

AS-BUILT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6526-01-71	STP 1998 (315)	1

PLAN OF PROPOSED IMPROVEMENT

CTH CA & CASALOMA DRIVE INTERSECTION

CTH CA
OUTAGAMIE COUNTY

STATE PROJECT NUMBER
6526-01-71

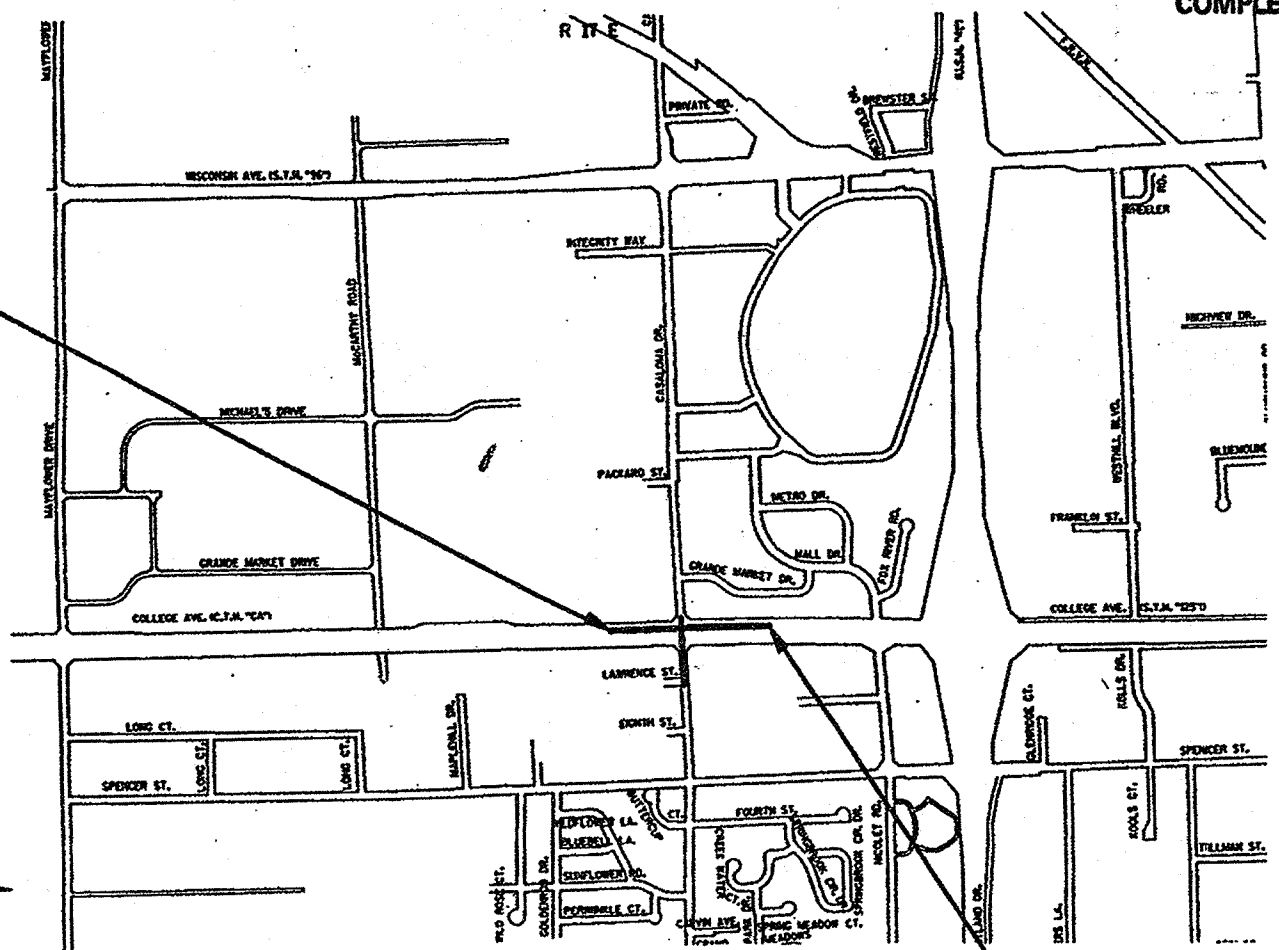
AS BUILT PLAN
NO.

SUPERVISOR L. MARRS
RESIDENT Bar Haedt
CONTRACTOR Zigwego Co
COMPLETED 10-22-99

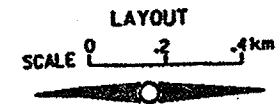
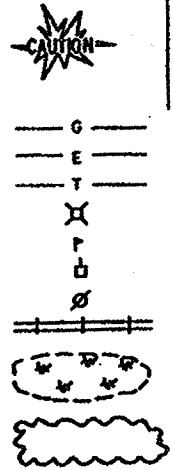


BEGIN PROJECT
STA 1'WB+700
Y = 171 412.9837
X = 246 362.8718

END PROJECT
STA 2'WB+332



- COMBUSTIBLE FLUIDS
- UNDERGROUND UTILITIES
 - GAS
 - ELECTRIC
 - TELEPHONE OR TELEGRAPH
 - SERVICE PEDESTAL
 - CABLE MARKER
- POWER POLE
- TELEPHONE POLE
- RAILROAD
- MARSH AREA
- WOODED OR SHRUB AREA



TOTAL NET LENGTH OF CENTERLINE = 0.632 km (URBAN)

NOTE: ALL COORDINATES ON
THIS PLAN ARE REFERENCED
FROM OUTAGAMIE COUNTY
COORDINATE SYSTEM

ACCEPTED FOR
OUTAGAMIE COUNTY
12/12/97 M. Haedt
(Date) (Signature)

ORIGINAL PLANS PREPARED BY
OMNI
ASSOCIATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor OMNI ASSOCIATES
Designer OMNI ASSOCIATES
District Examiner L. ENGELMAN
District Supervisor J. LAMERS
C.A. Coordinator D. MARRS
C.O. Examiner D. MARRS

APPROVED FOR DISTRICT OFFICE
DATE: 12/23/97 James Lammers
4/23/98 (Signature)

CA-4

STANDARD DETAIL DRAWINGS

SDD NUMBER	TITLE
8A5-14a	INLET COVERS
8A5-14b	INLET COVERS
8A5-14c	INLET AND MANHOLE COVERS
8B6-3	MANHOLES, TYPE 1
8B7-3	MANHOLES, TYPE 2 AND 3
8C1-5	INLETS TYPE 1, 2, 3, AND 4
8C5-2	INLETS TYPE 8, 9, 10, AND 11
8D1-12	CONCRETE CURB, CONCRETE CURB AND GUTTER AND PAVEMENT TIES
8D4-3	CONCRETE SURFACE DRAIN AND ASPHALTIC FLUME
8D15-2a	EDGEDRAIN OUTLET DETAILS
8D15-2b	EDGEDRAIN AND CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, NO 1 OR NO 2
8E9-5	SILT FENCE
8F1-11	APRON ENDWALL FOR CULVERT PIPE
8F6-4	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
9B2-6	CONDUIT
9B4-3	PULL BOX
9C2-2	CONCRETE BASES, TYPES 1, 2 AND 5
9C3-2	TRANSFORMER/PEDESTAL BASES
9D1-2	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
9E1-3a	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
9E1-3f	HARDWARE DETAILS FOR POLE MOUNTINGS
9F9-2	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE COURSE (NEW CONCRETE PAVEMENT)
11B1-1	CONCRETE CORRUGATED MEDIAN
13C1-9	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND PAVEMENT TIES
13C13-2	URBAN DWELLED CONCRETE PAVEMENT
15C2-3	BARRICADES AND SIGNS FOR ROAD CLOSURES
15C7-6a	PAVEMENT MARKING SYMBOLS
15C8-8a	PAVEMENT MARKING (MAINLINE)
15C8-8b	PAVEMENT MARKING (INTERSECTIONS)
15C8-8c	PAVEMENT MARKING (LEFT TURN LANES)
15C8-8d	PAVEMENT MARKING (ISLANDS, STOP LINE AND CROSSWALK)

UTILITIES

ELECTRIC	WISCONSIN ELECTRIC POWER COMPANY P.O. BOX 1699 APPLETON, WISCONSIN 54913 ATTN: BUDGET ENGINEERING SUPERVISOR TELEPHONE: (920) 380-3359
TELEPHONE	AMERITECH 221 W. WASHINGTON STREET FOURTH FLOOR, OSPE APPLETON, WISCONSIN 54911 ATTN: MR. JOHN STUMPF CABLE LOCATE: (920) 735-3250
GAS	WISCONSIN ELECTRIC POWER CO - GAS DIVISION 800 SOUTH LYNDALE DRIVE APPLETON, WISCONSIN 54912 ATTN: MR. DENNIS GIRARD TELEPHONE: (920) 380-3466
WATER AND SANITARY SEWER	GRAND CHUTE, SAN. DISTRICT 1 & 2 311 W. PROSPECT STREET APPLETON, WI 54914 ATTN: TODD PRAHL TELEPHONE: (920) 832-1581
CABLE TV	TIME WARNER CABLE P.O. BOX 145 KIMBERLY, WISCONSIN 54136 ATTN: MR. STEVE POEHLIN TELEPHONE: (920) 738-3150
DIGGERS HOTLINE	UTILITY LOCATE TELEPHONE: (800) 242-8511 (TOLL FREE)
DNR LIAISON	MS. KELLEY O'CONNOR WDNR - LAKE MICHIGAN DISTRICT 1125 N. MILITARY AVENUE GREEN BAY, WISCONSIN 54307-0448 TELEPHONE: (920) 492-5819
COUNTY SURVEYOR OR SURVEY CONTACT PERSON	MR. JIM HEBERT OUTAGAMIE COUNTY COURTHOUSE 410 S. WALNUT STREET APPLETON, WISCONSIN 54911 TELEPHONE: (920) 832-5255
TRAFFIC SIGNALS	CITY OF APPLETON 100 NORTH APPLETON STREET APPLETON, WISCONSIN 54911 ATTN: MR. GREG HANSON TELEPHONE: (920) 832-6474

GENERAL NOTES

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

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

EXCAVATION BELOW SUBGRADE (EBS) IS SHOWN ON THE CROSS SECTIONS. IF ADDITIONAL EBS IS REQUIRED, IT SHALL BE PAID FOR AS UNCLASSIFIED EXCAVATION. EBS AREAS WILL BE BACKFILLED WITH BREAKER RUN, UP TO A MAXIMUM DEPTH OF 450 mm. EXACT LOCATIONS AND DEPTH FOR EBS WILL BE DETERMINED BY THE ENGINEER.

THE UNCLASSIFIED EXCAVATION MATERIAL BELOW THE EXISTING CRUSHED AGGREGATE BASE COURSE MAY BE UNSUITABLE AS FILL MATERIAL. THERE SHOULD BE SUFFICIENT VOLUME OF UNCLASSIFIED EXCAVATION MATERIAL FROM THE EXISTING CRUSHED AGGREGATE BASE COURSE TO USE AS FILL MATERIAL. THE ALLOWANCE USED FOR EXPANDING THE FILLS TO COMPUTE THE VOLUME OF MATERIAL REQUIRED IS 30 PERCENT.

DRIVEWAYS SHALL BE REPLACED IN KIND. CRUSHED AGGREGATE BASE COURSE WILL BE USED UNDER ALL DRIVEWAYS AND SIDEWALK.

ALL DISTURBED AREAS NOT OTHERWISE INDICATED SHALL BE SALVAGED TOPSOIL, FERTILIZED, SEEDED AND MULCHED.

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

ALL RADIUS DIMENSIONS SHOWN TO CURB AND GUTTER ARE TO THE FACE OF CURB.

THE EXACT LOCATION AND LIMITS OF PRIVATE ENTRANCES AND COMMERCIAL ENTRANCES SHALL BE DETERMINED BY THE ENGINEER.

TACK COAT HAS BEEN ESTIMATED AT AN APPLICATION RATE OF 0.113 LITERS PER SQUARE METER AND SHALL BE USED IF DEEMED NECESSARY BY THE ENGINEER.

ALL MANHOLE AND INLET OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE.

THE COST OF CONNECTING EXISTING STORM SEWERS OR DRAINAGE STRUCTURES TO THE NEW STORM SEWER SHALL BE INCIDENTAL TO COST OF STORM SEWER.

IMMEDIATELY AFTER CONSTRUCTION OF ANY INLET, CONTRACTOR SHALL CONSTRUCT THE INLET PROTECTION IN ACCORDANCE WITH THE DETAIL SHOWN ON THE PLANS TO MINIMIZE SEDIMENTATION IN THE INLET AND STORM SEWER.

CURB HEIGHTS AT THE ENDS OF CURB AND GUTTER SHALL BE TAPERED FROM 150 mm TO 0 mm IN 1 METER, WHERE APPLICABLE.

UNDERDRAIN CONNECTIONS TO PROPOSED INLETS, EXISTING INLETS AND EXISTING STORM SEWER WILL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROPOSED PIPE UNDERDRAIN.

BEARINGS SHOWN ON THIS PLAN ARE BASED ON AN ASSUMED PROJECT SPECIFIC COORDINATE SYSTEM.

DISTANCES SHOWN ON THIS PLAN ARE GROUND DISTANCES.

PLAN ELEVATIONS = USGS DATUM.

BOXOUTS SHALL BE PROVIDED IN CONCRETE MEDIAN FOR SIGN PLACEMENT. THE COST OF THE BOXOUTS SHALL BE INCIDENTAL TO CONCRETE MEDIAN. LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.

EROSION CONTROL NOTES

RUNOFF COEFFICIENT FOR THIS PROJECT: EXISTING PAVEMENT 0.95, EXISTING SLOPES 0.30, NEW PAVEMENT 0.95, NEW SLOPES 0.30.

TOTAL PROJECT AREA = 4.638 HECTARES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.766 HECTARES

DETAIL SHEET INDEX

SHEET TITLE	SHEET NUMBER
GENERAL NOTES	2.1
TYPICAL SECTIONS	2.2-2.9
CONSTRUCTION DETAILS	2.10-2.11
PAVING DETAILS	2.12-2.16
REMOVING SIGNS	2.17
TRAFFIC SIGNAL PLANS	2.18-2.20
PAVEMENT MARKING	2.21
TRAFFIC CONTROL PLANS	2.22-2.30
ALIGNMENT TIES	2.31-2.32
ALIGNMENT PLAN	2.33

GENERAL NOTES

SCALE: 1:

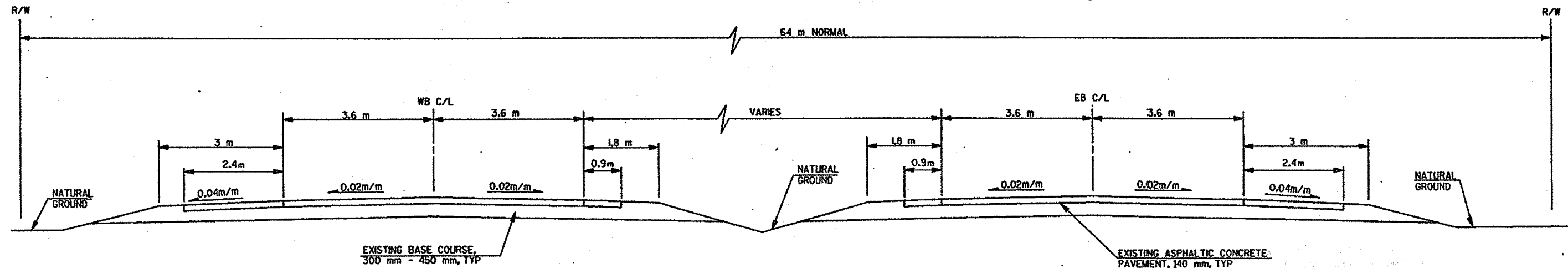
HWY: CTH CA

COUNTY: OUTAGAMIE

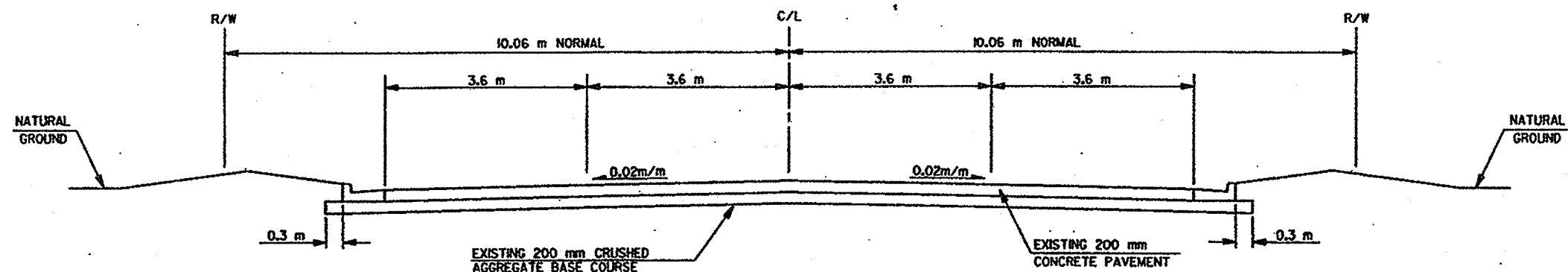
STATE PROJECT NO: 6526-01-71

SHEET NO: 2.1

FILE NAME: E1284A /SHEETS / /TYPE: .2DG
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654
TECH/ENGR: DPP/NAH PLOT DATE: 11/17/97
REV. DATE: / /
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:500

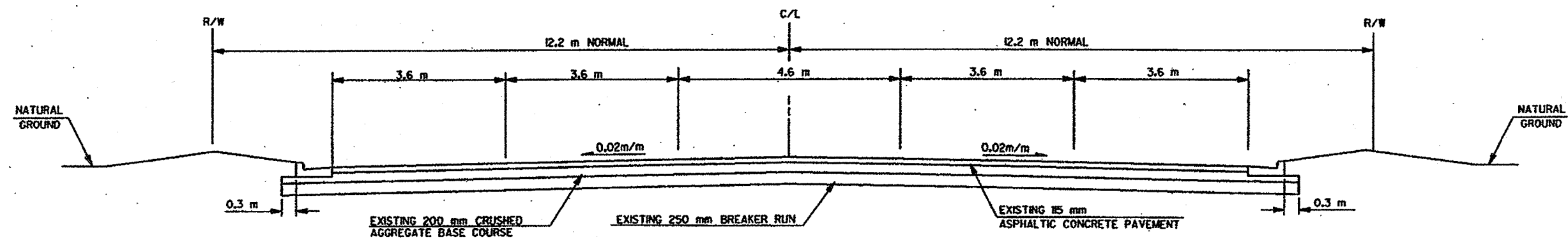


EXISTING TYPICAL CROSS SECTION FOR CTH CA (COLLEGE AVE)



EXISTING TYPICAL CROSS SECTION FOR CASALOMA DRIVE

STA 1'SB+010 TO STA 1'SB+045



EXISTING TYPICAL CROSS SECTION FOR CASALOMA DRIVE

STA 0'SB+845 TO STA 0'SB+970

TYPICAL SECTIONS FOR CTH CA AND CASALOMA DR

HWY: CTH CA

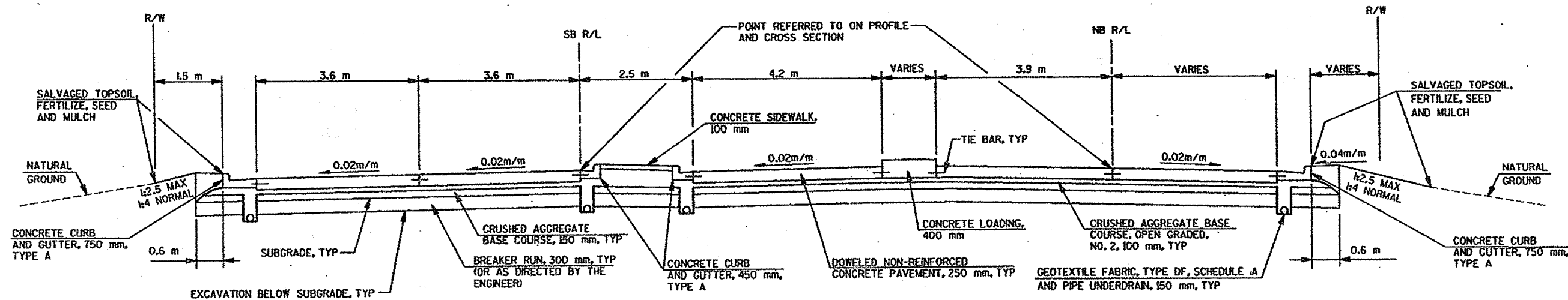
COUNTY: OUTAGAME

STATE PROJECT NO: 6526-01-71

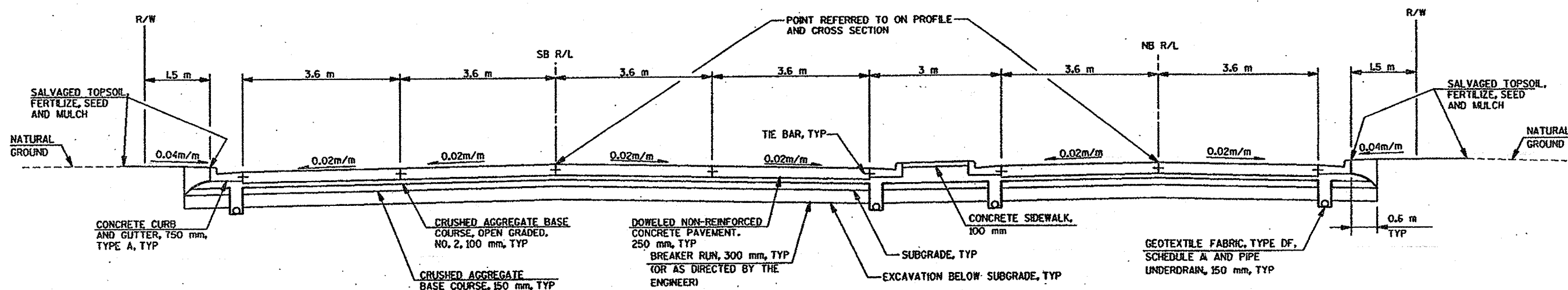
SHEET NO: 2.2

M

FILE NAME: E1284A /SHEETS / TYP03 .20G TECH/ENGR: DPP/SDC PLOT DATE: 11/17/97 PLOT SCALE: 1:50
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LEVELS 01 - 1,2,3,4

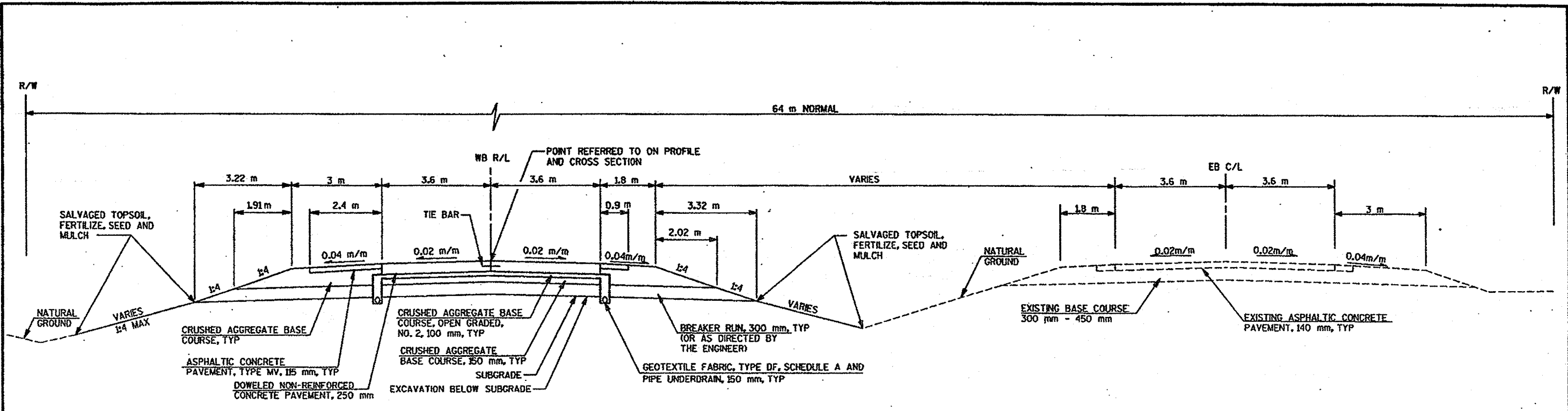


CASALOMA DRIVE TYPICAL SECTION
STA 0+58+959 TO STA 0+58+970



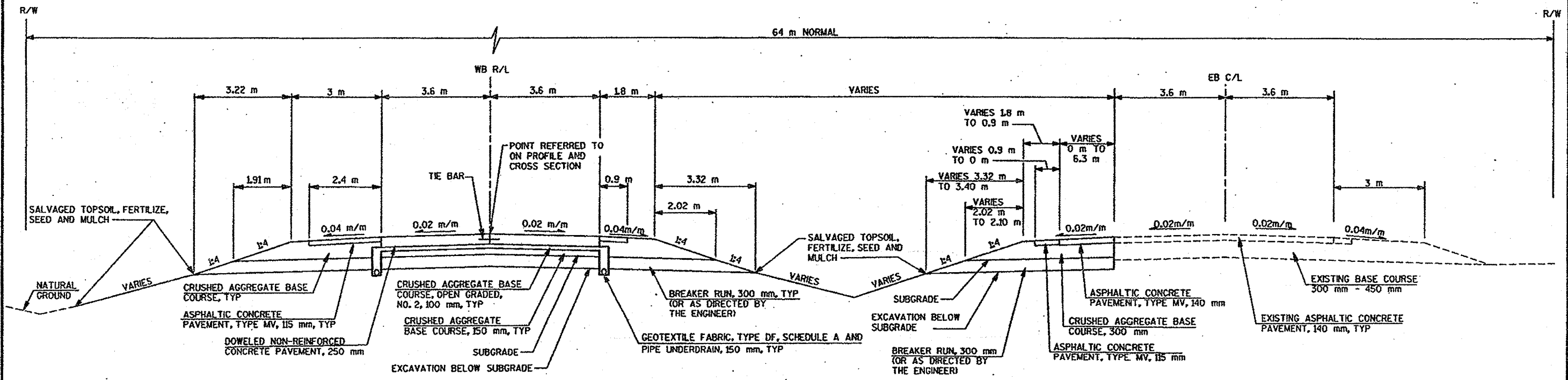
CASALOMA DRIVE TYPICAL SECTION
STA 1+58+010 TO STA 1+58+045

FILE NAME: E1284A /SHEETS / /TYPOS .20G TECH/ENGR: DPP/SDC PLOT DATE: 11/17/97
ORIGINATOR: OMNINI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654 REV. DATE: / /
LEVELS ON - 1,2,3,4



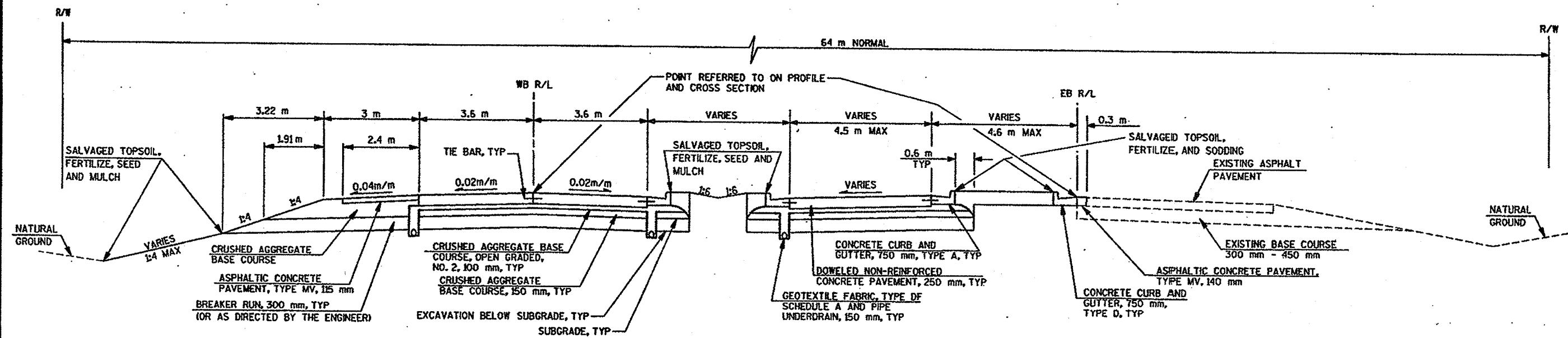
CTH CA (COLLEGE AVE) TYPICAL SECTION
STA 1WB+700 TO STA 1WB+840
STA 2WB+269 TO STA 2WB+332

ASPHALTIC CONCRETE PAVEMENT, TYPE MV		
TOTAL THICKNESS	UPPER LAYER	LOWER LAYER
115 mm	50 mm	65 mm
140 mm	40 mm	50 mm (1st LIFT) 50 mm (2nd LIFT)



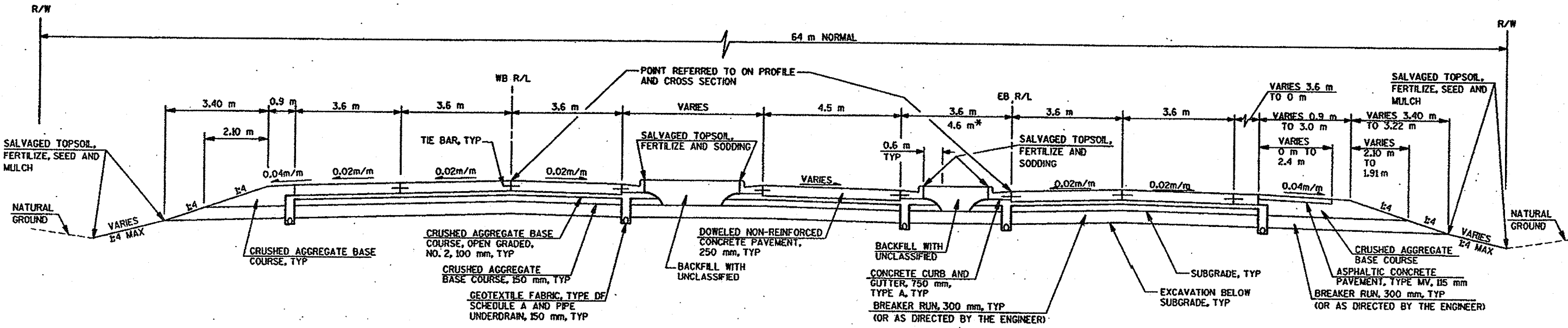
CTH CA (COLLEGE AVE) TYPICAL SECTION
STA 1WB+840 TO STA 1WB+905

FILE NAME: E1284A /SHEETS / TYP04 .2DG
ORIGINATOR: OMNIA ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1554
TECH/ENGR: DPP/SDC
PLOT DATE: 11/15/97
REV. DATE: / /
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1/8" = 1'-0"



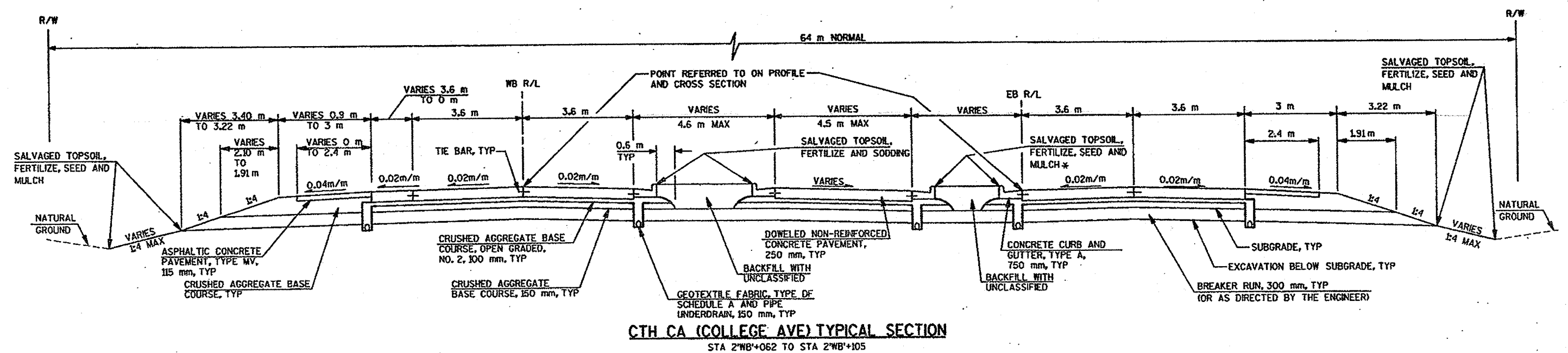
CTH CA (COLLEGE AVE) TYPICAL SECTION
STA 1WB+905 TO STA 1WB+980

ASPHALTIC CONCRETE PAVEMENT, TYPE MV		
TOTAL THICKNESS	UPPER LAYER	LOWER LAYER
115 mm	50 mm	65 mm
140 mm	40 mm	50 mm (1st LIFT) 50 mm (2nd LIFT)



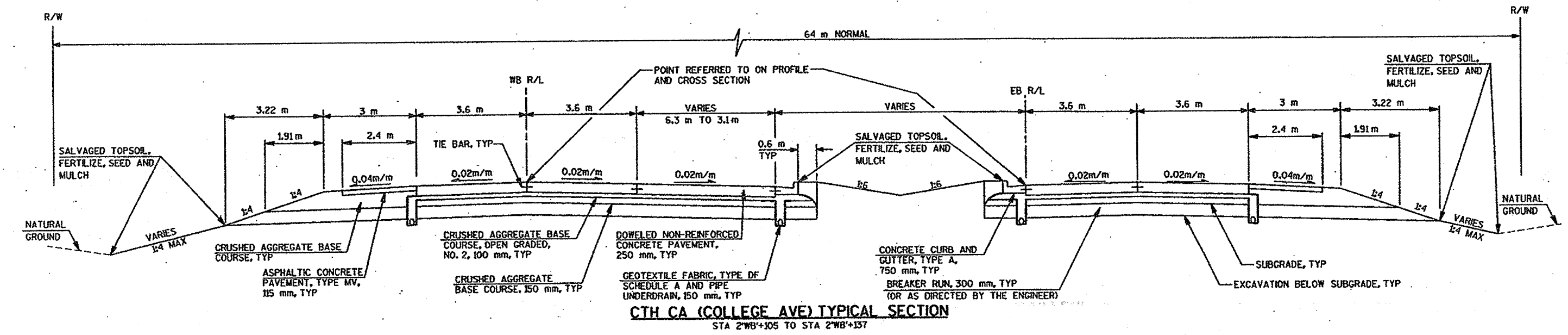
CTH CA (COLLEGE AVE) TYPICAL SECTION
* STA 1WB+980 TO STA 1WB+991
STA 1WB+991 TO STA 2WB+062

FILE NAME: E1284A /SHEETS / /TYPE6
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE
LEVELS ON - 1,2,3,4
TECH/ENGR: DPP/SDC
PLOT DATE: 11/15/97
REV. DATE: / /
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:1
59.

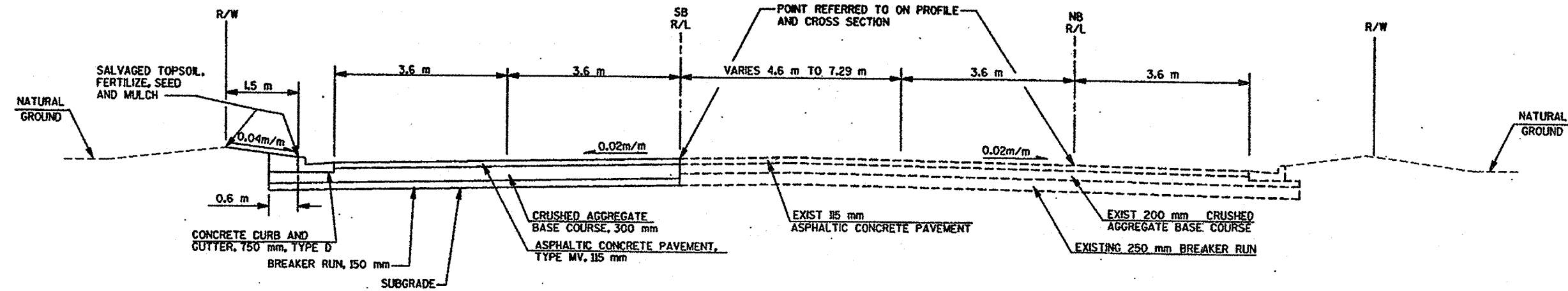


* SALVAGED TOPSOIL, FERTILIZE AND SODDING WHEN 3.6 m OR LESS

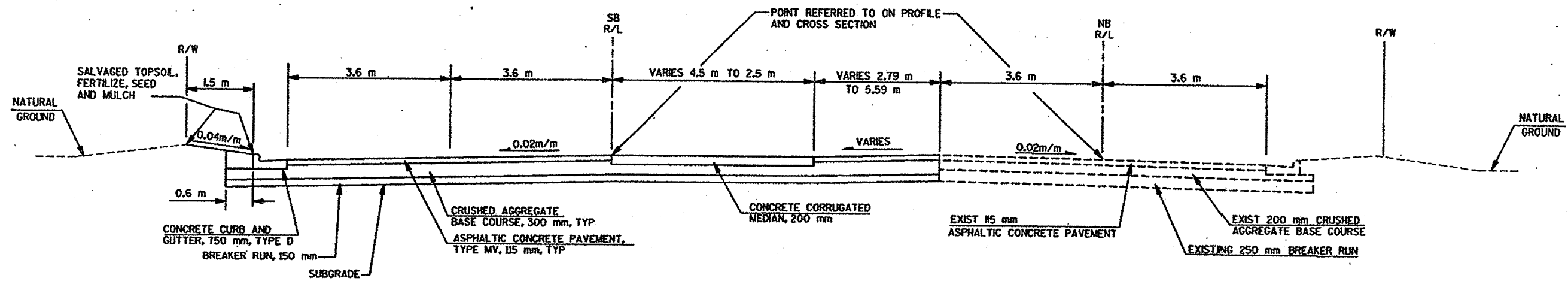
ASPHALTIC CONCRETE PAVEMENT, TYPE MV		
TOTAL THICKNESS	UPPER LAYER	LOWER LAYER
115 mm	50 mm	65 mm
140 mm	40 mm	50 mm (1st LIFT) 50 mm (2nd LIFT)



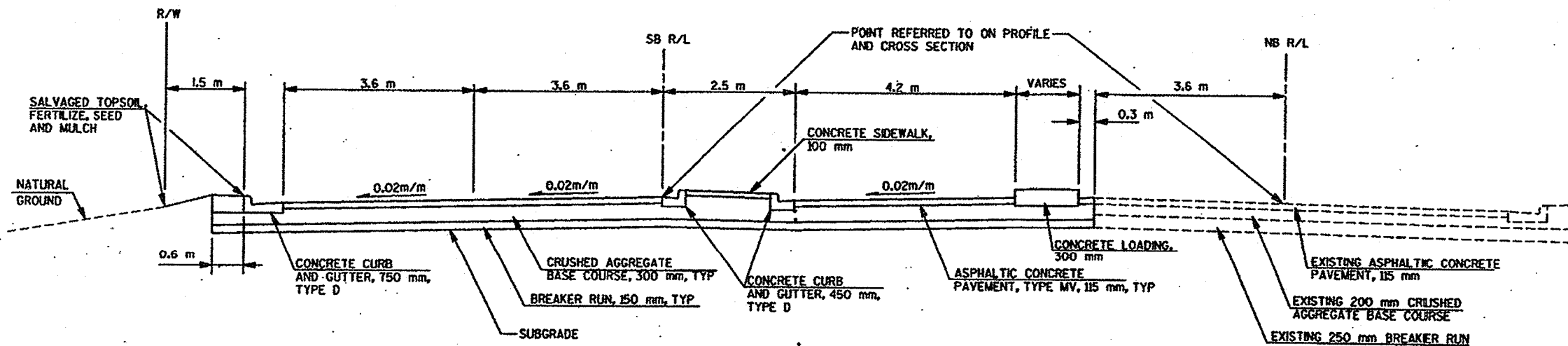
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CASALOMA DRIVE TYPICAL SECTION
STA 0+845 TO STA 0+896



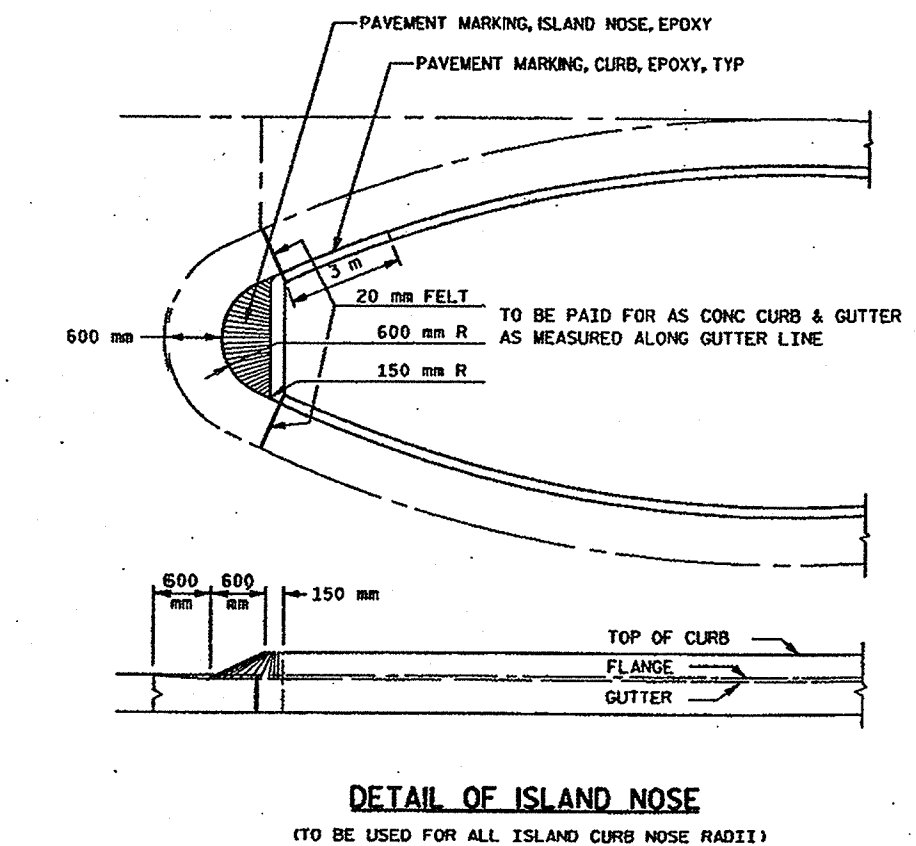
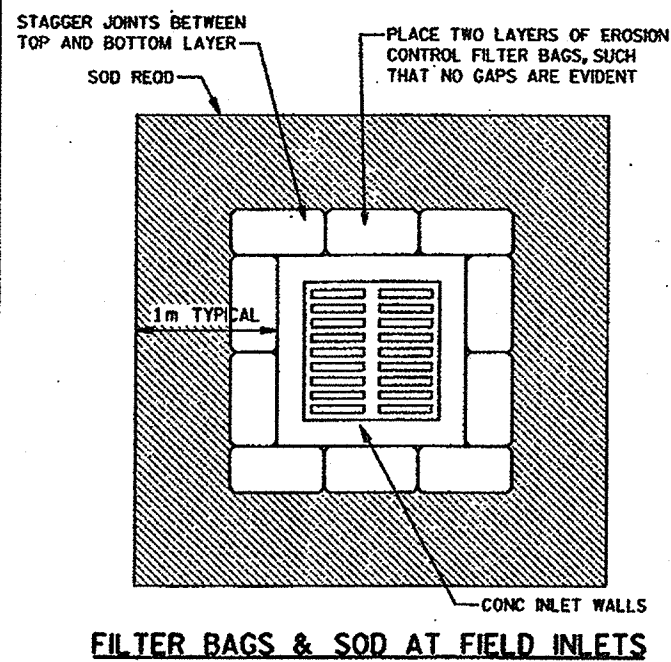
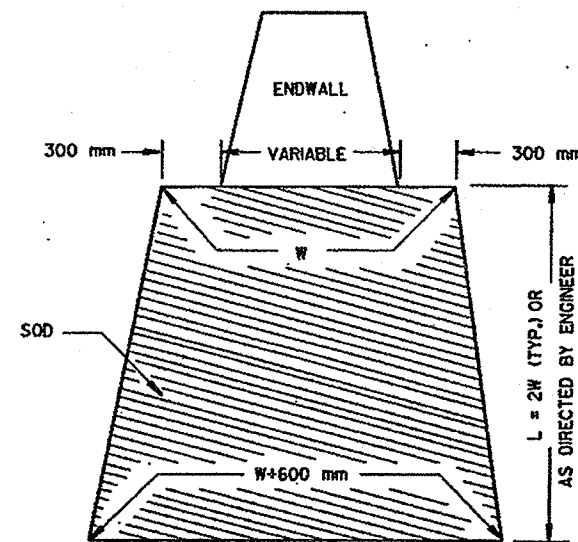
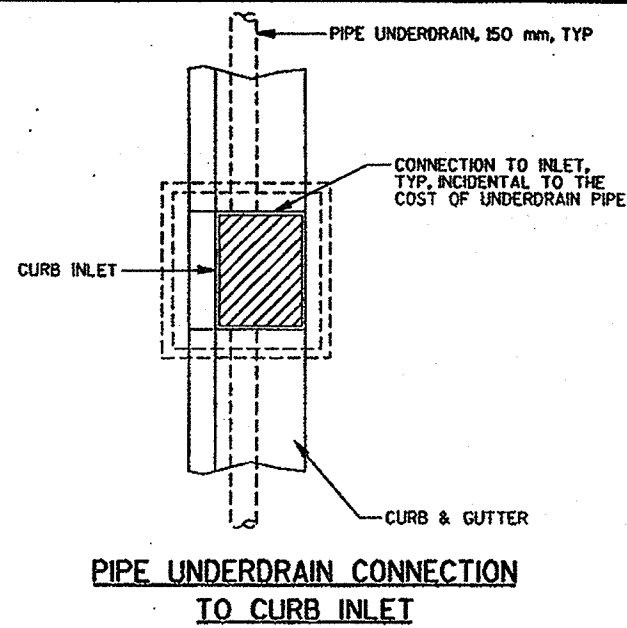
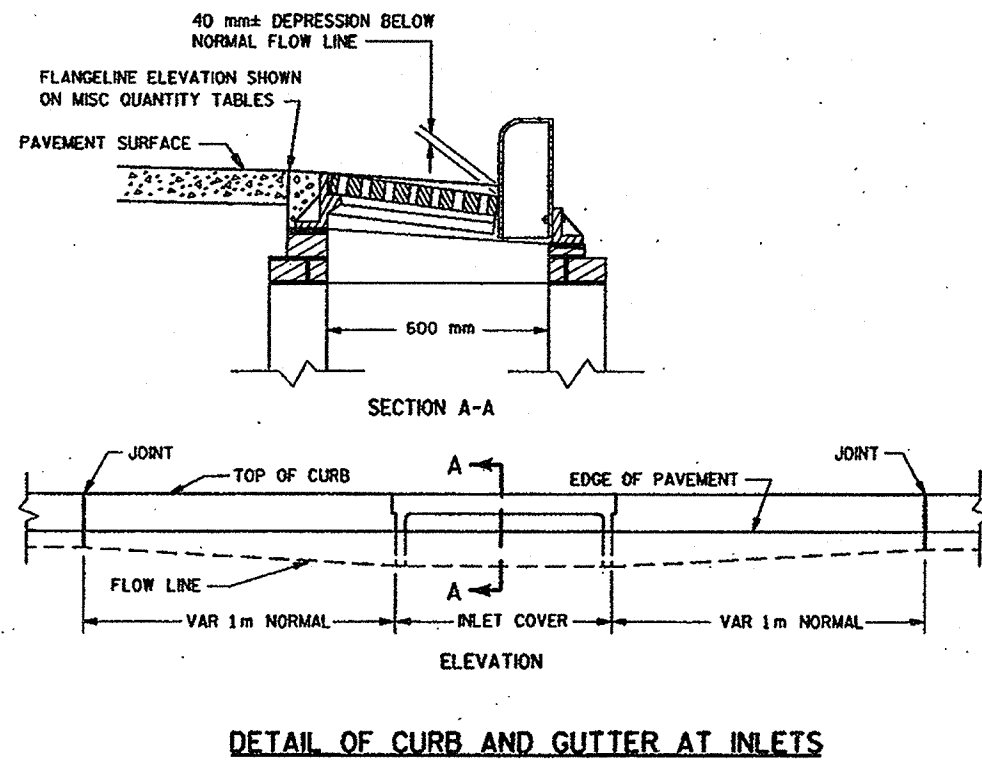
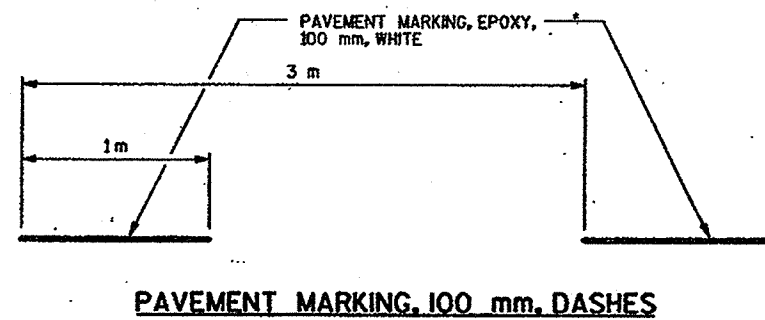
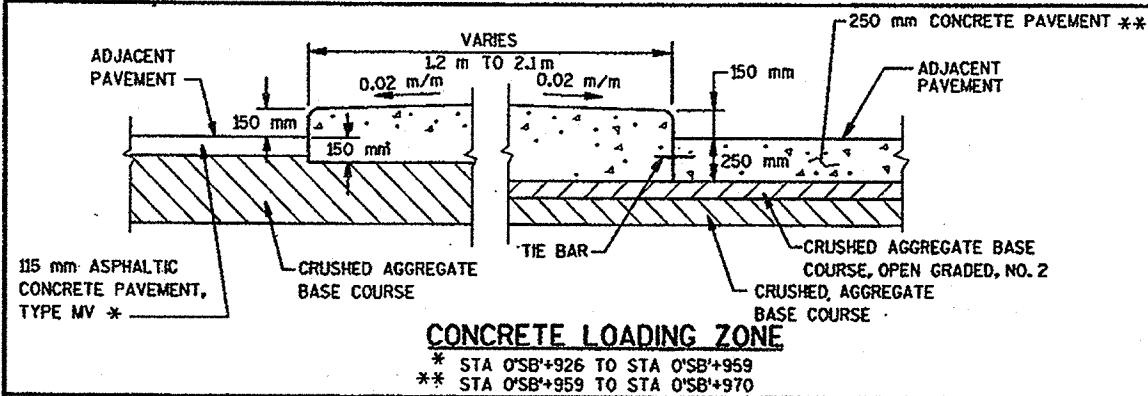
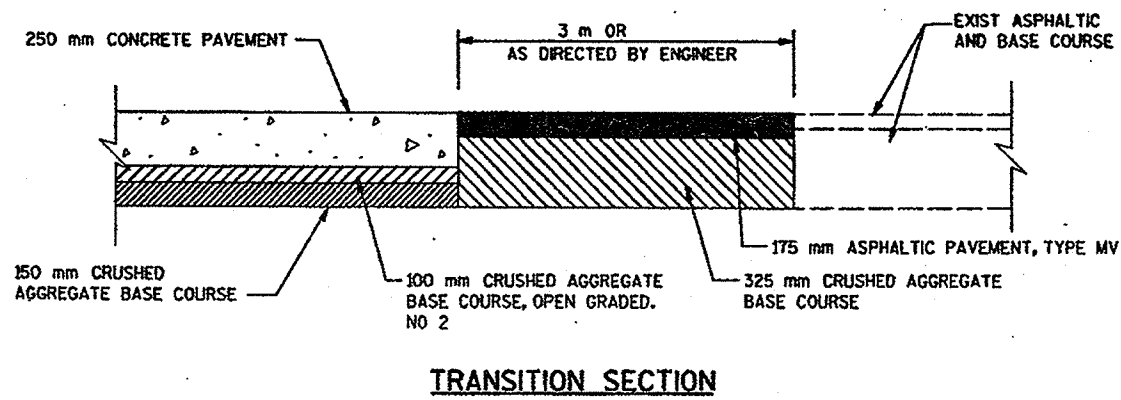
CASALOMA DRIVE TYPICAL SECTION
STA 0+896 TO STA 0+926



CASALOMA DRIVE TYPICAL SECTION
STA 0+927 TO STA 0+959

ASPHALTIC CONCRETE PAVEMENT, TYPE MV		
TOTAL THICKNESS	UPPER LAYER	LOWER LAYER
115 mm	50 mm	65 mm
140 mm	40 mm	50 mm (1st LIFT) 50 mm (2nd LIFT)

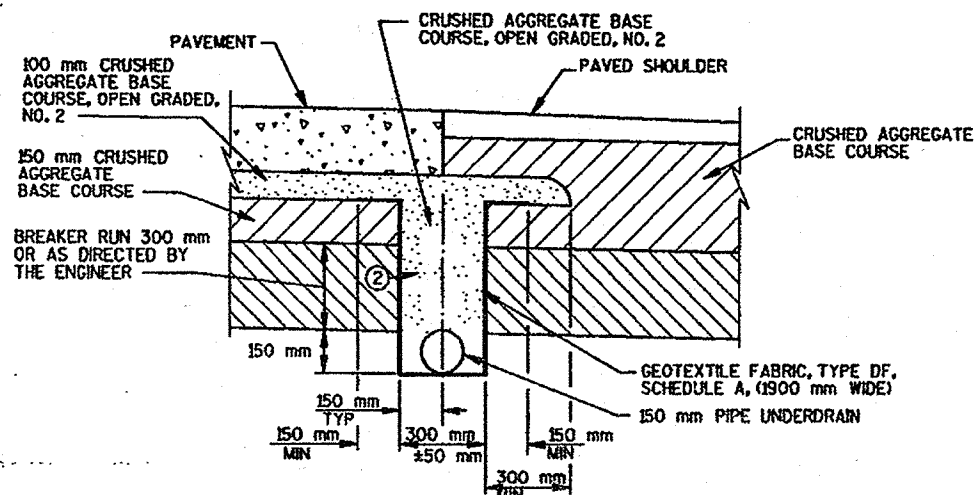
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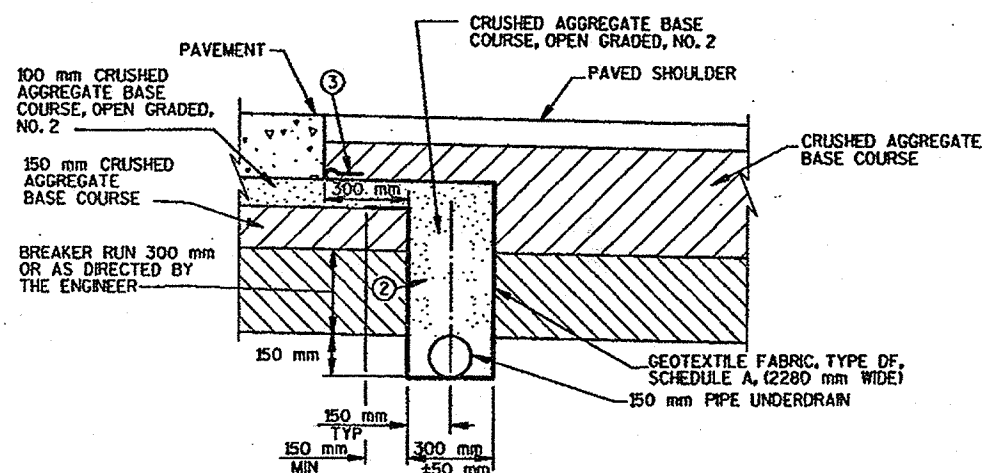
NOTES

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

- TOTAL FABRIC WIDTH IS 2280 mm
- TRENCH BACKFILL WILL BE PAID FOR AS CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, NO. 2.
- FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.

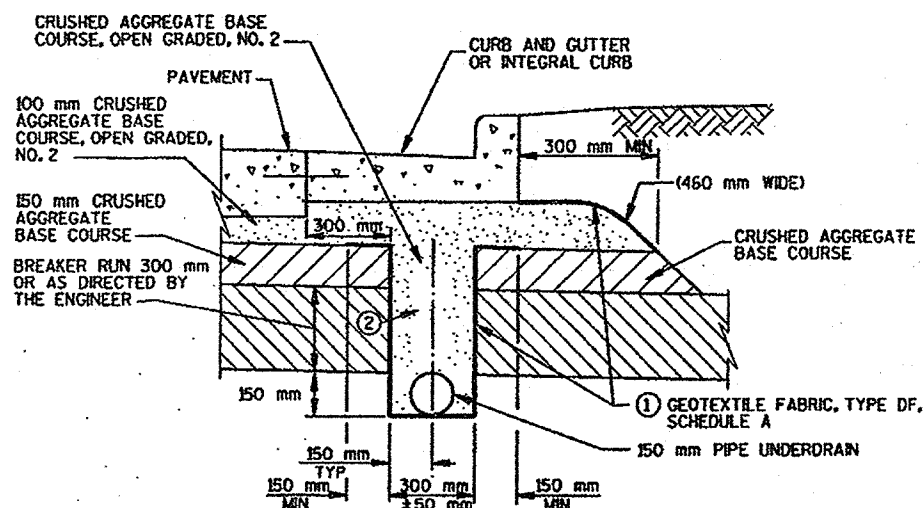


PRE-PAVING INSTALLATION ALTERNATIVE

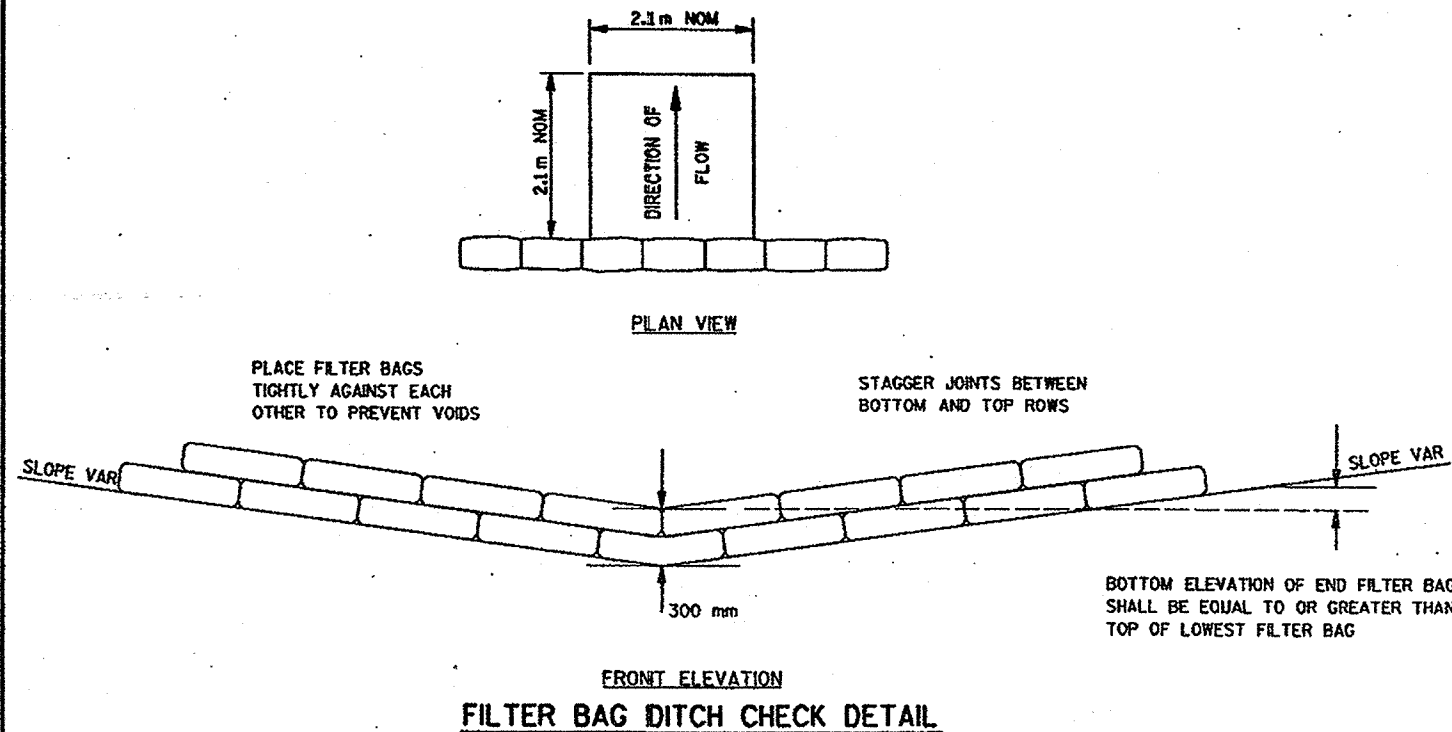


POST PAVING INSTALLATION

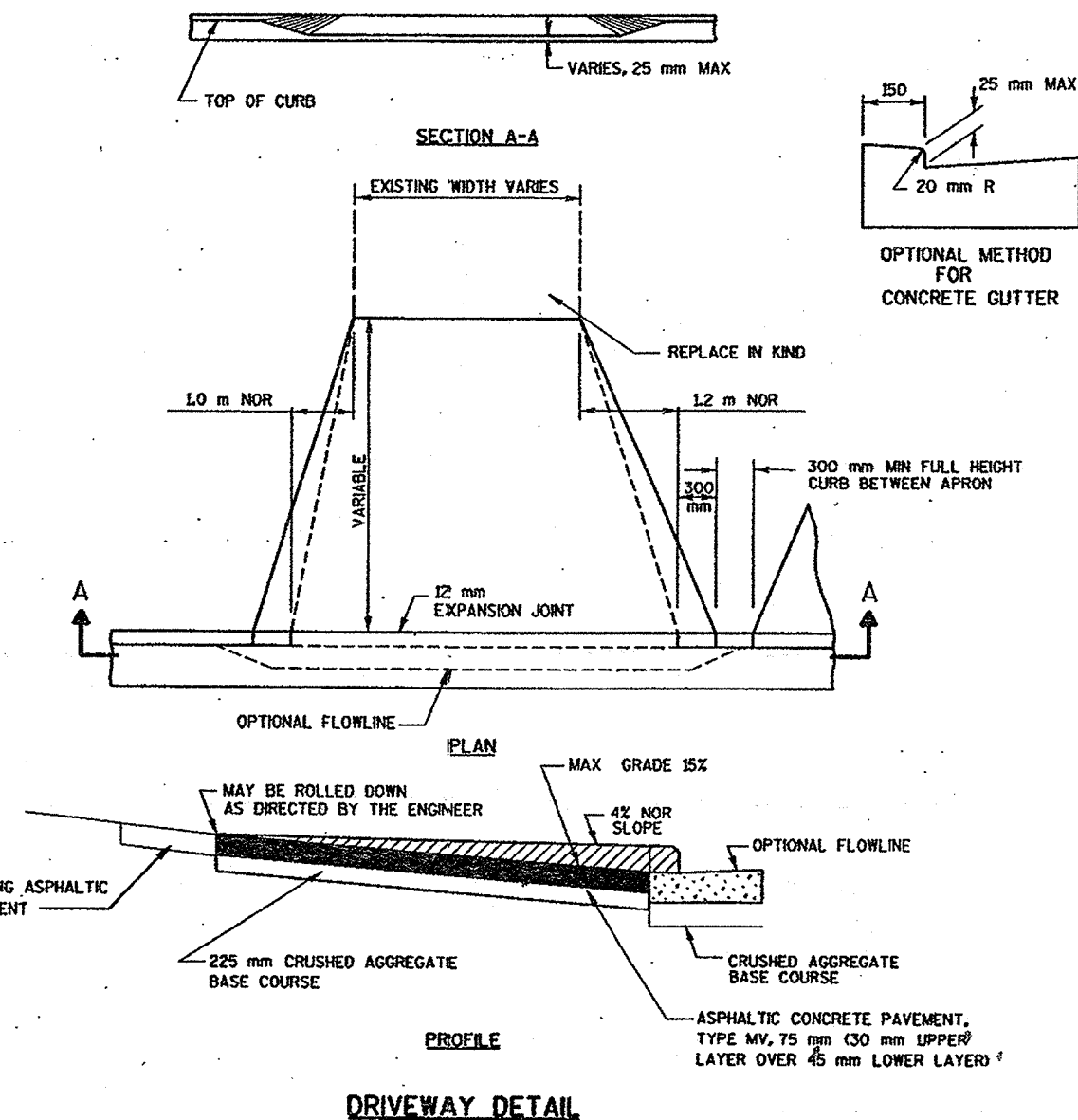
EDGEDRAIN IN RURAL ROADWAY



EDGEDRAIN IN URBAN ROADWAY



FILTER BAG DITCH CHECK DETAIL



DRIVEWAY DETAIL

FILE NAME: E1284A /SHEETS /PDDI / .DGN
 ORIGINATOR: OMNIA ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654
 LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,57,59,60,61,62

TECH/ENGR: DPP/SDC
 REV. DATE: / /

PLOT SCALE: 1"

PLOT DATE: 11/14/97

PAVING DETAILS FOR CTH CA (COLLEGE AVE)

0 5 10

HWY: CTH CA

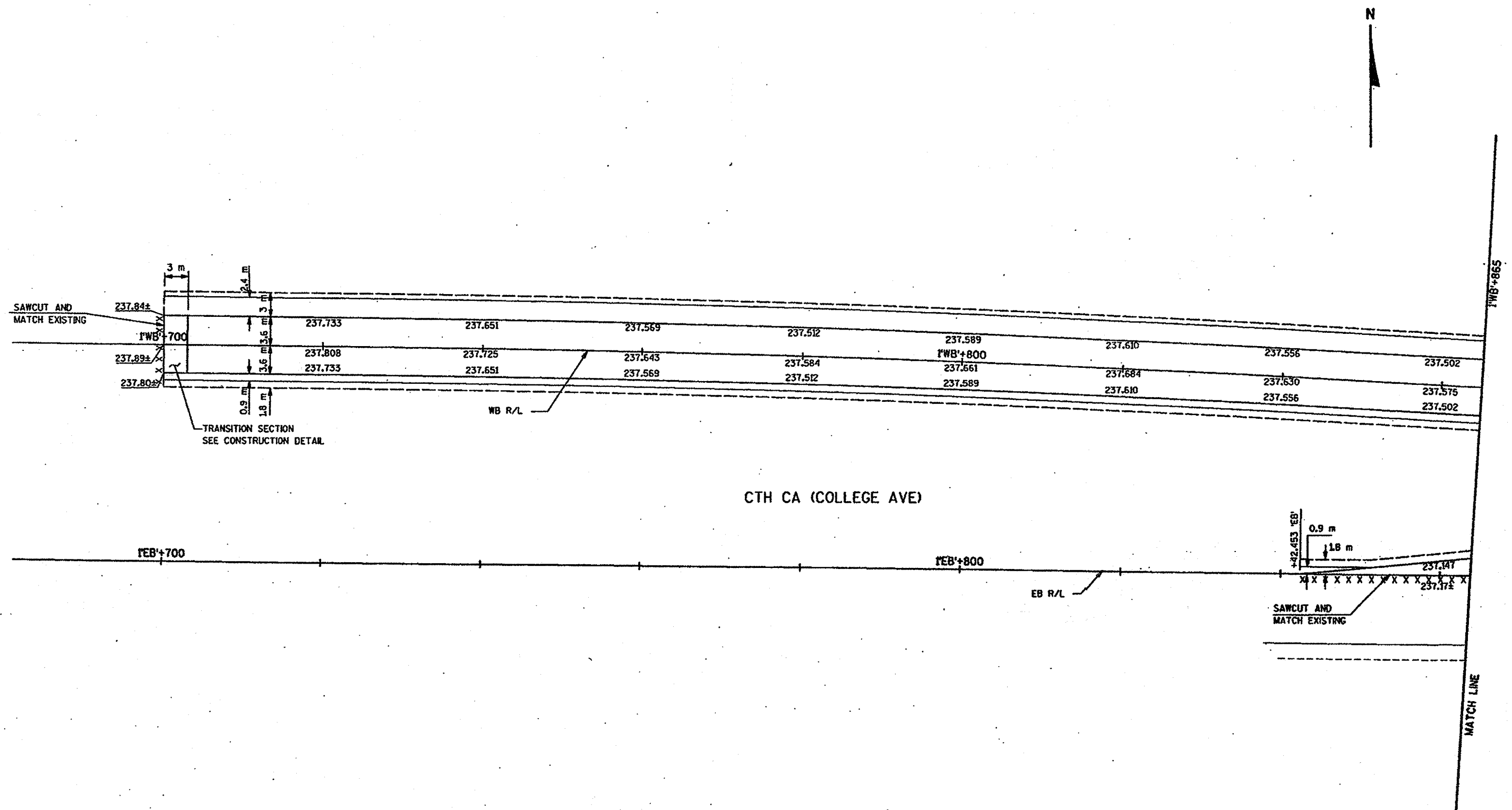
COUNTY: OUTAGAMIE

STATE PROJECT NO: 6526-01-71

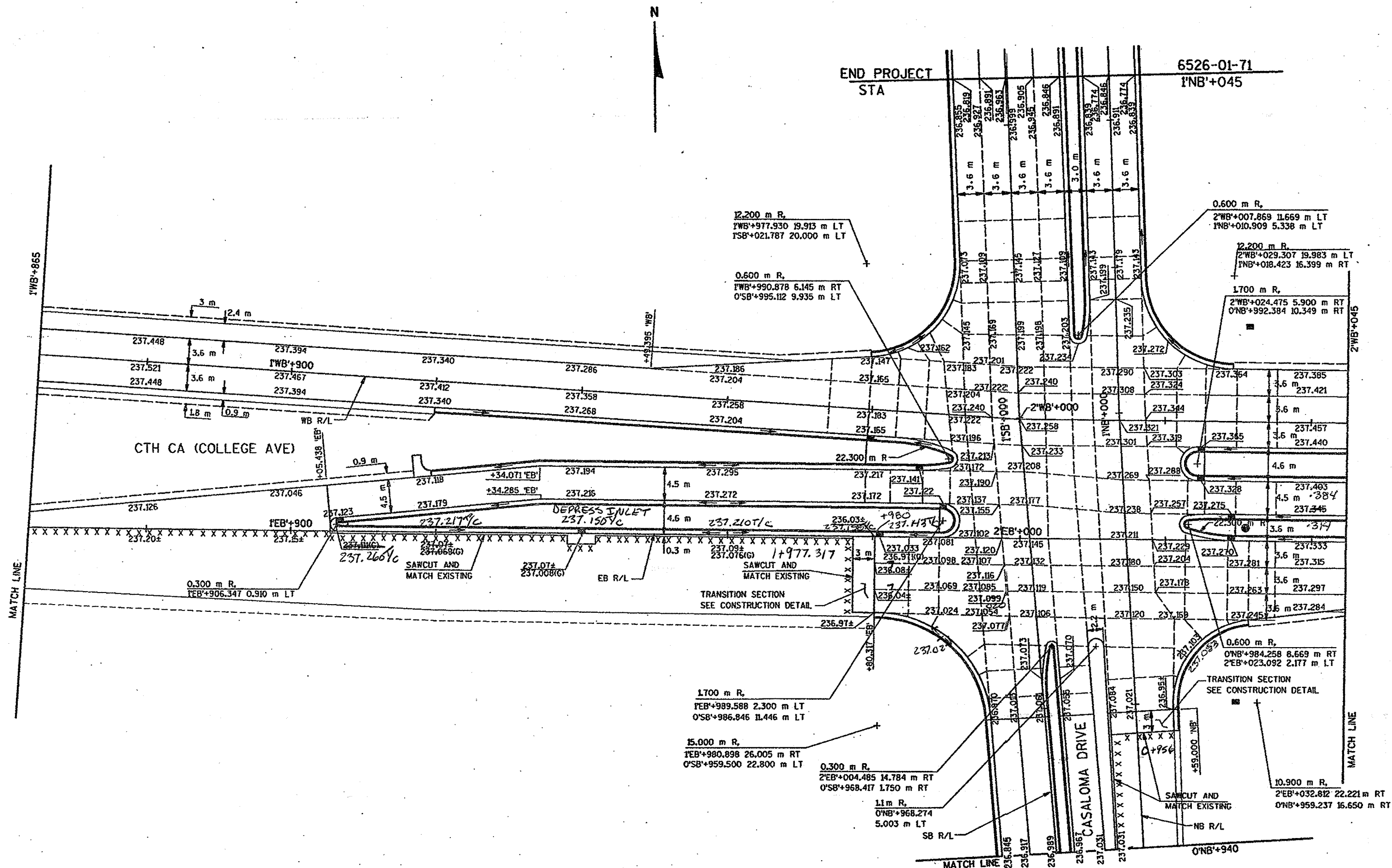
SHEET NO: 2.12

M

NOTE:
 (C) INDICATES CUTTER ELEVATION



FILE NAME: E1284A /SHEETS /P002 / TECH/ENGR: DPP/SDC PLOT DATE: 11/14/97 PLOT SCALE: 1:1000
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654 REV. DATE: /
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, 57, 59,60,61,62

