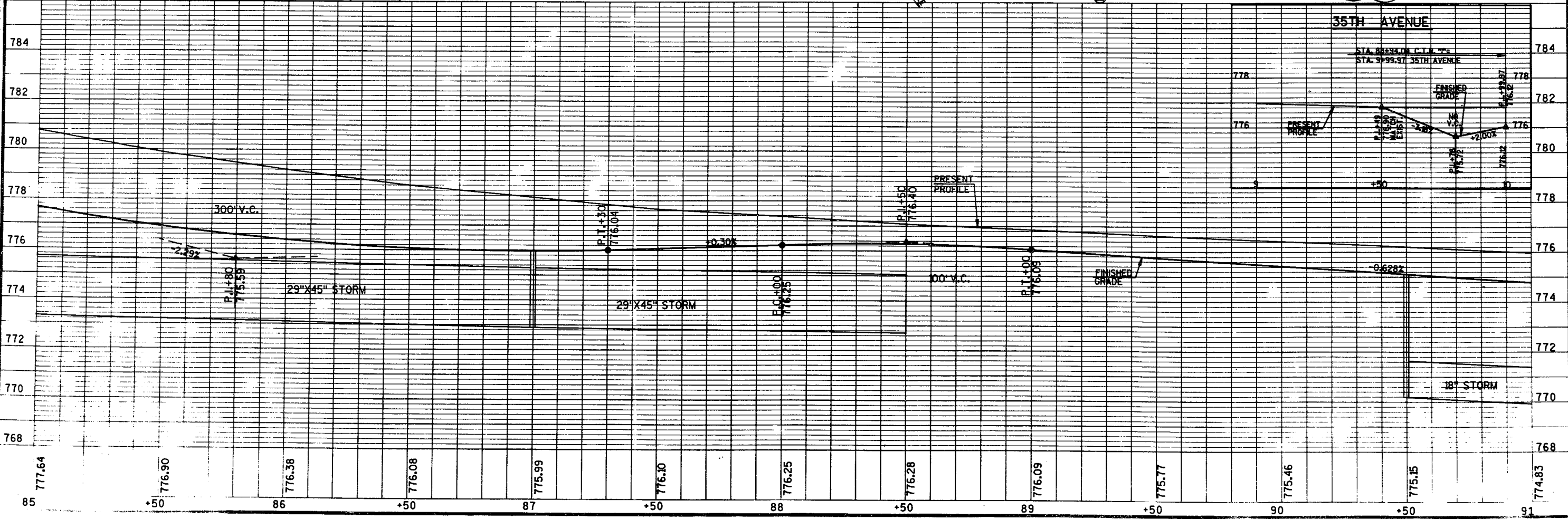
BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
8	83+61	TOP OF NW FLANGE BOLTON FH-31'LT.	783.68



ELEV. ON 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

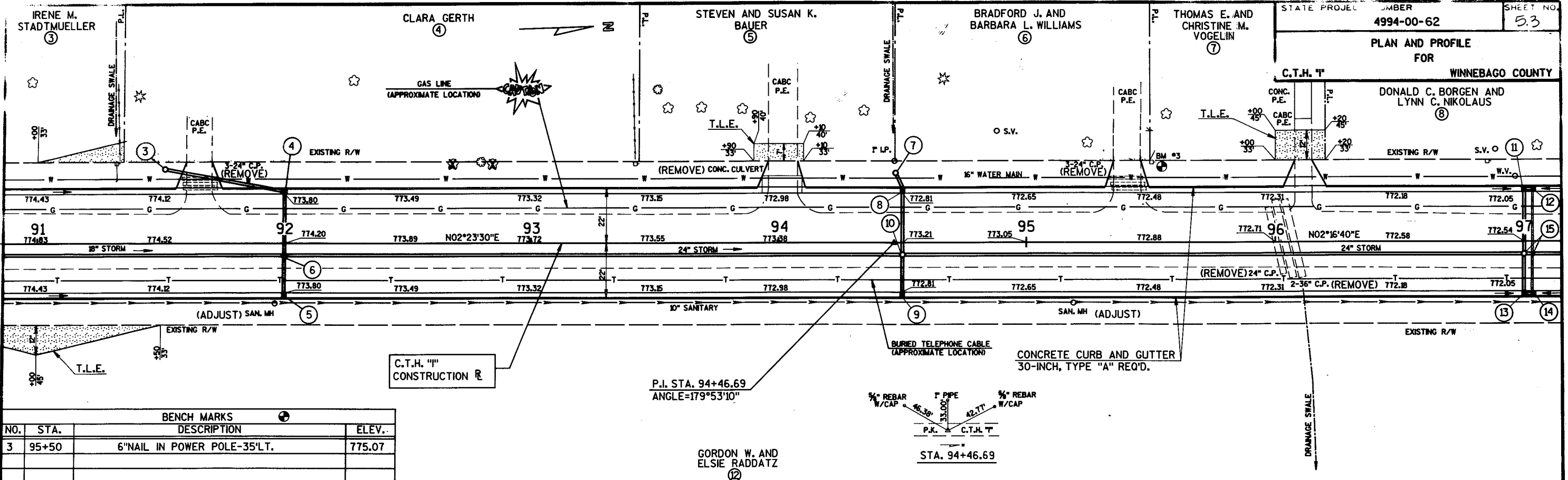


BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	9+28	TOP OF SE FLANGE BOLT ON FH-30"RT.	778.07
2	90+04	SE COR. OF CONC. WALL-49"LT.	776.01



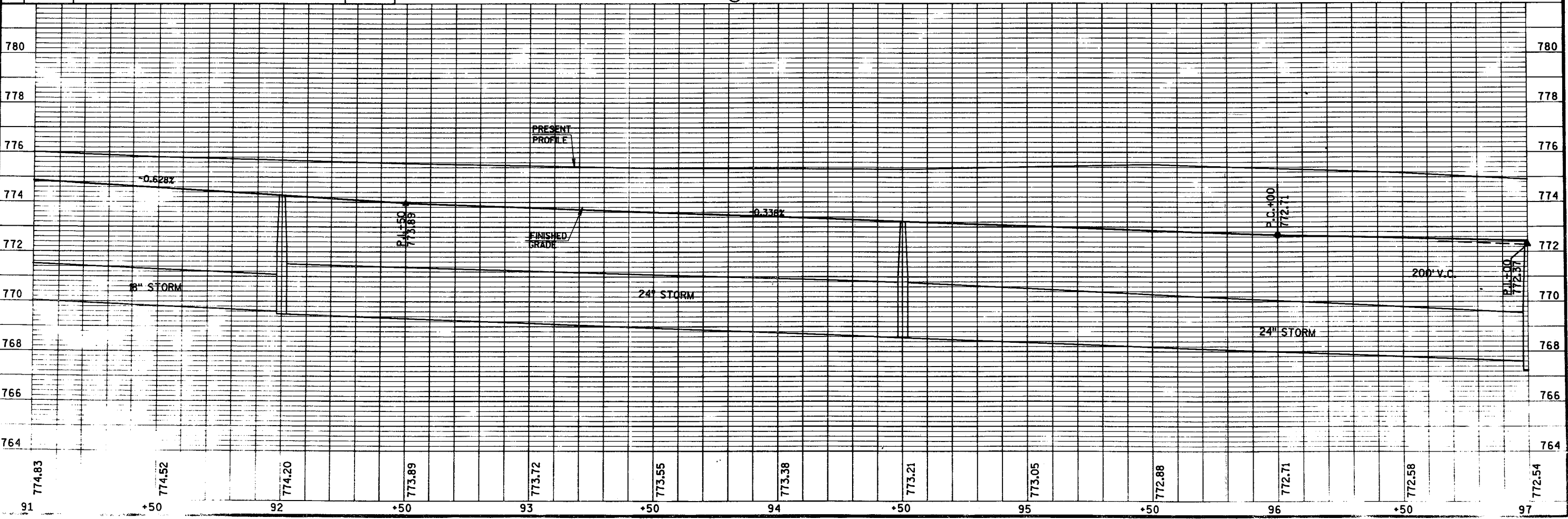
#1 ELIMINATED DUE TO P.E. ABANDONMENT  
 NO CURB CUT HERE

1. 19.19.20.21.22.23.24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60.

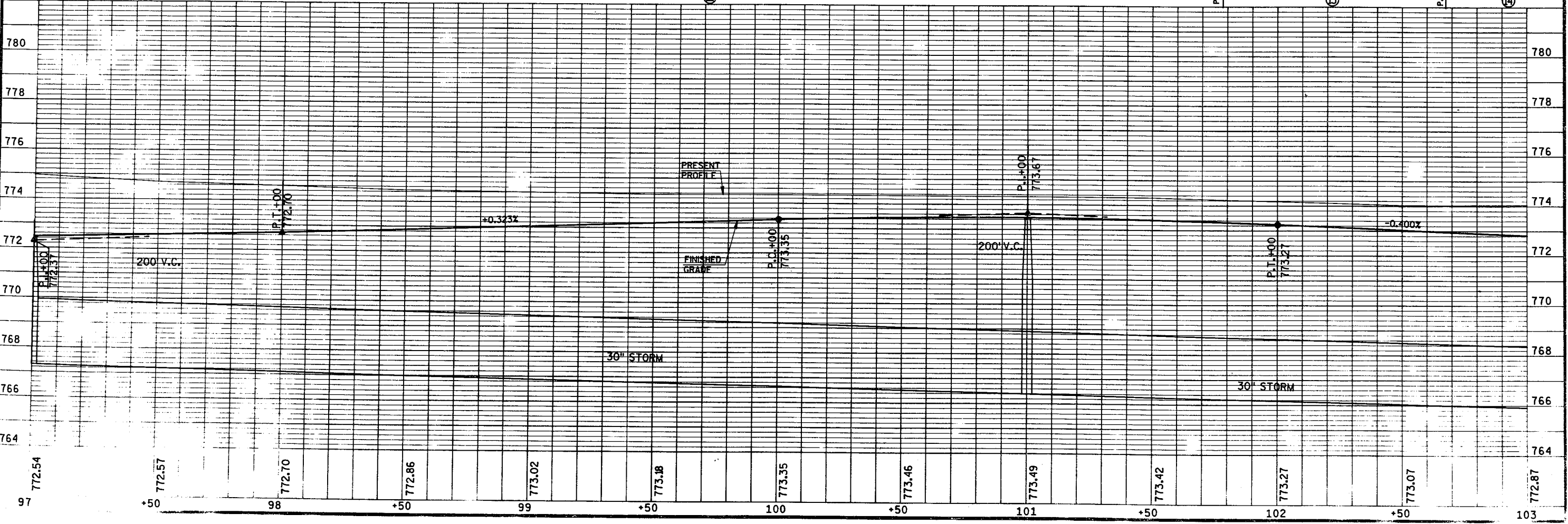
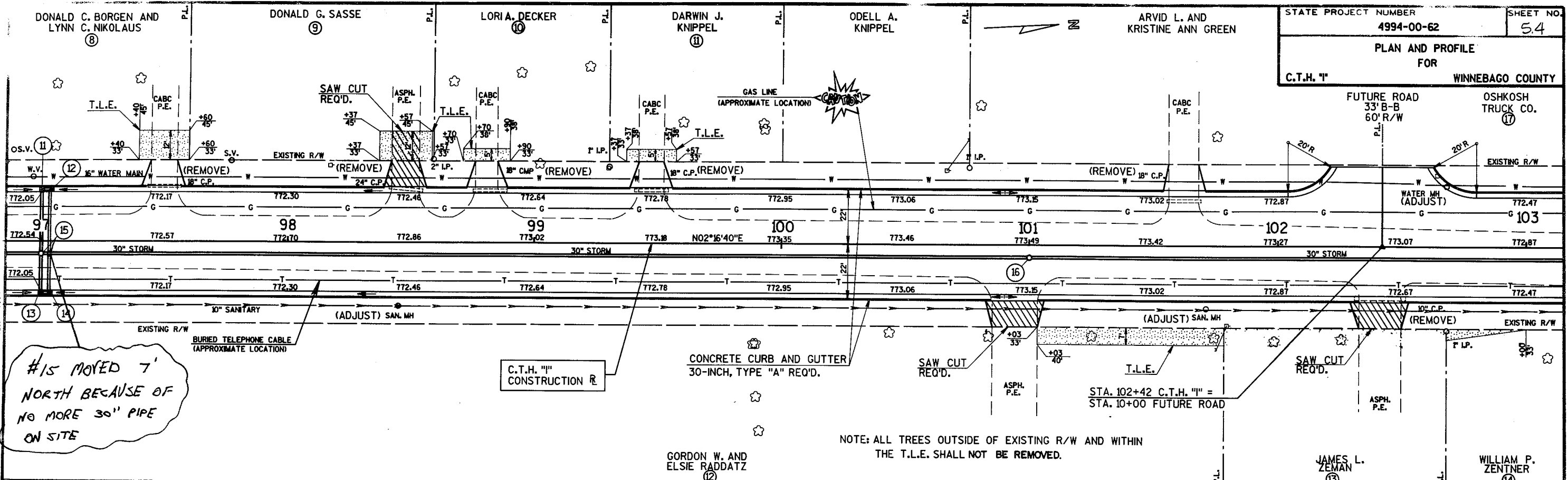


STATE PROJECT NUMBER  
 4994-00-62  
 SHEET NO.  
 5.3  
 PLAN AND PROFILE  
 FOR  
 WINNEBAGO COUNTY  
 C.T.H. 'I'  
 DONALD C. BORGEN AND  
 LYNN C. NIKOLAUS

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
3	95+50	6" NAIL IN POWER POLE-35' LT.	775.07



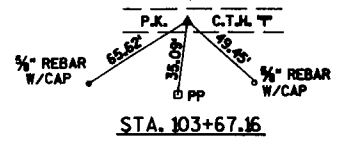
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#15 MOVED 7' NORTH BECAUSE OF NO MORE 30" PIPE ON SITE

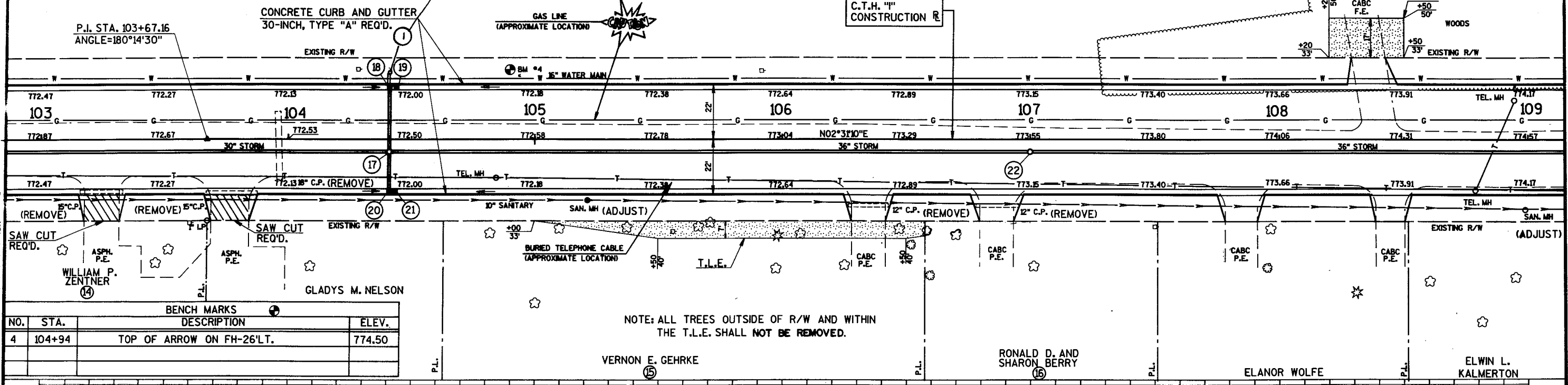
7.5 ON 7.1 5.7 6.9 10.1 12.1 13.4 15.16 7.1 8.9 20.21 22 23 24 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 51 52 53 54 55 56 57 58 59 60

OSHKOSH TRUCK CO.



#1 SET HERE TO COLLECT STANDING WATER CONDITION

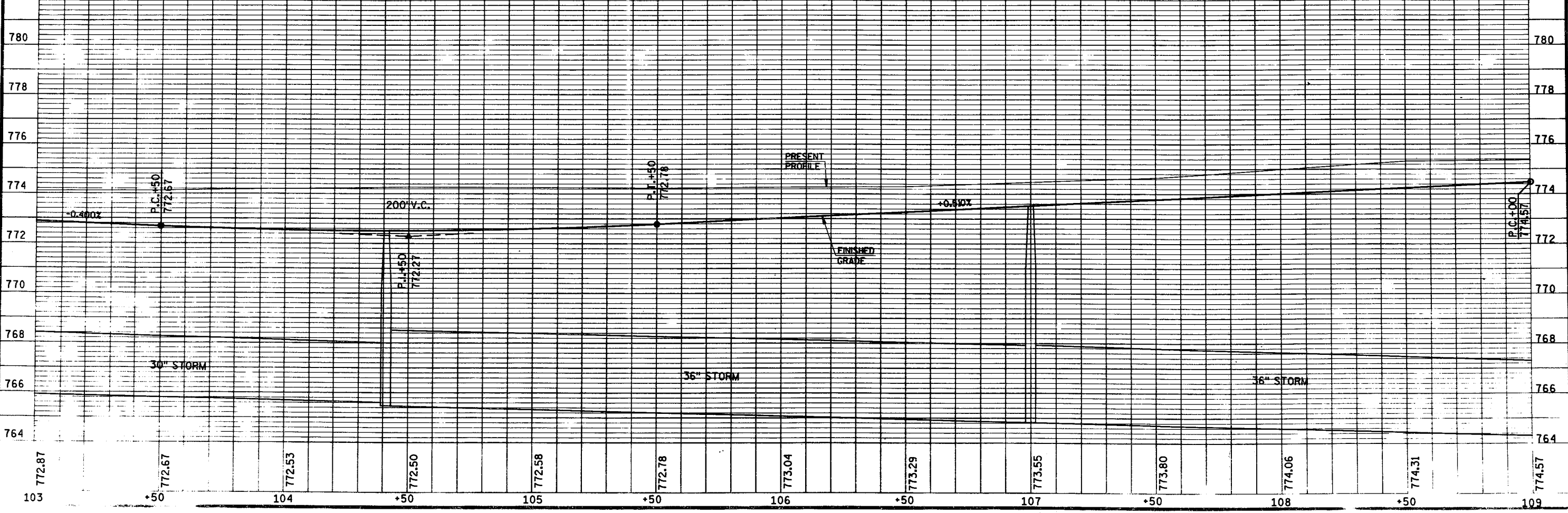
C.T.H. "I" CONSTRUCTION R



BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
4	104+94	TOP OF ARROW ON FH-26'LT.	774.50

NOTE: ALL TREES OUTSIDE OF R/W AND WITHIN THE T.L.E. SHALL NOT BE REMOVED.



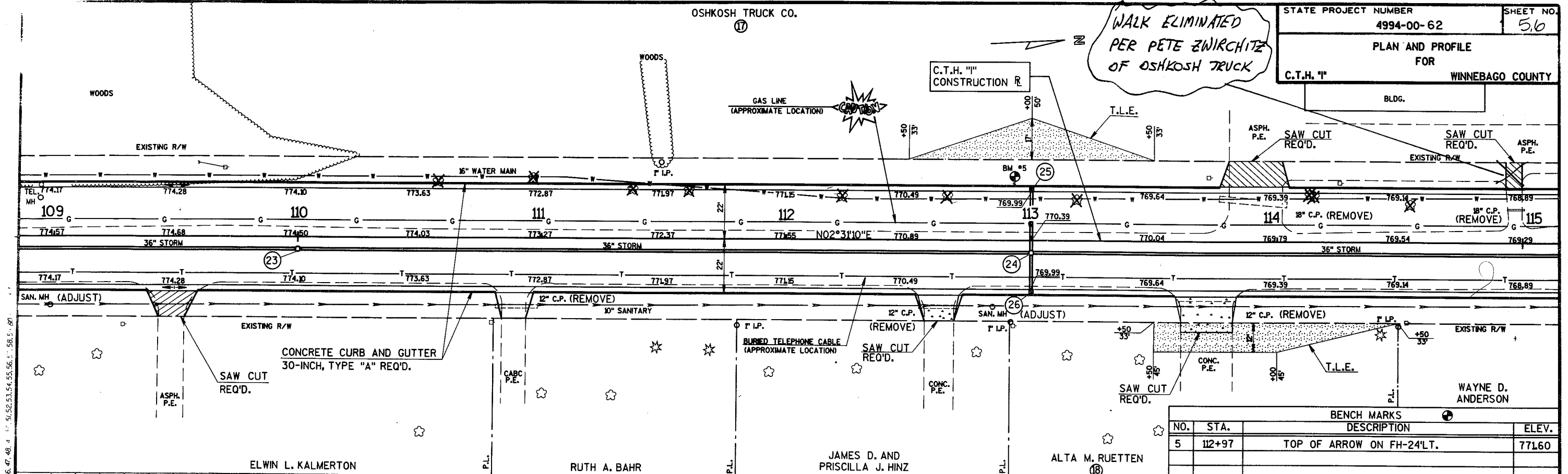
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60



OSHKOSH TRUCK CO.

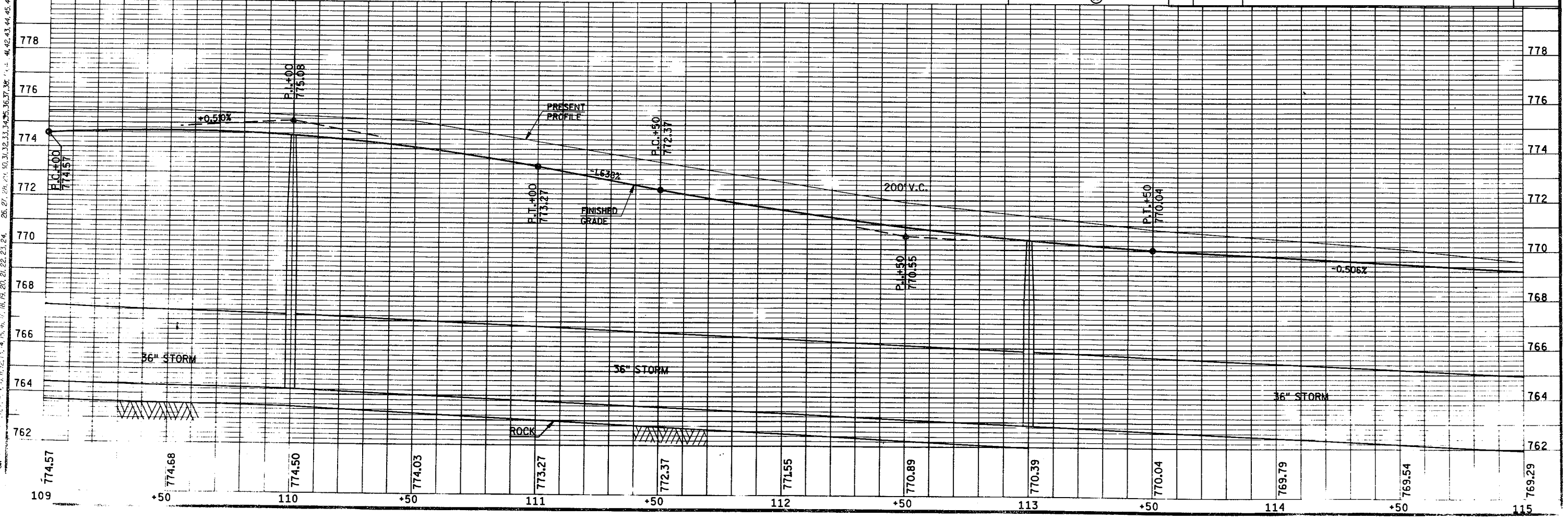
STATE PROJECT NUMBER  
4994-00-62 SHEET NO.  
5.6  
PLAN AND PROFILE  
FOR  
C.T.H. "1" WINNEBAGO COUNTY

WALK ELIMINATED  
PER PETE ZWIRCHITZ  
OF OSHKOSH TRUCK



BENCH MARKS

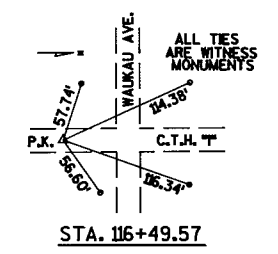
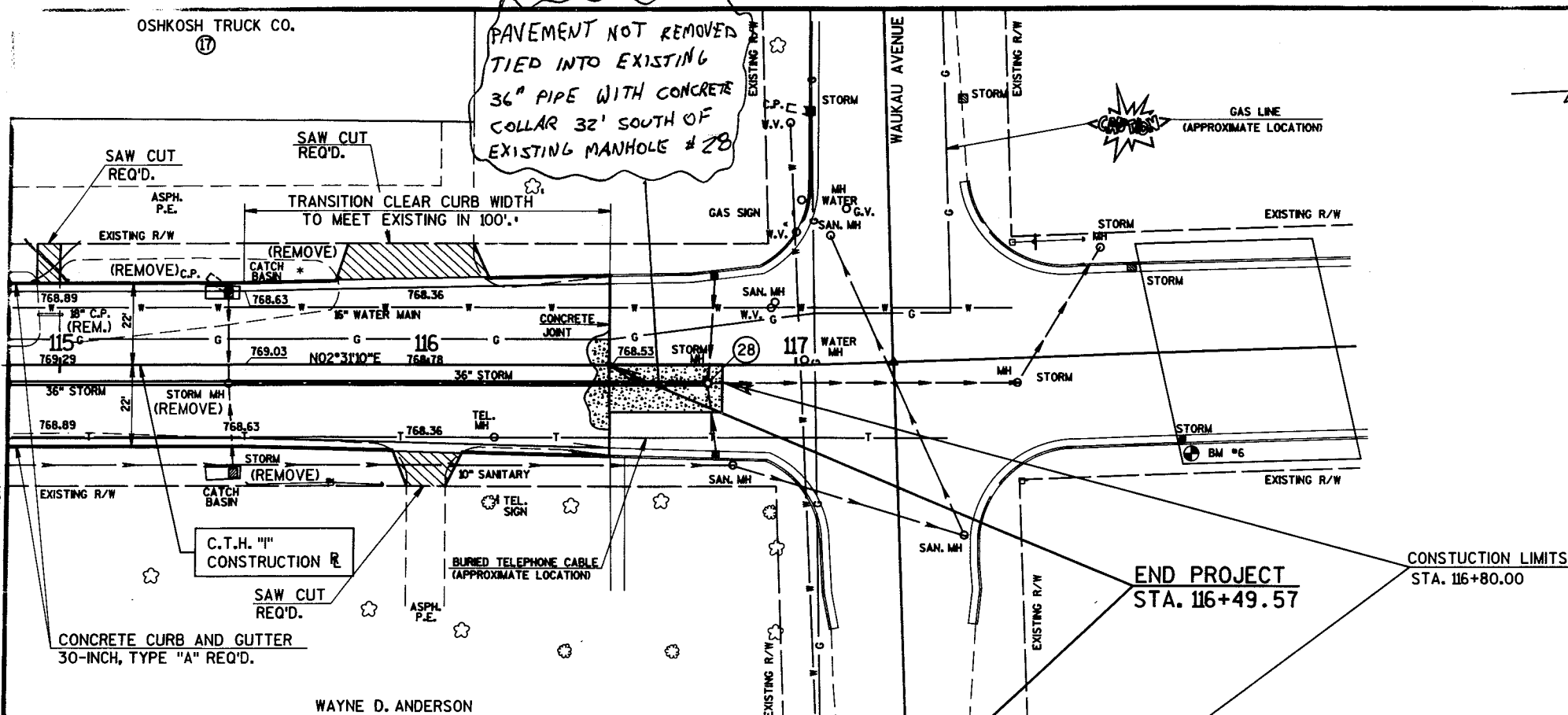
NO.	STA.	DESCRIPTION	ELEV.
5	112+97	TOP OF ARROW ON FH-24'LT.	771.60



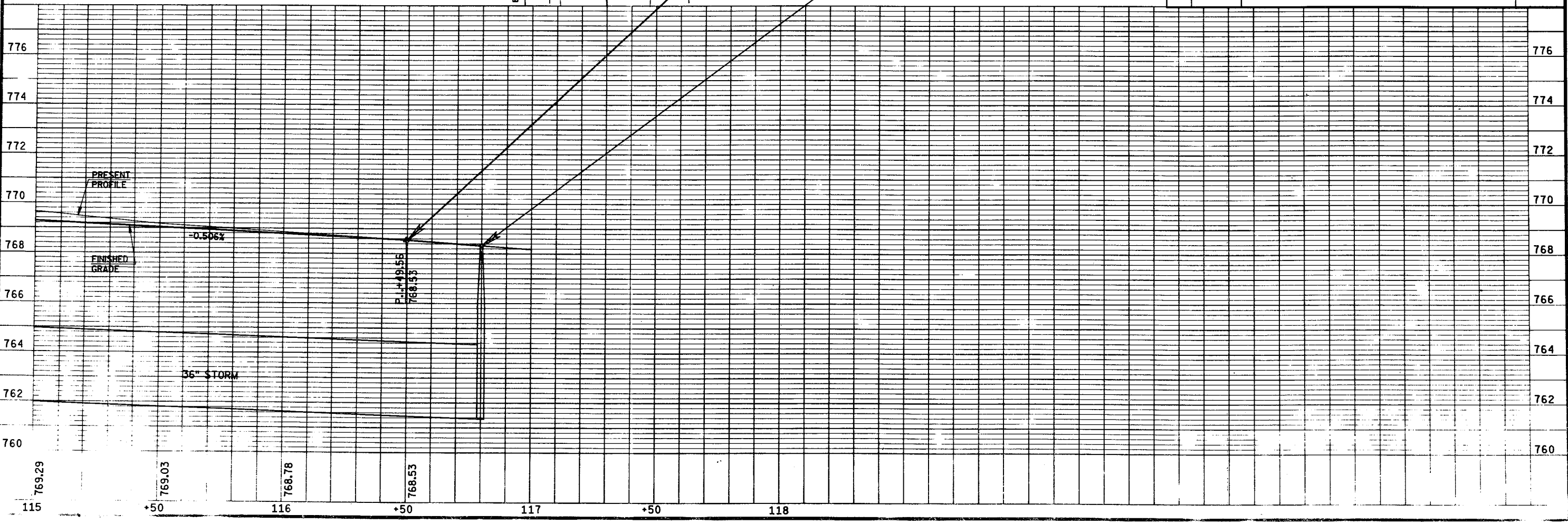
109 774.17 774.28 774.30 773.63 772.87 771.97 771.5 770.49 769.99 769.64 769.39 769.14 768.89  
 110 774.57 774.68 774.50 774.03 773.27 772.37 771.55 770.89 770.39 770.04 769.79 769.54 769.29  
 111 773.27 772.37 771.55 770.89 770.39 770.04 769.79 769.54 769.29  
 112 771.55 770.89 770.39 770.04 769.79 769.54 769.29  
 113 770.89 770.39 770.04 769.79 769.54 769.29  
 114 769.79 769.54 769.29  
 115 769.29

OSHKOSH TRUCK CO.

PAVEMENT NOT REMOVED  
TIED INTO EXISTING  
36" PIPE WITH CONCRETE  
COLLAR 32' SOUTH OF  
EXISTING MANHOLE #28



BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
6	118+04	ALUM. CAP IN S.E. COR.-30'RT.	769.82



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

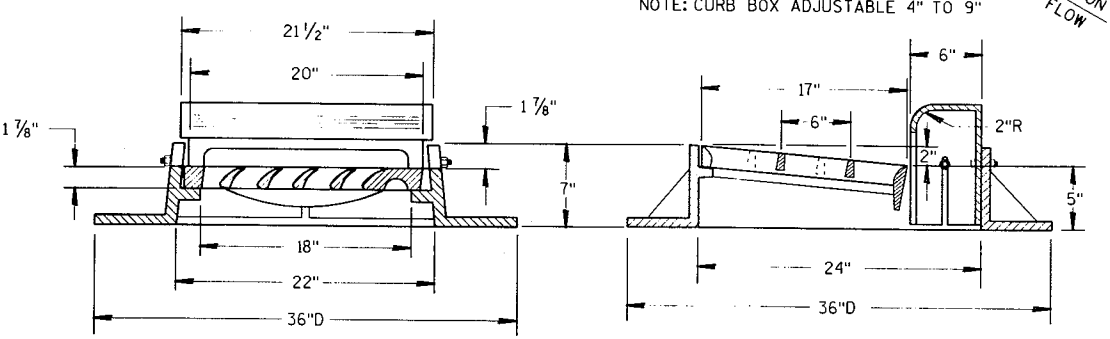
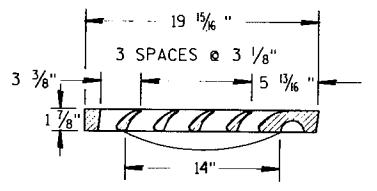
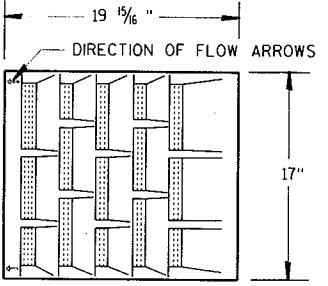
**GENERAL NOTES**

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

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

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

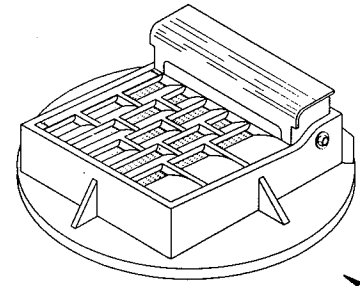
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



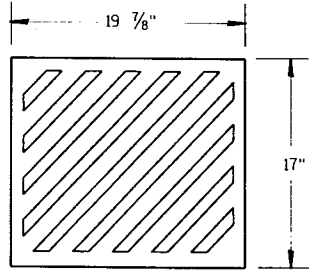
NOTE: CURB BOX ADJUSTABLE 4" TO 9"

**TYPE "A"**

(APPROXIMATE WEIGHT 410 LBS.)



1" DIAGONAL BARS WITH 1 1/2" OPENINGS

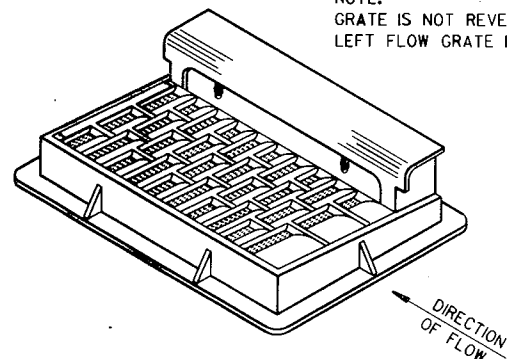


**SPECIAL GRATE NO. 1**

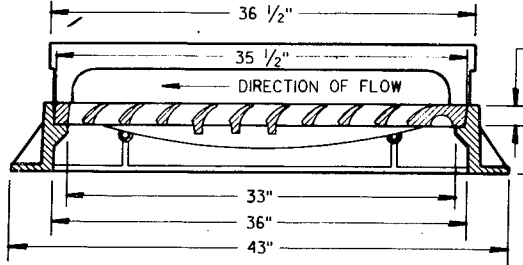
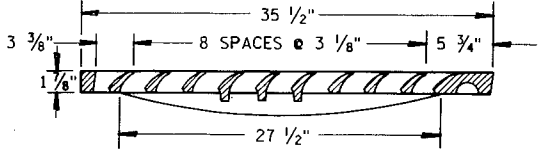
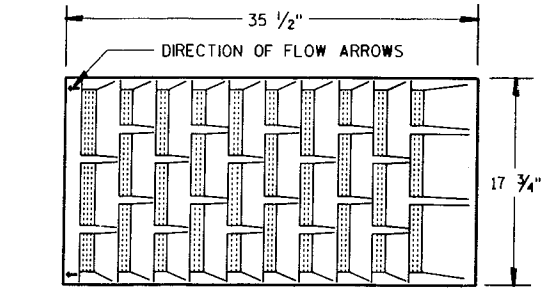
(APPROXIMATE WEIGHT 85 LBS.)

(NOTE AS TYPE A1 ON DRAINAGE TABLE)

NOTE: GRATE IS NOT REVERSIBLE. LEFT FLOW GRATE IS SHOWN

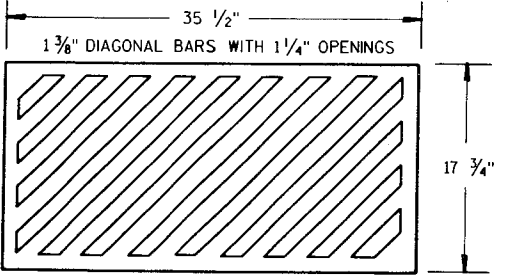


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



**TYPE "H"**

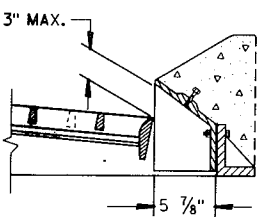
(APPROXIMATE WEIGHT 510 LBS.)



**SPECIAL GRATE NO. 1**

(APPROXIMATE WEIGHT 175 LBS.)

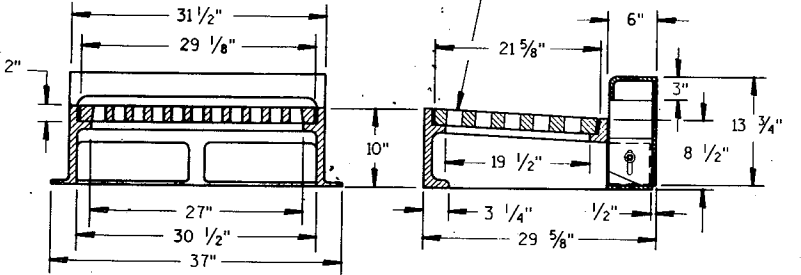
(NOTE AS TYPE H1 ON DRAINAGE TABLE)



**MOUNTABLE CURB BOX FOR TYPE "H" COVER**

(FOR USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH)

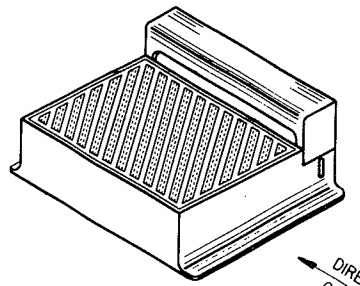
1" DIAGONAL BARS WITH 1 1/2" OPENINGS



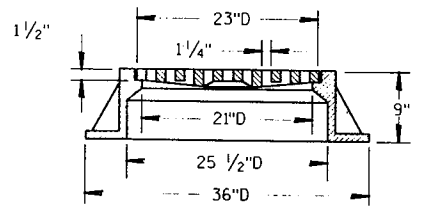
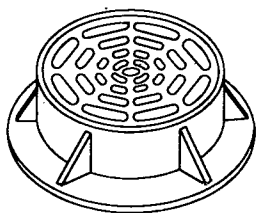
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

**TYPE "WM"**

(APPROXIMATE WEIGHT 650 LBS.)



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



**TYPE "C"**

(APPROXIMATE WEIGHT 365 LBS.)

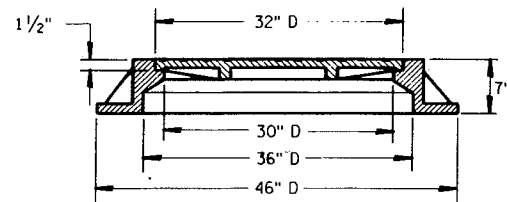
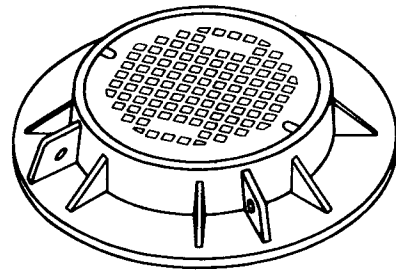
**INLET COVERS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

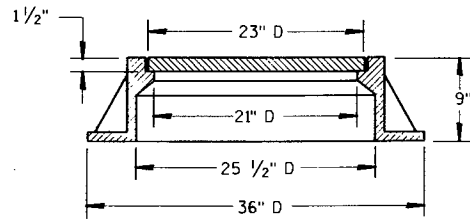
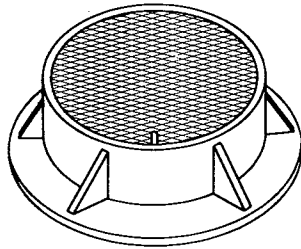
APPROVED  
11/30/90  
DATE  
STATE DESIGN ENGINEER FOR HWYS

S.D.D. 8 A 5-80

S.D.D. 8 A 5-80



**TYPE "K"**  
(APPROXIMATE WEIGHT 550 LBS.)



**TYPE "J"**  
(APPROXIMATE WEIGHT 395 LBS.)

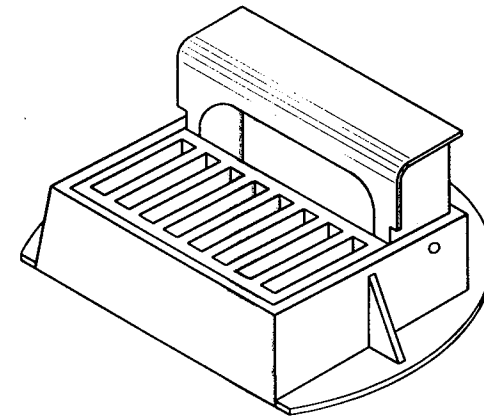
**GENERAL NOTES**

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

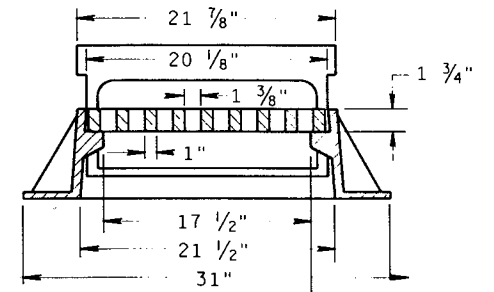
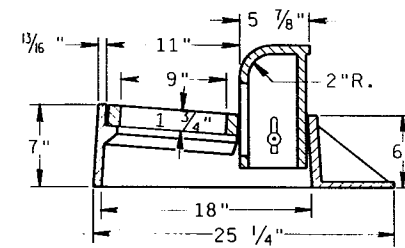
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

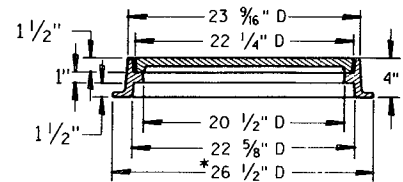
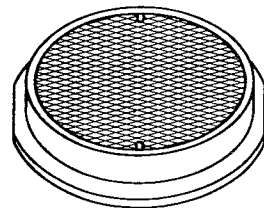
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



CURB BOX ADJUSTABLE 4" TO 10"

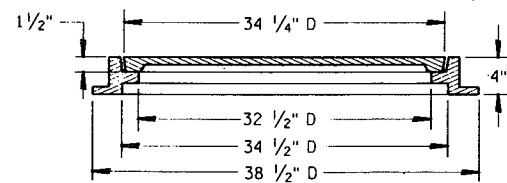
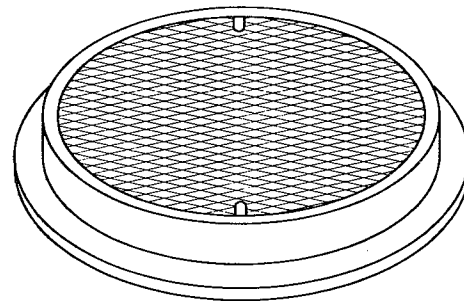


**INLET COVER TYPE "Z"**  
(APPROXIMATE WEIGHT 270 LBS.)



\* THIS DIMENSION IS 25 1/2" ON BEVELED SIDE

**TYPE "L"**  
(APPROXIMATE WEIGHT 146 LBS.)

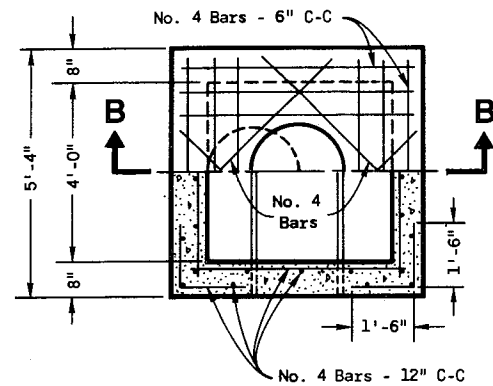


**TYPE "M"**  
(APPROXIMATE WEIGHT 385 LBS.)

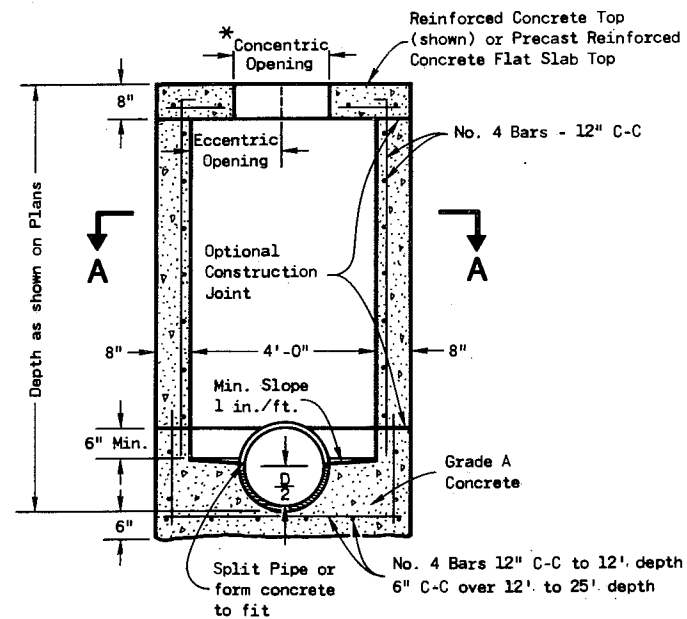
**INLET AND  
MANHOLE COVERS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

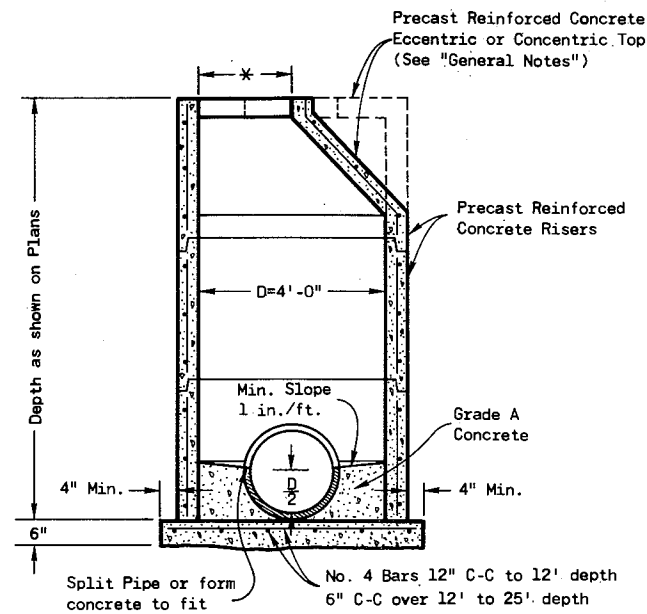
APPROVED  
11/30/90  
DATE  
STATE DESIGN ENGINEER FOR WISCONSIN  
FHWA



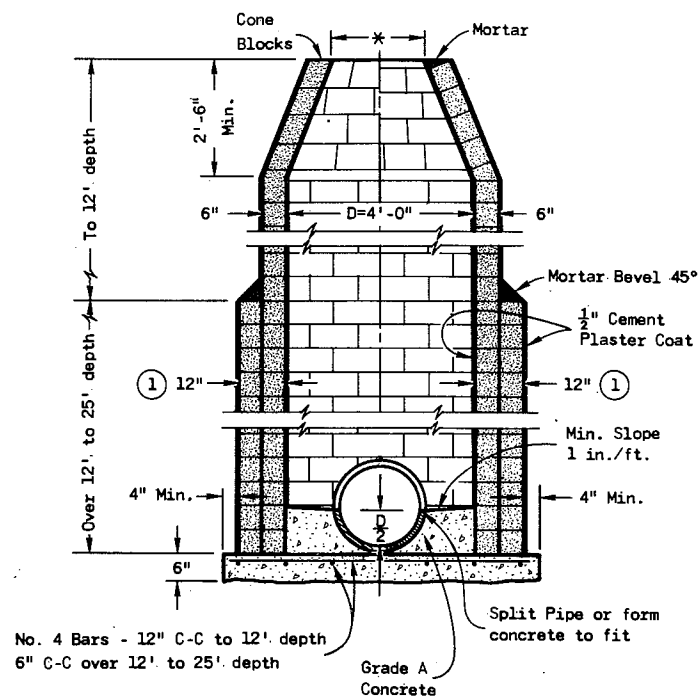
HALF SECTION A-A



SECTION B-B  
REINFORCED CONCRETE



PRECAST REINFORCED CONCRETE



CONCRETE BLOCK

**GENERAL NOTES**

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

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

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

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

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

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

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

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

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

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

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

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

① 2 courses 6" block.