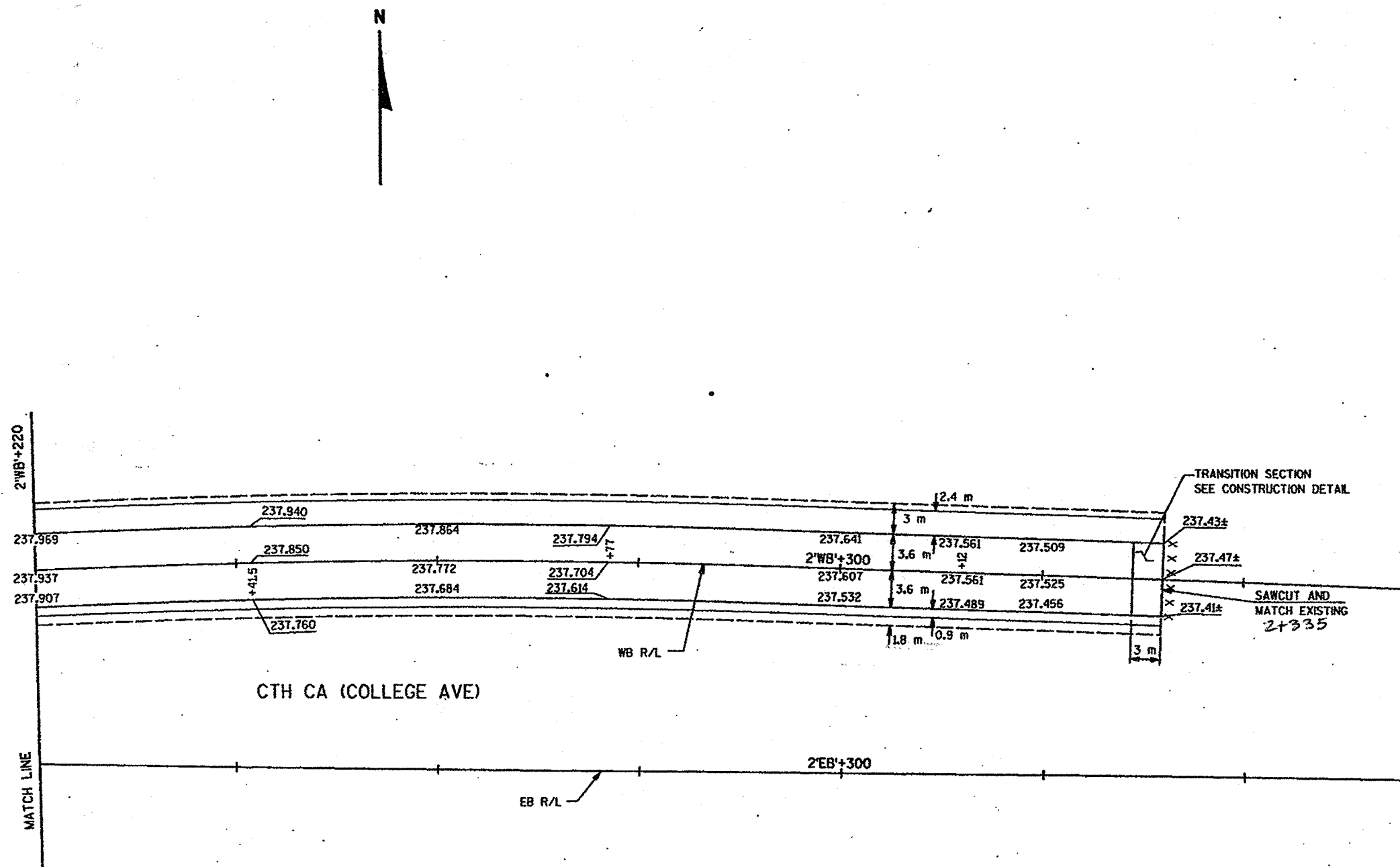


PLOT SCALE: 1:1



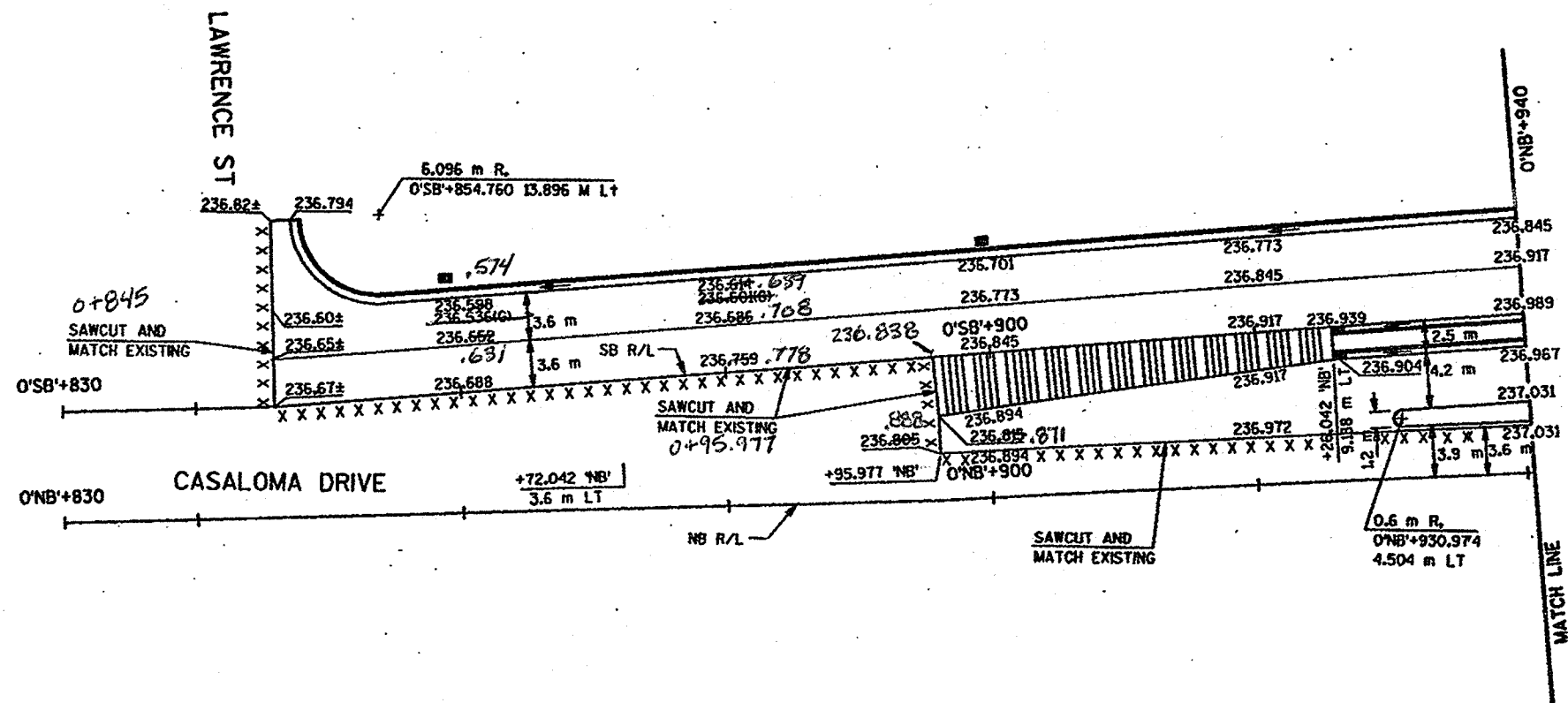
NOTE:
(G) INDICATES GUTTER ELEVATION

FILE NAME: E1284A / SHEETS / PD04 / DON
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TECH/ENGR: DPP/SDC
PLOT DATE: 11/14/97
REV. DATE: /
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:1
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, 57, 59, 60, 61, 62



NOTE:
(G) INDICATES CUTTER ELEVATION

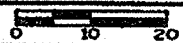
PLOT SCALE: 1:1



NOTE:

(G) INDICATES GUTTER ELEVATION

PAVING DETAILS FOR CASALOMA DRIVE



HWY: CASALOMA DRIVE

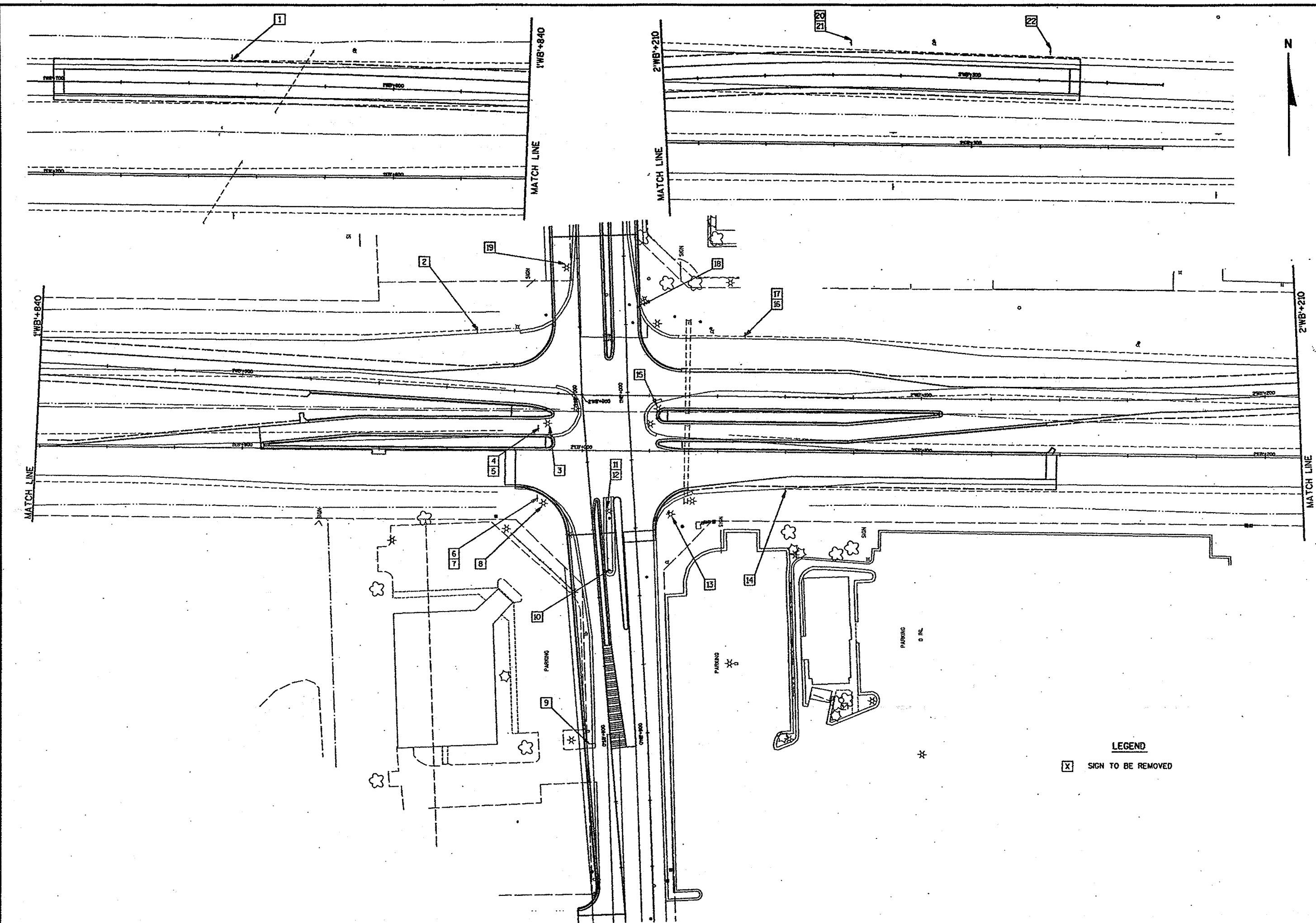
COUNTY: OUTAGAMIE

STATE PROJECT NO: 6526-01-71

SHEET NO: 2.16	M
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WISDOT: MSHT40

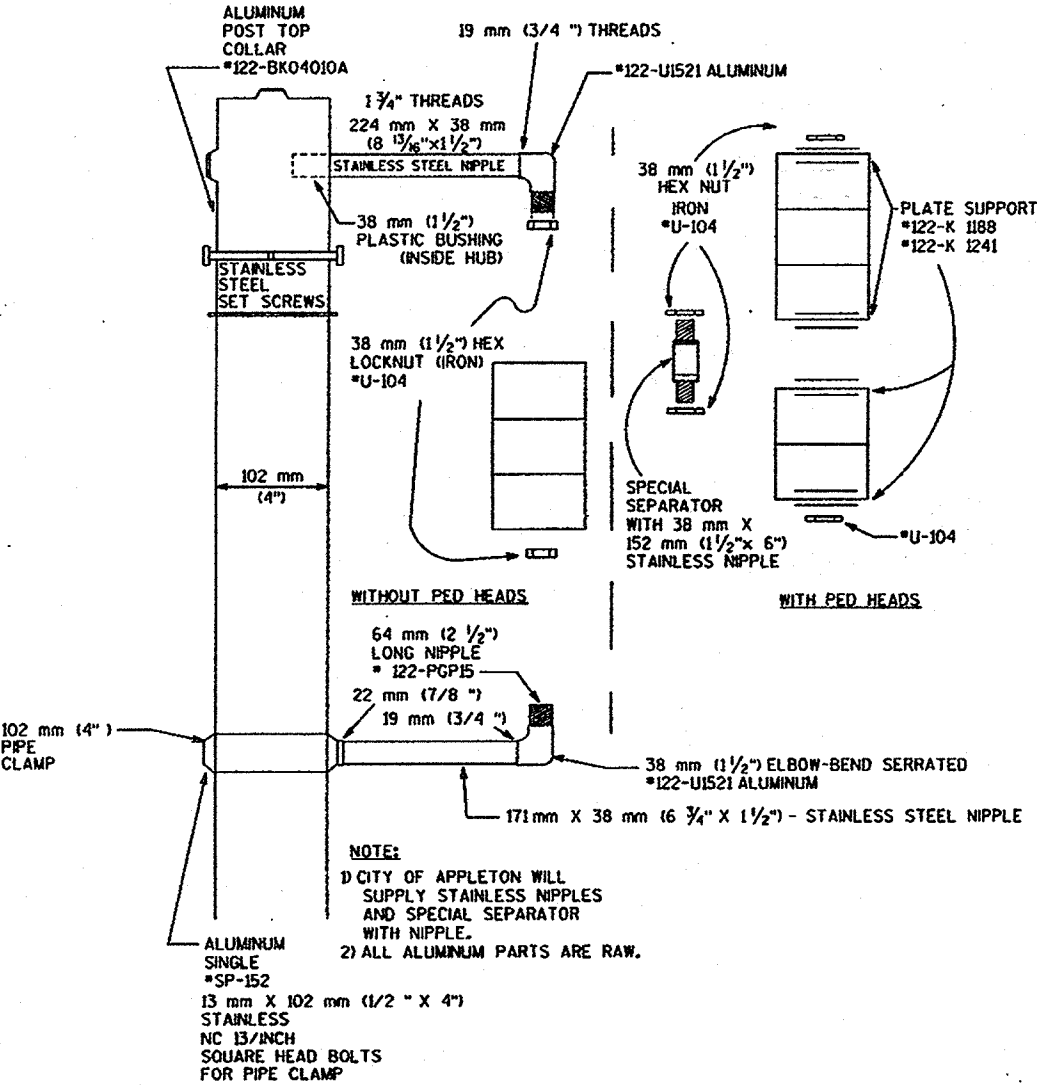
FILE NAME: E1284A /SHEETS /SP1 / .DGN
TECH/ENGR: DPP/SDC
PLOT DATE: 11/14/97
ORIGINATOR: OMNI ASSOCIATES
ONE SYSTEMS DRIVE
APPLETON, WI 54914-1654
REV. DATE: / /
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1" = 50.00'
LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 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, 57, 59, 60.



FILE NAME: E1884A /SHEETS / DET04 /2DG TECH/ENGR: CRK/MAH PLOT DATE: 08/19/98 PLOT NAME: SEE FILE NAME PLOT SCALE: 1:50
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1694 REV. DATE: / / 51

CITY OF APPLETON TYPICAL TRAFFIC SIGNAL POLE AND HARDWARE ITEM LIST
SINGLE TRAFFIC STANDARD

NUMBER	ITEM
203-00014	BASE, ALUM, SQ, NO PAINT, W/ALUM TAPCO DOOR PB-5334-01
373-13	PIPE, ALUM, SCHED 40, 6061-T6, 13', 4.5 O.D. T.O.E.
SA-103A-1111YBB	SIGNAL, 3 SEC 12" POLY W/TUN WISDOT SPEC
122-BPD503AN	BACKPLATES-VERTICAL
122-BK04010A	COLLAR POST TOP BK040-10A PN* A31435 UNPAINTED
SP-152	CLAMP 4", POLE, SING HUB UJ-152 UNPAINTED
122-K1188	PLATE SUPRT 2" HOLE K-1188 SM-0225-FHWA YEL
122-K1241	PLAT SUPRT 2.8125 K-1241 SM-0226-FHWA YEL
122-U104	LOCKNUTS U-104 P/N* M30244
122-U1521	ELBOW 1 END SERRATED U-1521 FROM U1616 & U847 PN* M311
122-PGP15	NIPPLE - 1 1/2" PGP-15 PN*380200
122-U-1616	RING, SERRATED U-1616 WHITE NYLON PN* M20466
SP-810526	SERRATED RING - ALUM-A-810526
122-EJ4	PUSHBUTTON PED. EJ4Y
SA-3028-1212YBB	SIGNAL, 2 SEC 12" PED SYMBOLS W/CUTAWAY VISORS



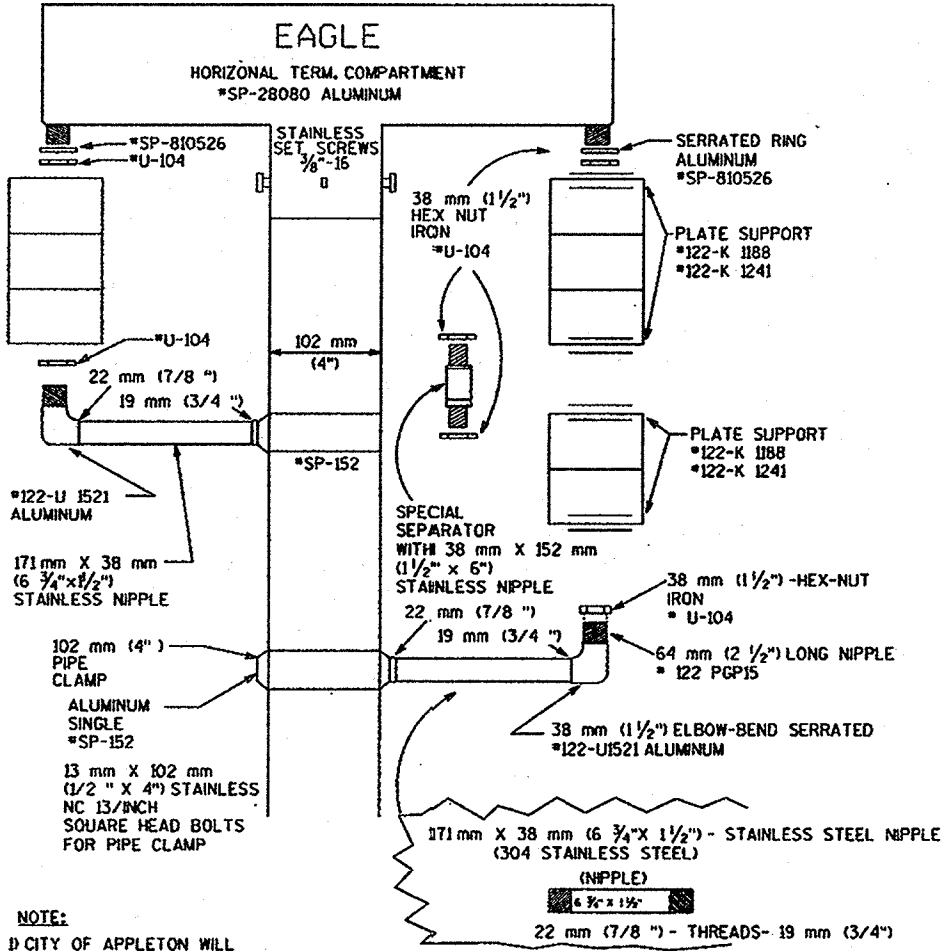
TRAFFIC STANDARD (SINGLE)

CITY OF APPLETON
TRAFFIC DIVISION
DEPARTMENT OF PUBLIC WORKS

TRAFFIC SIGNAL MOUNTING HARDWARE

CITY OF APPLETON TYPICAL TRAFFIC SIGNAL POLE AND HARDWARE ITEM LIST
DOUBLE TRAFFIC STANDARD

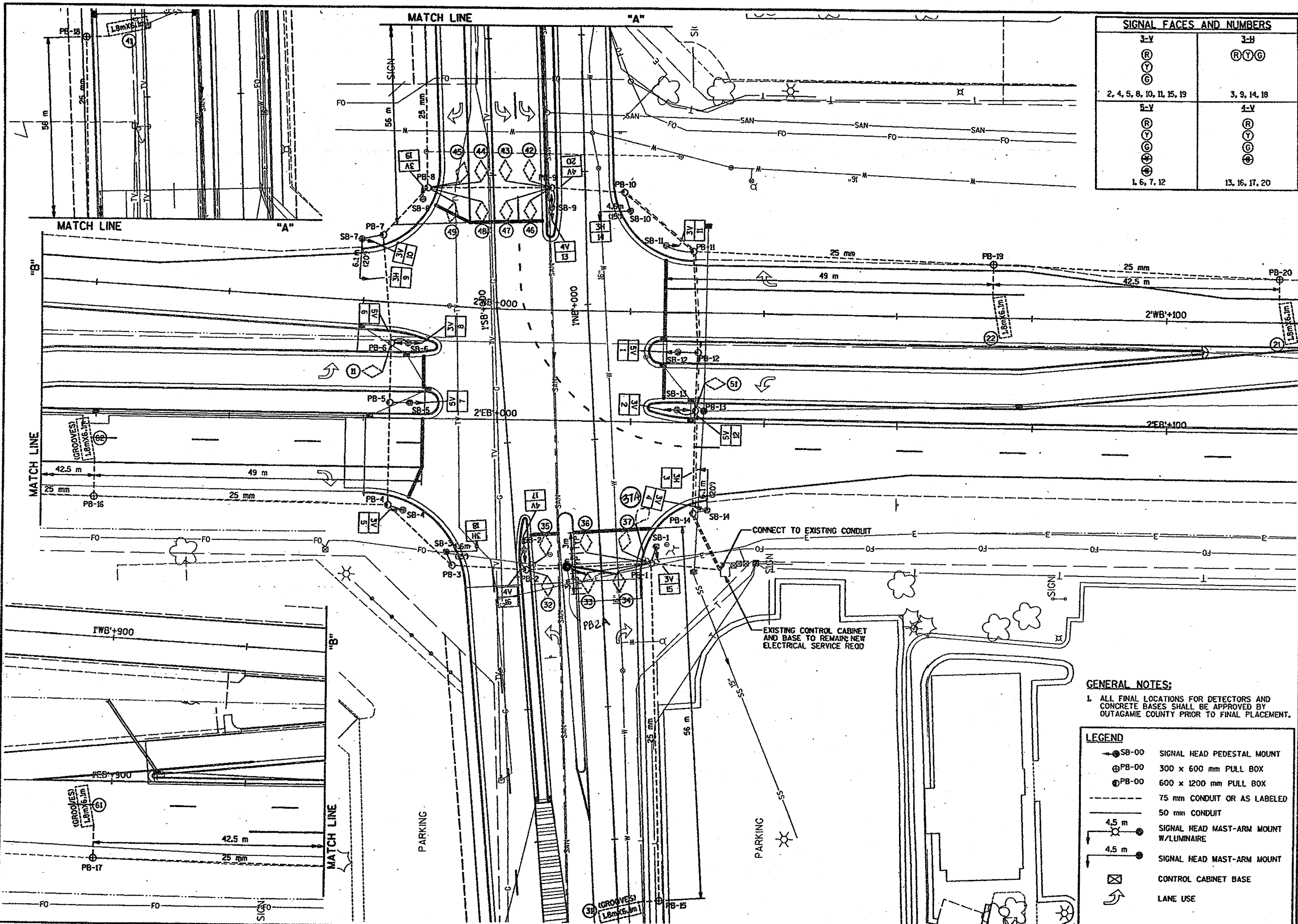
NUMBER	ITEM
203-00014	BASE, ALUM, SQ, NO PAINT, W/ALUM TAPCO DOOR PB-5334-01
373-13	TRAFFIC SIGNAL STANDARDS, ALUMINUM, 13 FEET
SA-103A-1111YBB	TRAFFIC SIGNAL FACES, 3-12 VERTICAL WITH TUNNEL
122-BPD503AN	BACKPLATES - VERTICAL
SP-28080	COMP TERM HORIZ BK280-20A UNPAINTED
SP-152	CLAMP 4", POLE, SING HUB UJ-152 UNPAINTED
122-K1188	PLATE SUPRT 2" HOLE K-1188 SM-0225-FHWA YEL
122-K1241	PLATE SUPRT 2.8125 K-1241 SM-0226-FHWA YEL
122-U104	LOCKNUTS U-104 P/N* M30244
122-U1521	ELBOW 1 END SERRATED U-1521 FROM U1616 & U847 PN* M311
122-PGP15	NIPPLE - 1 1/2" PGP-15 PN*380200
122-U-1616	RING, SERRATED U-1616 WHITE NYLON PN* M20466
SP-810526	SERRATED RING - ALUM-A-810526
122-EJ4	PUSHBUTTON PED. EJ4Y
SA-3028-1111YBB	PEDESTRIAN SIGNAL FACES, 12 INCH, CUT AWAY SYMBOL



TRAFFIC STANDARD (DOUBLE)

CITY OF APPLETON
TRAFFIC DIVISION
DEPARTMENT OF PUBLIC WORKS

FILE NAME: E12844 /SHEETS /SG01.DGN
ORIGINATOR: OMNI ASSOCIATES
TECH/ENGR: CRK/MAM
PLOT DATE: 12/12/97
PLOT SCALE: 1:57.59
REV. DATE: / /



SIGNAL FACES AND NUMBERS	
3-V R Y G 2, 4, 5, 8, 10, 11, 15, 19	3-H R Y G 3, 9, 14, 18
5-V R Y G 1, 6, 7, 12	4-V R Y G 13, 16, 17, 20

GENERAL NOTES:
1. ALL FINAL LOCATIONS FOR DETECTORS AND CONCRETE BASES SHALL BE APPROVED BY OUTAGAMIE COUNTY PRIOR TO FINAL PLACEMENT.

LEGEND	
SB-00	SIGNAL HEAD PEDESTAL MOUNT
PB-00	300 x 600 mm PULL BOX
PB-00	600 x 1200 mm PULL BOX
---	75 mm CONDUIT OR AS LABELED
---	50 mm CONDUIT
4.5 m	SIGNAL HEAD MAST-ARM MOUNT W/LUMINAIRE
4.5 m	SIGNAL HEAD MAST-ARM MOUNT
⊠	CONTROL CABINET BASE
↩	LANE USE

[illegible]

**** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1 BELOW)**

PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
Ø1	5 or 6	2,3,4
Ø2	5 or 6	1,3,4
Ø3	---	1,2,4,5,6
Ø4	---	1,2,3,5,6
Ø5	1 or 2	3,4,6
Ø6	1 or 2	3,4,5

NONE	
TBC	X
CLOSED LOOP	
HARDWARE	
TONE (FREQ)	

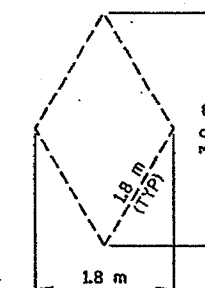
NONE	
RAILROAD	
EMERGENCY VEHICLE	

NONE	
IN TRAFFIC CONTROL CABINET	
IN SEPARATE CONTROL CABINET	

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

[illegible]

* DIAMOND LOOP DETAIL.



PHASE NUMBER	PHASE LOCKING	PHASE RECALL	DUAL ENTR W/O
01			
02		MIN	
03			
04			
05			
06		MIN	

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

COLLEGE AVENUE (CTH CA) & CASALOMA DRIVE

CTH CA	OUTAGAME CO.
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SIGNAL NO. 120

DATE: 11/97

SHEET NO. 2 OF 2

SIGNAL PLAN - CTH CA & CASALOMA DRIVE

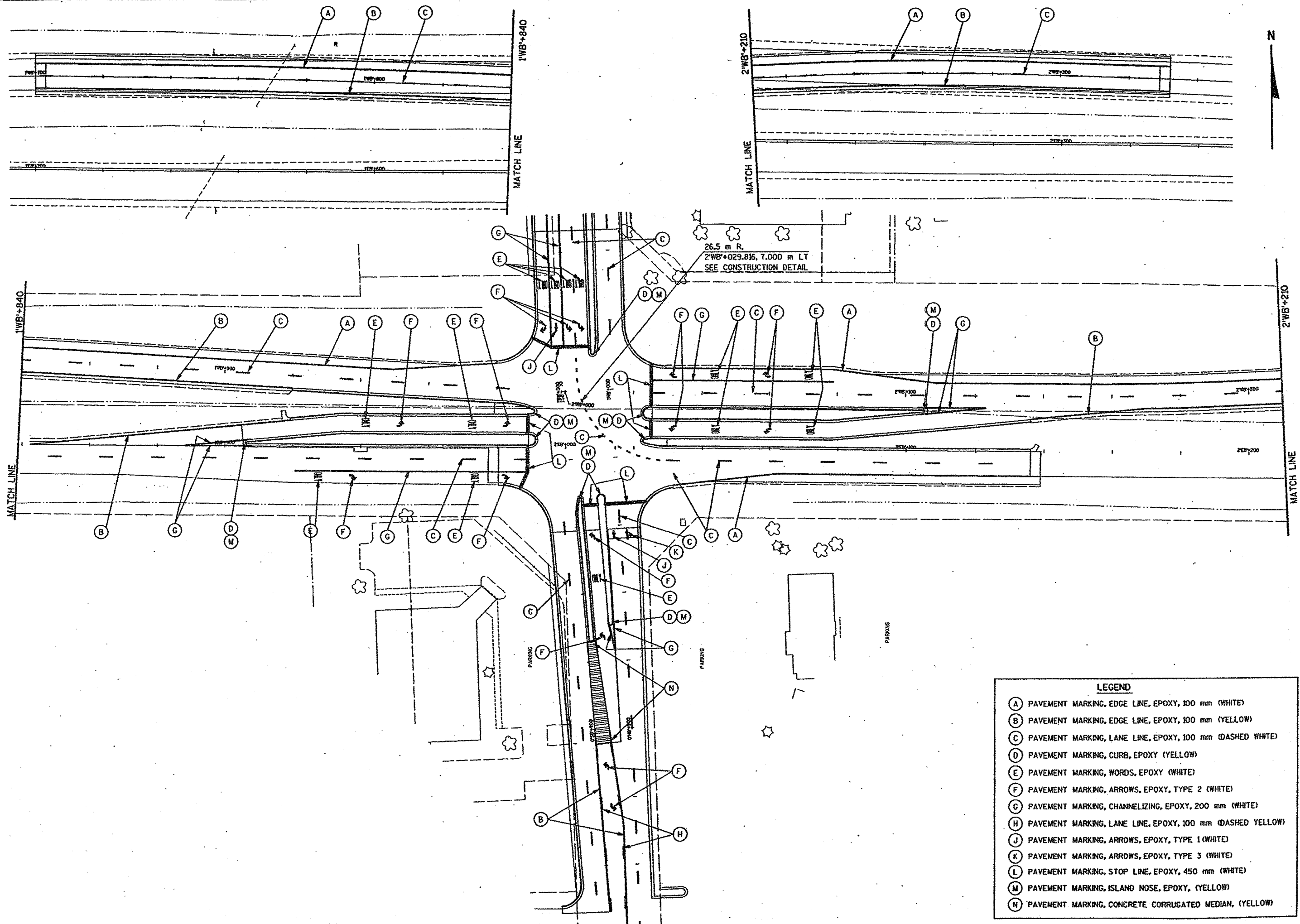
HWY: CTH CA

COUNTY: OUTAGAMIE

STATE PROJECT NO: 6526-01-71

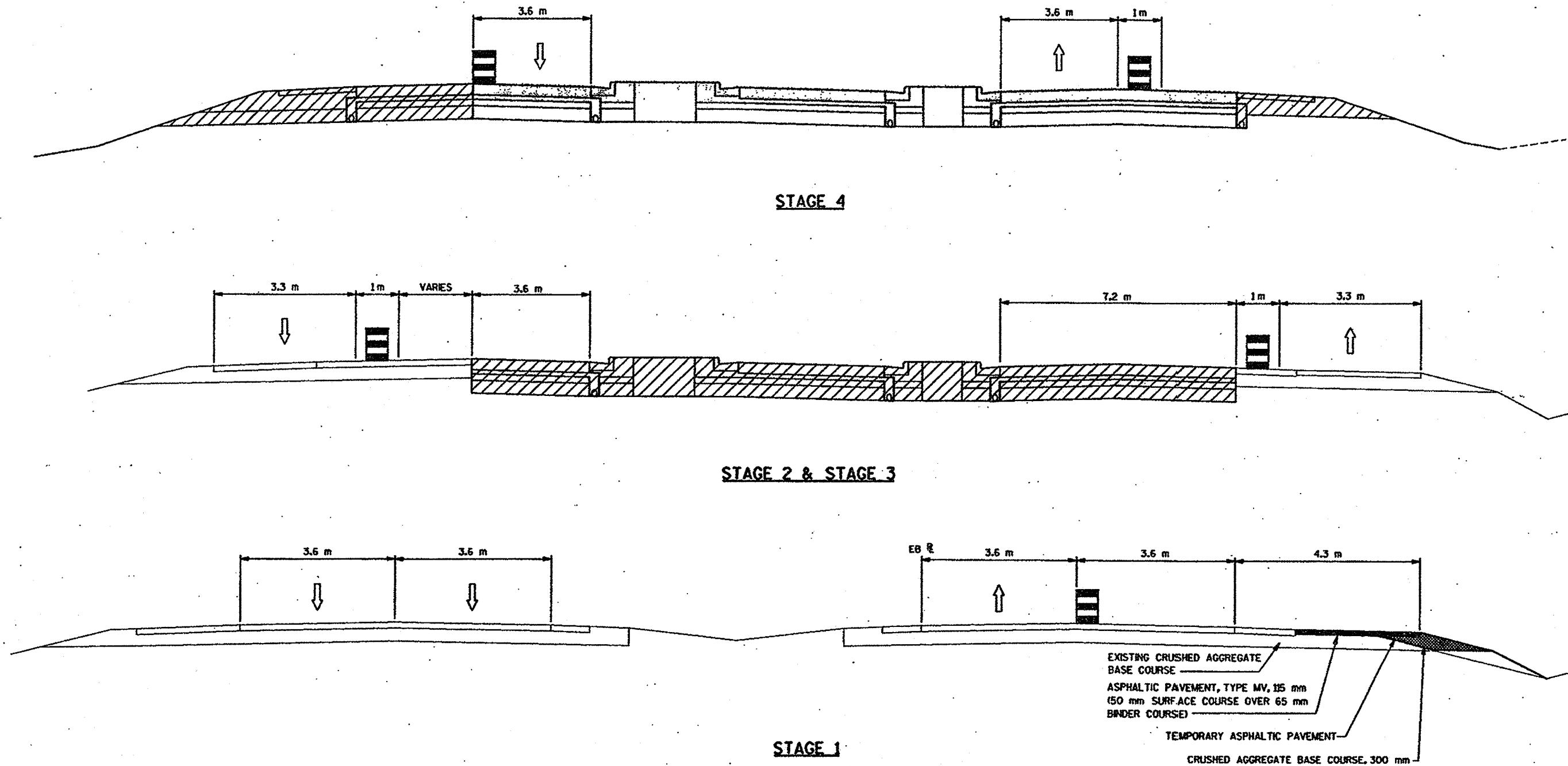
SHEET NO: 2.20	M
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FILE NAME: E1284A /SHEETS / PM1 .DGN
TECH/ENGR: DPP/SOC
PLOT DATE: 06/15/98
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:50
ORIGINATOR: OMNI ASSOCIATES
ONE SYSTEMS DRIVE
APPLETON, WI 54914-1654
REV. DATE: / /
LEVELS ON: 1, 2, 3, 4, 5, 6, 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, 57, 59, 60.



LEGEND	
(A)	PAVEMENT MARKING, EDGE LINE, EPOXY, 100 mm (WHITE)
(B)	PAVEMENT MARKING, EDGE LINE, EPOXY, 100 mm (YELLOW)
(C)	PAVEMENT MARKING, LANE LINE, EPOXY, 100 mm (DASHED WHITE)
(D)	PAVEMENT MARKING, CURB, EPOXY (YELLOW)
(E)	PAVEMENT MARKING, WORDS, EPOXY (WHITE)
(F)	PAVEMENT MARKING, ARROWS, EPOXY, TYPE 2 (WHITE)
(G)	PAVEMENT MARKING, CHANNELIZING, EPOXY, 200 mm (WHITE)
(H)	PAVEMENT MARKING, LANE LINE, EPOXY, 100 mm (DASHED YELLOW)
(J)	PAVEMENT MARKING, ARROWS, EPOXY, TYPE 1 (WHITE)
(K)	PAVEMENT MARKING, ARROWS, EPOXY, TYPE 3 (WHITE)
(L)	PAVEMENT MARKING, STOP LINE, EPOXY, 450 mm (WHITE)
(M)	PAVEMENT MARKING, ISLAND NOSE, EPOXY, (YELLOW)
(N)	PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, (YELLOW)

FILE NAME: E1284A / TRAFFIC / /CS01 .20G
TECH/ENGR: CRK/NAH
ORIGINATOR: OMNI ASSOCIATES
APPLETON, WI 54914-1854
REV. DATE: / /
PLOT DATE: 11/17/97
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1" = 57' 59"



LEGEND:

- NEW CONSTRUCTION, THIS STAGE
- NEW CONSTRUCTION, PREVIOUS STAGE
- TRAFFIC DIRECTION ARROWS
- TRAFFIC CONTROL DRUM

CONSTRUCTION DETAILS - CTH CA

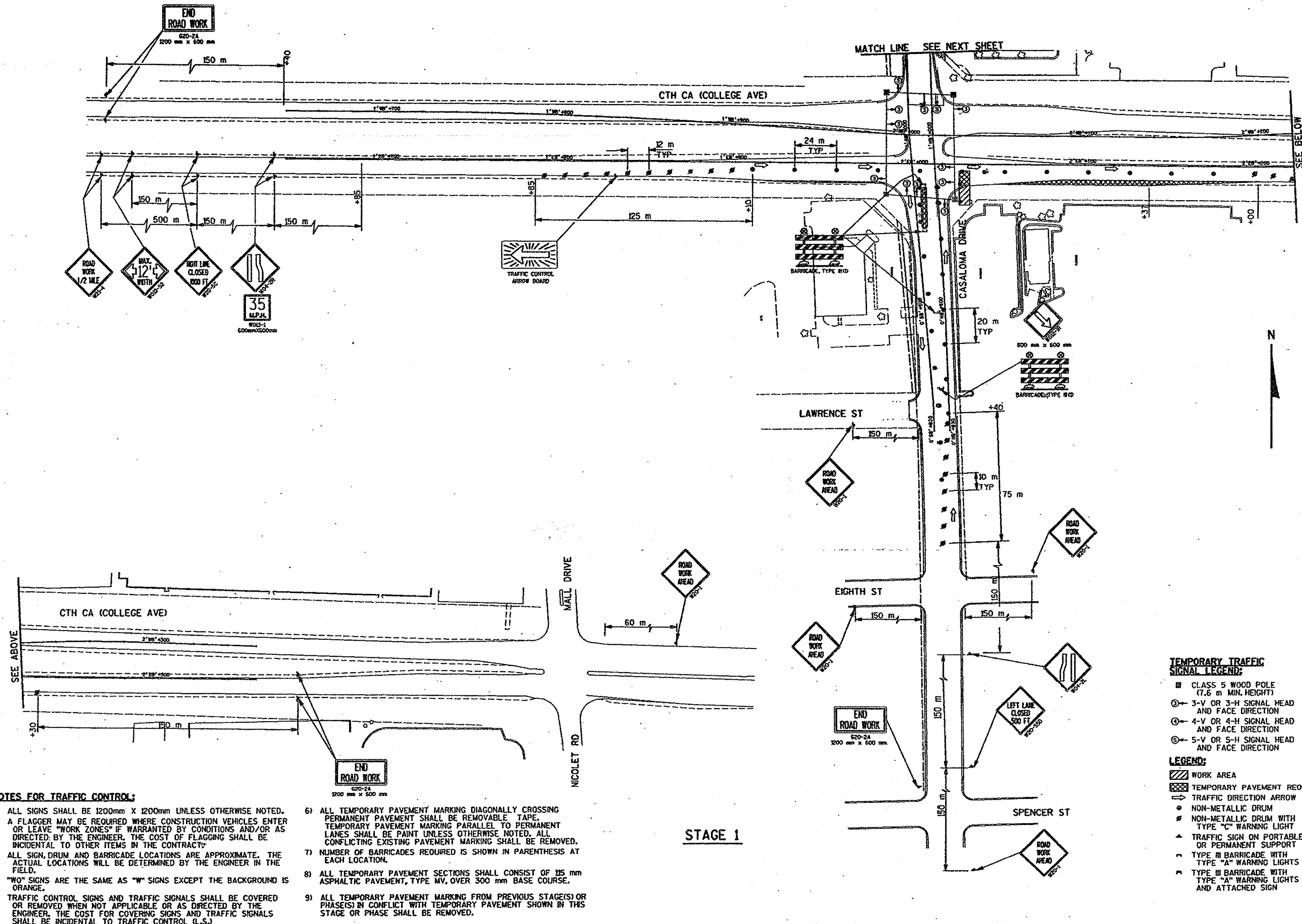
HWY: CTH CA

COUNTY: OUTAGAMIE

STATE PROJECT NO: 6526-01-71

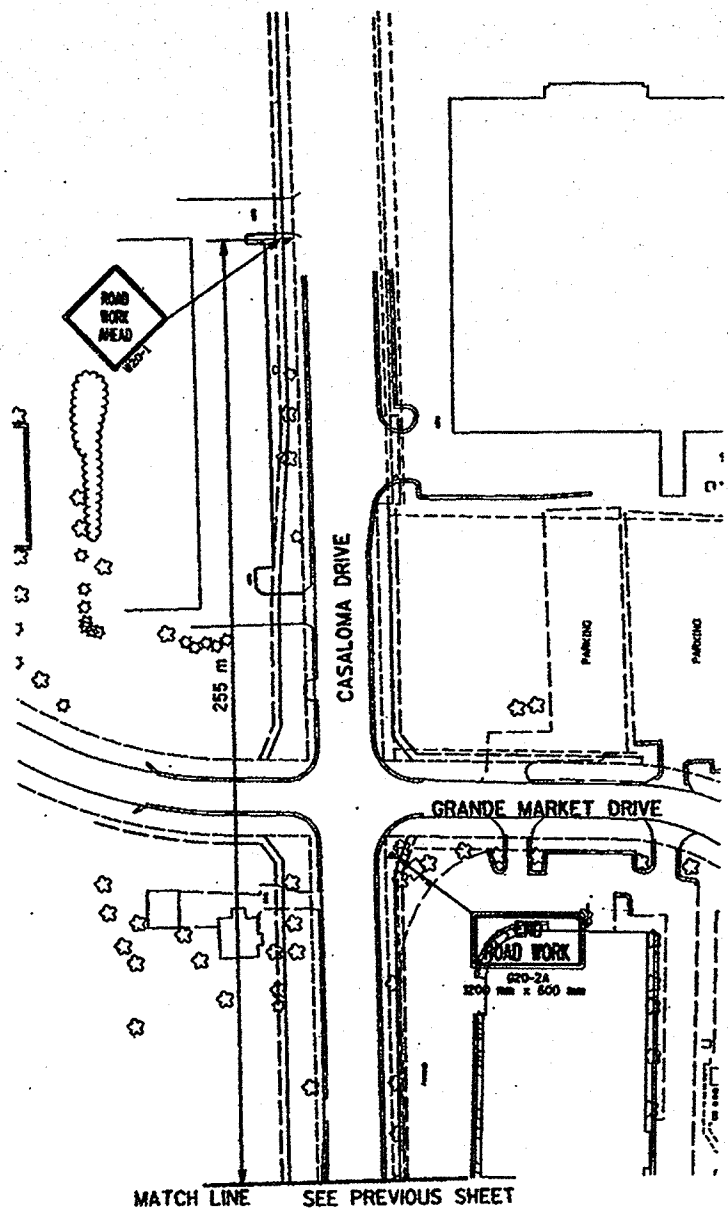
SHEET NO: 2.22

M



- NOTES FOR TRAFFIC CONTROL:**
- 1) ALL SIGNS SHALL BE 1200mm X 1200mm UNLESS OTHERWISE NOTED.
 - 2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK ZONES" IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER. THE COST OF FLAGGING SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.
 - 3) ALL SIGN, DRUM AND BARRICADE LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
 - 4) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
 - 5) TRAFFIC CONTROL SIGNS AND TRAFFIC SIGNALS SHALL BE COVERED OR REMOVED WHEN NOT APPLICABLE OR AS DIRECTED BY THE ENGINEER. THE COST FOR COVERING SIGNS AND TRAFFIC SIGNALS SHALL BE INCIDENTAL TO TRAFFIC CONTROL (I.S.)
 - 6) ALL TEMPORARY PAVEMENT MARKING DIAGONALLY CROSSING PERMANENT PAVEMENT SHALL BE REMOVABLE TAPE. TEMPORARY PAVEMENT MARKING PARALLEL TO PERMANENT LANES SHALL BE PAINT UNLESS OTHERWISE NOTED. ALL CONFLICTING EXISTING PAVEMENT MARKING SHALL BE REMOVED.
 - 7) NUMBER OF BARRICADES REQUIRED IS SHOWN IN PARENTHESIS AT EACH LOCATION.
 - 8) ALL TEMPORARY PAVEMENT SECTIONS SHALL CONSIST OF 115 mm ASPHALTIC PAVEMENT, TYPE MV, OVER 300 mm BASE COURSE.
 - 9) ALL TEMPORARY PAVEMENT MARKING FROM PREVIOUS STAGE(S) OR PHASE(S) IN CONFLICT WITH TEMPORARY PAVEMENT SHOWN IN THIS STAGE OR PHASE SHALL BE REMOVED.

- TEMPORARY TRAFFIC SIGNAL LEGEND:**
- CLASS 5 WOOD POLE (7.6 m MIN. HEIGHT)
 - ③ 3-V OR 3-H SIGNAL HEAD AND FACE DIRECTION
 - ④ 4-V OR 4-H SIGNAL HEAD AND FACE DIRECTION
 - ⑤ 5-V OR 5-H SIGNAL HEAD AND FACE DIRECTION
- LEGEND:**
- ▨ WORK AREA
 - ▨ TEMPORARY PAVEMENT RECD
 - ➡ TRAFFIC DIRECTION ARROW
 - NON-METALLIC DRUM
 - NON-METALLIC DRUM WITH TYPE "C" WARNING LIGHT
 - ▲ TRAFFIC SIGN ON PORTABLE OR PERMANENT SUPPORT
 - TYPE III BARRICADE WITH TYPE "A" WARNING LIGHTS
 - TYPE III BARRICADE WITH TYPE "A" WARNING LIGHTS AND ATTACHED SIGN



STAGE 1

NOTES FOR TRAFFIC CONTROL:

- 1) ALL SIGNS SHALL BE 1200mm X 1200mm UNLESS OTHERWISE NOTED.
- 2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK ZONES" IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER. THE COST OF FLAGGING SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.
- 3) ALL SIGN, DRUM AND BARRICADE LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- 4) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- 5) TRAFFIC CONTROL SIGNS AND TRAFFIC SIGNALS SHALL BE COVERED OR REMOVED WHEN NOT APPLICABLE OR AS DIRECTED BY THE ENGINEER. THE COST FOR COVERING SIGNS AND TRAFFIC SIGNALS SHALL BE INCIDENTAL TO TRAFFIC CONTROL (I.S.).
- 6) ALL TEMPORARY PAVEMENT MARKING DIAGONALLY CROSSING PERMANENT PAVEMENT SHALL BE REMOVABLE TAPE. TEMPORARY PAVEMENT MARKING PARALLEL TO PERMANENT LANES SHALL BE PAINT UNLESS OTHERWISE NOTED. ALL CONFLICTING EXISTING PAVEMENT MARKING SHALL BE REMOVED.
- 7) NUMBER OF BARRICADES REQUIRED IS SHOWN IN PARENTHESIS AT EACH LOCATION.
- 8) ALL TEMPORARY PAVEMENT SECTIONS SHALL CONSIST OF 115 mm ASPHALTIC PAVEMENT, TYPE MV, OVER 300 mm BASE COURSE.
- 9) ALL TEMPORARY PAVEMENT MARKING FROM PREVIOUS STAGE(S) OR PHASE(S) IN CONFLICT WITH TEMPORARY PAVEMENT SHOWN IN THIS STAGE OR PHASE SHALL BE REMOVED.

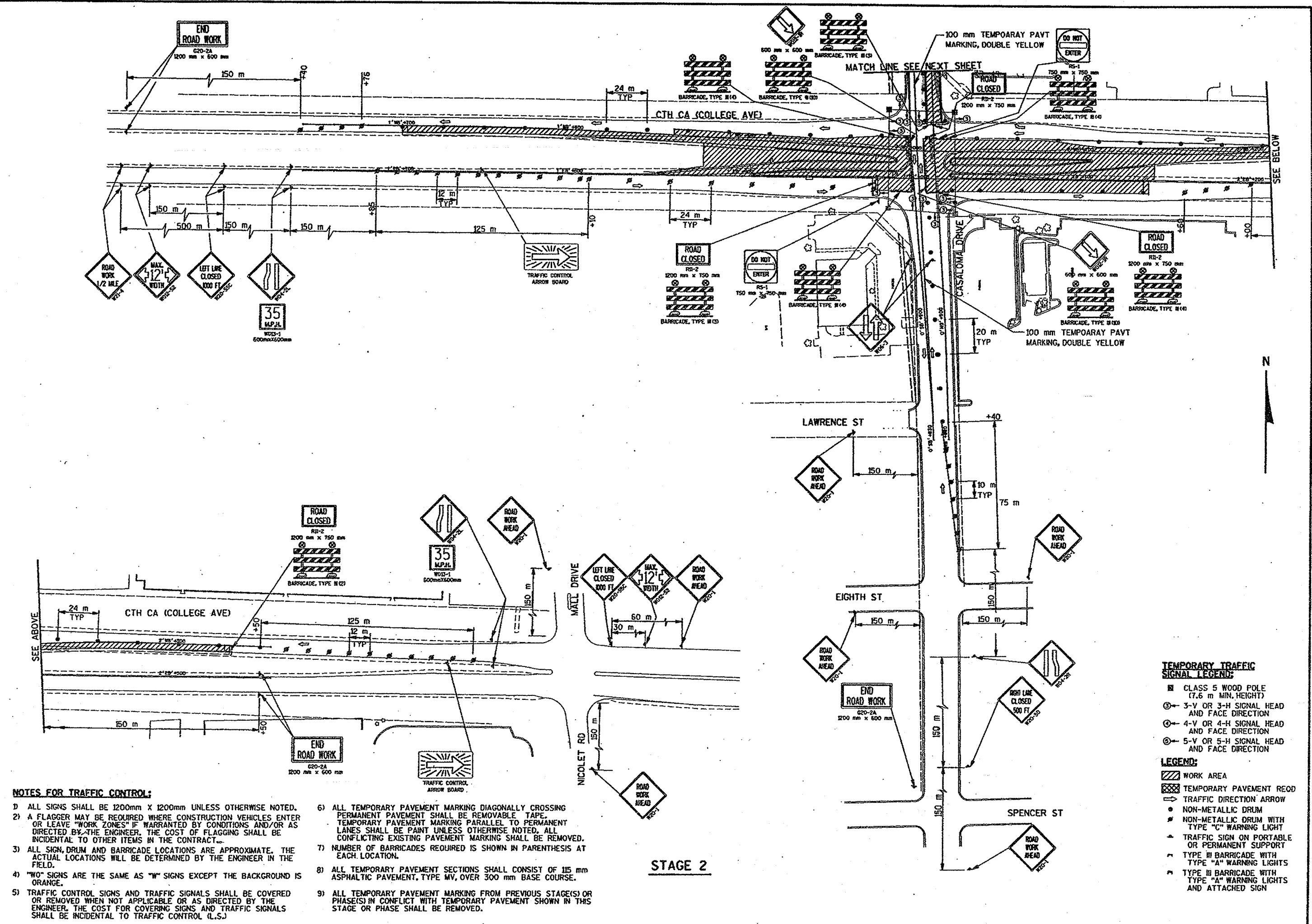
TEMPORARY TRAFFIC SIGNAL LEGEND:

- CLASS 5 WOOD POLE (7.6 m MIN. HEIGHT)
- ③-3-V OR 3-H SIGNAL HEAD AND FACE DIRECTION
- ④-4-V OR 4-H SIGNAL HEAD AND FACE DIRECTION
- ⑤-5-V OR 5-H SIGNAL HEAD AND FACE DIRECTION

LEGEND:

- ▨ WORK AREA
- ▨ TEMPORARY PAVEMENT REOD
- ➡ TRAFFIC DIRECTION ARROW
- NON-METALLIC DRUM
- NON-METALLIC DRUM WITH TYPE "C" WARNING LIGHT
- ▲ TRAFFIC SIGN ON PORTABLE OR PERMANENT SUPPORT
- ~ TYPE III BARRICADE WITH TYPE "A" WARNING LIGHTS
- ~ TYPE III BARRICADE WITH TYPE "A" WARNING LIGHTS AND ATTACHED SIGN

FILE NAME: E1284A /TRAFFIC /TC02 DGN TECH/ENGR: DPP/MAH PLOT DATE: 12/10/97 PLOT SCALE: 1:57, 59
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654 REV. DATE: / /



NOTES FOR TRAFFIC CONTROL:

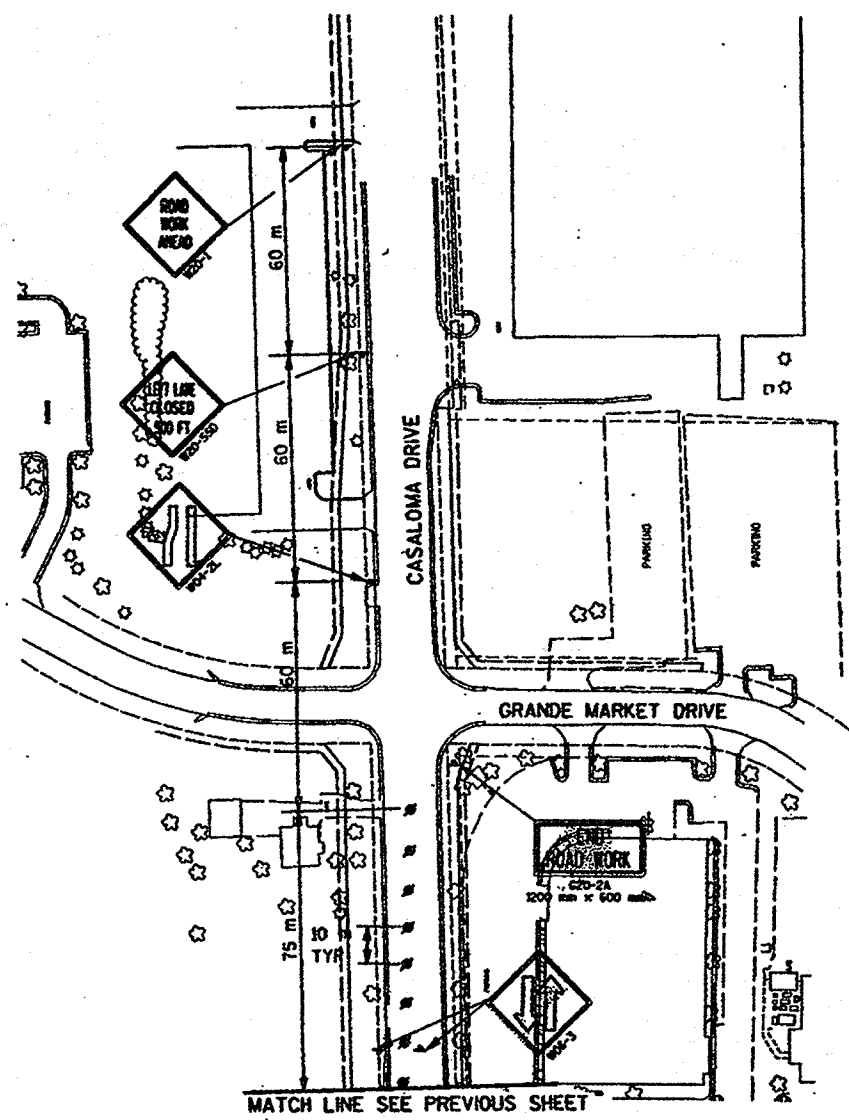
- 1) ALL SIGNS SHALL BE 1200mm X 1200mm UNLESS OTHERWISE NOTED.
- 2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK ZONES" IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER. THE COST OF FLAGGING SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.
- 3) ALL SIGN, DRUM AND BARRICADE LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- 4) "W" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- 5) TRAFFIC CONTROL SIGNS AND TRAFFIC SIGNALS SHALL BE COVERED OR REMOVED WHEN NOT APPLICABLE OR AS DIRECTED BY THE ENGINEER. THE COST FOR COVERING SIGNS AND TRAFFIC SIGNALS SHALL BE INCIDENTAL TO TRAFFIC CONTROL (L.S.)
- 6) ALL TEMPORARY PAVEMENT MARKING DIAGONALLY CROSSING PERMANENT PAVEMENT SHALL BE REMOVABLE TAPE. TEMPORARY PAVEMENT MARKING PARALLEL TO PERMANENT LANES SHALL BE PAINT UNLESS OTHERWISE NOTED. ALL CONFLICTING EXISTING PAVEMENT MARKING SHALL BE REMOVED.
- 7) NUMBER OF BARRICADES REQUIRED IS SHOWN IN PARENTHESIS AT EACH LOCATION.
- 8) ALL TEMPORARY PAVEMENT SECTIONS SHALL CONSIST OF 115 mm ASPHALTIC PAVEMENT, TYPE MV, OVER 300 mm BASE COURSE.
- 9) ALL TEMPORARY PAVEMENT MARKING FROM PREVIOUS STAGE(S) OR PHASE(S) IN CONFLICT WITH TEMPORARY PAVEMENT SHOWN IN THIS STAGE OR PHASE SHALL BE REMOVED.

TEMPORARY TRAFFIC SIGNAL LEGEND:

- CLASS 5 WOOD POLE (7.6 m MIN. HEIGHT)
- ③ 3-V OR 3-H SIGNAL HEAD AND FACE DIRECTION
- ④ 4-V OR 4-H SIGNAL HEAD AND FACE DIRECTION
- ⑤ 5-V OR 5-H SIGNAL HEAD AND FACE DIRECTION

LEGEND:

- ▨ WORK AREA
- ▨ TEMPORARY PAVEMENT RECD
- ➡ TRAFFIC DIRECTION ARROW
- NON-METALLIC DRUM
- NON-METALLIC DRUM WITH TYPE "C" WARNING LIGHT
- ▲ TRAFFIC SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE III BARRICADE WITH TYPE "A" WARNING LIGHTS
- TYPE III BARRICADE WITH TYPE "A" WARNING LIGHTS AND ATTACHED SIGN



STAGE 2

NOTES FOR TRAFFIC CONTROL:

- 1) ALL SIGNS SHALL BE 1200mm X 1200mm UNLESS OTHERWISE NOTED.
- 2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK ZONES" IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER. THE COST OF FLAGGING SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.
- 3) ALL SIGN, DRUM AND BARRICADE LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- 4) "W" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- 5) TRAFFIC CONTROL SIGNS AND TRAFFIC SIGNALS SHALL BE COVERED OR REMOVED WHEN NOT APPLICABLE OR AS DIRECTED BY THE ENGINEER. THE COST FOR COVERING SIGNS AND TRAFFIC SIGNALS SHALL BE INCIDENTAL TO TRAFFIC CONTROL (I.S.)
- 6) ALL TEMPORARY PAVEMENT MARKING DIAGONALLY CROSSING PERMANENT PAVEMENT SHALL BE REMOVABLE TAPE. TEMPORARY PAVEMENT MARKING PARALLEL TO PERMANENT LANES SHALL BE PAINT UNLESS OTHERWISE NOTED. ALL CONFLICTING EXISTING PAVEMENT MARKING SHALL BE REMOVED.
- 7) NUMBER OF BARRICADES REQUIRED IS SHOWN IN PARENTHESIS AT EACH LOCATION.
- 8) ALL TEMPORARY PAVEMENT SECTIONS SHALL CONSIST OF 125 mm ASPHALTIC PAVEMENT, TYPE MV, OVER 300 mm BASE COURSE.
- 9) ALL TEMPORARY PAVEMENT MARKING FROM PREVIOUS STAGE(S) OR PHASE(S) IN CONFLICT WITH TEMPORARY PAVEMENT SHOWN IN THIS STAGE OR PHASE SHALL BE REMOVED.

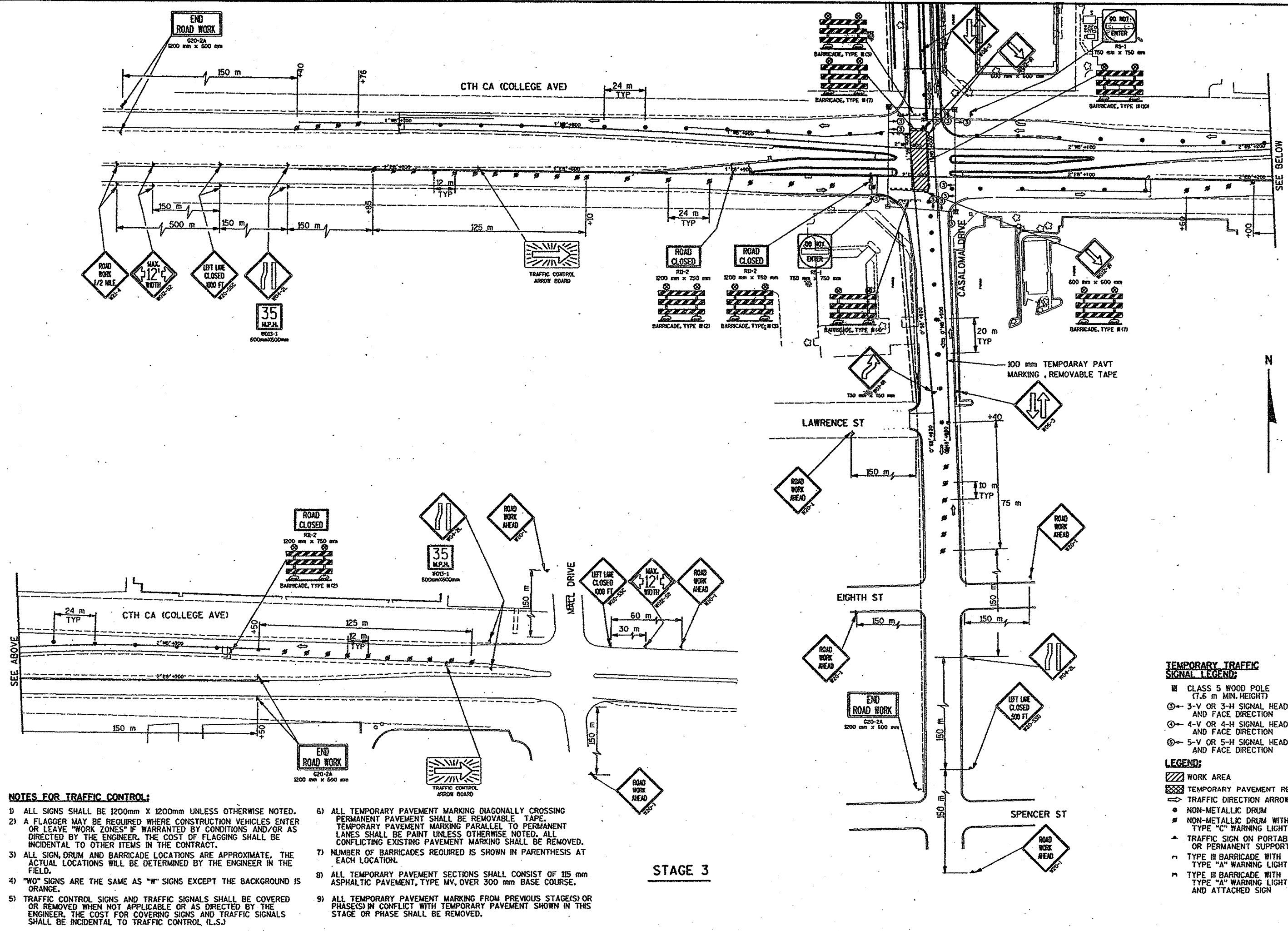
TEMPORARY TRAFFIC SIGNAL LEGEND:

- CLASS 5 WOOD POLE (7.6 m MIN. HEIGHT)
- ③ 3-V OR 3-H SIGNAL HEAD AND FACE DIRECTION
- ④ 4-V OR 4-H SIGNAL HEAD AND FACE DIRECTION
- ⑤ 5-V OR 5-H SIGNAL HEAD AND FACE DIRECTION

LEGEND:

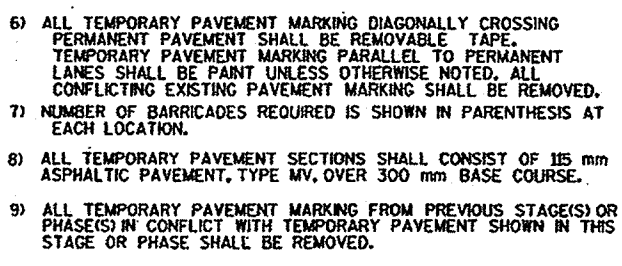
- ▨ WORK AREA
- ▨ TEMPORARY PAVEMENT RECD
- ➡ TRAFFIC DIRECTION ARROW
- NON-METALLIC DRUM
- NON-METALLIC DRUM WITH TYPE "C" WARNING LIGHT
- ▲ TRAFFIC SIGN ON PORTABLE OR PERMANENT SUPPORT
- ▬ TYPE II BARRICADE WITH TYPE "A" WARNING LIGHTS
- ▬ TYPE II BARRICADE WITH TYPE "A" WARNING LIGHTS AND ATTACHED SIGN

FILE NAME: E12844 / TRAFFIC / TC03 / DGN
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654
TECH/ENGR: DPP/MAH
PLOT DATE: 12/10/97
REV. DATE: /
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:57.59

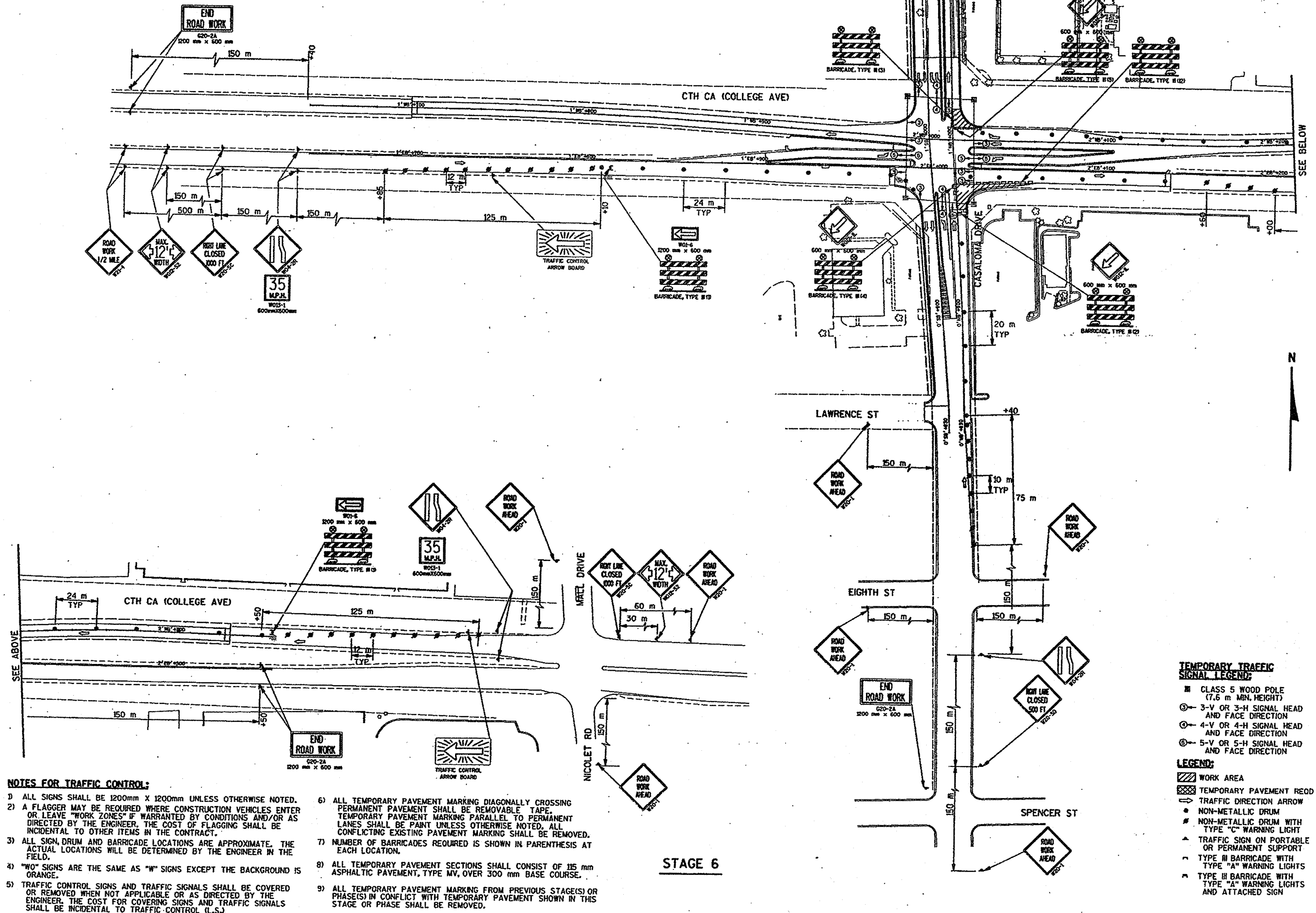


- NOTES FOR TRAFFIC CONTROL:**
- 1) ALL SIGNS SHALL BE 1200mm X 1200mm UNLESS OTHERWISE NOTED.
 - 2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK ZONES" IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER. THE COST OF FLAGGING SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.
 - 3) ALL SIGN, DRUM AND BARRICADE LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
 - 4) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
 - 5) TRAFFIC CONTROL SIGNS AND TRAFFIC SIGNALS SHALL BE COVERED OR REMOVED WHEN NOT APPLICABLE OR AS DIRECTED BY THE ENGINEER. THE COST FOR COVERING SIGNS AND TRAFFIC SIGNALS SHALL BE INCIDENTAL TO TRAFFIC CONTROL (I.S.)
 - 6) ALL TEMPORARY PAVEMENT MARKING DIAGONALLY CROSSING PERMANENT PAVEMENT SHALL BE REMOVABLE TAPE. TEMPORARY PAVEMENT MARKING PARALLEL TO PERMANENT LANES SHALL BE PAINT UNLESS OTHERWISE NOTED. ALL CONFLICTING EXISTING PAVEMENT MARKING SHALL BE REMOVED.
 - 7) NUMBER OF BARRICADES REQUIRED IS SHOWN IN PARENTHESIS AT EACH LOCATION.
 - 8) ALL TEMPORARY PAVEMENT SECTIONS SHALL CONSIST OF 115 mm ASPHALTIC PAVEMENT, TYPE MV, OVER 300 mm BASE COURSE.
 - 9) ALL TEMPORARY PAVEMENT MARKING FROM PREVIOUS STAGE(S) OR PHASE(S) IN CONFLICT WITH TEMPORARY PAVEMENT SHOWN IN THIS STAGE OR PHASE SHALL BE REMOVED.

- TEMPORARY TRAFFIC SIGNAL LEGEND:**
- CLASS 5 WOOD POLE (7.6 m MIN. HEIGHT)
 - ③ 3-Y OR 3-H SIGNAL HEAD AND FACE DIRECTION
 - ④ 4-Y OR 4-H SIGNAL HEAD AND FACE DIRECTION
 - ⑤ 5-Y OR 5-H SIGNAL HEAD AND FACE DIRECTION
- LEGEND:**
- ▨ WORK AREA
 - ▨ TEMPORARY PAVEMENT REQD
 - ➡ TRAFFIC DIRECTION ARROW
 - NON-METALLIC DRUM
 - NON-METALLIC DRUM WITH TYPE "C" WARNING LIGHT
 - ▲ TRAFFIC SIGN ON PORTABLE OR PERMANENT SUPPORT
 - TYPE III BARRICADE WITH TYPE "A" WARNING LIGHTS
 - TYPE III BARRICADE WITH TYPE "A" WARNING LIGHTS AND ATTACHED SIGN



WISDOT: MSHT40



NOTES FOR TRAFFIC CONTROL:

- 1) ALL SIGNS SHALL BE 1200mm X 1200mm UNLESS OTHERWISE NOTED.
- 2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK ZONES" IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER. THE COST OF FLAGGING SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.
- 3) ALL SIGN, DRUM AND BARRICADE LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- 4) "W" SIGNS ARE THE SAME AS "V" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- 5) TRAFFIC CONTROL SIGNS AND TRAFFIC SIGNALS SHALL BE COVERED OR REMOVED WHEN NOT APPLICABLE OR AS DIRECTED BY THE ENGINEER. THE COST FOR COVERING SIGNS AND TRAFFIC SIGNALS SHALL BE INCIDENTAL TO TRAFFIC CONTROL (I.S.).
- 6) ALL TEMPORARY PAVEMENT MARKING DIAGONALLY CROSSING PERMANENT PAVEMENT SHALL BE REMOVABLE TAPE. TEMPORARY PAVEMENT MARKING PARALLEL TO PERMANENT LANES SHALL BE PAINT UNLESS OTHERWISE NOTED. ALL CONFLICTING EXISTING PAVEMENT MARKING SHALL BE REMOVED.
- 7) NUMBER OF BARRICADES REQUIRED IS SHOWN IN PARENTHESIS AT EACH LOCATION.
- 8) ALL TEMPORARY PAVEMENT SECTIONS SHALL CONSIST OF 115 mm ASPHALTIC PAVEMENT, TYPE MV, OVER 300 mm BASE COURSE.
- 9) ALL TEMPORARY PAVEMENT MARKING FROM PREVIOUS STAGE(S) OR PHASE(S) IN CONFLICT WITH TEMPORARY PAVEMENT SHOWN IN THIS STAGE OR PHASE SHALL BE REMOVED.

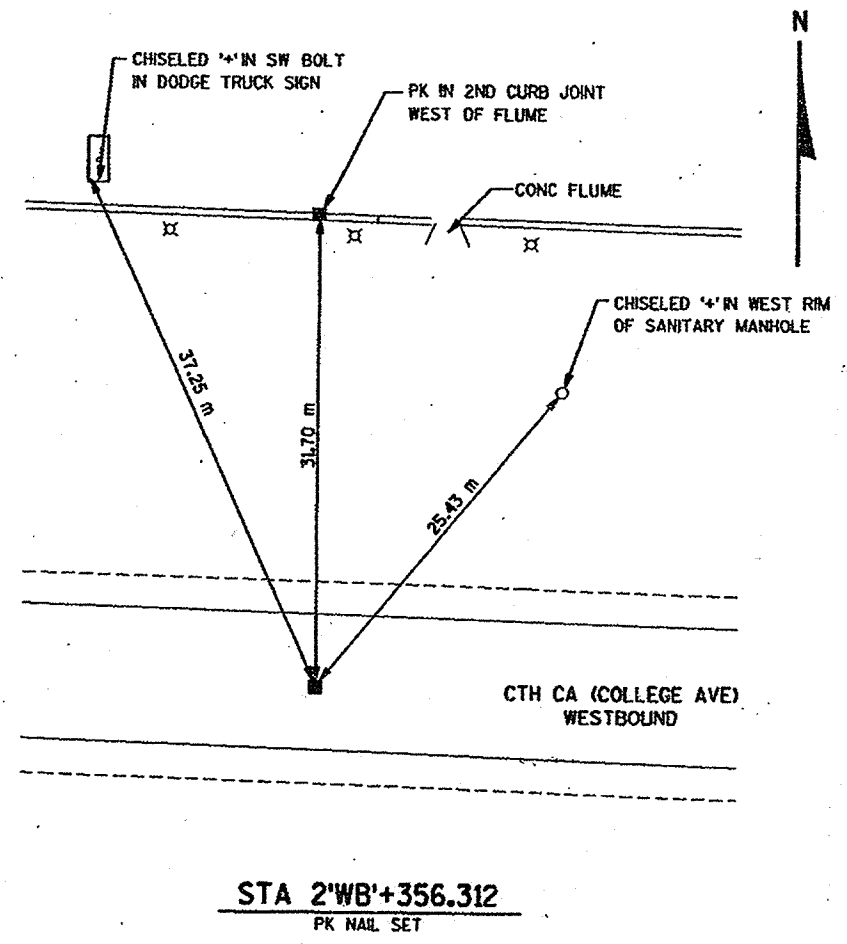
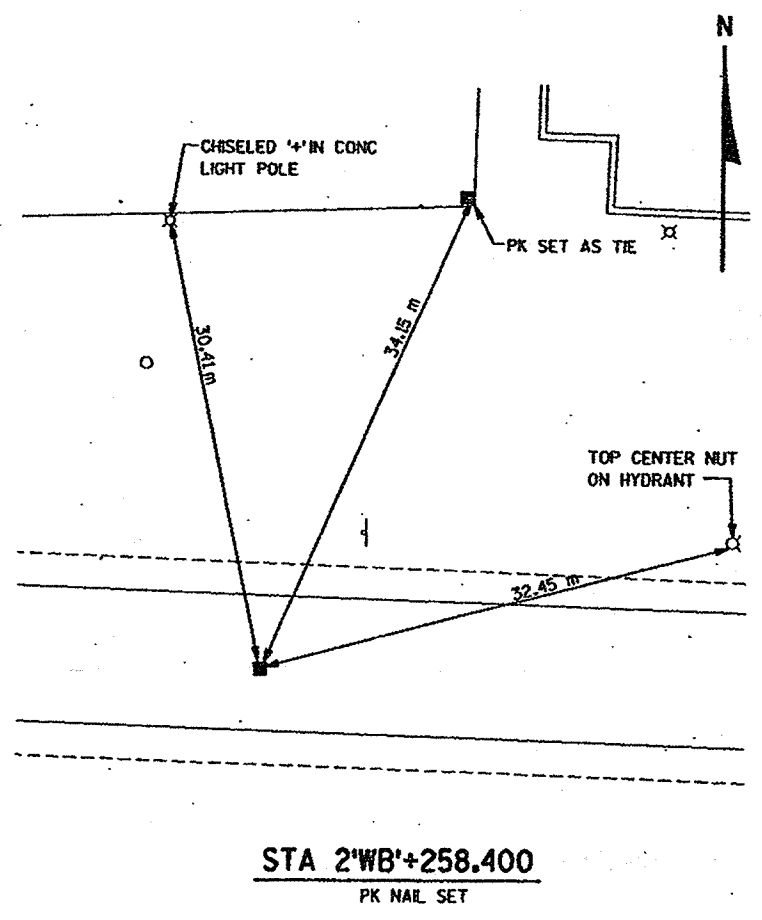
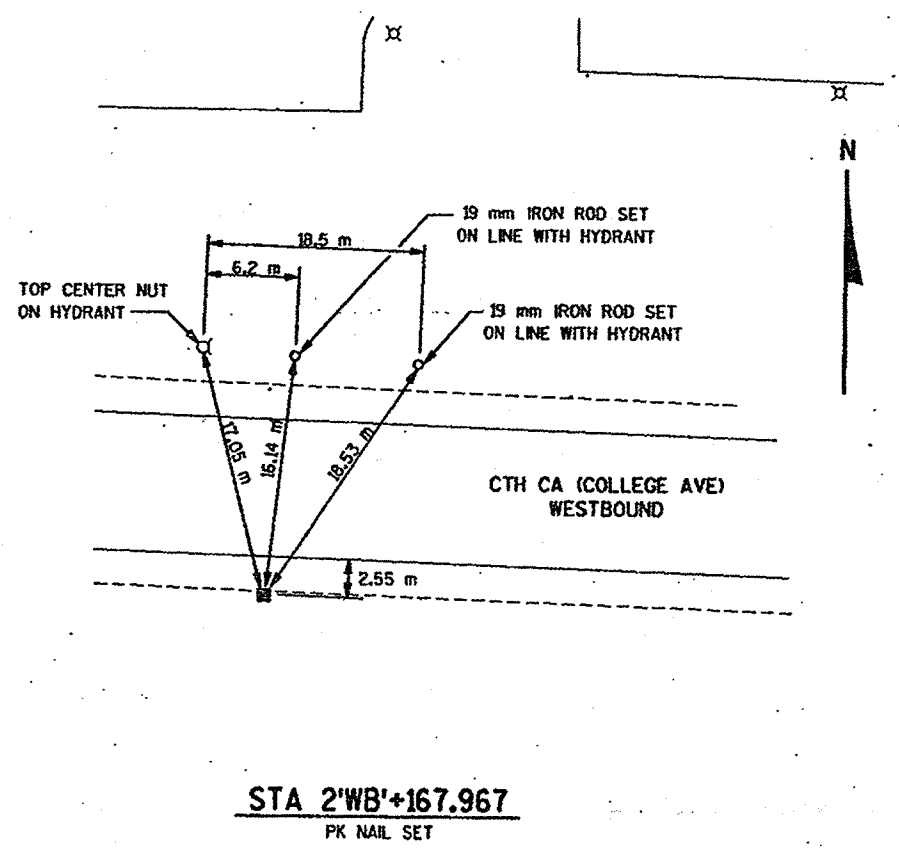
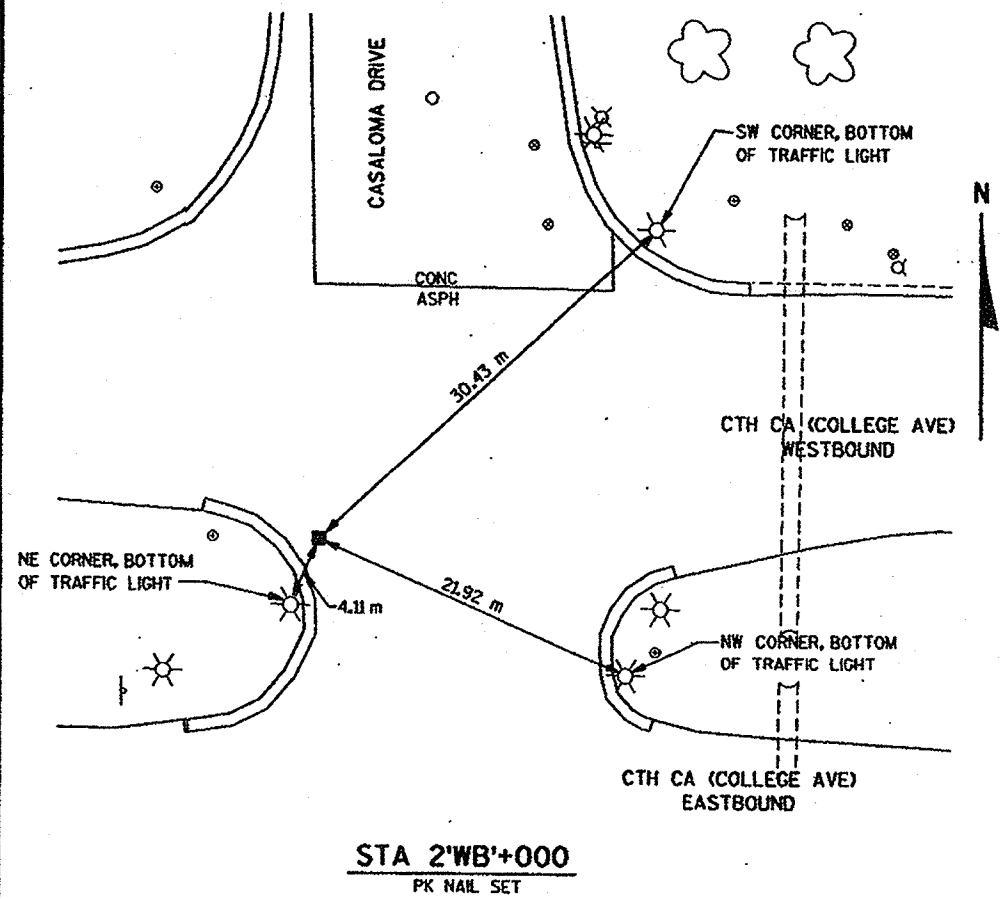
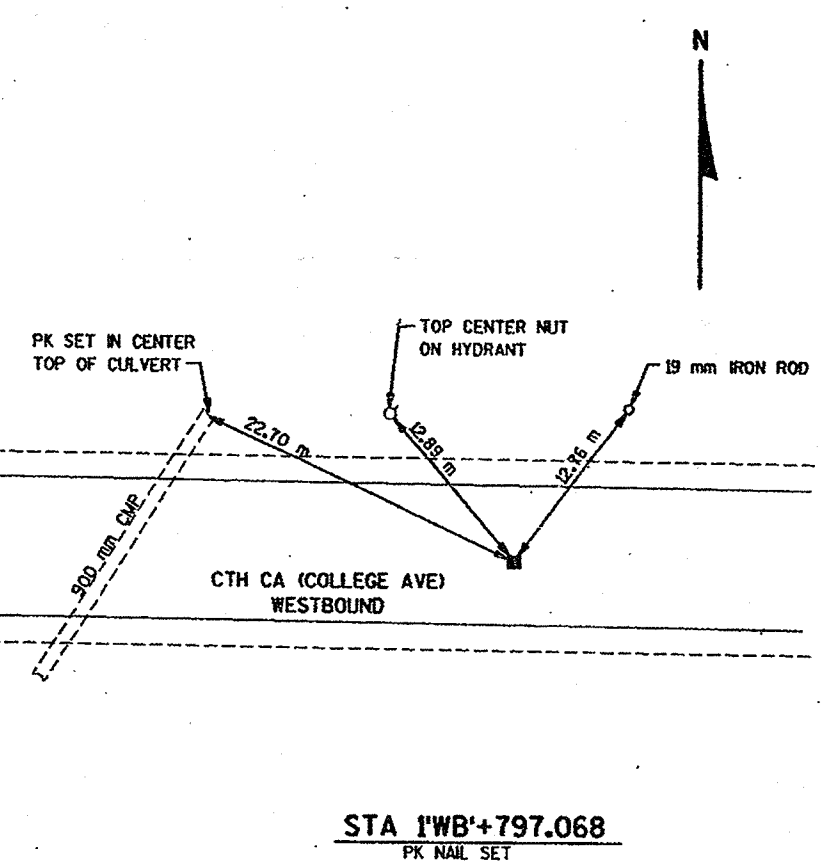
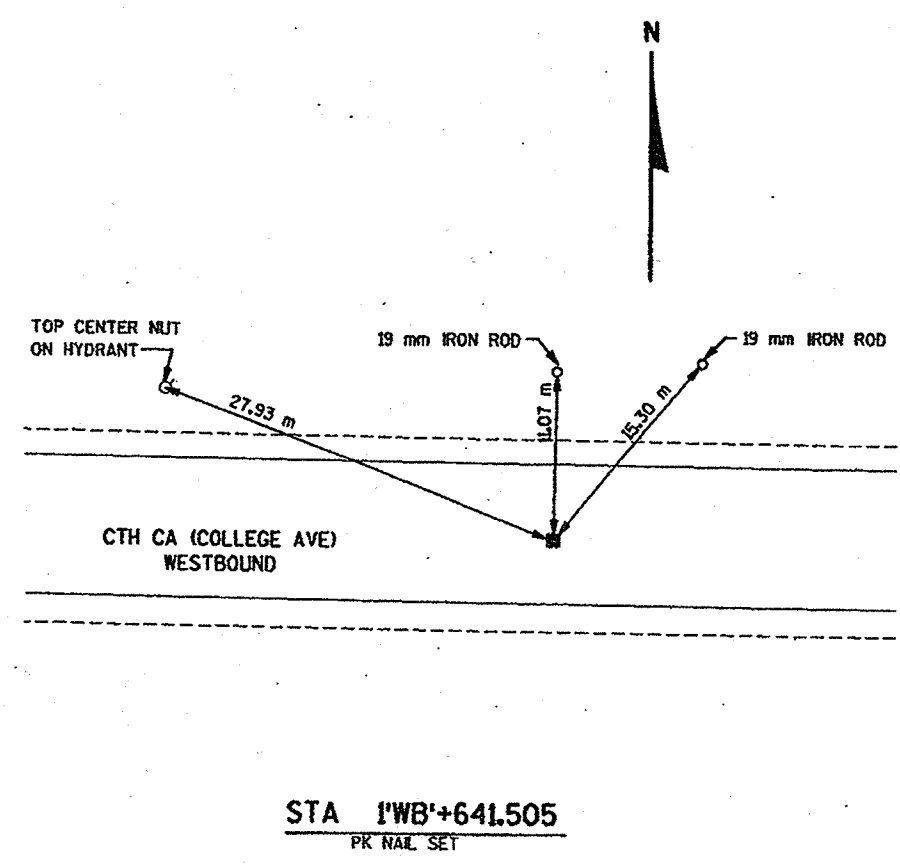
TEMPORARY TRAFFIC SIGNAL LEGEND:

- CLASS 5 WOOD POLE (7.6 m MIN. HEIGHT)
- ③ 3-V OR 3-H SIGNAL HEAD AND FACE DIRECTION
- ④ 4-V OR 4-H SIGNAL HEAD AND FACE DIRECTION
- ⑤ 5-V OR 5-H SIGNAL HEAD AND FACE DIRECTION

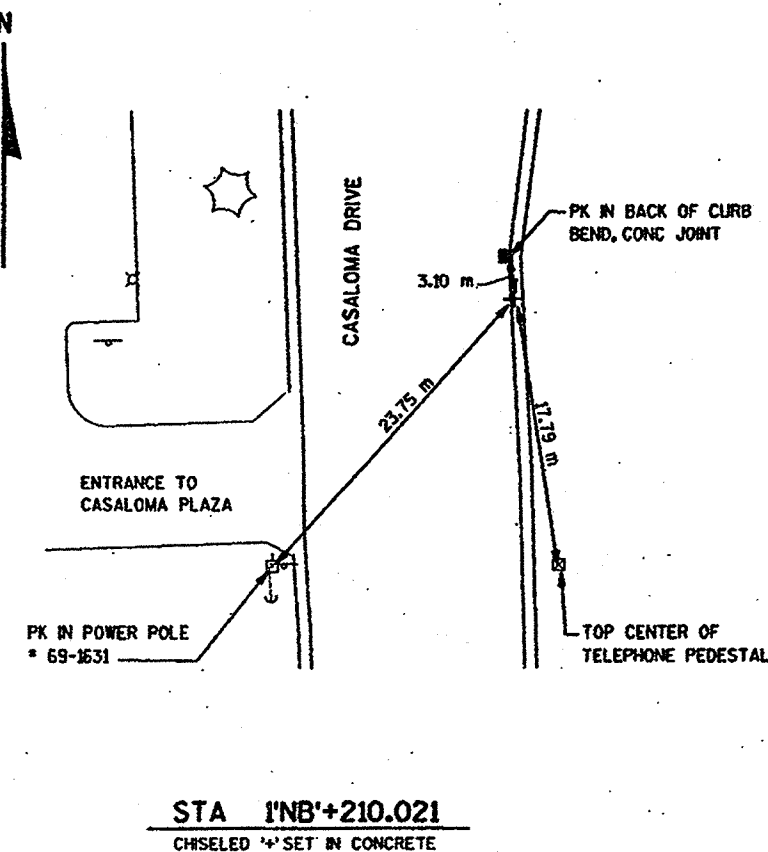
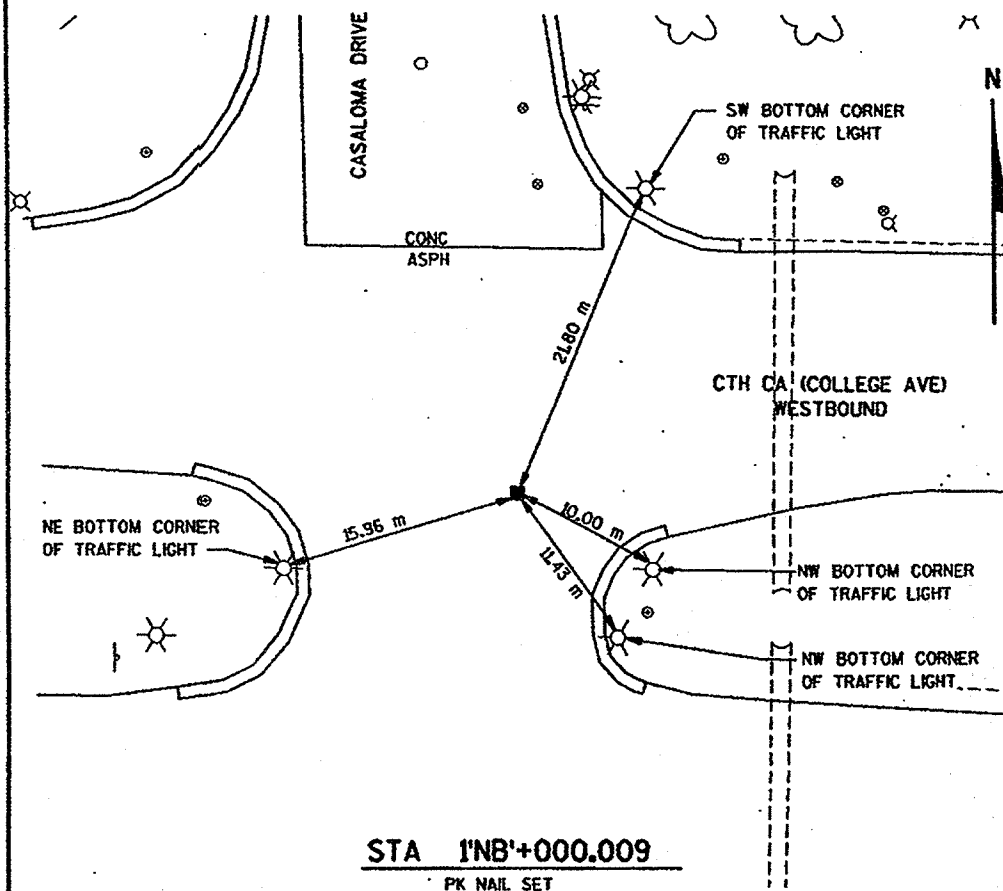
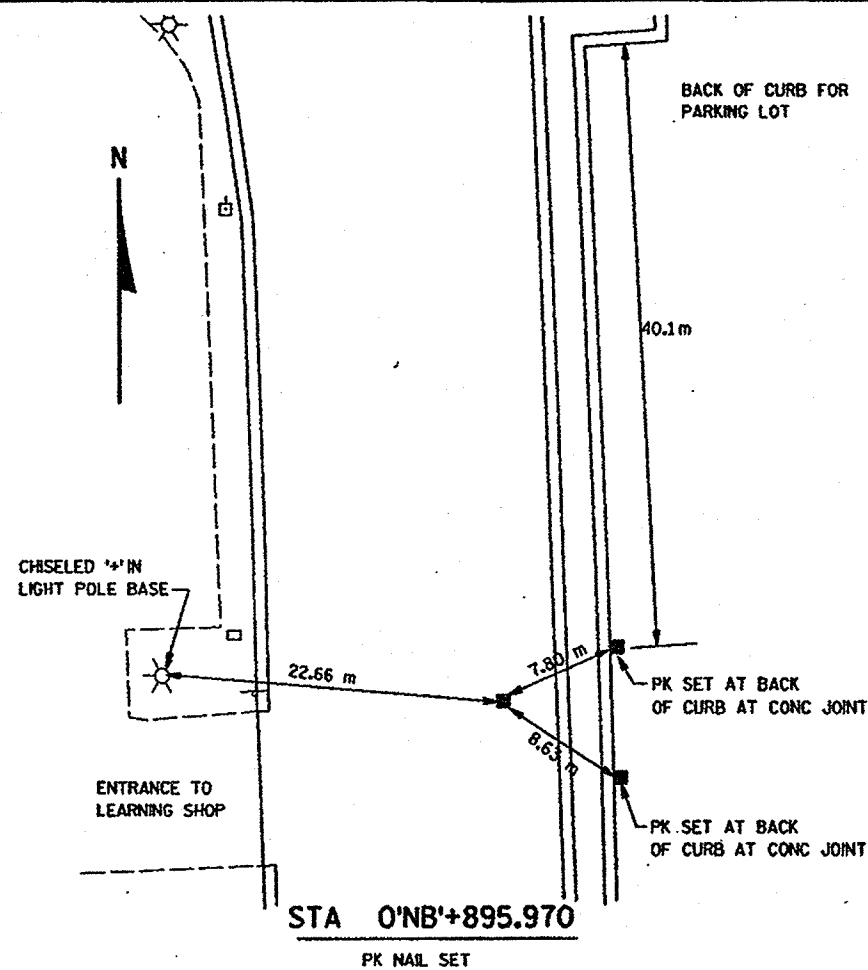
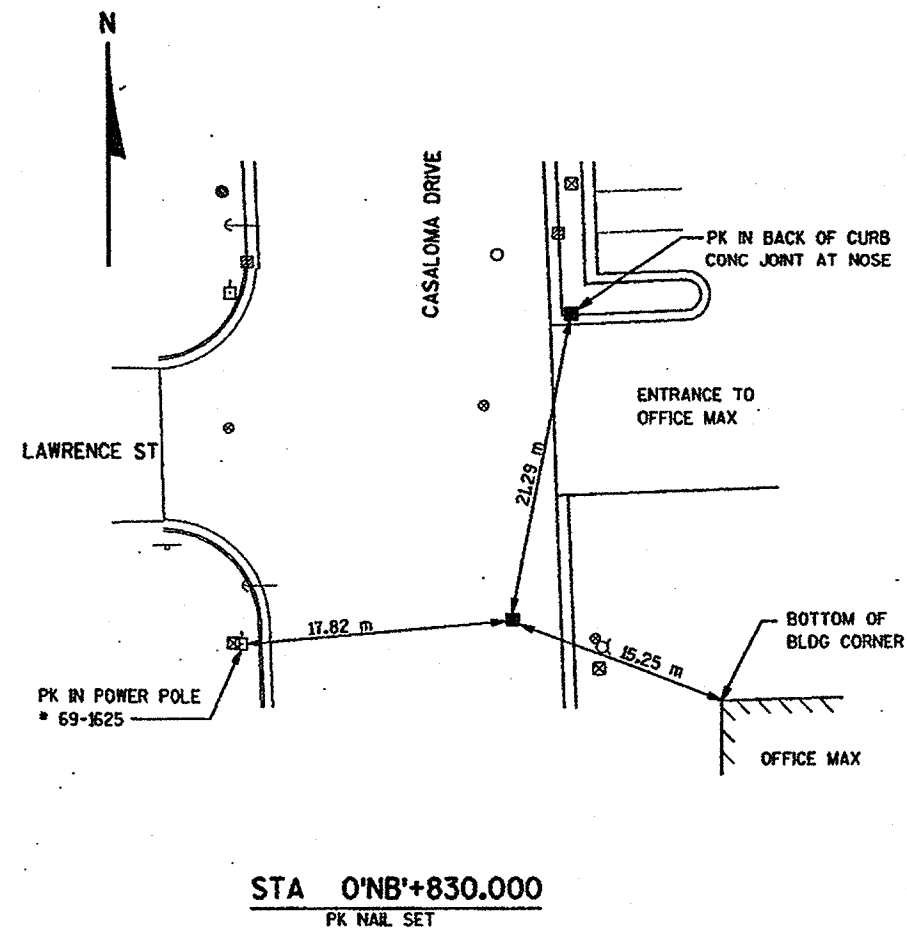
LEGEND:

- ▨ WORK AREA
- ▨ TEMPORARY PAVEMENT REOD
- ➡ TRAFFIC DIRECTION ARROW
- NON-METALLIC DRUM
- NON-METALLIC DRUM WITH TYPE "C" WARNING LIGHT
- ▲ TRAFFIC SIGN ON PORTABLE OR PERMANENT SUPPORT
- ▨ TYPE II BARRICADE WITH TYPE "A" WARNING LIGHTS
- ▨ TYPE II BARRICADE WITH TYPE "A" WARNING LIGHTS AND ATTACHED SIGN

FILE NAME: E1284A /SHEETS /DETOT / .DGN
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1854
TECH/ENGR: DPP/SDC
REV. DATE: / /
PLOT DATE: 11/14/97
PLOT NAME: SEE FILE NAME
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



FILE NAME: E1284A /SHEETS /DET08 / .DGN TECH/ENGR: DPP/SDC PLOT DATE: 11/14/97 PLOT NAME: SEE FILE NAME PLOT SCALE: 1:1
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654 REV. DATE: / /
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



ALIGNMENT TIES

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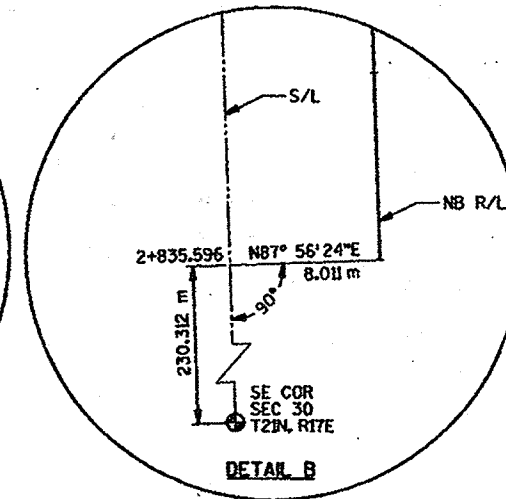
HWY: CTH CA

COUNTY: OUTAGAMIE

STATE PROJECT NO: 6526-01-71

SHEET NO: 2.32 M

WISDOT: MSHT40



DATE 25AUG98

ESTIMATE OF QUANTITIES

SHEET: 3.1

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6526-01-71 QUANTITY
0020	20102	CLEARING	25MM	6.00	6.00
0040	20105	GRUBBING	25MM	6.00	6.00
0050	20401	REMOVING PAVEMENT	M2	560.00	560.00
0060	20402	REMOVING ASPHALTIC SURFACE	M2	960.00	960.00
0080	20405	REMOVING CURB AND GUTTER	M	280.00	280.00
0100	20416	REMOVING INLETS	EACH	2.00	2.00
0110	20422	REMOVING CONCRETE BASES	EACH	14.00	14.00
0130	20503	UNCLASSIFIED EXCAVATION	M3	9,750.00	9,750.00
0140	21302	FINISHING ROADWAY, PROJECT 6526-01-71	LS	1.00	1.00
0160	30404	CRUSHED AGGREGATE BASE COURSE	MG	11,400.00	11,400.00
0170	30420	CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, NUMBER 2	MG	3,700.00	3,700.00
0180	30426	BREAKER RUN STONE	MG	13,600.00	13,600.00
0190	40204	ASPHALTIC MATERIAL FOR TACK COAT	L	400.00	400.00
0200	40301	QMP, ASPHALTIC MIXTURE	MG	1,080.00	1,080.00
0210	40501	ASPHALTIC MATERIAL FOR PLANT MIXES	MG	67.00	67.00
0220	40713	ASPHALTIC CONCRETE PAVEMENT, TYPE MV	MG	1,080.00	1,080.00
0230	41510	CONCRETE PAVEMENT, 250 MM	M2	8,640.00	8,640.00
0240	41520	H.E.S. CONCRETE PAVEMENT, 250 MM	M2	430.00	430.00
0280	41665	CONCRETE PAVEMENT GAPS	EACH	3.00	3.00
0290	52201	REINFORCED CONCRETE CULVERT PIPE, CLASS III, 300 MM	M	18.00	18.00
0300	52260	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 300 MM	EACH	2.00	2.00
0310	52261	REINFORCED CONCRETE APRON ENDWALLS FOR CULVERT PIPE, 375 MM	EACH	1.00	1.00
0320	60119	CONCRETE CURB AND GUTTER, 450 MM, TYPE A	M	20.00	20.00
0330	60120	CONCRETE CURB AND GUTTER, 450 MM, TYPE D	M	66.00	66.00
0340	60123	CONCRETE CURB AND GUTTER, 750 MM, TYPE A	M	840.00	840.00
0350	60133	CONCRETE CURB AND GUTTER, 750 MM, TYPE D	M	190.00	190.00
0360	60204	CONCRETE SIDEWALK, 100 MM	M2	210.00	210.00
0370	60210	CONCRETE LOADING ZONE	M2	66.00	66.00
0380	60825	REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 300 MM	M	171.00	171.00
0390	60826	REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 375 MM	M	23.00	23.00

DATE 25AUG98

ESTIMATE OF QUANTITIES

SHEET: 3.2

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6526-01-71 QUANTITY
0400	60827	REINFORCED CONCRETE PIPE, CLASS III, STORM SEWER, 450 MM	M	132.00	132.00
0430	60850	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 300 MM	M	6.00	6.00
0440	60851	REINFORCED CONCRETE PIPE, CLASS IV, STORM SEWER, 375 MM	M	43.00	43.00
0450	61110	MANHOLES, TYPE 1	EACH	1.00	1.00
0460	61112	MANHOLES, TYPE 3	EACH	1.00	1.00
0470	61122	INLETS, TYPE 3	EACH	12.00	12.00
0480	61123	INLETS, TYPE 8	EACH	1.00	1.00
0490	61124	INLETS, TYPE 9	EACH	1.00	1.00
0500	61125	INLETS, TYPE 10	EACH	3.00	3.00
0520	61129	RECONSTRUCTING INLETS	EACH	1.00	1.00
0530	61151	MANHOLE COVERS, TYPE J	EACH	1.00	1.00
0540	61156	INLET COVERS, TYPE H-S	EACH	6.00	6.00
0550	61167	INLET COVERS, TYPE H	EACH	7.00	7.00
0560	61170	INLET COVERS, TYPE MS	EACH	12.00	12.00
0570	61182	ADJUSTING MANHOLE COVERS	EACH	1.00	1.00
0580	61183	ADJUSTING INLET COVERS	EACH	1.00	1.00
0590	61201	PIPE UNDERDRAIN, 150 MM	M	1,760.00	1,760.00
0600	61211	PIPE UNDERDRAIN, UNPERFORATED, 150 MM	M	110.00	110.00
0610	61254	REINFORCED CONCRETE APRON ENDWALLS FOR UNDERDRAIN, 150 MM	EACH	16.00	16.00
0620	61910	MOBILIZATION	LS	0.50	0.50
0630	62001	CONCRETE CORRUGATED MEDIAN	M2	110.00	110.00
0650	62203	ASPHALTIC FLUMES	M2	18.00	18.00
0660	62301	CALCIUM CHLORIDE SURFACE TREATMENT	MG	14.00	14.00
0670	62401	WATER	KL	380.00	380.00
0680	62505	SALVAGED TOPSOIL	M2	11,600.00	11,600.00
0690	62702	MULCHING	M2	18,550.00	18,550.00
0700	62817	SILT FENCE MAINTENANCE	M	140.00	140.00
0710	62819	MOBILIZATIONS, EROSION CONTROL	EACH	1.00	1.00
0720	62821	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	2.00	2.00
0730	62848	SILT FENCE, SILTY SOIL, DELIVERED	M	70.00	70.00
0740	62850	SILT FENCE, SILTY SOIL, INSTALLED	M	70.00	70.00
0750	62905	FERTILIZER, TYPE B	KG	655.00	655.00

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6526-01-71 QUANTITY
0760	63008	SEEDING, MIXTURE NO. 10	KG	50.00	50.00
0770	63010	SEEDING, MIXTURE NO. 30	KG	60.00	60.00
0780	63011	SEEDING, MIXTURE NO. 40	KG	6.00	6.00
0790	63015	SEEDING, BORROW PIT MIXTURE	KG	60.00	60.00
0800	63101	SODDING	M2	640.00	640.00
0810	63103	WATERING SODDED AREAS	KL	40.00	40.00
0830	63827	REMOVING SIGNS, TYPE II	EACH	22.00	22.00
0840	63830	REMOVING SMALL SIGN SUPPORTS	EACH	11.00	11.00
0860	64202	FIELD OFFICE, TYPE B	LS	1.00	1.00
0870	64210	FIELD LABORATORY	LS	1.00	1.00
0880	64302	TRAFFIC CONTROL, PROJECT 6526-01-71	LS	1.00	1.00
0900	64310	TRAFFIC CONTROL, ARROW BOARDS	DAYS	250.00	250.00
0910	64313	TRAFFIC CONTROL, DRUMS	DAYS	11,695.00	11,695.00
0920	64318	TRAFFIC CONTROL, BARRICADES, TYPE III	DAYS	4,387.00	4,387.00
0930	64321	TRAFFIC CONTROL, WARNING LIGHTS, TYPE A	DAYS	8,758.00	8,758.00
0940	64323	TRAFFIC CONTROL, WARNING LIGHTS, TYPE C	DAYS	5,562.00	5,562.00
0950	64326	TRAFFIC CONTROL, SIGNS	DAYS	5,431.00	5,431.00
0960	64503	GEOTEXTILE FABRIC, TYPE DF	M2	4,050.00	4,050.00
0970	64602	PAVEMENT MARKING, 100 MM, EPOXY	M	2,030.00	2,030.00
0980	64618	PAVEMENT MARKING, CHANNELIZING, 200 MM, EPOXY	M	310.00	310.00
0990	64642	REMOVING PAVEMENT MARKINGS	M	725.00	725.00
1000	64710	PAVEMENT MARKING, STOP LINE, 450 MM, EPOXY	M	63.00	63.00
1010	64730	PAVEMENT MARKING, ARROWS, TYPE 1, EPOXY	EACH	2.00	2.00
1020	64734	PAVEMENT MARKING, ARROWS, TYPE 2, EPOXY	EACH	17.00	17.00
1030	64738	PAVEMENT MARKING, ARROWS, TYPE 3, EPOXY	EACH	1.00	1.00
1040	64758	PAVEMENT MARKING, WORDS, EPOXY	EACH	13.00	13.00
1050	64778	PAVEMENT MARKING, CURB, EPOXY	M	100.00	100.00
1060	64790	PAVEMENT MARKING, ISLAND NOSE, EPOXY	EACH	11.00	11.00
1070	64901	TEMPORARY PAVEMENT MARKING, 100 MM	M	300.00	300.00
1080	64904	TEMPORARY PAVEMENT MARKING, 100 MM, REMOVABLE TAPE	M	300.00	300.00
1090	65216	NONMETALLIC CONDUIT, SCHEDULE 40, 25 MM	M	280.00	280.00
1100	65229	NONMETALLIC CONDUIT, SCHEDULE 80, 50 MM	M	39.00	39.00
1110	65231	NONMETALLIC CONDUIT, SCHEDULE 80, 75 MM	M	210.00	210.00

DATE 25AUG98

ESTIMATE OF QUANTITIES

SHEET: 3.4

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6526-01-71 QUANTITY
1120	65250	LOOP DETECTOR CONDUIT	M	295.00	295.00
1130	65301	PULL BOXES, STEEL, 300 X 600 MM	EACH	6.00	6.00
1140	65311	PULL BOXES, STEEL, 600 X 1200 MM	EACH	14.00	14.00
1150	65401	CONCRETE BASES, TYPE 1	EACH	10.00	10.00
1160	65402	CONCRETE BASES, TYPE 2	EACH	4.00	4.00
1170	65430	TRANSFORMER BASES, STANDARD, 288 MM BOLT CIRCLE	EACH	3.00	3.00
1180	65526	TRAFFIC SIGNAL CABLE, 7 CONDUCTOR, NO. 14	M	800.00	800.00
1190	65530	TRAFFIC SIGNAL CABLE, 12 CONDUCTOR, NO. 14	M	130.00	130.00
1200	65532	TRAFFIC SIGNAL CABLE, 15 CONDUCTOR, NO. 14	M	130.00	130.00
1210	65557	ELECTRICAL WIRE, TRAFFIC SIGNALS, NO. 10	M	670.00	670.00
1220	65580	LOOP DETECTOR LEAD IN CABLE	M	1,610.00	1,610.00
1230	65585	LOOP DETECTOR WIRE	M	1,130.00	1,130.00
1240	65615	ELECTRICAL SERVICE, METER BREAKER PEDESTAL,	LS	1.00	1.00
1250	65722	TRAFFIC SIGNAL STANDARDS, STEEL, 4.0 M	EACH	1.00	1.00
1260	65826	TRAFFIC SIGNAL FACES, 3-300 MM VERTICAL	EACH	4.00	4.00
1270	65837	BACKPLATES, 4 SECTION, 300 MM SIGNAL FACES	EACH	2.00	2.00
1280	65850	TRAFFIC SIGNAL MOUNTING HARDWARE,	LS	1.00	1.00
1290	66501	SAWING EXISTING PAVEMENT	M	1,300.00	1,300.00
1310	90001	MISC 90001A CONSTRUCTION STAKING, CONCRETE PAVEMENT, SPECIAL	M	1,040.00	1,040.00
1320	90001	MISC 90001B CONSTRUCTION STAKING, C.A.B.C. FOR ASPHALTIC CONCRETE PAVEMENT, SPECIAL	M	170.00	170.00
1330	90001	MISC 90001C CONSTRUCTION STAKING, C, G, AND C & G FOR ASPHALTIC CONC. PAV'T SPECIAL	M	110.00	110.00
1340	90001	MISC 90001D CONSTRUCTION STAKING, SUBGRADE SPECIAL	M	1,210.00	1,210.00
1350	90001	MISC 90001E LOOP DETECTOR GROOVES	M	37.00	37.00
1360	90001	MISC 90001F PRELIMINARY CONSTRUCTION STAKING SPECIAL	M	1,280.00	1,280.00
1380	90002	MISC 90002A PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, EPOXY	M2	45.00	45.00
1390	90004	MISC 90004A CONTROL CABINET MODIFICATIONS, CTH CA AND CASALOMA DRIVE	LS	1.00	1.00

DATE 25AUG98

ESTIMATE OF QUANTITIES

SHEET: 3.5

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6526-01-71 QUANTITY
1400	90004	MISC 90004B SALVAGE EXISTING TRAFFIC SIGNAL EQUIPMENT, CTH CA AND CASALOMA DRIVE	LS	1.00	1.00
1410	90004	MISC 90004C TEMPORARY TRAFFIC SIGNALS, CTH CA AND CASALOMA DRIVE	LS	1.00	1.00
1430	90005	MISC 90005B CONSTRUCTION STAKING INLETS, MANHOLES, AND STORM SEWER PIPE	EACH	20.00	20.00
1440	90005	MISC 90005C CONSTRUCTION STAKING, PIPE CULVERTS SPECIAL	EACH	1.00	1.00
1450	90005	MISC 90005D EROSION CONTROL FILTER BAGS, DELIVERED	EACH	400.00	400.00
1460	90005	MISC 90005E EROSION CONTROL FILTER BAGS, INSTALLED	EACH	400.00	400.00
1470	90005	MISC 90005F EROSION CONTROL FILTER BAGS, MAINTENANCE	EACH	800.00	800.00
1480	90005	MISC 90005G INLET PROTECTION TYPE C	EACH	14.00	14.00
1490	90365	QMP, BASE COURSES	MG	15,100.00	15,100.00
1500	90421	QUALITY MANAGEMENT PROGRAM, AGGREGATE FOR CONCRETE PAVEMENT	M2	9,070.00	9,070.00

FILE NAME: E1284A /SHEETS /QUANTITIES.M001 .20G
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1854
TECH/ENGR: SDC/SDC
PLOT DATE: 12/11/97
PLOT SCALE: 1:1
PLOT NAME: SEE FILE NAME
REV. DATE: /
LEVELS ON: 1

<u>CLEARING AND GRUBBING</u>			
STATION TO STATION	LOCATION	CLEARING 25mm	GRUBBING 25mm
1"NB"+044. RT	CASALOMA DR	6	6

<u>REMOVING PAVEMENT</u>		
STATION TO STATION	LOCATION	m2
1"NB"+015.6 - 1"NB"+045	CASALOMA DRIVE	560

<u>REMOVING ASPHALTIC SURFACE</u>		
STATION TO STATION	LOCATION	m2
2"WB"+120 - 2"WB"+220	CTH CA	960

<u>REMOVING CURB AND GUTTER</u>			
STATION TO STATION	LOCATION		m
1"WB"+992 - 1"WB"+999.5	CTH CA		23.0
2"WB"+018.7 - 2"WB"+23.4	CTH CA		13.0
1"SB"+018.2 - 1"SB"+045. LT	CASALOMA DRIVE		37.0
0"NB"+956 - 0"NB"+970.7. RT	CASALOMA DRIVE		21.0
0"SB"+946.2 - 0"SB"+969.5. RT	CASALOMA DRIVE		47.0
0"SB"+847.3 - 0"SB"+972.3. LT	CASALOMA DRIVE		139.0
TOTAL			280.0

<u>REMOVING INLETS</u>			
STATION	LOCATION		EACH
2"EB"+030. 22.3m RT	CTH CA		1
0"SB"+901.2. 6.7m LT	CASALOMA DRIVE		1
TOTAL			2

<u>REMOVING CONCRETE BASES</u>		
STATION	LOCATION	EACH
1"WB"+980. 19m LT	CTH CA	1
1"WB"+990. 9m RT	CTH CA	1
1"WB"+998.5. 4m RT	CTH CA	1
1"EB"+988.5. 15.5m RT	CTH CA	1
2"WB"+020. 8.5m RT	CTH CA	1
2"WB"+023. 4m RT	CTH CA	1
2"EB"+033. 15m RT	CTH CA	1
0"SB"+943. 7.5m LT	CASALOMA DRIVE	1
0"NB"+963.5. 10.5m RT	CASALOMA DRIVE	1
0"SB"+965.5. 5.5m RT	CASALOMA DRIVE	1
1"NB"+020. 9.5m RT	CASALOMA DRIVE	1
1"SB"+023.5. 10.0m LT	CASALOMA DRIVE	1
1"NB"+026.5. 5m RT	CASALOMA DRIVE	1
1"SB"+037.5. 3m LT	CASALOMA DRIVE	1
TOTAL		14

UNCLASSIFIED EXCAVATION AND YARDAGE SUMMARY					
LOCATION	UNCLASSIFIED EXCAVATION m3	EXCAVATION BELOW SUBGRADE m3	FILL m3	EXPANDED FILL (1.3) m3	WASTE m3
CTH CA	5 350	2 900	2 145	2 789	5 461
CASALOMA DRIVE	1 175	325	14	19	1 481
TOTALS	6 525	3 225	2 159	2 808	6 942

CRUSHED AGGREGATE BASE COURSE				
STATION TO STATION	LOCATION	DENSE GRADED Mg	OPEN GRADED Mg	QUALITY MANAGEMENT PROGRAM Mg
1"WB"+700 - 1"WB"+860	CTH CA	1 680	490	2 170
1"EB"+842 - 2"EB"+040	CTH CA	900	260	1 160
1"EB"+842 - 2"EB"+040	CTH CA, TCP -- STAGE 1	240	---	240
1"WB"+860 - 2"WB"+040	CTH CA	1 910	810	2 720
2"WB"+040 - 2"WB"+220	CTH CA	1 970	780	2 750
2"EB"+040 - 2"EB"+140	CTH CA	1 100	380	1 480
2"WB"+220 - 2"WB"+332	CTH CA	1 180	340	1 520
0"SB"+845 - 0"SB"+973	CASALOMA DRIVE	1 360	90	1 450
0"NB"+959 - 0"NB"+973	CASALOMA DRIVE	410	80	490
1"SB"+006 - 1"SB"+045	CASALOMA DRIVE	295	210	505
1"NB"+006 - 1"NB"+045	CASALOMA DRIVE	355	260	615
TOTALS		11 400	3 700	15 100

BREAKER RUN		
STATION TO STATION	LOCATION	Mg
1"WB"+700 - 1"WB"+860	CTH CA	2 220
1"EB"+842 - 2"EB"+040	CTH CA	1 020
1"WB"+860 - 2"WB"+040	CTH CA	2 840
2"WB"+040 - 2"WB"+220	CTH CA	2 730
2"WB"+220 - 2"WB"+332	CTH CA	1 560
2"EB"+040 - 2"EB"+220	CTH CA	1 340
0"SB"+845 - 0"SB"+973	CASALOMA DRIVE	650
0"NB"+959 - 0"NB"+973	CASALOMA DRIVE	320
1"SB"+006 - 1"SB"+045	CASALOMA DRIVE	490
1"NB"+006 - 1"NB"+045	CASALOMA DRIVE	430
TOTAL		13 600

CONCRETE PAVEMENT GAPS		
STATION	LOCATION	EACH
2"EB"+004	EASTBOUND	1
2"WB"+004	WESTBOUND	1
2"WB"+004	LEFT TURN LANES	1
TOTAL		3

ASPHALTIC ITEMS					
STATION TO STATION	LOCATION	ASPHALTIC CONC PAVT TYPE MV Mg	ASPHALTIC MATERIAL FOR PLANT MIX Mg	TACK COAT L	QUALITY MANAGEMENT PROGRAM ASPHALTIC MIXTURE Mg
1"WB"+700 - 1"WB"+860	CTH CA	160	10.0	61	160
1"WB"+860 - 2"WB"+040	CTH CA	90	6.0	32	90
2"WB"+040 - 2"WB"+220	CTH CA	105	6.5	39	105
1"EB"+842 - 1"EB"+976.5	CTH CA	85	5.0	26	85
2"EB"+040 - 2"EB"+136	CTH CA	65	4.0	22	65
2"WB"+220 - 2"WB"+332	CTH CA	115	7.0	43	115
0"SB"+845 - 0"SB"+959	CASALOMA DRIVE	285	17.5	112	285
0"NB"+896 - 0"NB"+959	CASALOMA DRIVE	80	5.0	29	80
TEMPORARY PAVT. TRAFFIC CONTROL STAGE 1	CTH CA	95	6.0	36	95
TOTALS		1 080	67.0	400	1 080

DOWELED, NON-REINFORCED CONCRETE PAVEMENT. 250mm				
STATION TO STATION	LOCATION	HES CONC PAVT m2	CONC PAVT m2	QUAL MGMT PROGRAM AGGR FOR CONC PAVT m2
1"WB"+700 - 1"WB"+860	CTH CA	---	1 155	1 155
1"WB"+860 - 2"WB"+040	CTH CA	335	2 125	2 460
1"EB"+880 - 2"EB"+040	CTH CA	---	650	650
2"WB"+040 - 2"WB"+220	CTH CA	---	1 945	1 945
2"EB"+040 - 2"EB"+136	CTH CA	---	725	725
2"WB"+220 - 2"WB"+332	CTH CA	---	810	810
0"NB"+959 - 0"NB"+972	CASALOMA DRIVE	60	170	230
0"SB"+959 - 0"SB"+973	CASALOMA DRIVE	---	180	180
1"NB"+006 - 1"NB"+045	CASALOMA DRIVE	35	295	330
1"SB"+007 - 1"SB"+045	CASALOMA DRIVE	---	585	585
TOTALS		430	8 640	9 070

REINFORCED CONCRETE CULVERT PIPE. CLASS III. 300mm					
STATION	LOCATION	m	INVERT ELEVATION	DISCHARGE ELEVATION	R.C.C.P. APRON ENDWALL EACH
1"WB"+880	CTH CA	18	236.018	235.931	2

CONCRETE CURB AND GUTTER. TYPE A				
STATION TO STATION	LOCATION	450mm m	750mm m	
1"EB"+906 - 1"EB"+991. LT	CTH CA	---	98	
1"WB"+920 - 1"WB"+982. RT	CTH CA	---	144	
2"WB"+022 - 2"WB"+105. RT	CTH CA	---	167	
2"EB"+022 - 2"EB"+136. LT	CTH CA	---	228	
0"NB"+959 - 0"NB"+972. RT	CASALOMA DRIVE	---	17	
0"SB"+959 - 0"SB"+973. LT	CASALOMA DRIVE	---	23	
0"SB"+959 - 0"SB"+968. RT	CASALOMA DRIVE	20	---	
1"NB"+006 - 1"NB"+045. RT	CASALOMA DRIVE	---	47	
1"SB"+006 - 1"SB"+045. LT	CASALOMA DRIVE	---	44	
1"NB"+008 - 1"NB"+045. LT	CASALOMA DRIVE	---	72	
TOTALS		20	840	

FILE NAME: E1284A /SHEETS /QUANTITY/M002 .2DC
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654
TECH/ENGR: SDC/SDC PLOT DATE: 12/11/97
PLOT NAME: SEE FILE NAME 59
PLOT SCALE: 1:1

CONCRETE CURB AND GUTTER, TYPE D

STATION TO STATION	LOCATION	450mm m	750mm m
1"EB"+906 - 1"EB"+980, LT	CTH CA	---	75
0"SB"+847 - 0"SB"+959, LT	CASALOMA DRIVE	---	115
0"SB"+926 - 0"SB"+959, RT	CASALOMA DRIVE	33	---
0"NB"+926 - 0"NB"+959, LT	CASALOMA DRIVE	33	---
TOTALS		66	190

CONCRETE SIDEWALK, 100mm

STATION TO STATION	LOCATION	m2
1"EB"+905 - 1"EB"+908, LT	CTH CA	5
1"WB"+979 - 1"WB"+991, RT	CTH CA	33
1"EB"+988 - 1"EB"+991, LT	CTH CA	7
2"EB"+022 - 2"EB"+030, LT	CTH CA	15
2"WB"+022 - 2"WB"+026, RT	CTH CA	10
2"WB"+102 - 2"WB"+105, RT	CTH CA	5
0"SB"+926 - 0"SB"+969, RT	CASALOMA DRIVE	67
1"NB"+009 - 1"NB"+045, LT	CASALOMA DRIVE	68
TOTAL		210

CONCRETE LOADING ZONE

STATION TO STATION	LOCATION	m2
0"NB"+931 - 0"NB"+970	CASALOMA DRIVE	66

ADJUSTING INLET COVERS

STATION	LOCATION	EACH
0"SB"+854	7.2m LT	1

RECONSTRUCTING INLETS

STRUCTURE NO.	STATION	LOCATION	EXIST TOP OF COVER ELEV	FINAL TOP OF COVER ELEV	EACH
20	0"NB"+859, 18.5m LT	CASALOMA DRIVE	236.167	236.167	1

NOTE: RECONSTRUCTING INLET TO INCLUDE SEALING EXISTING STORM SEWER PIPE.

ADJUSTING MANHOLE COVERS

STATION	LOCATION	TYPE	EACH	EXIST ELEVATION	FINAL ELEVATION
1"SB"+029	8.5 m RT	SANITARY	1	236.895	237.019

PIPE UNDERDRAIN, 150mm

STATION TO STATION	LOCATION	m	REMARKS
1"WB"+700 - 1"WB"+860, LT	CTH CA	160	
1"WB"+700 - 1"WB"+860, RT	CTH CA	160	
1"EB"+905 - 1"EB"+914, LT	CTH CA	10	
1"WB"+860 - 1"WB"+975, LT	CTH CA	115	
1"WB"+860 - 1"WB"+917, RT	CTH CA	57	
1"EB"+914 - 1"EB"+987, LT	CTH CA	73	TAP INTO STRUCTURE 6
1"WB"+917 - 1"WB"+980, RT	CTH CA	63	TAP INTO STRUCTURE 6A
1"EB"+975 - 0"SB"+959, LT	CTH CA	28	
1"WB"+980 - 1"SB"+045, LT	CTH CA	45	
2"WB"+025 - 2"WB"+105, RT	CTH CA	80	TAP INTO STRUCTURE 9
2"EB"+029 - 2"EB"+079, LT	CTH CA	50	STRUCTURE 11 TO STRUCTURE 14
2"EB"+029 - 2"EB"+134, LT	CTH CA	113	TAP INTO STRUCTURE 12
2"WB"+033 - 2"WB"+329, LT	CTH CA	296	
2"WB"+079 - 2"WB"+329, RT	CTH CA	252	TAP INTO STRUCTURE 14
0"SB"+959 - 0"SB"+968, RT	CASALOMA DRIVE	10	
0"NB"+959 - 2"EB"+136, RT	CASALOMA DRIVE	120	
1"SB"+006 - 1"SB"+045, RT	CASALOMA DRIVE	40	
1"NB"+006 - 1"NB"+045, LT	CASALOMA DRIVE	40	
1"NB"+033 - 1"NB"+045, RT	CASALOMA DRIVE	48	
TOTAL		1760	

STORM SEWER SUMMARY

LOCATION FROM TO		R.C.C.P., CLASS III 300mm m	375mm m	450mm m	R.C.C.P., CLASS IV 300mm m	375mm m	INLET ELEVATION	DISCHARGE ELEVATION	REINFORCED CONCRETE APRON ENDWALLS 375mm EACH
2	1	---	---	---	---	10.0	236.023	236.003	1
3	2	---	---	---	---	33.0	236.120	236.054	---
4	3	41.0	---	---	---	---	236.318	236.195	---
5	4	8.6	---	---	---	---	236.343	236.318	---
6	5	---	---	---	6.0	---	236.355	236.343	---
6	6A	8.5	---	---	---	---	236.372	236.355	---
9	10	4.0	---	---	---	---	236.150	236.130	---
10	11	6.5	---	---	---	---	236.099	236.066	---
12	11	3.0	---	---	---	---	236.081	236.066	---
11	8	3.0	---	---	---	---	236.035	235.945	---
7	8	25.4	---	---	---	---	235.914	235.770	---
8	13	---	---	24.0	---	---	235.768	235.649	---
14	8	---	---	48.0	---	---	235.966	235.795	---
15	14	---	---	60.0	---	---	236.179	235.965	---
16	15	---	23.0	---	---	---	236.236	236.179	---
17	18	2.0	---	---	---	---	236.009	236.003	---
18	19	28.0	---	---	---	---	235.972	235.888	---
19	20	41.0	---	---	---	---	235.851	235.344/-	---
TOTALS		171.0	23.0	132.0	6.0	43.0			1

PIPE UNDERDRAIN, UNPERFORATED

STATION		LOCATION	PIPE UNDERDRAIN UNPERFORATED 150mm m	REINFORCED CONC APRON ENDWALLS FOR P.U., 150mm EACH	REMARKS
1"WB"+780, LT	CTH CA		13.0	2	
1"WB"+780, RT	CTH CA		11.0	2	
1"WB"+917, RT	CTH CA		6.0	1	
1"WB"+970, LT	CTH CA		13.0	2	
1"EB"+914, LT	CTH CA		5.0	1	
1"EB"+975, RT	CTH CA		6.5	1	
2"EB"+032, RT	CTH CA		13.0	2	
2"WB"+033, LT	CTH CA		6.5	1	
2"EB"+136, RT	CTH CA		6.5	1	
2"EB"+134, LT	CTH CA		5.5	1	
2"WB"+329, LT	CTH CA		6.5	1	
2"WB"+329, RT	CTH CA		6.5	1	
0"SB"+959, LT	CASALOMA DR		11.0	---	CORRUGATED STEEL PIPE
TOTALS			110.0	16	

MANHOLES, INLETS AND COVERS

STRUCTURE NUMBER	STATION	LOCATION	STRUCTURE	INLETS TYPE 3	INLETS TYPE 8	INLETS TYPE 9	INLETS TYPE 10	MANHOLES TYPE 1	MANHOLES TYPE 3	INLET COVERS H	INLET COVERS H-S	INLET COVERS MS	MANHOLE COVERS TYPE J	TOP OF COVER ELEV	TOP OF STRUCTURE	STRUCTURE FLOWLINE	DEPTH (M)	REMARKS
2	1"EB"+907, 1.45m LT	CTH CA	INLET	1	---	---	---	---	---	1	---	---	---	237.123	236.753	236.023	0.730	NOTE A
3	1"EB"+940, 0.35m LT	CTH CA	INLET	1	---	---	---	---	---	---	1	---	---	237.070	236.700	236.120	0.580	NOTE A
4	1"EB"+981, 0.35m LT	CTH CA	INLET	1	---	---	---	---	---	---	1	---	---	237.033	236.663	236.318	0.345	NOTE A
5	1"EB"+989, 6, 4.25m LT	CTH CA	INLET	1	---	---	---	---	---	---	1	---	---	237.122	236.752	236.343	0.409	NOTE A
6	1"WB"+987, 6.85m RT	CTH CA	INLET	1	---	---	---	---	---	---	1	---	---	237.141	236.771	236.355	0.416	NOTE A
6A	1"WB"+980, 3.95m RT	CTH CA	INLET	1	---	---	---	---	---	---	1	---	---	237.165	236.795	236.372	0.423	NOTE A
7	2"EB"+031.5, 13m LT	CTH CA	INLET	---	---	---	1	---	---	---	---	3	---	238.349	238.349	236.944	1.435	235.914
8	2"EB"+031.5, 1.80m LT	CTH CA	MANHOLE	---	---	---	---	---	1	---	---	---	1	237.408	237.098	235.768	1.330	
9	2"WB"+025, 3.95m RT	CTH CA	INLET	1	---	---	---	---	---	1	---	---	---	237.365	236.995	236.150	0.845	NOTE A
10	2"WB"+025, 7.85m RT	CTH CA	INLET	1	---	---	---	---	---	1	---	---	---	237.328	236.958	236.099	0.859	NOTE A
11	2"EB"+029, 3.25m LT	CTH CA	MANHOLE	---	---	---	---	1	---	1	---	---	---	237.275	236.905	236.035	0.870	NOTE B
12	2"EB"+029, 0.35m LT	CTH CA	INLET	1	---	---	---	---	---	1	---	---	---	237.270	236.900	236.081	0.819	NOTE A
13	2"EB"+030.5, 22m RT	CTH CA	INLET	---	---	1	---	---	---	---	---	2	---	236.183	236.183	235.649	0.534	
14	2"EB"+079, 3.25m LT	CTH CA	INLET	1	---	---	---	---	---	---	1	---	---	237.384	237.014	235.966	1.048	NOTE A
15	2"EB"+140, 12m LT	CTH CA	INLET	---	---	---	1	---	---	---	---	3	---	237.614	237.614	236.179	1.435	
16	2"EB"+140, 12m LT	CTH CA	INLET	---	---	---	1	---	---	---	---	3	---	237.671	237.671	236.236	1.435	
17	0"SB"+926.5, 2.35m RT	CASALOMA DRIVE	INLET	1	---	---	---	---	---	1	---	---	---	236.904	236.534	236.009	0.525	NOTE A
18	0"SB"+926.5, 0.3m RT	CASALOMA DRIVE	INLET	1	---	---	---	---	---	1	---	---	---	236.939	236.569	235.972	0.597	NOTE A
19	0"NB"+900, 20.5m LT	CASALOMA DRIVE	INLET	---	1	---	---	---	---	---	---	1	---	236.600	236.600	235.851	0.749	
TOTALS				12	1	1	3	1	1	7	6	12	1					

NOTE: A)TOP OF INLET COVER ELEVATION IS FLANGE ELEVATION
B)CONCRETE FLAT SLAB TOP WITH INLET SIZE OPENING REQUIRED

CONCRETE CORRUGATED MEDIAN

STATION TO STATION	LOCATION	m2
0"NB"+896 - 0"NB"+926	CASALOMA DRIVE	110

ASPHALTIC FLUMES

STATION	LOCATION	m2
1"EB"+918, RT	CTH CA	8.6
2"EB"+137, LT	CTH CA	9.4
TOTAL		18.0

MISCELLANEOUS QUANTITIES

HWY: CTH CA

COUNTY: OUTAGAMIE

STATE PROJECT NO: 6526-01-71

SHEET NO: 3.B

M

FILE NAME: E1284A /SHEETS /QUANTITY/MQ03
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654
TECH/ENGR: SDC/SDC
PLOT DATE: 06/15/98
REV. DATE: /
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:50, 56

WATER AND CALCIUM CHLORIDE SURFACE TREATMENT				TRAFFIC CONTROL, BARRICADES, DRUMS, WARNING LIGHTS AND SIGNS													
STATION TO STATION	LOCATION	WATER kl	CALCIUM CHLORIDE mg	STAGE	SERVICE PERIOD DAYS	ARROW BOARD NO	ARROW BOARD DAYS	SIGNS NO	SIGNS DAYS	BARRICADES, TYPE III NO	BARRICADES, TYPE III DAYS	DRUMS NO	DRUMS DAYS	WARNING LIGHTS TYPE A, NO	WARNING LIGHTS TYPE A, DAYS	WARNING LIGHTS TYPE C, NO	WARNING LIGHTS TYPE C, DAY
1"WB"+700 - 2"WB"+040	CTH CA	122	4.3	STAGE 1	4	1	4	25	100	4	16	55	220	8	16	18	72
1"EB"+842 - 2"EB"+040	CTH CA	46	1.8	STAGE 2	62	2	124	47	2 914	44	2 728	101	6 262	88	5 456	53	3 286
2"WB"+040 - 2"WB"+332	CTH CA	104	3.8	STAGE 3	9	2	18	42	378	38	342	91	819	76	684	41	369
2"EB"+040 - 2"EB"+140	CTH CA	35	1.3	STAGE 4	32	2	64	41	1 312	24	768	93	2 976	48	1 536	37	1 184
0"SB"+845 - 1"SB"+045	CASALOMA DRIVE	73	2.8	STAGE 5	9	2	18	38	342	25	225	72	648	50	450	32	288
TOTALS		380	14.0	STAGE 6	11	2	22	35	385	28	308	70	770	56	616	33	363
				TOTALS			250		5 431		4 387		11 695		8 758		5 562