**MANHOLES TYPE 1**

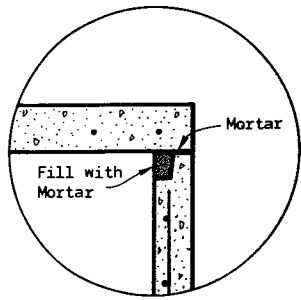
**MANHOLES TYPE 1**

State of Wisconsin  
Department of Transportation

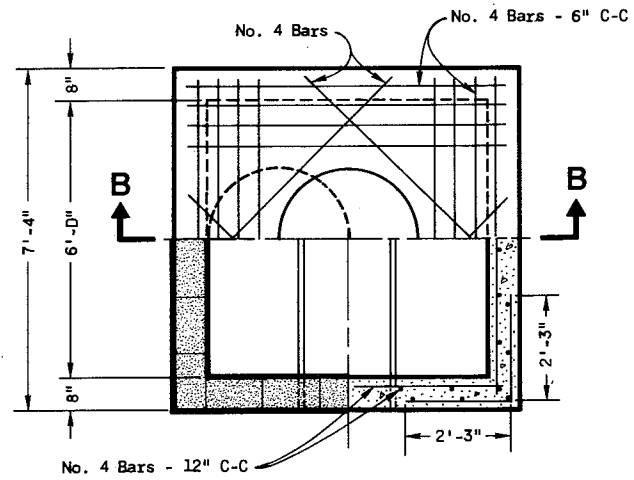
APPROVED  
4-13-82  
DATE

*D. J. Strand*  
CHIEF DESIGN ENGINEER

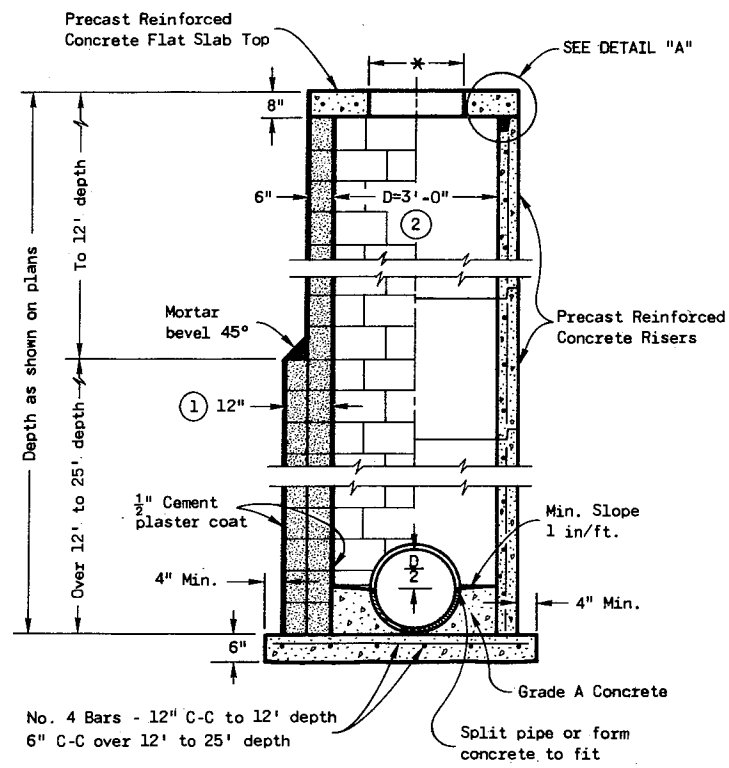
FHWA



DETAIL "A"

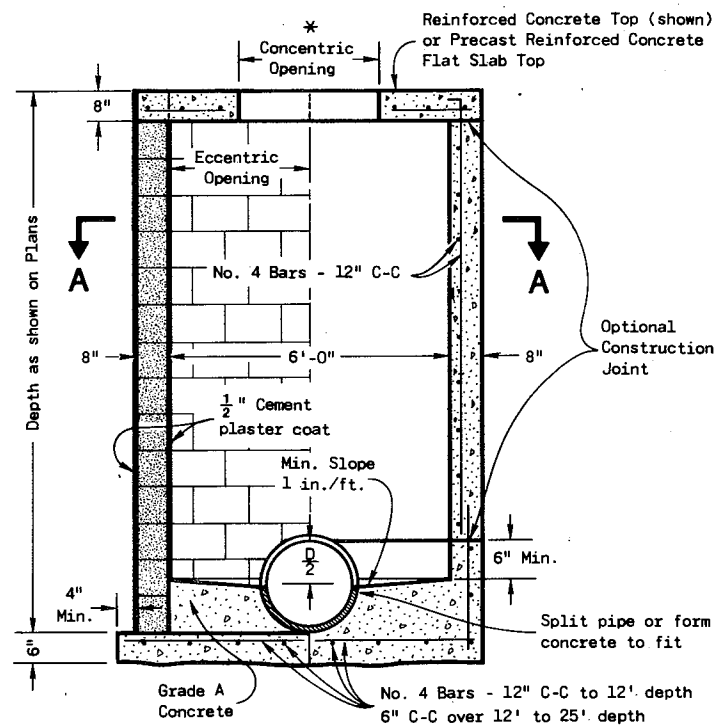


HALF SECTION A-A



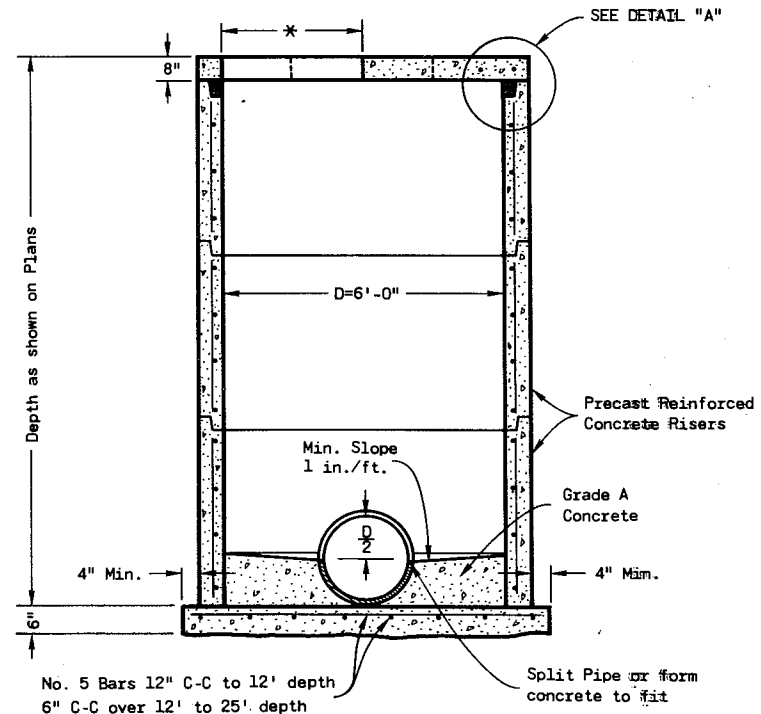
CONCRETE BLOCK PRECAST REINFORCED CONCRETE

MANHOLES TYPE 2



SECTION B-B  
CONCRETE REINFORCED CONCRETE

MANHOLES TYPE 3



PRECAST REINFORCED CONCRETE

GENERAL NOTES

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

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

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

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

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

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

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

Precast Reinforced Concrete Risers shall be placed with tongue down.

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

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

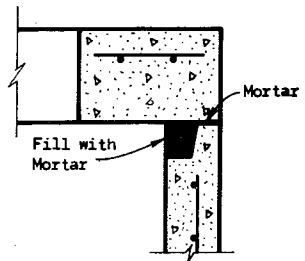
① 2 courses 6" block.

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

MANHOLES TYPE 2 & 3

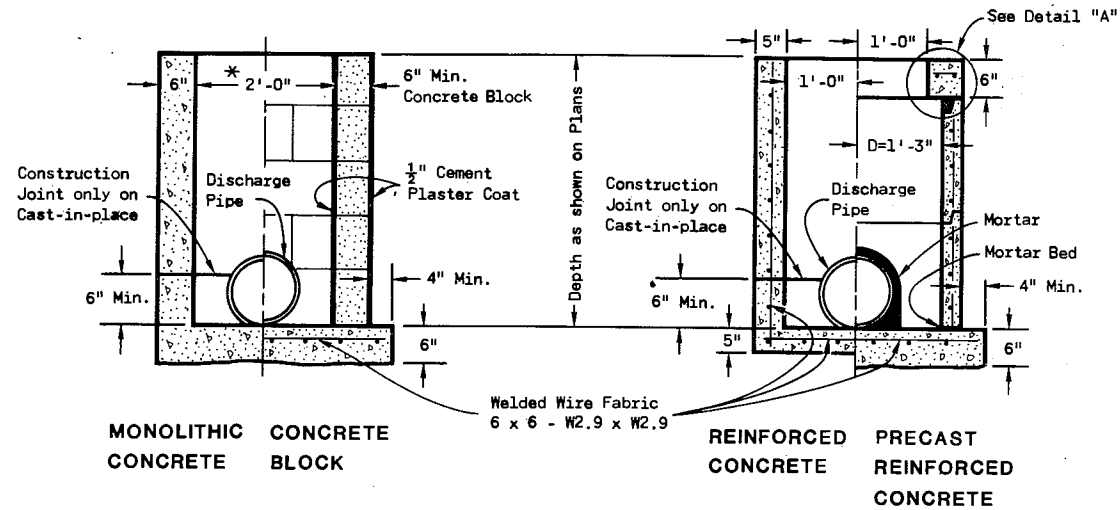
State of Wisconsin  
Department of Transportation

APPROVED  
DATE 4-13-82  
CHIEF DESIGN ENGINEER



DETAIL "A"

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



INLETS TYPE 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.

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

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

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

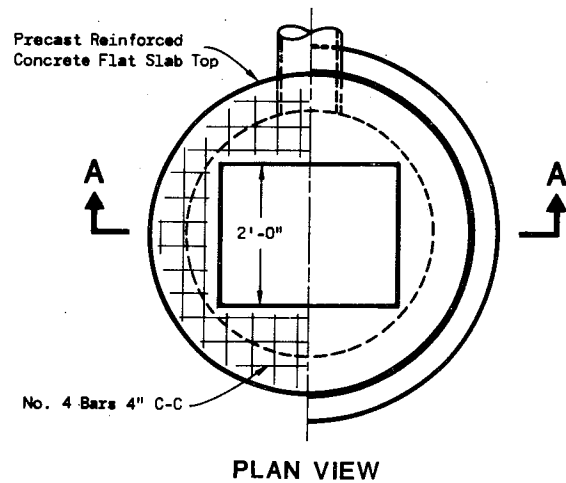
Precast Reinforced Bases shall be placed on a bed of material at least 6 inches in depth, which meets the requirements for Granular Backfill. This bedding shall be compacted and provide uniform support for the entire area of the base.

Precast Reinforced Concrete Flat Slab Tops may be used on the structures. The Tops shall be installed on a bed of mortar.

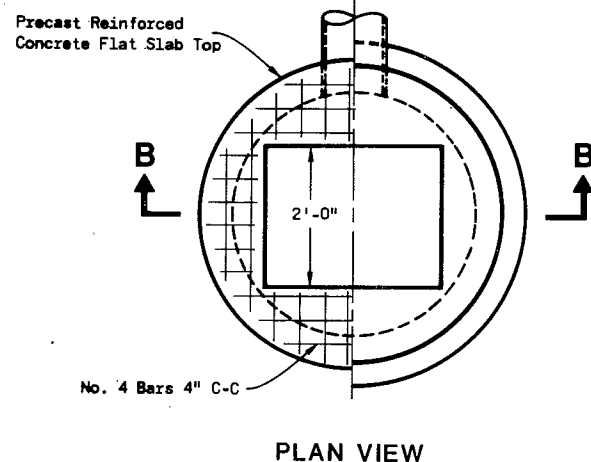
All Bar Steel reinforcement shall be embedded 2 inches clear unless otherwise shown or noted.

Precast Reinforced Concrete Risers shall be placed with tongue down.

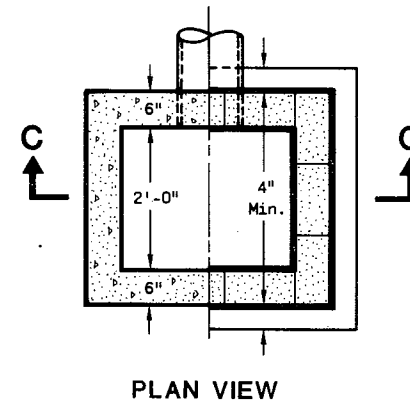
① Use 2'-6" opening for Type 2 Inlets and 3'-0" opening for Type 3 Inlets.



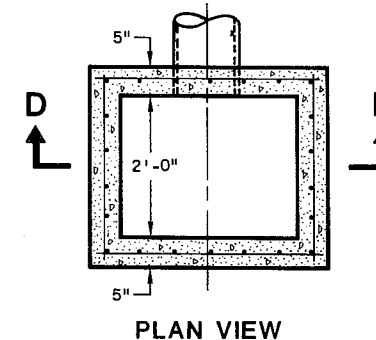
PLAN VIEW



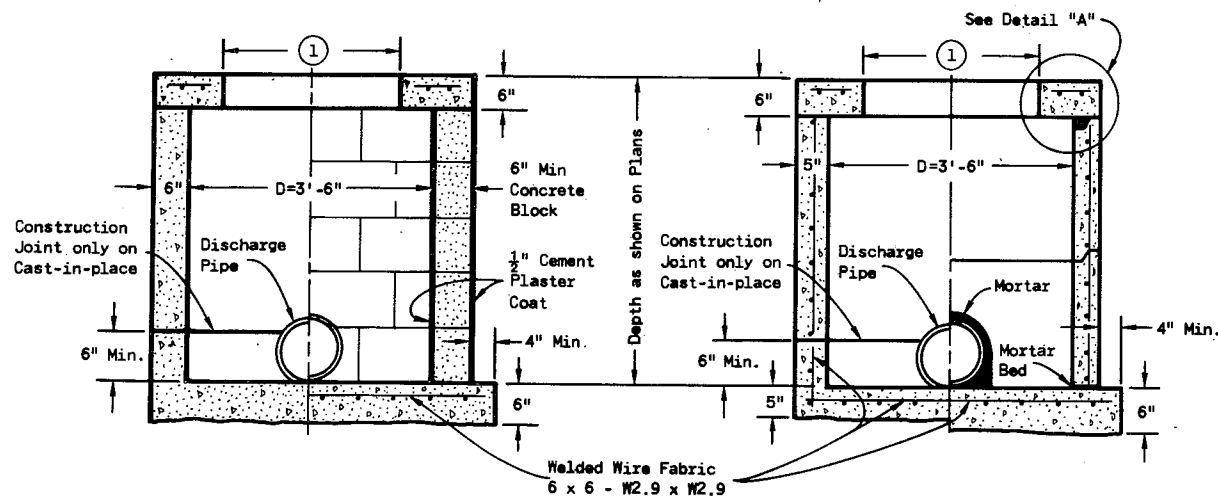
PLAN VIEW



PLAN VIEW



PLAN VIEW

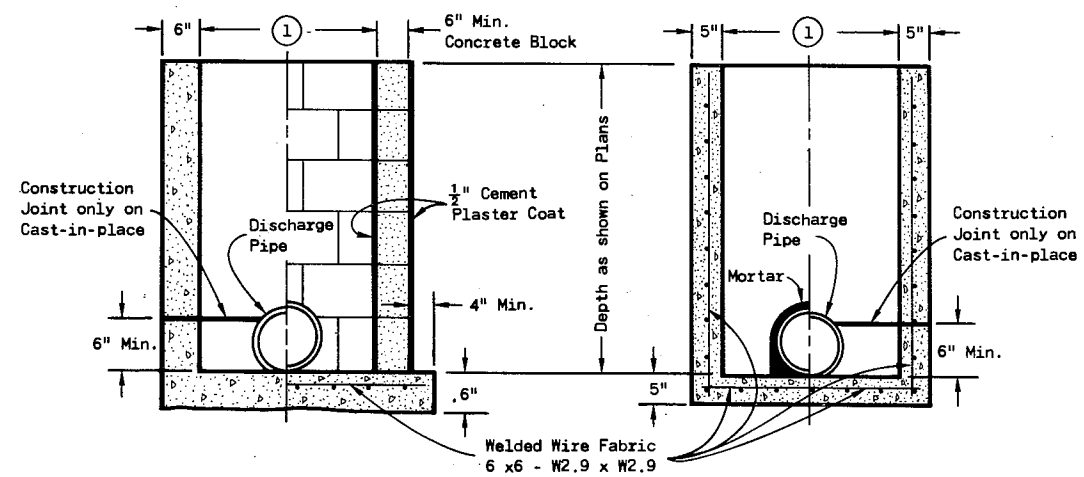


MONOLITHIC CONCRETE CONCRETE BLOCK

SECTION A-A

REINFORCED CONCRETE PRECAST REINFORCED CONCRETE

SECTION B-B



MONOLITHIC CONCRETE CONCRETE BLOCK

SECTION C-C

PRECAST REINFORCED CONCRETE REINFORCED CONCRETE

SECTION D-D

INLETS TYPE 2 & 3

S.D.D. 8 C 1-4

INLETS TYPE 1, 2 & 3

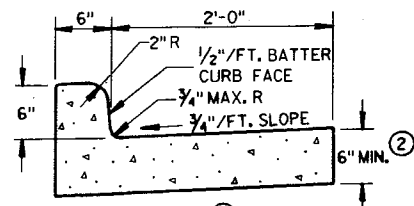
State of Wisconsin  
Department of Transportation

APPROVED  
4-13-82  
DATE

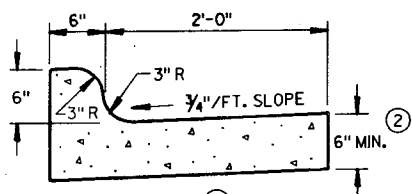
*D. J. Strand*  
CHIEF DESIGN ENGINEER

FHWA

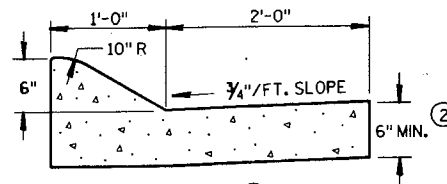
S.D.D. 8 C 1-4



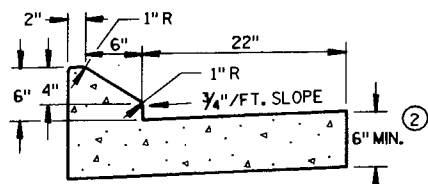
TYPES A & D



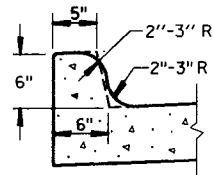
TYPES K & L



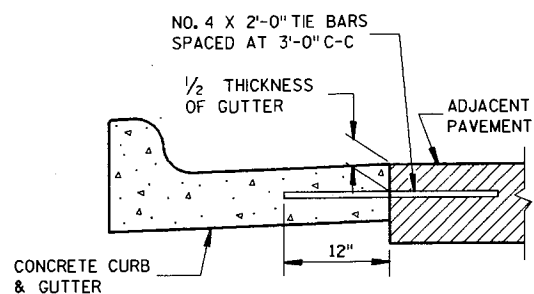
TYPES A & D  
CONCRETE CURB & GUTTER 36"



TYPES G & J

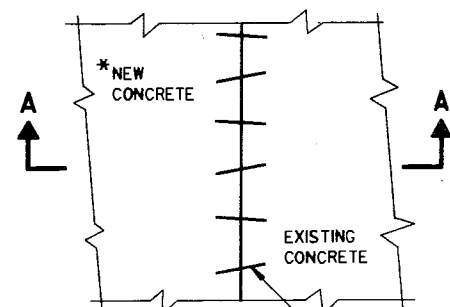


OPTIONAL CURB SHAPE  
FOR TYPES K & L



TYPICAL TIE BAR LOCATION

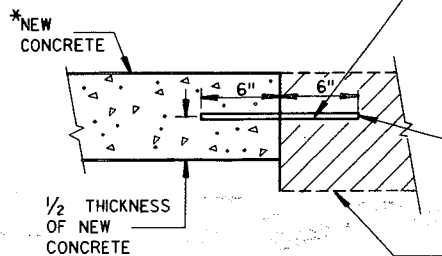
CONCRETE CURB & GUTTER 30"



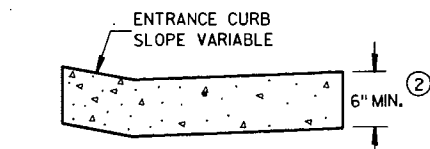
PLAN VIEW

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

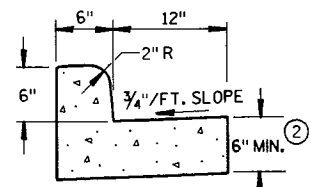
NO. 6 X 12" DEF. BARS  
SPACED 3'-0" C-C,  
INSTALLED ON 6:1 SKEW  
HORIZONTALLY. DIRECTION  
OF SKEW ALTERNATING AFTER  
EVERY ONE OR TWO BARS.