SALVAGED TOPSOIL, FERTILIZER, MULCHING, AND SEEDING									PAVEMENT MARKING EPOXY												
STATION TO STATION	LOCATION	SALVAGED TOPSOIL m2	FERTILIZER TYPE B kg	MULCHING m2	SEEDING MIXTURE NO 10 kg	SEEDING MIXTURE NO 30 kg	SEEDING MIXTURE NO 40 kg	SEEDING BORROW PIT MIXTURE kg	STATION TO STATION	LOCATION	EDGE LINE 100mm m	LANE LINE 100mm m	CHANNELIZING 200mm m	STOP LINE 450mm m	CURB m	ARROWS TYPE 1 EACH	ARROWS TYPE 2 EACH	ARROWS TYPE 3 EACH	WORDS EACH	ISLAND NOSE EACH	CONCRETE CORRUGATED MEDIAN m2
1"WB"+700 - 2"WB"+332	CTH CA	10 250	360	10 250	47	56	---	---	1"WB"+670 - 2"WB"+000	CTH CA	560	80	---	---	19	---	---	---	---	1	---
1"EB"+980 - 2"EB"+140	CTH CA	800	30	800	3	4	---	---	1"EB"+720 - 2"EB"+000	CTH CA	80	70	115	13	14	---	3	---	3	2	---
0"SB"+850 - 1"SB"+045	CASALOMA DRIVE	360	13	360	---	---	4	---	2"WB"+000 - 2"WB"+457	CTH CA	535	110	105	16	14	---	4	---	4	2	---
0"NB"+960 - 1"NB"+045	CASALOMA DRIVE	190	7	190	---	---	2	---	2"EB"+000 - 2"EB"+166	CTH CA	135	40	---	---	18	---	---	---	---	1	---
MATERIAL DISPOSAL AREA		---	245	6 950	---	---	---	60	0"SB"+800 - 1"SB"+045	CASALOMA DRIVE	100	95	70	17	20	1	3	---	4	2	---
TOTALS		11 600	655	18 550	50	60	6	60	0"NB"+800 - 1"NB"+045	CASALOMA DRIVE	100	80	20	17	15	1	6	1	1	3	45
									TOTALS		1 540	490	310	63	100	2	17	1	13	11	45

PROJECT TOTAL FOR PAVEMENT MARKING 100 mm = 2 030 m

EROSION CONTROL ITEMS									REMOVING PAVEMENT MARKINGS					
STATION TO STATION	LOCATION	SILT FENCE, SILTY SOILS DELIVERED m	INSTALLED m	SILT FENCE FILTER BAGS MAINTENANCE m	DELIVERED EACH	INSTALLED EACH	MAINTENANCE EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	STATION TO STATION	LOCATION	TRAFFIC CONTROL STAGE	m	ARROWS EACH	WORDS EACH
1"WB"+700 - 1"WB"+860	CTH CA	33	33	66	44	44	88	---	1"EB"+785 - 1"EB"+990	CTH CA	1	80	---	---
1"WB"+860 - 2"WB"+040	CTH CA	16	16	32	100	100	200	---	0"NB"+940 - 0"NB"+970	CASALOMA DRIVE	1	---	1	1
2"WB"+040 - 2"WB"+220	CTH CA	---	---	---	137	137	274	---	1"WB"+700 - 1"WB"+860	CTH CA	2	160	---	---
2"EB"+040 - 2"EB"+220	CTH CA	---	---	---	14	14	28	---	2"WB"+220 - 2"WB"+475	CTH CA	2	160	---	---
2"WB"+220 - 2"WB"+332	CTH CA	---	---	---	36	36	72	---	1"EB"+910 - 1"EB"+980	CTH CA	2	70	---	---
0"SB"+845 - 0"SB"+960	CASALOMA DRIVE	---	---	---	48	48	96	---	2"EB"+030 - 2"EB"+090	CTH CA	2	60	---	---
UNDISTRIBUTED		21	21	42	21	21	42	2	0"SB"+840 - 0"SB"+960	CASALOMA DRIVE, RT	2	120	---	---
TOTALS		70	70	140	400	400	800	2	0"SB"+765 - 0"SB"+840	CASALOMA DRIVE, RT	3	75	---	---
									TOTALS			725	1	1

REMOVING SIGNS, TYPE II AND SMALL SIGN SUPPORTS								SODDING AND WATERING SODDED AREAS				
SIGN NO.	STATION	LOCATION	SIGN CODE	SIGNS EACH	SIGN SUPPORT EACH	DESCRIPTION	REMARKS	STATION TO STATION	LOCATION	SODDING m2	WATER KL	
1	1"WB"+753, 7.5m LT	CTH CA	R2-4	1	1	SPEED LIMIT		1"WB"+860 - 2"WB"+040	CTH CA	260	17	
2	1"WB"+968, 17m LT	CTH CA	R2-4	1	1	SPEED LIMIT		2"EB"+029 - 2"EB"+079	CTH CA	105	6	
3	1"EB"+990, 8m LT	CTH CA	R6-2R	1	---	ONE WAY	NOTE A	2"WB"+025 - 2"WB"+140	CTH CA	255	16	
4	1"EB"+987, 6.5m LT	CTH CA	R5-1	1	1	DO NOT ENTER		0"SB"+845 - 0"SB"+960	CASALOMA DRIVE	20	1	
5	1"EB"+987, 6.5m LT	CTH CA	R5-9	1	---	WRONG WAY		TOTALS		640	40	
6	1"EB"+987, 14m RT	CTH CA	R5-1	1	1	DO NOT ENTER		TEMPORARY PAVEMENT MARKING, 100mm				
7	1"EB"+987, 14m RT	CTH CA	R5-9	1	---	WRONG WAY		STATION TO STATION	LOCATION	TRAFFIC CONTROL STAGE	m	REMARKS
8	1"EB"+989, 15.5m RT	CTH CA	R6-2L	1	---	ONE WAY	NOTE A	0"SB"+840 - 0"SB"+960	CASALOMA DRIVE, LT	2	240	DOUBLE YELLOW
9	0"SB"+898, 6.5m LT	CASALOMA DRIVE	R2-4	1	1	SPEED LIMIT		1"SB"+015 - 1"SB"+045	CASALOMA DRIVE, LT	2	60	DOUBLE YELLOW
10	0"SB"+947.5, 4.0m RT	CASALOMA DRIVE	R4-7	1	1	KEEP RIGHT SYMBOL		TOTAL		300		
11	0"NB"+965.5, 7.5m LT	CASALOMA DRIVE	---	1	---	PULL UP TO STOP LINE TO TRIP SIGNAL	NOTE A	TEMPORARY PAVEMENT MARKING, 100mm, REMOVABLE TAPE				
12	0"NB"+965.5, 7.5m LT	CASALOMA DRIVE	R4-7	1	---	KEEP RIGHT SYMBOL	NOTE A	STATION TO STATION	LOCATION	TRAFFIC CONTROL STAGE	m	REMARKS
13	0"NB"+963.5, 10.5m RT	CASALOMA DRIVE	R6-2R	1	---	ONE WAY	NOTE A	0"NB"+840 - 0"NB"+960	CASALOMA DRIVE, RT	3	240	DOUBLE YELLOW
14	2"EB"+060, 11.5m RT	CTH CA	R2-4	1	1	SPEED LIMIT		1"NB"+015 - 1"NB"+045	CASALOMA DRIVE, RT	3	60	DOUBLE YELLOW
15	2"WB"+023, 4.6m RT	CTH CA	R6-2R	1	---	ONE WAY	NOTE A	TOTAL		300		
16	2"WB"+048, 18m LT	CTH CA	R5-1	1	1	DO NOT ENTER						
17	2"WB"+048, 18m LT	CTH CA	R5-9	1	---	WRONG WAY						
18	1"NB"+025.5, 5.5m RT	CASALOMA DRIVE	R6-2R	1	1	ONE WAY						
19	1"SB"+037.5, 3.3m LT	CASALOMA DRIVE	R6-2R	1	---	ONE WAY	NOTE A					
20	2"WB"+265, 9.0m LT	CTH CA	R2-4	1	1	SPEED LIMIT						
21	2"WB"+265, 9.0m LT	CTH CA	W2-1	1	---	CROSS ROAD						
22	2"WB"+323, 8.5m LT	CTH CA	W3-3	1	1	SIGNAL AHEAD SYMBOL						
TOTALS				22	11							

NOTE A: EXISTING SIGN MOUNTED ON TRAFFIC SIGNAL POLE

GEOTEXTILE FABRIC, TYPE DF, SCHEDULE A			
STATION TO STATION	LOCATION	m2	
1"WB"+700 - 1"WB"+860, LT	CTH CA	365	
1"WB"+700 - 1"WB"+860, RT	CTH CA	365	
1"EB"+905 - 1"EB"+914, LT	CTH CA	25	
1"WB"+860 - 1"WB"+975, LT	CTH CA	265	
1"WB"+860 - 1"WB"+917, RT	CTH CA	130	
1"EB"+914 - 1"EB"+987, LT	CTH CA	170	
1"WB"+917 - 1"WB"+980, RT	CTH CA	150	
1"EB"+975 - 0"SB"+959, LT	CTH CA	65	
1"WB"+980 - 1"SB"+045, LT	CTH CA	105	
2"WB"+025 - 2"WB"+105, RT	CTH CA	185	
2"EB"+029 - 2"EB"+079, LT	CTH CA	115	
2"EB"+029 - 2"EB"+134, LT	CTH CA	250	
2"EB"+032 - 2"EB"+136, RT	CTH CA	240	
2"WB"+033 - 2"WB"+329, LT	CTH CA	680	
2"WB"+079 - 2"WB"+136, RT	CTH CA	130	
2"WB"+136 - 2"WB"+329, RT	CTH CA	445	
0"NB"+959 - 2"EB"+032, RT	CASALOMA DRIVE	40	
1"SB"+006 - 1"SB"+045, RT	CASALOMA DRIVE	95	
1"NB"+006 - 1"NB"+045, LT	CASALOMA DRIVE	95	
2"WB"+033 - 1"NB"+045, RT	CTH CA	110	
0"SB"+959 - 0"SB"+968, RT	CASALOMA DRIVE	25	
TOTAL		4 050	

NOTE A: EXISTING SIGN MOUNTED ON TRAFFIC SIGNAL POLE

NONMETALLIC CONDUIT

FROM	TO	25 mm	50 mm	75 mm
		SCH. 40	SCH. 80	SCH. 80
		m	m	m
CB	PB1	---	---	11.0
PB1	PB2	---	---	20.0
PB1	SB1	---	2.5	---
PB2	PB3	---	---	11.0
PB2	SB2	---	3.0	---
PB3	PB4	---	---	13.0
PB3	SB3	---	2.0	---
PB4	PB5	---	---	15.0
PB4	SB4	---	2.5	---
PB5	PB6	---	---	9.0
PB5	SB5	---	3.0	---
PB6	PB7	---	---	17.0
PB6	SB6	---	2.5	---
PB7	PB8	---	---	10.0
PB7	SB7	---	3.0	---
PB8	PB9	---	---	19.0
PB8	SB8	---	2.0	---
PB9	PB10	---	---	11.0
PB9	SB9	---	3.5	---
PB10	PB11	---	---	14.0
PB10	SB10	---	3.0	---
PB11	PB12	---	---	16.0
PB11	SB11	---	4.0	---
PB12	PB13	---	---	9.0
PB12	SB12	---	3.0	---
PB13	PB14	---	---	15.0
PB13	SB13	---	2.5	---
PB14	CB	---	---	20.0
PB14	SB14	---	2.5	---
PB1	PB15	52.0	---	---
PB4	PB16	45.0	---	---
PB16	PB17	43.0	---	---
PB8	PB18	52.0	---	---
PB11	PB19	45.0	---	---
PB19	PB20	43.0	---	---
TOTALS		280.0	39.0	210.0

PULL BOXES

PULL BOX NUMBER	LOCATION	STEEL	STEEL	COMMENT
		300 X 600 mm EACH	600 X 1200 mm EACH	
PB-1	CASALOMA DRIVE	---	1	USE SALVAGED COVER
PB-2	CASALOMA DRIVE	---	1	USE SALVAGED COVER
PB-3	CASALOMA DRIVE	---	1	USE SALVAGED COVER
PB-4	CTH CA	---	1	USE SALVAGED COVER
PB-5	CTH CA	---	1	USE SALVAGED COVER
PB-6	CTH CA	---	1	USE SALVAGED COVER
PB-7	CTH CA	---	1	USE SALVAGED COVER
PB-8	CASALOMA DRIVE	---	1	
PB-9	CASALOMA DRIVE	---	1	
PB-10	CASALOMA DRIVE	---	1	
PB-11	CTH CA	---	1	
PB-12	CTH CA	---	1	
PB-13	CTH CA	---	1	
PB-14	CTH CA	---	1	
PB-15	CASALOMA DRIVE	1	---	USE SALVAGED COVER
PB-16	CTH CA	1	---	
PB-17	CTH CA	1	---	
PB-18	CASALOMA DRIVE	1	---	
PB-19	CTH CA	1	---	
PB-20	CTH CA	1	---	
TOTALS		6	14	

TRAFFIC SIGNALS

SIGNAL BASE NUMBER	CONCRETE BASES	CONCRETE BASES	PEDESTAL BASES	TRANSFORMER BASES	POLES	TRAFFIC SIGNAL STANDARDS	TRAFFIC SIGNAL STANDARDS	TROMBONE ARMS	TROMBONE ARMS
	TYPE 1 EACH	TYPE 2 EACH	EACH	EACH	TYPE 2 EACH	4.0 m EACH	4.6 m EACH	4.6 m EACH	6.1 m EACH
SB-1	1	---	SALV.	---	---	---	SALV.	---	---
SB-2	1	---	SALV.	---	---	---	SALV.	---	---
SB-3	---	1	---	SALV.	SALV.	---	---	SALV.	---
SB-4	1	---	SALV.	---	---	---	SALV.	---	---
SB-5	1	---	SALV.	---	---	---	SALV.	---	---
SB-6	1	---	SALV.	---	---	---	SALV.	---	---
SB-7	---	1	---	1	SALV.	---	---	---	SALV.
SB-8	1	---	SALV.	---	---	---	SALV.	---	---
SB-9	1	---	SALV.	---	---	---	SALV.	---	---
SB-10	---	1	---	1	SALV.	---	---	SALV.	---
SB-11	1	---	SALV.	---	---	1	---	---	---
SB-12	1	---	SALV.	---	---	---	SALV.	---	---
SB-13	1	---	SALV.	---	---	---	SALV.	---	---
SB-14	---	1	---	1	SALV.	---	---	---	SALV.
TOTALS	10	4	0	3	0	1	0	0	0

TRAFFIC SIGNAL CABLE, NO. 14

FROM	TO	15 COND.	12 COND.	7 COND.	BASE TO HEAD
		m	m	m	7 COND. m
CB	SB1	---	---	20	15
CB	SB2	40	---	---	16
CB	SB3	---	---	53	17
CB	SB4	---	---	68	18
CB	SB5	---	---	85	5
CB	SB6	---	95	---	7
CB	SB7	---	---	114	6
CB	SB14	---	---	18	8
CB	SB13	---	35	---	10
CB	SB12	---	---	46	12
CB	SB11	---	---	64	3
CB	SB10	---	---	78	4
CB	SB9	90	---	---	2
CB	SB8	---	---	110	12
TOTALS		130	130	656	6

PROJECT TOTAL 7 COND. = 800 m

TRAFFIC SIGNAL FACES & BACKPLATES

3-300mm VERT. EACH	BACKPLATES 4 SECTION 300 mm EACH
4	2

ELECTRICAL WIRE, TRAFFIC SIGNALS, NO. 10

FROM	TO	GROUNDING CONDUCTOR	EQUIPMENT GROUNDING CONDUCTOR
		m	m
CB	SB1	15	15
SB1	SB2	27	28
SB1	PB1	---	4
SB2	SB3	18	18
SB2	PB2	---	4
SB3	SB4	20	20
SB3	PB3	---	3
SB4	SB5	22	22
SB4	PB4	---	3
SB5	SB6	17	17
SB5	PB5	---	4
SB6	SB7	25	24
SB6	PB6	---	3
SB7	SB8	17	17
SB7	PB7	---	4
SB8	SB9	27	27
SB8	PB8	---	3
SB9	SB10	19	19
SB9	PB9	---	4
SB10	SB11	24	23
SB10	PB10	---	4
SB11	SB12	26	25
SB11	PB11	---	5
SB12	SB13	17	17
SB12	PB12	---	4
SB13	SB14	22	22
SB13	PB13	---	4
SB14	CB	14	14
SB14	PB14	---	3
TOTALS		310	360

PROJECT TOTAL = 670 m

SALVAGED TRAFFIC SIGNAL FACES & BACKPLATES (FOR INFORMATION ONLY)

3-300mm VERTICAL EACH	5-300mm VERTICAL EACH	3-300mm HORIZONTAL EACH	BACKPLATES 3 SECTION 300mm EACH	BACKPLATES 5 SECTION 300mm EACH
4	8*	4	8	8

* CHANGE 4 5V SIGNAL FACES TO 4V SIGNAL FACES

FILE NAME: E1284A /SHEETS /QUANTITIES /SDC/SDC .2DG
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654
TECH/ENGR: SDC/SDC
PLOT DATE: 12/11/97
PLOT NAME: SEE FILE NAME
REV. DATE: /
LEVELS ON: 1

SAWING EXISTING PAVEMENT

STATION	LOCATION	m	REMARKS
1"WB"+700	CTH CA	11	
1"WB"+700 - 2"WB"+330	CTH CA	630	TRAFFIC CONTROL STAGE 2
1"EB"+842 - 1"EB"+980, LT	CTH CA	149	
1"EB"+842 - 2"EB"+140	CTH CA	300	TRAFFIC CONTROL STAGE 2
2"WB"+332	CTH CA	10	
0"SB"+845	CASALOMA DRIVE	15	
0"SB"+845 - 0"SB"+896	CASALOMA DRIVE	51	
0"NB"+896	CASALOMA DRIVE	8	
0"NB"+896 - 0"NB"+959	CASALOMA DRIVE	63	
0"NB"+959	CASALOMA DRIVE	9	
0"SB"+890, LT	DRIVEWAY	10	
0"SB"+902 - 0"SB"+945, LT	PARKING LOT	44	
TOTAL		1 300	

CONSTRUCTION STAKING

STATION TO STATION	LOCATION	PRELIMINARY m	SUBGRADE m	CONCRETE PAVEMENT m	CRUSHED AGGREGATE BASE COURSE m	CURB & GUTTER m	INLETS MANHOLES STORM SEWER EACH	PIPE CULVERTS EACH
1"WB"+700 - 2"WB"+332	CTH CA	632	632	632	---	---	9	1
1"EB"+842 - 2"EB"+140	CTH CA	298	298	298	---	---	7	---
0"SB"+845 - 1"SB"+045	CASALOMA DRIVE	200	165	55	110	110	4	---
0"NB"+895 - 1"NB"+045	CASALOMA DRIVE	150	115	55	60	---	---	---
TOTALS		1 280	1 210	1 040	170	110	20	1

INLET PROTECTION, TYPE C

STRUCTURE NO.	STATION	LOCATION	EACH
2	1"EB"+907, LT	CTH CA	1
3	1"EB"+940, LT	CTH CA	1
4	1"EB"+981, LT	CTH CA	1
5	1"EB"+990, LT	CTH CA	1
6	1"WB"+987, RT	CTH CA	1
6A	1"WB"+980, RT	CTH CA	1
9	2"WB"+025, RT	CTH CA	1
10	2"WB"+025, RT	CTH CA	1
11	2"EB"+029, LT	CTH CA	1
12	2"EB"+029, LT	CTH CA	1
14	2"EB"+079, LT	CTH CA	1
17	0"SB"+926, RT	CASALOMA DRIVE	1
18	0"SB"+926, RT	CASALOMA DRIVE	1
---	0"SB"+854, LT	CASALOMA DRIVE	1
TOTAL			14

MISCELLANEOUS QUANTITIES

HWY: CTH CA

COUNTY: OUTAGAMIE

STATE PROJECT NO: 6526-01-71

SHEET NO: 3.E

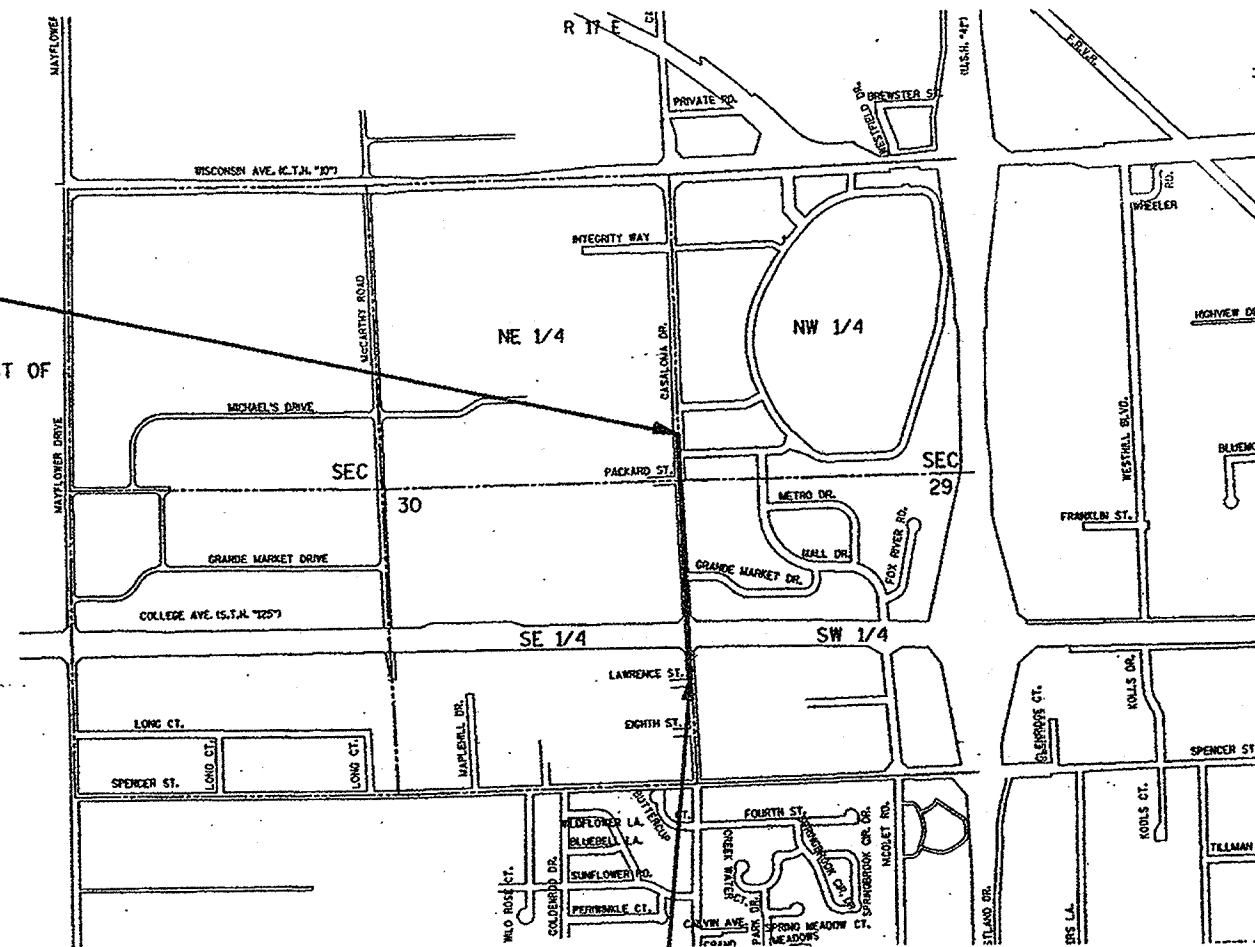
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Conventional Signs and Abbreviations

SECTION LINE	AC	ACRES	R	RADIUS
QUARTER LINE	Δ	CENTRAL ANGLE	R/L	RANGE
TOWNSHIP AND RANGE LINE	COR.	CORNER	R/W	REFERENCE LINE
PROPOSED OR NEW CENTERLINE	CTH	COUNTY TRUNK HIGHWAY	S	RIGHT OF WAY
PROPOSED OR NEW R/W LINE	D	DEGREE OF CURVE	SEC	SOUTH
EXISTING R/W LINE	E	EAST	SL	SECTION
LOT LINE	L	LENGTH OF CURVE	SO FT	SECTION LINE
PROPERTY LINE	LCB	LONG CHORD	STA	SQUARE FEET
CORPORATE LIMITS	MI	LONG CHORD BEARING	T	STATION
SLOPE INTERCEPTS	N	MILE	T	TOWN
R/W POINT	PC	NORTH	T	TANGENT LENGTH OF CURVE
FENCE	PI	POINT OF CURVATURE	TLE	TEMPORARY LIMITED EASEMENT
SECTION OR QUARTER CORNER	PT	POINT OF INTERSECTION	USH	UNITED STATES HIGHWAY
POWER POLE	PLE	POINT OF TANGENCY	W	WEST
TELEPHONE PEDESTAL		PERMANENT LIMITED EASEMENT		
UNDERGROUND TELEPHONE CABLE				
TEMPORARY LIMITED EASEMENT				
NO ACCESS (BY ACQUISITION)				
NO ACCESS (BY STATUTORY AUTHORITY)				
NO ACCESS (BY PREVIOUS PROJECT)				

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.0	5
PLAT OF RIGHT OF WAY REQUIRED FOR CASALOMA DRIVE LAWRENCE ST - MICHAEL'S DR		
6526-01-71	4.1	

END PROJECT RELOCATION ORDER
(CASALOMA DRIVE)
STA 3+509.154
101.839M (334.12') NORTH OF AND 0.928M (3.04') WEST OF
THE EAST 1/4 CORNER OF SECTION 30, T21N, R17E



BEGIN PROJECT RELOCATION ORDER
CASALOMA DRIVE
STA 2+857.586
252.139M (827.23') NORTH OF AND 9.070M (29.76') WEST OF
THE SOUTHEAST CORNER OF SECTION 30, T21N, R17E

Notes

BEARING ORIENTATION

RIGHT OF WAY BEARINGS ARE ORIENTED TO THE EAST LINE OF THE SE 1/4 OF SECTION 30, T21N, R17E, WITH THE BEARINGS ESTABLISHED AS N02°03'36"W. THE DIFFERENCE BETWEEN PLAT BEARINGS REPRESENTS PLANE ANGLES IN DEGREES, MINUTES, AND SECONDS.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD. OTHER INFORMATION IS PROVIDED TO SUPPLEMENT THE BASIC PERIMETER DESCRIPTION AND SHALL NOT BE CONSTRUED TO PREVAIL OVER THE PERIMETER DESCRIPTION.

LAYOUT
SCALE 0 2 4 km

TOTAL NET LENGTH OF CENTERLINE = 0.652 km (URBAN)

APPROVED FOR
Date
PLAT PREPARED BY: OMNI ASSOCIATES APPLETON, WISCONSIN
REVISION DATE
Date

SCHEDULE OF LANDS & INTERESTS REQUIRED

NOTES: AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.
THE (c) IN THE TOTAL AREA COLUMN DENOTES A COMPUTED AREA.

PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL AREA	NEW	R/W AREA EXISTING	TOTAL	TOTAL AREA REM	TLE AREA
1	4.3	SHARON A. & DANIEL H. MERRYFIELD	FEE TITLE & TLE	0.809 Ha 2.00 Ac (c)	0.024 Ha 0.06 Ac 2,534 sf	----	0.024 Ha 0.06 Ac 2,534 sf	0.785 Ha 1.94 Ac	0.020 Ha 0.05 Ac 2,113 sf
2	4.3	JOHN J. CALNIN	FEE TITLE & TLE	0.603 Ha 1.49 Ac (c)	0.078 Ha 0.19 Ac 8,421 sf	----	0.078 Ha 0.19 Ac 8,421 sf	0.525 Ha 1.30 Ac	0.020 Ha 0.05 Ac 2,269 sf
3	4.3	AMERICAN TV & APPLIANCE OF MADISON, INC., A WISCONSIN CORPORATION	FEE TITLE & TLE	4.159 Ha 10.28 Ac (c)	0.024 Ha 0.06 Ac 2,603 sf	----	0.024 Ha 0.06 Ac 2,603 sf	4.135 Ha 10.22 Ac	0.007 Ha 0.02 Ac 760 sf
4	4.4	HORNUNG LLC, A WISCONSIN LIMITED LIABILITY COMPANY	FEE TITLE & TLE	0.130 Ha 0.32 Ac (c)	0.014 Ha 0.03 Ac 1,526 sf	----	0.014 Ha 0.03 Ac 1,526 sf	0.116 Ha 0.29 Ac	0.005 Ha 0.01 Ac 492 sf
5	4.4	CASALOMA VENTURE, LLC	FEE TITLE & TLE	0.549 Ha 1.36 Ac (c)	0.030 Ha 0.07 Ac 3,250 sf	----	0.030 Ha 0.07 Ac 3,250 sf	0.519 Ha 1.29 Ac	0.018 Ha 0.04 Ac 1,969 sf
6	4.4	GAIL SEDO	FEE TITLE & TLE	0.130 Ha 0.32 Ac (c)	0.007 Ha 0.02 Ac 707 sf	----	0.007 Ha 0.02 Ac 707 sf	0.123 Ha 0.30 Ac	0.005 Ha 0.01 Ac 492 sf
7	4.4	JOHN H. & BERNICE FISCHER	FEE TITLE & TLE	0.142 Ha 0.35 Ac (c)	0.007 Ha 0.02 Ac 766 sf	----	0.007 Ha 0.02 Ac 766 sf	0.135 Ha 0.33 Ac	0.005 Ha 0.01 Ac 536 sf
8	4.4	ALEXOC CO., A WISCONSIN GENERAL PARTNERSHIP	FEE TITLE & TLE	0.208 Ha 0.51 Ac (c)	0.010 Ha 0.03 Ac 1,117 sf	----	0.010 Ha 0.03 Ac 1,117 sf	0.198 Ha 0.48 Ac	0.007 Ha 0.02 Ac 787 sf
9	4.4	JAMES J. FISCHER	FEE TITLE & TLE	0.238 Ha 0.59 Ac (c)	0.010 Ha 0.03 Ac 1,093 sf	0.029 Ha 0.07 Ac 3,172 sf	0.039 Ha 0.10 Ac 4,265 sf	0.199 Ha 0.50 Ac	0.006 Ha 0.01 Ac 631 sf
10	4.4	DARYL L. BUCHHOLTZ	FEE TITLE & TLE	0.153 Ha 0.38 Ac (c)	0.008 Ha 0.02 Ac 820 sf	0.023 Ha 0.06 Ac 2,475 sf	0.031 Ha 0.08 Ac 3,295 sf	0.122 Ha 0.30 Ac	0.005 Ha 0.01 Ac 492 sf
11	4.4	CHARLES P. SAUSEN	FEE TITLE & TLE	0.153 Ha 0.38 Ac (c)	0.006 Ha 0.01 Ac 604 sf	0.023 Ha 0.06 Ac 2,475 sf	0.029 Ha 0.07 Ac 3,079 sf	0.124 Ha 0.31 Ac	0.005 Ha 0.01 Ac 492 sf
12	4.4	DENIS REAL ESTATE PARTNERSHIP, A PARTNERSHIP CONSISTING OF JOHN A. DENIS AND DAVID P. DENIS	FEE TITLE & TLE	0.731 Ha 1.81 Ac (c)	0.003 Ha 0.01 Ac 305 sf	0.017 Ha 0.04 Ac 1,815 sf	0.020 Ha 0.05 Ac 2,120 sf	0.711 Ha 1.76 Ac	0.003 Ha 0.01 Ac 361 sf
13	4.3 & 4.4	JOHN G. GONIS	FEE TITLE & TLE	1.612 Ha 3.98 Ac (c)	0.042 Ha 0.10 Ac 4,519 sf	----	0.042 Ha 0.10 Ac 4,519 sf	1.570 Ha 3.88 Ac	0.033 Ha 0.08 Ac 3,578 sf
97	----	AMERITECH	RELEASE OF RIGHTS	----	----	----	----	----	----
99	----	WISCONSIN ELECTRIC POWER COMPANY	RELEASE OF RIGHTS	----	----	----	----	----	----

REVISION DATE	DATE	11-03-97	HWY: CASALOMA DRIVE	PROJECT NO: 6526-01-71	SHEET NO: 4.2
			COUNTY: OUTAGAMIE	STATE R/W PROJECT NO:	SHEET NO: 4.1

FILE NAME: P:\ENGROWOS\12884A\SHEETS\PLAT\SCHEDULE.DGN
TECH/ENGR: GJS/MAH
PLOT DATE: 11/03/97
ORIGINATOR: OMNI ASSOCIATES
303 S. BLUEMOUND DR. APPLETON, WI 54914
REV. DATE: / /
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:100



REVISION DATE

DATE

11-03-97

GRID FACTOR

SCALE, METERS

0 10 20

HWY: CASALOMA DRIVE

COUNTY: OUTAGAMIE

PROJECT NO: 6526-01-71

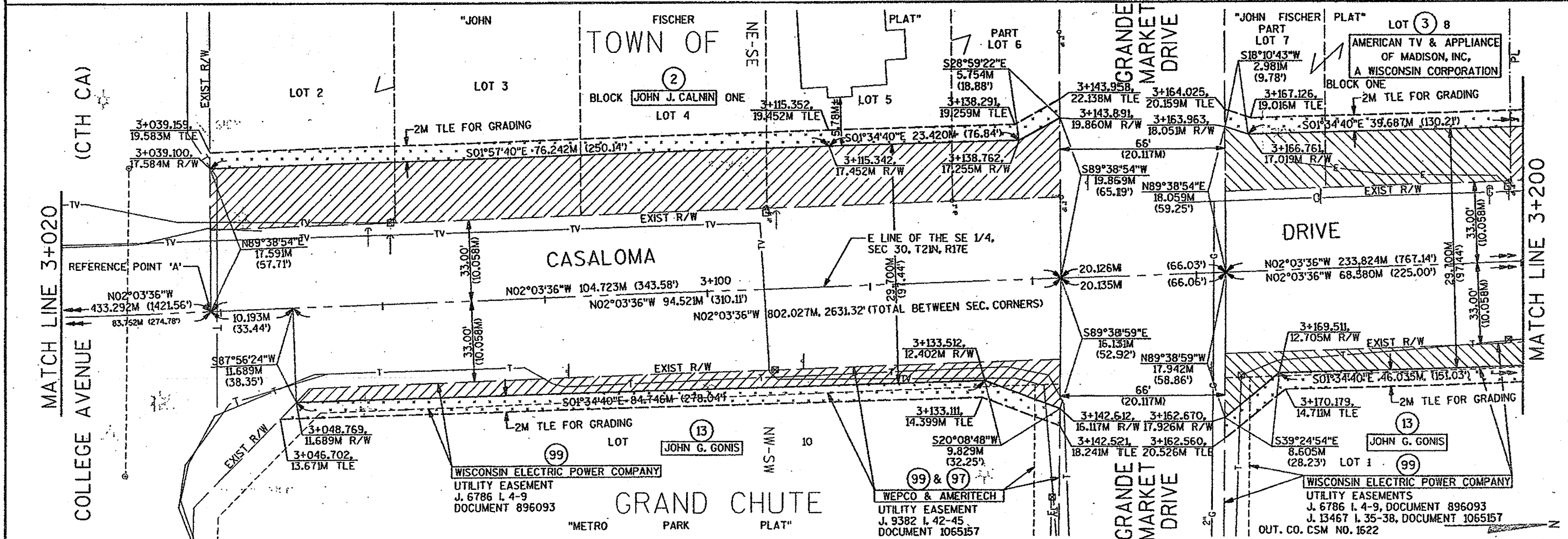
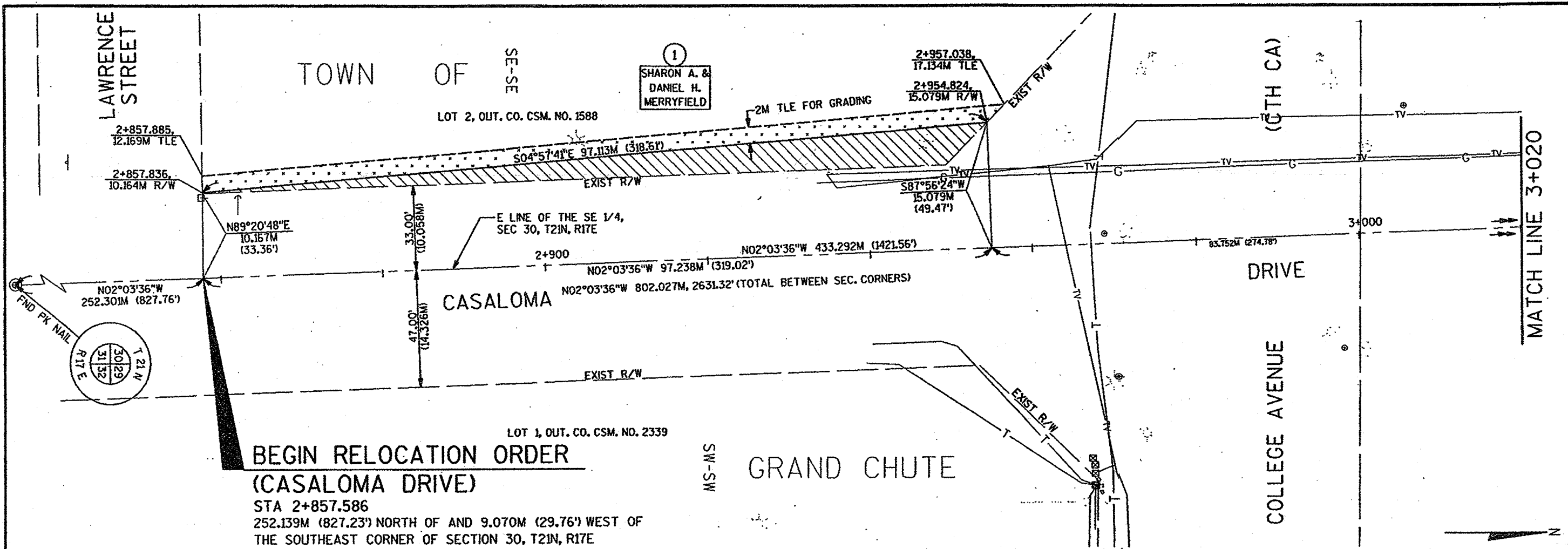
STATE R/W PROJECT NO:

SHEET NO: 4.3

SHEET NO: 4.2

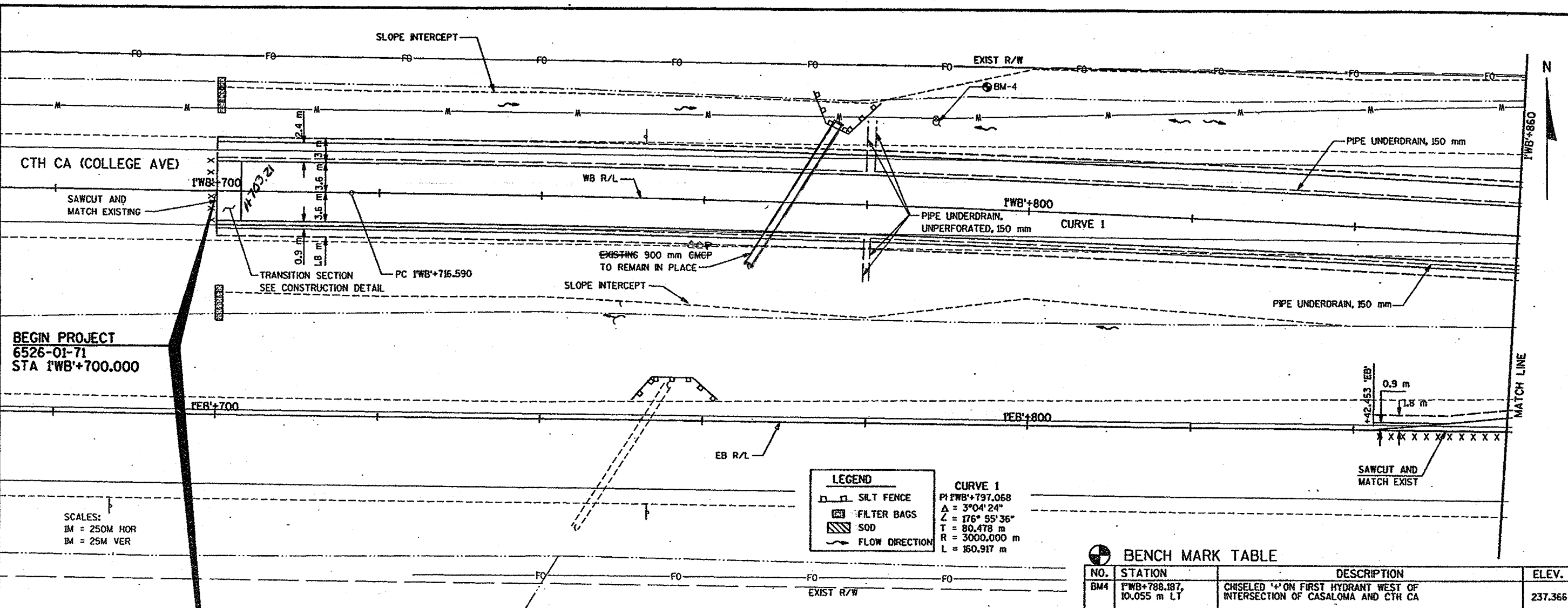
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WT&BT MSH177



REVISION DATE	DATE	SCALE, METERS	HWY: CASALOMA DRIVE	PROJECT NO: 6526-01-71	SHEET NO: 4.4
	11-03-97	0 250 500	COUNTY: OUTAGAMIE	STATE R/W PROJECT NO:	SHEET NO: 4.3
GRID FACTOR					

FILE NAME: E1284A / SHEETS / PPO1 / .DCN
ORIGINATOR: OMNII ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654
TECH/ENGR: GPP/890
PLOT DATE: 11/14/97
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:1
REV. DATE: /
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, 57, 58, 59, 60, 61, 62

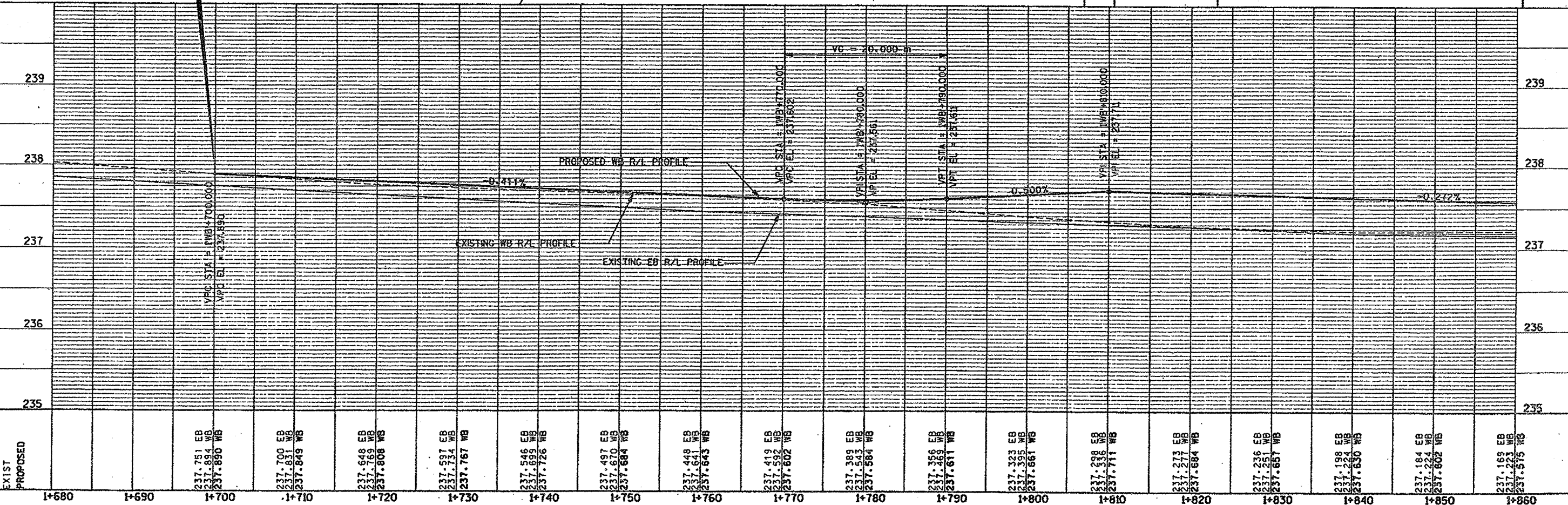


LEGEND

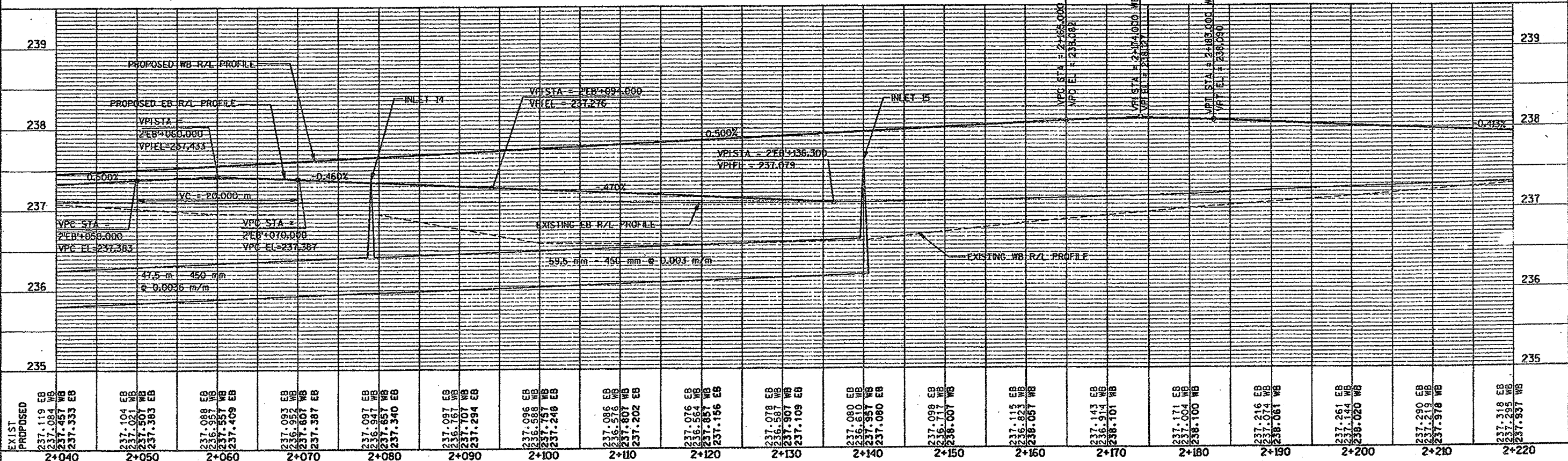
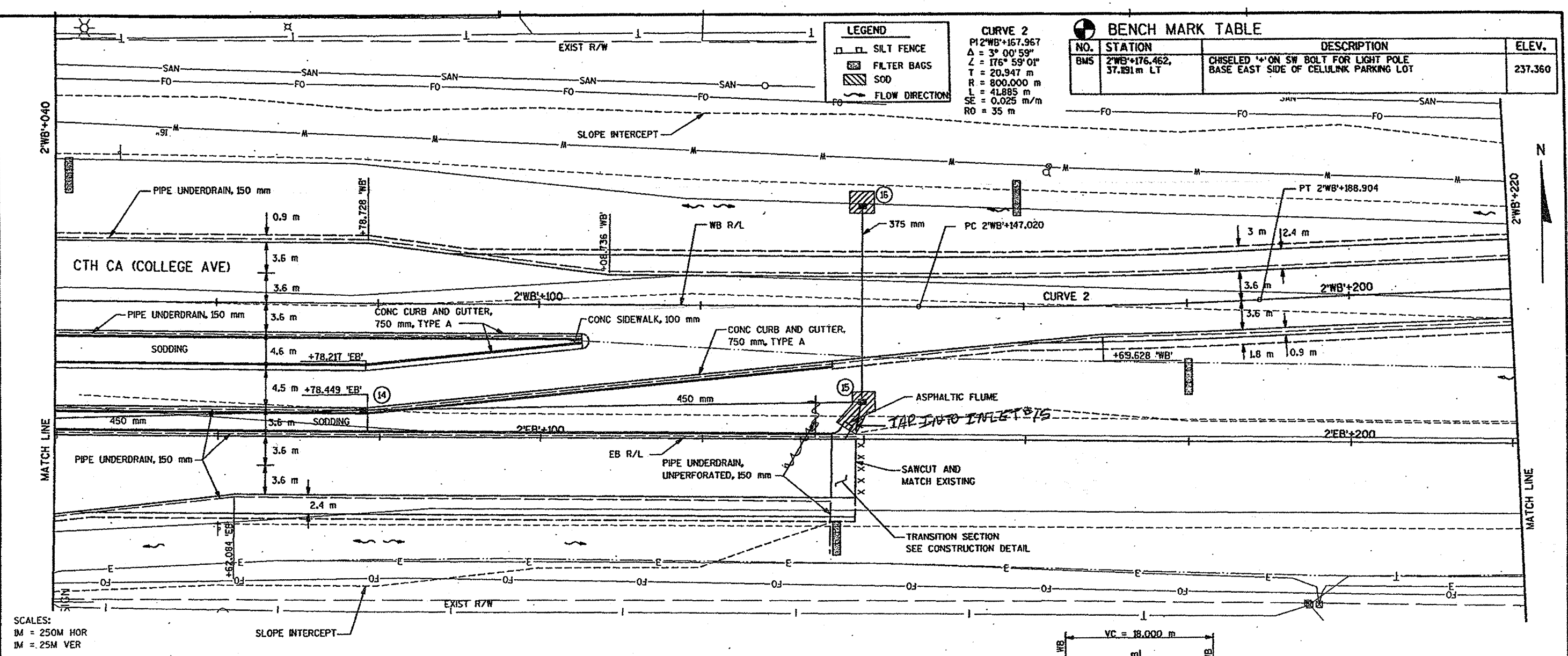
- SALT FENCE
- FILTER BAGS
- SOD
- FLOW DIRECTION

CURVE 1
PVI 1+797.068
Δ = 3°04'24"
L = 176°55'36"
T = 80.478 m
R = 3000.000 m
L = 160.917 m

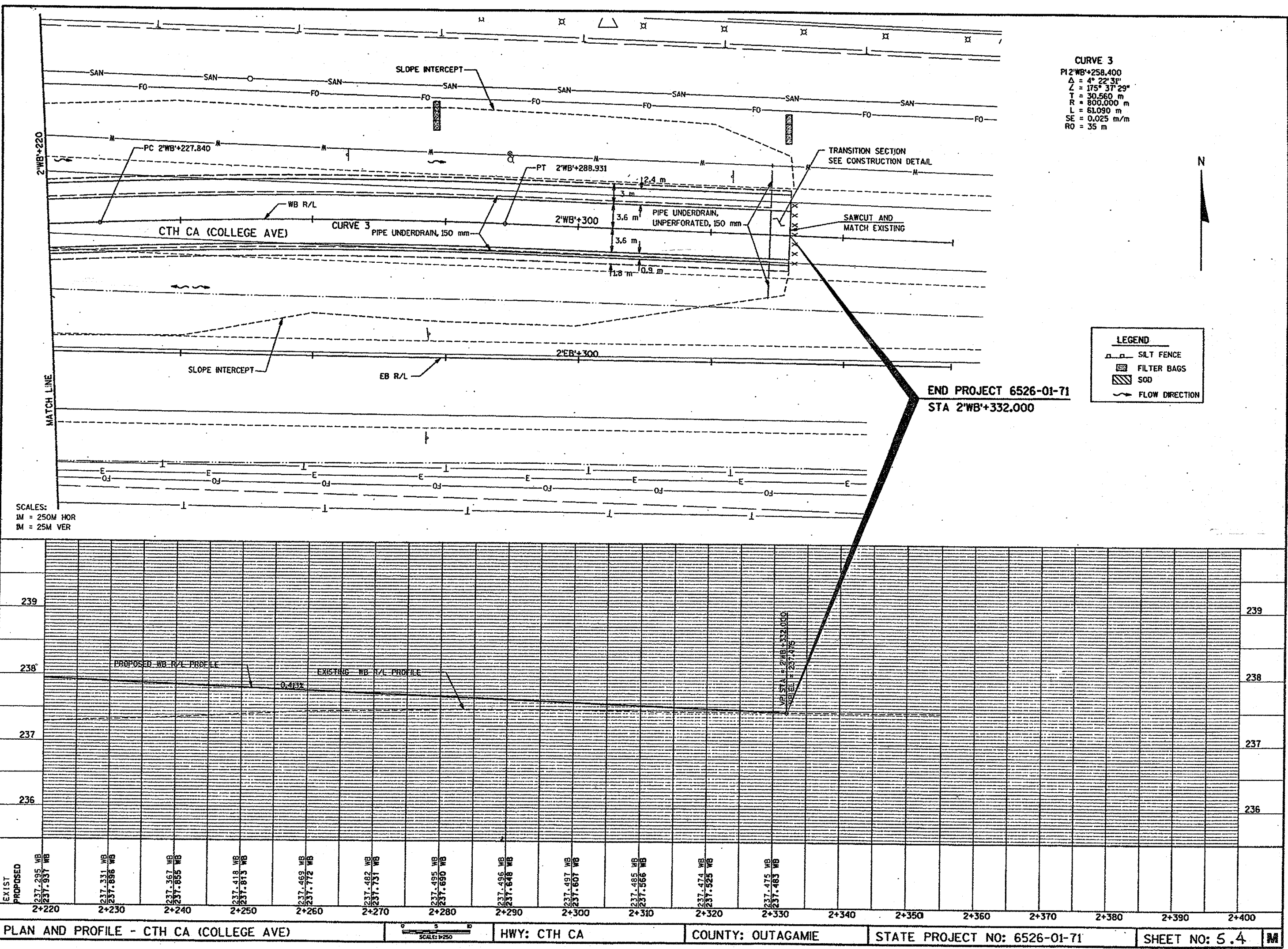
BENCH MARK TABLE			
NO.	STATION	DESCRIPTION	ELEV.
BM4	1+788.187, 10.055 m LT	CHISELED "X" ON FIRST HYDRANT WEST OF INTERSECTION OF CASALOMA AND CTH CA	237.366



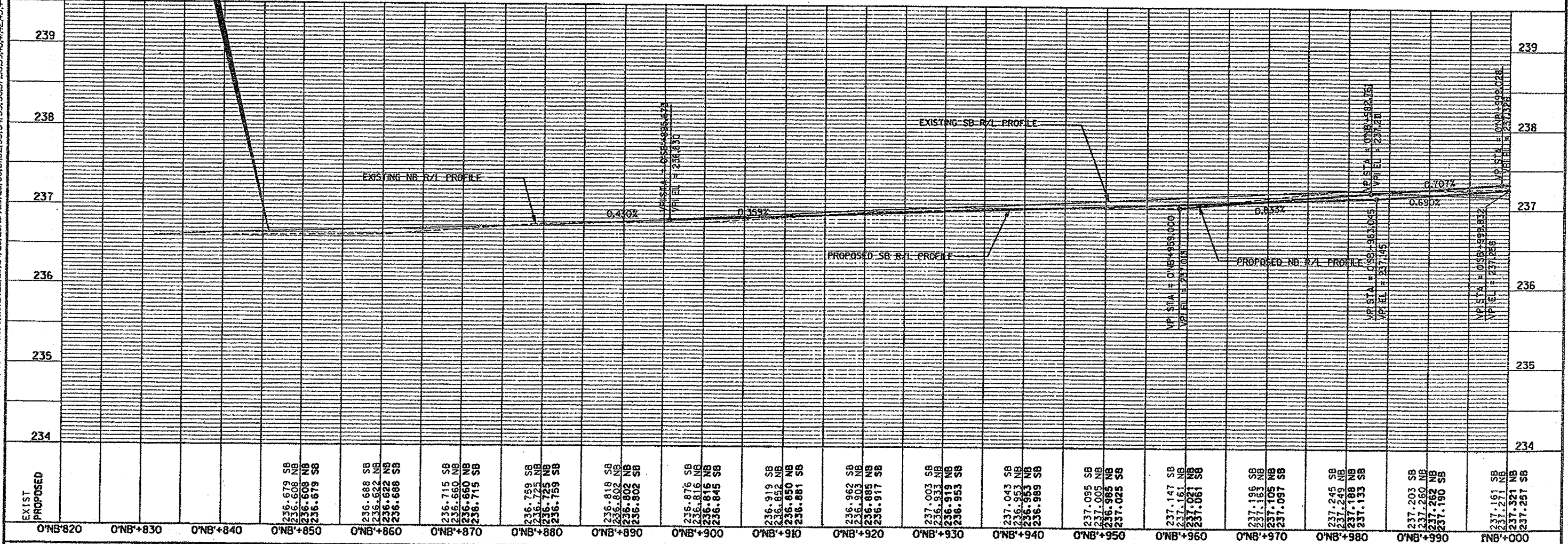
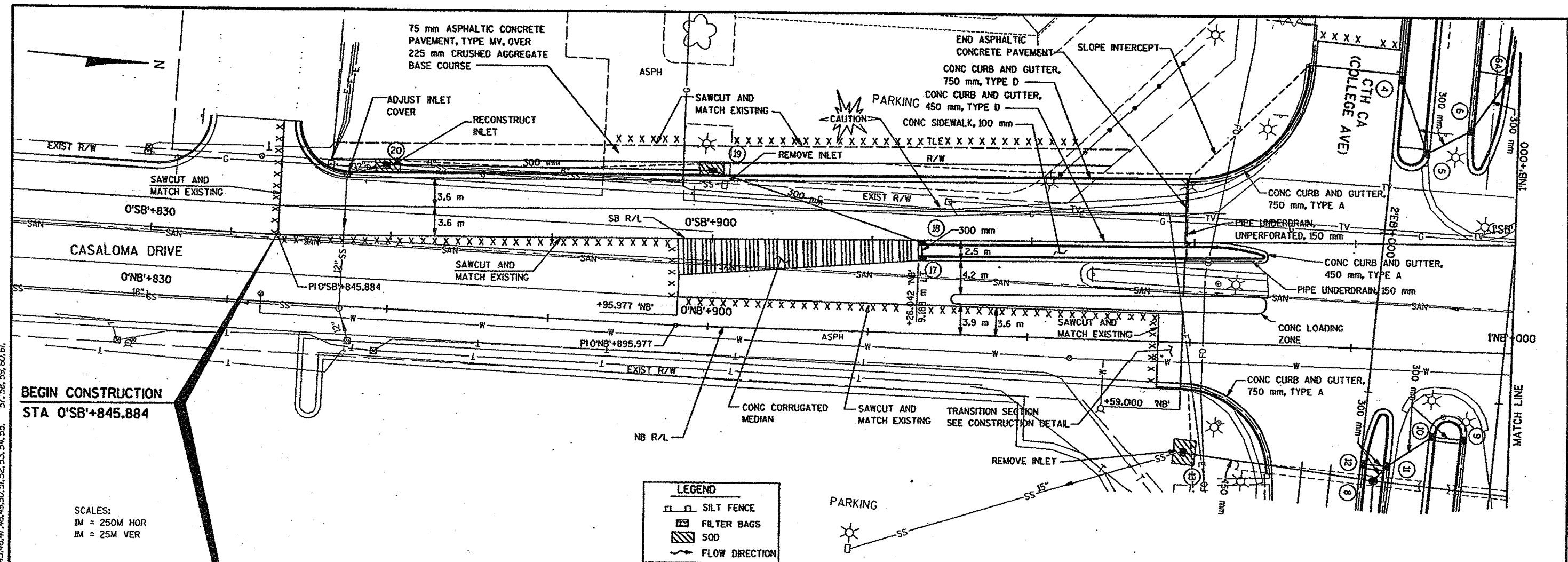
FILE NAME: E1284A / SHEETS / PPO3 / DGN TECH/ENGR: / REV. DATE: / PLOT NAME: SEE FILE NAME PLOT SCALE: 1:1
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654
LEVELS ON: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62



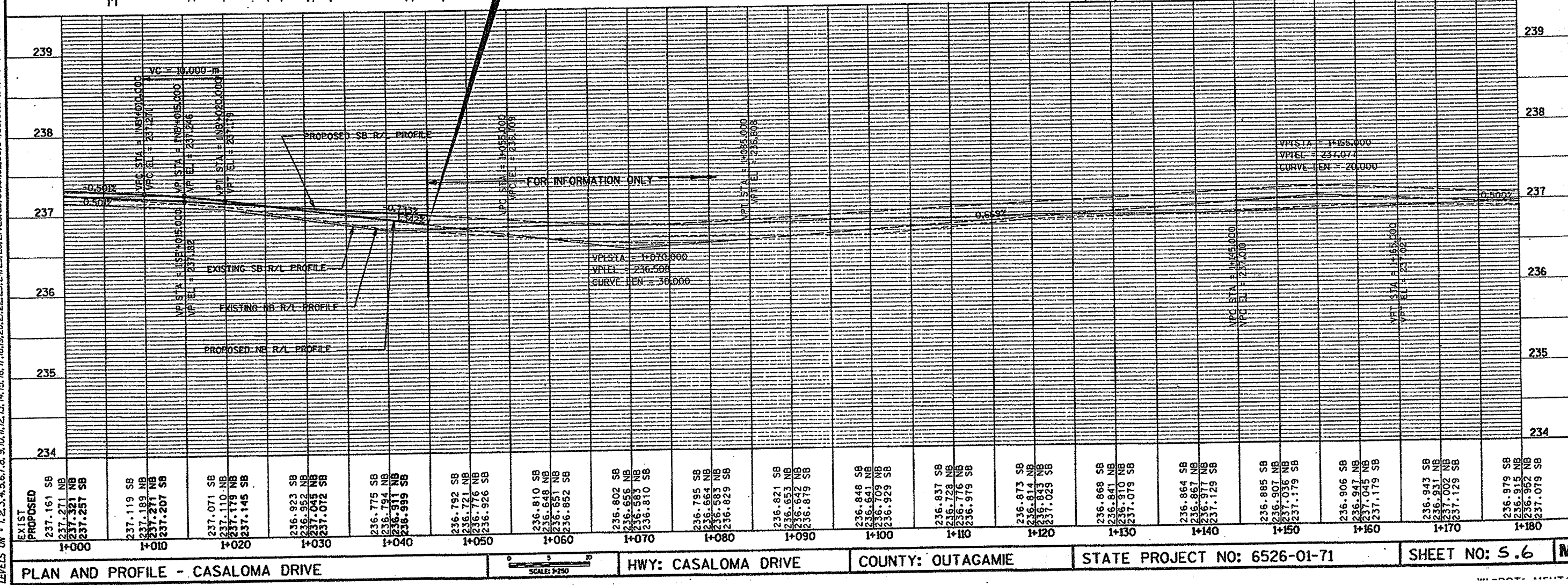
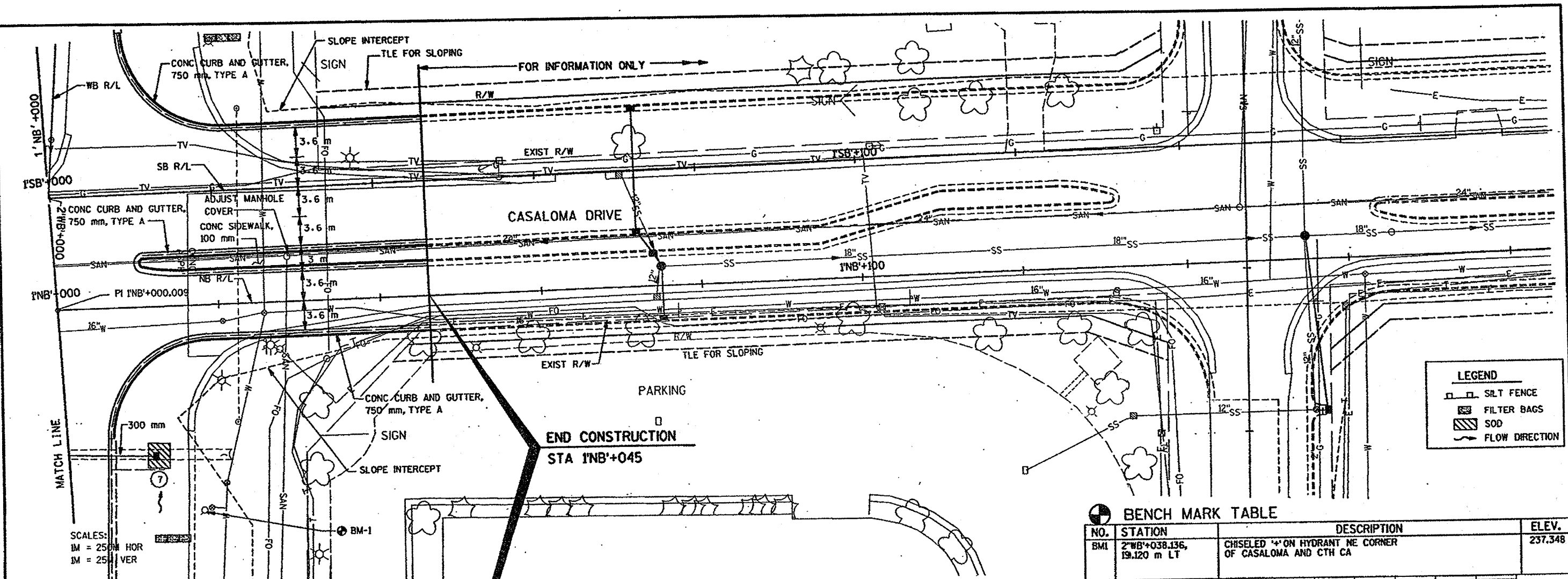
FILE NAME: E1284A /SHEETS /P004 / .DGN
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1694
TECH/ENGR: /
PLOT DATE: / /97
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:1
REV. DATE: / /
LEVELS ON: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 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, 57, 58, 59, 60, 61



FILE NAME: E1284A / SHEETS / PPO5 / DGN TECH/ENGR: / PLOT DATE: / 97
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654 REV. DATE: /
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, PLOT SCALE: 1:1

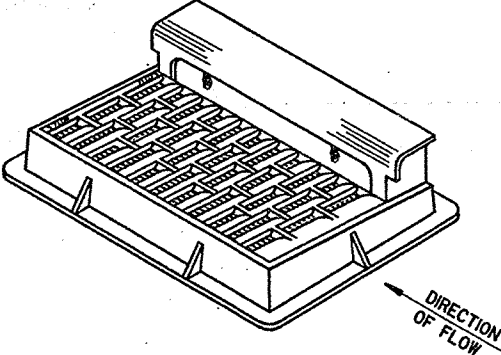
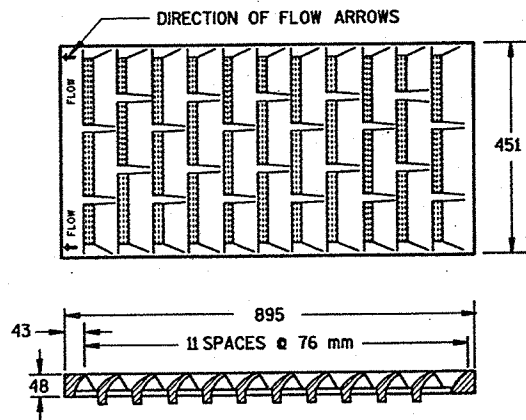


FILE NAME: E1284A /SHEETS /P06 / .CGN TECH/ENGR: DPP/SDC PLOT DATE: 11/14/97 PLOT SCALE: 1:1
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654 REV. DATE: /
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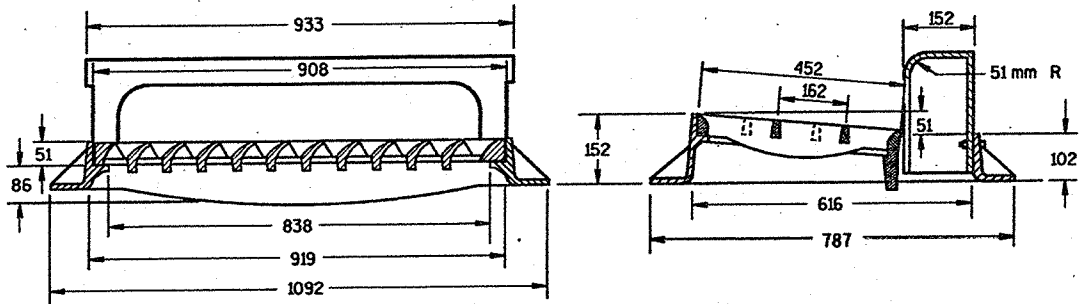


S.D.D. 8 A 5-14a
LEVELS ON - 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

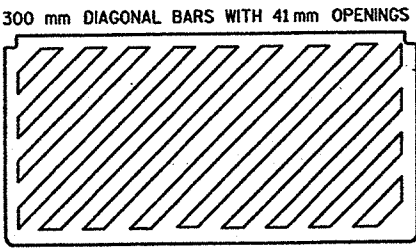
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 150 mm TO 230 mm



TYPE "H"
(APPROXIMATE WEIGHT 191 kg)
FRAME..... 79 kg
GRATE..... 63 kg
CURB BOX..... 49 kg



**SPECIAL GRATE FOR
TYPE "H" COVER**

(MEASURES 895 mm X 451 mm X 51 mm)
(APPROXIMATE WEIGHT 78 kg)

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

NOTE:
GRATE IS REVERSIBLE.

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.

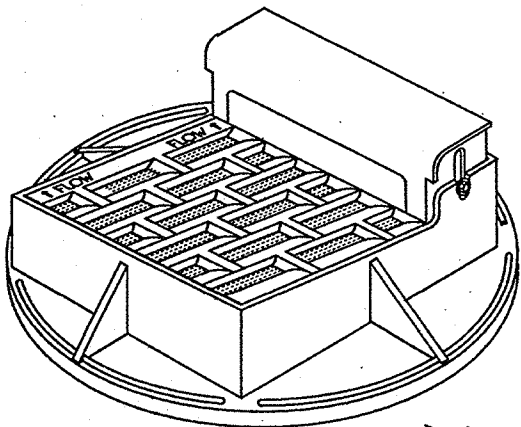
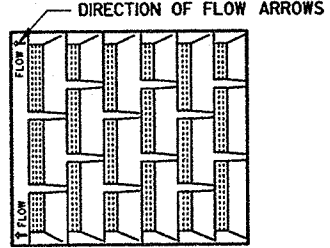
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

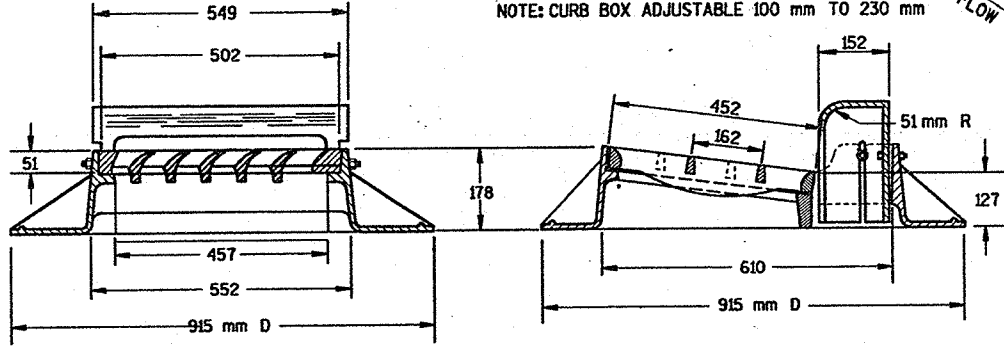
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

NOTE

ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE SHOWN.