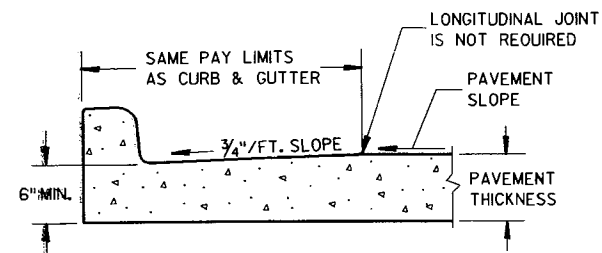
SECTION A-A  
PAVEMENT TIES



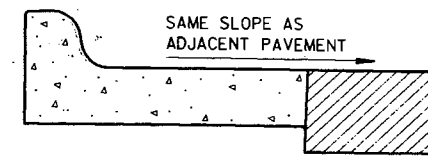
DRIVEWAY ENTRANCE CURB  
(WHEN DIRECTED BY THE ENGINEER)



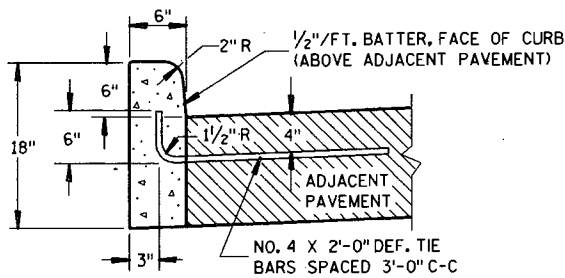
TYPES A & D  
CONCRETE CURB & GUTTER 18"



PARTIAL SECTION OF PAVEMENT  
WITH INTEGRAL CURB & GUTTER

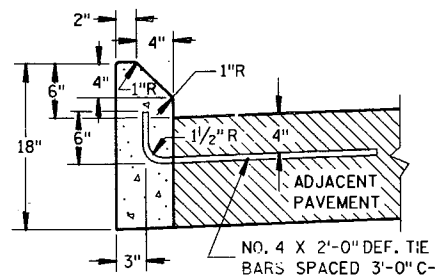


REVERSE SLOPE GUTTER  
(TYPICAL FOR ALL CURB & GUTTER TYPES)



TYPES A & D

CONCRETE CURB



TYPES G & J

GENERAL NOTES

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

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

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

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

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

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

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

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

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

CONCRETE CURB, CONCRETE  
CURB & GUTTER AND  
PAVEMENT TIES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

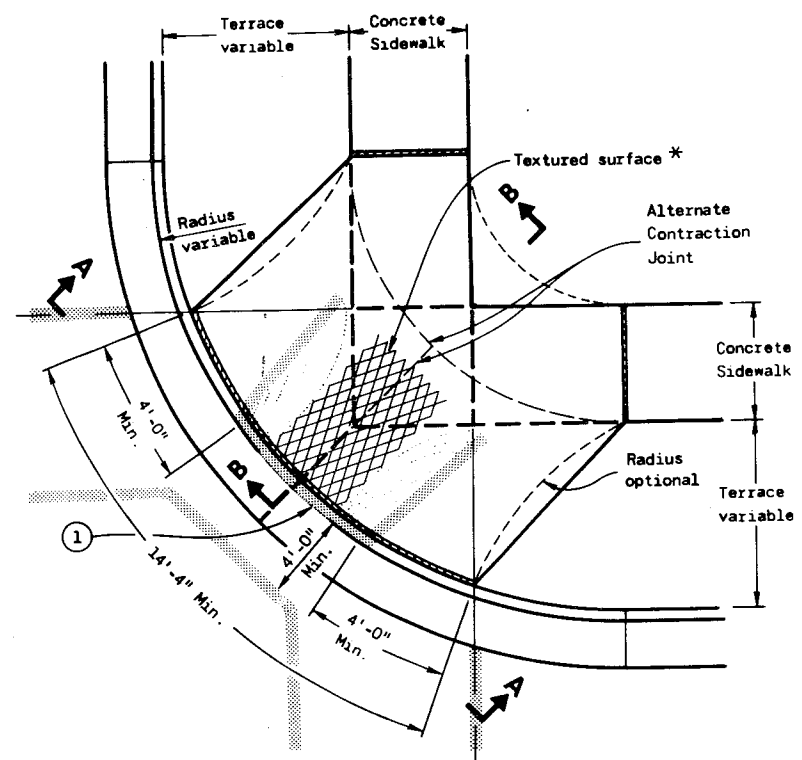
APPROVED

10-23-86  
DATE

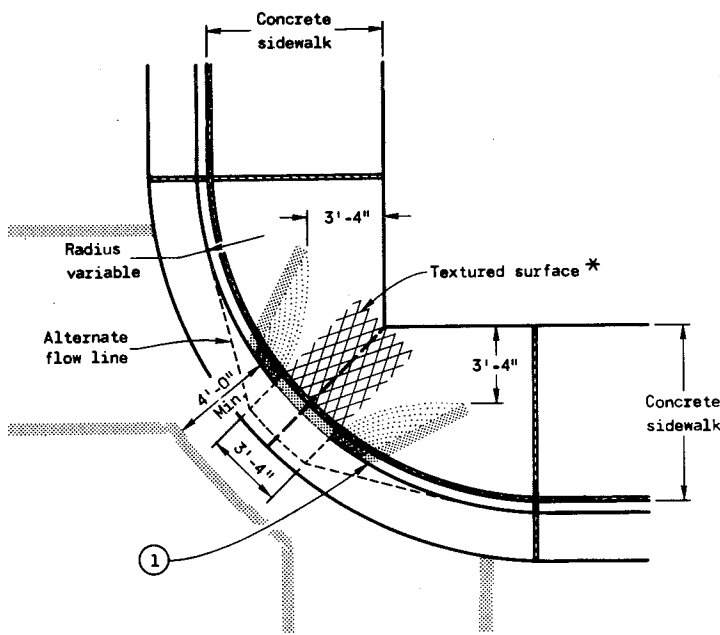
STATE DESIGN ENGINEER FOR HWYS

FHWA

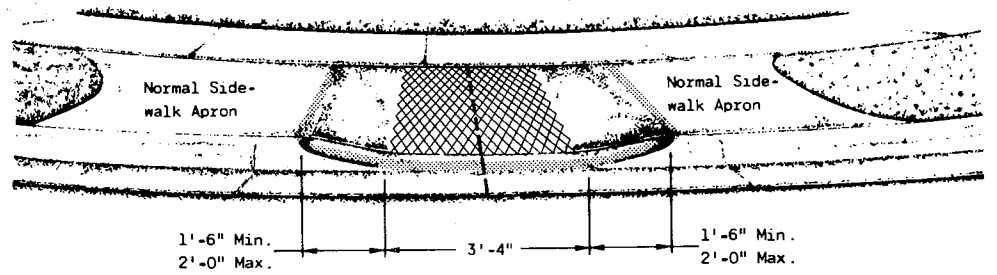




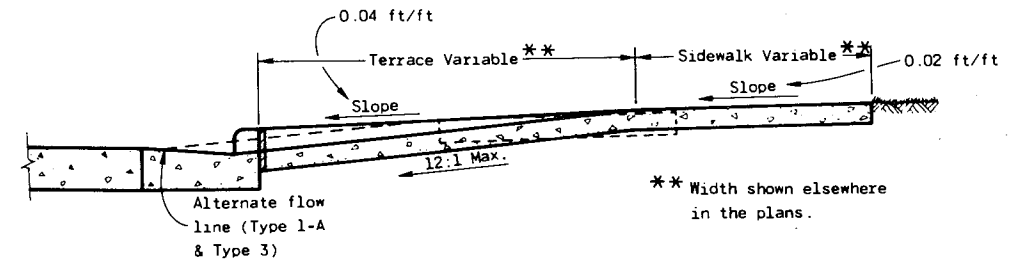
PLAN VIEW  
TYPE 1 RAMP  
(CENTER OF CORNER RADIUS)



PLAN VIEW  
TYPE 1-A RAMP  
(NO TERRACE)



VIEW A-A



SECTION B-B

1/2" EXPANSION JOINTS - SIDEWALK  
 --- CONTRACTION JOINTS  
 Location of joints may be varied from those shown to better fit site conditions and/or local government preference.

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.

Ramps shall be built at 12:1 or flatter. When necessary, the sidewalk elevation may be lowered to meet the high point on the ramp.

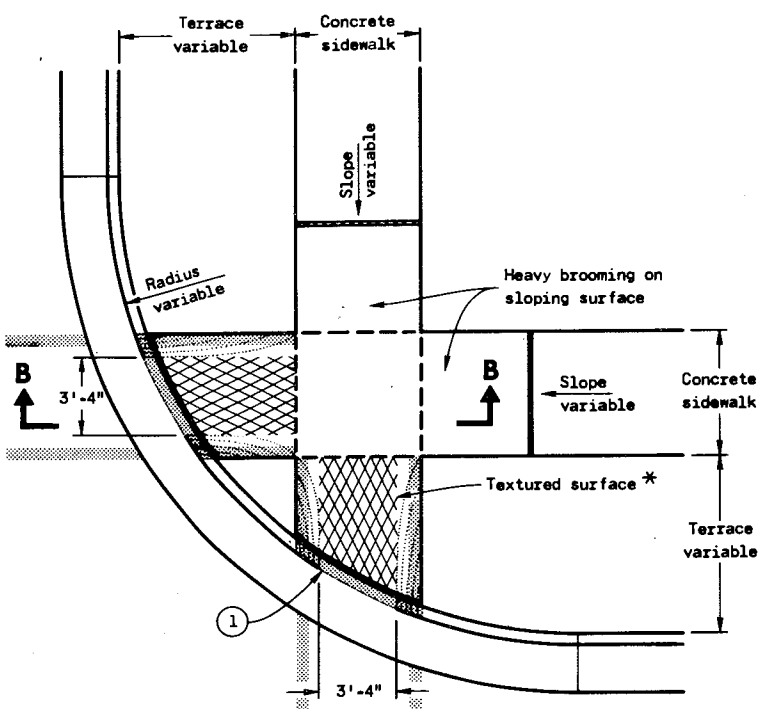
Type 1 or Type 1-A Ramps shall have a normal sidewalk apron and curb on both sides of ramp.

Curb ramps shall be measured and paid for as Concrete Sidewalk and Concrete Curb and Gutter.

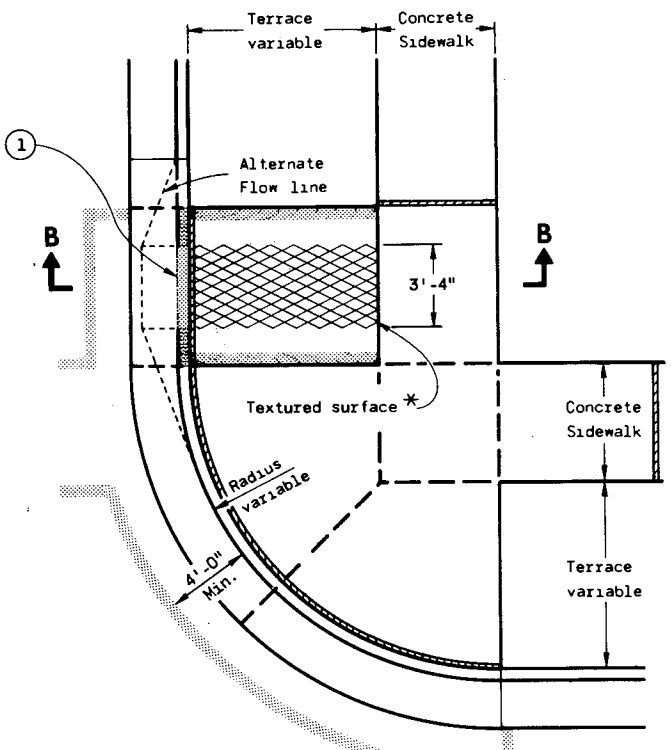
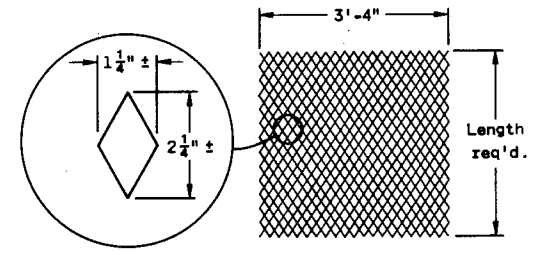
Surface texturing shall consist of linear impressions approximately 1/4 inch to 3/8 inch in depth and width, oriented to provide a uniform pattern of diamond shapes measuring approximately 1 1/4 inches in width by 2 1/4 inches in length, with the length being parallel to the direction of pedestrian movement. This surface texture may be achieved by impressing and removing a piece of expanded metal regular industrial mesh into the surface of the ramp while the concrete is in a plastic state.

① The ramp shall be bordered on both sides and on the curb line with a 4 inch wide yellow stripe or with brick of a contrasting color. Normally the paint stripe alternate will be used. The municipality or the department will apply this striping unless otherwise specified in the contract.

If a municipality requires the brick alternate, special details and provisions are shown elsewhere in the plans.



PLAN VIEW  
TYPE 2 RAMP  
(ON LINE WITH SIDEWALK)

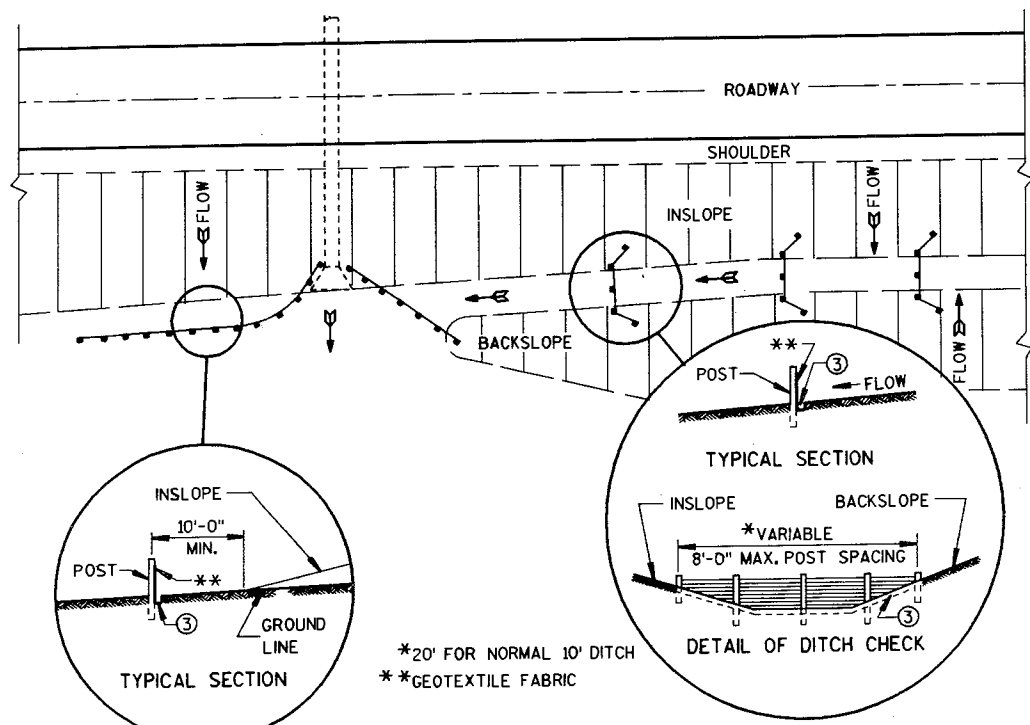


PLAN VIEW  
TYPE 3 RAMP  
(OUTSIDE OF CROSSWALK AREA)

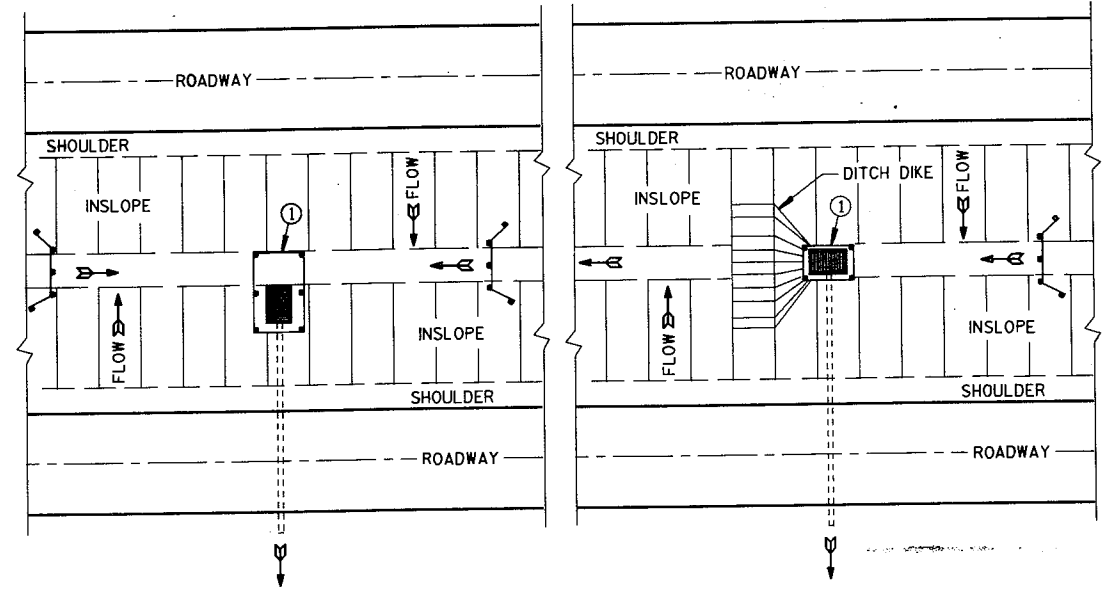
S.D.D. 8 D 5-8

CURB RAMPS	
State of Wisconsin Department of Transportation	
APPROVED DATE 10-23-84	<i>D. Strand</i> CHIEF DESIGN ENGINEER
FHWA	

S.D.D. 8 D 5-8



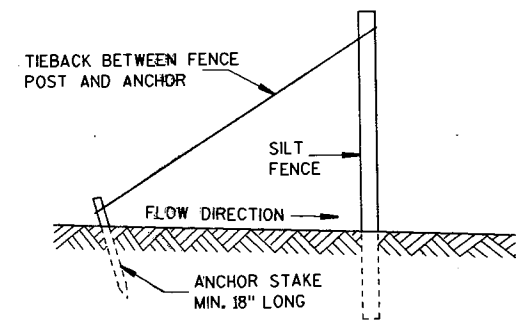
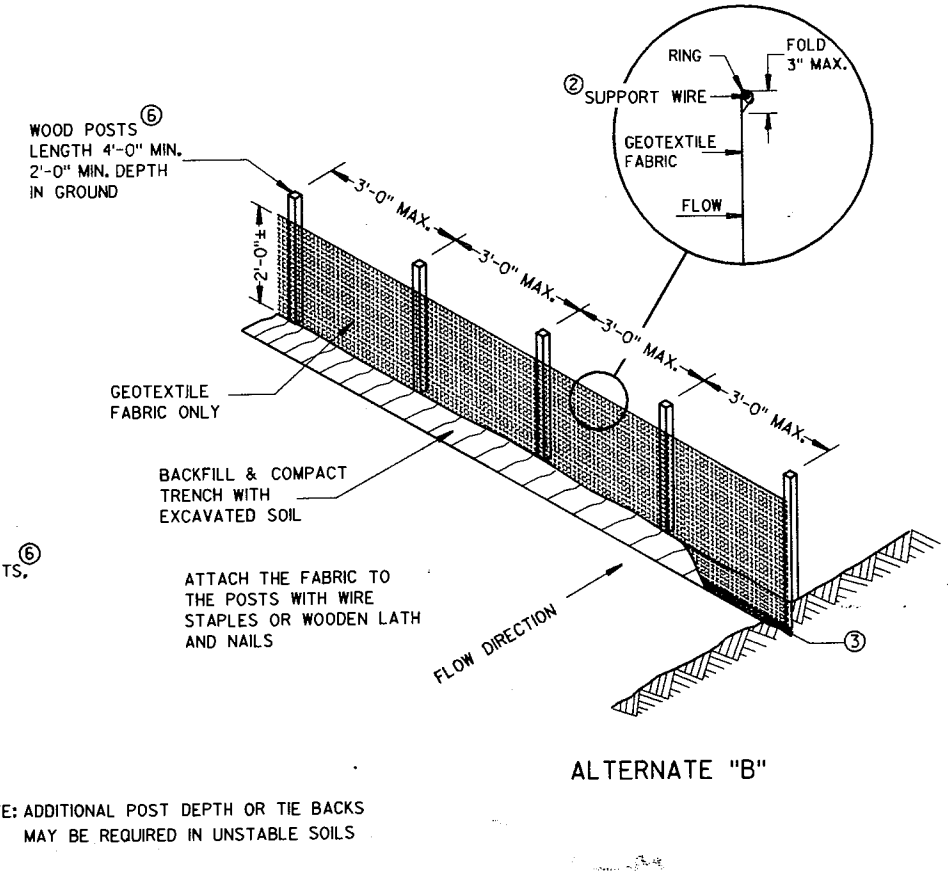
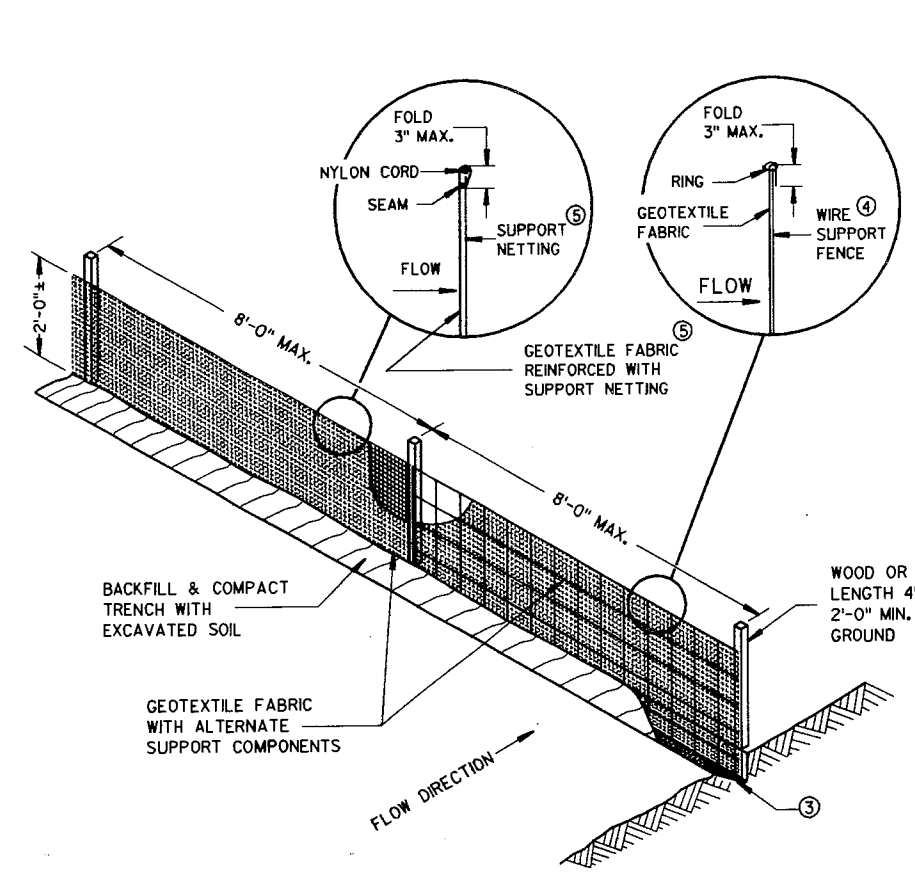
PLAN VIEW  
TYPICAL APPLICATIONS OF SILT FENCE



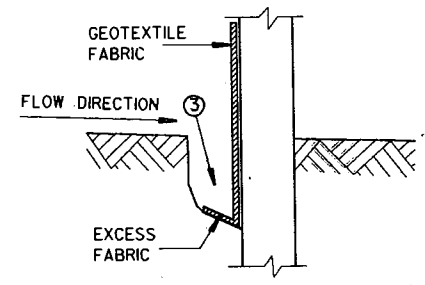
SITUATION 1  
SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

**GENERAL NOTES**

- DETAIL OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.
- WHEN POSSIBLE THE SILT FENCE SHOULD BE CONSTRUCTED IN AN ARC OR HORSESHOE SHAPE, WITH THE ENDS POINTING UPSLOPE TO MAXIMIZE BOTH STRENGTH AND EFFECTIVENESS.
- ① CROSS BRACE WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS AS DIRECTED BY THE ENGINEER.
  - ② MINIMUM 14 GAGE WIRE REQUIRED, FOLD FABRIC 3" OVER THE WIRE AND STAPLE OR PLACE WIRE RINGS ON 12" C-C.
  - ③ EXCAVATE A TRENCH A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
  - ④ WIRE SUPPORT FENCE SHALL BE 14 GAGE MINIMUM WOVEN WIRE WITH A MAXIMUM MESH SPACING OF 6". SECURE TOP OF GEOTEXTILE FABRIC TO TOP OF FENCE WITH STAPLES OR WIRE RINGS AT 12" C-C.
  - ⑤ GEOTEXTILE FABRIC SHALL BE REINFORCED WITH AN INDUSTRIAL POLYPROPYLENE NETTING WITH A MAXIMUM MESH SPACING OF 3/4" OR EQUAL. A HEAVY DUTY NYLON TOP SUPPORT CORD OR EQUIVALENT IS REQUIRED.
  - ⑥ STEEL POSTS SHALL BE STUDDED "TEE" OR "U" TYPE WITH A MINIMUM WEIGHT OF 1.28 LBS./LINEAL FOOT (WITHOUT ANCHOR). FIN ANCHORS SUFFICIENT TO RESIST POST MOVEMENT ARE REQUIRED. WOOD POSTS SHALL BE A MINIMUM SIZE OF 4" DIA. OR 1 1/2" X 3 1/2" EXCEPT WOOD POSTS FOR GEOTEXTILE FABRIC REINFORCED WITH NETTING SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OAK OR HICKORY.
- ALTERNATES A & B ARE EQUAL AND EITHER MAY BE USED.



SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)



TRENCH DETAIL

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

SILT FENCE

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8-31-88 DATE	 STATE DESIGN ENGINEER FOR HWYS
FHWA	

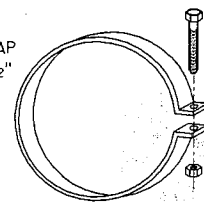
METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1/2")	L <sub>1</sub> (1)	L <sub>2</sub> (1)	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 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 5/8	42	2 1/2 to 1	1 Pc.
24	.079	.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	.109	.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 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 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 3/8	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 1/2 to 1	
60	6	30-35	60	39	99	96	5	2 to 1	
66	6 1/2	30-35	72-78	21-27	99	102	5 1/2	2 to 1	
72	7	30-35	78	21	99	108	6	2 to 1	
78	7 1/2	30-35	78	21	99	114	6 1/2	2 to 1	
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1	
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1	

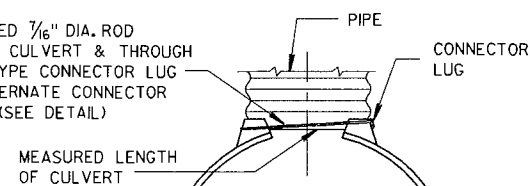
\* MINIMUM  
\*\* MAXIMUM

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



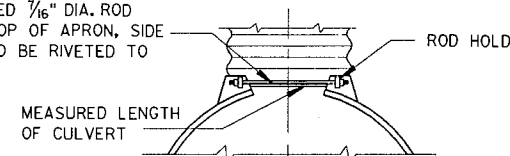
ALTERNATE FOR TYPE 1 CONNECTION  
END SECTION CONNECTOR STRAP

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



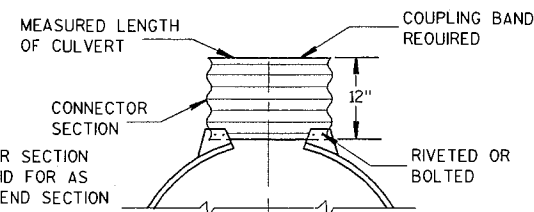
TYPE 1  
FOR 12" THRU 24" CORR. PIPE

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



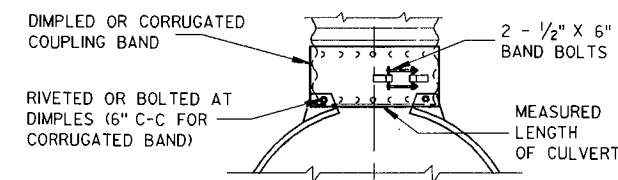
TYPE 2  
FOR 30" THRU 96" CORR. PIPE

CONNECTOR SECTION TO BE PAID FOR AS PART OF END SECTION



TYPE 3  
FOR 42" THRU 96" CORR. PIPE

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



TYPE 5  
ALTERNATE FOR:  
ALL SIZES CORRUGATED CIRCULAR PIPE

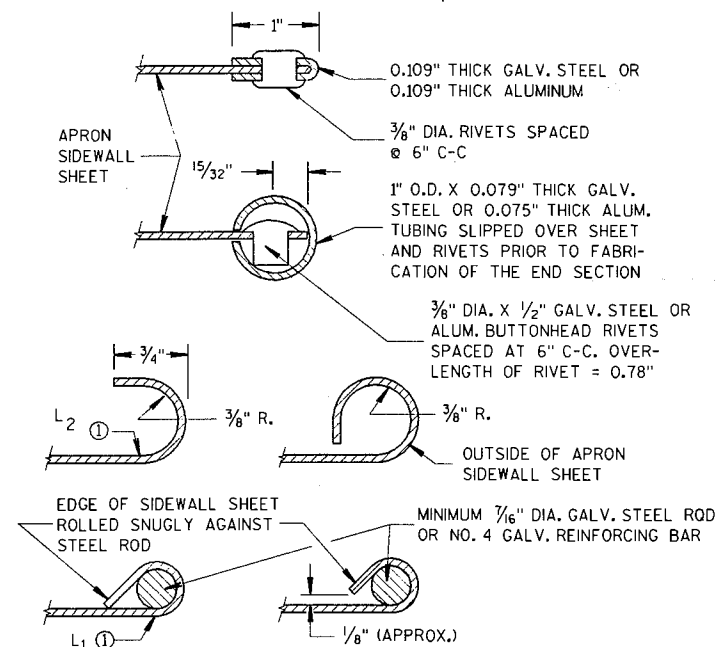
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

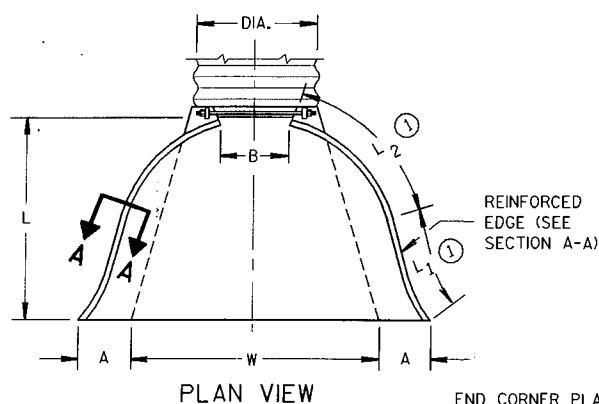
APRON ENDWALLS FOR  
CULVERT PIPE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
12/17/87  
DATE

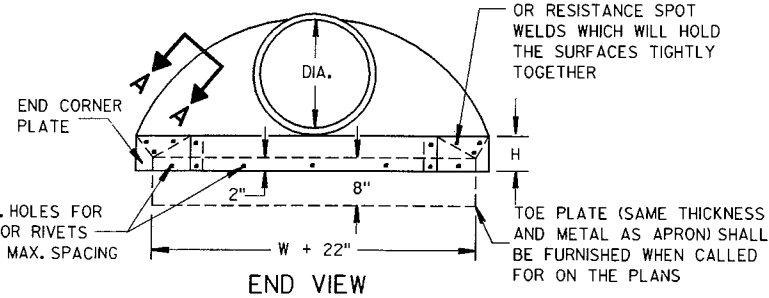
*R. C. Calum*  
STATE DESIGN ENGINEER FOR HWYS

FHWA



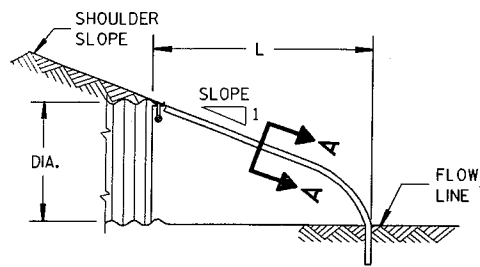
PLAN VIEW

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

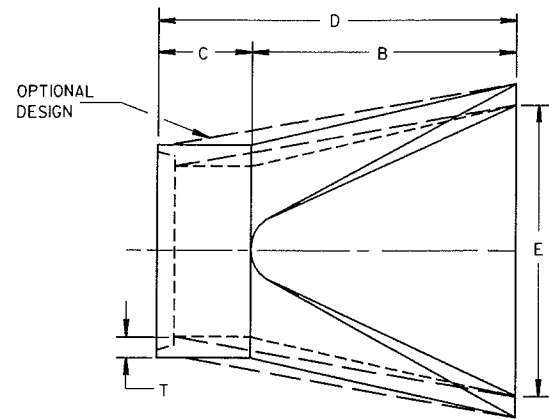


END VIEW

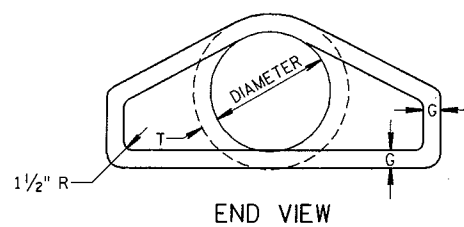
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



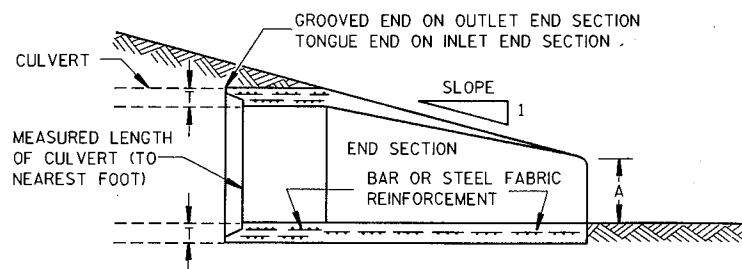
SIDE ELEVATION  
METAL ENDWALLS



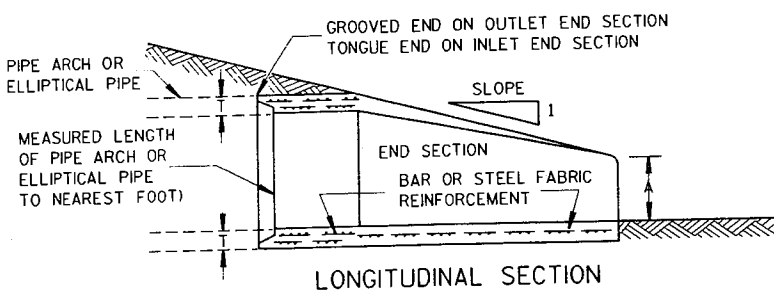
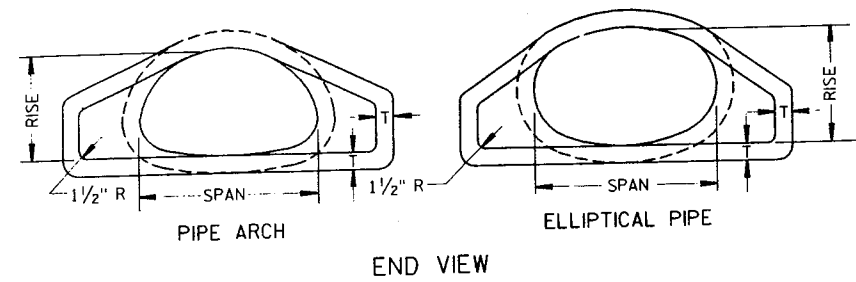
PLAN



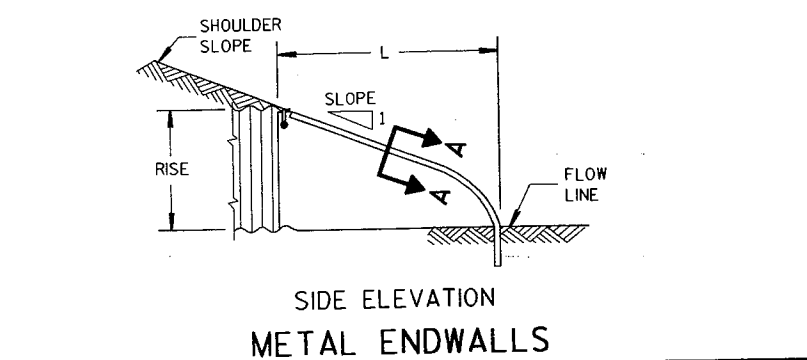
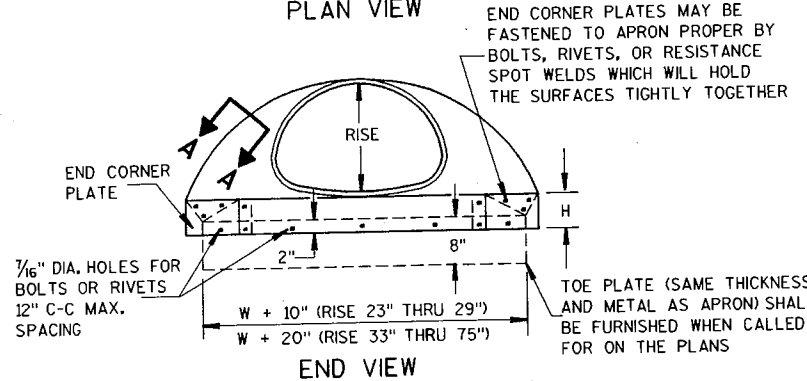
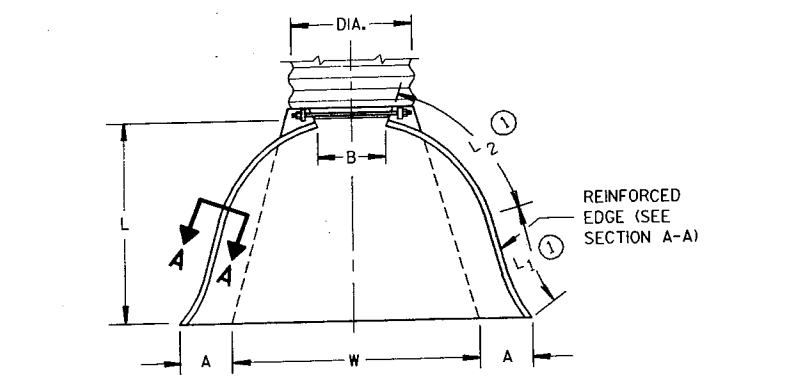
END VIEW



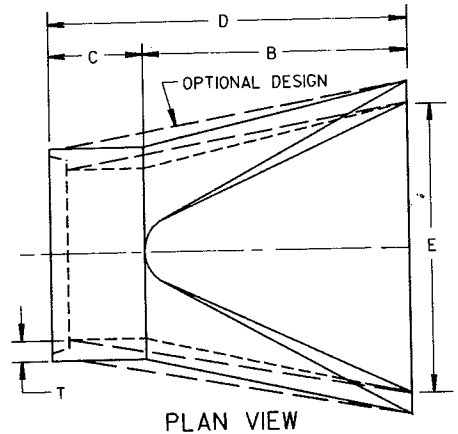
LONGITUDINAL SECTION  
CONCRETE ENDWALLS



CONCRETE ENDWALLS



METAL ENDWALLS



PLAN VIEW

**2- 2/3" X 1/2" CORRUGATIONS**

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1/2")	L1 (±1")	L2 (±1")	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/2 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/2 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

**3" X 1" CORRUGATIONS**

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1/2")	L1 (±1")	L2 (±1")	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109	.105	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED. \* EXCEPT CENTER PANEL SEE GENERAL NOTES

**REINFORCED CONCRETE PIPE ARCH**

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 3/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

**REINFORCED CONCRETE ELLIPTICAL PIPE**

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	30	19	3/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 3/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

\*\* NOMINAL SIZE

**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.

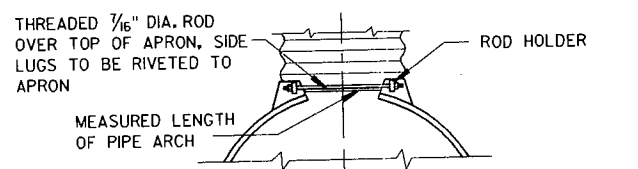
CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 71" X 47" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 71" X 47" PIPE ARCH 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 ARCH PERIMETER.

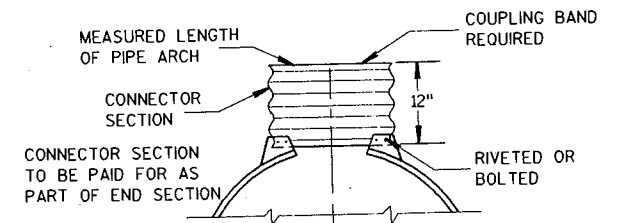
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

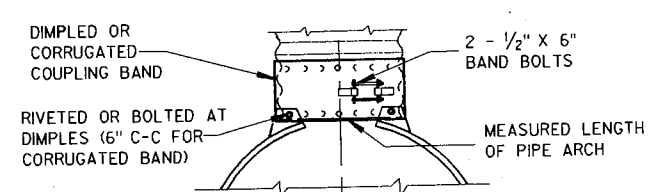
① FOR PIPE ARCH SIZES UP TO 73" X 45" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.



TYPE 2 FOR 17" X 13" THRU 112" X 75" PIPE ARCH



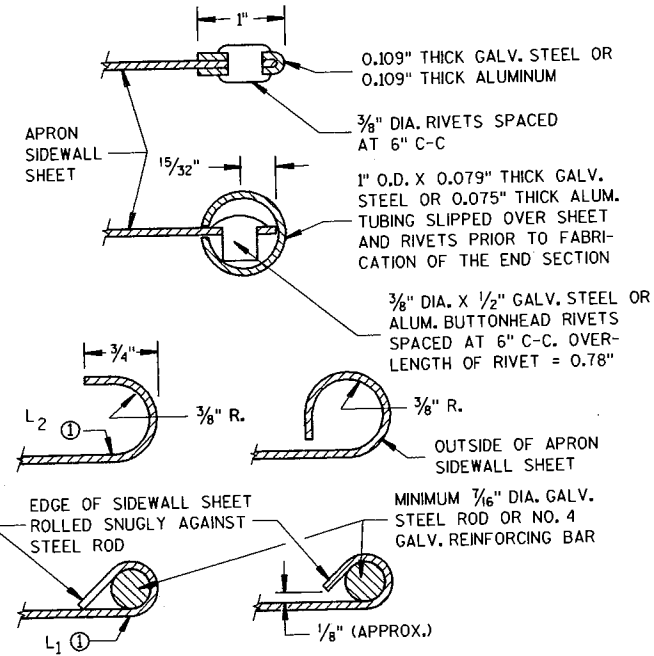
TYPE 3 FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5 ALTERNATE FOR: ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

**CONNECTION DETAILS**



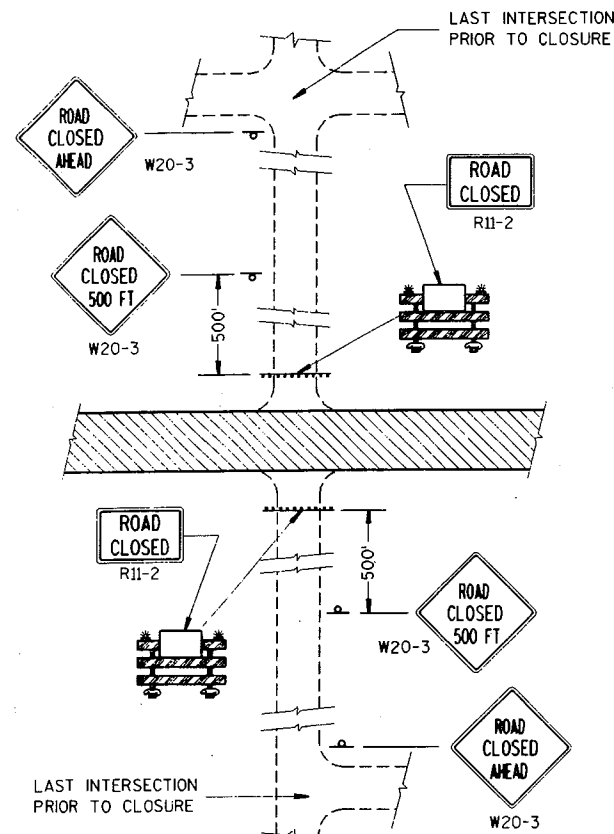
SECTION A-A

**APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE**

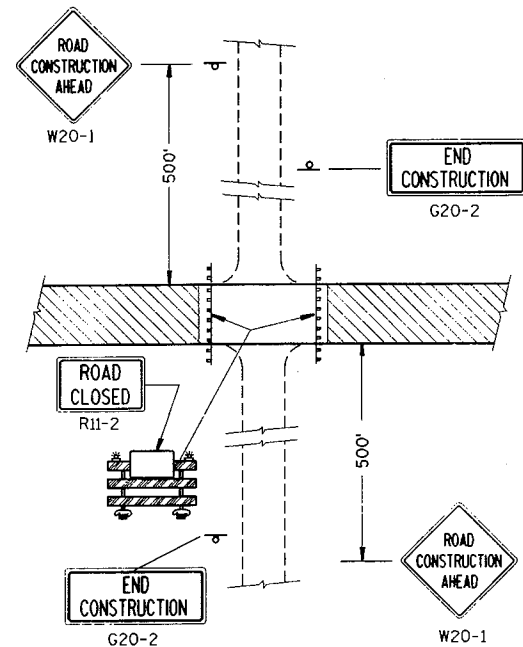
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE 12/17/87  
STATE DESIGN ENGINEER FOR HWYS

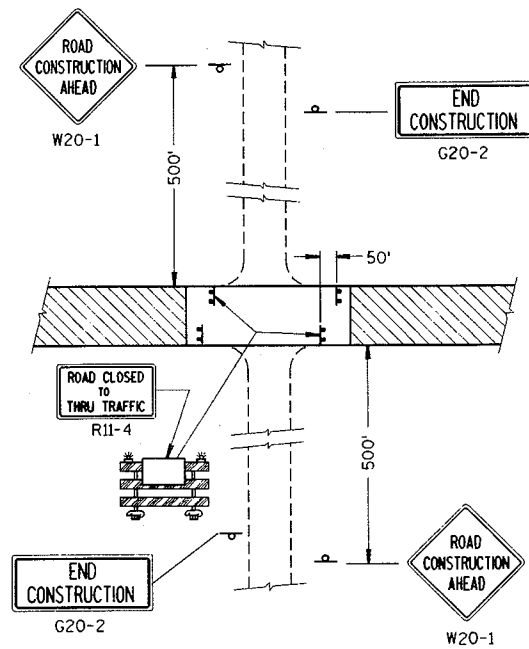
FHWA



**DETAIL 1**  
(NO ACCESS TO PROJECT)



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



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

**GENERAL NOTES**

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

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

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

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

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

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

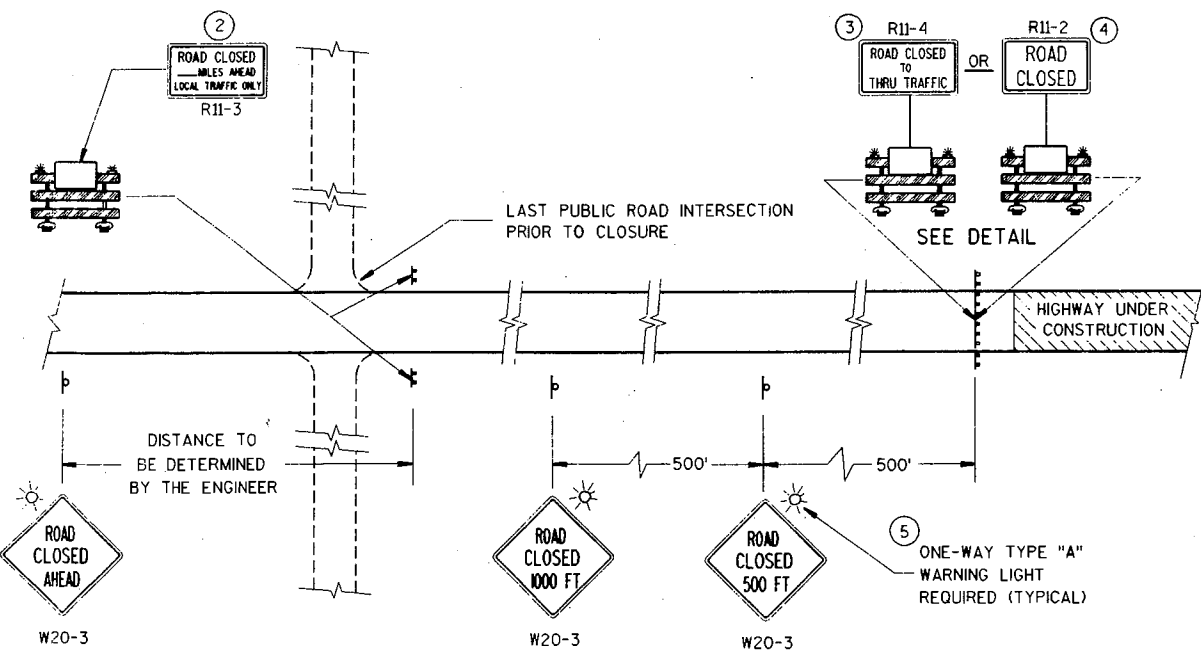
R11-2, "ROAD CLOSED" SIGNS SHALL BE 48" X 30".