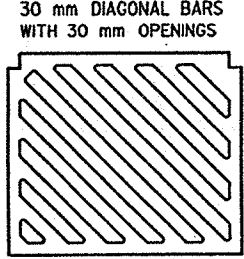
NOTE: CURB BOX ADJUSTABLE 100 mm TO 230 mm



TYPE "A"

(APPROXIMATE WEIGHT 325 LBS.)
FRAME..... 157 LBS.
GRATE..... 84 LBS.
CURB BOX..... 84 LBS.

NOTE:
GRATE IS REVERSIBLE.



**SPECIAL GRATE FOR
TYPE "A" COVER**

(MEASURES 502 mm X 432 mm X 51 mm)
GRATE..... 38 kg

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

NOTE:
GRATE IS REVERSIBLE.

INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/97
DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER

M

PLOT SCALE:

PLOT NAME:

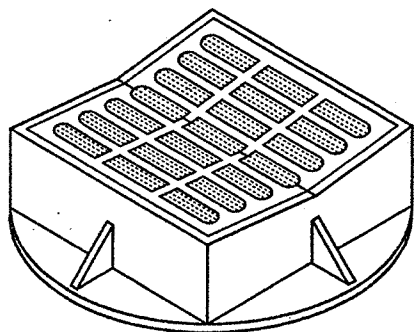
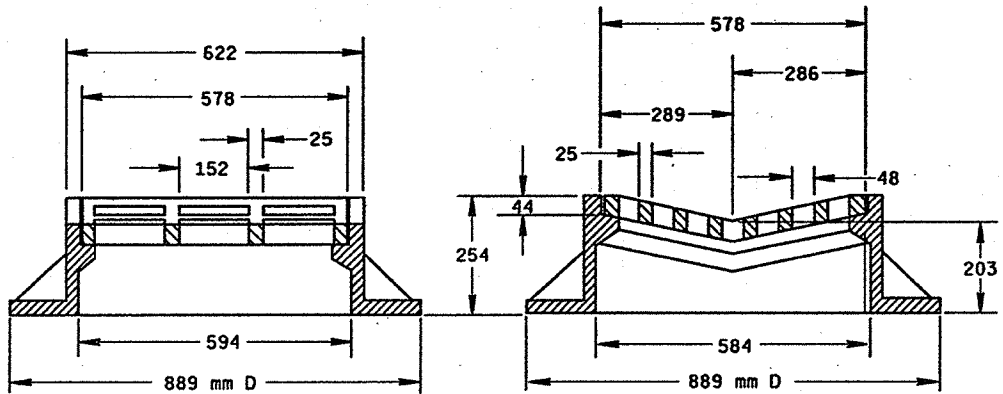
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ORIGINATOR:

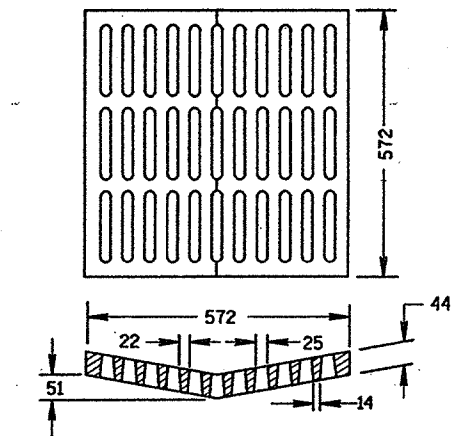
S.D.D. 8 A 5-14b

LEVELS ON - 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

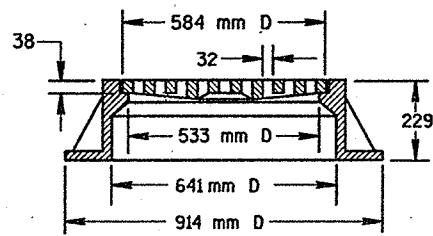
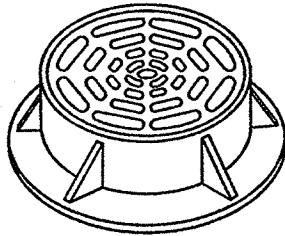
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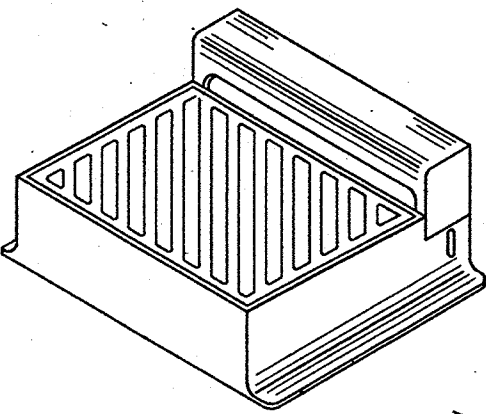
TYPE "B"
(APPROXIMATE WEIGHT 179 kg)
FRAME..... 129 kg
GRATE..... 50 kg



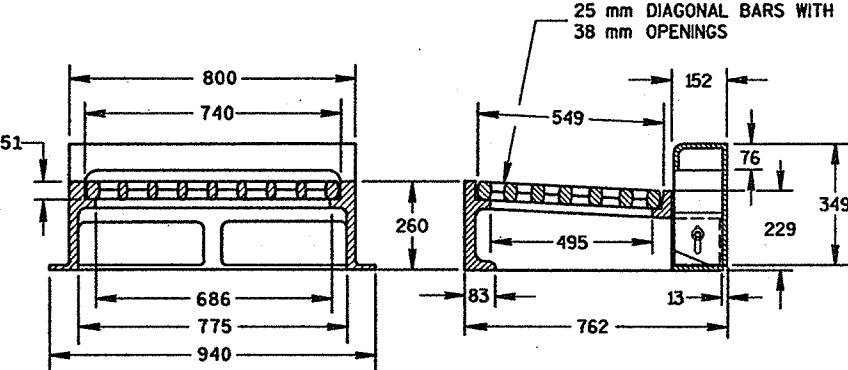
**ALTERNATIVE GRATE FOR
FOR TYPE "B" COVER**
(APPROXIMATE GRATE WEIGHT 57 kg)
GRATE..... 57 kg
USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"
(APPROXIMATE WEIGHT 154 kg)
FRAME..... 107 kg
GRATE..... 48 kg



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



TYPE "WM"
(APPROXIMATE WEIGHT 304 kg)
FRAME..... 163 kg
GRATE..... 73 kg
CURB BOX..... 68 kg

NOTE: CURB BOX HEIGHT ADJUSTABLE 152 mm TO 229 mm

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.

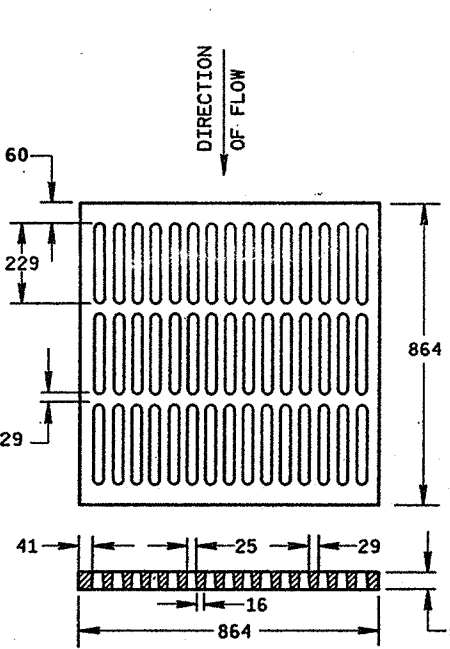
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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.

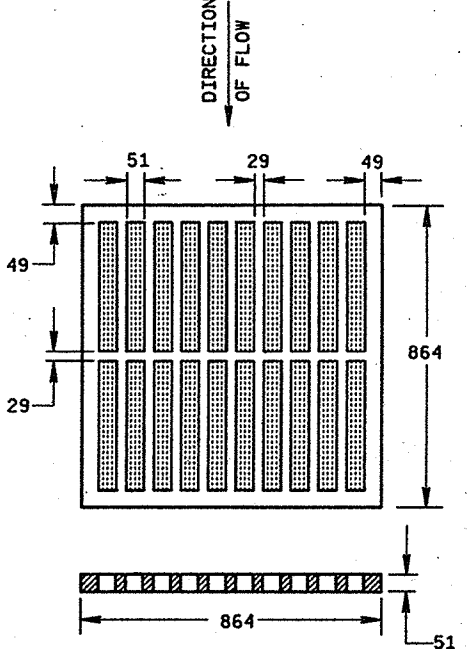
NOTES

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



ALTERNATIVE TYPE "MS"
(APPROXIMATE GRATE WEIGHT 166 kg)
GRATE..... 166 kg

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



TYPE "MS"
(APPROXIMATE GRATE WEIGHT 122 kg)
GRATE..... 122 kg

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE

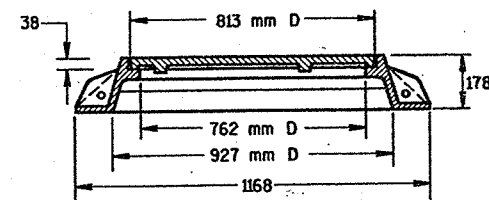
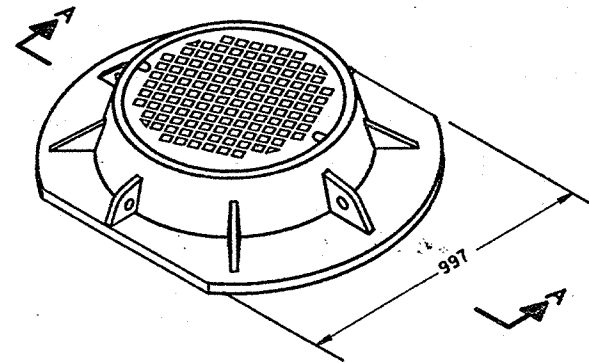
INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

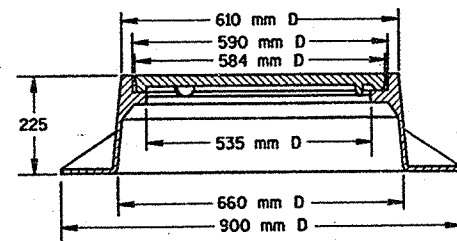
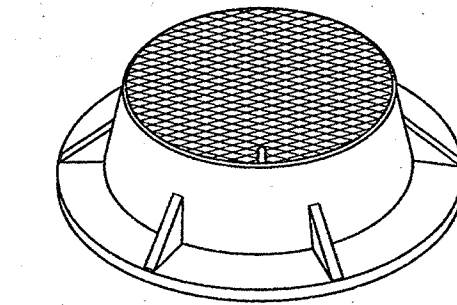
APPROVED
10/1/97
DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER

S.D.D. 8 A 5-14b

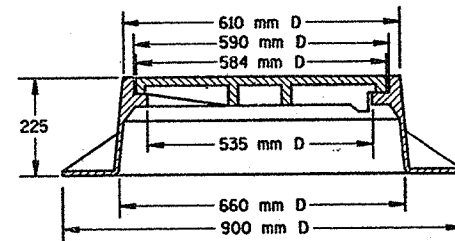
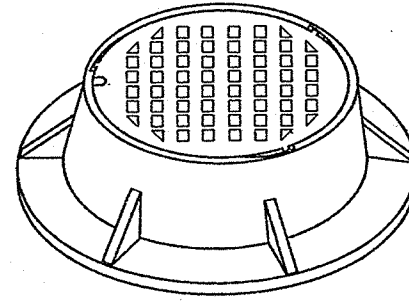
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SECTION A-A
TYPE "K"
(APPROXIMATE WEIGHT 188 kg)
FRAME.....95 kg
LID.....93 kg



TYPE "J"
(APPROXIMATE WEIGHT 113 kg)
FRAME.....61 kg
LID.....52 kg



TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(APPROXIMATE WEIGHT 111 kg)
FRAME.....66 kg
LID.....45 kg
(NOTED AS TYPE J-S ON DRAINAGE TABLE)

GENERAL NOTES

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

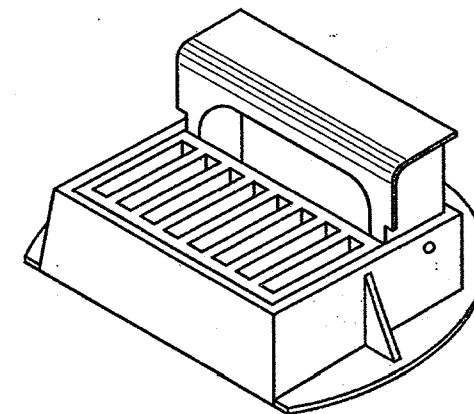
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

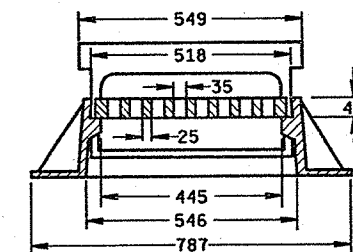
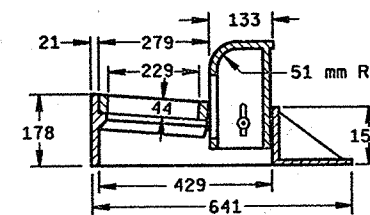
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



CURB BOX ADJUSTABLE 102 mm TO 254 mm



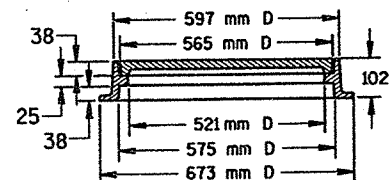
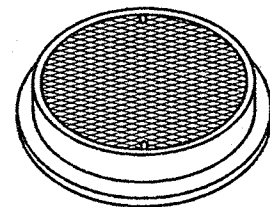
INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 140 kg)

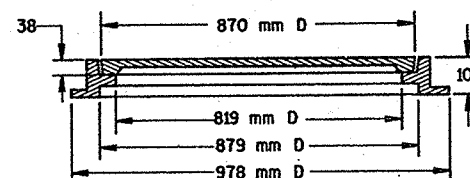
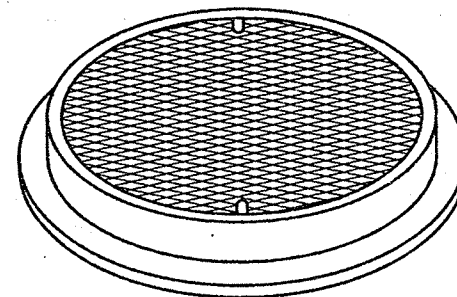
FRAME.....77 kg

GRATE.....23 kg

CURB BOX.....40 kg



TYPE "L"
(APPROXIMATE WEIGHT 66 kg)
FRAME.....34 kg
LID.....32 kg



TYPE "M"
(APPROXIMATE WEIGHT 175 kg)
FRAME.....57 kg
LID.....118 kg

INLET AND MANHOLE COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/97
DATE

Forry D. Thompson
CHIEF ROADWAY DEVELOPMENT ENGINEER

FWA

M

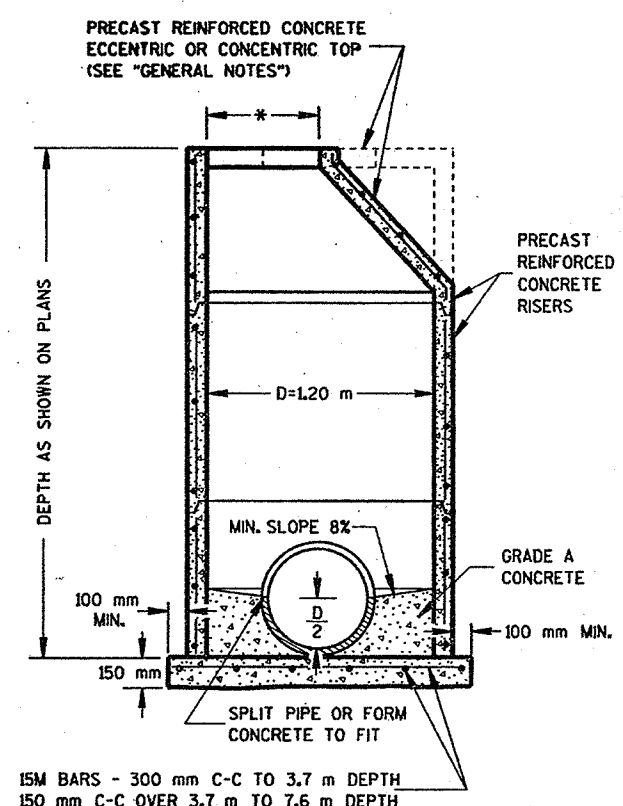
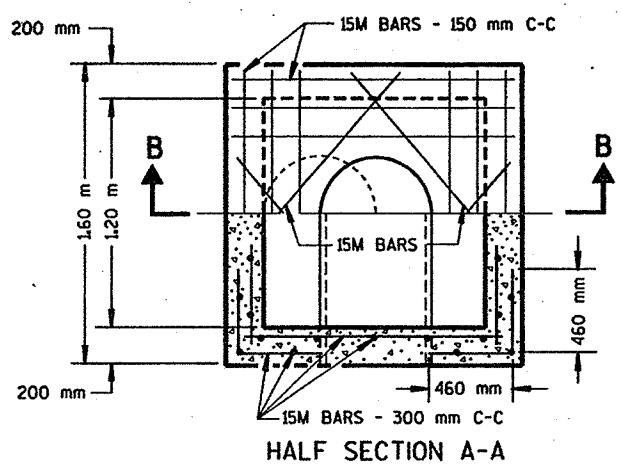
PLOT SCALE:

REV. DATE:

ORIGINATOR:

S.D.D. 8 B 6-3

LEVELS ON - 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



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 150 mm IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED 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 1.5 m OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 1.5 m IN DEPTH: 400 mm C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 100 mm FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 250 mm; MINIMUM WALL EMBEDMENT OF 75 mm; AND BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 136 kg FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 25 mm.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 19 mm. 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.

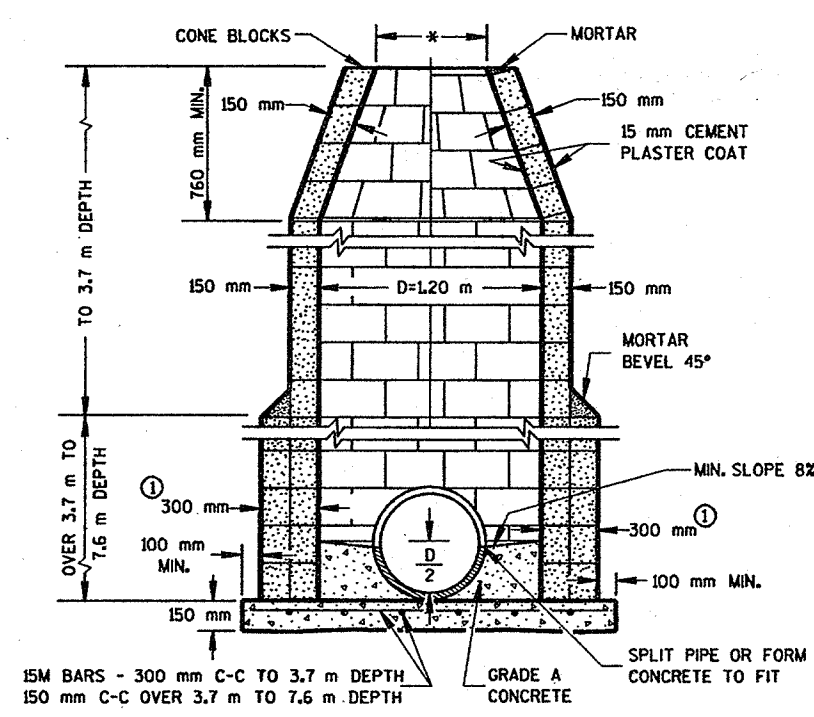
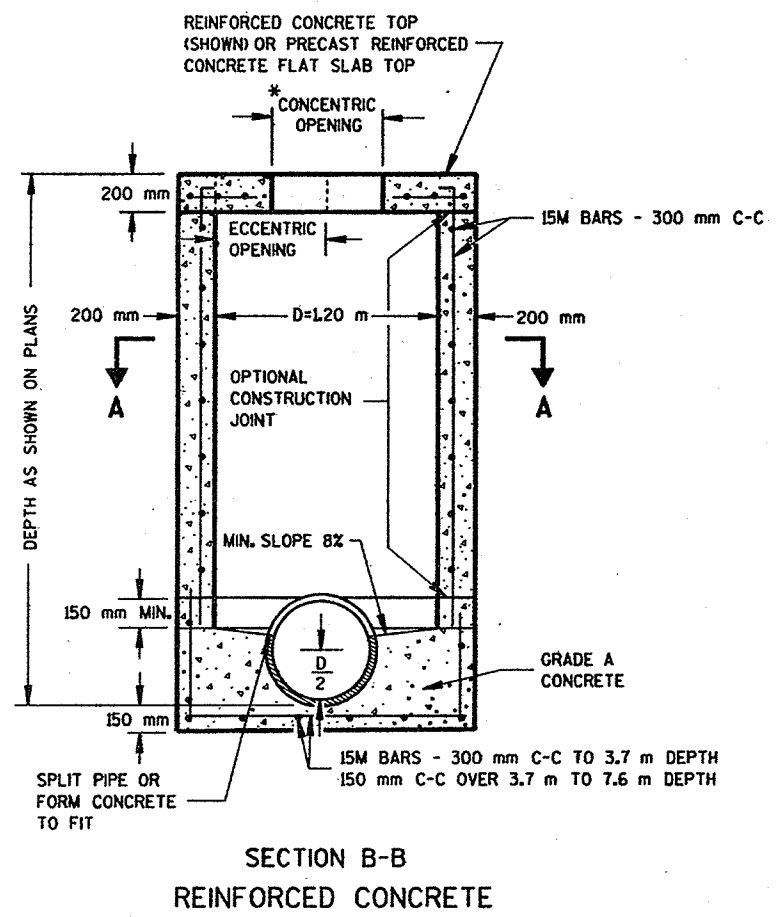
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 mm CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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 M199M.

* USE 600 mm DIAMETER OPENING WITH TYPE "C", "L" AND "J" COVERS, OR 900 mm DIAMETER WITH TYPE "K" AND "M" COVERS.

① 2 COURSES 150 mm BLOCK.



MANHOLES TYPE 1

MANHOLES TYPE 1

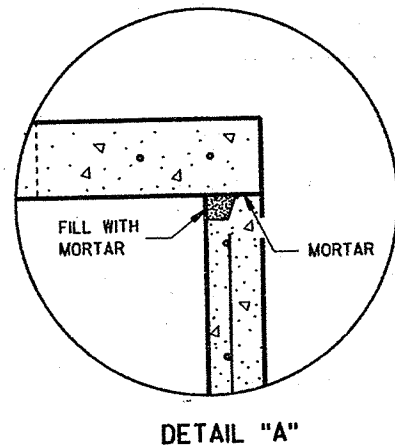
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
02/07/05
DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER

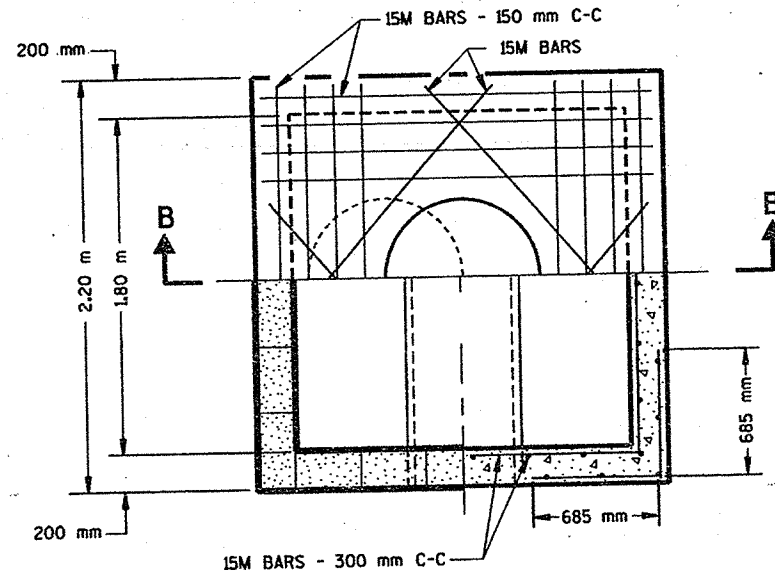
FILE NAME:

S.D.D. 8 B 6-3

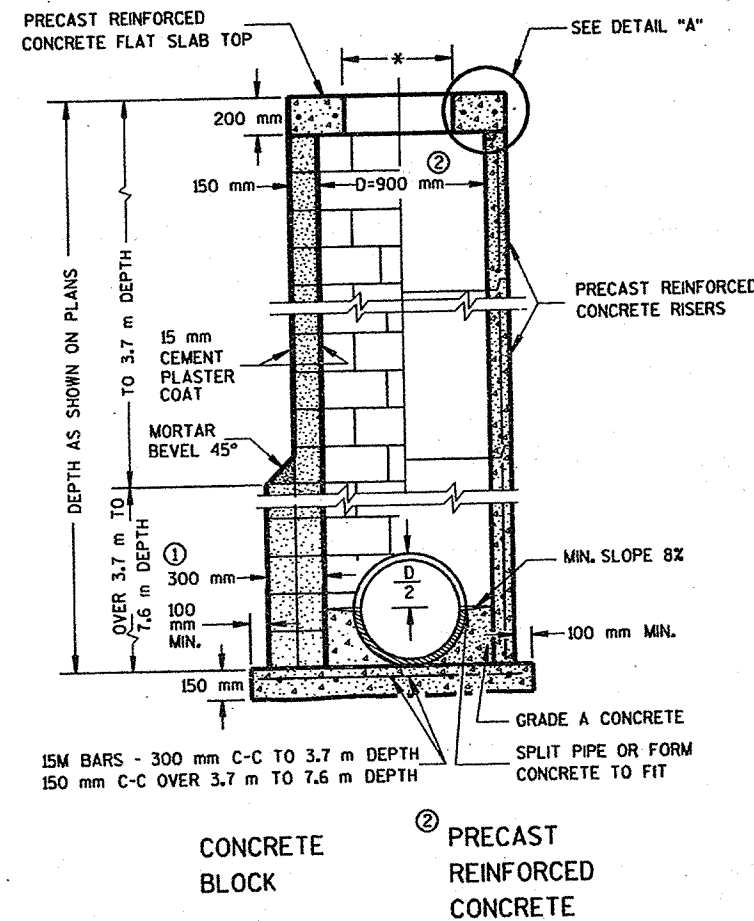
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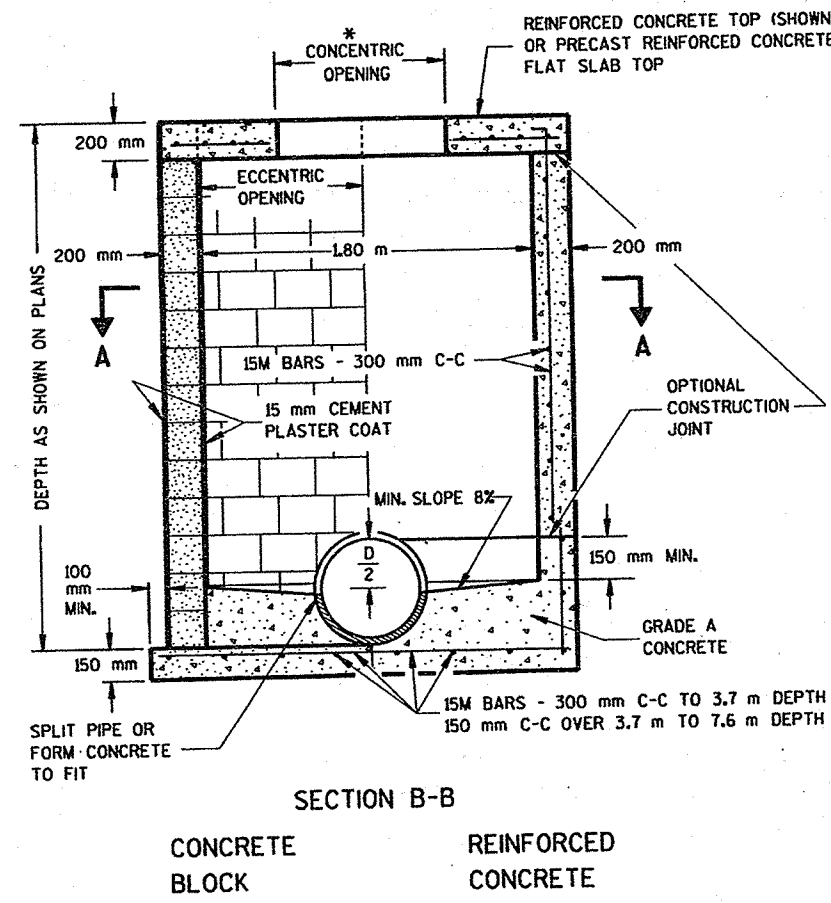
DETAIL "A"



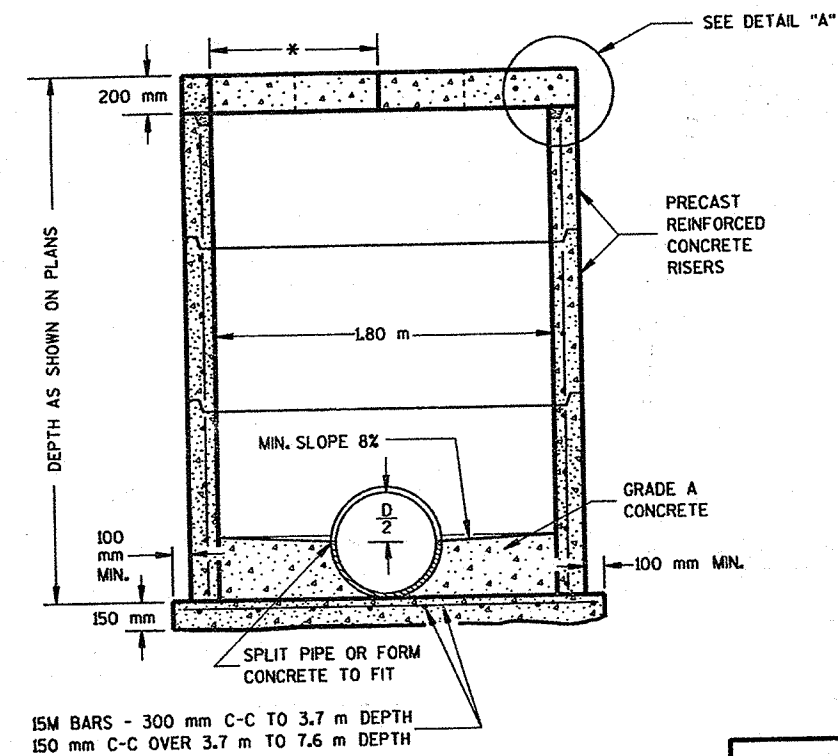
HALF SECTION A-A



MANHOLES TYPE 2



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 150 mm IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 1.5 m IN DEPTH: 400 mm C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 100 mm FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 150 mm; MINIMUM WALL EMBEDMENT OF 75 mm; AND BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 136 kg FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 25 mm.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 19 mm. 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 50 mm 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 M199M.

* USE 600 mm DIAMETER OPENING WITH TYPE "C", "L" AND "J" COVERS, OR 900 mm DIAMETER WITH TYPE "K" AND "M" COVERS.

① 2 COURSES 150 mm BLOCK.

② WHEN CONNECTING PIPES ARE 600 mm OR LARGER THE PRECAST MANHOLES MAY BE INCREASED TO 1.07 m DIAMETER.

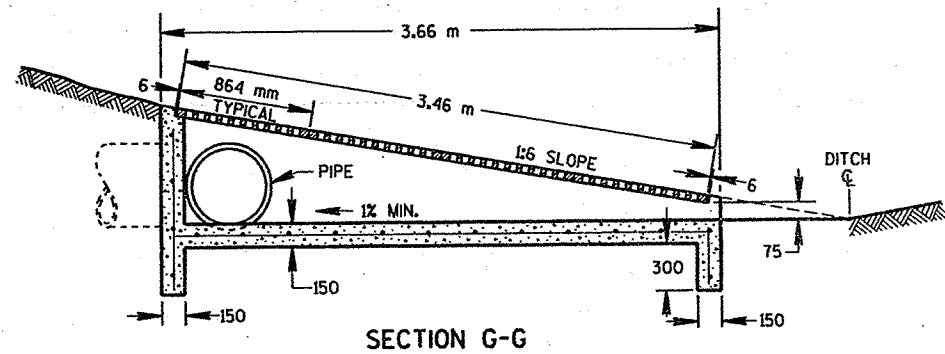
MANHOLES TYPE 2 & 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

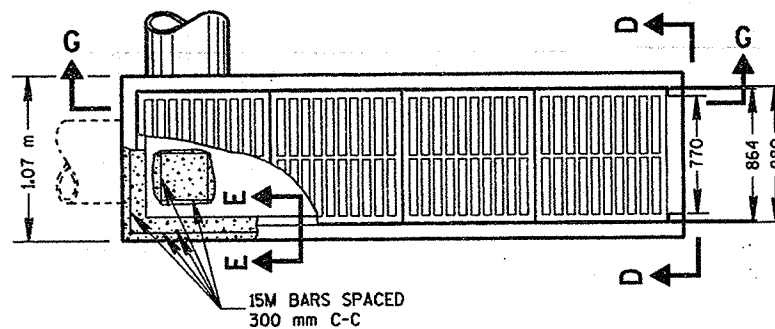
APPROVED
01/27/95
DATE
Rory L. Thompson
CHIEF ROADWAY DEVELOPMENT ENGINEER

S.D.D. 8 B 7-3

S.D.D. 8 C 5-2
LEVELS ON - 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

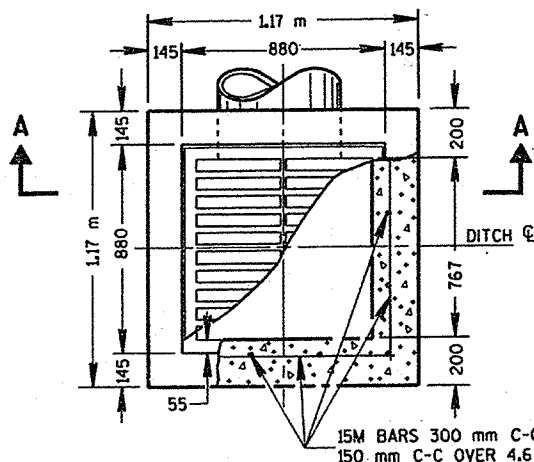


SECTION G-G

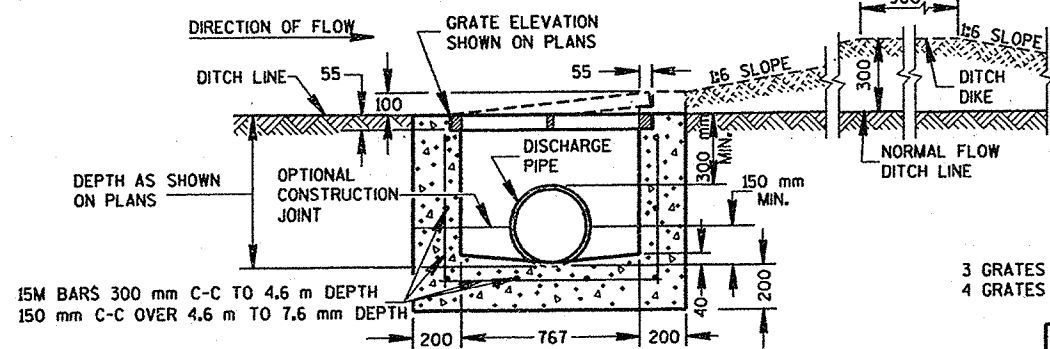


PLAN VIEW

REINFORCED CONCRETE INLET TYPE 11

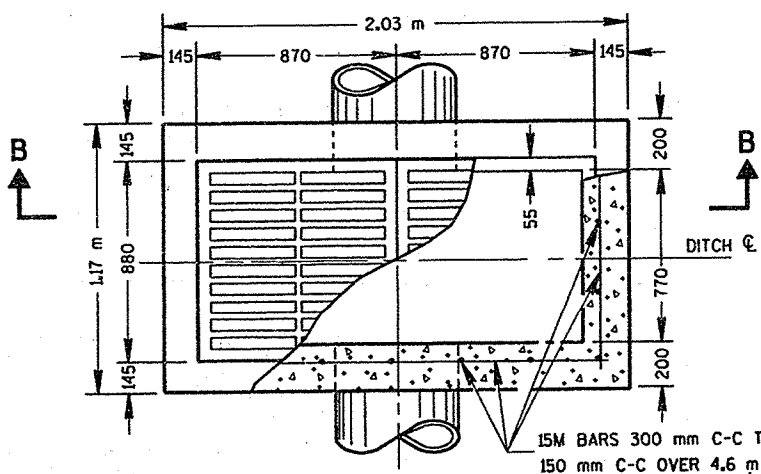


PLAN VIEW



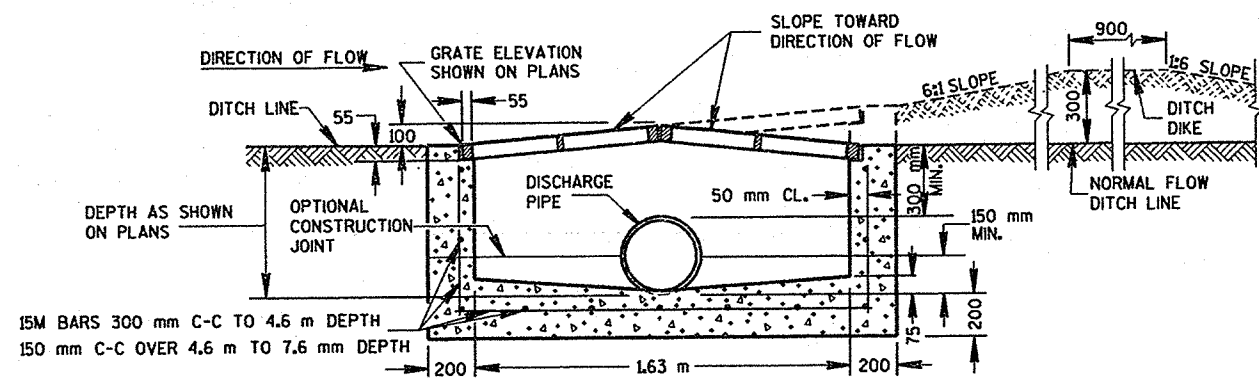
SECTION A-A

REINFORCED CONCRETE INLET TYPE 8

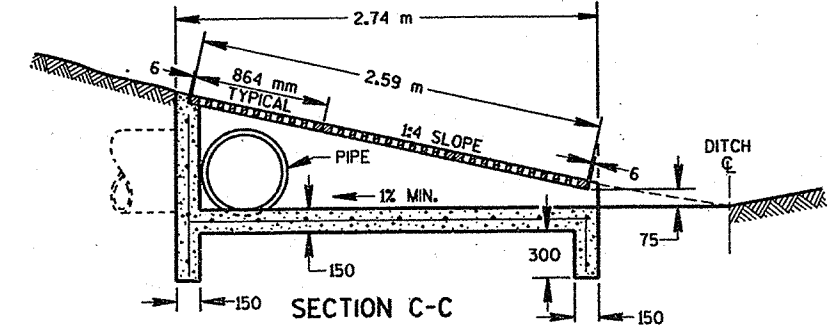


PLAN VIEW

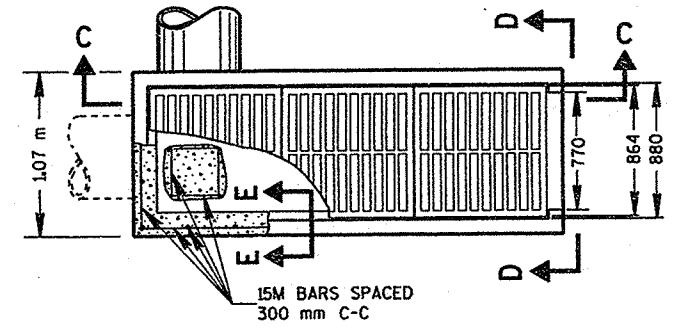
REINFORCED CONCRETE INLET TYPE 9



SECTION B-B

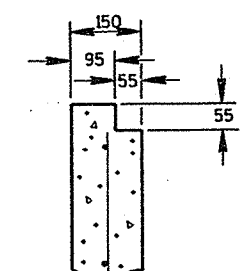


SECTION C-C



PLAN VIEW

REINFORCED CONCRETE INLET TYPE 10



SECTION E-E

INLETS TYPE 8, 9, 10 & 11

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
01/30/95
DATE
Roy L. Thompson
CHIEF ROADWAY DEVELOPMENT ENGINEER

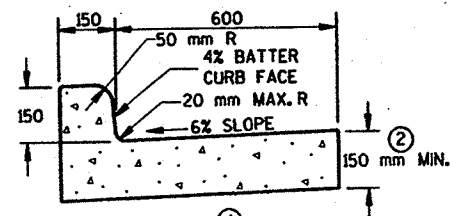
PLOT SCALE:

PLOT NAME:

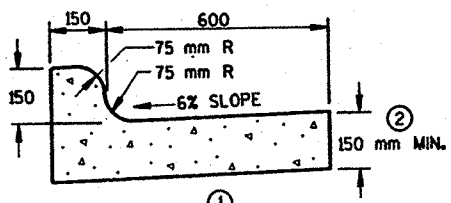
REV. DATE:

ORIGINATOR:

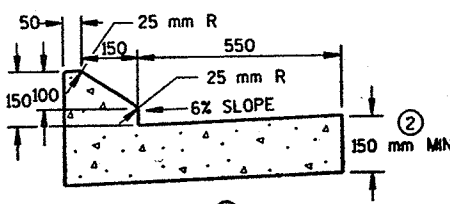
S.D.D. 8 D 1-12
LEVELS ON - 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



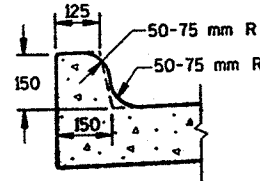
TYPES A & D



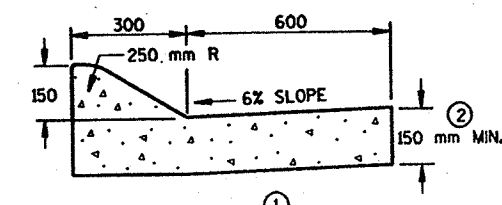
TYPES K & L



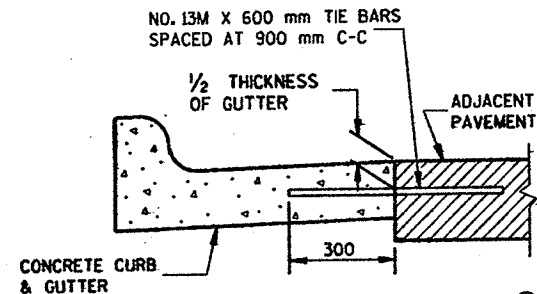
TYPES G & J



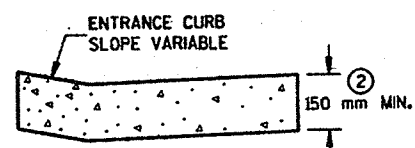
OPTIONAL CURB SHAPE
FOR TYPES K & L



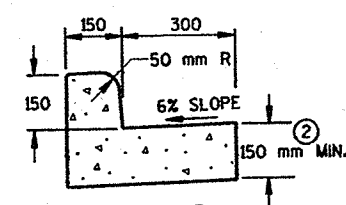
TYPES A & D
CONCRETE CURB & GUTTER 900 mm



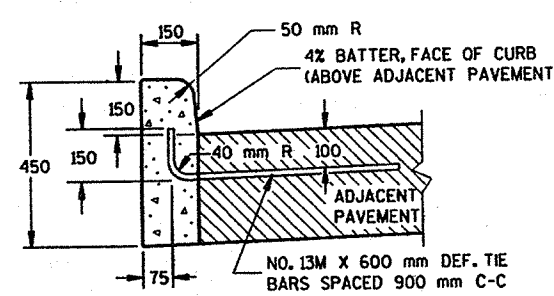
TYPICAL TIE BAR LOCATION



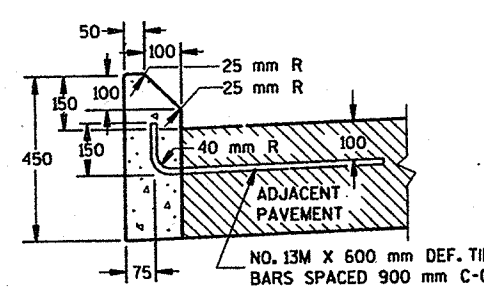
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D
CONCRETE CURB & GUTTER 450 mm



TYPES A & D



TYPES G & J

CONCRETE CURB

GENERAL NOTES

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

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

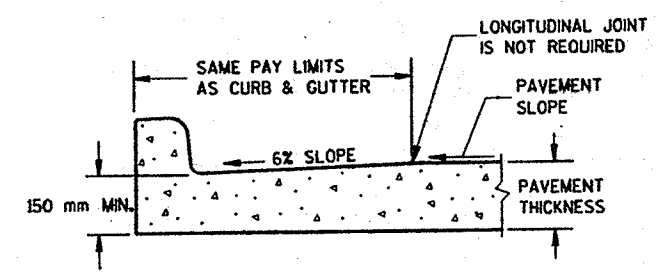
INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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

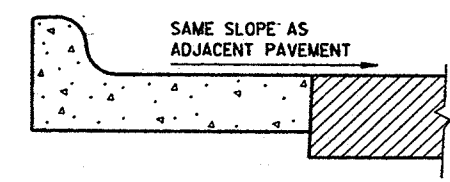
- UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 600 mm BEHIND THE BACK OF CURBS.
- 1 TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G AND K.
 - 2 THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 150 mm MINIMUM GUTTER THICKNESS IS MAINTAINED.
 - 3 WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

NOTE

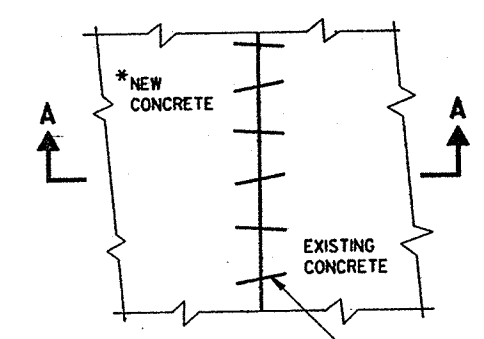
DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



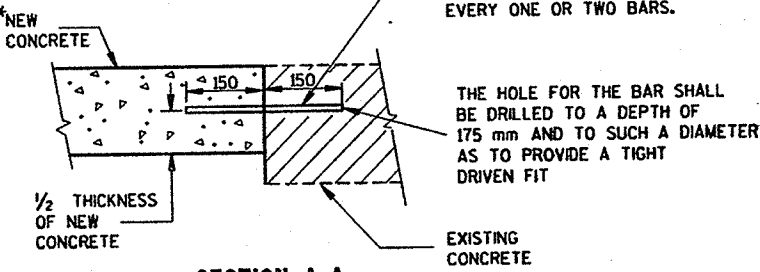
PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



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



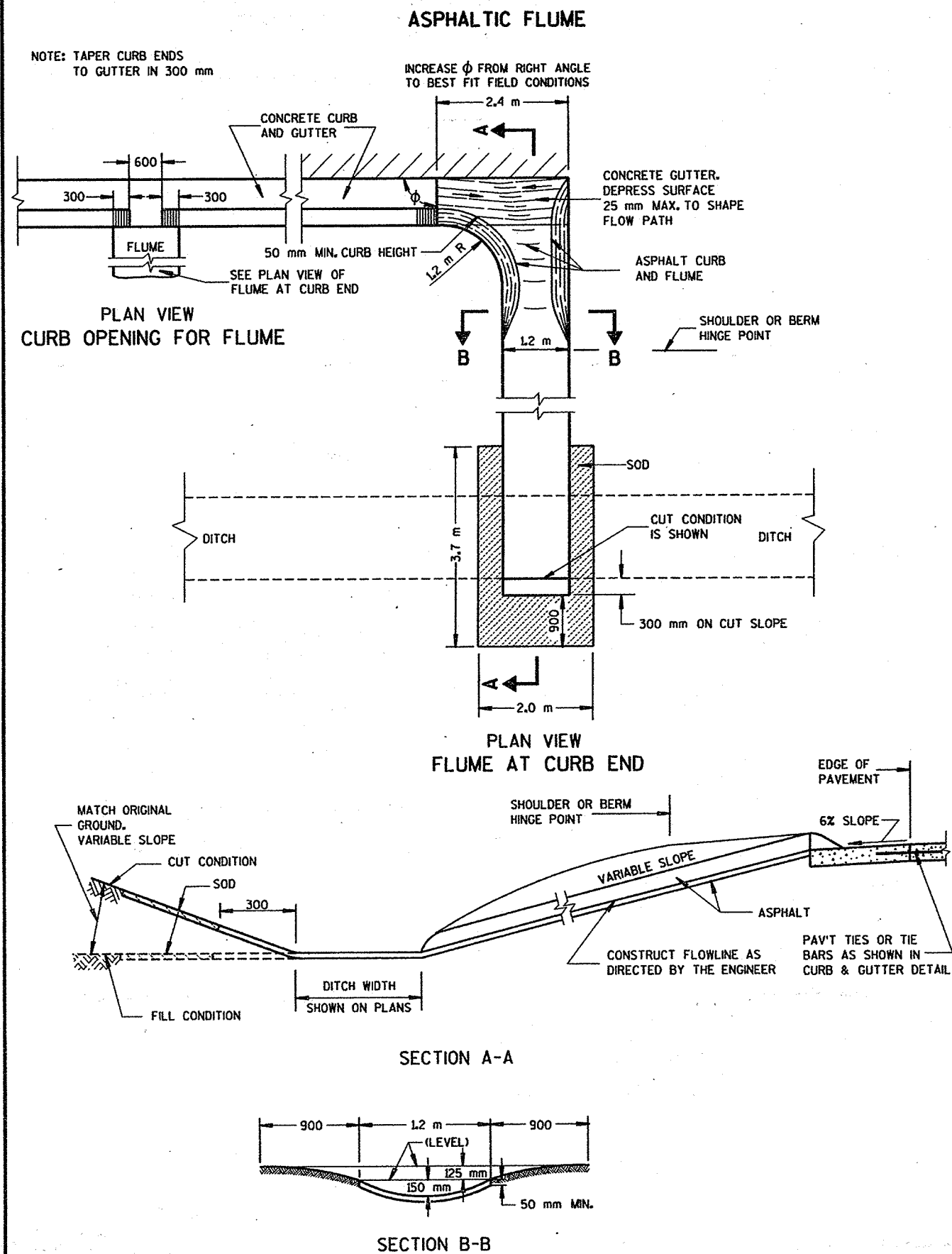
PLAN VIEW



SECTION A-A
PAVEMENT TIES

CONCRETE CURB, CONCRETE CURB & GUTTER AND PAVEMENT TIES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/22/96 DATE	<i>Roy D. Thompson</i> CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 D 4-3
LEVELS ON 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



GENERAL NOTES

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

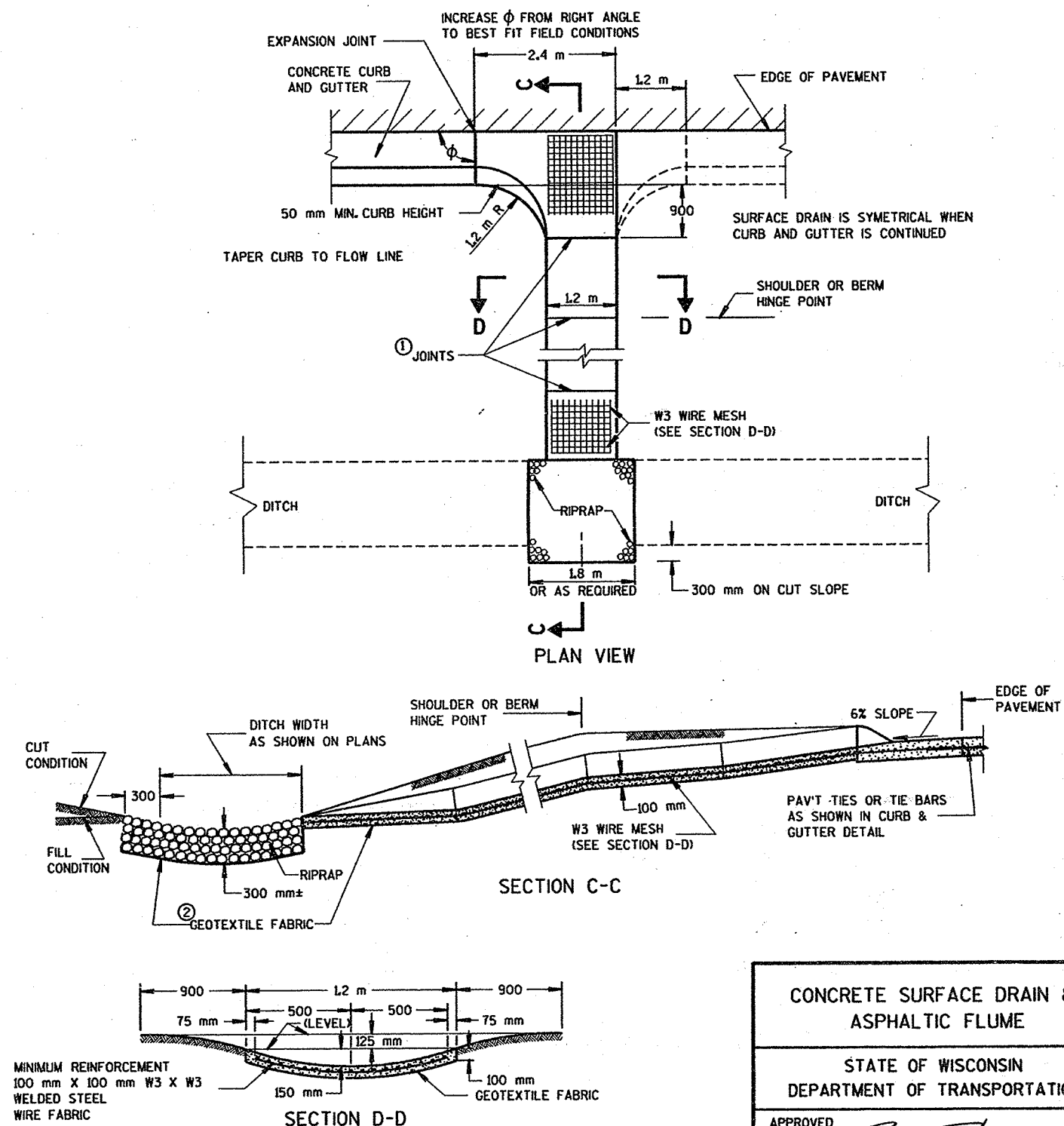
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- JOINTS SHALL BE 5 mm WIDE BY 40 mm DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 1.2 m.
- GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

③ CONCRETE SURFACE DRAIN



CONCRETE SURFACE DRAIN &
ASPHALTIC FLUME

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
02/08/95
DATE
Roy A. Thompson
CHIEF ROADWAY DEVELOPMENT ENGINEER

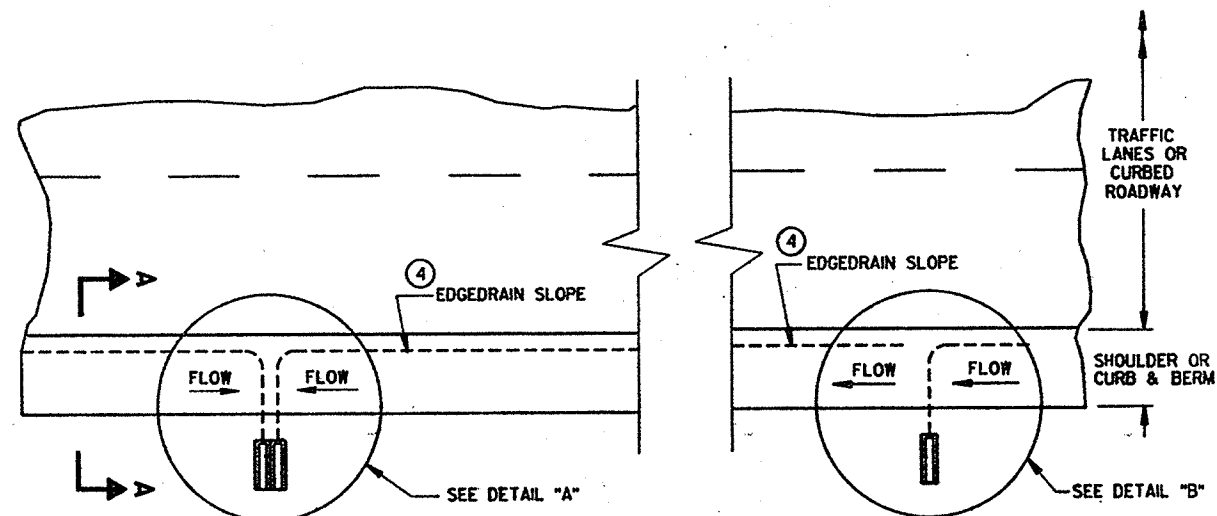
PLOT NAME:

REV. DATE:

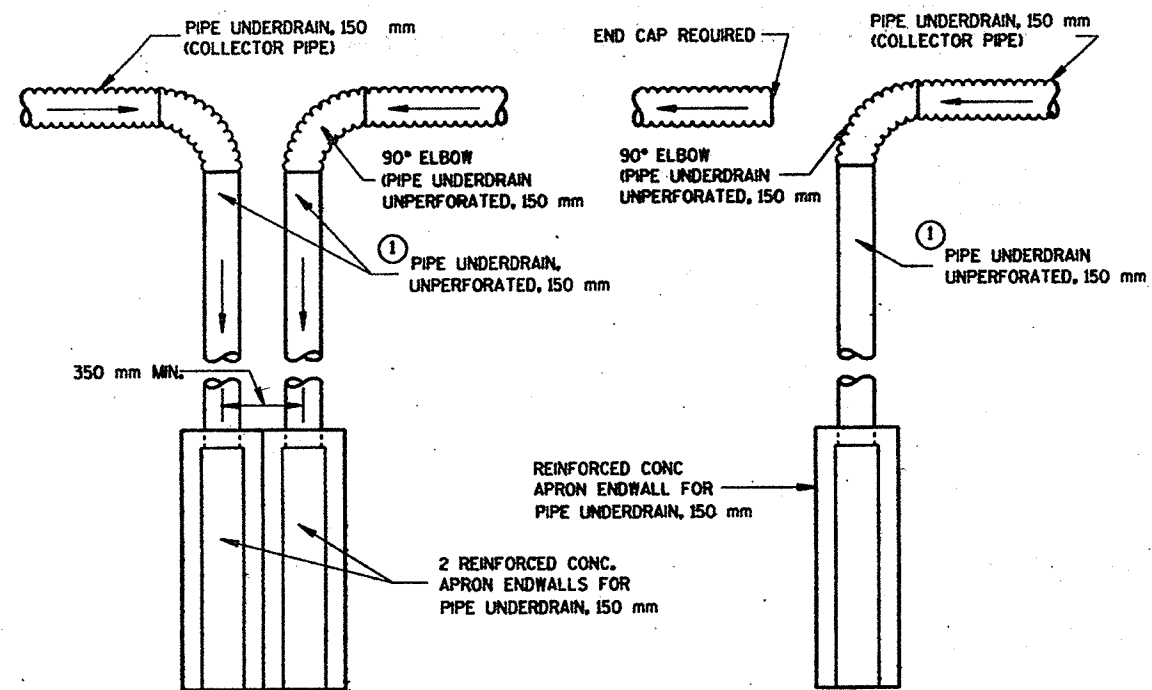
ORIGINATOR:

S.D.D. 8 D 15-20

LEVELS ON - 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

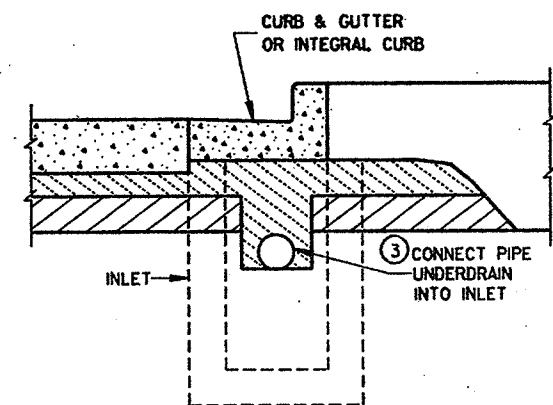


PLAN VIEW
ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN OUTLETS TO ROADSIDE) ②

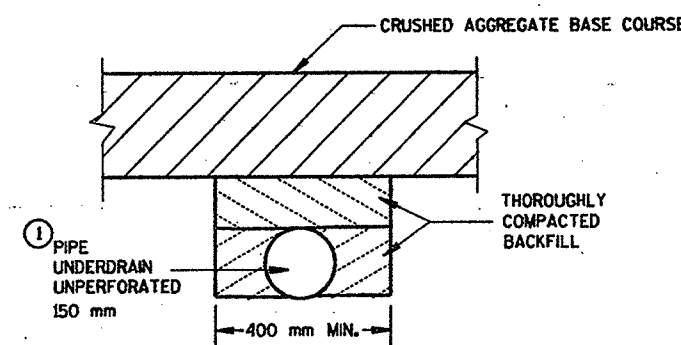


DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS
DETAIL B
TO BE USED AT INTERMEDIATE LOCATIONS

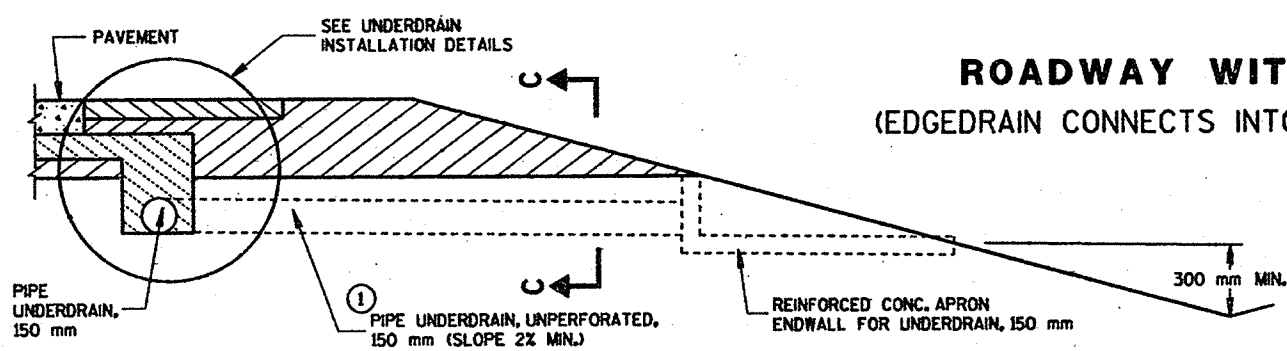
TYPICAL DRAIN OUT DETAILS



SECTION B-B
URBAN CROSS SECTION



SECTION C-C
(TRENCH FOR OUTFALL PIPE)



SECTION A-A
RURAL CROSS SECTION

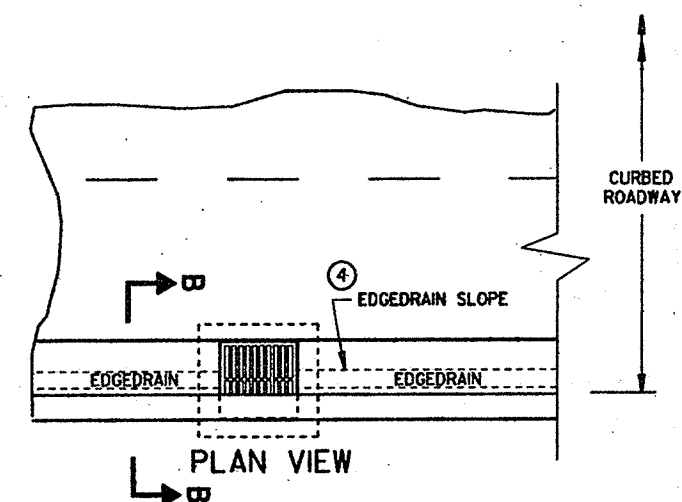
NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

GENERAL NOTES

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

- ① UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.
TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.
- ② MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 75 m UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.
- ③ EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.
- ④ EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.