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

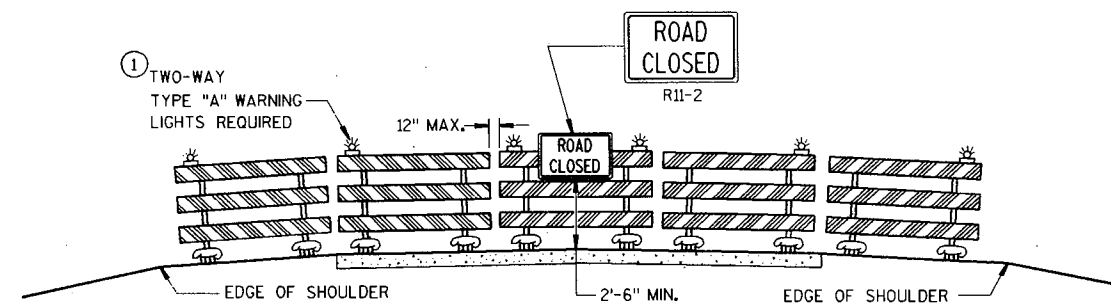
G20-2 SIGNS SHALL BE 60" X 24".

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

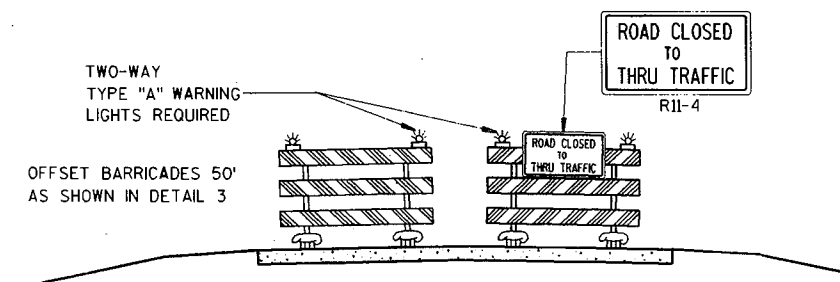
**SIDEROAD CLOSURES**



**MAINLINE CLOSURE**



**ROAD CLOSURE BARRICADE DETAIL**



**LANE CLOSURE BARRICADE DETAIL**

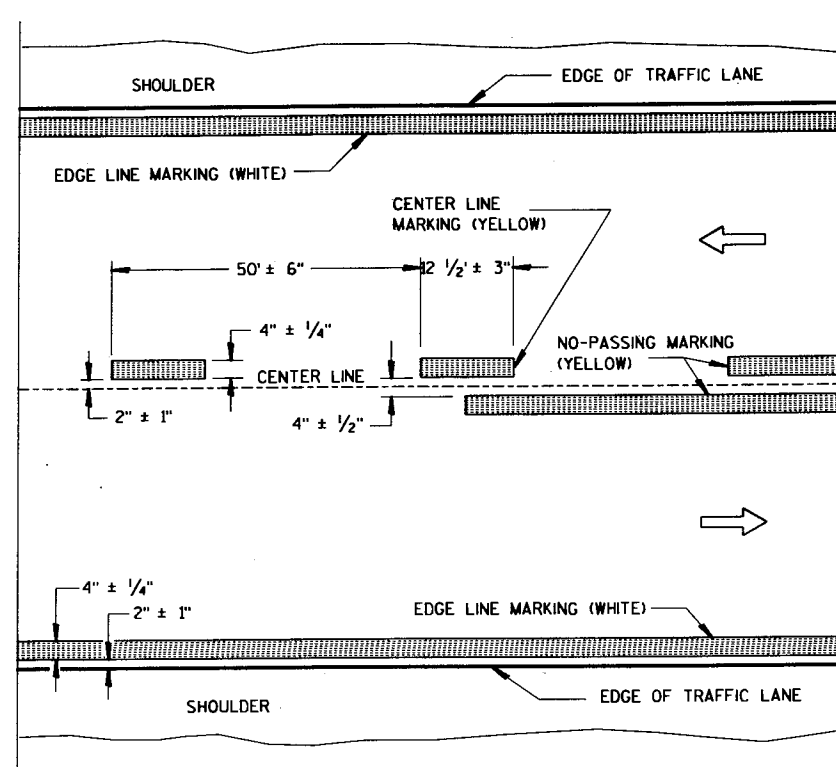
**LEGEND**

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

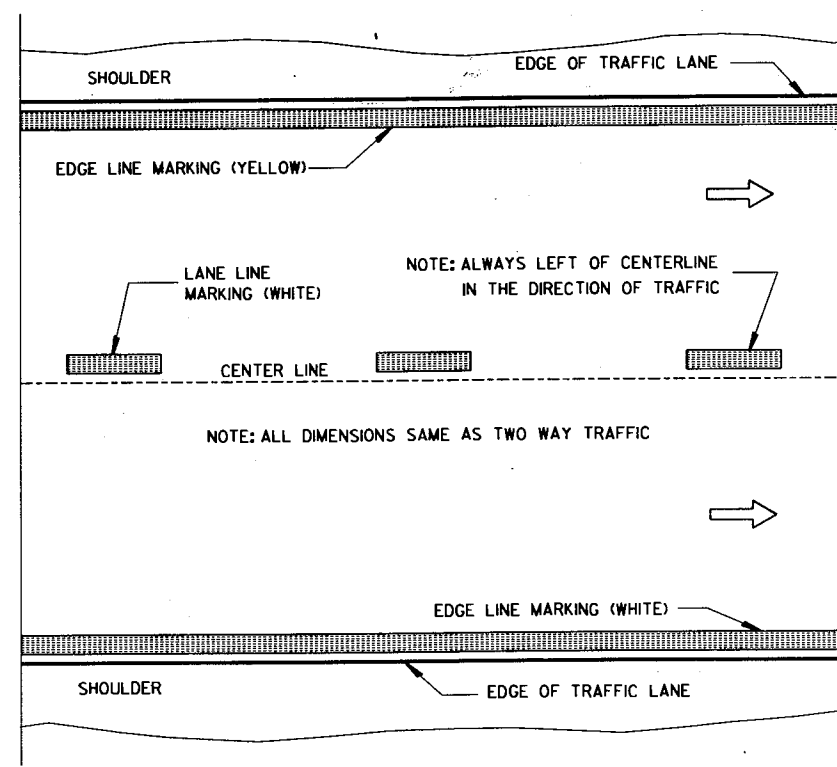
**BARRICADES AND TRAFFIC CONTROL FOR ROAD CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

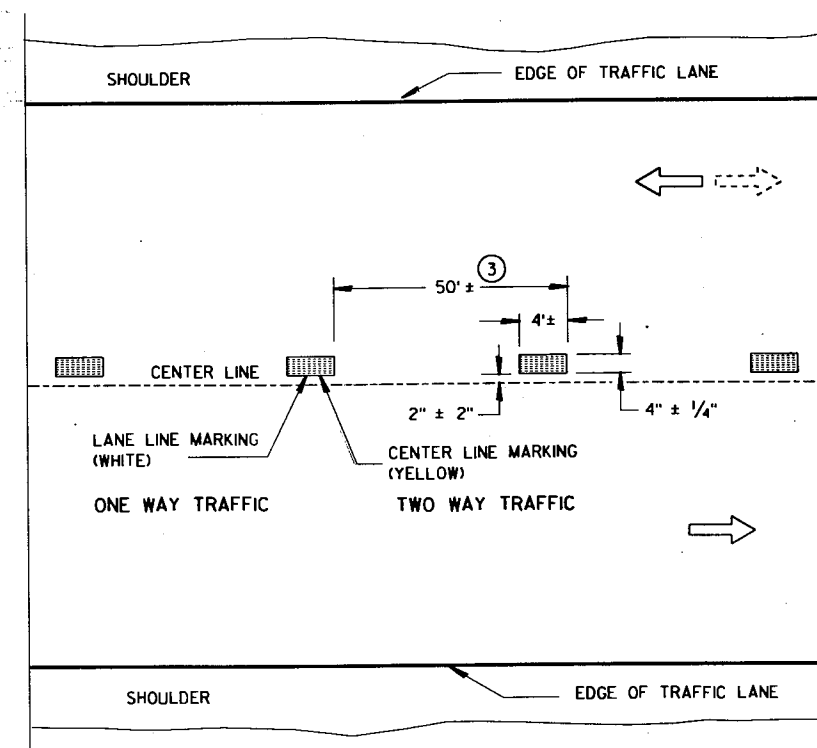
APPROVED  
10-31-89 DATE  
STATE TRAFFIC ENGINEER FOR HWYS  
FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC



TEMPORARY PAVEMENT MARKING

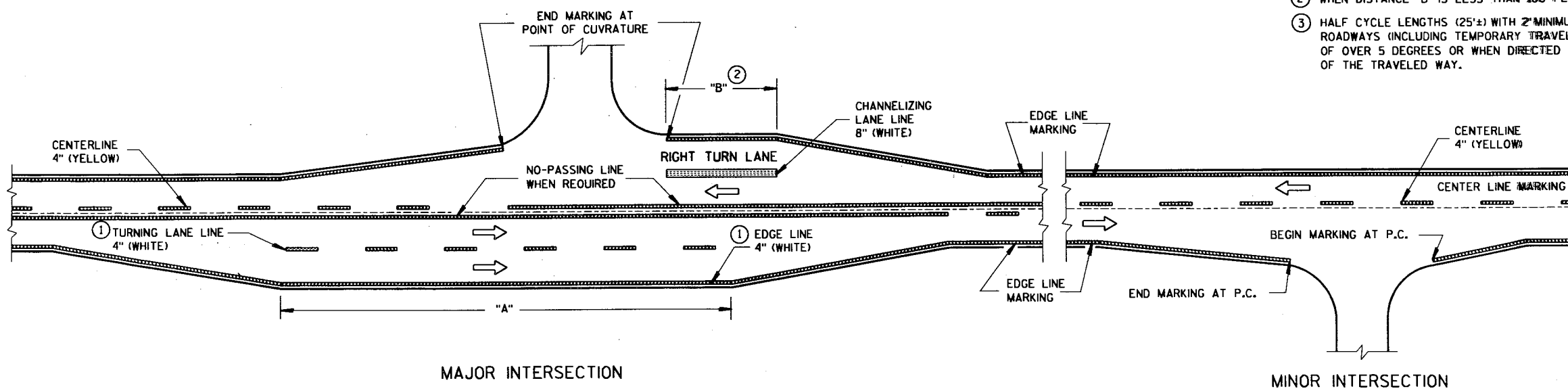
PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

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

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT TURNING LANE MARKING.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ HALF CYCLE LENGTHS (25'±) WITH 2" MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.



MAJOR INTERSECTION

MINOR INTERSECTION

TYPICAL PAVEMENT MARKING FOR RURAL INTERSECTIONS

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

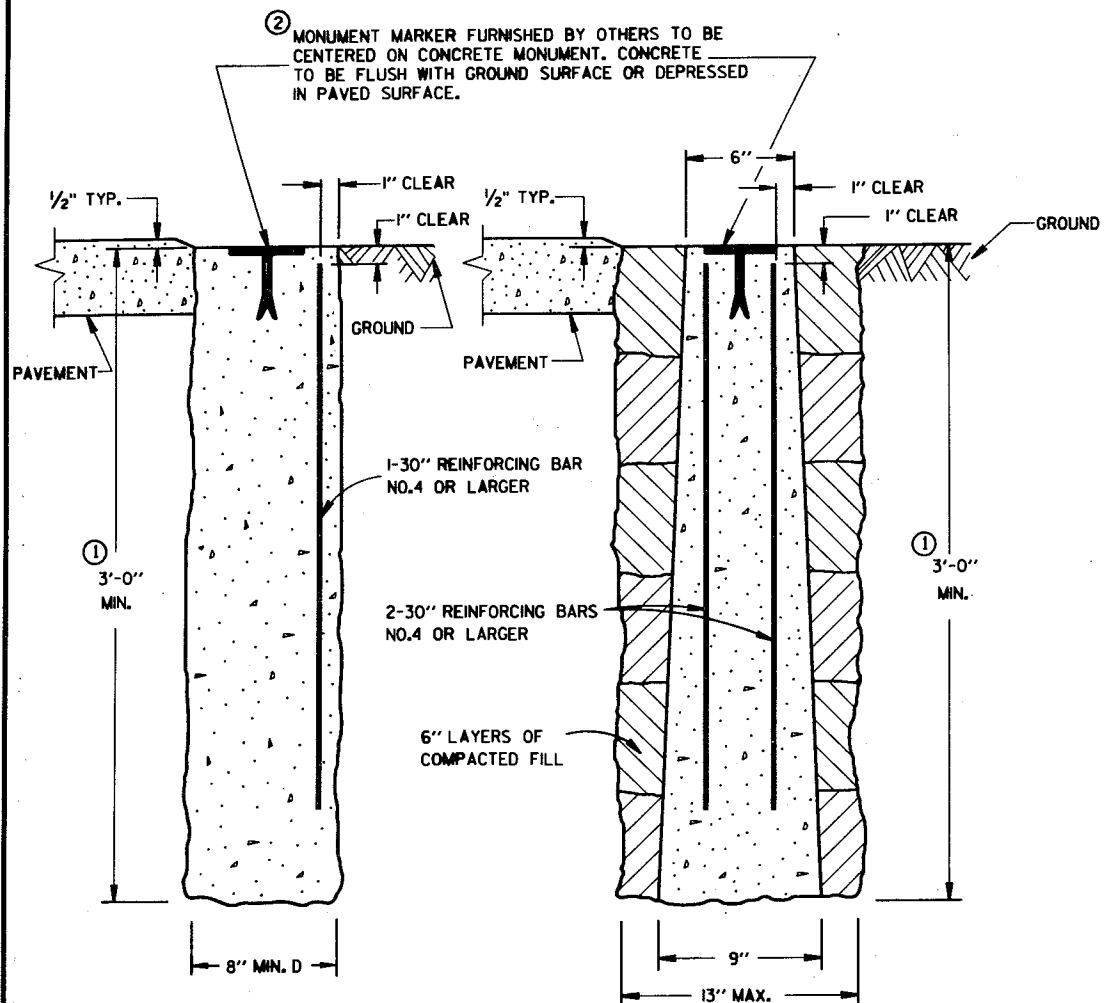
PAVEMENT MARKING  
(MAINLINE & INTERSECTIONS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

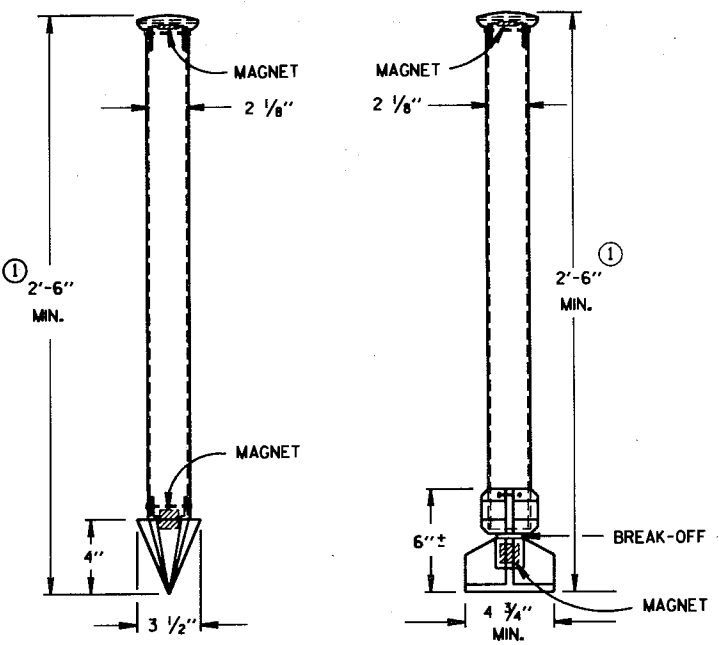
APPROVED  
3/17/92  
DATE

*John G. Rusch*  
STATE TRAFFIC ENGINEER FOR HWYS

FHWA



CAST-IN-PLACE  
PRECAST  
CONCRETE MONUMENTS  
TYPE A



TYPE C  
DRIVE-IN MONUMENT  
TYPE D  
BREAK-OFF MONUMENT  
ALUMINUM MONUMENTS  
(INCLUDES MARKER)

**GENERAL NOTES**

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

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

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

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

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

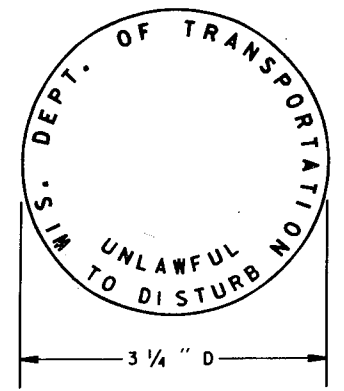
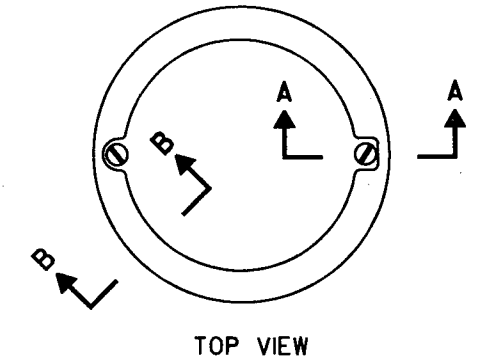
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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

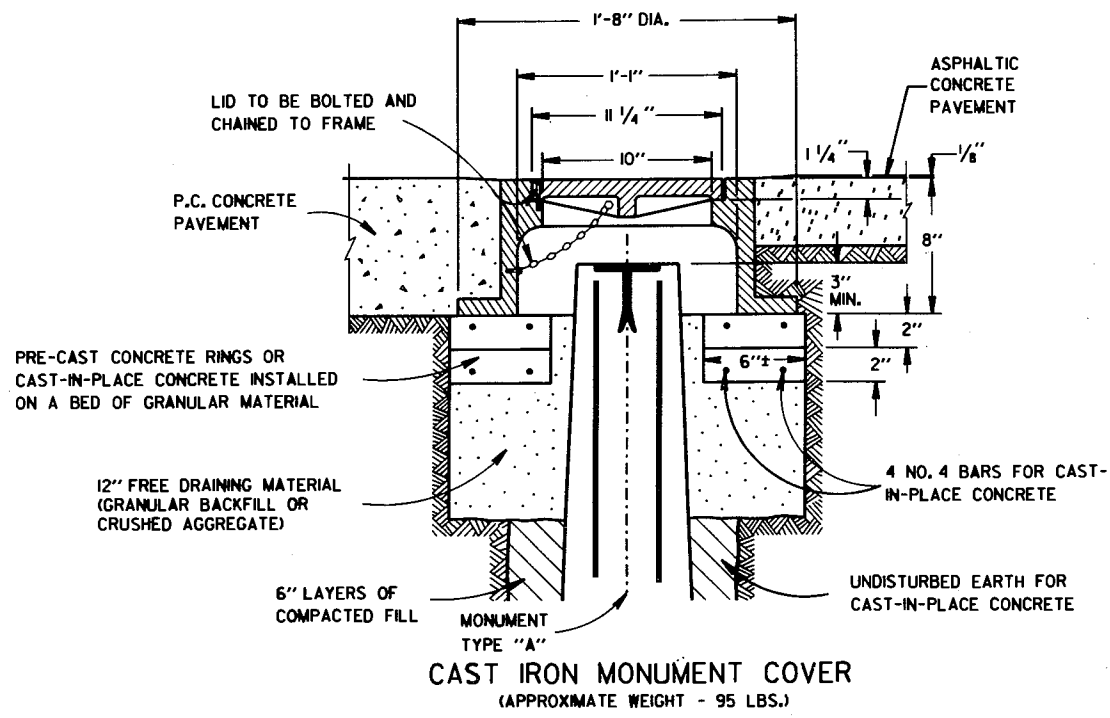
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

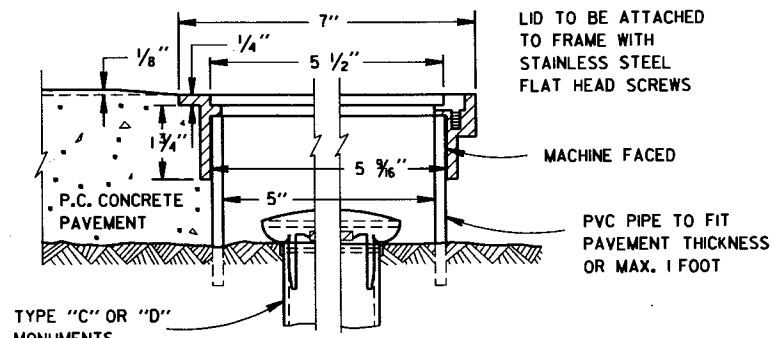
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



② WIS DOT MONUMENT MARKER LOGO  
FOR TYPES "A", "C" & "D"