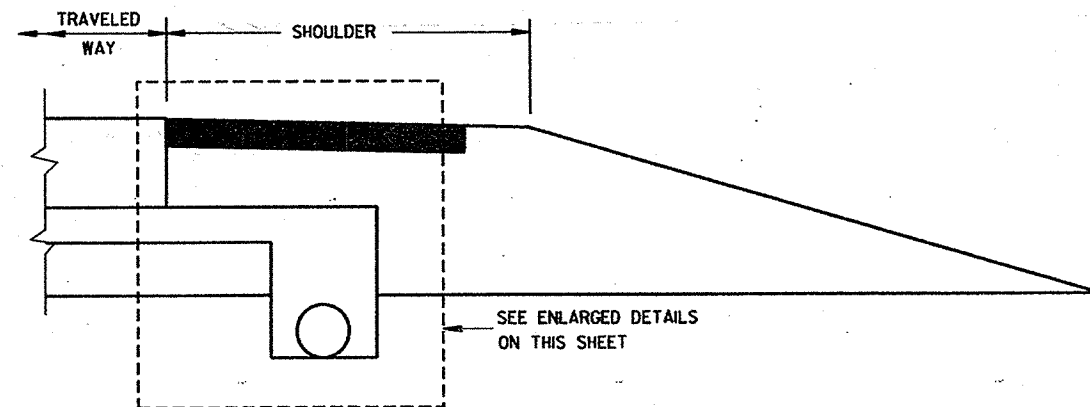


ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)

EDGEDRAIN OUTLET DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 8 D 15-20



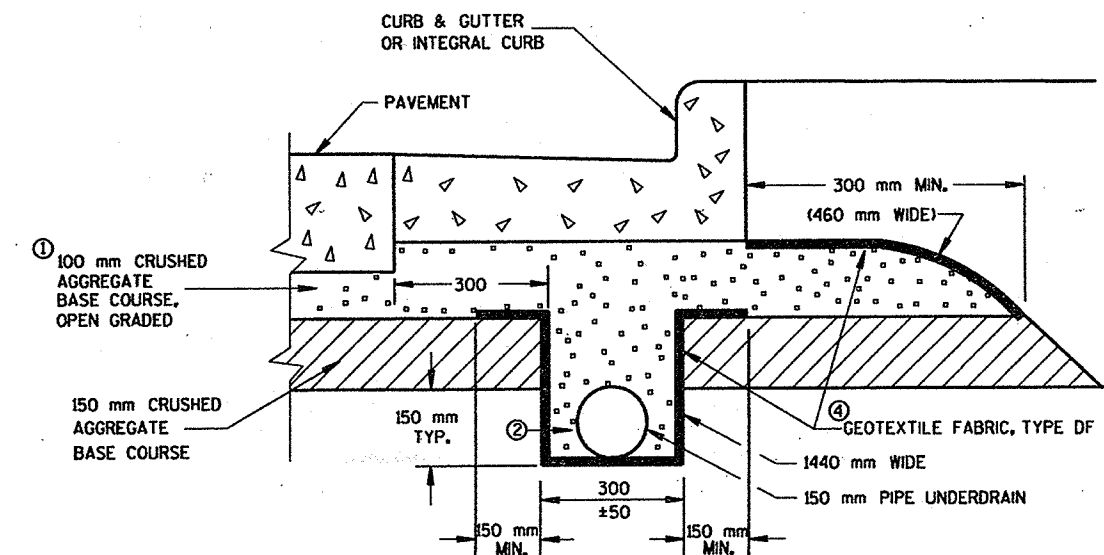
RURAL CROSS SECTION

NOTES

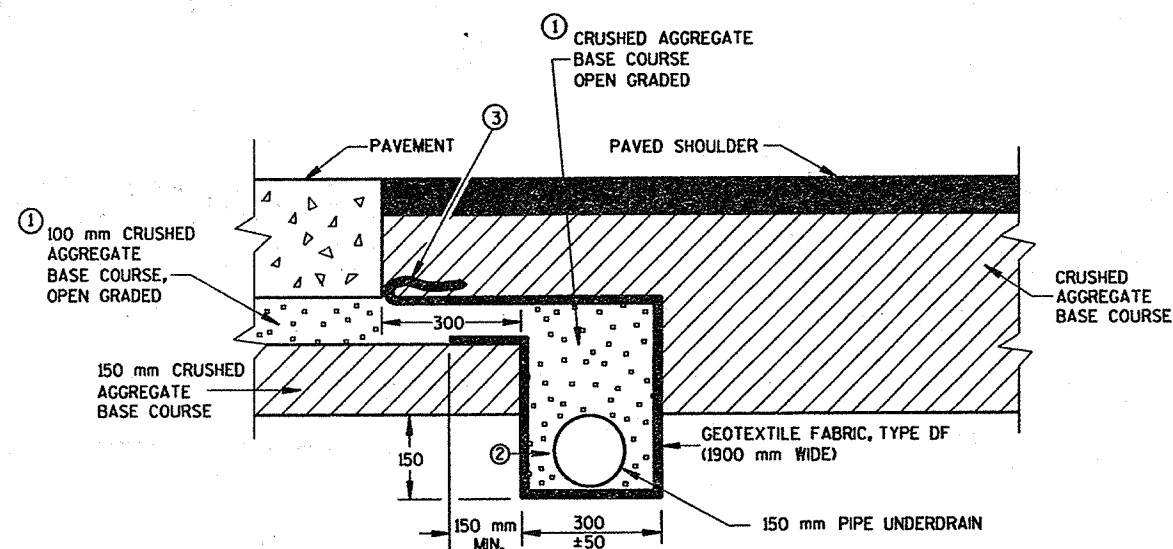
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

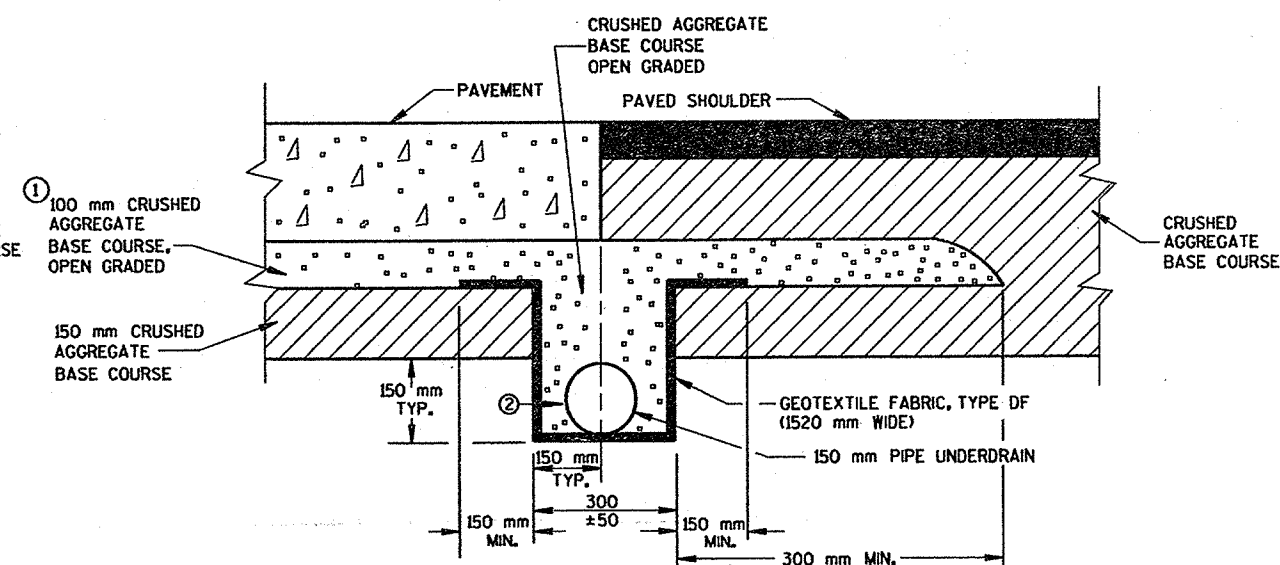
- ① THE GRADATION OF THE OPEN GRADED BASE COURSE SHALL BE EITHER NO.1 OR NO.2 AS SPECIFIED ELSEWHERE IN THE CONTRACT.
- ② TRENCH BACKFILL WILL BE PAID FOR AS CRUSHED AGGREGATE BASE COURSE, OPEN GRADED NO.1 OR NO.2 AS SPECIFIED.
- ③ FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.
- ④ TOTAL FABRIC WIDTH IS 1900 mm FOR PAYMENT.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

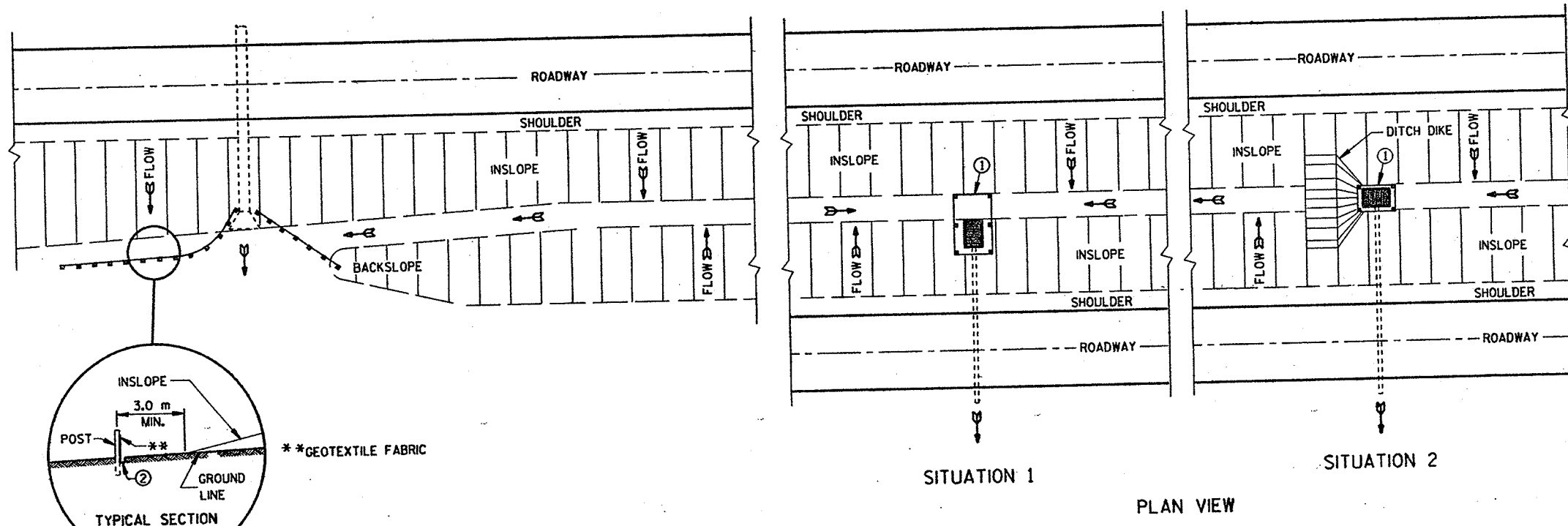
EDGEDRAIN AND CRUSHED AGGREGATE BASE COURSE, OPEN GRADED, NO.1 OR NO.2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
06/26/97
DATE
FIRMA
Roy L. Thompson
CHIEF ROADWAY DEVELOPMENT ENGINEER

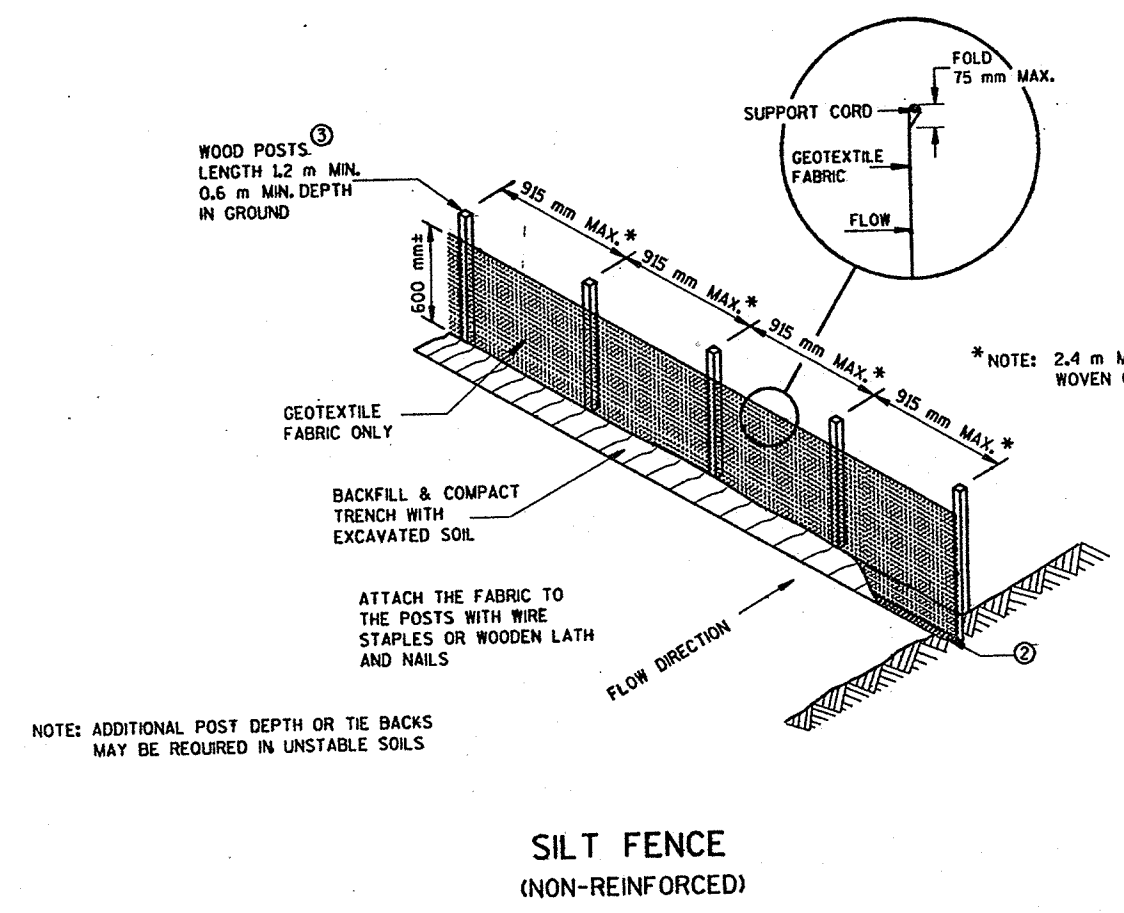
PLOT SCALE:
PLOT NAME:
REV. DATE:
ORIGINATOR:

S.D.D. 8 E 9-5
LEVELS ON - 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



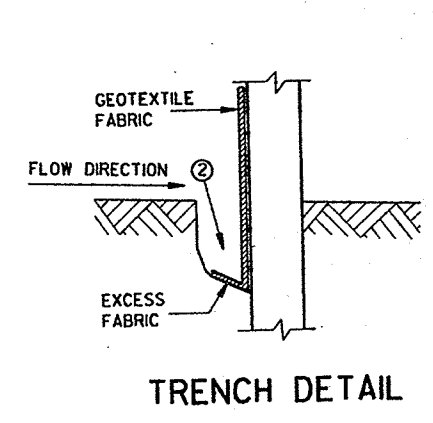
PLAN VIEW
TYPICAL APPLICATIONS OF SILT FENCE

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

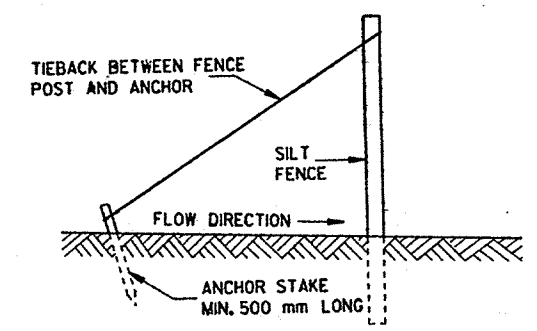


NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

SILT FENCE
(NON-REINFORCED)



TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

- GENERAL NOTES**
- DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.
- ① HORIZONTAL BRACE WITH 50 mm X 100 mm WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS AS DIRECTED BY THE ENGINEER.
 - ② TRENCH SHALL BE A MINIMUM OF 100 mm WIDE & 150 mm DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
 - ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 30 mm X 30 mm OF OAK OR HICKORY.

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 05/11/96 DATE	<i>[Signature]</i> CHIEF ROADWAY DEVELOPMENT ENGINEER
FINRA	

S.D.D. 8 F 1-11
LEVELS ON - 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

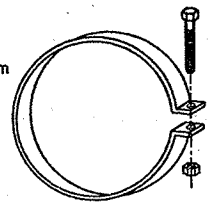
METAL APRON ENDWALLS											
PIPE DIA. (mm)	MIN. THICK. (mm)		DIMENSIONS (MILLIMETERS)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
300	1.6	1.5	150	150	150	535	305	445	610	±2.5	1 Pc.
375	1.6	1.5	180	205	150	660	355	552	760	±2.5	1 Pc.
450	1.6	1.5	205	255	150	790	380	718	915	±2.5	1 Pc.
525	1.6	1.5	230	305	150	915	455	752	1065	±2.5	1 Pc.
600	1.6	1.5	255	330	150	1040	455	949	1220	±2.5	1 Pc.
750	2.0	1.9	305	405	205	1300	455	1327	1525	±2.5	1 Pc.
900	2.0	1.9	355	480	230	1525	610	1905	1830	±2.5	2 Pc.
1050	2.8	2.7	405	560	280	1755	610	1921	2135	±2.5	2 Pc.
1200	2.8	2.7	455	685	305	1980	610	2057	2285	±2.5	3 Pc.
1350	2.8	2.7	455	760	305	2140	760	2172	2590	±2.25	3 Pc.
1500	2.8	2.7	455	840	305	2210	—	—	2895	±2	3 Pc.
1650	2.8	2.7	455	915	305	2210	—	—	3050	±2	3 Pc.
1800	2.8	2.7	455	990	305	2210	—	—	3200	±2	3 Pc.
1950	2.8	2.7	455	1070	305	2210	—	—	3355	±1.5	3 Pc.
2100	2.8	2.7	455	1145	305	2210	—	—	3505	±1.5	3 Pc.
2250	2.8	2.7	455	940	305	2210	—	—	3660	±1.5	3 Pc.
2400	2.8	2.7	455	890	305	2210	—	—	3960	±1.5	3 Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (mm)	DIMENSIONS (MILLIMETERS)							APPROX. SLOPE
	T	A	B	C	D	E	G	
305	51	102	610	1241	1851	610	51	1:3
380	57	152	686	1168	1854	762	57	1:3
450	64	229	686	1168	1854	914	64	1:3
525	70	229	915	953	1867	1067	70	1:3
600	76	241	1105	762	1867	1219	76	1:3
675	83	267	1257	610	1867	1372	83	1:3
750	89	305	1372	502	1867	1524	89	1:3
900	102	381	1600	883	2483	1829	102	1:3
1050	114	533	1600	889	2489	1981	114	1:3
1200	127	610	1829	660	2489	2134	127	1:3
1350	140	686	1651	635 **889	2486 **2540	2286	140	1:2.4
1500	152	762 **924	1524	991	2515	2448	152	1:2
1650	165	910 **762	1829 **1981	533 **686	2515	2591	165	1:2
1800	178	915 **515	1981	533	2515	2743	152	1:2
1950	190	910 **915	1981	533	2515	2896	165	1:2
2100	203	915	2299	533	2832	3048	165	1:1.5
2250	216	1041	2222	610	2832	3353	165	1:1.5

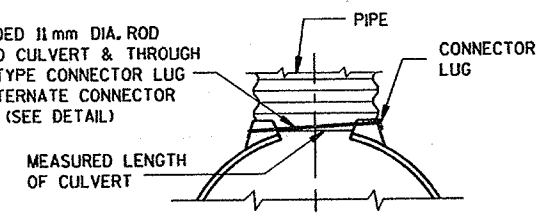
* MINIMUM
** MAXIMUM

25 mm WIDE, 2.7 mm THICK GALVANIZED STRAP WITH STANDARD 152 mm X 13 mm BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP

THREADED 11 mm DIA. ROD AROUND CULVERT & THROUGH TANK TYPE CONNECTOR LUG OR ALTERNATE CONNECTOR STRAP (SEE DETAIL)



TYPE 1
FOR 300 mm THRU 600 mm CORR. PIPE

THREADED 11 mm DIA. ROD OVER TOP OF APRON, SIDE LUGS TO BE RIVETED TO APRON



TYPE 2
FOR 750 mm THRU 2400 mm CORR. PIPE

MEASURED LENGTH OF CULVERT

COUPLING BAND REQUIRED

CONNECTOR SECTION TO BE PAID FOR AS PART OF END SECTION

305 mm

RIVETED OR BOLTED

TYPE 3
FOR 1050 mm THRU 2400 mm CORR. PIPE

DIMPLED OR CORRUGATED COUPLING BAND

2 - 13 mm X 152 mm BAND BOLTS

RIVETED OR BOLTED AT DIMPLES (152 mm C-C FOR CORRUGATED BAND)

MEASURED LENGTH OF CULVERT

TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

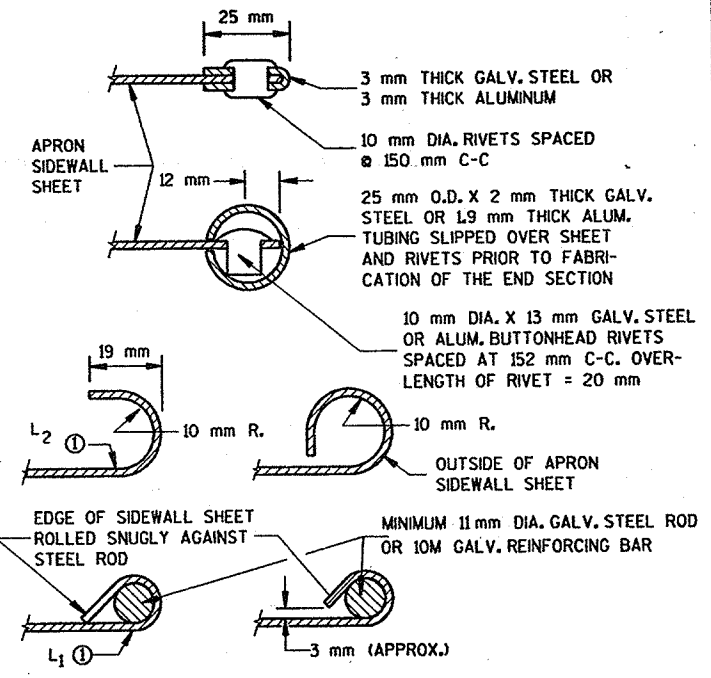
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

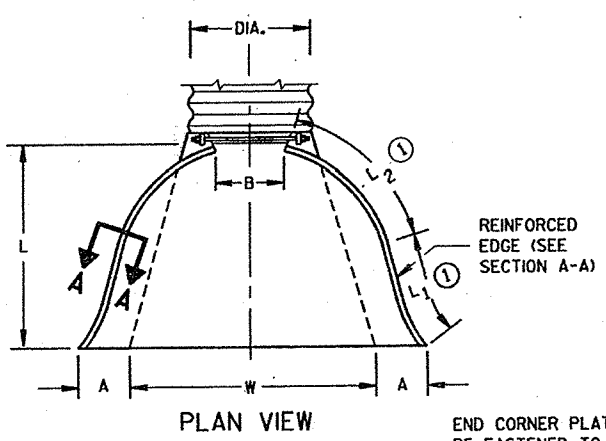
CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 1500 mm DIAMETER PIPE AND LARGER SHALL HAVE 2.8 mm SIDES AND 3.5 mm CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 1500 mm DIAMETER PIPE AND LARGER SHALL HAVE 3.4 mm SIDES AND 3.4 mm CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

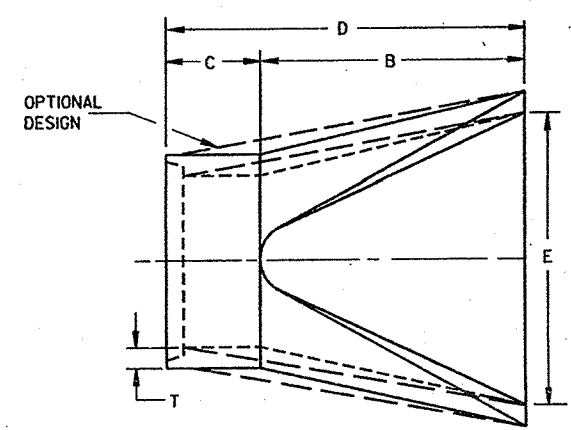
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 1500 mm THROUGH 2400 mm DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER 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 152 mm BETWEEN APRON ENDWALLS.

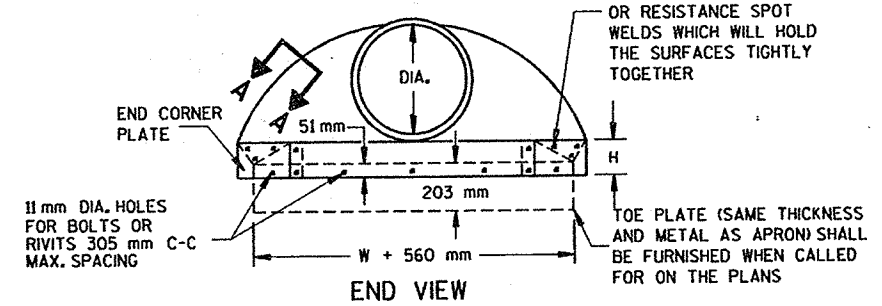
① FOR PIPE SIZES UP TO 1500 mm DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.



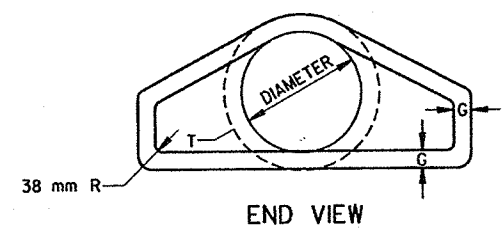
PLAN VIEW



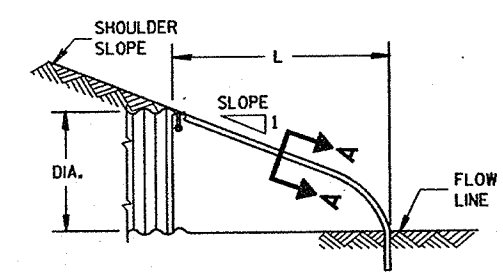
PLAN



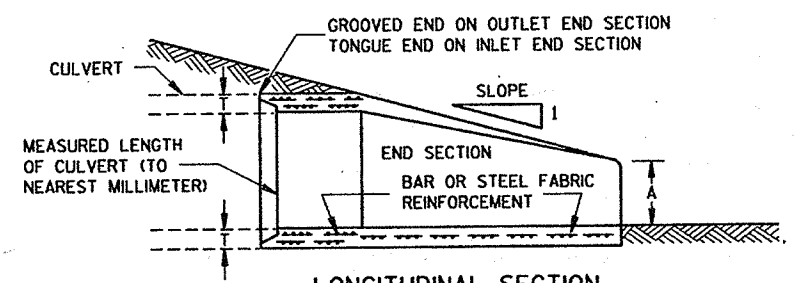
END VIEW



END VIEW



SIDE ELEVATION
METAL ENDWALLS



LONGITUDINAL SECTION
CONCRETE ENDWALLS

APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
01/27/85
DATE
Randy L. Thompson
CHIEF ROADWAY DEVELOPMENT ENGINEER

PLOT SCALE:

PLOT NAME:

REV. DATE:

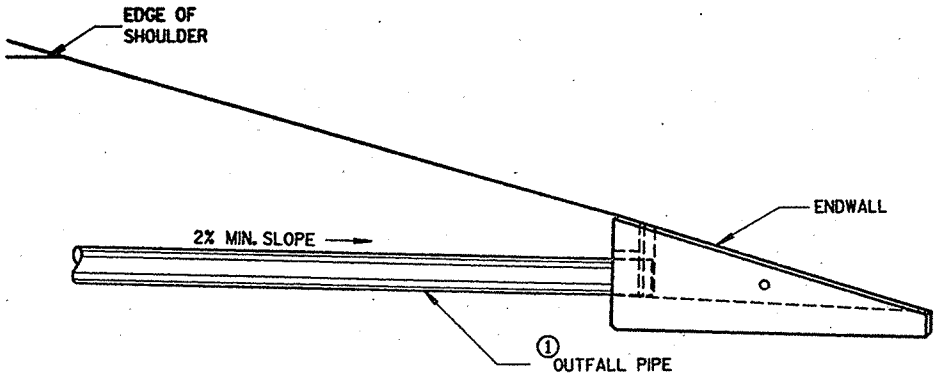
ORIGINATOR:

S.D.D. 8 F 6-4

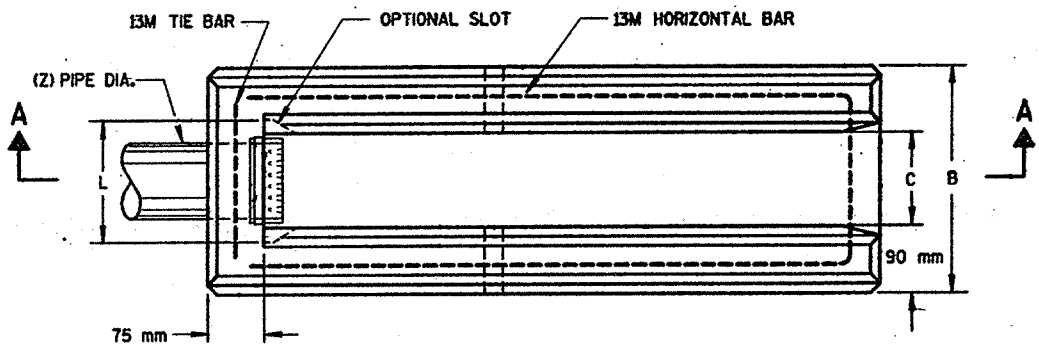
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DIMENSIONS IN MILLIMETERS											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
** 100	155	305	135	230	205	815	915	280	60	165	100
150	205	355	185	280	255	1065	1115	330	90	215	150

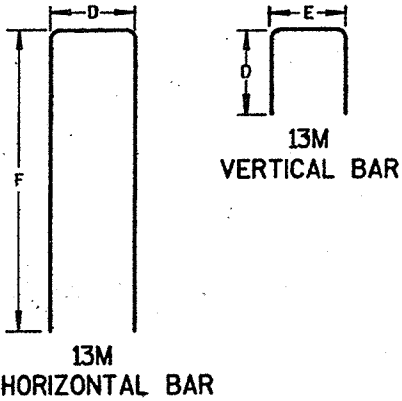
** APRON ENDWALL FOR 150 mm DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 100 mm DIAMETER PIPE DIMENSIONS (C & J)



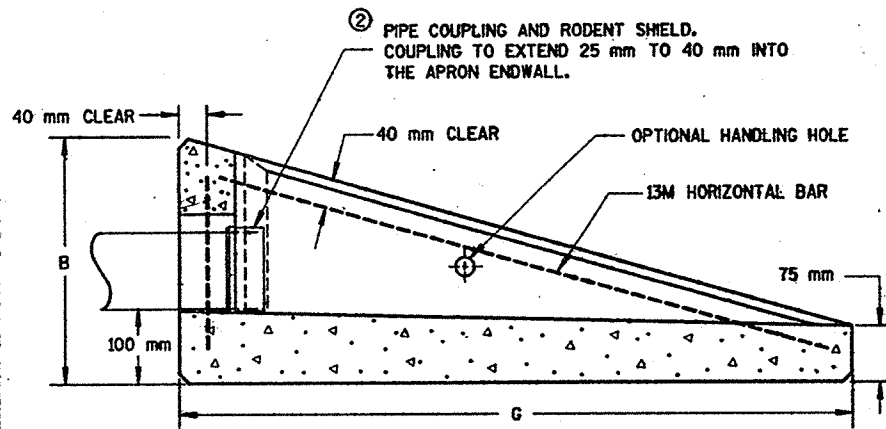
INSTALLATION DETAIL



PLAN VIEW

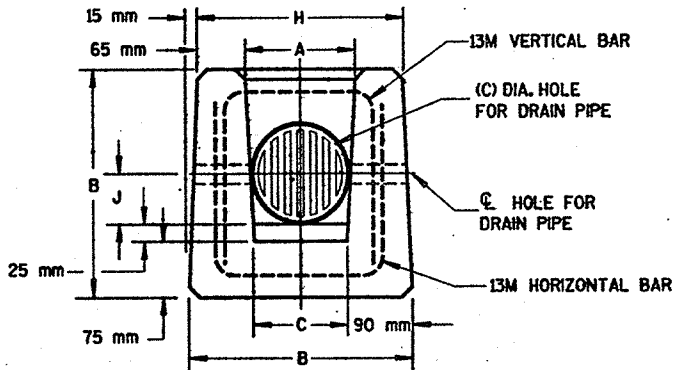


BAR-STEEL REINFORCEMENT DETAILS



SECTION A-A

CONCRETE APRON ENDWALL FOR UNDERDRAIN



END VIEW

GENERAL NOTES

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

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

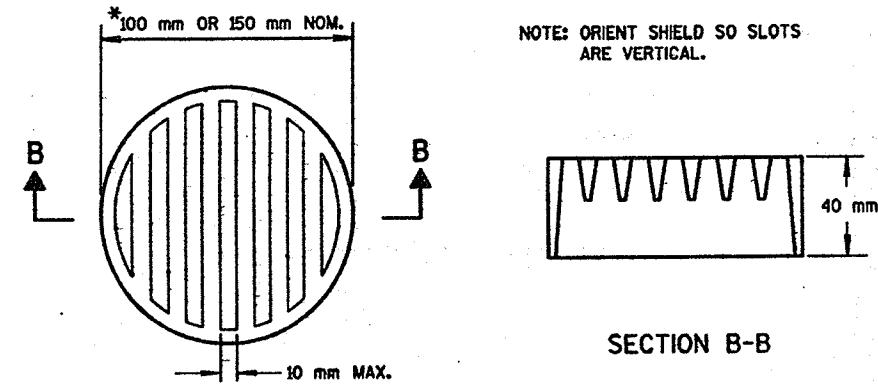
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

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

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

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

- ② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE M5 X 30 mm STAINLESS STEEL SHEET METAL SCREWS.



② RODENT SHIELD

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

REINFORCED
CONCRETE APRON ENDWALL
FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

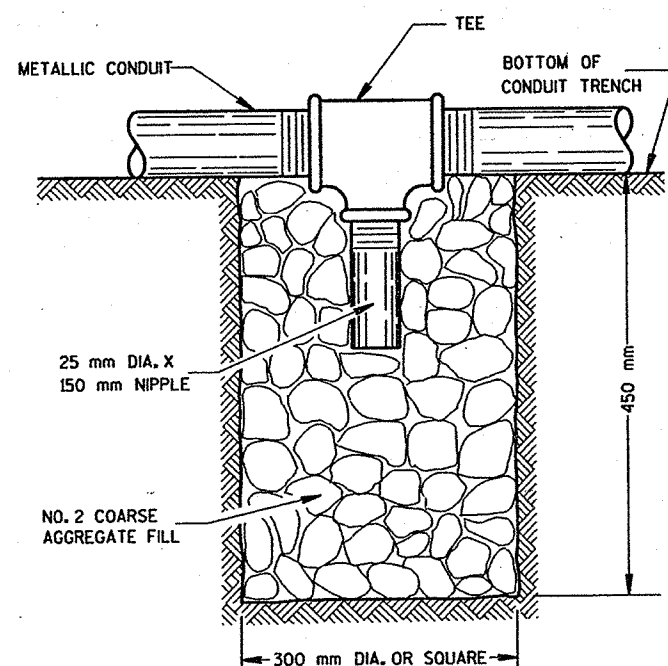
APPROVED
3/10/98
DATE

Roy A. Thompson
CHIEF ROADWAY DEVELOPMENT ENGINEER

FM

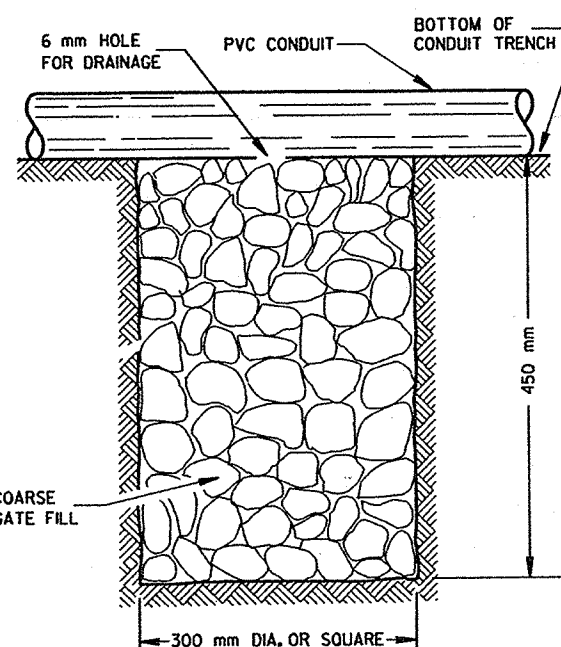
S.D.D. 8 F 6-4

S.D.D. 9 B 2-6
LEVELS ON - 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



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

DRAIN SUMP FOR METALLIC CONDUIT



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

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METRIC MEASUREMENTS ARE BASED ON 25 mm (NOMINAL) PER INCH.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 600 mm MINIMUM AND 900 mm MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 450 mm MIN. AND 900 mm MAXIMUM.

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

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

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

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

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

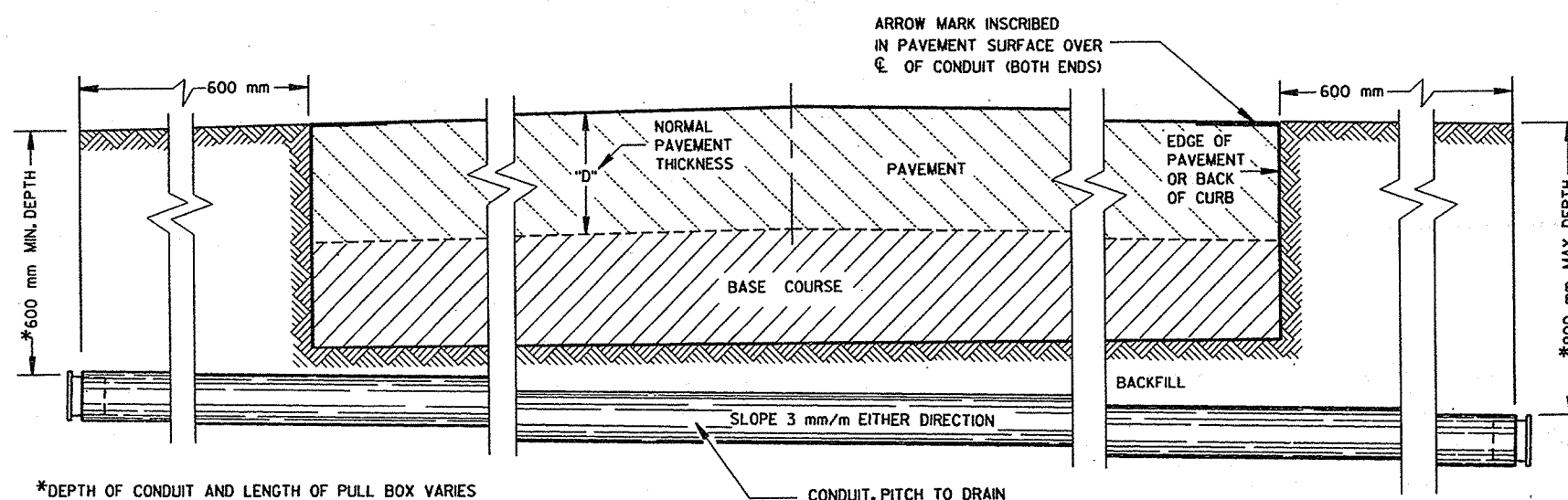
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

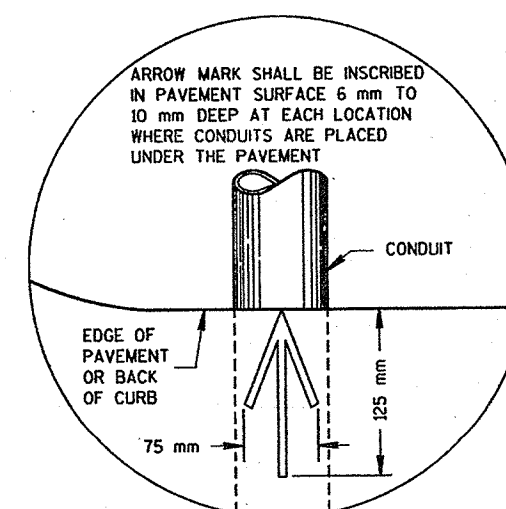
POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.11.

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



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

**SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS**



**PLAN VIEW
ARROW MARK**

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/21/96
DATE

FHWA

STATE ELECTRICAL ENGINEER FOR
HIGHWAYS

M

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN MILLIMETERS		TYPE OF PIPE								
		CORRUGATED STEEL								POLYETHYLENE SDR 32.5
PIPE DIAMETER (INSIDE)	A	300	300	300	450	450	450	600	600	600
PIPE LENGTH **	B	600	750	900	600	750	900	900	1050	1200
WALL THICKNESS	C	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
COVER	D	260	260	260	413	413	413	565	565	565
FRAME	E	368	368	368	521	521	521	676	676	676
FRAME	F	217	217	217	368	368	368	521	521	521
FRAME	G	293	293	293	445	445	445	597	597	597
WEIGHT IN kg										
FRAME AND COVER		27	27	27	50	50	50	70	70	70

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

** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 1200 mm (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

GENERAL NOTES

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

METRIC MEASUREMENTS ARE BASED ON 25 mm (NOMINAL) PER INCH.

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

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

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 6 mm.

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

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

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

DRAIN DUCT SHALL BE MEASURED AND PAID FOR SEPARATELY.

RODENT WIRE SCREEN SHALL BE 3 mm STAINLESS STEEL MESH AND BE INSTALLED WITH A STAINLESS STEEL HOSE CLAMP OF SUFFICIENT SIZE.

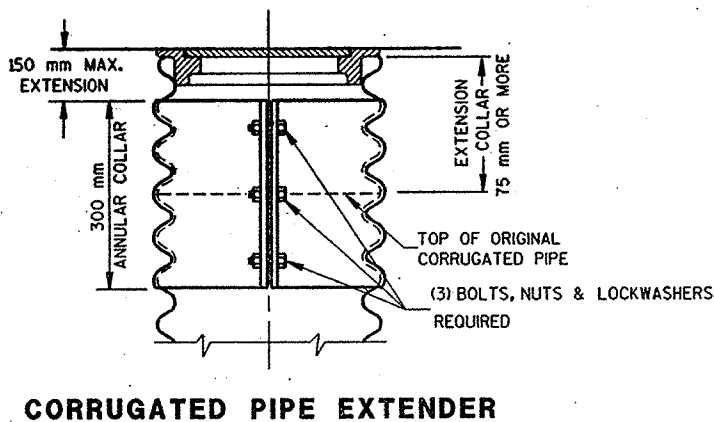
ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

IF PULL BOX EQUIPMENT GROUNDING IS REQUIRED USING AN EQUIPMENT GROUNDING ELECTRODE IN EACH PULL BOX, THE EQUIPMENT GROUNDING ELECTRODE SHALL BE 15 mm X 2400 mm, COPPERCLAD, AND BE EXOTHERMICALLY WELDED TO A #4 AWG, COPPER, STRANDED WIRE (BARE OR GREEN INSULATED). THE #4 AWG WIRE SHALL BE 1200 mm IN LENGTH, NEATLY COILED, TAPED AND AVAILABLE FOR USE WHEN REQUIRED.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 50-75 mm BELOW GRADE AND COVER IT WITH 50-75 mm OF CRUSHED AGGREGATE



CORRUGATED PIPE EXTENDER

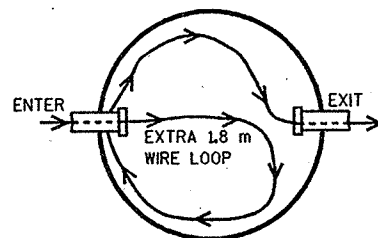
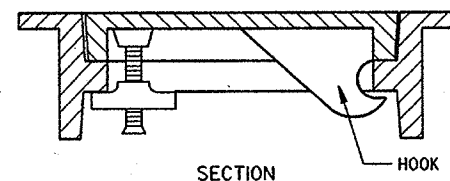
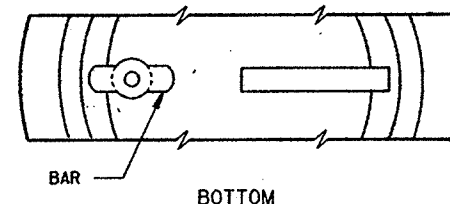
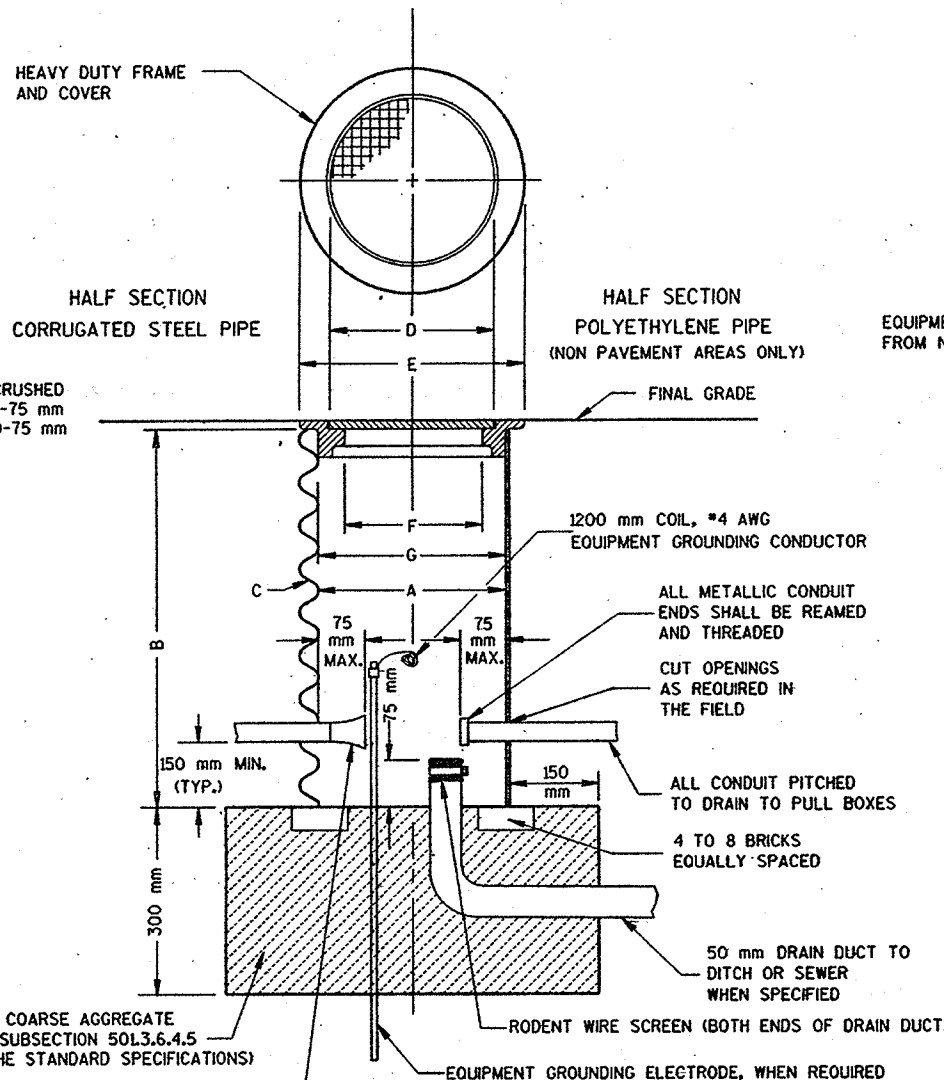


ILLUSTRATION OF WIRE/CABLE PLACEMENT IN PULLBOX

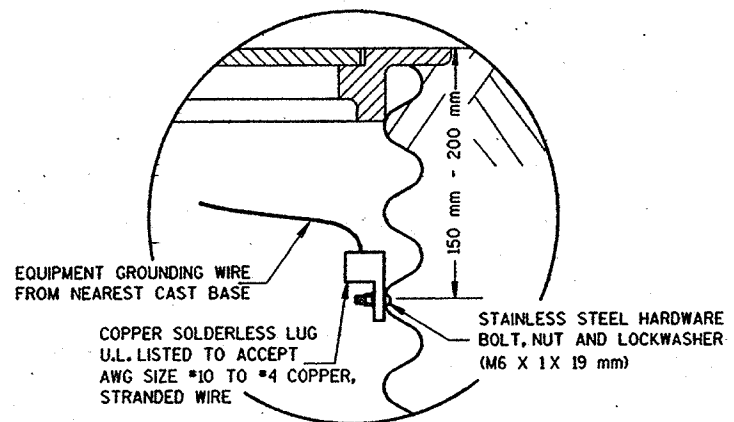


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



PULL BOX

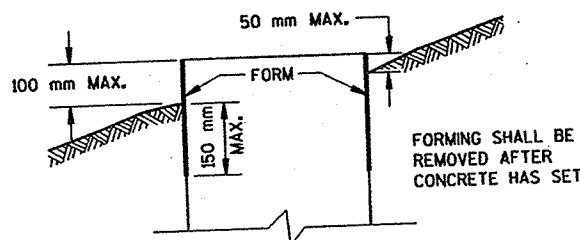


EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/21/97 DATE	<i>Bah. Arred</i> STATE ELECTRICAL ENGINEER FOR HIGHWAYS

2-2-2 S.D.D. 9 C 2-2
LEVELS ON - 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

FORM DEPTH SHALL BE
NO MORE THAN 150 mm BELOW
GRADE ON THE LOWER
SIDE OF BASE

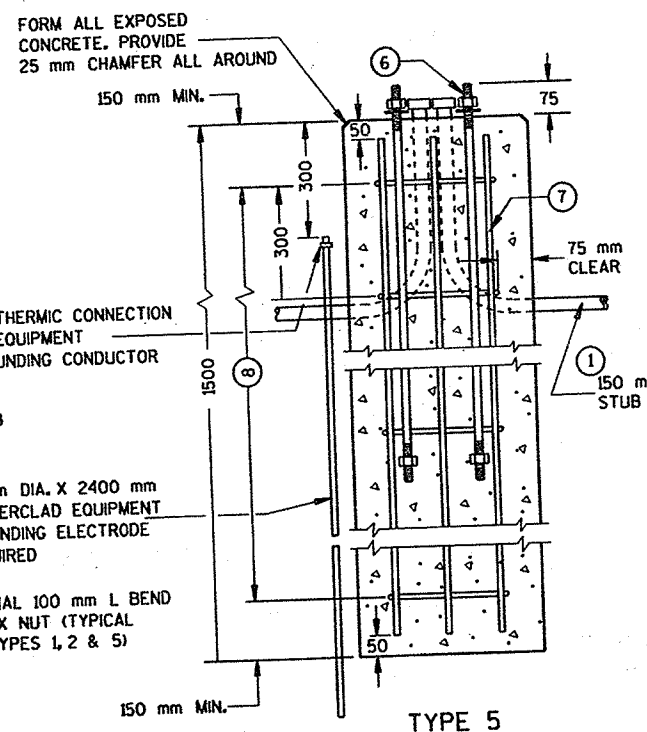
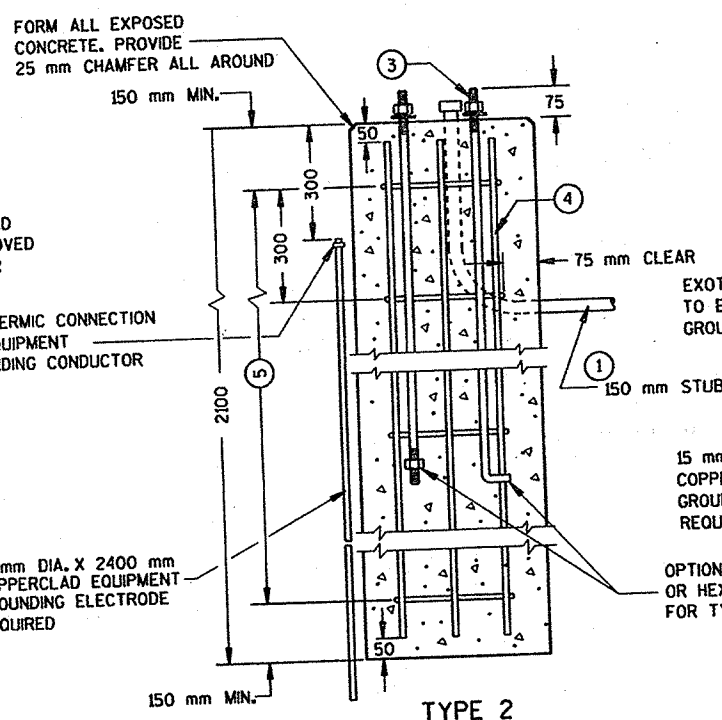
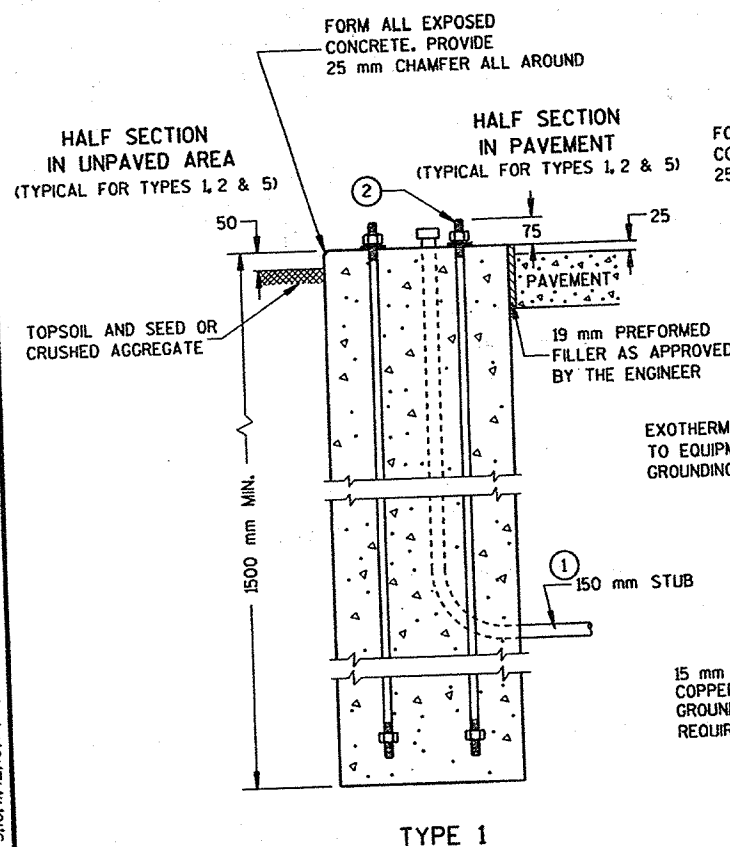
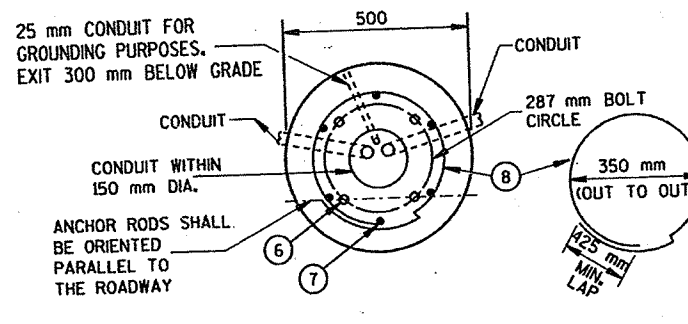
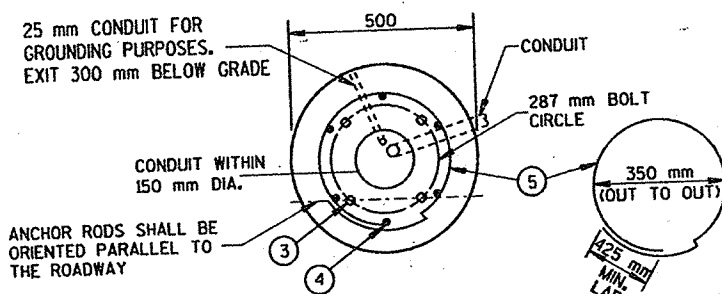
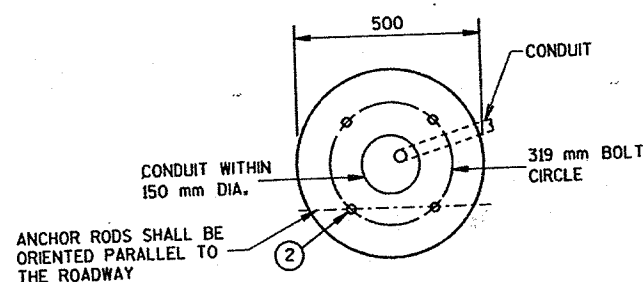


FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC METERS OF CONCRETE	.306	.44	.306
kg OF HOOP BAR STEEL	NONE	10.4	7.26
kg OF VERTICAL BAR STEEL	NONE	27.2	8.16

NOTE:

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



CONCRETE BASES

GENERAL NOTES

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

METRIC MEASUREMENTS ARE BASED ON 25 mm (NOMINAL) PER INCH.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 150 mm EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 25 mm. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 300 mm OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 25 mm CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 1200 mm COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 300 mm IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 100 mm "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

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

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATION (LATEST EDITION).

METRIC ANCHOR ROD SIZES SHOWN ARE SOFT CONVERTED ENGLISH SIZES.

① THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 600 mm. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 450 mm. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 900 mm EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

- ② (4) 25.4 mm DIA. X 1050 mm ANCHOR RODS.
- ③ (4) 25.4 mm DIA. X 1500 mm ANCHOR RODS.
- ④ (6) NO 19 X 2000 mm BAR STEEL REINFORCEMENT.
- ⑤ (7) NO 13 X 1525 mm BAR STEEL REINFORCEMENT @ 300 mm C-C.
- ⑥ (4) 25.4 mm DIA. X 1050 mm ANCHOR RODS.
- ⑦ (6) NO 13 X 1400 mm BAR STEEL REINFORCEMENT
- ⑧ (5) NO 13 X 1525 mm BAR STEEL REINFORCEMENT @ 300 mm C-C.

CONCRETE BASES,
TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE
STATE ELECTRICAL ENGINEER FOR
HIGHWAYS

S.D.D. 9 C 2-2

GENERAL NOTES

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

METRIC MEASUREMENTS ARE BASED ON 25 mm (NOMINAL) PER INCH.

FOUR (4) BOLTS (25.4 mm X 3.00 X 100 mm) TO BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 25.4 mm DIAMETER, 100 mm IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 64L2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (634 MPa YIELD) HEAVY HEX NUT, AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

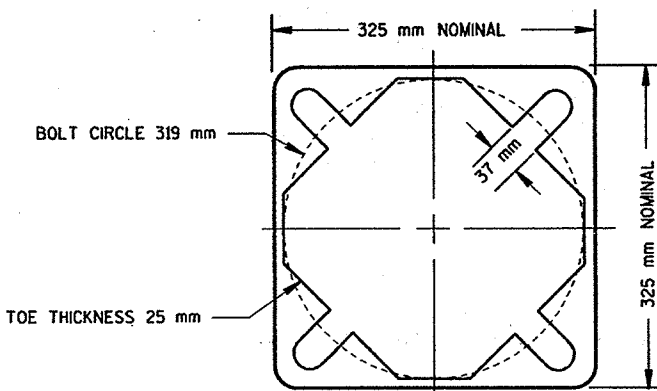
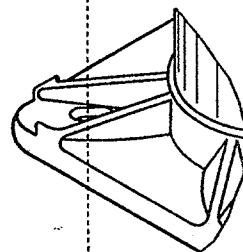
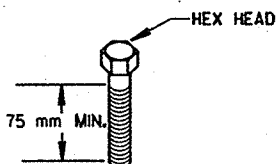
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING AN M6 X 1.00 X 19 mm STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

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

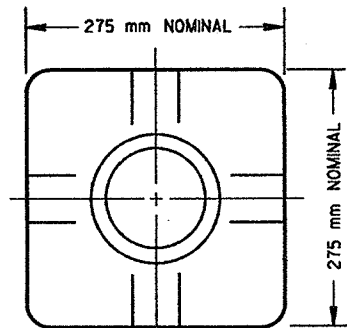
PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 37 mm, THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

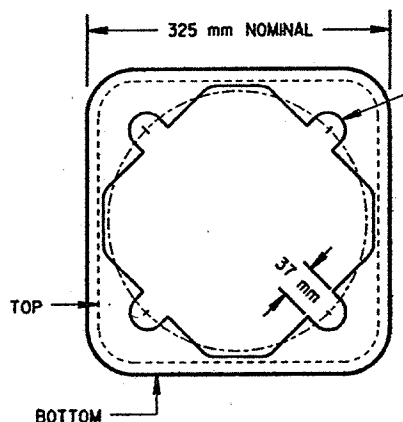
THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



BOTTOM VIEW
(PEDESTAL BASE)

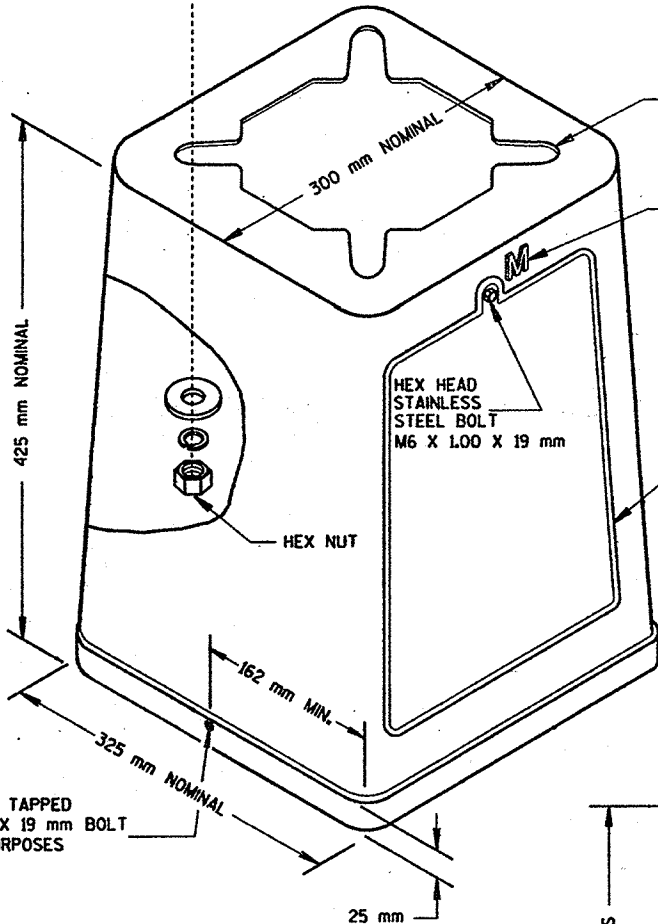


TOP VIEW
(PEDESTAL BASE)



BOTTOM VIEW
(TRANSFORMER BASE)

SLOTTED FOR 25.4 mm DIA. BOLTS
ON 250 mm THROUGH 300 mm
BOLT CIRCLE



ISOMETRIC VIEW

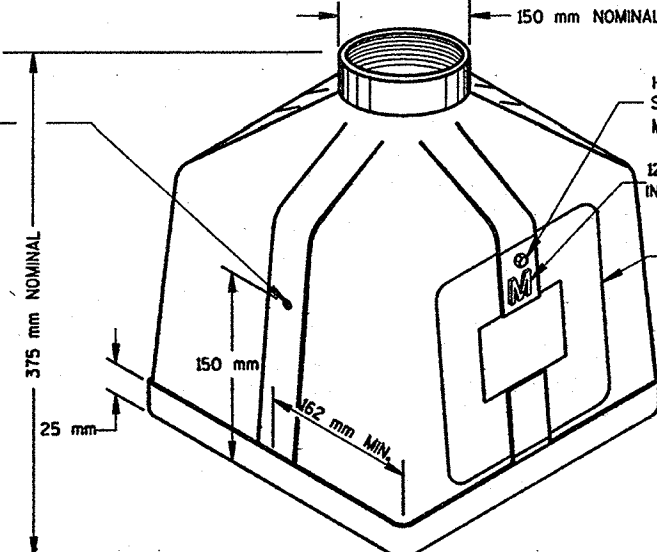
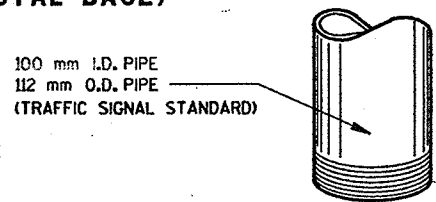
HOLE DRILLED AND TAPPED
FOR A M6 X 1.00 X 19 mm BOLT
FOR GROUNDING PURPOSES
(SEE DETAIL)

SLOTTED FOR 25.4 mm DIA. BOLTS
ON 250 mm THROUGH 300 mm BOLT CIRCLE

12 mm INDENTED LETTER TO
INDICATE METRIC THREADING

HOLE DRILLED AND TAPPED FOR
A M6 X 1.00 X 19 mm BOLT
FOR GROUNDING PURPOSES
(SEE DETAIL)

ACCESS OPENING NOMINAL
337 mm X 219 mm X 237 mm

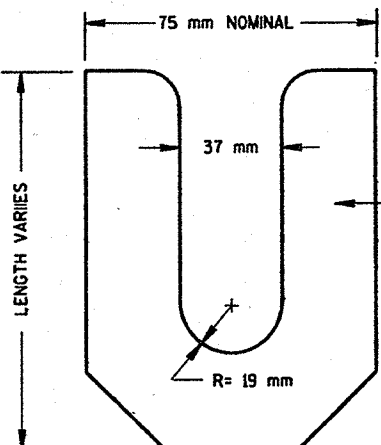


ISOMETRIC VIEW
PEDESTAL BASE

HEX HEAD STAINLESS
STEEL BOLT & WASHER
M6 X 1.00 X 19 mm

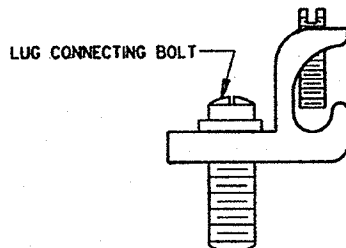
12 mm INDENTED LETTER TO
INDICATE METRIC THREADING

ACCESS OPENING NOMINAL
200 mm X 200 mm



LEVELING SHIM

1.5 mm OR 3 mm
THICK AS NEEDED



TYPICAL MECHANICAL
CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

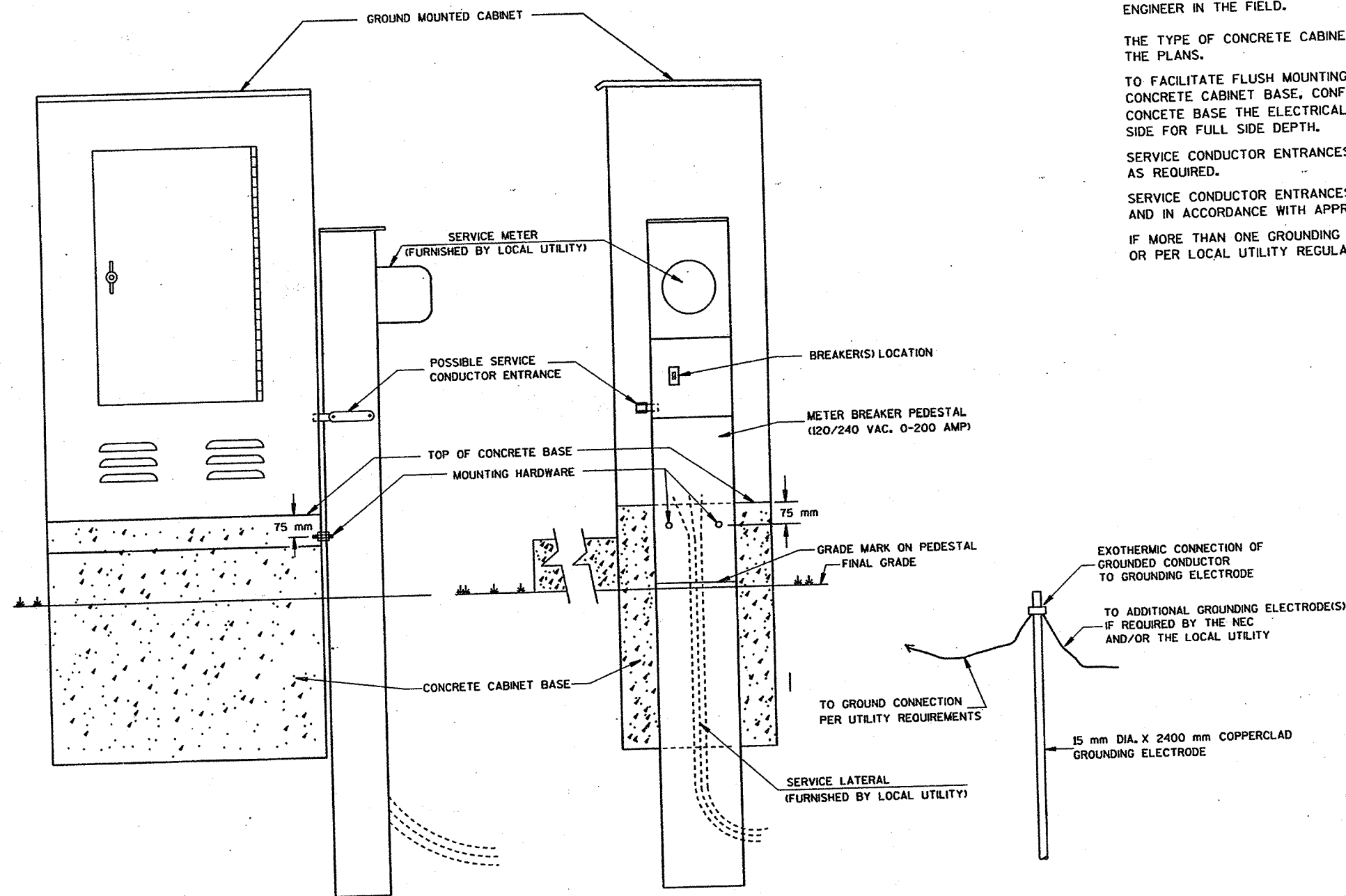
INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/21/96
DATE
STATE ELECTRICAL ENGINEER FOR
HIGHWAYS

S.D.D. 9 D 1-2
LEVELS ON - 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 CABINET SERVICE INSTALLATION

GENERAL NOTES

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

METRIC MEASUREMENTS ARE BASED ON 25mm (NOMINAL) PER INCH.

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

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

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CONCRETE CABINET BASE, CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

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

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

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 1800 mm OR PER LOCAL UTILITY REGULATIONS.

CABINET SERVICE INSTALLATION
(METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/21/06
DATE

Bala
STATE ELECTRICAL ENGINEER FOR
HIGHWAYS

FHWA

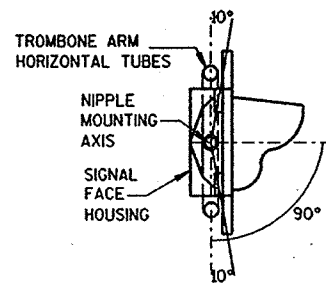
M

S.D.D. 9 D 1-2

ORIGINATOR:

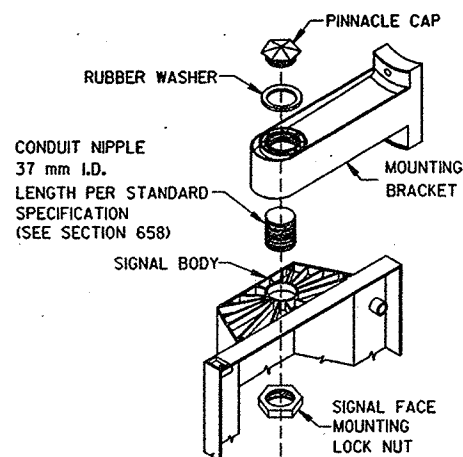
S.D.D. 9 E 1-30

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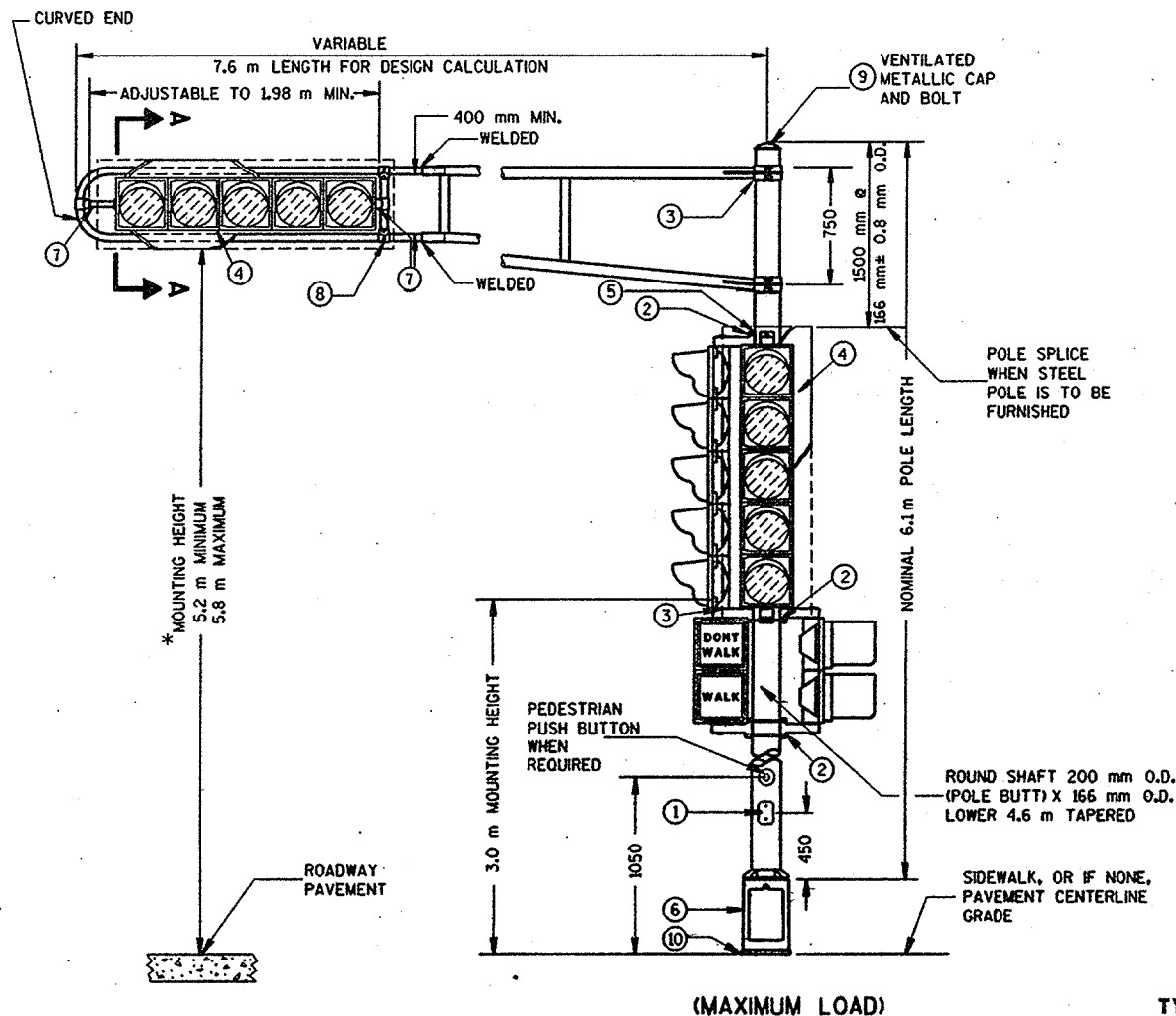


SECTION A-A

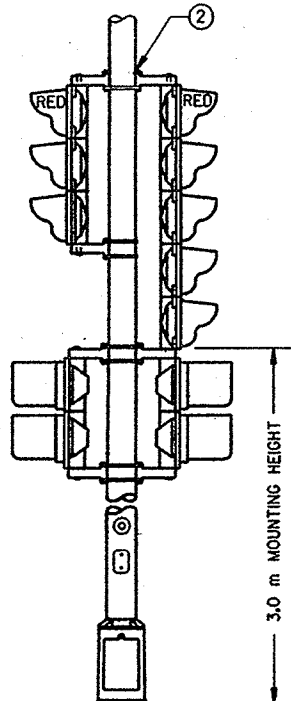
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)



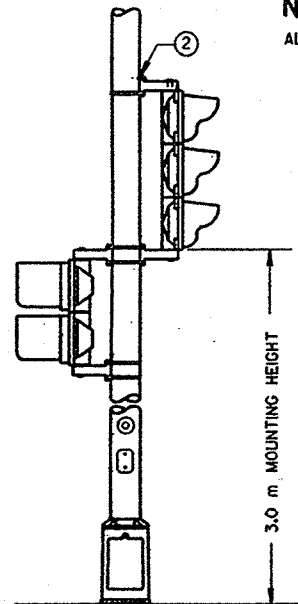
SIGNAL FACE MOUNTING DETAIL (BANDED)



(MAXIMUM LOAD)



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



**TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE**

TYPE 2 POLE MOUNTING CONFIGURATION

GENERAL NOTES

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

METRIC MEASUREMENTS ARE BASED ON 25 mm (NOMINAL) PER INCH.

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652 SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

- ①. 100 mm X 150 mm REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) M6 X 100 X 19 mm HEX HEAD STAINLESS STEEL BOLTS.
- ②. SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)
- ③. GROMMETS, 25 mm CHASE NIPPLES OR 25 mm CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 34 mm HOLE IN POLE SHAFT FOR WIRING.
- ④. BACKBOARDS ARE REQUIRED AT ALL TIMES ON TROMBONE MAST ARM MOUNTED SIGNAL FACES. VERTICAL MOUNTED SIGNAL FACES WITH BACKBOARDS REQUIRED ARE LOCATED AS SHOWN ON THE PLANS. BACKBOARDS ARE REQUIRED TO SURROUND SIGNAL FACES. BACKBOARDS SHALL EXTEND 125 mm BEYOND EXTREMITIES OF THE SIGNAL FACE.
- ⑤. POLE MOUNTED SIGNAL FACES SHALL REQUIRE 10R MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACES.
- ⑥. CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ⑦. MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 50 mm IN LENGTH AND 37 mm IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658).
- ⑧. VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (M6 X 100 X 19 mm STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.
- ⑨. FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) M6 X 100 X 19 mm STAINLESS STEEL, HEX HEAD BOLT.
- ⑩. SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

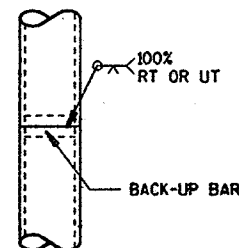
*MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE/NON-USE OF A TRANSFORMER BASE.

NOTE:

ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE NOTED.

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 15-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.



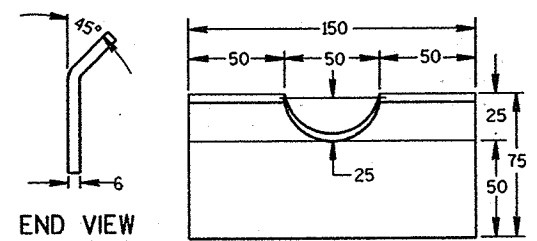
POLE SPLICE DETAIL

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

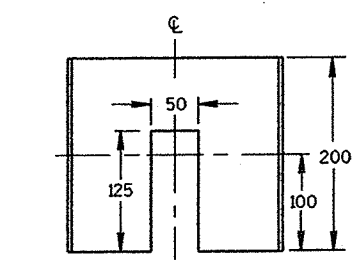
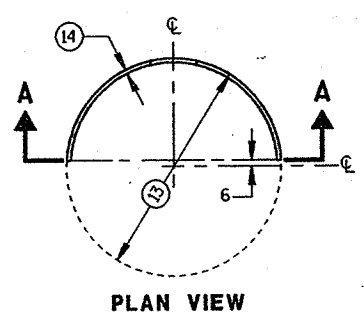
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 9 E 1-3a

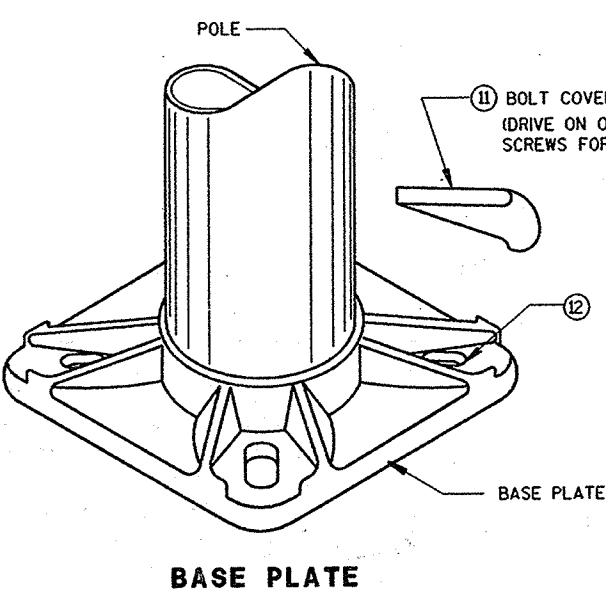
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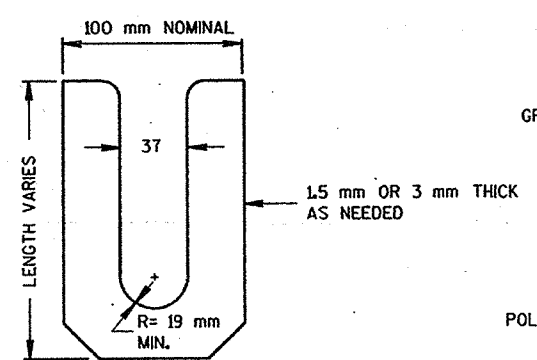
**FRONT VIEW
RECTANGULAR CLAMP SHIM**
(4 TO A SET)



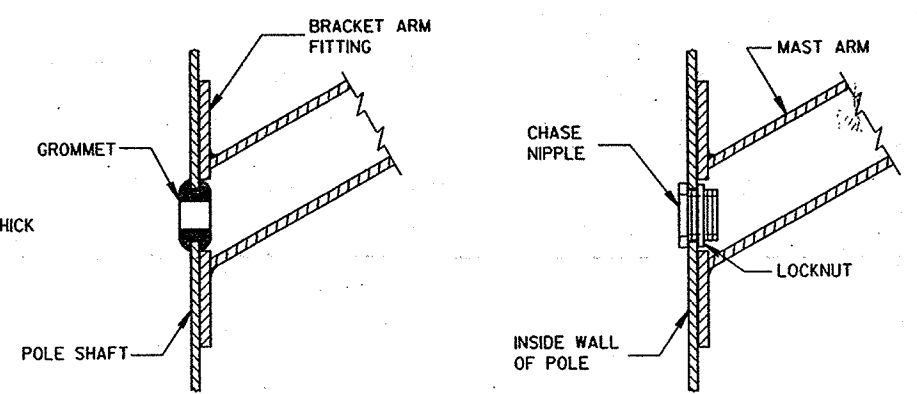
**SECTION A-A
CIRCULAR CLAMP SHIM**
(2 TO A SET)



BASE PLATE

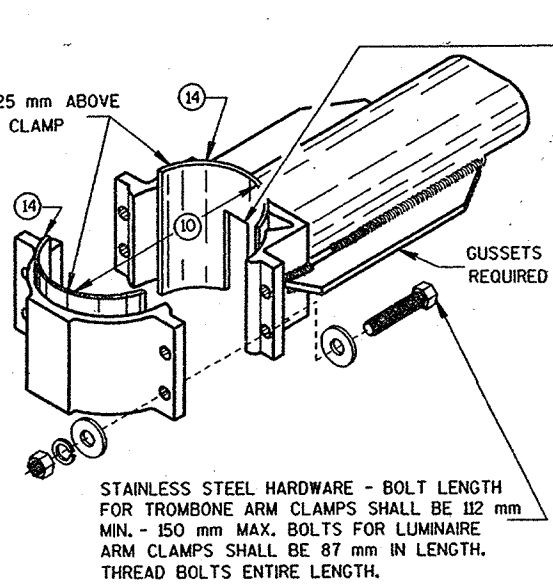


LEVELING SHIM
SHALL BE ALUMINUM

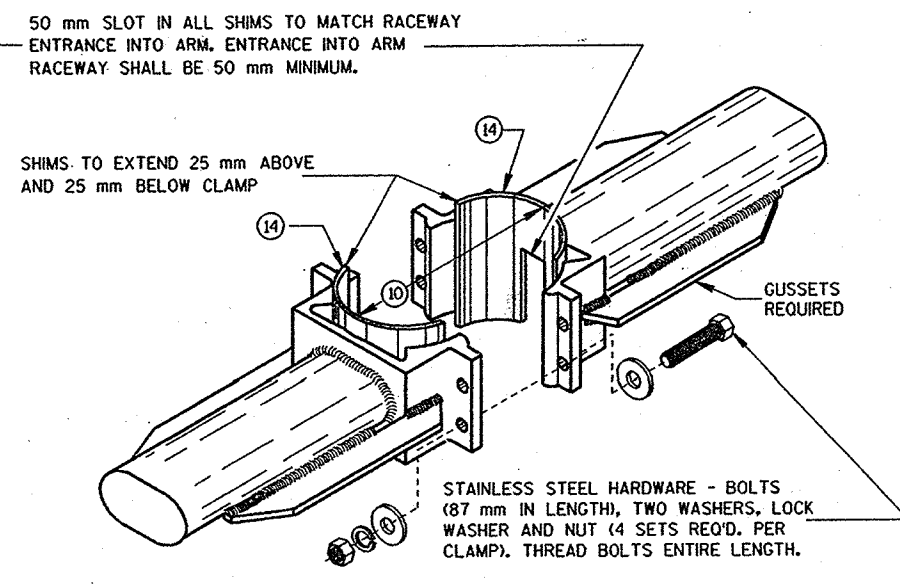


**TYPICAL APPLICATION OF
GROMMET IN POLE SHAFT**

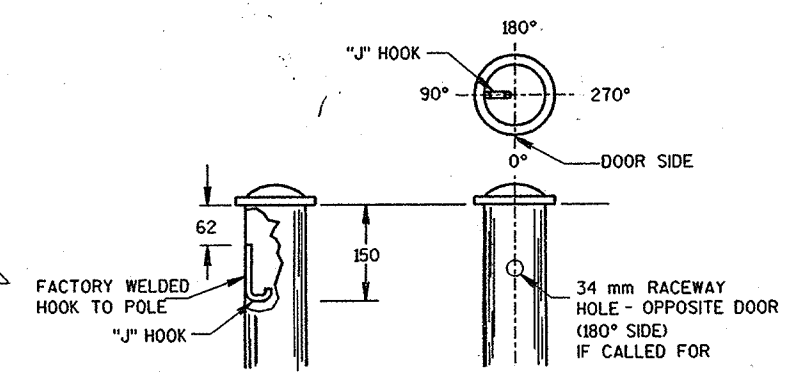
**TYPICAL APPLICATION OF
CHASE NIPPLE IN POLE SHAFT**



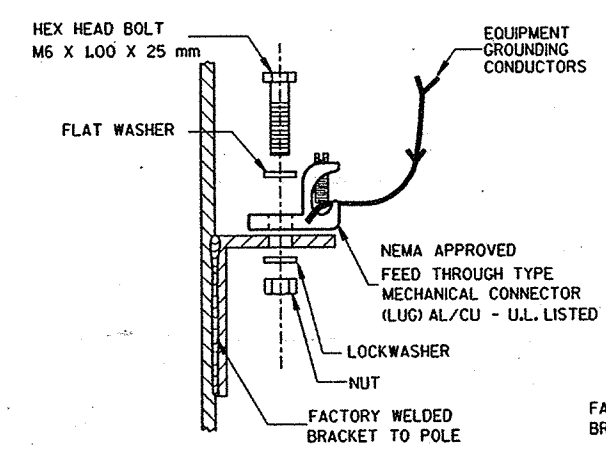
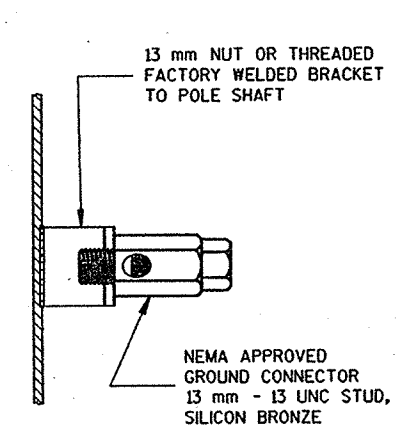
**TYPICAL TROMBONE MAST ARM AND SINGLE
LUMINAIRE MAST ARM MOUNTING CLAMP**



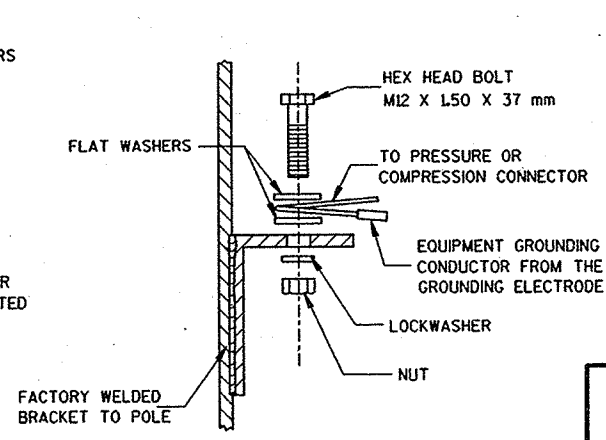
**TYPICAL LUMINAIRE MAST ARM
(DOUBLE) MOUNTING BRACKETS**



TYPICAL "J" HOOK LOCATION



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (12 mm NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- (10) 112 mm I.D. FOR LUMINAIRE MAST ARM CLAMP.
165 mm I.D. FOR TROMBONE MAST ARM CLAMP.
- (11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
- (12) BASE PLATE SLOTTED TO ACCEPT 275 mm THROUGH 300 mm BOLT CIRCLE USING 25 mm DIAMETER ANCHOR RODS.
- (13) OUTSIDE SHIM DIAMETER - (112 mm O.D. FOR LUMINAIRE MAST ARM)
(165 mm O.D. FOR TROMBONE MAST ARM)
- (14) VARIABLE SHIM THICKNESS - (2.5, 6, 9, 13.5, or 18 mm)
SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 6, 9, 13.5 or 18 mm.
SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 2.5, 6 or 9 mm.
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.
SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 6 mm HIGH AND LEGIBLE.
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.
- (15) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

NOTE:

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
METRIC MEASUREMENTS ARE BASED ON 25 mm (NOMINAL) PER INCH.

**HARDWARE DETAILS FOR
POLE MOUNTINGS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/24/97
DATE
STATE ELECTRICAL ENGINEER FOR
HIGHWAYS

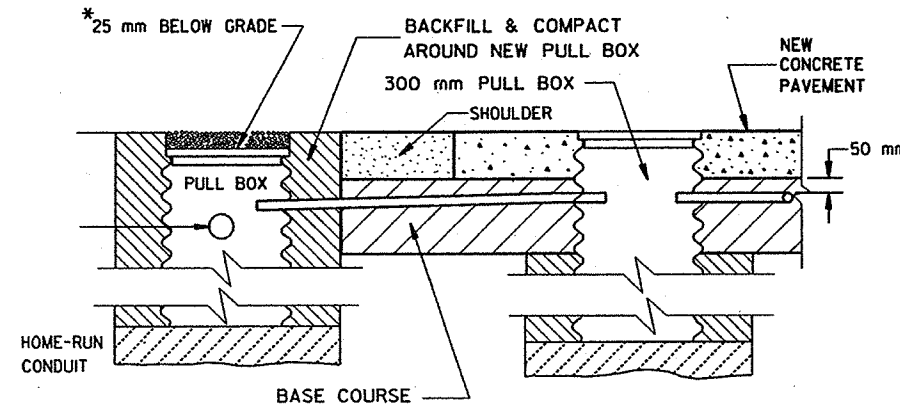
PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR:

S.D.D. 9 F 9-2
LEVELS ON - 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



**SECTION A-A
NO CURB & GUTTER
LOOP DETECTOR INSTALLATION DETAILS**

*RECESS PULL BOX SO THAT THE COVER IS 75 mm BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

GENERAL NOTES

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

METRIC MEASUREMENTS ARE BASED ON 25 mm (NOMINAL) PER INCH.

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

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

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

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

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

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

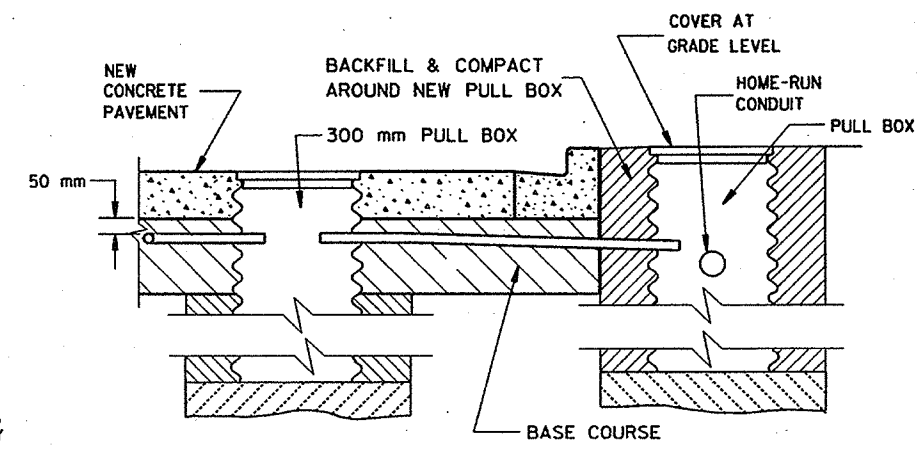
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER 300 mm BEFORE INSTALLATION.

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

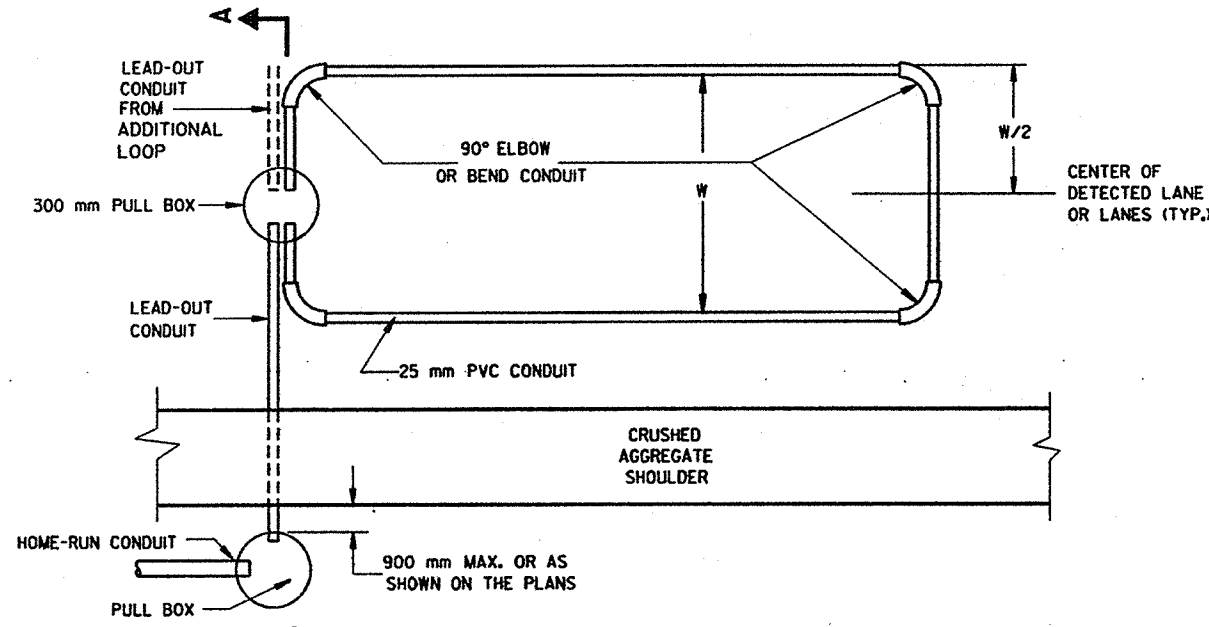
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT, CONDULET AND PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE NEW CONCRETE PAVEMENT IS PLACED.

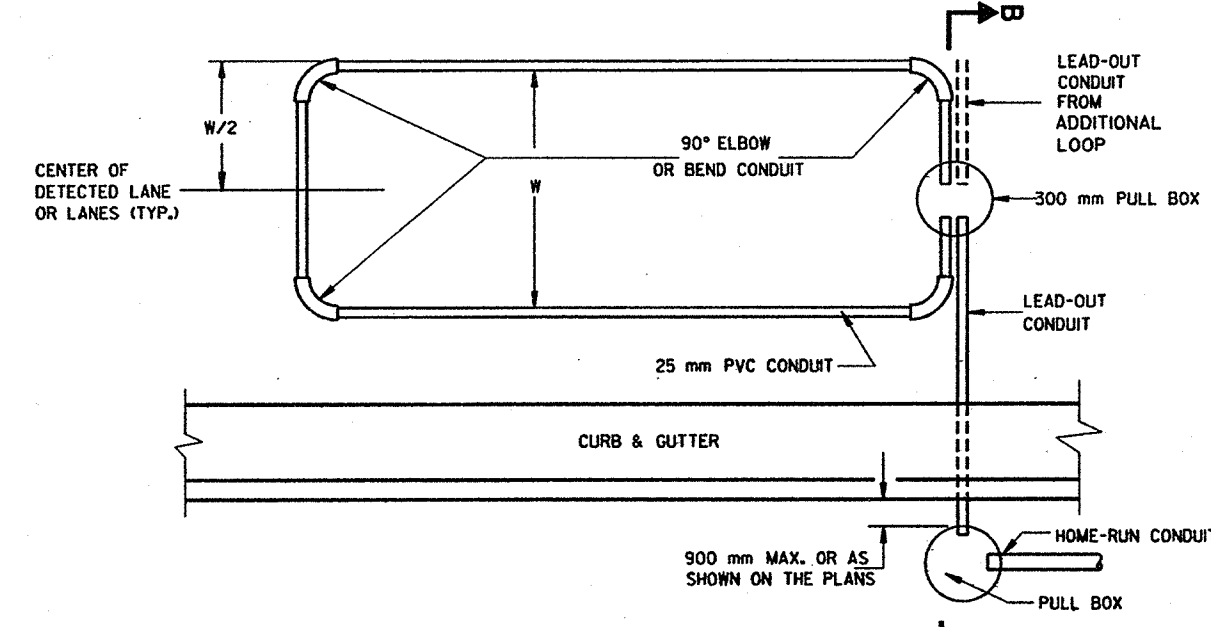
300 mm PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



**SECTION A-A
CURB & GUTTER
LOOP DETECTOR INSTALLATION DETAILS**

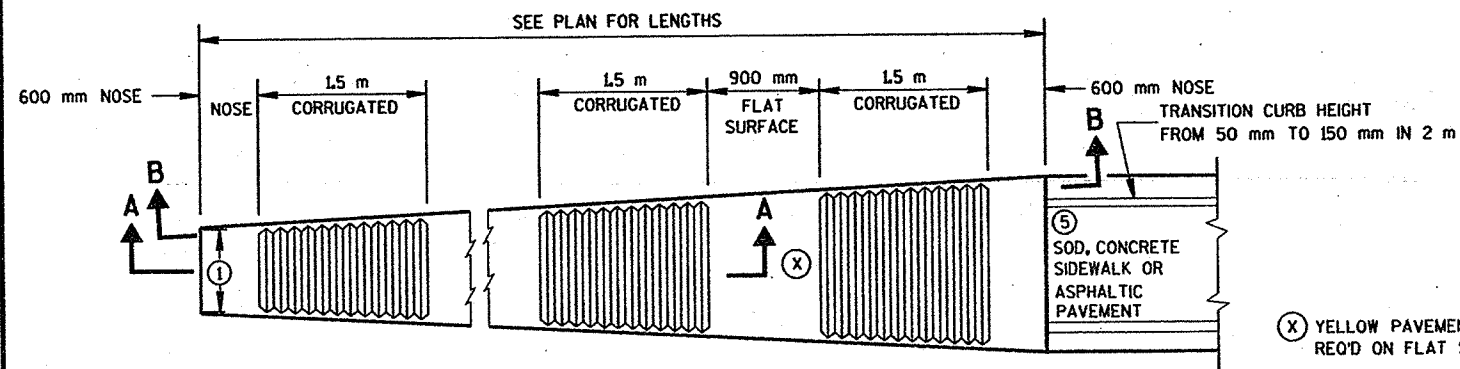


**TYPICAL PLAN OF LOOP DETECTOR
WITH 300 mm PULLBOX**

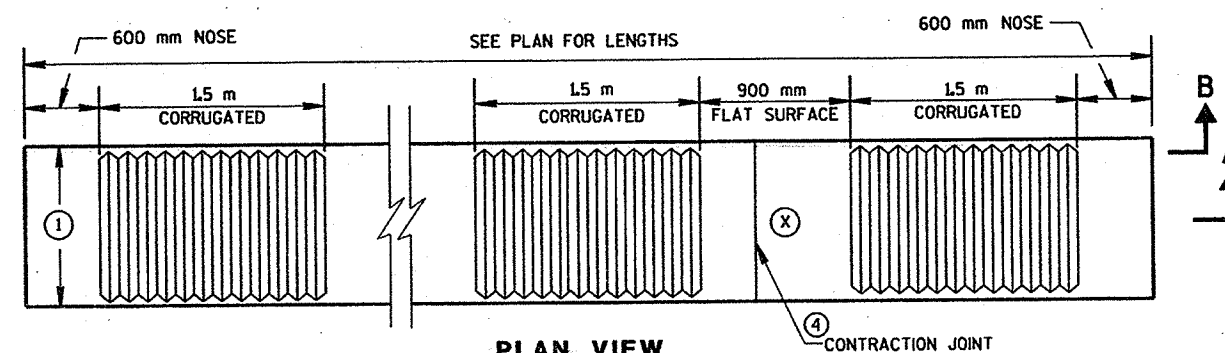


**TYPICAL PLAN OF LOOP DETECTOR
WITH 300 mm PULLBOX**

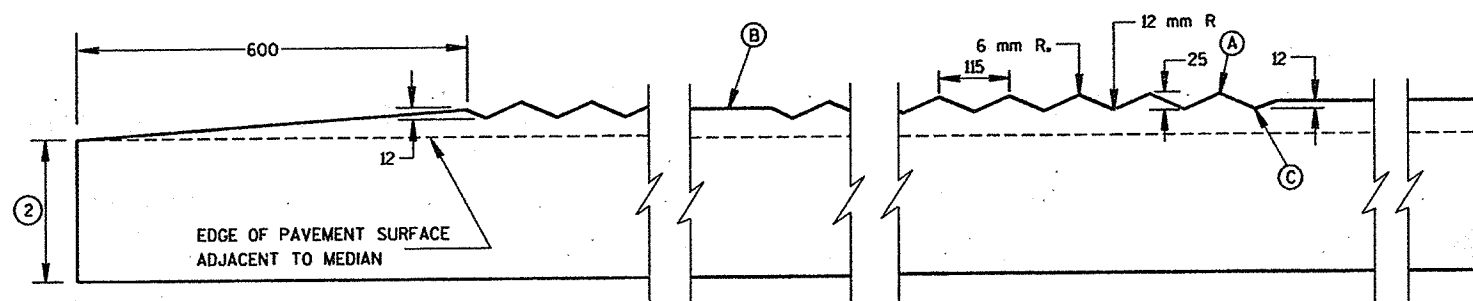
LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/21/96 DATE	<i>Paul J. Smith</i> STATE ELECTRICAL ENGINEER FOR HIGHWAYS
FHWA	M



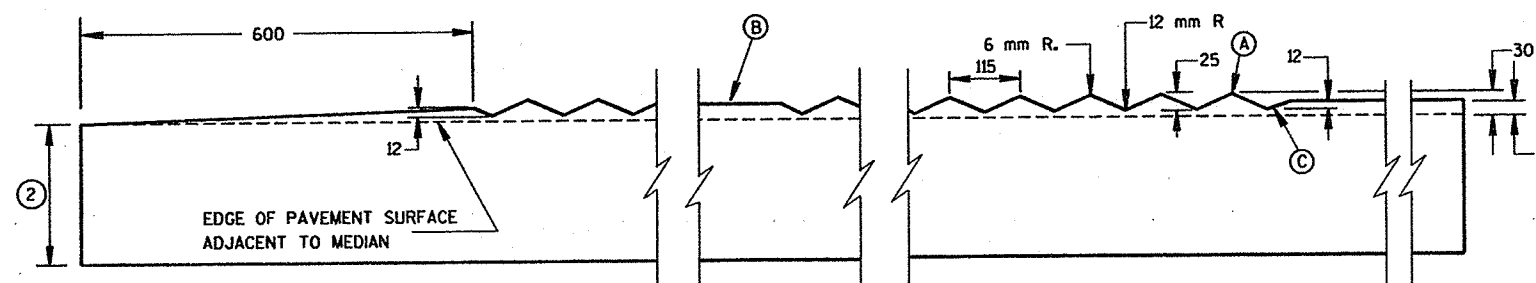
PLAN VIEW
VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



PLAN VIEW
UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN



SECTION A-A
LONGITUDINAL SECTION



SECTION B-B
LONGITUDINAL SECTION

GENERAL NOTES

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

- ① SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.
- ② THE DEPTH OF THE CONCRETE MEDIAN SHALL EQUAL THE DEPTH OF THE ADJACENT PAVEMENT STRUCTURE. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:
 - (1) NEW OR EXISTING CONCRETE PAVEMENT.
 - (2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE.
 - (3) ASPHALTIC PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.
- ③ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 13 X 600 mm SPACED AT 600 mm C-C. PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR CONCRETE BASE COURSE, PAVEMENT TIES SHALL BE NO. 19 X 300 mm SPACED AT 900 mm C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.
- ④ CONCRETE PAVEMENT TRANSVERSE CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH CRUSHED AGGREGATE BASE, TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 6 m INTERVALS.
- ⑤ SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.

NOTE:

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

CONCRETE CORRUGATED MEDIAN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/30/94
DATE
FHWA

Chief Roadway Development Engineer

S.D.D. 11 B 1-1

S.D.D. 11 B 1-1

LEVELS ON - 2.3, 4.5, 6.7, 8.9, 10.1, 12.1, 13.1, 14.1, 15.1, 16.1, 17.1, 18.1, 19.1, 20.1, 21.1, 22.1, 23.1, 24.1, 25.1, 26.1, 27.1, 28.1, 29.1, 30.1, 31.1, 32.1, 33.1, 34.1, 35.1, 36.1, 37.1, 38.1, 39.1, 40.1, 41.1, 42.1, 43.1, 44.1, 45.1, 46.1, 47.1, 48.1, 49.1, 50.1, 51.1, 52.1, 53.1, 54.1, 55.1, 56.1, 57.1, 58.1, 59.1, 60.1, 61.1, 62.1, 63.1

FILE NAME:

PLOT SCALE: 1:1

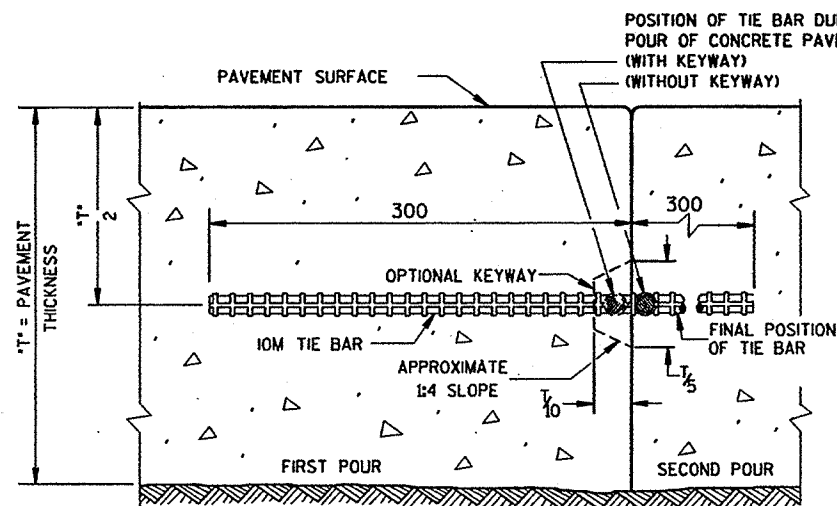
PLOT NAME:

REV. DATE:

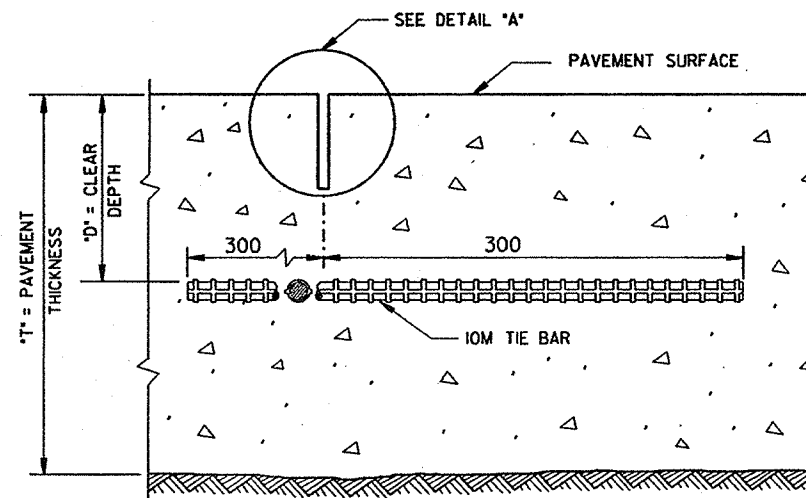
ORIGINATOR:

S.D.D. 13 C 1-9

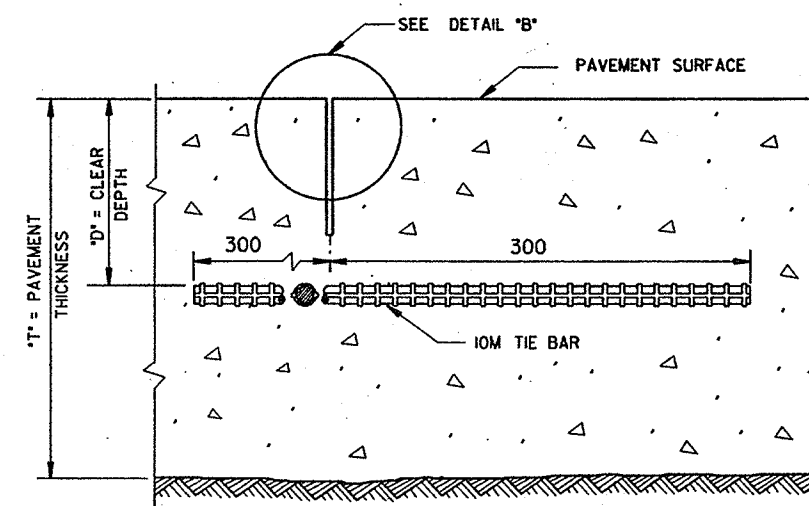
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CONSTRUCTION JOINT



SAWED JOINT



RIBBON JOINT

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.

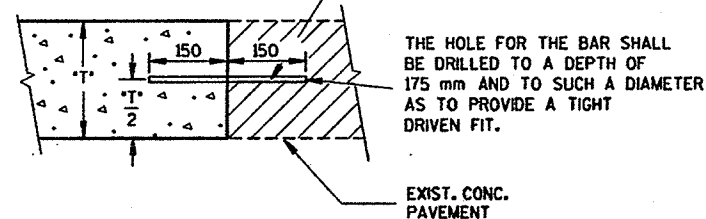
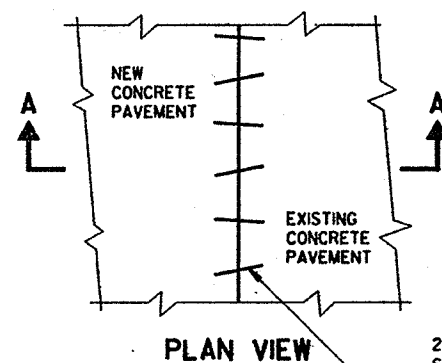
DETAILS "A" AND "B" ARE EQUAL ALTERNATES UNLESS OTHERWISE SPECIFIED IN THE CONTRACT.

LONGITUDINAL JOINTS SHALL NOT BE SEALED OR FILLED.

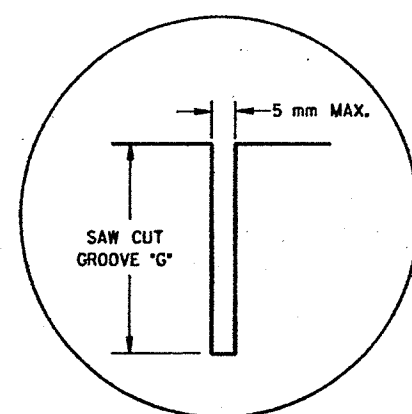
TIE BAR SPACINGS ARE VALID ONLY FOR PAVEMENT WIDTHS IN THE TABLE. FOR WIDER PAVEMENTS, TIED CONCRETE SHOULDERS OR RAMPS, THE TIE BAR SPACING SHALL BE AS SHOWN ON THE PLANS.

NOTE

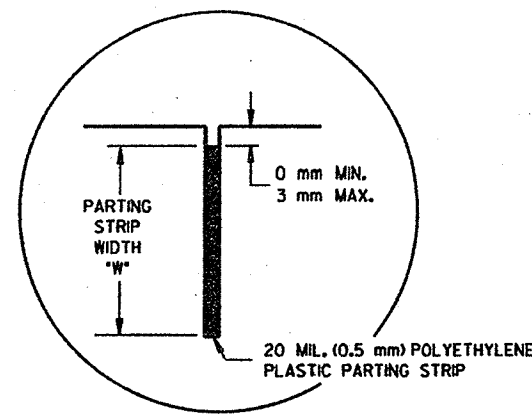
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



SECTION A-A
PAVEMENT TIES

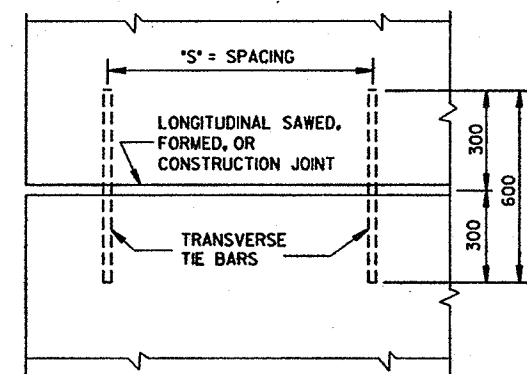


DETAIL "A"



DETAIL "B"

PAVEMENT THICKNESS "T" (mm)	CLEAR DEPTH "D" (mm)	SAW CUT GROOVE "G" (mm)	MAXIMUM TIE BAR SPACING "S" (mm)		PARTING STRIP WIDTH "W" (mm)
			PAVEMENT WIDTH (m)		
			7.2 OR 7.8	9.0	
150	75 ± 13	40	1 000	900	50
175	85 ± 25	45	850	800	55
200	95 ± 25	50	750	700	65
225	110 ± 25	55	650	600	75
250	120 ± 25	65	600	550	85
275	135 ± 25	70	550	500	95
300	145 ± 25	75	500	450	100



PLAN VIEW
SHOWING LOCATION OF TIE BARS

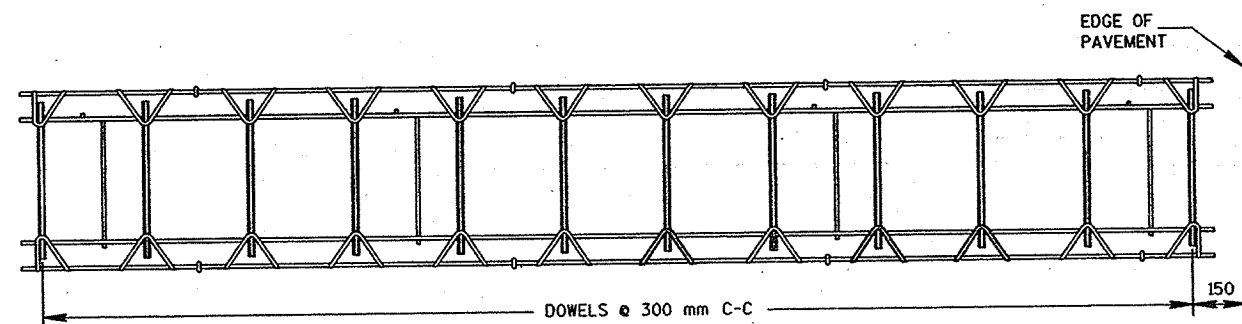
CONCRETE PAVEMENT
LONGITUDINAL JOINTS
AND PAVEMENT TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

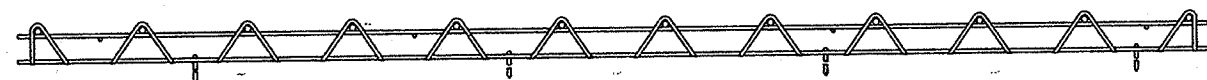
APPROVED
02/08/95
DATE
Roy L. Thompson
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

S.D.D. 13 C 1-9

S.D.D. 13 C 13-2
LEVELS ON - 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



PLAN VIEW



SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY^①

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
150 mm	32 mm	3.6 m
180 mm	32 mm	4.3 m
205 mm	32 mm	4.5 m
230 mm	32 mm	4.5 m
255 mm & ABOVE	38 mm	5.5 m

GENERAL NOTES

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

CONTRACTION JOINTS

UNLESS OTHERWISE SPECIFIED, CONTRACTION JOINTS SHALL BE NORMAL TO THE CENTERLINE. THE LOCATION OF CONTRACTION JOINTS THRU INTERSECTIONS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

CONTRACTION JOINTS SHALL NOT BE SEALED OR FILLED.

DOWEL BARS SHALL BE INSTALLED PARALLEL TO THE PAVEMENT CENTERLINE AND SURFACE.

CONSTRUCTION JOINTS

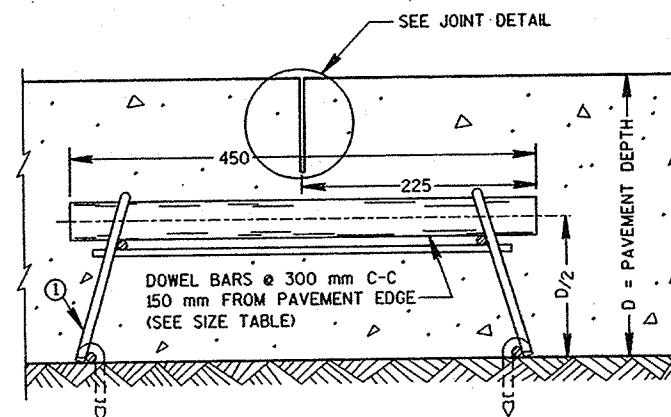
CONSTRUCTION JOINTS SHALL BE A MINIMUM OF 1.2 m FROM THE NEAREST CONTRACTION JOINT AND ALIGNED EITHER PARALLEL TO CONTRACTION JOINTS OR AT 90° TO THE CENTERLINE.

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

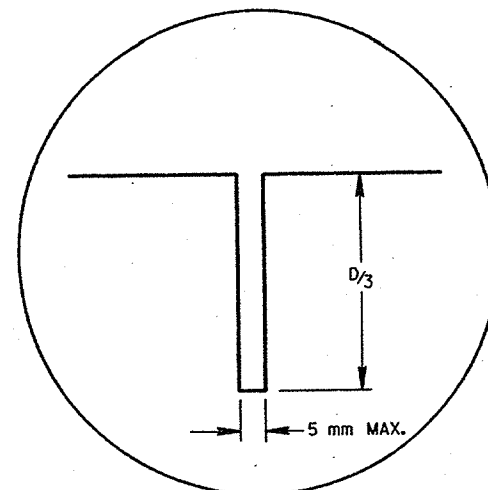
① ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY MAY BE USED WHEN APPROVED BY THE ENGINEER. MECHANICAL DOWEL BAR IMPLANTERS MAY BE USED INSTEAD OF DOWEL ASSEMBLIES.

NOTE

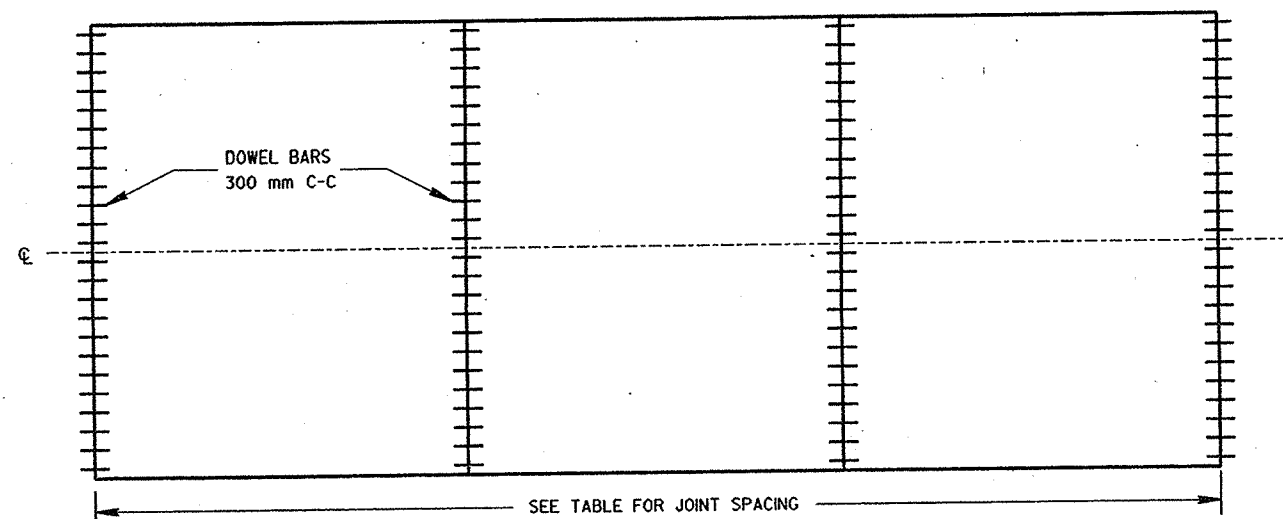
ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNLESS OTHERWISE SHOWN.



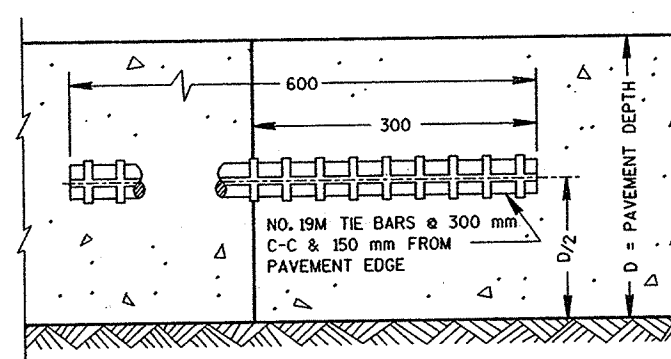
DOWELED CONTRACTION JOINT



JOINT DETAIL



CONTRACTION JOINT LOCATIONS



CONSTRUCTION JOINT

URBAN DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
03/18/97
DATE

Paul J. Thompson
CHIEF ROADWAY DEVELOPMENT ENGINEER

FWA

M

S.D.D. 13 C 13-2

FILE NAME:

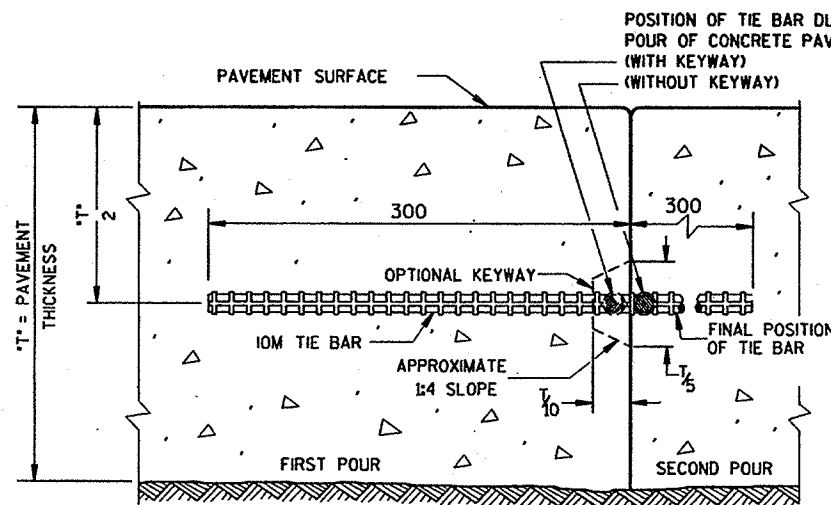
PLOT SCALE: 1:1

REV. DATE:

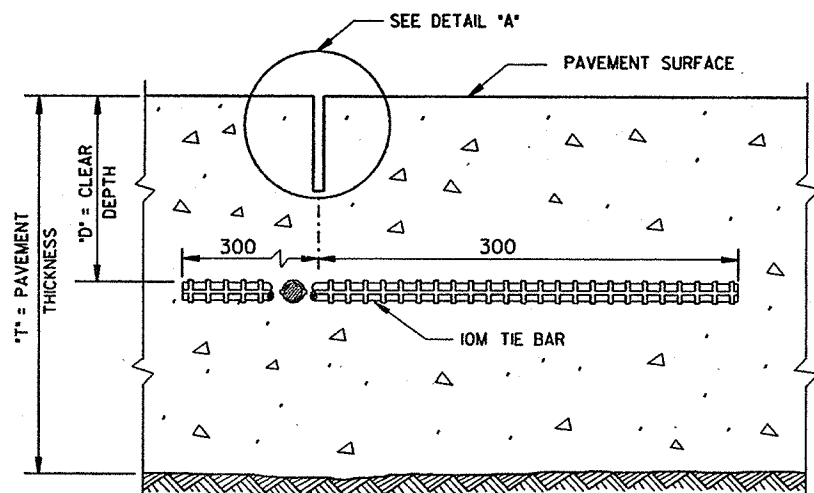
ORIGINATOR:

S.D.D. 13 C 1-9

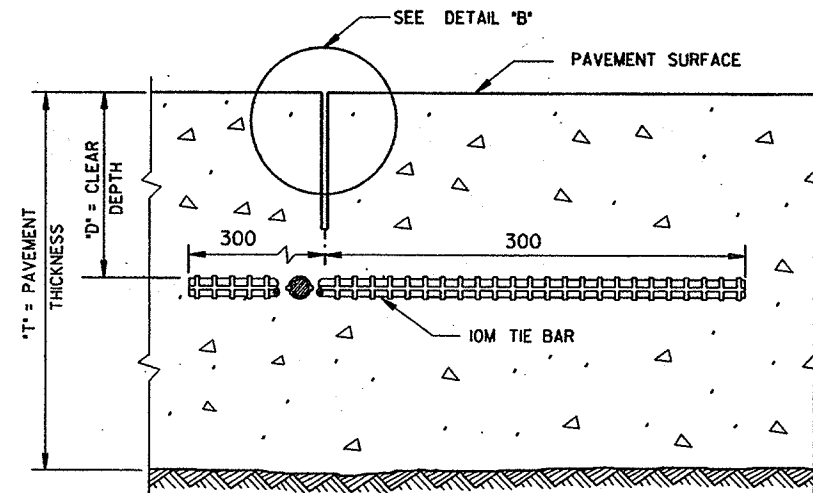
LEVELS ON - 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



CONSTRUCTION JOINT



SAWED JOINT



RIBBON JOINT

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.

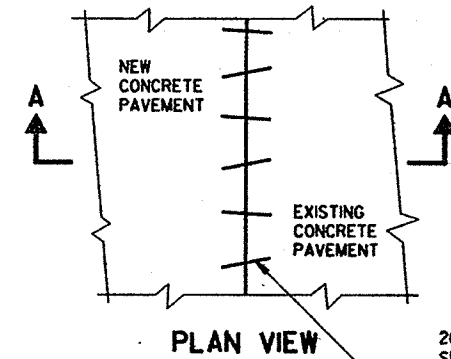
DETAILS "A" AND "B" ARE EQUAL ALTERNATES UNLESS OTHERWISE SPECIFIED IN THE CONTRACT.

LONGITUDINAL JOINTS SHALL NOT BE SEALED OR FILLED.

TIE BAR SPACINGS ARE VALID ONLY FOR PAVEMENT WIDTHS IN THE TABLE. FOR WIDER PAVEMENTS, TIED CONCRETE SHOULDERS OR RAMPS, THE TIE BAR SPACING SHALL BE AS SHOWN ON THE PLANS.

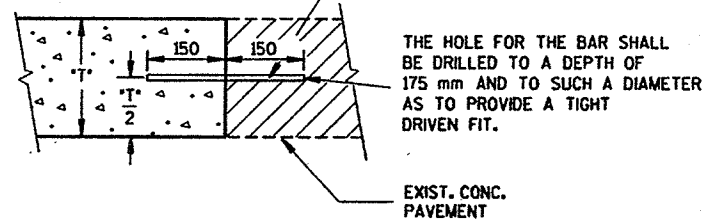
NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

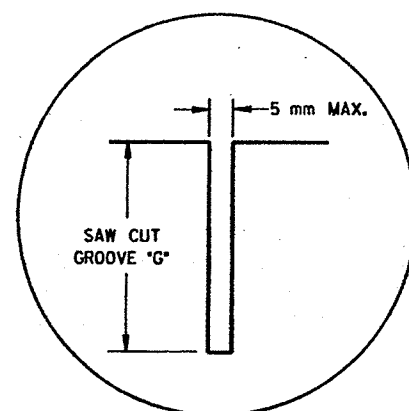


PLAN VIEW

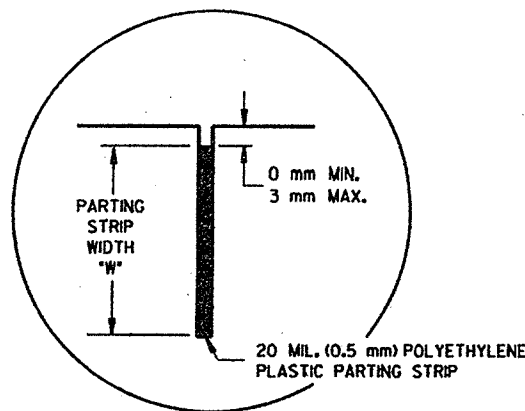
20M TIE BARS
SPACED 900 mm C-C,
INSTALLED ON 6:1 SKEW
HORIZONTALLY. DIRECTION
OF SKEW ALTERNATING AFTER
EVERY ONE OR TWO BARS.



SECTION A-A
PAVEMENT TIES

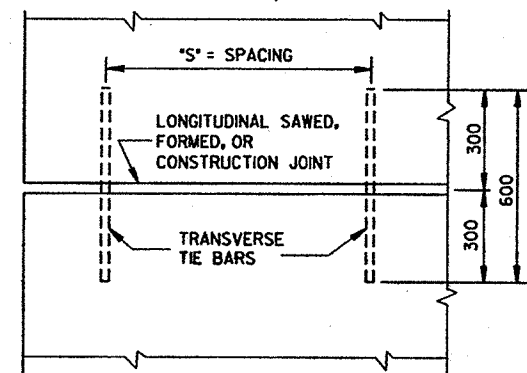


DETAIL 'A'



DETAIL 'B'

PAVEMENT THICKNESS "T" (mm)	CLEAR DEPTH "D" (mm)	SAW CUT GROOVE "G" (mm)	MAXIMUM TIE BAR SPACING "S" (mm)		PARTING STRIP WIDTH "W" (mm)
			PAVEMENT WIDTH (m)		
			7.2 OR 7.8	9.0	
150	75 ± 13	40	1 000	900	50
175	85 ± 25	45	850	800	55
200	95 ± 25	50	750	700	65
225	110 ± 25	55	650	600	75
250	120 ± 25	65	600	550	85
275	135 ± 25	70	550	500	95
300	145 ± 25	75	500	450	100



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS
AND PAVEMENT TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
02/08/95
DATE
FHW
Pony L. Thompson
CHIEF ROADWAY DEVELOPMENT ENGINEER

S.D.D. 13 C 1-9

PLOT SCALE:

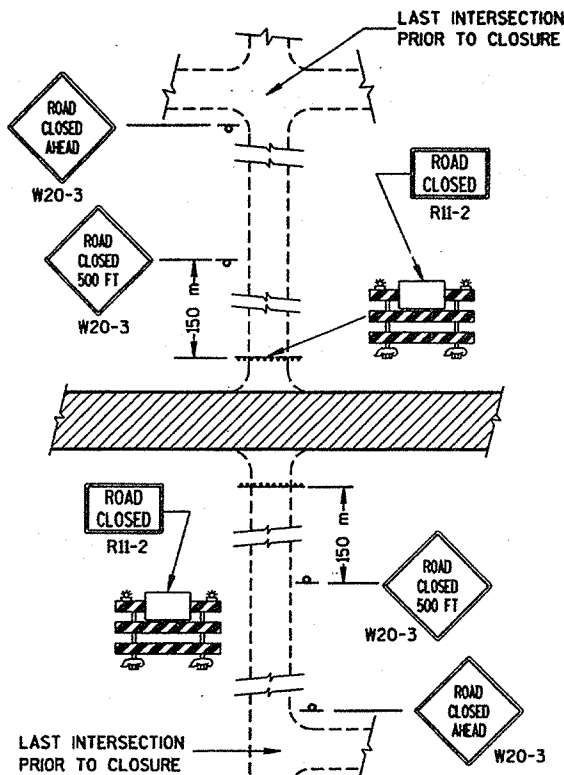
PLOT NAME:

REV. DATE: 8-10-95

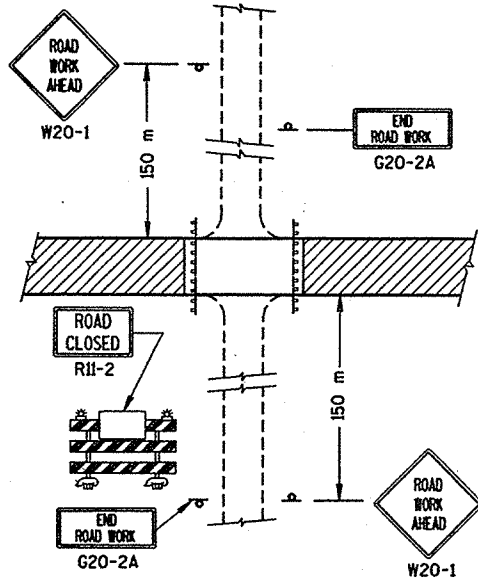
ORIGINATOR:

S.D.D. 15 C 2-3

LEVELS ON - 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

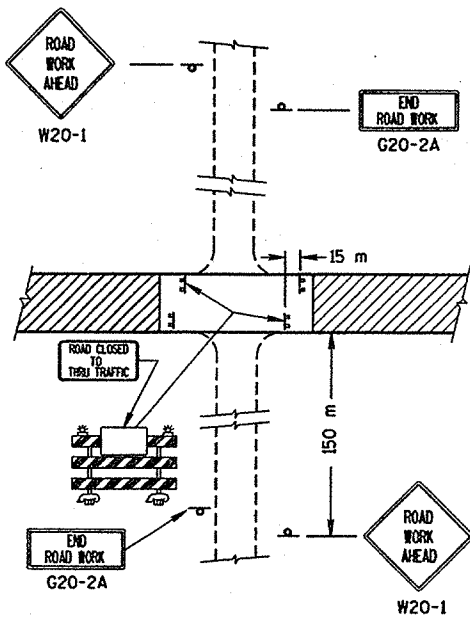


DETAIL 1
(NO ACCESS TO PROJECT)



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

SIDEROAD CLOSURES



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 R11-3 AND R11-4 SIGNS.

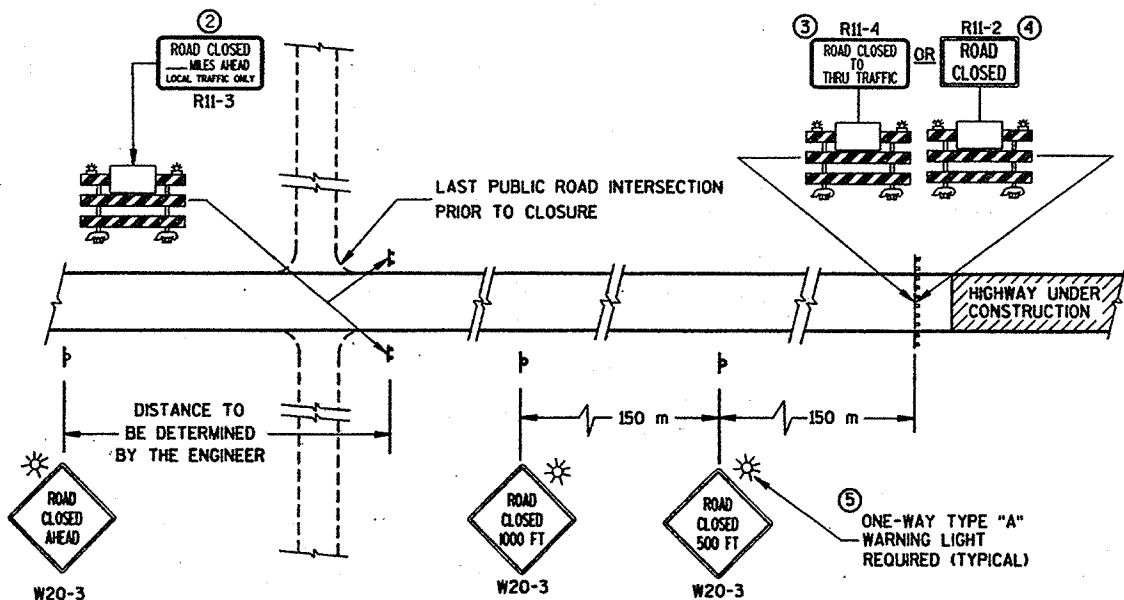
ALL SIGNS SHALL BE 1200 mm X 1200 mm UNLESS OTHERWISE NOTED BELOW:

R11-2, "ROAD CLOSED" SIGNS SHALL BE 1200 mm X 750 mm.

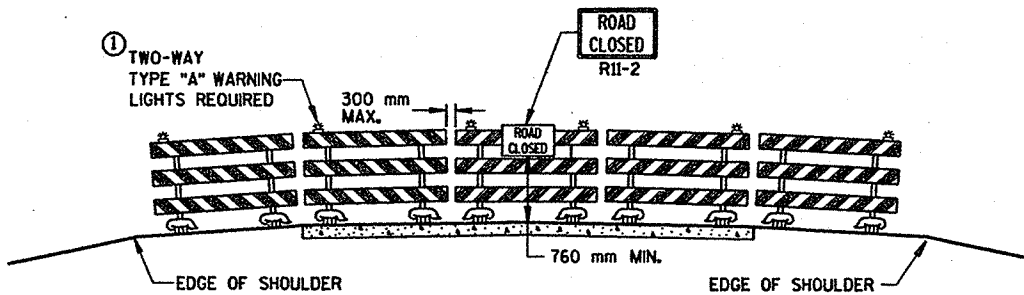
R11-3, AND R11-4 SIGNS SHALL BE 1500 mm X 750 mm.

G20-2A SIGNS SHALL BE 1200 mm X 600 mm.

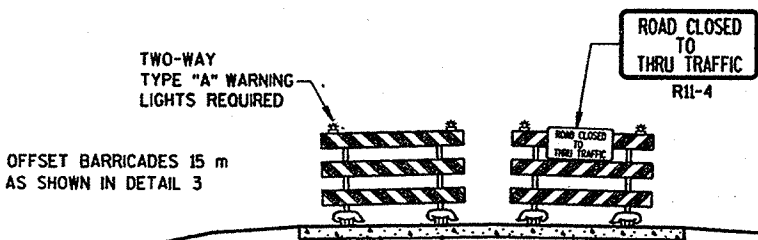
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND AT LEAST ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN.
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED 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.