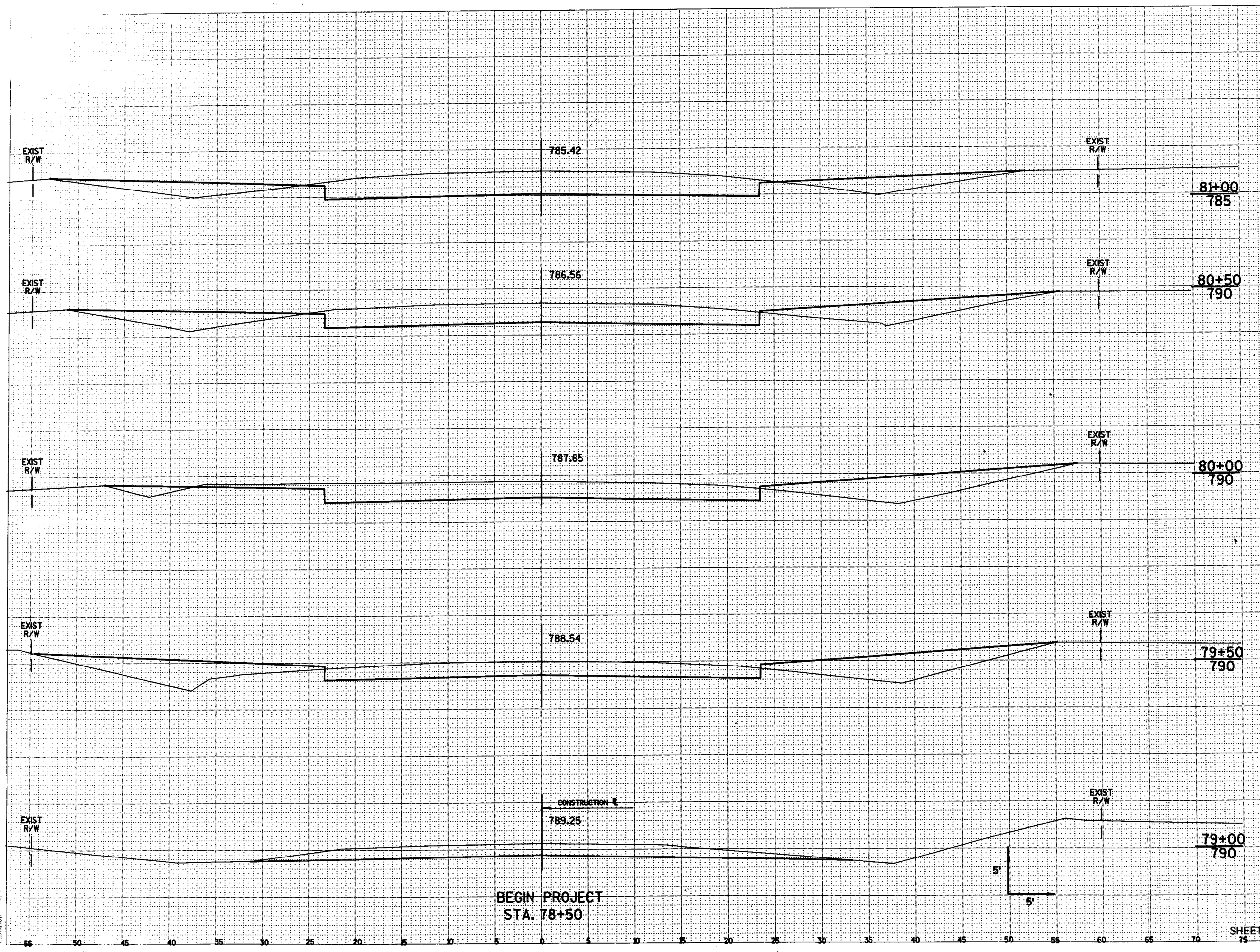
CAST IRON MONUMENT COVER  
(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A  
ALUMINUM MONUMENT COVER  
(APPROXIMATE WEIGHT 2 LBS)  
(FOR CONCRETE PAVEMENT ONLY)

<b>LANDMARK REFERENCE MONUMENTS AND COVERS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/31/92 DATE	 STATE DESIGN ENGINEER FOR HWYS
FHWA	

S.D.D. 16 A 1-5



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
78+50	785	67	0
79+00	790	133	98
79+50	790	143	154
80+00	790	156	122
80+50	790	172	119
81+00	790		
SHEET TOTAL		671	493

BEGIN PROJECT  
STA. 78+50

CONSTRUCTION E  
789.25

785.42

786.56

787.65

788.54

81+00  
785

80+50  
790

80+00  
790

79+50  
790

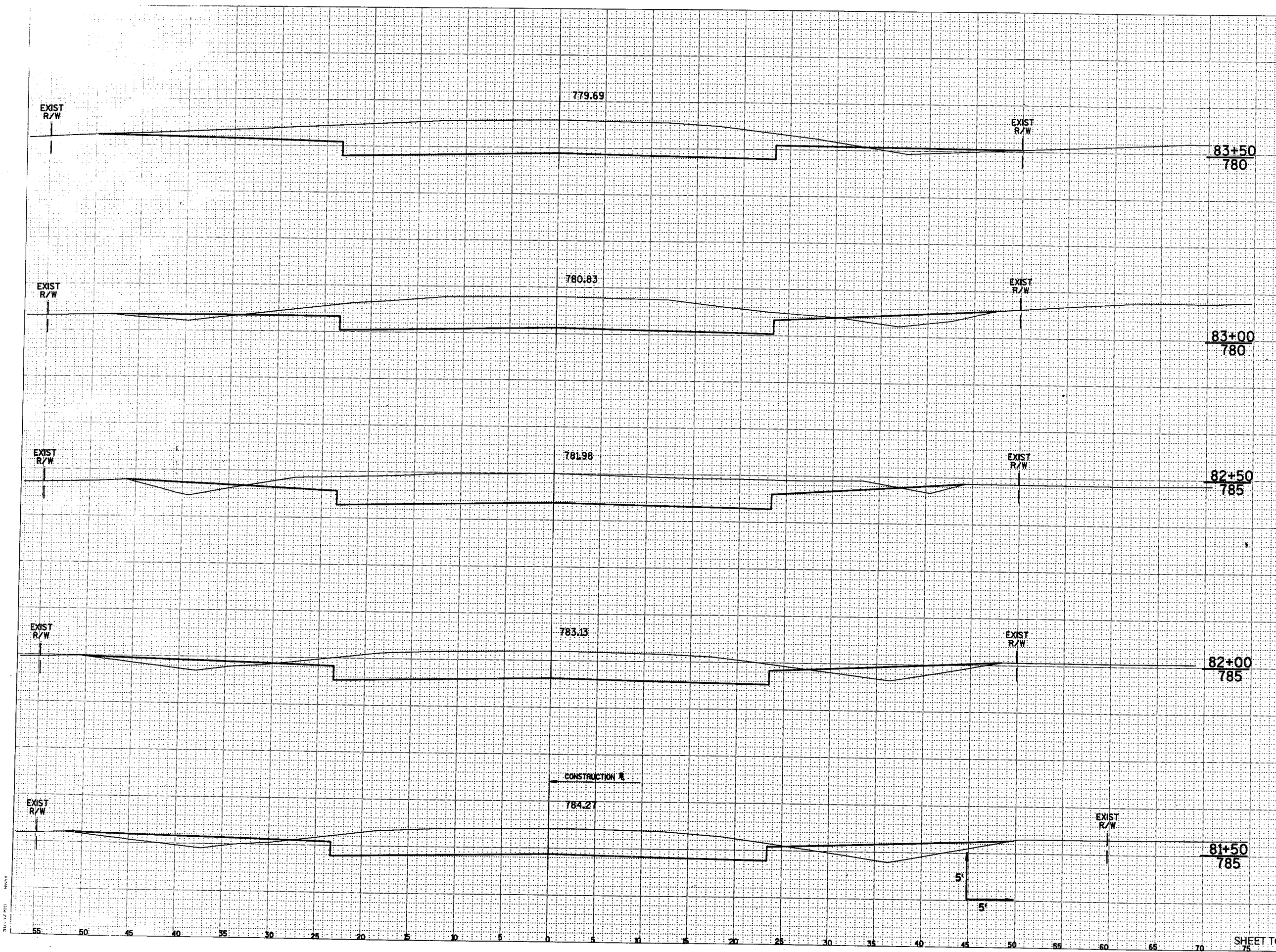
79+00  
790

SHEET TOTAL

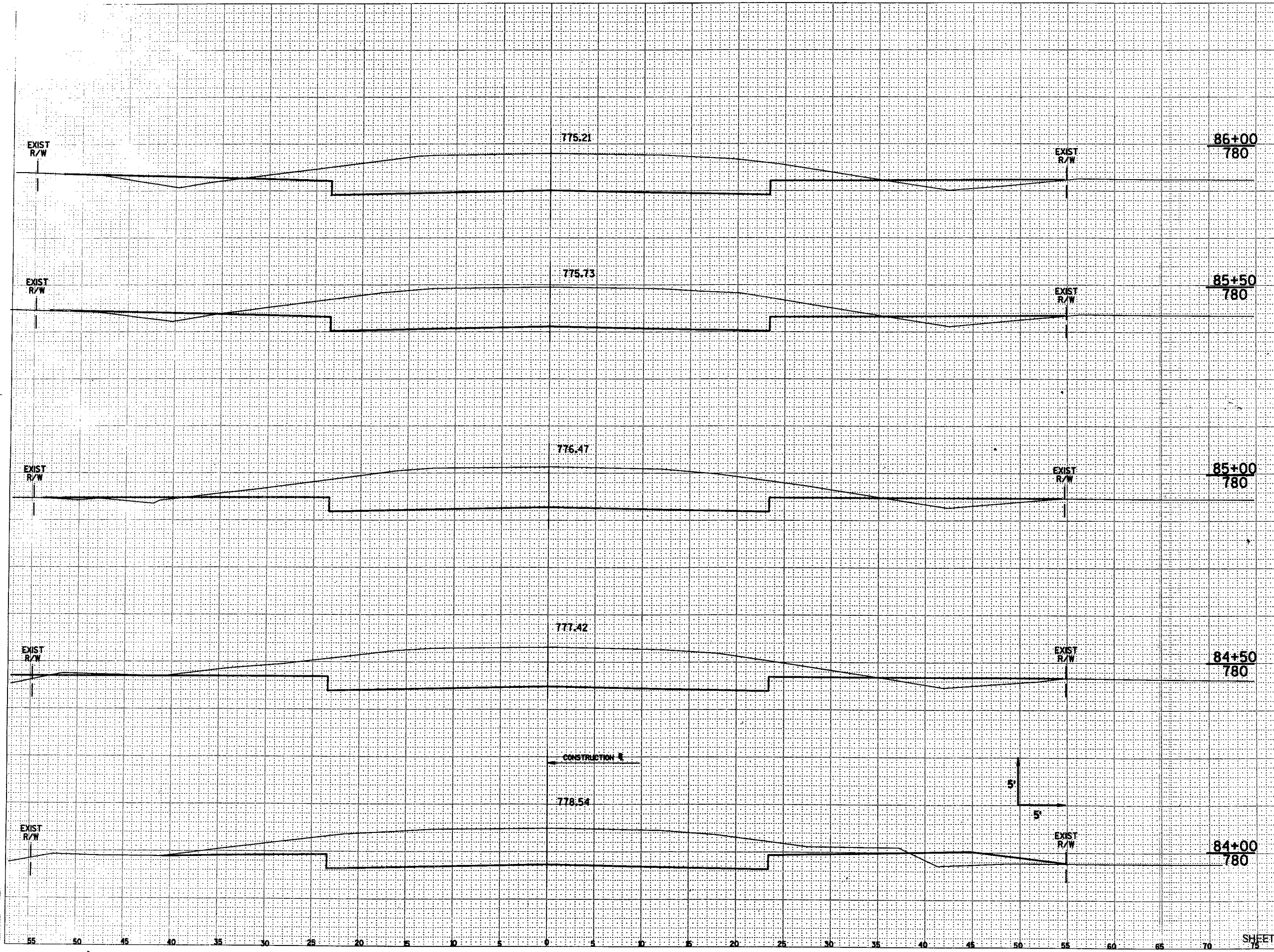
671

493

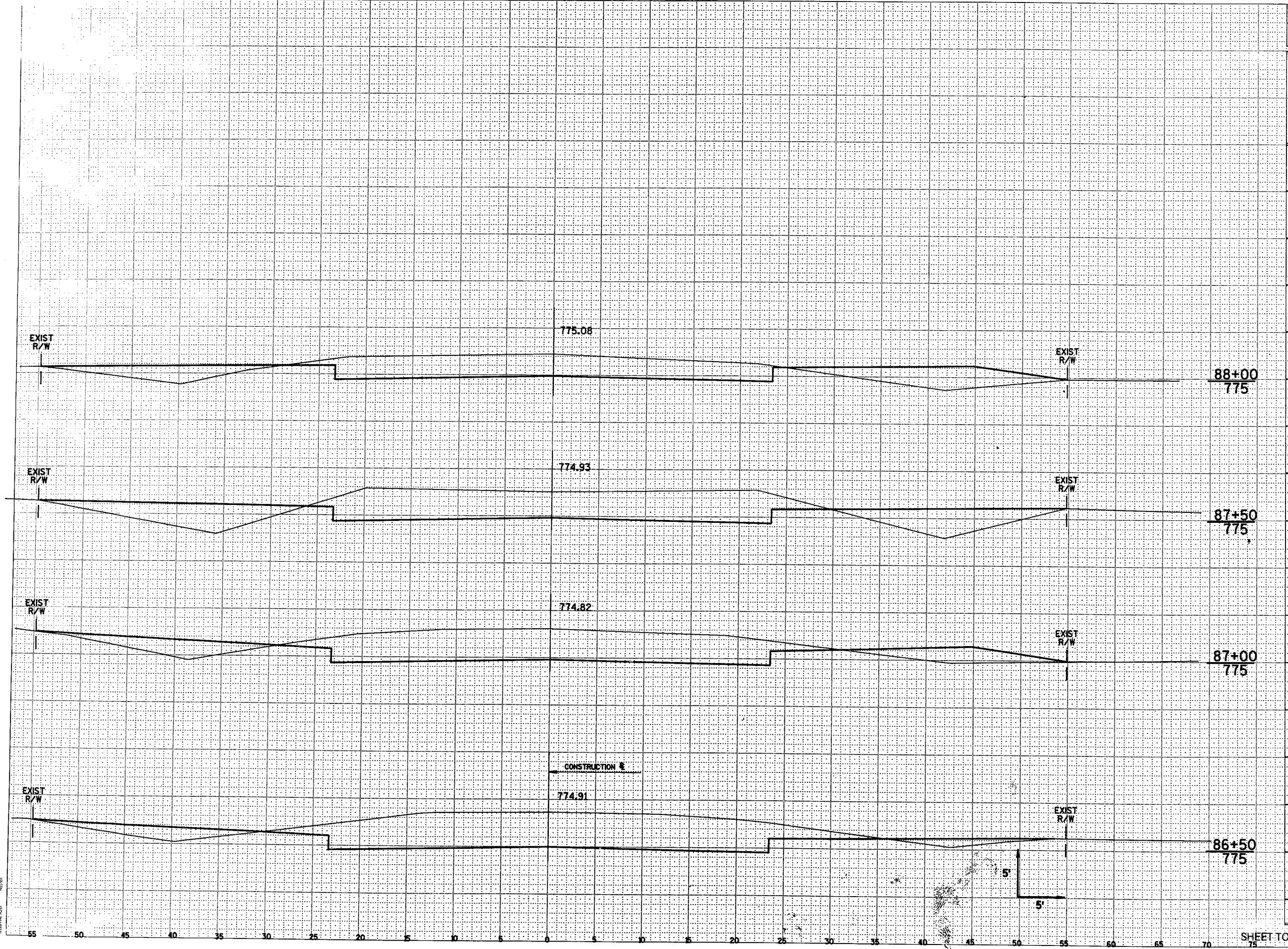




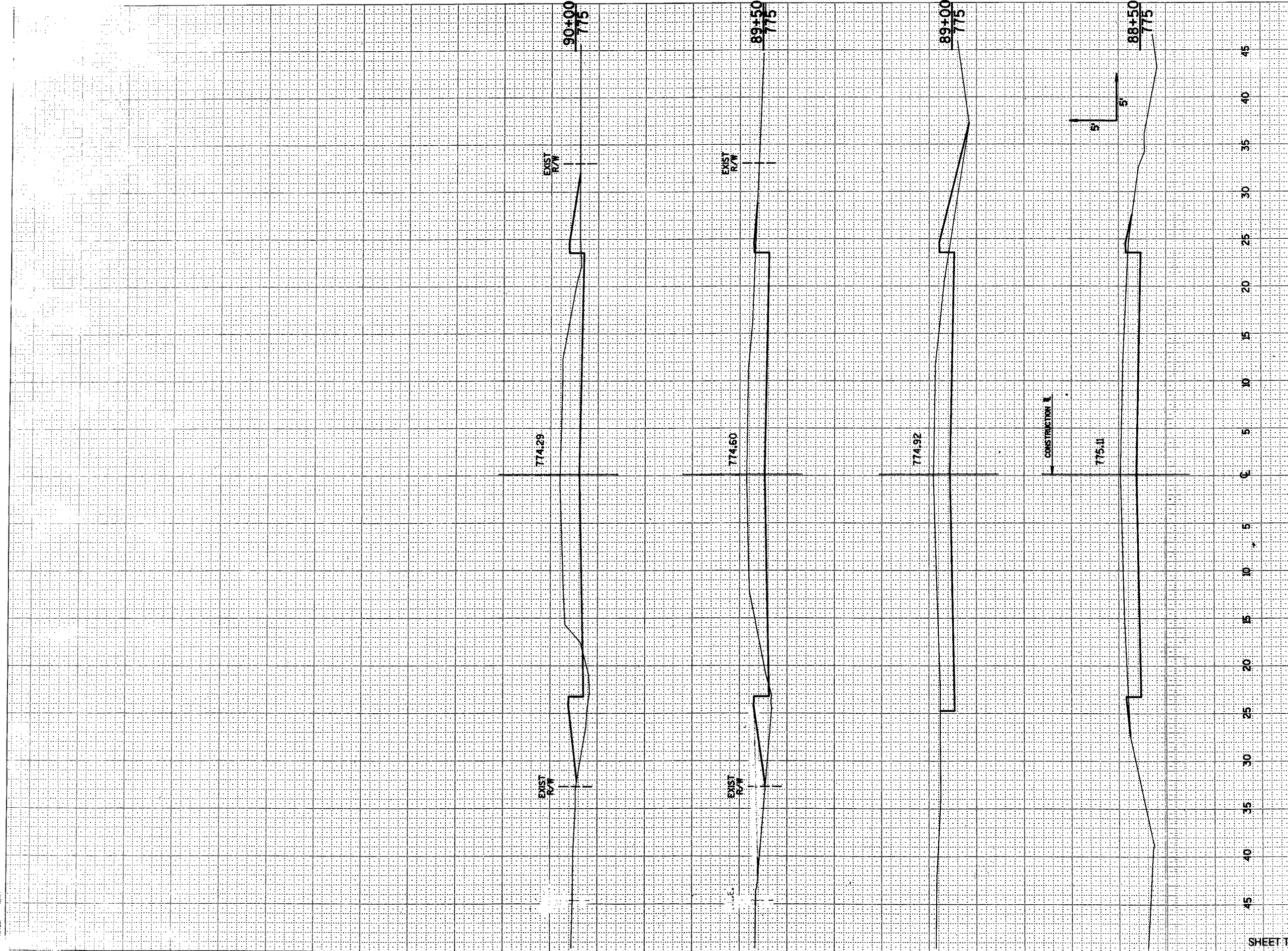
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
81+00			
81+50	213		94
82+00	242		70
82+50	268		41
83+00	278		31
83+50	291		20
SHEET TOTAL		1292	256



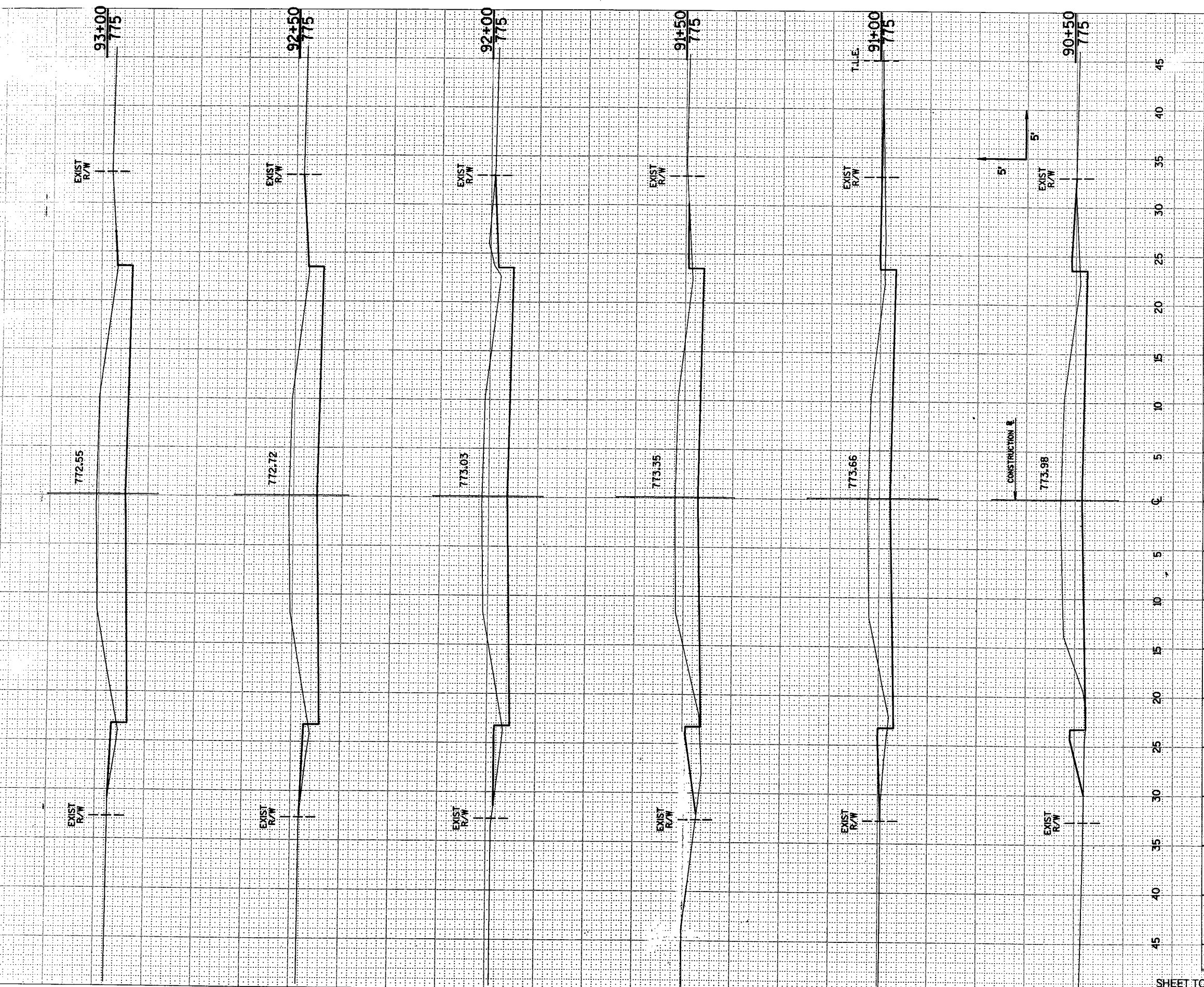
STATION	DISTANCE	YARDAGE	
		UNCL.	FILL
83+50		345	15
84+00		378	28
84+50		385	30
85+00		376	37
85+50		350	41
86+00			
86+50			
87+00			
87+50			
88+00			
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99+50			
100+00			



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNCL.	
86+00			
86+50		339	54
87+00		313	80
87+50		259	117
88+00		204	157
SHEET TOTAL		1115	408