MAINLINE CLOSURE



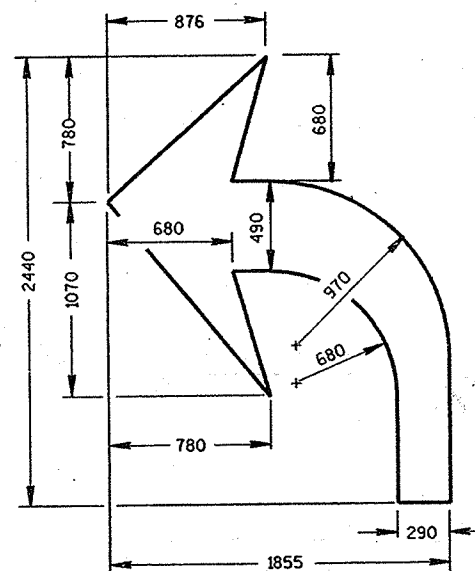
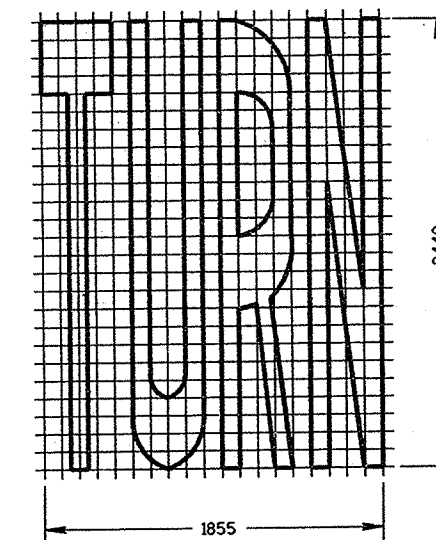
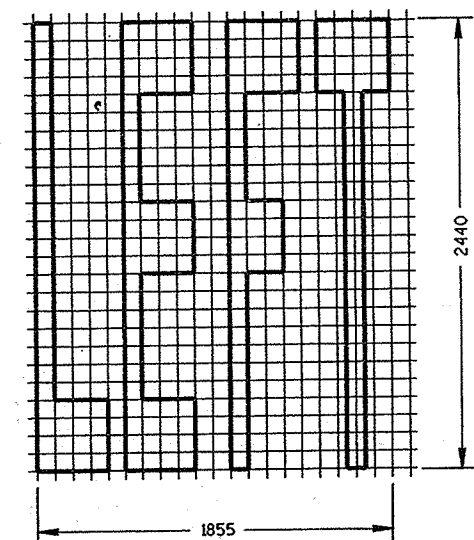
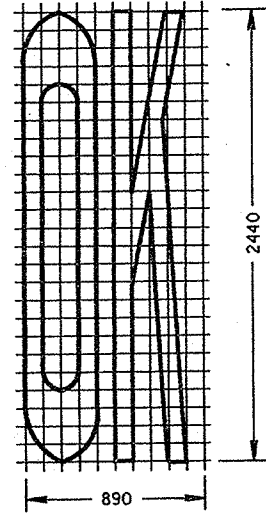
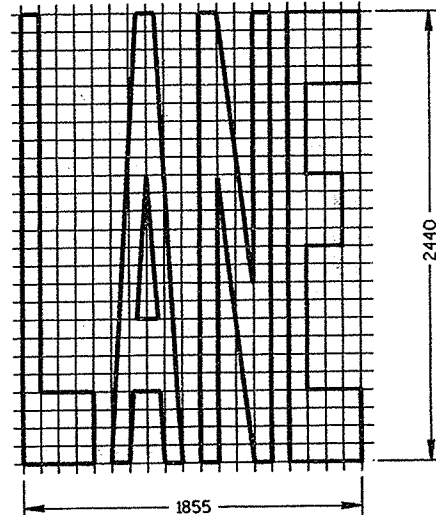
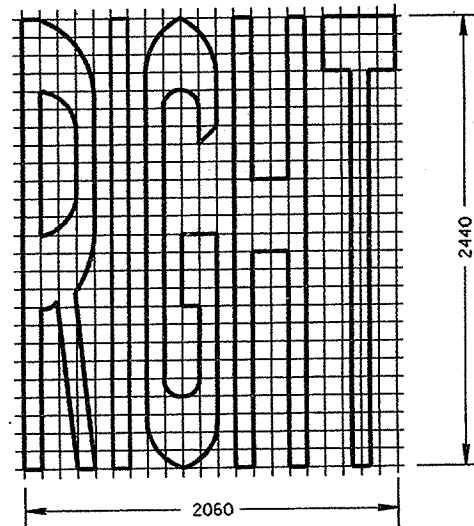
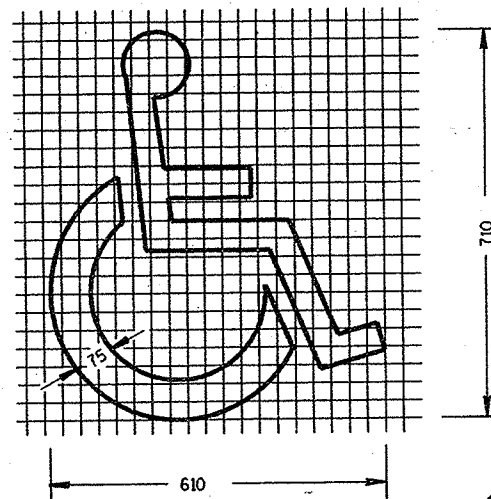
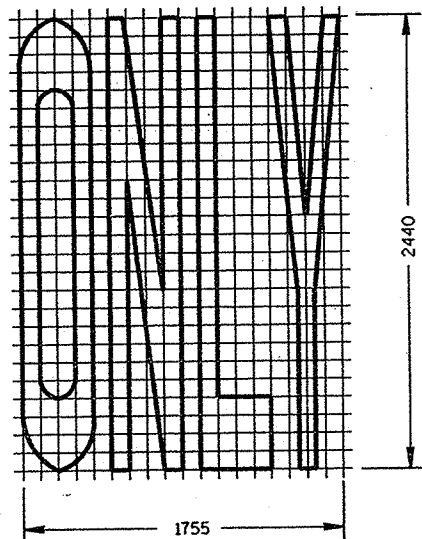
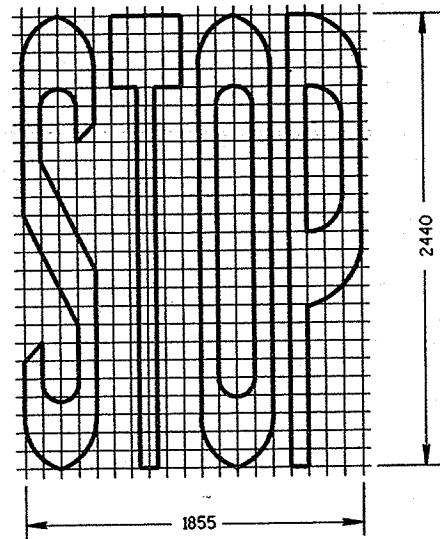
APPROACH VIEW
ROAD CLOSURE BARRICADE DETAIL



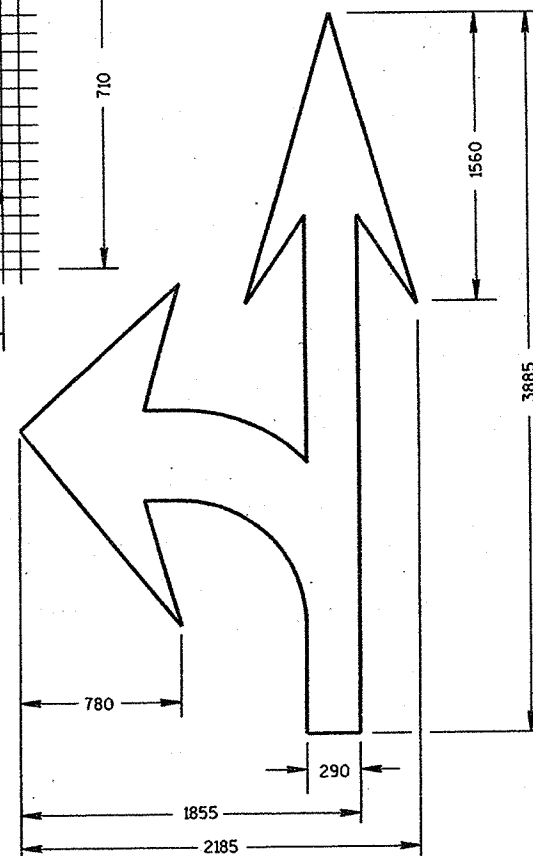
APPROACH VIEW
LANE CLOSURE BARRICADE DETAIL

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

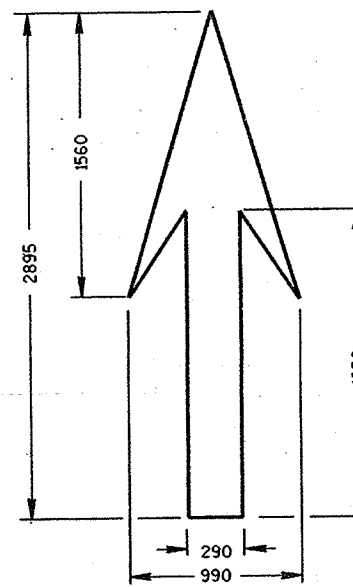
BARRICADES AND SIGNS FOR ROAD CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8-10-95 DATE	<i>Christa J. Spang</i> DIRECTOR, OFFICE OF TRAFFIC



TYPE 2



TYPE 3



TYPE 1

GENERAL NOTES

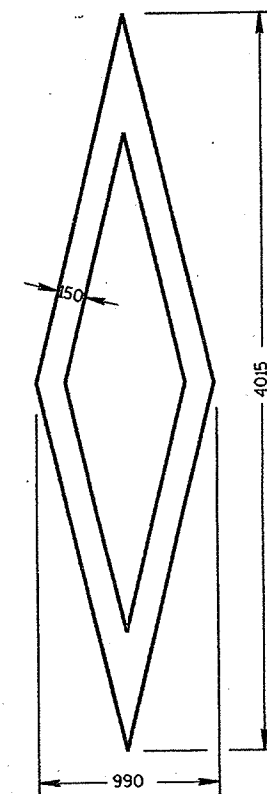
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

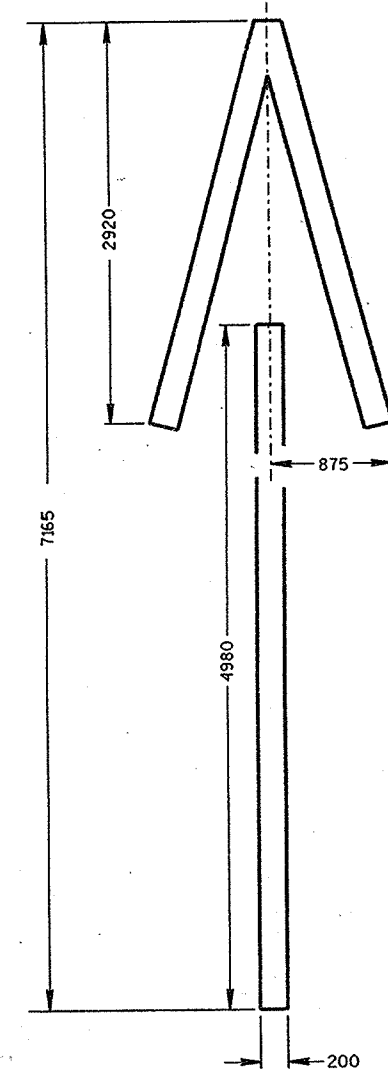
A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

NOTE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



PREFERENTIAL
LANE SYMBOL



TYPE 4

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-15-97
DATE

Christy J. Spang
for DIRECTOR, OFFICE OF TRAFFIC

FWA

M

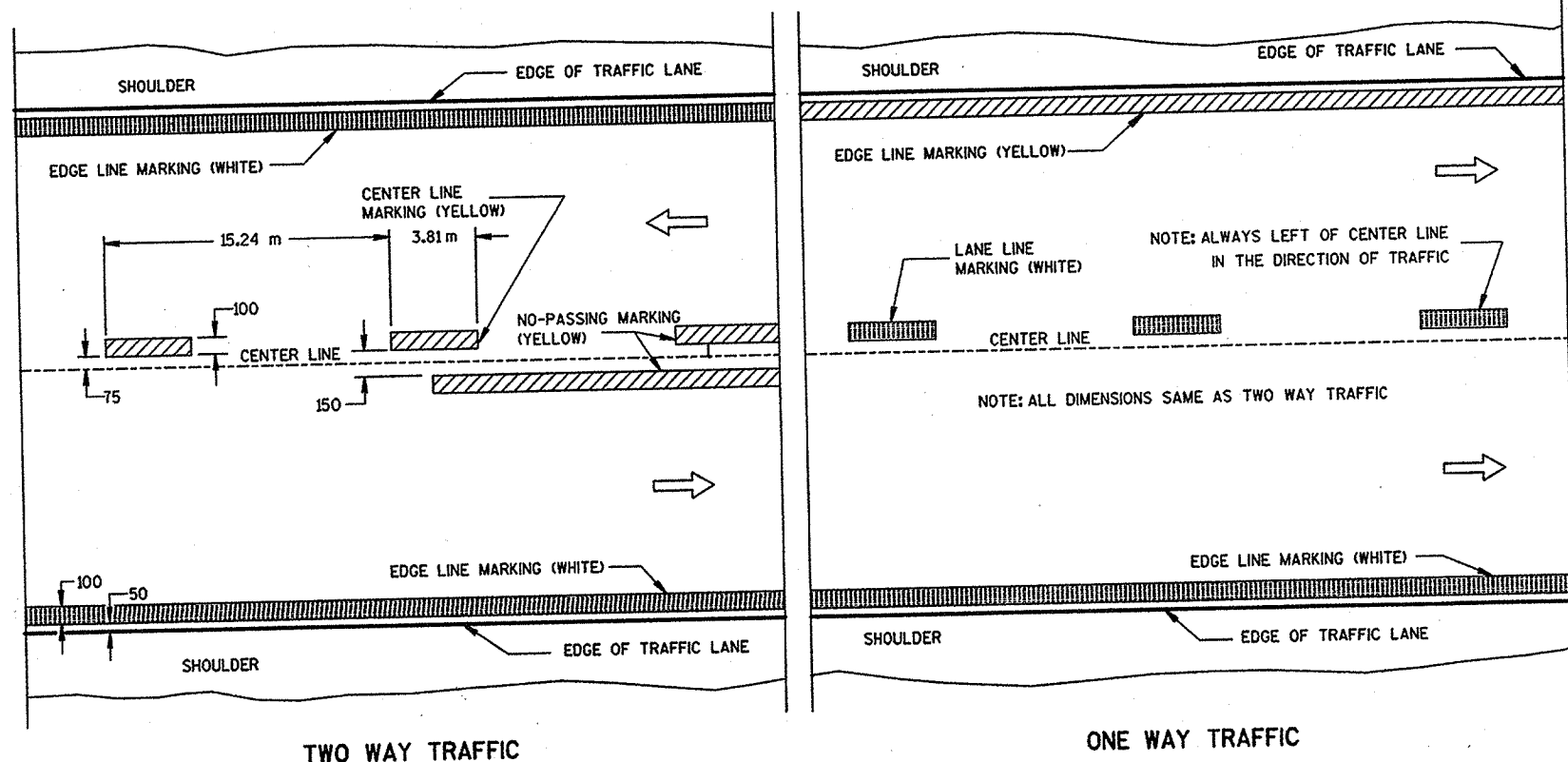
PLOT SCALE: 6-28-95

PLOT NAME:

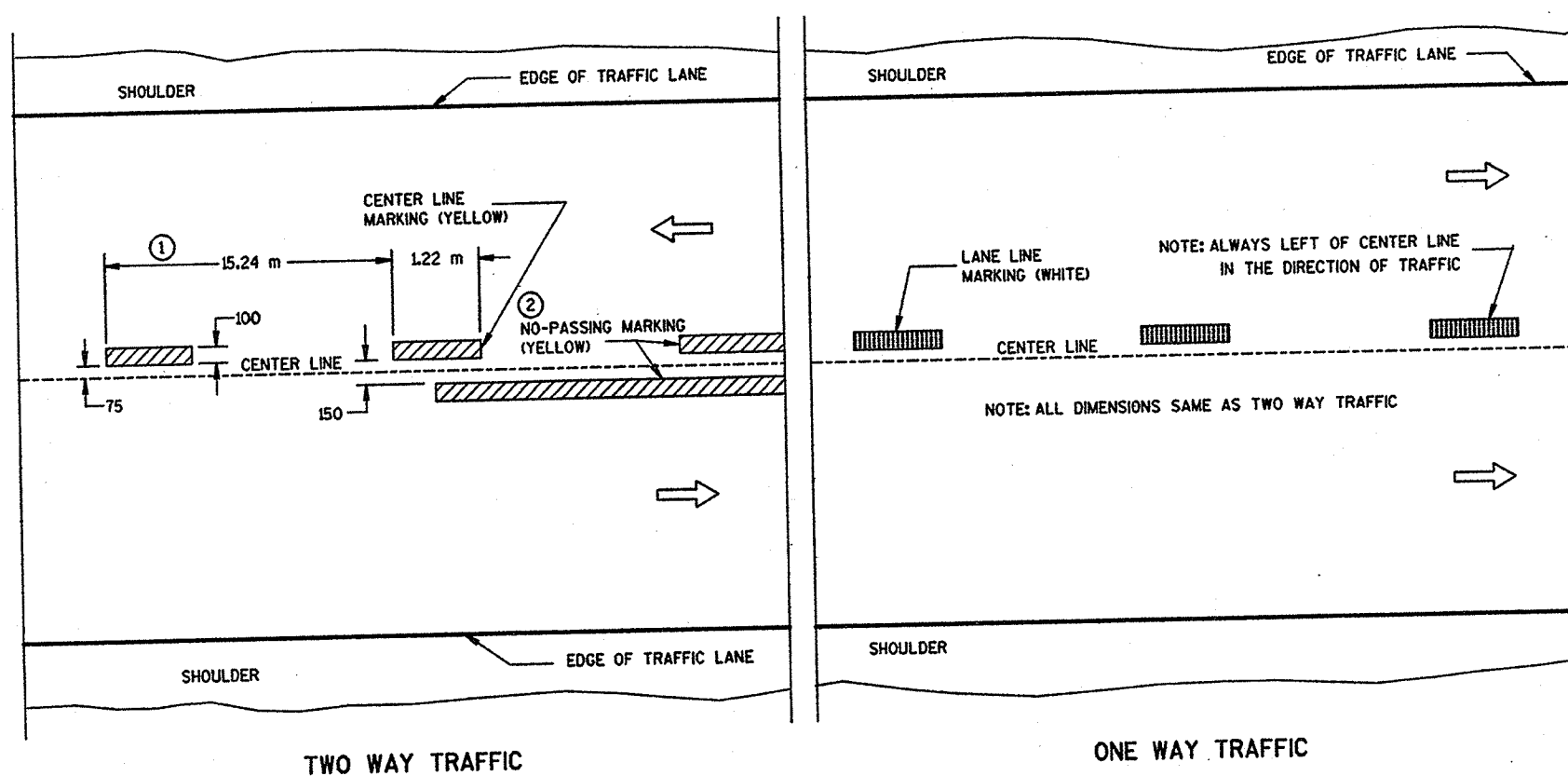
REV. DATE:

ORIGINATOR:

D8-8 C 8-8a
LEVELS ON - 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



PERMANENT PAVEMENT MARKING



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

GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (7.62 m±) WITH 600 mm MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

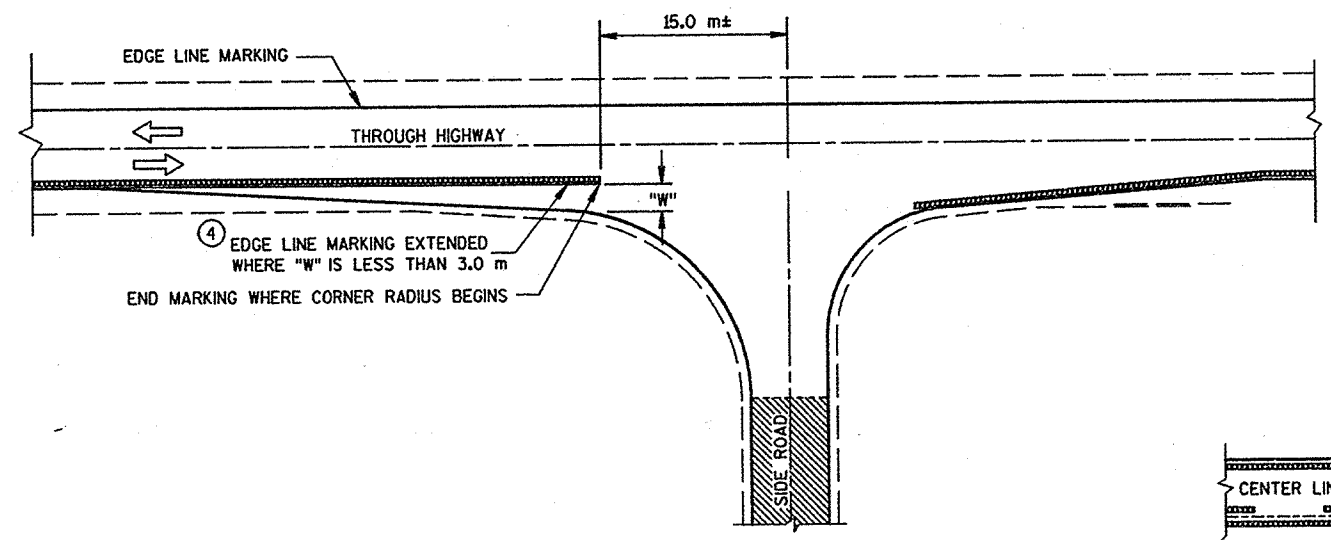
PAVEMENT MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-10-98 DATE	<i>Christa J. Spaw</i> CHIEF SIGNS AND MARKING ENGINEER
FHWA	

S.D.D. 15 C 8-8b
LEVELS ON - 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

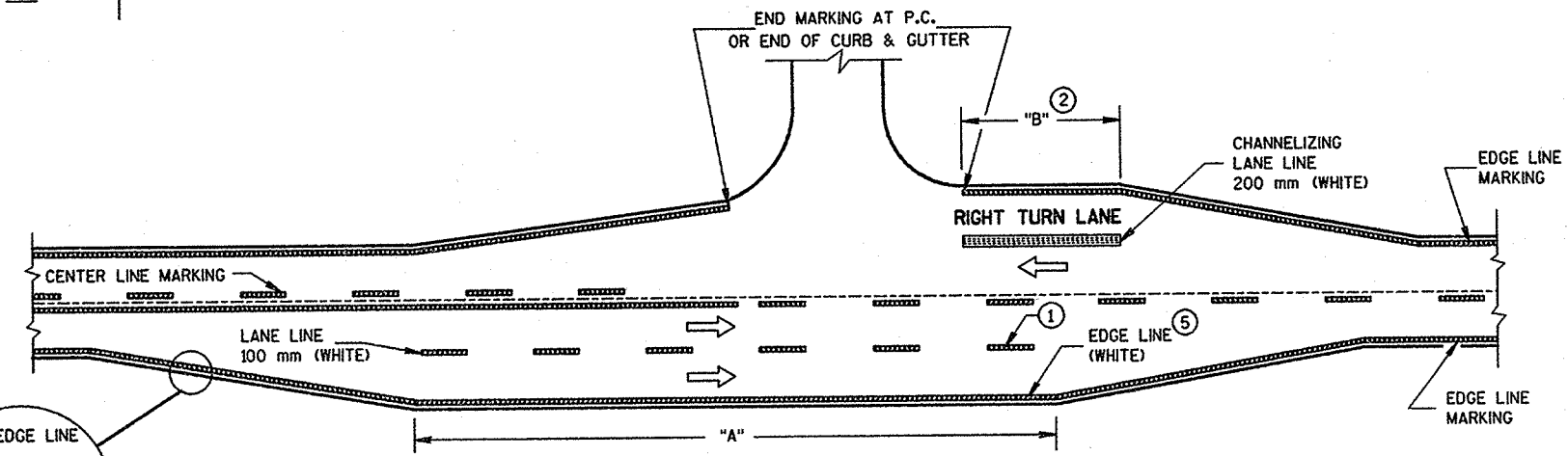
NOTES

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

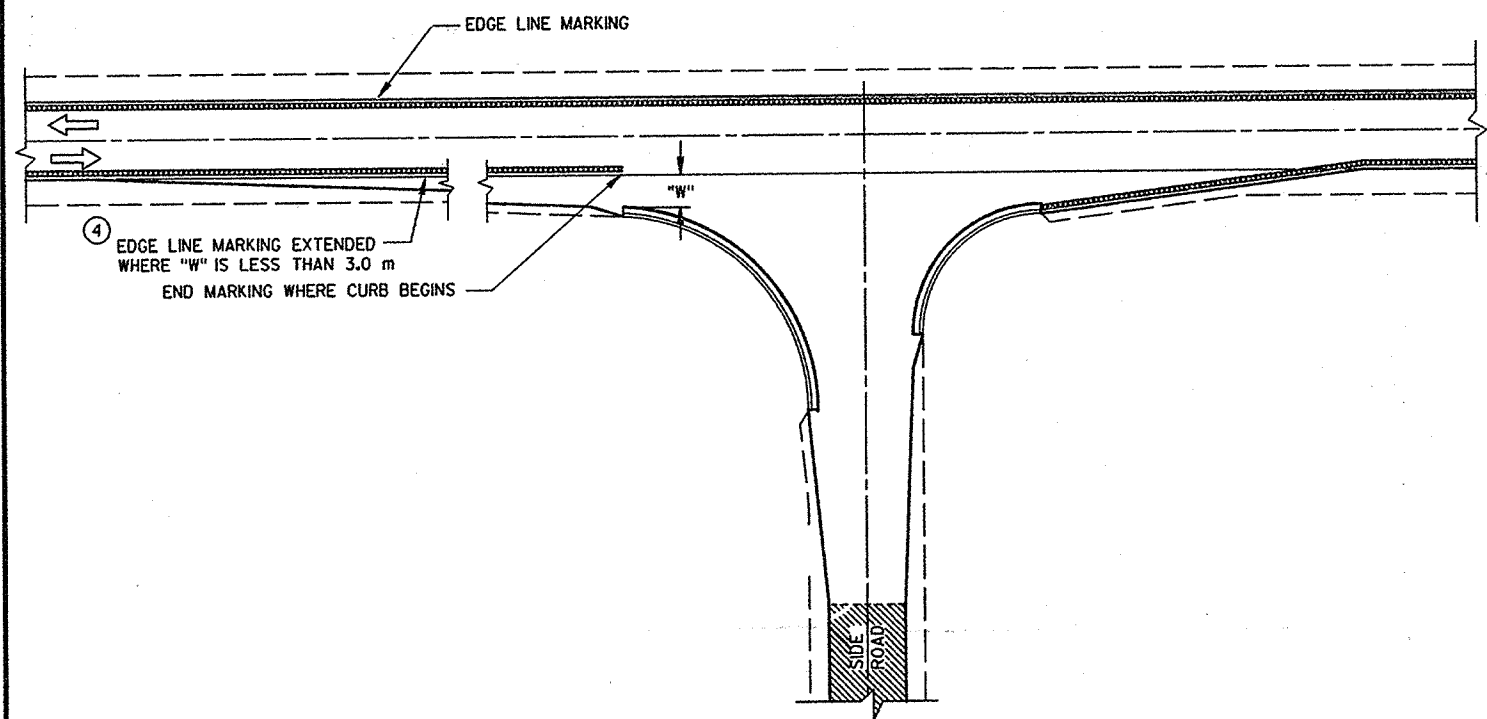
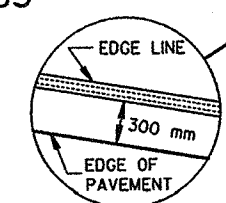
- ① WHEN DISTANCE "A" IS LESS THAN 76 m, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 30 m, OMIT CHANNELIZING LANE LINE.
- ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
- ④ LOCATE THE EDGE LINE ALONG THE TAPER WHERE "W" IS 3.0 m OR MORE.
- ⑤ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 300 mm FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.



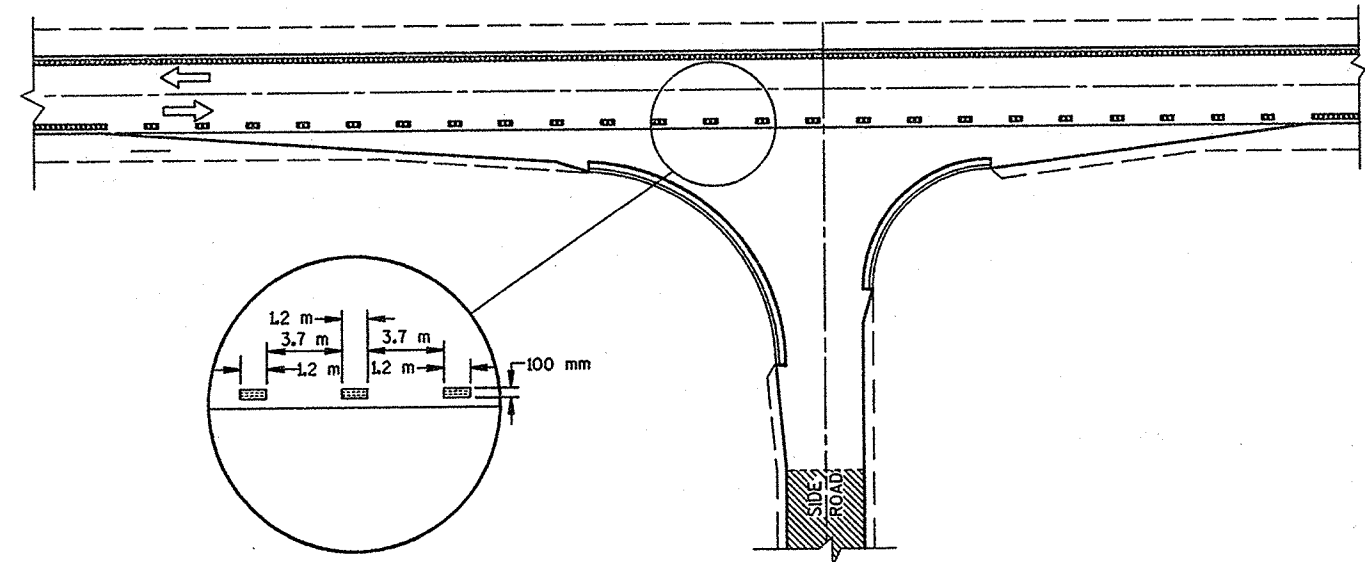
MINOR INTERSECTION WITHOUT CURBS



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)

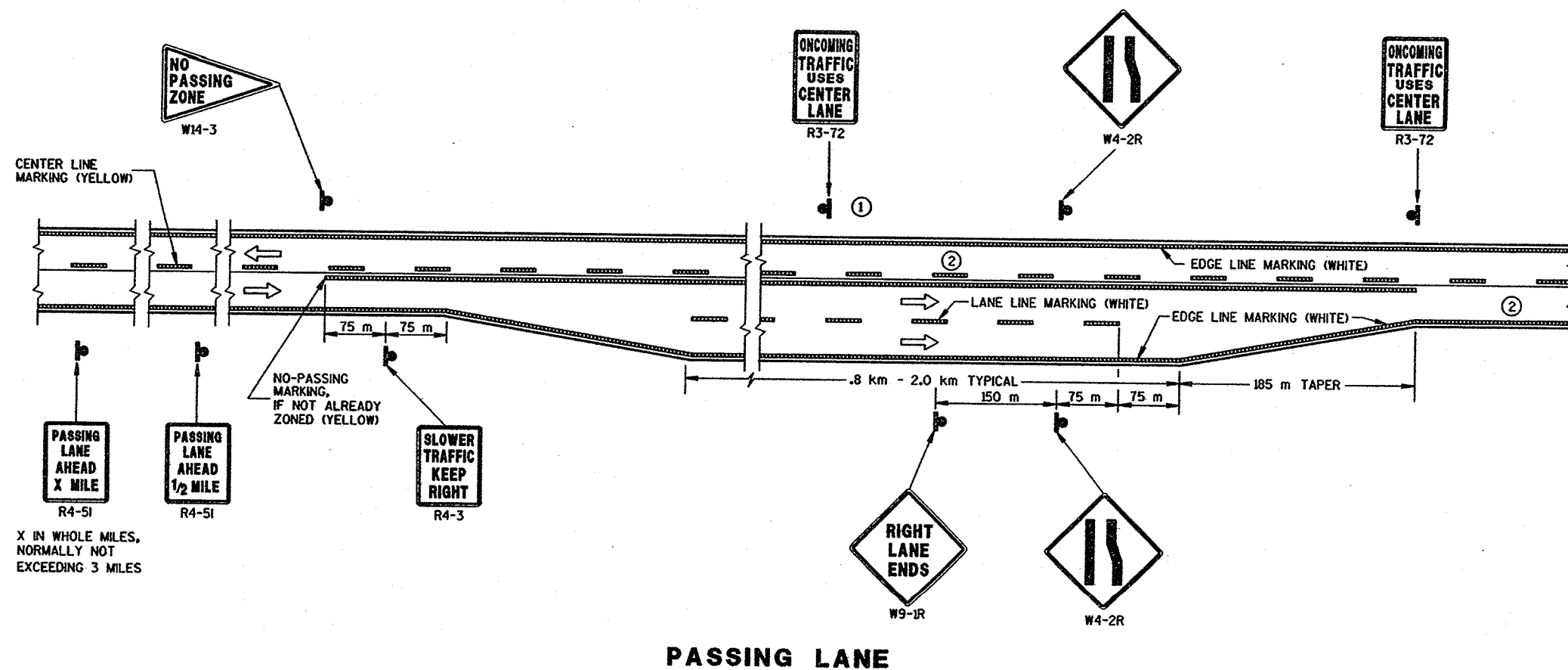
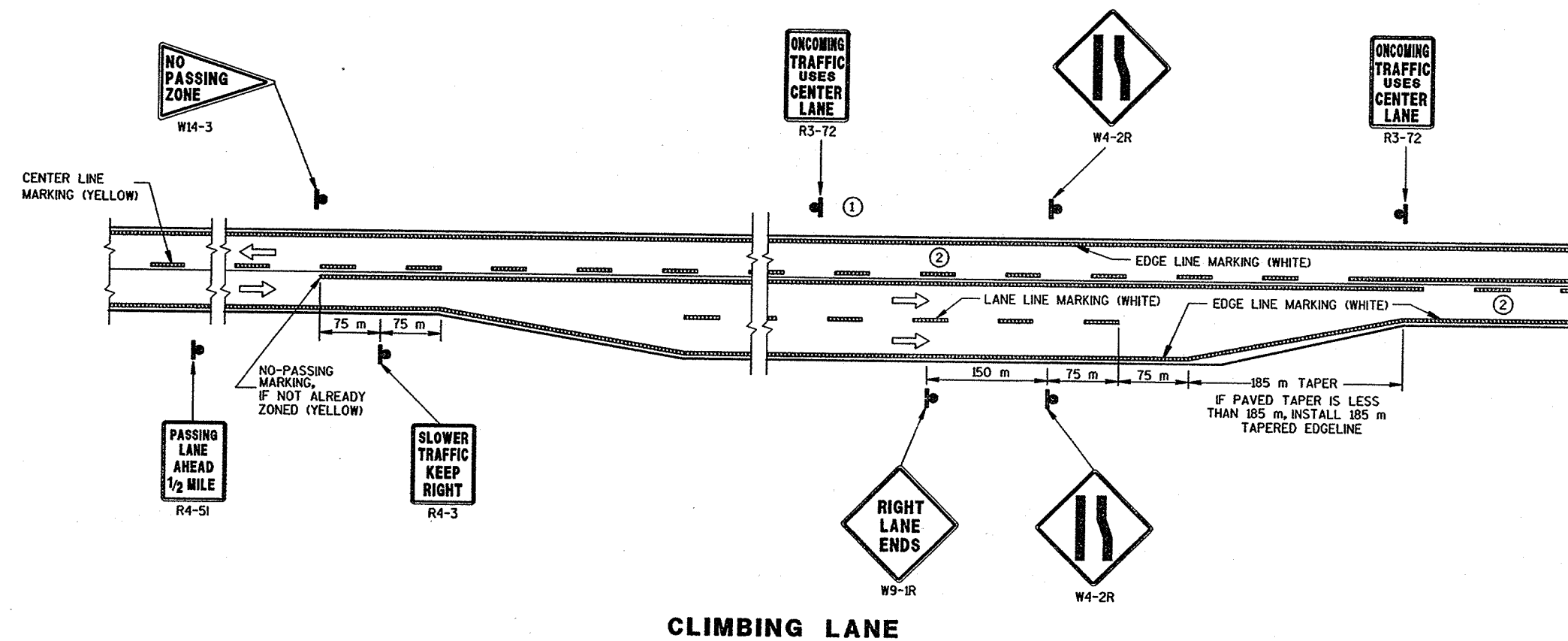


MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING (INTERSECTIONS)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



NOTES

- ① SIGN R3-72 SHALL BE REPEATED AT .8 km INCREMENTS WHERE THE ADDED LANE IS LONGER THAN .8 km (NOT NECESSARY IF MARKED NO-PASSING)
- ② THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.

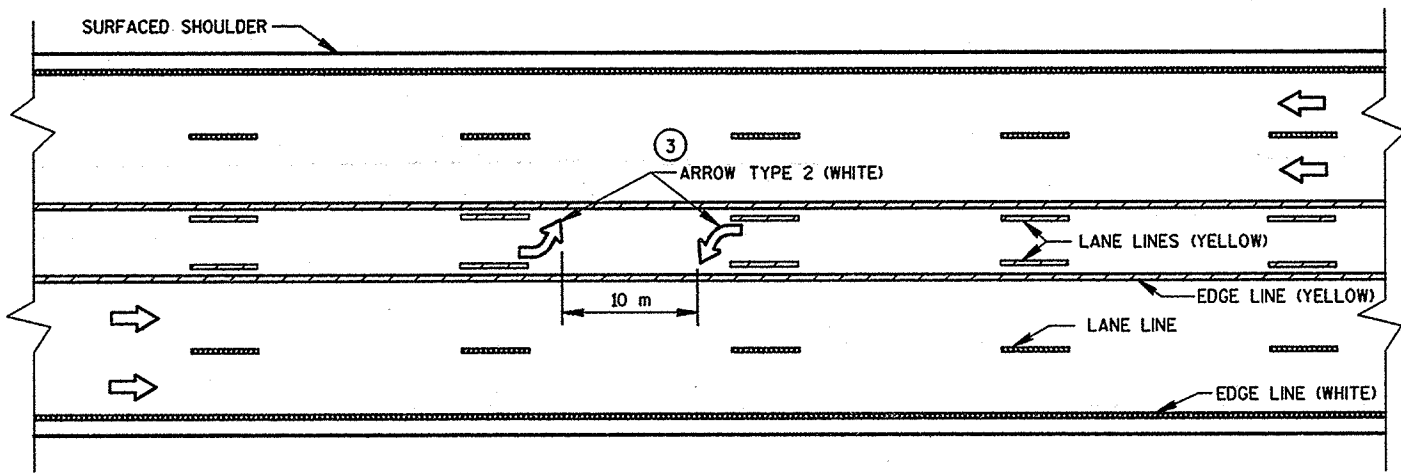
ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 15 C 8-8d
LEVELS ON - 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

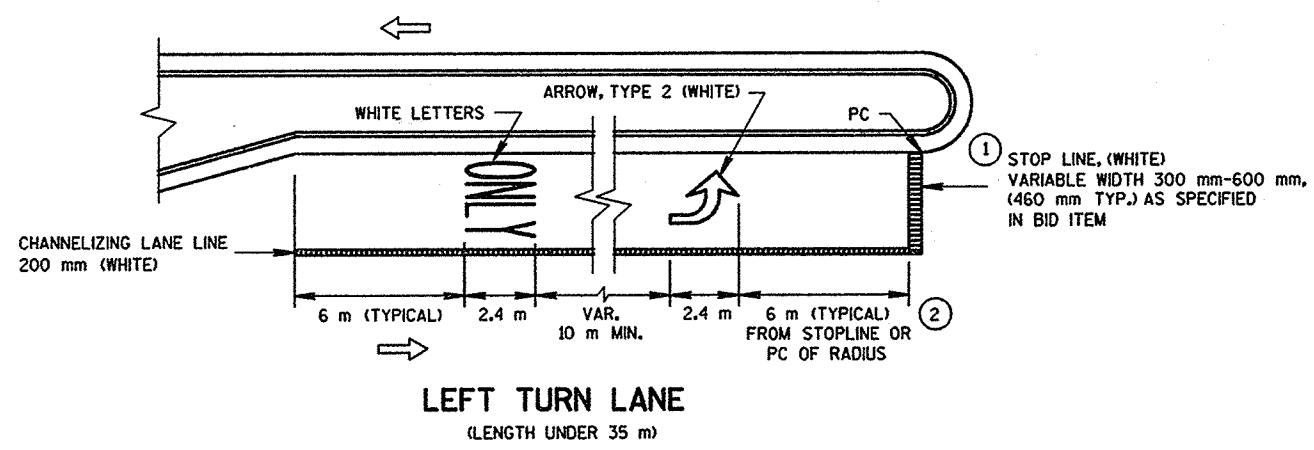
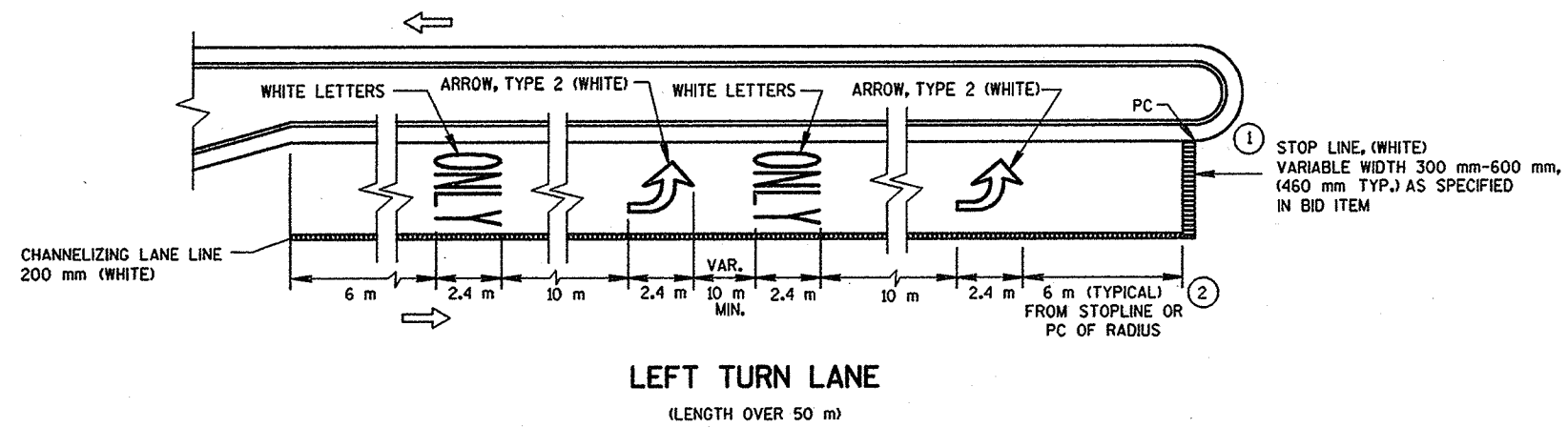
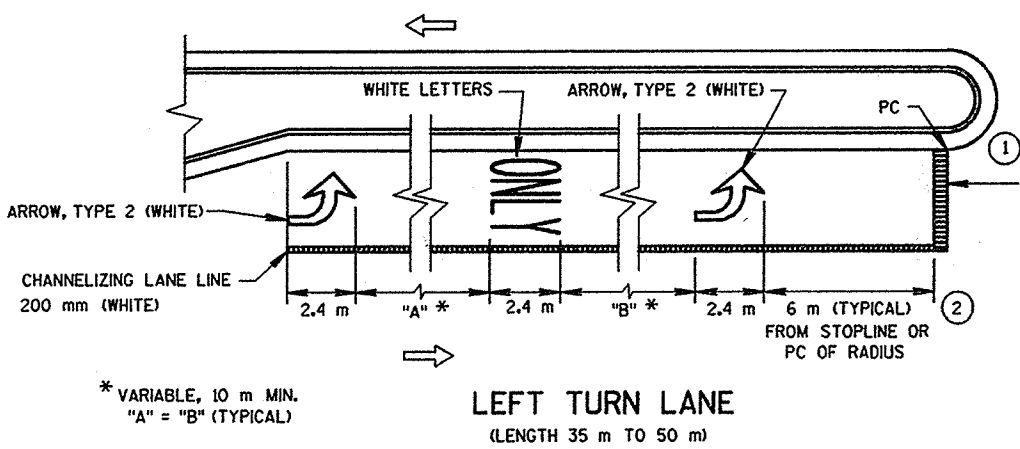
NOTE:
ARROW SYMBOL (→)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

NOTES:

- ① STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
- ③ A SET OF ARROWS IS REQUIRED EVERY 120.0 m OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.



PAVEMENT MARKING (LEFT TURN LANE)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

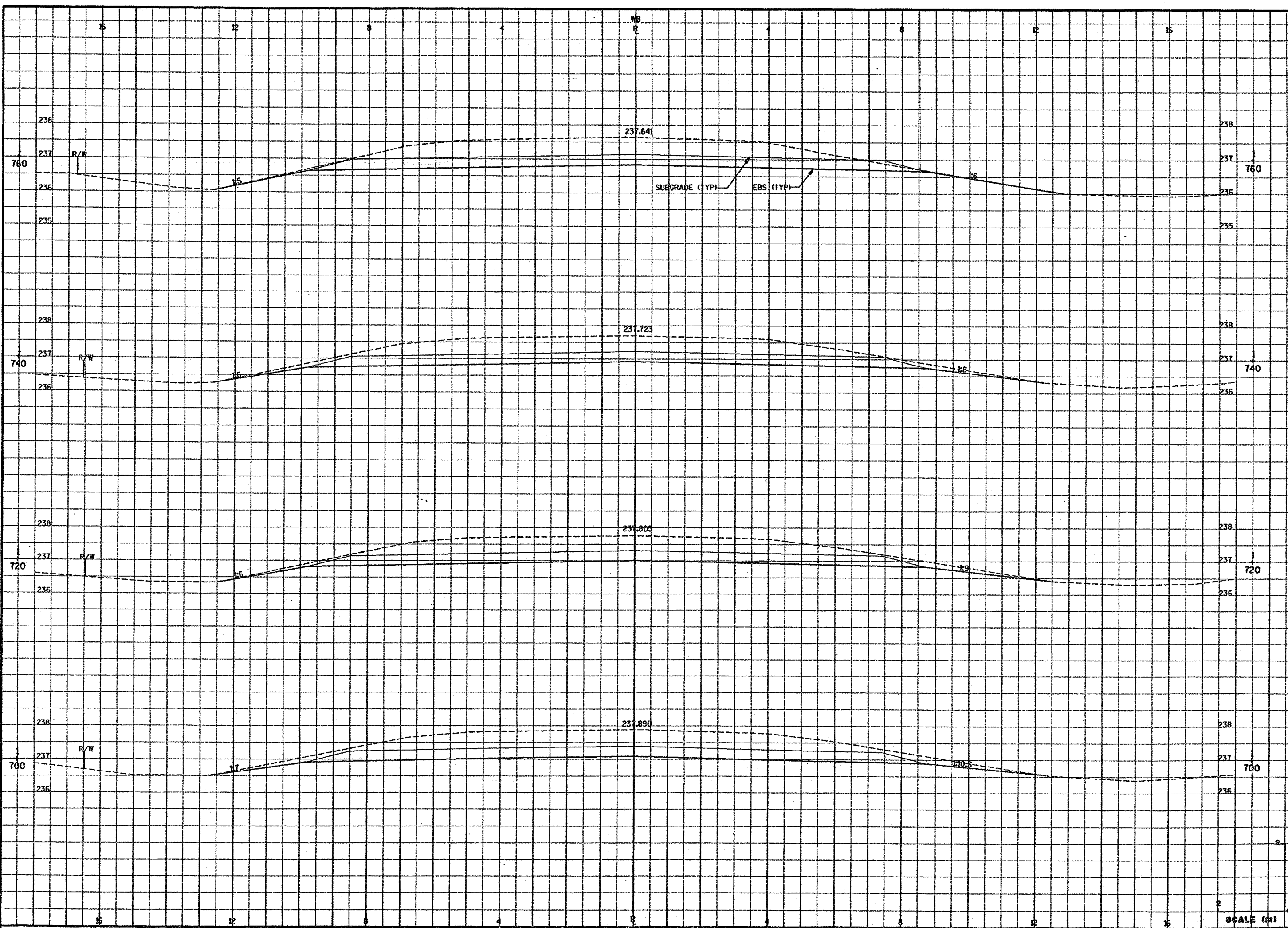
CTH CA EARTHWORK

STATION	CUT AREA (m2)	CUT VOL (m3)	FILL AREA (m2)	FILL VOL (m3)
1700.00	12.9	0	0.0	0
1720.00	12.1	250	0.0	0
1740.00	12.2	245	0.0	0
1760.00	11.4	236	0.0	0
1780.00	11.6	232	0.0	0
1800.00	7.9	195	0.9	9
1820.00	5.9	140	1.9	27
1840.00	6.4	125	2.1	39
1860.00	13.4	200	2.1	42
1880.00	14.0	275	2.8	50
1900.00	16.1	301	2.7	55
1920.00	15.8	320	7.3	100
1940.00	15.5	315	6.1	134
1960.00	16.1	320	5.7	118
1980.00	12.4	285	1.8	75
2000.00	47.5	600	0.0	18
2020.00	35.6	856	0.0	0
2040.00	28.6	642	1.3	13
2060.00	21.3	500	4.9	62
2080.00	18.5	400	5.5	104
2100.00	17.1	356	8.6	141
2120.00	15.2	325	12.9	215
2140.00	4.5	171	9.3	222
2160.00	2.6	72	8.6	179
2180.00	2.2	50	8.3	169
2200.00	2.1	45	5.8	141
2220.00	2.1	42	3.5	93
2240.00	3.7	60	2.8	63
2260.00	6.3	100	1.2	40
2280.00	9.1	155	0.6	18
2300.00	11.0	202	0.6	12
2320.00	12.3	235	0.0	6
TOTALS		8250		2145

CASALOMA DRIVE EARTHWORK

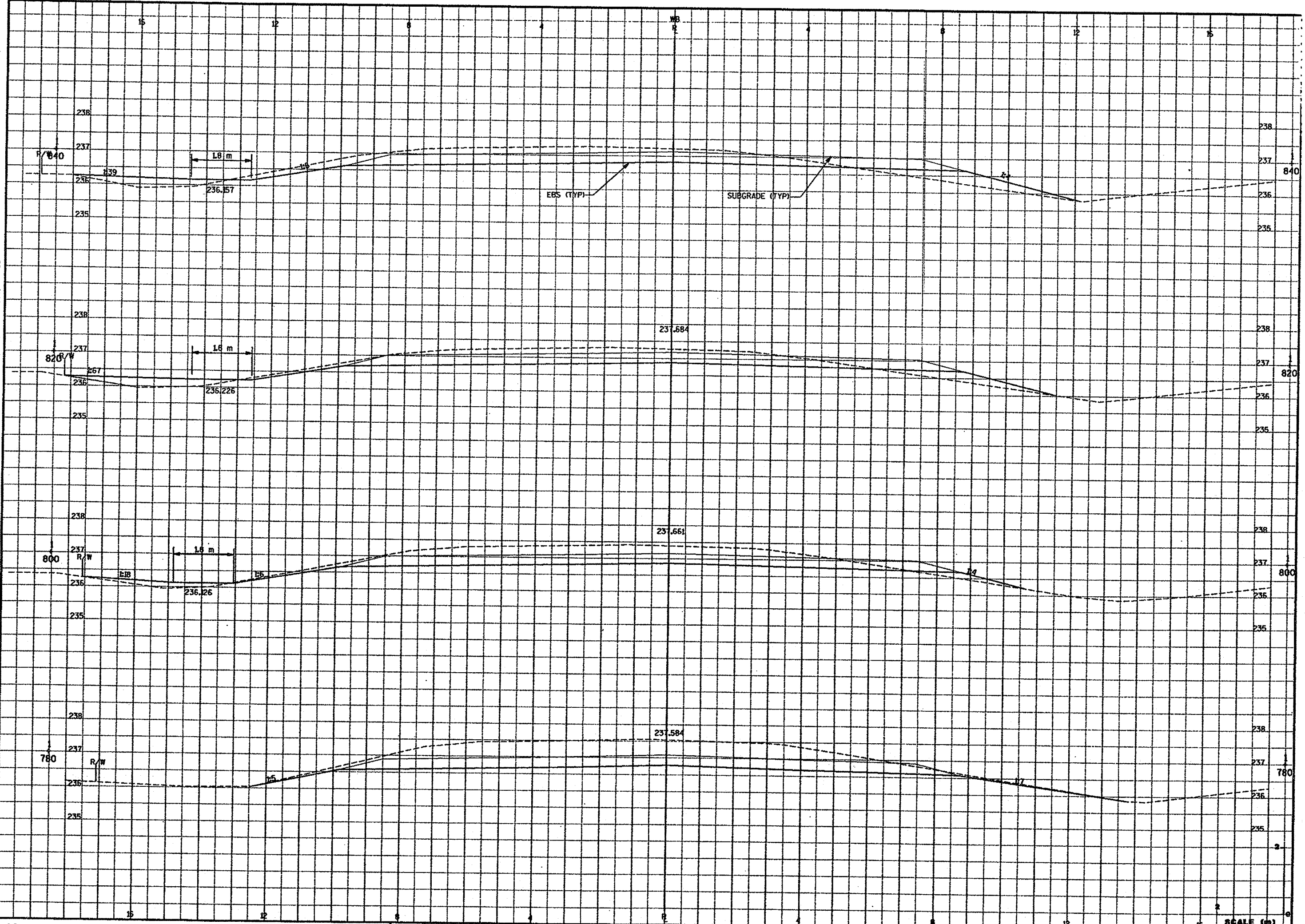
STATION	CUT AREA (m2)	CUT VOL (m3)	FILL AREA (m2)	FILL VOL (m3)
845.88	4.6	0	0.1	0
860.00	4.6	65	0.1	1
880.00	4.8	94	0.0	1
900.00	9.6	142	0.0	0
920.00	9.7	193	0.1	1
940.00	10.5	202	0.0	1
960.00	19.0	295	0.0	0
1020.00	20.8	0	0.6	0
1045.00	19.9	509	0.2	10
TOTALS		1 500		14

FILE NAME: E1284A /SHEETS /XSECT /XCOL01.DGN TECH/ENGR: DPP/SDC PLOT DATE: 12/05/97 PLOT NAME: SEE FILE NAME PLOT SCALE: 1:1
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1854 REV. DATE: / / 56. 59.60. 63
LEVELS ON - 1,2,3, 6,7,8,9,10, 12,13,14,15,16,17,18, 39,40,41,42

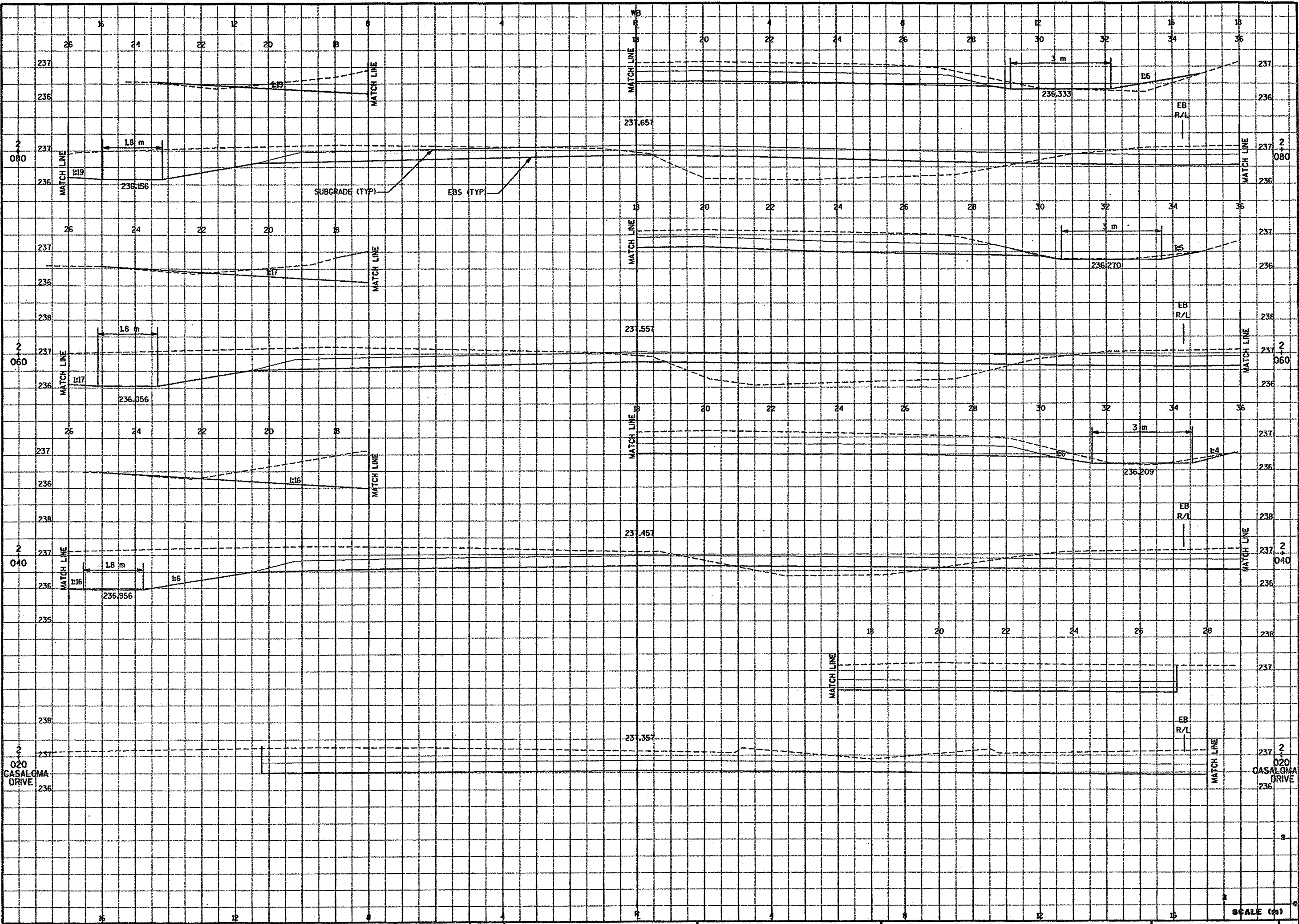


CROSS SECTIONS - CTH CA (COLLEGE AVE) SCALE: 1: HWY: CTH CA COUNTY: OUTAGAMIE STATE PROJECT NO: 6526-01-71 SHEET NO: 9.2

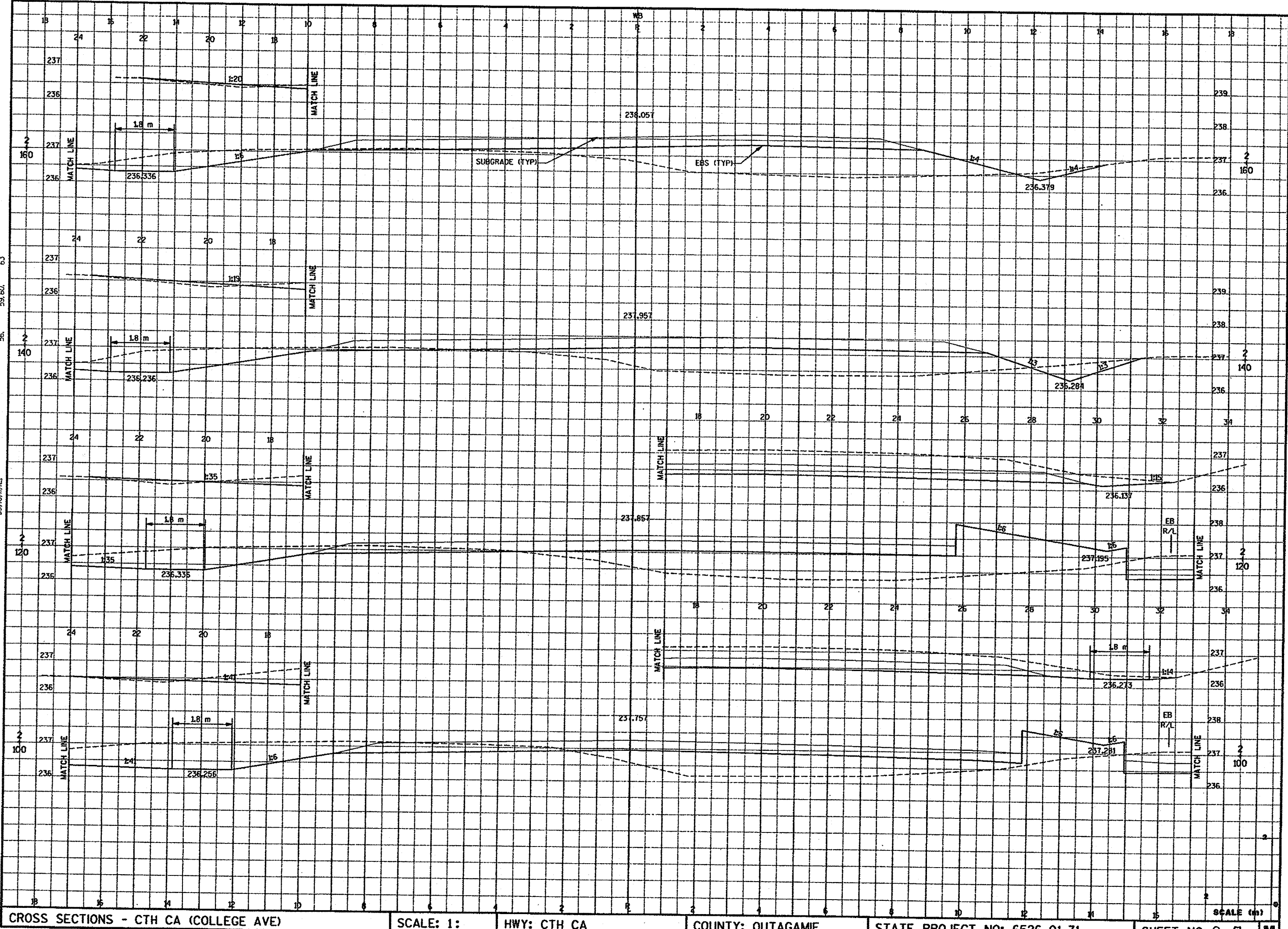
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TECH/ENGR: DPP/SDC
PLOT DATE: 12/11/97
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE
APPLETON, WI 54914-1654
REV. DATE: / /
LEVELS ON - 1,2,3, 6,7,8,9,10, 12,13,14,15,16,17,18,
56, 59,60, 63
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:1



FILE NAME: E1284A /SHEETS /XSECT /XCOL5 .DGN
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654
TECH/ENGR: DPP/SDC
PLOT DATE: 12/05/97
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:56, 58.60, 63

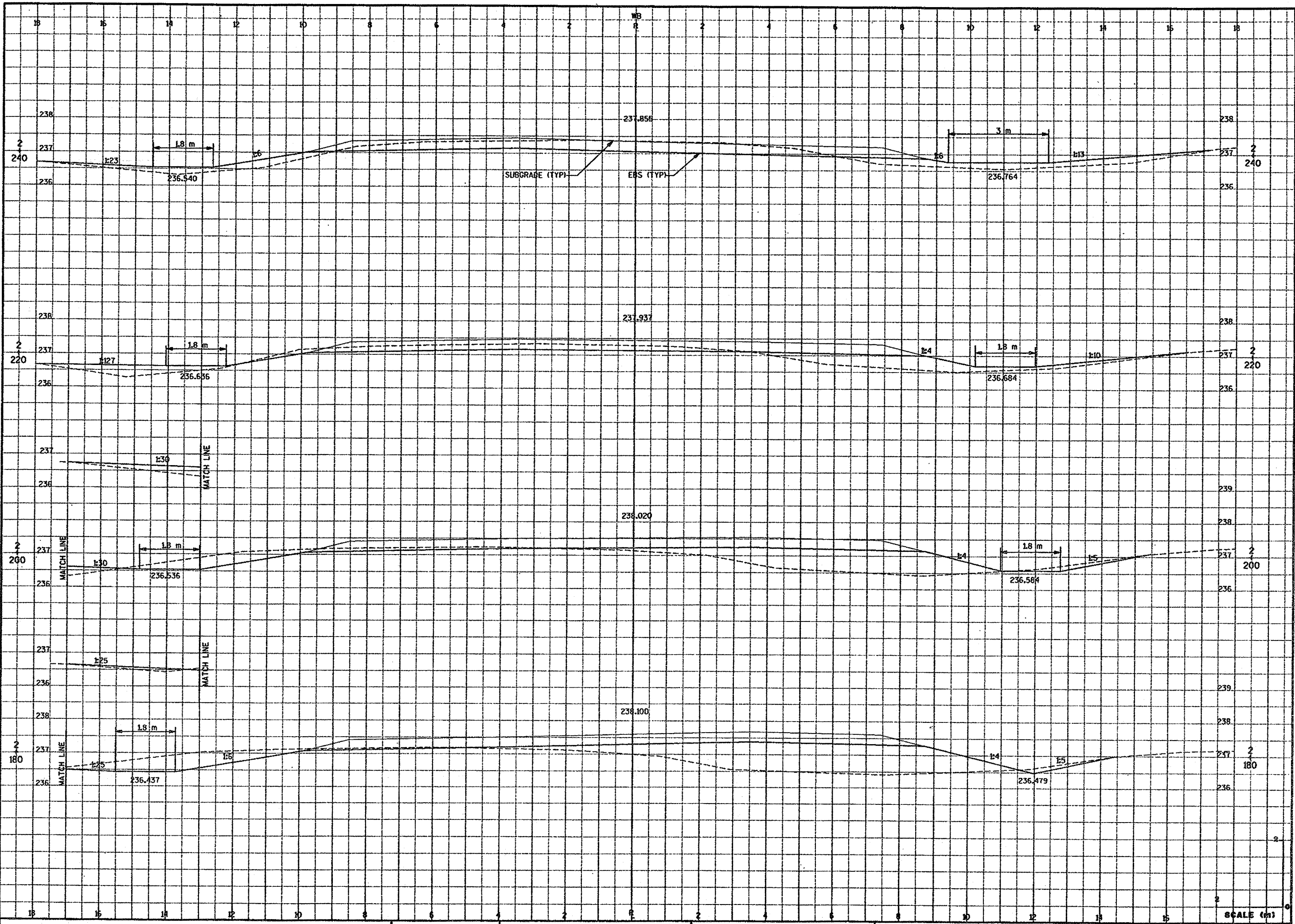


PLOT SCALE: 1:

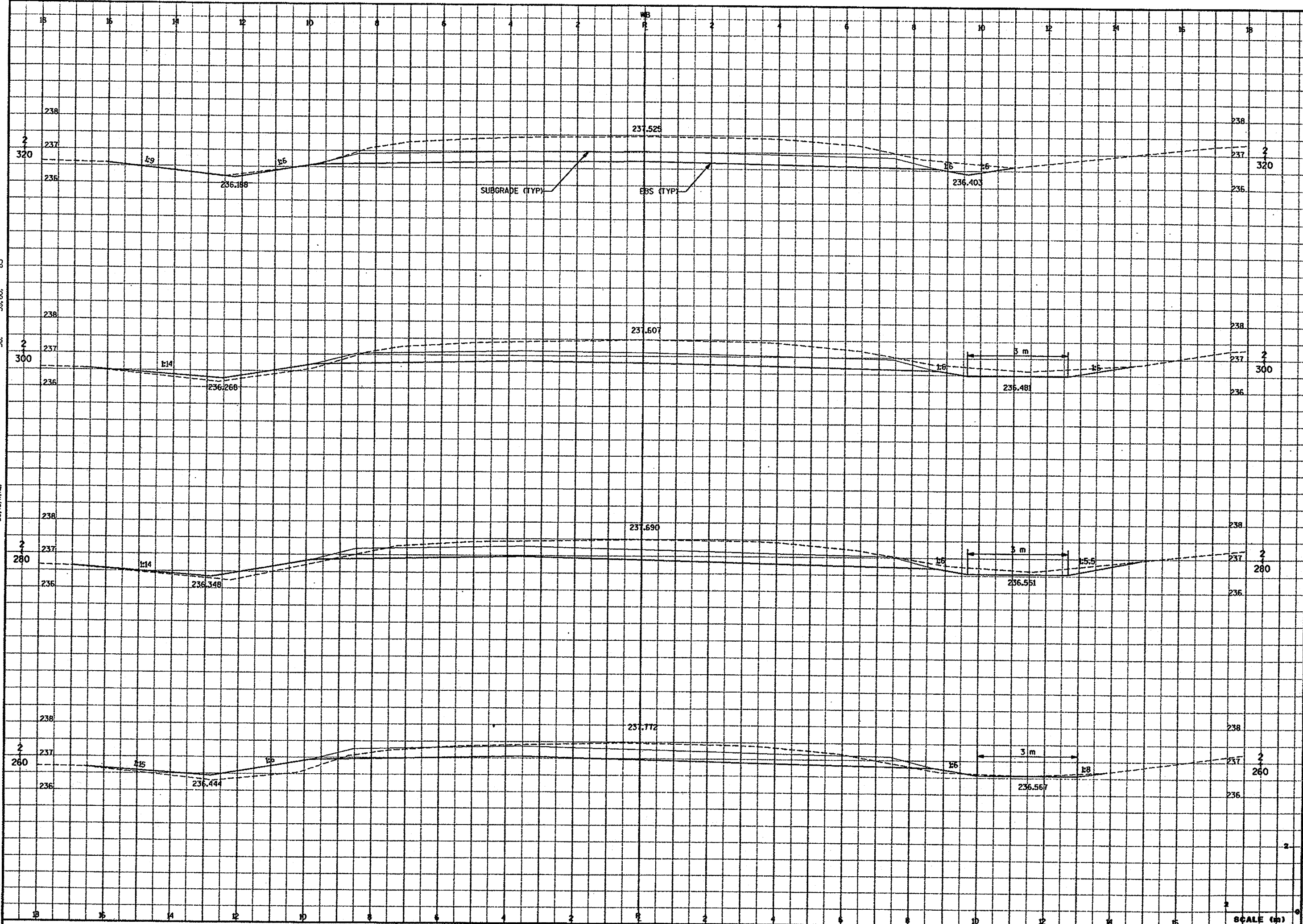


WISDOT: MSHT40

FILE NAME: E1284A /SHEETS /XSECTION /XSECTION.DGN
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654
LEVELS ON: 1, 2, 3, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18
TECH/ENGR: GDD/SGG
PLOT DATE: 11/11/97
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:50,000
REV. DATE: / /
39.40/42

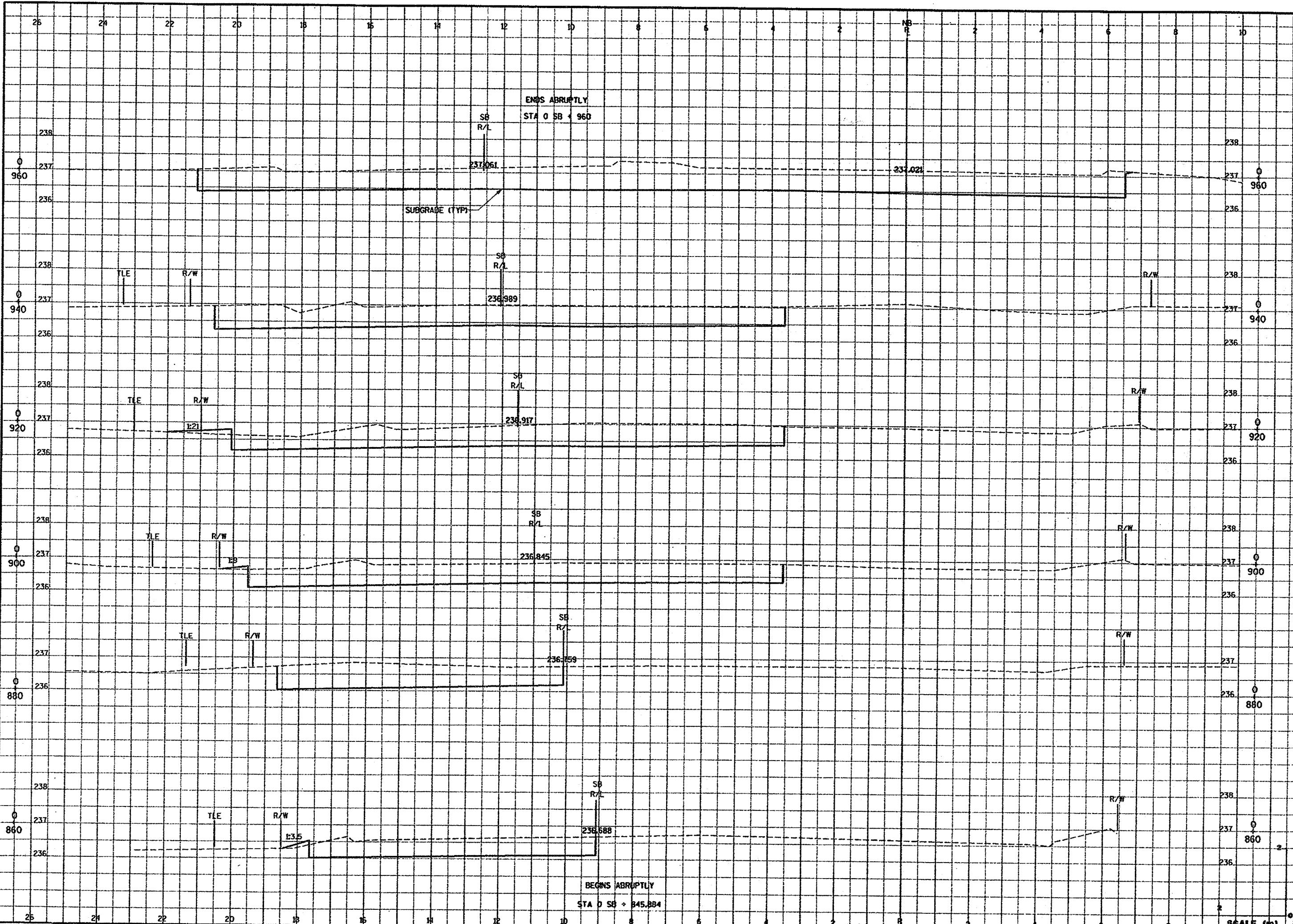


FILE NAME: E1284A /SHEETS /XSECT /XCOLO8 .DGN
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1634
LEVELS ON - 1,2,3, 6,7,8,9,10, 12,13,14,15,16,17,18
TECH/ENGR: DPP/SDC PLOT DATE: 12/11/97
REV. DATE: /
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:
56, 59, 60, 63



CROSS SECTIONS - CTH CA (COLLEGE AVE) SCALE: 1: HWY: CTH CA COUNTY: OUTAGAMIE STATE PROJECT NO: 6526-01-71 SHEET NO: 9.9, M

FILE NAME: E1284A /SHEETS /XSECT /XCAS1.DGN
TECH/ENGR: DPP/SDC
PLOT DATE: 12/11/97
ORIGINATOR: OMNINI ASSOCIATES
ONE SYSTEMS DRIVE
APPLETON, WI 54914-1654
REV. DATE: / /
LEVELS ON - 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18
PLOT NAME: SEE FILE NAME
PLOT SCALE: 1:63
56, 59, 60, 63



CROSS SECTIONS - CASALOMA DRIVE
SCALE: 1:
HWY: CASALOMA DR
COUNTY: OUTAGAME
STATE PROJECT NO: 6526-01-71
SHEET NO: 9.10
M

FILE NAME: E12844 /SHEETS /XSECT /XCAS2 .DGN TECH/ENGR: DPP/SDC PLOT DATE: 12/08/97 PLOT NAME: SEE FILE NAME PLOT SCALE: 1:
ORIGINATOR: OMNI ASSOCIATES ONE SYSTEMS DRIVE APPLETON, WI 54914-1654 REV. DATE: / / 59.60, 63
LEVELS ON: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 39, 40, 41, 42