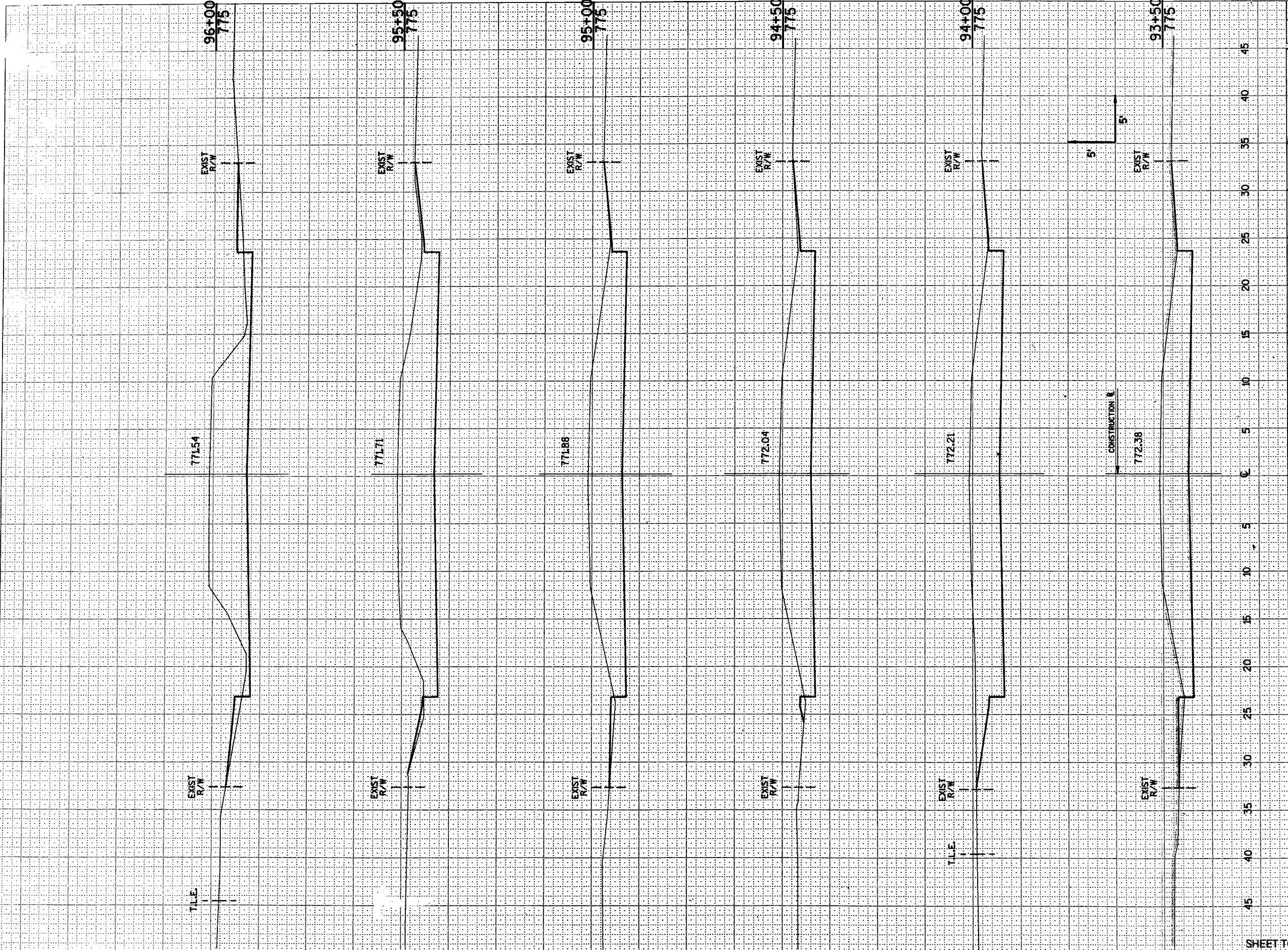


STATION	DISTANCE	YARDAGE	
		UNCL.	FILL
88+50	150		30
89+00	157		22
89+50	163		46
90+00	169		128
<b>SHEET TOTAL</b>	<b>639</b>		<b>226</b>

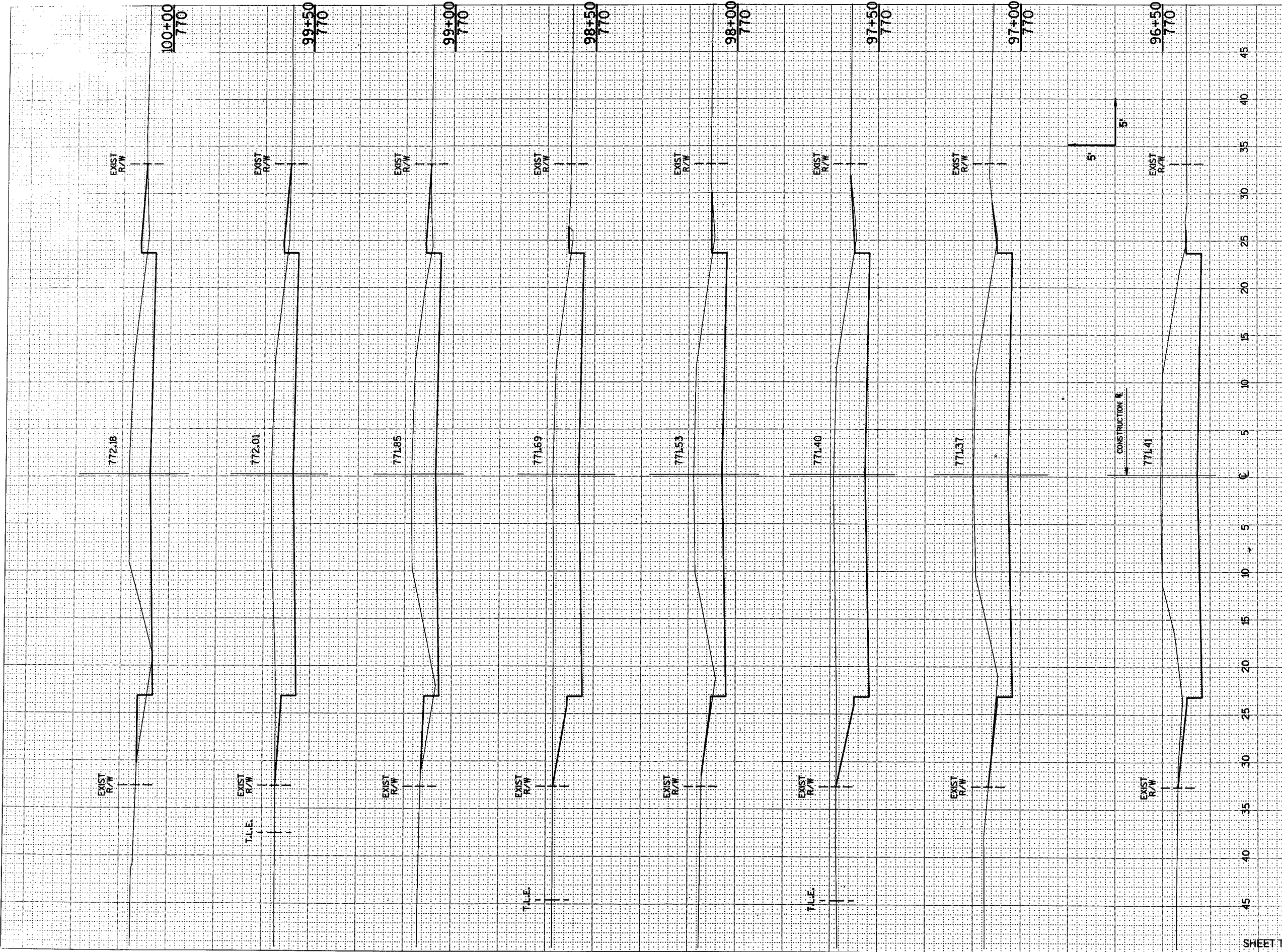


STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNCL.	FILL
90+50	0		
90+50.50	5	25	4
90+51	10	206	7
90+52	15	182	25
90+53	20	159	32
90+54	25	165	13
90+55	30	150	20
90+56	35		
90+57	40		
90+58	45		
<b>SHEET TOTAL</b>		<b>1077</b>	<b>101</b>

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STATE PROJECT NUMBER		SHEET NUMBER	
4994-00-62		9.6	
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
UNCL.			
93+00			
93+50	220		5
94+00	245		3
94+50	258		1
95+00	257		3
95+50	277		4
96+00	256		8
<b>SHEET TOTAL</b>		1513	24

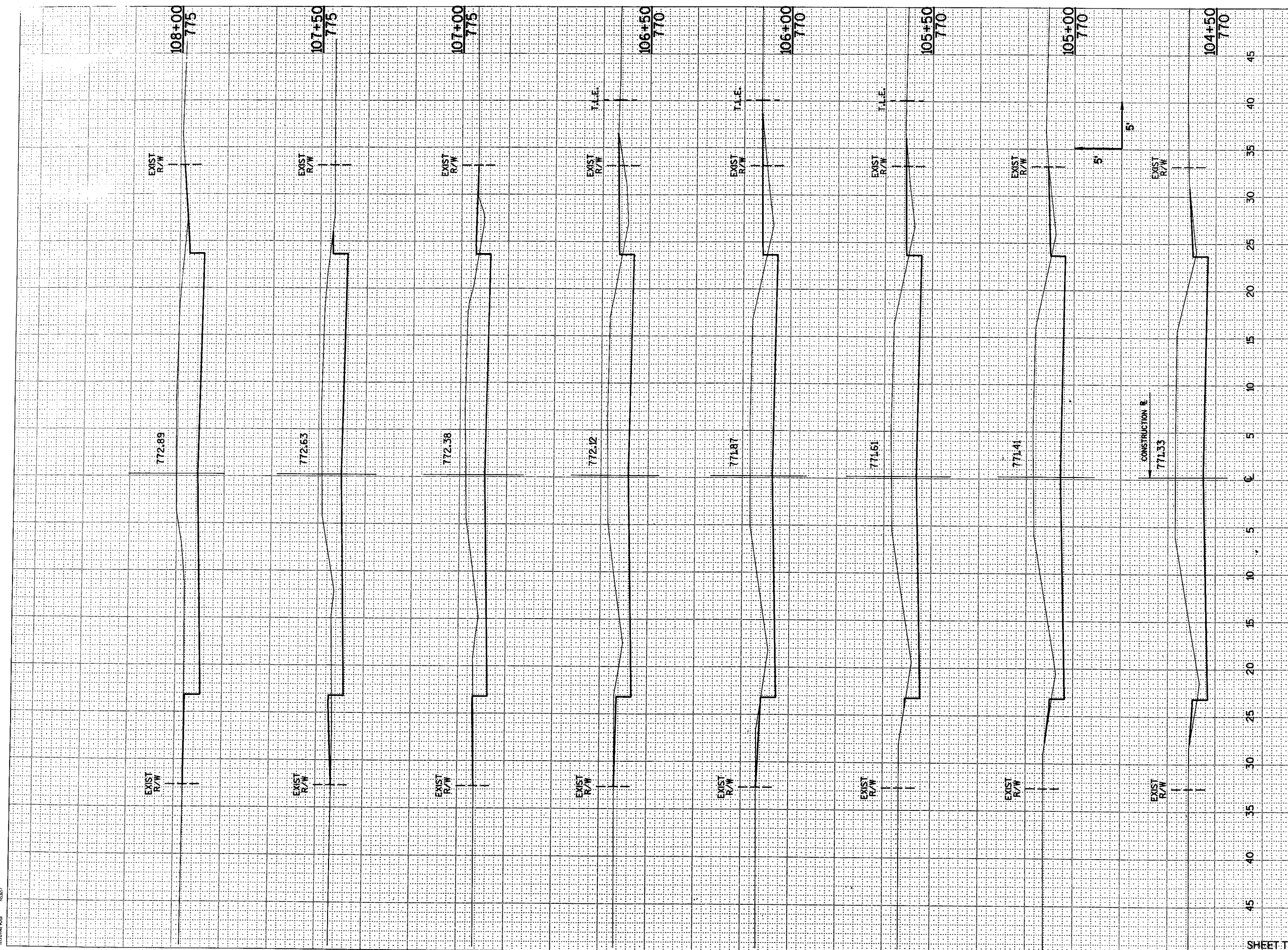


STATION	YARDAGE	
	UNCL.	FILL
96+00	259	6
96+50	280	0
97+00	277	1
97+50	254	3
98+00	231	3
98+50	209	8
99+00	185	10
99+50	166	10
100+00		
<b>SHEET TOTAL</b>	<b>1861</b>	<b>41</b>



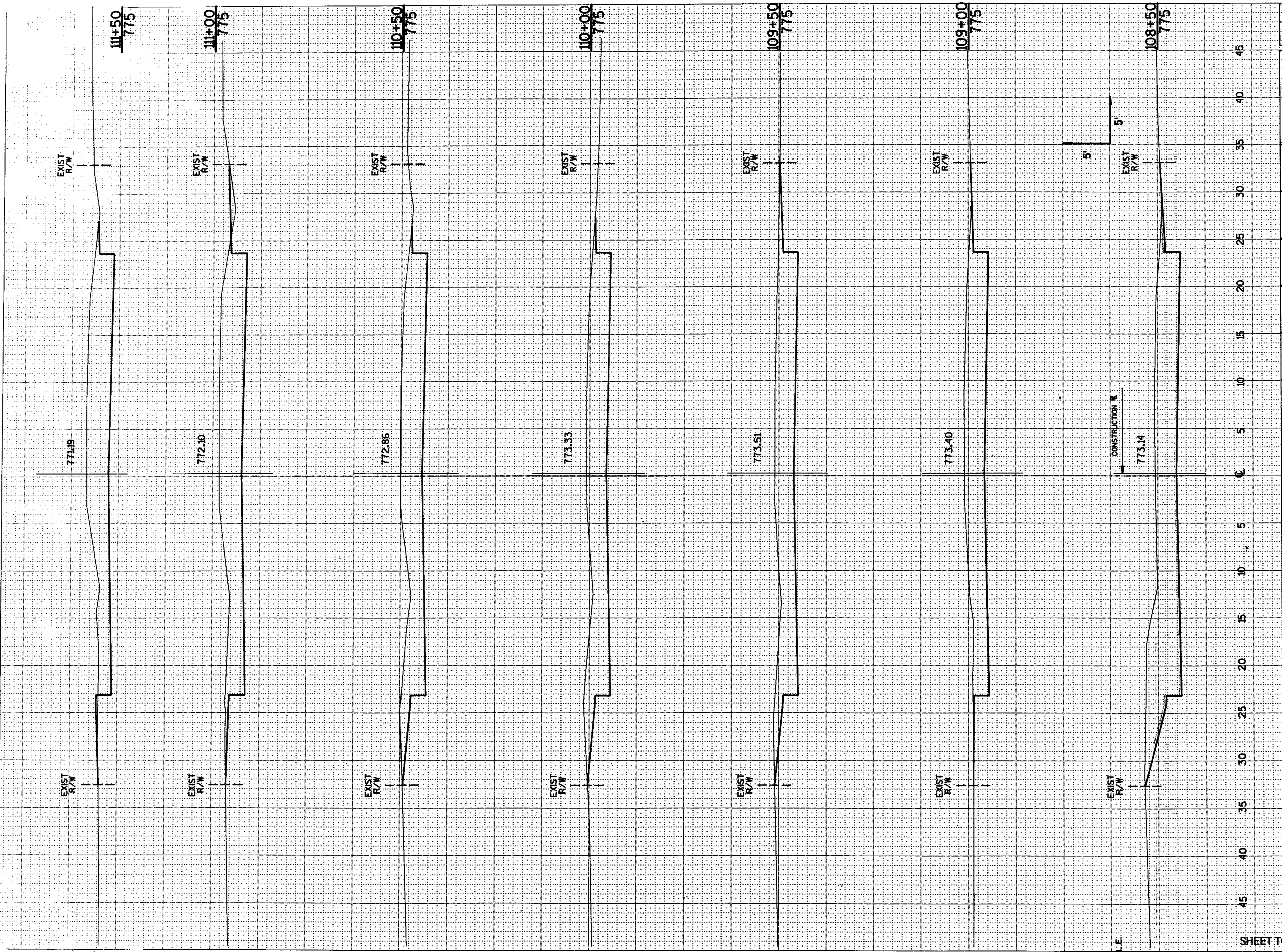
STATE PROJECT NUMBER		SHEET NUMBER	
4994-00-62		98	
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
100+00		138	13
100+50		140	8
101+00		146	9
101+50		145	13
102+00		149	12
102+50		159	8
103+00		169	5
103+50		171	9
104+00			
SHEET TOTAL		1217	77



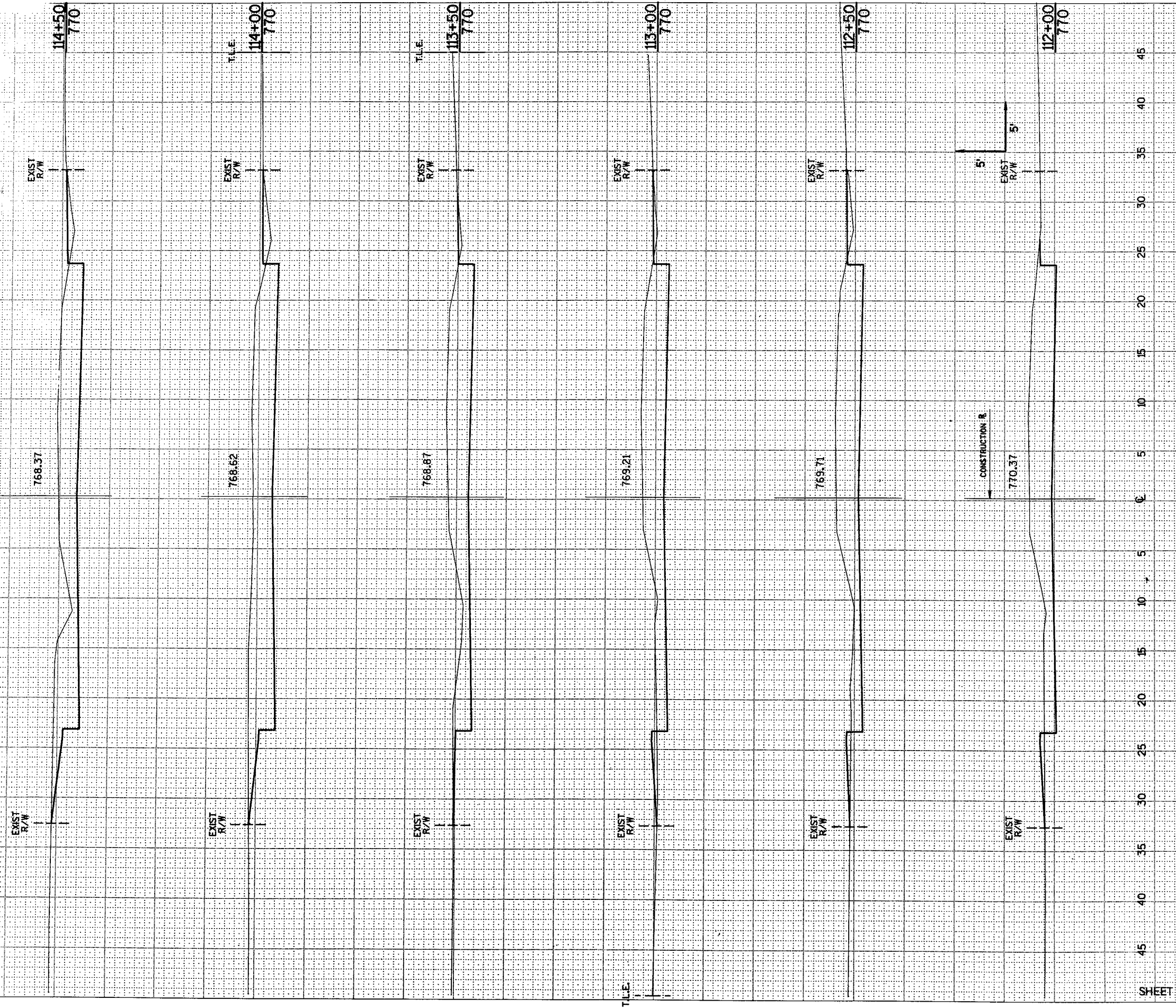


STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
104+00			
104+50	188		9
105+00	211		6
105+50	200		9
106+00	183		14
106+50	173		16
107+00	165		12
107+50	160		6
108+00	172		2
<b>SHEET TOTAL</b>		<b>1452</b>	<b>74</b>

11/20/01

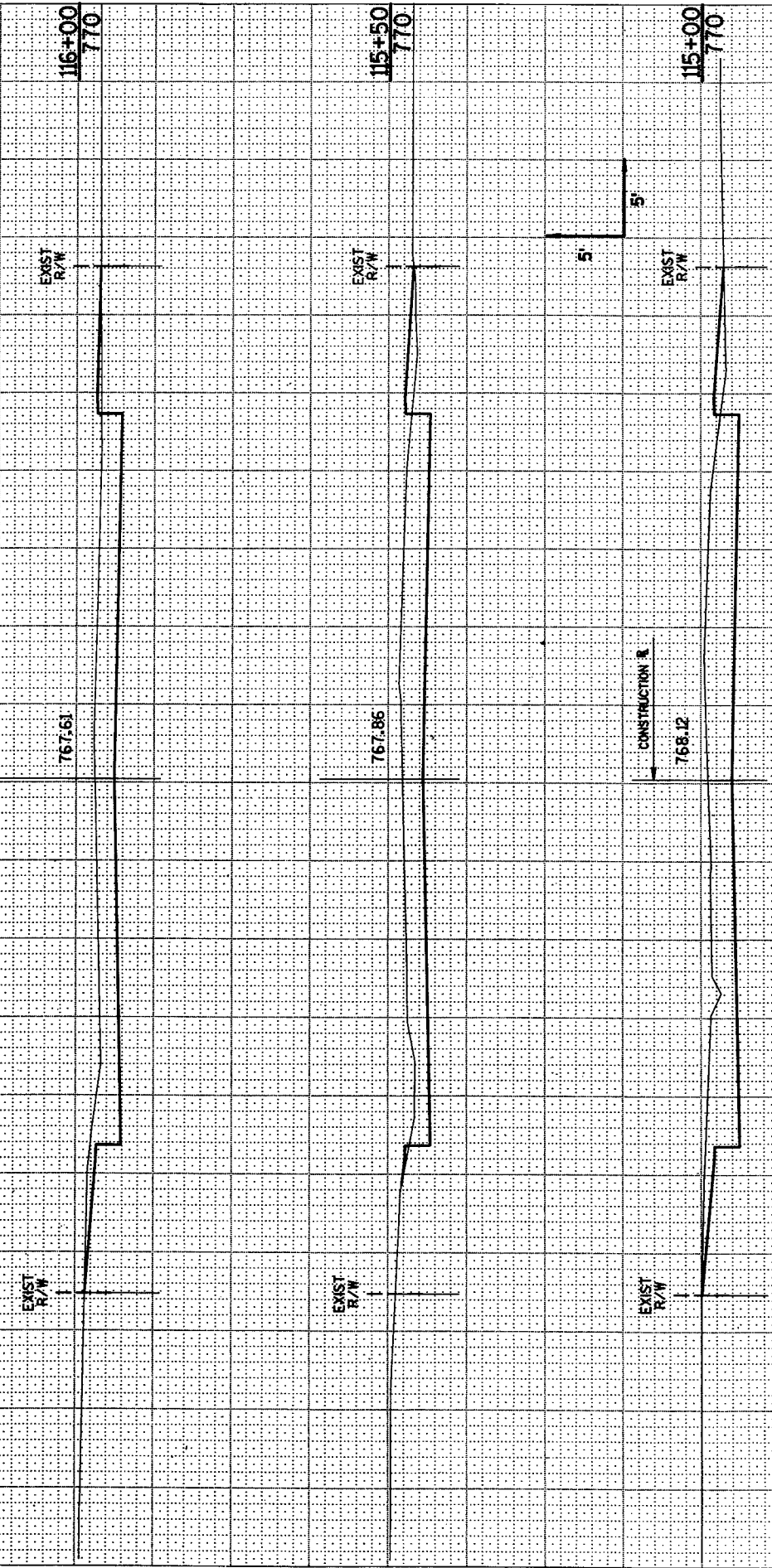


STATE PROJECT NUMBER		SHEET NUMBER	
4994-00-62		9.10	
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
108+00	00	217	0
108+50	50	25	0
109+00	00	186	0
109+50	50	194	0
110+00	00	199	0
110+50	50	194	5
111+00	00	183	6
111+50	50		
SHEET TOTAL		1388	11



STATION	DISTANCE	YARDAGE	
		UNCL.	FILL
50+14	186		7
80+14	181		5
50+15	150		6
80+15	158		10
50+16	150		7
80+16	170		3
<b>SHEET TOTAL</b>	<b>1015</b>		<b>38</b>

END PROJECT  
 STA. 116+50.00



STATION	DISTANCE	YARDAGE	
		UNCL.	FILL
50+14			
50+15		61	11
50+16		34	11
50+17		117	5
50+18		59	1
SHEET TOTAL		471	28